GEO_LOGIX

PRELIMINARY CONTAMINATION INVESTIGATION REPORT

61 – 63 and 69 – 73 Christie Street, St Marys NSW

Better Springs Pty Ltd – December 2012

ENVIRONMENTAL :: GEOTECHNICAL :: PROJECT MANAGEMENT :: DUE DILIGENCE

DOCUMENT CONTROL

PRELIMINARY CONTAMINATION INVESTIGATION REPORT

Better Springs
61 – 63 and 69 – 73 Christie Street,
St Marys NSW

PREPARED FOR

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EXECUTIVE SUMMARY

Geo-Logix Pty Ltd (Geo-Logix) was commissioned by Better Springs Pty Ltd (Better Springs) to conduct Preliminary Contamination Investigation (PCI) of the property located at 61 – 73 Christie Street, St Marys NSW.

The subject site comprises two lots (3 and 4) in an industrial area of St Marys NSW and encompasses an area of 12,101m^2. The site has been occupied by the spring's manufacturer Better Springs since the 1970s. It is understood prior to the occupation of the site by Better Springs, the site was part of the former St Marys Munitions Filling Factory operated by the Australian Defence Force for munitions manufacturing and other defence related activities since the 1940s, air raid shelters still exist on the site today. Geo-Logix was unable to ascertain activities undertaken by defence on the site. Neighbouring properties were utilised for munitions manufacturing and munitions storage as evident by munitions bunkers in historical aerial photos. There is no evidence to suggest munitions manufacturing or storage occurred onsite, however it cannot be ruled out.

The Better Springs manufacturing operations occur mainly on the southern portion of the site. Two large sheds and adjacent smaller structures exist in the southwest portion of the site on Lot 3 with an office and toilet block in the southern portion of Lot 4. A number of metal and brick structures exist in the central western portion of the site which is used for storage of paints. The northern portion of the site is vacant land vegetated with trees and shrubs. Historical bulk chemical storage includes an underground petrol UST (decommissioned), above ground diesel tank (AST), and Tempering Oil AST.

In June 2001 Geo-Logix conducted a Phase 1 Environmental Site Assessment (ESA) of the site which identified the following potential contaminating activities having occurred onsite:

- Potential munitions and other defence utility manufacturing and storage;
- Spring manufacturing;
- Bulk chemical storage and use; and
- Demolition of former building structures potentially containing hazardous materials.

To assess for the land contamination Geo-Logix prepared a scope of works in consultation with the client. The scope of works was to assess intensive use areas of the site systematically and other less used areas of the site by random and targeted sampling. The investigation does not meet minimum standards as defined by AS4482.1-2005 for a site of this area, however is deemed sufficient to provide an indication of potentially consequential land contamination that may impact upon the commercial / industrial operation of the site (Better Springs Manufacturing Plant).

To assess for land contamination Geo-Logix conducted the following works:

Intensive Use Area – 3600m^2 SW Quadrant of Site

This is the area where current and historical manufacturing works are conducted. The assessment consisted of:

- Systematic surface soil sampling on a 18.8m grid. Soil samples were analysed for contaminants of potential concern (COPC) including petroleum, volatile organic compounds (VOCs), Polyaromatic Hydrocarbons (PAHs) and eight heavy metals. Two soil samples under the coils manufacturing building were additional analysed for explosive residues. Four surface samples were additionally analysed for asbestos. The sampling program is sufficient

to detect a contamination hotspot of 22.2 metres diameter at a 95% statistical degree of certainty.

Bulk Chemical Storage – Point Sources

The following targeted sampling was performed to assess for contamination originating from potential contamination point sources:

- Surface and shallow (0.5m) soil sampling immediately adjacent to diesel AST for analysis of COPC including petroleum, PAHs, eight heavy metals; and
- Shallow and deep soil sampling, and groundwater sampling, immediately adjacent to a decommissioned petrol UST for analysis of COPC including petroleum, PAHs, VOCs and heavy metals.

Judgemental Sampling – Site Features

The following sampling was undertaken to assess for contamination originating from other site features observed during site inspections:

- Surface soil sampling in proximity to historical air raid shelters for analysis of explosive residues that may have originated from temporary storage of defence inventory; and
- Surface soil sampling in random locations across the site for general site coverage and analysis for a range of commonly encountered contaminants including petroleum, PAHs, heavy metals and Organochlorine Pesticides (OCPs).

Based on the above sampling analysis plan the site could be considered suitable for continued commercial/ industrial landuse if the following decision rules are met:

The results of systematic sampling and analysis of COPC in shallow soils in the southwest portion of the site meet the following criteria:

- The 95% UCL concentration does not exceed the assessment criteria;
- No sample exceeds 250% of the commercial / industrial land use assessment criteria; and
- The standard deviation of results must be less than 50% of the commercial / industrial land use assessment criteria.

The results sampling adjacent to bulk chemical storage areas must meet the following criteria:

- COPC do not exist in soil at concentrations in excess of commercial/ / industrial assessment criteria; and
- COPC do not exist in groundwater at concentrations in excess of water quality protection values or background levels.

The results of judgemental soil sampling must meet the following criteria:

- COPC do not exist in soil at concentrations in excess of commercial/ / industrial assessment criteria.

The results of the investigation indicated petroleum hydrocarbons in the range of TRH C_{10}-C_{36} were detected in shallow soil (0.1mbg) at concentrations exceeding the NSW EPA guidelines for sensitive landuse at soil boring B24 located beneath the diesel AST. TRH C_{10}-C_{36} was not detected at concentrations above NSW EPA guidelines for sensitive landuse in soil at the same location and depth of 0.5mbg indicating that the vertical extent of the TRH C_{10}-C_{36} contamination is limited to surface soils. The immediate lateral extent of the contamination has not been delineated however visual evidence (staining) suggests the lateral extent is limited to approximately $2m^2$. TRH C_{10}-C_{36} were not detected in shallow soil from borings B8 (5m west); B9 (15m northeast), B11 (15m south) and B12 (25m southeast) confirming the lateral extent is not widespread. Comparison of TRH C_{10}-C_{36} soil concentrations against CRC CARE soil health screening levels for vapour intrusion (not limiting) and dermal contact (20,000 mg/kg) indicates that petroleum impacted soil beneath the diesel AST does not present a risk to human health for continued commercial/industrial landuse.

The results of groundwater analysis from the temporary monitoring well do not suggest groundwater in the vicinity of the UST has been impacted by petroleum. Dissolved heavy metals copper and zinc were present in groundwater at concentrations above assessment criteria, however are not considered anomalous and are within range of background levels.

No other COPC was detected in soil samples in excess of the assessment criteria.

In conclusion, results of assessment indicate the following:

- Shallow soils in the southwest portion of the site are free of COPC contamination hotspots greater than 22.2m diameter at a 95% statistical degree of certainty;
- COPC do not exist in soils and groundwater at the targeted UST point source location at concentrations in excess of commercial/ industrial landuse criteria;
- Explosive COPC were not detected in soil samples collected from targeted areas associated with the historical manufacturing and storage of ammunition; and
- COPC were not detected in random surface soil samples collected across the site; and
- Asbestos containing materials were not observed on the site surface during site investigation, nor was there laboratory detection of asbestos fibres in soils at locations tested.

With the exception of minor diesel impact to shallow soils beneath the diesel AST all decision rules have been satisfied and the site can be considered suitable for continued commercial industrial use.

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1. INTRODUCTION

Geo-Logix Pty Ltd (Geo-Logix) was commissioned by Better Springs Pty Ltd (Better Springs) to conduct Preliminary Contamination Investigation (PCI) of the property located at 61 – 73 Christie Street, St Marys NSW (Figure 1).

In June 2001 Geo-Logix conducted a Phase 1 Environmental Site Assessment (ESA) of the site which identified the following potential contaminating activities having occurred onsite:

- Potential munitions and other defence utility manufacturing and storage;
- Spring manufacturing;
- Bulk chemical storage and use; and
- Demolition of former building structures potentially containing hazardous materials.

To assess for the land contamination Geo-Logix prepared a scope of works in consultation with the client. The scope of works was to assess intensive use areas of the site systematically and other less used areas of the site by random and targeted sampling. The investigation does not meet minimum standards as defined by AS4482.1-2005 for a site of this area, however is deemed sufficient to provide an indication of potentially consequential land contamination that may impact upon the ongoing commercial / industrial operation of the site (Better Springs Manufacturing Plant).

2. SITE INFORMATION

2.1 Site Identification

The investigation area comprises the following properties (Figure 2):

Street Address	Lot and Deposited Plan (DP)	Approximate Area (m^2)
61 – 63 Christie Street, St Marys NSW 2760	Lot 3 DP 701087	7,130
69 – 73 Christie Street, St Marys NSW 2760	Lot 4 DP 701087	4,971

Property information sourced from Lane Cove Council.

2.2 Site Zoning and Landuse

The site is zoned IN1 – General Industrial under the Penrith Local Environmental Plan 2010. Planning and Development Certificates are provided in Attachment A.

2.3 Site Description

The following observations were made during Phase I ESA site inspection conducted by Geo-Logix on 8th June 2012 and PCI fieldworks 23rd and 24th October 2012. Detailed field observations are presented in the tables in Section 2.4. A detailed site map is presented in Figure 3. Photographic plates are presented in Attachment B.

The site comprises two lots in an industrial area of St Marys, NSW. The site has been occupied by the springs manufacturer Better Springs since the 1970s. It is understood prior to the occupation of the site by Better Springs, the site was part of the former St Marys Munitions Filling Factory operated by the Australian Defence Force for munitions manufacturing and other defence related activities since the 1940s. Christie Street runs along the southern boundary of the site.

The Better Springs operations occur mainly on the southern portion of the site. Two large sheds and adjacent smaller structures exist in the southwest portion of the site on Lot 3 with an office and toilet block in the southern portion of Lot 4. A number of metal and brick structures exist in the central western portion of the site used for storage of paints. Bulk chemical storage areas are shown on Figure 4. The northern portion of the site is vegetated with trees and shrubs.

2.4 Site Details

Item Number	Description	Photo Plate	Report Reference
1	Offices.	1	
2	Toilet block.		
3	Toilet block.		
4	Broken concrete stockpile	2	
5	Broken metal fencing.		
6	Scrap metal.		
7	Sewer gatic.		
8	Stormwater drain.	3	
9	Drain pipe entrance. Appears to discharge into the open drain at location 8 and flow northeast to a tributary of South Creek 170m northeast of the site.	3	
10	Scrap metal and old machinery parts stored adjacent to the shed.	4	
11	Stormwater drain with old rusted 20L hydraulic oil can adjacent.	5	
12	A number of old drums ranging in capacity from 20L to 205L containing product or a product/water mixture. Products appear to comprise paints, hydraulic oil and kerosene. Some labels were unable to be deciphered. Scrap metal, timber and machinery parts also observed in this area.	6	
13	A galvanised iron flammables shed with a bunded and sealed concrete floor. A 205L above ground storage tank (AST) containing paint thinner was observed in the shed. A number of approximately 20L cans of paints and kerosene are also stored in the shed.	6, 7	AST 1
14	Shed formerly used for the production of leaf springs. At the time of investigation Better Springs production of leaf springs had ceased, however all machinery remains. The shed is colour bond clad and was built in the 1990s. The northern end of the shed is used as a store. The southern and central portions of the shed are occupied various pieces of production machinery. Dark staining was observed on the concrete surrounding machinery.	8, 9, 10, 11	

Item Number	Description	Photo Plate	Report Reference
15	An open square tank containing approximately 1000L of tempering oil used in the leaf spring manufacturing process.	12	AST 2
16	Scrap metal.	13	
17	A hopper, part of an extraction system.	13	
18	Two old, empty rusted paint tins.	14	
19	A brick shed with a concrete roof and unsealed ground understood to be an old air raid shelter. Inspection unable to take place due to lighting issues, however, the shelter is understood to be currently used to store metal wire for coil springs.	15	
20	A corrugated metal shed built adjoining to the shelter. The floor is unsealed. Machinery parts, an air compressor and old tins of paint were observed stored in this area. A number of discarded paint tins and a rusted 205L drum were observed adjacent to the outside of the northeast wall.	16	
21	A corrugated metal awning, partially enclosed, used for storage of various timber and metallic items and as a painting shed. The floor area was largely unsealed with a small portion concrete slab. Metal frames used as drying racks were observed. A large number of paint tins, oil drums (205L) were observed in and around this area. The oil drums appeared to be empty or partially filled with water/oil. It is understood the majority of the drums held tempering oil to fill AST 2. The empty drums were kept to use as storage for springs. Paint was observed scattered on the unsealed ground in this area.	17, 18, 19	
22	Old rusted scrap metal pieces were observed in the dry open drain north of the bunker.	20	
23	A number of old rusted metal items stored on concrete sealed and unsealed ground.		
24	Parts storage shed.	21	
25	Decommissioned petrol UST (5000L capacity).	21	UST 1
26	Metal awning, with scrap metal, machinery and other rubbish material stored underneath on concrete sealed ground.		
27	An open shed. A diesel AST (approximately 2,500L) exists adjacent o the southeast wall, approximately 3m above ground. Dark staining was observed on the concrete ground below the AST. The AST was used to store diesel to fire a furnace formerly used to heat steel prior to manufacture. The old furnace exists in the northwest portion of this area. The AST and furnace were not in use.	22, 23	AST 3
28	A partially enclosed corrugated iron clad shed. A number of old machinery parts, metallic items and old 20L tins were observed within the shed area. The floor appeared concrete sealed. A drain was observed in the floor, adjacent to the southwest corner of the shed. An old metal chest appearing to contain a liquid substance was observed adjacent to the southern corner of the shed. An employee of Better Springs informed Geo-Logix this is an old salt bath (molten salt) used to heat metal. The bath has not been used for 20 years and contains hardened molten salt.	24, 25, 26	

Item Number	Description	Photo Plate	Report Reference
29	An open workshed area. An air compressor was observed adjacent to the southern corner.		
30	The Coils Factory. The shed is fibro clad and is understood to have been part of the previous Defence Site.		
31	The western half of the Coils Factory. Machinery, machinery parts, metal wire and other items in associated with the manufacture of coil springs exist in this area. Dark staining on the concrete sealed floor was observed around some of the machinery.	27, 28	
32	The eastern half of the Coils Factory. Machinery, wire and finished products in this area. Some dark staining on concrete sealed floor around equipment. It is understood that the floor of this area was previously floorboards that were replaced by concrete around 1988. Geo-Logix was informed by Better Springs that in the process of concreting the floor area, a number of metallic items and old machinery parts were buried beneath the new floor slab.	29, 30	
33	Kitchen, staff facilities.		
34	Storeroom.		
35	Broken concrete surface, revealing an underground pipe.	31	
36	A brick shed with concrete sealed ground understood to be an old air raid shelter. Inspection unable to take place due to lighting issues, however, the bunker is understood to be currently used to store metal wire for coil springs.	15	
37	A filter from a machine that grinds the ends of metal springs (Photo 11) emits airborne metal particles through the roof, which in the past has settled on the roof causing dark staining. The material may have also settled on the adjacent area on the neighbouring property. The sky lights have been replaced due to this staining.	11	

2.5 Surrounding Land Use

At the time of the investigation, the surrounding land use comprised the following:

- **West** – Industrial properties, including Lisbon Engineering (machinery manufacturers) and factory/warehouse which is understood to have been vacant for approximately 20 years, previously occupied by Rheem (water heater manufacturers). Northwest of the site is an industrial property occupied by Better Drums who have had a number of cleanup notifications from the NSW Office of Environment and Heritage;
- **North** – Native bushland with cleared areas that appears to be for a new railway beyond. An area of dumped material appearing to be concrete was observed north of Lot 1 however the area was unable to be accessed due to thick vegetation;
- **East** – Boral concrete plant, with industrial properties beyond; and
- **South** – Industrial properties including SI Group (chemical manufacturer) and SIMS scrap metal. It is understood the chemical manufacturer closed a month before the current investigation.

2.6 Topography

Site inspection and review of Google Earth interactive map (2006) indicates the site is located at an elevation of approximately 22 m Australian Height Datum (AHD), falling slightly to the northwest. Regional topography appears to fall to the northwest towards a tributary of South Creek 170m northwest of the site.

2.7 Surface Water Receptor

The nearest surface water is a drainage channel 170m northwest of the site. This channel discharges into South Creek 640m northwest of the site. South Creek meanders from south to north, west of the site and is 340m west from the site at the closest point.

2.8 Geology

Review of the NSW 1:100 000 Penrith Geological Map (Geological Survey of NSW, 1966) indicates the site is located on the boundary of Quaternary age alluvium consisting of gravel, sand, silt, clay and the Triassic age Ashfield shale consisting of shale with some sandstone beds.

2.9 Hydrogeology

It is expected that groundwater would follow the natural topography and flow west - northwest towards South Creek.

Reference to the NSW Natural Resource Atlas (NSW Government, 2011) indicates that there are five registered groundwater bores within a 500 m radius of the site. All five bores (GW109584 to GW109588) are located upgradient of the site on a property approximately 450m to the east of the site. The bores are registered for monitoring purposes. The boring logs indicate lithology as clay to approximately 5.5m overlying shale bedrock. Standing water levels were measured between 2.40 and 6.20m below surface. Details for the water bearing zones were not available in the bore logs. The groundwater bore map and bore details are presented in Attachment C.

2.10 Underground Utilities

A Dial Before You Dig search was conducted to determine the presence of underground utilities that may act as conduits for contaminant migration both onsite and offsite (Attachment D). The results indicate that the site is serviced by Telstra utilities, Endeavour Energy, Jemena gas and Sydney Water. Site plans indicate that all utilities run underneath Christie Street, south of the site and enter the site underneath the southern portion.

3. PREVIOUS ENVIRONMENTAL INVESTIGATIONS

3.1 Geo-Logix (2012) Phase 1 Environmental Site Assessment

Geo-Logix were retained by Better Springs to conduct a Phase 1 ESA of the property located at 61 – 73 Christie Street, St Marys NSW.

The objective of the Phase I ESA was to conduct a site inspection and collate site historical information in order to establish whether activities had occurred on site which may have resulted in contamination of the land. The findings of the report were based on a site inspection conducted on the 8th June 2012 and a review of historical site data.

The site comprised two separate Lots and encompassed an area of 12,101m^2. At the time of inspection the site was occupied by Better Springs and used for the manufacturing of steel springs.

The results of the historical review indicated the following site history:

Period	Landuse
Prior to 1940s	Title deeds suggest the land was used for grazing.
Early 1940s to early 1970s	The property was part of a defence site understood to have been used for the manufacture of ammunitions during World War II. A large manufacture shed existed in the southwest portion of the site (the current Coils Factory) and possible ammunition storage bunkers in the eastern portion of the site.
Early 1970s to Current	Occupied by Better Springs for the manufacturing of steel springs.

Based on the site history and site inspection Geo-Logix concluded that several potential contaminating activities have occurred onsite including:

- Potential munitions and other defence utilities manufacturing and storage;
- Spring manufacturer (dangerous goods storage and machinery maintenance); and
- Demolition of former building structures potentially containing hazardous building materials.

Geo-Logix concluded that a Phase II ESA consisting of intrusive assessment, sampling and analysis would be required to assess the presence or otherwise of land contamination.

4. POTENTIAL SITE CONTAMINATION

Based on the results of the Phase I ESA the following potential contamination issues were identified.

Intensive Use Area – 3600m^2 SW Quadrant of Site

This is the area where current and historical manufacturing works are conducted. Potential contamination may have originated from springs manufacturing and potentially ammunitions manufacturing. Given the history of the defence operations are not well understood broad screens of contaminants of potential concern (COPC) were considered for contamination assessment including:

- Petroleum hydrocarbons;
- Polycyclic Aromatic Hydrocarbons (PAHs);

- Heavy metals;
- Volatile Organic Compounds (VOCs, includes solvents);
- Explosives (Eg. TNT, 2.4-DNT, 2.6-DNT, RDX); and
- Asbestos.

Bulk Chemical Storage – Point Sources

Assessment was undertaken adjacent to areas of bulk chemical storage that have occurred onsite including the 5000L decommissioned UST and 2,500L Diesel AST. COPC include:

- Petroleum hydrocarbons;
- Polycyclic Aromatic Hydrocarbons (PAHs); and
- Heavy metals.

Judgemental Sampling – Site Features

Contamination may have also originated from other site features onsite including former Air Raid Shelters which may have been temporarily used for munitions storage. Site inspection indicates other areas of the site may have temporarily stored discarded oil and paint drums and building debris. COPC include:

- Petroleum hydrocarbons;
- Polycyclic Aromatic Hydrocarbons (PAHs);
- Heavy metals;
- Explosives (Eg. TNT, 2.4-DNT, 2.6-DNT, RDX); and
- Asbestos.

5. DATA QUALITY OBJECTIVES

The objective of the investigation was to assess soils and groundwater with respect to contamination sourced from current and past site use.

To achieve the objective, Geo-Logix has adopted the seven step Data Quality Objective (DQO) process as described in AS 4482.1-2005, US EPA (2000) and DEC (2006).

Step 1: State the problem.

The subject site may be contaminated as a result of historical land uses. Issues of potential environmental concern include:

- Potential for widespread contamination to shallow soils across the southwest manufacturing portion of the site;
- Potential localised contamination of soil and groundwater adjacent to bulk chemical stores (former UST and exiting AST); and
- Potential for random contamination associated with air raid shelters and discarded wastes across the site.

Step 2: Identify the decision.

The results of soil and groundwater assessment indicate the land is not contaminated to an extent that would prohibit commercial/ industrial landuse.

Step 3: Identify inputs into the decision.

- Identification of issues of potential environmental concern;
- Appropriate identification of COPC;
- Systematic sampling and analysis program of shallow soils across the site;
- Judgemental sampling and analysis program of soils in areas identified as potential point sources of contamination; and
- Screening sample analytical results against appropriate assessment criteria for the intended end use.

Step 4: Define the boundaries of the site.

The project boundary is defined to the area within the sites boundary (61 - 63 and 69 - 73 Christie Street, St Marys, NSW) to a vertical depth of groundwater, approximately 3.5 metres below grade (mbg).

Step 5: Develop a decision rule.

The results of systematic sampling and analysis of shallow soils across the intensive use area of the site (southwest quadrant) meet the following criteria;

- The 95% UCL concentration does not exceed the assessment criteria;
- No sample exceeds 250% of the commercial / industrial land use assessment criteria; and
- The standard deviation of results must be less than 50% of the commercial / industrial land use assessment criteria

The results of judgemental soil and groundwater sampling must meet the following criteria;

- COPC do not exist in soil and groundwater at concentrations in excess of commercial/ / industrial assessment criteria;
- Explosive organics, nitro glycerine and nitro cellulose are not detected in soil;
- There is no asbestos containing materials observed on the surface; and
- No laboratory detection of asbestos fibres in soil.

Step 6: Specify acceptable limits on decision errors.

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

Step 7: Optimise the design for obtaining data.

This is achieved by sampling plan design in consideration of the available site history information, area of investigation, contaminant behaviour in the environment, and likely spatial distribution of contamination.

6. ASSESSMENT CRITERIA

6.1 Soil Assessment Criteria

Soil analytical data were assessed against the following assessment criteria:

- National Environmental Protection Measure (NEPM) Health Based Investigation Level F (HIL-F) for commercial/industrial exposure setting, (NEPC, 1999);
- NSW EPA Guidelines for Assessing Service Station Sites (NSW EPA, 1994); and
- Cooperative Research Centre for Contamination Assessment and Remediation of the Environment (CRC CARE), Technical Report series, no.10. Soil health screening levels for vapour intrusion and direct contact.

It should be noted that the NSW EPA (1994) guideline values are for the remediation of former service station sites to residential standards. In the context of the proposed commercial/industrial land-use the guideline values may be conservative.

6.2 Groundwater Assessment Criteria

Groundwater analytical data were assessed against the following criteria:

- Australian Drinking Water Guidelines (NHMRC & NRMMC, 2011); and
- Australian and New Zealand Guidelines for Freshwater and Marine Water Quality (ANZECC & ARMCANZ, 2000). Trigger values for the 95% protection of freshwater ecosystems were adopted given the proximity of site to a drainage channel that drains to South Creek.

7. SUBSURFACE INVESTIGATION

7.1 Soil Investigation

Intensive Use Area – 3600m^2 SW Quadrant of Site

This is the area where current and historical manufacturing works are conducted and encompasses approximately 3600m^2. The soil assessment consisted of the following:

- Collection of twelve surface samples and twelve subsurface samples (0.5- 1m) on a 18.8m grid across the area (Figure 5). Excluding asbestos (four samples) and explosives (two samples), all soil samples were analysed for COPC.The sampling program is sufficient to detect a contamination hotspot of 22.2 metres diameter at a 95% statistical degree of certainty.

Bulk Chemical Storage – Point Sources

The following targeted sampling was performed to assess for contamination originating from potential contamination point sources:

- Surface and shallow (0.5m) soil sampling immediately adjacent to diesel AST for analysis of COPC; and

- Shallow and deep soil sampling, and groundwater sampling, immediately adjacent to a decommissioned petrol UST for analysis of COPC.

Judgemental Sampling – Site Features

The following sampling was undertaken to assess for contamination originating from other site features observed during site inspections:

- Surface soil sampling in proximity to historical air raid shelters for analysis of explosive residues that may have originated from temporary storage of defence inventory; and
- Surface soil sampling in random locations across the site for general site coverage and analysis for a range of commonly encountered contaminants including petroleum, PAHs, heavy metals and Organochlorine Pesticides (OCPs).

7.2 Groundwater Investigation

Boring MW1 was located in the immediate vicinity of the decommissioned UST and converted into a temporary monitoring well for the purpose of assessing COPC sourced from UST.

7.3 Soil Sampling Methodology

With the exception of B10, soil borings B1 to B12 were completed using a Dingo post hole digger. Borings were completed to depths between 0.6 and 1.2 mbg using a 100mm solid stem auger. Soil samples were collected directly from the flight of the auger by first removing the outer soil skin. Boring logs are presented in Attachment E.

Borings B10, B13 to B15 were completed using a hand auger to depths between 0.2 mbg to 1.0 mbg. The soil samples were collected directly from the hand auger.

Soil borings B16 to B19 and MW1 were completed using a track-mounted Geoprobe drilling rig. Borings were completed to depths between 2.0 and 7.0 mbg using a 100mm solid stem auger. Soil samples were collected directly from the flight of the augers by first removing the outer soil skin.

Soil samples were placed in laboratory prepared jars, labelled and placed on ice in an esky for transport. A chain of custody form was prepared to accompany the esky to a NATA Accredited Laboratory for the analysis of the COPC.

A soil subsample was placed in a zip lock bag for field screening for volatile compounds using a Photo-ionisation Detector (PID). Equipment calibration certificates are included in Attachment F.

7.4 Groundwater Sampling Methodology

Geo-Logix converted soil boring MW1 into a temporary groundwater monitoring well. The groundwater well was constructed of Class 18 50mm PVC pipe. Slotted PVC casing 3m in length was installed from a depth of between 4.0 to 7.0 mbg.

The groundwater well was sampled on the day of installation. Groundwater samples were collected by dedicating ¼" LDPE tubing into the well. The LDPE tubing was connected to disposable silicon tubing that runs through a peristaltic pump. The peristaltic pump was set to very low flow rates to reduce sample turbidity. During well purging water parameters, pH, dissolved oxygen, turbidity, conductivity and temperature were measured. Groundwater samples were collected when water quality parameters and head elevation stabilised. Where the stabilisation of head elevation was unable to be achieved due to low groundwater recharge, groundwater samples were collected upon stabilisation of water quality parameters. Groundwater sample logs are presented in Attachment G.

Groundwater samples were collected in HCL preserved 40 mL vials, 0.5 litre glass amber bottles and 200 mL nitric acid preserved plastic bottles. All groundwater samples were filtered in the field for dissolved metals analysis. Samples were labelled, placed on ice in an esky and transported under chain of custody conditions to a NATA Accredited Laboratory.

7.5 Quality Assurance

Quality control (QC) sampling was undertaken in general accordance with specifications outlined in AS4482.1 *Guide to Sampling and Investigation of Potentially Contaminated Soil.* Field QC samples were collected and included the following:

Sample Identification	Sample Type	Sample Matrix	Rate of Collection
D1	Field duplicate of B16/2.0	Soil	1 in 20 samples
T1	Field triplicate of B16/2.0	Soil	1 in 20 samples
D2	Field duplicate of B19/4.0	Soil	1 in 20 samples
T2	Field triplicate of B19/4.0	Soil	1 in 20 samples
D1	Field duplicate of MW1	Water	1 in 1 samples
RIN1	Groundwater sampling equipment rinsate	Water	1 per round of sampling
RIN2	Soil sampling equipment rinsate	Water	1 per day of hand auger borings

Note – Rate of QC sample collection specified as 1 in 20 samples in AS4482.1

The laboratory internal QC procedures are consistent with NEPM policy on laboratory analysis of contaminated soils.

8. INVESTIGATION RESULTS

8.1 Site Geology

Fill material was encountered in borings MW1, B4, B5, B7, B8, B11, B14, B15, B16, B18 and B19 to depths of between 0.2 and 1.0mbg. The fill material generally consisted of gravelly sand and included some clay and silt. Anthropogenic material including pieces of concrete were observed in fill in borings MW1 and B8. Ash was detected in fill in borings B11 and B7. No asbestos containing material was observed in fill. Fill was not detected at remaining locations across the site. At the majority of remaining locations grass/ leaf litter and topsoil were encountered to a maximum depth of 0.05mbg.

Fill material and topsoil was underlain by native clay to a maximum depth of approximately 5.8mbg. Weathered shale bedrock was encountered underlying the clay at boring location MW1 from 5.8 to 7.0mbg (maximum depth of investigation).

8.2 Site Hydrogeology

Groundwater was encountered at approximately 5.8 mbg in temporary well MW1. Groundwater is estimated to flow west - northwest towards South Creek. The standing water level in temporary well MW1 was measured at 3.485mbg. A summary of groundwater physical parameters is presented in the table below:

Water Quality Characteristics	
Electrical Conductivity	24200 uS/cm, equivalent to a range of total dissolved solids between 15730 mg/L.
pH	5.76
Redox	56 mV
Oxygen	0.56 mg/L
Temperature	20.3°C

Given the Australian Drinking Water Guidelines recommends a maximum TDS value of 1000 mg/L, groundwater at the site would not be considered potable.

8.3 Soil Analytical Results

Soil analytical results are summarised in Tables 1 through 8. Laboratory reports are presented in Attachment H.

TRH and BTEX

Petroleum hydrocarbons were detected in shallow soil (0.1 mbg) at concentrations greater than the assessment criteria in boring B24 located directly beneath the diesel AST (Table 1).

Petroleum hydrocarbons were detected at concentrations greater than the laboratory reporting limits but below the assessment criteria in borings B9, B16, B18, B19, B22 and B24 (0.5mbg).

Petroleum hydrocarbons were not detected in soil at concentrations above laboratory reporting limits in all other samples analysed.

VOCs

VOCs were not detected in soil at concentrations above laboratory reporting limits in all samples analysed (Table 2).

PAHs

PAHs were not detected in soil at concentrations above the assessment criteria in all samples analysed (Table 3).

Metals

Arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc were not detected at concentrations greater than the assessment criteria in all soil samples analysed (Table 4).

OCPs

OCPs were not detected in soil at concentrations above laboratory reporting limits in all samples analysed (Table 5).

OPPs

OPPs were not detected in soil at concentrations above laboratory reporting limits in all samples analysed (Table 6).

Explosive Residues

Explosive residues were not detected in soil at concentrations above laboratory reporting limits in all samples analysed (Table 7).

Asbestos

Asbestos was not identified in any soil samples analysed (Table 8).

8.4 Groundwater Analytical Data

Groundwater analytical results are summarised in Tables 9 through 12.

TRH and BTEX

TRH and BTEX were not detected at concentrations greater than laboratory reporting limits in groundwater sample MW1 (Table 9).

VOCs

VOCs were not detected at concentrations greater than the laboratory reporting limits in groundwater sample MW1 (Table 10).

PAHs

PAHs were not detected at concentrations greater than the laboratory reporting limits in groundwater sample MW1 (Table 11).

Dissolved Metals

Copper was detected at a concentration marginally above the assessment criteria in groundwater sample MW1 (Table 12).

Nickel was detected at concentrations marginally above assessment criteria in groundwater samples MW1.

Zinc was detected at concentrations above the assessment criteria in groundwater sample MW1.

8.5 QA/QC Results

Soil duplicate/triplicate results are within the adopted acceptance criteria of 30-50% (AS4482.1) with the exception of the following:

- Arsenic, chromium, copper and lead in duplicate pair B16/2.0 and D1;
- Arsenic, chromium, copper and lead in triplicate pair B16/2.0 and T1;
- Lead in duplicate pair B19/4.0 and D2; and
- Lead in triplicate pair B19/4.0 and D2.

The RPD outliers are attributed to the low levels of the contaminants (<5 time LOR).

Water duplicate/triplicate results are within the adopted acceptance criteria of 30-50% (AS4482.1).

COPC were not detected at concentrations above laboratory reporting limits in rinsate samples collected from the groundwater and hand auger sampling equipment indicating decontamination procedures were adequate to prevent cross contamination (Tables 13 to 16).

A summary of Laboratory QA/QC data is presented on the following table.

Report #	Analysis Within Holding Time	Surrogate Recovery	Lab. Duplicate RPD %	Lab Matrix Spike Recovery	Lab. Control Sample	Lab Method Blank
356804-S	√	√	√	√	√	√
356804-W	√	√	√	√	√	√
357043-S	√	√	√	√	√	√

√ = Pass X = Fail -- = not required * = refer to report text

Quality Assurance Criteria

Holding Times

VOCs 14 days soil/water

SVOCs 7 days water, 14 days soil

Pesticides 7 days water, 14 days soil

Metals 6 months

Mercury 28 days

Quality Control Criteria

Accuracy

Surrogate, matrix spike, control sample 70-130% and 30-130% for Phenols. Surrogate recovery 50-150% and 20-130% for Phenols.

Precision

Method Blank Not detected

Duplicate - No limit (<10xEQL), 0-50% (10-20xEQL), 0-200% (>20xEQL)

Geo-Logix accepts the integrity of the analytical data.

9. DISCUSSION

Petroleum hydrocarbons in the range of TRH C_{10}-C_{36} were detected in shallow soil (0.1mbg) at concentrations exceeding the NSW EPA guidelines for sensitive landuse at soil boring B24 located beneath the diesel AST. TRH C_{10}-C_{36} was not detected at concentrations above NSW EPA guidelines for sensitive landuse in soil at a depth of 0.5mbg indicating that the vertical extent of the TRH C_{10}-C_{36} contamination is limited to surface soils.

The immediate lateral extent of the contamination has not been delineated however visual evidence (staining) suggests the lateral extent is very limited to an approximate area of $2m^2$. TRH C_{10}-C_{36} were not detected in shallow soil from borings B8 (5m west); B9 (15m northeast), B11 (15m south) and B12 (25m southeast) confirming that the lateral extent is not widespread.

Although TRH C_{10}-C_{36} concentrations in shallow soil at boring location B24 exceeded NSW EPA guidelines for sensitive landuse these guidelines are for the remediation of former service station sites to residential standards and are very conservative. TRH C_{10}-C_{36} concentrations did not exceed CRC CARE soil health screening levels (not limiting) for vapour intrusion for depths of 0-1.0mbg in clays. Additionally values did not exceed CRC CARE soil health screening levels (20,000 mg/kg) for direct contact for commercial/ industrial land use. In consideration of CRC CARE HSLs diesel impacted surface soil beneath the AST is not considered to present a risk to human health under continued commercial/industrial land use.

The results of groundwater analysis from the temporary monitoring well do not suggest groundwater in the vicinity of the UST has been impacted by petroleum. Dissolved heavy metals copper and zinc were present in groundwater at concentrations above assessment criteria, however are not considered anomalous and are within range of background levels.

Due to safety concerns and UPSS infrastructure the three soil borings within the vicinity of the UST were completed in soils outside of the UST tank pit and not within the UST tank pit backfilled sands. The contamination status of the tank pit backfilled sands is therefore unknown however soil boring results indicate that contamination if present would be limited to the immediate vicinity of the UST tank pit.

10. CONCLUSIONS

In conclusion, results of assessment indicate the following:

- Shallow soils in the southwest quadrant of the site are free of COPC contamination hotspots greater than 22.2m diameter at a 95% statistical degree of certainty;
- COPC do not exist in soils and groundwater adjacent to the UST at concentrations in excess of commercial/ industrial landuse criteria;
- Explosive COPC were not detected in laboratory analysis of soil samples collected from targeted areas associated with the manufacturing facility and air raid shelters;
- COPC were not detected in random surface soil samples collected across the site; and
- Asbestos containing materials were not observed on the site surface during site investigation, nor was there laboratory detection of asbestos fibres in soils at locations tested.

With the exception of petroleum impact to shallow soils beneath the diesel AST all decision rules have been satisfied. It is expected petroleum hydrocarbon impact to shallow soils beneath the diesel AST is limited in its lateral extent. Diesel impact to surface soil is not considered to present a risk to human health for continued commercial/ industrial landuse based on CRC CARE soil health screening levels for vapour intrusion and direct contact. Minor soil remedial works are recommended below the AST for aesthetic purposes. Geo-Logix considers the site suitable for commercial/ industrial landuse.

11. LIMITATIONS

This report should be read in full, and no executive summary, conclusion or other section of the report may be used or relied on in isolation, or taken as representative of the report as a whole. No responsibility is accepted by Geo-Logix, and any duty of care that may arise but for this statement is excluded, in relation to any use of any part of this report other than on this basis.

This report has been prepared for the sole benefit of and use by the Client. No other person may rely on the report for any purpose whatsoever except with Geo-Logix's express written consent. Any duty of care to third parties that would or may arise in respect of persons other than the Client, but for this statement, is excluded.

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The works undertaken by Geo-Logix are based solely on the scope of works, as agreed by the Client (Fabcot Pty Ltd). No other investigations, sampling, monitoring works or reporting will be carried out other than as expressly provided in the Scope of Works. **A COPY OF THE SCOPE OF WORKS IS AVAILABLE ON REQUEST.**

To the extent permitted by law, Geo-Logix makes no warranties or representations as to the:

- suitability of the Site for any specific use, or category of use, or
- potential statutory requirements for remediation, if any, of the Site, or
- approvals, if any, that may be needed in respect of any use or category of use, or
- level of remediation, if any, that is warranted to render the Site suitable for any specific use, or category of use, or
- level of ongoing monitoring of Site conditions, if any, that is required in respect of any specific use, or category of use, or
- presence, extent or absence of any substance in, on or under the Site, other than as expressly stated in this report.

The conclusions stated in this report are based solely on the information, Scope of Works, analysis and data that are stated or expressly referred to in this report.

To the extent that the information and data relied upon to prepare this report has been conveyed to Geo-Logix by the Client or third parties orally or in the form of documents, Geo-Logix has assumed that the information and data are completely accurate and has not sought independently to verify the accuracy of the information or data. Geo-Logix assumes no responsibility or duty of care in respect of any errors or omissions in the information or data provided to it.

Without limiting the paragraph above, where laboratory tests have been carried out by others on Geo-Logix's behalf, the tests are reproduced in this report on the assumption that the tests are accurate. Geo-Logix has not sought independently to verify the accuracy of those tests and assumes no responsibility in respect of them.

Geo-Logix assumes no responsibility in respect of any changes in the condition of the Site which have occurred since the time when Geo-Logix gathered data and/or took samples from the Site on its site inspections dated 23 to 24 October 2012.

Given the nature of asbestos, and the difficulties involved in identifying asbestos fibres, despite the exercise of all reasonable due care and diligence, thorough investigations may not always reveal its presence in either buildings or fill. Even if asbestos has been tested for and those tests' results do not reveal the presence of asbestos at those specific points of sampling, asbestos or asbestos containing materials may still be present at the Site, particularly if fill has been imported at any time, buildings constructed prior to 1980 have been demolished on the Site or materials from such buildings have been disposed of on the Site.

Where the Scope of Works does not include offsite investigations, Geo-Logix provides no warranty as to offsite conditions, including the extent if any to which substances in the Site may be emanating off site, and if so whether any adjoining sites have been or may be impacted by contamination originating from the Site.

Where the Scope of Works does not include the investigation, sampling, monitoring or other testing of groundwater in, on or under the Site, Geo-Logix provides no warranty or representation as to the quality of groundwater on the Site or the actual or potential migration of contamination in groundwater across or off the Site.

Subsurface site conditions are typically heterogeneous, and may change with time. Samples taken from different points on the Site may not enable inferences to be drawn about the condition of areas of the Site significantly removed from the sample points, or about the condition of any part of the Site whatsoever, in particular where the proposed inferences are to be drawn a long time after the date of the report.

Geo-Logix has prepared this report with the diligence, care and skill which a reasonable person would expect from a reputable environmental consultancy and in accordance with environmental regulatory authority and industry standards, guidelines and assessment criteria applicable as at the date of this report. Industry standards and environmental criteria change frequently, and may change at any time after the date of this report.

12. REFERENCES

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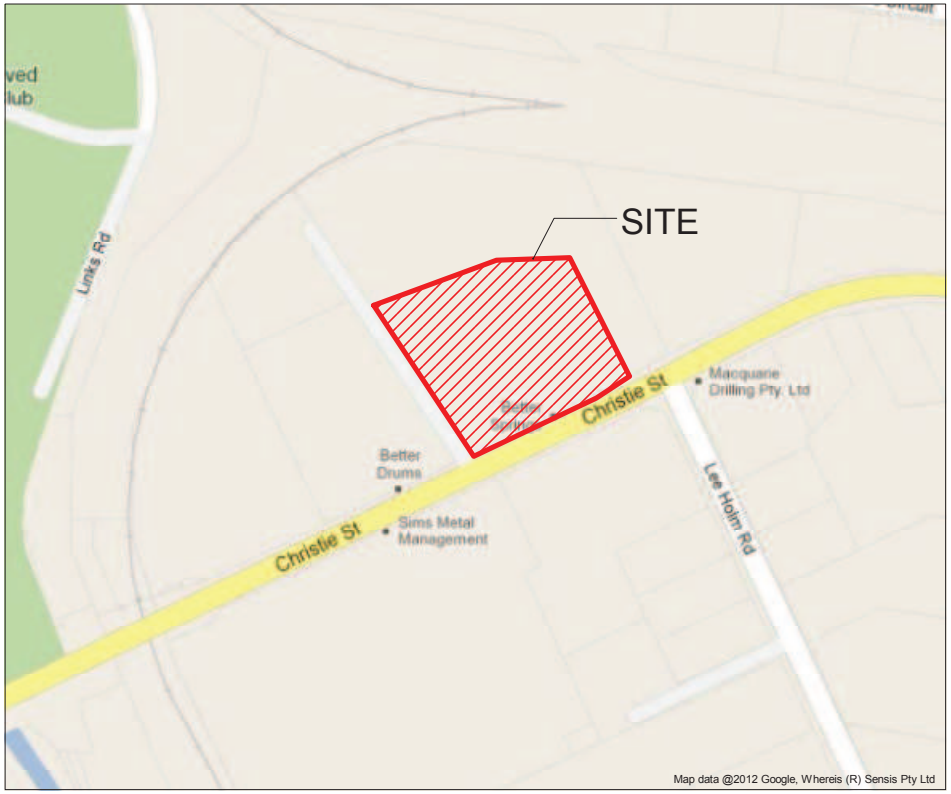
FIGURES



PART MAP ST MARYS

PART MAP NSW

ISSUE	DATE	AMENDMENTS	DRAWN	CHECKED

GEO-LOGIX PTY LTD
UNIT 2309, 4 DAYDREAM STREET,
WARRIEWOOD NSW 22102
Ph: (02) 9979 1722
Fax: (02) 9979 1222

DRAWN:	CHECKED:
M G	G R
APPROVED:	D G
DATE:	08/11/2012

SITE LOCATION MAP
PRELIMINARY CONTAMINATION INVESTIGATION
61-63 and 69-73 Christie Street ST MARYS NSW 2760

SHEET SIZE:	PROJECT NO:	REV:	
A4	1201037	01	FIGURE 1

N

Area of Interest

0m 50m 100m

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APPROVED: D G

DATE: 04/12/2012

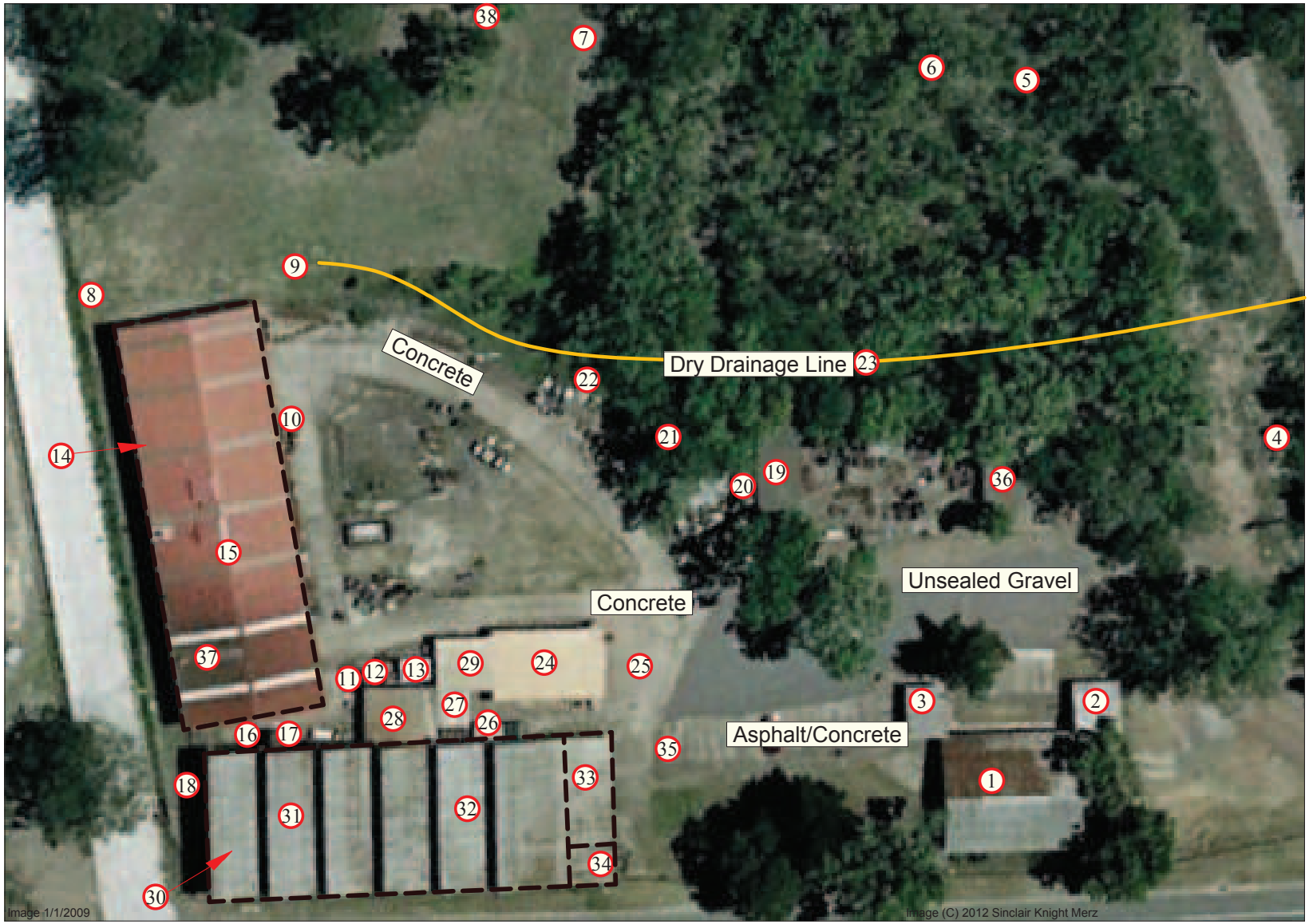
SHEET SIZE: A4

PROJECT NO: 1201037

REV: 01

LOT MAP
PRELIMINARY CONTAMINATION INVESTIGATION
61-63 and 69-73 Christie Street ST MARYS NSW 2760

FIGURE 2



33° 44' 51" S / 150° 46' 0" E

0m 10m 50m

N

#	
1.	Offices
2.	Toilet Block
3.	Toilet Block
4.	Broken Concrete Pile
5.	Broken Metal Fencing
6.	Scrap Metal
7.	Sewer Gatic
8.	Stormwater Drain
9.	Drain Pipe Entrance
10.	Scap Metal/ Mach. Parts
11.	SW Drain / 20L Hydraulic Oil
12.	Paint and Oil Drums
13.	Flammables Shed (ASTI)
14.	Leaf Springs Shed
15.	1000L Tempering Oil Tank (AST2)
16.	Scrap Metal
17.	Hopper
18.	2 x Empty Rusty Paint Tins
19.	Ammunitions Bunker
20.	Metal Shed - Unsealed Floor
21.	Metal Awning - Painting Area
22.	Rusted Scrap Metal in Dry Drain
23.	Rusted Scrap Metal
24.	Parts Storage Shed
25.	Decommissioned UST (UST1)
26.	Metal Awning - Metal Part Storage
27.	Open Shed - Diesel AST (AST3)
28.	Partially Enclosed Metal Shed
29.	Open Workshed Area
30.	Coils Factory
31.	Western Half Of Coils Factory
32.	Eastern Half Of Coils Factory
33.	Kitchen Staff Facilities
34.	Storeroom
35.	Broken Concrete/Underground Pipe
36.	Ammunitions Bunker
37.	Staining On Roof
38.	Concrete Pile

ISSUE	DATE	AMENDMENTS	DRAWN	CHECKED

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CHECKED:	GR
APPROVED:	D G
DATE:	09/11/2012
SHEET SIZE:	A4
PROJECT NO:	1201037
REV:	01

SITE DETAILS
PRELIMINARY CONTAMINATION INVESTIGATION
61-63 and 69-73 Christie Street ST MARYS NSW 2760

FIGURE 3

N

Paints and Oil Drums

Flammable Store
Paints and Oil Drums

33° 44' 51" S / 150° 46' 0" E

0m 10m 50m

ISSUE	DATE	AMENDMENTS	DRAWN	CHECKED

GEO-LOGIX PTY LTD
UNIT 2309, 4 DAYDREAM STREET,
WARRIEWOOD NSW 22102
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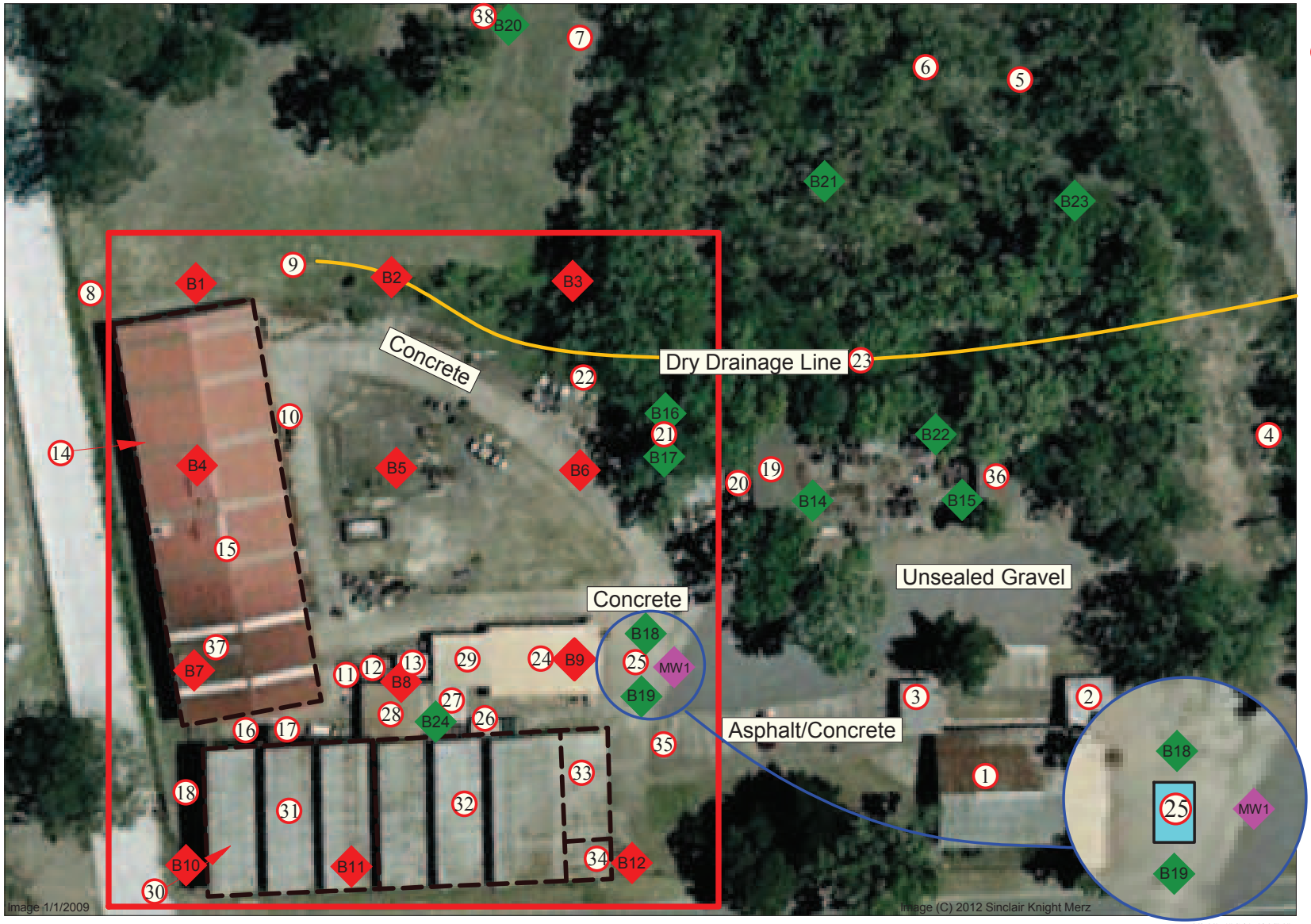
APPROVED:	D G
DATE:	04/12/2012

BULK CHEMICAL STORAGE MAP
PRELIMINARY CONTAMINATION INVESTIGATION
61-63 and 69-73 Christie Street ST MARYS NSW 2760

SHEET SIZE:	PROJECT NO:	REV:	
A4	1201037	01	FIGURE 4



#

1. Offices
2. Toilet Block
3. Toilet Block
4. Broken Concrete Pile
5. Broken Metal Fencing
6. Scrap Metal
7. Sewer Gatic
8. Stormwater Drain
9. Drain Pipe Entrance
10. Scap Metal/ Mach. Parts
11. SW Drain / 20L Hydraulic Oil
12. Paint and Oil Drums
13. Flammables Shed (ASTI)
14. Leaf Springs Shed
15. 1000L Tempering Oil Tank (AST2)
16. Scrap Metal
17. Hopper
18. 2 x Empty Rusty Paint Tins
19. Air Raid Shelter
20. Metal Shed - Unsealed Floor
21. Metal Awning - Painting Area
22. Rusted Scrap Metal in Dry Drain
23. Rusted Scrap Metal
24. Parts Storage Shed
25. Decommissioned UST (UST1)
26. Metal Awning - Metal Part Storage
27. Open Shed - Diesel AST (AST3)
28. Partially Enclosed Metal Shed
29. Open Workshed Area
30. Coils Factory
31. Western Half Of Coils Factory
32. Eastern Half Of Coils Factory
33. Kitchen Staff Facilities
34. Storeroom
35. Broken Concrete/Underground Pipe
36. Air Raid Shelter
37. Staining On Roof
38. Concrete Pile

B1 Grid Based Sample B14 Targeted Sample MW1 Boring / Temporary Groundwater Monitoring Well

ISSUE	DATE	AMENDMENTS	DRAWN	CHECKED

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APPROVED: D G
DATE: 07/11/2012
SHEET SIZE: A4
PROJECT NO: 1201037
REV: 01

SAMPLE LOCATION MAP
PRELIMINARY CONTAMINATION INVESTIGATION
61-63 and 69-73 Christie Street ST MARYS NSW 2760

FIGURE 5

TABLES

TABLE 1
Summary of Soil Analytical Data
TRH and BTEX
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

TRH and BTEX	Assessment Criteria	Sample ID	B1/0.1	B1/1.0	B2/0.1	B2/1.0	B3/0.1	B3/1.0
		Depth (m)	0.1	1.0	0.1	1.0	0.1	1.0
		Soil Type	Native	Native	Native	Native	Native	Native
		Date	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
Total Recoverable Hydrocarbons								
C_6-C_9	65		<10	<10	<10	<10	<10	<10
C_{10}-C_{14}	n/a		< 50	< 50	< 50	< 50	< 50	< 50
C_{15}-C_{28}	n/a		< 100	< 100	< 100	< 100	< 100	< 100
C_{29}-C_{36}	n/a		< 100	< 100	< 100	< 100	< 100	< 100
Sum of TRH (C_{10}-C_{36})	1000		< 100	< 100	< 100	< 100	< 100	< 100
BTEX								
Benzene	1		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	1.4		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	3.1		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
o-xylenes	n/a		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
m & p xylenes	n/a		<1	<1	<1	<1	<1	<1
Xylenes	14		< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5

Notes:

Assessment Criteria = NSW EPA (1994) Threshold Concentrations for Sensitive Landuse

Concentrations in milligrams/kilogram (mg/kg)

n/a = criteria not available

<# = analyte not detected at concentration in excess of laboratory reporting limits

D1 = field duplicate of B16/2.0

T1 = field triplicate of B16/2.0

D2 = field duplicate of B19/4.0

T2 = field triplicate of B19/4.0

nc = RPD not calcuated, one or both samples below laboratory reporting limits

RPD* = Relative Percent Difference between primary sample and field duplicate sample

RPD** = Relative Percent Difference between primary sample and field triplicate sample

Bold indicates exceedance of Assessment Criteria

-- = not applicable

TABLE 1
Summary of Soil Analytical Data
TRH and BTEX
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

TRH and BTEX	Assessment Criteria	Sample ID	B4/0.2	B4/0.3	B5/0.1	B5/1.1	B6/0.1	B6/0.5
		Depth (m)	0.2	0.3	0.1	1.1	0.1	0.5
		Soil Type	Fill	Native	Fill	Native	Native	Native
		Date	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
Total Recoverable Hydrocarbons								
C_6-C_9	65		<10	<10	<10	<10	<10	<10
C_{10}-C_{14}	n/a		< 50	< 50	< 50	< 50	< 50	< 50
C_{15}-C_{28}	n/a		< 100	< 100	< 100	< 100	< 100	< 100
C_{29}-C_{36}	n/a		< 100	< 100	< 100	< 100	< 100	< 100
Sum of TRH (C_{10}-C_{36})	1000		< 100	< 100	< 100	< 100	< 100	< 100
BTEX								
Benzene	1		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	1.4		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	3.1		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
o-xylenes	n/a		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
m & p xylenes	n/a		<1	<1	<1	<1	<1	<1
Xylenes	14		< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5

Notes:

Assessment Criteria = NSW EPA (1994) Threshold Concentrations for Sensitive Landuse

Concentrations in milligrams/kilogram (mg/kg)

n/a = criteria not available

<# = analyte not detected at concentration in excess of laboratory reporting limits

D1 = field duplicate of B16/2.0

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D2 = field duplicate of B19/4.0

T2 = field triplicate of B19/4.0

nc = RPD not calcuated, one or both samples below laboratory reporting limits

RPD* = Relative Percent Difference between primary sample and field duplicate sample

RPD** = Relative Percent Difference between primary sample and field triplicate sample

Bold indicates exceedance of Assessment Criteria

-- = not applicable

TABLE 1
Summary of Soil Analytical Data
TRH and BTEX
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

TRH and BTEX	Assessment Criteria	Sample ID	B7/0.2	B7/0.5	B8/0.3	B9/0.15	B9/1.0	B10/0.1
		Depth (m)	0.2	0.5	0.3	0.2	1.0	0.1
		Soil Type	Fill	Fill	Fill	Fill	Native	Native
		Date	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
Total Recoverable Hydrocarbons								
C_6-C_9	65		<10	<10	<10	<10	<10	<10
C_{10}-C_{14}	n/a		< 50	< 50	< 50	< 50	< 50	< 50
C_{15}-C_{28}	n/a		< 100	< 100	< 100	< 100	< 100	< 100
C_{29}-C_{36}	n/a		< 100	< 100	< 100	100	< 100	< 100
Sum of TRH (C_{10}-C_{36})	1000		< 100	< 100	< 100	100	< 100	< 100
BTEX								
Benzene	1		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	1.4		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	3.1		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
o-xylenes	n/a		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
m & p xylenes	n/a		<1	<1	<1	<1	<1	<1
Xylenes	14		< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5

Notes:

Assessment Criteria = NSW EPA (1994) Threshold Concentrations for Sensitive Landuse

Concentrations in milligrams/kilogram (mg/kg)

n/a = criteria not available

<# = analyte not detected at concentration in excess of laboratory reporting limits

D1 = field duplicate of B16/2.0

T1 = field triplicate of B16/2.0

D2 = field duplicate of B19/4.0

T2 = field triplicate of B19/4.0

nc = RPD not calcuated, one or both samples below laboratory reporting limits

RPD* = Relative Percent Difference between primary sample and field duplicate sample

RPD** = Relative Percent Difference between primary sample and field triplicate sample

Bold indicates exceedance of Assessment Criteria

-- = not applicable

TABLE 1
Summary of Soil Analytical Data
TRH and BTEX
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

TRH and BTEX	Assessment Criteria	Sample ID	B10/0.5	B11/0.2	B11/0.7	B12/0.2	B12/1.0	B16/0.1	B16/2.0
		Depth (m)	0.5	0.2	0.7	0.2	1.0	0.1	2.0
		Soil Type	Native	Fill	Native	Native	Native	Fill	Native
		Date	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	23/10/2012	23/10/2012
Total Recoverable Hydrocarbons									
C_6-C_9	65		<10	<10	<10	<10	<10	<10	<10
C_{10}-C_{14}	n/a		< 50	< 50	< 50	< 50	< 50	< 50	< 50
C_{15}-C_{28}	n/a		< 100	< 100	< 100	< 100	< 100	110	< 100
C_{29}-C_{36}	n/a		< 100	< 100	< 100	< 100	< 100	180	< 100
Sum of TRH (C_{10}-C_{36})	1000		< 100	< 100	< 100	< 100	< 100	290	< 100
BTEX									
Benzene	1		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	1.4		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	3.1		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
o-xylenes	n/a		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
m & p xylenes	n/a		<1	<1	<1	<1	<1	<1	<1
Xylenes	14		< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5

Notes:

Assessment Criteria = NSW EPA (1994) Threshold Concentrations for Sensitive Landuse

Concentrations in milligrams/kilogram (mg/kg)

n/a = criteria not available

<# = analyte not detected at concentration in excess of laboratory reporting limits

D1 = field duplicate of B16/2.0

T1 = field triplicate of B16/2.0

D2 = field duplicate of B19/4.0

T2 = field triplicate of B19/4.0

nc = RPD not calcuated, one or both samples below laboratory reporting limits

RPD* = Relative Percent Difference between primary sample and field duplicate sample

RPD** = Relative Percent Difference between primary sample and field triplicate sample

Bold indicates exceedance of Assessment Criteria

-- = not applicable

TABLE 1
Summary of Soil Analytical Data
TRH and BTEX
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

TRH and BTEX	Assessment Criteria	Sample ID	D1	*RPD**	T1	*RPD***	B17/0.15
		Depth (m)	-	-	-	-	0.2
		Soil Type					Native
		Date	23/10/2012	*%*	23/10/2012	*%*	23/10/2012
Total Recoverable Hydrocarbons							
C_6-C_9	65		<10	*nc*	<20	*nc*	<10
C_{10}-C_{14}	n/a		< 50	*nc*	<20	*nc*	< 50
C_{15}-C_{28}	n/a		< 100	*nc*	<50	*nc*	< 100
C_{29}-C_{36}	n/a		< 100	*nc*	<50	*nc*	< 100
Sum of TRH (C_{10}-C_{36})	1000		< 100	*nc*	<50	*nc*	< 100
BTEX							
Benzene	1		< 0.5	*nc*	< 0.5	*nc*	< 0.5
Toluene	1.4		< 0.5	*nc*	< 0.5	*nc*	< 0.5
Ethylbenzene	3.1		< 0.5	*nc*	< 0.5	*nc*	< 0.5
o-xylenes	n/a		< 0.5	*nc*	< 0.5	*nc*	< 0.5
m & p xylenes	n/a		<1	*nc*	<1	*nc*	<1
Xylenes	14		< 1.5	*nc*	< 1.5	*nc*	< 1.5

Notes:
Assessment Criteria = NSW EPA (1994) Threshold Concentrations for Sensitive Landuse
Concentrations in milligrams/kilogram (mg/kg)
n/a = criteria not available
<# = analyte not detected at concentration in excess of laboratory reporting limits
D1 = field duplicate of B16/2.0
T1 = field triplicate of B16/2.0
D2 = field duplicate of B19/4.0
T2 = field triplicate of B19/4.0
nc = RPD not calcuated, one or both samples below laboratory reporting limits
RPD* = Relative Percent Difference between primary sample and field duplicate sample
RPD** = Relative Percent Difference between primary sample and field triplicate sample
Bold indicates exceedance of Assessment Criteria
-- = not applicable

TABLE 1
Summary of Soil Analytical Data
TRH and BTEX
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

TRH and BTEX	Assessment Criteria	Sample ID	B17/2.0	B18/1.0	B18/4.0	B19/1.0	B19/4.0
		Depth (m)	2.0	1.0	4.0	1.0	4.0
		Soil Type	Native	Native	Native	Native	Native
		Date	23/10/2012	23/10/2012	23/10/2012	23/10/2012	23/10/2012
Total Recoverable Hydrocarbons							
C_6-C_9	65		<10	<10	<10	<10	<10
C_{10}-C_{14}	n/a		< 50	< 50	< 50	160	< 50
C_{15}-C_{28}	n/a		< 100	170	< 100	< 100	< 100
C_{29}-C_{36}	n/a		< 100	< 100	< 100	< 100	< 100
Sum of TRH (C_{10}-C_{36})	1000		< 100	170	< 100	160	< 100
BTEX							
Benzene	1		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	1.4		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	3.1		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
o-xylenes	n/a		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
m & p xylenes	n/a		<1	<1	<1	<1	<1
Xylenes	14		< 1.5	< 1.5	< 1.5	< 1.5	< 1.5

Notes:
Assessment Criteria = NSW EPA (1994) Threshold Concentrations for Sensitive Landuse
Concentrations in milligrams/kilogram (mg/kg)
n/a = criteria not available
<# = analyte not detected at concentration in excess of laboratory reporting limits
D1 = field duplicate of B16/2.0
T1 = field triplicate of B16/2.0
D2 = field duplicate of B19/4.0
T2 = field triplicate of B19/4.0
nc = RPD not calcuated, one or both samples below laboratory reporting limits
RPD* = Relative Percent Difference between primary sample and field duplicate sample
RPD** = Relative Percent Difference between primary sample and field triplicate sample
Bold indicates exceedance of Assessment Criteria
-- = not applicable

TABLE 1
Summary of Soil Analytical Data
TRH and BTEX
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

TRH and BTEX	Assessment Criteria	Sample ID	D2	*RPD**	T2	*RPD***	B20/0.1
		Depth (m)	-	-	-	-	0.1
		Soil Type					Native
		Date	16/07/2012	*%*	16/07/2012	*%*	24/10/2012
Total Recoverable Hydrocarbons							
C_6-C_9	65		<10	*nc*	<20	*nc*	<10
C_{10}-C_{14}	n/a		< 50	*nc*	<20	*nc*	< 50
C_{15}-C_{28}	n/a		< 100	*nc*	<50	*nc*	< 100
C_{29}-C_{36}	n/a		< 100	*nc*	<50	*nc*	< 100
Sum of TRH (C_{10}-C_{36})	1000		< 100	--	<50	*nc*	< 100
BTEX							
Benzene	1		< 0.5	*nc*	< 0.5	*nc*	< 0.5
Toluene	1.4		< 0.5	*nc*	< 0.5	*nc*	< 0.5
Ethylbenzene	3.1		< 0.5	*nc*	< 0.5	*nc*	< 0.5
o-xylenes	n/a		< 0.5	*nc*	< 0.5	*nc*	< 0.5
m & p xylenes	n/a		<1	*nc*	<1	*nc*	<1
Xylenes	14		< 1.5	*nc*	< 1.5	*nc*	< 1.5

Notes:
Assessment Criteria = NSW EPA (1994) Threshold Concentrations for Sensitive Landuse
Concentrations in milligrams/kilogram (mg/kg)
n/a = criteria not available
<# = analyte not detected at concentration in excess of laboratory reporting limits
D1 = field duplicate of B16/2.0
T1 = field triplicate of B16/2.0
D2 = field duplicate of B19/4.0
T2 = field triplicate of B19/4.0
nc = RPD not calcuated, one or both samples below laboratory reporting limits
RPD* = Relative Percent Difference between primary sample and field duplicate sample
RPD** = Relative Percent Difference between primary sample and field triplicate sample
Bold indicates exceedance of Assessment Criteria
-- = not applicable

TABLE 1
Summary of Soil Analytical Data
TRH and BTEX
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

TRH and BTEX	Assessment Criteria	Sample ID	B21/0.1	B22/0.1	B23/0.1	B24/0.1	B24/0.5
		Depth (m)	0.1	0.1	0.1	0.1	0.5
		Soil Type	Native	Native	Native	Native	Native
		Date	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
Total Recoverable Hydrocarbons							
C_6-C_9	65		<10	<10	<10	<10	<10
C_{10}-C_{14}	n/a		< 50	< 50	< 50	200	68
C_{15}-C_{28}	n/a		< 100	< 100	< 100	4500	840
C_{29}-C_{36}	n/a		< 100	200	< 100	< 100	< 100
Sum of TRH (C_{10}-C_{36})	1000		< 100	200	< 100	**4700**	910
BTEX							
Benzene	1		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	1.4		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	3.1		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
o-xylenes	n/a		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
m & p xylenes	n/a		<1	<1	<1	<1	<1
Xylenes	14		< 1.5	< 1.5	< 1.5	< 1.5	< 1.5

Notes:
Assessment Criteria = NSW EPA (1994) Threshold Concentrations for Sensitive Landuse
Concentrations in milligrams/kilogram (mg/kg)
n/a = criteria not available
<# = analyte not detected at concentration in excess of laboratory reporting limits
D1 = field duplicate of B16/2.0
T1 = field triplicate of B16/2.0
D2 = field duplicate of B19/4.0
T2 = field triplicate of B19/4.0
nc = RPD not calcuated, one or both samples below laboratory reporting limits
RPD* = Relative Percent Difference between primary sample and field duplicate sample
RPD** = Relative Percent Difference between primary sample and field triplicate sample
Bold indicates exceedance of Assessment Criteria
-- = not applicable

TABLE 2:
Summary of Soil Analytical Data
Volatile Organic Compounds
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

VOCs	Assessment Criteria	Sample ID	B1/0.1	B1/1.0	B2/0.1	B2/1.0	B3/0.1	B3/1.0	B4/0.2	B4/0.3
		Depth (m)	0.1	1.0	0.1	1.0	0.1	1.0	0.2	0.3
		Soil Type	Native	Native	Native	Native	Native	Native	Fill	Native
		Date	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
Volatile Aromatic Compounds	n/a									
1.1-Dichloroethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.1-Dichloroethene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.1.1-Trichloroethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.1.1.2-Tetrachloroethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.1.2-Trichloroethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.2-Dibromoethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.2-Dichlorobenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.2-Dichloroethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.2-Dichloropropane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.2.3-Trichloropropane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.2.4-Trichlorobenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.2.4-Trimethylbenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.3-Dichlorobenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.3-Dichloropropane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.3.5-Trimethylbenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.4-Dichlorobenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-Hexanone (MBK)	n/a		<5	<5	<5	<5	<5	<5	<5	<5
2-Butanone (MEK)	n/a		<5	<5	<5	<5	<5	<5	<5	<5
2-Chlorotoluene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chlorotoluene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-Pentanone	n/a		<5	<5	<5	<5	<5	<5	<5	<5
4-Methyl-2-pentanone (MIBK)	n/a		<5	<5	<5	<5	<5	<5	<5	<5
Benzene	1		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromobenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

Assessment Criteria = NSW EPA (1994) Threshold Concentrations for Sensitive Landuse

Concentrations in milligrams/kilogram (mg/kg)

<# = analyte not detected at concentration in excess of laboratory reporting limits

n/a = Assessment criteria not available

D1 = field duplicate of B16/2.0

T1 = field triplicate of B16/2.0

RPD* = Relative Percent Difference between primary sample and field duplicate sample

Bold indicates exceedance of Assessment Criteria

TABLE 2:
Summary of Soil Analytical Data
Volatile Organic Compounds
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

VOCs	Assessment Criteria	Sample ID	B1/0.1	B1/1.0	B2/0.1	B2/1.0	B3/0.1	B3/1.0	B4/0.2	B4/0.3
		Depth (m)	0.1	1.0	0.1	1.0	0.1	1.0	0.2	0.3
		Soil Type	Native	Native	Native	Native	Native	Native	Fill	Native
		Date	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
Volatile Aromatic Compounds										
Carbon disulfide	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1.2-Dichloroethene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1.3-Dichloropropene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	3.1		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropyl benzene (Cumene)	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
n-Butylbenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
n-Propylbenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	1.4		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1.2-Dichloroethene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1.3-Dichloropropene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl acetate	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylenes(ortho.meta and para)	14		<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5

Notes:

Assessment Criteria = NSW EPA (1994) Threshold Concentrations for Sensitive Landuse

Concentrations in milligrams/kilogram (mg/kg)

<# = analyte not detected at concentration in excess of laboratory reporting limits

n/a = Assessment criteria not available

D1 = field duplicate of B16/2.0

T1 = field triplicate of B16/2.0

RPD* = Relative Percent Difference between primary sample and field duplicate sample

Bold indicates exceedance of Assessment Criteria

TABLE 2:
Summary of Soil Analytical Data
Volatile Organic Compounds
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

VOCs	Assessment Criteria	Sample ID	B5/0.1	B5/1.1	B6/0.1	B6/0.5	B7/0.2	B7/0.5	B8/0.3	B9/0.15
		Depth (m)	0.1	1.1	0.1	0.5	0.2	0.5	0.3	0.2
		Soil Type	Fill	Native	Native	Native	Fill	Fill	Fill	Fill
		Date	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
Volatile Aromatic Compounds	n/a									
1.1-Dichloroethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.1-Dichloroethene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.1.1-Trichloroethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.1.1.2-Tetrachloroethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.1.2-Trichloroethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.2-Dibromoethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.2-Dichlorobenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.2-Dichloroethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.2-Dichloropropane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.2.3-Trichloropropane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.2.4-Trichlorobenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.2.4-Trimethylbenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.3-Dichlorobenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.3-Dichloropropane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.3.5-Trimethylbenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.4-Dichlorobenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-Hexanone (MBK)	n/a		<5	<5	<5	<5	<5	<5	<5	<5
2-Butanone (MEK)	n/a		<5	<5	<5	<5	<5	<5	<5	<5
2-Chlorotoluene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chlorotoluene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-Pentanone	n/a		<5	<5	<5	<5	<5	<5	<5	<5
4-Methyl-2-pentanone (MIBK)	n/a		<5	<5	<5	<5	<5	<5	<5	<5
Benzene	1		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromobenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

Assessment Criteria = NSW EPA (1994) Threshold Concentrations for Sensitive Landuse

Concentrations in milligrams/kilogram (mg/kg)

<# = analyte not detected at concentration in excess of laboratory reporting limits

n/a = Assessment criteria not available

D1 = field duplicate of B16/2.0

T1 = field triplicate of B16/2.0

RPD* = Relative Percent Difference between primary sample and field duplicate sample

Bold indicates exceedance of Assessment Criteria

TABLE 2:
Summary of Soil Analytical Data
Volatile Organic Compounds
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

VOCs	Assessment Criteria	Sample ID	B5/0.1	B5/1.1	B6/0.1	B6/0.5	B7/0.2	B7/0.5	B8/0.3	B9/0.15
		Depth (m)	0.1	1.1	0.1	0.5	0.2	0.5	0.3	0.2
		Soil Type	Fill	Native	Native	Native	Fill	Fill	Fill	Fill
		Date	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
Volatile Aromatic Compounds										
Carbon disulfide	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1.2-Dichloroethene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1.3-Dichloropropene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	3.1		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropyl benzene (Cumene)	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
n-Butylbenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
n-Propylbenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	1.4		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1.2-Dichloroethene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1.3-Dichloropropene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl acetate	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylenes(ortho.meta and para)	14		<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5

Notes:

Assessment Criteria = NSW EPA (1994) Threshold Concentrations for Sensitive Landuse

Concentrations in milligrams/kilogram (mg/kg)

<# = analyte not detected at concentration in excess of laboratory reporting limits

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D1 = field duplicate of B16/2.0

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Volatile Organic Compounds
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

VOCs	Assessment Criteria	Sample ID	B9/1.0	B10/0.1	B10/0.5	B11/0.2	B11/0.7	B12/0.2	B12/1.0	B16/0.1
		Depth (m)	1.0	0.1	0.5	0.2	0.7	0.2	1.0	0.1
		Soil Type	Native	Native	Native	Fill	Native	Native	Native	Fill
		Date	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	23/10/2012
Volatile Aromatic Compounds	n/a									
1.1-Dichloroethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.1-Dichloroethene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.1.1-Trichloroethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.1.1.2-Tetrachloroethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.1.2-Trichloroethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.2-Dibromoethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.2-Dichlorobenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.2-Dichloroethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.2-Dichloropropane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.2.3-Trichloropropane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.2.4-Trichlorobenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.2.4-Trimethylbenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.3-Dichlorobenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.3-Dichloropropane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.3.5-Trimethylbenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.4-Dichlorobenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-Hexanone (MBK)	n/a		<5	<5	<5	<5	<5	<5	<5	<5
2-Butanone (MEK)	n/a		<5	<5	<5	<5	<5	<5	<5	<5
2-Chlorotoluene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chlorotoluene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-Pentanone	n/a		<5	<5	<5	<5	<5	<5	<5	<5
4-Methyl-2-pentanone (MIBK)	n/a		<5	<5	<5	<5	<5	<5	<5	<5
Benzene	1		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromobenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

Assessment Criteria = NSW EPA (1994) Threshold Concentrations for Sensitive Landuse

Concentrations in milligrams/kilogram (mg/kg)

<# = analyte not detected at concentration in excess of laboratory reporting limits

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D1 = field duplicate of B16/2.0

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TABLE 2:
Summary of Soil Analytical Data
Volatile Organic Compounds
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

VOCs	Assessment Criteria	Sample ID	B9/1.0	B10/0.1	B10/0.5	B11/0.2	B11/0.7	B12/0.2	B12/1.0	B16/0.1
		Depth (m)	1.0	0.1	0.5	0.2	0.7	0.2	1.0	0.1
		Soil Type	Native	Native	Native	Fill	Native	Native	Native	Fill
		Date	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	23/10/2012
Volatile Aromatic Compounds										
Carbon disulfide	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1.2-Dichloroethene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1.3-Dichloropropene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	3.1		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropyl benzene (Cumene)	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
n-Butylbenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
n-Propylbenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	1.4		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1.2-Dichloroethene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1.3-Dichloropropene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl acetate	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylenes(ortho.meta and para)	14		<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5

Notes:

Assessment Criteria = NSW EPA (1994) Threshold Concentrations for Sensitive Landuse

Concentrations in milligrams/kilogram (mg/kg)

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61 - 63 and 69 - 73 Christie Street
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VOCs	Assessment Criteria	Sample ID	B16/2.0	D1	RPD*	T1	RPD**	B17/0.15	B17/2.0
		Depth (m)	2.0	-	-	-	-	0.2	2.0
		Soil Type	Native					Native	Native
		Date	23/10/2012	23/10/2012	%	23/10/2012	%	23/10/2012	23/10/2012
Volatile Aromatic Compounds	n/a								
1.1-Dichloroethane	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
1.1-Dichloroethene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
1.1.1-Trichloroethane	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
1.1.1.2-Tetrachloroethane	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
1.1.2-Trichloroethane	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
1.2-Dibromoethane	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
1.2-Dichlorobenzene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
1.2-Dichloroethane	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
1.2-Dichloropropane	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
1.2.3-Trichloropropane	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
1.2.4-Trichlorobenzene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
1.2.4-Trimethylbenzene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
1.3-Dichlorobenzene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
1.3-Dichloropropane	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
1.3.5-Trimethylbenzene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
1.4-Dichlorobenzene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
2-Hexanone (MBK)	n/a		<5	<5	*nc*	<0.5	*nc*	<5	<5
2-Butanone (MEK)	n/a		<5	<5	*nc*	<0.5	*nc*	<5	<5
2-Chlorotoluene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
4-Chlorotoluene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
2-Pentanone	n/a		<5	<5	*nc*	<0.5	*nc*	<5	<5
4-Methyl-2-pentanone (MIBK)	n/a		<5	<5	*nc*	<0.5	*nc*	<5	<5
Benzene	1		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
Bromobenzene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
Bromodichloromethane	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
Bromoform	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
Bromomethane	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5

Notes:
Assessment Criteria = NSW EPA (1994) Threshold Concentrations for Sensitive Landuse
Concentrations in milligrams/kilogram (mg/kg)
<# = analyte not detected at concentration in excess of laboratory reporting limits
n/a = Assessment criteria not available
D1 = field duplicate of B16/2.0
T1 = field triplicate of B16/2.0
RPD* = Relative Percent Difference between primary sample and field duplicate sample
Bold indicates exceedance of Assessment Criteria

TABLE 2:
Summary of Soil Analytical Data
Volatile Organic Compounds
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

VOCs	Assessment Criteria	Sample ID	B16/2.0	D1	RPD*	T1	RPD**	B17/0.15	B17/2.0
		Depth (m)	2.0	-	-	-	-	0.2	2.0
		Soil Type	Native					Native	Native
		Date	23/10/2012	23/10/2012	%	23/10/2012	%	23/10/2012	23/10/2012
Volatile Aromatic Compounds									
Carbon disulfide	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
Carbon Tetrachloride	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
Chlorobenzene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
Chloroethane	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
Chloroform	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
Chloromethane	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
cis-1.2-Dichloroethene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
cis-1.3-Dichloropropene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
Dibromochloromethane	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
Dichlorodifluoromethane	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
Hexachlorobutadiene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
Ethylbenzene	3.1		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
Isopropyl benzene (Cumene)	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
Methylene chloride	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
n-Butylbenzene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
n-Propylbenzene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
p-Isopropyltoluene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
Styrene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
tert-Butylbenzene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
Tetrachloroethene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
Toluene	1.4		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
trans-1.2-Dichloroethene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
trans-1.3-Dichloropropene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
Trichloroethene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
Trichlorofluoromethane	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
Vinyl acetate	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
Vinyl chloride	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5
Xylenes(ortho.meta and para)	14		<1.5	<1.5	*nc*	<1.5	*nc*	<1.5	<1.5

Notes:

Assessment Criteria = NSW EPA (1994) Threshold Concentrations for Sensitive Landuse

Concentrations in milligrams/kilogram (mg/kg)

<# = analyte not detected at concentration in excess of laboratory reporting limits

n/a = Assessment criteria not available

D1 = field duplicate of B16/2.0

T1 = field triplicate of B16/2.0

RPD* = Relative Percent Difference between primary sample and field duplicate sample

Bold indicates exceedance of Assessment Criteria

TABLE 3:
Summary of Soil Analytical Data
Polycyclic Aromatic Hydrocarbons
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

PAHs	Assessment Criteria	Sample ID	B1/0.1	B1/1.0	B2/0.1	B2/1.0	B3/0.1	B3/1.0	B4/0.2	B4/0.3
		Depth (m)	0.1	1.0	0.1	1.0	0.1	1.0	0.2	0.3
		Soil Type	Native	Native	Native	Native	Native	Native	Fill	Native
		Date	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
Naphthalene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b)&(k)fluoranthene	n/a		<1	<1	<1	<1	<1	<1	<1	<1
Benzo(a) pyrene	5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1,2,3-c,d)pyrene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sum of reported PAHs	100		<1	<1	<1	<1	<1	<1	<1	<1

Notes:

Assessment Criteria = NEPM (1999) HIL 'F' Commercial/Industrial criteria

Concentrations in milligrams/kilogram (mg/kg)

n/a = Assessment criteria not available

<# = analyte not detected at concentration in excess of laboratory reporting limits

D1 = field duplicate of B16/2.0

T1 = field triplicate of B16/2.0

D2 = field duplicate of SB19/4.0

T2 = field triplicate of B19/4.0

nc = RPD not calcuated, one or both samples below EQL

RPD* = Relative Percent Difference between primary sample and field duplicate sample

RPD** = Relative Percent Difference between primary sample and field triplicate sample

Bold indicates exceedance of Assessment Criteria

-- = not applicable

TABLE 3:
Summary of Soil Analytical Data
Polycyclic Aromatic Hydrocarbons
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

PAHs	Assessment Criteria	Sample ID	B5/0.1	B5/1.1	B6/0.1	B6/0.5	B7/0.2	B7/0.5	B8/0.3	B9/0.15
		Depth (m)	0.1	1.1	0.1	0.5	0.2	0.5	0.3	0.2
		Soil Type	Fill	Native	Native	Native	Fill	Fill	Fill	Fill
		Date	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
Naphthalene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b)&(k)fluoranthene	n/a		<1	<1	<1	<1	<1	<1	<1	<1
Benzo(a) pyrene	5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1,2,3-c,d)pyrene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sum of reported PAHs	100		<1	<1	<1	<1	<1	<1	<1	<1

Notes:

Assessment Criteria = NEPM (1999) HIL 'F' Commercial/Industrial criteria

Concentrations in milligrams/kilogram (mg/kg)

n/a = Assessment criteria not available

<# = analyte not detected at concentration in excess of laboratory reporting limits

D1 = field duplicate of B16/2.0

T1 = field triplicate of B16/2.0

D2 = field duplicate of SB19/4.0

T2 = field triplicate of B19/4.0

nc = RPD not calcuated, one or both samples below EQL

RPD* = Relative Percent Difference between primary sample and field duplicate sample

RPD** = Relative Percent Difference between primary sample and field triplicate sample

Bold indicates exceedance of Assessment Criteria

-- = not applicable

TABLE 3:
Summary of Soil Analytical Data
Polycyclic Aromatic Hydrocarbons
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

PAHs	Assessment Criteria	Sample ID	B9/1.0	B10/0.1	B10/0.5	B11/0.2	B11/0.7	B12/0.2	B12/1.0	B16/0.1
		Depth (m)	1.0	0.1	0.5	0.2	0.7	0.2	1.0	0.1
		Soil Type	Native	Native	Native	Fill	Native	Native	Native	Fill
		Date	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	23/10/2012
Naphthalene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b)&(k)fluoranthene	n/a		<1	<1	<1	<1	<1	<1	<1	<1
Benzo(a) pyrene	5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1,2,3-c,d)pyrene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sum of reported PAHs	100		<1	<1	<1	<1	<1	<1	<1	<1

Notes:

Assessment Criteria = NEPM (1999) HIL 'F' Commercial/Industrial criteria

Concentrations in milligrams/kilogram (mg/kg)

n/a = Assessment criteria not available

<# = analyte not detected at concentration in excess of laboratory reporting limits

D1 = field duplicate of B16/2.0

T1 = field triplicate of B16/2.0

D2 = field duplicate of SB19/4.0

T2 = field triplicate of B19/4.0

nc = RPD not calcuated, one or both samples below EQL

RPD* = Relative Percent Difference between primary sample and field duplicate sample

RPD** = Relative Percent Difference between primary sample and field triplicate sample

Bold indicates exceedance of Assessment Criteria

-- = not applicable

TABLE 3:
Summary of Soil Analytical Data
Polycyclic Aromatic Hydrocarbons
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

PAHs	Assessment Criteria	Sample ID	B16/2.0	D1	*RPD**	T1	*RPD***	B17/0.15	B17/2.0	B18/1.0
		Depth (m)	2.0	-	-	-	-	0.2	2.0	1.0
		Soil Type	Native					Native	Native	Native
		Date	23/10/2012	23/10/2012	%	23/10/2012	%	23/10/2012	23/10/2012	23/10/2012
Naphthalene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5	<0.5
Acenaphthylene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5	<0.5
Acenaphthene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5	<0.5
Fluorene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5	<0.5
Phenanthrene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5	<0.5
Anthracene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5	<0.5
Fluoranthene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5	<0.5
Pyrene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5	<0.5
Benz(a)anthracene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5	<0.5
Chrysene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5	<0.5
Benzo(b)&(k)fluoranthene	n/a		<1	<1	*nc*	<1	*nc*	<1	<1	<1
Benzo(a) pyrene	5		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5	<0.5
Indeno(1,2,3-c,d)pyrene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	n/a		<0.5	<0.5	*nc*	<0.5	*nc*	<0.5	<0.5	<0.5
Sum of reported PAHs	100		<1	<1	*nc*	<1	*nc*	<1	<1	<1

Notes:

Assessment Criteria = NEPM (1999) HIL 'F' Commercial/Industrial criteria

Concentrations in milligrams/kilogram (mg/kg)

n/a = Assessment criteria not available

<# = analyte not detected at concentration in excess of laboratory reporting limits

D1 = field duplicate of B16/2.0

T1 = field triplicate of B16/2.0

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T2 = field triplicate of B19/4.0

nc = RPD not calcuated, one or both samples below EQL

RPD* = Relative Percent Difference between primary sample and field duplicate sample

RPD** = Relative Percent Difference between primary sample and field triplicate sample

Bold indicates exceedance of Assessment Criteria

-- = not applicable

TABLE 3:
Summary of Soil Analytical Data
Polycyclic Aromatic Hydrocarbons
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

PAHs	Assessment Criteria	Sample ID	B18/4.0	B19/1.0	B19/4.0	D2	*RPD**	T2	*RPD***	B20/0.1
		Depth (m)	4.0	1.0	4.0	-	-	-	-	0.1
		Soil Type	Native	Native	Native					Native
		Date	23/10/2012	23/10/2012	23/10/2012	23/10/2012	%	23/10/2012	%	24/10/2012
Naphthalene	n/a		<0.5	<0.5	<0.5	<0.5	*nc*	<0.5	*nc*	<0.5
Acenaphthylene	n/a		<0.5	<0.5	<0.5	<0.5	*nc*	<0.5	*nc*	<0.5
Acenaphthene	n/a		<0.5	<0.5	<0.5	<0.5	*nc*	<0.5	*nc*	<0.5
Fluorene	n/a		<0.5	<0.5	<0.5	<0.5	*nc*	<0.5	*nc*	<0.5
Phenanthrene	n/a		<0.5	<0.5	<0.5	<0.5	*nc*	<0.5	*nc*	<0.5
Anthracene	n/a		<0.5	<0.5	<0.5	<0.5	*nc*	<0.5	*nc*	<0.5
Fluoranthene	n/a		<0.5	<0.5	<0.5	<0.5	*nc*	<0.5	*nc*	<0.5
Pyrene	n/a		<0.5	<0.5	<0.5	<0.5	*nc*	<0.5	*nc*	<0.5
Benz(a)anthracene	n/a		<0.5	<0.5	<0.5	<0.5	*nc*	<0.5	*nc*	<0.5
Chrysene	n/a		<0.5	<0.5	<0.5	<0.5	*nc*	<0.5	*nc*	<0.5
Benzo(b)&(k)fluoranthene	n/a		<1	<1	<1	<1	*nc*	<1	*nc*	<1
Benzo(a) pyrene	5		<0.5	<0.5	<0.5	<0.5	*nc*	<0.5	*nc*	<0.5
Indeno(1,2,3-c,d)pyrene	n/a		<0.5	<0.5	<0.5	<0.5	*nc*	<0.5	*nc*	<0.5
Dibenz(a,h)anthracene	n/a		<0.5	<0.5	<0.5	<0.5	*nc*	<0.5	*nc*	<0.5
Benzo(g,h,i)perylene	n/a		<0.5	<0.5	<0.5	<0.5	*nc*	<0.5	*nc*	<0.5
Sum of reported PAHs	100		<1	<1	<1	<1	*nc*	<1	*nc*	<1

Notes:

Assessment Criteria = NEPM (1999) HIL 'F' Commercial/Industrial criteria

Concentrations in milligrams/kilogram (mg/kg)

n/a = Assessment criteria not available

<# = analyte not detected at concentration in excess of laboratory reporting limits

D1 = field duplicate of B16/2.0

T1 = field triplicate of B16/2.0

D2 = field duplicate of SB19/4.0

T2 = field triplicate of B19/4.0

nc = RPD not calcuated, one or both samples below EQL

RPD* = Relative Percent Difference between primary sample and field duplicate sample

RPD** = Relative Percent Difference between primary sample and field triplicate sample

Bold indicates exceedance of Assessment Criteria

-- = not applicable

TABLE 3:
Summary of Soil Analytical Data
Polycyclic Aromatic Hydrocarbons
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

PAHs	Assessment Criteria	Sample ID Depth (m) Soil Type Date	B21/0.1 0.1 Native 24/10/2012	B22/0.1 0.1 Native 24/10/2012	B23/0.1 0.1 Native 24/10/2012	B24/0.1 0.1 Native 24/10/2012	B24/0.5 0.5 Native 24/10/2012
Naphthalene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b)&(k)fluoranthene	n/a		<1	<1	<1	<1	<1
Benzo(a) pyrene	5		<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1,2,3-c,d)pyrene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	n/a		<0.5	<0.5	<0.5	<0.5	<0.5
Sum of reported PAHs	100		<1	<1	<1	<1	<1

Notes:

Assessment Criteria = NEPM (1999) HIL 'F' Commercial/Industrial criteria

Concentrations in milligrams/kilogram (mg/kg)

n/a = Assessment criteria not available

<# = analyte not detected at concentration in excess of laboratory reporting limits

D1 = field duplicate of B16/2.0

T1 = field triplicate of B16/2.0

D2 = field duplicate of SB19/4.0

T2 = field triplicate of B19/4.0

nc = RPD not calcuated, one or both samples below EQL

RPD* = Relative Percent Difference between primary sample and field duplicate sample

RPD** = Relative Percent Difference between primary sample and field triplicate sample

Bold indicates exceedance of Assessment Criteria

-- = not applicable

TABLE 4:
Summary of Soil Analytical Data
Metals
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

Metals	Assessment Criteria	Sample ID	B1/0.1	B1/1.0	B2/0.1	B2/1.0	B3/0.1	B3/1.0	B4/0.2
		Depth (m)	0.1	1.0	0.1	1.0	0.1	1.0	0.2
		Soil Type	Native	Native	Native	Native	Native	Native	Fill
		Date	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
Arsenic	500		12	9.7	8.1	8.9	6.9	15	5
Cadmium	100		0.4	0.2	0.4	0.3	0.5	0.5	0.2
Chromium	60%		30	17	25	27	39	34	60
Copper	5000		21	12	19	12	20	27	34
Lead	1500		37	13	57	22	56	27	19
Mercury	75		<0.05	<0.05	0.05	<0.05	0.08	<0.05	<0.05
Nickel	3000		8.6	4.7	7.2	6.1	13	7.2	52
Zinc	35000		84	28	140	27	90	40	35

Notes:
Assessment Criteria = NEPM (1999) HIL 'F' Commercial/Industrial criteria
Total concentrations in milligrams per kilogram (mg/kg)
<# = analyte not detected at concentration in excess of laboratory reporting limits
- = sample not analysed
D1 = field duplicate of B16/2.0
T1 = field triplicate of B16/2.0
D2 = field duplicate of SB19/4.0
T2 = field triplicate of B19/4.0
nc = RPD not calcuated, one or both samples below EQL
RPD* = Relative Percent Difference between primary sample and field duplicate sample
RPD** = Relative Percent Difference between primary sample and field triplicate sample
Bold indicates exceedance of Assessment Criteria
-- = not applicable

TABLE 4:
Summary of Soil Analytical Data
Metals
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

Metals	Assessment Criteria	Sample ID	B4/0.3	B5/0.1	B5/1.1	B6/0.1	B6/0.5	B7/0.2	B7/0.5
		Depth (m)	0.3	0.1	1.1	0.1	0.5	0.2	0.5
		Soil Type	Native	Fill	Native	Native	Native	Fill	Fill
		Date	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
Arsenic	500		7	5.4	5.6	4.6	5.5	5.1	6.9
Cadmium	100		0.2	0.3	0.2	<0.1	0.2	0.2	0.2
Chromium	60%		19	25	55	8.8	18	14	22
Copper	5000		12	23	13	11	22	27	14
Lead	1500		9.8	37	21	12	37	8.4	16
Mercury	75		<0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel	3000		3.2	10	21	3.2	8	40	11
Zinc	35000		19	110	46	16	65	33	33

Notes:
Assessment Criteria = NEPM (1999) HIL 'F' Commercial/Industrial criteria
Total concentrations in milligrams per kilogram (mg/kg)
<# = analyte not detected at concentration in excess of laboratory reporting limits
- = sample not analysed
D1 = field duplicate of B16/2.0
T1 = field triplicate of B16/2.0
D2 = field duplicate of SB19/4.0
T2 = field triplicate of B19/4.0
nc = RPD not calcuated, one or both samples below EQL
RPD* = Relative Percent Difference between primary sample and field duplicate sample
RPD** = Relative Percent Difference between primary sample and field triplicate sample
Bold indicates exceedance of Assessment Criteria
-- = not applicable

TABLE 4:
Summary of Soil Analytical Data
Metals
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

Metals	Assessment Criteria	Sample ID	B8/0.3	B9/0.15	B9/1.0	B10/0.1	B10/0.5	B11/0.2	B11/0.7
		Depth (m)	0.3	0.2	1.0	0.1	0.5	0.2	0.7
		Soil Type	Fill	Fill	Native	Native	Native	Fill	Native
		Date	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
Arsenic	500		2.7	4.2	7	13	5.5	4.4	14
Cadmium	100		0.4	1.7	0.6	0.8	<0.1	<0.1	0.3
Chromium	60%		9.5	25	26	300	16	4.7	34
Copper	5000		11	18	38	54	12	9.8	9
Lead	1500		11	150	66	100	13	3.9	13
Mercury	75		<0.05	<0.05	<0.05	0.07	<0.05	<0.05	<0.05
Nickel	3000		4.3	16	8.4	180	3.7	21	3.1
Zinc	35000		27	100	130	300	18	62	14

Notes:
Assessment Criteria = NEPM (1999) HIL 'F' Commercial/Industrial criteria
Total concentrations in milligrams per kilogram (mg/kg)
<# = analyte not detected at concentration in excess of laboratory reporting limits
- = sample not analysed
D1 = field duplicate of B16/2.0
T1 = field triplicate of B16/2.0
D2 = field duplicate of SB19/4.0
T2 = field triplicate of B19/4.0
nc = RPD not calcuated, one or both samples below EQL
RPD* = Relative Percent Difference between primary sample and field duplicate sample
RPD** = Relative Percent Difference between primary sample and field triplicate sample
Bold indicates exceedance of Assessment Criteria
-- = not applicable

TABLE 4:
Summary of Soil Analytical Data
Metals
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

Metals	Assessment Criteria	Sample ID	B12/0.2	B12/1.0	B16/0.1	B16/2.0	D1	RPD*	T1
		Depth (m)	0.2	1.0	0.1	2.0	-	-	-
		Soil Type	Native	Native	Fill	Native			
		Date	24/10/2012	24/10/2012	23/10/2012	23/10/2012	23/10/2012	%	23/10/2012
Arsenic	500		6.2	7.6	8.5	2.1	7.6	*113*	8.9
Cadmium	100		0.1	0.1	1.2	<0.1	<0.1	*nc*	<0.4
Chromium	60%		17	41	160	9.6	17	*56*	18
Copper	5000		7.5	4.7	43	5.1	8.6	*51*	12
Lead	1500		10	13	230	5.7	10	*55*	12
Mercury	75		<0.05	<0.05	0.12	<0.05	<0.05	*nc*	<0.1
Nickel	3000		2.9	2.8	25	1.2	1.7	*34*	<5
Zinc	35000		12	10	680	<5	11	*nc*	8.3

Notes:
Assessment Criteria = NEPM (1999) HIL 'F' Commercial/Industrial criteria
Total concentrations in milligrams per kilogram (mg/kg)
<# = analyte not detected at concentration in excess of laboratory reporting limits
- = sample not analysed
D1 = field duplicate of B16/2.0
T1 = field triplicate of B16/2.0
D2 = field duplicate of SB19/4.0
T2 = field triplicate of B19/4.0
nc = RPD not calcuated, one or both samples below EQL
RPD* = Relative Percent Difference between primary sample and field duplicate sample
RPD** = Relative Percent Difference between primary sample and field triplicate sample
Bold indicates exceedance of Assessment Criteria
-- = not applicable

TABLE 4:
Summary of Soil Analytical Data
Metals
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

Metals	Assessment Criteria	Sample ID	RPD**	B17/0.15	B17/2.0	B18/1.0	B18/4.0	B19/1.0	B19/4.0
		Depth (m)	-	0.2	2.0	1.0	4.0	1.0	4.0
		Soil Type		Native	Native	Native	Native	Native	Native
		Date	%	23/10/2012	23/10/2012	23/10/2012	23/10/2012	23/10/2012	23/10/2012
Arsenic	500		*124*	8.7	7.3	14	5.2	14	6.4
Cadmium	100		*nc*	0.2	<0.1	0.3	0.1	0.7	0.1
Chromium	60%		*61*	23	11	24	10	41	7.9
Copper	5000		*81*	8.6	9.1	12	16	10	15
Lead	1500		*71*	41	7.4	12	11	24	28
Mercury	75		*nc*	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel	3000		*nc*	3	1.7	1.6	9.7	3.2	12
Zinc	35000		*nc*	37	7.2	11	28	75	28

Notes:
Assessment Criteria = NEPM (1999) HIL 'F' Commercial/Industrial criteria
Total concentrations in milligrams per kilogram (mg/kg)
<# = analyte not detected at concentration in excess of laboratory reporting limits
- = sample not analysed
D1 = field duplicate of B16/2.0
T1 = field triplicate of B16/2.0
D2 = field duplicate of SB19/4.0
T2 = field triplicate of B19/4.0
nc = RPD not calcuated, one or both samples below EQL
RPD* = Relative Percent Difference between primary sample and field duplicate sample
RPD** = Relative Percent Difference between primary sample and field triplicate sample
Bold indicates exceedance of Assessment Criteria
-- = not applicable

TABLE 4:
Summary of Soil Analytical Data
Metals
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

Metals	Assessment Criteria	Sample ID	D2	RPD*	T2	RPD**	B20/0.1	B21/0.1	B22/0.1
		Depth (m)	-	-	-	-	0.1	0.1	0.1
		Soil Type					Native	Native	Native
		Date	16/07/2012	%	16/07/2012	%	24/10/2012	24/10/2012	24/10/2012
Arsenic	500		5.7	*12*	4.1	*44*	6.1	10	9.6
Cadmium	100		<0.1	*nc*	<0.4	*nc*	0.2	0.5	1.9
Chromium	60%		8.6	*8*	7.3	*8*	21	37	82
Copper	5000		17	*13*	13	*14*	13	12	74
Lead	1500		11	*87*	9.8	*96*	28	44	840
Mercury	75		<0.05	*nc*	<0.1	*nc*	<0.05	<0.05	0.26
Nickel	3000		12	*0*	10	*18*	7.3	5.9	28
Zinc	35000		28	*0*	25	*11*	58	88	980

Notes:
Assessment Criteria = NEPM (1999) HIL 'F' Commercial/Industrial criteria
Total concentrations in milligrams per kilogram (mg/kg)
<# = analyte not detected at concentration in excess of laboratory reporting limits
- = sample not analysed
D1 = field duplicate of B16/2.0
T1 = field triplicate of B16/2.0
D2 = field duplicate of SB19/4.0
T2 = field triplicate of B19/4.0
nc = RPD not calcuated, one or both samples below EQL
RPD* = Relative Percent Difference between primary sample and field duplicate sample
RPD** = Relative Percent Difference between primary sample and field triplicate sample
Bold indicates exceedance of Assessment Criteria
-- = not applicable

TABLE 4:
Summary of Soil Analytical Data
Metals
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

Metals	Assessment Criteria	Sample ID	B23/0.1	B24/0.1	B24/0.5
		Depth (m)	0.1	0.1	0.5
		Soil Type	Native	Native	Native
		Date	24/10/2012	24/10/2012	24/10/2012
Arsenic	500		17	9.2	13
Cadmium	100		0.6	1.1	0.4
Chromium	60%		42	59	33
Copper	5000		13	30	16
Lead	1500		58	150	35
Mercury	75		<0.05	0.05	<0.05
Nickel	3000		8.3	17	2.5
Zinc	35000		110	770	9.3

Notes:
Assessment Criteria = NEPM (1999) HIL 'F' Commercial/Industrial criteria
Total concentrations in milligrams per kilogram (mg/kg)
<# = analyte not detected at concentration in excess of laboratory reporting limits
- = sample not analysed
D1 = field duplicate of B16/2.0
T1 = field triplicate of B16/2.0
D2 = field duplicate of SB19/4.0
T2 = field triplicate of B19/4.0
nc = RPD not calcuated, one or both samples below EQL
RPD* = Relative Percent Difference between primary sample and field duplicate sample
RPD** = Relative Percent Difference between primary sample and field triplicate sample
Bold indicates exceedance of Assessment Criteria
-- = not applicable

TABLE 5:
Summary of Soil Analytical Data
Organochlorine Pesticides
Better Springs
61 - 63 and 69 - 73 Christie Street
NSW, NSW

OCP	Assessment Criteria	Sample ID	B20/0.1	B21/0.1	B22/0.1	B23/0.1
		Depth	0.1	0.1	0.1	0.1
		Soil Type	Native	Native	Native	Native
		Date	24/10/2012	24/10/2012	24/10/2012	24/10/2012
4.4'-DDD	1000***		<0.05	<0.05	<0.05	<0.05
4.4'-DDE	1000***		<0.05	<0.05	<0.05	<0.05
4.4'-DDT	1000***		<0.2	<0.2	<0.2	<0.2
a-BHC	n/a		<0.05	<0.05	<0.05	<0.05
Aldrin	50*		<0.05	<0.05	<0.05	<0.05
b-BHC	n/a		<0.05	<0.05	<0.05	<0.05
Chlordane	250**		<0.1	<0.1	<0.1	<0.1
d-BHC	n/a		<0.05	<0.05	<0.05	<0.05
Dieldrin	50*		<0.05	<0.05	<0.05	<0.05
Endosulfan I	n/a		<0.05	<0.05	<0.05	<0.05
Endosulfan II	n/a		<0.05	<0.05	<0.05	<0.05
Endosulfan sulphate	n/a		<0.05	<0.05	<0.05	<0.05
Endrin	n/a		<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	n/a		<0.05	<0.05	<0.05	<0.05
Endrin ketone	n/a		<0.05	<0.05	<0.05	<0.05
g-BHC (Lindane)	n/a		<0.05	<0.05	<0.05	<0.05
Heptachlor	50		<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	n/a		<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene	n/a		<0.05	<0.05	<0.05	<0.05
Methoxychlor	n/a		<0.2	<0.2	<0.2	<0.2

Notes:

Assessment Criteria = NEPM (1999) HIL 'F' Commercial/Industrial criteria

Concentrations in miligrams per kilogram (mg/kg)

* = combine Aldrin + Dieldrin concentration

** = combined cis and trans chlordane concentration

*** = combined DDD, DDE and DDT concentration

n/a = Assessment criteria not available

nc = RPD not calcuated, one or both samples below EQL

<# = analyte not detected at concentration in excess of laboratory reporting limits

Bold indicates exceedance of Assessment Criteria

TABLE 6:
Summary of Soil Analytical Data
Organophosphorus Pesticides
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

OPP	Sample ID	B20/0.1	B21/0.1	B22/0.1	B23/0.1
	Depth	0.1	0.1	0.1	0.1
	Soil Type	Native	Native	Native	Native
	Date	24/10/2012	24/10/2012	24/10/2012	24/10/2012
Chlorpyrifos		<0.5	<0.5	<0.5	<0.5
Coumaphos		<0.5	<0.5	<0.5	<0.5
Demeton-O		<1	<1	<1	<1
Diazinon		<0.5	<0.5	<0.5	<0.5
Dichlorvos		<0.5	<0.5	<0.5	<0.5
Dimethoate		<0.5	<0.5	<0.5	<0.5
Disulfoton		<0.5	<0.5	<0.5	<0.5
Ethoprop		<0.5	<0.5	<0.5	<0.5
Fenitrothion		<0.5	<0.5	<0.5	<0.5
Fensulfothion		<0.5	<0.5	<0.5	<0.5
Fenthion		<0.5	<0.5	<0.5	<0.5
Methyl azinphos		<0.5	<0.5	<0.5	<0.5
Malathion		<0.5	<0.5	<0.5	<0.5
Methyl parathion		<0.5	<0.5	<0.5	<0.5
Mevinphos		<0.5	<0.5	<0.5	<0.5
Monocrotophos		<10	<10	<10	<10
Parathion		<0.5	<0.5	<0.5	<0.5
Phorate		<0.5	<0.5	<0.5	<0.5
Profenofos		<0.5	<0.5	<0.5	<0.5
Prothiofos		<0.5	<0.5	<0.5	<0.5
Ronnel		<0.5	<0.5	<0.5	<0.5
Stirophos		<0.5	<0.5	<0.5	<0.5
Trichloronate		<0.5	<0.5	<0.5	<0.5

Notes:
No assessment criteria
Concentrations in miligrams per kilogram (mg/kg)
<# = analyte not detected at concentration in excess of laboratory reporting limits

TABLE 7:
Summary of Analytical Data
Explosive Residues
Better Springs
61 – 63 and 69 - 73 Christie Street
St Marys, NSW

Explosive Residues	Sample ID	B10/0.1	B10/0.5	B11/0.2	B11/0.7	B14/0.15	B14/0.15
	Depth (m)	0.1	0.5	0.2	0.7	0.15	0.15
	Media	Native	Native	Fill	Native	Fill	Fill
	Date	24/10/2012	24/10/2012	24/10/2012	24/10/2012	25/07/2012	25/07/2012
1.3-Dinitrobenzene		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1.3.5-TNB		<1	<1	<1	<1	<1	<1
2-Nitrotoluene		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2.4- & 2.6-Dinitrotoluene		<1	<1	<1	<1	<1	<1
3-Nitrotoluene		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-Nitrotoluene		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nitrobenzene		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RDX		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TNT		<1	<1	<1	<1	<1	<1
Nitro Glycerine		<5	<5	<5	<5	<5	<5
Nitro Cellulose		<50	<50	<50	<50	<50	<50

Notes:
No assessment criteria
Concentrations in miligrams per kilogram (mg/kg)
<# = analyte not detected at concentration in excess of laboratory reporting limits

TABLE 8:
Summary of Analytical Data
Asbestos
Better Springs
61 – 63 and 69 - 73 Christie Street
St Marys, NSW

Asbestos	Sample ID	B5/0.1	B8/0.3	B11/0.2	B16/0.1
	Depth (m)	0.1	0.3	0.2	0.1
	Media	Soil	Soil	Soil	Soil
	Date	24/10/2012	24/10/2012	24/10/2012	23/10/2012
Laboratory Assessment		ND	ND	ND	ND
Field Visual Assessment		ND	ND	ND	ND

Notes:
ND = No Asbestos Detected

TABLE 9:
Summary of Groundwater Analytical Data
TRH and BTEX
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

TRH and BTEX	Assessment Criteria		Sample ID	MW1	D1	*RPD**
			Date	23/10/2012	23/10/2012	%
	Drinking Water Guidelines[1]	**Freshwater Trigger Values[2]**				
Total Recoverable Hydrocarbons						
C_6-C_9	n/a	n/a		<20	<20	*nc*
C_{10}-C_{14}	n/a	n/a		<50	<50	*nc*
C_{15}-C_{28}	n/a	n/a		<100	<100	*nc*
C_{28}-C_{36}	n/a	n/a		<100	<100	*nc*
Sum of TRH (C_{10}-C_{36})	n/a	n/a		<100	<100	*nc*
BTEX						
Benzene	1	950		<1	<1	*nc*
Toluene	800	ID		<1	<1	*nc*
Ethylbenzene	300	ID		<1	<1	*nc*
o-xylenes	n/a	ID		<1	<1	*nc*
m & p xylenes	n/a	ID		<2	<2	*nc*
Xylenes	600	200		<3	<3	*nc*

Notes:

(1) NHMRC & NRMMC 2011, Australian Drinking Water Guidelines

(2) Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000) - Trigger Values for slightly-moderately disturbed freshwater ecosystems

Concentrations in micrograms per litre (ug/L)

^ xylene trigger value for freshwater conservatively set at *p* -xylene trigger value

n/a = criteria not available

ID = insufficient data to derive a reliable trigger value

nc = RPD not calcuated, one or both samples below EQL

<# = analyte not detected at concentration in excess of laboratory reporting limits

D1 = field duplicate of MW2

RPD* = Relative Percent Difference between primary sample and field duplicate sample

Bold = Concentration greater than Assessment Criteria

-- not applicable

TABLE 10:
Summary of Groundwater Analytical Data
Volatile Organic Compounds
Better Springs
61 - 73 Christie Street
St Marys, NSW

VOC	Assessment Criteria		Sample ID	MW1	D1	RPD*
			Date	23/10/2012	23/10/2012	%
Volatile Aromatic Compounds	Drinking Water Guidelines[1]	Freshwater Trigger Values[2]				
1.1-Dichloroethene	30	n/a		<5	<5	*nc*
1.1.1-Trichloroethane	n/a	n/a		<5	<5	*nc*
1.1.1.2-Tetrachloroethane	50	n/a		<5	<5	*nc*
1.1.2-Trichloroethane	n/a	6500		<5	<5	*nc*
1.2-Dibromo-3-chloropropane	n/a	n/a		<5	<5	*nc*
1.2-Dibromoethane	n/a	n/a		<5	<5	*nc*
1.2-Dichlorobenzene	1500	160		<5	<5	*nc*
1.2-Dichloroethane	3	ID		<5	<5	*nc*
1.2-Dichloropropane	n/a	n/a		<5	<5	*nc*
1.2.3-Trichloropropane	n/a	n/a		<5	<5	*nc*
1.2.4-Trimethylbenzene	n/a	n/a		<5	<5	*nc*
1.3-Dichlorobenzene	n/a	260		<5	<5	*nc*
1.3-Dichloropropane	n/a	n/a		<5	<5	*nc*
1.3.5-Trimethylbenzene	n/a	n/a		<5	<5	*nc*
1.4-Dichlorobenzene	n/a	n/a		<5	<5	*nc*
2-Butanone (MEK)	n/a	n/a		<5	<5	*nc*
2-Chlorotoluene	n/a	n/a		<5	<5	*nc*
2-Hexanone	n/a	n/a		<5	<5	*nc*
2-Pentanone	n/a	n/a		<5	<5	*nc*
4-Chlorotoluene	n/a	n/a		<5	<5	*nc*
4-Methyl-2-pentanone (MIBK)	n/a	n/a		<5	<5	*nc*
Benzene	1	950		<1	<1	*nc*
Bromobenzene	n/a	n/a		<5	<5	*nc*
Bromodichloromethane	n/a	n/a		<5	<5	*nc*
Bromoform	n/a	n/a		<5	<5	*nc*

Notes:

(1) NHMRC & NRMMC 2011, Australian Drinking Water Guidelines

(2) Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000) - Trigger Values for slightly-moderately disturbed freshwater ecosystems

Concentrations in micrograms per litre (ug/L)

n/a = Assessment criteria not available

nc = RPD not calcuated, one or both samples below EQL

<# = analyte not detected at concentration in excess of laboratory reporting limits

Bold = Concentration exceeds assessment criteria

ID = insufficient data to derive a reliable trigger value

-- not applicable

TABLE 10:
Summary of Groundwater Analytical Data
Volatile Organic Compounds
Better Springs
61 - 73 Christie Street
St Marys, NSW

VOC	Assessment Criteria		Sample ID	MW1	D1	RPD*
			Date	23/10/2012	23/10/2012	%
Volatile Aromatic Compounds	Drinking Water Guidelines[1]	Freshwater Trigger Values[2]				
Bromomethane	n/a	n/a		<50	<50	*nc*
Carbon disulfide	n/a	n/a		<5	<5	*nc*
Carbon Tetrachloride	3	ID		<5	<5	*nc*
Chlorobenzene	300	n/a		<5	<5	*nc*
Chloroethane	n/a	n/a		<50	<50	*nc*
Chloroform	n/a	n/a		<5	<5	*nc*
Chloromethane	n/a	n/a		<50	<50	*nc*
cis-1.2-Dichloroethene	60	n/a		<5	<5	*nc*
cis-1.3-Dichloropropene	n/a	n/a		<5	<5	*nc*
Dibromochloromethane	n/a	n/a		<5	<5	*nc*
Hexachlorobutadiene	0.7	ID		<5	<5	*nc*
Isopropyl benzene (Cumene)	n/a	n/a		<5	<5	*nc*
Methylene chloride	4	ID		<20	<20	*nc*
n-Butylbenzene	n/a	n/a		<5	<5	*nc*
n-Propylbenzene	n/a	n/a		<5	<5	*nc*
o-Xylene	n/a	n/a		<1	<1	*nc*
p-Isopropyltoluene	n/a	n/a		<5	<5	*nc*
Styrene	n/a	n/a		<5	<5	*nc*
Tetrachloroethene	50	n/a		<5	<5	*nc*
Total m+p-Xylenes	n/a	n/a		<2	<2	*nc*
trans-1.2-Dichloroethene	n/a	n/a		<5	<5	*nc*
trans-1.3-Dichloropropene	n/a	n/a		<5	<5	*nc*
Trichloroethene	n/a	n/a		<5	<5	*nc*
Trichlorofluoromethane	n/a	n/a		<50	<50	*nc*
Vinyl Acetate	n/a	n/a		<5	<5	*nc*
Vinyl chloride	0.3	n/a		<50	<50	*nc*
Toluene	800	ID		<1	<1	*nc*
Ethylbenzene	300	ID		<1	<1	*nc*
Xylenes(ortho.meta and para)	600	n/a		<3	<3	*nc*

Notes:

(1) NHMRC & NRMMC 2011, Australian Drinking Water Guidelines

(2) Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000) - Trigger Values for slightly-moderately disturbed freshwater ecosystems

Concentrations in micrograms per litre (ug/L)

n/a = Assessment criteria not available

nc = RPD not calcuated, one or both samples below EQL

<# = analyte not detected at concentration in excess of laboratory reporting limits

Bold = Concentration exceeds assessment criteria

ID = insufficient data to derive a reliable trigger value

- = not analysed

-- not applicable

TABLE 11:
Summary of Groundwater Analytical Results
PAHs
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

Polycyclic Aromatic Hydrocarbons	Assessment Criteria		Sample ID	MW1	D1	*RPD**
			Date	23/10/2012	23/10/2012	%
	Drinking Water Guidelines[1]	Freshwater Trigger Values[2]				
Acenaphthene	n/a	n/a		<1	<1	*nc*
Acenaphthylene	n/a	n/a		<1	<1	*nc*
Anthracene	n/a	ID		<1	<1	*nc*
Benz(a)anthracene	n/a	n/a		<1	<1	*nc*
Benzo(a)pyrene	0.01	ID		<1	<1	*nc*
Benzo(b&k)fluoranthene	n/a	n/a		<2	<2	*nc*
Benzo(g.h.i)perylene	n/a	n/a		<1	<1	*nc*
Chrysene	n/a	n/a		<1	<1	*nc*
Dibenz(a.h)anthracene	n/a	n/a		<1	<1	*nc*
Fluoranthene	n/a	ID		<1	<1	*nc*
Fluorene	n/a	n/a		<1	<1	*nc*
Indeno(1.2.3-cd)pyrene	n/a	n/a		<1	<1	*nc*
Naphthalene	n/a	16		<1	<1	*nc*
Phenanthrene	n/a	ID		<1	<1	*nc*
Pyrene	n/a	ID		<1	<1	*nc*
Total PAH	n/a	n/a		<2	<2	*nc*

Notes:
(1) NHMRC & NRMMC 2011, Australian Drinking Water Guidelines

(2) Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000) - Trigger Values for slightly-moderately disturbed freshwater ecosystems

Concentrations in micrograms per litre (ug/L)

ID = insufficient data to derive a reliable trigger value

n/a = Assessment criteria not available

nc = RPD not calcuated, one or both samples below EQL

<# = analyte not detected at concentration in excess of laboratory reporting limits

D1 = field duplicate of MW2

RPD* = Relative Percent Difference between primary sample and field duplicate sample

Bold = Concentration greater than Assessment Criteria

TABLE 12:
Summary of Groundwater Analytical Data
Dissolved Metals
Better Springs
61 - 63 Christie Street
St Marys, NSW

Metals	Assessment Criteria		Sample ID	MW1	D1	*RPD**
			Date	23/10/2012	23/10/2012	%
	Drinking Water Guidelines[1]	Freshwater Trigger Values[2]				
Arsenic*	10	13		<1	<1	*nc*
Cadmium	2	0.2		0.3	0.2	*40*
Chromium	50	ID		<1	<1	*nc*
Copper	2000	1.4		**2**	**2**	*0*
Nickel	20	11		**40**	**39**	*3*
Lead	10	3.4		<1	<1	*nc*
Zinc	n/a	8		**22**	**24**	*9*
Mercury	1	0.6		<0.1	<0.1	*nc*

Notes:

(1) NHMRC & NRMMC 2011, Australian Drinking Water Guidelines

(2) Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000) - Trigger Values for slightly-moderately disturbed freshwater ecosystems - 95% protection value used for mercury.

* = Trigger value for Arsenic (AsV) used as conservative trigger value for total Arsenic

Concentrations in micrograms per litre (ug/L)

ID = insufficient data to derive a reliable trigger value

nc = RPD not calcuated, one or both samples below EQL

D1 = field duplicate of MW2

RPD* = Relative Percent Difference between primary sample and field duplicate sample

<# = analyte not detected at concentration in excess of laboratory reporting limits

Bold = Concentration greater than assessment criteria

TABLE 13:
Summary of QA/QC Analytical Data
TRH and BTEX
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

TRH and BTEX	Sample Type	Rinsate Blank	Rinsate Blank
	Sample ID	RIN1	RIN2
	Date	23/10/2012	24/10/2012
Total Recoverable Hydrocarbons			
C_6-C_9		<20	<20
C_{10}-C_{14}		<50	<50
C_{15}-C_{28}		<100	<100
C_{28}-C_{36}		<100	<100
Sum of TPH		<100	<100
BTEX			
Benzene		<1	<1
Toluene		<1	<1
Ethylbenzene		<1	<1
o-xylene		<1	<1
m+p xylene		<2	<2
Xylenes		<3	<3

Notes:

Concentrations in micrograms per litre (ug/L)

<# = analyte not detected at concentration in excess of laboratory reporting limits

RIN1= Rinsate

- = not analysed

-- not applicable

TABLE 14:
Summary of QAQC Analytical Data
Volatile Organic Compounds
Better Springs
61 - 73 Christie Street
St Marys, NSW

VOC	Sample ID Date	RIN1 23/10/2012
Volatile Aromatic Compounds		
1.1-Dichloroethene		<5
1.1.1-Trichloroethane		<5
1.1.1.2-Tetrachloroethane		<5
1.1.2-Trichloroethane		<5
1.2-Dibromo-3-chloropropane		<5
1.2-Dibromoethane		<5
1.2-Dichlorobenzene		<5
1.2-Dichloroethane		<5
1.2-Dichloropropane		<5
1.2.3-Trichloropropane		<5
1.2.4-Trimethylbenzene		<5
1.3-Dichlorobenzene		<5
1.3-Dichloropropane		<5
1.3.5-Trimethylbenzene		<5
1.4-Dichlorobenzene		<5
2-Butanone (MEK)		<5
2-Chlorotoluene		<5
2-Hexanone		<5
2-Pentanone		<5
4-Chlorotoluene		<5
4-Methyl-2-pentanone (MIBK)		<5
Benzene		<1
Bromobenzene		<5
Bromodichloromethane		<5
Bromoform		<5

Notes:
Concentrations in micrograms per litre (ug/L)
<# = analyte not detected at concentration in excess of laboratory reporting limits
Bold = Concentration exceeds assessment criteria
-- not applicable

TABLE 14:
Summary of QAQC Analytical Data
Volatile Organic Compounds
Better Springs
61 - 73 Christie Street
St Marys, NSW

VOC	Sample ID Date	RIN1 23/10/2012
Volatile Aromatic Compounds		
Bromomethane		<50
Carbon disulfide		<5
Carbon Tetrachloride		<5
Chlorobenzene		<5
Chloroethane		<50
Chloroform		<5
Chloromethane		<50
cis-1.2-Dichloroethene		<5
cis-1.3-Dichloropropene		<5
Dibromochloromethane		<5
Hexachlorobutadiene		<5
Isopropyl benzene (Cumene)		<5
Methylene chloride		<20
n-Butylbenzene		<5
n-Propylbenzene		<5
o-Xylene		<1
p-Isopropyltoluene		<5
Styrene		<5
Tetrachloroethene		<5
Total m+p-Xylenes		<2
trans-1.2-Dichloroethene		<5
trans-1.3-Dichloropropene		<5
Trichloroethene		<5
Trichlorofluoromethane		<50
Vinyl Acetate		<5
Vinyl chloride		<50
Toluene		<1
Ethylbenzene		<1
Xylenes(ortho.meta and para)		<3

Notes:

Concentrations in micrograms per litre (ug/L)

n/a = Assessment criteria not available

<# = analyte not detected at concentration in excess of laboratory reporting limits

Bold = Concentration exceeds assessment criteria

ID = insufficient data to derive a reliable trigger value

- = not analysed

-- not applicable

TABLE 15:
Summary of QA/QC Analytical Data
PAHs
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

Polycyclic Aromatic Hydrocarbons	Sample ID	RIN1
	Sample Matrix	Water
	Date	23/10/2012
Acenaphthene		<1
Acenaphthylene		<1
Anthracene		<1
Benz(a)anthracene		<1
Benzo(a)pyrene		<1
Benzo(b)fluoranthene		<1
Benzo(g.h.i)perylene		<1
Benzo(k)fluoranthene		<1
Chrysene		<1
Dibenz(a.h)anthracene		<1
Fluoranthene		<1
Fluorene		<1
Indeno(1.2.3-cd)pyrene		<1
Naphthalene		<1
Phenanthrene		<1
Pyrene		<1
Total PAH		<1

Notes:
Concentrations in micrograms per litre (ug/L)
<# = analyte not detected at concentration in excess of laboratory reporting limits
RIN1= Rinsate
-- not applicable

TABLE 16:
Summary of QA/QC Analytical Data
Metals
Better Springs
61 - 63 and 69 - 73 Christie Street
St Marys, NSW

Metals	Sample ID	RIN1
	Sample Matrix	Water
	Date	23/10/2012
Arsenic		<5
Cadmium		<0.5
Chromium		<5
Copper		<5
Lead		<5
Nickel		<5
Zinc		<5
Mercury		<0.1

Notes:
Concentrations in micrograms per litre (ug/L)
<# = analyte not detected at concentration in excess of laboratory reporting limits
RIN1= Rinsate
-- not applicable

ATTACHMENT A

PENRITH CITY COUNCIL
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Telephone: 02 4732 7777
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PLANNING CERTIFICATE UNDER SECTION 149

Environmental Planning and Assessment Act, 1979

Property No: 199270
Your Reference: post
Contact No: 99791722

Issue Date: 24/05/2012
Certificate No: 12/01907
Receipt Date: 24/05/2012
Receipt No: 2435223

Issued to: Geo-Logix Pty Ltd
Att: Jenna Seymour
Unit 2309/4 Daydream Street
Warriewood NSW 2102

PRECINCT 2010

DESCRIPTION OF LAND

County: CUMBERLAND **Parish: ROOTY HILL**

Location: 61-63 Christie Street ST MARYS NSW 2760
Land Description: Lot 4 DP 701087

- PART 1 PRESCRIBED MATTERS –

In accordance with the provisions of Section 149(2) of the Act the following information is furnished in respect of the abovementioned land:

1 *NAMES OF RELEVANT PLANNING INSTRUMENTS AND DCPs*

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

Penrith Local Environmental Plan 2010, published 22nd September, 2010, applies to the land.

Sydney Regional Environmental Plan No.9 - Extractive Industry (No.2), gazetted 15 September 1995, as amended, applies to the local government area of Penrith.

Sydney Regional Environmental Plan No. 20 - Hawkesbury-Nepean River (No. 2 - 1997), gazetted 7 November 1997, as amended, applies to the local government area of Penrith (except land to which Sydney Regional Environmental Plan No. 11 - Penrith Lakes Scheme applies).

The following State environmental planning policies apply to the land:
State Environmental Planning Policy No. 4 - Development Without Consent and Miscellaneous Exempt and Complying Development. (Note1: This policy may not apply to land reserved for certain public purposes. See clause 4 of the policy. Note 2: Clause 6 of the policy does not apply to land subject to Penrith City Centre Local Environmental Plan 2008 or State Environmental Planning Policy (Western Sydney Employment Area) 2009. Note 3: Clause 6 and Parts 3 and 4 of the policy do not apply to land subject to Penrith Local Environmental Plan (Glenmore Park Stage 2) 2009, Penrith Local Environmental Plan (South Werrington Urban Village) 2009, Penrith Local Environmental Plan (Caddens) 2009, or Penrith Local Environmental Plan 2010.)
State Environmental Planning Policy No. 6 - Number of Storeys in a Building.
State Environmental Planning Policy No.19 - Bushland in Urban Areas. (Note: This policy does not apply to certain land referred to in the National Parks and Wildlife Act 1974 and the Forestry Act 1916.)

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State Environmental Planning Policy No.21 - Caravan Parks.
State Environmental Planning Policy No.22 - Shops and Commercial Premises.
State Environmental Planning Policy No.30 - Intensive Agriculture.
State Environmental Planning Policy No.32 - Urban Consolidation (Redevelopment of Urban Land). (Note: This policy does not apply to land identified as coastal protection, environmental protection, escarpment, floodway, natural hazard, non-urban, rural, rural residential, water catchment or wetland.)
State Environmental Planning Policy No.33 - Hazardous and Offensive Development.
State Environmental Planning Policy No.50 - Canal Estate Development. (Note: This policy does not apply to the land to which Penrith Local Environmental Plan 1998 (Lakes Environs) and Sydney Regional Environmental Plan No. 11 - Penrith Lakes Scheme apply.)
State Environmental Planning Policy No.55 - Remediation of Land.
Sate Environmental Planning Policy No.62 - Sustainable Aquaculture.
State Environmental Planning Policy No.64 - Advertising and Signage.
State Environmental Planning Policy No.65 - Design Quality of Residential Flat Development.
State Environmental Planning Policy No.70 - Affordable Housing (Revised Schemes).
State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 (Note: This policy applies to land within New South Wales that is land zoned primarily for urban purposes or land that adjoins land zoned primarily for urban purposes, but only as detailed in clause 4 of the policy.)
State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004.
State Environmental Planning Policy (Major Development) 2005.
State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007.
State Environmental Planning Policy (Temporary Structures) 2007.
State Environmental Planning Policy (Infrastructure) 2007.
State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.
State Environmental Planning Policy (Affordable Rental Housing) 2009.
State Environmental Planning Policy (State and Regional Development) 2011.

1(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:

Planning Proposal "Amendments to Penrith Local Environmental Plan 2010 and draft Penrith Local Environmental Plan (Environmental Heritage Conservation) 2011" applies to the subject land. **(See www.penrithcity.nsw.gov.au for details.)**

Draft State Environmental Planning Policy (Affordable Rental Housing) Amendment (Group Homes) 2012 applies to the land

Draft State Environmental Planning Policy (Competition) 2010 applies to the land.

1(3) The name of each development control plan that applies to the carrying out of development on the land:

Penrith Development Control Plan 2010 applies to all land subject to Penrith Local Environmental Plan 2010. Penrith Development Control Plan 2006 applies to all land not subject to Penrith Local Environmental Plan 2010.

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PLANNING CERTIFICATE UNDER SECTION 149

Environmental Planning and Assessment Act, 1979

2 *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):

2(a)-(d) the identity of the zone; the purposes that may be carried out without development consent; the purposes that may not be carried out except with development consent; and the purposes that are prohibited within the zone. Any zone(s) applying to the land is/are listed below and/or in annexures.

(Note: If no zoning appears in this section see section 1(1) for zoning and land use details (under the Sydney Regional Environmental Plan or State Environmental Planning Policy that zones this property).)

Zone IN1 General Industrial
(Penrith Local Environmental Plan 2010)

1 Objectives of zone

- To provide a wide range of industrial and warehouse land uses.
- To encourage employment opportunities.
- To minimise any adverse effect of industry on other land uses.
- To support and protect industrial land for industrial uses.
- To promote development that makes efficient use of industrial land.
- To permit facilities that serve the daily recreation and convenience needs of persons working in industrial areas.

2 Permitted without consent

Roads

3 Permitted with consent

Animal boarding or training establishments; Car parks; Depots; Environmental facilities; Environmental protection works; Flood mitigation works; Freight transport facilities; General industries; Hardware and building supplies; Industrial retail outlets; Industrial training facilities; Industries; Landscaping material supplies; Light industries; Neighbourhood shops; Plant nurseries; Recreation areas; Sawmill or log processing works; Self-storage units; Signage; Take away food and drink premises; Timber yards; Transport depots; Truck depots; Vehicle body repair workshops; Vehicle repair stations; Warehouse or distribution centres

4 Prohibited

Hazardous industries; Offensive industries; Any other development not specified in item 2 or 3

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PLANNING CERTIFICATE UNDER SECTION 149

Environmental Planning and Assessment Act, 1979

Flood planning

All or part of the subject land is identified in Penrith Local Environmental Plan 2010 (PLEP 2010) Clause 6.3 Flood Planning. Development consent is required for any development on land to which Clause 6.3 of PLEP 2010 applies.

Additional information relating to Penrith Local Environmental Plan 2010

Note 1: Under the terms of Clause 2.4 of Penrith Local Environmental Plan 2010 development may be carried out on unzoned land only with development consent.

Note 2: Land to which Penrith Local Environmental Plan 2010 applies may be subdivided but only with development consent. Development consent must not be granted for the subdivision of land on which a secondary dwelling is situated if the subdivision would result in the principal dwelling and the secondary dwelling being situated on separate lots, unless the resulting lots are not less than the minimum size shown on the Lot Size Map in relation to the land.

Note 3: Under the terms of Clause 2.7 of Penrith Local Environmental Plan 2010 the demolition of a building or work may be carried out only with development consent.

Note 4: A temporary use may be permitted with development consent subject to the requirements of Clause 2.8 of Penrith Local Environmental Plan 2010.

Note 5: Under the terms of Clause 5.1 of Penrith Local Environmental Plan 2010 development on land acquired by an authority of the State under the owner-initiated acquisition provisions may, before it is used for the purpose for which it is reserved, be carried out, with development consent, for any purpose.

Note 6: Under the terms of Clause 5.3 of Penrith Local Environmental Plan 2010 development consent may be granted to development of certain land for any purpose that may be carried out in an adjoining zone.

Note 7: Under the terms of Clause 5.9 of Penrith Local Environmental Plan 2010 trees or other vegetation subject to Penrith Development Control Plan 2010 must not be ringbarked, cut down, topped, lopped, removed, injured or wilfully destroyed without the authority conferred by a development consent or a Council permit.

Note 8: Clause 5.10 of Penrith Local Environmental Plan 2010 details when development consent is required/not required in relation to heritage conservation.

Note 9: Under the terms of Clause 5.11 of Penrith Local Environmental Plan 2010 bush fire hazard reduction work authorised by the *Rural Fires Act 1997* may be carried out on any land without development consent.

Note 10: Sex services premises and restricted premises may only be permitted subject to the requirements of Clause 6.15 of Penrith Local Environmental Plan 2010.

2(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:

(Information is provided in this section only if 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.)

2(f) whether the land includes or comprises critical habitat:

(Information is provided in this section only if the land includes or comprises critical habitat.)

2(g) whether the land is in a conservation area (however described):

(Information is provided in this section only if the land is in a conservation area (however described).)

2(h) whether an item of environmental heritage (however described) is situated on the land:

(Information is provided in this section only if an item of environmental heritage (however described) is situated on the land.)

2A ZONING AND LAND USE UNDER STATE ENVIRONMENTAL PLANNING POLICY (SYDNEY REGION GROWTH CENTRES) 2006

(Information is provided in this section only if the land is within any zone under State Environmental Planning Policy (Sydney Region Growth Centres) 2006.)

3 COMPLYING DEVELOPMENT

GENERAL HOUSING CODE

Complying development under the General Housing 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.

HOUSING ALTERATIONS CODE

Complying development under the Housing Alterations 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.

GENERAL COMMERCIAL AND INDUSTRIAL CODE

Complying development under the General Commercial and Industrial Code **may** be carried out on the land.

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SUBDIVISIONS CODE

Complying development under the Subdivisions Code **may** be carried out on the land.

DEMOLITION CODE

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

(NOTE: (1) Council has relied on Department of Planning Circulars and Fact Sheets in the preparation of this information. Applicants should seek their own legal advice in relation to this matter with particular reference to State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.)

(2) Penrith Local Environmental Plan 2010 (if it applies to the land) contains additional complying development not specified in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.)

4 COASTAL PROTECTION

The land is not affected by the operation of sections 38 or 39 of the Coastal Protection Act 1979, to the extent that council has been so notified by the Department of Public Works.

5 MINE SUBSIDENCE

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

6 ROAD WIDENING AND ROAD REALIGNMENT

The land is not affected by any road widening or road realignment under:
(a) Division 2 of Part 3 of the Roads Act 1993, or
(b) an environmental planning instrument, or
(c) a resolution of council.

7 COUNCIL AND OTHER PUBLIC AUTHORITY POLICIES ON HAZARD RISK RESTRICTIONS

(a) Councils Policies
The land is not affected by a policy adopted by the council that restricts the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding).

(b) Other Public Authority Policies
The Bush Fire Co-ordinating Committee has adopted a Bush Fire Risk Management Plan that covers the local government area of Penrith City Council, and includes public, private and Commonwealth lands.
The land is not affected by a policy 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, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding).

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7A FLOOD RELATED DEVELOPMENT CONTROLS INFORMATION

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

(2) Development on the land or part of the land for industrial or commercial purposes (if such uses are permissible on the land) is subject to flood related development controls.
Development on the land or part of the land for purposes other than industrial or commercial, or for purposes other than those referred to in (1) above, will be considered on a merits based approach and flood related development controls may apply.

Note: The land is subject to Penrith Development Control Plan 2010 Section C3.5 Flood Liable Lands and/or Penrith Development Control Plan 2006 Section 2.10 Flood Liable Land. On application and payment of the prescribed fee Council may be able to provide in writing a range of advice in regard to the extent of flooding affecting the property.

8 LAND RESERVED FOR ACQUISITION

No 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.

9 CONTRIBUTIONS PLANS

(Information is provided in this section only if a contributions plan applies to the land.)

9A BIODIVERSITY CERTIFIED LAND

(Information is provided in this section only if the land is biodiversity certified land (within the meaning of Part 7AA of the *Threatened Species Conservation Act 1995*).)

10 BIOBANKING AGREEMENTS

(Information is provided in this section only if Council has been notified by the Director-General of the Department of Environment, Climate Change and Water that the land is land to which a biobanking agreement under Part 7A of the *Threatened Species Conservation Act 1995* relates.)

11 BUSH FIRE PRONE LAND

The land is not identified as bush fire prone land according to Council records.

12 PROPERTY VEGETATION PLANS

(Information is provided in this section only if Council has been notified that the land is land to which a property vegetation plan under the Native Vegetation Act 2003 applies.)

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(Information is provided in this section only if Council has been notified that 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.)

14 DIRECTIONS UNDER PART 3A

(Information is provided in this section only 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.)

15 SITE COMPATIBILITY CERTIFICATES AND CONDITIONS AFFECTING SENIORS HOUSING

(Information is provided in this section only if:

(a) there is a current site compatibility certificate (seniors housing), of which the council is aware, issued under State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 in respect of proposed development on the land; and/or

(b) any terms of a kind referred to in clause 18(2) of State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land.)

16 SITE COMPATIBILITY CERTIFICATES FOR INFRASTRUCTURE

(Information is provided in this section only if there is a valid site compatibility certificate (infrastructure), of which council is aware, in respect of proposed development on the land.)

17 SITE COMPATIBILITY CERTIFICATES AND CONDITIONS FOR AFFORDABLE RENTAL HOUSING

(Information is provided in this section only if:

(a) 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/or

(b) any terms of a kind referred to in clause 17(1) or 37(1) of State Environmental Planning Policy (Affordable Rental Housing) 2009 have been imposed as a condition of consent to a development application in respect of 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) (Information is provided in this section only if, as at the date of this certificate, the land (or part of the land) is significantly contaminated land within the meaning of the Contaminated Land Management Act 1997.)

(b) (Information is provided in this section only if, as at the date of this certificate, the land is subject to a management order within the meaning of the Contaminated Land Management Act 1997.)

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(c) (Information is provided in this section only if, as at the date of this certificate, the land is the subject of an approved voluntary management proposal within the meaning of the Contaminated Land Management Act 1997.)

(d) (Information is provided in this section only if, at the date of this certificate, the land subject to an ongoing maintenance order within the meaning of the Contaminated Land Management Act 1997.)

(e) (Information is provided in this section only if the land is the subject of a site audit statement within the meaning of the Contaminated Land Management Act 1997 – a copy of which has been provided to Council.)

Note: Section 149(5) information for this property may contain additional information regarding contamination issues.

Note: The Environmental Planning and Assessment Amendment Act 1997 commenced operation on the 1 July 1998. As a consequence of this Act the information contained in this certificate needs to be read in conjunction with the provisions of the Environmental Planning and Assessment (Amendment) Regulation 1998, Environmental Planning and Assessment (Further Amendment) Regulation 1998 and Environmental Planning and Assessment (Savings and Transitional) Regulation 1998 and Environmental Planning and Assessment Regulation 2000.

Information is provided only to the extent that Council has been notified by relevant government departments.

149(5) Certificate
This Certificate is directed to the following relevant matters affecting the land

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 sub-section (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.

Note:

- Council's 149(5) information does not include development consent or easement information. Details of development consents may be obtained by making enquiries with Council's Development Services Department pursuant to section 12 of the Local Government Act 1993 or (for development applications lodged after January 2007) by viewing the Online Services area at www.penrithcity.nsw.gov.au . Details of any easements may be obtained from a Title Search at Land and Property Information New South Wales.
- This certificate does not contain information relating to Complying Development Certificates.
- This certificate may not provide full details of development rights over the land.

* When considering any development application Council must have regard to the Threatened Species Conservation Act 1995. Please note that this legislation may have application to any land throughout the city. Interested persons should make their own enquiries in regard to the impact that this legislation could have on this land.

* See Clause 5.9 of Penrith Local Environmental Plan 2010 and Chapter C2 of Penrith Development Control Plan 2010 for specific controls relating to the preservation of trees and vegetation.

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PLANNING CERTIFICATE UNDER SECTION 149

Environmental Planning and Assessment Act, 1979

* Penrith Development Control Plan 2010, which applies to the land, sets out requirements for a range of issues that apply across the Penrith Local Government Area, including:

- Site Planning and Design Principles
- Vegetation Management
- Water Management
- Land Management
- Waste Management
- Landscape Design
- Culture and Heritage
- Public Domain
- Advertising and Signage
- Transport, Access and Parking
- Subdivision
- Noise and Vibration, and
- Infrastructure and Services.

The Development Control Plan also specifies requirements relating to various types of land uses including:

- Rural Land Uses
- Residential Development
- Commercial and Retail Development, and
- Industrial Development

as well as for a number of specific activities, including child care centres; health consulting rooms; educational establishments; places of public worship; vehicle repair stations; cemeteries, crematoria and funeral chapels; extractive industries; and telecommunication facilities.

The Development Control Plan also details requirements relating to key precincts within the Penrith Local Government Area, including:

- Mulgoa Valley
- Orchard Hills
- Waterside Corporate, and
- St Marys Town Centre.

Penrith Development Control Plan 2010 may be accessed at http://www.penrithcity.nsw.gov.au/index.asp?id=5451 .

Alan Stoneham
General Manager

PER _____

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PLANNING CERTIFICATE UNDER SECTION 149

Environmental Planning and Assessment Act, 1979

Property No: 199289
Your Reference: post
Contact No: 99791722

Issue Date: 24/05/2012
Certificate No: 12/01902
Receipt Date: 24/05/2012
Receipt No: 2435223

Issued to: Geo-Logix Pty Ltd
Att: Jenna Seymour
Unit 2309/4 Daydream Street
WARRIEWOOD NSW 2102

PRECINCT 2010

DESCRIPTION OF LAND

County: CUMBERLAND **Parish: ROOTY HILL**

Location: 69-73 Christie Street ST MARYS NSW 2760
Land Description: Lot 3 DP 701087

- PART 1 PRESCRIBED MATTERS –

In accordance with the provisions of Section 149(2) of the Act the following information is furnished in respect of the abovementioned land:

1 *NAMES OF RELEVANT PLANNING INSTRUMENTS AND DCPs*

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

Penrith Local Environmental Plan 2010, published 22nd September, 2010, applies to the land.

Sydney Regional Environmental Plan No.9 - Extractive Industry (No.2), gazetted 15 September 1995, as amended, applies to the local government area of Penrith.

Sydney Regional Environmental Plan No. 20 - Hawkesbury-Nepean River (No. 2 - 1997), gazetted 7 November 1997, as amended, applies to the local government area of Penrith (except land to which Sydney Regional Environmental Plan No. 11 - Penrith Lakes Scheme applies).

The following State environmental planning policies apply to the land:
State Environmental Planning Policy No. 4 - Development Without Consent and Miscellaneous Exempt and Complying Development. (Note1: This policy may not apply to land reserved for certain public purposes. See clause 4 of the policy. Note 2: Clause 6 of the policy does not apply to land subject to Penrith City Centre Local Environmental Plan 2008 or State Environmental Planning Policy (Western Sydney Employment Area) 2009. Note 3: Clause 6 and Parts 3 and 4 of the policy do not apply to land subject to Penrith Local Environmental Plan (Glenmore Park Stage 2) 2009, Penrith Local Environmental Plan (South Werrington Urban Village) 2009, Penrith Local Environmental Plan (Caddens) 2009, or Penrith Local Environmental Plan 2010.)
State Environmental Planning Policy No. 6 - Number of Storeys in a Building.
State Environmental Planning Policy No.19 - Bushland in Urban Areas. (Note: This policy does not apply to certain land referred to in the National Parks and Wildlife Act 1974 and the Forestry Act 1916.)

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State Environmental Planning Policy No.21 - Caravan Parks.
State Environmental Planning Policy No.22 - Shops and Commercial Premises.
State Environmental Planning Policy No.30 - Intensive Agriculture.
State Environmental Planning Policy No.32 - Urban Consolidation (Redevelopment of Urban Land). (Note: This policy does not apply to land identified as coastal protection, environmental protection, escarpment, floodway, natural hazard, non-urban, rural, rural residential, water catchment or wetland.)
State Environmental Planning Policy No.33 - Hazardous and Offensive Development.
State Environmental Planning Policy No.50 - Canal Estate Development. (Note: This policy does not apply to the land to which Penrith Local Environmental Plan 1998 (Lakes Environs) and Sydney Regional Environmental Plan No. 11 - Penrith Lakes Scheme apply.)
State Environmental Planning Policy No.55 - Remediation of Land.
Sate Environmental Planning Policy No.62 - Sustainable Aquaculture.
State Environmental Planning Policy No.64 - Advertising and Signage.
State Environmental Planning Policy No.65 - Design Quality of Residential Flat Development.
State Environmental Planning Policy No.70 - Affordable Housing (Revised Schemes).
State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 (Note: This policy applies to land within New South Wales that is land zoned primarily for urban purposes or land that adjoins land zoned primarily for urban purposes, but only as detailed in clause 4 of the policy.)
State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004.
State Environmental Planning Policy (Major Development) 2005.
State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007.
State Environmental Planning Policy (Temporary Structures) 2007.
State Environmental Planning Policy (Infrastructure) 2007.
State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.
State Environmental Planning Policy (Affordable Rental Housing) 2009.
State Environmental Planning Policy (State and Regional Development) 2011.

1(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:

Planning Proposal "Amendments to Penrith Local Environmental Plan 2010 and draft Penrith Local Environmental Plan (Environmental Heritage Conservation) 2011" applies to the subject land. **(See www.penrithcity.nsw.gov.au for details.)**

Draft State Environmental Planning Policy (Affordable Rental Housing) Amendment (Group Homes) 2012 applies to the land

Draft State Environmental Planning Policy (Competition) 2010 applies to the land.

1(3) The name of each development control plan that applies to the carrying out of development on the land:

Penrith Development Control Plan 2010 applies to all land subject to Penrith Local Environmental Plan 2010. Penrith Development Control Plan 2006 applies to all land not subject to Penrith Local Environmental Plan 2010.

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PLANNING CERTIFICATE UNDER SECTION 149

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2 *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):

2(a)-(d) the identity of the zone; the purposes that may be carried out without development consent; the purposes that may not be carried out except with development consent; and the purposes that are prohibited within the zone. Any zone(s) applying to the land is/are listed below and/or in annexures.

(Note: If no zoning appears in this section see section 1(1) for zoning and land use details (under the Sydney Regional Environmental Plan or State Environmental Planning Policy that zones this property).)

Zone IN1 General Industrial
(Penrith Local Environmental Plan 2010)

1 Objectives of zone

- To provide a wide range of industrial and warehouse land uses.
- To encourage employment opportunities.
- To minimise any adverse effect of industry on other land uses.
- To support and protect industrial land for industrial uses.
- To promote development that makes efficient use of industrial land.
- To permit facilities that serve the daily recreation and convenience needs of persons working in industrial areas.

2 Permitted without consent

Roads

3 Permitted with consent

Animal boarding or training establishments; Car parks; Depots; Environmental facilities; Environmental protection works; Flood mitigation works; Freight transport facilities; General industries; Hardware and building supplies; Industrial retail outlets; Industrial training facilities; Industries; Landscaping material supplies; Light industries; Neighbourhood shops; Plant nurseries; Recreation areas; Sawmill or log processing works; Self-storage units; Signage; Take away food and drink premises; Timber yards; Transport depots; Truck depots; Vehicle body repair workshops; Vehicle repair stations; Warehouse or distribution centres

4 Prohibited

Hazardous industries; Offensive industries; Any other development not specified in item 2 or 3

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PLANNING CERTIFICATE UNDER SECTION 149

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Flood planning

All or part of the subject land is identified in Penrith Local Environmental Plan 2010 (PLEP 2010) Clause 6.3 Flood Planning. Development consent is required for any development on land to which Clause 6.3 of PLEP 2010 applies.

Additional information relating to Penrith Local Environmental Plan 2010

Note 1: Under the terms of Clause 2.4 of Penrith Local Environmental Plan 2010 development may be carried out on unzoned land only with development consent.

Note 2: Land to which Penrith Local Environmental Plan 2010 applies may be subdivided but only with development consent. Development consent must not be granted for the subdivision of land on which a secondary dwelling is situated if the subdivision would result in the principal dwelling and the secondary dwelling being situated on separate lots, unless the resulting lots are not less than the minimum size shown on the Lot Size Map in relation to the land.

Note 3: Under the terms of Clause 2.7 of Penrith Local Environmental Plan 2010 the demolition of a building or work may be carried out only with development consent.

Note 4: A temporary use may be permitted with development consent subject to the requirements of Clause 2.8 of Penrith Local Environmental Plan 2010.

Note 5: Under the terms of Clause 5.1 of Penrith Local Environmental Plan 2010 development on land acquired by an authority of the State under the owner-initiated acquisition provisions may, before it is used for the purpose for which it is reserved, be carried out, with development consent, for any purpose.

Note 6: Under the terms of Clause 5.3 of Penrith Local Environmental Plan 2010 development consent may be granted to development of certain land for any purpose that may be carried out in an adjoining zone.

Note 7: Under the terms of Clause 5.9 of Penrith Local Environmental Plan 2010 trees or other vegetation subject to Penrith Development Control Plan 2010 must not be ringbarked, cut down, topped, lopped, removed, injured or wilfully destroyed without the authority conferred by a development consent or a Council permit.

Note 8: Clause 5.10 of Penrith Local Environmental Plan 2010 details when development consent is required/not required in relation to heritage conservation.

Note 9: Under the terms of Clause 5.11 of Penrith Local Environmental Plan 2010 bush fire hazard reduction work authorised by the *Rural Fires Act 1997* may be carried out on any land without development consent.

Note 10: Sex services premises and restricted premises may only be permitted subject to the requirements of Clause 6.15 of Penrith Local Environmental Plan 2010.

2(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:

(Information is provided in this section only if 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.)

2(f) whether the land includes or comprises critical habitat:

(Information is provided in this section only if the land includes or comprises critical habitat.)

2(g) whether the land is in a conservation area (however described):

(Information is provided in this section only if the land is in a conservation area (however described).)

2(h) whether an item of environmental heritage (however described) is situated on the land:

(Information is provided in this section only if an item of environmental heritage (however described) is situated on the land.)

2A ZONING AND LAND USE UNDER STATE ENVIRONMENTAL PLANNING POLICY (SYDNEY REGION GROWTH CENTRES) 2006

(Information is provided in this section only if the land is within any zone under State Environmental Planning Policy (Sydney Region Growth Centres) 2006.)

3 COMPLYING DEVELOPMENT

GENERAL HOUSING CODE

Complying development under the General Housing 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.

HOUSING ALTERATIONS CODE

Complying development under the Housing Alterations 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.

GENERAL COMMERCIAL AND INDUSTRIAL CODE

Complying development under the General Commercial and Industrial Code **may** be carried out on the land.

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

(NOTE: (1) Council has relied on Department of Planning Circulars and Fact Sheets in the preparation of this information. Applicants should seek their own legal advice in relation to this matter with particular reference to State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.)

(2) Penrith Local Environmental Plan 2010 (if it applies to the land) contains additional complying development not specified in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.)

4 COASTAL PROTECTION

The land is not affected by the operation of sections 38 or 39 of the Coastal Protection Act 1979, to the extent that council has been so notified by the Department of Public Works.

5 MINE SUBSIDENCE

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

6 *ROAD WIDENING AND ROAD REALIGNMENT*

The land is not affected by any road widening or road realignment under:
(a) Division 2 of Part 3 of the Roads Act 1993, or
(b) an environmental planning instrument, or
(c) a resolution of council.

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(a) Councils Policies
The land is not affected by a policy adopted by the council that restricts the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding).

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The Bush Fire Co-ordinating Committee has adopted a Bush Fire Risk Management Plan that covers the local government area of Penrith City Council, and includes public, private and Commonwealth lands.
The land is not affected by a policy 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, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding).

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PLANNING CERTIFICATE UNDER SECTION 149

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Development on the land or part of the land for purposes other than industrial or commercial, or for purposes other than those referred to in (1) above, will be considered on a merits based approach and flood related development controls may apply.

Note: The land is subject to Penrith Development Control Plan 2010 Section C3.5 Flood Liable Lands and/or Penrith Development Control Plan 2006 Section 2.10 Flood Liable Land. On application and payment of the prescribed fee Council may be able to provide in writing a range of advice in regard to the extent of flooding affecting the property.

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No 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.

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(Information is provided in this section only if a contributions plan applies to the land.)

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(Information is provided in this section only if the land is biodiversity certified land (within the meaning of Part 7AA of the *Threatened Species Conservation Act 1995*).)

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(Information is provided in this section only if Council has been notified by the Director-General of the Department of Environment, Climate Change and Water that the land is land to which a biobanking agreement under Part 7A of the *Threatened Species Conservation Act 1995* relates.)

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The land is not identified as bush fire prone land according to Council records.

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(Information is provided in this section only if Council has been notified that the land is land to which a property vegetation plan under the Native Vegetation Act 2003 applies.)

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14 DIRECTIONS UNDER PART 3A

(Information is provided in this section only 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.)

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(b) any terms of a kind referred to in clause 18(2) of State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land.)

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(Information is provided in this section only if there is a valid site compatibility certificate (infrastructure), of which council is aware, in respect of proposed development on the land.)

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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) (Information is provided in this section only if, as at the date of this certificate, the land (or part of the land) is significantly contaminated land within the meaning of the Contaminated Land Management Act 1997.)

(b) (Information is provided in this section only if, as at the date of this certificate, the land is subject to a management order within the meaning of the Contaminated Land Management Act 1997.)

PENRITH CITY COUNCIL
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(c) (Information is provided in this section only if, as at the date of this certificate, the land is the subject of an approved voluntary management proposal within the meaning of the Contaminated Land Management Act 1997.)

(d) (Information is provided in this section only if, at the date of this certificate, the land subject to an ongoing maintenance order within the meaning of the Contaminated Land Management Act 1997.)

(e) (Information is provided in this section only if the land is the subject of a site audit statement within the meaning of the Contaminated Land Management Act 1997 – a copy of which has been provided to Council.)

Note: Section 149(5) information for this property may contain additional information regarding contamination issues.

Note: The Environmental Planning and Assessment Amendment Act 1997 commenced operation on the 1 July 1998. As a consequence of this Act the information contained in this certificate needs to be read in conjunction with the provisions of the Environmental Planning and Assessment (Amendment) Regulation 1998, Environmental Planning and Assessment (Further Amendment) Regulation 1998 and Environmental Planning and Assessment (Savings and Transitional) Regulation 1998 and Environmental Planning and Assessment Regulation 2000.

Information is provided only to the extent that Council has been notified by relevant government departments.

149(5) Certificate
This Certificate is directed to the following relevant matters affecting the land

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 sub-section (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.

Note:

- Council's 149(5) information does not include development consent or easement information. Details of development consents may be obtained by making enquiries with Council's Development Services Department pursuant to section 12 of the Local Government Act 1993 or (for development applications lodged after January 2007) by viewing the Online Services area at www.penrithcity.nsw.gov.au . Details of any easements may be obtained from a Title Search at Land and Property Information New South Wales.
- This certificate does not contain information relating to Complying Development Certificates.
- This certificate may not provide full details of development rights over the land.

* When considering any development application Council must have regard to the Threatened Species Conservation Act 1995. Please note that this legislation may have application to any land throughout the city. Interested persons should make their own enquiries in regard to the impact that this legislation could have on this land.

* See Clause 5.9 of Penrith Local Environmental Plan 2010 and Chapter C2 of Penrith Development Control Plan 2010 for specific controls relating to the preservation of trees and vegetation.

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PLANNING CERTIFICATE UNDER SECTION 149

Environmental Planning and Assessment Act, 1979

* Penrith Development Control Plan 2010, which applies to the land, sets out requirements for a range of issues that apply across the Penrith Local Government Area, including:

- Site Planning and Design Principles
- Vegetation Management
- Water Management
- Land Management
- Waste Management
- Landscape Design
- Culture and Heritage
- Public Domain
- Advertising and Signage
- Transport, Access and Parking
- Subdivision
- Noise and Vibration, and
- Infrastructure and Services.

The Development Control Plan also specifies requirements relating to various types of land uses including:

- Rural Land Uses
- Residential Development
- Commercial and Retail Development, and
- Industrial Development

as well as for a number of specific activities, including child care centres; health consulting rooms; educational establishments; places of public worship; vehicle repair stations; cemeteries, crematoria and funeral chapels; extractive industries; and telecommunication facilities.

The Development Control Plan also details requirements relating to key precincts within the Penrith Local Government Area, including:

- Mulgoa Valley
- Orchard Hills
- Waterside Corporate, and
- St Marys Town Centre.

Penrith Development Control Plan 2010 may be accessed at http://www.penrithcity.nsw.gov.au/index.asp?id=5451 .

Alan Stoneham
General Manager

PER _____