9 October 2018

Hallmark Construction Pty Ltd
C/o Pacific Planning Pty Ltd
PO Box 8
Caringbah NSW 1495

Sent via email to: mdaniel@pacificplanning.com.au and jmatthews@pacificplanning.com.au

Subject: Preliminary Contamination Assessment at 2 Bachell Avenue, Lidcombe NSW

Introduction and Objective

Sullivan Environmental Sciences Pty Ltd (Sullivan-ES) was engaged by Hallmark Construction Pty Ltd to conduct a Preliminary Contamination Assessment at 2 Bachell Avenue, Lidcombe NSW (the site).

The assessment was commissioned to review and update the contamination status of the site to assess its suitability in respect of commercial land use, considering provisions for contaminated land and land rezoning proposals under State Environmental Planning Policy No. 55 (SEPP55). It is understood that a planning proposal will be lodged to rezone the site from IN1 General Industrial to B5 Business Development to support future development aspirations for the site.

Scope of Work

The scope of work was focussed on reviewing pertinent site information to update the contamination status of the site from the previous assessment in 2016 to the present. This involved:

- Reviewing the previous report and recent aerial images.
- Reviewing records on lessee/operations on the site between 2016 – present.
- Conducting a detailed site inspection of the entire site.
- Preparing a report in general accordance with SEPP55 requirements.

Site Identification

The site is a triangular shape with an area of approximately 8,700m^2 and legally identified as Lot 2 in DP 219413. The site is zoned 'IN1 General Industrial' in accordance with the Auburn Local Environmental Plan 2010 (Auburn LEP 2010).

Review of Past Report

Phase 2 Contamination Assessment (Sullivan Environmental Sciences, Feb 2016)

A Phase 2 contamination assessment was conducted in 2016 to characterise the soil and groundwater and assess potential health risks to future site users under a proposed rezoning for high-density residential purposes.

The scope of work included drilling and sampling of soil at 20 borehole locations, sampling of 3 groundwater wells, chemical analysis for a suite of contaminants at a NATA accredited laboratory, and preparation of a Phase 2 report. Analytical results were compared to relevant soil and groundwater criteria for high-density residential land use. A copy of the Phase 2 sampling locations and results summary tables are presented in **Attachment A**.

The Phase 2 report generally concluded that the site was suitable for its existing use as commercial/industrial land; and also, that the site generally met criteria for proposed residential land use. However, hydrocarbon impacts and asbestos were identified in soils at localised areas that required management during redevelopment of the site for high-density residential. The report concluded that contaminated materials did not preclude the site from being used for its intended purpose and the site could be made suitable for high-density residential purpose.

Historical Aerial Photographs

Historical aerial imagery was reviewed to observe any material changes to the site since the Phase 2 (2016). Aerial images are presented in **Attachment B**.

Month/Year	Details
Oct 2015	This image shows the site at the approximate time of the Phase 2 investigation. The western side of the building was being used as temporary storage of heavy vehicles (concrete trucks). The eastern side of the building was grassed, vacant and unused.
Oct 2016	At this time the laundromat business is operating within the building and a roof has been constructed over the southwest portion of the building to cover LPG tanks and external equipment. The western side of the building is sparingly being used for storage of materials by the lessee. The eastern side of the building remains grassed, vacant and unused.
Dec 2017	No major changes have occurred anywhere onsite other than greater storage of materials in the western lease area.

Tenancy Records

Tenancy records were provided by Hallmark as information relevant to site activities since the time of the Phase 2 (2016). Refer to the annotated figure presented in **Attachment C** for reference to site areas. The following information was obtained.

Site Area	Time Period	Tenant Activity
Yard 1A	Oct 2015 - March 2016	Storage of earthmoving machinery and hire equipment.
	Mar 2016 - present	Storage of earthmoving machinery (same tenant as Yard 1B).
Yard 1B	Nov 2015 - present	Storage of earthmoving machinery.
Building and rear yard	Apr 2016 - present	Commercial laundromat and dry-cleaning business (Excellent Laundry).
Yard 2	Oct 2015 - present	Vacant and unused (temporary storage of construction equipment at north end).

Site Inspection

Sullivan-ES conducted an inspection of the site on 20 September 2018 by Mr Adam Sullivan, Principal Scientist of Sullivan-ES. The following information was documented. Photos are presented in **Attachment D**.

Yard 1 (A&B)

Prominent features included:

- Unsealed gravel surfaces. No oil stains or surface blemishes were observed.
- Heavy machinery storage, earthmoving equipment (25T excavators), related materials storage.
- No fibro cement materials or waste (potentially containing asbestos) was observed.
- Shipping containers, steel frames/scaffold, storage cages.
- Truck trailers, forklift, tip trucks, vehicle body parts.

Commercial Laundromat/dry-cleaning business

Prominent features included:

- All operations were located on sealed concrete. Interior concrete floors were painted. No surface stains/spills were observed.
- Interior of building comprised:
    - Office space
    - Dry cleaning units in north end of building
    - Washing machine units
    - Large washing unit
    - Ironing machines
    - Chemicals store on racks and on concrete ground. No bunding was observed in this area. Chemicals noted were 200L drums and 25L containers of caustic alkali additives, bleaches, hydrogen peroxide, and solvents and emulsifiers.
    - Materials handling/storage areas.
- Exterior of building comprised:
    - Chemicals dosing/dispensing unit.
    - Trade waste cooling pit and sewage discharge.
    - Materials handling/storage areas.
    - LPG tanks (x 4).

- Gas-fired boiler.

Yard 2

Prominent features included:

- Larger east side of stormwater channel remains unused/grassed vacant.
- Smaller west side of stormwater channel used to store construction equipment (e.g. site shed/portaloo, palates, hording material, timbers, temporary fencing, LDPE lining, etc).

Proposed Development

A planning proposal will be lodged to seek a rezoning of the site from IN1 General Industrial to B5 Business Development (to be introduced to the existing LEP). It is understood that the proposed development will align with consent authorities strategic planning framework to support employment generating development, particularly creative industries and digital and high-tech industries. Some of these industries are not permissible in the IN1 General Industrial zone and as such, a planning proposal is therefore required to rezone the site and amend planning controls.

It should be noted that permissible development within land zoned as B5 Business Develop includes development of centre-based child care facilities. In terms of contamination risks, this would be considered a sensitive activity/land use and would require appropriate assessment in this regard if this activity was proposed for the site.

Data Gaps

Insufficient information was obtained with respect to chemical use for the laundromat/dry-cleaning business. The following information remains outstanding:

- Inventory and Safety Data Sheets (SDS) for all chemicals used in the laundromat operations.
- Lists of chemicals previously used onsite.
- Permit/licence for chemical/dangerous goods storage.
- Quantities of chemicals stored on the site.
- Spill incidents records.
- Spill management/prevention procedures.
- Emergency spill containment procedures.
- Wastewater treatment/quality and discharge details.

Conclusions

Sullivan-ES make the following conclusions:

- This Preliminary Contamination Assessment has been conducted in consideration of the provisions in SEPP55 for rezoning planning proposals.
- The previous Phase 2 (2016) concluded that the site would be suitable for commercial/industrial land use, which aligns with the proposed rezoning, and also concluded that the site could be made suitable for more sensitive uses including high-density residential as was proposed at the time.
- While it is apparent that existing conditions at the site are similar to those in 2016 and show a low potential for contamination, there are information gaps that need to be filled relating to the operation of a commercial laundromat/dry-cleaning business on the site since April 2016 to enable of complete assessment of contamination risks.

- While commercial laundry/dry-cleaning activities have not been conducted at the site for any great length in time (i.e. approx. $2^1/_2$ years), the operations are considered a high-risk activity under the SEPP55 Planning Guidelines[1]. As such, the information gaps identified in this assessment relating to chemical use should be filled; and depending on the detail of this information, a limited program of soil sampling targeted at chemical stores and general site groundwater may be warranted.
- Although we consider there to be a low potential for contamination to have occurred from dry-cleaning and other current activities on the site, there remains uncertainty around this issue that requires verification. Nonetheless, provided information gaps can be satisfactorily filled, and based on current site conditions; the site is likely to be suitable for the proposed land zone as B5 Business Development.
- Any proposed developments within B5 Business Development land zones should consider that centre-based child care facilities are permissible with consent and as such should be assessed accordingly as sensitive land if future developments are to incorporate such uses.

Report Limitations

Sullivan-ES has prepared this report in accordance with the usual care and thoroughness of the consulting profession for the use of Hallmark Construction and only those third parties who have been authorised in writing by Sullivan-ES to rely on this Report.

It is based on generally accepted practices and standards at the time it was prepared. No other warranty, expressed or implied, is made as to the professional advice included in this Report.

Where this Report indicates that information has been provided to Sullivan-ES by third parties, Sullivan-ES has made no independent verification of this information except as expressly stated in the Report. Sullivan-ES assumes no liability for any inaccuracies in or omissions to that information.

This Report was prepared between 11 September and 9 October 2018 and is based on the conditions encountered and information reviewed at the time of preparation. Sullivan-ES disclaims responsibility for any changes that may have occurred after this time.

Investigations undertaken in respect of this Report are constrained by the particular site conditions, such as the location of buildings, services and vegetation. As a result, not all relevant site features and contamination may have been identified in this Report. Subsurface conditions can vary across a particular site and cannot be exhaustively defined by the investigations described in this Report.

This Report should be read in full. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties. This Report does not purport to give legal advice. Except as required by law, no third party may use or rely on this Report unless otherwise agreed by Sullivan-ES.

To the extent permitted by law, Sullivan-ES expressly disclaims and excludes liability for any loss, damage, cost or expenses suffered by any third party relating to or resulting from the use of, or reliance on, any information contained in this Report. Sullivan-ES does not admit that any action, liability or claim may exist or be available to any third party.

It is the responsibility of third parties to independently make inquiries or seek advice in relation to their particular requirements and proposed use of the site.

[1] DUAP/EPA, Managing Land Contamination: Planning Guidelines – SEPP55 Remediation of Land, 1998.

Yours Sincerely

Sullivan Environmental Sciences Pty Ltd

Adam Sullivan (CEnvP-SC)

Principal Scientist

BSc; Cert. Env. Law

Certification No. SC40944

Attachments:

A. Previous Sampling Locations and Results Tables
B. Aerial Images
C. Tenancy Map
D. Photographs

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Attachment A:

Previous Sampling Locations and Results Tables

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SULLIVAN environmental sciences	**Client:** Hallmark Construction Pty Ltd	**Figure 2:** Site Layout and Sample Locations
	Project: Phase 2 Investigation	
Project # SES_425	**Location:** 2 Bachell Avenue, Lidcombe NSW	**Date:** 27/11/2015

Table 1: Soil Analytical Results

Phase 2 Contamination Assessment - 2 Bachell Ave Lidcombe NSW
Hallmark Construction Pty Ltd
Proj # SES_425

			Metals								Asbestos			TPH					TRH							BTEXN							
Analyte		Moisture	Arsenic	Cadmium	Chromium	Copper	Lead	Nickel	Zinc	Mercury	Sample Weight	Asbestos Detected	Asbestos Type	C6 - C9 Fraction	C10 - C14 Fraction	C15 - C28 Fraction	C29 - C36 Fraction	C10 - C36 Fraction (sum)	C6 - C10 Fraction	C6 - C10 Fraction minus BTEX (F1)	>C10 - C16 Fraction	>C16 - C34 Fraction	>C34 - C40 Fraction	>C10 - C40 Fraction (sum)	>C10 - C16 Fraction minus Naphthalene (F2)	Benzene	Toluene	Ethylbenzene	meta- & para-Xylene	ortho-Xylene	Sum of BTEX	Total Xylenes	Naphthalene
Units		%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	g	g/kg	--	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR		1	5	1	2	5	5	2	5	0.1	0.01	0.1	--	10	50	100	100	50	10	10	50	100	100	50	50	0.2	0.5	0.5	0.5	0.5	0.2	0.5	1
HIL B		--	500	150	500	30,000	1,200	1,200	60,000	120	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HSL B - inhalation		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	50	--	--	--	--	280	0.7	480	68	--	--	--	110	5
HSL B- contact		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5,600	--	5,800	8,100	--	4,200	140	21,000	5,900	--	--	--	17,000	2,200
EIL - residential		--	100	--	690	250	1,100	500	690	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	170
ESL - residential		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	180	120	1300	5,600	--	--	65	105	125	--	--	--	45	--
Mgmt Limits - residential		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	800	--	3,500	10,000	--	1,000	--	--	--	--	--	--	--	--
Sample ID	Depth (m)	Date																															
GW01_4.5	4.5	12/10/2015	9	8	<1	6	50	24	24	95	<0.1	--	--	--	<10	<50	<100	<100	<50	<10	<10	<50	<100	<100	<50	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<1
QC1		12/10/2015	17	9	<1	6	55	26	26	103	<0.1	--	--	--	<10	<50	<100	<100	<50	<10	<10	<50	<100	<100	<50	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<1
RPD %		--	62	12	--	0	10	8	8	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GW02_0.1	0.1	12/10/2015	17	35	<1	23	23	42	4	37	<0.1	56.9	No	--	<10	<50	<100	<100	<50	<10	<10	<50	<100	<100	<50	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<1
GW03_7.0	7.0	12/10/2015	8	9	<1	9	48	18	21	96	<0.1	--	--	--	<10	<50	<100	<100	<50	<10	<10	<50	<100	<100	<50	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<1
QC2		12/10/2015	6	9	<1	8	44	17	19	96	<0.1	--	--	--	<10	<50	<100	<100	<50	<10	<10	<50	<100	<100	<50	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<1
RPD %			28	0	--	12	9	6	10	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB1_0.4	0.4	12/10/2015	14	6	<1	12	50	20	21	69	<0.1	56.9	No	--	<10	<50	<100	<100	<50	<10	<10	<50	<100	<100	<50	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<1
SB2_0.3	0.3	12/10/2015	12	6	<1	17	53	21	29	90	<0.1	--	--	--	<10	<50	<100	<100	<50	<10	<10	<50	<100	<100	<50	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<1
SB3_0.1	0.1	12/10/2015	5	11	<1	11	16	29	8	36	<0.1	43.6	No	--	<10	<50	<100	<100	<50	<10	<10	<50	<100	<100	<50	<50	<0.2	<0.5	<0.5	<0.5	2.7	1.1	3.8	<1
SB4_0.2	0.2	12/10/2015	14	6	<1	17	49	18	224	97	<0.1	--	--	--	<10	<50	<100	<100	<50	<10	<10	<50	<100	<100	<50	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<1
SB5_0.4	0.4	12/10/2015	13	14	<1	17	46	27	34	126	<0.1	--	--	--	<10	<50	<100	<100	<50	<10	<10	<50	<100	<100	<50	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<1
SB6_0.4	0.4	12/10/2015	11	8	<1	8	46	23	37	137	<0.1	--	--	--	<10	<50	<100	<100	<50	<10	<10	<50	<100	<100	<50	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<1
SB7_0.4	0.4	13/10/2015	17	8	<1	11	16	19	3	23	<0.1	42.2	No	--	<10	<50	<100	<100	<50	<10	<10	<50	<100	<100	<50	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<1
SB8_0.6	0.6	13/10/2015	19	12	<1	22	17	18	4	10	<0.1	--	--	--	<10	<50	<100	<100	<50	<10	<10	<50	<100	<100	<50	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<1
SB9_0.4	0.4	13/10/2015	10	16	<1	34	312	82	18	214	<0.1	42.4	No	--	<10	<50	<100	<100	<50	<10	<10	<50	<100	<100	<50	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<1
SB10_0.2	0.2	13/10/2015	11	19	<1	35	125	110	21	168	<0.1	29.0	No	--	<10	<50	<100	<100	<50	<10	<10	<50	<100	<100	<50	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<1
SB11_0.4	0.4	13/10/2015	7	37	<1	88	264	483	48	395	<0.1	46.5	Yes	Ch+Am+Cr	<10	<50	<100	<100	<50	<10	<10	<50	<100	<100	<50	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<1
SB12_0.1	0.1	13/10/2015	1	7	<1	4	<5	<5	<2	<5	<0.1	--	--	--	<10	<50	<100	<100	<50	<10	<10	<50	<100	<100	<50	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<1
SB13_0.2	0.2	13/10/2015	21	17	<1	33	170	37	6	106	<0.1	--	--	--	12	70	1840	4260	6170	26	25	80	4380	3070	7530	80	<0.2	<0.5	<0.5	0.9	<0.5	0.9	0.9	<1
SB13_1.5	1.5	13/10/2015	12	<5	<1	8	6	20	2	<5	<0.1	--	--	--	<10	<50	<100	<100	<50	<10	<10	<50	<100	<100	<50	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<1
SB14_0.1	0.1	13/10/2015	11	13	<1	13	17	34	4	38	<0.1	--	--	--	<10	<50	<100	<100	<50	<10	<10	<50	<100	<100	<50	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<1
SB15_0.2	0.2	13/10/2015	26	11	<1	27	19	13	5	14	<0.1	--	--	--	<10	<50	<100	<100	<50	<10	<10	<50	<100	<100	<50	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<1
SS1		13/10/2015	5	<5	<1	29	54	39	40	304	0.8	--	--	--	<10	<50	6710	18100	24800	<10	<10	<50	18600	15000	33600	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<1
SS2		13/10/2015	9	<5	<1	19	89	5	71	147	<0.1	--	--	--	<10	<50	15200	15800	31000	<10	<10	<50	27400	7870	35300	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<1
TRIP BLANK	--	13/10/2015	1.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<1

Legend
LOR - Limit of Reporting
mg/kg - milligrams per kilogram
Chromium - HIL criterion for Cr(VI) used
HSLs/ESLs/Mgmt Limits use fine materials
All EILs calculated for aged sources using NEPC EIL calculation spreadsheet assuming an average CEC and clay content

Table 1: Soil Analytical Results

Phase 2 Contamination Assessment - 2 Bachell Ave Lidcombe NSW
Hallmark Construction Pty Ltd
Proj # SES_425

			PAH																			
Analyte			Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benz[a]anthracene	Chrysene	Benzo(b+j)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenz(a.h)anthracene	Benzo(g,h,i)perylene	Sum of polycyclic aromatic hydrocarbons	Benzo(a)pyrene TEQ (zero)	Benzo(a)pyrene TEQ (half LOR)	Benzo(a)pyrene TEQ (LOR)
Units			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR			0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
HIL B			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	400	4	--	--
HSL B - inhalation			5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HSL B- contact			1,400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EIL - residential			170	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ESL - residential			--	--	--	--	--	--	--	--	--	--	--	--	0.7	--	--	--	--	--	--	--
Mgmt Limits - residential			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sample ID	Depth (m)	Date																				
GW01_4.5	4.5	12/10/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
QC1		12/10/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
RPD %		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GW02_0.1	0.1	12/10/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
GW03_7.0	7.0	12/10/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
QC2		12/10/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
RPD %			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB1_0.4	0.4	12/10/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SB2_0.3	0.3	12/10/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SB3_0.1	0.1	12/10/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SB4_0.2	0.2	12/10/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SB5_0.4	0.4	12/10/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SB6_0.4	0.4	12/10/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SB7_0.4	0.4	13/10/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SB8_0.6	0.6	13/10/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SB9_0.4	0.4	13/10/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SB10_0.2	0.2	13/10/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SB11_0.4	0.4	13/10/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SB12_0.1	0.1	13/10/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SB13_0.2	0.2	13/10/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SB13_1.5	1.5	13/10/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SB14_0.1	0.1	13/10/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SB15_0.2	0.2	13/10/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SS1		13/10/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SS2		13/10/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
TRIP BLANK	--	13/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Legend
LOR - Limit of Reporting
mg/kg - milligrams per kilogram
Chromium - HIL criterion for Cr(VI) used
HSLs/ESLs/Mgmt Limits use coarse materials
All EILs calculated for aged sources using NEPC EIL calculation spreadsheet.

Table 2: Groundwater Analytical Results

Phase 2 Contamination Assessment - 2 Bachell Ave Lidcombe NSW
Hallmark Construction Pty Ltd
Proj # SES_425

		Metals								TPH					TRH							BTEXN							
Analyte		Arsenic	Cadmium	Chromium	Copper	Lead	Nickel	Zinc	Mercury	C6 - C9 Fraction	C10 - C14 Fraction	C15 - C28 Fraction	C29 - C36 Fraction	C10 - C36 Fraction (sum)	C6 - C10 Fraction	C6 - C10 Fraction minus BTEX (F1)	>C10 - C16 Fraction	>C16 - C34 Fraction	>C34 - C40 Fraction	>C10 - C40 Fraction (sum)	>C10 - C16 Fraction minus Naphthalene (F2)	Benzene	Toluene	Ethylbenzene	meta- & para-Xylene	ortho-Xylene	Sum of BTEX	Total Xylenes	Naphthalene
Units		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
LOR		0.001	0.0001	0.001	0.001	0.001	0.001	0.005	0.0001	20	50	100	50	50	20	20	100	100	100	100	100	1	2	2	2	2	1	2	5
GILs - Human		0.01	0.002	0.05	2.0	0.01	0.02	--	0.001	--	--	--	--	--	--	9,000	--	--	--	--	3,000	4800	61,000	3,900	--	--	--	21,000	170
GILs - Eco		0.013	0.0002	0.001	0.0014	0.0034	0.011	0.008	0.00006	--	--	--	--	--	--	--	--	--	--	--	--	950	--	--	--	--	--	200	16
Sample ID	Date																												
GW01	15/10/2015	0.007	<0.0001	<0.001	<0.001	<0.001	0.008	0.007	<0.0001	<20	<50	<100	<50	<50	<20	<20	<100	<100	<100	<100	<100	<1	<2	<2	<2	<2	<1	<2	<5
GW02	15/10/2015	<0.001	<0.0001	<0.001	<0.001	<0.001	0.009	0.031	<0.0001	<20	<50	<100	<50	<50	<20	<20	<100	<100	<100	<100	<100	<1	<2	<2	<2	<2	<1	<2	<5
GW03	15/10/2015	0.002	<0.0001	<0.001	<0.001	<0.001	<0.001	0.002	<0.0001	<20	<50	<100	<50	<50	<20	<20	<100	<100	<100	<100	<100	<1	<2	<2	<2	<2	<1	<2	<5
QA1	15/10/2015	0.001	<0.0001	<0.001	<0.001	<0.001	<0.001	0.002	<0.0001	<20	<50	<100	<50	<50	<20	<20	<100	<100	<100	<100	<100	<1	<2	<2	<2	<2	<1	<2	<5
RPD (%)		67	--	--	--	--	--	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R1	15/10/2015	<0.001	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.0001	<20	<50	<100	<50	<50	<20	<20	<100	<100	<100	<100	<100	<1	<2	<2	<2	<2	<1	<2	<5
TRIP BLANK	15/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1	<2	<2	<2	<2	<1	<2	<5

Legend
LOR - Limit of Reporting
mg/L - milligrams per litre
ug/L - micograms per litre
TRH and BTEX HSLs used for fine material with groundwater @ or >2m below the ground surface
Non Limiting values used for Toluene and Ethylbenzene for human GILs
GILs substituted when no criterion available.
GILs used for 99% and 95% protection of aquatic ecosystem
Most conservative GILs selected where required

Table 2: Groundwater Analytical Results

Phase 2 Contamination Assessment - 2 Bachell Ave Lidcombe NSW
Hallmark Construction Pty Ltd
Proj # SES_425

		PAH																	
Analyte		Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benz(a)anthracene	Chrysene	Benzo(b+j)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1.2.3.cd)pyrene	Dibenz(a.h)anthracene	Benzo(g.h.i)perylene	Sum of polycyclic aromatic hydrocarbons	Benzo(a)pyrene TEQ (zero)
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
LOR		1	1	1	1	1	1	1	1	1	1	1	1	0.5	1	1	1	0.5	0.5
GILs - Human		170	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GILs - Eco		50	--	--	--	--	--	--	--	--	--	--	--	0.01	--	--	--	--	--
Sample ID	Date																		
GW01	15/10/2015	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<1.0	<1.0	<1.0	<0.5	<0.5
GW02	15/10/2015	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<1.0	<1.0	<1.0	<0.5	<0.5
GW03	15/10/2015	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<1.0	<1.0	<1.0	<0.5	<0.5
QA1	15/10/2015	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<1.0	<1.0	<1.0	<0.5	<0.5
RPD (%)		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R1	15/10/2015	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<1.0	<1.0	<1.0	<0.5	<0.5
TRIP BLANK	15/10/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Legend
LOR - Limit of Reporting
mg/L - milligrams per litre
ug/L - micograms per litre
TRH and BTEX HSLs used for fine material with groundwater @ or >2m below the ground surface
Non Limiting values used for Toluene and Ethylbenzene for human GILs
GILs substituted when no criterion available.
GILs used for 99% and 95% protection of aquatic ecosystem
Most conservative GILs selected where required

Attachment B:

Aerial Images

Sullivan Environmental Sciences Pty Ltd
PO Box 5248, Turramurra NSW 2074
Ph: 0400 500 264
E: adam@sullivan-es.com.au
W: www.sullivan-es.com.au

Oct 2015

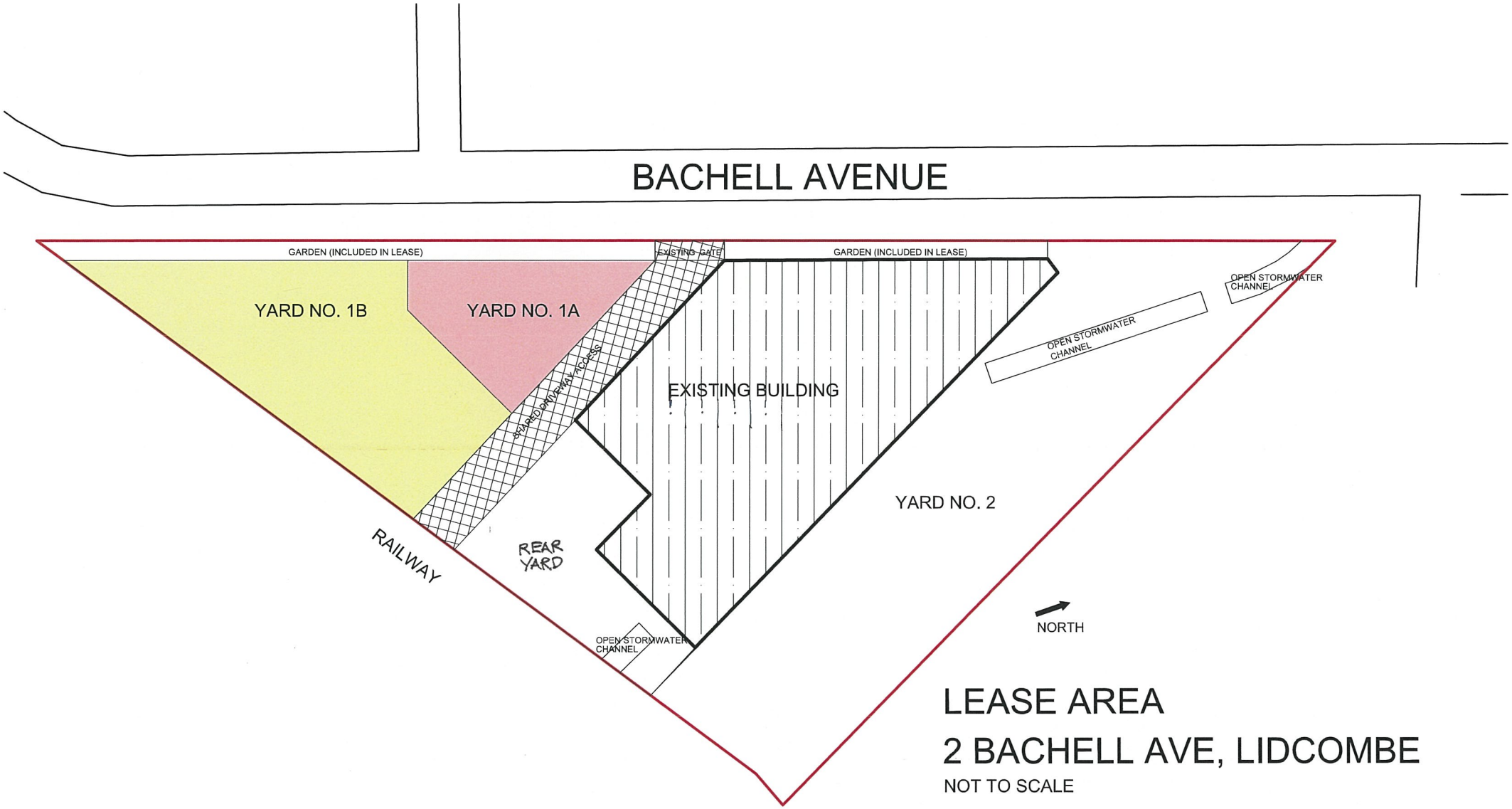
Oct 2016

Dec 2017

Attachment C:

Tenancy Map

Sullivan Environmental Sciences Pty Ltd
PO Box 5248, Turramurra NSW 2074
Ph: 0400 500 264
E: adam@sullivan-es.com.au
W: www.sullivan-es.com.au



LEASE AREA

2 BACHELL AVE, LIDCOMBE

NOT TO SCALE

Attachment D:

Photographs

Sullivan Environmental Sciences Pty Ltd
PO Box 5248, Turramurra NSW 2074
Ph: 0400 500 264
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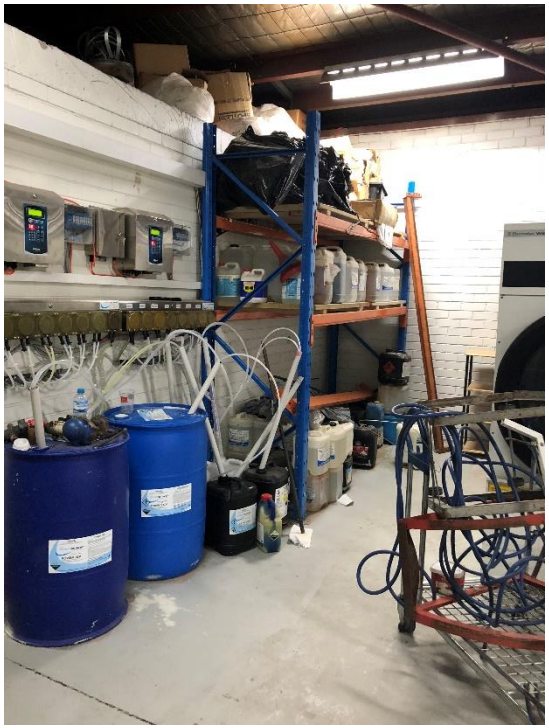
W: www.sullivan-es.com.au

Yard 1A stored items and ground cover.

Yard 1B stored items and ground cover.



Chemical store within laundromat business.

Interior of laundromat business.

SULLIVAN environmental sciences	Project: **SES_500**	Title: **Preliminary Contamination Assessment - Site Photographs**
		Address: **2 Bachell Avenue, Lidcombe NSW**

Exterior of laundromat building – boiler area.

Exterior of laundromat building – chemical dispensing unit and storage.

Yard 2 vacant land and temporary storage of construction materials.

SULLIVAN environmental sciences	Project: **SES_500**	Title: **Preliminary Contamination Assessment - Site Photographs**
		Address: **2 Bachell Avenue, Lidcombe NSW**