SESL AUSTRALIA

Detailed Site Investigation

for

153-189 Wallgrove Road Cecil Park, NSW (Lot 2315, DP113688)

Prepared for:

Anthony Asnicar

June 2015

(Report: C7954.Q4175.B34629 DSI)

■ WATER ■ MINING ■ SPORTS & RECREATION ■ HORTICULTURE & AGRICULTURE ■ ENVIRONMENTAL ■ ENGINEERING & GEOTECH ■ URBAN HORTICULTURE & LANDSCAPING

ABN [illegible]
T [illegible] E [illegible] [illegible] [illegible]
F [illegible] W [illegible] [illegible] [illegible]

NATA ASPAC

Executive Summary

SESL Australia (SESL) was engaged by Anthony Asnicar (the client) to conduct a Tier 1 Detailed Site Investigation (DSI) of the property located at 153-189 Wallgrove Road, Cecil Park NSW (the site). The site is identified as Lot 2317 in Deposited Plan (DP) 1201268, and is proposed to be subdivided into six (6) Lots. This report will be used as supporting documentation for the proposed subdivision of the property. Environmental Scientists from SESL undertook the site works on Tuesday 28th and Wednesday 29th April 2015

The objective of this DSI was to:

- *Produce a Tier 1 Detailed Site Investigation (DSI) in accordance with the National Environment Protection (Assessment of Site Contamination) Measure 1999 (April 2013), NEPC 2013, Canberra;*
- *Identify issues of ongoing pollution and non-compliance, as compared to current regulatory criteria;*
- *Identify the likelihood and/or extent of contamination occurring from past or present practices on the site; and*
- *Recommend any further management strategies including additional investigations or remedial action if required.*

Based on the site history review and the review of aerial photographs, it appears that the Site has historically been used for agricultural and pastural purposes with no development apart from where the dwellings are currently located. The open space appears to have been used for crop production since at least the 1970's and more recently for grazing cattle. Ownership of the property by farmers since the 1900's is consistent with the aerial photographs and site observation.

Soil materials were observed at forty-nine (49) locations across the site at the time of the investigation. Soil profiles differed across the site, with fill materials observed at the Western boundary of the site and within close vicinity to the existing dwellings. Natural loam topsoils and clay subsoils were observed across the remainder of the site. Asbestos containing materials (ACM) were identified within fill materials near the western boundary, and on the soil surface across some of the open spaces and close to the dwellings. ACM was found along the fence lines, along either side of the driveway, around the houses and sheds and within some of the soil profiles.

The laboratory results were compared against the Health Investigation Levels (Residential HIL-A) for all sample locations across the area of investigation at the Site. Lead was found to be elevated above the adopted threshold at six (6) locations, while a dieldrin hotspot was identified at one (1) location.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING

ABN 70 106 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

Quality ISO 9001 NATA ASPAC

The results of the soil sampling undertaken at the Site indicated that some contaminants of concern were found to exceed the adopted HIL A – Residential, with garden/accessible soil. All QA samples analysed were found to be consistent with primary soil samples collected.

Based on the findings of this site investigation, SESL concludes that the site is suitable to be subdivided into the 6 proposed lots (2317, 2318, 2319, 2320, 2321, 2322) in the current subdivision plan. Actions to address the concerns identified in this report should be determined in conjunction with any future development of each effected lot, to ensure cost effectiveness and that the action plan meets the requirements of the future land owners. SESL can be engaged to establish appropriate action plans for future works at the site.

Reference should be made to Section 10 of the report that sets out details of the limitations of the assessment.

SESL AUSTRALIA

Andrew Jacovides
Environmental Scientist

Ryan Jacka
Senior Environmental Scientist

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING

ABN 70 106 810 709
T 1300 30 40 80 E info@sesl.com.au PO Box 357 1a Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

TABLE OF CONTENTS

1. INTRODUCTION 7
1.1 BACKGROUND 7
1.2 SCOPE OF WORK 8
1.3 PERSONNEL 8
2. SITE DESCRIPTION 9
1.4 SITE LOCATION AND OWNERSHIP 9
1.5 SITE IDENTIFICATION 9
1.6 SURROUNDING LAND USE 10
1.7 SITE LAYOUT AND INFRASTRUCTURE 11
1.8 PHYSICAL SITE CHARACTERISTICS 12
1.9 SITE HISTORY 13
1.10 SITE ZONING AND PLANNING ISSUES 16
1.11 EPA CONTAMINATED LANDS DATABASE 16
1.12 DANGEROUS GOODS LICENSE SEARCH 16
1.13 PREVIOUS ENVIRONMENTAL INVESTIGATIONS 16
1.14 SUMMARY OF SITE HISTORY INFORMATION 17
1.15 INTEGRITY ASSESSMENT 17
3. SITE RECONNAISSANCE 18
1.16 STORMWATER 18
1.17 CHEMICAL STORAGE 18
1.18 ASBESTOS 18
1.19 PCBS 18
1.20 HEAVY METALS 18
1.21 CUT AND FILL 19
1.22 WASTE MANAGEMENT 19
1.23 SOIL AND GROUNDWATER CONTAMINATION 19
4. RELEVANT GUIDELINES FOR CONTAMINATION ASSESSMENT AND MANAGEMENT 20
1.24 RELEVANT GUIDELINES 20
1.25 PROPOSED DEVELOPMENT 20
1.26 NATIONAL ENVIRONMENTAL PROTECTION MEASURE (CONTAMINATED SITES) 1999 20
1.27 AUSTRALIAN AND NEW ZEALAND GUIDELINES FOR THE ASSESSMENT AND MANAGEMENT OF CONTAMINATED SITES (ANZECC/NHMRC, 1992) 28
1.28 THE MANAGING LAND CONTAMINATION: PLANNING GUIDELINES – REMEDIATION OF LAND, NSW EPA 1997 (SEPP55 GUIDELINES) 29
1.29 RELEVANT LEGISLATION 30
5. SOIL SAMPLING, ANALYSIS PLAN AND SAMPLING METHODOLOGY 31
1.30 SAMPLING TEAM 31

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING

ABN 20 106 810 705
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

NATA ASPAC

1.31 SAMPLING REGIME – SOIL 31
1.32 SAMPLING REGIME – ASBESTOS (SOIL) 32
1.33 SAMPLING REGIME – WATER 32
1.34 SAMPLE COLLECTION – SOIL 32
1.35 COMPOSITE SAMPLE PROCEDURE 33
1.36 SAMPLE COLLECTION – WATER 33
1.37 DECONTAMINATION PROCEDURE 33

6. QUALITY ASSURANCE & QUALITY CONTROL PLAN 34
1.38 DATA QUALITY OBJECTIVES 34
1.39 DATA QUALITY INDICATORS AND DATA EVALUATION 35
1.40 FIELD AND LABORATORY QUALITY ASSURANCE PROGRAM 36
1.41 REPORTING 38

7. SUMMARY OF RESULTS ..... ERROR! BOOKMARK NOT DEFINED.
1.42 SITE STRATIGRAPHIC CONDITIONS ..... ERROR! BOOKMARK NOT DEFINED.
1.43 SOIL ANALYTICAL RESULTS SUMMARY 39
1.44 QA/QC RESULTS 39
CALCULATION OF 95% UPPER CONFIDENCE LIMIT (UCL) 41

8. CONCLUSION 43
1.45 SITE CHARACTERISATION 43
1.46 SUMMARY 43

9. LIMITATIONS 45

10. REFERENCES 46

DOCUMENT TABLES

Table 1 – Project Personnel 8
Table 2 – Site Identification 9
Table 3 – Summary of Groundwater Bores 13
Table 4 – Summary of owners for Lot 1 in DP 873654 14
Table 5 – Health Investigation Levels for Soil Contaminants 23
Table 6 – HSL Fractions and Corresponding Equivalent Carbon Range 25
Table 7 – Health Screening Levels for Asbestos Contamination in Soil 26
Table 8 – EILs Landuse Criteria and Protection Levels 26
Table 9 – Sampling Team Personnel 31
Table 10 – Sampling locations selection 32
Table 11 – Data Quality Objectives 34
Table 12 – Summary of Sample Analysis 38
Table 13 – Soil Analytical Results Summary of Elevated Samples (House 1) Compared Against Health Investigation Levels (residential A) 42
Table 14 – Soil Analytical Results Summary of Elevated Samples (House 2) Compared Against Health Investigation Levels (residential A) 42
Table 15 – Soil Analytical Results Summary of Elevated Samples (Large Shed) Compared Against Health Investigation Levels (residential A) 42

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 106 810 705
T 1300 30 40 60 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
NATA
ASPAC

DOCUMENT FIGURES

Figure 1 – Locality Map: 153-189 Wallgrove Road, Cecil Park NSW 10
Figure 2 – Site Layout: 153-189 Wallgrove Road, Cecil Park NSW 11

APPENDICES

Appendix A. Map 1 - Site Layout and Sample Locations

Appendix B. NATA Laboratory Certificates
Chain of Custody documents

Appendix C. Historical Aerial Photographs, NSW Department of Lands
Section 149 (2) & (5) Certificate
Historical Title Information
Dangerous Goods License search, NSW Workcover

Appendix D. Groundwater Bore Location Search, NRAtlas
Acid Sulfate Soil Search, NRAtlas
Contaminated Land Register Search, NSW EPA

Appendix E. Site Photographs
Borelogs

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 106 810 709
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
Quality ISO 9001 NATA ASPAC

ABBREVIATIONS

AEC	Areas of Environmental Concern
AHD	Australian Height Datum
ANZECC	Australian and New Zealand Environment and Conservation Council
BaP	Benzo(a)pyrene
CA	Contamination Assessment
CLM	Contaminated Land Management Act
COC	Chain of Custody
CPAHs	Carcinogenic Polycyclic Aromatic Hydrocarbons
DEC	Department of Environment and Conservation NSW
DECC	Department of Environment and Climate Change NSW
DECCW	Department of Environment, Climate Change and Water NSW
DQO	Data Quality Objectives
DSI	Detailed Site Investigation
EILs	Ecological Investigation Levels.
EPA	Environmental Protection Authority
ESLs	Ecological Screening Levels
HILs	Health Investigation Levels
HSLs	Health Screening Levels
NATA	The National Association of Testing Authorities
NEHF	National Environment and Health Forum
NEPC	National Environment Protection Council
NEPM	National Environment Protection Measure
OCP	Organochlorine Pesticides
OEH	Office of Environment and Heritage NSW
OPP	Organophosphate Pesticides
PAH	Polycyclic Aromatic Hydrocarbons
PID	Photo Ionisation Detector
PQL	Practical Quantitation Limits
PSI	Preliminary Site Investigation
QA/QC	Quality Assurance, Quality Control
RAC	Remediation Acceptance Criteria
RAP	Remedial Action Plan
RPD	Relative Percent Difference
SAC	Soil Assessment Criteria
SESL	SESL Australia
SMP	Site Management Plan
SVR	Site Validation Report
TEQ	Toxic Equivalence Quotient

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 106 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
NATA ASPAC

INTRODUCTION

1.1. Background

SESL Australia (SESL) was engaged by Anthony Asnicar (the client) to conduct a Tier 1 Detailed Site Investigation (DSI) on part of the property located at 153-189 Wallgrove Road, Cecil Park NSW (the site). The site is identified as Lot 2317 in Deposited Plan (DP) 1201268. SESL Understands that the clients intention is to subdivide the site into six (6) different lotsThis report will be used as supporting documentation prior to the proposed sub division of the property.

The objective of this DSI was to:

- Produce a Tier 1 Detailed Site Investigation (DSI) in accordance with the *National Environment Protection (Assessment of Site Contamination) Measure 1999 (April 2013), NEPC 2013, Canberra*;
- Identify issues of ongoing pollution and non-compliance, as compared to current regulatory criteria;
- Identify the likelihood and/or extent of contamination occurring from past or present practices on the site; and
- Recommend any further management strategies including additional investigations or remedial action if required.

Generally, the preparation of the ESA was based on the following Guidelines, Acts and Regulations:

- *Managing Contaminated Land: Planning Guidelines SEPP 55 – Remediation of Land, Environment Protection Authority 1998;*
- *Contaminated Land Management Regulation 2008;*
- *Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites – NSW OEH 2011;*
- *Guidelines for the NSW Site Auditor Scheme, NSW EPA 2006;*
- *Contaminated Sites: Sample Design Guidelines, NSW EPA 1995;*
- *Contaminated Sites: Guidelines for Assessing Service Stations Sites, NSW EPA 1994;*
- *Environmental Planning and Assessment Act, 1979;*
- *National Environment Protection (Assessment of Site Contamination) Measure 1999 (April 2013), NEPC 2013, Canberra;*
- *Protection of the Environment Operations Act, 1997;*
- *Fairfield Local Environmental Plan 2013; and*
- *Waste Classification Guidelines Part 1: Classifying Waste, NSW EPA 2014.*

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 105 670 708
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

1.2. Scope of Work

The scope of work for this DSI was as follows:

- Comprehensive data review on the history of the site;
- Site walk over and inspection by SESL prior to the commencement of site works;
- Intrusive soil sampling based on site account and site inspection;
- Standard quality assurance (QA) and quality control (QC) measures implemented;
- Laboratory chemical analysis by a National Association of Testing Authorities (NATA) accredited laboratory, in accordance with a chain of custody prepared by SESL;
- Assessment of field and laboratory analytical results; and
- Preparation of this report detailing the findings of the DSI in accordance with the *National Environmental Protection (Assessment of Site Contamination) Measure 1999 (April 2013)* for reporting on contaminated sites.

1.3. Personnel

The site works were undertaken on the 28th and 29th of April 2015 by SESL Environmental Scientists.

Table 1 – Project Personnel

Personnel	Position	Project Task
Luke Jacovides B Env. Mgmt & Sc	Environmental Scientist	Conduct site observation, soil sampling and report generation.
Andrew Jacovides B Nat Sc Env Mgt	Environmental Scientist	Conduct site observation, soil sampling and report generation
Ryan Jacka B Env Sc, M Env Sc, MEIANZ, SSA	Senior Environmental Scientist	Conduct Site walkover, report review and authorisation.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING

ABN 70 106 810 708
T 1300 36 40 60 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

2. SITE DESCRIPTION

2.1. Site Location and Ownership

The site access is currently from Wallgrove Road, Cecil Park NSW. The area of investigation was inclusive of the whole area of the property (Lot 2317 in DP1201268). The area of investigation is approximately 60,000m^2 (6 hectares) in size.

A historical title search was carried out as part of the DSI. The results of this search indicate that Mara Kosovich, who has owned the property since 2010, currently owns the site. Refer to Appendix C for current and historical titles.

2.2. Site Identification

The following details describe the portion of land investigated during this DSI:

Table 2 – Site Identification

Site Owner	Mara Kosovich
Site Address	153-189 Wallgrove Road, Cecil Park NSW
Lot and DP Number	Lot 2317 within DP 1201268 (Proposed Lots: 2317, 2318, 2319, 2320, 2321, 2322)
Local Government Area	Fairfield City Council
Current Zoning	RU4 – Primary Production Small Lots
Geographical Coordinates	33°52'02"S 150°50'34"E
Investigation Area	Approximately 60,000m^2 (6 hectares)
Site Elevation	89 - 106m AHD
Locality Map	Figure 1
Site Layout	Figure 2

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 105 810 708
T 1300 20 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

Figure 1 – Locality Map: 153-189 Wallgrove Road, Cecil Park NSW



(Department of Lands, 2015)

2.3. Surrounding Land Use

The site is located within a rural area with similarly zoned Primary Production Small Lots to the north and west. A number of residential properties were observed to the north and west of the Site. The site is bound by Kosovich Place to the north and Wallgrove Road to the east. The Westlink M7 is located to the east of the Site and zoned as Infrastructure. An area identified as Western Sydney Parklands is located to the south and east of the Site and is zoned as WSP – SEPP (Western Sydney Parklands) 2009 under the Fairfield Local Environmental Plan 2013.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 106 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
NATA ASPAC

Figure 2 – Site Layout: 153-189 Wallgrove Road, Cecil Park NSW



(Department of Lands, 2015)

2.4. Site Layout and Infrastructure

The Site is currently used for grazing and residential purposes. The Site consists of generally open grassland and paddocks for agricultural and grazing purposes with two (2) residential dwellings and three (3) sheds toward the middle of the site. Trees exist around the dwellings and along the driveway. A small tributary to Ropes Creek marks the far western boundary of the site.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 106 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chivers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

2.5. Physical Site Characteristics

2.5.1. Topography and Drainage

The elevation across the area of investigation ranges from 106 metres AHD in the south-eastern portion of the Site to 89 metres AHD in the north-eastern corner. The Site was observed be generally flat across the east and central, sloping away steadily from the western third of the site, before levelling at off toward the tributary to Ropes Creek at the western boundary

It is assumed that the majority of site surface water would leave the site via the tributary to Ropes Creek, located at the far western boundary to the site, while some may leave the site to the north and east.

2.5.2. Geology and Hydrology

The *Soil Landscape Series Sheet 9030 – Penrith 1:100 000 Sheet Map* (Hazelton et. al., 1989) indicates the Site to be within the Luddenham Soil Landscape. The Luddenham Soil Landscape Group is characterised by undulating to rolling low hills on Wianamatta Group Shales. The soils comprise shallow dark podzolic soils or massive earthy clays on crests, moderately deep red podzolic soils on upper slopes, moderately deep yellow podzolic soils and prairie soils on lower slopes and drainage lines. Limitations of the group include high soil erosion hazard, localized impermeable highly plastic subsoil and moderately reactive. Landscape most typically consists of extensively cleared tall open-forest (wet sclerophyll forest).

2.5.3. Acid Sulfate Soil

The presence of potential acid sulfate soil (PASS) material was identified in the NSW Natural Resource Atlas Maps for the area. The maps indicated that the site posed a Class 4 risk (see Appendix C) for works beyond 2m from surface. Due to the elevation and geological land unit of the area, it is not expected that acid sulfate soils are present.

2.5.4. Proximity to Local Sensitive Environments

A tributary to Ropes creek is located at the western boundary to the site. Vegetation on the Site is predominately open grasslands and paddocks for agricultural and grazing purposes. Some mature trees were observed within close proximity to the residential dwellings on the site, at the time of the investigation.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 106 810 705
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 87 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

2.5.5. Soil and Groundwater Contamination

No soil and groundwater investigations or reports were known to exist or available for review for the Site.

A groundwater bore search was undertaken using NSW Natural Resource Atlas (NRA) (www.nratlas.nsw.gov.au). Six (6) registered bores were located within a 500m radius of the site, however information was only available for one of the identified bores (see Appendix D).

Table 3 – Summary of Groundwater Bores

Bore Number	Date	Final Depth (m)	Yield (l/s)	Approximate Distance from Site (m)	Intended Use	Drillers Log (m)
GW108121	30/07/04	246.0	0.10	250 – 300m	Test Bore	See Appendix D

2.6. Site History

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

- Current and Historical Certificates of Title;
- Historical Aerial Photographs;
- Council Section 149 (2) & (5) documentation;
- EPA Contaminated Lands Register; and
- Dangerous Goods License Search.

2.6.1. Historical Title Search

The current and historical Certificates of Title were obtained from SAI Global and reviewed to assess the history of ownership and possible historic landuse of the site.

The site is currently described as Lot 2317 in DP 1201268, and the registered proprietor (owner) is Mara Kosovich. The historical title search identified 10 previous owners of the property since approximately 1904 (see Table 3). The history of ownership based on the Certificates of Title is summarised in Appendix B.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 20 105 810 705
T 1300 30 40 80 E info@sesl.com.au PO Box 357 14 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

Table 4 – Summary of owners for Lot 1 in DP 873654

Duration	Owner(s)	Occupation(s)	Suspected Landuse
Yellow Portion*			
Circa 1904 – 23/5/1906	Alfred John Wheeler	Farmer	Agricultural
23/5/1906 – 15/5/1922	James Stevenson	Farmer	Agricultural
15/5/1922 – 1/3/1928	Steven Speechley & Amy May Speechley	Carrier	Agricultural
1/3/1928 – 3/6/1930	Richard Rupert Robinson	Farmer	Agricultural
3/6/1930 – 28/12/1932	Eveline Emma Meyers & George Meyers	Farmer	Agricultural
28/12/1932 – 28/2/1947	Thomas Main	Engineer	Agricultural
28/2/1947 – 30/7/1959	Guy Henry Main	Member of the Royal Australian Air Force	Agricultural
30/7/1959 – 16/6/1970	Ivan Kosovich & Duson Kosovich	Farmers	Agricultural
16/6/1970 – 26/2/2010	Ivan Kosovich	Farmer	Agricultural
26/2/2010 – Present	Mara Kosovich	Unknown	Agriculturall

* Historical title information can be viewed in Appendix B

2.6.2. Historical Aerial Photographs

Aerial photographs taken in 1930, 1955, 1965, 1978, 1986, 1994 and 2005 were obtained from the Department of Lands (Appendix C) and reviewed to assess the history of the development of the Site. The review of the aerial photographs included the following:

1930 The site appeared to be vacant open space with low-lying grass cover. A number of mature trees appeared to be present in the western portion of the Site. The surrounding area appeared largely undeveloped with the exception of a number of structures to the west of the Site and a dirt road bordering the Site to the east. A creek bed appeared to be present to the north of the Site.

1955 One of the dwellings currently present at the site appears to have been constructed, with the open space being prepared for agricultural purposes. One of the two sheds appears to have been constructed on the site since the 1955 photograph. The surrounding area appeared to have undergone minor development from the 1930 aerial photograph. Wallgrove appeared to have been formalised. Buildings, suspected to be agricultural and residential in nature appeared to be constructed to the south of the Site and east of the Site across Wallgrove Road.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 105 830 708
T 1300 30 40 20 E info@sesl.com.au PO Box 357 14 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
NATA ASPAC

1965 Another dwelling has been constructed at the site since the previous aerial photograph, and agricultural practices have begun in the south-western corner of the site. The second shed appears to have been constructed since the 1955 photograph. The surrounding area appeared to have undergone further development from the 1955 aerial photograph. Power lines appeared to have been installed to the north of the Site.

1978 Agricultural practices have expanded across the majority of the site. Most mature vegetation has been removed for agricultural purposes. Dwellings to the south of the site have been removed.

1986 The Site and the surrounding area appeared to remain relatively unchanged since the 1978 aerial photograph.

1994 The Site and the surrounding area appeared to remain relatively unchanged since the 1978 aerial photograph.

2005 The Site appeared to remain relatively unchanged from the 1994 aerial photograph. The cropland appeared much greener and it is difficult tell if the area is being used for agricultural purposes. The surrounding areas appeared to have undergone development. The Westlink M7 appeared to have been constructed to the east of the Site. Wallgrove Road appeared to have undergone further development with the construction of a roundabout to the north east of the Site. The structures to the south of the Site appeared to have been removed.

2013 The site appeared to remain relatively unchanged from the 2005 aerial photograph. The surrounding areas appeared to have undergone development. A road, Kosovich Place appeared to have been constructed along the northern boundary of the Site. A number of properties, assumed to be residential, appeared to have been constructed beyond Kosovich place. Refer to section 4 for further detail.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 106 810 705
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

2.7. Site Zoning and Planning Issues

Fairfield City Council issued a Planning Certificate under Section 149 of the Environmental Planning and Assessment Act 1979 for the site on 27/3/2014. A copy of the certificate is included in Appendix B. The Planning Certificate indicates that the Fairfield Local Environmental Plan 2013 is the principle-planning instrument regulating land use and development in the area. The site is zoned Zone RU4 Primary Production Small Lots.

The Planning Certificate indicated the following for the Site:

- The site was **not** identified as a heritage item by council of state government;
- The site was **not** identified within a conservation area;
- The site does **not** include or comprise critical habitat;
- The site is **not** affected by Section 38 or 39 of the coastal protection act;
- The site is **not** within a "proclaimed mine subsidence district";
- The site is **not** identified as bush fire prone land;

The following matters are prescribed by Section 59(2) of the *Contaminated Land Management Act 1997* as additional matters. The land to which this certificate relates:

- Is **not** significantly contaminated land within the meaning of the act;
- Is **not** subject to a management order within the meaning of the act;
- Is **not** the subject of an approved voluntary management proposal within the meaning of the act;
- Is **not** subject to an ongoing maintenance order within the meaning of the act; and
- Is **not** the subject of a site audit statement within the meaning of the act.

2.8. EPA Contaminated Lands Database

A search of the NSW Environmental Protection Authority (EPA, now incorporated into the Office of Environment and Heritage) public register of Notices issued under the *Contaminated Land Management Act 1997* was undertaken on Wednesday 18th March 2014 and indicated that no sites within 500 metres of the Site have been issued any notices relating to contamination (see Appendix D).

2.9. Dangerous Goods License Search

A search of the Stored Chemical Information Database and the microfiche records held by WorkCover NSW has listed the following dangerous goods held at the site (see Appendix B).

The results of the search indicate that no chemicals are reported as being stored at the Site.

2.10. Previous Environmental Investigations

No previous environmental reports were made available for review or known to exist for the site at the time of the investigation.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 105 816 706
T 1300 30 40 80 E info@sesl.com.au PO Box 357 14 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
NATA ASPAC

2.11. Summary of Site History Information

Based on the site history review and the review of aerial photographs it appears that the Site has historically been used for agricultural and pastural purposes with development only occurring at the location of the current dwellings. The open space appears to have been used for crop production since at least the 1970's and more recently grazing cattle. Ownership of the property by farmers since the 1900's is consistent with the aerial photographs and site observation.

The remaining searches indicate that no chemicals have been recorded as being stored at the Site, the Site is not listed as contaminated by the EPA and a search of the local government indicates that the Site is not expected to be contaminated with fill material or other causes.

2.12. Integrity Assessment

The integrity of information provided in this DSI was considered reliable. The DSI followed appropriate methods of investigation with the desktop survey being consistent with field observation and anecdotal evidence presented. Details regarding the site history and present status of the site have been largely obtained from official records sourced from Fairfield City Council, NSW EPA, NSW Land and Property Information Department and Workcover NSW. These documents are considered accurate and credible. All information provided, as part of this report was believed to be true, accurate and representative of the past and present status of the site at the time of this investigation.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 105 010 708
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chisholm Rd
F 1300 65 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
Quality ISO 9001
NATA
ASPAC

3. SITE RECONNAISSANCE

A walkover of the site was undertaken by SESL on Tuesday 28th April 2015 to support the findings of the desktop review and identify site characteristics that may be suggestive of site contamination. Intrusive soil sampling for this DSI was undertaken on Tuesday 28th and Wednesday 29th April 2015.

3.1. Stormwater

At the time of the site inspection the topography of the site was observed to slope from the middle of the site to the east and west, with a steeper slope toward the western boundary. No stormwater drains were observed at the time of the investigation. No significant issues were identified with respect to stormwater management on this property.

3.2. Chemical Storage

No hazardous chemicals were observed to be stored at the property at the time of the site inspection. No underground petroleum storage systems (UPSS) or historic infrastructure was observed at the time of the site inspection. No significant issues were identified with respect to chemical management at the property.

3.3. Asbestos

SESL observed asbestos containing materials (ACM) present on the soil surface across some sections of the site. ACM fragments were identified around the dwellings, along the driveway and on the surface of the low-lying western end of the site. Some of the structures present on The Site were observed to be constructed of fibre cement sheeting, the likely origin of the ACM fragments present on site. Asbestos was also present in the fill material found at the west of the site (C11 and B10).

3.4. PCBs

Electrical equipment, including transformers were not observed at the property.

3.5. Heavy metals

SESL observed potential lead-based paints used on the structures located on The Site. Wallgrove Road and more recently the Westlink M7 are located directly east of the site and the potential exists for lead contamination at the site as a result of historical traffic flow and use of lead in petroleum products.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 30 105 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
Quality ISO 9001 NATA ASPAC

3.6. Cut and Fill

Intrusive sampling identified an area that has been affected by Cut and Fill activities. Fill materials were identified in the area along the western most boundary of the site.

3.7. Waste Management

The property is currently used for residential purposes and agricultural grazing. Fairfield City Council collects wastes generated on site on a weekly basis. No issues regarding waste management were identified.

3.8. Soil and Groundwater Contamination

No existing reports of soil or groundwater investigations involving sampling and testing were known to exist or made available for review at the time of the investigation.

A search of the NSW Groundwater Works (http://waterinfo.nsw.gov.au/gw/) identified one (1) groundwater bore within a 500m radius of the site (see Table 3 and Appendix D).

3.9. Areas of Environmental Concern

A number of Areas of Environmental Concern (AEC) are associated with the former uses of the site. These include the use of the site for as general agricultural land, the presence of fill materials at the site, and the presences of degrading residential dwellings and sheds. These AEC and the Contaminants of Potential Concern associated with them are outlined in the table below.

Table 5 – Areas of Environmental Concern

Area of Environmental Concern	Contaminants of Potential Concern
AEC1: General agricultural land	· Organochlorine Pesticides (OCP) · Heavy metals (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg, Mn)
AEC2: Modified soil profiles (including fill materials from on- and off-site).	· Total Recoverable Hydrocarbons (TRH) · Polycyclic Aromatic Hydrocarbon (PAH) · Benzene, Toluene, Ethylbenzene and Xylenes (BTEX) · Organochlorine Pesticides (OCP) · Heavy metals (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg, Mn) · Asbestos
AEC3: Existing Dwellings – degraded and demolished	· Heavy metals (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg, Mn) · Asbestos

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 40 105 870 708
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 64 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
Quality ISO 9001 NATA ASPAC

RELEVANT GUIDELINES FOR CONTAMINATION ASSESSMENT AND MANAGEMENT

3.10. Relevant Guidelines

Assessment criteria will be based on guidelines made or approved by the NSW EPA under Section 105 of the *Contaminated Land Management Act 1997*. These include EPA's Contaminated Sites series of guidelines, and fundamental guideline documents such as the Australian and New Zealand Guidelines for the *Assessment and Management of Contaminated Sites* (ANZECC/NHMRC 1992) and *National Environment Protection (Assessment of Site Contamination) Measure 1999 (April 2013)*, NEPC 2013, Canberra (NEPM).

The ASC NEPM 2013 incorporates a recommended general process for the assessment of site contamination and a set of 9 specific guidelines. The process and guidelines are closely based on previous documentation widely used for assessing site contamination (such as ANZECC/NHRMC 1992 and the various National Environmental Health Forum monographs and proceedings). Assessment criteria have been drawn from other guidelines and information sources, if not available in the above guidelines.

3.11. Proposed Development

At this stage, there is no proposed development works scheduled to occur at the site (see Appendix A: Indicative Layout Plan). This report has been prepared prior to the proposed subdivision of the property.

3.12. National Environmental Protection Measure (Contaminated Sites) 1999

National Environment Protection (Assessment of Site Contamination) Measure 1999 (April 2013), NEPC 2013, Canberra (ASC NEPM 2013) provides a national framework for conducting assessments of contaminated sites in Australia.

The purpose of the (ASC NEPM 2013) is to establish a nationally consistent approach to the assessment of site contamination to ensure sound environmental management practices by the community which includes regulators, site assessors, environmental auditors, landowners, developers and industry.

The ASC NEPM 2013 addresses assessment of contamination, and does not provide specific guidance on prevention of site contamination. The desired environmental outcome for the ASC NEPM 2013 is to provide adequate protection of human health and the environment, where site contamination has occurred, through the development of an efficient and effective national approach to the assessment of site contamination.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 105 690 708
T 1300 30 40 80 E info@sesl.com.au PO Box 457 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
NATA
ASPAC

Schedule A in the ASC NEPM 2013 outlines the general process for assessment of site contamination, with reference to Schedules B (1) to B (9) for guidance on each step of the process.

In broad terms, the assessment process as provided in Schedule A can be described as:

Tier 1 PSI — Preliminary investigation, laboratory analysis and interpretation, and assessment of results with reference to investigations levels;

Tier 1 DSI — Where required, detailed investigation, laboratory analysis and interpretation is completed, and the need for risk assessment to derive response levels and/or the need for remediation is evaluated; and

Tier 2 or 3 — Site-specific risk assessment to confirm/define appropriate health and ecological investigation levels.

Overarching guidance is provided on community consultation and risk communication, protection of health and safety during assessment of site contamination, and expected competencies of environmental auditors and related professionals.

ASC NEPM 2013 provides a framework for the use of investigation and screening levels for the protection of human health, ecosystems, groundwater resources and aesthetics. Investigations levels and screening levels are applicable to the Tier 1 site assessment. The adopted investigation and screening levels for this assessment is as follow:

i) Health Investigation Levels (HILs);
ii) Health Screening Levels (HSLs);
iii) Ecological Investigation Levels (EILs); and
iv) Ecological Screening Levels (ESLs).

3.12.1. Health Investigation Levels (HILs)

HILs are scientifically based, generic assessment criteria designed to be used in the Tier 1 assessment for assessing human health risk via all relevant pathways of exposure. HILs are designed to be intentionally conservative and based on a reasonable worst-case scenario for the following generic land use settings:

A **Residential with garden/accessible soil (home grown produce contributing less than 10% of vegetable and fruit intake; no poultry) this category includes children's day-care centres, preschools and primary schools.**

B Residential with minimal opportunities for soil access, including dwellings with fully and permanently paved yard space such as high-rise apartments and flats.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 105 810 108
T 1300 30 40 80 E info@sesl.com.au PO Box 957 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
Quality ISO 9001 NATA ASPAC

C Public open space such as parks, playgrounds, playing fields (e.g. ovals), secondary schools and footpaths. It does not include undeveloped public open space (such as urban bushland and reserves), which should be subject to a site-specific assessment where appropriate.

D Commercial/industrial includes shops and offices as well as factories and industrial sites.

The site is currently used as residential housing and agricultural grazing. Due to the current landuse activity and the proposed subdivision with minimal soil exposure, high human exposure to the site is expected. Therefore, the Health Investigation Levels selected for the site is HIL – Residential A.

ASC NEPM 2013 Schedule B7 defined the HILs as the concentration of a contaminant above, which further appropriate investigation and evaluation will be required. It is also stated "levels in excess of the HILs do not imply unacceptability or that a significant health risk is likely to be present".

The ASC NEPM 2013 Schedule B7 states at the very least, the maximum and the 95% UCL of the arithmetic mean contaminant as well as localised elevated values must be compared to the HILs. Two additional (secondary) criteria should also be met, namely that the standard deviation of the results must be <50% of the relevant investigation level and that no single value exceeds 250% of the relevant investigation level.

ASC NEPM 2013 also states that the HILs are not intended to be used as clean-up levels for contaminated sites. The requirement of clean-up should be based on site-specific assessment and risk management options.

The adopted HIL is shown in Table 5.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 106 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chelsea Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
NATA ASPAC

Table 6 – Health Investigation Levels for Soil Contaminants

Chemical	Health-based investigation levels (mg/kg)			
	Residential[1] A	Residential[1] B	Recreational[1] C	Commercial/ Industrial[1] D
Metals and Inorganics				
Arsenic[2]	***100***	500	300	3,000
Beryllium	***60***	90	90	500
Boron	***4,500***	40,000	20,000	300,000
Cadmium	***20***	150	90	900
Chromium (VI)	***100***	500	300	3,600
Cobalt	***100***	600	300	4,000
Copper	***6,000***	30,000	17,000	240,000
Lead[3]	***300***	1,200	600	1,500
Manganese	***3,00***	14,000	19,000	60,000
Mercury (Inorganic) [5]	***40***	120	80	730
Methyl Mercury[4]	***10***	30	13	180
Nickel	***400***	1,200	1,200	6,000
Selenium	***200***	1,400	700	10,000
Zinc	***7,400***	60,000	30,000	400,000
Cyanide	***250***	300	240	1,500
Polycyclic Aromatic Hydrocarbons (PAHs)				
Carcinogenic PAHs (as BaP TEQ)[6]	***3***	4	3	40
Total PAHs[7]	***300***	400	300	4000
Phenols				
Phenol	***3,000***	45,000	40,000	240,000
Pentachlorophenol	***100***	130	120	660
Cresols	***400***	4,700	4,000	25,000
Organochlorine Pesticides				
DDT+DDE+DDD	***240***	600	400	3,600
Aldrin and Dieldrin	***6***	10	10	45
Chlordane	***50***	90	70	530
Endosulfan	***270***	400	340	2,000
Endrin	***10***	20	20	100
Heptachlor	***6***	10	10	50
HCB	***10***	15	10	80
Methoxychlor	***300***	500	400	2,500
Mirex	***10***	20	20	100
Toxaphene	***20***	30	30	160
Herbicides				
2,4,5-T	***600***	900	800	5,000
2,4-D	***900***	1,600	1,300	9,000
MCPA	***600***	900	800	5,000
MCPB	***600***	900	800	5,000
Mecoprop	***600***	900	800	5,000
Picloram	***4,500***	6,600	5,700	35,000
Other Pesticides				
Atrazine	***320***	470	400	2,500
Chlorpyrifos	***160***	340	250	2,000
Bifenthrin	***600***	840	730	4,500
Other Organics				
PCBs[8]	***1***	1	1	7
PBDE Flame Retardants (Br1-Br9)	***1***	2	2	10

Notes: This table is adapted from Table 2 in Schedule B7: Derivation of Health-Based Investigation Levels, *National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013* (NEPC 2013).

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 30 105 810 708
T 1300 30 40 30 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 36 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
NATA ASPAC

HIL A: Residential with garden/accessible soil (home-grown produce <10% fruit and vegetable intake (no poultry)), also includes childcare centres, preschools and primary schools.
HIL B: Residential with minimal opportunities for soil access; includes dwellings with fully and permanently paved yard space such as high-rise buildings and apartments.
[1] HIL C: Public open space such as parks, playgrounds, playing fields (e.g. ovals), secondary schools and footpaths. This does not include areas of undeveloped open space where the potential for exposure is lower and where a site-specific assessment may be more appropriate.
HIL D: Commercial/industrial includes premises such as shops, offices, factories and industrial sites.

[2] Arsenic: HIL for arsenic assumes 70% oral bioavailability. Site-specific bioavailability may be important and should be considered where appropriate

[3] Lead: HIL for lead is based on blood lead models (IEUBK for HILs A, B and C and adult lead model for HILD D) where 50% oral bioavailability has been considered. Site-specific bioavailability may be important and should be considered where appropriate

[4] Methyl mercury: Assessment of methyl mercury should only occur where there is evidence of its potential source. It may be associated with inorganic mercury and anaerobic microorganism activity in aquatic environments. In addition, the reliability and quality of sampling/analysis should be considered.

[5] Elemental mercury: HIL does not address elemental mercury. A site-specific assessment should be considered if elemental mercury is present, or suspected to be present.

[6] Carcinogenic PAHs: HIL for carcinogenic PAHs is based on the 8 carcinogenic PAHs and their respective TEFs (potency relative to BaP) adopted by CCME 2008. The BaP TEQ is calculated by multiplying the concentration of each carcinogenic PAH in the sample by its BaP TEF, given below, and summing these products.

PAH Species	TEF	PAH Species	TEF
Benzo(a)anthracene	0.1	Benzo(g,h,i)perylene	0.01
Benzo(a)pyrene	1	Chrysene	0.01
Benzo(b+j)fluoranthene	0.1	Dibenzo(a,h)anthracene	1
Benzo(k)fluoranthene	0.1	Indeno(1,2,3-c,d)pyrene	0.1

Where the BaP occurs in bitumen fragments it is relatively immobile and does not represent a significant health risk.

[7] Total PAHs: HIL for total PAH is based on the sum of the 16 PAHs most commonly reported for contaminated sites (WHO 1998). The application of the total PAH HIL should consider the presence of carcinogenic PAHs and naphthalene (the most volatile PAH). Carcinogenic PAHs reported in the total PAHs should meet the BaP TEQ HIL. Naphthalene reported in the total PAHs should meet the relevant HSL.

[8] PCBs: HIL for PCBs relates to non-dioxin-like PCBs only. Where a PCB source is known, or suspected, to be present at a site a site-specific assessment of exposure to all PCBs (including dioxin-like PCBs) should be undertaken.

3.12.2. Health Screening Levels (HSLs)

1.1.1.1 Petroleum Hydrocarbon Compounds

ASC NEPM 2013 adopts the Health Screening Levels for various petroleum hydrocarbon compounds developed by the Cooperative Research Centre for Contamination Assessment and Remediation of the Environment (CRC CARE). Friebel and Nadebaum 2011 provide the methodology for assessing human health risk via the inhalation and direct contact pathways of selected petroleum compounds and fractions.

The HSLs apply to the same landuse scenarios with additional consideration of soil texture and depth to determine the appropriate soil, groundwater and soil vapour criteria.

The ASC NEPM 2013 provides HSL fractions and corresponding equivalent carbon range for petroleum hydrocarbon compounds (see Table 7). HSLs are given only for F1, F2 and BTEX as the heavier petroleum compounds of F3 and F4 are non-volatile and do not pose a concern for vapour intrusion. However exposure can be via direct contact pathways (dermal contact, incidental oral ingestion and dust in halation). Friebel and Nadebaum 2011 provides the HSLs for direct contact, however for most site assessments, these levels are unlikely to trigger further investigation or site management as the values are substantially higher than most soil screening levels.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 106 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
NATA
ASPAC

Table 7 – HSL Fractions and Corresponding Equivalent Carbon Range

Fraction Number	Equivalent Carbon Number Range
F1	$C_6 - C_{10}$
F2	$>C_{10} - C_{16}$
F3	$>C_{16} - C_{34}$
F4	$>C_{34} - C_{40}$

As aforementioned, HSLs for soil, groundwater and soil vapour haven been developed based on soil texture. The HSLs assume a uniform soil profile and the highest proportion of the soil texture from the soil profile should be used selecting the appropriate HSLs. For Tier 1 soil assessment, the HSL classifications of sand, silt and clay may be broadly applied to soil texture classification in Table A1 of Australian Standard 1726 as follow:

i) Coarse grained soil: >50% of particles (by weight) <63mm and >0.075mm
   - Sand: >50% of particles (by weight) <2.36mm; or
   - Gravel: >50% of particles (by weight) >2.36mm.

ii) Fine-grained soil: >50% of particles (by weight) <0.075mm
   - Silts and clays (liquid limit >50%);
   - Silts and clays (liquid limit <50%); or
   - Highly organic soils.

1.1.1.2 Asbestos

ASC NEPM 2013 adopted the HSLs from the Western Australia Department of Health (WA DoH) *Guidelines of Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia 2009.* The HSLs are based on scenario-specific likely exposure levels, that include bonded and friable asbestos levels (see Table 9).

Asbestos only poses human health risk when asbestos fibres are made airborne and inhaled. Bonded asbestos is not readily made airborne except through substantial physical damage. ASC NEPM 2013 states "the assessment and management of asbestos contamination should take into account the condition of the asbestos materials and the potential for damage and resulting release of asbestos fibres".

The HSLs are to be used for Tier 1 assessment, in the event of an exceedance that triggers the need for a Tier 2 site-specific assessment. Site-specific assessments of asbestos contaminated sites should be designed to describe the nature and quantity of asbestos present in the soil that can sufficiently develop a risk management plan for the current and proposed landuse of the site.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 106 810 706
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 40 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
NATA ASPAC

Table 9 – Health Screening Levels for Asbestos Contamination in Soil

	Health Screening Level (w/w)			
Form of asbestos	**Residential A[1]**	**Residential B[2]**	**Recreational C[3]**	**Commercial/ Industrial D[4]**
Bonded ACM	0.01%	0.04%	0.02%	0.05%
Fibrous Asbestos (FA) and Asbestos Fines (AF) [5] (Friable Asbestos)	0.001%			
All forms of asbestos	No visible asbestos for surface soil			

Note: This table is adapted from Table 7 in Schedule B1: Health Screening Levels of Asbestos Contamination in Soil, *National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013* (NEPC 2013).
1 Residential A with garden/accessible soil also includes childcare centres, preschools and primary schools.
2 Residential B with minimal opportunities for soil access; includes dwellings with fully and permanently paved yard space such as high-rise buildings and apartments.
3 Recreational C includes public open space such as parks, playgrounds, playing fields (e.g. ovals), secondary schools and unpaved footpaths.
4 Commercial/industrial D includes premises such as shops, offices, factories and industrial sites.
5 The screening level of 0.001% w/w asbestos in soil for FA and AF (i.e. non-bonded/friable asbestos) only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres.

3.12.3. Ecological Investigation Levels (EILs)

Ecological Investigation Levels (EILs) have been developed for assessing risk to terrestrial ecosystem for common contaminants in soil. The EILs are derived for specified levels of species protection depending on land use and are principally applied to the top 2m of the soil.

Table 11 – EILs Landuse Criteria and Protection Levels

Land Use	Levels of Protection
Areas of ecological significance	99%
Urban residential areas and public open space (HIL A, B and C)	80%
Commercial and industrial	60%

Schedule B5 of ASC NEPM 2013 provides the EILs for Arsenic, Copper, Trivalent Chromium, DDT, Napthalene, Nickel, Lead and Zinc. The methodology to derive the EILs considers the physicochemical properties of soil and contaminants and the capacity of the local ecosystem to accommodate increases in contaminant levels above ambient background.

EILs are obtained by summing added ambient background concentration (ABC) and contaminant limit (ACL). ABC is the soil concentration in a specified locality that is the total of naturally occurring background level and the contaminant levels that have been introduced by general anthropogenic sources. ACL is the added concentration above the ACB of a contaminant which require further investigation on the impact on ecological values.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 105 810 708
T 1300 30 40 60 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
NATA
ASPAC

The derivation of EILs takes into consideration the ageing of contamination (>2 years) and soil properties as the toxicity of soil contaminants will reduce over time. Values for ACL based on pH, CEC and exposure scenario are provided for Lead, Zinc, Copper, Nickel and Trivalent Chromium. This method of deriving EILs only applies to metals and metalloids, with the exception of Arsenic. Generic EILs for Arsenic, DDT and Naphthalene are shown in Appendix D.

Methodology for Tier 2 site-specific assessments to determine site-specific EILs is provided in Schedule B5(b).

3.12.4. Ecological Screening Levels (ESLs)

Ecological Screening Levels (ESLs) haven been developed for selected petroleum hydrocarbon compounds to assess risk to terrestrial ecosystem. The ESLs adopts the same four fractions from the HSLs (see Table 7), however the soil texture standards are only divided into two: coarse or fine.

ESLs were adopted based on a review of Canadian guidance, a risk based TPH standards for human health and ecological aspects for various land uses in the *Canada-wide standard for petroleum hydrocarbons in soil* (CCME 2008).

In summary, the Investigation and Screening Levels adopted for this assessment is as follow:

- NEPC 2013, ASC NEPM 2013 Schedule B7, Table 1(A)1 – Health Investigation Levels for Soil Contaminants, Exposure Setting **Residential A**;
- NEPC 2013, ASC NEPM 2013 Schedule B7, Table 7 – Health Screening Levels for Asbestos Contamination in Soil, Exposure Setting **Residential A;**
- NEPC 2013, ASC NEPM 2013 Schedule B7, Table 1(A)3 – Soil Health Screening Levels for Vapour Intrusion;
- NEPC 2013, ASC NEPM 2013 Schedule B5b & B5c, Ecological Investigations Levels
- NEPC 2013, ASC NEPM 2013 Schedule B7, Table 1(B)5 – Generic EILS for Aged As, Fresh DDT and Fresh Napthalene in Soils; and
- NEPC 2013, ASC NEPM 2013 Schedule B7, Table 1(B)6 – ESLs for TPH Fractions F1-F4, NTEX and Benzo(a)pyrene in Soil.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 20 106 810 708
T 1 800 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1 800 04 44 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
NATA ASPAC

3.13. Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC/NHMRC, 1992)

The *Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites* (ANZECC/NHMRC, 1992) provide a risk management approach consistent with the attainment of environmental outcomes described in the ASC NEPM 2013.

Contamination of land is defined as the presence in, on or under the land of a substance at a concentration above the concentration at which the substance is normally present in, on or under (respectively) land in the same locality, being a presence that presents a risk of harm to human health or any other aspect of the environment[1].

The objectives of contaminated site remediation (ANZECC/NHMRC, 1992) are:

1. To render a site acceptable and safe for the long term continuation of its existing/proposed use;
2. To minimise environmental and health risks both on and off site to acceptable levels; and
3. To maximise to the extent practicable, the potential future uses of the site.

The ANZECC/NHRMC 1992 Guidelines provides two basic approaches in dealing with contaminated sites.

i) A strict adherence to a set of preferred soil criteria used to define a condition of contamination and to serve as the standard which sites must meet in order to be considered to have been decontaminated; or

ii) A more flexible use of pre-determined soil criteria use chiefly to provide guidance as to whether a detailed investigation is required, confirm no further action is needed or provide guidance for clean-up in appropriate circumstances. This approach relies on careful consideration of site-specific data to derive acceptable criteria, which will ensure that public health, local amenity and soil, air water and quality are protected.

The ANZECC/NHRMC 1992 Guidelines concluded that the most appropriate approach for Australia is to adopt the combination of both approaches that incorporates, at a national level a general set of management principles and soil quality guidelines which guide site assessment and may guide site clean-up action, eliminating where appropriate, the need to develop costly site specify criteria. This approach also recognises that every site is different and that in many cases site specific acceptable criteria and clean-up technologies will need to be developed which reflect local conditions.

[1] Contaminated Land Management Act (CLM Act) 1997

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 106 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 367 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
NATA
ASPAC

3.14. The Managing Land Contamination: Planning Guidelines – Remediation of Land, NSW EPA 1997 (SEPP55 Guidelines)

The Managing Land Contamination: Planning Guidelines – Remediation of Land, NSW EPA 1997 (SEPP55 Guidelines) establishes the best practice for managing land contamination through the planning and development control process. The planning and development control process as provided for in the *Environmental Planning and Assessment Act 1979* plays an important role in the management of land contamination. The integration of land contamination management into the planning and development control process will:

- Ensure that changes of land use will not increase the risk to health or the environment;
- Avoid inappropriate restrictions on land use; and
- Provide information to support decision-making and to inform the community.

The SEPP55 Guidelines include:

a) Information to assist in the investigation of contamination possibilities;
b) A decision making process that responds to the information obtained from an investigation;
c) Information on how planning and development control can cover the issues of contamination and remediation;
d) A suggested policy approach for planning authorities;
e) Discussion of information management systems and notification and notation schemes, including the use of Section 149 planning certificates notations; and
f) Approaches to prevent contamination and reduce the environmental impact from remediation activities.

SEPP 55 Guidelines provides consistent statewide planning and development controls for the remediation of contaminated land and ensures the following:

- Landuse changes do not occur until planning authorities consider whether the land is contaminated and whether it needs to be remediated to make it suitable for the proposed use;
- Remediation of contaminated land is permissible throughout the State;
- Remediation requires consent only where it has the potential for significant environmental impacts or does not comply with a council's policy for contaminated land;
- Most remediation proposal which require consent are advertised for public comment;
- All remediation is carried out in accordance with appropriate standards and guidelines;
- Applications for remediation are not refused without substantial justification; and
- Councils are notified at commencement and completion of remediation.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 105 810 705
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 44 80 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
NATA
ASPAC

3.15. Relevant Legislation

NSW has a comprehensive suite of guidelines relating to assessment and management of contamination, administered under the *Contaminated Land Management Act (CLM Act) 1997* and the *Environmental Planning and Assessment Act 1997.* These include the following:

- *Contaminated Sites: Guidelines for Assessing Service Station Sites, NSW EPA, 1994;*
- *Contaminated Sites: Sampling Design Guidelines, NSW EPA, 1995;*
- *Managing Land Contamination: Planning Guidelines SEPP 55 – Remediation of Land, NSW EPA 1998;*
- *Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites, NSW OEH, 2011;*
- *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme, NSW DEC, April 2006;*
- *Waste Classification Guidelines Part 1: Classifying Waste, NSW EPA 2014.*

Guidelines approved under the CLM Act also include ADWG (2011) *Australian Drinking Water Guidelines,* ANZECC/ARMCANZ (2000) *Water Quality Guidelines* and GMRRW (2008) *Guidelines for Managing Risk in Recreational Waters.*

SESL's policy of meeting the spirit and intent of State Legislation where possible, consideration will be given in the first instance to NSW legislation and guidelines, where these do not conflict with Commonwealth legislative requirements. State legislation and guidelines are directly relevant to any offsite components of the proposed remediation.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 106 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 44 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

4. SOIL SAMPLING, ANALYSIS PLAN AND SAMPLING METHODOLOGY

4.1. Sampling Team

The details and duties (see Table 12) of the sampling team were as follows:

a) Sample collector:
- Soil sample collection according to sampling regime.
- Described soil horizon features.
- Responsible for decontamination between sampling.

b) Sample logger:
- Identified testing location and depth of profiles.
- Labeled sample containers.
- Recorded field conditions current at sampling into the sample log.
- Recorded soil profile information.
- Nominated field duplicates at the nominated ratio.
- Recorded analytes to be tested for each sample.

Table 12 – Sampling Team Personnel

Personnel	Position	Qualifications	Project Task
Luke Jacovides	Environmental Scientist	Bachelor of Environmental Science and Management Workcover Construction Work in NSW (White Card)	Conduct site visual assessment Identify sampling location Conduct soil sampling
Andrew Jacovides	Environmental Scientist	Bachelor of Natural Science in Environmental Management Workcover Construction Work in NSW (White Card)	Conduct site visual assessment Identify sampling location Conduct soil sampling

4.2. Sampling Regime – Soil

The fieldwork for the assessment was devised to address the issues identified as potential for contamination as set out in Section 3. The sampling objective was to gather information with regard to the type, location and extent of potential soil contamination as a result of current and historical landuse of the Site. This process provided sufficient supporting data to allow recommendations to be made on whether the possible site contamination is compliant with the proposed landuse and the environmental concerns.

The selection of the sampling locations was formed based on a systematic or grid based sampling pattern to allow for a consistent coverage of sampling locations over the Site. The summary of sampling location selection is show in Table 10.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 105 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 257 16 Cleveland Rd
F 1300 44 46 89 W sesl.com.au Pennant Hills NSW 1715 Hornsby NSW 2120
NATA
ASPAC

Table 14 – Sampling locations selection

Sampling Location	Depth	Justification
A1-A8, B1-B4, B6-B10, C6-C11, D4-D11	Surface	Check for the presence of fill material on-site. Analyse soils for pesticides and heavy metals that were commonly used on agricultural land.
A1-A8, B1-B4, B6-B10, C6-C11, D4-D11	Depth	Check for the presence of fill material on-site. Analyse soils for pesticides and heavy metals that were commonly used on agricultural land.
S1-S18	Surface	To investigate the soil materials within close proximity to the residential structures present at the site, determining the presence or absence of contaminants of concern. These include: asbestos, heavy metals, pesticides, PCBs and hydrocarbons

4.3. Sampling Regime – Asbestos (Soil)

Soil sampling for asbestos was conducted within all surface samples collected as part of this investigation.

4.4. Sampling Regime – Water

No surface water or groundwater was collected for assessment. Groundwater was encountered when observing a deep soil profile immediately adjacent to the creek. This was not sampled.

4.5. Sample Collection – Soil

Sampling locations were selected based on the following process:

- Visual inspection for contamination during the site walkover;
- Sample collection was conducted on a systematic or grid based sample regime (See Appendix A);
- Soil samples within the paddock were recovered from each sample location using an excavator for test pits;
- Soil samples from around the house and sheds were collected using hand equipment (Jarret auger); and
- Photo Ionisation Detector (PID) monitoring was not undertaken during this investigation as volatiles were not identified as contaminants of concern.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 106 810 706
T 1300 30 40 80 E info@sesl.com.au PO Box 357 14 Chelvers Rd
F 1300 04 34 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
NATA ASPAC

Each soil sample was collected into a 250ml glass jar, then placed in a chilled container and forwarded to the laboratory for analysis under Chain of Custody (COC) procedures. A copy of our COC is located in Appendix E of this report.

4.6. Composite Sample Procedure

No composite samples were taken during this assessment.

4.7. Sample Collection – Water

No surface water or groundwater was collected for assessment. Groundwater was not encountered during the sampling process.

4.8. Decontamination Procedure

The sampling and decontamination procedures adopted during the fieldwork for this assessment included hand tools decontaminated prior to use and in between samples to prevent cross contamination. Decontamination of the hand tools included the following steps:

- Removal of soils adhering to the equipment by scrubbing with a brush;
- Washing the equipment thoroughly in a solution of phosphate-free detergent (*Decon 90*);
- Rinsing with distilled water from a squeeze bottle; and
- Drying the equipment with a clean cloth or left to air dry.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 30 105 810 708
T 1300 80 80 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 44 89 W www.sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

5. QUALITY ASSURANCE & QUALITY CONTROL PLAN

5.1. Data Quality Objectives

The purpose of establishing data quality objectives (DQOs) is to ensure the field investigations and analyses are undertaken in a way that enables the collection and reporting of reliable data on which to base the site validation. The DQOs and the procedures designed to achieve these objectives are listed below.

Table 15 – Data Quality Objectives

Process	Response
Step 1. Define the problem	The owner of the property is looking to subdivide the existing block and an environmental investigation has been requested to determine the vertical and lateral extent of contamination if present.
Step 2. Identify the goal of the study.	The objective of sampling was to determine if contamination exists, and if present determine the extent of the contamination. Assess the suitability of the site for the intended subdivision
Step 3. Identify information inputs	Data inputs for the project: Results of soil sampling and analysis to be gained by the assessment process. And visual inspection to determine the depth of fill material
Step 4. Define the boundaries of the Study	The area of the investigation is the entire proposed Lot to be subdivided (see Appendix A: Sampling Map). The vertical boundary of the assessment extends to a maximum depth of 1.1 metres or where natural materials were encountered. The sample medium comprises of soil within each of the test pits.
Step 5. Develop the analytical approach	A review of the previous site usage and site history review to identify the main contaminants of potential concern (see Section 2). Concentrations of potential contaminants will be compared to criteria set in Section 4.3 to assess the potential impact to soil and to assess the waste disposal requirements.
Step 6. Specify performance or acceptance criteria.	The guidelines, as listed in Section 4, to assess the contamination status of the soils within the area of investigation. That being Residential A – with garden/accessible soil (home grown produce contributing less than 10% of vegetable and fruit intake; no poultry) this category includes children's day-care centres, preschools and primary schools
Step 7. Develop the Plan for obtaining data	Samples will be collected as per Section 4. A qualified environmental consultant undertook sampling with the rationale behind the selection of sample locations is provided in Table 10. Quality Assurance (QA) procedures was used as described in Section 5 and Quality Control (QC) samples collected to allow evaluation of DQI.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 106 810 705
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 87 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
NATA ASPAC

5.2. Data Quality Indicators and Data Evaluation

SESL has selected the following Data Quality Indicators (DQIs) to ensure that the data obtained from the assessment are of sufficient quality to be used to draw reliable and representative conclusion in an assessment of the environmental conditions of the investigation area.

5.2.1. Documentation and Data Completeness

The completeness of data is defined as the percentage of analytical results that are considered valid. Valid chemical data values that have been identified as acceptable or acceptable as qualified during the data validation process. The completeness is a comparison of the total number of samples accepted against the total number of samples, calculated as a percentage. The project goal for completeness is greater than 90%. QA/QC for completeness includes the following:

- All critical locations sampled;
- All required samples collected (i.e. surface and in depth samples);
- Sampling team are well informed, qualified and experienced;
- Correct and complete documentation;
- Appropriate analysis methods and PQLs;
- Compliance of sample holding times; and
- All data entries in the database are correct, properly entered, checked and that any typographical errors in the database are corrected and the data re-entered properly.

5.2.2. Data Comparability

Comparability expresses the confidence that the data may be considered to be equivalent for each sampling and analytical event and deemed suitable for comparison. In order to assess comparability, field procedures, laboratory sample preparation procedures, analytical procedures and reporting units must be known and similar to establish protocols (Standard Operating Procedures). Qualitatively, data subject to strict QA/QC procedures will be deemed more reliable, therefore more comparable, than other data.

SESL Environmental Scientists conducted this assessment.

5.2.3. Data Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents a characteristic of parameter variations at sample points or environmental conditions and obtaining suitable samples from these sites.

Sample selection and analysis was conducted in order to meet the specific objectives of the particular phase of work. Analysis for the contaminants of concern will be selectively conducted on a soil as indicated in analytical summary tables.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 30 105 810 706
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Penrith NSW 1715 Thornleigh NSW 2120
NATA
ASPAC

5.2.4. *Precision and Accuracy for Sampling and Analysis*

Precision and accuracy for sampling and analysis expresses the quantitative measure of the variability and closeness of the data. This DQI is crucial to provide information to data users of the reliability, unreliability or qualitative value of the data representing each analyte in each environmental matrix. QA/QC includes:

- Correct and appropriate Standard Operating Procedures applied and complied with;
- Analysis of duplicates, triplicates, blanks, spikes and rinsates are satisfactory;
- Assessment of RFDs are satisfactory; and
- Independent review of QA/QC data satisfactory.

5.3. Field and Laboratory Quality Assurance Program

Quality Assurance (QA) and Quality Control (QC) practices were applied to all stages of data gathering and subsequent sample handling procedures. These are designed to provide control over both field and laboratory operations. Additionally, the analytical laboratories will complete their own internal QA procedures during the analysis of samples. Details of the QA/QC program are described below.

5.3.1. *Quality Assurance*

All fieldwork followed the SESL procedure to ensure that all environmental samples were collected by a set of uniform and systematic methods as required by the QA system.
The SESL field procedure describe the following:

- Decontamination procedures;
- Sample identification procedures;
- Information requirements for soil bore logs;
- Chain of custody information requirements;
- Sample duplicate frequency; and
- Field calibration requirements (if necessary).

5.3.2. *Quality Control Results*

The results of the field and laboratory quality control samples were assessed to determine:

- The quality of the data generated;
- If the data meets the objectives of the study; and
- If the data is acceptable for the intended use.

5.3.3. *Field QC*

The following data quality indicators were used for the investigation:

- All samples analysed were conducted using NATA registered methods in accordance with ANZECC (1996) and NEPC (1999) guidelines;
- Maximum acceptable sample holding times was 14 days for organic and 6 months for metal analyses. Mercury (Hg) to be analysed within 28 days of sample collection;

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 105 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

- Samples were appropriately preserved and handled;
- Laboratory method blank analyses were required to be below the limits of reporting PQL;
- All compound concentrations were (if required) spiked at similar concentration to sample results;
- All PQLs must be less than the assessment criteria;
- The relative percent difference of duplicates was determined and compared to the following criteria for acceptability. The acceptance criteria are:
    - Less than 50% for field duplicates;
    - Less than 30% for inter laboratory duplicates;
    - 30% for laboratory duplicates where the detection is less than 10 times the PQL; and
    - Less than 20% for laboratory duplicates where the detection is greater than 10 the PQL.
- RPDs for control spike duplicates to be compared to an acceptable limit of 20%;
- RPDs for Matrix Spike Duplicates to be compared to an acceptable limit of 20%; and
- Percent recoveries of control spikes and matrix spikes to be compared to an acceptable range of 70-130%. In addition, percent recoveries of surrogates were also compared to the USEPA surrogate recovery limits.

5.3.4. Laboratory Quality Control

Chemical analysis for soil samples to be undertaken by an environmental laboratory under COC procedures.

5.3.5. Laboratory Blanks

Laboratory or control blanks consist of reagents specific to each individual method and are prepared and analysed by laboratories in the same manner as regular samples. The preparation and analysis of laboratory blanks enable the measurement of contamination within the laboratory.

Ideally, no contamination should be present in blanks. However, in the event that contamination is detected, the following actions are taken:

- The organic test results are not to be corrected by subtracting any blank value;
- If any analyte is found in blank but not a sample, no action is taken;
- No absolute results are reported unless the analyte concentration within a sample exceeds 10 times the amount in any blank for common contaminates, or five times the amount for any other analyte; and
- Professional judgment is used where little or not contamination is present in the associated blanks, but contamination is suspected in actual samples.

Laboratory blanks are typically analysed at a frequency of 1 in 20, with a minimum of one analysed for each batch.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 106 610 708
T 1300 30 40 80 E info@sesl.com.au PO Box 857 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
NATA
ASPAC

5.3.6. Laboratory Duplicates

Laboratory duplicate samples are prepared in the laboratory by splitting a field sample and analysing it as two independent samples. The analysis of laboratory duplicate samples provides an indication of analytical precision and may be influenced by sample heterogeneity. The laboratory duplicate RPDs are used to assess the laboratory precision.

5.4. Reporting

On completion of this investigation, the SESL Environmental Scientist has prepared this report summarising the works performed and assessed the results and findings in order to demonstrate compliance with the objectives of the DSI.

Table 16 provides a summary of the sampling regime for the DSI.

Table 16 – Summary of Sample Analysis

Sample Type and Analysis	Number of Samples	Number of Duplicate Samples
Open Space (Surface) – Heavy Metals, OCP and OPP (Systematic)	31	6
Open Space (Depth) – Heavy Metals and OCP and OPP (Systematic)	31	6
Developed Area (Surface) – Heavy Metals, OCP, OPP, PAH, BTEX, TPH, PCB and Asbestos (Judgemental)	18	4
Developed Area (Depth) – Heavy Metals, OCP, OPP, PAH, BTEX, TPH, PCB and Asbestos (Judgemental)	18	4

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 106 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

6. SUMMARY OF RESULTS

6.1. Site Stratigraphic Conditions

The Site consists of generally open grassland and paddocks for agricultural and grazing purposes with two (2) residential dwellings toward the middle of the property. Field observations made during the DSI indicated the presence of a natural soil profile at some of the sample locations, while others indicated deep filling had occurred (see Appendix F: Bore logs). Fill materials were encountered around the dwellings on the site to a maximum depth of approximately 400mm, and to the south western boundary of the site to a depth of at least 1000mm.

The soil materials observed at forty-nine (49) locations across the site at the time of the investigation. Soil profiles differed across the site, with fill materials observed at the eastern boundary of the site and within close vicinity to the existing dwellings. Natural loam topsoils and clay subsoils were observed within the other areas of the site.

6.2. Soil Analytical Results Summary

The analysis of the laboratory results indicated that contaminants of concern were elevated above the adopted Health Investigation Levels (residential A) for some of the sample locations across the area of investigation at the Site.

Elevations of Lead above the adopted threshold were observed at six (6) locations around the developed area of the site, while a Dieldrin elevation was observed at one (1) location within the developed area.

A summary of results compared to the assessment criteria can be seen in Appendix B accompanied by complete NATA laboratory certificates, chain of custody (CoC) documentation and sample receipt advice.

6.3. QA/QC Results

Quality assurance / quality control (QA/QC) procedures conducted within this DSI included standard laboratory QA/QC procedures (see Section 7: Quality Assurance & Quality Control Plan). All internal replicate samples were found to be within acceptable levels.

One field QAQC sample was taken for every ten (10) samples collected. In total, 10 soil duplicate samples were collected during the DSI. The results of the QA/QC samples were found to be within acceptable range.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 106 810 709
T 1300 30 40 80 E info@sesl.com.au PO Box 357 14 Chisholm Rd
F 1300 64 86 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
NATA ASPAC

Based on the QA/QC results, the data is considered suitable for use in assessing the site. Results of QA/QC analysis can be seen in the NATA test certificates in Appendix E.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 106 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

Calculation of 95% Upper Confidence Limit (UCL)

The 95% UCL demonstrates with 95% confidence that the average contaminant concentration of the soil represented by the data set is at or below the concentration stated.

EPA recommends a minimum of ten samples for 95% UCL calculation. For large soil volumes (i.e. >2,500m^3) the minimum sampling rate should not be less than 1 sample per 250m^3.

In accordance with Procedure D of the *NSW EPA Sampling Design Guidelines (1995)* each domain or stockpile should be categorized separately. Non-detect samples need to be included in calculations of 95% UCL. Non-detect values are substituted with a value of half of the detection limit of the laboratory apparatus.

The 95% UCL can be calculated using the following formula:

$$\text{UCL average} = X + t_{\alpha,\, n-1}\,(s/\sqrt{n})$$

Where:

UCL	upper confidence limit of the arithmetic average concentration of the sampling are at the 1-α confidence level
X	arithmetic average of all samples
$t_{\alpha,\, n-1}$	A test statistic (student's t at an α level of significance and n-1 degrees of freedom)
s	standard deviation of the sample measurements
n	number of sample measurements
α	the probability that the 'true' average concentration of the sampling area might exceed the UCL average determined by the above equation

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 105 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
NATA ASPAC

Table 18 – Soil Analytical Results Summary of Elevated Samples (House 1) Compared Against Health Investigation Levels (residential A)

Sample	Lead	Dieldrin
HIL (residential A)	300mg/kg	6mg/kg
S1 Surface	**380**	0.8
S2 Surface	**520**	0.3
S3 Surface	**560**	1.7
S4 Surface	**320**	0.5
S5 Surface	47	4.1
UCL	**549**	3

Table 19 – Soil Analytical Results Summary of Elevated Samples (House 2) Compared Against Health Investigation Levels (residential A)

Sample	Lead	Dieldrin
HIL (residential A)	300mg/kg	6mg/kg
S7 Surface	67	<0.1
S8 Surface	47	**11**

Table 20 – Soil Analytical Results Summary of Elevated Samples (Large Shed) Compared Against Health Investigation Levels (residential A)

Sample	Lead	Dieldrin
HIL (residential A)	300mg/kg	6mg/kg
S10 Surface	72	<0.2
S11 Surface	**910**	0.5
S12 Surface	**610**	0.2
S13 Surface	110	<0.2
S17 Surface	140	<0.2
UCL	**724**	0.37

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 106 810 705
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
NATA ASPAC

7. CONCLUSION

7.1. Site Characterisation

The subject site is the property located at 153-189 Wallgrove Road, Cecil Park NSW and is defined as proposed Lot 2317 within DP 1201268 (Proposed Lots: 2317, 2318, 2319, 2320, 2321, 2322). The investigation area for this DSI is approximately 60,000 m^2 (6 hectares). The Site is currently used for agricultural and residential purposes and consists of open grass paddocks for agricultural and grazing purposes with two (2) residential dwellings two (2) sheds toward the middle of the site and one (1) outhouse. Trees exist around the dwellings and along the driveway. A small tributary to Ropes Creek marks the far western boundary of the site.

The historical development and use of the site for agricultural and crop growing purposes indicates a potential for contamination to exist at the Site. No additional risk has been identified through the review of historical information regarding landuse activities on the site.

Sampling procedures were split into open space sampling and developed area sampling. The open space sampling was undertaken systematically in a grid pattern, and included surface and subsurface sampling of thirty-one (31) locations across the property. The developed area sampling was undertaken judgmentally around the dwellings that exist on site, and included surface and subsurface sampling of eighteen (18) locations.

Elevations above the adopted threshold (HIL - Residential A) were observed at a number of locations within the 'developed area' of the site (see Tables 13, 14 & 15).

During the site walkover, asbestos containing material (ACM) fragments were identified on the soil surface and within the soil profile across much of the site (see appendix D)

7.2. Summary

The objective of this DSI report was to determine the vertical and lateral extent of potential contamination prior to the proposed subdivision of the property located at 153-189 Wallgrove Road, Cecil Park NSW. Environmental scientists from SESL undertook the site works and soil sampling on Tuesday 28th and Wednesday 29th April 2015.

A total of thirty-one (31) test pits were excavated in a systematic or grid based sampling pattern across the 'open space' area of the site and eighteen boreholes were judgmentally sampled across the developed area of the site. Soil samples were collected throughout the soil profile, with samples taken from the surface and subsurface at each location.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 106 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 857 16 Chilvers Rd
F 1300 64 46 87 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
NATA
ASPAC

The results of the soil sampling undertaken at the Site indicated that the contaminants of concern were found to exceed the adopted HIL A – Residential, with garden/accessible soil at seven (7) of the locations sampled. Elevations were only found to be within the surface soils at each of the elevated locations. All QA samples analysed were found to be consistent with original soil samples collected.

Asbestos containing materials (ACM) were identified within fill materials near the western boundary, and on the soil surface across some of the open spaces and close to the dwellings (see Appendix D).

Based on the findings of this site investigation, SESL concludes that the site is suitable to be subdivided into the 6 proposed lots (2317, 2318, 2319, 2320, 2321, 2322) in the current subdivision plan. Actions to address the concerns identified in this report should be determined in conjunction with any future development of each effected lot, to ensure cost effectiveness and that the action plan meets the requirements of the future land owners. SESL can be engaged to establish appropriate action plans for future works at the site.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 30 105 810 708
T 1300 30 40 50 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120
Quality ISO 9001
NATA
ASPAC

8. LIMITATIONS

This report only covers the site conditions at the time of inspection (28-29/04/2015). Should there be any variation in the site conditions beyond this date, such as imported fill, chemical spillage, illegal dumping, further assessment will be required.

This report is for the use of the Client and any relevant authorities that rely on the information for development applications and approval processes. Any reliance on this report by third parties shall be at such parties' sole risk. This report shall only be presented in full and may not be used to support any other objective other than those set out in the report.

SESL's assessment is necessarily based on the result of limited site investigations and upon the restricted program of visual assessment of the surface and consultation of available records. Neither SESL, nor any other reputable consultant, can provide unqualified warranties nor does SESL assume any liabilities for site conditions not observed, or accessible during the time of investigations.

No site investigations can be thorough enough to provide absolute confirmation of the presence or absence of substances, which may be considered contaminating, hazardous or polluting. Similarly, the level of testing undertaken cannot be considered to unequivocally characterise the degree or extent of contamination on site. In addition, regulatory or guideline criteria for the evaluation of environmental soil and groundwater quality are frequently being reviewed and concentrations of contaminants which are considered acceptable at present may in the future be considered to exceed acceptance criteria. Similar conditions may prevail in regard to site remediation standards as different regulatory mechanisms are developed and implemented.

COPYRIGHT: The concepts, information and design ideas contained in this document are the property of Sydney Environmental & Soil Laboratory Pty Ltd (ABN 70106 810 708). Use or copying of this document in whole or in part without the written permission of Sydney Environmental & Soil Laboratory constitutes an infringement of copyright.

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 106 810 708
T 1300 40 40 80 E info@sesl.com.au PO Box 857 16 Chilvers Rd
F 1300 64 16 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

9. REFERENCES

ANZECC (1996) *Guidelines for the Laboratory Analysis of Contaminated Soils* – Australian and New Zealand Environment and Conservation Council

Australian Standard AS1726:1994 *Geotechnical Site Investigations*

Australian Standards AS4482.1:2005 *Guide to the Sampling and Investigation of Potentially Contaminated Soil (Part 1 & 2)*

enHealth 2012, Australian exposure factor guidance. Environmental Health Subcommittee (enHealth) of the Australian Health Protection Principal Committee, Canberra, Australia.

Hazelton, P.A, Bannerman, S. M. and Tille, P. J. (1989), *Soil Series Sheet 9030 – Penrith*. Soil Conservation Service of NSW, Sydney

National Environmental Protection (Assessment of Site Contamination) Measures, NEPC 1999;

National Environmental Protection (Assessment of Site Contamination) Amendment Measures, NEPC 2013;

NSW DEC (2006) *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme*

NSW EPA (2014) Waste Classification Guidelines Part 1: Classifying Waste

NSW EPA (1994) *Guidelines for Assessing Service Station Sites*

NSW EPA (1995) *Contaminated Sites: Sampling Design Guidelines*

NSW EPA (1999) *Contaminated Sites: Guidelines of Significant Risk of Harm from Contaminated Land and the Duty to Report*

NSW OEH (2011) Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites

Soil Series No. 1, 2nd Edition, 1998 and 3rd Edition, (1999) Health-Based Soil Investigation Levels, National Environmental Health Forum monographs

WA DoH (2009) Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2009)

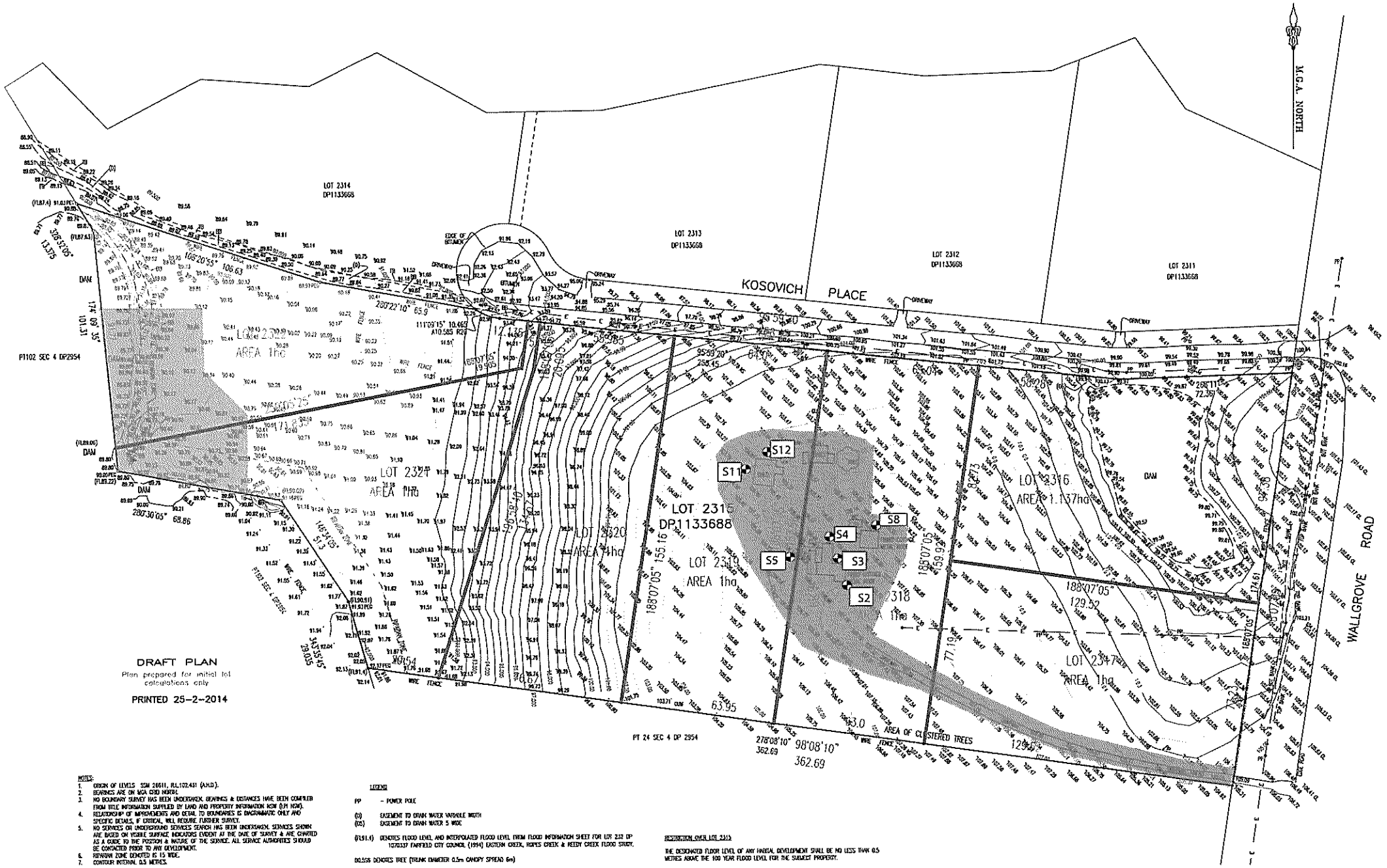
WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING
ABN 70 106 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

SESL AUSTRALIA
Environment & Soil Sciences

Appendix A

ABN 70 106 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

Quality ISO 9001
NATA
ASPAC A member of the Australasian Soil and Plant Analysis Council



NOTES:

1. ORIGIN OF LEVELS SSM 26611, RL102.431 (A.H.D.).
2. BEARINGS ARE ON MGA GRID NORTH.
3. NO BOUNDARY SURVEY HAS BEEN UNDERTAKEN. BEARINGS & DISTANCES HAVE BEEN COMPILED FROM TITLE INFORMATION SUPPLIED BY LAND AND PROPERTY INFORMATION NSW (LPI NSW).
4. RELATIONSHIP OF IMPROVEMENTS AND DETAIL TO BOUNDARIES IS DIAGRAMMATIC ONLY AND SPECIFIC DETAILS, IF CRITICAL, WILL REQUIRE FURTHER SURVEY.
5. NO SERVICES OR UNDERGROUND SERVICES SEARCH HAS BEEN UNDERTAKEN. SERVICES SHOWN ARE BASED ON VISIBLE SURFACE INDICATORS EVIDENT AT THE DATE OF SURVEY & ARE CHARTED AS A GUIDE TO THE POSITION & NATURE OF THE SERVICE. ALL SERVICE AUTHORITIES SHOULD BE CONTACTED PRIOR TO ANY DEVELOPMENT.
6. RIPARIAN ZONE DENOTED IS 15 WIDE.
7. CONTOUR INTERVAL 0.5 METRES.

LEGEND

PP - POWER POLE

(D) EASEMENT TO DRAIN WATER VARIABLE WIDTH
(DS) EASEMENT TO DRAIN WATER 5 WIDE

(FL91.4) DENOTES FLOOD LEVEL AND INTERPOLATED FLOOD LEVEL FROM FLOOD INFORMATION SHEET FOR LOT 232 DP 1070337 FAIRFIELD CITY COUNCIL (1994) EASTERN CREEK, ROPES CREEK & REEDY CREEK FLOOD STUDY.

DO.555 DENOTES TREE (TRUNK DIAMETER 0.5m CANOPY SPREAD 6m)

RESTRICTION OVER LOT 2315

THE DESIGNATED FLOOR LEVEL OF ANY HABITAL DEVELOPMENT SHALL BE NO LESS THAN 0.5 METRES ABOVE THE 100 YEAR FLOOD LEVEL FOR THE SUBJECT PROPERTY.

REVISION	BY	REVISION DESCRIPTION	DATE
01	PW	EASTERN SITE ADDED	10/2/14

Title: Subdivision Plan

Location: 153-189 Wallgrove Road, Cecil Park
Project: C7954.Q4175.B34629 SCA
Legend: Sample Location Fill Material (Inc. ACM) Surface ACM Scattered Building Materials (Inc. ACM)

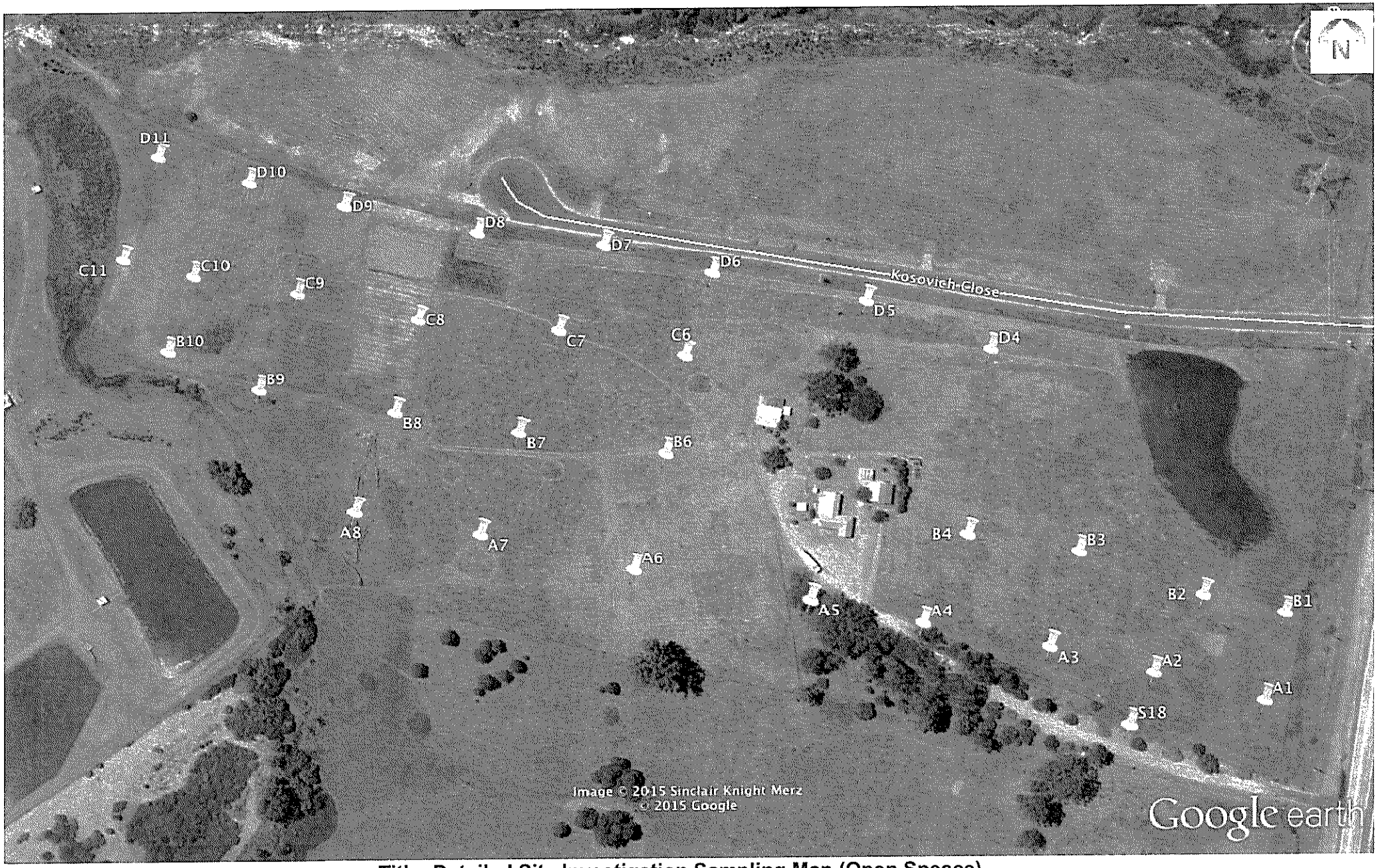
GeoStrata
Project Surveying
Land Development and Title Consulting

SCALE: 1:700		DATE: 22/10/2008	
DATUM: AHD		CLIENT: Anthony Aanicut	
PROJECT No. 1266		SHEET SIZE: A1	
DRAWN	CHECKED	COORDINATED	APPROVED
DD	PW	PW	PW
DRAWING No. 1266 DETAIL DRAFT PLAN		REVISION	



Title: Detailed Site Investigation Sampling Map (Developed Area)
Location: 153-189 Walgrove Road, Cecil Park NSW
Project: C7954.Q4175.B34629
Legend: Sample Location

Notes: Approximate Sample Locations



Title: Detailed Site Investigation Sampling Map (Open Speace)

Location: 153-189 Walgrove Road, Cecil Park NSW

Project: C7954.Q4175.B34629

Legend: Sample Location

Notes: Approximate Sample Locations

SESL AUSTRALIA
Environment & Soil Sciences

Appendix B

ABN 70 106 810 708
T 1300 30 40 60 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

Quality ISO 9001
NATA
ASPAC A member of the Australasian Soil and Plant Analysis Council

Chain of Custody

CoC N°: 19648 QUOTE N°: SESL PO #: BATCH N°: 34629

SESL AUSTRALIA
Environment & Soil Sciences
ABN 70 106 810 708
16 Chilvers Rd
Thornleigh NSW 2120
PO Box 357
Pennant Hills NSW 1715
T: 02 9980 6554
F: 02 9484 2427
E: info@sesl.com.au
W: www.sesl.com.au

DISPATCH TO: SGS Australia Pty Ltd (Alexandria)
Unit 16, 33 Maddox Street
ALEXANDRIA NSW 2015

CONTACT: Irfan Sayeed
Ph: 8594 0400
Fax:

REPORTING REQUIREMENTS			METHOD OF SHIPMENT	RELINQUISHED BY:	SENDOUT PREP:
REPORT FORMAT: ☐ Hardcopy (mail) ☒ Email PDF ☒ Email Excel ☐ Fax			TRANSPORT CO.: SGS Courier	NAME: SESL Sample Receipt	As Received
SEND REPORT TO:	Harrison Leake	subsamples@sesl.com.au	CONSIGNMENT NOTE:	OF: SESL Australia	
CC TO:	Andrew Jacovides	andrewj@sesl.com.au		DATE: 01-05-15	
URGENCY REQ'D:	Normal	DATE REQ'D: Tue, 12 May 2015		TIME: 12:00	

SAMPLE DATA						CONTAINER		ANALYSIS REQUIRED
ID	DESCRIPTION	DATE	TIME	MATRIX	PRES.	TYPE*	N°	
1	A1 Surface			Soil	Ice	G	1	1 - OCP_S, OPP, M8
2	A1 300			Soil			1	2 - OCP_S, OPP, M8
3	A2 Surface			Soil			1	3 - OCP_S, OPP, M8
4	A2 300			Soil			1	4 - OCP_S, OPP, M8
5	A3 Surface			Soil			1	5 - OCP_S, OPP, M8
6	A3 300			Soil			1	6 - OCP_S, OPP, M8
7	A4 Surface			Soil			1	7 - OCP_S, OPP, M8
8	A4 400			Soil			1	8 - OCP_S, OPP, M8
9	A5 Surface			Soil			1	9 - OCP_S, OPP, M8
10	A5 400			Soil			1	10 - OCP_S, OPP, M8
11	A6 Surface			Soil			1	11 - OCP_S, OPP, M8
12	A6 300			Soil			1	12 - OCP_S, OPP, M8
13	A7 Surface			Soil			1	13 - OCP_S, OPP, M8
14	A7 350			Soil			1	14 - OCP_S, OPP, M8
15	A8 Surface			Soil			1	15 - OCP_S, OPP, M8
16	A8 350			Soil			1	16 - OCP_S, OPP, M8
17	B1 Surface			Soil			1	17 - OCP_S, OPP, M8
18	B1 300			Soil			1	18 - OCP_S, OPP, M8
19	B2 Surface			Soil			1	19 - OCP_S, OPP, M8
20	B2 300			Soil			1	20 - OCP_S, OPP, M8

Test Descriptions:

: Asbestos

: BWC_EXT (As, Cr, Cu, Ni, Pb, Zn, Cd, Hg, TRH, BTEX, PAH, OCP, PCB)

M8: M8 (As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)

OCP_S: Organochlorine Pesticides (OCP's) to 0.01mg/kg

OPP: Organophosphorous Pesticides (OPP's)

ALL WATER FOR METALS, OCP/OPP LOW LEVEL in ug/L

***Containers Guide**

Bo1 .... Bottle, amber glass	G ..... Glass jar
Bo2 .... Bottle, plastic	S ..... Sterile
Bg1 .... Bag, plastic	V ..... Vial
Bg2 .... Bag, paper	O ..... Other

RECEIVED BY:			
NAME:	OF:	DATE:	TIME:

SAMPLE CONDITION

SEALS INTACT: ☐ YES ☐ NO SAMPLE CONTAINERS: ☐ Intact ☐ Broken

TEMPERATURE: ☐ Cold ☐ Room ☐ Other_____

Chain of Custody

CoC N°: 19649 QUOTE N°: SESL PO #: BATCH N°: 34629

SESL AUSTRALIA
environment & soil science
ABN 70 106 810 708
16 Chilvers Rd
Thornleigh NSW 2120
PO Box 357
Pennant Hills NSW 1715
T: 02 9980 6554
F: 02 9484 2427
E: info@sesl.com.au
W: www.sesl.com.au

DISPATCH TO: SGS Australia Pty Ltd (Alexandria)
Unit 16, 33 Maddox Street
ALEXANDRIA NSW 2015

CONTACT: Irfan Sayeed
Ph: 8594 0400
Fax:

REPORTING REQUIREMENTS			METHOD OF SHIPMENT	RELINQUISHED BY:	SENDOUT PREP:
REPORT FORMAT: ☐ Hardcopy (mail) ☒ Email PDF ☒ Email Excel ☐ Fax			TRANSPORT CO.: SGS Courier	NAME: SESL Sample Receipt	As Received
SEND REPORT TO:	Harrison Leake	subsamples@sesl.com.au	CONSIGNMENT NOTE:	OF: SESL Australia	
CC TO:	Andrew Jacovides	andrewj@sesl.com.au		DATE: 01-05-15	
URGENCY REQ'D:	Normal	DATE REQ'D: Tue, 12 May 2015		TIME: 12:00	

	SAMPLE DATA				CONTAINER		ANALYSIS REQUIRED
ID	DESCRIPTION	DATE	TIME	MATRIX	PRES.	TYPE*	N°	
21	B3 Surface			Soil	Ice	G	1	21 - OCP_S, OPP, M8
22	B3 300			Soil			1	22 - OCP_S, OPP, M8
23	B4 Surface			Soil			1	23 - OCP_S, OPP, M8
24	B4 300			Soil			1	24 - OCP_S, OPP, M8
25	B6 Surface			Soil			1	25 - OCP_S, OPP, M8
26	B6 250			Soil			1	26 - OCP_S, OPP, M8
27	B7 Surface			Soil			1	27 - OCP_S, OPP, M8
28	B7 350			Soil			1	28 - OCP_S, OPP, M8
29	B8 Surface			Soil			1	29 - OCP_S, OPP, M8
30	B8 350			Soil			1	30 - OCP_S, OPP, M8
31	B9 Surface			Soil			1	31 - OCP_S, OPP, M8
32	B9 350			Soil			1	32 - OCP_S, OPP, M8
33	B10 Surface			Soil			1	33 - OCP_S, OPP, M8
34	B10 500			Soil			1	34 - OCP_S, OPP, M8
36	C6 Surface			Soil			1	36 - OCP_S, OPP, M8
37	C6 350			Soil			1	37 - OCP_S, OPP, M8
38	C7 Surface			Soil			1	38 - OCP_S, OPP, M8
39	C7 300			Soil			1	39 - OCP_S, OPP, M8
40	C8 Surface			Soil			1	40 - OCP_S, OPP, M8
41	C8 350			Soil			1	41 - OCP_S, OPP, M8

Test Descriptions:

: Asbestos

: BWC_EXT (As, Cr, Cu, Ni, Pb, Zn, Cd, Hg, TRH, BTEX, PAH, OCP, PCB)

M8: M8 (As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)

OCP_S: Organochlorine Pesticides (OCP's) to 0.01mg/kg

OPP: Organophosphorous Pesticides (OPP's)

ALL WATER FOR METALS, OCP/OPP LOW LEVEL in ug/L

***Containers Guide**

Bo1 .... Bottle, amber glass	G ..... Glass jar
Bo2 .... Bottle, plastic	S ..... Sterile
Bg1 .... Bag, plastic	V ..... Vial
Bg2 .... Bag, paper	O ..... Other

RECEIVED BY:

NAME: OF: DATE: TIME:

SAMPLE CONDITION

SEALS INTACT: ☐ YES ☐ NO SAMPLE CONTAINERS: ☐ Intact ☐ Broken

TEMPERATURE: ☐ Cold ☐ Room ☐ Other_____

Chain of Custody

CoC N°: 19650 QUOTE N°: SESL PO #: BATCH N°: 34629

SESL AUSTRALIA
Environment & Soil Sciences
ABN 70 106 810 708
16 Chilvers Rd
Thornleigh NSW 2120
PO Box 357
Pennant Hills NSW 1715
T: 02 9980 6554
F: 02 9484 2427
E: info@sesl.com.au
W: www.sesl.com.au

DISPATCH TO: SGS Australia Pty Ltd (Alexandria)
Unit 16, 33 Maddox Street
ALEXANDRIA NSW 2015

CONTACT: Irfan Sayeed
Ph: 8594 0400
Fax:

REPORTING REQUIREMENTS			METHOD OF SHIPMENT	RELINQUISHED BY:	SENDOUT PREP:
REPORT FORMAT: ☐ Hardcopy (mail) ☒ Email PDF ☒ Email Excel ☐ Fax			TRANSPORT CO.: SGS Courier	NAME: SESL Sample Receipt	As Received
SEND REPORT TO: Harrison Leake	subsamples@sesl.com.au		CONSIGNMENT NOTE:	OF: SESL Australia	
CC TO: Andrew Jacovides	andrewj@sesl.com.au			DATE: 01-05-15	
URGENCY REQ'D: Normal	DATE REQ'D:	Tue, 12 May 2015		TIME: 12:00	

SAMPLE DATA						CONTAINER		ANALYSIS REQUIRED
ID	DESCRIPTION	DATE	TIME	MATRIX	PRES.	TYPE*	N°	
42	C9 Surface			Soil	Ice	G	1	42 - OCP_S, OPP, M8
43	C9 400			Soil			1	43 - OCP_S, OPP, M8
44	C10 Surface			Soil			1	44 - OCP_S, OPP, M8
45	C10 500			Soil			1	45 - OCP_S, OPP, M8
47	C11 Surface			Soil			1	47 - OCP_S, OPP, M8
49	C11 2000			Soil			1	49 - BWC_EXT
51	D4 Surface			Soil			1	51 - OCP_S, OPP, M8
52	D4 300			Soil			1	52 - OCP_S, OPP, M8
53	D5 Surface			Soil			1	53 - OCP_S, OPP, M8
54	D5 300			Soil			1	54 - OCP_S, OPP, M8
55	D6 Surface			Soil			1	55 - OCP_S, OPP, M8
56	D6 350			Soil			1	56 - OCP_S, OPP, M8
57	D7 Surface			Soil			1	57 - OCP_S, OPP, M8
58	D7 300			Soil			1	58 - OCP_S, OPP, M8
59	D8 Surface			Soil			1	59 - OCP_S, OPP, M8
60	D8 500			Soil			1	60 - OCP_S, OPP, M8
61	D9 Surface			Soil			1	61 - OCP_S, OPP, M8
62	D9 400			Soil			1	62 - OCP_S, OPP, M8
64	D10 Surface			Soil			1	64 - OCP_S, OPP, M8
65	D10 500			Soil			1	65 - OCP_S, OPP, M8

Test Descriptions:

: Asbestos

: BWC_EXT (As, Cr, Cu, Ni, Pb, Zn, Cd, Hg, TRH, BTEX, PAH, OCP, PCB)

M8: M8 (As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)

OCP_S: Organochlorine Pesticides (OCP's) to 0.01mg/kg

OPP: Organophosphorous Pesticides (OPP's)

ALL WATER FOR METALS, OCP/OPP LOW LEVEL in ug/L

***Containers Guide**

Bo1	Bottle, amber glass	G	Glass jar
Bo2	Bottle, plastic	S	Sterile
Bg1	Bag, plastic	V	Vial
Bg2	Bag, paper	O	Other

RECEIVED BY:			
NAME:	OF:	DATE:	TIME:

SAMPLE CONDITION

SEALS INTACT: ☐ YES ☐ NO SAMPLE CONTAINERS: ☐ Intact ☐ Broken

TEMPERATURE: ☐ Cold ☐ Room ☐ Other_____

Chain of Custody

CoC N°: 19651 QUOTE N°: SESL PO #: BATCH N°: 34629

SESL AUSTRALIA
Environment & Soil Sciences
ABN 70 106 810 708
16 Chilvers Rd
Thornleigh NSW 2120
PO Box 357
Pennant Hills NSW 1715
T: 02 9980 6554
F: 02 9484 2427
E: info@sesl.com.au
W: www.sesl.com.au

DISPATCH TO: SGS Australia Pty Ltd (Alexandria)
Unit 16, 33 Maddox Street
ALEXANDRIA NSW 2015

CONTACT: Irfan Sayeed
Ph: 8594 0400
Fax:

REPORTING REQUIREMENTS				METHOD OF SHIPMENT	RELINQUISHED BY:	SENDOUT PREP:
REPORT FORMAT:	☐ Hardcopy (mail) ☒ Email PDF ☒ Email Excel ☐ Fax			TRANSPORT CO.: SGS Courier	NAME: SESL Sample Receipt	As Received
SEND REPORT TO:	Harrison Leake	subsamples@sesl.com.au		CONSIGNMENT NOTE:	OF: SESL Australia	
CC TO:	Andrew Jacovides	andrewj@sesl.com.au			DATE: 01-05-15	
URGENCY REQ'D:	Normal	DATE REQ'D:	Tue, 12 May 2015		TIME: 12:00	

SAMPLE DATA						CONTAINER		ANALYSIS REQUIRED
ID	DESCRIPTION	DATE	TIME	MATRIX	PRES.	TYPE*	N°	
66	D11 Surface			Soil	Ice	G	1	66 - OCP_S, OPP, M8
67	D11 400			Soil			1	67 - OCP_S, OPP, M8
68	S1 Surface			Soil			1	68 - BWC_EXT, OPP, Asbestos
69	S1 300			Soil			1	69 - BWC_EXT, OPP, Asbestos
70	S2 Surface			Soil			1	70 - BWC_EXT, OPP, Asbestos
71	S2 300			Soil			1	71 - BWC_EXT, OPP, Asbestos
72	S3 Surface			Soil			1	72 - BWC_EXT, OPP, Asbestos
73	S3 400			Soil			1	73 - BWC_EXT, OPP, Asbestos
74	S4 Surface			Soil			1	74 - BWC_EXT, OPP, Asbestos
75	S4 450			Soil			1	75 - BWC_EXT, OPP, Asbestos
76	S5 Surface			Soil			1	76 - BWC_EXT, OPP, Asbestos
77	S5 400			Soil			1	77 - BWC_EXT, OPP, Asbestos
78	S6 Surface			Soil			1	78 - BWC_EXT, OPP, Asbestos
79	S6 400			Soil			1	79 - BWC_EXT, OPP, Asbestos
80	S7 Surface			Soil			1	80 - BWC_EXT, OPP, Asbestos
81	S7 500			Soil			1	81 - BWC_EXT, OPP, Asbestos
82	S8 Surface			Soil			1	82 - BWC_EXT, OPP, Asbestos
83	S8 350			Soil			1	83 - BWC_EXT, OPP, Asbestos
84	S9 Surface			Soil			1	84 - BWC_EXT, OPP, Asbestos
85	S9 350			Soil			1	85 - BWC_EXT, OPP, Asbestos

Test Descriptions:

: Asbestos

: BWC_EXT (As, Cr, Cu, Ni, Pb, Zn, Cd, Hg, TRH, BTEX, PAH, OCP, PCB)

M8: M8 (As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)

OCP_S: Organochlorine Pesticides (OCP's) to 0.01mg/kg

OPP: Organophosphorous Pesticides (OPP's)

ALL WATER FOR METALS, OCP/OPP LOW LEVEL in ug/L

***Containers Guide**

Bo1	Bottle, amber glass	G	Glass jar
Bo2	Bottle, plastic	S	Sterile
Bg1	Bag, plastic	V	Vial
Bg2	Bag, paper	O	Other

RECEIVED BY:

NAME: OF: DATE: TIME:

SAMPLE CONDITION

SEALS INTACT: ☐ YES ☐ NO SAMPLE CONTAINERS: ☐ Intact ☐ Broken

TEMPERATURE: ☐ Cold ☐ Room ☐ Other_____

Chain of Custody

CoC N°: 19652 QUOTE N°: SESL PO #: BATCH N°: 34629

SESL AUSTRALIA
Environment & Soil Sciences
ABN 70 106 810 708
16 Chilvers Rd
Thornleigh NSW 2120
PO Box 357
Pennant Hills NSW 1715
T: 02 9980 6554
F: 02 9484 2427
E: info@sesl.com.au
W: www.sesl.com.au

DISPATCH TO: SGS Australia Pty Ltd (Alexandria)
Unit 16, 33 Maddox Street
ALEXANDRIA NSW 2015

CONTACT: Irfan Sayeed
Ph: 8594 0400
Fax:

REPORTING REQUIREMENTS				METHOD OF SHIPMENT	RELINQUISHED BY:	SENDOUT PREP:
REPORT FORMAT:	☐ Hardcopy (mail) ☒ Email PDF ☒ Email Excel ☐ Fax			TRANSPORT CO.: SGS Courier	NAME: SESL Sample Receipt	As Received
SEND REPORT TO:	Harrison Leake	subsamples@sesl.com.au		CONSIGNMENT NOTE:	OF: SESL Australia	
CC TO:	Andrew Jacovides	andrewj@sesl.com.au			DATE: 01-05-15	
URGENCY REQ'D:	Normal	DATE REQ'D:	Tue, 12 May 2015		TIME: 12:00	

SAMPLE DATA						CONTAINER		ANALYSIS REQUIRED
ID	DESCRIPTION	DATE	TIME	MATRIX	PRES.	TYPE*	N°	
86	S10 Surface			Soil	Ice	G	1	86 - BWC_EXT, OPP, Asbestos
87	S10 300			Soil			1	87 - BWC_EXT, OPP, Asbestos
88	S11 Surface			Soil			1	88 - BWC_EXT, OPP, Asbestos
89	S11 400			Soil			1	89 - BWC_EXT, OPP, Asbestos
90	S12 Surface			Soil			1	90 - BWC_EXT, OPP, Asbestos
91	S12 300			Soil			1	91 - BWC_EXT, OPP, Asbestos
92	S13 Surface			Soil			1	92 - BWC_EXT, OPP, Asbestos
93	S13 400			Soil			1	93 - BWC_EXT, OPP, Asbestos
94	S14 Surface			Soil			1	94 - BWC_EXT, OPP, Asbestos
95	S14 400			Soil			1	95 - BWC_EXT, OPP, Asbestos
96	S15 Surface			Soil			1	96 - BWC_EXT, OPP, Asbestos
97	S15 400			Soil			1	97 - BWC_EXT, OPP, Asbestos
98	S16 Surface			Soil			1	98 - BWC_EXT, OPP, Asbestos
99	S16 300			Soil			1	99 - BWC_EXT, OPP, Asbestos
100	S17 Surface			Soil			1	100 - BWC_EXT, OPP, Asbestos
101	S17 300			Soil			1	101 - BWC_EXT, OPP, Asbestos
102	S18 Surface			Soil			1	102 - BWC_EXT, OPP, Asbestos
103	S18 450			Soil			1	103 - BWC_EXT, OPP, Asbestos
104	QAQC 1			Soil			1	104 - OCP_S, OPP, M8
105	QAQC 2			Soil			1	105 - OCP_S, OPP, M8

Test Descriptions:

: Asbestos

: BWC_EXT (As, Cr, Cu, Ni, Pb, Zn, Cd, Hg, TRH, BTEX, PAH, OCP, PCB)

M8: M8 (As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)

OCP_S: Organochlorine Pesticides (OCP's) to 0.01mg/kg

OPP: Organophosphorous Pesticides (OPP's)

ALL WATER FOR METALS, OCP/OPP LOW LEVEL in ug/L

***Containers Guide**

Bo1 .... Bottle, amber glass	G ..... Glass jar
Bo2 .... Bottle, plastic	S ..... Sterile
Bg1 .... Bag, plastic	V ..... Vial
Bg2 .... Bag, paper	O ..... Other

RECEIVED BY:

NAME: OF: DATE: TIME:

SAMPLE CONDITION

SEALS INTACT: ☐ YES ☐ NO SAMPLE CONTAINERS: ☐ Intact ☐ Broken

TEMPERATURE: ☐ Cold ☐ Room ☐ Other_____

Chain of Custody

CoC N°: 19653 QUOTE N°: SESL PO #: BATCH N°: 34629

SESL AUSTRALIA
Environment & Soil Sciences
ABN 70 106 810 708
16 Chilvers Rd
Thornleigh NSW 2120
PO Box 357
Pennant Hills NSW 1715
T: 02 9980 6554
F: 02 9484 2427
E: info@sesl.com.au
W: www.sesl.com.au

DISPATCH TO: SGS Australia Pty Ltd (Alexandria)
Unit 16, 33 Maddox Street
ALEXANDRIA NSW 2015

CONTACT: Irfan Sayeed
Ph: 8594 0400
Fax:

REPORTING REQUIREMENTS			METHOD OF SHIPMENT	RELINQUISHED BY:	SENDOUT PREP:
REPORT FORMAT: ☐ Hardcopy (mail) ☒ Email PDF ☒ Email Excel ☐ Fax			TRANSPORT CO.: SGS Courier	NAME: SESL Sample Receipt	As Received
SEND REPORT TO: Harrison Leake	subsamples@sesl.com.au		CONSIGNMENT NOTE:	OF: SESL Australia	
CC TO: Andrew Jacovides	andrewj@sesl.com.au			DATE: 01-05-15	
URGENCY REQ'D: Normal	DATE REQ'D:	Tue, 12 May 2015		TIME: 12:00	

SAMPLE DATA					CONTAINER		ANALYSIS REQUIRED
ID	DESCRIPTION	DATE	TIME	MATRIX	PRES.	TYPE*	N°	
106	QAQC 3			Soil	Ice	G	1	106 - OCP_S, OPP, M8
107	QAQC 4			Soil			1	107 - OCP_S, OPP, M8
108	QAQC 5			Soil			1	108 - OCP_S, OPP, M8
109	QAQC 6			Soil			1	109 - OCP_S, OPP, M8
110	QAQC 7			Soil			1	110 - BWC_EXT, OPP, Asbestos
111	QAQC 8			Soil			1	111 - BWC_EXT, OPP, Asbestos
112	QAQC 9			Soil			1	112 - BWC_EXT, OPP, Asbestos
113	QAQC 10			Soil			1	113 - BWC_EXT, OPP, Asbestos

Test Descriptions:

: Asbestos

: BWC_EXT (As, Cr, Cu, Ni, Pb, Zn, Cd, Hg, TRH, BTEX, PAH, OCP, PCB)

M8: M8 (As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)

OCP_S: Organochlorine Pesticides (OCP's) to 0.01mg/kg

OPP: Organophosphorous Pesticides (OPP's)

ALL WATER FOR METALS, OCP/OPP LOW LEVEL in ug/L

***Containers Guide**

Bo1 .... Bottle, amber glass	G ..... Glass jar
Bo2 .... Bottle, plastic	S ..... Sterile
Bg1 .... Bag, plastic	V ..... Vial
Bg2 .... Bag, paper	O ..... Other

RECEIVED BY:

NAME: OF: DATE: TIME:

SAMPLE CONDITION

SEALS INTACT: ☐ YES ☐ NO SAMPLE CONTAINERS: ☐ Intact ☐ Broken

TEMPERATURE: ☐ Cold ☐ Room ☐ Other_____

ANALYTICAL REPORT

WORLD RECOGNISED ACCREDITATION

CLIENT DETAILS

Contact	Harrison Leake
Client	Sydney Environmental & Soil Laboratory Pty Ltd
Address	(PO Box 357, Pennant Hills NSW 1715) 16 Chilvers Road NSW 2120
Telephone	02 9980 6554
Facsimile	02 9484 2427
Email	subsamples@sesl.com.au
Project	**34629 - COC No 19648**
Order Number	**34629**
Samples	108
Date Received	1/5/2015

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE138842 R0**
Report Number	0000109753
Date Reported	12/5/2015
Date Started	5/5/2015

COMMENTS

Accredited for compliance with ISO/IEC 17025. NATA accredited laboratory 2562(4354).

A portion of the sample supplied has been sub-sampled for asbestos according to SGS In-house procedures.
We therefore cannot guarantee that the sub-sample is representative of the entire sample supplied. SGS Environmental Services recommends supplying approximately 50-100g of sample in a separate container.

No respirable fibres detected in all samples using trace analysis technique.

Asbestos analysed by Approved Identifiers Yusuf Kuthpudin and Ravee Sivasubramaniam.

SIGNATORIES

Andy Sutton
Senior Organic Chemist

Dong Liang
Metals/Inorganics Team Leader

Ly Kim Ha
Organic Section Head

Ravee Sivasubramaniam
Asbestos Analyst

VOC's in Soil [AN433/AN434] Tested: 4/5/2015

PARAMETER	UOM	LOR	C11 2000 SOIL - 1/5/2015 SE138842.045	S1 Surface SOIL - 1/5/2015 SE138842.053	S1 300 SOIL - 1/5/2015 SE138842.054	S2 Surface SOIL - 1/5/2015 SE138842.065	S2 300 SOIL - 1/5/2015 SE138842.066
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

PARAMETER	UOM	LOR	S3 Surface SOIL - 1/5/2015 SE138842.067	S3 400 SOIL - 1/5/2015 SE138842.068	S4 Surface SOIL - 1/5/2015 SE138842.069	S4 450 SOIL - 1/5/2015 SE138842.070	S5 Surface SOIL - 1/5/2015 SE138842.071
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	0.3
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	0.6
Total BTEX*	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	0.7
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

PARAMETER	UOM	LOR	S5 400 SOIL - 1/5/2015 SE138842.072	S6 Surface SOIL - 1/5/2015 SE138842.073	S6 400 SOIL - 1/5/2015 SE138842.074	S7 Surface SOIL - 1/5/2015 SE138842.075	S7 300 SOIL - 1/5/2015 SE138842.076
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

PARAMETER	UOM	LOR	S8 Surface SOIL - 1/5/2015 SE138842.077	S8 350 SOIL - 1/5/2015 SE138842.078	S9 Surface SOIL - 1/5/2015 SE138842.079	S9 350 SOIL - 1/5/2015 SE138842.080	S10 Surface SOIL - 1/5/2015 SE138842.081
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

VOC's in Soil [AN433/AN434] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	S10 300 SOIL - 1/5/2015 SE138842.082	S11 Surface SOIL - 1/5/2015 SE138842.083	S11 400 SOIL - 1/5/2015 SE138842.084	S12 Surface SOIL - 1/5/2015 SE138842.085	S12 300 SOIL - 1/5/2015 SE138842.086
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

PARAMETER	UOM	LOR	S13 Surface SOIL - 1/5/2015 SE138842.087	S13 400 SOIL - 1/5/2015 SE138842.088	S14 Surface SOIL - 1/5/2015 SE138842.089	S14 400 SOIL - 1/5/2015 SE138842.090	S15 Surface SOIL - 1/5/2015 SE138842.091
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

PARAMETER	UOM	LOR	S15 400 SOIL - 1/5/2015 SE138842.092	S16 Surface SOIL - 1/5/2015 SE138842.093	S16 300 SOIL - 1/5/2015 SE138842.094	S17 Surface SOIL - 1/5/2015 SE138842.095	S17 300 SOIL - 1/5/2015 SE138842.096
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

PARAMETER	UOM	LOR	S18 Surface SOIL - 1/5/2015 SE138842.097	S18 450 SOIL - 1/5/2015 SE138842.098	QAQC 7 SOIL - 1/5/2015 SE138842.105	QAQC 8 SOIL - 1/5/2015 SE138842.106	QAQC 9 SOIL - 1/5/2015 SE138842.107
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

VOC's in Soil [AN433/AN434] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	QAQC 10 SOIL 1/5/2015 SE138842.108
Benzene	mg/kg	0.1	<0.1
Toluene	mg/kg	0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2
o-xylene	mg/kg	0.1	<0.1
Total Xylenes*	mg/kg	0.3	<0.3
Total BTEX*	mg/kg	0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1

Volatile Petroleum Hydrocarbons in Soil [AN433/AN434/AN410] Tested: 4/5/2015

PARAMETER	UOM	LOR	C11 2000 SOIL - 1/5/2015 SE138842.046	S1 Surface SOIL - 1/5/2015 SE138842.063	S1 300 SOIL - 1/5/2015 SE138842.064	S2 Surface SOIL - 1/5/2015 SE138842.065	S2 300 SOIL - 1/5/2015 SE138842.066
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	S3 Surface SOIL - 1/5/2015 SE138842.067	S3 400 SOIL - 1/5/2015 SE138842.068	S4 Surface SOIL - 1/5/2015 SE138842.069	S4 450 SOIL - 1/5/2015 SE138842.070	S5 Surface SOIL - 1/5/2015 SE138842.071
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	S5 400 SOIL - 1/5/2015 SE138842.072	S6 Surface SOIL - 1/5/2015 SE138842.073	S6 400 SOIL - 1/5/2015 SE138842.074	S7 Surface SOIL - 1/5/2015 SE138842.075	S7 500 SOIL - 1/5/2015 SE138842.076
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	S8 Surface SOIL - 1/5/2015 SE138842.077	S8 350 SOIL - 1/5/2015 SE138842.078	S9 Surface SOIL - 1/5/2015 SE138842.079	S9 350 SOIL - 1/5/2015 SE138842.080	S10 Surface SOIL - 1/5/2015 SE138842.081
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	S10 300 SOIL - 1/5/2015 SE138842.082	S11 Surface SOIL - 1/5/2015 SE138842.083	S11 400 SOIL - 1/5/2015 SE138842.084	S12 Surface SOIL - 1/5/2015 SE138842.085	S12 300 SOIL - 1/5/2015 SE138842.086
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	S13 Surface SOIL - 1/5/2015 SE138842.087	S13 400 SOIL - 1/5/2015 SE138842.088	S14 Surface SOIL - 1/5/2015 SE138842.089	S14 400 SOIL - 1/5/2015 SE138842.090	S15 Surface SOIL - 1/5/2015 SE138842.091
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

Volatile Petroleum Hydrocarbons in Soil [AN433/AN434/AN410] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	S15 400 SOIL - 1/5/2015 SE138842.092	S16 Surface SOIL - 1/5/2015 SE138842.093	S16 300 SOIL - 1/5/2015 SE138842.094	S17 Surface SOIL - 1/5/2015 SE138842.095	S17 300 SOIL - 1/5/2015 SE138842.096
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	S18 Surface SOIL - 1/5/2015 SE138842.097	S18 450 SOIL - 1/5/2015 SE138842.098	QAQC 7 SOIL - 1/5/2015 SE138842.105	QAQC 8 SOIL - 1/5/2015 SE138842.106	QAQC 9 SOIL - 1/5/2015 SE138842.107
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	QAQC 10 SOIL - 1/5/2015 SE138842.108
TRH C6-C9	mg/kg	20	<20
Benzene (F0)	mg/kg	0.1	<0.1
TRH C6-C10	mg/kg	25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 4/5/2015

PARAMETER	UOM	LOR	C11 2000 SOIL - 1/5/2015 SE138842.046	S1 Surface SOIL - 1/5/2015 SE138842.063	S1 300 SOIL - 1/5/2015 SE138842.064	S2 Surface SOIL - 1/5/2015 SE138842.065	S2 300 SOIL - 1/5/2015 SE138842.066
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 (F2) - Naphthalene	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	S3 Surface SOIL - 1/5/2015 SE138842.067	S3 400 SOIL - 1/5/2015 SE138842.068	S4 Surface SOIL - 1/5/2015 SE138842.069	S4 450 SOIL - 1/5/2015 SE138842.070	S5 Surface SOIL - 1/5/2015 SE138842.071
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 (F2) - Naphthalene	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	S5 400 SOIL - 1/5/2015 SE138842.072	S6 Surface SOIL - 1/5/2015 SE138842.073	S6 400 SOIL - 1/5/2015 SE138842.074	S7 Surface SOIL - 1/5/2015 SE138842.075	S7 500 SOIL - 1/5/2015 SE138842.076
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 (F2) - Naphthalene	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210	<210

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	S8 Surface SOIL - 1/5/2015 SE138842.077	S8 350 SOIL - 1/5/2015 SE138842.078	S9 Surface SOIL - 1/5/2015 SE138842.079	S9 350 SOIL - 1/5/2015 SE138842.080	S10 Surface SOIL - 1/5/2015 SE138842.081
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 (F2) - Naphthalene	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	S10 350 SOIL - 1/5/2015 SE138842.082	S11 Surface SOIL - 1/5/2015 SE138842.083	S11 400 SOIL - 1/5/2015 SE138842.084	S12 Surface SOIL - 1/5/2015 SE138842.085	S12 300 SOIL - 1/5/2015 SE138842.086
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	76	<45	120	<45
TRH C29-C36	mg/kg	45	<45	50	<45	210	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 (F2) - Naphthalene	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	120	<90	260	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	130	<110	320	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	320	<210

PARAMETER	UOM	LOR	S13 Surface SOIL - 1/5/2015 SE138842.087	S13 400 SOIL - 1/5/2015 SE138842.088	S14 Surface SOIL - 1/5/2015 SE138842.089	S14 400 SOIL - 1/5/2015 SE138842.090	S15 Surface SOIL - 1/5/2015 SE138842.091
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	52	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 (F2) - Naphthalene	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210	<210

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	S15 400 SOIL - 1/5/2015 SE138842.092	S16 Surface SOIL - 1/5/2015 SE138842.093	S16 300 SOIL - 1/5/2015 SE138842.094	S17 Surface SOIL - 1/5/2015 SE138842.095	S17 300 SOIL - 1/5/2015 SE138842.096
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 (F2) - Naphthalene	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	S18 Surface SOIL - 1/5/2015 SE138842.097	S18 450 SOIL - 1/5/2015 SE138842.098	QAQC 7 SOIL - 1/5/2015 SE138842.105	QAQC 8 SOIL - 1/5/2015 SE138842.106	QAQC 9 SOIL - 1/5/2015 SE138842.107
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 (F2) - Naphthalene	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	QAQC 10 SOIL - 1/5/2015 SE138842.108
TRH C10-C14	mg/kg	20	<20
TRH C15-C28	mg/kg	45	<45
TRH C29-C36	mg/kg	45	<45
TRH C37-C40	mg/kg	100	<100
TRH >C10-C16 (F2)	mg/kg	25	<25
TRH >C10-C16 (F2) - Naphthalene	mg/kg	25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120
TRH C10-C36 Total	mg/kg	110	<110
TRH C10-C40 Total	mg/kg	210	<210

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 4/5/2015

PARAMETER	UOM	LOR	C11 2000 SOIL - 1/5/2015 SE138842.046	S1 Surface SOIL - 1/5/2015 SE138842.063	S1 300 SOIL - 1/5/2015 SE138842.064	S2 Surface SOIL - 1/5/2015 SE138842.065	S2 300 SOIL - 1/5/2015 SE138842.066
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a&h)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PARAMETER	UOM	LOR	S3 Surface SOIL - 1/5/2015 SE138842.067	S3 300 SOIL - 1/5/2015 SE138842.068	S4 Surface SOIL - 1/5/2015 SE138842.069	S4 450 SOIL - 1/5/2015 SE138842.070	S5 Surface SOIL - 1/5/2015 SE138842.071
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a&h)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	S5 400 SOIL - 1/5/2015 SE138842.072	S6 Surface SOIL - 1/5/2015 SE138842.074	S6 400 SOIL - 1/5/2015 SE138842.074	S7 Surface SOIL - 1/5/2015 SE138842.076	S7 500 SOIL - 1/5/2015 SE138842.076
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a&h)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PARAMETER	UOM	LOR	S8 Surface SOIL - 1/5/2015 SE138842.077	S8 350 SOIL - 1/5/2015 SE138842.078	S9 Surface SOIL - 1/5/2015 SE138842.079	S9 350 SOIL - 1/5/2015 SE138842.080	S10 Surface SOIL - 1/5/2015 SE138842.081
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	0.2	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a&h)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	S10 300 SOIL 1/5/2015 SE138842.012	S11 Surface SOIL 1/5/2015 SE138842.013	S11 400 SOIL 1/5/2015 SE138842.014	S12 Surface SOIL 1/5/2015 SE138842.015	S12 300 SOIL 1/5/2015 SE138842.016
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a&h)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PARAMETER	UOM	LOR	S13 Surface SOIL 1/5/2015 SE138842.017	S13 400 SOIL 1/5/2015 SE138842.018	S14 Surface SOIL 1/5/2015 SE138842.019	S14 400 SOIL 1/5/2015 SE138842.020	S15 Surface SOIL 1/5/2015 SE138842.021
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a&h)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	S15 400 SOIL - 1/5/2015 SE138842.092	S16 Surface SOIL - 1/5/2015 SE138842.093	S16 300 SOIL - 1/5/2015 SE138842.094	S17 Surface SOIL - 1/5/2015 SE138842.095	S17 300 SOIL - 1/5/2015 SE138842.096
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	0.9	<0.1	0.3	<0.1
Anthracene	mg/kg	0.1	<0.1	0.2	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	1.1	<0.1	0.4	<0.1
Pyrene	mg/kg	0.1	<0.1	1.0	<0.1	0.3	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	0.2	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	0.3	<0.1	0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	0.2	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	0.3	<0.1	0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	0.2	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	0.1	<0.1	<0.1	<0.1
Dibenzo(a&h)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ	0.2	<0.2	0.3	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<0.3	0.4	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2	0.4	<0.2	<0.2	<0.2
Total PAH	mg/kg	0.8	<0.8	4.7	<0.8	1.2	<0.8

PARAMETER	UOM	LOR	S18 Surface SOIL - 1/5/2015 SE138842.097	S18 450 SOIL - 1/5/2015 SE138842.098	QAQC 7 SOIL - 1/5/2015 SE138842.105	QAQC 8 SOIL - 1/5/2015 SE138842.106	QAQC 9 SOIL - 1/5/2015 SE138842.107
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	0.7	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	0.2	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	1.7	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	1.8	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	0.6	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	0.7	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	0.6	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	0.9	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	0.8	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	0.6	<0.1	<0.1	<0.1	<0.1
Dibenzo(a&h)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	0.8	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ	0.2	1.1	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	1.2	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	1.2	<0.2	<0.2	<0.2	<0.2
Total PAH	mg/kg	0.8	9.6	<0.8	<0.8	<0.8	<0.8

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	QAQC 10 SOIL - 1/5/2015 SE138842.103
Naphthalene	mg/kg	0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1
Fluorene	mg/kg	0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1
Anthracene	mg/kg	0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1
Pyrene	mg/kg	0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1
Chrysene	mg/kg	0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1
Dibenzo(a&h)anthracene	mg/kg	0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ	0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2
Total PAH	mg/kg	0.8	<0.8

OC Pesticides in Soil [AN400/AN420] Tested: 4/5/2015

PARAMETER	UOM	LOR	C11 2000 SOIL - 1/5/2015 SE138842.046	S1 Surface SOIL - 1/5/2015 SE138842.063	S1 300 SOIL - 1/5/2015 SE138842.064	S2 Surface SOIL - 1/5/2015 SE138842.065	S2 300 SOIL - 1/5/2015 SE138842.066
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	0.8	<0.2	0.3	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

OC Pesticides in Soil [AN400/AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	S3 Surface SOIL - 1/5/2015 SE138842.067	S3 400 SOIL - 1/5/2015 SE138842.068	S4 Surface SOIL - 1/5/2015 SE138842.069	S4 450 SOIL - 1/5/2015 SE138842.070	S5 Surface SOIL - 1/5/2015 SE138842.071
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	0.2	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	1.7	<0.2	0.5	<0.2	4.1
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

OC Pesticides in Soil [AN400/AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	S5 400 - SOIL - 1/5/2015 SE138842.072	S6 Surface - SOIL - 1/5/2015 SE138842.073	S6 400 - SOIL - 1/5/2015 SE138842.074	S7 Surface - SOIL - 1/5/2015 SE138842.075	S7 500 - SOIL - 1/5/2015 SE138842.076
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	0.3	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

OC Pesticides in Soil [AN400/AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	S8 Surface SOIL - 1/5/2015 SE138842.077	S8 350 SOIL - 1/5/2015 SE138842.078	S9 Surface SOIL - 1/5/2015 SE138842.079	S9 350 SOIL - 1/5/2015 SE138842.080	S10 Surface SOIL - 1/5/2015 SE138842.081
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	0.2
Dieldrin	mg/kg	0.2	11	0.7	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

OC Pesticides in Soil [AN400/AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	S10 300 SOIL - 1/5/2015 SE138842.052	S11 Surface SOIL - 1/5/2015 SE138842.053	S11 400 SOIL - 1/5/2015 SE138842.054	S12 Surface SOIL - 1/5/2015 SE138842.055	S12 300 SOIL - 1/5/2015 SE138842.056
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	0.2	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	1.1	<0.1	3.6	<0.1
Dieldrin	mg/kg	0.2	<0.2	0.5	<0.2	0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	3.0	<0.1	0.6	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	3.5	<0.1	3.8	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

OC Pesticides in Soil [AN400/AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	S13 Surface SOIL - 1/5/2015 SE138842.047	S13 400 SOIL - 1/5/2015 SE138842.048	S14 Surface SOIL - 1/5/2015 SE138842.049	S14 400 SOIL - 1/5/2015 SE138842.050	S15 Surface SOIL - 1/5/2015 SE138842.051
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	0.5	<0.1	<0.1	<0.1	0.3
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	0.4	<0.1	<0.1	<0.1	1.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

OC Pesticides in Soil [AN400/AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	S15 400 SOIL - 1/5/2015 SE138842.002	S15 Surface SOIL - 1/5/2015 SE138842.003	S16 300 SOIL - 1/5/2015 SE138842.004	S17 Surface SOIL - 1/5/2015 SE138842.005	S17 300 SOIL - 1/5/2015 SE138842.006
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	0.2	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	0.2	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

OC Pesticides in Soil [AN400/AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	S18 Surface SOIL - 1/5/2015 SE138842.097	S18 450 SOIL - 1/5/2015 SE138842.098	QAQC 7 SOIL - 1/5/2015 SE138842.105	QAQC 8 SOIL - 1/5/2015 SE138842.106	QAQC 9 SOIL - 1/5/2015 SE138842.107
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	0.7	0.4	1.5
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

OC Pesticides in Soil [AN400/AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	QAQC 10 SOIL 1/5/2015 SE138842.010
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1
Lindane	mg/kg	0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1
Aldrin	mg/kg	0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1
Alpha Chlordane	mg/kg	0.1	0.1
trans-Nonachlor	mg/kg	0.1	0.3
p,p'-DDE	mg/kg	0.1	<0.1
Dieldrin	mg/kg	0.2	0.6
Endrin	mg/kg	0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1
p,p'-DDT	mg/kg	0.1	0.3
Endosulfan sulphate	mg/kg	0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1
Isodrin	mg/kg	0.1	<0.1
Mirex	mg/kg	0.1	<0.1

Low Level OC Pesticides in Soil [AN400/AN420] Tested: 4/5/2015

PARAMETER	UOM	LOR	A1 Surface SOIL - 1/5/2015 SE138842.001	A1 300 SOIL - 1/5/2015 SE138842.002	A2 Surface SOIL - 1/5/2015 SE138842.003	A2 300 SOIL - 1/5/2015 SE138842.004	A3 Surface SOIL - 1/5/2015 SE138842.005
Hexachlorobenzene (HCB)	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Lindane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Aldrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Beta BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Delta BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor epoxide	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha Endosulfan	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Gamma Chlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha Chlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDE	mg/kg	0.01	0.086	<0.010	0.099	<0.010	0.064
Dieldrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Beta Endosulfan	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDD	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDT	mg/kg	0.01	0.016	<0.010	0.080	<0.010	<0.010
Endosulfan sulphate	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin Aldehyde	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Methoxychlor	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin Ketone	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Isodrin	mg/kg	0.01	<0.010	<0.010	0.010	<0.010	<0.010
Mirex	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Oxychlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010

PARAMETER	UOM	LOR	A3 300 SOIL - 1/5/2015 SE138842.006	A4 Surface SOIL - 1/5/2015 SE138842.007	A4 400 SOIL - 1/5/2015 SE138842.008	A5 Surface SOIL - 1/5/2015 SE138842.009	A5 400 SOIL - 1/5/2015 SE138842.010
Hexachlorobenzene (HCB)	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Lindane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Aldrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Beta BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Delta BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor epoxide	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha Endosulfan	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Gamma Chlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha Chlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDE	mg/kg	0.01	<0.010	0.47	0.040	<0.010	<0.010
Dieldrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Beta Endosulfan	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDD	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDT	mg/kg	0.01	<0.010	0.030	<0.010	<0.010	<0.010
Endosulfan sulphate	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin Aldehyde	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Methoxychlor	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin Ketone	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Isodrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Mirex	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Oxychlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010

Low Level OC Pesticides in Soil [AN400/AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	A6 Surface SOIL - 1/5/2015 SE138842.011	A6 300 SOIL - 1/5/2015 SE138842.012	A7 Surface SOIL - 1/5/2015 SE138842.013	A7 350 SOIL - 1/5/2015 SE138842.014	A8 Surface SOIL - 1/5/2015 SE138842.015
Hexachlorobenzene (HCB)	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Lindane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Aldrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Beta BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Delta BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor epoxide	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha Endosulfan	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Gamma Chlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha Chlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDE	mg/kg	0.01	0.040	<0.010	0.067	<0.010	0.091
Dieldrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Beta Endosulfan	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDD	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDT	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	0.012
Endosulfan sulphate	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin Aldehyde	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Methoxychlor	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin Ketone	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Isodrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Mirex	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Oxychlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010

PARAMETER	UOM	LOR	A8 350 SOIL - 1/5/2015 SE138842.016	B1 Surface SOIL - 1/5/2015 SE138842.017	B1 300 SOIL - 1/5/2015 SE138842.018	B2 Surface SOIL - 1/5/2015 SE138842.019	B2 300 SOIL - 1/5/2015 SE138842.020
Hexachlorobenzene (HCB)	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Lindane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Aldrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Beta BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Delta BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor epoxide	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha Endosulfan	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Gamma Chlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha Chlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDE	mg/kg	0.01	<0.010	0.018	<0.010	0.019	<0.010
Dieldrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Beta Endosulfan	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDD	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDT	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endosulfan sulphate	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin Aldehyde	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Methoxychlor	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin Ketone	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Isodrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Mirex	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Oxychlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010

Low Level OC Pesticides in Soil [AN400/AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	B3 Surface SOIL - 1/5/2015 SE138842.021	B3 300 SOIL - 1/5/2015 SE138842.022	B4 Surface SOIL - 1/5/2015 SE138842.023	B4 300 SOIL - 1/5/2015 SE138842.024	B5 Surface SOIL - 1/5/2015 SE138842.025
Hexachlorobenzene (HCB)	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Lindane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Aldrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Beta BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Delta BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor epoxide	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha Endosulfan	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Gamma Chlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha Chlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDE	mg/kg	0.01	0.043	<0.010	0.31	<0.010	0.15
Dieldrin	mg/kg	0.01	<0.010	<0.010	0.026	<0.010	<0.010
Endrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Beta Endosulfan	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDD	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDT	mg/kg	0.01	<0.010	<0.010	0.071	<0.010	0.014
Endosulfan sulphate	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin Aldehyde	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Methoxychlor	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin Ketone	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Isodrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Mirex	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Oxychlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010

PARAMETER	UOM	LOR	B6 250 SOIL - 1/5/2015 SE138842.026	B7 Surface SOIL - 1/5/2015 SE138842.027	B7 350 SOIL - 1/5/2015 SE138842.028	B8 Surface SOIL - 1/5/2015 SE138842.029	B8 350 SOIL - 1/5/2015 SE138842.030
Hexachlorobenzene (HCB)	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Lindane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Aldrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Beta BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Delta BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor epoxide	mg/kg	0.01	<0.010	<0.010	<0.010	0.023	<0.010
Alpha Endosulfan	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Gamma Chlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha Chlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDE	mg/kg	0.01	<0.010	<0.010	<0.010	0.26	<0.010
Dieldrin	mg/kg	0.01	<0.010	<0.010	<0.010	0.017	<0.010
Endrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Beta Endosulfan	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDD	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDT	mg/kg	0.01	<0.010	<0.010	<0.010	0.39	<0.010
Endosulfan sulphate	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin Aldehyde	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Methoxychlor	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin Ketone	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Isodrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Mirex	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Oxychlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010

Low Level OC Pesticides in Soil [AN400/AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	B9 Surface SOIL - 1/5/2015 SE138842.031	B9 350 SOIL - 1/5/2015 SE138842.032	B10 Surface SOIL - 1/5/2015 SE138842.033	B10 500 SOIL - 1/5/2015 SE138842.034	C6 Surface SOIL - 1/5/2015 SE138842.035
Hexachlorobenzene (HCB)	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Lindane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Aldrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Beta BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Delta BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor epoxide	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha Endosulfan	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Gamma Chlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha Chlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDE	mg/kg	0.01	<0.010	<0.010	0.019	<0.010	0.073
Dieldrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Beta Endosulfan	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDD	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDT	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	0.010
Endosulfan sulphate	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin Aldehyde	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Methoxychlor	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin Ketone	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Isodrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Mirex	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Oxychlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010

PARAMETER	UOM	LOR	C6 350 SOIL - 1/5/2015 SE138842.036	C7 Surface SOIL - 1/5/2015 SE138842.037	C7 300 SOIL - 1/5/2015 SE138842.038	C8 Surface SOIL - 1/5/2015 SE138842.039	C8 350 SOIL - 1/5/2015 SE138842.040
Hexachlorobenzene (HCB)	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Lindane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Aldrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Beta BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Delta BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor epoxide	mg/kg	0.01	<0.010	<0.010	<0.010	0.029	<0.010
Alpha Endosulfan	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Gamma Chlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha Chlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDE	mg/kg	0.01	<0.010	0.056	<0.010	0.010	<0.010
Dieldrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Beta Endosulfan	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDD	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDT	mg/kg	0.01	<0.010	0.010	<0.010	<0.010	<0.010
Endosulfan sulphate	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin Aldehyde	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Methoxychlor	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin Ketone	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Isodrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Mirex	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Oxychlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010

Low Level OC Pesticides in Soil [AN400/AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	C9 Surface SOIL - 1/5/2015 SE138842.041	C9 400 SOIL - 1/5/2015 SE138842.042	C10 Surface SOIL - 1/5/2015 SE138842.043	C10 500 SOIL - 1/5/2015 SE138842.044	C11 Surface SOIL - 1/5/2015 SE138842.045
Hexachlorobenzene (HCB)	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Lindane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Aldrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Beta BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Delta BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor epoxide	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha Endosulfan	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Gamma Chlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha Chlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDE	mg/kg	0.01	0.17	<0.010	0.056	0.029	<0.010
Dieldrin	mg/kg	0.01	0.035	<0.010	<0.010	<0.010	<0.010
Endrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Beta Endosulfan	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDD	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDT	mg/kg	0.01	0.026	<0.010	0.012	<0.010	<0.010
Endosulfan sulphate	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin Aldehyde	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Methoxychlor	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin Ketone	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Isodrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Mirex	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Oxychlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010

PARAMETER	UOM	LOR	D4 Surface SOIL - 1/5/2015 SE138842.047	D4 400 SOIL - 1/5/2015 SE138842.048	D5 Surface SOIL - 1/5/2015 SE138842.049	D5 300 SOIL - 1/5/2015 SE138842.050	D5 Surface SOIL - 1/5/2015 SE138842.051
Hexachlorobenzene (HCB)	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Lindane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Aldrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Beta BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Delta BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor epoxide	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha Endosulfan	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Gamma Chlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha Chlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDE	mg/kg	0.01	<0.010	<0.010	0.012	<0.010	0.010
Dieldrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Beta Endosulfan	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDD	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDT	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endosulfan sulphate	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin Aldehyde	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Methoxychlor	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin Ketone	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Isodrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Mirex	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Oxychlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010

Low Level OC Pesticides in Soil [AN400/AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	D6 350 SOIL - 1/5/2015 SE138842.052	D7 Surface SOIL - 1/5/2015 SE138842.053	D7 300 SOIL - 1/5/2015 SE138842.054	D8 Surface SOIL - 1/5/2015 SE138842.055	D8 500 SOIL - 1/5/2015 SE138842.056
Hexachlorobenzene (HCB)	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Lindane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Aldrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Beta BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Delta BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor epoxide	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha Endosulfan	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Gamma Chlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha Chlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDE	mg/kg	0.01	<0.010	<0.010	<0.010	0.010	<0.010
Dieldrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Beta Endosulfan	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDD	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDT	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endosulfan sulphate	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin Aldehyde	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Methoxychlor	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin Ketone	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Isodrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Mirex	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Oxychlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010

PARAMETER	UOM	LOR	D9 Surface SOIL - 1/5/2015 SE138842.057	D9 400 SOIL - 1/5/2015 SE138842.058	D10 Surface SOIL - 1/5/2015 SE138842.059	D10 500 SOIL - 1/5/2015 SE138842.060	D11 Surface SOIL - 1/5/2015 SE138842.061
Hexachlorobenzene (HCB)	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Lindane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Aldrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Beta BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Delta BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor epoxide	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha Endosulfan	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Gamma Chlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	0.014
Alpha Chlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDE	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Dieldrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	0.027
Endrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Beta Endosulfan	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDD	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDT	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endosulfan sulphate	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin Aldehyde	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Methoxychlor	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin Ketone	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Isodrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Mirex	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Oxychlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010

Low Level OC Pesticides in Soil [AN400/AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	D11 400 SOIL - 1/5/2015 SE138842.052	QAQC 1 SOIL - 1/5/2015 SE138842.099	QAQC 2 SOIL - 1/5/2015 SE138842.100	QAQC 3 SOIL - 1/5/2015 SE138842.101	QAQC 4 SOIL - 1/5/2015 SE138842.102
Hexachlorobenzene (HCB)	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Lindane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Aldrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Beta BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Delta BHC	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Heptachlor epoxide	mg/kg	0.01	<0.010	<0.010	<0.010	0.051	<0.010
Alpha Endosulfan	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Gamma Chlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Alpha Chlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDE	mg/kg	0.01	<0.010	0.056	0.068	0.013	0.017
Dieldrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Beta Endosulfan	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDD	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
p,p'-DDT	mg/kg	0.01	<0.010	<0.010	0.056	<0.010	<0.010
Endosulfan sulphate	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin Aldehyde	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Methoxychlor	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Endrin Ketone	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Isodrin	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Mirex	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Oxychlordane	mg/kg	0.01	<0.010	<0.010	<0.010	<0.010	<0.010

PARAMETER	UOM	LOR	QAQC 5 SOIL - 1/5/2015 SE138842.103	QAQC 6 SOIL - 1/5/2015 SE138842.104
Hexachlorobenzene (HCB)	mg/kg	0.01	<0.010	<0.010
Alpha BHC	mg/kg	0.01	<0.010	<0.010
Lindane	mg/kg	0.01	<0.010	<0.010
Heptachlor	mg/kg	0.01	<0.010	<0.010
Aldrin	mg/kg	0.01	<0.010	<0.010
Beta BHC	mg/kg	0.01	<0.010	<0.010
Delta BHC	mg/kg	0.01	<0.010	<0.010
Heptachlor epoxide	mg/kg	0.01	<0.010	<0.010
Alpha Endosulfan	mg/kg	0.01	<0.010	<0.010
Gamma Chlordane	mg/kg	0.01	<0.010	<0.010
Alpha Chlordane	mg/kg	0.01	<0.010	<0.010
p,p'-DDE	mg/kg	0.01	0.032	0.054
Dieldrin	mg/kg	0.01	<0.010	<0.010
Endrin	mg/kg	0.01	<0.010	<0.010
Beta Endosulfan	mg/kg	0.01	<0.010	<0.010
p,p'-DDD	mg/kg	0.01	<0.010	<0.010
p,p'-DDT	mg/kg	0.01	<0.010	<0.010
Endosulfan sulphate	mg/kg	0.01	<0.010	<0.010
Endrin Aldehyde	mg/kg	0.01	<0.010	<0.010
Methoxychlor	mg/kg	0.01	<0.010	<0.010
Endrin Ketone	mg/kg	0.01	<0.010	<0.010
Isodrin	mg/kg	0.01	<0.010	<0.010
Mirex	mg/kg	0.01	<0.010	<0.010
Oxychlordane	mg/kg	0.01	<0.010	<0.010

OP Pesticides in Soil [AN400/AN420] Tested: 4/5/2015

PARAMETER	UOM	LOR	A1 Surface SOIL - 1/5/2015 SE138842.001	A1 300 SOIL - 1/5/2015 SE138842.002	A2 Surface SOIL - 1/5/2015 SE138842.003	A2 300 SOIL - 1/5/2015 SE138842.004	A3 Surface SOIL - 1/5/2015 SE138842.005
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2

PARAMETER	UOM	LOR	A3 300 SOIL - 1/5/2015 SE138842.006	A4 Surface SOIL - 1/5/2015 SE138842.007	A4 400 SOIL - 1/5/2015 SE138842.008	A5 Surface SOIL - 1/5/2015 SE138842.009	A5 400 SOIL - 1/5/2015 SE138842.010
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2

PARAMETER	UOM	LOR	A6 Surface SOIL - 1/5/2015 SE138842.011	A6 300 SOIL - 1/5/2015 SE138842.012	A7 Surface SOIL - 1/5/2015 SE138842.013	A7 350 SOIL - 1/5/2015 SE138842.014	A8 Surface SOIL - 1/5/2015 SE138842.015
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2

OP Pesticides in Soil [AN400/AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	A8 350 SOIL - 1/5/2015 SE138842.016	B1 Surface SOIL - 1/5/2015 SE138842.017	B1 300 SOIL - 1/5/2015 SE138842.018	B2 Surface SOIL - 1/5/2015 SE138842.019	B2 300 SOIL - 1/5/2015 SE138842.020
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2

PARAMETER	UOM	LOR	B3 Surface SOIL - 1/5/2015 SE138842.021	B3 300 SOIL - 1/5/2015 SE138842.022	B4 Surface SOIL - 1/5/2015 SE138842.023	B4 300 SOIL - 1/5/2015 SE138842.024	B5 Surface SOIL - 1/5/2015 SE138842.025
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2

PARAMETER	UOM	LOR	B6 250 SOIL - 1/5/2015 SE138842.026	B7 Surface SOIL - 1/5/2015 SE138842.027	B7 350 SOIL - 1/5/2015 SE138842.028	B8 Surface SOIL - 1/5/2015 SE138842.029	B8 350 SOIL - 1/5/2015 SE138842.030
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2

OP Pesticides in Soil [AN400/AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	B9 Surface SOIL - 1/5/2015 SE138842.031	B9 350 SOIL - 1/5/2015 SE138842.032	B10 Surface SOIL - 1/5/2015 SE138842.033	B10 500 SOIL - 1/5/2015 SE138842.034	C6 Surface SOIL - 1/5/2015 SE138842.035
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2

PARAMETER	UOM	LOR	C6 350 SOIL - 1/5/2015 SE138842.036	C7 Surface SOIL - 1/5/2015 SE138842.037	C7 300 SOIL - 1/5/2015 SE138842.038	C8 Surface SOIL - 1/5/2015 SE138842.039	C8 350 SOIL - 1/5/2015 SE138842.040
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2

PARAMETER	UOM	LOR	C9 Surface SOIL - 1/5/2015 SE138842.041	C9 400 SOIL - 1/5/2015 SE138842.042	C10 Surface SOIL - 1/5/2015 SE138842.043	C10 500 SOIL - 1/5/2015 SE138842.044	C11 Surface SOIL - 1/5/2015 SE138842.045
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2

OP Pesticides in Soil [AN400/AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	D4 Surface SOIL - 1/5/2015 SE138842.047	D4 300 SOIL - 1/5/2015 SE138842.048	D5 Surface SOIL - 1/5/2015 SE138842.049	D5 300 SOIL - 1/5/2015 SE138842.050	D6 Surface SOIL - 1/5/2015 SE138842.051
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2

PARAMETER	UOM	LOR	D6 350 SOIL - 1/5/2015 SE138842.052	D7 Surface SOIL - 1/5/2015 SE138842.053	D7 300 SOIL - 1/5/2015 SE138842.054	D8 Surface SOIL - 1/5/2015 SE138842.055	D8 600 SOIL - 1/5/2015 SE138842.056
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2

PARAMETER	UOM	LOR	D9 Surface SOIL - 1/5/2015 SE138842.057	D9 400 SOIL - 1/5/2015 SE138842.058	D10 Surface SOIL - 1/5/2015 SE138842.059	D10 500 SOIL - 1/5/2015 SE138842.060	D11 Surface SOIL - 1/5/2015 SE138842.061
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2

OP Pesticides in Soil [AN400/AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	D11 400 SOIL - 1/5/2015 SE138842.062	S1 Surface SOIL - 1/5/2015 SE138842.063	S1 300 SOIL - 1/5/2015 SE138842.064	S2 Surface SOIL - 1/5/2015 SE138842.065	S2 300 SOIL - 1/5/2015 SE138842.066
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2

PARAMETER	UOM	LOR	S4 Surface SOIL - 1/5/2015 SE138842.067	S3 400 SOIL - 1/5/2015 SE138842.068	S4 Surface SOIL - 1/5/2015 SE138842.069	S4 450 SOIL - 1/5/2015 SE138842.070	S5 Surface SOIL - 1/5/2015 SE138842.071
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2

PARAMETER	UOM	LOR	S5 400 SOIL - 1/5/2015 SE138842.072	S6 Surface SOIL - 1/5/2015 SE138842.073	S6 400 SOIL - 1/5/2015 SE138842.074	S7 Surface SOIL - 1/5/2015 SE138842.075	S7 500 SOIL - 1/5/2015 SE138842.076
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2

OP Pesticides in Soil [AN400/AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	S8 Surface SOIL - 1/5/2015 SE138842.077	S8 350 SOIL - 1/5/2015 SE138842.078	S9 Surface SOIL - 1/5/2015 SE138842.079	S9 350 SOIL - 1/5/2015 SE138842.080	S10 Surface SOIL - 1/5/2015 SE138842.081
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2

PARAMETER	UOM	LOR	S10 300 SOIL - 1/5/2015 SE138842.082	S11 Surface SOIL - 1/5/2015 SE138842.083	S11 400 SOIL - 1/5/2015 SE138842.084	S12 Surface SOIL - 1/5/2015 SE138842.085	S12 300 SOIL - 1/5/2015 SE138842.086
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2

PARAMETER	UOM	LOR	S13 Surface SOIL - 1/5/2015 SE138842.087	S13 400 SOIL - 1/5/2015 SE138842.088	S14 Surface SOIL - 1/5/2015 SE138842.089	S14 400 SOIL - 1/5/2015 SE138842.090	S15 Surface SOIL - 1/5/2015 SE138842.091
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2

OP Pesticides in Soil [AN400/AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	S15 400 SOIL - 1/5/2015 SE138842.092	S16 Surface SOIL - 1/5/2015 SE138842.093	S16 300 SOIL - 1/5/2015 SE138842.094	S17 Surface SOIL - 1/5/2015 SE138842.095	S17 300 SOIL - 1/5/2015 SE138842.096
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2

PARAMETER	UOM	LOR	S18 Surface SOIL - 1/5/2015 SE138842.097	S18 450 SOIL - 1/5/2015 SE138842.098	QAQC 1 SOIL - 1/5/2015 SE138842.099	QAQC 2 SOIL - 1/5/2015 SE138842.100	QAQC 3 SOIL - 1/5/2015 SE138842.101
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2

PARAMETER	UOM	LOR	QAQC 4 SOIL - 1/5/2015 SE138842.102	QAQC 5 SOIL - 1/5/2015 SE138842.103	QAQC 6 SOIL - 1/5/2015 SE138842.104	QAQC 7 SOIL - 1/5/2015 SE138842.105	QAQC 8 SOIL - 1/5/2015 SE138842.106
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2

OP Pesticides in Soil [AN400/AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	QAQC 9 SOIL - 1/5/2015 SE138842.107	QAQC 10 SOIL - 1/5/2015 SE138842.108
Dichlorvos	mg/kg	0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2

PCBs in Soil [AN400/AN420] Tested: 4/5/2015

PARAMETER	UOM	LOR	C11 2000 SOIL - 1/5/2015 SE138842.045	S1 Surface SOIL - 1/5/2015 SE138842.053	S1 300 SOIL - 1/5/2015 SE138842.064	S2 Surface SOIL - 1/5/2015 SE138842.065	S2 300 SOIL - 1/5/2015 SE138842.066
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1

PARAMETER	UOM	LOR	S3 Surface SOIL - 1/5/2015 SE138842.067	S3 400 SOIL - 1/5/2015 SE138842.068	S4 Surface SOIL - 1/5/2015 SE138842.069	S4 450 SOIL - 1/5/2015 SE138842.070	S5 Surface SOIL - 1/5/2015 SE138842.071
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1

PARAMETER	UOM	LOR	S5 400 SOIL - 1/5/2015 SE138842.072	S6 Surface SOIL - 1/5/2015 SE138842.073	S6 400 SOIL - 1/5/2015 SE138842.074	S7 Surface SOIL - 1/5/2015 SE138842.075	S7 500 SOIL - 1/5/2015 SE138842.076
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1

PCBs in Soil [AN400/AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	S8 Surface SOIL - 1/5/2015 SE138842.077	S8 350 SOIL - 1/5/2015 SE138842.078	S9 Surface SOIL - 1/5/2015 SE138842.079	S9 350 SOIL - 1/5/2015 SE138842.080	S10 Surface SOIL - 1/5/2015 SE138842.081
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1

PARAMETER	UOM	LOR	S10 300 SOIL - 1/5/2015 SE138842.082	S11 Surface SOIL - 1/5/2015 SE138842.083	S11 400 SOIL - 1/5/2015 SE138842.084	S12 Surface SOIL - 1/5/2015 SE138842.085	S12 300 SOIL - 1/5/2015 SE138842.086
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1

PARAMETER	UOM	LOR	S13 Surface SOIL - 1/5/2015 SE138842.087	S13 400 SOIL - 1/5/2015 SE138842.088	S14 Surface SOIL - 1/5/2015 SE138842.089	S14 400 SOIL - 1/5/2015 SE138842.090	S15 Surface SOIL - 1/5/2015 SE138842.091
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1

PCBs in Soil [AN400/AN420] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	S15 400 SOIL - 1/5/2015 SE138842.092	S16 Surface SOIL - 1/5/2015 SE138842.093	S16 300 SOIL - 1/5/2015 SE138842.094	S17 Surface SOIL - 1/5/2015 SE138842.095	S17 300 SOIL - 1/5/2015 SE138842.096
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1

PARAMETER	UOM	LOR	S18 Surface SOIL - 1/5/2015 SE138842.097	S18 450 SOIL - 1/5/2015 SE138842.098	QAQC 7 SOIL - 1/5/2015 SE138842.105	QAQC 8 SOIL - 1/5/2015 SE138842.106	QAQC 9 SOIL - 1/5/2015 SE138842.107
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1

PARAMETER	UOM	LOR	QAQC 10 SOIL - 1/5/2015 SE138842.108
Arochlor 1016	mg/kg	0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1

Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest [AN040/AN320] Tested: 6/5/2015

PARAMETER	UOM	LOR	A1 Surface SOIL - 1/5/2015 SE138842.001	A1 300 SOIL - 1/5/2015 SE138842.002	A2 Surface SOIL - 1/5/2015 SE138842.003	A2 300 SOIL - 1/5/2015 SE138842.004	A3 Surface SOIL - 1/5/2015 SE138842.005
Arsenic, As	mg/kg	1	8	5	7	7	10
Cadmium, Cd	mg/kg	0.1	0.3	0.2	0.3	0.3	0.3
Chromium, Cr	mg/kg	0.5	23	17	17	19	22
Copper, Cu	mg/kg	0.5	22	19	20	25	22
Lead, Pb	mg/kg	1	24	14	18	15	16
Nickel, Ni	mg/kg	0.5	12	12	9.6	14	9.1
Zinc, Zn	mg/kg	2	39	36	39	58	41

PARAMETER	UOM	LOR	A3 300 SOIL - 1/5/2015 SE138842.006	A4 Surface SOIL - 1/5/2015 SE138842.007	A4 400 SOIL - 1/5/2015 SE138842.008	A5 Surface SOIL - 1/5/2015 SE138842.009	A5 400 SOIL - 1/5/2015 SE138842.010
Arsenic, As	mg/kg	1	9	5	8	9	7
Cadmium, Cd	mg/kg	0.1	0.3	0.2	0.3	0.4	0.2
Chromium, Cr	mg/kg	0.5	21	19	21	20	16
Copper, Cu	mg/kg	0.5	27	23	24	21	21
Lead, Pb	mg/kg	1	14	24	11	39	11
Nickel, Ni	mg/kg	0.5	12	11	16	10	14
Zinc, Zn	mg/kg	2	54	66	47	120	37

PARAMETER	UOM	LOR	A6 Surface SOIL - 1/5/2015 SE138842.011	A6 300 SOIL - 1/5/2015 SE138842.012	A7 Surface SOIL - 1/5/2015 SE138842.013	A7 350 SOIL - 1/5/2015 SE138842.014	A8 Surface SOIL - 1/5/2015 SE138842.015
Arsenic, As	mg/kg	1	7	13	7	4	8
Cadmium, Cd	mg/kg	0.1	0.2	0.3	0.3	0.3	0.4
Chromium, Cr	mg/kg	0.5	15	25	20	20	17
Copper, Cu	mg/kg	0.5	32	27	43	28	150
Lead, Pb	mg/kg	1	14	14	21	13	24
Nickel, Ni	mg/kg	0.5	12	20	15	15	11
Zinc, Zn	mg/kg	2	66	54	57	47	46

PARAMETER	UOM	LOR	A8 350 SOIL - 1/5/2015 SE138842.016	B1 Surface SOIL - 1/5/2015 SE138842.017	B1 300 SOIL - 1/5/2015 SE138842.018	B2 Surface SOIL - 1/5/2015 SE138842.019	B2 300 SOIL - 1/5/2015 SE138842.020
Arsenic, As	mg/kg	1	6	6	6	9	7
Cadmium, Cd	mg/kg	0.1	0.2	0.2	0.3	0.3	0.3
Chromium, Cr	mg/kg	0.5	20	17	19	18	20
Copper, Cu	mg/kg	0.5	19	22	28	17	19
Lead, Pb	mg/kg	1	14	20	14	21	14
Nickel, Ni	mg/kg	0.5	10	12	18	9.0	17
Zinc, Zn	mg/kg	2	33	38	61	34	55

Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest [AN040/AN320] Tested: 6/5/2015 (continued)

PARAMETER	UOM	LOR	B3 Surface SOIL - 1/5/2015 SE138842.021	B3 300 SOIL - 1/5/2015 SE138842.022	B4 Surface SOIL - 1/5/2015 SE138842.023	B4 300 SOIL - 1/5/2015 SE138842.024	B6 Surface SOIL - 1/5/2015 SE138842.025
Arsenic, As	mg/kg	1	15	12	10	9	8
Cadmium, Cd	mg/kg	0.1	0.5	0.3	0.4	0.3	0.3
Chromium, Cr	mg/kg	0.5	24	32	23	23	18
Copper, Cu	mg/kg	0.5	17	23	26	21	31
Lead, Pb	mg/kg	1	26	12	22	11	22
Nickel, Ni	mg/kg	0.5	9.0	14	9.3	16	9.9
Zinc, Zn	mg/kg	2	38	50	50	47	84

PARAMETER	UOM	LOR	B6 250 SOIL - 1/5/2015 SE138842.026	B7 Surface SOIL - 1/5/2015 SE138842.027	B7 350 SOIL - 1/5/2015 SE138842.028	B8 Surface SOIL - 1/5/2015 SE138842.029	B8 350 SOIL - 1/5/2015 SE138842.030
Arsenic, As	mg/kg	1	8	8	11	7	6
Cadmium, Cd	mg/kg	0.1	0.2	0.3	0.3	0.3	0.3
Chromium, Cr	mg/kg	0.5	21	21	22	16	17
Copper, Cu	mg/kg	0.5	16	21	20	13	24
Lead, Pb	mg/kg	1	11	12	24	20	19
Nickel, Ni	mg/kg	0.5	10	11	11	5.1	11
Zinc, Zn	mg/kg	2	28	35	39	28	36

PARAMETER	UOM	LOR	B9 Surface SOIL - 1/5/2015 SE138842.031	B9 350 SOIL - 1/5/2015 SE138842.032	B10 Surface SOIL - 1/5/2015 SE138842.033	B10 500 SOIL - 1/5/2015 SE138842.034	C6 Surface SOIL - 1/5/2015 SE138842.035
Arsenic, As	mg/kg	1	5	5	4	4	10
Cadmium, Cd	mg/kg	0.1	0.2	0.2	0.2	0.2	0.3
Chromium, Cr	mg/kg	0.5	12	14	23	14	21
Copper, Cu	mg/kg	0.5	18	23	17	15	28
Lead, Pb	mg/kg	1	16	12	11	21	17
Nickel, Ni	mg/kg	0.5	9.3	9.0	21	4.9	18
Zinc, Zn	mg/kg	2	56	34	31	24	49

PARAMETER	UOM	LOR	C6 350 SOIL - 1/5/2015 SE138842.036	C7 Surface SOIL - 1/5/2015 SE138842.037	C7 300 SOIL - 1/5/2015 SE138842.038	C8 Surface SOIL - 1/5/2015 SE138842.039	C8 350 SOIL - 1/5/2015 SE138842.040
Arsenic, As	mg/kg	1	12	7	4	5	4
Cadmium, Cd	mg/kg	0.1	0.4	0.3	0.3	0.2	0.2
Chromium, Cr	mg/kg	0.5	25	18	18	14	14
Copper, Cu	mg/kg	0.5	29	22	28	14	16
Lead, Pb	mg/kg	1	15	18	17	79	11
Nickel, Ni	mg/kg	0.5	24	9.8	15	5.5	6.0
Zinc, Zn	mg/kg	2	58	40	57	21	19

Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest [AN040/AN320] Tested: 6/5/2015 (continued)

PARAMETER	UOM	LOR	C9 Surface SOIL - 1/5/2015 SE138842.041	C9 400 SOIL - 1/5/2015 SE138842.042	C10 Surface SOIL - 1/5/2015 SE138842.043	C10 500 SOIL - 1/5/2015 SE138842.044	C11 Surface SOIL - 1/5/2015 SE138842.045
Arsenic, As	mg/kg	1	5	5	6	7	5
Cadmium, Cd	mg/kg	0.1	0.2	0.2	0.3	0.3	0.4
Chromium, Cr	mg/kg	0.5	14	16	18	15	18
Copper, Cu	mg/kg	0.5	22	25	25	10	21
Lead, Pb	mg/kg	1	19	14	34	19	37
Nickel, Ni	mg/kg	0.5	7.3	16	9.8	5.4	6.8
Zinc, Zn	mg/kg	2	32	34	44	19	49

PARAMETER	UOM	LOR	C11 2000 SOIL - 1/5/2015 SE138842.046	D4 Surface SOIL - 1/5/2015 SE138842.047	D4 300 SOIL - 1/5/2015 SE138842.048	D5 Surface SOIL - 1/5/2015 SE138842.049	D5 300 SOIL - 1/5/2015 SE138842.050
Arsenic, As	mg/kg	1	4	4	6	8	8
Cadmium, Cd	mg/kg	0.1	0.5	0.3	0.3	0.4	0.3
Chromium, Cr	mg/kg	0.5	15	15	27	18	18
Copper, Cu	mg/kg	0.5	25	18	20	19	26
Lead, Pb	mg/kg	1	17	21	13	27	12
Nickel, Ni	mg/kg	0.5	11	9.3	17	7.6	13
Zinc, Zn	mg/kg	2	160	87	46	120	46

PARAMETER	UOM	LOR	D6 Surface SOIL - 1/5/2015 SE138842.051	D6 350 SOIL - 1/5/2015 SE138842.052	D7 Surface SOIL - 1/5/2015 SE138842.053	D7 300 SOIL - 1/5/2015 SE138842.054	D8 Surface SOIL - 1/5/2015 SE138842.055
Arsenic, As	mg/kg	1	7	12	7	3	16
Cadmium, Cd	mg/kg	0.1	0.2	0.3	0.3	0.3	0.3
Chromium, Cr	mg/kg	0.5	16	32	16	19	17
Copper, Cu	mg/kg	0.5	18	27	24	32	32
Lead, Pb	mg/kg	1	20	14	17	13	39
Nickel, Ni	mg/kg	0.5	13	27	10	16	8.0
Zinc, Zn	mg/kg	2	56	59	39	53	50

PARAMETER	UOM	LOR	D8 300 SOIL - 1/5/2015 SE138842.056	D9 Surface SOIL - 1/5/2015 SE138842.057	D9 400 SOIL - 1/5/2015 SE138842.058	D10 Surface SOIL - 1/5/2015 SE138842.059	D10 500 SOIL - 1/5/2015 SE138842.060
Arsenic, As	mg/kg	1	4	11	4	6	5
Cadmium, Cd	mg/kg	0.1	0.2	0.3	0.2	0.3	0.4
Chromium, Cr	mg/kg	0.5	15	18	15	17	21
Copper, Cu	mg/kg	0.5	18	22	21	24	14
Lead, Pb	mg/kg	1	11	30	11	47	57
Nickel, Ni	mg/kg	0.5	8.0	7.8	11	4.7	4.5
Zinc, Zn	mg/kg	2	28	240	31	51	56

Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest [AN040/AN320] Tested: 6/5/2015 (continued)

PARAMETER	UOM	LOR	D/1 Surface SOIL - 1/5/2015 SE138842.051	D11 400 SOIL - 1/5/2015 SE138842.052	S1 Surface SOIL - 1/5/2015 SE138842.053	S1 300 SOIL - 1/5/2015 SE138842.054	S2 Surface SOIL - 1/5/2015 SE138842.055
Arsenic, As	mg/kg	1	9	12	10	11	23
Cadmium, Cd	mg/kg	0.1	0.5	0.6	0.6	0.4	0.4
Chromium, Cr	mg/kg	0.5	18	34	24	30	21
Copper, Cu	mg/kg	0.5	24	16	24	22	19
Lead, Pb	mg/kg	1	63	25	110	13	380
Nickel, Ni	mg/kg	0.5	8.4	3.5	18	28	9.5
Zinc, Zn	mg/kg	2	100	36	350	190	240

PARAMETER	UOM	LOR	S2 300 SOIL - 1/5/2015 SE138842.056	S3 Surface SOIL - 1/5/2015 SE138842.057	S3 400 SOIL - 1/5/2015 SE138842.058	S4 Surface SOIL - 1/5/2015 SE138842.069	S4 450 SOIL - 1/5/2015 SE138842.070
Arsenic, As	mg/kg	1	9	11	7	18	8
Cadmium, Cd	mg/kg	0.1	0.3	0.9	0.5	1.7	0.4
Chromium, Cr	mg/kg	0.5	21	28	26	25	27
Copper, Cu	mg/kg	0.5	15	35	24	50	23
Lead, Pb	mg/kg	1	28	520	16	560	23
Nickel, Ni	mg/kg	0.5	17	9.8	23	12	18
Zinc, Zn	mg/kg	2	58	470	340	1100	78

PARAMETER	UOM	LOR	S5 Surface SOIL - 1/5/2015 SE138842.071	S5 400 SOIL - 1/5/2015 SE138842.072	S6 Surface SOIL - 1/5/2015 SE138842.073	S6 400 SOIL - 1/5/2015 SE138842.074	S7 Surface SOIL - 1/5/2015 SE138842.075
Arsenic, As	mg/kg	1	10	8	5	7	16
Cadmium, Cd	mg/kg	0.1	0.6	0.3	0.3	0.3	0.4
Chromium, Cr	mg/kg	0.5	21	23	64	20	22
Copper, Cu	mg/kg	0.5	45	25	20	19	27
Lead, Pb	mg/kg	1	320	24	110	15	67
Nickel, Ni	mg/kg	0.5	9.9	18	11	17	10
Zinc, Zn	mg/kg	2	310	63	110	47	140

PARAMETER	UOM	LOR	S7 500 SOIL - 1/5/2015 SE138842.076	S8 Surface SOIL - 1/5/2015 SE138842.077	S8 350 SOIL - 1/5/2015 SE138842.078	S9 Surface SOIL - 1/5/2015 SE138842.079	S9 350 SOIL - 1/5/2015 SE138842.080
Arsenic, As	mg/kg	1	10	14	7	10	11
Cadmium, Cd	mg/kg	0.1	0.4	0.4	0.3	0.6	0.3
Chromium, Cr	mg/kg	0.5	30	21	24	17	21
Copper, Cu	mg/kg	0.5	19	21	18	28	32
Lead, Pb	mg/kg	1	12	47	15	69	13
Nickel, Ni	mg/kg	0.5	16	9.7	17	9.0	33
Zinc, Zn	mg/kg	2	35	100	42	300	69

Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest [AN040/AN320] Tested: 6/5/2015 (continued)

PARAMETER	UOM	LOR	S10 Surface SOIL - 1/5/2015 SE138842.091	S10 300 SOIL - 1/5/2015 SE138842.092	S11 Surface SOIL - 1/5/2015 SE138842.093	S11 400 SOIL - 1/5/2015 SE138842.094	S12 Surface SOIL - 1/5/2015 SE138842.095
Arsenic, As	mg/kg	1	8	11	11	11	18
Cadmium, Cd	mg/kg	0.1	1.3	0.4	9.1	0.4	7.6
Chromium, Cr	mg/kg	0.5	24	26	23	26	89
Copper, Cu	mg/kg	0.5	150	31	92	33	150
Lead, Pb	mg/kg	1	72	16	910	15	610
Nickel, Ni	mg/kg	0.5	16	17	58	23	24
Zinc, Zn	mg/kg	2	300	59	2000	110	2800

PARAMETER	UOM	LOR	S12 300 SOIL - 1/5/2015 SE138842.096	S13 Surface SOIL - 1/5/2015 SE138842.097	S13 400 SOIL - 1/5/2015 SE138842.098	S14 Surface SOIL - 1/5/2015 SE138842.099	S14 400 SOIL - 1/5/2015 SE138842.090
Arsenic, As	mg/kg	1	10	12	10	5	7
Cadmium, Cd	mg/kg	0.1	0.4	0.8	0.3	0.3	0.4
Chromium, Cr	mg/kg	0.5	23	19	19	13	28
Copper, Cu	mg/kg	0.5	28	25	26	13	23
Lead, Pb	mg/kg	1	22	110	12	21	12
Nickel, Ni	mg/kg	0.5	16	12	24	7.0	16
Zinc, Zn	mg/kg	2	150	370	61	140	47

PARAMETER	UOM	LOR	S15 Surface SOIL - 1/5/2015 SE138842.091	S15 400 SOIL - 1/5/2015 SE138842.092	S16 Surface SOIL - 1/5/2015 SE138842.093	S16 300 SOIL - 1/5/2015 SE138842.094	S17 Surface SOIL - 1/5/2015 SE138842.095
Arsenic, As	mg/kg	1	5	7	16	9	7
Cadmium, Cd	mg/kg	0.1	0.6	0.3	0.7	0.3	2.3
Chromium, Cr	mg/kg	0.5	65	24	19	22	13
Copper, Cu	mg/kg	0.5	35	25	73	21	32
Lead, Pb	mg/kg	1	99	13	150	14	140
Nickel, Ni	mg/kg	0.5	55	9.4	8.5	13	10
Zinc, Zn	mg/kg	2	370	40	360	42	530

PARAMETER	UOM	LOR	S17 300 SOIL - 1/5/2015 SE138842.096	S18 Surface SOIL - 1/5/2015 SE138842.097	S18 450 SOIL - 1/5/2015 SE138842.098	QAQC 1 SOIL - 1/5/2015 SE138842.099	QAQC 2 SOIL - 1/5/2015 SE138842.100
Arsenic, As	mg/kg	1	10	4	8	5	7
Cadmium, Cd	mg/kg	0.1	0.3	0.4	0.3	1.0	0.3
Chromium, Cr	mg/kg	0.5	20	28	20	12	18
Copper, Cu	mg/kg	0.5	19	43	25	19	22
Lead, Pb	mg/kg	1	15	56	18	30	20
Nickel, Ni	mg/kg	0.5	11	39	15	7.3	10
Zinc, Zn	mg/kg	2	59	100	50	62	41

Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest [AN040/AN320] Tested: 6/5/2015 (continued)

PARAMETER	UOM	LOR	QAQC 3 SOIL - 1/5/2015 SE138842.101	QAQC 4 SOIL - 1/5/2015 SE138842.102	QAQC 5 SOIL - 1/5/2015 SE138842.103	QAQC 6 SOIL - 1/5/2015 SE138842.104	QAQC 7 SOIL - 1/5/2015 SE138842.105
Arsenic, As	mg/kg	1	5	6	9	10	14
Cadmium, Cd	mg/kg	0.1	0.2	0.3	0.3	0.3	1.0
Chromium, Cr	mg/kg	0.5	11	16	19	19	25
Copper, Cu	mg/kg	0.5	13	24	18	16	35
Lead, Pb	mg/kg	1	16	19	22	21	380
Nickel, Ni	mg/kg	0.5	4.6	12	8.8	7.6	14
Zinc, Zn	mg/kg	2	22	41	38	32	450

PARAMETER	UOM	LOR	QAQC 8 SOIL - 1/5/2015 SE138842.106	QAQC 9 SOIL - 1/5/2015 SE138842.107	QAQC 10 SOIL - 1/5/2015 SE138842.108
Arsenic, As	mg/kg	1	22	19	28
Cadmium, Cd	mg/kg	0.1	0.4	1.1	2.0
Chromium, Cr	mg/kg	0.5	20	34	24
Copper, Cu	mg/kg	0.5	20	34	46
Lead, Pb	mg/kg	1	360	550	590
Nickel, Ni	mg/kg	0.5	8.9	12	12
Zinc, Zn	mg/kg	2	220	660	1200

Mercury in Soil [AN312] Tested: 6/5/2015

PARAMETER	UOM	LOR	A1 Surface SOIL - 1/5/2015 SE138842.001	A1 300 SOIL - 1/5/2015 SE138842.002	A2 Surface SOIL - 1/5/2015 SE138842.003	A2 300 SOIL - 1/5/2015 SE138842.004	A3 Surface SOIL - 1/5/2015 SE138842.005
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	A3 300 SOIL - 1/5/2015 SE138842.006	A4 Surface SOIL - 1/5/2015 SE138842.007	A4 400 SOIL - 1/5/2015 SE138842.008	A5 Surface SOIL - 1/5/2015 SE138842.009	A5 400 SOIL - 1/5/2015 SE138842.010
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	A6 Surface SOIL - 1/5/2015 SE138842.011	A6 300 SOIL - 1/5/2015 SE138842.012	A7 Surface SOIL - 1/5/2015 SE138842.013	A7 350 SOIL - 1/5/2015 SE138842.014	A8 Surface SOIL - 1/5/2015 SE138842.015
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	A8 350 SOIL - 1/5/2015 SE138842.016	B1 Surface SOIL - 1/5/2015 SE138842.017	B1 300 SOIL - 1/5/2015 SE138842.018	B2 Surface SOIL - 1/5/2015 SE138842.019	B2 300 SOIL - 1/5/2015 SE138842.020
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	B3 Surface SOIL - 1/5/2015 SE138842.021	B3 300 SOIL - 1/5/2015 SE138842.022	B4 Surface SOIL - 1/5/2015 SE138842.023	B4 300 SOIL - 1/5/2015 SE138842.024	B6 Surface SOIL - 1/5/2015 SE138842.025
Mercury	mg/kg	0.05	<0.05	<0.05	0.06	<0.05	<0.05

PARAMETER	UOM	LOR	B6 250 SOIL - 1/5/2015 SE138842.026	B7 Surface SOIL - 1/5/2015 SE138842.027	B7 350 SOIL - 1/5/2015 SE138842.028	B8 Surface SOIL - 1/5/2015 SE138842.029	B8 350 SOIL - 1/5/2015 SE138842.030
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	B9 Surface SOIL - 1/5/2015 SE138842.031	B9 350 SOIL - 1/5/2015 SE138842.032	B10 Surface SOIL - 1/5/2015 SE138842.033	B10 500 SOIL - 1/5/2015 SE138842.034	C6 Surface SOIL - 1/5/2015 SE138842.035
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Mercury in Soil [AN312] Tested: 6/5/2015 (continued)

PARAMETER	UOM	LOR	C6 350 SOIL - 1/5/2015 SE138842.036	C7 Surface SOIL - 1/5/2015 SE138842.037	C7 300 SOIL - 1/5/2015 SE138842.038	C8 Surface SOIL - 1/5/2015 SE138842.039	C8 350 SOIL - 1/5/2015 SE138842.040
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	C9 Surface SOIL - 1/5/2015 SE138842.041	C9 400 SOIL - 1/5/2015 SE138842.042	C10 Surface SOIL - 1/5/2015 SE138842.043	C10 500 SOIL - 1/5/2015 SE138842.044	C11 Surface SOIL - 1/5/2015 SE138842.045
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	C11 2000 SOIL - 1/5/2015 SE138842.046	D4 Surface SOIL - 1/5/2015 SE138842.047	D4 300 SOIL - 1/5/2015 SE138842.048	D5 Surface SOIL - 1/5/2015 SE138842.049	D5 300 SOIL - 1/5/2015 SE138842.050
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	D6 Surface SOIL - 1/5/2015 SE138842.051	D6 350 SOIL - 1/5/2015 SE138842.052	D7 Surface SOIL - 1/5/2015 SE138842.053	D7 300 SOIL - 1/5/2015 SE138842.054	D8 Surface SOIL - 1/5/2015 SE138842.055
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	D8 500 SOIL - 1/5/2015 SE138842.056	D9 Surface SOIL - 1/5/2015 SE138842.057	D9 400 SOIL - 1/5/2015 SE138842.058	D10 Surface SOIL - 1/5/2015 SE138842.059	D10 500 SOIL - 1/5/2015 SE138842.060
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	D11 Surface SOIL - 1/5/2015 SE138842.061	D11 400 SOIL - 1/5/2015 SE138842.062	S1 Surface SOIL - 1/5/2015 SE138842.063	S1 300 SOIL - 1/5/2015 SE138842.064	S2 Surface SOIL - 1/5/2015 SE138842.065
Mercury	mg/kg	0.05	<0.05	<0.05	0.10	<0.05	0.06

PARAMETER	UOM	LOR	S2 300 SOIL - 1/5/2015 SE138842.066	S3 Surface SOIL - 1/5/2015 SE138842.067	S3 400 SOIL - 1/5/2015 SE138842.068	S4 Surface SOIL - 1/5/2015 SE138842.069	S4 450 SOIL - 1/5/2015 SE138842.070
Mercury	mg/kg	0.05	<0.05	0.12	<0.05	0.13	0.06

Mercury in Soil [AN312] Tested: 7/5/2015 (continued)

PARAMETER	UOM	LOR	S5 Surface SOIL - 1/5/2015 SE138842.071	S5 400 SOIL - 1/5/2015 SE138842.072	S6 Surface SOIL - 1/5/2015 SE138842.073	S6 400 SOIL - 1/5/2015 SE138842.074	S7 Surface SOIL - 1/5/2015 SE138842.075
Mercury	mg/kg	0.05	0.09	<0.05	<0.05	<0.05	0.05

PARAMETER	UOM	LOR	S7 500 SOIL - 1/5/2015 SE138842.076	S8 Surface SOIL - 1/5/2015 SE138842.077	S8 350 SOIL - 1/5/2015 SE138842.078	S9 Surface SOIL - 1/5/2015 SE138842.079	S9 350 SOIL - 1/5/2015 SE138842.080
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	S10 Surface SOIL - 1/5/2015 SE138842.081	S10 400 SOIL - 1/5/2015 SE138842.082	S11 Surface SOIL - 1/5/2015 SE138842.083	S11 400 SOIL - 1/5/2015 SE138842.084	S12 Surface SOIL - 1/5/2015 SE138842.085
Mercury	mg/kg	0.05	<0.05	<0.05	0.06	<0.05	0.13

PARAMETER	UOM	LOR	S12 300 SOIL - 1/5/2015 SE138842.086	S13 Surface SOIL - 1/5/2015 SE138842.087	S13 400 SOIL - 1/5/2015 SE138842.088	S14 Surface SOIL - 1/5/2015 SE138842.089	S14 400 SOIL - 1/5/2015 SE138842.090
Mercury	mg/kg	0.05	<0.05	0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	S15 Surface SOIL - 1/5/2015 SE138842.091	S15 400 SOIL - 1/5/2015 SE138842.092	S16 Surface SOIL - 1/5/2015 SE138842.093	S16 400 SOIL - 1/5/2015 SE138842.094	S17 Surface SOIL - 1/5/2015 SE138842.095
Mercury	mg/kg	0.05	<0.05	<0.05	0.07	<0.05	<0.05

PARAMETER	UOM	LOR	S17 300 SOIL - 1/5/2015 SE138842.096	S18 Surface SOIL - 1/5/2015 SE138842.097	S18 450 SOIL - 1/5/2015 SE138842.098	QAQC 1 SOIL - 1/5/2015 SE138842.099	QAQC 2 SOIL - 1/5/2015 SE138842.100
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	QAQC 3 SOIL - 1/5/2015 SE138842.101	QAQC 4 SOIL - 1/5/2015 SE138842.102	QAQC 5 SOIL - 1/5/2015 SE138842.103	QAQC 6 SOIL - 1/5/2015 SE138842.104	QAQC 7 SOIL - 1/5/2015 SE138842.105
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	0.08

Mercury in Soil [AN312] Tested: 7/5/2015 (continued)

			QAQC 8	QAQC 9	QAQC 10
			SOIL	SOIL	SOIL
			-	-	-
			1/5/2015	1/5/2015	1/5/2015
PARAMETER	UOM	LOR	SE138842.106	SE138842.107	SE138842.108
Mercury	mg/kg	0.05	<0.05	0.10	0.13

Moisture Content [AN002] Tested: 4/5/2015

PARAMETER	UOM	LOR	A1 Surface SOIL - 1/5/2015 SE138842.001	A1 300 SOIL - 1/5/2015 SE138842.002	A2 Surface SOIL - 1/5/2015 SE138842.003	A2 300 SOIL - 1/5/2015 SE138842.004	A3 Surface SOIL - 1/5/2015 SE138842.005
% Moisture	%	0.5	22	20	22	22	19

PARAMETER	UOM	LOR	A3 300 SOIL - 1/5/2015 SE138842.006	A4 Surface SOIL - 1/5/2015 SE138842.007	A4 400 SOIL - 1/5/2015 SE138842.008	A5 Surface SOIL - 1/5/2015 SE138842.009	A5 400 SOIL - 1/5/2015 SE138842.010
% Moisture	%	0.5	21	16	19	21	18

PARAMETER	UOM	LOR	A6 Surface SOIL - 1/5/2015 SE138842.011	A6 300 SOIL - 1/5/2015 SE138842.012	A7 Surface SOIL - 1/5/2015 SE138842.013	A7 350 SOIL - 1/5/2015 SE138842.014	A8 Surface SOIL - 1/5/2015 SE138842.015
% Moisture	%	0.5	23	19	38	22	21

PARAMETER	UOM	LOR	A8 350 SOIL - 1/5/2015 SE138842.016	B1 Surface SOIL - 1/5/2015 SE138842.017	B1 300 SOIL - 1/5/2015 SE138842.018	B2 Surface SOIL - 1/5/2015 SE138842.019	B2 300 SOIL - 1/5/2015 SE138842.020
% Moisture	%	0.5	21	24	20	20	21

PARAMETER	UOM	LOR	B3 Surface SOIL - 1/5/2015 SE138842.021	B3 300 SOIL - 1/5/2015 SE138842.022	B4 Surface SOIL - 1/5/2015 SE138842.023	B4 300 SOIL - 1/5/2015 SE138842.024	B6 Surface SOIL - 1/5/2015 SE138842.025
% Moisture	%	0.5	17	24	24	25	21

PARAMETER	UOM	LOR	B6 250 SOIL - 1/5/2015 SE138842.026	B7 Surface SOIL - 1/5/2015 SE138842.027	B7 350 SOIL - 1/5/2015 SE138842.028	B8 Surface SOIL - 1/5/2015 SE138842.029	B8 350 SOIL - 1/5/2015 SE138842.030
% Moisture	%	0.5	14	21	22	18	13

PARAMETER	UOM	LOR	B9 Surface SOIL - 1/5/2015 SE138842.031	B9 350 SOIL - 1/5/2015 SE138842.032	B10 Surface SOIL - 1/5/2015 SE138842.033	B10 500 SOIL - 1/5/2015 SE138842.034	C6 Surface SOIL - 1/5/2015 SE138842.035
% Moisture	%	0.5	27	16	19	22	18

Moisture Content [AN002] Tested: 4/5/2015 (continued)

PARAMETER	UOM	LOR	C6 350 SOIL - 1/5/2015 SE138842.036	C7 Surface SOIL - 1/5/2015 SE138842.037	C7 300 SOIL - 1/5/2015 SE138842.038	C8 Surface SOIL - 1/5/2015 SE138842.039	C8 350 SOIL - 1/5/2015 SE138842.040
% Moisture	%	0.5	17	25	21	15	16

PARAMETER	UOM	LOR	C9 Surface SOIL - 1/5/2015 SE138842.041	C9 400 SOIL - 1/5/2015 SE138842.042	C10 Surface SOIL - 1/5/2015 SE138842.043	C10 500 SOIL - 1/5/2015 SE138842.044	C11 Surface SOIL - 1/5/2015 SE138842.045
% Moisture	%	0.5	21	20	20	18	23

PARAMETER	UOM	LOR	C11 2000 SOIL - 1/5/2015 SE138842.046	D4 Surface SOIL - 1/5/2015 SE138842.047	D4 300 SOIL - 1/5/2015 SE138842.048	D5 Surface SOIL - 1/5/2015 SE138842.049	D5 300 SOIL - 1/5/2015 SE138842.050
% Moisture	%	0.5	24	21	22	22	23

PARAMETER	UOM	LOR	D6 Surface SOIL - 1/5/2015 SE138842.051	D6 350 SOIL - 1/5/2015 SE138842.052	D7 Surface SOIL - 1/5/2015 SE138842.053	D7 300 SOIL - 1/5/2015 SE138842.054	D8 Surface SOIL - 1/5/2015 SE138842.055
% Moisture	%	0.5	23	20	21	24	17

PARAMETER	UOM	LOR	D8 500 SOIL - 1/5/2015 SE138842.056	D9 Surface SOIL - 1/5/2015 SE138842.057	D9 400 SOIL - 1/5/2015 SE138842.058	D10 Surface SOIL - 1/5/2015 SE138842.059	D10 500 SOIL - 1/5/2015 SE138842.060
% Moisture	%	0.5	16	19	15	19	21

PARAMETER	UOM	LOR	D11 Surface SOIL - 1/5/2015 SE138842.061	D11 400 SOIL - 1/5/2015 SE138842.062	S1 Surface SOIL - 1/5/2015 SE138842.063	S1 300 SOIL - 1/5/2015 SE138842.064	S2 Surface SOIL - 1/5/2015 SE138842.065
% Moisture	%	0.5	30	27	21	23	21

PARAMETER	UOM	LOR	S2 300 SOIL - 1/5/2015 SE138842.066	S3 Surface SOIL - 1/5/2015 SE138842.067	S3 400 SOIL - 1/5/2015 SE138842.068	S4 Surface SOIL - 1/5/2015 SE138842.069	S4 450 SOIL - 1/5/2015 SE138842.070
% Moisture	%	0.5	17	26	21	29	23

Moisture Content [AN002] Tested: 5/5/2015 (continued)

PARAMETER	UOM	LOR	S6 Surface SOIL - 1/5/2015 SE138842.071	S5 400 SOIL - 1/5/2015 SE138842.072	S6 Surface SOIL - 1/5/2015 SE138842.073	S6 400 SOIL - 1/5/2015 SE138842.074	S7 Surface SOIL - 1/5/2015 SE138842.075
% Moisture	%	0.5	31	24	22	23	17

PARAMETER	UOM	LOR	S7 500 SOIL - 1/5/2015 SE138842.076	S8 Surface SOIL - 1/5/2015 SE138842.077	S8 350 SOIL - 1/5/2015 SE138842.078	S9 Surface SOIL - 1/5/2015 SE138842.079	S9 350 SOIL - 1/5/2015 SE138842.080
% Moisture	%	0.5	23	22	20	21	18

PARAMETER	UOM	LOR	S10 Surface SOIL - 1/5/2015 SE138842.081	S10 300 SOIL - 1/5/2015 SE138842.082	S11 Surface SOIL - 1/5/2015 SE138842.083	S11 400 SOIL - 1/5/2015 SE138842.084	S12 Surface SOIL - 1/5/2015 SE138842.085
% Moisture	%	0.5	24	21	25	24	20

PARAMETER	UOM	LOR	S12 300 SOIL - 1/5/2015 SE138842.086	S13 Surface SOIL - 1/5/2015 SE138842.087	S13 400 SOIL - 1/5/2015 SE138842.088	S14 Surface SOIL - 1/5/2015 SE138842.089	S14 400 SOIL - 1/5/2015 SE138842.090
% Moisture	%	0.5	22	21	20	25	20

PARAMETER	UOM	LOR	S15 Surface SOIL - 1/5/2015 SE138842.091	S15 400 SOIL - 1/5/2015 SE138842.092	S16 Surface SOIL - 1/5/2015 SE138842.093	S16 300 SOIL - 1/5/2015 SE138842.094	S17 Surface SOIL - 1/5/2015 SE138842.095
% Moisture	%	0.5	16	22	18	19	20

PARAMETER	UOM	LOR	S17 300 SOIL - 1/5/2015 SE138842.096	S18 Surface SOIL - 1/5/2015 SE138842.097	S18 450 SOIL - 1/5/2015 SE138842.098	QADC 1 SOIL - 1/5/2015 SE138842.099	QADC 2 SOIL - 1/5/2015 SE138842.100
% Moisture	%	0.5	18	7.1	21	18	25

PARAMETER	UOM	LOR	QADC 3 SOIL - 1/5/2015 SE138842.101	QADC 4 SOIL - 1/5/2015 SE138842.102	QADC 5 SOIL - 1/5/2015 SE138842.103	QADC 6 SOIL - 1/5/2015 SE138842.104	QADC 7 SOIL - 1/5/2015 SE138842.105
% Moisture	%	0.5	16	21	21	18	22

Moisture Content [AN002] Tested: 5/5/2015 (continued)

PARAMETER	UOM	LOR	QAQC 8 SOIL - 1/5/2015 SE138842.106	QAQC 9 SOIL - 1/5/2015 SE138842.107	QAQC 10 SOIL - 1/5/2015 SE138842.108
% Moisture	%	0.5	22	24	29

Fibre Identification in soil [AN602] Tested: 7/5/2015

PARAMETER	UOM	LOR	S1 Surface SOIL - 1/5/2015 SE138842.063	S1 300 SOIL - 1/5/2015 SE138842.064	S2 Surface SOIL - 1/5/2015 SE138842.065	S2 300 SOIL - 1/5/2015 SE138842.066	S3 Surface SOIL - 1/5/2015 SE138842.067
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	S3 400 SOIL - 1/5/2015 SE138842.068	S4 Surface SOIL - 1/5/2015 SE138842.069	S4 450 SOIL - 1/5/2015 SE138842.070	S5 Surface SOIL - 1/5/2015 SE138842.071	S6 400 SOIL - 1/5/2015 SE138842.072
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	S6 Surface SOIL - 1/5/2015 SE138842.073	S6 400 SOIL - 1/5/2015 SE138842.074	S7 Surface SOIL - 1/5/2015 SE138842.075	S7 500 SOIL - 1/5/2015 SE138842.076	S8 Surface SOIL - 1/5/2015 SE138842.077
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	S8 350 SOIL - 1/5/2015 SE138842.078	S9 Surface SOIL - 1/5/2015 SE138842.079	S9 350 SOIL - 1/5/2015 SE138842.080	S10 Surface SOIL - 1/5/2015 SE138842.081	S10 300 SOIL - 1/5/2015 SE138842.082
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	S11 Surface SOIL - 1/5/2015 SE138842.083	S11 400 SOIL - 1/5/2015 SE138842.084	S12 Surface SOIL - 1/5/2015 SE138842.085	S12 300 SOIL - 1/5/2015 SE138842.086	S13 Surface SOIL - 1/5/2015 SE138842.087
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	S13 400 SOIL - 1/5/2015 SE138842.088	S14 Surface SOIL - 1/5/2015 SE138842.089	S14 400 SOIL - 1/5/2015 SE138842.090	S15 Surface SOIL - 1/5/2015 SE138842.091	S15 400 SOIL - 1/5/2015 SE138842.092
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	S16 Surface SOIL - 1/5/2015 SE138842.093	S16 300 SOIL - 1/5/2015 SE138842.094	S17 Surface SOIL - 1/5/2015 SE138842.095	S17 300 SOIL - 1/5/2015 SE138842.096	S18 Surface SOIL - 1/5/2015 SE138842.097
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Fibre Identification in soil [AN602] Tested: 7/5/2015 (continued)

PARAMETER	UOM	LOR	S18 490 SOIL - 1/5/2015 SE138842.058	QAQC 7 SOIL - 1/5/2015 SE138842.105	QAQC 8 SOIL - 1/5/2015 SE138842.106	QAQC 9 SOIL - 1/5/2015 SE138842.107	QAQC 10 SOIL - 1/5/2015 SE138842.108
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

METHOD	METHODOLOGY SUMMARY
AN002	The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.
AN040	A portion of sample is digested with Nitric acid to decompose organic matter and Hydrochloric acid to complete the digestion of metals and then filtered for analsysis by ASS or ICP as per USEPA Method 200.8.
AN040/AN320	A portion of sample is digested with nitric acid to decompose organic matter and hydrochloric acid to complete the digestion of metals. The digest is then analysed by ICP OES with metals results reported on the dried sample basis. Based on USEPA method 200.8 and 6010C.
AN068	Orbital rolling for Organic pollutants are extracted from soil/sediment by transferring an appropriate mass of sample to a clear soil jar and extracting with 1:1 Dichloromethane/Acetone. Orbital Rolling method is intended for the extraction of semi-volatile organic compounds from soil/sediment samples, and is based somewhat on USEPA method 3570 (Micro Organic extraction and sample preparation). Method 3700.
AN312	Mercury by Cold Vapour AAS in Soils: After digestion with nitric acid, hydrogen peroxide and hydrochloric acid, mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500
AN400	OC and OP Pesticides by GC-ECD: The determination of organochlorine (OC) and organophosphorus (OP) pesticides and polychlorinated biphenyls (PCBs) in soils, sludges and groundwater. (Based on USEPA methods 3510, 3550, 8140 and 8080.)
AN403	Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the NEPM 1999 (2013), >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). F2 is reported directly and also corrected by subtracting Naphthalene (from VOC method AN433) where available.
AN420	(SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN433/AN434	VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC's are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.
AN433/AN434/AN410	VOCs and C6-C9/C6-C10 Hydrocarbons by GC-MS P&T: VOC's are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.
AN602	Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic 'clues', which provide a reasonable degree of certainty, dispersion staining is a mandatory 'clue' for positive identification. If sufficient 'clues' are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.

FOOTNOTES

*	Analysis not covered by the scope of accreditation.	-	Not analysed.	UOM	Unit of Measure.
**	Indicative data, theoretical holding time exceeded.	NVL	Not validated.	LOR	Limit of Reporting.
^	Performed by outside laboratory.	IS	Insufficient sample for analysis.	↑↓	Raised/lowered Limit of Reporting.
		LNR	Sample listed, but not received.		

Samples analysed as received.
Solid samples expressed on a dry weight basis.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

The QC criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: http://www.sgs.com.au/~/media/Local/Australia/Documents/Technical%20Documents/MP-AU-ENV-QU-022%20QA%20QC%20Plan.pdf

This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at http://www.sgs.com/en/Terms-and-Conditions/General-Conditions-of-Services-English.aspx. The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

This report must not be reproduced, except in full.

SESL AUSTRALIA
Environment & Soil Sciences

Appendix C

ABN 70 106 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

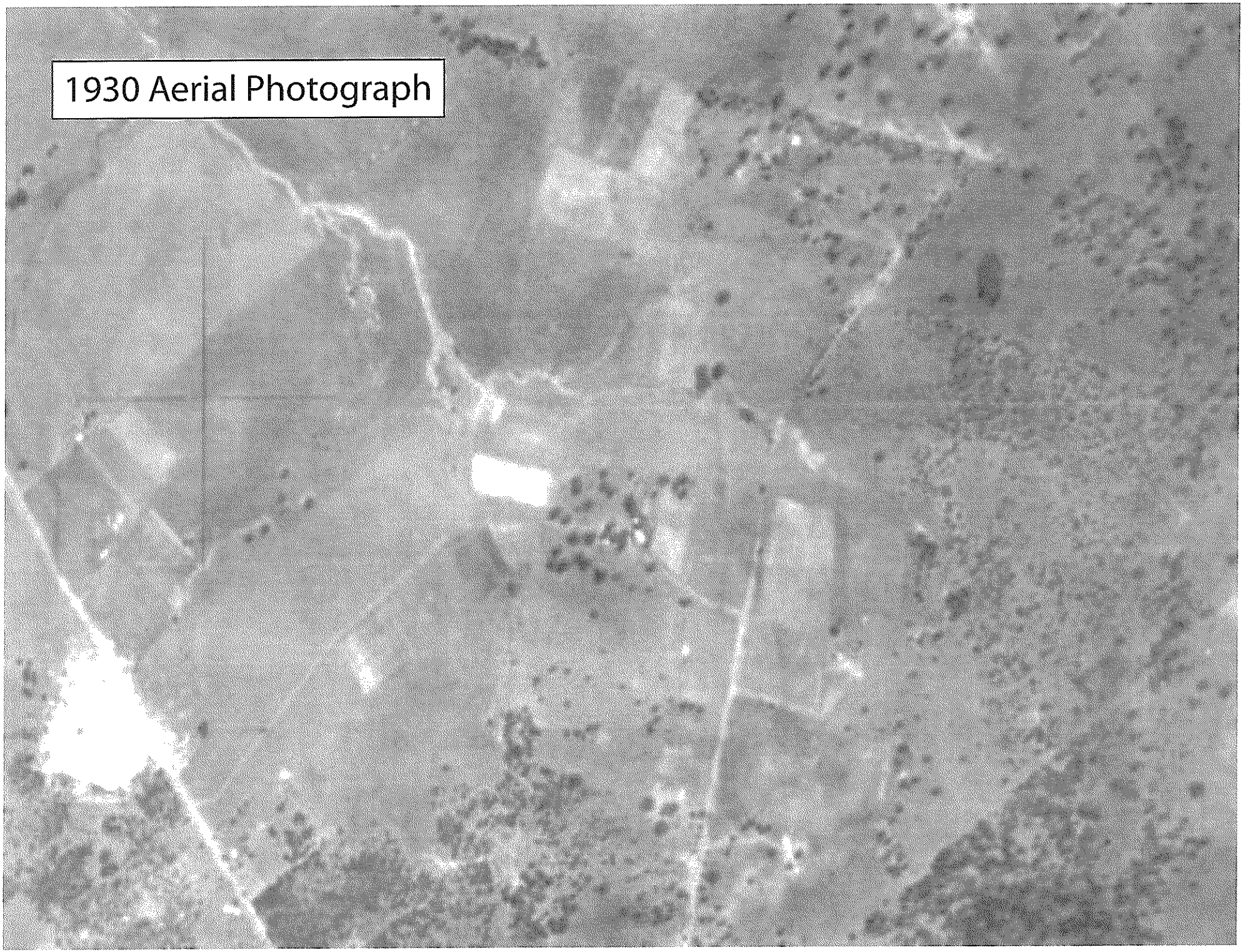
Quality ISO 9001
NATA
ASPAC
A member of the Australasian Soil and Plant Analysis Council

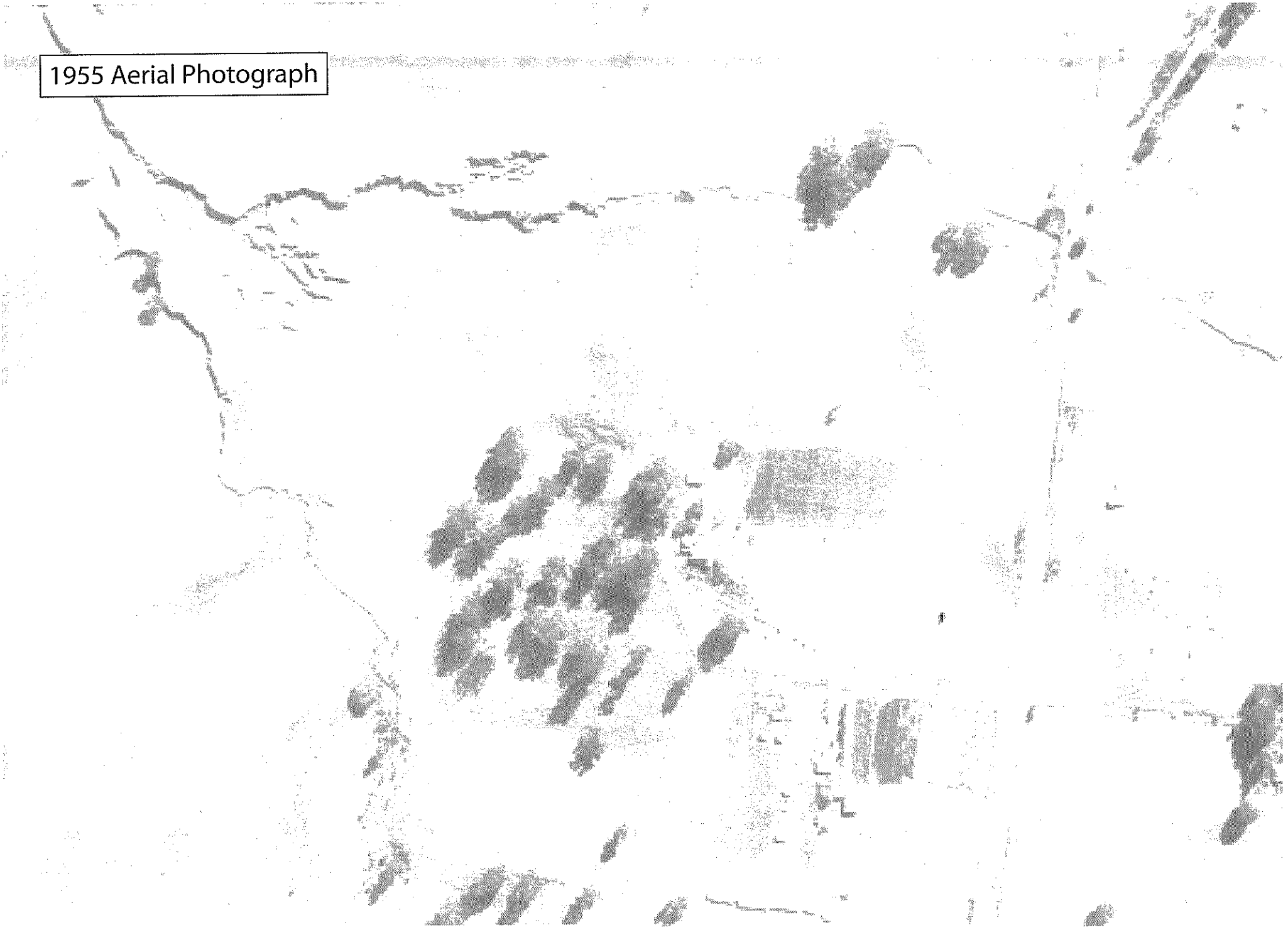
SESL AUSTRALIA
Environment & Soil Sciences

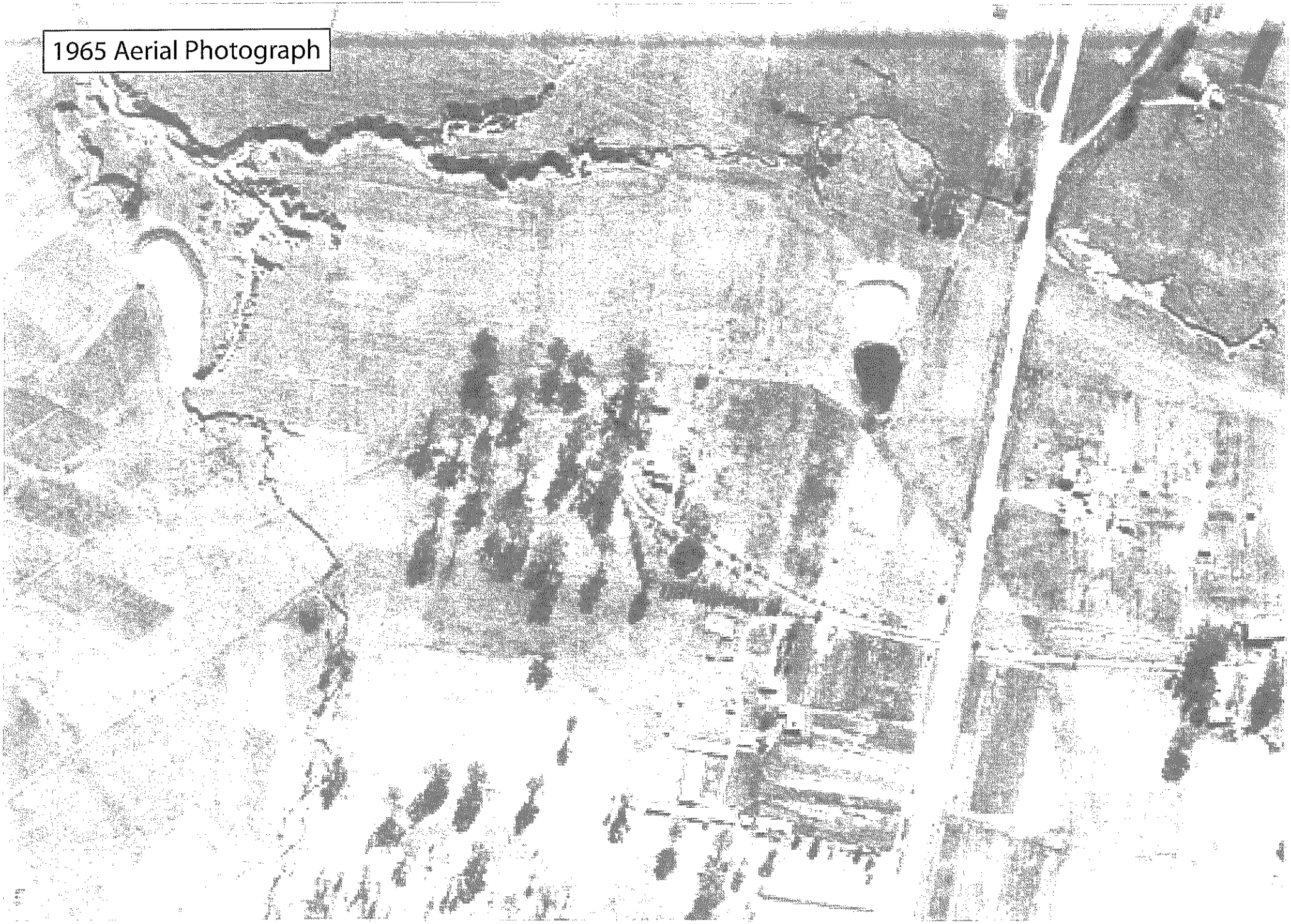
HISTORICAL AERIAL PHOTOGRAPHS

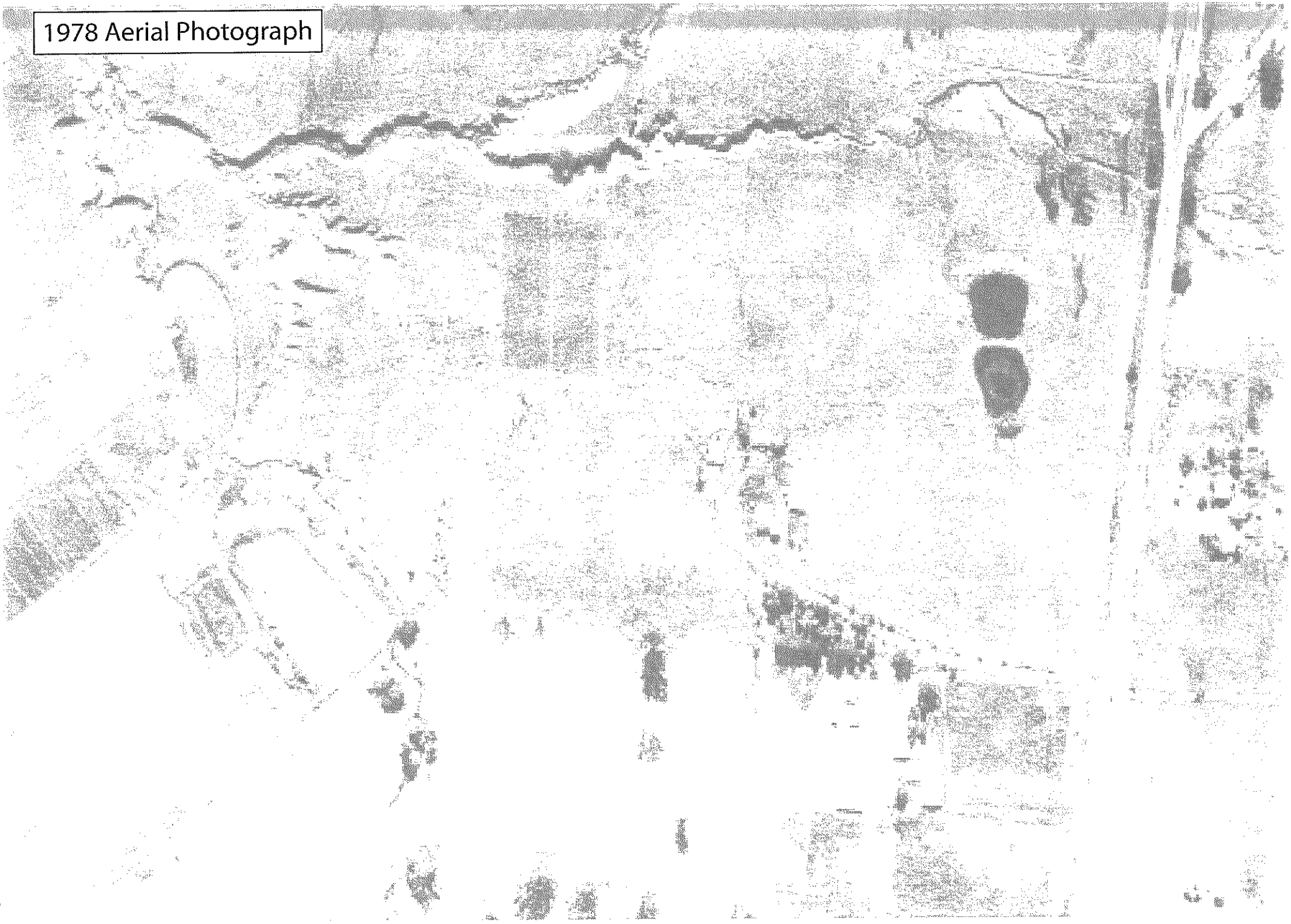
■ WATER ■ MINING ■ SPORTS & RECREATION ■ HORTICULTURE & AGRICULTURE ■ ENVIRONMENTAL ■ ENGINEERING & GEOTECH ■ URBAN HORTICULTURE & LANDSCAPING

ABN 70 106 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120


1930 Aerial Photograph


1955 Aerial Photograph


1965 Aerial Photograph


1978 Aerial Photograph


1986 Aerial Photograph


1994 Aerial Photograph


2005 Aerial Photograph

SESL AUSTRALIA

PLANNING CERTIFICATES SECTION 149 (2&5)

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING

ABN 70 106 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

Fairfield City Council, Administration Centre, 86 Avoca Road, Wakeley, NSW
Tel: (02) 9725 0222 Fax: (02) 9725 4249 ABN: 83 140 439 339
All communications to
Fairfield City Council, PO Box 21, Fairfield NSW 1860
Email address: mail@fairfieldcity.nsw.gov.au

27 March 2014

SESL Australia Pty Ltd
PO BOX 357
PENNANT HILLS
NSW 1715

Dear Sir/ Madam

Following is your planning certificate as requested. Should you have any further queries please contact Council's Environmental Standards Department on (02) 9725 0648

PLANNING CERTIFICATE
(under section 149 of the Environmental Planning and Assessment Act 1979 as amended)

Applicant:	**SESL Australia Pty Ltd**
Certificate No.:	**27057/2014**
Applicant's Reference:	**N/A**
Issue Date:	**27 March 2014**
Receipt No.:	**1930909**

PROPERTY ADDRESS:	**153-189 Wallgrove Road CECIL PARK**
LEGAL DESCRIPTION:	**Lot: 2315 DP: 1133688**

---

for
Alan Young
City Manager
Fairfield City Council

PLEASE NOTE: This is page 1 of 10. Should this certificate or any subsequent copy not contain this many pages, please confirm with council prior to acting on the basis of information contained in the certificate

Information provided under
Section 149(2) of the Environmental Planning and Assessment Act 1979

Notes:

(1) The following prescribed matters may apply to the land to which this certificate relates.

(2) Where this certificate refers to a specific allotment (or allotments) within a strata plan, the certificate is issued for the whole of the land within the strata plan, not just the specific allotment(s) referred to, and any information contained in the certificate may relate to the whole, or any part, of the strata plan.

(3) The following information is provided pursuant to Section 149(2) of the Environmental Planning and Assessment Act 1979 as prescribed by Schedule 4 of the Environmental Planning and Assessment Regulation 2000 and is applicable as at the date of this certificate.

(4) Information provided in this certificate should be interpreted in conjunction with the relevant plans, policies and documents held at Council. In order to obtain copies of these documents you may purchase them by either contacting Council's Environmental Standards Department on (02) 9725 0648 or attending Council's Administration Centre at 85 Avoca Road, Wakeley.

1. **Names of relevant planning instruments and DCPs**

(1) The name of each environmental planning instrument that applies to the carrying out of development on the land.

State Environmental Planning Policies (SEPP)

SEPP (Major Development) 2005

SEPP (Temporary Structures) 2007

SEPP No. 50 - Canal Estate Development

SEPP No. 19 - Bushland in Urban Areas

SEPP (State and Regional Development) 2011

SEPP No. 33 - Hazardous and Offensive Development

SEPP No. 64 - Advertising and Signage

SEPP (Repeal of Concurrence and Referral Provisions) 2008

SEPP No. 55 - Remediation of Land

SEPP No. 65 - Design Quality of Residential Flat Development

SEPP (Affordable Rental Housing) 2009

SEPP (Mining, Petroleum Production and Extractive Industries) 2007

SEPP No. 62 - Sustainable Aquaculture

SEPP (Infrastructure) 2007

SEPP (Exempt and Complying Development Codes) 2008

Regional Environmental Plans (Deemed SEPP)

Sydney Regional Environmental Plan No. 9 - Extractive Industry (No 2-1995)

Sydney Regional Environmental Plan No. 20 - Hawkesbury-Nepean River (No. 2-1997)

Local Environmental Plans (LEP)

Fairfield Local Environmental Plan 2013
Published on NSW Legislation Website: 17/05/2013.
In force from: 31/05/2013.
As Amended.

Fairfield Local Environmental Plan 2013 (Amendment No 8)
Published on NSW Legislation Website: 14/03/2014.
In force from: 14/03/2014.

Fairfield Local Environmental Plan 2013
Published on NSW Legislation Website: 17/05/2013.
In Force from: 31/05/2013.
As Amended.

(2) The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultation or on public exhibition under the Act (unless the Director-General has notified the council that the making of the proposed instrument has been deferred indefinitely or has not been approved)

Draft SEPP (Competition) 2010

(3) The name of each development control plan that applies to the carrying out of development on the land.

The land is subject to adopted Development Control Plans. (See attached schedule).

(4) In this clause, proposed environmental planning instrument includes a planning proposal for a LEP or a draft environmental planning instrument.

1. **Zoning and land use under relevant LEPs**

For each environmental planning instrument or proposed instrument referred to in clause 1 (other than a SEPP or proposed SEPP) that includes the land in any zone (however described):

(a) WHAT IS THE IDENTITY OF THE ZONE?

Zone E2 Environmental Conservation

(b) WHAT IS PERMITTED WITHOUT DEVELOPMENT CONSENT?

Nil.

(c) WHAT IS PERMITTED ONLY WITH DEVELOPMENT CONSENT?

Environmental facilities; Environmental protection works; Flood mitigation works; Recreation areas; Roads.

(d) WHAT IS PROHIBITED?

Business premises; Hotel or motel accommodation; Industries; Multi dwelling housing; Recreation facilities (major); Residential flat buildings; Restricted premises; Retail premises; Seniors housing; Service stations; Warehouse or distribution centres; Any other development not specified in item (b) or (c).

(a) WHAT IS THE IDENTITY OF THE ZONE?

Zone RU4 Primary Production Small Lots

(b) WHAT IS PERMITTED WITHOUT DEVELOPMENT CONSENT?

Environmental protection works; Home occupations.

(c) WHAT IS PERMITTED ONLY WITH DEVELOPMENT CONSENT?
Agricultural produce industries; Animal boarding or training establishments; Bed and breakfast accommodation; Building identification signs; Business identification signs; Car parks;

Cellar door premises; Child care centres; Community facilities; Crematoria; Dual occupancies; Dwelling houses; Educational establishments; Environmental facilities; Extensive agriculture; Farm buildings; Farm stay accommodation; Flood mitigation works; Forestry; Group homes; Home-based child care; Intensive plant agriculture; Landscaping material supplies; Places of public worship; Plant nurseries; Recreation areas; Recreation facilities (indoor); Recreation facilities (outdoor); Respite day care centres; Roads; Roadside stalls; Rural supplies; Secondary dwellings; Veterinary hospitals; Water storage facilities.

(d) WHAT IS PROHIBITED?

Any development not specified in item (b) or (c).

Additional uses that are permitted with development consent

There are no additional uses permitted with consent.

(e) Whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling house on the land and, if so, the minimum land dimensions so fixed.

No development standards that fix the minimum land dimensions for the erection of a dwelling house apply to this land. Controls in other policies and plans may apply.

(f) Whether the land includes or comprises critical habitat.

No.

(g) Whether the land is in a conservation area (however described)

No

(h) Whether an item of environmental heritage (however described) is situated on the land.

No.

Attention is drawn however to Clause 5.10(5) of Fairfield Local Environmental Plan 2013:
"The consent authority may, before granting consent to any development:
(a) on land on which a heritage item is located, or

(b) on land that is within a heritage conservation area, or
(c) on land that is within the vicinity of land referred to in paragraph (a) or (b),

require a heritage management document to be prepared to assess the extent to which the carrying out of the proposed development would affect the heritage significance of the heritage item or heritage conservation area concerned."

2A. Zoning and land use under State Environmental Planning Policy (Sydney Region Growth Centres) 2006

Not applicable.

3. Complying development

(1) The extent to which the land is land on which complying development may be carried out under each of the codes for complying development because of the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4) and 1.19 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

General Housing Code:
Complying development under the General Housing Code may be carried out on the land.

Housing Alterations Code:
Complying development under the Housing Alterations Code may be carried out on the land.

Commercial and Industrial Alterations Code:
Complying development under the Commercial and Industrial Alterations Code may be carried out on the land.

Commercial and Industrial (New Buildings and Alterations) Code:
Complying development under the Commercial and Industrial (New Buildings and Additions) Code may be carried out on the land.

Subdivision Code:
Complying development under the Subdivision Code may be carried out on the land.

Rural Housing Code:
Complying development under the Rural Housing Code may be carried out on the land.

General Development Code:
Complying development under the General Development Code may be carried out on the land.

Demolition Code:
Complying development under the Demolition Code may be carried out on the land.

Fire Safety Code:
Complying development under the Fire Safety Code may be carried out on the land.

(2) The extent to which complying development may not be carried out on that land because of the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4) and 1.19 of that Policy and the reasons why it may not be carried out under those clauses

None Relevant.

(3) If the council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land, a statement that a restriction applies to the land, but it may not apply to all of the land, and that council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land

Council does not have any relevant statement to make in relation to any further restrictions that may apply to complying development being carried out on the land. All information in relation to the extent that complying development can be carried out on the land is provided under Part 3(1) & (2) of this certificate.

Note: Clause 3 refers only to land based exclusions as listed in Clauses 1.17A (1)(c) to (e), (2), (3) and (4) and 1.19 of the SEPP (Exempt and Complying Development Codes) 2008. To be complying development, the development must be complying development that meets the standards and other requirements specified for that development as required by the SEPP. Please contact your accredited certifier or Council for further information.

4. **Coastal Protection**

Whether or not the land is affected by the operation of section 38 or 39 of the *Coastal Protection Act 1979*, but only to the extent that the council has been notified by the Department of Public Works.

No, this land is not affected.

4A **Information relating to beaches and coasts**

(1) Whether an order has been made under Part 4D of the Coastal Protection Act 1979 in relation to emergency coastal protection works (within the meaning of that Act) on the land (or on public land adjacent to that land), except where the council is satisfied that such an order has been fully complied with.

No order under Part 4D of the *Coastal Protection Act 1979*, has been made.

(2)

a) whether the council has been notified under section 55X of the Coastal Protection Act 1979 that emergency coastal protection works (within the meaning of that Act) have been placed on the land (or on public land adjacent to that land), and

Council has not received any such notification.

b) if works have been so placed—whether the council is satisfied that the works have been removed and the land restored in accordance with that Act.

Not applicable.

(3) such information (if any) as is required by the regulations under section 59B of the Coastal Protection Act 1979 to be included in the planning certificate and of which the council has been notified pursuant to those regulations.

No such information is available.

4B Annual charges for coastal protection services under *Local Government Act 1993*.

Whether the owner (or any previous owner) of the land has consented in writing to the land being subject to annual charges under section 496B of the Local Government Act 1993 for coastal protection services that relate to existing coastal protection works (within the meaning of section 553B of that Act).
Note. "Existing coastal protection works" are works to reduce the impact of coastal hazards on land (such as seawalls, revetments, groynes and beach nourishment) that existed before the commencement of section 553B of the Local Government Act 1993.

No annual charges under section 553B of the *Local Government Act 1993*, are applicable to the land.

5. **Mine Subsidence**

Whether or not the land is proclaimed to be a mine subsidence district within the meaning of section 15 of the Mine Subsidence Compensation Act 1961

No, this land is not affected.

6. **Road widening and road realignment**

Whether or not the land is affected by any road widening or road realignment under Division 2 or Part 3 of the *Roads Act 1993*, any environmental planning instrument, or any resolution of the council.

The land is not affected by any road widening proposal under Division 2 of Part 3 of the Roads Act or Fairfield Local Environmental Plan 2013.

7. **Council and other public authority policies on hazard risk restrictions**

Whether or not the land is affected by a policy:

(b) adopted by the council, or

(c) adopted by any other public authority and notified to the council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the council,

that restricts the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulfate soils or any other risk, other than flooding.

Council's policies on hazard risk restrictions are as follows:

(i) **Landslip**

The land is not affected by a policy adopted by Council or adopted by any other public authority and notified to Council (for the express purpose of its adoption by that authority being referred to in Planning Certificates issued by Council) that restricts development on the land because of the likelihood of land slip or subsidence.

(ii) **Bushfire**

Council has been supplied by the NSW Rural Fire Service with a hazard map for the purposes of a bush fire risk management plan applying to land within the Fairfield local government area. Based on that map, it appears the land referred to in this certificate is not bush fire prone as defined in section 4 of the Environmental Planning and Assessment Act 1979.

(iii) **Tidal inundation**

The land is not affected by a policy adopted by Council or adopted by any other public authority and notified to Council (for the express purpose of its adoption by that authority being referred to in Planning Certificates issued by Council) that restricts development on the land because of the likelihood of tidal inundation.

(iv) Subsidence

No, the land is not so affected

(v) Acid Sulfate Soils

The land is not affected by a policy adopted by Council or adopted by any other public authority and notified to Council (for the express purpose of its adoption by that authority being referred to in Planning Certificates issued by Council) that restricts development on the land because of the likelihood of acid sulfate soils.

(vi) Any other risks

No, the land is not so affected

7A. Flood related development controls information

1. Whether or not development on that land or part of the land for the purposes of dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) is subject to flood related development controls.

This land is subject to the flood related development controls included in the Fairfield City-Wide Development Control Plan 2013 in relation to the above development types. These controls apply (either directly, or indirectly by reference in site-specific DCPs) to all land in the Fairfield Local Government Area.

Generally, development controls will apply to development if the land (or part of the land) is within the floodplain or is affected by overland flooding.

Whether or not the land is affected by a policy:
(a) adopted by the Council, or
(b) adopted by any other public authority and notified to the Council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the Council,

that restricts the development of the land because of the likelihood of flooding. Council has adopted a policy on flooding which may restrict the development of this land. Part or all of this property is located within the standard flood identified in Council's Floodplain Management Policy. The standard flood is that area which is affected by the 100 year flood. A copy of the Floodplain Management Policy is available from Council.

Based on information currently available to Council, part or all of the land is within the floodplain and affected by the 100-year mainstream floodplain. This parcel is not in an area in which Council's current programme of mainstream flood risk mapping has been completed. The term mainstream flooding means inundation of normally dry land occurring when water overflows the natural or artificial banks of a stream, river, estuary, lake or dam.

Based on the information currently available to Council, this land is not affected by overland flooding. However, this is subject to future flood studies and reviews.

2. Whether or not development on that land or part of the land for any other purpose is subject to flood related development controls.

This land is subject to the flood related development controls included in the Fairfield City-Wide Development Control Plan 2013 in relation to the above development types. These controls apply (either directly, or indirectly by reference in site-specific DCPs) to all land in the Fairfield Local Government Area.

Generally, development controls will apply to development if the land (or part of the land) is within the floodplain or is affected by overland flooding.

Whether or not the land is affected by a policy:
(a) adopted by the Council, or
(b) adopted by any other public authority and notified to the Council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the Council,
that restricts the development of the land because of the likelihood of flooding. Council has adopted a policy on flooding which may restrict the development of this land. Part or all of this property is located within the standard flood identified in Council's Floodplain Management Policy. The standard flood is that area which is affected by the 100 year flood. A copy of the Floodplain Management Policy is available from Council.

Based on information currently available to Council, part or all of the land is within the floodplain and affected by the 100-year mainstream floodplain. This parcel is not in an area in which Council's current programme of mainstream flood risk mapping has been completed. The term mainstream flooding means inundation of normally dry land occurring when water overflows the natural or artificial banks of a stream, river, estuary, lake or dam.

Based on the information currently available to Council, this land is not affected by overland flooding. However, this is subject to future flood studies and reviews.

The flood information is the current information to date. However, Council reviews flood studies on an on-going basis and new information may become available in future. Please contact Council's Natural Resources Branch on 9725 0222 for any updated information.

Note:

3. Words and expressions in this clause have the same meanings as in the instrument set out in the Schedule to the Standard Instrument (Local Environmental Plans) Order 2006.

---

8. **Land reserved for acquisition**

Whether or not any environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 27 of the Act.

The land is not reserved for acquisition under Fairfield Local Environmental Plan 2013.

9. **Contribution plans**

The name of each contributions plan applying to the land.

Fairfield City Council Indirect (Section 94A) Development Contributions Plan 2011 applies to all land within the City of Fairfield.

9A. **Biodiversity certified land**

Is the land biodiversity certified land (within the meaning of Part 7AA of the Threatened Species Conservation Act 1995?

The land is not biodiversity certified land.

10. **Biobanking agreements**

If the land is land to which a biobanking agreement under Part 7A of the Threatened Species Conservation Act 1995 relates, a statement to that effect (but only if the council has been notified of the existence of the agreement by the Director-General of the Department of Environment, Climate Change and Water).

No such agreement applies to the land.

11. **Bush fire prone land**

Whether all, or part, of the land is bush fire prone land (as defined in the Environmental Planning and Assessment Act 1979).

Council has been supplied by the NSW Rural Fire Service with a hazard map for the purposes of a bush fire risk management plan applying to land within the Fairfield local government area. Based on that map, it appears the land referred to in this certificate is not bush fire prone as defined in section 4 of the Environmental Planning and Assessment Act 1979.

12. **Property vegetation plans**

Whether or not the land is land to which a property vegetation plan under the Native Vegetation Act 2003 applies (but only if the council has been notified of the existence of the plan by the person or body that approved the plan under the Act).

No

13. **Orders under Trees (Disputes between Neighbours) Act 2006**

Whether an order has been made under the Trees (Disputes between Neighbours) Act 2006 to carry out work in relation to a tree on the land (but only if the council has been notified of the order).

No

14. **Directions under Part 3A**

If there is a direction by the Minister in force under section 75P (2) (c1) of the Act that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act does not have effect, a statement to that effect identifying the provision that does not have effect.

No such direction applies to the land.

15. **Site compatibility certificates and conditions for seniors housing**

If the land is land to which State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 applies:

(a) a statement of whether there is a current site compatibility certificate (seniors housing),of which the council is aware in respect of proposed development on the land and, if there is a certificate, the statement is to include:
  (i) the period for which the certificate is current, and
  (ii) that a copy may be obtained from the head office of the Department of Planning, and

No such certificate applies to the land.

(b) a statement setting out any terms of a kind referred to in clause 18 (2) of that Policy that have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land

No such terms apply to the land.

16. **Site compatibility certificates for infrastructure**

A statement of whether there is a valid site compatibility certificate (infrastructure), of which the council is aware in respect of proposed development on the land and, if there is a certificate, the statement is to include:

(a) the period for which the certificate is valid, and
(b) that a copy may be obtained from the head office of the Department of Planning.

No such certificate applies to the land.

17. **Site compatibility certificates and conditions for affordable rental housing**

(1) A statement to the whether there is a current site compatibility certificate (affordable rental housing), of which the council is aware, in respect of proposed development on the land and, if there is a certificate, the statement is to include:

(a) the period for which the certificate is current, and
(b) that a copy may be obtained from the head office of the Department of Planning.

No such certificate applies to the land.

(2) A statement setting out any terms of a kind referred to in clause 17(1) or 38(1) of *State Environmental Planning Policy (Affordable Rental Housing) 2009* that has been imposed as a condition of consent to a development application in respect of the land.

No such terms apply to the land.

18. Paper subdivision information

(1) The name of any development plan adopted by a relevant authority that applies to the land or that is proposed to be subject to a consent ballot.

(2) The date of any subdivision order that applies to the land.

(3) Words and expressions used in this clause have the same meaning as they have in Part 16C of this Regulation.

No such plan or order applies to the land

19. Site verification certificates

A statement of whether there is a current site verification certificate, of which the council is aware, in respect of the land and, if there is a certificate, the statement is to include

(a) the matter certified by the certificate, and

Note. A site verification certificate sets out the Director-General's opinion as to whether the land concerned is or is not biophysical strategic agricultural land or critical industry cluster land—see Division 3 of Part 4AA of *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*.

(b) the date on which the certificate ceases to be current (if any), and

(c) that a copy may be obtained from the head office of the Department of Planning and Infrastructure.

No such certificate applies to the land

Note. The following matters are prescribed by section 59 (2) of the Contaminated Land Management Act 1997 as additional matters to be specified in a planning certificate:

(a) that the land to which the certificate relates is significantly contaminated land within the meaning of that Act—if the land (or part of the land) is significantly contaminated land at the date when the certificate is issued,

(b) that the land to which the certificate relates is subject to a management order within the meaning of that Act—if it is subject to such an order at the date when the certificate is issued,

(c) that the land to which the certificate relates is the subject of an approved voluntary management proposal within the meaning of that Act—if it is the subject of such an approved proposal at the date when the certificate is issued,

(d) that the land to which the certificate relates is subject to an ongoing maintenance order within the meaning of that Act—if it is subject to such an order at the date when the certificate is issued,

(e) that the land to which the certificate relates is the subject of a site audit statement within the meaning of that Act—if a copy of such a statement has been provided at any time to the local authority issuing the certificate.

Continuously updated information in relation to the above matters can also be found by searching the records of the Environmental Protection Authority (EPA) at the website of the Department of the Environment and Climate Change. The search page can be found at: http://www.environment.nsw.gov.au/clmapp/searchregister.aspx

The following information is available to Council but may not be current:

Council has adopted by resolution a policy (commencing 1 August 2000), on contaminated land which may restrict the development of land. This policy is implemented when zoning or land use changes are proposed on lands which have previously been used for certain purposes. Consideration of Council's adopted policy and the application of provisions under the State Legislation is warranted.

The land is not within an investigation area or remediation site under Part 3 of the Contaminated Land Management Act 1997.

The land is not subject to an investigation order or a remediation order within the meaning of the Contaminated Land Management Act 1997.

The land is not subject to a voluntary investigation proposal (or voluntary remediation proposal) that is the subject of the Environment Protection Authority's agreement under Section 19 or 26 of the Contaminated Land Management Act 1997.

The land is not subject of a site audit statement within the meaning of the Contaminated Land Management Act 1997.

Note 2. Any advice received by Council pursuant to section 26(2) of the Nation Building and Jobs Plan (State Infrastructure Delivery) Act 2009, is included below.

No such certificate applies to the land.

The following additional information is provided under Section 149(5) of the Environmental Planning and Assessment Act 1979

Note:

(1) When information pursuant to section 149(5) is requested, the Council is under no obligation to furnish any of the information supplied herein pursuant to that section. Council draws your attention to section 149(6), which states that a Council shall not incur any liability in respect of any advice provided in good faith pursuant to subsection (5). The absence of any reference to any matter affecting the land shall not imply that the land is not affected by any matter not referred to in this certificate.

Council is in receipt of information by the NSW National Parks and Wildlife Service indicating the land either contains or is in close proximity to an area possibly containing remnant vegetation associated with a Cumberland Plains Endangered Ecological Community that is listed under the Threatened Species Conservation Act. On request Council will supply such information available from its records; however, interested parties must take and rely on their own advice and enquiries.

Information from NSW National Parks and Wildlife Service indicates that the land either contains or is in close proximity to an area possibly containing remnant vegetation associated with a Cumberland Plain Endangered Ecological Community. NPWS have identified the community as Cumberland Plain Woodland (Shale Hills Woodland, Shale Plains Woodland) that is listed as endangered under Pt. 3 Sch. 1 of the NSW Threatened Species Conservation Act 1995 and the Commonwealth Environmental Protection and Biodiversity Conservation Act 1999.

NPWS mapping indicates that the remnant vegetation is part of an area that is greater than 0.5 hectares with tree cover with agriculture but no major urban or suburban development.

The attached Flood Information Sheet provides flood levels where they are available together with other relevant flooding information.

The land is subject to the provisions of Clause 5.9 - Preservation of trees or vegetation, under Fairfield Local Environmental Plan 2013.

Acoustic treatment should be considered (but is not a mandatory requirement) for all new dwellings and additions within the rural area. Until the Australian Government formally amends relevant legislation to reflect its policy position on the future use of the Badgerys Creek site, there is still the option that the site will be retained as an airport and therefore the risk that dwellings will suffer from noise issues should this occur. You should make your own enquiries about the Badgerys Creek

site with the Commonwealth Government Department responsible via the website http://www.infrastructure.gov.au/aviation.

Land must not be cleared or filled except with the consent of Council.

The applicant's attention is drawn to the Department of Infrastructure, Planning and Natural Resources map at the 1:100,000 scale 'Salinity Potential in Western Sydney 2002' that indicates there is potential for salinity in the Region. The map can be viewed at Council's Customer Service Centre (86 Avoca Road Wakeley).

Council's policy 'Building in Saline Environments', applies to all areas of Fairfield City and requires use of construction measures and materials in new development to minimise risk of salt damage to buildings from urban salinity.

Local Government (Approvals) Regulation 1999. The property is subject to the Local Government (Approvals) Regulation 1999, which requires owners of properties serviced by an On-Site Sewage Management System (OSMS) to obtain Annual Council Approval to Operate the OSMS. Please Note: (i) purchasers of land where there is an existing OSMS are to obtain an Annual Approval to operate the OSMS within three (3) months of settlement of purchase. (ii) an OSMS is not transferrable between a vendor and purchaser of a property. For further details please contact Council's Community Health Section.

On 16 December 2009 the Australian Government released the National Aviation Policy White Paper which does not support the construction of an airport at Badgerys Creek. Council has requested that the Australian Government formally change relevant legislation to reflect its current policy position. The Australian Government has committed, with the NSW Government, to the development of a strategic aviation plan for the Sydney region by 2011 and to optimise the future use of the Badgerys Creek site. You should make your own enquiries about the Badgerys Creek site with the Commonwealth Government Department responsible via the website http://www.infrastructure.gov.au/aviation

A dam may not be constructed or filled except with the consent of Council.

Clause 2.7 of Fairfield Local Environmental Plan 2013 requires development consent for the demolition of a building or work.

Fairfield City Council, Administration Centre, 86 Avoca Road, Wakeley NSW
Tel: (02) 9725 0222 Fax: (02) 9725 4249 ABN: 83 140 439 259
All correspondence to:
Fairfield City Council, PO Box 21 Fairfield NSW 1860
Email address: mail@fairfieldcity.nsw.gov.au

31st March 2014

SESL Australia Pty Ltd
PO BOX 357
PENNANT HILLS NSW 1715

Dear Sir/Madam,

Please find enclosed the Flood Information Sheet for the requested property.

Council has recently completed the draft Rural Area Flood Study which covers this area. Draft flood information for these properties can be obtained upon request under the *Government Information (Public Access) Act 2009* ("GIPA Act").

Council will shortly be looking to formally adopt this study and to make the information available to the public via the Section 149(2) or Section 149(5) and Flood Information Sheet process.

Yours sincerely,

David Niven
Group Manager
Place, Assets and Strategy

Fairfield City Council
Administration Centre
86 Avoca Road
WAKELEY NSW 2176
PO Box 21
FAIRFIELD NSW 1860
Telephone: (02) 9725 0222
Facsimile: (02) 9606 3337

Flood Information Sheet

Applicant's Details:

Applicant's Name	**SESL Australia Pty Ltd**
Postal Address	**PO Box 357 PENNANT HILLS NSW 1715**
Phone	
Fax	

Property Particulars:

House No.	**153-189**
Street & Suburb	**Wallgrove Road CECIL PARK NSW 2178**
Lot Description	**Lot 2315 DP 1133688**

Council has adopted a policy on flooding which may restrict the development of land. The Fairfield City-Wide Development Control Plan 2013 (which includes provisions for flood management) applies to all of the Fairfield Local Government area.

Part or all of this land may be affected by mainstream flooding.

MAINSTREAM FLOODING

Description

Part or all of the land may be affected by the 100-year mainstream floodplain. This parcel is **not** in an area covered by mainstream flood risk mapping completed by Council.

Mainstream Flood Details

Size of Flood	Flood Level (m AHD)
Probable Maximum Flood (PMF)	87.4-94.6
100 Year ARI	Not Available
50 Year ARI	Not Available
20 Year ARI	Not Available

Flood levels in the vicinity of the above property have been extracted from the Fairfield City Council (1994) *Eastern Creek, Ropes Creek & Reedy Creek Flood Study*.

Alan Young
City Manager

Prepared by: _____
28 March 2014

Glossary over page

FAIRFIELD CITY COUNCIL
DEVELOPMENT CONTROL PLANS – 17 March 2014

Fairfield City Wide DCP

Title	Adopted by Council*	Effective Date
Fairfield City Wide Development Control Plan 2013	13 November 2012	31 May 2013
Amendment No. 1 (Change maximum height permissible for detached secondary dwellings, clarify requirements and correct various anomalies, incorporate outdoor dining policy into a number of site specific DCPs (see table below)	11 February 2014	5 March 2014
Amendment No 2 amend chapter 3 to reference Site Specific DCP – Wetherill Park Market Town	20 March 2013	7 March 2014
Amendment No. 3 Introduce Chapter 4B - Secondary Dwellings in Rural Area - Horsley Park and Cecil Park	11 December 2013	14 March 2014
Amendment to Chapter 9 Industrial Development Site Specific Controls for 449 Victoria Street and 95 Newton Road, Wetherill Park	24 September 2013	Not yet effective

Place Based and Site Specific DCPs

Title	Adopted by Council*	Effective Date
Bonnyrigg Town Centre DCP 28 (2010) - Amendment No. 1 (Awning controls and amendment to area subject to Bonnyrigg Town centre DCP – 3.11.2013) - Amendment No 2 (Outdoor Dining Controls – 5.3.2014)		28 May 2004
Cabramatta Town Centre DCP (5/2000) - Amendment No. 1 (Outdoor Dining Controls – 5.3.2014)	13 November 2012	31 May 2013
Fairfield City Centre DCP 2013 - Amendment No. 1 (Outdoor Dining Controls – 5.3. 2014)	13 November 2012	31 May 2013
Carlisle Corridor DCP No 37 (2013) (Carlisle Vale and Carlisle Heights town centres) - Amendment No. 1 (Development Controls for Adams Reserve 12.9.2006) - Amendment No. 2. (Development Controls for 45-47 Peel St, Carlisle Heights 6.4.2006) - Amendment No. 3. (Awnings controls 3.11.2015) - Amendment No. 4. (Development Controls for 150 Carlisle Vale Rd, Carlisle Heights 15.4.2011) - Amendment No. 5. (References to Fairfield LEP 2013 31.5.2013) - Amendment No. 6. (Outdoor Dining Controls – 5.3.2014)	13 November 2012	31 May 2013
Fairfield Heights Local Centre DCP 2013	13 November 2012	31 May 2013
Prairiewood Town Centre – Southern Precinct DCP 2013	13 November 2012	31 May 2013
Site Specific DCP – Wetherill Park Market Town	20 March 2013	7 March 2014

Master Plans

Prairiewood Masterplan (December 2005)	13 November 2012	31 May 2013
Fairfield Town Centre Masterplans – The Crescent and Barbara Street Precincts (May 2007)		May 2007

Structure Plans

Villawood Town Centre		February 2008

* Note: Some "In Force" Development Control Plans may be under review. Check with Council for date of last amendment.

Page 1 of 1 pages

SESL AUSTRALIA
Environment & Soil Sciences

HISTORICAL TITLE SEARCH

ABN 70 106 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

Quality ISO 9001
NATA
ASPAC A member of the Australasian Soil and Plant Analysis Council

SEARCH REPORT

SUBJECT LAND:	153-189 Wallgrove Road, Cecil Park Lot 2315 in Deposited Plan 1133688
TITLES:	Volume 1564 Folio 127 Volume 5395 Folio 99 Volume 7198 Folio 141 Volume 7737 Folios 84 & 85 Folio 232/1070337 Folio 2315/1133688

OWNERSHIP:

from circa 1904 to 23.5.1906	Alfred John Wheeler, Farmer
from 23.5.1906 to 15.5.1922	James Stevenson, Farmer
from 15.5.1922 to 1.3.1928	Stephen Speechley, Carrier and Amy May Speechley his wife
from 1.3.1928 to 3.6.1930	Richard Rupert Robinson, Farmer
from 3.6.1930 to 28.12.1932	Eveline Emma Meyers wife of George Meyers, Farmer
from 28.12.1932 to 28.2.1947	Thomas Main, Engineer
from 28.2.1947 to 30.7.1959	Guy Henry Main, Member of the Royal Australian Air Force
from 30.7.1959 to 16.6.1970	Ivan Kosovich and Duson Kosovich, Farmers
from 16.6.1970 to 26.2.2010	Ivan Kosovich
from 26.2.2010 to Date	Mara Kosovich

11 March, 2014

SAI GLOBAL
PROPERTY

Disclaimer
While all due skill and care has been taken in the preparation of this report, SAI Global Property Division Pty Ltd does not warrant that its contents (that have been obtained from publicly available resources at a particular point in time) are accurate, complete, up to date or fit for any particular purpose

Order number: 19910362
Your Reference: 19910221
11/03/14 10:54

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - TITLE SEARCH

FOLIO: 2315/1133688

SEARCH DATE	TIME	EDITION NO	DATE
11/3/2014	10:54 AM	2	26/2/2010

LAND

LOT 2315 IN DEPOSITED PLAN 1133688
AT CECIL PARK
LOCAL GOVERNMENT AREA FAIRFIELD
PARISH OF MELVILLE COUNTY OF CUMBERLAND
TITLE DIAGRAM DP1133688

FIRST SCHEDULE

MARA KOSOVICH (TA AF341044)

SECOND SCHEDULE (5 NOTIFICATIONS)

1 LAND EXCLUDES MINERALS (S.141 PUBLIC WORKS ACT, 1912)
2 DP1070337 RESTRICTION(S) ON THE USE OF LAND REFERRED TO AND NUMBERED (1) IN THE S.88B INSTRUMENT
3 DP1070337 POSITIVE COVENANT
4 DP1133688 EASEMENT TO DRAIN WATER 5 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
5 DP1133688 RESTRICTION(S) ON THE USE OF LAND REFERRED TO AND NUMBERED (5) IN THE S.88B INSTRUMENT

NOTATIONS

UNREGISTERED DEALINGS: NIL

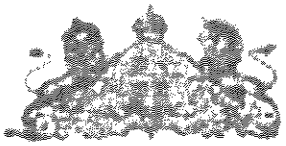
*** END OF SEARCH ***

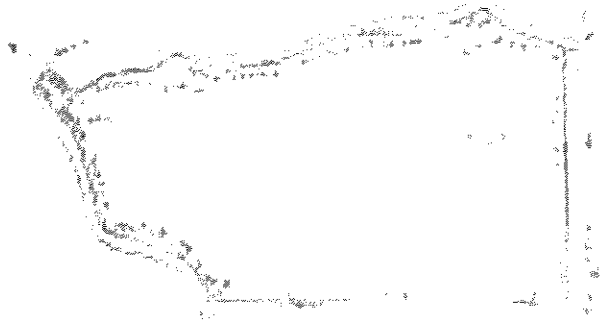
PRINTED ON 11/3/2014

* Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title. Warning: the information appearing under notations has not been formally recorded in the Register.
© State of New South Wales through Land and Property Information (2014)
SAI Global Property Division an approved NSW Information Broker hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with section 96B(2) of the Real Property Act 1900.

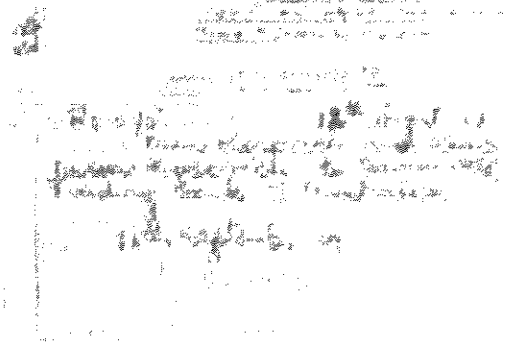
Req:R138460 /Doc:CT 07737-084 CT /Rev:11-Mar-2014 /Sts:OK.OK /Prt:11-Mar-2014 10:55 /Pgs:ALL /Seq:1 of 2
Ref: /Src:U

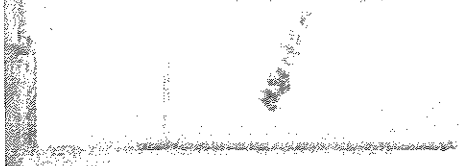
New South Wales



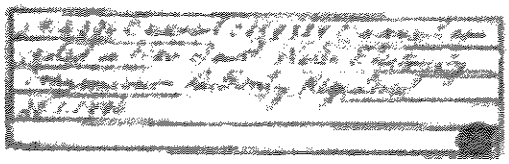


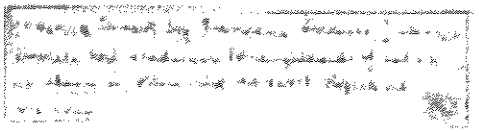






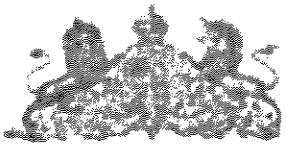
Req:R138460 /Doc:CT 07737-084 CT /Rev:11-Mar-2014 /Sts:OK.OK /Prt:11-Mar-2014 10:55 /Pgs:ALL /Seq:2 of 2
Ref: /Src:U

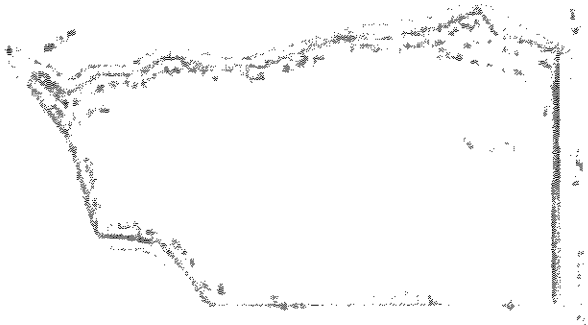




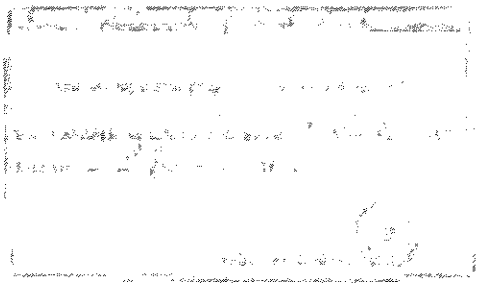
Req:R138461 /Doc:CT 07737-085 CT /Rev:11-Mar-2014 /Sts:OK.OK /Prt:11-Mar-2014 10:55 /Pgs:ALL /Seq:1 of 2
Ref: /Src:U

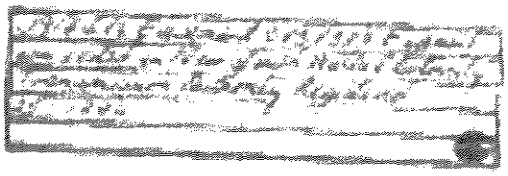
New South Wales

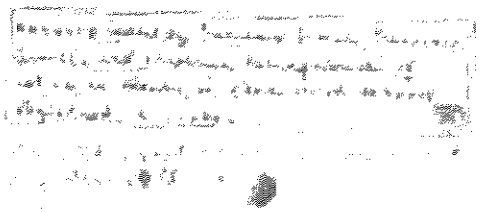




Req:R138461 /Doc:CT 07737-085 CT /Rev:11-Mar-2014 /Sts:OK.OK /Prt:11-Mar-2014 10:55 /Pgs:ALL /Seq:2 of 2
Ref: /Src:U

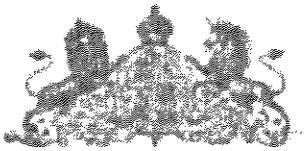


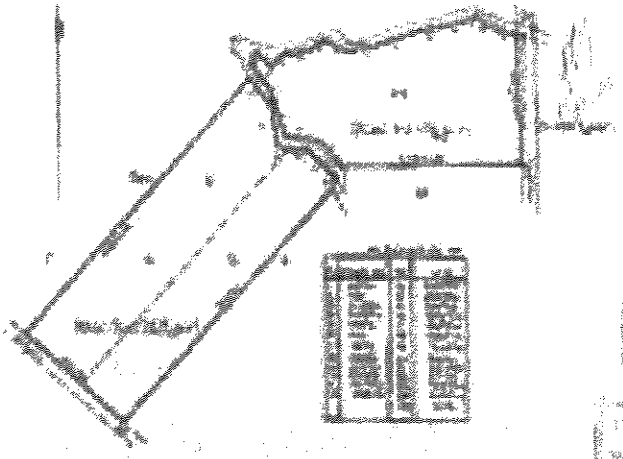


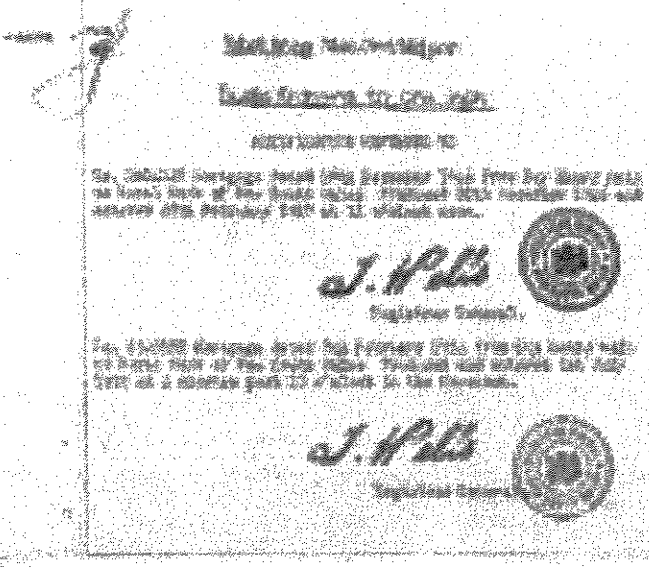


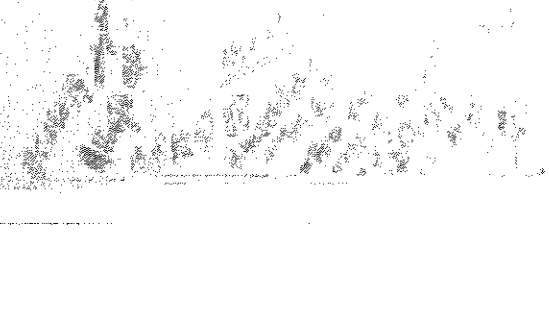
Req:R138496 /Doc:CT 07198-141 CT /Rev:11-Mar-2014 /Sts:OK.OK /Prt:11-Mar-2014 10:57 /Pgs:ALL /Seq:1 of 2
Ref: /Src:U

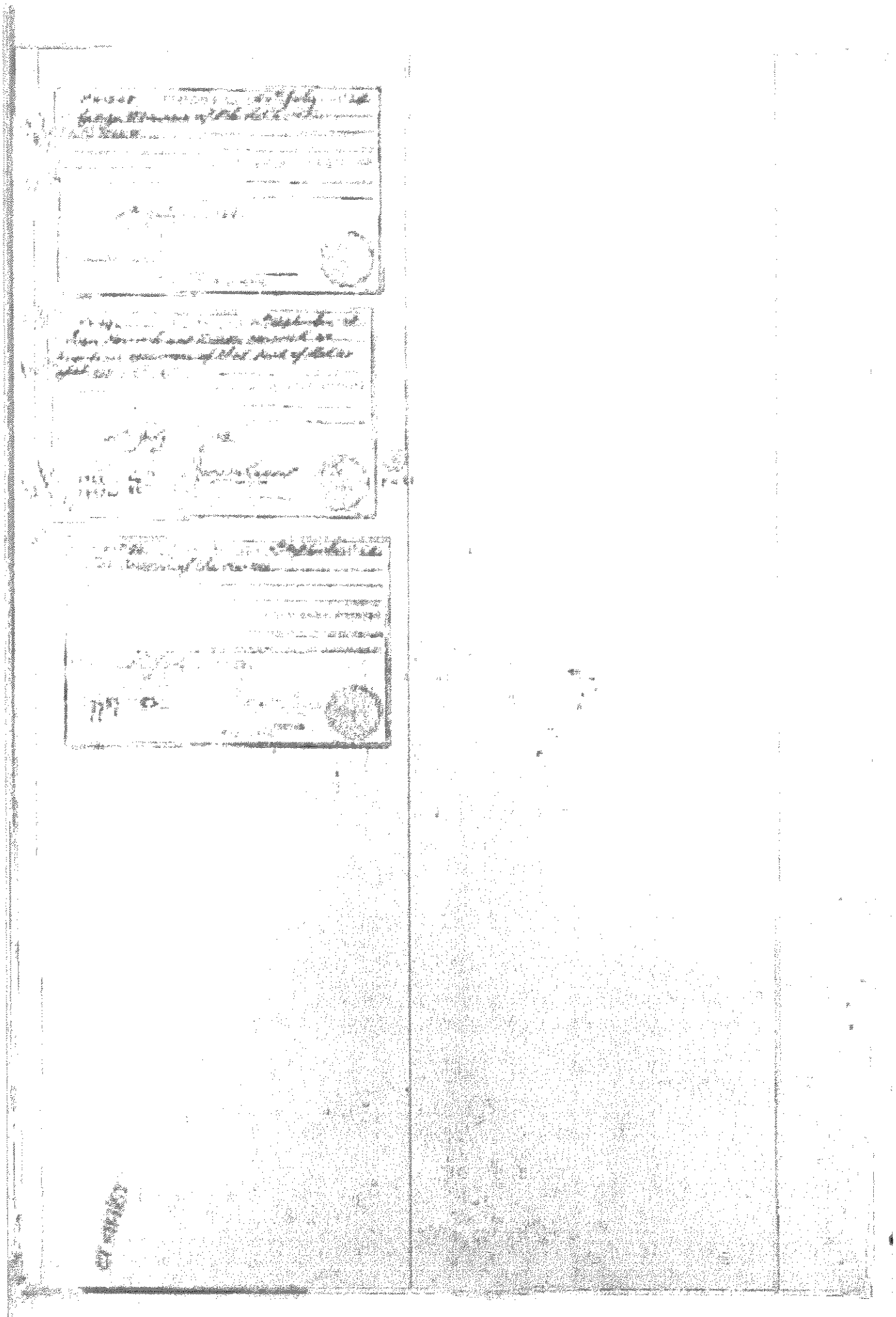
New South Wales.





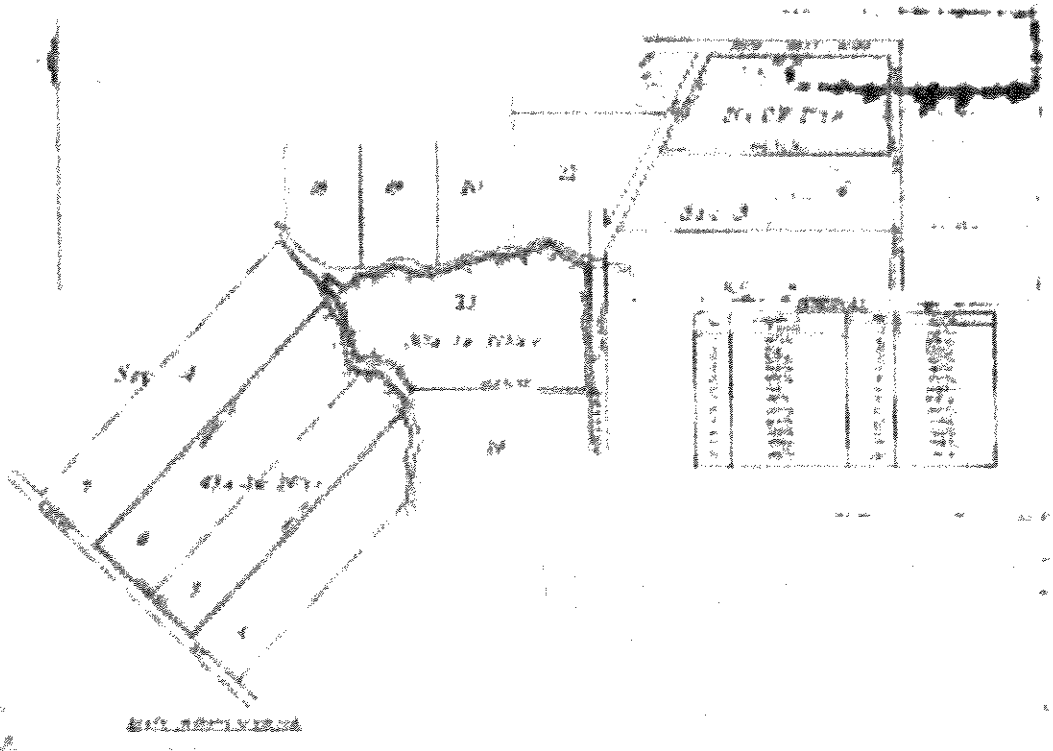




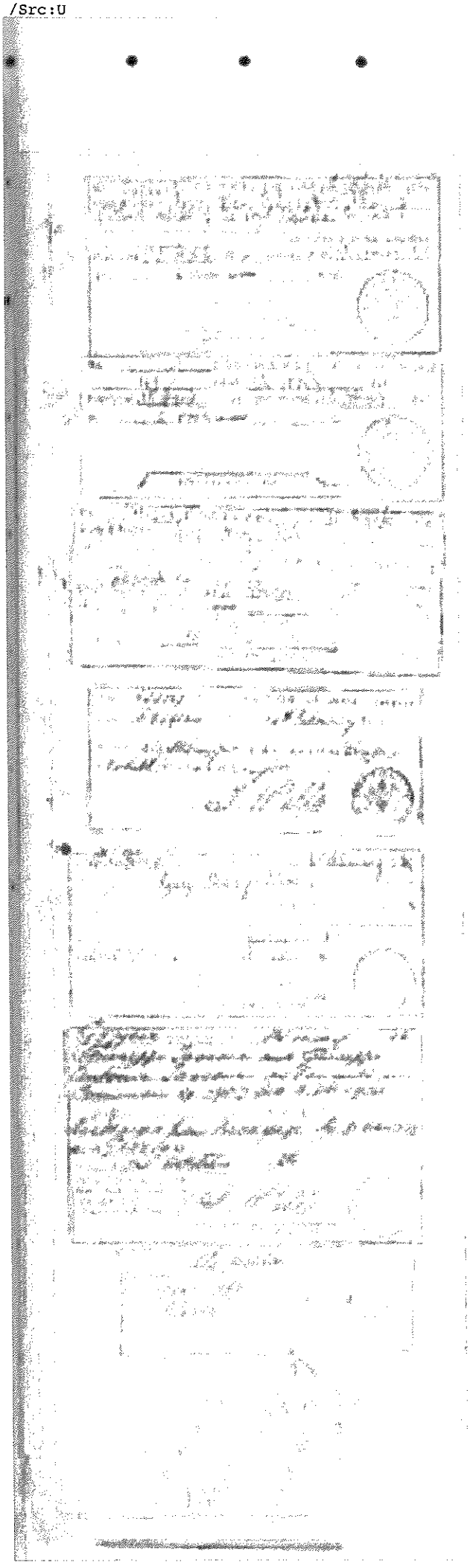


Req:R138516 /Doc:CT 05395-099 CT /Rev:11-Mar-2014 /Sts:OK.OK /Prt:11-Mar-2014 10:58 /Pgs:ALL /Seq:1 of 2
Ref: /Src:U

New South Wales.



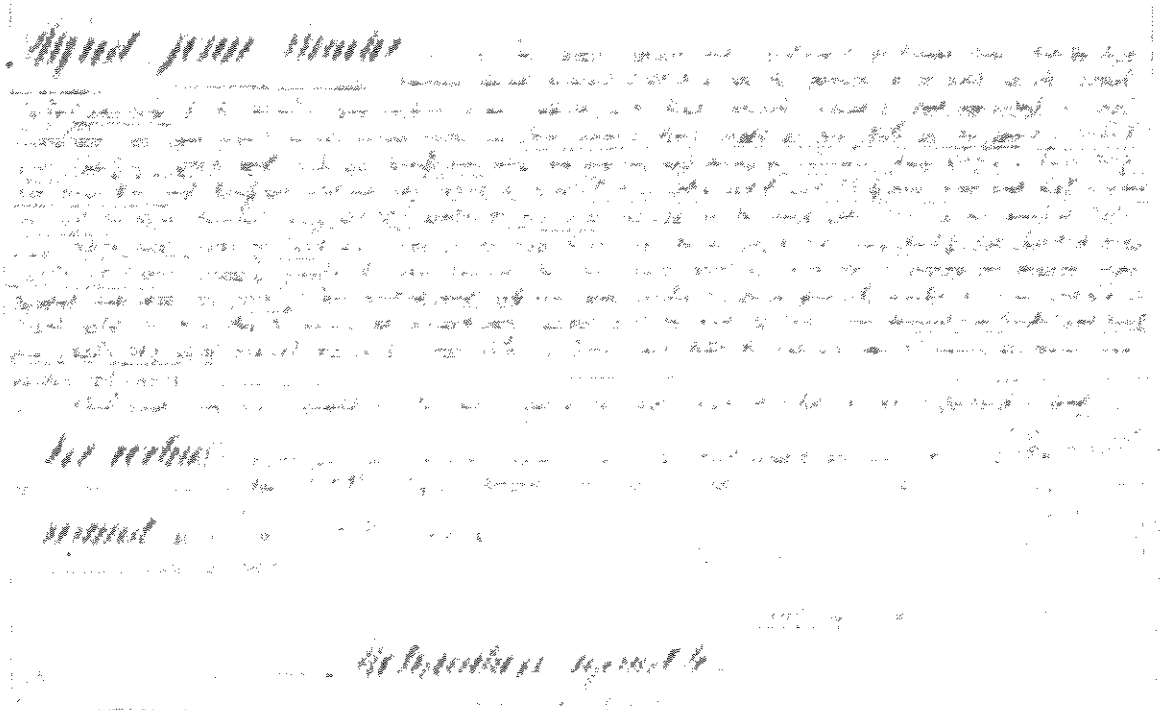
Req:R138516 /Doc:CT 05395-099 CT /Rev:11-Mar-2014 /Sts:OK.OK /Prt:11-Mar-2014 10:58 /Pgs:ALL /Seq:2 of 2
Ref: /Src:U

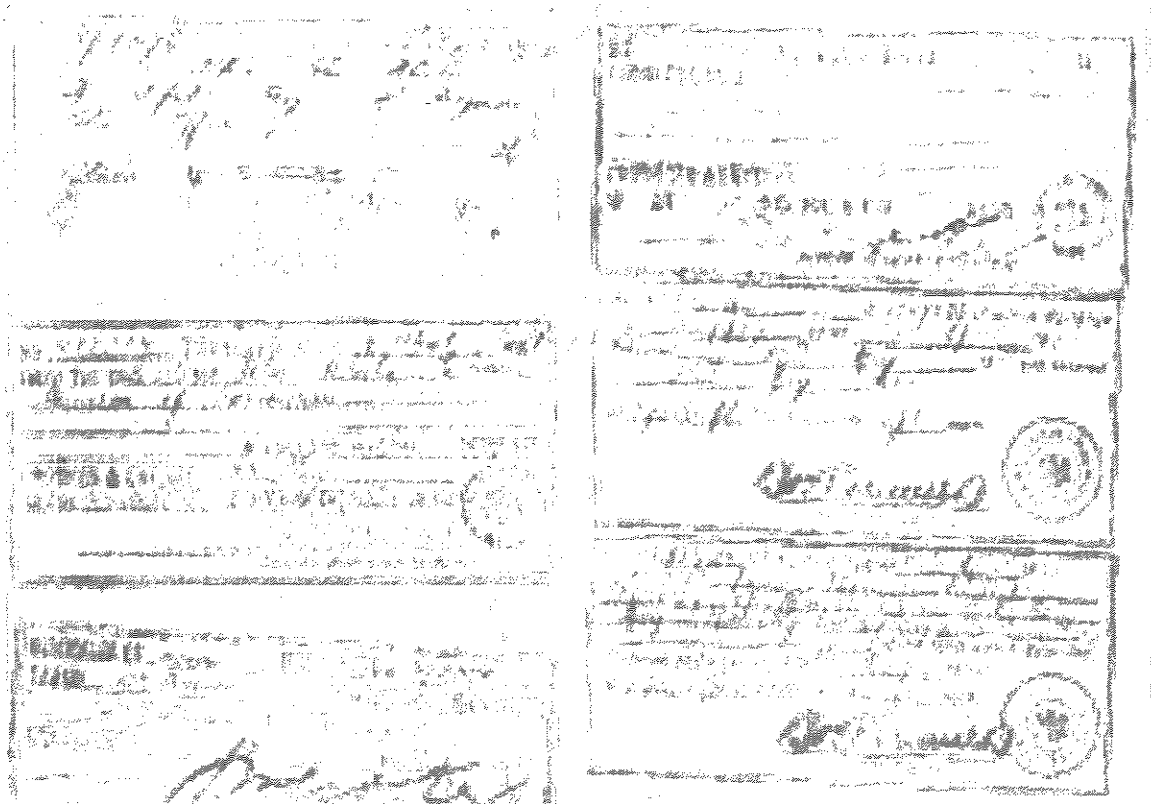


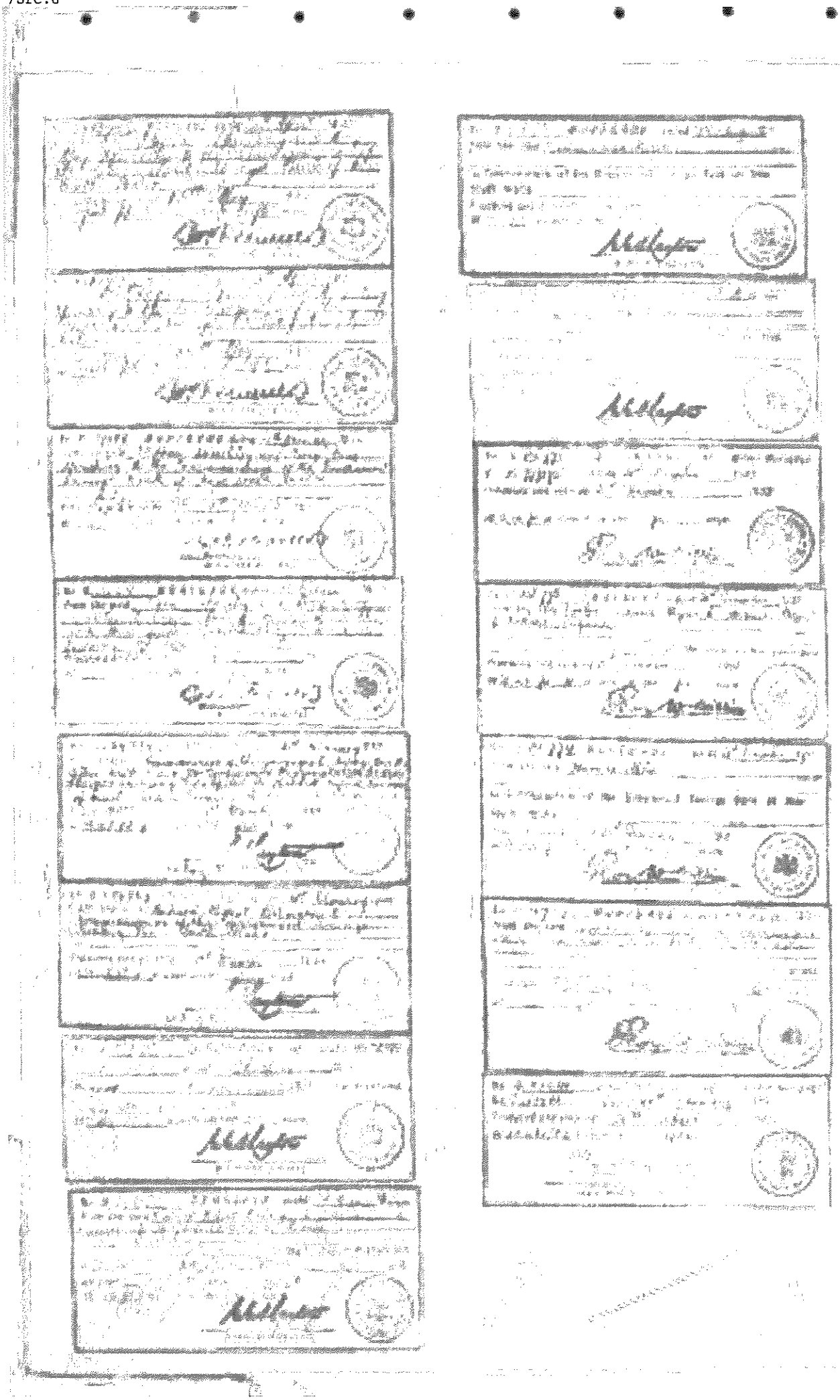
Req:R138537 /Doc:CT 01564-127 CT /Rev:11-Mar-2014 /Sts:OK.OK /Prt:11-Mar-2014 11:00 /Pgs:ALL /Seq:1 of 4
Ref: /Src:U

New South Wales.

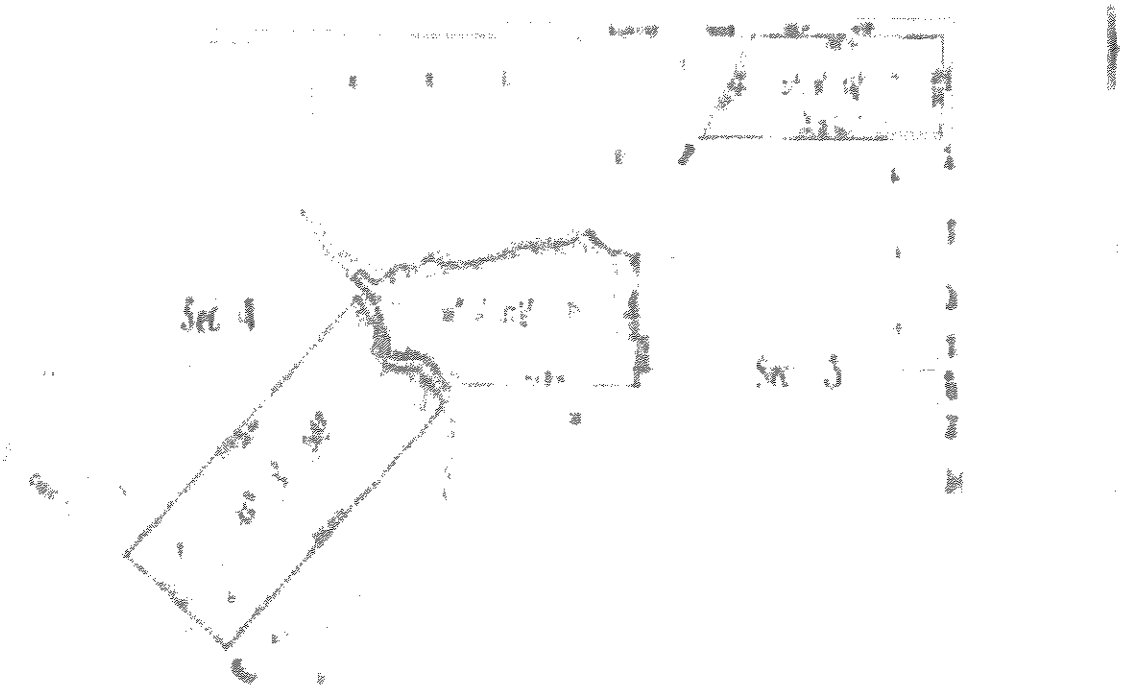
Vol. 1564 Fol. 127



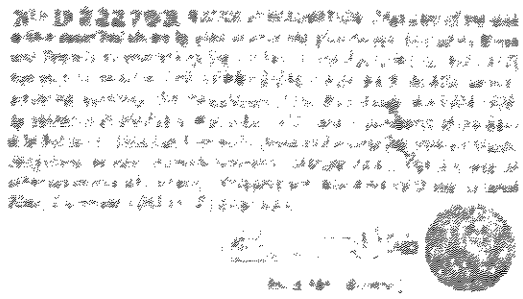


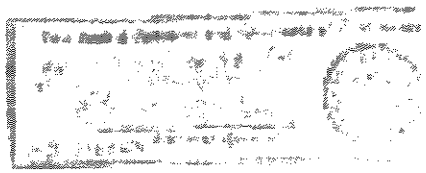


Req:R138537 /Doc:CT 01564-127 CT /Rev:11-Mar-2014 /Sts:OK.OK /Prt:11-Mar-2014 11:00 /Pgs:ALL /Seq:3 of 4
Ref: /Src:U



Req:R138537 /Doc:CT 01564-127 CT /Rev:11-Mar-2014 /Sts:OK.OK /Prt:11-Mar-2014 11:00 /Pgs:ALL /Seq:4 of 4
Ref: /Src:U





SESL AUSTRALIA

DANGEROUS GOODS LICENSE SEARCH

■ WATER ■ MINING ■ SPORTS & RECREATION ■ HORTICULTURE & AGRICULTURE ■ ENVIRONMENTAL ■ ENGINEERING & GEOTECH ■ URBAN HORTICULTURE & LANDSCAPING

ABN 70 105 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 867 16 Chilvers Rd
F 1300 364 666 W www.sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

WorkCover NSW
92-100 Donnison Street, Gosford NSW 2250
Locked Bag 2906, Lisarow NSW 2252
T 02 4321 5500 F 02 4325 4145
WorkCover Assistance Service 13 10 50
www.workcover.nsw.gov.au

Our Ref: D14/03268
Your Ref: Nick Blyth

18 March 2014

Attention: Nick Blyth
SESL Australia Pty Ltd
PO BOX 357
Pennant Hills NSW 1715

Dear Mr Blyth,

RE SITE: 153-159 Wallgrove Rd Cecil Park NSW NSW

I refer to your site search request received by WorkCover NSW on 12 March 2014 requesting information on licences to keep dangerous goods for the above site.

A search of the Stored Chemical Information Database (SCID) and the microfiche records held by WorkCover NSW has not located any records pertaining to the above mentioned premises.

If you have any further queries please contact the Dangerous Goods Licensing Team on (02) 4321 5500

Yours Sincerely

Brent Jones
Senior Licensing Officer
Dangerous Goods Team

SESL AUSTRALIA
Environment & Soil Sciences

Appendix D

ABN 70 106 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

Quality ISO 9001
NATA
ASPAC A member of the Australasian Soil and Plant Analysis Council

SESL AUSTRALIA

GROUNDWATER BORE MAP

WATER MINING SPORTS & RECREATION HORTICULTURE & AGRICULTURE ENVIRONMENTAL ENGINEERING & GEOTECH URBAN HORTICULTURE & LANDSCAPING

ABN 70 106 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chevers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

NSW Office of Water
Work Summary

GW108121

Licence: 10BL163590 **Licence Status:** CANCELLED

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

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

Commenced Date:
Completion Date: 30/07/2004
Final Depth: 246.00 m
Drilled Depth: 246.00 m

Contractor Name: INTERTEC DRILLING SERVICES
Driller: William Crump
Assistant Driller:

Property: LY 205-223 WALGROVE RD CECIL PARK 2171
GWMA: -
GW Zone: -
Standing Water Level: 34.000
Salinity:
Yield: 0.100

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBE	CUMBE.32	2 202907
Licensed:	CUMBERLAND	MELVILLE	Whole Lot 2//202907

Region: 10 - Sydney South Coast
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6250701.0
Easting: 300677.0
Latitude: 33°51'54.7"S
Longitude: 150°50'42.7"E

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

Construction

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

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	2.50	208			Rotary Air
1		Hole	Hole	2.50	180.00	165			Down Hole Hammer
1		Hole	Hole	180.00	246.00	154			Down Hole Hammer
1	1	Casing	Pvc Class 9	-0.50	59.50	140			Suspended in Clamps, Screwed and Glued
1	1	Casing	Steel	-0.50	2.50	168			Driven into Hole

Water Bearing Zones

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

							(m)		
13.00	13.20	0.20	Unknown			0.10	18.00		1300.00
199.00	200.00	1.00	Unknown			0.10	204.00		1250.00
219.00	219.50	0.50	Unknown	34.00		0.10	222.00		950.00

Geologists Log

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	3.00	3.00	CLAY BROWN	Clay	
3.00	6.00	3.00	SHALE BROWN	Shale	
6.00	13.00	7.00	SHALE GREY	Shale	
13.00	13.20	0.20	SHALE FRACTURED	Shale	
13.20	19.00	5.80	SHALE GREY	Shale	
19.00	22.00	3.00	SHALE SOFT	Shale	
22.00	40.50	18.50	SHALE HARD	Shale	
40.50	42.00	1.50	SHALE SOFT	Shale	
42.00	52.00	10.00	SHALE HARD	Shale	
52.00	54.00	2.00	SANDSTSONE	Sandstone	
54.00	153.50	99.50	SHALE HARD	Shale	
153.50	199.00	45.50	SANDSTONE GREY	Sandstone	
199.00	200.00	1.00	SANDSTONE QUARTZ	Sandstone	
200.00	219.00	19.00	SANDSTONE GREY	Sandstone	
219.00	219.50	0.50	SANDSTONE QUARTZ	Sandstone	
219.50	242.00	22.50	SANDSTONE GREY	Sandstone	
242.00	243.00	1.00	SANDSTONE DARK GREY	Sandstone	
243.00	246.00	3.00	SANDSTONE GREY	Sandstone	

Remarks

*** End of GW108121 ***

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

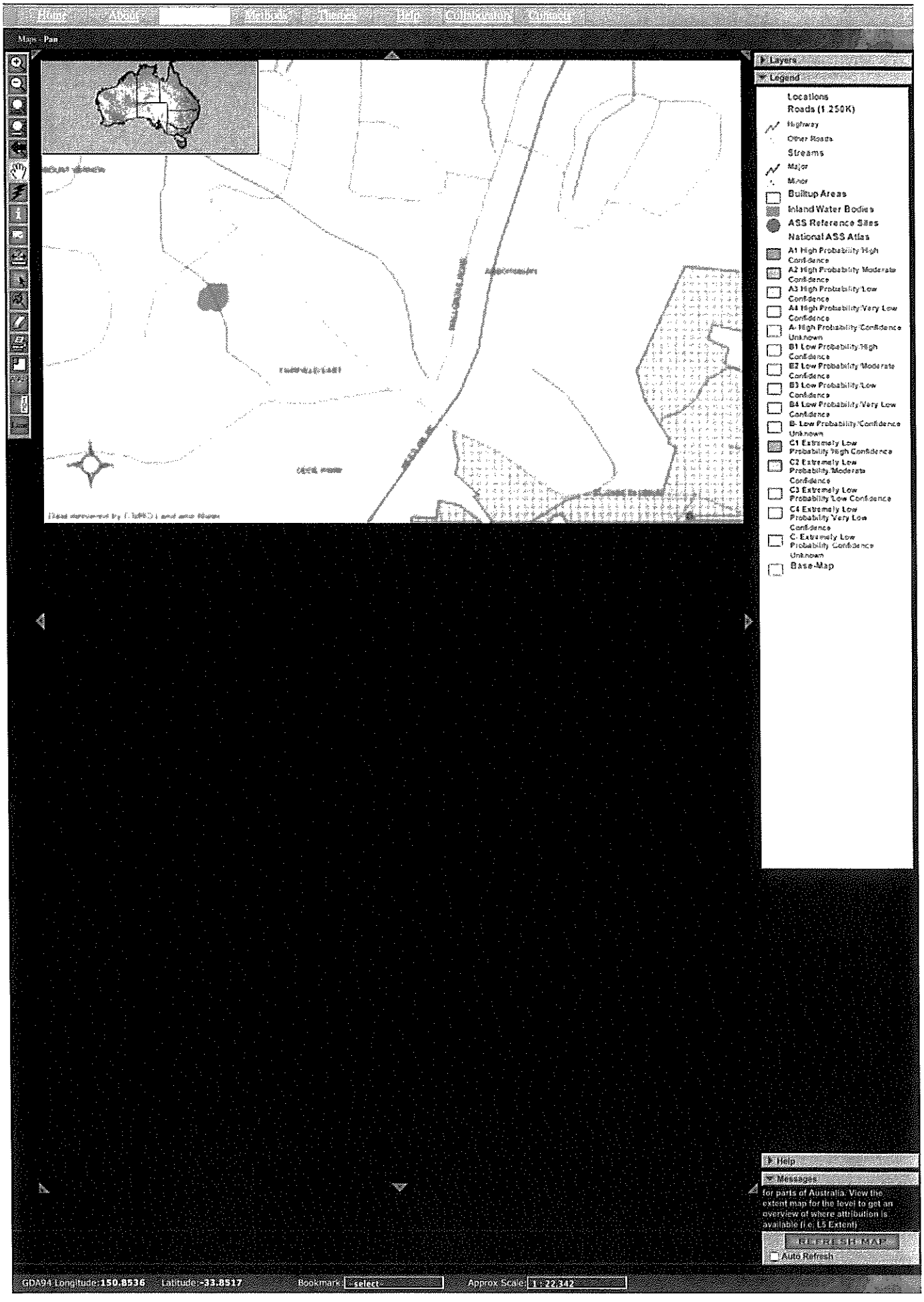
SESL AUSTRALIA

ACID SULFATE SOIL RISK PLANNING MAP

■ WATER ■ MINING ■ SPORTS & RECREATION ■ HORTICULTURE & AGRICULTURE ■ ENVIRONMENTAL ■ ENGINEERING & GEOTECH ■ URBAN HORTICULTURE & LANDSCAPING

ABN 70 106 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

ASRIS


Home
About
Metadata
Theme
Help
Collaboration
Connect
Maps - Pan
Layers
Legend
Locations
Roads (1:250K)
Highway
Other Roads
Streams
Major
Minor
Builtup Areas
Inland Water Bodies
ASS Reference Sites
National ASS Atlas
A1 High Probability High Confidence
A2 High Probability Moderate Confidence
A3 High Probability Low Confidence
A4 High Probability Very Low Confidence
A- High Probability Confidence Unknown
B1 Low Probability High Confidence
B2 Low Probability Moderate Confidence
B3 Low Probability Low Confidence
B4 Low Probability Very Low Confidence
B- Low Probability Confidence Unknown
C1 Extremely Low Probability High Confidence
C2 Extremely Low Probability Moderate Confidence
C3 Extremely Low Probability Low Confidence
C4 Extremely Low Probability Very Low Confidence
C- Extremely Low Probability Confidence Unknown
Base-Map
Help
Messages
for parts of Australia. View the extent map for the level to get an overview of where attribution is available (i.e. L5 Extent)
REFRESH MAP
Auto Refresh
GDA94 Longitude:150.8536
Latitude:-33.8517
Bookmark:
select
Approx Scale:
1 : 22,342

SESL AUSTRALIA
Environment & Soil Sciences

EPA CONTAMINATED LAND SEARCH

ABN 70 106 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

Quality ISO 9001
NATA
ASPAC
A member of the Australasian Soil and Plant Analysis Council

Healthy Environment, Healthy Community, Healthy Business

Search results

Your search for:LGA: Fairfield City Council

Matched 11 notices relating to 4 sites.

Search Again

Refine Search

Suburb	Address	Site Name	Notices related to this site
Fairfield	35 Lisbon Street	Fairfield Galvanising	3 former
Lansvale	161 Hume Highway	Former Mobil Service Station	3 former
Smithfield	25 Victoria Street	Drum Reconditioner	3 former
Yennora	44 Larra Street	Metal Plating Works	2 former

Page 1 of 1

18 March 2014

SESL AUSTRALIA
Environment & Soil Sciences

Appendix E

ABN 70 106 810 708
T 1300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

Quality ISO 9001
NATA
ASPAC
A member of the Australasian Soil and Plant Analysis Council

SESL AUSTRALIA

SITE PHOTOGRAPHS

ABN 70 106 810 708
T 1 300 30 40 80 E info@sesl.com.au PO Box 257 16 Chilvers Rd
F 1 300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

Site Photographs



Photo 1. Fill Material Found at C11



Photo 2. Asbestos Fragment from Soil Profile (C11)



Photo 3. Natural Profile (B8)



Photo 4. Asbestos Containing Materials

SESL AUSTRALIA

BORELOGS

■ WATER ■ MINING ■ SPORTS & RECREATION ■ HORTICULTURE & AGRICULTURE ■ ENVIRONMENTAL ■ ENGINEERING & GEOTECH ■ URBAN HORTICULTURE & LANDSCAPING

ABN 70 106 810 708
T 1 300 30 40 80 E info@sesl.com.au PO Box 357 16 Chilvers Rd
F 1 300 64 46 89 W sesl.com.au Pennant Hills NSW 1715 Thornleigh NSW 2120

BOREHOLE LEGEND

ODOUR DESCRIPTION

Key	Odour description	Contaminant indicated
N	Nil	Not detected
C	Characteristic sharp, pungent	Ammonia
P	Petroleum products	Petrol, diesel, oil
Co	Compost	Decayed organic matter
P	Putrefied	Putrescible waste
R	Rotten egg smell (sulfurous)	Anaerobic or acid sulfate soil
A	Acidic	Respective mineral or organic acid
Ca	Caustic	Caustic material
S	Septic	Decaying organic matter
Sw	Sweet, solvent type	Ketones
Ar	Aromatic	Benzene

AS 4482.1 - 1997

ODOUR STRENGTH

Key	Strength	Description
N	Nil	Nothing detected at or around source
W	Weak	Just detectible at source; location difficult to determine
D	Distinct	Detectable immediately adjacent to source; bearable at source
S	Strong	Detectable 20m from source; bearable at source
VS	Very strong	Detectable >20m from source; pungent at source

AS 4482.1 - 1997

COLOUR KEY

G	Grey
D	Dark
Bl	Black
B	Brown
P	Pink
O	Orange
R	Red
L	Light
Y	Yellow
W	White

MOISTURE CONTENT

VD	Very Dry
D	Dry
MM	Medium Moist
M	Moist
VM	Very Moist
W	Wet

LITHOLOGY

Ba	Basaltic
Qz	Quartz
An	Anthropic
Ss	Sandstone

GRAPHIC LOG

	A horizon
	Interface layer
	B horizon
	Fill

BOREHOLE LOG

SESL AUSTRALIA

Location	C11	Job No.		Client	Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date			
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Mixture of Clayey Topsoil and Grey Clays (fill)	<0.05		X		B				X								N		
		0.1		X		G				X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
		0.3		X						X										
		0.35		X						X										
		0.4		X						X										
		0.45		X						X										
		0.5		X						X										
		0.55		X						X										
		0.6		X						X										
	Clay and Building Rubble. Refusal Due to Building Rubble	0.65		X		-				X								P	D	
		0.7		X						X										
		0.75		X						X										
		0.8		X						X										
		0.85		X						X										
		0.9		X						X										
		0.95		X						X										
		1		X						X										
	Limit of Assessment	1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	B8	Job No.		Client	Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date			
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
		0.3		X						X										
	Light Brown Light to Medium Clay	0.35			X	LB				X								N		
		0.4			X					X										
		0.45			X					X										
		0.5			X					X										
		0.55			X					X										
		0.6			X					X										
		0.65			X					X										
		0.7			X					X										
		0.75			X					X										
		0.8			X					X										
		0.85			X					X										
		0.9			X					X										
		0.95			X					X										
	Limit of Assessment	1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

Location	B9	Job No.	Client	Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date			
Slope Position		Slope %	Project	C7954.Q4175.B34629 DSI	
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
		0.3		X						X										
	Orange Light to Medium Clay	0.35			X	O				X								N		
		0.4			X					X										
		0.45			X					X										
		0.5			X					X										
		0.55			X					X										
		0.6			X					X										
		0.65			X					X										
		0.7			X					X										
		0.75			X					X										
		0.8			X					X										
		0.85			X					X										
		0.9			X					X										
		0.95			X					X										
		1			X					X										
	Limit of Assessment	1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	C9	Job No.		Client	Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date			
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
		0.3		X						X										
		0.35		X						X										
		0.4		X						X										
	Light Brown Light to Medium Clay	0.45			X	LB				X								N		
		0.5			X					X										
		0.55			X					X										
		0.6			X					X										
		0.65			X					X										
		0.7			X					X										
		0.75			X					X										
		0.8			X					X										
		0.85			X					X										
		0.9			X					X										
		0.95			X					X										
		1			X					X										
	Limit of Assessment	1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	D9	Job No.	Client	Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date			
Slope Position		Slope %	Project	C7954.Q4175.B34629 DSI	
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								B		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
		0.3		X						X										
	Light Brown Light to Medium Clay	0.35			X	LB				X								LB		
		0.4			X					X										
		0.45			X					X										
		0.5			X					X										
		0.55			X					X										
		0.6			X					X										
		0.65			X					X										
		0.7			X					X										
		0.75			X					X										
		0.8			X					X										
		0.85			X					X										
		0.9			X					X										
		0.95			X					X										
		1			X					X										
	Limit of Assessment	1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	D10	Job No.		Client	Anthony Asnicar	Logged by	AJ
Drill Type / Method	Excavator	Date					
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI		
Groundwater depth							
Land Surface Observation / Surface Hydrology							

Sample Intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
	Mixed Clay Fill. No Foreign Materials Present	0.2		X		-				X								N		
		0.25		X						X										
		0.3		X						X										
		0.35		X						X										
		0.4		X						X										
		0.45		X						X										
		0.5		X						X										
		0.55		X						X										
		0.6		X						X										
		0.65		X						X										
		0.7		X						X										
		0.75		X						X										
		0.8		X						X										
	Light Brown Light Medium Clay	0.85			X	LB				X								N		
		0.9			X					X										
		0.95			X					X										
		1			X					X										
		1.05			X					X										
		1.1			X					X										
		1.15			X					X										
		1.2			X					X										
	Limit of Assessment	1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

Location	C10	Job No.		Client: Anthony Asnicar	Logged by: AJ
Drill Type / Method	Excavator	Date			
Slope Position		Slope %		Project: C7954.Q4175.B34629 DSI	
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Fill. No Foreign Materials Present	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
		0.3		X						X										
		0.35		X						X										
		0.4		X						X										
		0.45		X						X										
		0.5		X						X										
		0.55		X						X										
		0.6		X						X										
		0.65		X						X										
		0.7		X						X										
		0.75		X						X										
		0.8		X						X										
	Light Brown Light to Medium Clay	0.85			X	LB				X								N		
		0.9			X					X										
		0.95			X					X										
		1			X					X										
	Limit of Assessment	1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	B10	Job No.		Client	Anthony Asnicar	Logged by	AJ
Drill Type / Method	Excavator	Date					
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI		
Groundwater depth							
Land Surface Observation / Surface Hydrology							

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Loamy Fill with Foreign Materials Present (Including Asbestos)	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
	Brown Clayey Fill	0.25		X		B				X								N		
		0.3		X						X										
		0.35		X						X										
		0.4		X						X										
		0.45		X						X										
		0.5		X						X										
		0.55		X						X										
		0.6		X						X										
		0.65		X						X										
		0.7		X						X										
		0.75		X						X										
		0.8		X						X										
		0.85		X						X										
		0.9		X						X										
		0.95		X						X										
		1		X						X										
	Light Brown Light to Medium Clay	1.05			X	LB				X								N		
		1.1			X					X										
		1.15			X					X										
		1.2			X					X										
	Limit of Assessment	1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

Location	C8	Job No.		Client Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date			
Slope Position		Slope %		Project C7954.Q4175.B34629 DSI	
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
		0.3		X						X										
	Red Light to Medium Clay	0.35			X	R				X								N		
		0.4			X					X										
	Light Brown Light to Medium Clay	0.45			X	LB				X								N		
		0.5			X					X										
		0.55			X					X										
		0.6			X					X										
		0.65			X					X										
		0.7			X					X										
		0.75			X					X										
		0.8			X					X										
		0.85			X					X										
		0.9			X					X										
		0.95			X					X										
		1			X					X										
	Limit of Assessment	1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	D8	Job No.		Client	Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date			
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Loamy Fill with Rocks and Plastics	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
		0.3		X						X										
	Light Brown Light to Medium Clay with Red Mottle	0.35			X	LB			R	X								N		
		0.4			X					X										
		0.45			X					X										
		0.5			X					X										
		0.55			X					X										
		0.6			X					X										
		0.65			X					X										
		0.7			X					X										
		0.75			X					X										
		0.8			X					X										
		0.85			X					X										
		0.9			X					X										
		0.95			X					X										
		1			X					X										
	Limit of Assessment	1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

Location	D7	Job No.		Client Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date			
Slope Position		Slope %		Project C7954.Q4175.B34629 DSI	
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
	Light Brown Light to Medium Clay	0.25			X	LB				X								N		
		0.3			X					X										
		0.35			X					X										
		0.4			X					X										
		0.45			X					X										
		0.5			X					X										
		0.55			X					X										
		0.6			X					X										
	Limit of Assessment	0.65																		
		0.7																		
		0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

Location	C7	Job No.	Client	Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date			
Slope Position		Slope %	Project	C7954.Q4175.B34629 DSI	
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
	Light Brown Light to Medium Clay	0.3			X	LB				X								N		
		0.35			X					X										
		0.4			X					X										
		0.45			X					X										
		0.5			X					X										
		0.55			X					X										
		0.6			X					X										
	Limit of Assessment	0.65																		
		0.7																		
		0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

Location	B7	Job No.	Client	Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date			
Slope Position		Slope %	Project	C7954.Q4175.B34629 DSI	
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unfilled soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
		0.3		X						X										
	Light Brown Light to Medium Clay	0.35			X	LB				X								N		
		0.4			X					X										
		0.45			X					X										
		0.5			X					X										
		0.55			X					X										
		0.6			X					X										
	Limit of Assessment	0.65																		
		0.7																		
		0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

Location	A7	Job No.		Client	Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date			
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
	Brown and Red Light to Medium Clay	0.25			X	B				X								N		
		0.3			X	R				X										
		0.35			X					X										
		0.4			X					X										
		0.45			X					X										
		0.5			X					X										
	Limit of Assessment	0.55																		
		0.6																		
		0.65																		
		0.7																		
		0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

Location	D11	Job No.		Client Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date			
Slope Position		Slope %		Project C7954.Q4175.B34629 DSI	
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample Intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
		0.3		X						X										
	Orange Light to Medium Clay	0.35			X	O				X								N		
		0.4			X					X										
		0.45			X					X										
		0.5			X					X										
	Limit of Assessment	0.55																		
		0.6																		
		0.65																		
		0.7																		
		0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	D11	Job No.		Client	Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date			
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unfilled soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
		0.3		X						X										
	Orange Light to Medium Clay	0.35			X	O				X								N		
		0.4			X					X										
		0.45			X					X										
		0.5			X					X										
	Limit of Assessment	0.55																		
		0.6																		
		0.65																		
		0.7																		
		0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	A6	Job No.		Client: Anthony Asnicar	Logged by: AJ
Drill Type / Method	Excavator	Date	28/04/15		
Slope Position		Slope %		Project: C7954.Q4175.B34629 DSI	
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample Intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								B		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
		0.3		X						X										
	Light Brown Light to Medium Clay	0.35			X	LB				X								LB		
		0.4			X					X										
		0.45			X					X										
		0.5			X					X										
	Limit of Assessment	0.55																		
		0.6																		
		0.65																		
		0.7																		
		0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	B6	Job No.		Client	Anthony Asnicar	Logged by
Drill Type / Method	Excavator	Date	28/04/15			AJ
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI	
Groundwater depth						
Land Surface Observation / Surface Hydrology						

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
	Orange and Brown Mottled Clay with Rock Inclusions	0.2			X	O			O	X								N		
		0.25			X	B			B	X										
		0.3			X					X										
		0.35			X					X										
		0.4			X					X										
	Pale Brown Light Clay with Rock Inclusions	0.45			X	PB				X								N		
		0.5			X					X										
		0.55			X					X										
		0.6			X					X										
		0.65			X					X										
		0.7			X					X										
		0.75			X					X										
		0.8			X					X										
		0.85			X					X										
		0.9			X					X										
	Limit of Assessment	0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	C6	Job No.		Client	Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date	28/04/15		
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
	Orange Brown Light to Medium Clay	0.3			X	OB				X								N		
		0.35			X					X										
		0.4			X					X										
	Limit of Assessment	0.45																		
		0.5																		
		0.55																		
		0.6																		
		0.65																		
		0.7																		
		0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	D6	Job No.		Client	Anthony Asnicar	Logged by
Drill Type / Method	Excavator	Date	28/04/15			AJ
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI	
Groundwater depth						
Land Surface Observation / Surface Hydrology						

Sample Intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								B		
		0.1		X						X										
		0.15		X						X										
	Orange Brown Light to Medium Clay	0.2			X	OB				X								OB		
		0.25			X					X										
		0.3			X					X										
		0.35			X					X										
		0.4			X					X										
		0.45			X					X										
		0.5			X					X										
	Limit of Assessment	0.55																		
		0.6																		
		0.65																		
		0.7																		
		0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	D5	Job No.		Client: Anthony Asnicar	Logged by: AJ
Drill Type / Method	Excavator	Date	28/04/15		
Slope Position		Slope %		Project: C7954.Q4175.B34629 DSI	
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
	Pale Brown Medium Clay	0.3			X	PB				X								N		
		0.35			X					X										
		0.4			X					X										
		0.45			X					X										
		0.5			X					X										
		0.55			X					X										
		0.6			X					X										
		0.65			X					X										
		0.7			X					X										
	Limit of Assessment	0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	D4	Job No.		Client	Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date	28/04/15		
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Organic Clay Loam	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
	Light Brown Interface Layer	0.2			X	LB				X								N		
		0.25			X					X										
		0.3			X					X										
	Red and Brown Mottled Clay	0.35			X	R			B	X								N		
		0.4			X	B			R	X										
	Limit of Assessment	0.45																		
		0.5																		
		0.55																		
		0.6																		
		0.65																		
		0.7																		
		0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

Location	B4	Job No.		Client: Anthony Asnicar	Logged by: AJ
Drill Type / Method	Excavator	Date	28/04/15		
Slope Position		Slope %		Project: C7954.Q4175.B34629 DSI	
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
	Red and Brown Medium Clay	0.3			X	R				X								N		
		0.35			X	B				X										
		0.4			X					X										
		0.45			X					X										
		0.5			X					X										
		0.55			X					X										
		0.6			X					X										
		0.65			X					X										
		0.7			X					X										
	Limit of Assessment	0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

Location	B1	Job No.		Client	Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date	28/04/15		
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Dark Brown Clay Loam	<0.05		X		DB				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
		0.3		X						X										
	Light Grey Medium Clay	0.35			X	LG				X								N		
		0.4			X					X										
		0.45			X					X										
		0.5			X					X										
		0.55			X					X										
		0.6			X					X										
	Limit of Assessment	0.65																		
		0.7																		
		0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	A1	Job No.		Client: Anthony Asnicar	Logged by: AJ
Drill Type / Method	Excavator	Date	28/04/15		
Slope Position		Slope %		Project: C7954.Q4175.B34629 DSI	
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample Intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								B		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
		0.3		X						X										
		0.35		X						X										
		0.4		X						X										
	Light Brown Medium Clay	0.45			X	LB				X								LB		
		0.5			X					X										
		0.55			X					X										
		0.6			X					X										
		0.65			X					X										
		0.7			X					X										
		0.75			X					X										
		0.8			X					X										
		0.85			X					X										
		0.9			X					X										
	Limit of Assessment	0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	A2	Job No.		Client: Anthony Asnicar	Logged by: AJ
Drill Type / Method	Excavator	Date	28/04/15		
Slope Position		Slope %		Project: C7954.Q4175.B34629 DSI	
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
	Red and Brown Medium Clay	0.3			X	R				X								N		
		0.35			X	B				X										
		0.4			X					X										
		0.45			X					X										
		0.5			X					X										
		0.55			X					X										
		0.6			X					X										
		0.65			X					X										
		0.7			X					X										
		0.75			X					X										
	Limit of Assessment	0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

Location	B2	Job No.		Client	Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date	28/04/15		
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
	Brown and Red Medium Clay	0.25			X	B				X								N		
		0.3			X	R				X										
		0.35			X					X										
		0.4			X					X										
		0.45			X					X										
		0.5			X					X										
		0.55			X					X										
		0.6			X					X										
		0.65			X					X										
		0.7			X					X										
	Limit of Assessment	0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	B3	Job No.		Client: Anthony Asnicar	Logged by: AJ
Drill Type / Method	Excavator	Date	28/04/15		
Slope Position		Slope %		Project: C7954.Q4175.B34629 DSI	
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
	Brown and Red Medium Clay	0.3			X	B				X								N		
		0.35			X	R				X										
		0.4			X					X										
		0.45			X					X										
		0.5			X					X										
		0.55			X					X										
		0.6			X					X										
	Limit of Assessment	0.65																		
		0.7																		
		0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	A3	Job No.		Client	Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date	28/04/15		
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample Intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
	Red and Brown Medium Clay	0.3			X	R				X								N		
		0.35			X	B				X										
		0.4			X					X										
		0.45			X					X										
		0.5			X					X										
		0.55			X					X										
		0.6			X					X										
	Limit of Assessment	0.65																		
		0.7																		
		0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	A4	Job No.		Client	Anthony Asnicar	Logged by
Drill Type / Method	Excavator	Date	28/04/15			AJ
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI	
Groundwater depth						
Land Surface Observation / Surface Hydrology						

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown, Gravelly Sandy Loam	<0.05		X		B					X							N		
		0.1		X							X									
		0.15		X							X									
		0.2		X							X									
		0.25		X							X									
		0.3		X							X									
		0.35		X							X									
		0.4		X							X									
	Red and Brown Medium Clay	0.45			X	R				X								N		
		0.5			X	B				X										
		0.55			X					X										
		0.6			X					X										
		0.65			X					X										
		0.7			X					X										
	Limit of Assessment	0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

Location	A8	Job No.		Client	Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date	28/04/15		
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Dark Brown Organic Clay Loam	<0.05		X		DB				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
	Light Grey Medium Clay	0.3			X	LG				X								N		
		0.35			X					X										
		0.4			X					X										
		0.45			X					X										
		0.5			X					X										
	Limit of Assessment	0.55																		
		0.6																		
		0.65																		
		0.7																		
		0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	S5	Job No.		Client	Anthony Asnicar
Drill Type / Method	Auger	Date	28/04/15		Logged by: AJ
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unfilled soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
		0.3		X						X										
		0.35		X						X										
		0.4		X						X										
	Red and Brown Mottled Medium Clay	0.45			X	R			R	X								N		
		0.5			X	B			B	X										
		0.55			X					X										
		0.6			X					X										
	Limit of Assessment	0.65																		
		0.7																		
		0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

Location	S6	Job No.		Client Anthony Asnicar	Logged by AJ
Drill Type / Method	Auger	Date	28/04/15		
Slope Position		Slope %		Project C7954.Q4175.B34629 DSI	
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Dark Brown Clay Loam with Rock Inclusions	<0.05		X		DB				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
		0.3		X						X										
		0.35		X						X										
		0.4		X						X										
	Red amd Brown Mottled Medium Clay	0.45			X	R				X								N		
		0.5			X	B				X										
		0.55			X					X										
		0.6			X					X										
	Limit of Assessment	0.65																		
		0.7																		
		0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

Location	S1	Job No.		Client: Anthony Asnicar	Logged by: AJ
Drill Type / Method	Auger	Date	28/04/15		
Slope Position		Slope %		Project: C7954.Q4175.B34629 DSI	
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unfilled soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
	Red and Brown Medium Clay	0.25			X	R				X								N		
		0.3			X	B				X										
		0.35			X					X										
	Limit of Assessment	0.4																		
		0.45																		
		0.5																		
		0.55																		
		0.6																		
		0.65																		
		0.7																		
		0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	S4	Job No.		Client	Anthony Asnicar	Logged by AJ
Drill Type / Method	Auger	Date	28/04/15		
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Dark Brown Clayey Loam	<0.05		X		DB				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
		0.3		X						X										
		0.35		X						X										
	Light Orange Brown Clay Mixed with Dark Brown Clay Loam	0.4		X		OB				X								N		
		0.45		X		DB				X										
		0.5		X						X										
	Limit of Assessment	0.55																		
		0.6																		
		0.65																		
		0.7																		
		0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

Location	S16	Job No.		Client	Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date	28/04/15		
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam with Asbestos on Soil Surface	<0.05		X		B				X									N	
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
	Red and Brown Medium Clay	0.25			X	R				X									N	
		0.3			X	B				X										
		0.35			X					X										
		0.4			X					X										
		0.45			X					X										
		0.5			X					X										
	Limit of Assessment	0.55																		
		0.6																		
		0.65																		
		0.7																		
		0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	S15	Job No.		Client	Anthony Asnicar	Logged by
Drill Type / Method	Excavator	Date	28/04/15			AJ
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI	
Groundwater depth						
Land Surface Observation / Surface Hydrology						

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam Fill with Asbestos Fibro Pieces Throughout	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
		0.3		X						X										
		0.35		X						X										
		0.4		X						X										
	Red and Brown Medium Clay	0.45			X	R				X								N		
		0.5			X	B				X										
		0.55			X					X										
		0.6			X					X										
		0.65			X					X										
		0.7			X					X										
		0.75			X					X										
		0.8			X					X										
	Limit of Assessment	0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

Location	S14	Job No.		Client Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date	28/04/15		
Slope Position		Slope %		Project C7954.Q4175.B34629 DSI	
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam with Foreign Materials on Soil Surface	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
		0.3		X						X										
		0.35		X						X										
		0.4		X						X										
	Brown and Red Medium Clay	0.45			X	B				X								N		
		0.5			X	R				X										
		0.55			X					X										
		0.6			X					X										
		0.65			X					X										
		0.7			X					X										
		0.75			X					X										
		0.8			X					X										
	Limit of Assessment	0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	S13	Job No.		Client	Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date	28/04/15		
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample Intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam with Foreign Materials, Including Asbestos Fibro Fragments Throughout	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
		0.3		X						X										
		0.35		X						X										
		0.4		X						X										
	Brown and Red Medium Clay	0.45			X	B				X								N		
		0.5			X	R				X										
		0.55			X					X										
		0.6			X					X										
		0.65			X					X										
		0.7			X					X										
	Limit of Assessment	0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

Location	S12	Job No.		Client Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date	28/04/15		
Slope Position		Slope %		Project C7954.Q4175.B34629 DSI	
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam with Foreign Materials Throughout	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
		0.3		X						X										
	Brown and Red Medium Clay	0.35			X	B				X								N		
		0.4			X	R				X										
		0.45			X					X										
		0.5			X					X										
		0.55			X					X										
		0.6			X					X										
		0.65			X					X										
		0.7			X					X										
		0.75			X					X										
		0.8			X					X										
		0.85			X					X										
		0.9			X					X										
		0.95			X					X										
		1			X					X										
	Limit of Assessment	1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

Location	S11	Job No.		Client	Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date	28/04/15		
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample Intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam with Foreign Materials Throughout	<0.05		X		B				X								B		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
	Red and Brown Medium Clay	0.3			X	R				X								R		
		0.35			X	B				X								B		
		0.4			X					X										
		0.45			X					X										
		0.5			X					X										
		0.55			X					X										
		0.6			X					X										
		0.65			X					X										
		0.7			X					X										
		0.75			X					X										
		0.8			X					X										
	Limit of Assessment	0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

Location	S10	Job No.		Client	Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date	28/04/15		
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam with Foreign Materials Throughout	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
	Red and Brown Medium Clay	0.2			X	R				X								N		
		0.25			X	B				X										
		0.3			X					X										
		0.35			X					X										
		0.4			X					X										
		0.45			X					X										
		0.5			X					X										
		0.55			X					X										
		0.6			X					X										
		0.65			X					X										
		0.7			X					X										
	Limit of Assessment	0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	S9	Job No.		Client	Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date	28/04/15		
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unfilled soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam with Foreign Marerials	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
	Red and Brown Medium Clay	0.3			X	B				X								N		
		0.35			X	R				X										
		0.4			X					X										
		0.45			X					X										
		0.5			X					X										
		0.55			X					X										
		0.6			X					X										
		0.65			X					X										
		0.7			X					X										
		0.75			X					X										
		0.8			X					X										
		0.85			X					X										
		0.9			X					X										
		0.95			X					X										
		1			X					X										
	Limit of Assessment	1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	S18	Job No.		Client	Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date	28/04/15		
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unfilled soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Drivewat Aggregate with Asbestos Fibro Fragments on Surface	<0.05		X		-					X							N		
		0.1		X							X									
		0.15		X							X									
		0.2		X							X									
		0.25		X							X									
		0.3		X							X									
		0.35		X							X									
		0.4		X							X									
		0.45		X							X									
	Bright Red and Brown Medium Clay	0.5			X	BR				X								N		
		0.55			X	B				X										
		0.6			X					X										
		0.65			X					X										
		0.7			X					X										
		0.75			X					X										
		0.8			X					X										
		0.85			X					X										
		0.9			X					X										
	Limit of Assessment	0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	S10	Job No.		Client	Anthony Asnicar	Logged by AJ
Drill Type / Method	Auger	Date	28/04/15		
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
	Reddish Brown Medium Clay	0.3			X	RB				X								N		
		0.35			X					X										
		0.4			X					X										
	Limit of Assessment	0.45																		
		0.5																		
		0.55																		
		0.6																		
		0.65																		
		0.7																		
		0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

Location	S3	Job No.		Client	Anthony Asnicar	Logged by
Drill Type / Method	Auger	Date	28/04/15			AJ
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI	
Groundwater depth						
Land Surface Observation / Surface Hydrology						

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X						X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
	Grey Brown Light Clay	0.25		X						X								N		
		0.3		X						X										
		0.35		X						X										
		0.4		X						X										
	Orange Brown Medium Clay	0.45			X					X								N		
		0.5			X					X										
		0.55			X					X										
		0.6			X					X										
	Limit of Assessment	0.65																		
		0.7																		
		0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	S2	Job No.		Client: Anthony Asnicar	Logged by: AJ
Drill Type / Method	Auger	Date	28/04/15		
Slope Position		Slope %		Project: C7954.Q4175.B34629 DSI	
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
	Orange Brown Medium Clay	0.25			X	OB				X								N		
		0.3			X					X										
		0.35			X					X										
		0.4			X					X										
		0.45			X					X										
		0.5			X					X										
	Limit of Assessment	0.55																		
		0.6																		
		0.65																		
		0.7																		
		0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	S7	Job No.		Client	Anthony Asnicar	Logged by AJ
Drill Type / Method	AJ	Date	28/04/15		
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unfilled soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam with Ash Inclusion at 0.15	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
		0.3		X						X										
		0.35		X						X										
		0.4		X						X										
		0.45		X						X										
	Orange Brown Medium Clay	0.5			X	OB				X								N		
		0.55			X					X										
		0.6			X					X										
	Limit of Assessment	0.65																		
		0.7																		
		0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

SESL AUSTRALIA

Location	S8	Job No.		Client: Anthony Asnicar	Logged by: AJ
Drill Type / Method	Auger	Date	28/04/15		
Slope Position		Slope %		Project: C7954.Q4175.B34629 DSI	
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
		0.25		X						X										
		0.3		X						X										
	Orange Brown Medium Clay	0.35			X	08				X								N		
		0.4			X					X										
	Limit of Assessment	0.45																		
		0.5																		
		0.55																		
		0.6																		
		0.65																		
		0.7																		
		0.75																		
		0.8																		
		0.85																		
		0.9																		
		0.95																		
		1																		
		1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		

BOREHOLE LOG

Location	A5	Job No.		Client	Anthony Asnicar	Logged by AJ
Drill Type / Method	Excavator	Date	28/04/15		
Slope Position		Slope %		Project	C7954.Q4175.B34629 DSI
Groundwater depth					
Land Surface Observation / Surface Hydrology					

Sample Intervals	Stratigraphic Description	Depth (m)	Graphic log	Soil Profile: Fill	Soil Profile: Natural horizons	Soil Profile: Colour(s)	Soil Profile: Field pH	Mottle: Abundance	Mottle: Colour(s)	Field Texture: Fine grain	Field Texture: Coarse grain	Coarse Fragments: Abundance	Coarse Fragments: Size	Coarse Fragments: Lithology	Unified soil classification	Hydrology: Moisture content %	Hydrology: Interface drainage	Odour: Type	Odour: Strength	Field Monitoring PID (ppm)
	Brown Clay Loam with Asbestos on the Soil Surface	<0.05		X		B				X								N		
		0.1		X						X										
		0.15		X						X										
		0.2		X						X										
	Brown and Orange Medium Clay	0.25			X	B				X								N		
		0.3			X	O				X										
		0.35			X					X										
		0.4			X					X										
		0.45			X					X										
		0.5			X					X										
		0.55			X					X										
		0.6			X					X										
		0.65			X					X										
		0.7			X					X										
		0.75			X					X										
		0.8			X					X										
		0.85			X					X										
		0.9			X					X										
		0.95			X					X										
		1			X					X										
	Limit of Assessment	1.05																		
		1.1																		
		1.15																		
		1.2																		
		1.25																		
		1.3																		
		1.35																		
		1.4																		
		1.45																		
		1.5																		
		1.55																		
		1.6																		
		1.65																		
		1.7																		
		1.75																		
		1.8																		
		1.85																		
		1.9																		
		1.95																		
		2																		
		2.05																		
		2.1																		
		2.15																		
		2.2																		