



LEGEND Approximate Areas with Associated with Outstanding Remedial and/or Validation Work. ① Area to be fenced to prevent future access to residents until construction materials can be moved and revalidation of bund capping materials can be completed. ② Capping layer thickness validated following Keltbray works, however following placement of subsoil & topsoil to raise site levels, further validation required to confirm chemical quality. ③ Requires revalidation following cut throughs being created through this feature. ④ Capping layer to be validated (depth & chemical quality).

APPENDIX A

SERVICE CONSTRAINTS

1. This report and the site investigation carried out in connection with the report (together the "Services") were compiled and carried out by RSK Environment Limited (RSK) for Cala Homes (the "client") in accordance with the terms of a contract [RSK Group Standard Terms and Conditions] amend if work not done under RSK standard terms between RSK and the "client". The Services were performed by RSK with the skill and care ordinarily exercised by a reasonable environmental consultant at the time the Services were performed. Further, and in particular, the Services were performed by RSK taking into account the limits of the scope of works required by the client, the time scale involved and the resources, including financial and manpower resources, agreed between RSK and the client.
2. Other than that, expressly contained in paragraph 1 above, RSK provides no other representation or warranty whether express or implied, in relation to the Services.
3. Unless otherwise agreed in writing the Services were performed by RSK exclusively for the purposes of the client. RSK is not aware of any interest of or reliance by any party other than the client in or on the Services. Unless expressly provided in writing, RSK does not authorise, consent or condone any party other than the client relying upon the Services. Should this report or any part of this report, or otherwise details of the Services or any part of the Services be made known to any such party, and such party relies thereon that party does so wholly at its own and sole risk and RSK disclaims any liability to such parties. Any such party would be well advised to seek independent advice from a competent environmental consultant and/or lawyer.
4. It is RSK's understanding that this report is to be used for the purpose described in the introduction to the report. That purpose was a significant factor in determining the scope and level of the Services. Should the purpose for which the report is used, or the proposed use of the site change, this report may no longer be valid and any further use of or reliance upon the report in those circumstances by the client without RSK's review and advice shall be at the client's sole and own risk. Should RSK be requested to review the report after the date of this report, RSK shall be entitled to additional payment at the then existing rates or such other terms as agreed between RSK and the client.
5. The passage of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the report inaccurate or unreliable. The information and conclusions contained in this report should not be relied upon in the future without the written advice of RSK. In the absence of such written advice of RSK, reliance on the report in the future shall be at the client's own and sole risk. Should RSK be requested to review the report in the future, RSK shall be entitled to additional payment at the then existing rate or such other terms as may be agreed between RSK and the client.
6. The observations and conclusions described in this report are based solely upon the Services which were provided pursuant to the agreement between the client and RSK. RSK has not performed any observations, investigations, studies or testing not specifically set out or required by the contract between the client and RSK. RSK is not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the Services. For the avoidance of doubt, unless otherwise expressly referred to in the introduction to this report, RSK did not seek to evaluate the presence on or off the site of asbestos, invasive plants, electromagnetic fields, lead paint, heavy metals, radon gas or other radioactive or hazardous materials, unless specifically identified in the Services.
7. The Services are based upon RSK's observations of existing physical conditions at the Site gained from a visual inspection of the site together with RSK's interpretation of information, including documentation, obtained from third parties and from the client on the history and usage of the site, unless specifically identified in the Services or accreditation system (such as UKAS ISO 17020:2012 clause 7.1.6):
 - a. the Services were based on information and/or analysis provided by independent testing and information services or laboratories upon which RSK was reasonably entitled to rely
 - b. the Services were limited by the accuracy of the information, including documentation, reviewed by RSK and the observations possible at the time of the visual inspection
 - c. the Services did not attempt to independently verify the accuracy or completeness of information, documentation or materials received from the client or third parties, including laboratories and information services, during the performance of the Services.

RSK is not liable for any inaccurate information or conclusions, the discovery of which inaccuracies required the doing of any act including the gathering of any information which was not reasonably available to RSK and including the doing of any independent investigation of the information provided to RSK save as otherwise provided in the terms of the contract between the client and RSK.

8. The intrusive environmental site investigation aspects of the Services is a limited sampling of the site at pre-determined locations based on the known historic / operational configuration of the site. The conclusions given in this report are based on information gathered at the specific test locations and can only be extrapolated to an undefined limited area around those locations. The extent of the limited area depends on the properties of the materials adjacent and local conditions, together with the position of any current structures and underground utilities and facilities, and natural and other activities on-site. In addition, chemical analysis was carried out for a limited number of parameters [as stipulated in the contract between the client and RSK] [based on an understanding of the available operational and historical information,] and it should not be inferred that other chemical species are not present.
9. Any site drawing(s) provided in this report is (are) not meant to be an accurate base plan, but is (are) used to present the general relative locations of features on, and surrounding, the site. Features (intrusive and sample locations etc) annotated on-site plans are not drawn to scale but are centred over the approximate location. Such features should not be used for setting out and should be considered indicative only.

APPENDIX B PREVIOUS REPORTS WITH DIRECT RELEVANCE TO PHASE 2A



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Our Ref: 27621L01/ad

30th August 2016

CALA Homes (South Home Counties) Limited
Tilford House,
Farnham Business Park,
Weydon Lane,
Farnham,
Surrey, GU9 8QT

For attention of: Mr Gary Biggs

Dear Sirs

RE: TANK VALIDATION WORKS AT FORMER WEST END NURSERY, ANGMERING

1. BACKGROUND

RSK Environment Limited (RSK) was commissioned by CALA Homes (South Home Counties) Limited to carry out validation testing of an area in the south west of the site which may have been impacted by the presence of historical above ground fuel storage tanks. The site was previously occupied by a garden nursery growing herbs and agricultural fields. The garden nursery has since been demolished and the fuel tanks have been removed.

Several phases of investigation and risk assessment have previously been carried out by RSK. These are outlined in the following reports:

- RSK, 27621- R01(02) 'Geo-environmental Site Investigation', West End Nursery, Angmering, September 2015;
- RSK, 27621- R02 (00) 'Additional Geo-environmental Site Investigation and Remediation', West End Nursery, Angmering, June 2015;
- RSK, 27621- R03 (01) 'Remedial Strategy', West End Nursery, Angmering, January 2016;
- RSK, 27621- R04 (01) 'Supplementary Geo-environmental Site Assessment', West End Nursery, Angmering, June 2016;

2. SITE WORKS

RSK carried out intrusive investigation work on 25th January and 8th March 2016 to undertake validation works in the vicinity of former above ground fuel storage tanks.



**INVESTORS
IN PEOPLE**

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2.1 Sampling strategy and methodology

The techniques adopted for the investigation have been chosen considering the anticipated ground conditions, existing land use and the proposed development. A series of mechanically excavated trial pits were considered to be the most appropriate to provide suitable recovery of soils and inspection of potential contamination within the natural strata. A breaker was required to penetrate the concrete hardstanding that formed the base of the tanks.

2.1.1 Health and safety considerations

Prior to intrusive works, the RSK engineer undertook service clearance works using a Cable Avoidance Tool (CAT) and Genny to identify any potential underground utilities.

2.1.2 Investigation locations

The following site work was carried out:

- Trial Pits V1-V4 – 25th January 2016; and
- Trial Pits V5-V10 – 8th March 2016.

The exploratory hole records are presented in Appendix C.

The locations of the intrusive investigations are shown on Figure 2. The investigation points were located approximately by reference to physical features present on the site at the time of investigation and were designed to provide accurate coverage of the above ground storage tank locations to determine the extent of contamination to the underlying strata.

2.1.3 Soil sampling, in-situ testing and laboratory analysis

Soils collected for laboratory analysis were collected in a variety of containers appropriate to the anticipated testing suite required. Samples were stored in accordance with the RSK quality procedures to maintain sample integrity and preservation and to minimise the chance of cross contamination.

10 samples were taken and are recorded together with their depths on the exploratory hole records in Appendix E. The samples were transported to the laboratory in chilled cool boxes. Laboratory chain of custody forms can be provided if required. The rationale for soil sample chemical analysis is presented in Table 1.

Table 1: Scheduled analysis – soil

Location	Sample depth (m bgl)	Analyte	Rationale
V1	0.80-1.00	TPH-CWG	To assess potential for hydrocarbon contamination from historic above ground fuel storage tanks
V2	0.30		
V3	0.30-0.40		

V4	0.40-0.50		
V5	0.30-0.50		
V6	0.20-0.40		
V7	0.30-0.50		
V8	0.30-0.50		
V8	1.00		
V10	0.50		

3. GROUND CONDITIONS

The results of the intrusive investigation and subsequent laboratory analysis undertaken are detailed below. The descriptions of the strata encountered, notes regarding visual or olfactory evidence of contamination, list of samples taken and field observations are included on the exploratory hole records presented in Appendix C.

3.1 Soil

The exploratory holes revealed that the site is underlain by a variable thickness of made ground, over River Terrace Deposits encountered at depth. For the purpose of discussion, the ground conditions are summarised in Table 2 and the strata discussed in subsequent subsections

Table 2: General succession of strata encountered

Strata	Exploratory holes encountered	Depth to top of stratum m bgl	Thickness (m)
Topsoil	V9	0.00	0.10
Made Ground	All	0.00-0.10	>1.10
River Terrace Deposits	V5, V6, V7, V8, V9, V10	0.70-1.20	>0.70

3.1.1 Topsoil

Grass over topsoil from surface level was noted at V9 to a depth of 0.10m. The topsoil generally comprised brown silty clay.

3.1.2 Made ground

The composition of the made ground was variable with gravel, clay, sand and silt encountered beneath concrete. This generally contained variable proportions of concrete, brick, wire, cable, metal, and clinker.

3.1.3 River Terrace Deposits

This stratum typically contained firm light orange brown and grey or light grey brown clayey silt. At some locations there was some evidence of possible hydrocarbon contamination.

3.2 Groundwater

Groundwater seepages were encountered at V1, V3, V4, V6 and V7 between 0.30m and 0.80m bgl.

3.3 Evidence of contamination

Hydrocarbon odours were noted at V2, V3, V4, V6, V8 and V10. An oily product was noted to be seeping into trial pit V2 at 0.3m depth.

4. LABORATORY TESTING

Soil samples were submitted for chemical laboratory testing comprising Speciated Total Petroleum Hydrocarbons (TPH-CWG).

4.1 Direct contact with impacted soil by future residents

Targeted soil samples were obtained during the site investigation and were selected to provide coverage of the storage tank farm location.

The results have been compared to the RSK GAC for human health with a residential end use. No samples have been found to exceed the RSK GAC, however a total TPH concentration of 1,420mg/kg in the sample from V2 at 0.3m depth would classify this material as hazardous waste.

Evidence for an oil seepage in the ground was identified at V2, around 0.3m depth. No other positions showed signs of oil seepage.

5. CONCLUSIONS

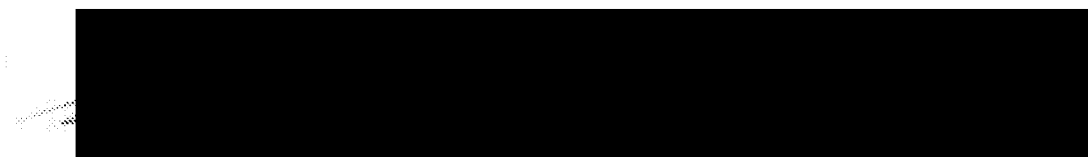
Soils in the vicinity of V2 should be investigated further to identify the extent of oil contamination in the ground. Soils excavated from this location should be disposed of as hazardous waste. No evidence for significant impact was identified at any other locations.

Validation should be carried out by a suitably qualified geo-environmental engineer to confirm suitable remediation has been carried out.

We trust that the information discussed above is acceptable and recommend this report be submitted to the NHBC and Local Authority accordingly. Should you require RSK to submit this information on your behalf, please do not hesitate to contact us.

Yours faithfully

For RSK Environment Limited



Adam Davidson

Andrew James

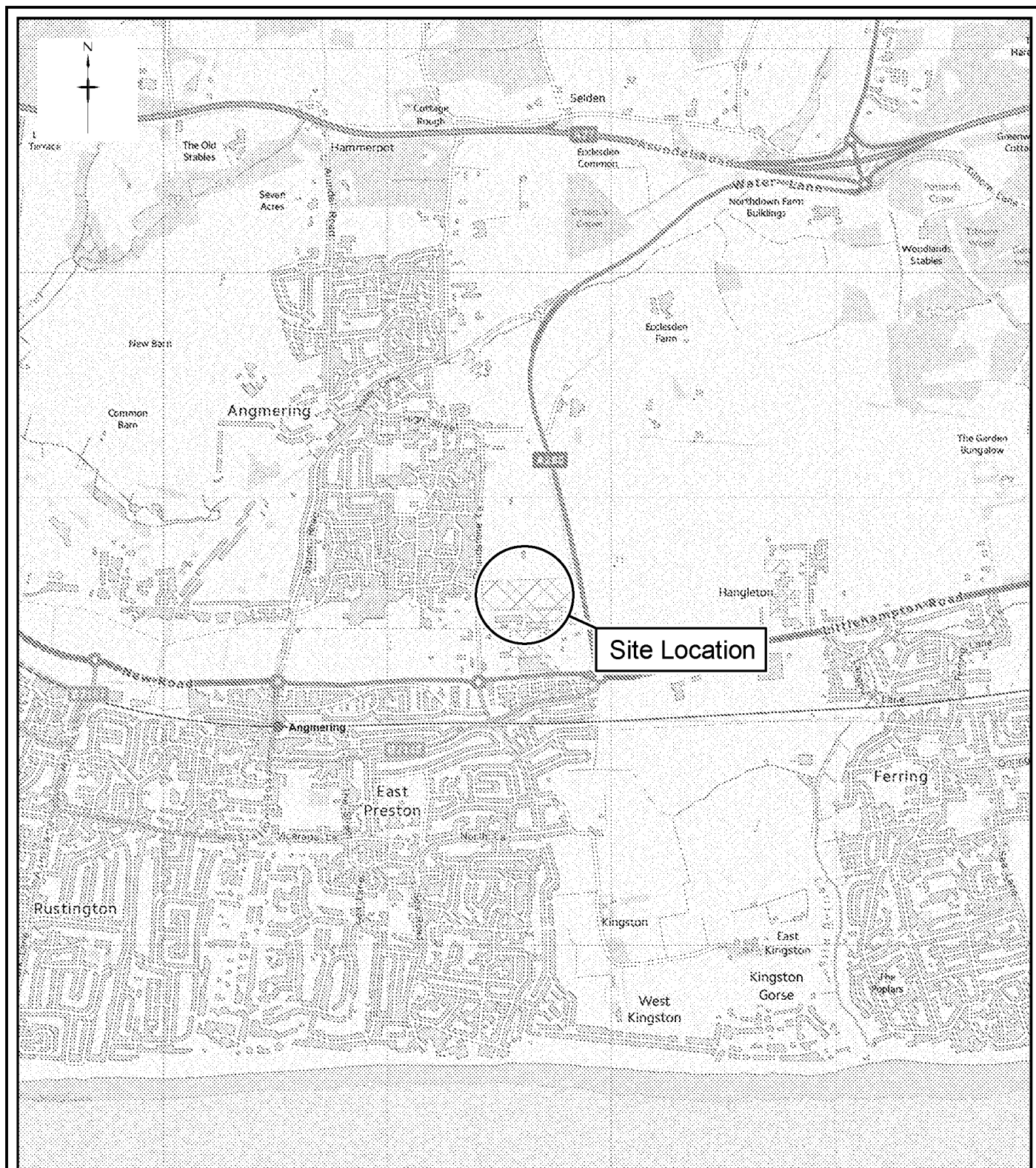
Graduate Geo-environmental Engineer

Principal Geo-environmental Engineer

Enc.

Figure 1	Site Location Map
Figure 2	Exploratory Hole Location Plan
Appendix A	Service Constraints
Appendix B	Photographic Log
Appendix C	Trial Pit Logs
Appendix D	Laboratory Certificates
Appendix E	RSK Generic Assessment Criteria

FIGURES



Contains Ordnance Survey data © Crown copyright and database right 2013



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Client

CALA HOMES (SOUTH HOME COUNTIES) LTD

Project Title

**WEST END NURSERY,
ANGMERING**

Drawing Title

SITE LOCATION MAP

Rev	Drawn	Date	Checked	Date	Approved	Date
00	ASC	17.02.16	ARJ	17.02.16	ARJ	17.02.16
Dimensions		Scale		Original Size		
m		1:25,000		A4		

Project Number

27621 - L01

Drawing File

27621 - SLP.dwg

Drawing Number

FIGURE 1



APPENDIX A

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7. The Services are based upon RSK's observations of existing physical conditions at the Site gained from a walk-over survey of the site together with RSK's interpretation of information including documentation, obtained from third parties and from the client on the history and usage of the site. The Services are also based on information and/or analysis provided by independent testing and information services or laboratories upon which RSK was reasonably entitled to rely. The Services clearly are limited by the accuracy of the information, including documentation, reviewed by RSK and the observations possible at the time of the walkover survey. Further RSK was not authorised and did not attempt to independently verify the accuracy or completeness of information, documentation or materials received from the client or third parties, including laboratories and information services, during the performance of the Services. RSK is not liable for any inaccurate information or conclusions, the discovery of which inaccuracies required the doing of any act including the gathering of any information which was not reasonably available to RSK and including the doing of any independent investigation of the information provided to RSK save as otherwise provided in the terms of the contract between the client and RSK.
8. The phase II or intrusive environmental site investigation aspects of the Services is a limited sampling of the site at pre-determined borehole and soil vapour locations based on the operational configuration of the site. The conclusions given in this report are based on information gathered at the specific test locations and can only be extrapolated to an undefined limited area around those locations. The extent of the limited area depends on the soil and groundwater conditions, together with the position of any current structures and underground facilities and natural and other activities on site. In addition chemical analysis was carried out for a limited number of parameters [as stipulated in the contract between the client and RSK] [based on an understanding of the available operational and historical information,] and it should not be inferred that other chemical species are not present.
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APPENDIX B PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG

Site Location: Former West End Nursery, Angmering

Photo No.
1

Date:
13/01/2015

View looking north east at above ground fuel storage tanks and nitric acid store

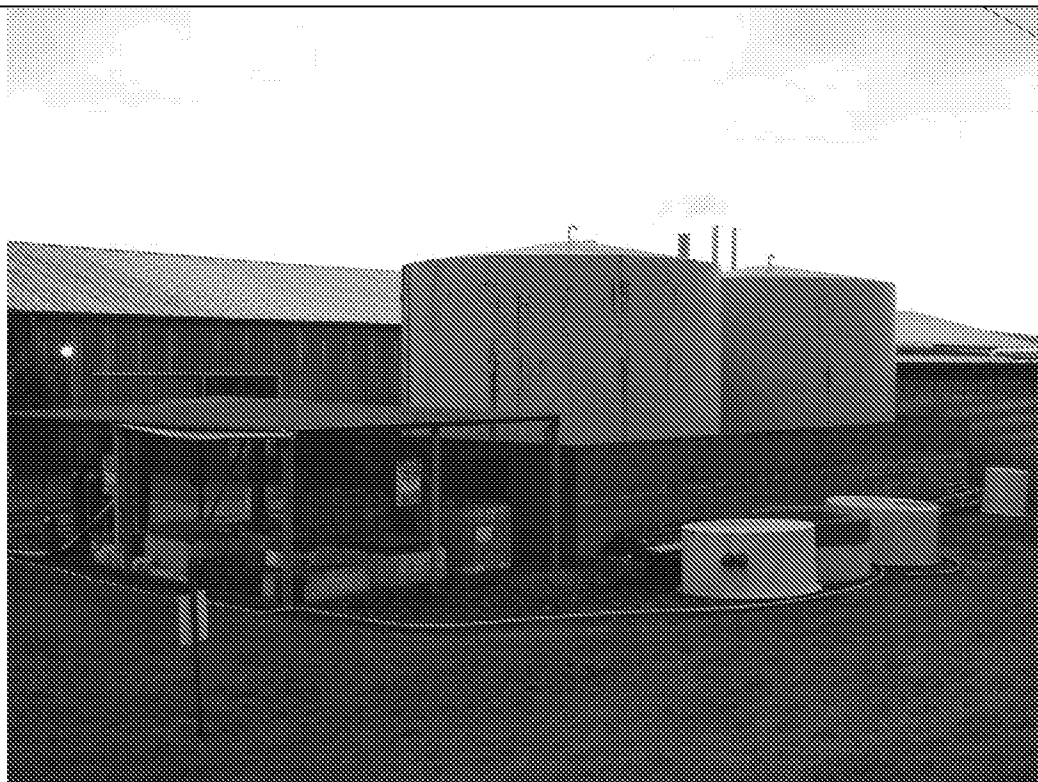


Photo No.
2

Date:
25/01/2016

View looking east across the area after tank removal – concrete base still in situ



PHOTOGRAPHIC LOG

Site Location: Former West End Nursery, Angmering

Photo No.
3

Date:
08/03/2016

View looking east across area following removal of concrete base.



Photo No.
4

Date:
25/01/2016

Validation trial pit V2



PHOTOGRAPHIC LOG

Site Location: Former West End Nursery, Angmering

Photo No.
5

Date:
25/01/2016

Oil identified
in V2,
seepage
around 0.3m
depth.



Photo No.
6

Date:
25/01/2016

Excavation
of V3.

