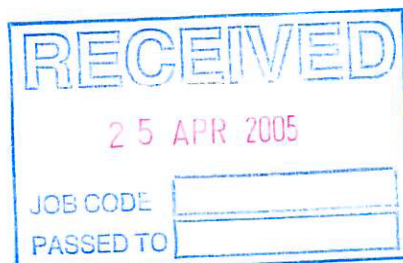


PERSIMMON HOMES (WESSEX) LIMITED



REPORT
on
SITE INVESTIGATION
at
OLD SARUM
SALISBURY

APRIL 2005
REPORT NO: 41367

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DOCUMENT ISSUE RECORD

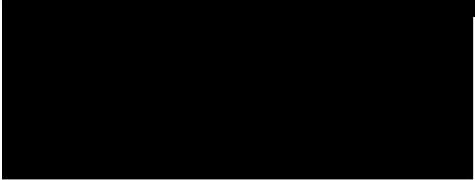
Contract No: 41367

Client: Persimmon Homes (Wessex) Ltd

Contract: Old Sarum, Salisbury

Document: Interpretive Site Investigation Report

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Date: April 2005

REVISION RECORD

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1 INTRODUCTION

This investigation was carried out on the instructions of PFA Consulting on behalf of Persimmon Homes (Wessex) Ltd. The purpose of the work was to investigate ground conditions and provide information for the design of foundations for residential housing, commercial buildings and a school, and to assess the contamination status of the site. This report details the work carried out both on site and in the geotechnical and chemical testing laboratories; it contains the exploratory hole logs and laboratory testing results, and it gives recommendations relating to foundation design and settlement etc, and to contamination issues.

The ground investigation has been carried out using cable percussion techniques of soft ground boring and trial pitting, in general accordance with the recommendations of BS5930: 1999 *Code of Practice for Site Investigations* and with BS10175 *Investigation of Potentially Contaminated Sites: Code of Practice* (2001). Whilst every attempt is made to record full details of the strata encountered in the exploratory holes, techniques of hole formation and sampling will inevitably lead to disturbance, mixing or loss of material in some soils and rocks.

No testing has been undertaken to detect the presence of gas in the ground.

All information, comments and opinions given in this report are based on the ground conditions encountered during the site work, and on the results of laboratory and field tests performed during the investigation. However, there may be conditions at the site which have not been taken into account, such as unpredictable soil strata, contaminant concentrations, and water conditions between or below exploratory holes. It should be noted that groundwater levels usually vary due to seasonal and/or other effects and may at times differ to those measured during the investigation.

Similarly all information, comments and opinions given in the desk study in this report are based on the information obtained. The information search cannot be exhaustive and there may be records that have not come to light. There may also be circumstances at the site that are not documented.



This report was prepared by Structural Soils Ltd for the sole and exclusive use of Persimmon Homes (Wessex) Ltd in response to particular instructions. Any other parties using the information contained in this report do so at their own risk and any duty of care to those parties is excluded.



2 SITE DESCRIPTION

2.1 Location and Topography

The site lies in the area of Old Sarum, situated approximately 3km north of the town of Salisbury, and is adjacent to an old roman road, denoted as the *Portway* (see site location plan in Appendix A). The British National Grid Reference of the site is SU 151 337.

The site comprises two large stubble fields of approximate plan areas 85 x 400m and 350 x 530m, connected by a 275 x 90m strip of rough grassed land including a football pitch. Between the fields is an area of developed land which is currently occupied by residential housing and the grounds of a local football club. The westerly of the two fields slopes down towards the north whilst the easterly field slopes down towards the west at about between 1 in 20 and 1 in 30. An approximately 3.0m high earth mound crosses the strip of land connecting the two fields.

The site is bordered by further agricultural land to the north and east and by *The Sarum Centre* to the west. To the south is the *Portway* road beyond which is a business park.

2.2 Geology

The Geological Survey Map of Great Britain (sheet 298, scale 1:50,000) shows the site to be underlain by the Upper Chalk of Cretaceous age.

2.3 Hydrogeology

The Environment Agency's Groundwater Vulnerability Map of North-West Hampshire (sheet 44, scale 1:100,000) shows the site to lie on a major aquifer (highly permeable). These are highly permeable formations usually with a known or probable presence of significant fracturing. They may be highly productive and able to support large abstractions for public supply and other purposes.

The soils directly beneath the site have been classed as having a high (H1) leaching potential. These are soils, which can readily transmit liquid discharge because they are



either shallow, or susceptible to rapid by-pass flow directly to rock, gravel or groundwater.

2.4 Site History

A search of Ordnance Survey maps was undertaken to establish the land use history of the site. Extracts of the maps discussed below can be found in Appendix F of this report. Unless otherwise stated, all distances quoted are taken from the site boundary.

1880-1901 Ordnance Survey Country Series Scale 1:2,500 and 1:10,560

These are the first available maps of the area and show the site to be located in an area of undeveloped agricultural land. The surrounding area is undeveloped, except for *Down Farm*, to the north west and *Rockshill Plantation*, to the west of the site. The map shows the road, which bounds the site to the south, as *Portway*. *Old Sarum* archaeological site is shown approximately 1km to the south west.

1926 Ordnance Survey Country Series Scale 1:2,500 and 1:10,560

The site itself remains unchanged. The land directly to the south of the *Portway* has now been developed with a number of buildings, which extend over a 1km section of the road. A *Tank* is shown amongst these buildings. There are two *Sewage works* shown, one immediately to the west of the site and one immediately to the west of the eastern section of the site. An *Isolation Hospital* is shown immediately to the west of the site.

1939 Ordnance Survey Country Series Scale 1:2,500 and 1:10,560

The site itself remains unchanged. However, the land in between the two fields has now been developed into a group of buildings with an associated *playing field*.

1962-1975 Ordnance Survey Plan Scale 1:2,500 and 1:10,560

The site itself remains unchanged. To the east of the site, further residential development has taken place, adjacent to the *Portway*. There has also been further residential development to the south west of the site, in the *Castle Hill* area. The *Isolation Hospital* is now marked as disused. The buildings to the south of the *Portway*



road include two locations that are denoted as *Tank(s)*. This area is now labelled *Old Sarum Barracks* and *Airfield*. There are also two *Electrical Sub-stations* marked on the 1:2,500 scale map. Both are adjacent to the Portway road. *Westside Close* has been built with houses along it and further houses just to the east fronting onto the *Portway*.

1981-1982 Ordnance Survey Plan Scale 1:10,000

The site itself remains unchanged. Development has continued to the south of the *Portway* road, with further commercial properties. The *Isolation Hospital* is now denoted as *Sarum Centre*, and there are two *Hospital Cottages* shown on the map to the west of this. To the south east of the site residential development has continued, adjacent to *Manor Farm*.

2000 Ordnance Survey Plan Scale 1:10,000

The site itself remains unchanged. The commercial properties to the south of *Portway* have been extended further along to the south west of the existing developments. There has also been some work to the *Portway*, with the addition of a small roundabout to allow access to the new properties. The area in between the two fields occupied by the site has been re-developed with a number of new buildings, along with the development of a football ground in part of the area previously denoted as *Playing Field*.

2.5 Environmental Data

The 2000 Ordnance Survey map mentioned in the preceding section is also used as a site sensitivity map and is marked with numbered boxes which relate to environmental features such as landfills, groundwater abstraction points etc. Data sheets describing these features can be found in Appendix F of this report, but the more important ones are described below.

Discharge Consents

There are 3 no. discharge consents within 1km of the site. The closest of these, relating to a domestic property, is held by Mr C Lodge and situated 835m south east of the site.



Registered Radioactive Substances

There are 4 no. such registrations within 1km of the site. All of these are approximately 400m north east of the site on Lysander Way in the name of *John K Brehm*

Water Abstractions

There are 7 no. water abstraction points within 2km of the site. 3 no. of these are within 1km of the site. The closest of which is situated in the land between the two site fields and operated by *Salisbury City Football Club*.

Source Protection Zones

The site is within zone II and III Source Protection Zones with a zone I 242m to the east.

Recorded Landfill and Waste Sites

There are no Recorded Landfill Sites or Waste sites within 1km of the site.

Coal Mining Affected Areas

The British Geological Survey, Information Services Group has described the site as being in an area which may not be affected by coal mining.

Shallow Mining Hazards

The British Geological Survey, Information Services Group has described the site as having a Low risk of shallow mining hazards.

Compressible Ground Subsidence Hazards

The British Geological Survey, Information Services Group has described the site as having no Compressible Ground Subsidence Hazards.



Ground Dissolution Subsidence Hazards

The British Geological Survey, Information Services Group has described the site as having a Low risk of Ground Dissolution Subsidence Hazards.

Gulls and Cambering Subsidence Hazards

The British Geological Survey, Information Services Group has described the site as having no Gulls and Cambering Subsidence Hazards.

Landslip Subsidence Hazards

The British Geological Survey, Information Services Group has described the site as having no Landslip Subsidence Hazards.

Swelling Clay Subsidence Hazards

The British Geological Survey, Information Services Group has described the site as having no Swelling Clay Subsidence Hazards.

Radon

Less than 1% of homes are above the action level for radon, and the British Geological Survey, Information Services Group advise that no radon protective measures are necessary.

Contemporary Trade Directory Entries

There are 21 no. Contemporary Trade Directory Entries within 500m of the site. 5 no. of these are within 250m, the closest relating to *The Chord Co Ltd* (Hi-Fi equipment manufacturers) is situated 20m south of the site.

2.6 Summary of Land Use

The site has been undeveloped during the period covered by the maps.



2.7 Chalk Database Assessment

A chalk database assessment has been obtained from Peter Brett Associates which is included in Appendix F. They indicate that the nearest recorded natural cavity is located 3.05km to the south east and there are no recorded mining cavities within 3.5km.

As there is no cover over the chalk, conditions are not favourable for the development of solution features and their presence is considered unlikely. Also it is considered that there is low potential for artificial mining features to be present in the site area.



3 FIELDWORK

40 no. machine dug trial pits (TP1 to TP40), 10 no. cable percussion boreholes (BH1 to BH10) and 6 no. percussive window sample exploratory holes (WS1 to WS6) were completed between 31 January and 15 March 2005 at locations shown on Figure 2 in Appendix A, the investigation scope and choice of investigation equipment having been decided by PFA Consulting. The positions were selected by and set out by Structural Soils Ltd.

The trial pits were excavated using a wheeled mechanical excavator and were approximately 0.7m x 2.5m in plan area and up to 4.0m deep. The trial pits encountered topsoil over chalk. Disturbed samples were taken and returned to the laboratory for testing. Logs for the pits are contained in Appendix B.

CBR correlation tests using a MEXE probe were undertaken adjacent to each pit. In addition, soakaway tests were undertaken in 15 no. pits in general accordance with BRE Digest 365.

The boreholes were drilled using a cable tool percussion drilling rig and were 150mm diameter. The depths of the boreholes were 10.0m and they encountered topsoil over chalk. Logs for the boreholes are contained in Appendix B.

100mm diameter undisturbed samples were recovered from the cohesive strata in the boreholes and returned to the laboratory for testing. Standard Penetration Tests were carried out at regular intervals in accordance with BS1377: Part 9: 1990: 3.3. Test results are given in detail in Appendix B and summarised on the borehole logs. Disturbed and bulk samples were taken and returned to the laboratory for classification and testing. Sampling and testing details were specified by Structural Soils Ltd.

The percussive window sampler exploratory holes were 101mm in diameter and were up to 1.0m deep. The holes were located on the Portway road, and were commenced by coring through the road pavement. Samples were taken and returned to the laboratory for testing.

On completion all the exploratory were backfilled.



4 LABORATORY TESTING

The following laboratory tests were carried out on samples unless indicated otherwise generally in accordance with BS1377: 1990, *Methods of test for soils for civil engineering purposes*, parts 1 to 8. Where non-standard procedures have been undertaken, this will be recorded on the report sheet. The results are reported in tabular and/or graphical form included as Appendix C of this report.

Samples for geotechnical testing were returned to the company's laboratory in Bristol and those for contamination testing were sent to an approved chemical testing laboratory. Geotechnical and contamination tests were scheduled by Structural Soils Ltd.

4.1 Moisture Content

29 no. moisture contents were undertaken using the oven-drying method in accordance with BS1377: Part 2: 1990. The results are tabulated in the Summary of Classification Tests.

4.2 Saturation Moisture Content of Chalk

25 no. saturation moisture contents were undertaken on representative samples of intact Chalk, in accordance with BS1377: Part 2: 1990. The results are tabulated in the Summary of Classification Tests.

4.3 Liquid Limit, Plastic Limit and Plasticity Index

6 no. liquid and plastic limit tests were performed in accordance with BS1377: Part 2: 1990. The results are tabulated in an A Line Plot (in accordance with BS5930: 1999) and the Summary of Classification Tests.

4.4 Chalk Crushing Value (CCV)

5 no. chalk crushing values were undertaken in accordance with BS1377: Part 4: 1990. The results are tabulated in the Summary of Classification Tests.



4.5 Chemical Analyses

20 no. samples of soils were tested to determine their pH values and soluble sulphate (SO₄) contents in accordance with BS1377:Part 3:1990 clause 5.

The results are tabulated in the Summary of Chemical Analysis.

4.6 Contamination

15 no. soil samples were analysed in accordance with UKAS/MCERTS standards for arsenic, cadmium, chromium (total), lead, mercury, selenium, boron, copper, nickel and zinc. These samples were also analysed for mineral oil, polycyclic aromatic hydrocarbons (PAH), sulphate and pH.

The results are tabulated in the Summary of Contamination Analysis.



5 GROUND CONDITIONS

5.1 General

The exploratory holes were logged by an engineer in general accordance with the recommendations of BS5930: 1999. Detailed descriptions, together with relevant comments, are given in the logs included in Appendix B.

5.2 Made Ground / Topsoil

Between 0.2m and 0.3m of topsoil was generally present over the majority of the site, increasing in thickness to 0.6m in TP23.

No made ground was encountered over the majority of the site with the exception of TP37 to TP40. Here, TP37 and TP38 revealed 0.9m to 1.2m of made ground comprising topsoil, gravel and gravelly silt. TP39 and TP40 were excavated into an earth mound, which was found to comprise topsoil, gravelly clay and chalk gravel and included boulders of concrete.

5.3 Upper Chalk

Structureless chalk was present to typically less than 1.0m, although in several of the pits it extended to greater depth with a maximum of 1.5m in TP23. In many pits the structureless chalk was clast dominated (Dc), although in places there was an initial layer of matrix dominated chalk (Dm).

Beneath the structureless chalk, structured chalk was present to the base of all the exploratory holes. In the boreholes, SPT N-values generally increased with depth, exceeding 35 by 10m.

Laboratory testing has shown the chalk to be generally of low or medium density according to CIRIA C574, with one determination being high.



5.4 Road Construction

The Portway road was found to comprise between 40 and 120mm of asphalt over black/dark grey limestone/flint gravel to between 0.35m and 0.65m. It is possible that part of this material may have originally been bound, and has disintegrated during the drilling process. Below this is a very stiff brown gravelly silt to between 0.65m and 0.75m beneath which is matrix dominated chalk.

5.5 Groundwater

No groundwater was encountered in any of the exploratory holes.



6 DISCUSSIONS AND RECOMMENDATION

6.1 General

It is understood that the site is to be developed predominantly with traditional housing, with a school in the vicinity of BH7 and BH8 and commercial/office buildings in the vicinity of BH1 to BH6. The south eastern corner is to be open space. A line of swales are to be constructed along the northern edge of the site for surface water drainage.

6.2 Site Preparation and Excavation

The chalk is generally suitable for excavation using standard mechanical plant. During the investigation all the pits were stable during excavation however all excavations should be planned and due consideration should be given to providing temporary support or suitable battering. Excavations should be regularly inspected by a competent person to ensure continued safety. Further advice on the safety of excavations is given in *Health and Safety in Construction* (Ref 8.12).

No water was encountered during the investigation and problems with groundwater are not envisaged.

6.3 Shrinkage and Swelling

The chalk is classed as non-shrinkable according to NHBC Standards and as such no specific precautions will be required against shrinkage and swelling.

6.4 Foundations

The site is suitable for the use of traditional strip and pad foundations. It is recommended that these are taken through any made ground into the underlying natural chalk, and placed at a minimum depth of 0.6m.

It is generally recommended that foundations are taken into the clast dominated structureless chalk (Dc) in which an allowable bearing capacity of 225kN/m² is available or the structured chalk in which has an increased allowable bearing capacity of



240kN/m². For the matrix dominated structureless chalk (Dm) a reduced allowable bearing capacity of 125kN/m² should be assumed.

The above figures are based on the guidance given in CIRIA C574 and assume low density chalk. If this results in large foundations, then it may be possible to use a higher bearing pressure, provided resulting settlements are within acceptable limits. Guidance on calculating settlements is given in CIRIA C574. However given the nature of the proposed development this is not envisaged.

Similarly it is unlikely that piled foundations would be required. However the following ultimate values for skin friction and end bearing may be used to carry out a preliminary design for cfa piles. These values are based on the N versus depth plot for all the boreholes which is included in Appendix B. If individual boreholes only were considered for different parts of the site, higher values of end bearing and skin friction may be appropriate.

Depth (m bgl)	Ultimate Skin Friction (kN/m ²)	Ultimate End Bearing (kN/m ²)	Description
1.0-6.0	30	3400 ¹	CHALK Av N=17
6.0-10.0	70	6000 ¹	CHALK Av N=30

¹ CIRIA C574 recommends limiting values for allowable end bearing of 600-800kN/m² and 1000-1800kN/m² for N<25 and N>25 respectively.

A factor of safety of 2.5 should be applied to the above ultimate values for skin friction and end bearing when calculating the allowable working load of piles. As the capacity of piles can vary depending on the type and method of installation we recommend that the advice of specialist piling contractors is sought with regard to the final design of piles. Consideration should also be given to undertaking loading tests on selected piles.

6.5 Floor Slabs

The natural soils are suitable for the use of ground bearing floor slabs. Where there is more than 0.6m of fill, NHBC require the use of a suspended floor. This may be the case along the central northern section of the site in the vicinity of TP37 and TP38.

6.6 Pavement Design

The Mexecon testing has given CBR values of generally up to between 4% and 6% to depths of 200mm to 300mm beneath which they increase to at least 10%. A CBR value of 10% is therefore recommended for pavement design.

It should be noted that chalk is likely to be frost susceptible. It is therefore recommended that at least 450mm cover should be provided above the sub-grade, or 350mm if the Mean Annual Frost Index (MAFI) of the site is less than 50.

6.7 Protection of Buried Concrete

The water-soluble sulphate results for soil fall into Design Sulphate Class DS-1 in Table 2 of BRE Special Digest 1 (Ref 8.4).

The site is classed as natural and groundwater is static. pH values varying from 7.76 to 9.5 were recorded indicating alkaline soil pH conditions. Therefore according to Table 2 the Aggressive Chemical Environment for Concrete (ACEC) class is AC-1s and the designer should utilise this classification in order to produce the concrete specification.

6.8 Soakaways

Soakaway tests were performed in fifteen of the trial pits, giving the following infiltration coefficients. All the tests were carried out in structured chalk.

Trial Pit No	Infiltration Coefficient (m/sec)	Trial Pit No	Infiltration Coefficient (m/sec)
TP1	1.21×10^{-4}	TP22	2.30×10^{-4}
TP2	1.25×10^{-4}	TP23	8.62×10^{-5}
TP4	9.35×10^{-5}	TP29	9.20×10^{-5}
TP9	7.50×10^{-5}	TP30	4.69×10^{-5}
TP10	2.22×10^{-5}	TP33	1.30×10^{-4}
TP14	1.27×10^{-5}	TP35	1.21×10^{-4}
TP16	1.69×10^{-5}	TP38	2.67×10^{-4}
TP21	7.64×10^{-5}		



The results from the pits along the northern edge of the site where the drainage swales are to be located (TP1, TP2, TP23, TP29 and TP3) give an average infiltration coefficient of 1.38×10^{-4} m/sec, whereas the remaining tests give an average of 8.25×10^{-5} m/sec. These values are therefore proposed for design of the swales and for design of conventional soakaways elsewhere on the site respectively. It is recommended that they are factored in accordance with the guidance given in CIRIA Report 156.

These infiltration rates apply to structured chalk (ie blocky chalk rock with discrete fractures). It is important therefore that soakaways are taken to sufficient depth to ensure they penetrate this material. Also provision should be made to ensure that soakaways are not affected by silting up, by the inclusion of silt traps which should be regularly cleaned out.

CIRIA Report 156 indicates that soakaways should not be placed within 6m of building foundations.

6.9 Earthworks

6.9.1 General

The suitability and behaviour of chalk fill is determined by its strength/density and moisture content. A laboratory test programme has been undertaken to classify/characterise the chalk in this respect. Either a method specification or an end product specification may then be used to determine the compaction requirements when placing the fill.

It is generally accepted that there will be a bulking factor of 0.9 for well compacted low density chalks ie a reduction in volume of about 10 %. For chalk placed in landscaped areas where good compaction is not undertaken the material is likely to bulk by up to 1.16.

6.9.2 Excavation of Chalk Fill Material

Reference should be made to TRRL Report 806, which gives recommendations on the suitability of various types of excavation plant for chalk fill. The recommendations are



based on the classification of the chalk by saturated moisture content and chalk crushing value. The structured chalk and grade Dc chalk encountered in the trial pits predominantly falls within class B suggested by the report. The report allows the use of any normal earthmoving method. However winter working is not generally recommended. Instability (slurrying leading to poor trafficability) can occasionally occur in this class of chalk. It should be noted that one result falls within class A in which instability is not expected and winter working is permissible.

In places across the site a thin layer of matrix dominated structureless chalk (Grade Dm) is present. Laboratory testing has confirmed that this material is generally a silt and as such would be particularly difficult to work in wet conditions.

6.9.3 Method Specification

The Highways Agency *Specification for Highway Works* allows chalk to be classified for compaction as either class 1A/1B, class 2A or class 3 depending on the saturation moisture content (SMC). The SMC of the samples of intact chalk tested generally exceeded 26% and following the HA advice the chalk should be classed as *Class 3 Chalk*. Because the chalk falls predominantly within Class B and average moisture content is in the range 22-28%, compaction method 1 is required. The use of vibrating rollers over 1800kg per metre width is prohibited.

However, instability can occur within class B chalk and careful monitoring of the compacted material should be undertaken to ensure that it is not breaking down due to excessive working by plant or inclement weather. If this occurs it may be necessary to delay further deposition until the chalk has recovered sufficient strength (see section 6.9.6 below).

The silt (Grade Dm chalk) cannot be classified in the Highways Agency *Specification for Highway Works* and is generally unsuitable for method specification compaction. It is therefore recommended that this material is not used for engineered fill. Consideration could be given to using it under an end product specification but it is likely to be susceptible to destabilisation/instability particularly on further wetting and it should be used with extreme caution.



6.9.4 End Product Specification

An end product specification may be used, where the compacted material is required to meet a pre-determined criterion. Chalk is generally unsuitable for conventional compaction testing and it is therefore more appropriate to specify a maximum air voids ratio only and not a dry density. For use as a structural fill a dry density corresponding to a maximum of 5% air voids at field moisture content is required. For the Channel Tunnel Rail Link air void content of 8% was specified although this was subsequently relaxed to 10%.

Field trials would be necessary to determine the compactive effort to achieve the required air voids together with check testing throughout the earthworks operation to ensure the required air voids is achieved.

6.9.5 Recommended Specification

It is recommended that the chalk is classified as *class 3* under the Highways Agency *Specification for Highways Works* and compacted using their method 1. This method specification has been tried and tested on numerous highways contracts throughout the country. It avoids the necessity to undertake time consuming compaction trials and check testing which could delay the works.

6.9.6 Special Requirements for Chalk Fill

Clause 605 of the Highways Agency *Specification for Highways Works* lists specific requirements when working class 3 chalk material including the following.

- No winter working
- No multiple handling or stockpiling
- Minimum face height of 3m
- Chalk not to be mixed with other materials
- Trafficking not permitted by vehicles having a capacity of more than 15m³

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- Where temporary instability occurs works should be stopped to allow the chalk to recover
- At the end of each working day exposed chalk should be rolled with two passes of a smooth wheeled roller exceeding 2100kg mass per metre width.

6.10 Radon

According to BRE Report 211 the site lies in an area where radon protection is not required.

6.11 Contamination

6.11.1 General

In March 2002 DEFRA (Department of the Environment, Food and Rural Affairs) and the Environment Agency released the CLEA (Contaminated Land Exposure Assessment) model and the first tranche of Soil Guideline Values (SGV) covering 7 contaminants (Ref 8.15). There will eventually be SGV's for 55 contaminants, but the timescale is not known.

Generally there will be SGV's for each contaminant, for several different uses of land. At the moment the land-uses are limited to residential (with and without plant uptake), allotments and commercial. These standard SGV's are derived in such a way as to be conservative and are tabulated with the results.

There is also an interactive CLEA computer model which is intended to allow the standard values to be adjusted for soil type, pH and organic matter content. At present however, these adjustments tend to be of insignificant magnitude. Therefore it is usually appropriate to assess the results for the site against the standard values, provided that the exposure assumptions used to derive the SGV's are relevant to the site. The interactive model also allows an insight into the process which is followed in order to derive an SGV for a given contaminant and land-use.

The CLEA system also introduces some statistical testing of the test results. In principle, the mean (average) of the results for a given contaminant could be compared



with the SGV. However, the measured mean could differ significantly from the true mean if only a limited number of results were available. Therefore in the *mean value test* the upper 95th percentile of the mean measured concentration (US₉₅) is calculated for each contaminant and this is compared to the SGV. This test calculates the upper bound, below which 95% of the results would be expected to lie. If the mean value exceeds the SGV then this may indicate a requirement for remediation or further investigation.

If the mean value lies below the SGV, then remediation is not likely to be required: this may be the case even if some individual results exceed the SGV, as long as the high results fall within the same sample population, as discussed below.

There is also a *maximum value test* and this determines whether results which exceed the SGV fall within the range that can be expected from the sample population, or whether they are indicative of an area of higher contaminant concentrations and hence are called “outliers”. If outliers are present, then again this may indicate a requirement for remediation or further investigation.

Until recently the assessment of contamination was based upon ICRCL Guidance Note 59/83 (Ref 8.6). In December 2002 DEFRA withdrew ICRCL 59/83 because it was thought that its inconsistency with CLEA would cause confusion. The withdrawal of ICRCL Guidance Note 59/83 prior to the publication of CLEA guidelines for most contaminants has meant that there is at present no UK guidance for some contaminants. In the absence of CLEA guidelines reference has been made to the French contamination guidelines (Ref 8.16), which in turn also refer to German and Dutch guidelines for some contaminants. The guidelines used are shown in the results tables.

6.11.2 Contaminants which may pose hazards to health (arsenic, cadmium, chromium, lead, mercury and selenium)

The mean value test (US₉₅) results and all of the individual results for these contaminants, were below the CLEA SGV's for residential use.



6.11.3 Contaminants which may pose hazards to health (Polycyclic Aromatic Hydrocarbons (PAH) & Mineral Oil)

The PAH results were all below the adjusted Dutch threshold and action levels. Although there is no published SGV for benzo(a)pyrene (BaP, a PAH compound), it is possible to derive guideline values from the CLEA computer model. For residential use the guideline obtained is usually in the range 1.2-1.3mg/kg. The results were all below this range.

The Dutch assessment and action levels for mineral oil are 2525mg/kg and 5000mg/kg. (The French also use these guidelines.) These apply to a 'standard' soil with 10% organic matter. The adjusted Dutch assessment and action levels for a soil with 2% or less organic matter are 505mg/kg and 1000mg/kg, and these are considered to be more appropriate for a typical UK subsoil. The results were below these guidelines.

6.11.4 Contaminants which are phytotoxic (toxic to plants) but not normally hazards to health (soluble copper, nickel and zinc)

Copper and zinc will not be covered by CLEA as they are not considered hazardous to health. Nickel is included in CLEA and is therefore also considered above in a preceding section.

The concentrations determined of these contaminants were below the stated guidelines for these contaminants affecting plants.

6.11.5 Other Contaminants

Further testing was undertaken to determine concentrations of pH and water soluble sulphate. Sulphates pose a risk to concrete in the ground and this is discussed in Section 6.7.

6.11.6 Summary of Contamination

The analyses undertaken on the samples tested suggest that the site is uncontaminated for the proposed use.



6.11.7 Off-site Disposal of Surplus Soil

The Environment Agency has published guidelines for the disposal of 'contaminated soils' (*Interim Guidance on the Disposal of Contaminated Soils* (Ref 8.18) which basically borrows the two-tier former ICRL system. Therefore the lower guidelines for gardens become the lower thresholds for disposal and the open space etc. guidelines become the upper thresholds for disposal.

According to the document, if all the results are below the lower thresholds then the soils may be disposed of at an exempt site, or one that is licensed to accept inert waste. If results exceed the lower thresholds then the soils must be taken to a licensed site which accepts non-inert waste, but if leachability tests are undertaken and the results are below the leachate quality thresholds, then the soil can go to an exempt site, or one that is licensed to accept inert waste. If the results exceed the upper thresholds then the soils must also be sent to a licensed non-inert site (in principle this is regardless of whether leachate tests are done).

The results all fall below the lower threshold values with the exception of pH, several of which exceed the lower threshold value of 8. However as this is natural alkalinity associated with the chalk, it is considered that this can be disregarded. It is likely therefore that the soils from this site which are to be disposed of off-site, would be classed as inert.

There are different systems in operation for the classification of inert and non-inert soils requiring disposal and so it is advisable to consult the operators of the proposed disposal site(s) (or the Environment Agency) if it is proposed to remove soil from the site. Not all waste disposal sites will necessarily accept all soil classifications.



7 SUMMARY

- 7.1 The site comprises two large stubble fields connected by a 275 x 90m strip of rough grassed land including football pitch. The site slopes down gradually to the north and east. The desk study has shown that the site has not previously been developed.
- 7.2 The investigation has revealed chalk directly below the topsoil on most of the site with structured chalk generally being encountered by 1.0m. Made ground is present along the central northern part of the site to a maximum depth of 1.2m. A 3.0 high earth bund also crosses the site here.
- 7.3 The site lies on a major aquifer. No groundwater was encountered during the investigation.
- 7.4 The chalk is generally suitable for excavation using standard mechanical plant. No problems are envisaged with groundwater in excavations.
- 7.5 The chalk is classed as non-shrinkable according to NHBC Standards and as such no specific precautions will be required against shrinkage and swelling.
- 7.6 The site is suitable for the use of traditional strip and pad foundations. It is recommended that these are taken through any made ground into the underlying natural chalk, and placed at a minimum depth of 0.6m. It is generally recommended that foundations are taken into the clast dominated structureless chalk (Dc) in which an allowable bearing capacity of 225kN/m² is available or the structured chalk in which has an increased allowable bearing capacity of 240kN/m². For the matrix dominated structureless chalk (Dm) a reduced allowable bearing capacity of 125kN/m² should be assumed.
- 7.7 Parameters for preliminary pile design are given in section 6.4.
- 7.8 The natural soils are suitable for the use of ground bearing floor slabs. Where there is more than 0.6m of fill, NHBC require the use of a suspended floor. This may be the case along the central northern section of the site.

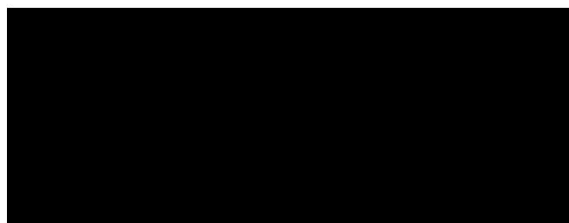


- 7.9 A CBR value of 10% is recommended for pavement design. The chalk is likely to be frost susceptible.
- 7.10 According to Table 2 of BRE Special Digest 1 the Aggressive Chemical Environment for Concrete (ACEC) class is AC-1s.
- 7.11 Infiltration coefficients of 1.38×10^{-4} m/sec and 8.25×10^{-5} m/sec are recommended for design of the swales along the northern edge of the site and for design of conventional soakaways elsewhere on the site respectively. It is recommended that they are factored in accordance with the guidance given in CIRIA Report 156.
- 7.12 For earthworks it is recommended that the chalk is classified as *class 3* under the Highways Agency *Specification for Highways Works* and compacted using their method 1. Chalk is particularly difficult to work and Special requirements are given in clause 605 of the Highways Agency *Specification for Highways Works* relating to its handling (see section 6.9.6).
- 7.13 According to BRE Report 211 the site lies in an area where radon protection is not required.
- 7.14 The analyses undertaken on the samples tested suggest that the site is uncontaminated for the proposed use.
- 7.15 It is likely that the soils from this site which are to be disposed of off-site, would be classed as inert.

STRUCTURAL SOILS LIMITED



J Southern BSc (Hons) MSc FGS



A R Handcock MA CEng MICE CGeol FGS



8 REFERENCES

- 8.1 BS 5930:1999 *Code of Practice for Site Investigations*
- 8.2 BS 1377:1990 *Methods of Test for Soils for Civil Engineering Purposes*
- 8.3 Geological Survey of Great Britain sheet 298, scale 1:50,000
- 8.4 BRE Special Digest 1 (2001) *Concrete in Aggressive Ground Part 1: Assessing the aggressive chemical environment*
- 8.5 NHBC Standards, Chapter 4.2, 2003 *Building Near Trees*
- 8.6 Interdepartmental Committee on the Redevelopment of Contaminated Land (ICRCL) (1987) Guidance Note 59/83 *Guidance on the Assessment and Redevelopment of Contaminated Land*
- 8.7 Ministry of Housing, Spatial Planning and Environment (2000) *Circular on Intervention Values for Soil Remediation*, The Hague
- 8.8 BRE Digest 365 (1991) *Soakaway Design*
- 8.9 CIRIA Report 156 (1996) *Infiltration Drainage – Manual of good practice*
- 8.10 CIRIA C574 (2002) *Engineering in chalk*
- 8.11 NRA *Groundwater Vulnerability Map of the Southern Cotswolds*, sheet 37, scale 1:100,000
- 8.12 *Health and Safety in Construction*, HSG150, HSE, 1996
- 8.13 BS 10175: 2001 *Investigation of potentially contaminated sites: Code of practice*
- 8.14 R & D Publication CLR 10 (March 2002) *The Contaminated Land Exposure Assessment Model (CLEA): Technical basis and algorithms*, Environment Agency

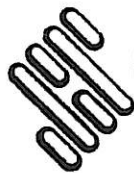


- 8.15 R & D Publication CLR 7 (March 2002) *Assessment of Risks to Human Health from Land Contamination: An Overview of the Development of Soil Guideline Values and Related Research*, Environment Agency
- 8.16 Darmendrail D (2001) The French approach to contaminated land management, BRGM/RP-51098-FR, 150p, 3 Fig, 3 Tables, 5 App
- 8.17 National Environmental Protection Council (1999) National Environment Protection (Assessment of Site Contamination) Measure: Schedule B(1) Guideline Levels for Soil and Groundwater. Australia
- 8.18 *Interim Guidance on the Disposal of Contaminated Soils*, Version 3, April 2001, Environment Agency

APPENDIX A

- (i) Site Location Plan
- (ii) Exploratory Hole Location Plan

Reproduced from the 1 : 50 000
 Ordnance Survey NO. 184
 map with the permission of the
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Structural Soils

JOB NO.

41367

GRID REF:

SU151.337

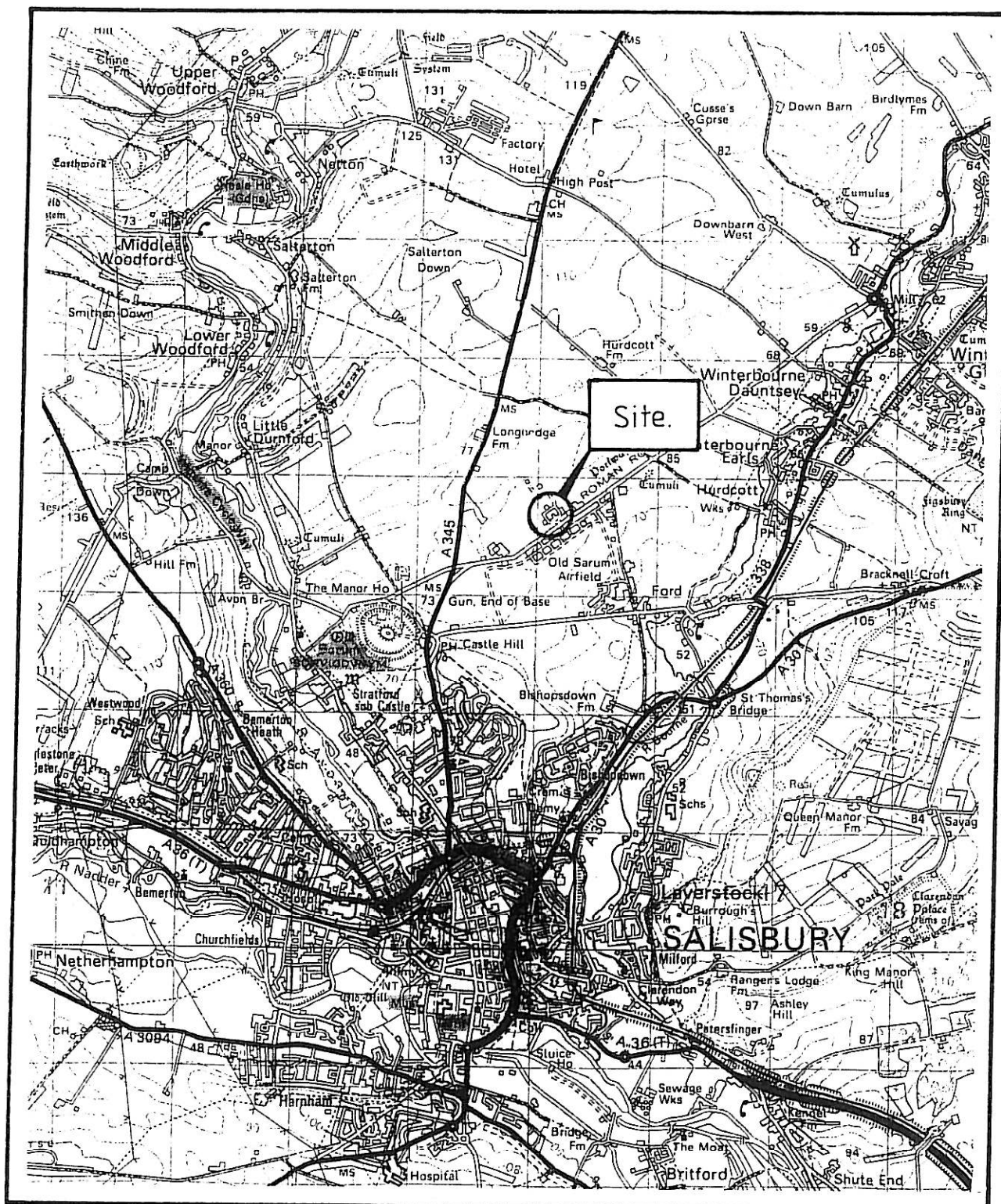
SITE LOCATION PLAN.

DRAWN:

D.M.M.

DATE:

18.3.2005



Site :- Old Sarum, Salisbury.



Legend :
Borehole position
Trial pit position
Window sample position

Client :
Persimmon Homes

Engineer :
PFA Consulting

Contractor:
**STRUCTURAL
SOILS LTD**

Project Title:
**41367
OLD SARUM, SALISBURY**

Drawing Title:
EXP. ORATORY HOLE LOCATION PLAN

Drawn By: ML Date: 08/03/2008

Checked By: JS Date: 08/03/2008

Drawing Number: Version:

FIGURE 2 V1

Eng Scale: 1:2000 @ A1 ->ng Shown: FINAL

APPENDIX B

- (i) Borehole Logs
- (ii) Trial Pit Logs
- (iii) Window Sample Logs



STRUCTURAL SOILS

KEY TO EXPLORATORY HOLE LOGS

SAMPLING

B	Bulk disturbed sample.
BLK	Block sample.
C	Core run.
CBR	CBR mould sample.
CS	Core sample taken from rotary core for laboratory testing.
D	Small disturbed sample.
J	Glass jar sample.
LB	Large bulk disturbed sample (for earthworks testing).
P	Undisturbed pushed piston sample - 102 mm diameter, 1000 mm long.
TW	Thin walled push in sample.
U	Undisturbed driven tube sample - 102 mm diameter, 450 mm long. Number of blows indicated in brackets i.e. (10).
VL	Vial sample.
W	Water sample.
U+, P+	No recovery in undisturbed sample.

IN-SITU TESTING

SPT	Standard Penetration Test using split spoon sampler. (SPT _(NR) indicates 'No Sample Recovery').
SPT _{IC}	Standard Penetration Test using a solid 60 degree cone.
The N Value is the number of blows required to complete a test drive of 300 mm after a seating drive of 150 mm or 25 blows. Where the full test drive is not completed, a linearly extrapolated N value is given and suffixed by a '*' character.	
'NP' denotes No Penetration in the Test Drive.	
HP	Hand Penetrometer Test. Value given as shear strength cu, in kPa.
V _(cu)	Field Vane Test. Peak value given as shear strength cu, in kPa.
V _(cr)	Field Vane Test. Residual value given as shear strength cr, in kPa.
G	Gas Test
PID	Photo Ionisation Detector Results, in ppm.

DRILLING RECORDS

W	Water flush returns.
TCR	Total Core Recovery, %.
SCR	Solid Core Recovery, %.
RQD	Rock Quality Designation, %.
If	Fracture spacing, mm. Where variable, the minimum, average and maximum spacing may be quoted.
'NI' denotes non intact core.	
'NA' denotes not applicable.	

WATER COLUMN SYMBOLS

	First water strike, second water strike etc.
	Standing water level following first strike, standing water level following second strike etc.
	Seepage.
	Standing water level recorded at documented date.

INSTRUMENTATION SYMBOLS

	Arisings		Gravel filter		Sand filter		Bentonite seal
	Bentonite cement grout		Concrete		Solid pipe		Slotted pipe
	Stopcock cover		Upstand cover				

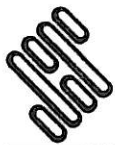
- NOTES:**
1. All soil and rock descriptions and legends in general accordance with BS5930:1999.
 2. All lengths used to determine rock core mechanical properties taken along the centre line of the core. Obvious induced fractures have been ignored.
 3. The assessment of solid core is based on lengths that show a full diameter and not necessarily a full circumference.
 4. Material types divided by a broken line (---) indicates an unclear boundary.



Contract Old Sarum, Salisbury		Client PFA Consulting		Borehole No BH1
Job No 41367	Start 15.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 2
End 15.2.05				

Samples and In-situ Tests				Water	Instru- mentation	Description of Strata	Depth (Thick- ness)	Legend
Depth	No	Type	Blows					
0.20	1	D				Stubble over brown silty TOPSOIL. Contains abundant fine to medium chalk and occasional flint.	0.30	
0.50	2	D				Structureless CHALK composed of slightly sandy silty subangular to subrounded mainly fine to medium GRAVEL. Gravel is weak chalk. Matrix is brown. (Upper Chalk Formation Grade Dc)	0.70	
1.00-1.45	3	U	62			Moderately weak white CHALK. Fractures are closely spaced with slightly yellow brown staining. (Upper Chalk Formation)		
1.45-1.50	4	D						
1.70	5	D						
2.00-2.45	6	SPT	N=22					
2.70	7	D						
3.00-3.45	8	U	80					
3.45-3.50	9	D						
3.80	10	D						
4.00-4.45	11	SPT	N=44					
4.70	12	D						
5.00-6.00	13	B						
5.00	NR	U	120				(9.30)	
6.50-6.95	14	SPT	N=32					
7.50	15	D						
8.00-8.45	16	U	94					
8.45-8.50	17	D						

Boring Progress and Water Observations						Chiselling			General Remarks
Date	Time	Borehole Depth	Casing Depth	Casing Diameter	Water Depth	From	To	Duration (hh:mm)	
15/02/05	00:00	10.00	3.00	150	Dry				1. Borehole backfilled on completion.
All dimensions in metres Scale 1:50						Method Cable Percussion			Drilled By JW
									Logged By AM
									Checked By AGS



Contract Old Sarum, Salisbury		Client PFA Consulting		Borehole No BH1
Job No 41367	Start 15.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 2 of 2
End 15.2.05				

Samples and In-situ Tests				Water	Instrumentation	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Blows					
9.00	18	D				Moderately weak white CHALK. Fractures are closely spaced with slightly yellow brown staining. (Upper Chalk Formation) (<i>stratum layer from previous sheet</i>)		
9.50-9.95	19	SPT	N=44					
						Borehole terminated at 10.00m depth.	10.00	

Boring Progress and Water Observations						Chiselling			General Remarks
Date	Time	Borehole Depth	Casing Depth	Casing Diameter	Water Depth	From	To	Duration (hh:mm)	
All dimensions in metres			Method Cable Percussion			Drilled By JW	Logged By AM	Checked By	
Scale 1:50									



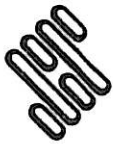
STRUCTURAL SOILS

BOREHOLE LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Borehole No BH2
Job No 41367	Start 14.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 2
End 14.2.05				

Samples and In-situ Tests				Water	Instrumentation	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Blows					
0.20	1	D				Stubble over brown silty TOPSOIL. Contains abundant fine to medium chalk occasional flint GRAVEL. ... rootlets present.	0.30	
0.60	2	D				Moderately weak white CHALK. Fractures are closely spaced, with slight yellow brown staining. Occasional black speckling. (Upper Chalk Formation)		
1.00-1.45	3	SPT	N=28					
1.80	4	D						
2.00-2.45	5	U	88					
2.45-2.50	6	D						
2.70	7	D						
3.00-3.45	8	SPT	N=34					
3.70	9	D						
4.00-4.45	10	U	85					
4.70	11	D						
5.00-5.45	12	SPT	N=37				(9.70)	
6.00	13	D						
6.50-6.95	14	U	90					
6.95-7.00	15	D						
7.50	16	D						
8.00-8.45	17	SPT	N=28					

Boring Progress and Water Observations						Chiselling			General Remarks
Date	Time	Borehole Depth	Casing Depth	Casing Diameter	Water Depth	From	To	Duration (hh:mm)	
14/02/05	00:00	10.00	3.00	150	Dry				1. Borehole backfilled on completion.
All dimensions in metres Scale 1:50						Method Cable Percussion			Drilled By JW
									Logged By AM
									Checked By AGS



STRUCTURAL SOILS

BOREHOLE LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Borehole No BH2
Job No 41367	Start 14.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 2 of 2
End 14.2.05				

Samples and In-situ Tests				Water	Instrumentation	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Blows					
9.00	18	D	100			Moderately weak white CHALK. Fractures are closely spaced, with slight yellow brown staining. Occasional black speckling. (Upper Chalk Formation) (<i>stratum layer from previous sheet</i>)		
9.50-9.95	19	U						
9.95-10.00	20	D				Borehole terminated at 10.00m depth.	10.00	

Boring Progress and Water Observations						Chiselling			General Remarks
Date	Time	Borehole Depth	Casing Depth	Casing Diameter	Water Depth	From	To	Duration (hh:mm)	
All dimensions in metres Scale 1:50						Method Cable Percussion			Drilled By JW
									Logged By AM
									Checked By AGS



STRUCTURAL SOILS

BOREHOLE LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Borehole No BH3
Job No 41367	Start 14.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 2
End 14.2.05				

Samples and In-situ Tests				Water	Instrumentation	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Blows					
0.20	1	D				Stubble over brown silty TOPSOIL. Contains abundant fine to medium chalk and occasional flint. ... rootlets present.	0.30	
0.50	2	D				Structureless CHALK composed of slightly sandy silty subangular to subrounded mainly fine to medium gravel. Gravel is weak chalk. Matrix is brown.	0.70	
1.00-1.45	3	U	72			(Upper Chalk Formation Grade Dc)		
1.45-1.50	4	D				Moderately weak white CHALK. Fractures are closely spaced, brown staining on surfaces.	(2.30)	
1.70	5	D				(Upper Chalk Formation)		
2.00-2.45	6	SPT	N=43					
2.70	7	D						
3.00-3.45	8	U	88			Moderately weak white CHALK. Fractures are closely spaced with slight yellow brown staining.	3.00	
3.45-3.50	9	D				(Upper Chalk Formation)		
3.80	10	D						
4.00-4.45	11	SPT	N=32					
4.70	12	D						
5.00-5.45	13	U	82					
5.45-5.50	14	D						
6.00	15	D						
6.50-6.95	16	SPT	N=45				(7.00)	
7.50	17	D						
8.00-8.45	18	U	90					
8.45-8.50	19	D						

Boring Progress and Water Observations						Chiselling			General Remarks
Date	Time	Borehole Depth	Casing Depth	Casing Diameter	Water Depth	From	To	Duration (hh:mm)	
14/02/05	00:00	10.00	3.00	150	Dry				1. Borehole backfilled on completion.
All dimensions in metres						Method Cable Percussion			Drilled By JW
Scale 1:50						Logged By AM			Checked By AGS



Contract Old Sarum, Salisbury			Client PFA Consulting		Borehole No BH3
Job No 41367	Start 14.2.05	Ground Level ---	Local Grid Co-Ordinates ---		Sheet 2 of 2

Samples and In-situ Tests				Water	Instrumentation	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Blows					
9.00	20	D				Moderately weak white CHALK. Fractures are closely spaced with slight yellow brown staining. (Upper Chalk Formation) (<i>stratum layer from previous sheet</i>)		
9.50-9.95	21	SPT	N=51					
						Borehole terminated at 10.00m depth.	10.00	

Boring Progress and Water Observations						Chiselling			General Remarks	
Date	Time	Borehole Depth	Casing Depth	Casing Diameter	Water Depth	From	To	Duration (hh:mm)		

All dimensions in metres
Scale1:50

Method
Cable Percussion

Drilled By
JW

Logged By
AM

Checked By




STRUCTURAL SOILS

BOREHOLE LOG

Contract Old Sarum, Salisbury			Client PFA Consulting			Borehole No BH4	
Job No 41367		Start 15.2.05	Ground Level ---		Local Grid Co-Ordinates ---		Sheet 1 of 2
End 15.2.05							

Samples and In-situ Tests				Water	Instru- mentation	Description of Strata	Depth (Thick- ness)	Legend
Depth	No	Type	Blows					
0.20	1	D				Stubble over brown silty sandy TOPSOIL. Contains fine to medium chalk and occasional flint. ... rootlets present.	0.30	
0.50	2	D				Structureless CHALK composed of slightly sandy silty subrounded fine to coarse gravel. Gravel is weak chalk and occasional flint. Light brown matrix. (Upper Chalk Formation Grade Dc)	0.70	
1.00-1.45	3	SPT	N=16			Weak white CHALK. Fractures are closely spaced. (Upper Chalk Formation)		
1.80	4	D						
2.00-2.45	5	U	68					
2.45-2.50	6	D						
2.80	7	D						
3.00-3.45	8	SPT	N=22					
3.70	9	D						
4.00-4.45	10	U	82			Moderately weak white CHALK with black specks and occasional flint. Fractures are closely spaced. (Upper Chalk Formation)		
4.45-4.50	11	D						
4.70	12	D						
5.00-5.45	13	SPT	N=27					
6.00	14	D				Moderately weak white CHALK. Fractures are possibly medium spaced. (Upper Chalk Formation)		
6.50-6.95	15	U	85					
6.95-7.00	16	D						
7.50	17	D						
8.00-8.45	18	SPT	N=36					

Boring Progress and Water Observations						Chiselling			General Remarks
Date	Time	Borehole Depth	Casing Depth	Casing Diameter	Water Depth	From	To	Duration (hh:mm)	
15/02/05	00:00	10.00	3.00	150	Dry				1. Borehole backfilled on completion.
All dimensions in metres Scale 1:50						Method Cable Percussion			Drilled By JW
									Logged By AM
									Checked By AGS



STRUCTURAL SOILS

BOREHOLE LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Borehole No BH4
Job No 41367	Start 15.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 2 of 2
End 15.2.05				

Samples and In-situ Tests				Water	Instru- mentation	Description of Strata	Depth (Thick- ness)	Legend
Depth	No	Type	Blows					
9.00	19	D				Moderately weak white CHALK. Fractures are possibly medium spaced. (Upper Chalk Formation) (<i>stratum layer from previous sheet</i>)		
9.50-9.95	20	U	100					
9.95-10.00	21	D				Borehole terminated at 10.00m depth.	10.00	

Boring Progress and Water Observations						Chiselling			General Remarks
Date	Time	Borehole Depth	Casing Depth	Casing Diameter	Water Depth	From	To	Duration (hh:mm)	
All dimensions in metres						Method	Drilled By	Logged By	Checked By
Scale 1:50						Cable Percussion	JW	AM	AGS



STRUCTURAL SOILS

BOREHOLE LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Borehole No BH5
Job No 41367	Start 11.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 2
End 14.2.05				

Samples and In-situ Tests				Water	Instru- mentation	Description of Strata	Depth (Thick- ness)	Legend
Depth	No	Type	Blows					
0.20	1	D				Stubble over brown slightly sandy TOPSOIL: Covered in abundant chalk and occasional flint. ... rootlets present.	0.30	
0.70	2	D				Structureless CHALK, composed of slightly sandy silty subangular to subrounded mainly fine to medium GRAVEL. Weak chalk light brown matrix.	0.70	
1.00-1.45	3	U	80			Moderately weak white CHALK. Fractures are closely spaced yellow brown staining on surfaces. Occasional flint. (Upper Chalk Formation)		
1.45-1.50	4	D						
1.70	5	D						
2.00-2.45	6	SPT	N=43				(3.30)	
2.80	7	D						
3.00-3.45	8	U	85					
3.45-3.50	9	D						
3.80	10	D						
4.00-4.45	11	SPT	N=22			Moderately weak white, with black specks CHALK. Fractures are closely spaced. Occasional flint. (Upper Chalk Formation)	4.00	
4.80	12	D						
5.00-5.45	13	U	80				(2.00)	
5.45-5.50	14	D						
6.00	15	D				Moderately weak white CHALK. Fractures are possibly close to medium spaced. (Upper Chalk Formation)	6.00	
6.50-6.95	16	SPT	N=28					
7.50	17	D						
8.00-8.45	18	U	95				(4.00)	
8.45-8.50	19	D						

Boring Progress and Water Observations						Chiselling			General Remarks
Date	Time	Borehole Depth	Casing Depth	Casing Diameter	Water Depth	From	To	Duration (hh:mm)	
14/02/05	00:00	10.00	3.00	150	Dry				1. Borehole backfilled on completion.
All dimensions in metres						Drilled By JW			Checked By AM
Scale 1:50			Method Cable Percussion			Logged By AM			



Contract Old Sarum, Salisbury		Client PFA Consulting		Borehole No BH5
Job No 41367	Start 11.2.05 End 14.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 2 of 2

Samples and In-situ Tests				Water	Instru mentation	Description of Strata	Depth (Thick ness)	Legend
Depth	No	Type	Blows					
9.00	20	D				Moderately weak white CHALK. Fractures are possibly close to medium spaced. (Upper Chalk Formation) (<i>stratum layer from previous sheet</i>)		
9.50-9.95	21	SPT	N=43				10.00	
Borehole terminated at 10.00m depth.								

Boring Progress and Water Observations						Chiselling			General Remarks			
Date	Time	Borehole Depth	Casing Depth	Casing Diameter	Water Depth	From	To	Duration (hh:mm)				
All dimensions in metres						Drilled By	JW		Logged By	AM	Checked By	AGS



Contract Old Sarum, Salisbury		Client PFA Consulting		Borehole No BH6
Job No 41367	Start 11.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 2
	End 11.2.05			

Samples and In-situ Tests				Water	Instru- mentation	Description of Strata	Depth (Thick- ness)	Legend
Depth	No	Type	Blows					
0.20	1	D				Stubble over brown sandy silty TOPSOIL. Contains abundant chalk and flint.	0.30	
0.60	2	D				Structureless CHALK composed of slightly sandy silty subangular to subrounded gravel, occasional flint. Matrix light brown. (Upper Chalk Formation Grade Dc)	0.70	
1.00-1.45	3	U	78			Moderately weak unstained CHALK. Fractures are closely spaced. Occasional flint gravel. (Upper Chalk Formation)		
1.45-1.50	4	D						
1.70	5	D						
2.00-2.45	6	SPT	N=23					
2.50	17	D						
2.70	7	D						
3.00-3.45	8	U	75					
3.45-3.50	9	D						
3.80	10	D						
4.00-4.45	11	SPT	N=38					
4.70	12	D						
5.00-5.45	13	U	95					
5.45-5.50	14	D						
6.00	15	D						
6.50-6.95	16	SPT	N=26					
8.00-8.45	18	U	90					
8.45-8.50	19	D						

(9.30)

Boring Progress and Water Observations						Chiselling			General Remarks
Date	Time	Borehole Depth	Casing Depth	Casing Diameter	Water Depth	From	To	Duration (hh:mm)	
11/02/05	00:00	10.00	3.00	150	Dry				1. Borehole backfilled on completion.
All dimensions in metres Scale 1:50						Method Cable Percussion			Drilled By JW
									Logged By AM
									Checked By AGS



STRUCTURAL SOILS

BOREHOLE LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Borehole No BH6
Job No 41367	Start 11.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 2 of 2
End 11.2.05				

Samples and In-situ Tests				Water	Instrumentation	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Blows					
9.00	20	D				Moderately weak unstained CHALK. Fractures are closely spaced. Occasional flint gravel. (Upper Chalk Formation) (<i>stratum layer from previous sheet</i>)		
9.50-9.95	21	SPT	N=34					
						Borehole terminated at 10.00m depth.	10.00	

Boring Progress and Water Observations						Chiselling			General Remarks
Date	Time	Borehole Depth	Casing Depth	Casing Diameter	Water Depth	From	To	Duration (hh:mm)	
All dimensions in metres						Drilled By	Logged By	Checked By	AGS
Scale 1:50		Method Cable Percussion				JW	AM		



STRUCTURAL SOILS

BOREHOLE LOG

Contract Old Sarum, Salisbury			Client PFA Consulting		Borehole No BH7
Job No 41367	Start 16.2.05	Ground Level ---	Local Grid Co-Ordinates ---		Sheet 1 of 2
	End 16.2.05				

Samples and In-situ Tests				Water	Instrumentation	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Blows					
0.30	1	D				Stubble over brown silty TOPSOIL. Contains abundant chalk, occasional flint GRAVEL.	0.30	
0.50	2	D				Structureless CHALK composed of slightly sandy silty subangular to subrounded gravel. Matrix light brown. Occasional flint. (Upper Chalk Formation Grade Dc)	0.80	
1.00-1.45	3	U	60			Moderately weak white CHALK, slight yellow brown staining on surfaces. Fractures are closely spaced. Occasional black speckling. (Upper Chalk Formation)		
1.45-1.50	4	D						
1.70	5	D						
2.00-2.45	6	SPT	N=28					
2.80	7	D					(4.20)	
3.00-3.45	8	U	80					
3.45-3.50	9	D						
3.80	10	D						
4.00-4.45	11	SPT	N=23					
4.70	12	D						
5.00-5.45	13	U	80			Moderately weak white unstained CHALK. Fractures are closely spaced. (Upper Chalk Formation)	5.00	
5.45-5.50	14	D						
6.00	15	D						
6.50-6.95	16	SPT	N=27					
7.50	17	D					(5.00)	
8.00-8.45	18	U	92					
8.45-8.50	19	D						

Boring Progress and Water Observations						Chiselling			General Remarks
Date	Time	Borehole Depth	Casing Depth	Casing Diameter	Water Depth	From	To	Duration (hh:mm)	
16/02/05	00:00	10.00	3.00	150	Dry				1. Borehole backfilled on completion.
All dimensions in metres Scale 1:50						Method Cable Percussion			Drilled By JW
									Logged By AM
									Checked By AGS



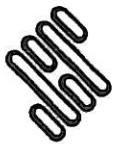
STRUCTURAL SOILS

BOREHOLE LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Borehole No BH7
Job No 41367	Start 16.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 2 of 2
End 16.2.05				

Samples and In-situ Tests				Water	Instrumentation	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Blows					
9.00	20	D				Moderately weak white unstained CHALK. Fractures are closely spaced. (Upper Chalk Formation) (<i>stratum layer from previous sheet</i>)		
9.50-9.95	21	SPT	N=42					
						Borehole terminated at 10.00m depth.	10.00	

Boring Progress and Water Observations						Chiselling			General Remarks
Date	Time	Borehole Depth	Casing Depth	Casing Diameter	Water Depth	From	To	Duration (hh:mm)	
All dimensions in metres						Drilled By JW			Checked By AM
Scale 1:50						Method Cable Percussion			AGS



STRUCTURAL SOILS

BOREHOLE LOG

Contract Old Sarum, Salisbury			Client PFA Consulting		Borehole No BH8
Job No 41367	Start 16.2.05	Ground Level ---	Local Grid Co-Ordinates ---		Sheet 1 of 2
	End 16.2.05				

Samples and In-situ Tests				Water	Instru- mentation	Description of Strata	Depth (Thick- ness)	Legend
Depth	No	Type	Blows					
0.20	1	D				Stubble over brown silty sandy TOPSOIL. Contains abundant chalk and flint gravel.	0.30	
0.50	2	D				Structureless CHALK composed of slightly sandy silty subangular to subrounded gravel. Matrix is light brown. Occasional flint.	0.70	
1.00-1.45	3	SPT	N=11			(Upper Chalk Formation Grade Dc) Moderately weak white CHALK, slight yellow staining, occasional flint gravel. Fractures are closely spaced. (Upper Chalk Formation)	(2.30)	
1.80	4	D						
2.00-2.45	5	U	78					
2.45-2.50	6	D						
2.70	7	D						
3.00-3.45	8	SPT	N=32				3.00	
3.70	9	D				Moderately weak white, occasional black speckling, CHALK. Fractures are closely spaced. (Upper Chalk Formation)		
4.00-4.45	10	U	85					
4.45-4.50	11	D						
4.80	12	D						
5.00-5.45	13	SPT	N=42					
6.00	14	D					(6.00)	
6.50-6.95	15	U	88					
6.95-7.00	16	D						
7.50	17	D						
8.00-8.45	18	SPT	N=34					
							9.00	

Boring Progress and Water Observations						Chiselling			General Remarks
Date	Time	Borehole Depth	Casing Depth	Casing Diameter	Water Depth	From	To	Duration (hh:mm)	
06/02/05	00:00	10.00	3.00	150	Dry				1. Borehole backfilled on completion.
All dimensions in metres						Drilled By JW			Logged By AM
Scale 1:50		Method Cable Percussion				Checked By			



STRUCTURAL SOILS

BOREHOLE LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Borehole No BH8	
Job No 41367	Start 16.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 2 of 2	
End 16.2.05					

Samples and In-situ Tests				Water	Instru- mentat ion	Description of Strata	Depth (Thick- ness)	Legend
Depth	No	Type	Blows					
9.00	19	D	100			Moderately weak white unstained CHALK. Fractures are possibly medium spaced. (Upper Chalk Formation)	(1.00)	
9.50-9.95	20	U						
9.95-10.00	21	D						
						Borehole terminated at 10.00m depth.		

Boring Progress and Water Observations						Chiselling			General Remarks
Date	Time	Borehole Depth	Casing Depth	Casing Diameter	Water Depth	From	To	Duration (hh:mm)	
All dimensions in metres						Drilled By	Logged By	Checked By	AGS
Scale		Method		Cable Percussion		JW		AM	



STRUCTURAL SOILS

BOREHOLE LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Borehole No BH9
Job No 41367	Start 17.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 2
End 17.2.05				

Samples and In-situ Tests				Water	Instrumentation	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Blows					
0.20	1	D				Stubble over brown sandy silty TOPSOIL. Contains abundant chalk and occasional flint.	0.30	
0.50	2	D				Structureless CHALK composed of slightly sandy silty subangular to subrounded gravel. Flint present. Matrix light brown. (Upper Chalk Formation Grade Dc)	0.80	
1.00-1.45	3	U	72			Moderately weak white CHALK, slight yellow brown staining on surfaces. Fractures are closely spaced. (Upper Chalk Formation)		
1.45-1.50	4	D						
1.70	5	D						
2.00-2.45	6	SPT	N=25					
2.70	7	D						
3.00-3.45	8	U	80					
3.45-3.50	9	D						
3.80	10	D						
4.00-4.45	11	SPT	N=31				(6.70)	
4.70	12	D						
5.00-5.45	13	U	80					
5.45-5.50	14	D						
6.00	15	D						
6.50-6.95	16	SPT	N=34					
7.50	17	D					7.50	
8.00-8.45	18	U	92			Moderately weak white unstained CHALK. Fractures are closely spaced. Flint present. (Upper Chalk Formation)		
8.45-8.50	19	D					(2.50)	

Boring Progress and Water Observations						Chiselling			General Remarks
Date	Time	Borehole Depth	Casing Depth	Casing Diameter	Water Depth	From	To	Duration (hh:mm)	
17/02/05	00:00	10.00	3.00	150	Dry				1. Borehole backfilled on completion.
All dimensions in metres Scale 1:50						Method Cable Percussion			Drilled By JW
									Logged By AM
									Checked By AGS



STRUCTURAL SOILS

BOREHOLE LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Borehole No BH9
Job No 41367	Start 17.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 2 of 2
End 17.2.05				

Samples and In-situ Tests				Water	Instru- mentation	Description of Strata	Depth (Thick- ness)	Legend
Depth	No	Type	Blows					
9.00	20	D				Moderately weak white unstained CHALK. Fractures are closely spaced. Flint present. (Upper Chalk Formation) (<i>stratum layer from previous sheet</i>)		
9.50-9.95	21	SPT	N=44					
							10.00	
						Borehole terminated at 10.00m depth.		

Boring Progress and Water Observations						Chiselling			General Remarks
Date	Time	Borehole Depth	Casing Depth	Casing Diameter	Water Depth	From	To	Duration (hh:mm)	
All dimensions in metres		Method		Drilled By		Logged By		Checked By	AGS
Scale 1:50		Cable Percussion		JW		AM			



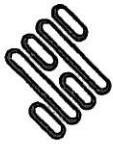
STRUCTURAL SOILS

BOREHOLE LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Borehole No BH10
Job No 41367	Start 17.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 2
End 17.2.05				

Samples and In-situ Tests				Water	Instrumentation	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Blows					
0.20	1	D				Stubble over brown sandy silty TOPSOIL covered in abundant chalk, occasional flint.	0.30	
0.50	2	D				Structureless CHALK composed of sandy silty subangular to subrounded GRAVEL. Matrix is brown. Flint present. (Upper Chalk Formation Grade Dc)	0.90	
1.00-1.45	3	SPT	N=27			Weak white CHALK, slight yellow brown staining. Fractures are closely spaced. (Upper Chalk Formation)	(5.10)	
1.80	4	D						
2.00-2.45	5	U	64					
2.45-2.50	6	D						
2.70	7	D						
3.00-3.45	8	SPT	N=18					
3.70	9	D						
4.00-4.45	10	U	77					
4.45-4.50	11	D						
4.70	12	D						
5.00-5.45	13	SPT	N=17					
6.00	14	D				Moderately weak slightly stained yellow brown CHALK, black speckling. Fractures are closely spaced. (Upper Chalk Formation)	6.00	
6.50-6.95	15	U	80					
6.95-7.00	16	D						
7.50	17	D						
8.00-8.45	18	SPT	N=28				(4.00)	

Boring Progress and Water Observations						Chiselling			General Remarks
Date	Time	Borehole Depth	Casing Depth	Casing Diameter	Water Depth	From	To	Duration (hh:mm)	
17/02/05	00:00	10.00	3.00	150	Dry				1. Borehole backfilled on completion.
All dimensions in metres						Method			
Scale 1:50						Cable Percussion			
						Drilled By	JW		
						Logged By	AM		
						Checked By			



STRUCTURAL SOILS

BOREHOLE LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Borehole No BH10	
Job No 41367	Start 17.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 2 of 2	
End 17.2.05					

Samples and In-situ Tests				Water	Instru- mentation	Description of Strata	Depth (Thick- ness)	Legend
Depth	No	Type	Blows					
9.00	19	D	88			Moderately weak slightly stained yellow brown CHALK, black speckling. Fractures are closely spaced. (Upper Chalk Formation) (<i>stratum layer from previous sheet</i>)		
9.50-9.95	20	U						
9.95-10.00	21	D				Borehole terminated at 10.00m depth.	10.00	

Boring Progress and Water Observations						Chiselling			General Remarks
Date	Time	Borehole Depth	Casing Depth	Casing Diameter	Water Depth	From	To	Duration (hh:mm)	
All dimensions in metres						Drilled By JW			Logged By AM
Scale 1:50						Method Cable Percussion			Checked By



STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP1
Job No 41367	Date 31.1.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL. Contains abundant fine to medium chalk GRAVEL.	0.20	
					Structureless CHALK composed of slightly sandy silty subangular to subrounded mainly fine to medium GRAVEL. Gravel is very weak low density. Matrix is light brown (Upper Chalk Formation Grade Dc)		
0.80	2	B			Weak, low density, white locally stained CHALK. Fractures are extremely closely spaced (<20mm) open and generally infilled with (>3mm) sandy silt size comminuted chalk with brown staining. (Upper Chalk Formation Grade C5)	0.80 (0.70)	
1.50	3	B			Weak low density white unstained CHALK. Fractures are very closely spaced (<60mm) open (<3mm) infilled with sandy silt size comminuted chalk. Contains occasional flints. (Upper Chalk Formation Grade B4)	1.50 (1.30)	
2.50	4	B			... at 2.5m possibly becoming Grade B3.		
2.80	5	D			Trial pit terminated at 2.80m depth.	2.80	

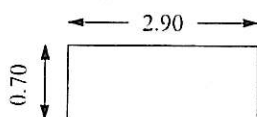
Plan (Not to Scale) No Bearing Taken		General Remarks 1. Minor collapse 0.5-0.8m depth. 2. Soakaway test carried out.	
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By



Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP2
Job No 41367	Date 31.1.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL. Contains abundant chalk gravel and occasional flint.	0.30	
0.30	2	D			Structureless CHALK composed of slightly sandy silty subangular to rounded mainly fine to medium GRAVEL. Gravel is very weak low density. Matrix is uncompact light brown.	0.45	
0.50	3	B			(Upper Chalk Formation Grade Dc) Weak low density white CHALK. Fractures are very closely spaced (<60mm) open and generally infilled with (>3mm) sandy silt size comminuted chalk with local brown staining. (Upper Chalk Formation Grade C4)	(1.05)	
1.50	4	D			Weak low density white unstained CHALK. Fractures are very closely spaced (<60mm) open (<3mm) infilled with sandy silt size comminuted chalk. Contains occasional flints. (Upper Chalk Formation Grade B4)	1.50	
2.10	5	B				(0.90)	
2.40	6	D			... at 2.3m probable grade B3 with frequent black specks. Trial pit terminated at 2.40m depth.	2.40	

Plan (Not to Scale)



No Bearing Taken

General Remarks

1. Soakaway test carried out in pit.
2. Pit dry and stable.

All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By	
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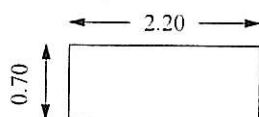
STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP3
Job No 41367	Date 31.1.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty sandy TOPSOIL. Contains occasional chalk and flint gravel.	0.20	
0.30	2	B			Structureless CHALK composed of slightly sandy silty subangular to rounded mainly fine to medium GRAVEL. Gravel is very weak low density. Matrix is uncompact light brown. (Upper Chalk Formation Grade Dc)	0.60	
0.60	3	D			Weak low density white CHALK. Fractures are extremely closely spaced, open (>3mm) and generally infilled with uncompact light brown silt size comminuted chalk. (Upper Chalk Formation Grade C5)	1.10	
1.10	4	B			Weak low density white unstained CHALK. Fractures are very closely spaced (<60mm) open (<3mm) infilled with sandy silt size comminuted chalk. Contains occasional flints. (Upper Chalk Formation Grade B4)	(1.20)	
2.20	5	B			... at 2.1m band of medium to coarse rinded flints, with orange brown staining. ... becoming moderately weak. Trial pit terminated at 2.30m depth.	2.30	

Plan (Not to Scale)



No Bearing Taken

General Remarks

1. Pit dry and stable to base.

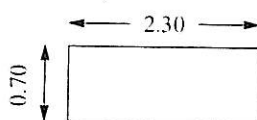
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By	
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Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP4
Job No 41367	Date 31.1.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL. Contains occasional fine chalk gravel and fine to medium flint gravel.		
0.30	2	D			Structureless CHALK composed of slightly sandy silty subangular to subrounded mainly fine to medium GRAVEL. Gravel is very weak low density. Matrix is light brown (Upper Chalk Formation Grade Dc)	0.30	
0.70	3	B			Weak low density white CHALK. Fractures are very closely spaced (<60mm) open and generally infilled with (>3mm) sandy silt size comminuted chalk with local brown staining. (Upper Chalk Formation Grade C4)	0.70	
1.60	4	D			Weak low density white unstained CHALK. Fractures are very closely spaced (<60mm) open (<3mm) infilled with sandy silt size comminuted chalk. Contains occasional flints. ... below 1.7m contains abundant black specks.	1.60	
2.20	5	B			Trial pit terminated at 2.20m depth.	2.20	

Plan (Not to Scale)



No Bearing Taken

General Remarks

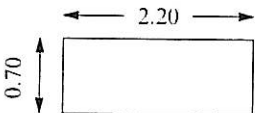
1. Pit dry and stable to base.
2. Soakaway test carried out in pit.

All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By	
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Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP5
Job No 41367	Date 31.1.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL. Contains occasional fine to medium flint.	0.20	
0.20	2	D			Structureless CHALK composed of slightly sandy silty subangular to rounded mainly fine to medium GRAVEL. Gravel is very weak low density. Matrix is uncompact light brown. (Upper Chalk Formation Grade Dc)	0.60	
0.70	3	B			Weak low density white CHALK. Fractures are very closely spaced (<60mm) open and generally infilled with (>3mm) sandy silt size comminuted chalk with local brown staining. (Upper Chalk Formation Grade C4)	(1.10)	
1.70	4	B			Weak, low density white unstained CHALK. Fractures are closely spaced (<200mm) open infilled with (<3mm) uncompact silt size comminuted chalk. Locally contains occasional subrounded flints. (Upper Chalk Formation Grade B3) ... below 2.0m locally orange brown staining.	1.70	
2.30	5	D			Trial pit terminated at 2.30m depth.	2.30	

Plan (Not to Scale)  No Bearing Taken		General Remarks 1. Pit dry and stable to base.		
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By	



STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP6
Job No 41367	Date 31.1.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL. Contains occasional fine chalk and medium flint gravel.	0.20	
0.30	2	B			Structureless CHALK composed of slightly sandy silty subangular to subrounded mainly fine to medium GRAVEL. Gravel is very weak low density. Matrix is light brown (Upper Chalk Formation Grade Dc)	0.60	
0.70	3	B			Weak low density white unstained CHALK. Fractures are very closely spaced (<60mm) open (<3mm) infilled with sandy silt size comminuted chalk. Contains occasional flints. (Upper Chalk Formation Grade B4)	(1.10)	
1.70	4	D			Weak to moderately weak low density white locally stained orange brown CHALK. Fractures are closely spaced (<200mm) clean or infilled with (<3mm) silt size comminuted chalk. (Upper Chalk Formation Grade B3)	1.70	
					... at 2.2m band of black rimmed flints.	(1.00)	
2.70	5	B			Trial pit terminated at 2.70m depth.	2.70	

Plan (Not to Scale) No Bearing Taken		General Remarks 1. Tough digging below 2.50m depth. 2. Pit dry and stable to base.	
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By



STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP7
Job No 41367	Date 31.1.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL. Contains occasional fine chalk and fine to medium flint gravel.	0.20	
0.30	2	B			Structureless CHALK composed of slightly sandy silty subangular to subrounded mainly fine to medium GRAVEL. Gravel is very weak low density. Matrix is light brown (Upper Chalk Formation Grade Dc)	0.60	
0.70	3	B			Weak low density white CHALK. Fractures are very closely spaced (<60mm) open and generally infilled with (>3mm) sandy silt size comminuted chalk with local brown staining. (Upper Chalk Formation Grade C4) ... at 0.8-1.2m localised orange brown iron staining.	(1.20)	
1.80	4	D			Weak, low density white unstained CHALK. Fractures are closely spaced (<200mm) open infilled with (<3mm) uncompact silt size comminuted chalk. Locally contains occasional subrounded flints. (Upper Chalk Formation Grade B3)	1.80	
2.40	5	B				(0.70)	
					Trial pit terminated at 2.50m depth.	2.50	

Plan (Not to Scale)		General Remarks		
No Bearing Taken		1. Pit dry and stable to base.		
All dimensions in metres Scale 1:25		Method JCB-3CX	Logged By JTS	Checked By



STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP8
Job No 41367	Date 31.1.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL. Contains occasional fine chalk and flint.	0.20	
0.30	2	B			Structureless CHALK composed of slightly sandy silty subangular to subrounded mainly medium to coarse GRAVEL with many subrounded cobbles. Gravel is very weak low density and white. Matrix is uncompact light brown with occasional fine gravel sized voids. (Upper Chalk Formation Grade Dc)		
0.80	3	B			Weak low density white CHALK. Fractures are very closely spaced (<60mm) open and generally infilled with (>3mm) sandy silt size comminuted chalk with local brown staining. (Upper Chalk Formation Grade C4)	0.80	
1.90	4	D			Weak, low density white unstained CHALK. Fractures are closely spaced (<200mm) open infilled with (<3mm) uncompact silt size comminuted chalk. Locally contains occasional subrounded flints. (Upper Chalk Formation Grade B3)	1.90	
2.20	5	B			... at 2.5m possibly becoming Grade B3.	2.50	
					Trial pit terminated at 2.50m depth.		

Plan (Not to Scale)		General Remarks	
		1. Pit dry and stable to base.	
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By



STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP9
Job No 41367	Date 1.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL. Contains occasional fine flint and chalk.	0.20	
0.30	2	B			Structureless CHALK composed of slightly sandy silty subangular to subrounded generally medium to coarse GRAVEL. Contains occasional rounded cobbles. Gravel is very weak low density white with brown staining. Matrix is generally uncompact light brown with occasional fine to medium gravel size voids. (Upper Chalk Formation Grade Dc)	0.70	
0.70	3	D			Weak low density white CHALK. Fractures are generally very closely spaced infilled with (>3mm) cream sandy silt size comminuted chalk. (Upper Chalk Formation Grade C4)	(1.10)	
1.80	4	B			Weak low density white CHALK. Fractures are closely spaced generally infilled with (<3mm) sandy silt size comminuted chalk. Contains occasional rimed flints. (Upper Chalk Formation Grade B3)	1.80	
2.30	5	D			Trial pit terminated at 2.30 m depth.	2.30	

Plan (Not to Scale)		General Remarks		
No Bearing Taken		1. Pit dry and stable to base. 2. Soakaway test carried out in pit.		
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By	



STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP10
Job No 41367	Date 1.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL.	0.20	
0.30	2	D			Structureless CHALK composed of slightly sandy silty subangular to subrounded generally medium to coarse GRAVEL. Contains occasional rounded cobbles. Gravel is very weak low density white with brown staining. Matrix is generally uncompact light brown with occasional fine to medium gravel size voids. (Upper Chalk Formation Grade Dc)	0.70	
0.90	3	B			Weak low density white CHALK. Fractures are generally very closely spaced infilled with (>3mm) cream sandy silt size comminuted chalk. (Upper Chalk Formation Grade C4)	(1.10)	
1.30	4	B			... at 1.4-1.6m pocket of orange brown sandy flints.	1.80	
2.20	5	B			Weak low density white CHALK. Fractures are closely spaced generally infilled with (<3mm) sandy silt size comminuted chalk. Contains occasional rinded flints. (Upper Chalk Formation Grade B3)	2.10	
					Weak to moderately weak low density white with frequent black specks CHALK. Fractures are closely spaced generally tight and clean. Contains occasional rinded flints. (Upper Chalk Formation Grade A3)	2.40	
					Trial pit terminated at 2.40 m depth.		

Plan (Not to Scale) No Bearing Taken		General Remarks 1. Pit dry and stable to base. 2. Soakaway test carried out in pit.		
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By	



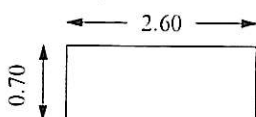
STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP11
Job No 41367	Date 1.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL. Contains occasional fine chalk and fine to medium flint gravel.	0.20	
0.30	2	B			Structureless CHALK composed of slightly sandy silty subangular to subrounded generally medium to coarse GRAVEL. Contains occasional rounded cobbles. Gravel is very weak low density white with brown staining. Matrix is generally uncompact light brown with occasional fine to medium gravel size voids. (Upper Chalk Formation Grade Dc)	0.70	
0.70	3	D			Weak low density white CHALK. Fractures are generally very closely spaced infilled with (>3mm) cream sandy silt size comminuted chalk. (Upper Chalk Formation Grade C4) ... at 1.0m locally orange brown staining.	1.20	
1.30	4	B			Weak low density white CHALK. Fractures are generally very closely spaced infilled with (<3mm) silt size comminuted chalk. (Upper Chalk Formation Grade B4)	1.80	
1.80	5	B			Weak low density white CHALK. Fractures are closely spaced generally infilled with (<3mm) sandy silt size comminuted chalk. Contains occasional rinded flints. (Upper Chalk Formation Grade B3)	(0.90)	
2.70	6	B			Weak to moderately weak low density white with frequent black specks CHALK. Fractures are closely spaced generally tight and clean. Contains occasional rinded flints. (Upper Chalk Formation Grade A3)	2.70	
3.30	7	D			... at 3.2m rinded flints. Trial pit terminated at 3.30 m depth.	3.30	

Plan (Not to Scale)



No Bearing Taken

General Remarks

1. Pit dry and stable to base.

All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By	
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STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP12
Job No 41367	Date 1.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL. Contains occasional flint and chalk gravel.	0.20	
0.30	2	D			Structureless CHALK composed of slightly sandy silty subangular to subrounded generally medium to coarse GRAVEL. Contains occasional rounded cobbles. Gravel is very weak low density white with brown staining. Matrix is generally uncompact light brown with occasional fine to medium gravel size voids. (Upper Chalk Formation Grade Dc)	0.70	
0.70	3	B			Weak low density white CHALK. Fractures are generally very closely spaced infilled with (>3mm) cream sandy silt size comminuted chalk. (Upper Chalk Formation Grade C4)	(1.10)	
1.20	4	D				1.80	
					Weak low density white CHALK. Fractures are closely spaced generally infilled with (<3mm) sandy silt size comminuted chalk. Contains occasional rounded flints. (Upper Chalk Formation Grade B3) ... below 2.0m locally contains black specks.	(0.80)	
2.50	5	B				2.60	
					Trial pit terminated at 2.60 m depth.		

Plan (Not to Scale)		General Remarks		
		1. Pit dry and stable to base.		
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By	



STRUCTURAL SOILS

DRAFT

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP13
Job No 41367	Date 1.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty slightly sandy TOPSOIL. Contains occasional fine chalk and medium flint.	0.20	
0.30	2	D			Structureless CHALK composed of slightly sandy silty subangular to subrounded generally medium to coarse GRAVEL. Contains occasional rounded cobbles. Gravel is very weak low density white with brown staining. Matrix is generally uncompact light brown with occasional fine to medium gravel size voids. (Upper Chalk Formation Grade Dc)	0.70	
0.80	3	B			Weak low density white CHALK. Fractures are generally very closely spaced infilled with (>3mm) cream sandy silt size comminuted chalk. (Upper Chalk Formation Grade C4)	(1.10)	
1.40	4	D				1.80	
2.40	5	B			Weak low density white CHALK. Fractures are closely spaced generally infilled with (<3mm) sandy silt size comminuted chalk. Contains occasional rinded flints. (Upper Chalk Formation Grade B3)	(0.70)	
					Trial pit terminated at 2.50 m depth.	2.50	

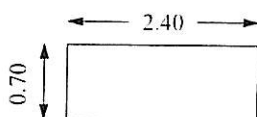
Plan (Not to Scale) No Bearing Taken		General Remarks 1. Pit dry and stable to base.	
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By



Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP14
Job No 41367	Date 1.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty slightly sandy TOPSOIL. Contains occasional flint and chalk gravel.	0.20	
0.40	2	B			Structureless CHALK composed of slightly sandy silty subangular to subrounded generally medium to coarse GRAVEL. Contains occasional rounded cobbles. Gravel is very weak low density white with brown staining. Matrix is generally uncompact light brown with occasional fine to medium gravel size voids. (Upper Chalk Formation Grade Dc) ... at 0.6m localised coarse flint gravel.	0.70	
0.80	3	B			Weak low density white CHALK. Fractures are generally very closely spaced infilled with (>3mm) cream sandy silt size comminuted chalk. (Upper Chalk Formation Grade C4)	(1.10)	
1.30	4	D				1.80	
2.10	5	B			Weak low density white CHALK. Fractures are closely spaced generally infilled with (<3mm) sandy silt size comminuted chalk. Contains occasional rinded flints. (Upper Chalk Formation Grade B3)	2.20	
					Trial pit terminated at 2.20 m depth.		

Plan (Not to Scale)



No Bearing Taken

General Remarks

1. Pit dry and stable to base.
2. Soakaway test carried out in pit.

All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By	
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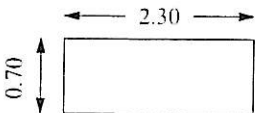


STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP15
Job No 41367	Date 1.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL. Contains occasional fine chalk and fine to medium flint gravel.	0.20	
0.30	2	D			Structureless CHALK composed of slightly sandy silty subangular to subrounded mainly fine to medium GRAVEL. Gravel is very weak low density white with occasional flints. Matrix is uncompact, cream with occasional fine gravel sized voids. (Upper Chalk Formation Grade Dc) ... at 0.6m becoming coarse gravel.		
0.80	3	D			Weak low density white with some brown staining CHALK. Fractures are very closely spaced generally open infilled with (>3mm) sandy silt size comminuted chalk. (Upper Chalk Formation Grade C4)	0.80	
1.20	4	B			Weak low density white CHALK. Fractures are generally very closely spaced infilled with (<3mm) silt size comminuted chalk. (Upper Chalk Formation Grade B4)	1.10 (0.70)	
1.80	5	D			Weak low density white CHALK. Fractures are closely spaced generally infilled with (<3mm) sandy silt size comminuted chalk. Contains occasional rinded flints. (Upper Chalk Formation Grade B3)	1.80	
2.40	6	B			Trial pit terminated at 2.40 m depth.	2.40	

Plan (Not to Scale)  No Bearing Taken	General Remarks 1. Pit dry and stable to base.		
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By 



STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury			Client PFA Consulting		Trialpit No TP16	
Job No 41367		Date 1.2.05	Ground Level ---	Local Grid Co-Ordinates ---		Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty slightly sandy TOPSOIL. Contains occasional flint and chalk.	0.30	
0.40	2	D			Structureless CHALK composed of slightly sandy silty subangular to subrounded mainly fine to medium GRAVEL. Gravel is very weak low density white with occasional flints. Matrix is uncompact, cream with occasional fine gravel sized voids. (Upper Chalk Formation Grade Dc)	(0.80)	
1.20	3	B			Weak low density white CHALK. Fractures are generally very closely spaced infilled with (>3mm) cream sandy silt size comminuted chalk. (Upper Chalk Formation Grade C4)	1.10 1.20	
1.70	4	B			Weak low density white CHALK. Fractures are generally very closely spaced infilled with (<3mm) silt size comminuted chalk. (Upper Chalk Formation Grade B4) ... at 1.5m 150mm pocket of yellow sand and flint.	(0.90)	
2.10	5	D			Trial pit terminated at 2.10 m depth.	2.10	

Plan (Not to Scale)		General Remarks	
		1. Pit dry and stable to base. 2. Soakaway test carried out in pit.	
All dimensions in metres Scale	1:25	Method	JCB-3CX
Logged By	JTS	Checked By	



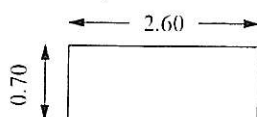
STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP17
Job No 41367	Date 1.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL. Contains occasional flint and chalk gravel.	0.20	
0.30	2	B			Structureless CHALK composed of slightly sandy silty subangular to subrounded generally medium to coarse GRAVEL. Contains occasional rounded cobbles. Gravel is very weak low density white with brown staining. Matrix is generally uncompact light brown with occasional fine to medium gravel size voids. (Upper Chalk Formation Grade Dc)	0.80	
0.90	3	B			Weak low density white CHALK. Fractures are generally very closely spaced infilled with (>3mm) cream sandy silt size comminuted chalk. (Upper Chalk Formation Grade C4)	(0.70) 1.50	
1.60	4	B			Weak low density white CHALK. Fractures are generally very closely spaced infilled with (<3mm) silt size comminuted chalk. (Upper Chalk Formation Grade B4)	(0.70) 2.20	
2.20	5	D			Weak low density white CHALK. Fractures are closely spaced generally infilled with (<3mm) sandy silt size comminuted chalk. Contains occasional rinded flints. (Upper Chalk Formation Grade B3) ... at 2.4m 100mm band of rinded flints. ... at 2.6m localised band (100mm) of orange brown slightly sandy silt.	(1.30) 3.50	
3.00	6	B			... at 3.0m possible A3 chalk, contains black specks.		
3.50	7	D			Trial pit terminated at 3.50 m depth.		

Plan (Not to Scale)



No Bearing Taken

General Remarks

1. Pit dry and stable to base.

All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By AGS
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STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP18
Job No 41367	Date 1.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL. Contains occasional fine to medium chalk and flint gravel.	0.20	
0.30	2	D			Structureless CHALK composed of uncompact cream slightly gravelly sandy SILT. Gravel is very weak low density white and rounded occasional flint gravel. (Upper Chalk Formation Grade Dm)	0.40	
0.50	3	B			Structureless CHALK composed of slightly sandy silty subangular to subrounded generally medium to coarse GRAVEL. Contains occasional rounded cobbles. Gravel is very weak low density white with brown staining. Matrix is generally uncompact light brown with occasional fine to medium gravel size voids. (Upper Chalk Formation Grade Dc)	(1.00)	
1.40	4	B			Weak low density white CHALK. Fractures are generally very closely spaced infilled with (>3mm) cream sandy silt size comminuted chalk. (Upper Chalk Formation Grade C4)	1.40	
2.10	5	D			Weak low density white CHALK. Fractures are closely spaced generally infilled with (<3mm) sandy silt size comminuted chalk. Contains occasional rinded flints. (Upper Chalk Formation Grade B3)	(0.70) 2.10	
2.60	6	B			Trial pit terminated at 2.60 m depth.	2.60	

Plan (Not to Scale) No Bearing Taken		General Remarks 1. Pit dry and stable to base.	
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By



STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP19
Job No 41367	Date 1.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL. Contains occasional fine chalk and fine to medium flint gravel.	0.20	
0.30	2	D			Structureless CHALK composed of uncompact cream slightly gravelly sandy SILT. Gravel is very weak low density white and rounded occasional flint gravel. (Upper Chalk Formation Grade Dm)	0.60	
0.70	3	B			Structureless CHALK composed of slightly sandy silty subangular to subrounded generally medium to coarse GRAVEL. Contains occasional rounded cobbles. Gravel is very weak low density white with brown staining. Matrix is generally uncompact light brown with occasional fine to medium gravel size voids. (Upper Chalk Formation Grade Dc)	1.00	
1.00	4	D			Weak low density white CHALK. Fractures are generally very closely spaced infilled with (>3mm) cream sandy silt size comminuted chalk. (Upper Chalk Formation Grade C4)	1.40	
1.50	5	B			Weak low density white CHALK. Fractures are generally very closely spaced infilled with (<3mm) silt size comminuted chalk. (Upper Chalk Formation Grade B4)	(1.10)	
2.50	6	D			... at 2.0m possibly becoming grade B3. Trial pit terminated at 2.50 m depth.	2.50	

Plan (Not to Scale) No Bearing Taken		General Remarks 1. Pit dry and stable to base.	
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By AGS



STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP20
Job No 41367	Date 2.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL contains occasional chalk and flint gravel.	0.30	
0.30	2	B			Structureless CHALK composed of uncompact, cream, light brown slightly gravelly sandy SILT. Gravel is very weak low density white and rounded. Locally contains occasional flint cobbles and light brown with a trace of brown clay.	0.60	
0.60	3	D			(Upper Chalk Formation Grade Dm)	0.75	
0.80	4	B			Structureless CHALK composed of slightly sandy silty subangular to subrounded GRAVEL. Gravel is weak low density white. Matrix is cream.	1.05	
1.10	5	D			(Upper Chalk Formation Grade Dc)	(1.05)	
					Weak low density white CHALK. Fractures are very closely spaced generally infilled with (>3mm) cream sandy silt size comminuted chalk. Occasional scattered rinded flints.	2.10	
					(Upper Chalk Formation Grade C4)	2.60	
					Weak low density white CHALK. Fractures are very closely spaced generally infilled with (<3mm) white and cream sandy silt size comminuted chalk. Occasional scattered rinded flints.		
					(Upper Chalk Grade B4)		
2.10	6	B			Weak low density white with frequent black specks CHALK. Fractures are closely spaced generally infilled with (<3mm) white and cream sandy silt size comminuted chalk.		
					(Upper Chalk Formation Grade B3)		
2.60	7	B			Trial pit terminated at 2.60m depth.		

Plan (Not to Scale)		General Remarks		
		1. Trial pit dry and stable.		
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By	



STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury			Client PFA Consulting			Trialpit No TP21		
Job No 41367		Date 2.2.05	Ground Level ---		Local Grid Co-Ordinates ---		Sheet 1 of 1	
Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend	
Depth	No	Type	Results					
0.10	1	D			Stubble over brown silty TOPSOIL contains occasional chalk and flint gravel.	0.20		
0.30	2	D			Structureless CHALK composed of uncompact, cream, light brown slightly gravelly sandy SILT. Gravel is very weak low density white and rounded. Locally contains occasional flint cobbles and light brown with a trace of brown clay. (Upper Chalk Formation Grade Dm)	0.65		
0.70	3	B			Structureless CHALK composed of slightly sandy silty subangular to subrounded GRAVEL. Gravel is weak low density white. Matrix is cream. (Upper Chalk Formation Grade Dc)	1.10		
1.10	4	D			Weak low density white CHALK. Fractures are very closely spaced generally infilled with (>3mm) cream sandy silt size comminuted chalk. Occasional scattered rinded flints. (Upper Chalk Formation Grade C4)	1.50		
1.50	5	B			Weak low density white CHALK. Fractures are very closely spaced generally infilled with (<3mm) white and cream sandy silt size comminuted chalk. Occasional scattered rinded flints. (Upper Chalk Formation Grade B4)	(0.70)		
2.20	6	D			Trial pit terminated at 2.20m depth.	2.20		
Plan (Not to Scale)				General Remarks				
				1. Soakaway test carried out in pit.				
All dimensions in metres Scale 1:25		Method JCB-3CX		Logged By JTS		Checked By 		



STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP22
Job No 41367	Date 2.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty slightly sandy TOPSOIL. Contains occasional fine chalk and flint gravel.	0.20	
0.20	2	D			Structureless CHALK composed of slightly sandy silty subangular to subrounded GRAVEL. Gravel is weak low density white. Matrix is cream. (Upper Chalk Formation Grade Dc)	0.70	
0.80	3	B			Weak low density white CHALK. Fractures are very closely spaced generally infilled with (>3mm) cream sandy silt size comminuted chalk. Occasional scattered rinded flints. (Upper Chalk Formation Grade C4)	1.20	
1.20	4	D			Weak low density white CHALK. Fractures are very closely spaced generally infilled with (<3mm) white and cream sandy silt size comminuted chalk. Occasional scattered rinded flints. (Upper Chalk Formation Grade B4)	(0.80)	
2.10	5	B			Weak low density white with frequent black specks CHALK. Fractures are closely spaced generally infilled with (<3mm) white and cream sandy silt size comminuted chalk. (Upper Chalk Formation Grade B3)	2.00	
					Trial pit terminated at 2.20m depth.	2.20	

Plan (Not to Scale)		General Remarks	
		1. Soakaway test carried out in pit.	
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By



Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP23
Job No 41367	Date 2.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.20	1	D			Stubble over brown silty TOPSOIL. Contains occasional fine to medium flint and fine chalk gravel.	0.60	
0.70	2	D			Structureless CHALK composed of uncompact, cream, light brown slightly gravelly sandy SILT. Gravel is very weak low density white and rounded. Locally contains occasional flint cobbles and light brown with a trace of brown clay. (Upper Chalk Formation Grade Dm)	1.10	
1.10	3	D			Structureless CHALK composed of slightly sandy silty subangular to subrounded GRAVEL. Gravel is weak low density white. Matrix is cream. (Upper Chalk Formation Grade Dc)	1.50	
1.60	4	B			Weak low density white CHALK. Fractures are very closely spaced generally infilled with (>3mm) cream sandy silt size comminuted chalk. Occasional scattered rinded flints. (Upper Chalk Formation Grade C4)	(0.70) 2.20	
2.30	5	B			Weak low density white CHALK. Fractures are very closely spaced generally infilled with (<3mm) white and cream sandy silt size comminuted chalk. Occasional scattered rinded flints. (Upper Chalk Formation Grade B3)	2.60	
2.60	6	D			Trial pit terminated at 2.60m depth.		

Plan (Not to Scale)		General Remarks		
		1. Soakaway test carried out in pit. 2. Pit dry and stable to base		
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By	



STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP24
Job No 41367	Date 2.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

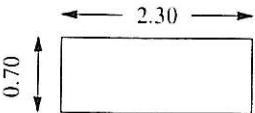
Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL. Contains fine to medium flint gravel.	0.30	
0.40	2	D			Structureless CHALK composed of slightly sandy silty subangular to subrounded GRAVEL. Gravel is weak low density white. Matrix is cream. (Upper Chalk Formation Grade Dm)	0.70	
0.70	3	B			Weak low density white CHALK. Fractures are very closely spaced generally infilled with (>3mm) cream sandy silt size comminuted chalk. Occasional scattered rinded flints. (Upper Chalk Formation Grade C4)	1.25	
1.30	4	D			Weak low density white CHALK. Fractures are very closely spaced generally infilled with (<3mm) white and cream sandy silt size comminuted chalk. Occasional scattered rinded flints. (Upper Chalk Formation Grade B4)	(0.75)	
2.00	5	B			Weak low density white with frequent black specks CHALK. Fractures are closely spaced generally infilled with (<3mm) white and cream sandy silt size comminuted chalk. (Upper Chalk Formation Grade B3)	2.00	
2.50	6	D			Trial pit terminated at 2.50m depth.	2.50	

Plan (Not to Scale)		General Remarks	
		1. Pit dry and stable to base.	
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By AGS



Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP25
Job No 41367	Date 2.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty sandy TOPSOIL. Contains occasional flint gravel.	0.20	
0.30	2	B			Structureless CHALK composed of slightly sandy silty subangular to subrounded GRAVEL. Gravel is weak low density white. Matrix is cream. (Upper Chalk Formation Grade Dc)	(0.90)	
1.10	3	D			Weak low density white CHALK. Fractures are very closely spaced generally infilled with (>3mm) cream sandy silt size comminuted chalk. Occasional scattered rinded flints. (Upper Chalk Formation Grade C4)	1.10	
1.60	4	B			Weak low density white CHALK. Fractures are closely spaced generally infilled with (>3mm) white and cream sandy silt size comminuted chalk. Contains occasional rinded flints. (Upper Chalk Formation Grade C3)	1.60	
1.90	5	D			Weak low density white with frequent black specks CHALK. Fractures are closely spaced generally infilled with (<3mm) white and cream sandy silt size comminuted chalk. (Upper Chalk Formation Grade B3)	1.90	
2.40	6	B			Trial pit terminated at 2.40m depth.	2.40	

Plan (Not to Scale)  No Bearing Taken	General Remarks 1. Pit dry and stable to base.		
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By 



STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP26
Job No 41367	Date 2.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty slightly sandy TOPSOIL. Contains occasional fine chalk and flint gravel.	0.20	
0.30	2	D			Structureless CHALK composed of uncompact, cream, light brown slightly gravelly sandy SILT. Gravel is very weak low density white and rounded. Locally contains occasional flint cobbles and light brown with a trace of brown clay.	0.45	
0.50	3	B			(Upper Chalk Formation Grade Dm) Structureless CHALK composed of slightly sandy silty subangular to subrounded GRAVEL. Gravel is weak low density white. Matrix is cream.	1.00	
					(Upper Chalk Formation Grade Dc)		
1.10	4	B			Weak low density white CHALK. Fractures are very closely spaced generally infilled with (>3mm) cream sandy silt size comminuted chalk. Occasional scattered rinded flints.	1.45	
					(Upper Chalk Formation Grade C4)		
1.50	5	D			Weak low density white CHALK. Fractures are very closely spaced generally infilled with (<3mm) white and cream sandy silt size comminuted chalk.	2.10	
					Occasional scattered rinded flints.		
					(Upper Chalk Formation Grade B4)		
2.10	6	B			Weak low density white with frequent black specks CHALK. Fractures are closely spaced generally infilled with (<3mm) white and cream sandy silt size comminuted chalk.	2.50	
					(Upper Chalk Formation Grade B3)		
2.50	7	D			Trial pit terminated at 2.50m depth.		

Plan (Not to Scale) No Bearing Taken		General Remarks 1. Pit dry and stable to base.	
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By



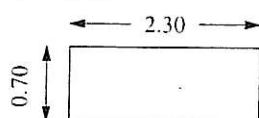
STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP27
Job No 41367	Date 2.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL. Contains occasional fine to medium flint chalk and gravel.	0.30	
0.30	2	D			Structureless CHALK composed of uncompact, cream, light brown slightly gravelly sandy SILT. Gravel is very weak low density white and rounded. Locally contains occasional flint cobbles and light brown with a trace of brown clay. (Upper Chalk Formation Grade Dm)	0.55	
0.60	3	B			Structureless CHALK composed of slightly sandy silty subangular to subrounded GRAVEL. Gravel is weak low density white. Matrix is cream. (Upper Chalk Formation Grade Dc)	1.20	
1.20	4	D			Weak low density white CHALK. Fractures are very closely spaced generally infilled with (>3mm) cream sandy silt size comminuted chalk. Occasional scattered rinded flints. (Upper Chalk Formation Grade C4)	1.70	
1.70	5	B			Weak low density white CHALK. Fractures are very closely spaced generally infilled with (<3mm) white and cream sandy silt size comminuted chalk. Occasional scattered rinded flints. (Upper Chalk Formation Grade B4)	(1.20)	
2.90	6	B			Weak low density white with frequent black specks CHALK. Fractures are closely spaced generally infilled with (<3mm) white and cream sandy silt size comminuted chalk. (Upper Chalk Formation Grade B3)	2.90	
3.20	7	D			... at 3.5m becoming moderately weak and possibly grade A3.	(1.10)	
4.00	8	B			Trial pit terminated at 4.0m depth.	4.00	

Plan (Not to Scale)



No Bearing Taken

General Remarks

1. Pit dry and stable to base.

All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By AGS
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STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP28
Job No 41367	Date 2.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL. Contains occasional fine to medium flint chalk and gravel.	0.20	
0.30	2	B			Structureless CHALK composed of uncompact, cream, light brown slightly gravelly sandy SILT. Gravel is very weak low density white and rounded. Locally contains occasional flint cobbles and light brown with a trace of brown clay. (Upper Chalk Formation Grade Dm)	0.50	
0.60	3	D			Structureless CHALK composed of slightly sandy silty subangular to subrounded GRAVEL. Gravel is weak low density white. Matrix is cream. (Upper Chalk Formation Grade Dc)	0.90	
1.00	4	B			Weak low density white CHALK. Fractures are very closely spaced generally infilled with (>3mm) cream sandy silt size comminuted chalk. Occasional scattered rinded flints. (Upper Chalk Formation Grade C4)	(0.70)	
1.60	5	D			Weak low density white CHALK. Fractures are very closely spaced generally infilled with (<3mm) white and cream sandy silt size comminuted chalk. Occasional scattered rinded flints. (Upper Chalk Formation Grade B4) ... at 1.9m cobbles of flint.	1.60	
2.20	6	B			Weak low density white with frequent black specks CHALK. Fractures are closely spaced generally infilled with (<3mm) white and cream sandy silt size comminuted chalk. (Upper Chalk Formation Grade B3) Trial pit terminated at 2.30m depth.	2.10	
						2.30	

Plan (Not to Scale)		General Remarks		
		1. Pit dry and stable to base.		
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By	



STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP29
Job No 41367	Date 3.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL. Contains fine to medium flint and fine chalk gravel.	0.20	
0.30	2	B			Structureless CHALK composed of slightly sandy silty subangular to rounded mainly medium to coarse GRAVEL. Gravel is very weak low density white. Matrix is uncompact light brown with occasional gravel size voids. (Upper Chalk Formation Grade Dc)	0.50	
0.60	3	B			Weak low density white CHALK. Fractures are very closely spaced generally infilled with (>3mm) light brown and cream sandy silt size comminuted chalk. Locally stained orange brown on fracture surfaces. (Upper Chalk Formation Grade C4)	0.90	
0.90	4	D			Weak low density white CHALK. Fractures are very closely spaced generally infilled with (<3mm) sandy silt size comminuted chalk. (Upper Chalk Formation Grade B4)	(1.10)	
2.00	5	B			Weak low density white unstained CHALK. Fractures are closely spaced generally infilled with (<3mm) white and cream sandy silt size comminuted chalk. Occasional scattered rind flints. (Upper Chalk Formation Grade B3)	2.00	
2.50	6	D			Trial pit terminated at 2.50 m depth.	2.50	

Plan (Not to Scale) No Bearing Taken		General Remarks 1. Pit dry and stable to base. 2. Soakaway test carried out in pit.		
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By	



STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP30
Job No 41367	Date 3.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL. Contains fine to medium flint and fine chalk gravel.	0.20	
0.30	2	D			Structureless CHALK composed of slightly sandy silty subangular to rounded mainly medium to coarse GRAVEL. Gravel is very weak low density white. Matrix is uncompact light brown with occasional gravel size voids. (Upper Chalk Formation Grade Dc)	0.70	
0.80	3	B			Weak low density white CHALK. Fractures are very closely spaced generally infilled with (>3mm) light brown and cream sandy silt size comminuted chalk. Locally stained orange brown on fracture surfaces. (Upper Chalk Formation Grade C4)	1.20	
1.30	4	B			Weak low density white CHALK. Fractures are very closely spaced generally infilled with (<3mm) sandy silt size comminuted chalk. (Upper Chalk Formation Grade B4)	(0.80)	
2.00	5	B			Weak low density white unstained CHALK. Fractures are closely spaced generally infilled with (<3mm) white and cream sandy silt size comminuted chalk. Occasional scattered rinded flints. (Upper Chalk Formation Grade B3) ... below 2.0m locally contains black specks. Trial pit terminated at 2.10 m depth.	2.00 2.10	

Plan (Not to Scale) No Bearing Taken		General Remarks 1. Pit dry and stable to base. 2. Soakaway test carried out in pit.	
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By



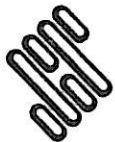
STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP31
Job No 41367	Date 3.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL. Contains fine to medium flint and fine chalk gravel.	0.20	
0.30	2	D			Structureless CHALK composed of slightly sandy silty subangular to rounded mainly medium to coarse GRAVEL. Gravel is very weak low density white. Matrix is uncompact light brown with occasional gravel size voids. (Upper Chalk Formation Grade Dc)	0.70	
0.80	3	D			Weak low density white CHALK. Fractures are very closely spaced generally infilled with (>3mm) light brown and cream sandy silt size comminuted chalk. Locally stained orange brown on fracture surfaces. (Upper Chalk Formation Grade C4)	1.10	
1.20	4	B			Weak low density white CHALK. Fractures are very closely spaced generally infilled with (<3mm) sandy silt size comminuted chalk. (Upper Chalk Formation Grade B4)	(1.10)	
2.20	5	B			Weak low density white unstained CHALK. Fractures are closely spaced generally infilled with (<3mm) white and cream sandy silt size comminuted chalk. Occasional scattered rinded flints. (Upper Chalk Formation Grade B3)	2.20	
2.90	6	B			Weak to moderately weak low density white CHALK. Fractures are closely spaced generally tight and clean. Occasional scattered rinded flints. (Upper Chalk Formation Grade A3)	2.90	
3.50	7	D			... at 3.3m band of black rinded cobbles.	3.50	
					Trial pit terminated at 3.50 m depth.		

Plan (Not to Scale)		General Remarks		
No Bearing Taken		1. Pit dry and stable to base.		
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By	



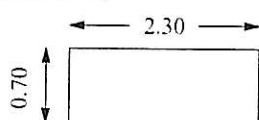
STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP32
Job No 41367	Date 3.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL. Contains fine to medium flint and fine chalk gravel.	0.20	
0.40	2	B			Structureless CHALK composed of slightly sandy silty subangular to rounded mainly medium to coarse GRAVEL. Gravel is very weak low density white. Matrix is uncompact light brown with occasional gravel size voids. (Upper Chalk Formation Grade Dc)	0.60	
0.70	3	D			Weak low density white CHALK. Fractures are very closely spaced generally infilled with (>3mm) light brown and cream sandy silt size comminuted chalk. Locally stained orange brown on fracture surfaces. (Upper Chalk Formation Grade C4)	1.10	
1.20	4	B			Weak low density white unstained CHALK. Fractures are closely spaced generally infilled with (<3mm) white and cream sandy silt size comminuted chalk. Occasional scattered rinded flints. (Upper Chalk Formation Grade B3) ... at 1.2m 100mm band of rinded flint dipping east at 45°, with orange staining.	(1.70)	
2.20	5	D			... at 2.6m possibly becoming grade A3 chalk.	2.80	
2.80	6	B			Trial pit terminated at 2.80 m depth.		

Plan (Not to Scale)



No Bearing Taken

General Remarks

1. Pit dry and stable to base.

All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By AGS
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STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP33
Job No 41367	Date 3.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL. Contains fine to medium flint and fine chalk gravel.	0.30	
0.30	2	B			Structureless CHALK composed of slightly sandy silty subangular to rounded mainly medium to coarse GRAVEL. Gravel is very weak low density white. Matrix is uncompact light brown with occasional gravel size voids. (Upper Chalk Formation Grade Dc)	0.70	
0.70	3	B			Weak low density orange brown stained white CHALK. Fractures are very closely spaced generally infilled with (>3mm) cream sandy silt size comminuted chalk. (Upper Chalk Formation Grade C4)	1.30	
1.40	4	B			Weak low density white CHALK. Fractures are very closely spaced generally infilled with (<3mm) sandy silt size comminuted chalk. (Upper Chalk Formation Grade B4)	1.80	
1.80	5	D			Weak low density white unstained CHALK. Fractures are closely spaced generally infilled with (<3mm) white and cream sandy silt size comminuted chalk. Occasional scattered rinded flints. (Upper Chalk Formation Grade B3)	2.30	
2.30	6	B			Trial pit terminated at 2.30 m depth.		

Plan (Not to Scale) No Bearing Taken		General Remarks 1. Pit dry and stable to base. 2. Soakaway test carried out in pit.	
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By



STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP34
Job No 41367	Date 3.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL. Contains fine to medium flint and fine chalk gravel.	0.20	
0.30	2	D			Structureless CHALK composed of slightly sandy silty subangular to rounded mainly medium to coarse GRAVEL. Gravel is very weak low density white. Matrix is uncompact light brown with occasional gravel size voids. (Upper Chalk Formation Grade Dc)	0.70	
0.80	3	B			Weak low density white CHALK. Fractures are very closely spaced generally infilled with (>3mm) light brown and cream sandy silt size comminuted chalk. Locally stained orange brown on fracture surfaces. (Upper Chalk Formation Grade C4)	1.30	
1.40	4	B			Weak low density white CHALK. Fractures are very closely spaced generally infilled with (<3mm) sandy silt size comminuted chalk. (Upper Chalk Formation Grade B4) ... at 1.5m 100mm band of rinded flint.	1.60	
1.70	5	D			Weak low density white unstained CHALK. Fractures are closely spaced generally infilled with (<3mm) white and cream sandy silt size comminuted chalk. Occasional scattered rinded flints. (Upper Chalk Formation Grade B3)	(1.50)	
3.00	6	B				3.10	
					Trial pit terminated at 3.10 m depth.		

Plan (Not to Scale) No Bearing Taken		General Remarks 1. Pit dry and stable to base.	
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By



STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP35
Job No 41367	Date 3.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL. Contains fine to medium flint and fine chalk gravel.	0.20	
0.30	2	B			Structureless CHALK composed of slightly sandy silty subangular to rounded mainly medium to coarse GRAVEL. Gravel is very weak low density white. Matrix is uncompact light brown with occasional gravel size voids. (Upper Chalk Formation Grade Dc)	0.80	
0.90	3	B			Moderately weak medium density cream with frequent black specks CHALK. Fractures are very closely spaced infilled with (<3mm) cream sandy silt size comminuted chalk. Locally stained green orange brown. (Upper Chalk Formation Grade B4)	1.20	
1.30	4	B			Moderately weak to moderately strong medium density cream to white with frequent black specks CHALK. Fractures are closely spaced and generally infilled with (<3mm) sandy silt size comminuted chalk. Contains occasional scattered rinded flints. (Upper Chalk Formation Grade B3)	(1.10)	
2.30	5	B			Trial pit terminated at 2.30 m depth.	2.30	

Plan (Not to Scale) No Bearing Taken		General Remarks 1. Pit dry and stable to base. 2. Soakaway test carried out in pit. 3. Bucket scraping below 1.5m and slow excavation.	
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By



STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP36	
Job No 41367	Date 3.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1	

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			Stubble over brown silty TOPSOIL. Contains fine to medium flint and fine chalk gravel.	0.20	
0.30	2	D			Structureless CHALK composed of uncompact cream brown gravelly slightly sandy SILT. Gravel is very weak low density white and rounded. Locally contains light brown clay.	0.40	
0.50	3	B			(Upper Chalk Formation Grade Dm) Structureless CHALK composed of slightly sandy silty subangular to rounded mainly medium to coarse GRAVEL. Gravel is very weak low density white. Matrix is uncompact light brown with occasional gravel size voids.	(0.80)	
1.20	4	B			Weak low density white CHALK. Fractures are very closely spaced generally infilled with (>3mm) light brown and cream sandy silt size comminuted chalk. Locally stained orange brown on fracture surfaces.	1.20	
2.10	5	D			(Upper Chalk Formation Grade C4) Weak low density white unstained CHALK. Fractures are closely spaced generally infilled with (<3mm) white and cream sandy silt size comminuted chalk. Occasional scattered rinded flints.	2.10	
2.90	6	B			(Upper Chalk Formation Grade B3) Trial pit terminated at 2.90 m depth.	2.90	

Plan (Not to Scale) No Bearing Taken		General Remarks 1. Pit dry and stable to base.	
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By



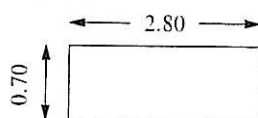
STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP37
Job No 41367	Date 4.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			MADE GROUND: Grass over brown silty slightly sandy TOPSOIL. Contains occasional fine to medium angular to subrounded flint gravel. Contains abundant roots and rootlets.	(0.90)	
0.70	2	D				0.90	
1.00	3	B			Structureless CHALK composed of slightly sandy silty subangular to subrounded mainly medium to coarse GRAVEL. Gravel is very weak low density white. Matrix is uncompact, light brown occasional size void. (Upper Chalk Formation Grade Dc)	1.40	
1.50	4	B			Weak low density white locally stained brown CHALK. Fractures are very closely spaced open infilled with (>3mm) light brown sandy silt size comminuted chalk. (Upper Chalk Formation Grade C4)	1.90	
2.00	5	B			Weak low density white locally stained brown CHALK. Fractures are very closely spaced open infilled with (<3mm) light brown sandy silt size comminuted chalk. (Upper Chalk Formation Grade B4) ... rootlets down to 2.2m.	2.50	
2.50	6	B			Weak low density white CHALK. Fractures are closely spaced open infilled with (<3mm) cream sandy silt size comminuted chalk. Contains occasional scattered rinded flints. (Upper Chalk Formation Grade B3)	(0.90)	
3.40	7	D			Trial pit terminated at 3.40 m depth.	3.40	

Plan (Not to Scale)



No Bearing Taken

General Remarks

1. Pit dry and stable to base.
2. Pit dug into raised section by football pitch (approximately 1m higher).

All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By AGS
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STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP38
Job No 41367	Date 4.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D	$c_u = 60$		MADE GROUND: Grass over brown clayey slightly sandy TOPSOIL. Contains fine to coarse angular flint gravel and red brick.	0.20	
0.30	2	D			MADE GROUND: Brown, dark brown silty slightly sandy fine to coarse angular to subrounded chalk, flint and red brick GRAVEL.	0.60	
0.70 0.70	3	D V			MADE GROUND: Firm black, dark brown sandy very gravelly SILT. Gravel is fine to coarse angular to subangular red brick, flint and chalk.	1.20	
1.20	4	B			Structureless CHALK composed of uncompact cream slightly gravelly sandy SILT. Gravel is very weak low density white and rounded. Locally light brown with trace of brown clay. (Upper Chalk Formation Grade Dm)	1.40	
1.50	5	B				1.60	
1.70	6	B			Structureless CHALK composed of slightly sandy silty subangular to subrounded mainly medium to coarse GRAVEL. Gravel is very weak low density white. Matrix is uncompact, light brown occasional size void. (Upper Chalk Formation Grade Dc)	(0.90)	
2.70	7	B			Weak low density white locally stained brown CHALK. Fractures are very closely spaced open infilled with (>3mm) light brown sandy silt size comminuted chalk. (Upper Chalk Formation Grade C4)	2.50	
					Weak low density white locally stained brown CHALK. Fractures are very closely spaced open infilled with (<3mm) light brown sandy silt size comminuted chalk. (Upper Chalk Formation Grade B4)	2.90	
					Trial pit terminated at 2.90 m depth.		

Plan (Not to Scale)		General Remarks		
No Bearing Taken		1. Pit dry and stable to base. 2. Soakaway test carried out in pit.		
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By	

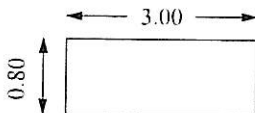


STRUCTURAL SOILS

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP39
Job No 41367	Date 4.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

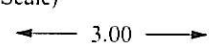
Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.10	1	D			MADE GROUND: Grass over firm brown sandy very gravelly CLAY. Gravel is fine to coarse angular chalk, red brick, flint and concrete.		
1.00	2	B			... at 1.0m contains reinforced concrete BOULDERS (up to 800mm diameter). ... at 1.1m black plastic sheeting. ... at 1.4m concrete BOULDER (1.2m diameter) and whole breeze blocks.	(2.30)	
2.30	3	D			MADE GROUND: Brown silty sandy fine to coarse subangular chalk GRAVEL. Contains occasional red brick and concrete.	2.30	
3.30	4	B			Structureless CHALK composed of uncompact cream slightly gravelly sandy SILT. Gravel is very weak low density white and rounded. Locally light brown with trace of brown clay. (Upper Chalk Formation Grade Dm)	(0.90)	
4.20	5	B			Weak low density white locally stained brown CHALK. Fractures are very closely spaced open infilled with (>3mm) light brown sandy silt size comminuted chalk. (Upper Chalk Formation Grade C4)	4.20	
4.50	6	D			Trial pit terminated at 4.50 m depth.	4.50	

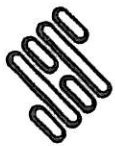
Plan (Not to Scale)		General Remarks		
 No Bearing Taken		1. Pit dug into bund (approximately 3m high steep-sided bund). 2. Measurements taken from top of bund.		
All dimensions in metres Scale 1:26	Method JCB-3CX	Logged By JTS	Checked By	

TRIAL PIT LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Trialpit No TP40
Job No 41367	Date 4.2.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Samples and In-situ Tests				Water	Description of Strata	Depth (Thickness)	Legend
Depth	No	Type	Results				
0.20	1	D			MADE GROUND: Grass over brown silty slightly sandy gravelly TOPSOIL. Gravel is fine to coarse angular red brick, concrete chalk and flint.	(0.80)	
0.80	2	B			MADE GROUND: Brown, grey and white silty sandy fine to coarse angular to subangular chalk, red brick and flint GRAVEL. ... at 1.3m concrete BOULDER 1.2m long. ... at 1.5m contains occasional slate. ... below 1.6m locally contains charcoal.	0.80 (1.50)	
2.00	3	D				2.30	
2.40	4	B			Structureless CHALK composed of slightly sandy silty subangular to subrounded mainly medium to coarse GRAVEL. Gravel is very weak low density white. Matrix is uncompact, light brown occasional size void. (Upper Chalk Formation Grade Dc)	(0.90) 3.20	
3.30	5	B			Structureless CHALK composed of uncompact cream slightly gravelly sandy SILT. Gravel is very weak low density white and rounded. Locally light brown with trace of brown clay. (Upper Chalk Formation Grade Dm)	3.50	
3.60	6	B			Weak low density white locally stained brown CHALK. Fractures are very closely spaced open infilled with (>3mm) light brown sandy silt size comminuted chalk. (Upper Chalk Formation Grade C4)	4.00	
					Trial pit terminated at 4.00 m depth.		

Plan (Not to Scale)  No Bearing Taken		General Remarks 1. Pit dry and stable to base. 2. Pit dug into bund (bund approximately 3.5m high).	
All dimensions in metres Scale 1:25	Method JCB-3CX	Logged By JTS	Checked By 



Contract Old Sarum, Salisbury		Client PFA Consulting		Window Sample No WS1
Job No 41367	Date 15.3.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Progress Window Run (size (mm))	Samples / Tests				Water	Instru- mentation	Description of Strata	Depth (Thick- ness)	Legend
	Depth	No	Type	Results					
0.00 - 1.00 (101) 100 % rec	0.00-0.10	0	D				ROAD SURFACE: Asphalt and cemented hardcore.	0.11	
	0.10-0.40	1	D				MADE GROUND: Dark grey black slightly clayey fine to coarse limestone GRAVEL. Gravel is angular up to 60mm.	0.35	
	0.40-0.60	2	D				MADE GROUND: Black SAND and fine GRAVEL. Stiff brown slightly gravelly SILT. Gravel is fine to coarse angular flint and weak chalk.	0.40	
	0.60-0.70							0.65	
	0.70-1.00	3	D				Structureless CHALK composed of stiff white speckled brown and cream gravelly SILT. Gravel is weak angular chalk. (Upper Chalk Formation Grade Dm)	1.00	
Window sample hole terminated at 1.0m depth.									

General Remarks

1. Road surface cored.
2. Hole backfilled and surface reinstated on completion.

All dimensions in metres Scale 1:25	Method Window Sampling - Archway	Logged By AD	Checked By	
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STRUCTURAL SOILS

WINDOW SAMPLE LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Window Sample No WS2
Job No 41367	Date 15.3.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Progress	Samples / Tests				Water	Instrumentation	Description of Strata	Depth (Thickness)	Legend
Window Run (size (mm))	Depth	No	Type	Results					
0.00 - 1.00 (101) 100 % rec	0.00-0.03 0.03-0.36 0.35-0.70 0.70-1.00	0 1 2 3	D D D D				ROAD SURFACE: Asphalt. MADE GROUND: Dark grey black slightly clayey fine to coarse angular limestone GRAVEL (subbase) MADE GROUND: Dark brown black SAND and GRAVEL. Gravel is limestone and flint. Stiff brown white gravelly SILT. Gravel is angular flint and weak chalk. Structureless CHALK composed of stiff cream brown gravelly SILT. Gravel is angular weak chalk. (Upper Chalk Formation Grade Dm)	0.04 0.36 0.40 0.70 1.00	
Window sample hole terminated at 1.0m depth.									

General Remarks

1. Road surface cored.
2. Hole backfilled and surface reinstated on completion.

All dimensions in metres Scale 1:25	Method Window Sampling - Archway	Logged By AD	Checked By	
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Contract Old Sarum, Salisbury		Client PFA Consulting		Window Sample No WS3
Job No 41367	Date 15.3.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Progress	Samples / Tests				Water	Instru- mentation	Description of Strata	Depth (Thick- ness)	Legend
Window Run (size (mm))	Depth	No	Type	Results					
0.00 - 1.00 (101) 100 % rec	0.00-0.11	0	D				ROAD SURFACE: Asphalt.	0.11	
	0.11-0.30	1	D				MADE GROUND: Dark grey black slightly clayey fine to coarse angular limestone GRAVEL.	0.30	
	0.30-0.35	2	D				MADE GROUND: Black SAND and GRAVEL. Gravel is angular.	0.35	
	0.35-0.60	3	D				Very stiff brown speckled white gravelly SILT. Gravel is angular flint and chalk.	0.65	
	0.63-1.00	4	D				Structureless CHALK composed of white and cream gravelly SILT. Gravel is angular weak chalk and flint. (Upper Chalk Formation Grade Dm)	1.00	
							Window sample hole terminated at 1.0m depth.		

General Remarks

1. Road surface cored.
2. Hole backfilled and surface reinstated on completion.

All dimensions in metres Scale 1:25	Method Window Sampling - Archway	Logged By AD	Checked By	
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Contract Old Sarum, Salisbury		Client PFA Consulting		Window Sample No WS4
Job No 41367	Date 15.3.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Progress	Samples / Tests				Water	Instru- mentation	Description of Strata	Depth (Thick- ness)	Legend
Window Run (size (mm))	Depth	No	Type	Results					
0.00 - 1.00 (101) 100 % rec	0.00-0.12	0	D				ROAD SURFACE: Asphalt.	0.12	
	0.12-0.40	1	D				MADE GROUND: Dark grey slightly clayey fine to coarse angular limestone GRAVEL.	0.40	
	0.40-0.50	2	D				MADE GROUND: Black SAND and GRAVEL. Gravel is red brick, flint and coke?	0.65	
	0.65-1.00	3	D				Very stiff brown gravelly SILT. Gravel is fine angular chalk.	0.75	
							Structureless CHALK composed of brown white gravelly SILT. Gravel is fine angular very weak chalk. (Upper Chalk Formation Grade Dm)	1.00	
Window sample hole terminated at 1.0m depth.									

General Remarks

1. Road surface cored.
2. Hole backfilled and surface reinstated on completion.

All dimensions in metres Scale 1:25	Method Window Sampling - Archway	Logged By AD	Checked By	
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Contract Old Sarum, Salisbury		Client PFA Consulting		Window Sample No WS5
Job No 41367	Date 15.3.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Progress	Samples / Tests				Water	Instrumentation	Description of Strata	Depth (Thickness)	Legend
Window Run (size (mm))	Depth	No	Type	Results					
0.00 - 1.00 (101) 100 % rec	0.00-0.10	0	D				ROAD SURFACE: Asphalt and cemented chipping.	0.10	
	0.10-0.40	1	D				MADE GROUND: Dark grey and black slightly sandy slightly clayey fine to coarse angular limestone and flint GRAVEL.	0.40	
	0.40-0.65	2	D				Very stiff brown gravelly SILT. Gravel is angular flint and rare fine chalk.	0.65	
	0.65-1.00	3	D				Structureless CHALK composed of brown speckled white gravelly SILT. Gravel is angular flint and very weak angular chalk. (Upper Chalk Formation Grade Dm) ... flint band at 0.65m depth. Window sample hole terminated at 1.0m depth.	1.00	

General Remarks

1. Road surface cored.
2. Hole backfilled and surface reinstated on completion.

All dimensions in metres Scale 1:25	Method Window Sampling - Archway	Logged By AD	Checked By	
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STRUCTURAL SOILS

WINDOW SAMPLE LOG

Contract Old Sarum, Salisbury		Client PFA Consulting		Window Sample No WS6
Job No 41367	Date 15.3.05	Ground Level ---	Local Grid Co-Ordinates ---	Sheet 1 of 1

Progress	Samples / Tests				Water	Instrumentation	Description of Strata	Depth (Thickness)	Legend
Window Run (size (mm))	Depth	No	Type	Results					
0.00 - 1.00 (101) 100 % rec	0.00-0.07	0	D				ROAD SURFACE: Asphalt and cemented chipping.	0.07	
	0.07-0.40	1	D				MADE GROUND: Dark grey slightly sandy slightly clayey fine to coarse angular limestone GRAVEL.		
	0.40-0.66	2	D				Very stiff brown slightly gravelly SLIT. Gravel is fine angular flint and weak chalk.	0.40	
	0.66-1.00	3	D				Structureless CHALK composed of cream brown gravelly SLIT. Gravel is fine to coarse angular weak chalk and occasional angular flint. (Upper Chalk Formation Grade Dm)	0.66	
							Window sample hole terminated at 1.0m depth.	1.00	

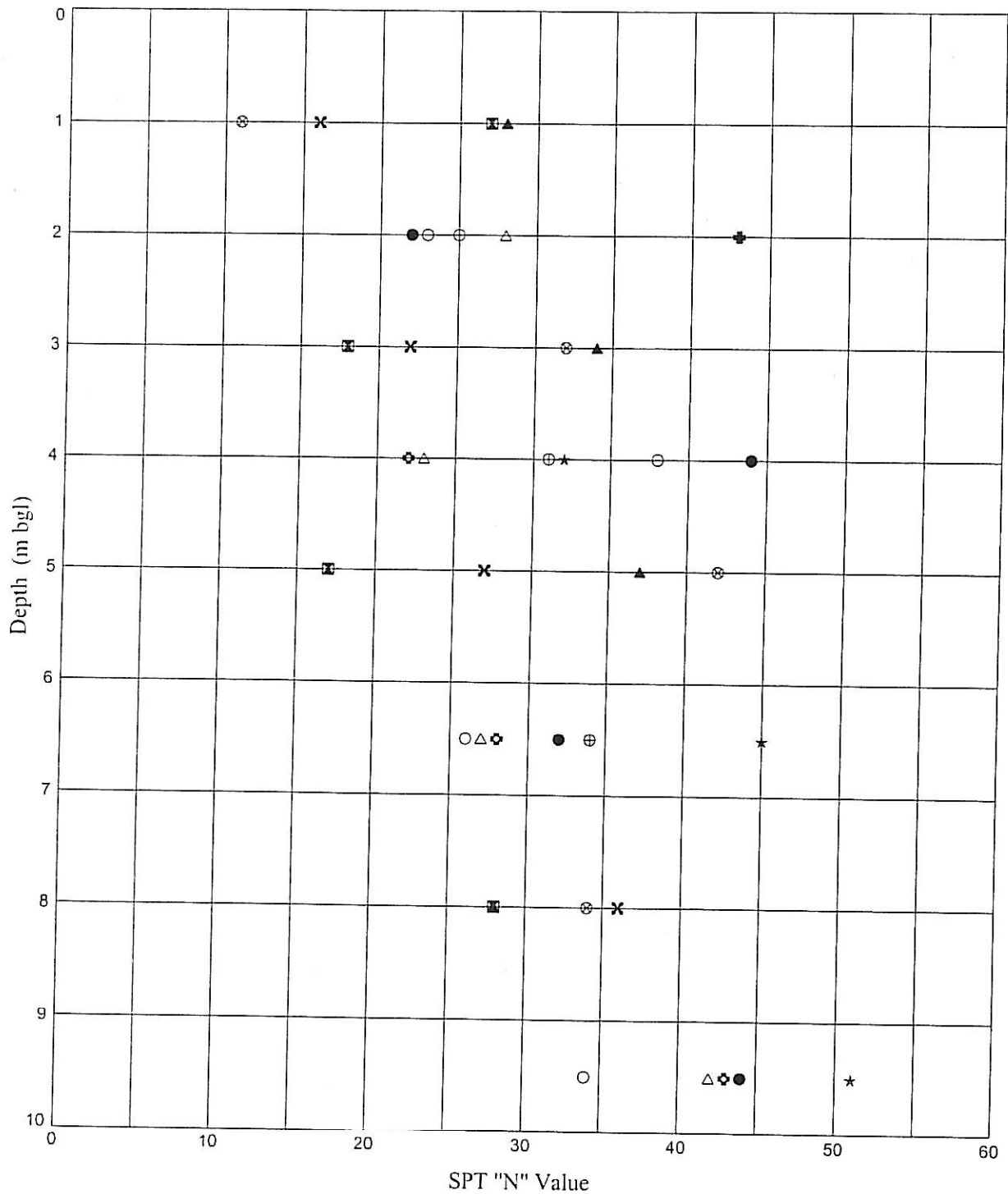
General Remarks

1. Road surface cored.
2. Hole backfilled and surface reinstated on completion.

All dimensions in metres Scale 1:25	Method Window Sampling - Archway	Logged By AD	Checked By	
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MATERIAL PROPERTIES Vs DEPTH - SPT "N" VALUES

Exploratory Holes : BH1, BH2, BH3, BH4, BH5, BH6, BH7, BH8, BH9, BH10



Note: Where a test refusal occurred an extrapolated N value has been used for the plot.

Key:
 ● BH1 ⊕ BH5
 ⊠ BH10 ○ BH6
 ▲ BH2 △ BH7
 ★ BH3 ⊗ BH8
 ✕ BH4 ⊕ BH9



STRUCTURAL SOILS

Contract

Old Sarum, Salisbury

Client

PFA Consulting

Date

18.04.05

Checked By

Date

Job No

41367



APPENDIX C

(i) CBR Correlation Test Results

(ii) Soakaway Test Results

Site Location:		Old Sarum, Salisbury				Job No: 41367			
Table of Mexecon Readings									
		Value given as CBR results				3 no. tests carried out per location.			
Location	Depth (mm) Start Depth	75+	150+	225+	300+	375+	450+	525+	600+
TP1	GL	1	3	5	8	10	NP	NP	NP
		2	5	7	12	NP	NP	NP	NP
		3	5	7	14	NP	NP	NP	NP
TP2	GL	1	3	5	12	NP	-	-	-
		1	4	12	NP	NP	-	-	-
		2	5	14	NP	-	-	-	-
TP3	GL	1	4	4	9	14	NP	NP	-
		1	5	4	10	14	NP	-	-
		2	4	6	12	14	NP	-	-
TP4	GL	1	1	3	8	14	NP	NP	NP
		1	2	4	9	12	NP	-	-
		3	2	5	10	13	NP	-	-
TP5	GL	1	3	4	7	14	NP	-	-
		1	3	6	12	14	NP	-	-
		1	2	5	10	14	NP	-	-
TP6	GL	2	2	3	6	14	NP	-	-
		1	2	5	14	NP	NP	-	-
		2	3	6	12	14	NP	-	-
TP7	GL	1	2	3	8	14	NP	-	-
		1	2	4	7	14	NP	-	-
		1	3	6	14	NP	-	-	-
TP8	GL	1	3	4	14	NP	-	-	-
		2	4	6	12	14	NP	-	-
		3	3	5	10	14	NP	-	-
TP9	GL	2	5	14	NP	-	-	-	-
		2	7	12	14	NP	-	-	-
		2	8	12	NP	-	-	-	-
TP10	GL	1	3	7	10	14	NP	-	-
		1	4	6	11	14	NP	-	-
		2	4	4	9	14	NP	-	-

Site Location:		Old Sarum, Salisbury				Job No: 41367			
Table of Mexecon Readings									
		Value given as CBR results					3 no. tests carried out per location.		
Location	Depth (mm) Start Depth	75+	150+	225+	300+	375+	450+	525+	600+
TP11	GL	1	3	7	14	NP	-	-	
		1	4	9	14	NP	-	-	
		2	5	10	14	NP	-	-	
TP12	GL	1	3	5	10	14	NP	-	-
		2	4	5	9	14	NP	-	-
		1	5	7	8	14	NP	-	-
TP13	GL	2	3	4	10	14	NP	-	-
		1	2	5	12	14	NP	-	-
		1	3	9	14	NP	-	-	-
TP14	GL	1	2	5	7	10	14	NP	-
		1	2	3	10	12	14	NP	-
		1	3	6	8	14	NP	-	-
TP15	GL	1	3	4	7	14	NP	-	-
		2	6	9	12	14	NP	-	-
		3	5	10	14	NP	-	-	-
TP16	GL	1	3	4	5	14	NP	-	-
		2	4	8	7	12	14	NP	-
		1	3	4	6	14	NP	-	-
TP17	GL	1	3	6	12	14	NP	-	-
		2	4	5	5	14	NP	-	-
		1	5	7	7	12	14	NP	-
TP18	GL	1	2	5	7	10	14	NP	-
		1	3	4	7	8	14	NP	NP
		1	3	6	7	7	12	14	NP
TP19	GL	1	2	3	6	8	14	NP	-
		2	3	4	7	14	NP	-	-
		3	2	5	9	14	NP	NP	-
TP20	GL	1	1	3	4	10	14	NP	-
		2	3	3	7	14	NP	-	-
		1	3	5	10	14	NP	-	-

Site Location:		Old Sarum, Salisbury				Job No: 41367			
Table of Mexecon Readings									
		Value given as CBR results				3 no. tests carried out per location.			
Location	Depth (mm) Start Depth	75+	150+	225+	300+	375+	450+	525+	600+
TP21	GL	2	4	8	14	NP	-	-	-
		1	4	10	10	14	NP	-	-
		1	2	4	7	14	NP	-	-
TP22	GL	2	4	6	14	NP	-	-	-
		1	3	8	12	14	NP	-	-
		1	3	7	14	NP	-	-	-
TP23	GL	1	2	3	4	7	14	NP	-
		2	1	3	5	10	14	NP	-
		2	1	3	3	5	12	14	NP
TP24	GL	1	2	4	11	14	NP	-	-
		2	7	5	12	14	NP	-	-
		3	2	4	9	14	NP	-	-
TP25	GL	1	3	4	5	8	14	NP	-
		2	4	4	6	10	14	NP	-
		2	2	3	7	12	14	NP	-
TP26	GL	1	3	4	5	7	10	14	NP
		1	2	5	3	8	10	14	NP
		2	2	4	4	7	11	14	NP
TP27	GL	1	2	3	4	8	10	14	NP
		2	1	3	5	7	10	14	NP
		2	1	4	6	7	12	14	NP
TP28	GL	1	2	3	5	8	12	14	NP
		1	2	3	9	10	14	NP	-
		2	3	4	8	10	12	14	NP
TP29	GL	2	5	9	16	14	NP	-	-
		1	3	8	12	14	NP	-	-
		2	4	7	14	NP	-	-	-
TP30	GL	1	2	5	6	14	NP	-	-
		1	3	7	14	NP	-	-	-
		2	4	7	14	NP	-	-	-

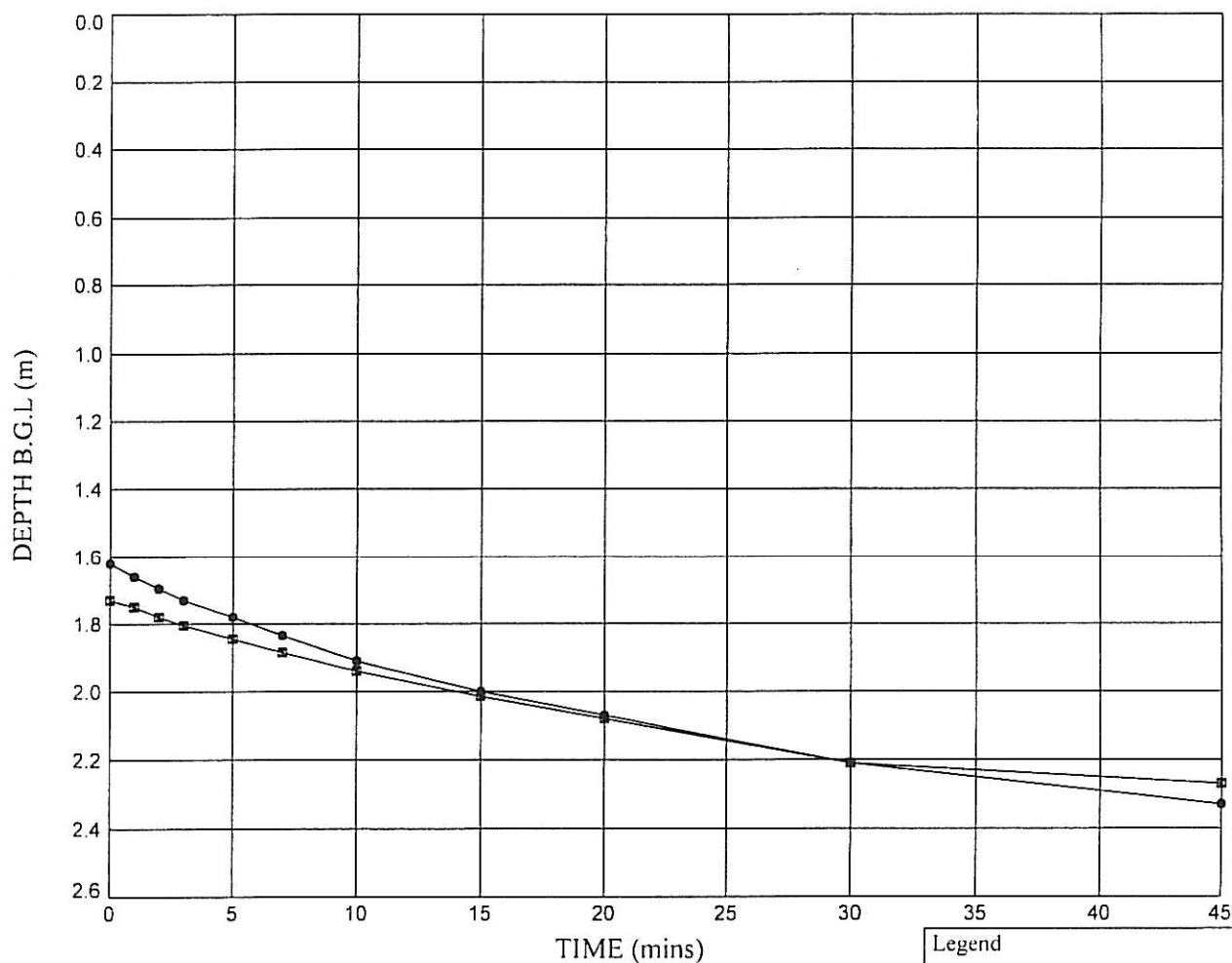
Site Location:		Old Sarum, Salisbury				Job No: 41367			
Table of Mexecone Readings									
		Value given as CBR results				3 no. tests carried out per location.			
Location	Depth (mm) Start Depth	75+	150+	225+	300+	375+	450+	525+	600+
TP31	GL	1	1	5	10	10	14	NP	-
		1	2	6	8	11	14	NP	-
		2	3	4	9	12	14	NP	-
TP32	GL	1	2	5	5	14	NP	-	-
		2	2	4	8	14	NP	-	-
		1	1	4	5	14	NP	-	-
TP33	GL	1	1	2	4	12	14	NP	-
		2	2	4	8	14	NP	-	-
		3	2	5	9	14	NP	-	-
TP34	GL	1	2	4	6	12	14	NP	-
		1	2	5	10	14	NP	-	-
		1	2	5	8	12	14	NP	-
TP35	GL	1	2	5	12	14	NP	-	-
		1	3	8	14	NP	-	-	-
		1	3	7	14	NP	-	-	-
TP36	GL	1	2	5	10	10	14	NP	-
		2	2	3	8	10	14	NP	-
		2	4	8	12	14	NP	-	-
TP37	GL	1	3	10	8	10	10	14	NP
		1	5	7	8	8	12	14	NP
		1	5	4	5	9	10	14	NP
TP38	GL	1	5	8	10	14	NP	-	-
		1	5	4	7	8	14	NP	-
		2	6	9	8	12	NP	-	-
TP39	GL	1	2	5	8	10	14	NP	-
		2	3	10	14	NP	-	-	-
		1	4	9	8	12	NP	-	-
TP40	GL	3	6	6	6	8	14	NP	-
		2	4	10	6	10	12	14	NP
		1	3	4	6	14	NP	-	-

STRUCTURAL_SOILS_6_02_GLB - SAKAWAY GPJ - STRUCTURAL_SOILS_V6_UZ_GUD | 09/02/05 - 11:26

FULL SCALE SOAKAWAY TEST

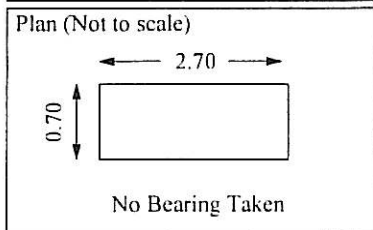
Soakaway Test Pit No. : TP2

PLOT OF DEPTH OF WATER BELOW GROUND LEVEL AGAINST TIME



Effective depth, D_e = 0.54 m
Effective storage volume, V_{p75-25} = 0.5103 m³
Surface area, a_{p50} = 3.7260 m²
Time, t_{p75-25} = 1094 secs
Infiltration rate, f = 1.25×10^{-4} m/s

Legend		
●	Test 1	(31.01.05)
⊠	Test 2	(31.01.05)



Approved Signatories: D. TROWBRIDGE A. FROST F. HAMILTON



STRUCTURAL SOILS

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Bedminster
Bristol BS3 4EB

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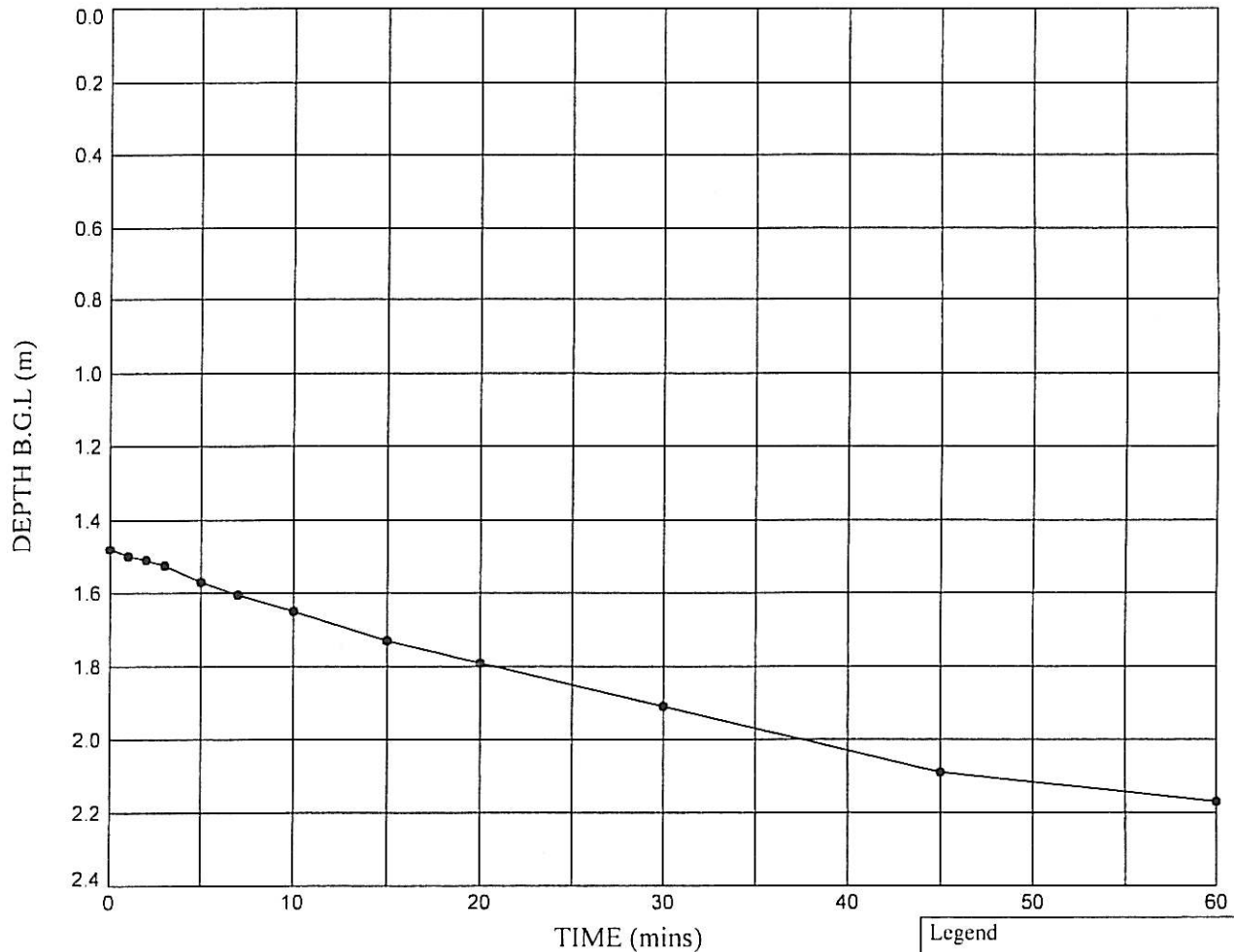
Job No

41367

FULL SCALE SOAKAWAY TEST

Soakaway Test Pit No. : TP4

PLOT OF DEPTH OF WATER BELOW GROUND LEVEL AGAINST TIME



Effective depth, D_e = 0.69 m

Effective storage volume, V_{p75-25} = 0.5917 m³

Surface area, a_{p50} = 3.8885 m²

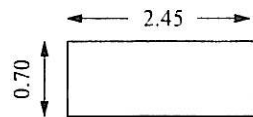
Time, t_{p75-25} = 1628 secs

Infiltration rate, f = 9.35×10^{-5} m/s

Legend

● Test 1 (31.01.05)

Plan (Not to scale)



No Bearing Taken

Approved Signatories: D. TROWBRIDGE A. FROST F. HAMILTON



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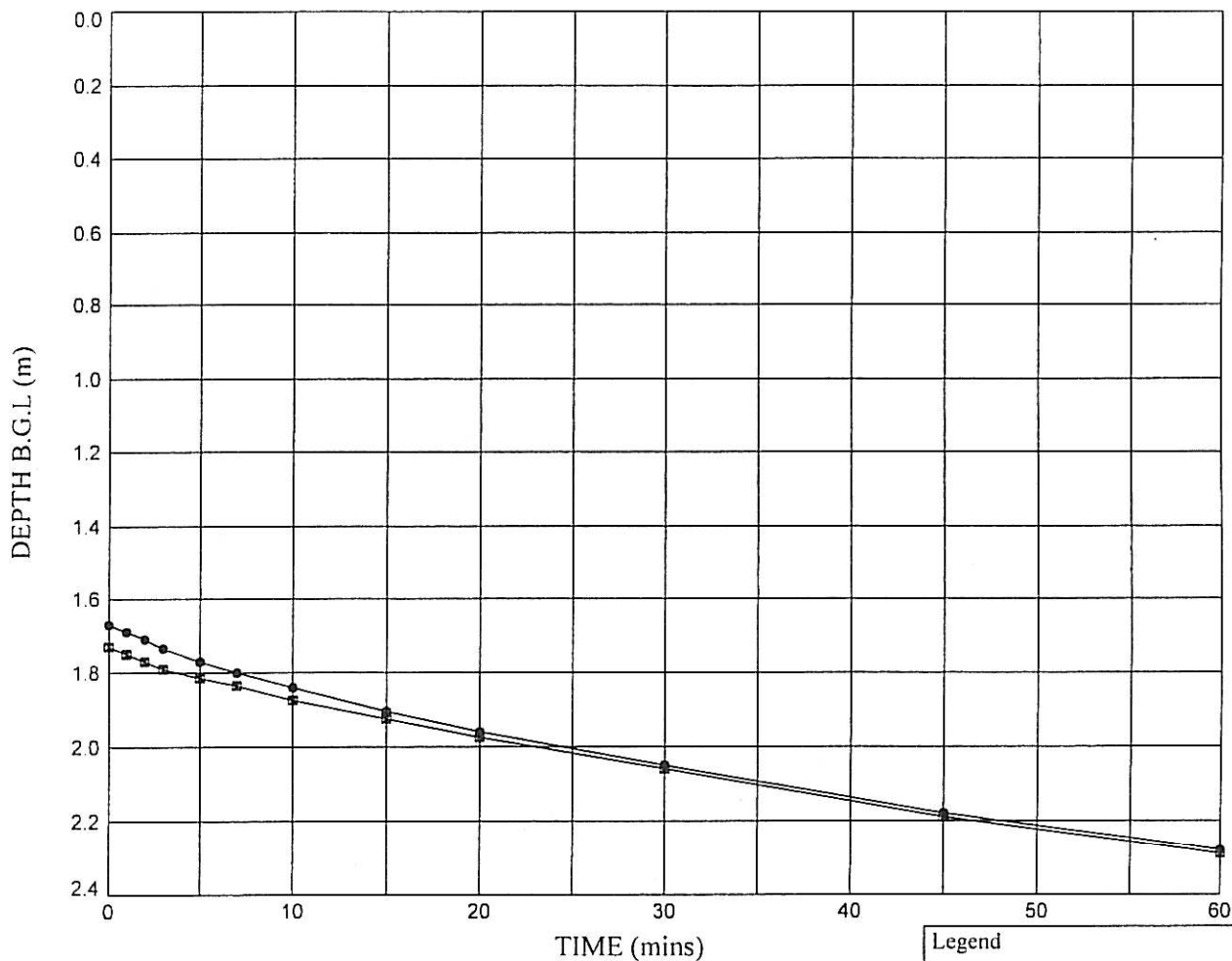
Job No

41367

FULL SCALE SOAKAWAY TEST

Soakaway Test Pit No. : TP9

PLOT OF DEPTH OF WATER BELOW GROUND LEVEL AGAINST TIME



Effective depth, D_e = 0.56 m

Effective storage volume, V_{p75-25} = 0.4900 m³

Surface area, a_{p50} = 3.5420 m²

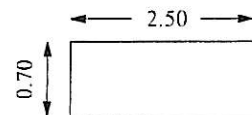
Time, t_{p75-25} = 1845 secs

Infiltration rate, f = 7.50×10^{-5} m/s

Legend

- Test 1 (01.02.05)
- ✕ Test 2 (01.02.05)

Plan (Not to scale)



No Bearing Taken

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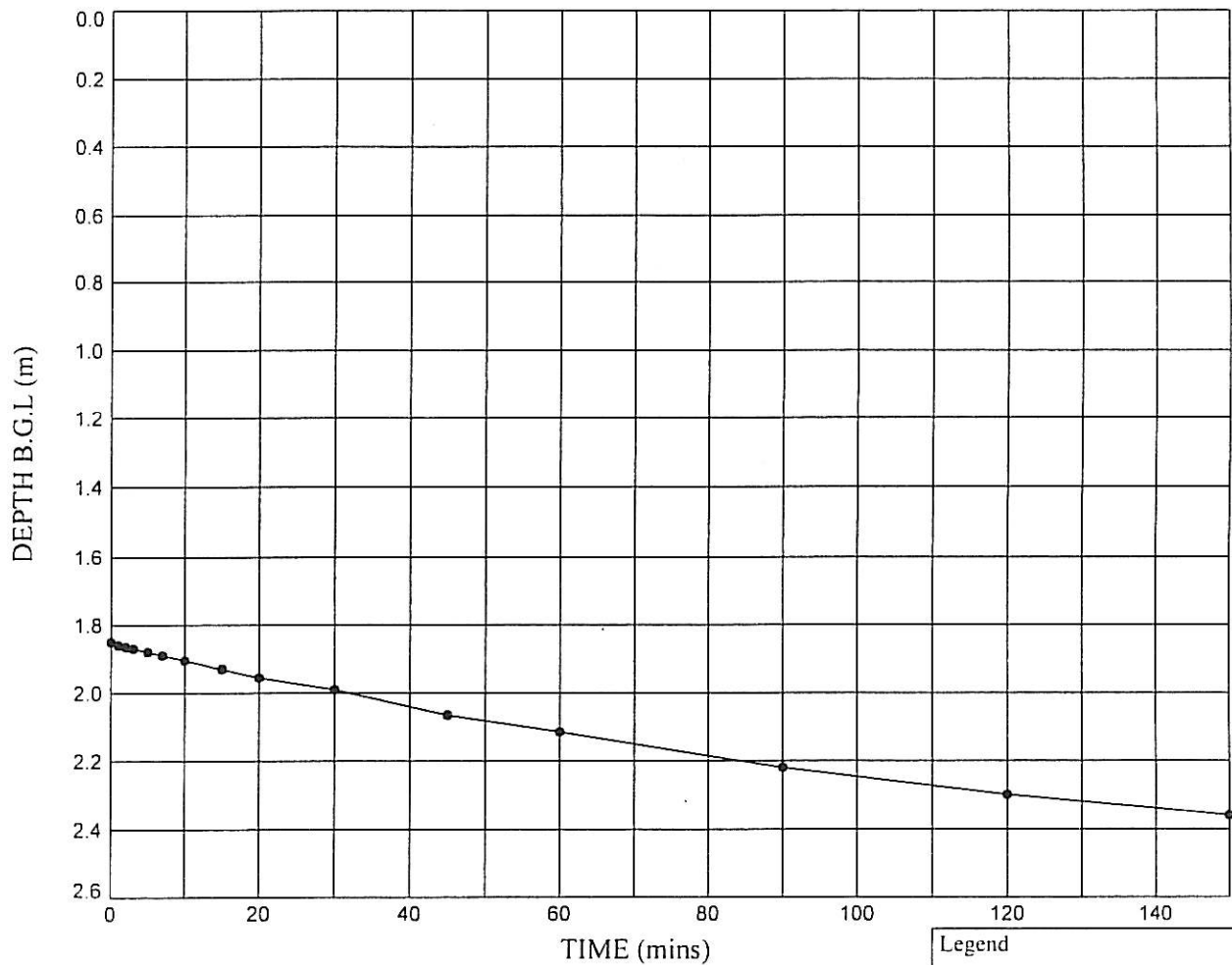
Job No

41367

FULL SCALE SOAKAWAY TEST

Soakaway Test Pit No. : TP10

PLOT OF DEPTH OF WATER BELOW GROUND LEVEL AGAINST TIME



Effective depth, D_e = 0.68 m

Effective storage volume, V_{p75-25} = 0.5950 m³

Surface area, a_{p50} = 3.9260 m²

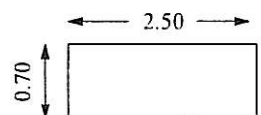
Time, t_{p75-25} = 6840 secs

Infiltration rate, f = 2.22×10^{-5} m/s

Legend

● Test 1 (01.02.05)

Plan (Not to scale)



No Bearing Taken

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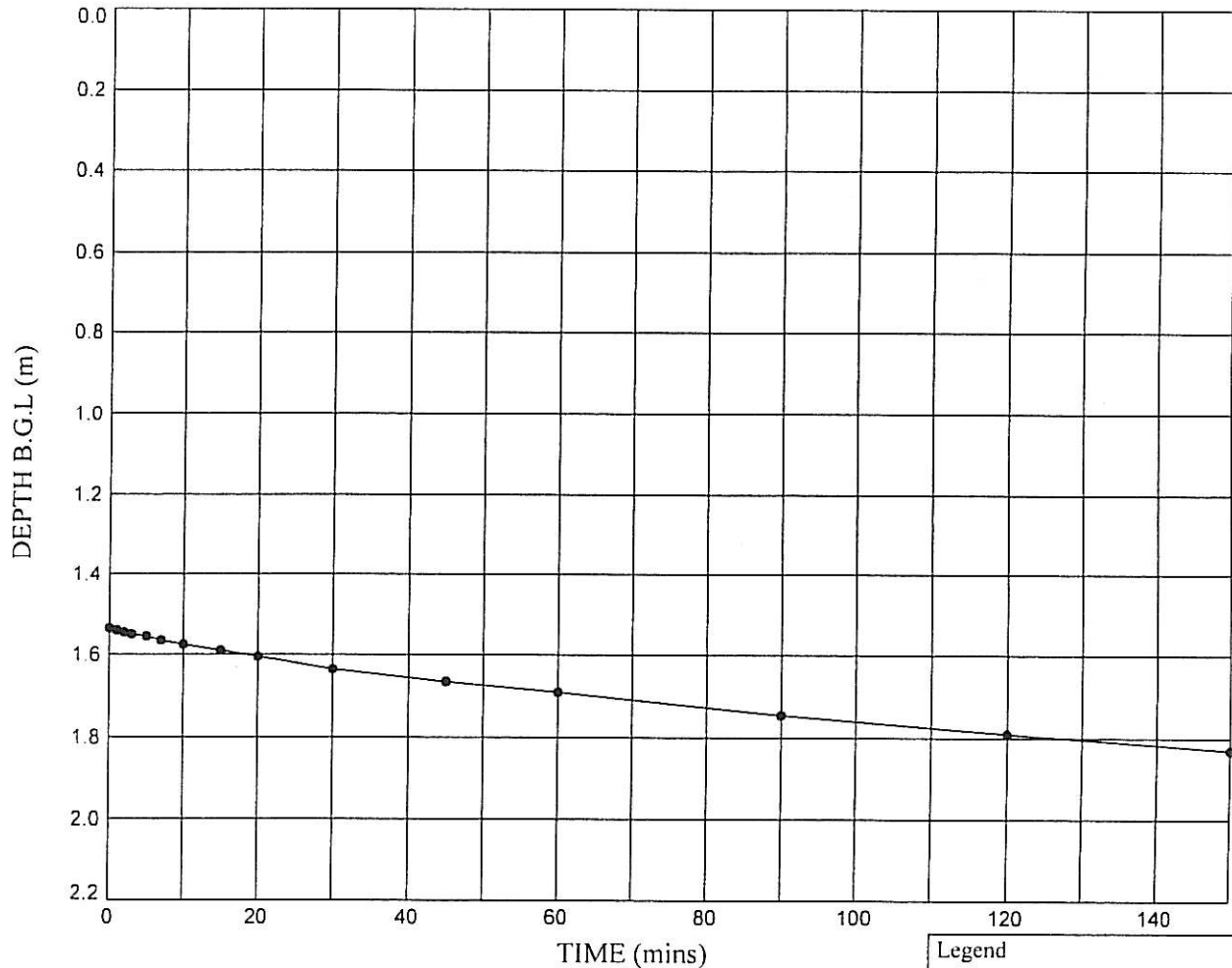
Job No

41367

FULL SCALE SOAKAWAY TEST

Soakaway Test Pit No. : TP14

PLOT OF DEPTH OF WATER BELOW GROUND LEVEL AGAINST TIME



Effective depth, D_e = 0.52 m

Effective storage volume, V_{p75-25} = 0.4506 m³

Surface area, a_{p50} = 3.3980 m²

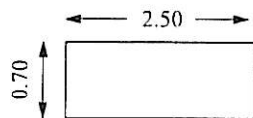
Time, t_{p75-25} = 10415 secs

Infiltration rate, f = 1.27×10^{-5} m/s

Legend

● Test 1 (01.02.05)

Plan (Not to scale)



No Bearing Taken

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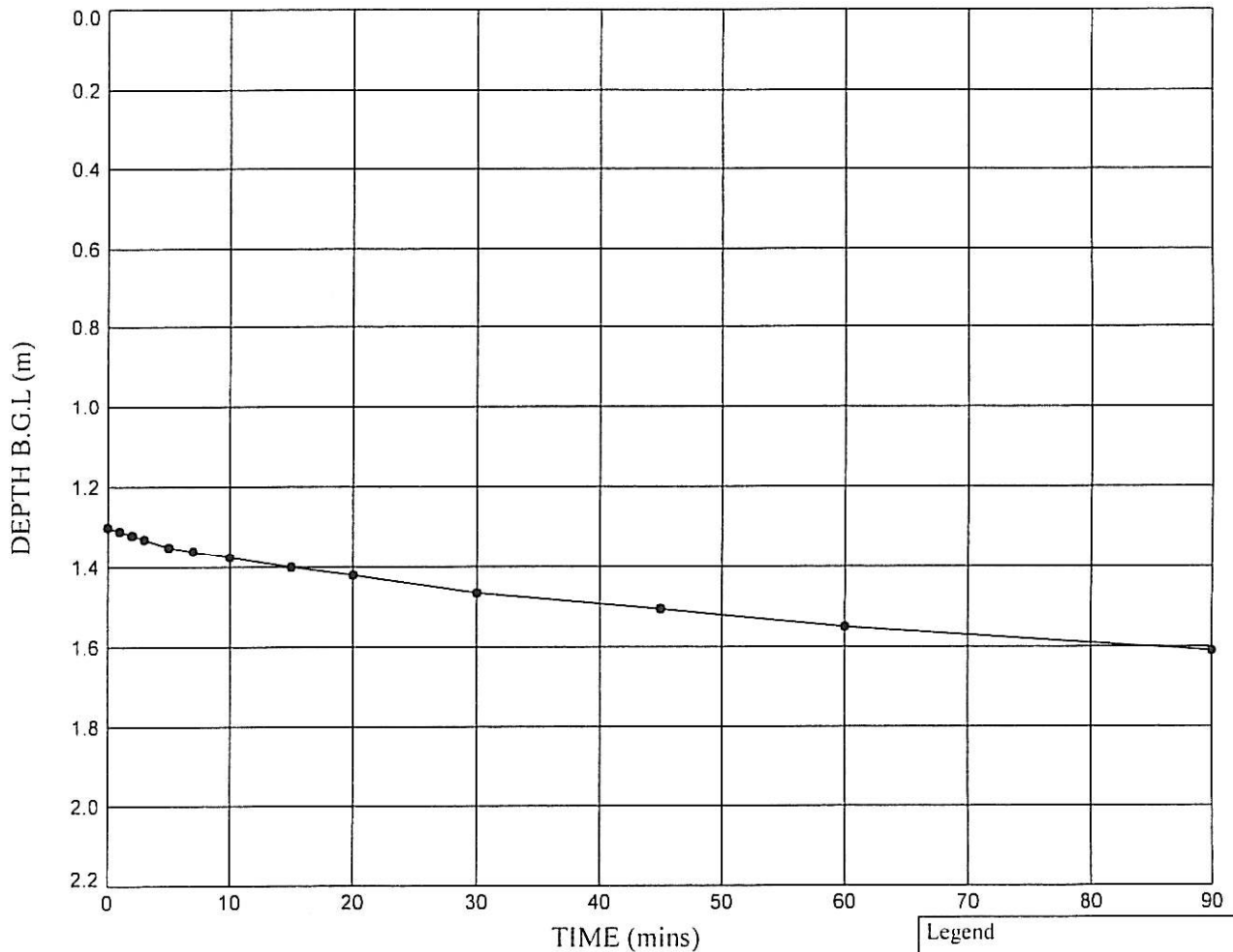
Job No

41367

FULL SCALE SOAKAWAY TEST

Soakaway Test Pit No. : TP16

PLOT OF DEPTH OF WATER BELOW GROUND LEVEL AGAINST TIME



Effective depth, D_e = 0.62 m
Effective storage volume, V_{p75-25} = 0.4557 m³
Surface area, a_{p50} = 3.2060 m²
Time, t_{p75-25} = 8412 secs
Infiltration rate, f = 1.69×10^{-5} m/s

Legend
● Test 1 (01.02.05)

Plan (Not to scale)
2.10
0.70
No Bearing Taken

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Date

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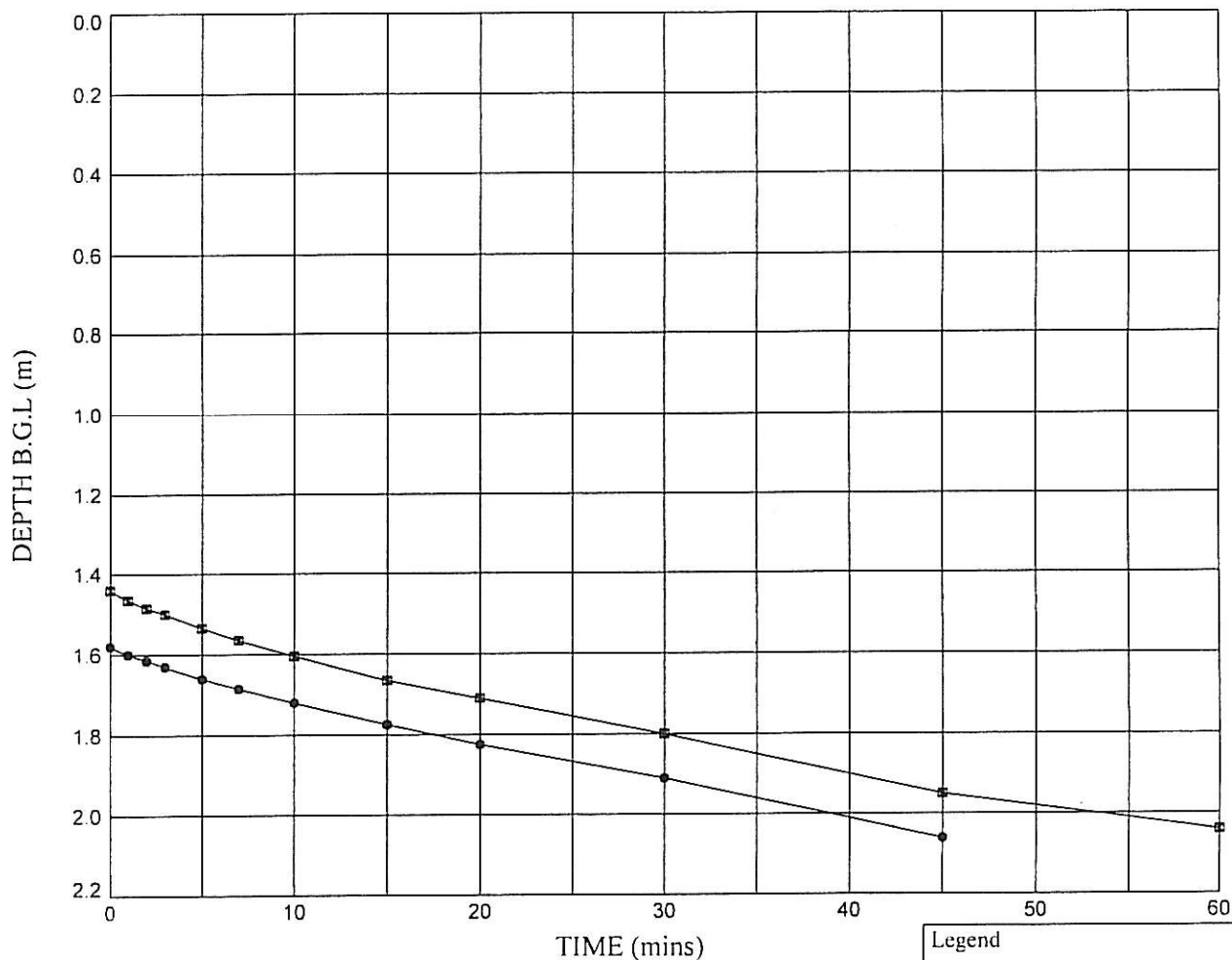
Job No

41367

FULL SCALE SOAKAWAY TEST

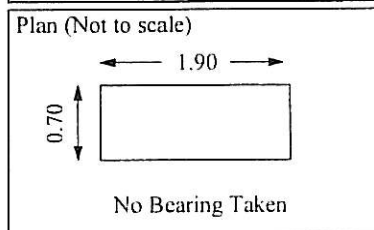
Soakaway Test Pit No. : TP21

PLOT OF DEPTH OF WATER BELOW GROUND LEVEL AGAINST TIME



Effective depth, D_e = 0.60 m
Effective storage volume, V_{p75-25} = 0.3990 m³
Surface area, a_{p50} = 2.8900 m²
Time, t_{p75-25} = 1808 secs
Infiltration rate, f = 7.64×10^{-5} m/s

Legend		
●	Test 1	(02.02.05)
☐	Test 2	(02.02.05)



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Date

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02/03

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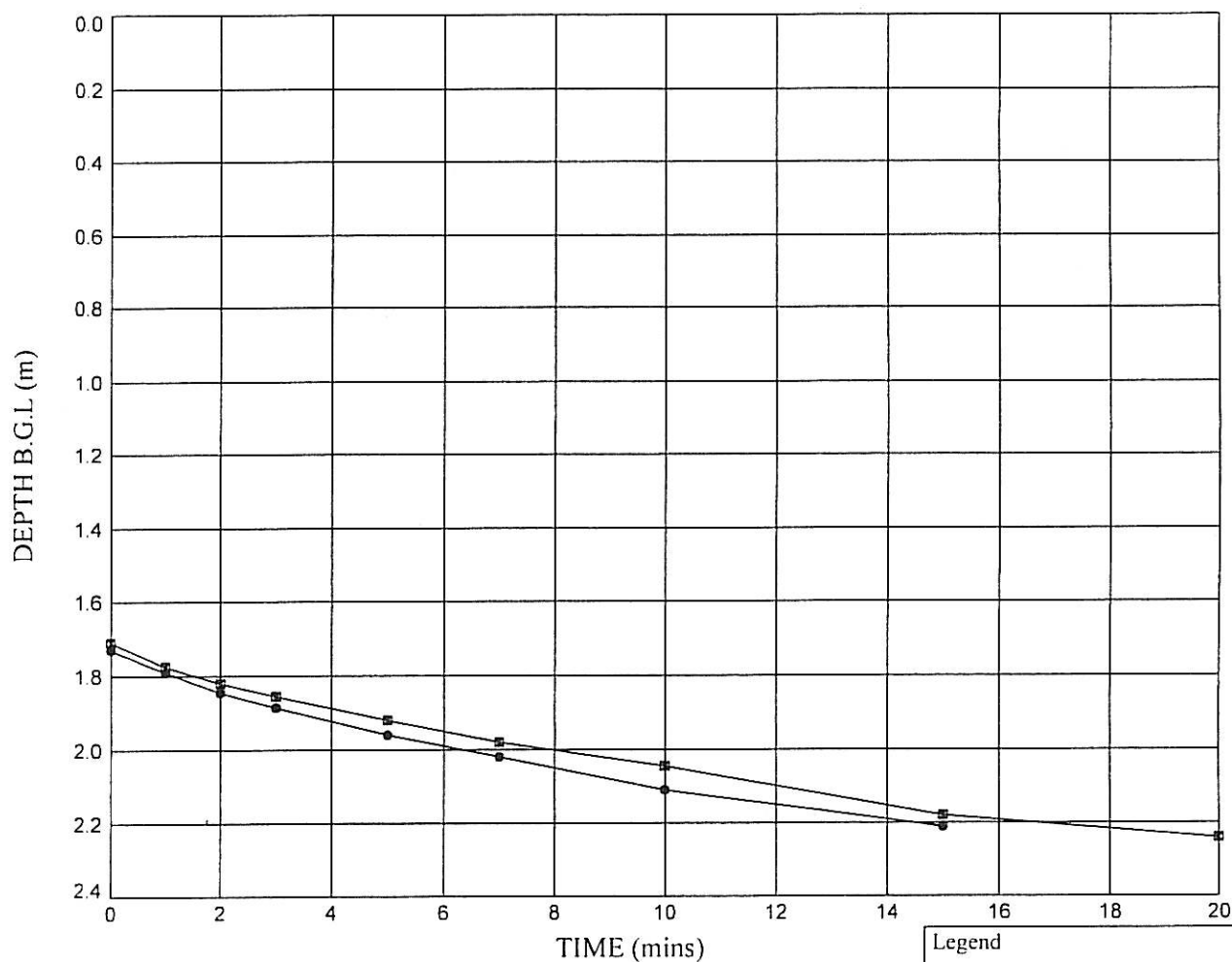
Job No

41367

FULL SCALE SOAKAWAY TEST

Soakaway Test Pit No. : TP22

PLOT OF DEPTH OF WATER BELOW GROUND LEVEL AGAINST TIME



Effective depth, D_e = 0.53 m

Effective storage volume, V_{p75-25} = 0.4267 m³

Surface area, a_{p50} = 3.2000 m²

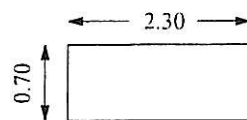
Time, t_{p75-25} = 580 secs

Infiltration rate, f = 2.30×10^{-4} m/s

Legend

- Test 1 (02.02.05)
- Test 2 (02.02.05)

Plan (Not to scale)



No Bearing Taken

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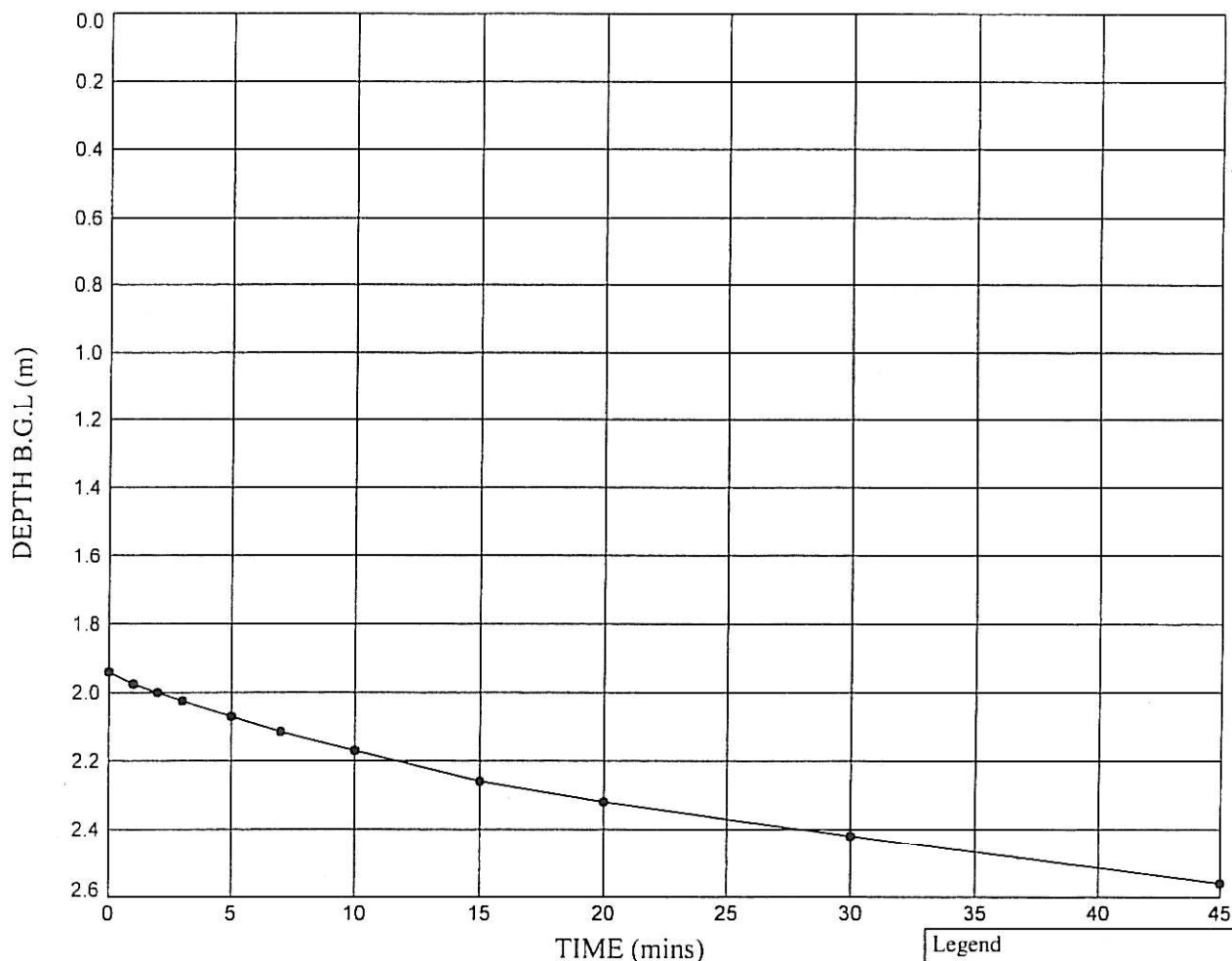
Job No

41367

FULL SCALE SOAKAWAY TEST

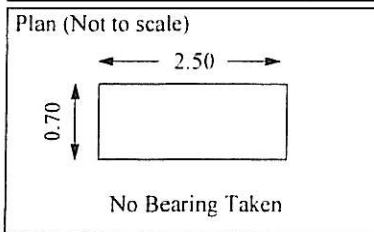
Soakaway Test Pit No. : TP29

PLOT OF DEPTH OF WATER BELOW GROUND LEVEL AGAINST TIME

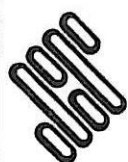


Effective depth, D_e = 0.70 m
 Effective storage volume, V_{p75-25} = 0.6125 m³
 Surface area, a_{p50} = 3.9900 m²
 Time, t_{p75-25} = 1669 secs
 Infiltration rate, f = 9.20×10^{-5} m/s

Legend
 ● Test 1 (03.02.05)



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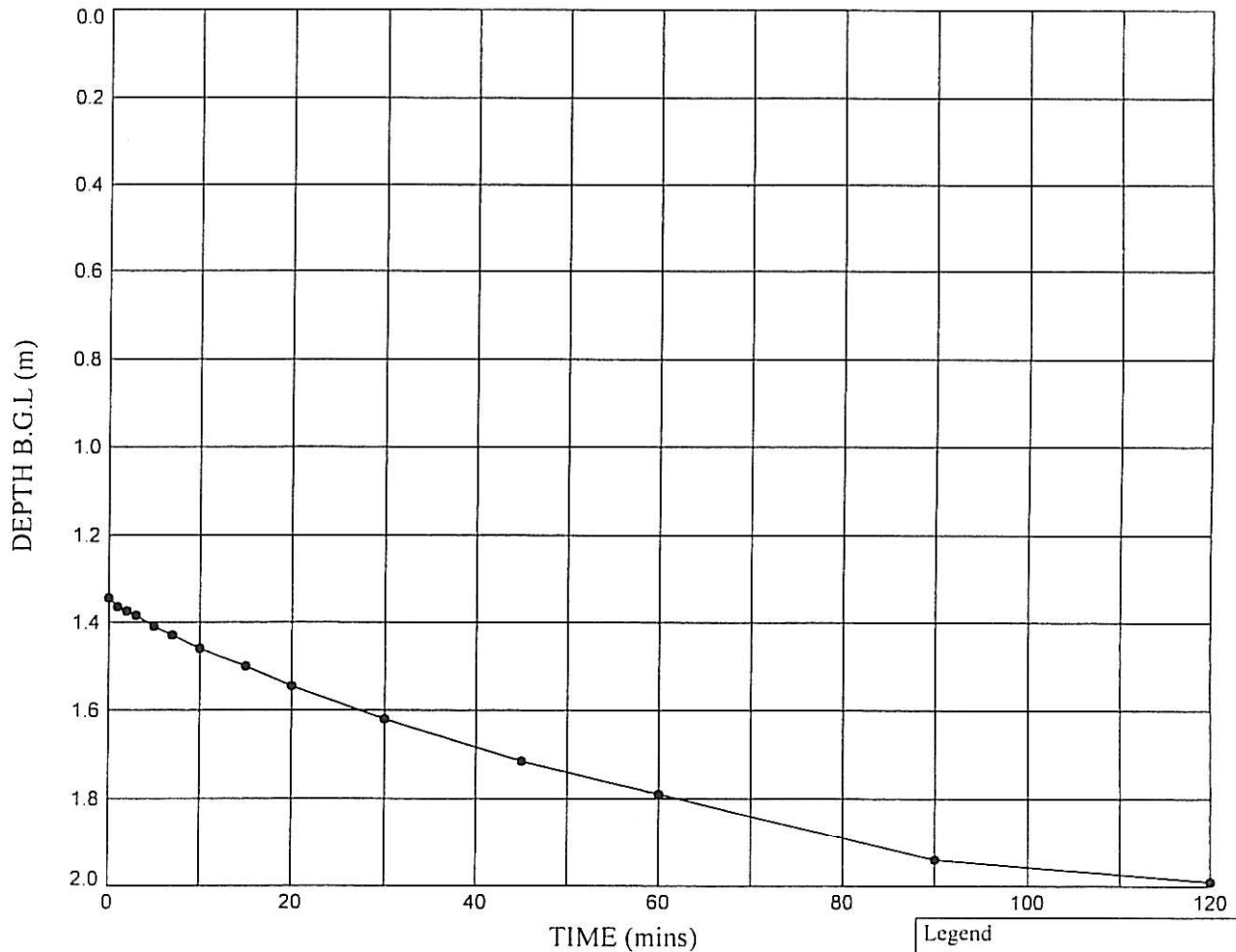
Job No

41367

FULL SCALE SOAKAWAY TEST

Soakaway Test Pit No. : TP30

PLOT OF DEPTH OF WATER BELOW GROUND LEVEL AGAINST TIME



Effective depth, D_e = 0.65 m

Effective storage volume, V_{p75-25} = 0.5192 m³

Surface area, a_{p50} = 3.5450 m²

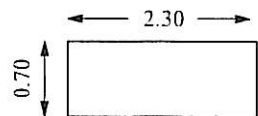
Time, t_{p75-25} = 3123 secs

Infiltration rate, f = 4.69×10^{-5} m/s

Legend

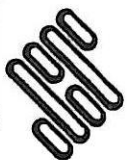
● Test 1 (03.02.05)

Plan (Not to scale)



No Bearing Taken

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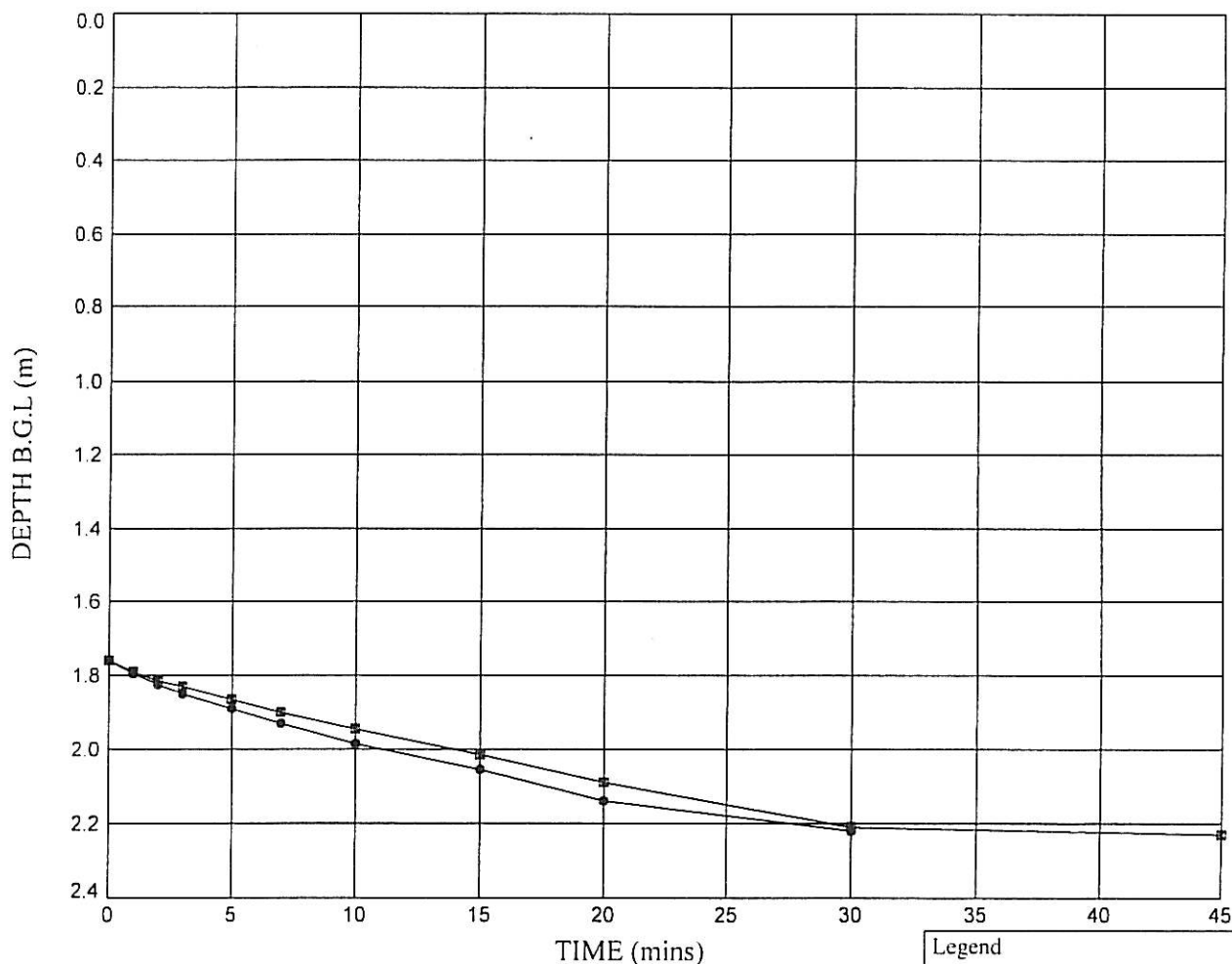
Job No

41367

FULL SCALE SOAKAWAY TEST

Soakaway Test Pit No. : TP33

PLOT OF DEPTH OF WATER BELOW GROUND LEVEL AGAINST TIME



Effective depth, D_e = 0.47 m
 Effective storage volume, V_{p75-25} = 0.3866 m³
 Surface area, a_{p50} = 3.0785 m²
 Time, t_{p75-25} = 969 secs
 Infiltration rate, f = 1.30×10^{-4} m/s

Legend

- Test 1 (03.02.05)
- ✕ Test 2 (03.02.05)

Plan (Not to scale)

No Bearing Taken

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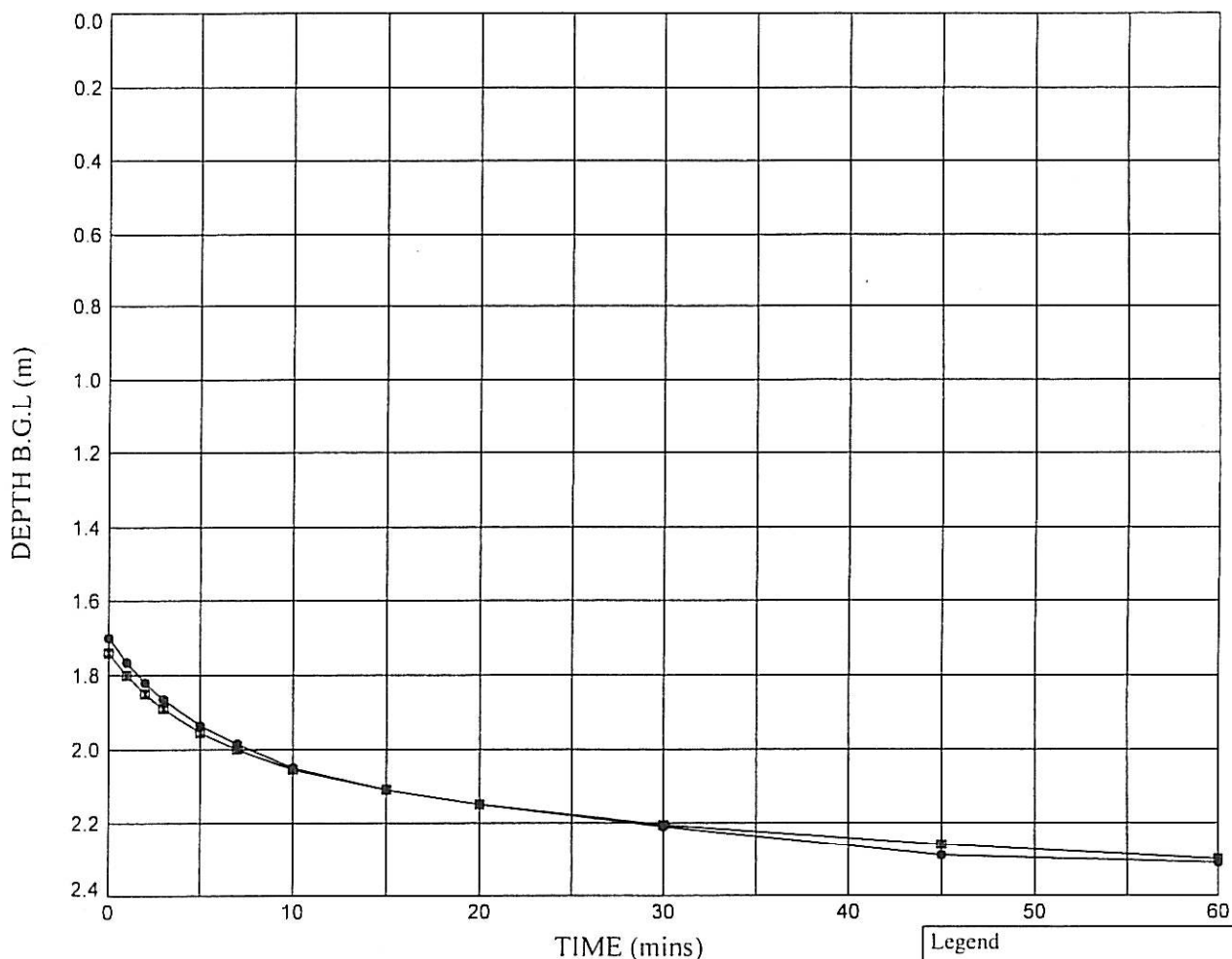
Job No

41367

FULL SCALE SOAKAWAY TEST

Soakaway Test Pit No. : TP35

PLOT OF DEPTH OF WATER BELOW GROUND LEVEL AGAINST TIME



Effective depth, D_e = 0.56 m

Effective storage volume, V_{p75-25} = 0.4900 m³

Surface area, a_{p50} = 3.5420 m²

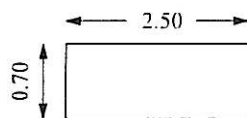
Time, t_{p75-25} = 1144 secs

Infiltration rate, f = 1.21×10^{-4} m/s

Legend

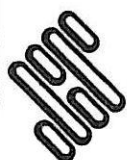
- Test 1 (03.02.05)
- ⊠ Test 2 (03.02.05)

Plan (Not to scale)



No Bearing Taken

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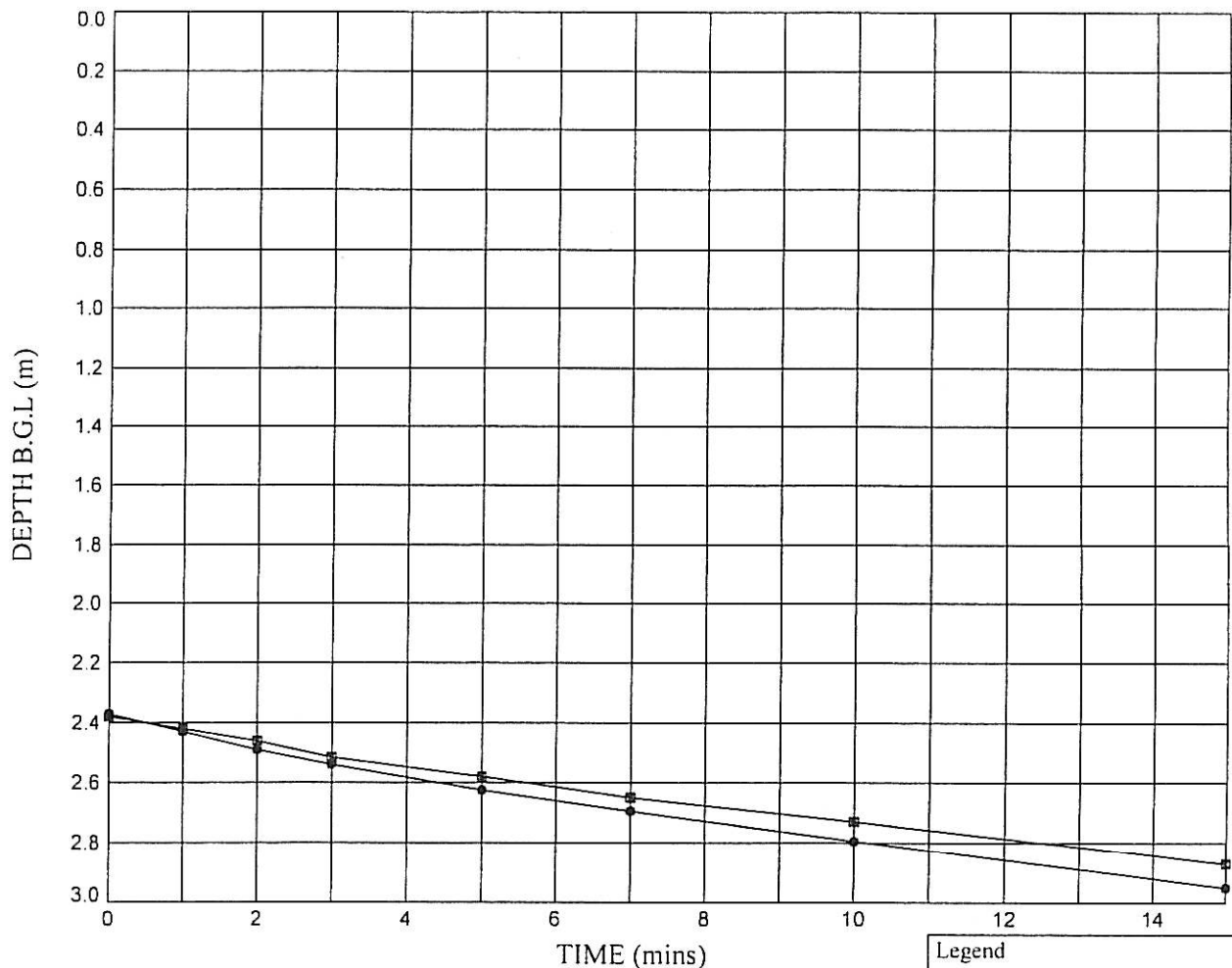
Job No

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FULL SCALE SOAKAWAY TEST

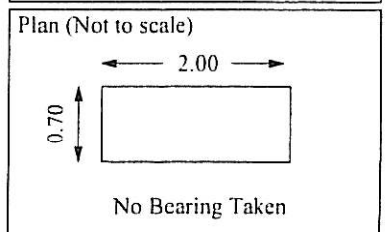
Soakaway Test Pit No. : TP38

PLOT OF DEPTH OF WATER BELOW GROUND LEVEL AGAINST TIME

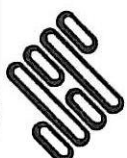


Effective depth, D_e = 0.49 m
 Effective storage volume, V_{p75-25} = 0.3430 m³
 Surface area, a_{p50} = 2.7230 m²
 Time, t_{p75-25} = 471 secs
 Infiltration rate, f = 2.67×10^{-4} m/s

Legend		
●	Test 1	(04.02.05)
⊠	Test 2	(04.02.05)



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STRUCTURAL SOILS

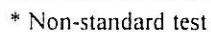
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Contract Old Sarum, Salisbury		Job No 41367	

APPENDIX D

(i) Laboratory Test Results

Testing in accordance with clauses 3.2,4.3,4.4,5.3,5.4 of BS1377:Part 2:1990



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SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with clauses 3.2, 4.3, 4.4, 5.3, 5.4, 7.2, 8.2, 8.3 of BS1377:Part 2:1990

Hole Reference	Sample No	Sample Type	Depth m	Moisture Content %	Bulk Density Mg/m ³	Dry Density Mg/m ³	Particle Density Mg/m ³	Liquid Limit %	Plastic Limit %	Plasticity Index %	% <425um	Description of Sample
TP1	2	B	0.80	29								Off white stained brown CHALK
TP1	3	B	1.50	29								Off white CHALK
TP1	4	B	2.50	27								Off white CHALK
TP2	3	B	0.50	26								Off white CHALK
TP2	4	D	1.50	26								Off white CHALK
TP5	3	B	0.70	28								Off white CHALK
TP8	4	D	1.90	28								White CHALK
TP14	4	D	1.30	29								White CHALK

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 STRUCTURAL SOILS The Old School Stillhouse Lane Bedminster Bristol BS3 4EB	Compiled By 	Date 07.03.05	Checked By 	Date 7/3/05	Job No 41367
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SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with clauses 3.2,4.3,4.4,5.3,5.4,7.2,8.2,8.3 of BS1377:Part 2:1990

Hole Reference	Sample No	Sample Type	Depth m	Moisture Content %	Bulk Density Mg/m ³	Dry Density Mg/m ³	Particle Density Mg/m ³	Liquid Limit %	Plastic Limit %	Plasticity Index %	% <425um	Description of Sample
TP17	3	B	0.90	24								Off white CHALK
TP19	2	D	0.30	24				34	24	10	76	Greyish brown CHALK
TP23	2	D	0.70	16				30	19	11	81	Light brown and white CHALK with a little brown clay
TP23	4	B	1.60	12								Off white CHALK
TP23	5	B	2.30	27								Off white CHALK
TP27	3	B	0.60	21								Brown and white CHALK with a little brown clay
TP28	2	B	0.30	16				30	18	11	75	Greyish brown slightly gravelly CHALK
TP29	3	B	0.60	29								Off white CHALK

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SUMMARY OF SOIL CLASSIFICATION TESTS

In accordance with clauses 3.2, 4.3, 4.4, 5.3, 5.4, 7.2, 8.2, 8.3 of BS1377:Part 2:1990

Job Reference	Sample No	Sample Type	Depth m	Moisture Content %	Bulk Density Mg/m ³	Dry Density Mg/m ³	Particle Density Mg/m ³	Liquid Limit %	Plastic Limit %	Plasticity Index %	% <425µm	Description of Sample
TP29	4	D	0.90	28								White CHALK
TP29	6	D	2.50	25								White CHALK
TP30	3	B	0.80	26								Off white CHALK
TP30	4	B	1.30	28								Off white CHALK
TP31	3	D	0.80	26								White CHALK
TP34	3	B	0.80	27								Off white CHALK
TP37	3	B	1.00	28								Brown and white CHALK with a little brown clay
TP38	3	D	0.70	22				68	44	24	50	Dark brown gravelly SILT

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In accordance with clauses 3.2, 4.3, 4.4, 5.3, 5.4, 7.2, 8.2, 8.3 of BS1377:Part 2:1990



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STRUCTURAL SOILS_V6_02GLB SUMMARY OF CLASSIFICATION TESTS - J1367 OLD SARUM SALISBURY GPJ | 07/03/05 | 11:24

SUMMARY OF CHALK TESTS

In accordance with clause 3.3 of BS1377:Part 2:1990, clause 6 of BS1377:Part 4:1990 and ISRM Suggested Methods:1981

Hole Reference	Sample No	Sample Type	Depth m	Moisture Content %	Bulk Density Mg/m ³	Dry Density Mg/m ³	Saturated Moisture Content %	Porosity %	CCV %	% > 10 mm	Description of Sample
TP2	5	B	2.10	26	1.99	1.58	26		3.7	52	White CHALK
TP3	4	B	1.10	27	1.95	1.54	28				White CHALK
TP5	4	B	1.70	28	1.92	1.50	30				White CHALK
TP8	3	B	0.80	27	1.97	1.55	27				White CHALK
TP10	4	B	1.30	28	1.96	1.53	28		3.6	54	Off white CHALK
TP14	3	B	0.80	26	1.91	1.51	29				White CHALK
TP15	4	B	1.20	26	1.97	1.57	27				White CHALK
TP17	4	B	1.60	20	2.01	1.69	22		3.5	54	White CHALK

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STRUCTURAL SOILS The Old School Stillhouse Lane Bedminster Bristol BS3 4EB	Contract	Compiled By	Date	Checked By	Date	Job No
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Old Sarum, Salisbury



SUMMARY OF CHALK TESTS

In accordance with clause 3.3 of BS1377:Part 2:1990, clause 6 of BS1377:Part 4:1990 and ISRM Suggested Methods:1981

Hole Reference	Sample No	Sample Type	Depth m	Moisture Content %	Bulk Density Mg/m ³	Dry Density Mg/m ³	Saturated Moisture Content %	Porosity %	CCV %	% > 10 mm	Description of Sample
TP17	6	B	3.00	25	1.99	1.59	26				White CHALK
TP18	4	B	1.40	27	1.96	1.54	28				White CHALK
TP21	5	B	1.50	29	1.94	1.51	29				White CHALK
TP22	3	B	0.80	28	1.97	1.54	28				White CHALK
TP25	4	B	1.60	28	1.93	1.51	29				White CHALK
TP27	5	B	1.70	23	1.96	1.60	26				White CHALK
TP27	6	B	2.90	29	1.95	1.52	29				White CHALK
TP29	5	B	2.00	27	1.96	1.54	28		3.5	90	White CHALK

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 STRUCTURAL SOILS The Old School Stillhouse Lane Bedminster Bristol BS3 4EB	Compiled By 	Date 07.03.05	Checked By 	Date 7/3/05	Job No 41367
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SUMMARY OF CHALK TESTS

In accordance with clause 3.3 of BS1377:Part 2:1990, clause 6 of BS1377:Part 4:1990 and ISRM Suggested Methods:1981

Hole Reference	Sample No	Sample Type	Depth m	Moisture Content %	Bulk Density Mg/m ³	Dry Density Mg/m ³	Saturated Moisture Content %	Porosity %	CCV %	% > 10 mm	Description of Sample
TP30	5	B	2.00	28	1.95	1.52	29				White CHALK
TP31	4	B	1.20	24	1.97	1.59	26				Off white CHALK
TP31	5	B	2.20	29	1.91	1.48	31				White CHALK
TP33	4	B	1.40	20	2.05	1.71	21				White CHALK
TP34	4	B	1.40	28	1.96	1.53	28				White CHALK
TP34	6	B	3.00	28	1.95	1.52	29				White CHALK
TP36	4	B	1.20	21	1.99	1.64	24				White CHALK
TP36	6	B	2.90	26	1.99	1.58	26		3.4	77	White CHALK

Approved Signatories: D. TROWBRIDGE A. FROST F. HAMILTON

STRUCTURAL SOILS The Old School Stillhouse Lane Bedminster Bristol BS3 4EB	Compiled By	Date	Checked By	Date	Job No
	 Contract	07.03.05		7/3/05	

41367

Old Sarum, Salisbury



SUMMARY OF CHALK TESTS

In accordance with clause 3.3 of BS1377:Part 2:1990, clause 6 of BS1377:Part 4:1990 and ISRM Suggested Methods:1981

[illegible]

Approved Signatories: D. TROWBRIDGE A. FROST F. HAMILTON

Job No

Checked By _____

Date _____

Compiled By

STRUCTURAL SOILS

The Old School
Stillhouse Lane
Bedminster
Bristol BS3 4EB

41367

Old Sarum, Salisbury

STRUCTURAL SOILS_V6_02GLB_SUMMARY OF CHALK TESTS - 41367 OLD SARUM SALISBURY GP1 07/03/05 14 12



SUMMARY OF CHEMICAL ANALYSES

In accordance with clauses 5, 9 of BS1377:Part 3:1990.

Hole Reference	Sample No	Sample Type	Depth m	Sulphate (SO ₄) Content #			Chloride Content		pH Value	Percent Passing 2 mm %	Description
				Acid Soluble Sulphate as % SO ₄	Aqueous Extract as g/l SO ₄ ⁺	Ground-water as g/l SO ₄	Soluble Chloride as % Cl	Ground-water as g/l Cl			
TP2	4	D	1.50		0.06				9.1	100	Off white CHALK
TP3	3	D	0.60		0.05				9.2	100	Off white CHALK
TP4	3	B	0.70		0.07				9.1	100	Off white CHALK
TP6	4	D	1.70		0.06				9.5	100	Off white CHALK
TP7	3	B	0.70		0.05				9.7	100	Off white CHALK
TP9	3	D	0.70		0.05				9.4	100	Off white CHALK
TP10	4	B	1.30		0.07				8.9	100	Off white CHALK
TP11	3	D	0.70		0.06				9.0	100	Off white CHALK

NOTES : + In 2:1 water:soil extract

Calculated as SO₃ to BS1377:Part 3:1990, reported as SO₄ (SO₄ = SO₃ x 1.2)

All chemical tests were undertaken by an external laboratory.

SO₄ results for soil are for material <2mm

Approved Signatories: D. TROWBRIDGE A. FROST F. HAMILTON

 STRUCTURAL SOILS The Old School Stillhouse Lane Bedminster Bristol BS3 4EB	Compiled By	Date	Checked By	Date	Job No
		04.03.05		7/3/05	41367
Contract Old Sarum, Salisbury					



SUMMARY OF CHEMICAL ANALYSES

In accordance with clauses 5, 9 of BS1377:Part 3:1990.

Hole Reference	Sample No	Sample Type	Depth m	Sulphate (SO ₄) Content #			Chloride Content		pH Value	Percent Passing 2 mm %	Description
				Acid Soluble Sulphate as % SO ₄	Aqueous Extract as g/l SO ₄ ²⁻	Ground-water as g/l SO ₄	Soluble Chloride as % Cl	Ground-water as g/l Cl			
TP13	3	B	0.80		0.05				9.1	100	Off white CHALK
TP15	3	D	0.80		0.05				8.7	100	Off white stained light brown CHALK
TP16	3	B	1.20		0.06				9.4	100	Off white CHALK
TP20	5	D	1.10		0.08				9.4	100	Off white CHALK
TP21	3	B	0.70		0.08				8.6	100	Brown mottled off white CHALK
TP22	4	D	1.20		0.10				9.2	100	Off white CHALK
TP23	3	D	1.10		0.07				9.1	100	Light brown mottled brown CHALK
TP25	3	D	1.10		0.11				9.4	100	Off white CHALK

NOTES : + In 2:1 water:soil extract
Calculated as SO₃ to BS1377:Part 3:1990, reported as SO₄ (SO₄ = SO₃ x 1.2)
All chemical tests were undertaken by an external laboratory.
SO₄ results for soil are for material <2mm

Approved Signatories: D. TROWBRIDGE A. FROST F. HAMILTON

 STRUCTURAL SOILS The Old School Stillhouse Lane Bedminster Bristol BS3 4EB	Completed By	Date	Checked By	Date	Job No
		04.03.05		7/3/05	41367
Old Sarum, Salisbury					
					

APPENDIX E

(i) Contamination Test Results



SUMMARY OF CONTAMINATION ANALYSIS: SOIL

SITE: SALISBURY

REF: 41367

DATE: APRIL 2005

STRUCTURAL
SOILS LTD

SAMPLE LOCATION	TP1 D1	TP5 D1	TP9 B2	TP10 D2	TP12 D1	TP15 D2	TP21 D2
DEPTH (m)	0.1	0.1	0.3	0.3	0.1	0.3	0.3
✓ Arsenic	5	4	<1	<1	4	<1	<1
✓ Cadmium	1.5	1.5	0.6	0.8	1.3	<0.5	0.6
✓ Chromium (total)	26	22	6	8	22	4	8
Copper	27	8	2	4	18	<1	4
✓ Mercury	<1	<1	<1	<1	<1	<1	<1
Mineral Oil	<10	<10	26	18	<10	<10	<10
Nickel	19	16	5	5	14	3	6
PAH (Dutch 10)	0.7	0.14	<0.05	<0.05	0.34	<0.05	<0.05
✓ Lead	71	49	6	12	67	<1	2
pH (units)	8	7.9	8.24	8.12	7.96	8.22	8.24
✓ Selenium	<1	2	1	2	2	<1	1
✓ Sulphate (SO4 in 2:1 extract g/l)	0.01	0.012	0.01	0.008	0.012	0.01	0.007
Zinc	92	77	24	27	76	16	22
Benzo(a)pyrene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Results are expressed as mg/kg unless otherwise stated

Any outlier values which exceed relevant SGVs are shown in bold.

Checked by/Date: JS 04/05

Antimony
Chromium (hexavalent)
Cyanide (free
Cyanide (complexed)
Thiocyanate
Coal Tar



SUMMARY OF CONTAMINATION ANALYSIS: SOIL

SITE: SALISBURY
REF: 41367
DATE: APRIL 2005

STRUCTURAL
SOILS LTD

SAMPLE LOCATION	TP23 D2	TP30 D2	TP31 D2	TP33 D1	TP34 D1	TP38 D2	TP39 D3
DEPTH (m)	0.7	0.3	0.3	0.1	0.1	0.3	2.3
Arsenic	<1	<1	<1	2	2	6	<1
Cadmium	0.6	0.7	0.6	1.1	1.4	1.3	0.8
Chromium (total)	15	7	4	20	24	31	12
Copper	7	4	3	11	14	24	8
Mercury	<1	<1	<1	<1	<1	<1	<1
Mineral Oil	<10	<10	<10	<10	<10	<10	<10
Nickel	12	5	4	18	17	24	10
PAH (Dutch 10)	<0.05	<0.05	<0.05	0.35	0.21	0.37	0.16
Lead	4	2	<1	14	23	53	12
pH (units)	8.27	8.23	8.33	7.98	7.96	7.76	8.05
Selenium	2	2	1	1	2	<1	1
Sulphate (SO4 in 2:1 extract g/l)	0.007	0.01	0.01	0.01	0.013	0.028	0.073
Zinc	35	26	20	72	90	140	60
Benzo(a)pyrene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Results are expressed as mg/kg unless otherwise stated
Any outlier values which exceed relevant SGVs are shown in bold.

Checked by/Date: JS 04/05



SUMMARY OF CONTAMINATION ANALYSIS: SOIL

SITE: SALISBURY
REF: 41367
DATE: APRIL 2005

STRUCTURAL
SOILS LTD

SAMPLE LOCATION	TP40 D1
DEPTH (m)	0.2
Arsenic	4
Cadmium	1
Chromium (total)	27
Copper	25
Mercury	<1
Mineral Oil	<10
Nickel	20
PAH (Dutch 10)	3.24
Lead	68
pH (units)	7.85
Selenium	2
Sulphate (SO ₄ in 2:1 extract g/l)	0.014
Zinc	116
Benzo(a)pyrene	0.32

Results are expressed as mg/kg unless otherwise stated
Any outlier values which exceed relevant SGVs are shown in bold.

Checked by/Date: JS 04/05

SUMMARY OF CONTAMINATION ANALYSIS: SOIL

SITE: SALISBURY
REF: 41367
DATE: APRIL 2005

STRUCTURAL
SOILS LTD

	Mean Value Test *	Other Guidelines		CLEA Guidelines For Residential use (mg/kg)	
	US ₉₅			With plant uptake	Without plant uptake
Arsenic	3.13	-	-	20	20
Cadmium	1.12	-	-	1 (pH 6) 2 (pH 7) 8 (pH 8)	30
Chromium (total)	19.96	-	-	130	200
Copper	14.70	190 _{F1,D}	-	-	-
Mercury	1.00	-	-	8	15
Mineral Oil	13.64	2525 _{A, F3} 505 _{AA, F3}	5000 _{D, F3} 1000 _{AD, F3}	-	-
Nickel	15.01	210 _D	-	50	75
PAH (Dutch 10)	0.76	20.5 _A # 61.5 _{AA}	40 _D # 120 _{DD}	-	-
Lead	22.20	-	-	450	450
Selenium	1.70	-	-	35	260
Zinc	77.27	9000 _{F2}	720 _D	-	-
Benzo(a)pyrene	0.10	-	-	-	-

Results expressed as mg/kg air dried unless otherwise stated.

* - The calculations for the mean value test include outliers

- A: Dutch assessment level for a 'standard' soil with 10% or less organic matter (human, plant + animal health)
- D: Dutch action level for a 'standard' soil with 10% or less organic matter (human, plant + animal health)
- AA: Adjusted Dutch assessment level for soils with 30% or more organic matter (human, plant + animal health)
- AD: Adjusted Dutch action level for soils with 30% or more organic matter (human, plant + animal health)
- C: Canadian
- F1: French system uses Dutch guideline for sensitive uses
- F2: French guideline for sensitive uses (no commercial limit set) (human health)
- F3: French system uses (for sensitive uses) Dutch guidelines for mineral oil (aliphatic hydrocarbons)
- F4: French guideline for sensitive uses
- F5: French guideline for free cyanide
- F6: French guideline for total cresols
- A1: Australian guideline for residential use
- A2: Australian
- B: Concrete protection, BRE Special Digest 1
- C: Canadian
- # For organic matter of between 10% and 30%, a correction formula is used

Checked by/Date:

JJ 04/05



SUMMARY OF PAH RESULTS: SOIL

SITE: SALISBURY

REF: 41367

DATE: APRIL 2005

STRUCTURAL
SOILS LTD

Sample Location	TP1 D1	TP5 D1	TP9 B2	TP10 D2	Guidelines	
Depth (m)	0.1	0.1	0.3	0.3	Threshold	Action
Naphthalene	<0.05	<0.05	<0.05	<0.05	*	*
Acenaphthylene	<0.05	<0.05	<0.05	<0.05		
Acenaphthene	<0.05	<0.05	<0.05	<0.05		
Fluorene	0.07	<0.05	<0.05	<0.05		
Phenanthrene	0.26	0.06	<0.05	<0.05	*	*
Anthracene	0.06	<0.05	<0.05	<0.05	*	*
Fluoranthene	0.20	0.08	<0.05	<0.05	*	*
Pyrene	0.17	0.06	<0.05	<0.05		
Benzo (a) anthracene	0.08	<0.05	<0.05	<0.05	*	*
Chrysene	0.10	<0.05	<0.05	<0.05	*	*
Benzo (b) fluoranthene	<0.05	<0.05	<0.05	<0.05		
Benzo (k) fluoranthene	<0.05	<0.05	<0.05	<0.05	*	*
Benzo (a) pyrene	<0.05	<0.05	<0.05	<0.05	*	*
Indeno (1,2,3-cd) pyrene	<0.05	<0.05	<0.05	<0.05	*	*
Dibenzo (ah) anthracene	<0.05	<0.05	<0.05	<0.05		
Benzo (g,h,i) perylene	<0.05	<0.05	<0.05	<0.05	*	*
Total 16no. USEPA PAHs	0.94	0.20	<0.05	<0.05	-	-
Total of 10 no. PAH marked with *	0.70	0.14	<0.05	<0.05	20.5 _A # 61.5 _{AA}	40 _D # 120 _{DD}

Results expressed as mg/kg.

- A: Dutch assessment level for a 'standard' soil with 10% or less organic matter.
D: Dutch action level for a 'standard' soil with 10% or less organic matter.
AA: Adjusted Dutch assessment level for a soil with more than 30% organic matter.
#: For organic matter of between 10% and 30% a correction formula is used.
DD: Adjusted Dutch action level for a soil with more than 30% organic matter.

Checked by/Date: JS 04/05



SUMMARY OF PAH RESULTS: SOIL

SITE: SALISBURY

REF: 41367

DATE: APRIL 2005

STRUCTURAL
SOILS LTD

Sample Location	TP12 D1	TP15 D2	TP21 D2	TP23 D2	Guidelines	
Depth (m)	0.1	0.3	0.3	0.7	Threshold	Action
Naphthalene	<0.05	<0.05	<0.05	<0.05	*	*
Acenaphthylene	<0.05	<0.05	<0.05	<0.05		
Acenaphthene	<0.05	<0.05	<0.05	<0.05		
Fluorene	<0.05	<0.05	<0.05	<0.05		
Phenanthrene	0.15	<0.05	<0.05	<0.05	*	*
Anthracene	0.05	<0.05	<0.05	<0.05	*	*
Fluoranthene	0.14	<0.05	<0.05	<0.05	*	*
Pyrene	0.13	<0.05	<0.05	<0.05		
Benzo (a) anthracene	<0.05	<0.05	<0.05	<0.05	*	*
Chrysene	<0.05	<0.05	<0.05	<0.05	*	*
Benzo (b) fluoranthene	<0.05	<0.05	<0.05	<0.05		
Benzo (k) fluoranthene	<0.05	<0.05	<0.05	<0.05	*	*
Benzo (a) pyrene	<0.05	<0.05	<0.05	<0.05	*	*
Indeno (1,2,3-cd) pyrene	<0.05	<0.05	<0.05	<0.05	*	*
Dibenzo (ah) anthracene	<0.05	<0.05	<0.05	<0.05		
Benzo (g,h,i) perylene	<0.05	<0.05	<0.05	<0.05	*	*
Total 16no. USEPA PAHs	0.47	<0.05	<0.05	<0.05	-	-
Total of 10 no. PAH marked with *	0.34	<0.05	<0.05	<0.05	20.5 _A # 61.5 _{AA}	40 _D # 120 _{DD}

Results expressed as mg/kg.

- A: Dutch assessment level for a 'standard' soil with 10% or less organic matter.
D: Dutch action level for a 'standard' soil with 10% or less organic matter.
AA: Adjusted Dutch assessment level for a soil with more than 30% organic matter.
#: For organic matter of between 10% and 30% a correction formula is used.
DD: Adjusted Dutch action level for a soil with more than 30% organic matter.

Checked by/Date: JS 04/05

SUMMARY OF PAH RESULTS: SOIL

SITE: SALISBURY

REF: 41367

DATE: APRIL 2005

STRUCTURAL
SOILS LTD

Sample Location	TP30 D2	TP31 D2	TP33 D1	TP34 D1	Guidelines	
Depth (m)	0.3	0.3	0.1	0.1	Threshold	Action
Naphthalene	<0.05	<0.05	0.15	<0.05	*	*
Acenaphthylene	<0.05	<0.05	<0.05	<0.05		
Acenaphthene	<0.05	<0.05	0.13	<0.05		
Fluorene	<0.05	<0.05	0.09	<0.05		
Phenanthrene	<0.05	<0.05	0.11	0.11	*	*
Anthracene	<0.05	<0.05	<0.05	<0.05	*	*
Fluoranthene	<0.05	<0.05	0.09	0.10	*	*
Pyrene	<0.05	<0.05	0.06	0.10		
Benzo (a) anthracene	<0.05	<0.05	<0.05	<0.05	*	*
Chrysene	<0.05	<0.05	<0.05	<0.05	*	*
Benzo (b) fluoranthene	<0.05	<0.05	<0.05	<0.05		
Benzo (k) fluoranthene	<0.05	<0.05	<0.05	<0.05	*	*
Benzo (a) pyrene	<0.05	<0.05	<0.05	<0.05	*	*
Indeno (1,2,3-cd) pyrene	<0.05	<0.05	<0.05	<0.05	*	*
Dibenzo (ah) anthracene	<0.05	<0.05	<0.05	<0.05		
Benzo (g,h,i) perylene	<0.05	<0.05	<0.05	<0.05	*	*
Total 16no. USEPA PAHs	<0.05	<0.05	0.63	0.31	-	-
Total of 10 no. PAH marked with *	<0.05	<0.05	0.35	0.21	20.5 _A # 61.5 _{AA}	40 _D # 120 _{DD}

Results expressed as mg/kg.

- A: Dutch assessment level for a 'standard' soil with 10% or less organic matter.
D: Dutch action level for a 'standard' soil with 10% or less organic matter.
AA: Adjusted Dutch assessment level for a soil with more than 30% organic matter.
For organic matter of between 10% and 30% a correction formula is used.
DD: Adjusted Dutch action level for a soil with more than 30% organic matter.

Checked by/Date: JS 04/05

SUMMARY OF PAH RESULTS: SOIL

SITE: SALISBURY
REF: 41367
DATE: APRIL 2005

STRUCTURAL
SOILS LTD

Sample Location	TP38 D2	TP39 D3	TP40 D1	Guidelines	
Depth (m)	0.3	2.3	0.2	Threshold	Action
Naphthalene	<0.05	<0.05	<0.05	*	*
Acenaphthylene	<0.05	<0.05	<0.05		
Acenaphthene	<0.05	<0.05	<0.05		
Fluorene	<0.05	<0.05	<0.05		
Phenanthrene	0.06	0.06	0.41	*	*
Anthracene	<0.05	<0.05	0.12	*	*
Fluoranthene	0.20	0.10	0.76	*	*
Pyrene	0.17	0.08	0.59		
Benzo (a) anthracene	0.06	<0.05	0.38	*	*
Chrysene	0.05	<0.05	0.36	*	*
Benzo (b) fluoranthene	<0.05	<0.05	0.54		
Benzo (k) fluoranthene	<0.05	<0.05	0.18	*	*
Benzo (a) pyrene	<0.05	<0.05	0.32	*	*
Indeno (1,2,3-cd) pyrene	<0.05	<0.05	0.37	*	*
Dibenzo (ah) anthracene	<0.05	<0.05	0.14		
Benzo (g,h,i) perylene	<0.05	<0.05	0.34	*	*
Total 16no. USEPA PAHs	0.54	0.24	4.51	-	-
Total of 10 no. PAH marked with *	0.37	0.16	3.24	20.5 _A # 61.5 _{AA}	40 _D # 120 _{DD}

Results expressed as mg/kg.

- A: Dutch assessment level for a 'standard' soil with 10% or less organic matter.
D: Dutch action level for a 'standard' soil with 10% or less organic matter.
AA: Adjusted Dutch assessment level for a soil with more than 30% organic matter.
For organic matter of between 10% and 30% a correction formula is used.
DD: Adjusted Dutch action level for a soil with more than 30% organic matter.

Checked by/Date: JS 04/05

APPENDIX F

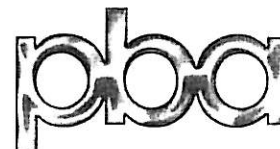
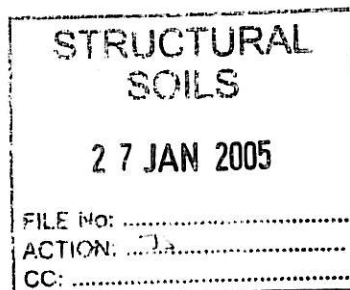
- (i) Chalk Database Assessment
- (ii) Desk Study Data

Your ref: 41367

Our ref: 10083/456/CNE/AD/JF

25 January 2005

Mr J Southern
Structural Soils Ltd
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Dear Mr Southern

RE: PBA/DEFRA NATURAL AND NON-COAL MINING CAVITIES DATABASE SEARCHES WITH CAVITIES OCCURRENCE ASSESSMENT FOR SITE AT OLD SARUM, SALISBURY.

We refer to your fax message dated 17 January 2005, regarding the above. We thank you for your instructions to carry out natural and mining cavities database searches and a cavities occurrence assessment for this site.

The database searches and assessment have been carried out for the site at National Grid Reference SU 150 337 as supplied

NATURAL CAVITY RECORDS

A search of the PBA/DEFRA Natural Cavities Database indicated that there is one recorded natural cavity location within 3.1 km of the site. Details of this natural cavity location are presented below:

Approximate NGR	Approximate distance from site (m)	Recorded Location	Geology	Natural Cavity Details	Source
SU 170 314	3050 SE	Salisbury, Wiltshire	Solid: Lambeth Group, Upper Chalk Fm	Probable Solution Pipe	British Geological Survey

MINING CAVITY RECORDS

A search of the PBA/DEFRA Non-Coal Mining Cavities Database indicated that there are no recorded man-made mining locations within 3.5km of the site. The nearest recorded location is 6km to the north east.

While no records exist pertaining to natural or mining cavities at the site itself, we would draw your attention to the fact that the absence of existing records for the site should not be considered as conclusive.

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Partners: Francis Connolly KSG FICE FCIVEM MIFireE MCIAn FHIT FConsE Senior Partner, Nigel Brown DipIng BSc DIC MSc CEng MICE CMILT, John Rushton BEng MSc CEng MICE MStructE, Keith Mitchell BSc MSc MIHT CMILT, David Atherton BSc MSc CEng CGeol FICE FIMMM FCIVEM MCIWM FGS, Iain Gibb BSc CEng FICE FConsE, Stephen Capel-Davies BSc CEng FICE FCIVEM, Malcolm Cleaver BSc CEng MICE, Anthony Russell BSc MSc MRTP MIHT, Richard Puttock BSc MSc FGS, Eur Ing Mark Anderson-Hammersley BEng MA CEng MICE MIHT MCM, Robert Brickwood BEng CEng MStructE MAsPS, Benjamin Mitchell BSc CEng MICE MCIWM, Richard Swinden BSc CEng MICE MIHT, Scott Witchalls MSc MIHT CMILT, Michael Parkinson BSc CEng MICE MIHT MRSO

UK Offices: Birmingham, Exeter, London, Maidstone, Northampton, Reading, Swansea, Taunton, Warrington
International Offices: Australia, Czech Republic, Germany, Ireland, Poland, South Africa

Environmental and Quality Management Systems to BS EN ISO 14001 and 9001



CAVITIES OCCURRENCE ASSESSMENT

Geology

The published geology map (BGS Sheet 298: Salisbury 1:50,000 scale 1976) shows the entire site to be underlain by Cretaceous age Upper Chalk Formation. The nearest superficial deposits are to be found 900 metres to the east/south east, in the River Bourne valley, where valley gravels and alluvial deposits are present.

Hydrogeology

The published hydrogeology map (Institute of Hydrological Sciences, 'Hydrogeological Map of Hampshire & the Isle of Wight, Sheet 9') shows the mean groundwater levels in the Chalk are likely to be approximately +55m OD in the site vicinity. These water levels are based on 1973 recorded levels.

Geomorphology

The site appears to be located on gently sloping ground, situated on/near the crest of the valleys of the River Bourne to the east, and the River Avon to the west. As a result the site has an elevation of approximately +90m OD in the northern area of the site, whilst dipping down to approximately 75m OD across the remainder of the site. It, therefore, appears that the groundwater level is at least 20 to 35m below ground level.

The Chalk surface of the Salisbury region has been subjected to a variety of erosional and depositional episodes. Following tectonic uplift and initial sub aerial erosion of the Chalk surface during the late Cretaceous/early Tertiary, there followed a series of marine transgressions that led to the deposition of Tertiary strata in the London Basin and Hampshire Basin, including the Salisbury area.

During the later Quaternary the site is situated in an area which has been subjected to prolonged periglacial erosion resulting in surface lowering and the development of the River Bourne valley to the east, and Avon River to the west.

Each time as the climate improved after glacial and periglacial episodes, land drainage patterns were established. When water table conditions were favourable this allowed the infiltration of water to percolate downwards to initiate dissolution of the Chalk below. As can be appreciated from the above events there have been a number of times when there were favourable conditions for solution feature development and other times when conditions were probably not favourable, together with times when solution features were actively destroyed by erosion.

NATURAL CAVITY ASSESSMENT

On the basis of a review of available published information held by PBA, referred to above, the geological, hydrogeological and geomorphological setting of the site suggests that there is low potential for solution features to be present in the site vicinity (as shown by the Database search results), but the situation on site depends on the ground conditions encountered.

At the site, the published geology suggests the absence of any Tertiary cover or other superficial material, meaning that optimum conditions for downward percolation of water into the underlying Chalk have not existed for any long geological period. Consequently any solution features that did develop might be expected to have been destroyed through erosion/weathering. Consequently the presence of solution features is unlikely.





However, if the ground investigation does not confirm the above and high level gravels or clay-with-flints are found present, then the potential for solution feature presence will be moderately high. The presence of cover deposits would tend to indicate that solution features formed in the geological past, may still be present and have not been removed by erosive forces.

MINING CAVITY ASSESSMENT

Whilst the hydrogeology appears favourable for mining of the underlying chalk at the site, there are no known records of such historical subterranean excavations taking place in the Salisbury area. Indeed the lack of superficial/Tertiary deposits in the area renders the need for such mining unnecessary as any chalk needed for agriculture, building etc, would have been readily accessible at the surface.

The geological, hydrogeological and geomorphological setting of the site therefore suggests that there is low potential for artificial mining features to be present in the site area (as indicated by the Database search results).

We trust that the information will assist you with your project, but if you have any queries then please do not hesitate to contact the writer or Dr Clive Edmonds. Please note that we will invoice this work at the end of next month and that our terms of payment are strictly 30 days net.

Yours sincerely



James Ford
For and on behalf of
PETER BRETT ASSOCIATES

Whilst all reasonable efforts are made to check that the information contained in the cavity databases is accurate we do not warrant that the data is complete or error free. The information is based upon our own researches and those collated from a number of external sources and is continually being augmented and updated. IN NO EVENT SHALL PBA / DEFRA BE LIABLE FOR ANY LOSS OR DAMAGE INCLUDING, WITHOUT LIMITATION, INDIRECT OR CONSEQUENTIAL LOSS OR DAMAGE ARISING FROM THE USE OF THIS DATA.



Envirocheck[®] Report

Datasheet

Report on:

Old Sarum
Salisbury

National Grid Reference :

415100, 133450

Prepared For :

Structural Soils
The Old School House
Stillhouse Lane, Bedminster
Bristol
BS3 4EB

Your Reference:

S Pond, 41367

Summary

Agency & Hydrological

Waste

Hazardous Substances

Geological

Industrial Land Use

Sensitive Land Use

Data Currency

Data Suppliers & Copyright Statements

Useful Contacts

BGS Borehole Order Form

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity Datasheet places great emphasis on statutory data provided by the Environment Agency and the Scottish Environment Protection Agency; it also incorporates data from English Nature (and the Scottish and Welsh equivalents), the Environment Agency (and the Scottish equivalent) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the legend database to 1km from a single point or a site boundary provided by the client

In the attached datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers

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Data Type	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological				
Air Pollution Controls				
Air Pollution Control Enforcements				
Contaminated Land Register Entries and Notices				
Discharge Consents				3
Enforcement and Prohibition Notices				
Integrated Pollution Controls				
Integrated Pollution Prevention And Control				
Nearest Surface Water Feature				Yes
Pollution Incidents to Controlled Waters				
Substantiated Pollution Incident Register				
Prosecutions Relating to Authorised Processes				
Prosecutions Relating to Controlled Waters				
Water Industry Act Referrals				
Registered Radioactive Substances			4	
River Quality				
River Quality Biology Sampling Points				
River Quality Chemistry Sampling Points				
Water Abstractions				3 (*4)
Groundwater Vulnerability	Yes			
Fluvial Indicative Floodplains				
Tidal Indicative Floodplains				
Source Protection Zones	2	1		
River Flood Data (Scotland)				
Waste				
BGS Recorded Landfill Sites				
Integrated Pollution Control Registered Waste Sites				
Licensed Waste Management Facilities (Landfill Boundaries)				
Licensed Waste Management Facilities (Locations)				
Local Authority Recorded Landfill Sites				
Registered Landfill Sites				
Registered Waste Transfer Sites				
Registered Waste Treatment or Disposal Sites				

Data Type	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Hazardous Substances				
Control of Major Accident Hazards Sites (COMAH)				
Explosive Sites				
Notification of Installations Handling Hazardous Substances (NIHHS)				
Planning Hazardous Substance Consents				
Planning Hazardous Substance Enforcements				
Geological				
BGS Boreholes		2	2	7
BGS Recorded Mineral Sites				
BGS 1:625,000 Solid Geology	Yes			
Brine Compensation Areas				
Coal Mining Affected Areas				
Shallow Mining Hazards	Yes			
Compressible Ground Subsidence Hazards				
Ground Dissolution Subsidence Hazards	Yes			
Gulls And Cambering Subsidence Hazards				
Landslip Subsidence Hazards				
Swelling Clay Subsidence Hazards				
Mining Instability				
Natural and Mining Cavities				
Radon Affected Areas	Yes			
Radon Protection Measures	Yes			
Industrial Land Use				
Contemporary Trade Directory Entries		7	14	
Fuel Station Entries				

Data Type	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Uses				
Areas of Adopted Green Belt				
Areas of Unadopted Green Belt				
Areas of Outstanding Natural Beauty				
Environmentally Sensitive Areas				
Forest Parks				
Local Nature Reserves				
Marine Nature Reserves				
National Nature Reserves				
National Parks				
National Scenic Areas				
Nitrate Sensitive Areas				
Nitrate Vulnerable Zones	1			
Ramsar Sites				
Sites of Special Scientific Interest				
Special Areas of Conservation				
Special Protection Areas				

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
Discharge Consents					
1	Operator: Mr Ch Lodge Property Type: Domestic Property (Single) Location: Castlemeads Green Lane, Ford, Salisbury, Wiltshire, SP4 6DJ Authority: Environment Agency, South West Region Catchment Area: Bourne Reference: 040380 Permit Version: 1 Effective Date: 4th November 1986 Issued Date: Not Supplied Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Soakaway Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional: Located by supplier to within 100m Accuracy:	SE	835	1	415820 133030
Discharge Consents					
2	Operator: Cork Gully Property Type: Not Given Location: Private Housing Site, Ford, SALISBURY, Wiltshire Authority: Environment Agency, South West Region Catchment Area: Bourne Reference: 50704 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: 15th June 1976 Revocation Date: Not Supplied Discharge Type: Non-WSPCL STW - Final Effluent - Unclassified Discharge: Unknown Environment: Receiving Water: Licence Status: Lapsed, Revoked Or Cancelled Status: Not Supplied Positional: Located by supplier to within 100m Accuracy:	SE	892	1	415800 132900
Discharge Consents					
2	Operator: Cork Gully Property Type: Domestic Property (Single) Location: Private Housing Site, Ford, Salisbury, Wiltshire Authority: Environment Agency, South West Region Catchment Area: Bourne Reference: 050704 Permit Version: 1 Effective Date: 15th June 1976 Issued Date: Not Supplied Revocation Date: 22nd January 1996 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Unknown Environment: Receiving Water: Not Supplied Status: Transferred from Rivers (Prevention of Pollution) Act 1951-1961 Positional: Located by supplier to within 10m Accuracy:	SE	895	1	415800 132900
Registered Radioactive Substances					
3	Name: John K Brehm Location: Unit 6, Centre One Old Sarum Park, Lysander Way Old Sarum, SALISBURY, Wiltshire, SP4 6BU Authority: Environment Agency, South West Region Permit Reference: A17360 Dated: 2nd August 1993 Process Type: Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Description: Registration under the Act of an open source which is also the subject of an authorisation Status: Authorisation either revoked or cancelled Positional: Unknown Accuracy:	NE	363	1	415380 133680

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
Registered Radioactive Substances					
3	Name: John K Brehm Location: Unit 6, Centre One Old Sarum Park, Lysander Way Old Sarum, SALISBURY, Wiltshire, SP4 6BU Authority: Environment Agency, South West Region Permit Reference: AI7378 Dated: 6th August 1993 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA Status: Authorisation either revoked or cancelled Positional: Unknown Accuracy:	NE	366	1	415380 133690
Registered Radioactive Substances					
3	Name: John K Brehm Location: Unit 6, Centre One, Lysander Way, SALISBURY, SP4 6BU Authority: Environment Agency, South West Region Permit Reference: BF1432 Dated: 17th May 1999 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA in respect of a registration under S7 when Technetium 99M is used being ≤ 10 gigabecquerels Status: Authorisation either revoked or cancelled Positional: Automatically positioned in the proximity of the address Accuracy:	NE	378	1	415410 133670
Registered Radioactive Substances					
3	Name: John K Brehm Location: Unit 6, Centre One, Lysander Way, SALISBURY, SP4 6BU Authority: Environment Agency, South West Region Permit Reference: BF1351 Dated: 9th March 1999 Process Type: Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Description: Discretionary registration under the Act of an open source which is also the subject of an authorisation Status: Authorisation either revoked or cancelled Positional: Automatically positioned in the proximity of the address Accuracy:	NE	381	1	415410 133680
Water Abstractions					
4	Operator: Salisbury City Football Club Licence Number: 13/43/021/G/255 Permit Version: 100 Location: Salisbury City Football Club Borehole #1 Authority: Environment Agency, South West Region Abstraction: Sports Grounds/Facilities: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Quantities Combined For L/S Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 9th May 1997 Permit End Date: Not Supplied Positional: Located by supplier to within 10m Accuracy:	N	535	1	415010 133980

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
Water Abstractions					
4	Operator: Salisbury City Football Club Licence Number: 13/43/021/G/255 Permit Version: 100 Location: Salisbury City Football Club Borehole #1 Authority: Environment Agency, South West Region Abstraction: Sports Grounds/Facilities: Drinking; Cooking; Sanitary; Washing; (Small Garden) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Land At Salisbury City Football Club Outlined Red On Licence Map Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 9th May 1997 Permit End Date: Not Supplied Positional: Located by supplier to within 10m Accuracy:	N	535	1	415010 133980
Water Abstractions					
5	Operator: Dolphin Farms Ltd Licence Number: 13/43/024/G/040 Permit Version: 100 Location: Manor Farm, Laverstock Well #1 Authority: Environment Agency, South West Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Lands At Laverstock Outlined Red On Licence Map Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 24th June 1987 Permit End Date: Not Supplied Positional: Located by supplier to within 100m Accuracy:	SE	651	1	415700 133200
Water Abstractions					
	Operator: Mr & Mrs E Rippier Licence Number: 13/43/024/S/112 Permit Version: 100 Location: R Bourne At Ford Authority: Environment Agency, South West Region Abstraction: Amenity: Lake And Pond Throughflow Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Lands At Laverstock Outlined In Red On Licence Map Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 25th March 1991 Permit End Date: Not Supplied Positional: Located by supplier to within 100m Accuracy:	SE	1197	1	416100 132800
Water Abstractions					
	Operator: Wessex Water Services Ltd Licence Number: 13/43/021/G/208 Permit Version: 100 Location: Dean'S Farm Borehole No 1 Authority: Environment Agency, South West Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Wyndham Road/Deans Farm Wells With Boreholes Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 10th November 1989 Permit End Date: Not Supplied Positional: Located by supplier to within 100m Accuracy:	W	1500	1	413600 133500

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR				
Water Abstractions									
Operator:	Wessex Water Services Ltd	W	1500	1	413600 133500				
Licence Number:	13/43/021/G/208								
Permit Version:	100								
Location:	Dean'S Farm Borehole No 2								
Authority:	Environment Agency, South West Region								
Abstraction:	Public Water Supply: Potable Water Supply - Direct								
Abstraction Type:	Water may be abstracted from a single point								
Source:	Groundwater								
Daily Rate (m3):	Not Supplied								
Yearly Rate (m3):	Not Supplied								
Details:	Wyndham Road/Deans Farm Wells With Boreholes								
Authorised Start:	01 April								
Authorised End:	31 March								
Permit Start Date:	10th November 1989								
Permit End Date:	Not Supplied								
Positional Accuracy:	Located by supplier to within 10m								
Water Abstractions									
Operator:	Lord Chichester	N	1502	1	415500 134900				
Licence Number:	13/43/024/G/035								
Permit Version:	100								
Location:	Hurdcott Field Barn Well #1								
Authority:	Environment Agency, South West Region								
Abstraction:	General Farming And Domestic								
Abstraction Type:	Water may be abstracted from a single point								
Source:	Groundwater								
Daily Rate (m3):	Not Supplied								
Yearly Rate (m3):	Not Supplied								
Details:	Lands At Winterbourne Outlined Red On Licence Map								
Authorised Start:	01 April								
Authorised End:	31 March								
Permit Start Date:	29th September 1976								
Permit End Date:	Not Supplied								
Positional Accuracy:	Located by supplier to within 100m								
Groundwater Vulnerability									
Geological Classification:	Major Aquifer (Highly permeable) - These are highly permeable formations usually with a known or probable presence of significant fracturing. They may be highly productive and able to support large abstractions for public water supply and other purposes	-	0	1	415100 133450				
Soil Classification:	Soils of High Leaching Potential (H1) - Soils which readily transmit liquid discharges because they are either shallow, or susceptible to rapid by-pass flow directly to rock, gravel or groundwater								
Map Sheet:	Sheet 44 North West Hampshire								
Scale:	1:100,000								
Drift Deposits									
Description	None	-	-	-	-				
Fluvial Indicative Floodplains									
Description	None	-	-	-	-				
Tidal Indicative Floodplains									
Description	None	-	-	-	-				
Source Protection Zones									
Name:	Various	-	0	1	415100 133450				
Source:	Environment Agency, Head Office								
Reference:	Not Supplied								
Type:	Zone II (Outer Protection Zone): Either 25% of the source area or a 400 day travel time whichever is greater.								
Source Protection Zones									
Name:	Various					-	0	1	415100 133450
Source:	Environment Agency, Head Office								
Reference:	Not Supplied								
Type:	Zone III (Total Catchment): The total area needed to support the discharge from the protected groundwater source.								

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
Source Protection Zones					
Name:	Various	E	242	1	415340
Source:	Environment Agency, Head Office				133420
Reference:	Not Supplied				
Type:	Zone I (Inner Protection Zone): Travel time of 50 days or less to the groundwater source.				
River Flood Data (Scotland)					
Description	None	-	-	-	-

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
Local Authority Landfill Coverage					
Name:	Wiltshire County Council - Has supplied landfill data	-	0	3	415100 133450
Local Authority Landfill Coverage					
Name:	Salisbury District Council - Landfill data has been supplied by another authority	-	0	2	415100 133450

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
BGS Boreholes					
7	BGS Reference: Su13se3 Drilled Length (m): 134.11 Borehole Name: Old Sarum Aerodrome	NW	42	4	415080 133490
BGS Boreholes					
7	BGS Reference: Su13se2 Drilled Length (m): 135.33 Borehole Name: Old Sarum Aerodrome	NW	62	4	415050 133490
BGS Boreholes					
8	BGS Reference: Su13sw9 Drilled Length (m): 33.52 Borehole Name: Salisbury Isolation Hospital	W	358	4	414760 133340
BGS Boreholes					
9	BGS Reference: Su13se29 Drilled Length (m): 60 Borehole Name: Salisbury City Football Club	N	458	4	415000 133900
BGS Boreholes					
10	BGS Reference: Su13se17 Drilled Length (m): 6 Borehole Name: Manor Farm Ford	E	691	4	415750 133220
BGS Boreholes					
11	BGS Reference: Su13se27 Drilled Length (m): 48.76 Borehole Name: Green Acres Ford	S	779	4	415300 132700
BGS Boreholes					
12	BGS Reference: Su13sw137 Drilled Length (m): 4 Borehole Name: A36t Salisbury Bypass Tp 73	SW	856	4	414680 132700
BGS Boreholes					
13	BGS Reference: Su13sw11 Drilled Length (m): 30.48 Borehole Name: Longhedge Farm	NW	867	4	414490 134070
BGS Boreholes					
14	BGS Reference: Su13sw139 Drilled Length (m): 3.9 Borehole Name: A36t Salisbury Bypass Tp 75	W	894	4	414250 133180
BGS Boreholes					
15	BGS Reference: Su13sw140 Drilled Length (m): 4 Borehole Name: A36t Salisbury Bypass Tp 76	W	900	4	414220 133630
BGS Boreholes					
16	BGS Reference: Su13se81 Drilled Length (m): 4 Borehole Name: A36t Salisbury Bypass Tp 72	S	968	4	415290 132500
BGS 1:625,000 Solid Geology					
	Description: Chalk including Red Chalk	-	0	4	415100 133450
Coal Mining Affected Areas					
	Description: In an area which may not be affected by coal mining	-	-	-	-
Shallow Mining Hazards					
	Risk: Low	-	0	4	415100
	Source: British Geological Survey, National Geoscience Information Service	-	-	-	133450
Compressible Ground Subsidence Hazards					
	Description: No Hazard	-	-	-	-
Ground Dissolution Subsidence Hazards					
	Risk: Low	-	0	4	415100
	Source: British Geological Survey, National Geoscience Information Service	-	-	-	133450

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
Gulls And Cambering Subsidence Hazards					
Description	No Hazard	-	-	-	-
Landslip Subsidence Hazards					
Description	No Hazard	-	-	-	-
Swelling Clay Subsidence Hazards					
Description	No Hazard	-	-	-	-
Radon Affected Areas					
Description:	Less than 1% of homes are above the Action Level	-	0	5	415100
Source:	National Radiological Protection Board				133450
Radon Protection Measures					
Type:	No radon protective measures are necessary	-	0	4	415100
Source:	British Geological Survey, National Geoscience Information Service				133450

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
Contemporary Trade Directory Entries					
17	Name: William Sheppee Ltd Location: Old Sarum Airfield, Old Sarum, Salisbury, Wiltshire, SP4 6DZ Classification: Furniture Manufacturers - Home & Office Status: Active Positional: Automatically positioned to the address Accuracy:	SW	15	-	415090 133440
Contemporary Trade Directory Entries					
18	Name: The Chord Co Ltd Location: 35A, Old Sarum Airfield, Old Sarum, Salisbury, Wiltshire, SP4 6DZ Classification: Hi-Fi Equipment Manufacturers & Distributors Status: Inactive Positional: Automatically positioned to the address Accuracy:	N	78	-	415110 133530
Contemporary Trade Directory Entries					
19	Name: Metalwise Engineering Location: Unit 9, Castlegate Business Park, Old Sarum, Salisbury, Wiltshire, SP4 6QX Classification: Precision Engineers Status: Active Positional: Manually positioned within the geographical locality Accuracy:	S	131	-	415080 133320
Contemporary Trade Directory Entries					
20	Name: Equinox International Ltd Location: Castlegate Business Pk, Old Sarum, Salisbury, Wiltshire, SP4 6QX Classification: Metal Industries - Primary Status: Active Positional: Manually positioned within the geographical locality Accuracy:	SW	138	-	415020 133340
Contemporary Trade Directory Entries					
20	Name: Masterprint Location: Unit 1, The Centurion Centre, Castlegate Business Park, Old Sarum, Salisbury, SP4 6QX Classification: Printers Status: Active Positional: Automatically positioned to the address Accuracy:	SW	138	-	415020 133340
Contemporary Trade Directory Entries					
21	Name: Spruce Pools Ltd Location: Unit 17, Portway Business Centre, Old Sarum, Salisbury, SP4 6QX Classification: Swimming Pool Contractors, Repairers & Service Status: Active Positional: Automatically positioned to the address Accuracy:	W	179	-	414930 133400
Contemporary Trade Directory Entries					
22	Name: Salisbury Caravans Centre Ltd Location: Castle Gate Business Park, Old Sarum, Salisbury, Wiltshire, SP4 6QX Classification: Caravan Dealers & Manufacturers Status: Active Positional: Manually positioned within the geographical locality Accuracy:	S	213	-	415030 133250
Contemporary Trade Directory Entries					
23	Name: Sarum Graphics Ltd Location: Unit 4, Portway Business Centre, Old Sarum, Salisbury, SP4 6QX Classification: Printers Status: Active Positional: Automatically positioned to the address Accuracy:	SW	255	-	414860 133350
Contemporary Trade Directory Entries					
24	Name: Wielander & Schill (UK) Ltd Location: Unit 12/13, Hurricane Close, Old Sarum, Salisbury, SP4 6LG Classification: Garage Equipment Status: Active Positional: Automatically positioned to the address Accuracy:	NE	280	-	415320 133620

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
Contemporary Trade Directory Entries					
25	Name: Phoenix Lifting Systems Ltd Location: Unit 5b-5c, Castle Gate Business Park, Old Sarum, Salisbury, SP4 6QX Classification: Lift Manufacturers Status: Active Positional: Automatically positioned to the address Accuracy:	SW	285	-	414900 133250
Contemporary Trade Directory Entries					
25	Name: Agricentre Location: Castle Gate Business Park, Old Sarum, Salisbury, SP4 6QX Classification: Agricultural Merchants Status: Active Positional: Automatically positioned to the address Accuracy:	SW	298	-	414870 133270
Contemporary Trade Directory Entries					
26	Name: Eastman Packaging Ltd Location: Unit 1, Hurricane Close, Old Sarum, Salisbury, Wiltshire, SP4 6LG Classification: Packaging Materials Manufacturers & Suppliers Status: Active Positional: Automatically positioned to the address Accuracy:	NE	312	-	415370 133600
Contemporary Trade Directory Entries					
26	Name: Dynamic Air Products Location: Unit 1, Hurricane Close, Old Sarum, Salisbury, SP4 6LG Classification: Ventilators & Ventilation Systems Status: Inactive Positional: Automatically positioned to the address Accuracy:	NE	312	-	415370 133600
Contemporary Trade Directory Entries					
26	Name: H & F Elastomers Ltd Location: Unit 7/8, Woodford Centre, Old Sarum Park, Lysander Way, Old Sarum, Salisbury, Wiltshire, SP4 6BU Classification: Rubber & Plastic Products - Manufacturers Status: Inactive Positional: Manually positioned to the address or location Accuracy:	NE	343	-	415380 133650
Contemporary Trade Directory Entries					
26	Name: Sarum Colourview Location: Unit 7/8, Woodford Centre, Old Sarum Park, Lysander Way, Old Sarum, Salisbury, SP4 6BU Classification: Printers Status: Active Positional: Automatically positioned to the address Accuracy:	NE	343	-	415380 133650
Contemporary Trade Directory Entries					
27	Name: Delcom Radio Ltd Location: Unit 3, Centre One, Old Sarum Park, Lysander Way, Old Sarum, Salisbury, Wiltshire, SP4 6BU Classification: Radio Communication Equipment Status: Active Positional: Automatically positioned to the address Accuracy:	NE	349	-	415340 133710
Contemporary Trade Directory Entries					
27	Name: Sarum Hydraulics Ltd Location: Unit 7, Centre One, Old Sarum Park, Lysander Way, Old Sarum, Salisbury, SP4 6BU Classification: Hydraulic Equipment & Accessories - Sales & Service Status: Active Positional: Automatically positioned to the address Accuracy:	NE	349	-	415340 133710
Contemporary Trade Directory Entries					
28	Name: Interloc (Uk) Ltd Location: Unit 19/20, Old Sarum Airfield, Old Sarum, Salisbury, SP4 6DZ Classification: Foam Products - Rubber & Plastics Status: Inactive Positional: Automatically positioned to the address Accuracy:	SW	361	-	414770 133310

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
Contemporary Trade Directory Entries					
29	Name: Ottons Land Rover Location: Old Sarum Park, Old Sarum, Salisbury, SP4 6EB Classification: Car Dealers Status: Active Positional: Automatically positioned to the address Accuracy:	NE	437	-	415420 133750
Contemporary Trade Directory Entries					
30	Name: Sortimo International Ltd Location: Old Sarum Pk, Old Sarum, Salisbury, Wiltshire, SP4 6EB Classification: Commercial Vehicle Servicing, Repairs, Parts & Accessories Status: Active Positional: Manually positioned to the road within the address or location Accuracy:	NE	477	-	415480 133750
Contemporary Trade Directory Entries					
30	Name: Fahr Industries Location: Unit 31-34, Old Sarum Pk, Old Sarum, Salisbury, Wiltshire, SP4 6EB Classification: Polythene & Plastic Sheeting Supplies Status: Active Positional: Manually positioned to the road within the address or location Accuracy:	NE	478	-	415480 133750

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
Nitrate Vulnerable Zones					
Name:	Not Supplied	-	0	6	415100
Description:	Groundwater				133450
Source:	Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)				

Data Type	Version	Update Cycle
Agency & Hydrological		
Air Pollution Controls Salisbury District Council Environmental Health Department	August-2004	Annual Rolling Update
Air Pollution Control Enforcements Salisbury District Council Environmental Health Department	August-2004	Annual Rolling Update
Discharge Consents Environment Agency South West Region	October-2004	Bi-Annually
Integrated Pollution Controls Environment Agency South West Region	January-2005	Quarterly
Integrated Pollution Prevention And Control Environment Agency South West Region	October-2004	Quarterly
Pollution Incidents to Controlled Waters Environment Agency South West Region	September-1999	Not Applicable
Substantiated Pollution Incident Register Environment Agency - South West Region South Wessex Area	January-2005	Bi-Annually
Water Industry Act Referrals Environment Agency South West Region	January-2005	Quarterly
Registered Radioactive Substances Environment Agency South West Region	January-2005	Quarterly
River Quality Environment Agency Head Office	November-2001	Not Applicable
River Quality Biology Sampling Points Environment Agency Head Office	October-2004	Annually
River Quality Chemistry Sampling Points Environment Agency Head Office	December-2004	Annually
Water Abstractions Environment Agency South West Region	October-2004	Bi-Annually
Groundwater Vulnerability Environment Agency Head Office	January-1999	Not Applicable
Drift Deposits Environment Agency Head Office	January-1999	Not Applicable
Fluvial Indicative Floodplains Environment Agency Head Office	April-2004	Not Applicable
Tidal Indicative Floodplains Environment Agency Head Office	April-2004	Not Applicable
Source Protection Zones Environment Agency Head Office	December-2003	Variable

Data Type	Version	Update Cycle
Agency & Hydrological		
River Flood Data (Scotland)		
Centre for Ecology and Hydrology	September-1999	Not Applicable

Data Type	Version	Update Cycle
Waste		
BGS Recorded Landfill Sites British Geological Survey National Geoscience Information Service	June-1996	Not Applicable
Integrated Pollution Control Registered Waste Sites Environment Agency South West Region	January-2005	Quarterly
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - South West Region South Wessex Area	November-2004	Bi-Annually
Licensed Waste Management Facilities (Locations) Environment Agency - South West Region South Wessex Area	October-2004	Bi-Annually
Local Authority Landfill Coverage Salisbury District Council Environmental Health Department Wiltshire County Council	May-2000	Not Applicable
	May-2000	Not Applicable
Local Authority Recorded Landfill Sites Wiltshire County Council	May-2000	Not Applicable
Registered Landfill Sites Environment Agency - South West Region South Wessex Area	March-2003	Variable
Registered Waste Transfer Sites Environment Agency - South West Region South Wessex Area	March-2003	Variable
Registered Waste Treatment or Disposal Sites Environment Agency - South West Region South Wessex Area	March-2003	Variable

Data Type	Version	Update Cycle
Hazardous Substances		
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	May-2001	Variable
Explosive Sites Health and Safety Executive	October-2004	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November-2000	Not Applicable
Planning Hazardous Substance Consents Salisbury District Council	August-2004	Annual Rolling Update
Planning Hazardous Substance Enforcements Salisbury District Council	August-2004	Annual Rolling Update

Data Type	Version	Update Cycle
Geological		
BGS Boreholes British Geological Survey National Geoscience Information Service	December-2004	Quarterly
BGS Recorded Mineral Sites British Geological Survey National Geoscience Information Service	November-2004	Bi-Annually
BGS 1:625,000 Solid Geology British Geological Survey National Geoscience Information Service	August-1996	Not Applicable
Brine Compensation Areas Cheshire Brine Subsidence Compensation Board	November-2002	As notified
Coal Mining Affected Areas The Coal Authority Mining Report Service	December-2003	As notified
Shallow Mining Hazards British Geological Survey National Geoscience Information Service	August-2002	Variable
Compressible Ground Subsidence Hazards British Geological Survey National Geoscience Information Service	August-2002	Variable
Ground Dissolution Subsidence Hazards British Geological Survey National Geoscience Information Service	August-2002	Variable
Gulls And Cambering Subsidence Hazards British Geological Survey National Geoscience Information Service	August-2002	Variable
Landslip Subsidence Hazards British Geological Survey National Geoscience Information Service	August-2002	Variable
Swelling Clay Subsidence Hazards British Geological Survey National Geoscience Information Service	August-2002	Variable
Mining Instability Ove Arup & Partners	October-2000	Not Applicable
Natural and Mining Cavities Peter Brett Associates Consulting Engineers	October-2001	Variable
Radon Affected Areas National Radiological Protection Board	January-2003	Not Applicable
Radon Protection Measures British Geological Survey National Geoscience Information Service	August-2002	Variable

Data Type	Version	Update Cycle
Industrial Land Use		
Contemporary Trade Directory Entries Thomson Directories	November-2004	Bi-Annually
Fuel Station Entries Catalist Ltd (Fuel Station Data)	November-2004	Quarterly

Data Type	Version	Update Cycle
Sensitive Land Uses		
Areas of Outstanding Natural Beauty		
The Countryside Agency	October-2004	Annually
Environmentally Sensitive Areas		
Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	January-2004	Annually
Forest Parks		
Forestry Commission	April-1997	Not Applicable
Local Nature Reserves		
Salisbury District Council	September-1999	As notified
Marine Nature Reserves		
English Nature	December-2004	Bi-Annually
National Nature Reserves		
English Nature	December-2004	Bi-Annually
National Parks		
The Countryside Agency	October-2004	Annually
Nitrate Sensitive Areas		
Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	December-2003	Not Applicable
Nitrate Vulnerable Zones		
Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	December-2003	Annually
Ramsar Sites		
English Nature	December-2004	Bi-Annually
Sites of Special Scientific Interest		
English Nature	December-2004	Bi-Annually
Special Areas of Conservation		
English Nature	December-2004	Bi-Annually
Special Protection Areas		
English Nature	December-2004	Bi-Annually

Some of the organisations who provide data which is used within the report

Ordinance Survey	 Ordinance Survey[®] Licensed Partner
Environment Agency	 ENVIRONMENT AGENCY
Scottish Environment Protection Agency	 SEPA Scottish Environment Protection Agency
The Coal Authority	THE COAL AUTHORITY
British Geological Survey	 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL Value Added Reseller
Centre for Ecology and Hydrology	 Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL
Countryside Council for Wales	 CYNGOR CEFN GWLAD CYMRU COUNTRYSIDE COUNCIL FOR WALES
Scottish Natural Heritage	SCOTTISH NATURAL HERITAGE 
English Nature Site of Special Scientific Interest, National Nature Reserve, Ramsar, Special Protection Area, Special Conservation Area, Marine Nature Reserve data (derived from Ordnance Survey 1:10000 raster) is provided by, and used with the permission of, English Nature who retain the copyright and Intellectual Property Rights for the data	 ENGLISH NATURE
National Radiological Protection Board	 nrpb National Radiological Protection Board
Ove Arup The Data provided above was obtained on Licence from Ove Arup & Partners Limited (for further information, contact mining.review@arup.com). No reproduction or further use of such Data is to be made without the prior written consent of Ove Arup & Partners Limited. The information and data supplied in the product are derived from publicly available records and other third party sources and neither Ove Arup & Partners nor Landmark warrant the accuracy or completeness of such information or data.	ARUP

Contact Name and Address

- | | | |
|----------|--|--|
| 1 | Environment Agency National Customer Contact Centre (NCCC)
PO Box 544
Templeborough
Rotherham
S60 1BY

enquiries@environment-agency.gov.uk | Telephone 08708 506 506 |
| 2 | Salisbury District Council Environmental Health Department
The Council House
Bourne Hill
Salisbury
Wiltshire
SP1 3UZ

enhmail@salisbury.gov.uk
www.salisbury.gov.uk | Telephone 01722 336272
Fax 01722 335855 |
| 3 | Wiltshire County Council
County Hall
Bythesea Road
Trowbridge
Wiltshire
BA14 8JN

communications@wiltshire.gov.uk
www.wiltshire.gov.uk | Telephone 01225 713000 |
| 4 | British Geological Survey Enquiry Service
British Geological Survey
Kingsley Dunham Centre
Keyworth
Nottingham
Nottinghamshire
NG12 5GG

enquiries@bgs.ac.uk | Telephone 0115 936 3143
Fax 0115 936 3276 |
| 5 | National Radiological Protection Board
Chilton
Didcot
Oxfordshire
OX11 0RQ | Telephone 01235 831600
Fax 01235 833891 |

Contact Name and Address

**6 Department for Environment, Food and Rural Affairs (DEFRA
- formerly FRCA)** Telephone 0113 2613333
Government Buildings Fax 0113 230 0879
Otley Road
Lawnswood
Leeds
West Yorkshire
LS16 5QT

Catalist Ltd (Fuel Station Data)
Richmond House
22 Richmond Hill Telephone 0117 923 7113
Clifton Fax 0117 923 7166
Bristol
Avon
BS8 1BA
Mark@catalist-uk.com

The Coal Authority Mining Report Service
200 Lichfield Lane
Mansfield
Nottinghamshire Telephone 0845 7626848
NG18 4RG DX 716176 Mansfield 5
thecoalauthority@coal.gov.uk

Landmark Information Group Limited
6 - 7 Abbey Court
Eagle Way Telephone 01392 441702
Sowton Fax 01392 441709
Exeter
Devon
EX2 7HY
mailbox@landmark-information.co.uk
www.landmark-information.co.uk

Please note that the Environment Agency/SEPA have a charging policy in place for enquiries



**British
Geological Survey**
NATURAL ENVIRONMENT RESEARCH COUNCIL

BGS ref no: ISGR/...../.....

Your ref/order no. (if required):

Value Added Reseller

BOREHOLE RECORDS ORDER FORM

Please note this order form is only to be used for the supply of borehole records from the National Geological Records Centre (NGRC) identified from Landmark Reports

Name:-
Address:-

Company:-

Telephone Number:-

Fax Number:-

Date:-

With respect to the following boreholes I would like to: -

Enquire about the costs ☐ Purchase copies ☐ New Leaflet ☐

[illegible]

Note: More than 10 records can be ordered, but it is advisable to discuss your requirements first with NGRC staff

Unit price £13(+VAT) per borehole.

Minimum charge £26(+VAT)

Method of delivery, please indicate preferred option.

1st class post ☐ Special delivery (guaranteed next day before 12:30pm.) ☐ Fax ☐

(Note 1st. class postage is included in the unit charge. Additional charges are made for fax or special delivery)

Please return this form to: - The Records Officer, National Geological Records Centre, British Geological Survey,
Keyworth, Nottingham, NG12 5GG. Tel: 0115936 3109 Fax: 0115936 3276
E-mail: ngis@bgs.ac.uk

LANDMARK TERMS AND CONDITIONS

Definitions

"Account" means the credit account established by a Member with Landmark.

"Agreement" means the agreement between Ourselves created by Your acceptance of these Terms.

"Authorised Reseller" means an agent or reseller of Landmark whom Landmark has duly appointed to resell its Reports and Services.

"Client" means the individual or organisation to whom You provide professional services and/or Your professional advisors where applicable.

"Content" means any data, computing and information services and software, and other content and documentation or support materials and updates included in and/or supplied by or through the Websites, in Reports or Services or in any other way by Landmark and shall include Landmark developed and Third Party Content.

"Designated Users" means individuals appointed by Members to transact across the Member's Account.

"Intellectual Property Rights" means all forms of intellectual property or protective rights recognised in law.

"Member" means the person, firm or organisation who establishes and/or uses the Account.

"Order" means the request for Services from Landmark by You.

"Property Site" means a land site on which a Member requests Landmark provide either a Report or any other Service.

References to "We", "Us" and "Our" are references to Landmark Information Group Limited ("Landmark"), whose registered office is 7 Abbey Court, Eagle Way, Exeter, EX2 7HY. Where You are not ordering the Services directly from Landmark, but from an Authorised Reseller, references to "Landmark" or "We", "Us" and "Our" shall be construed so as to mean either Landmark and/or the Authorised Reseller as the context shall indicate.

References to "You/Your/Yourself" refer to the contracting party who places an Order with Landmark and for whom the Services are to be provided by Landmark.

"Report" includes any information that Landmark supplies to You including all reports, services, datasets, software or information contained in them.

"Services" means the provision of any service by Landmark pursuant to these Terms which at the sole discretion of Landmark, may be time limited, for the purposes of evaluation only, offer reduced functionality, offer limited access to the Content, or be free of charge including but not limited to the report(s), data, information or other services undertaken by Landmark.

"Landmark Fees" means any charges levied by Landmark for Services provided to You.

"Suppliers" means any organisation who provides data or information of any form to Landmark.

"Terms" means these Terms and Conditions.

"Third Party Content" means the services, software, information and other content or functionality provided by third parties and linked to or contained in the Services.

"Websites" means websites hosted by Landmark and includes the Content and any report, service, document, data-set, software or information contained therein, derived there from or thereby.

1. Terms and Conditions

- a. These Terms govern the relationship between You and Landmark whether You are an unregistered visitor to the Website or a registered Member purchasing Landmark products or Services from Landmark.
- b. Where these Terms are not expressly accepted by You they will be deemed to have been accepted by You, and You agree to be bound by these Terms when You place any Order, or pay for any Services provided or Reports ordered.
- c. If the person communicating with Landmark is an Authorised Reseller, they must ensure that You agree to these Terms.
- d. The headings in these Terms are for convenience only and shall not affect the meaning or interpretation of any part of these Terms.
- e. We may modify these Terms, and may discontinue or revise any or all other aspects of the Services at our sole discretion, with immediate effect and without prior notice. Any amendment or variation to these Terms shall be posted on our Websites. Continued use of the Services by You shall be deemed an acceptance by You to be bound by any such amendments to the Terms.
- f. Landmark reserves the right to refuse to supply Services to You or any other potential client without notice or reason.

2. Reports

Whilst Landmark will use reasonable care and skill in providing the Services to You the Services are provided on the express basis that You acknowledge and agree to the following:-

- a. The information and data supplied in the Services are derived from publicly available records and other third party sources and Landmark does not warrant the accuracy or completeness of such information or data, and

- b. The information and data supplied in the Services are derived solely from those sources specifically cited in the Report. Landmark does not claim that these sources represent an exhaustive or comprehensive list of all sources that might be consulted; and
 - c. Landmark does not guarantee that all past or current land uses or features will be identified in the Report; and
 - d. The Services provided by Landmark are professional business to business services and not intended for use or interpretation by persons other than professional persons skilled in the use of property and environmental information; and
 - e. Landmark shall not be responsible for error or corruption in the Report resulting from inaccuracy or omission in primary or secondary information and data, inaccurate processing of information and data by third parties, computer malfunction or corruption of data whilst in the course of conversion, geo-coding, processing by computer or electronic means, or in the course of transmission by telephone or other communication link, or printing.
 - f. Landmark reserves the right, without limitation, to change the Reports or Services on offer at any time.
- ### 3. Intellectual Property
- a. You acknowledge that all Intellectual Property Rights in the Report and Services are and shall remain owned by either Landmark or our Suppliers and nothing in these Terms purports to transfer, assign or grant any rights to You in respect of the Intellectual Property Rights.
 - b. Subject to clause 6.f, You are entitled to make the following use of the Services and Reports subject always to these Terms and You may, without further charge, make the Report or Services available to:
 - i. any person who purchases the whole of the Property Site,
 - ii. any person who provides funding secured on the whole of the Property Site,
 - iii. any person for whom You act in a professional or commercial capacity, and
 - iv. any person who acts for You in a professional or commercial capacity.

Accordingly Landmark shall have the same duties and obligations to those persons in respect of the Services as it has to You.

- c. Each of those persons referred to in clause 3.b. shall have the benefit and the burden of Your rights and obligations under these Terms. The limitations of Landmark's liability as set out in clause 6 shall apply.
- d. The Report is to be used solely for the benefit of You and Your Client and such persons as are set out in clause 3.b, and Landmark excludes all liability to all other persons unless Landmark has expressly agreed in writing to the assignment of the benefit of the Report and has been paid Landmark's reasonable fees for so doing.
- e. All parties given access to the Services agree that they will treat as strictly private and confidential the Services and all information which they obtain from the Services and shall restrict any disclosure to employees or professional advisors to enable the relevant party to conduct its internal business. The requirement in this clause to treat the Services as confidential shall include a requirement to maintain adequate security measures to safeguard the Services from unauthorised access, use or copying.
- f. Each recipient of the Services agrees (and agrees it will cause its employees, agents or contractors who may from time to time have access to the Services to agree) it will not, except as permitted herein or by separate agreement with Landmark:-
 - i. effect or attempt to effect any modification, merger or change to the Service, nor permit any other person to do so; or
 - ii. copy, use, market, re-sell, distribute, merge, alter, add to or carry on any redistribution, reproduction, translation, publication, reduction to any electronic medium or machine readable form or commercially exploit or in any other way deal with or utilise or (except as expressly permitted by applicable law) reverse engineer, decompile or disassemble the Services, Reports, Content or Website, or
 - iii. remove, alter or in any way change any trademark or proprietary marking in any element of the Services and You acknowledge the ownership of the Content is as per this clause, where such Content is incorporated or used into Your own documents, reports, systems or services whether or not these are supplied to any third party.
 - iv. create any product which is derived directly or indirectly from the data contained in the Services
- g. You shall acknowledge the ownership of the Content where such is incorporated into Your own documents, reports, systems or services whether or not these are supplied to any third party.

- h. You are permitted to make five hard copies of any Report, but are not authorised to re-sell the Report, any part thereof or any copy thereof unless you are an Authorised Reseller. Further copies may not be made in whole or in part without the prior written permission of Landmark who shall be entitled to make a charge for each additional copy.
- i. You hereby agree to fully indemnify Landmark against any claim losses or other damages suffered by Landmark as a result any breach by any recipient of the Services of these Terms.
- j. You agree that You will comply with any reasonable instructions that We may give from time to time with regard to the use of the Intellectual Property Rights, including but not limited to acknowledging that the Services and Reports are confidential to You, Your Client or the persons set out in clause 3.b.
- k. The mapping contained in any Services is protected by Crown Copyright and must not be used for any purpose outside the context of the Services or as specifically provided by these Terms.

4. Charges

- a. Landmark may grant You a credit limit in order to allow You to transact with it or set up an Account and reserves the right to withdraw any such credit limit at any time without prior notice.
- b. You are fully responsible for all charges that accumulate on Your Account.
- c. VAT at the prevailing rate shall be payable in addition to the Landmark Fees. You shall pay any other applicable indirect taxes related to Your use of the Services.
- d. An individual or a monthly invoice showing all Orders created will be generated subject to these Terms. You will pay the Landmark Fees at the rates set out in Landmark's or its Authorised Reseller's invoice. The Landmark Fees are payable in full within 28 days without deduction, counterclaim or set off. You acknowledge that time is of the essence with respect to the payment of such invoices. Non-payment of Landmark Fees may, at Our sole discretion result in Landmark terminating or limiting the use of Your Account and its provision of Services to You. Landmark reserve the right to amend the Landmark Fees from time to time and the Services will be charged at the Landmark Fee applicable at the date on which the Service is ordered.
- e. We may charge interest on late payment at a rate equal to 8% per annum above the base lending rate of National Westminster Bank plc.
- f. Landmark or its Authorised Reseller shall not be obliged to invoice any party other than You for the provision of Services, but where Landmark or its Authorised Reseller does so invoice any third party at Your request, and such invoice is not accepted or remains unpaid, Landmark or its Authorised Reseller shall have the option at any time to cancel such invoice and invoice You direct for such Services. Where Your order comprises a number of Services or severable elements within any one or more Services, any failure by Landmark or its Authorised Reseller to provide an element or elements of the Services shall not prejudice Landmark's or its Authorised Reseller's ability to require payment in respect of the Services delivered to You.

5. Termination

- a. Landmark may suspend or terminate Your rights under these Terms without any liability to You with immediate effect if at any time:-
 - i. You fail to make any payment due in accordance with clause 4;
 - ii. You repeatedly breach or commit or cause to be committed any material breach of these Terms; or
 - iii. You commit a breach and You fail to remedy the breach within 7 days of receipt of a written notice to do so Landmark may remedy the breach and recover the costs thereof from You; or
 - iv. You commit an act of bankruptcy or insolvency, are unable to pay Your debts as or when they fall due or make any composition or arrangement with Your creditors, or go into liquidation whether voluntary or compulsory, or if any order is made or a resolution is passed for Your winding up (except for the purpose of a solvent amalgamation or reconstruction), or if You cease or prepare to cease trading, or if You suffer the appointment of a receiver, administrative receiver, administrator or similar officer over the whole or part of any of Your assets.
- b. If Your rights are terminated under this clause and You have made an advance payment We will refund You a reasonable proportion of the balance as determined by Us in relation to the value of Services previously purchased.
- c. We may suspend the Agreement between You and Landmark for an indefinite period without notice and at any time if in Our opinion You are in breach of any of the provisions of these Terms.

6. Liability

- a. We provide warranties and accept liability only to the extent stated in this clause 6.
- b. Nothing in these Terms excludes either party's liability for death or personal injury caused by that party's negligence or wilful default.
- c. As most of the information contained in the Services is provided to Landmark by others, Landmark cannot control its accuracy or completeness, nor is it within the scope of Landmark's Services to check the information on the ground. Accordingly, subject to clause 6b, Landmark will only be liable to You for any loss or damage caused by its negligence or wilful default and neither Landmark nor any person providing information contained in any Services shall in any other circumstances be liable for any inaccuracies, faults or omissions in the Services nor shall Landmark have any liability if the Services are used otherwise than in accordance with these Terms.
- d. Save as precluded by law, Landmark shall not be liable for any indirect or consequential loss, damage or expenses (including loss of profits, loss of contracts, business or goodwill) howsoever arising out of any problem, event, action or default by Landmark or any indirect or consequential loss of any nature whatsoever or for any physical damage to or loss of Your tangible property, any other direct loss, damage, cost or expense of any kind or any indirect or consequential loss, damage, cost or expense of any kind, whether any of the above arise under contract, tort (including negligence), an indemnity or contribution or otherwise.
- e. In any event, and notwithstanding anything contained in these Terms, Landmark's liability in contract, tort (including negligence or breach of statutory duty) or otherwise howsoever arising by reason or in connection with this Contract (except in relation to death or personal injury) shall be limited to an aggregate amount not exceeding £1 million if the complaint is in relation to a Report on residential property and an amount not exceeding £10 million in respect of any other Report or Service purchased from Landmark except in so far as Landmark will not be liable for any defect, failure or omission relating to Services that is not notified to Landmark within six months of the date of the issue becoming apparent and in any event, within twelve months of the date of the Report. Where any claim relates to either a part of the Services that is not chargeable or if You have been in breach of any part of these Terms Landmark's liability shall be limited to £1,000.
- f. No person may rely on the Report more than 12 months after its original date.
- g. You acknowledge that:-
 - i. You shall have no claim or recourse against any Third Party Content supplier nor any of our other Suppliers. You will not in any way hold us responsible for any selection or retention of, or the acts of omissions of Third Party Content suppliers or other Suppliers (including those with whom We have contracted to operate various aspects or parts of the Service) in connection with the Services (for the avoidance of doubt Landmark is not a Third Party Content supplier). Landmark does not promise that the supply of the Services will be uninterrupted or error free or provide any particular facilities or functions, or that the Content will always be complete, accurate, precise, free from defects of any other kind, computer viruses, software locks or other similar code although Landmark will use reasonable efforts to correct any inaccuracies within a reasonable period of them becoming known to us;
 - ii. Landmark's only obligation is to exercise the reasonable skill and care in providing environmental property risk information to persons acting in a professional or commercial capacity and You hereby acknowledge that You are such a person;
 - iii. no physical inspection of the Property Site reported on is carried out as part of any Services offered by Landmark and as such We do not warrant that all land uses or features whether past or current will be identified in the Services and the Services do not include any information relating to the actual state or condition of any Property Site nor should they be used or taken to indicate or exclude actual fitness or unfitness of a Property Site for any particular purpose nor should it be relied upon for determining suitability or value or used as a substitute for any physical investigation or inspection;
 - iv. You should carefully inspect the Property Site, and take any other advice that would be reasonably prudent to do prior to making any decision about the Property Site to which any Report or Service relates and not rely exclusively on the Report or any other Landmark Services in terms of valuing the Property Site;

- v. Landmark will not be held liable in any way if a Report on residential property is used for commercial property or more than the one residential property for which it was ordered.
- vi. the Services have not been prepared to meet Your or anyone else's individual requirements; that You assume the entire risk as to the suitability of the Services and waive any claim of detrimental reliance upon the same, and You confirm You are solely responsible for the selection or omission of any specific part of the Content;
- vii. You shall be solely responsible for maintaining the confidentiality of Your passwords (including Your Designated Users' password(s)) and You will notify us immediately that You become aware of any unauthorised access to, use or copying of any part of Services or document or report derived or downloaded there from by anyone;
- viii. You must observe and comply with all applicable regulations and legislation;
- ix. We offer no warranty for the performance of any linked internet service not operated by Us;
- x. You will on using the Services make a reasonable inspection of any results to satisfy Yourself that there are no defects or failures. In the event that there is a material defect You will notify us in writing of such defect within seven days of its discovery;
- xi. without prejudice to any restrictions set out in these Terms, if in the course of Your business or otherwise You use for the benefit of or convey to any third party any part of the Website, Content, or Services You must make such third parties aware of the limitations, obligations and acknowledgements contained herein;
- xii. any support or assistance provided to You in connection with these Terms is at Your risk;
- xiii. the information contained in the Services has been extracted from various Crown Copyright and other published sources, and accordingly, Landmark does not accept any responsibility, and expressly disclaims all liability, for any errors, omissions or misstatements, or for any loss occasioned to any person acting, or refraining from action, as a result of, or in reliance upon, the information contained in these Services;
- h. All liability for any insurance products purchased by You rests solely with the insurer. Landmark does not endorse any particular product or insurer and no information contained within the Services should be deemed to imply otherwise. You acknowledge that if You Order any such insurance Landmark will deem such as Your consent to forward a copy of the Report to the insurers. Where such policy is purchased, all liability remains with the insurers and You are entirely responsible for ensuring that the insurance policy offered is suitable for Your needs and should seek independent advice. Landmark does not guarantee that an insurance policy will be available on a Property Site. All decisions with regard to the offer of insurance policies for any premises will be made solely at the discretion of the insurers and Landmark accepts no liability in this regard. The provision of a Report does not constitute any indication by Landmark that insurance will be available on the property.
 - i. If Landmark provides You with any additional service obtained from a third party, including but not limited to any professional opinion, interpretation or conclusion, risk assessment or environmental report or search carried out in relation to a Report on Your Property Site, Landmark will not be liable in any way for any information contained therein or any issues arising out of the provision of those additional services to You or Your Client. Landmark will be deemed to have acted as an agent in these circumstances and the supply of these additional services will be governed by the terms and conditions of those Third Parties.
 - j. Landmark has undertaken the Services for use only by the persons referred to at clause 3b and for no other purpose whatsoever and the Services should not be relied upon by any other third party. Landmark can accept no responsibility and will not be liable to any third party for any loss caused as a result of reliance upon the Services. Any third party relying on the Services does so entirely at its own risk, including without limitation any insurers referred to in this clause 6. Recipients of the Services are to rely on their own skill and judgment in determining the suitability of the Services for their own purpose and use and are advised to use the Services with caution and not base important business decisions solely on the same. Landmark Services are merely one of the tools available for the assessment of environmental, geological or other property or land-related risks and should be used in conjunction with other recognised methods of evaluation.
 - k. Time shall not be of the essence with respect to the provision of the Services.

7. Events Beyond Our Control

You acknowledge that Landmark shall not be liable for any delay, interruption or failure in the provision of the Services which are caused or contributed to by any circumstance which is outside our reasonable control including but not limited to, lack of power, telecommunications failure or overload, computer malfunction, inaccurate processing of data, or delays in receiving, loading or checking data, corruption of data whilst in the course of conversion, geo-coding, processing by computer in the course of electronic communication, or printing.

8. Severability

If any provision of these Terms are found by either a court or other competent authority to be void, invalid, illegal or unenforceable, that provision shall be deemed to be deleted from these Terms and never to have formed part of these Terms and the remaining provisions shall continue in full force and effect.

9. Governing Law

This Agreement shall be governed by and construed in accordance with English law and each party agrees irrevocably submit to the exclusive jurisdiction of the English courts as regards any claim or matter arising under this Agreement. If any dispute arises out of or in connection with this agreement (a "Dispute") the parties undertake that, prior to the commencement of Court proceedings, they will seek to have the Dispute resolved amicably by use of an alternative dispute resolution procedure acceptable to both parties with the assistance of the Centre for Dispute Resolution (CEDR) if required, by written notice initiating that procedure. If the Dispute has not been resolved to the satisfaction of either party within 60 days of initiation of the procedure or if either party fails or refuses to participate in or withdraws from participating in the procedure then either party may refer the Dispute to the Court.

10. Entire Agreement

- a. These Terms, together with the prices and delivery details set out on our Websites and Your Order comprise the whole of our agreement relating to the supply of Services to You by Landmark. No prior stipulation, agreement, promotional material or statement whether written or oral made by any sales or other person or representative on our behalf should be understood as a variation of these Terms or as an authorised representation about the nature or quality of any Services offered for sale by us. Save for fraud or misrepresentation, Landmark shall have no liability for any such representation being untrue or misleading.
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Envirocheck[®] Report:

Historical Map List

Report on:

Old Sarum
Salisbury

National Grid Reference :

415100, 133450

Prepared For :

Structural Soils
10460
The Old School House
Stillhouse Lane, Bedminster
Bristol BS3 4EB

Your Reference

S Pond, 41367

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Ordnance Survey County Series Published 1880 to 1881

County	Mapsheet	Scale	Year
Wiltshire	066_03	1:2,500	1880
Wiltshire	066_04	1:2,500	1881
Wiltshire	066_07	1:2,500	1881
Wiltshire	066_08	1:2,500	1881

Ordnance Survey County Series Published 1901

County	Mapsheet	Scale	Year
Wiltshire	066_03	1:2,500	1901
Wiltshire	066_04	1:2,500	1901
Wiltshire	066_07	1:2,500	1901
Wiltshire	066_08	1:2,500	1901

Ordnance Survey County Series Published 1926

County	Mapsheet	Scale	Year
Wiltshire	066_03	1:2,500	1926
Wiltshire	066_04	1:2,500	1926
Wiltshire	066_07	1:2,500	1926
Wiltshire	066_08	1:2,500	1926

Ordnance Survey County Series Published 1936 to 1939

County	Mapsheet	Scale	Year
Wiltshire	066_03	1:2,500	1939
Wiltshire	066_04	1:2,500	1939
Wiltshire	066_07	1:2,500	1936
Wiltshire	066_08	1:2,500	1939

Ordnance Survey Plan Published 1975

National Grid Series	Mapsheet	Scale	Year
Ordnance Survey Plan	SU1433	1:2,500	1975
Ordnance Survey Plan	SU1533	1:2,500	1975

Ordnance Survey County Series Published 1887

County	Mapsheet	Scale	Year
Wiltshire	060_00	1:10,560	1887
Wiltshire	066_00	1:10,560	1887

Ordnance Survey County Series Published 1901

County	Mapsheet	Scale	Year
Wiltshire	060_SE	1:10,560	1901
Wiltshire	066_NE	1:10,560	1901

Ordnance Survey County Series Published 1926

County	Mapsheet	Scale	Year
Wiltshire	060_SE	1:10,560	1926
Wiltshire	066_NE	1:10,560	1926

Ordnance Survey County Series Published 1939

County	Mapsheet	Scale	Year
Wiltshire	066_NE	1:10,560	1939

Ordnance Survey Plan Published 1962 to 1963

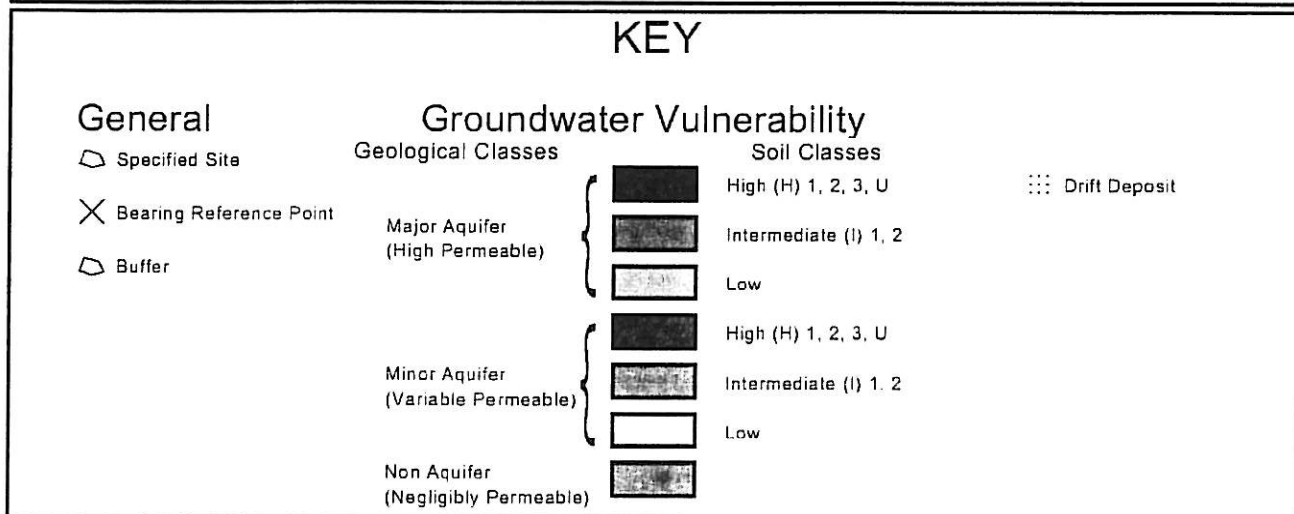
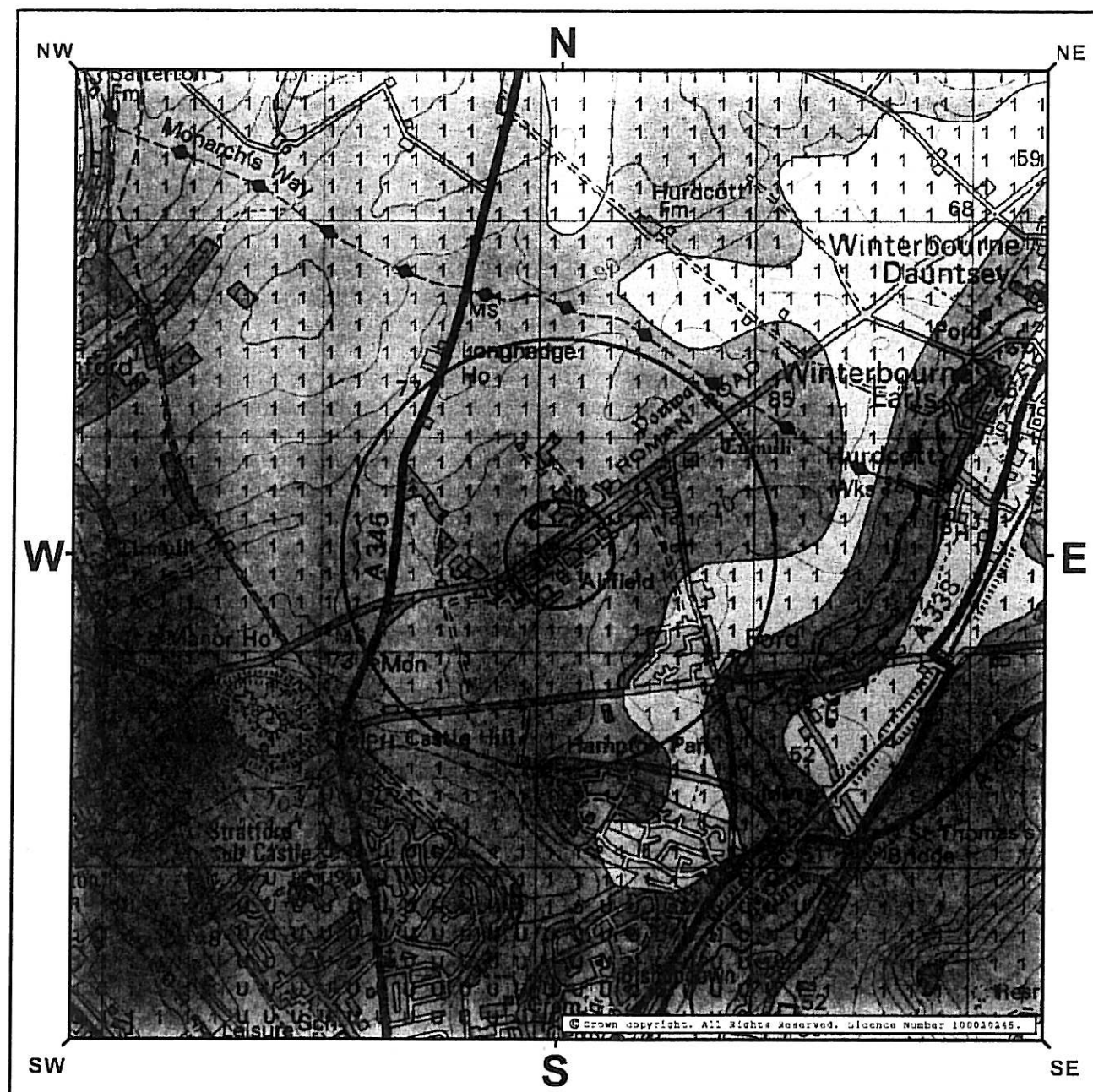
National Grid Series	Mapsheet	Scale	Year
Ordnance Survey Plan	SU13SE	1:10,560	1962
Ordnance Survey Plan	SU13SW	1:10,560	1963

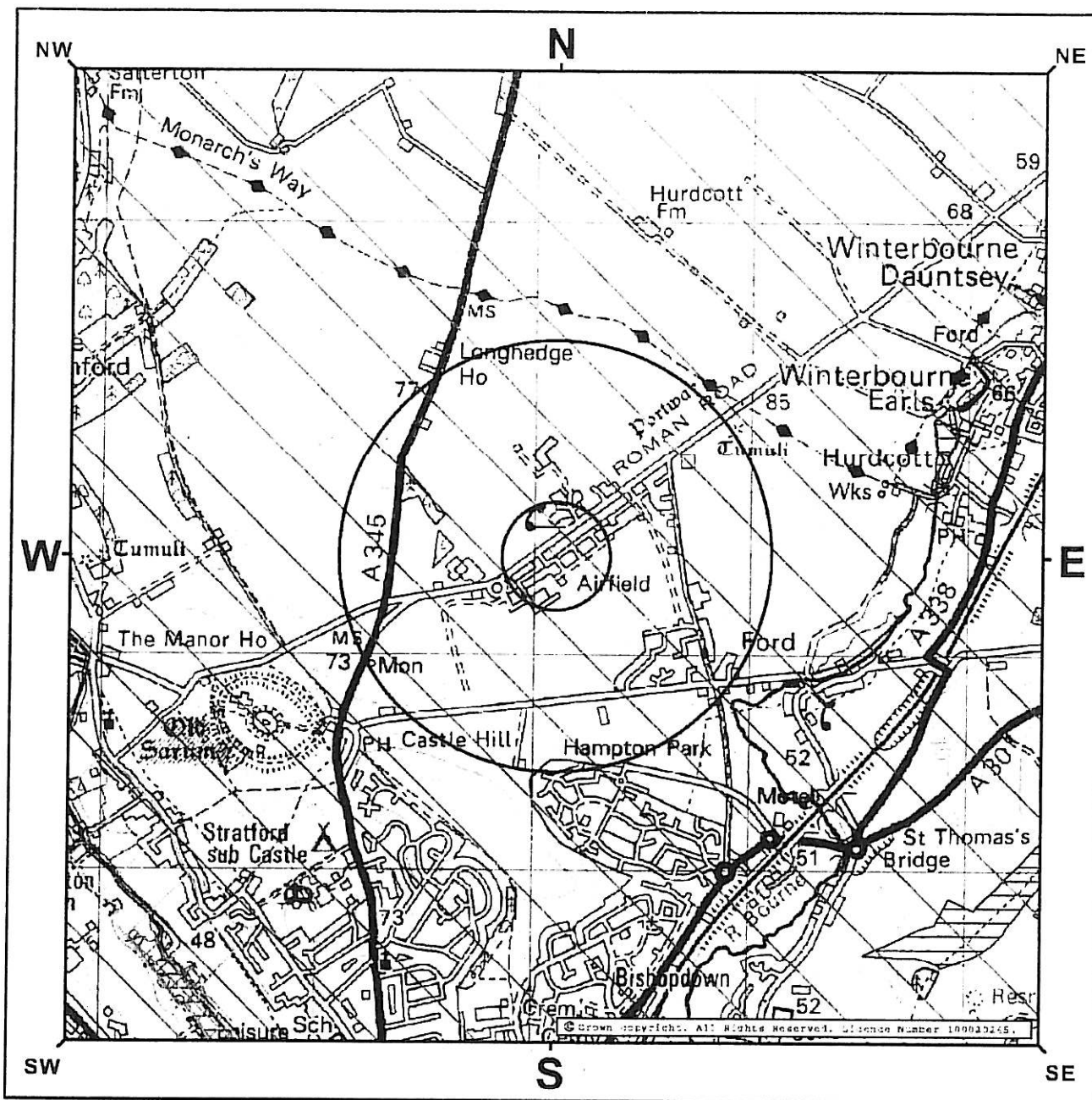
Ordnance Survey Plan Published 1981 to 1982

National Grid Series	Mapsheet	Scale	Year
Ordnance Survey Plan	SU13SE	1:10,000	1981
Ordnance Survey Plan	SU13SW	1:10,000	1982

Ordnance Survey Plan Published 2000

	Mapsheet	Scale	Year
Ordnance Survey Plan	SU13SE	1:10,000	2000
Ordnance Survey Plan	SU13SW	1:10,000	2000





KEY

General

- Specified Site
- Bearing Reference Point
- Buffer

Sensitive Land Uses

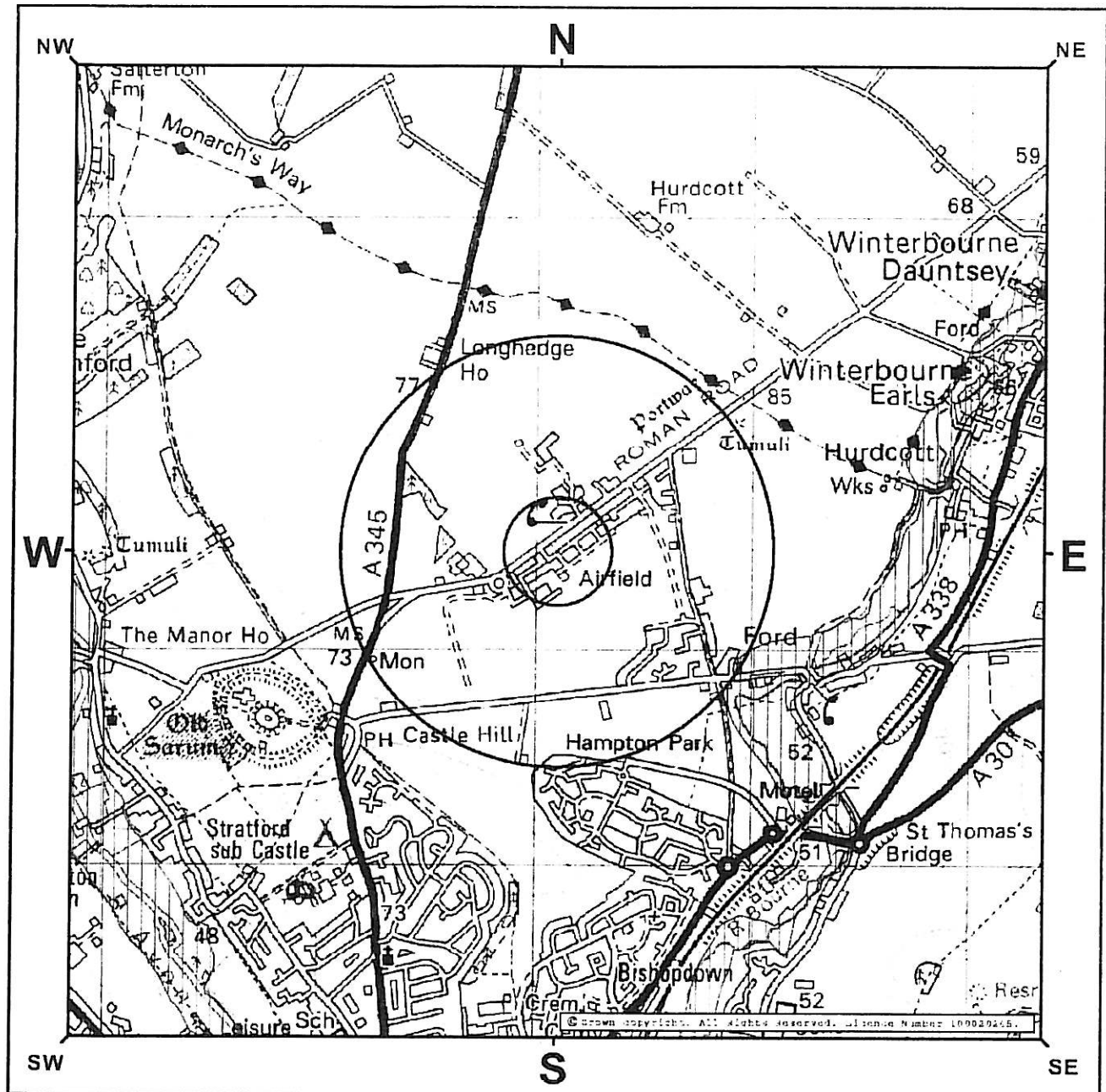
- Area of Adopted Green Belt
- Area of Unadopted Green Belt
- Area of Outstanding Natural Beauty

Environmentally Sensitive Area

- Forest Park
- Local Nature Reserve
- Marine Nature Reserve
- National Nature Reserve
- National Park
- National Scenic Area

Nitrate Sensitive Area

- Nitrate Vulnerable Zone
- Ramsar Site
- Site of Special Scientific Interest
- Special Area of Conservation
- Special Protection Area



KEY

General

- Specified Site
- Bearing Reference Point
- Buffer

Agency & Hydrological

Environment Agency Indicative Floodplain

- Indicative Fluvial Floodplain
- Indicative Tidal Floodplain



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CLIENT DETAILS

Envirocheck Order No. EC9058661_1_1
Customer Ref: S Pond 41367

Structural Soils
The Old School House Stillhouse Lane, Badminton
Bristol
BS3 4EB

SITE DETAILS

Grid Reference 415100 133450

Old Sarum

Salisbury

KEY TO THE LEGEND DATABASE

General

- Specified Site
- Bearing Reference Point
- Buffer (250m)
- Reference Number
- Several of Type at Location
- Pylon
- Overhead Transmission Line

Waste

- Point Location of BGS Recorded Landfill Site
- BGS Recorded Landfill Site
- Integrated Pollution Control
- Registered Waste Site
- Licensed Waste Management Facilities (Landfill Boundary)
- Licensed Waste Management Facility Location
- Point Location of Local Authority Recorded Landfill Site
- Local Authority Recorded Landfill Site
- Registered Landfill Site

Agency and Hydrological

- Air Pollution Control
- Air Pollution Control Enforcement
- Point Location of Contaminated Land Register Entry or Notice
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement Or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Pollution Incident to Controlled Waters
- Substantiated Pollution Incident Register
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substance
- River Network or Water Feature
- River Quality Sampling Point
- Water Abstraction
- Water Industry Act Referral

Agency and Hydrological

- Point Location of Registered Waste Transfer Site
- Registered Waste Transfer Site
- Point Location of Registered Waste Treatment or Disposal Site
- Registered Waste Treatment or Disposal Site

Hazardous Substances

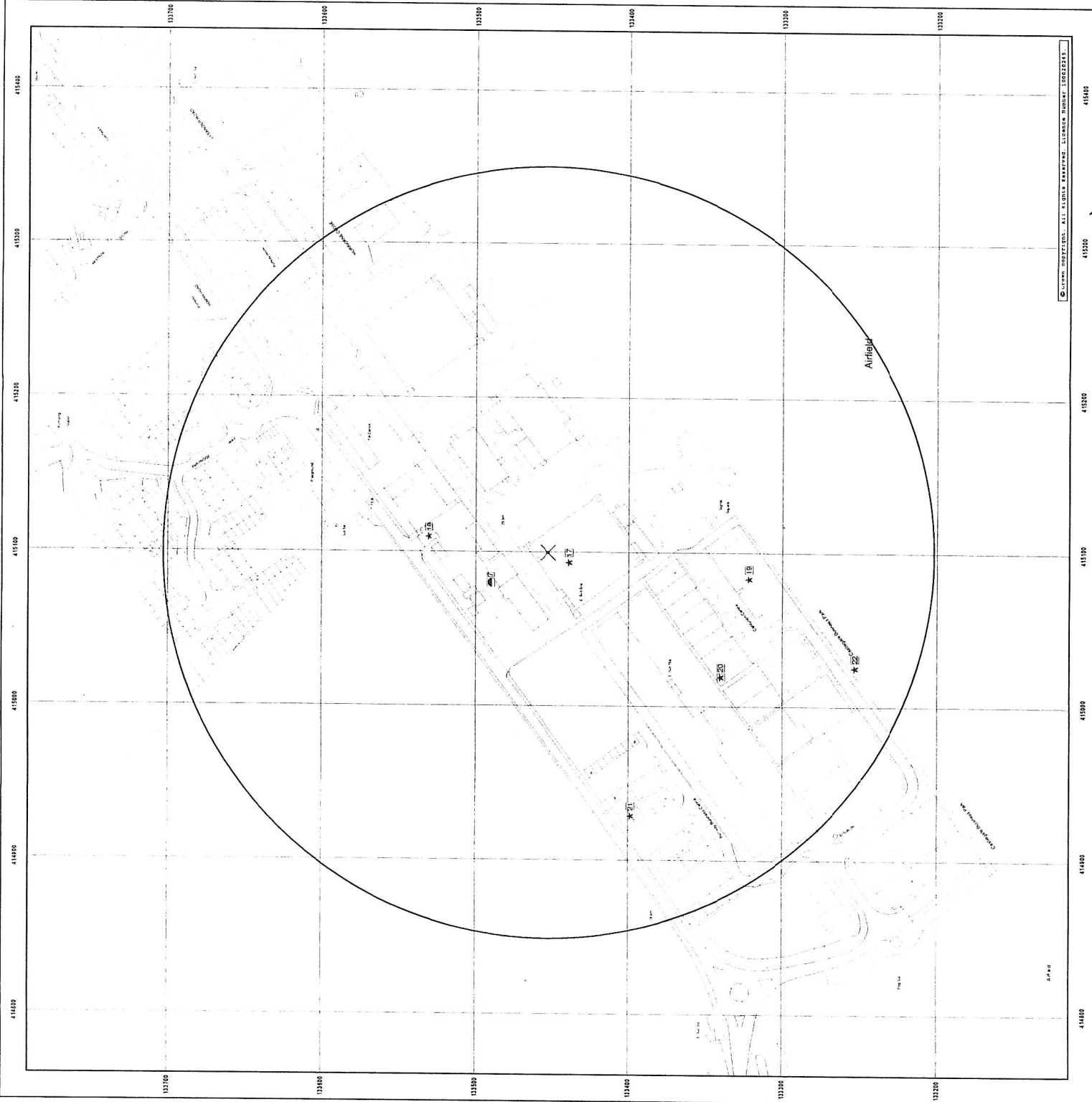
- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

Geological

- BGS Borehole
- BGS Recorded Mineral Site

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry





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CLIENT DETAILS

Envirocheck Order No. EC9058661_1_1
(MANDATORY)

Customer Ref: s Pend.41307
Structural Soils
The Old School House Stillhouse Lane, Badminton
Bristol
BS3 4EB

SITE DETAILS

Grid Reference 415100 133450

Old Sarum

Salisbury

KEY TO THE LEGEND DATABASE

General

○ Specified Site

✕ Bearing Reference Point

○ Buffer (1000m)

⑥ Reference Number

□ Several of Type at Location

Waste

▼ Point Location of
BGS Recorded Landfill Site

□ BGS Recorded Landfill Site

▲ Integrated Pollution Control
Registered Waste Site

● Licensed Waste Management
Facilities (Landfill Boundary)

● Licensed Waste Management
Facility (Location)

■ Point Location of Local Authority
Recorded Landfill Site

■ Local Authority Recorded
Landfill Site

□ Registered Landfill Site

Agency and Hydrological

▲ Air Pollution Control

▼ Air Pollution Control
Enforcement

● Point Location of Contaminated
Land Register Entry or Notice

● Contaminated Land Register
Entry or Notice

◆ Discharge Consent

▲ Enforcement or Prohibition Notice

▲ Integrated Pollution Control

■ Integrated Pollution
Prevention Control

● Pollution Incident to
Controlled Waters

◆ Substantiated Pollution
Incident Register

▼ Prosecution Relating to
Authorised Processes

◆ Prosecution Relating to
Controlled Waters

▲ Registered Radioactive Substance

◆ River Quality
Sampling Point

◆ Water Abstraction

◆ Water Industry Act Referral

▲ Air Pollution Control

▼ Air Pollution Control
Enforcement

● Point Location of Contaminated
Land Register Entry or Notice

● Contaminated Land Register
Entry or Notice

◆ Discharge Consent

▲ Enforcement or Prohibition Notice

▲ Integrated Pollution Control

■ Integrated Pollution
Prevention Control

● Pollution Incident to
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Incident Register

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Authorised Processes

◆ Prosecution Relating to
Controlled Waters

▲ Registered Radioactive Substance

◆ River Quality
Sampling Point

◆ Water Abstraction

◆ Water Industry Act Referral

Hazardous Substances

✱ COMAH Site

✱ Explosive Site

✱ NIHS Site

✱ Planning Hazardous
Substance Consent

✱ Planning Hazardous
Substance Enforcement

Geological

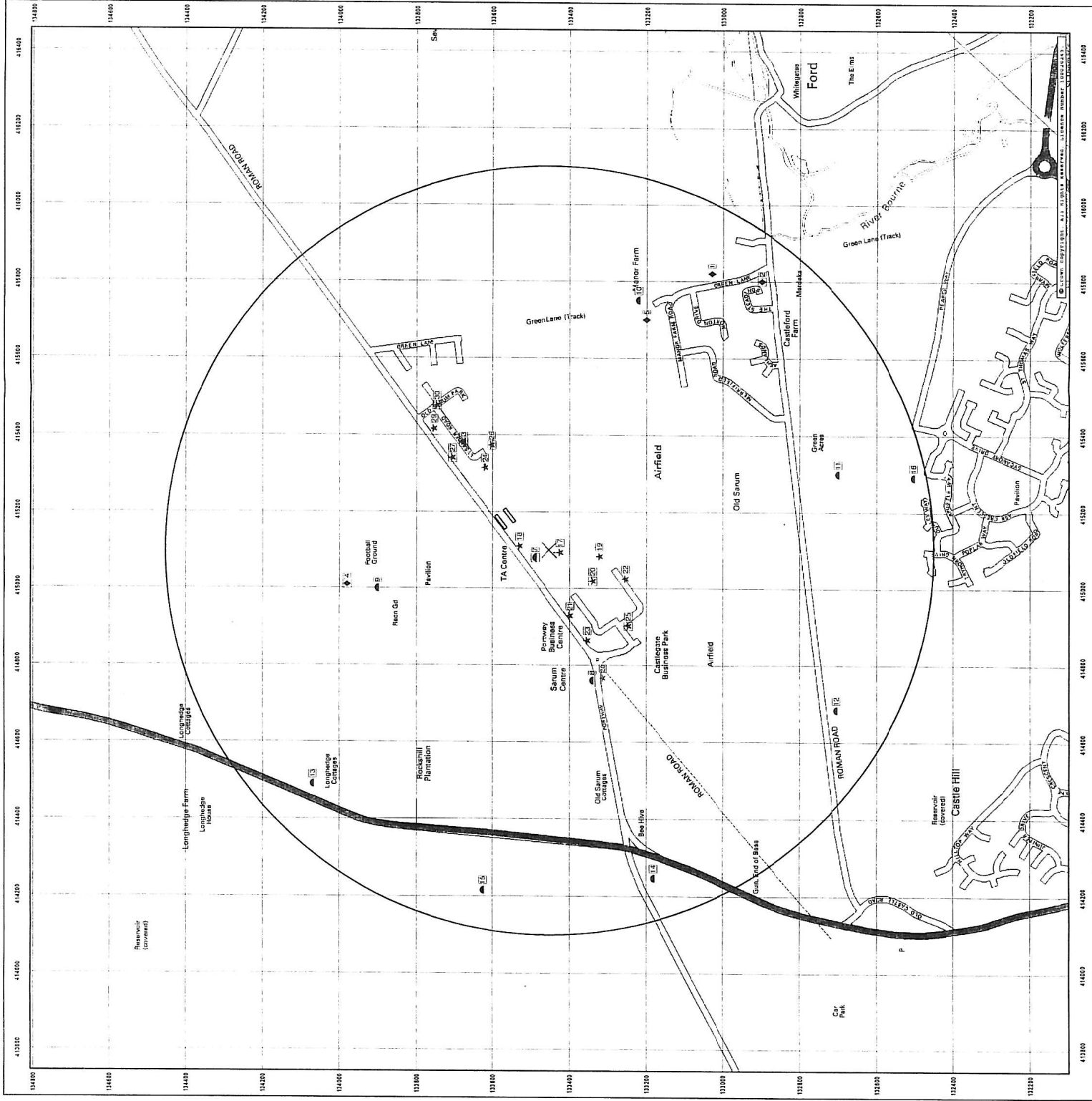
▲ BGS Borehole

▼ BGS Recorded Mineral Site

Industrial Land Use

★ Contemporary Trade Directory
Entry

★ Fuel Station Entry





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Envirocheck Order No. EC9058661_1_1

Customer Ref: S Pond.41367

Structural Soils

The Old School House Stillhouse Lane, Bedminster

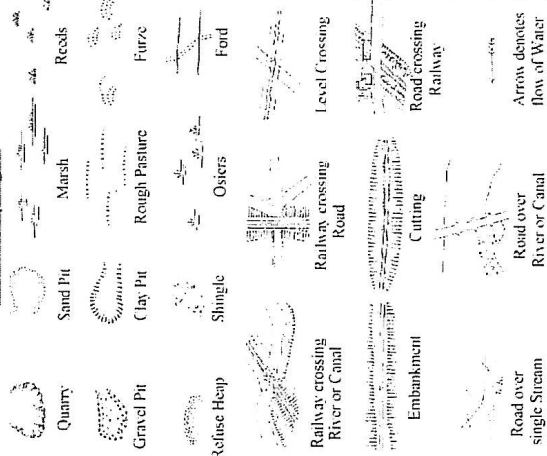
Bristol

Grid Reference	415100	133450
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Old Sarum

Salisbury

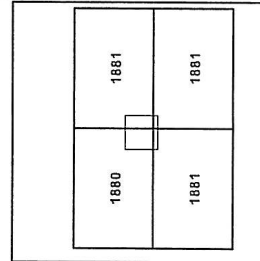
Historical Map Legend



WILTSHIRE

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:500 scale was adopted for mapping urban areas and by 1895 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published data given on the night is often many years later than the surveyed data. Before 1931, all OS maps were based on the Airy Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Device map scale - 1:2500

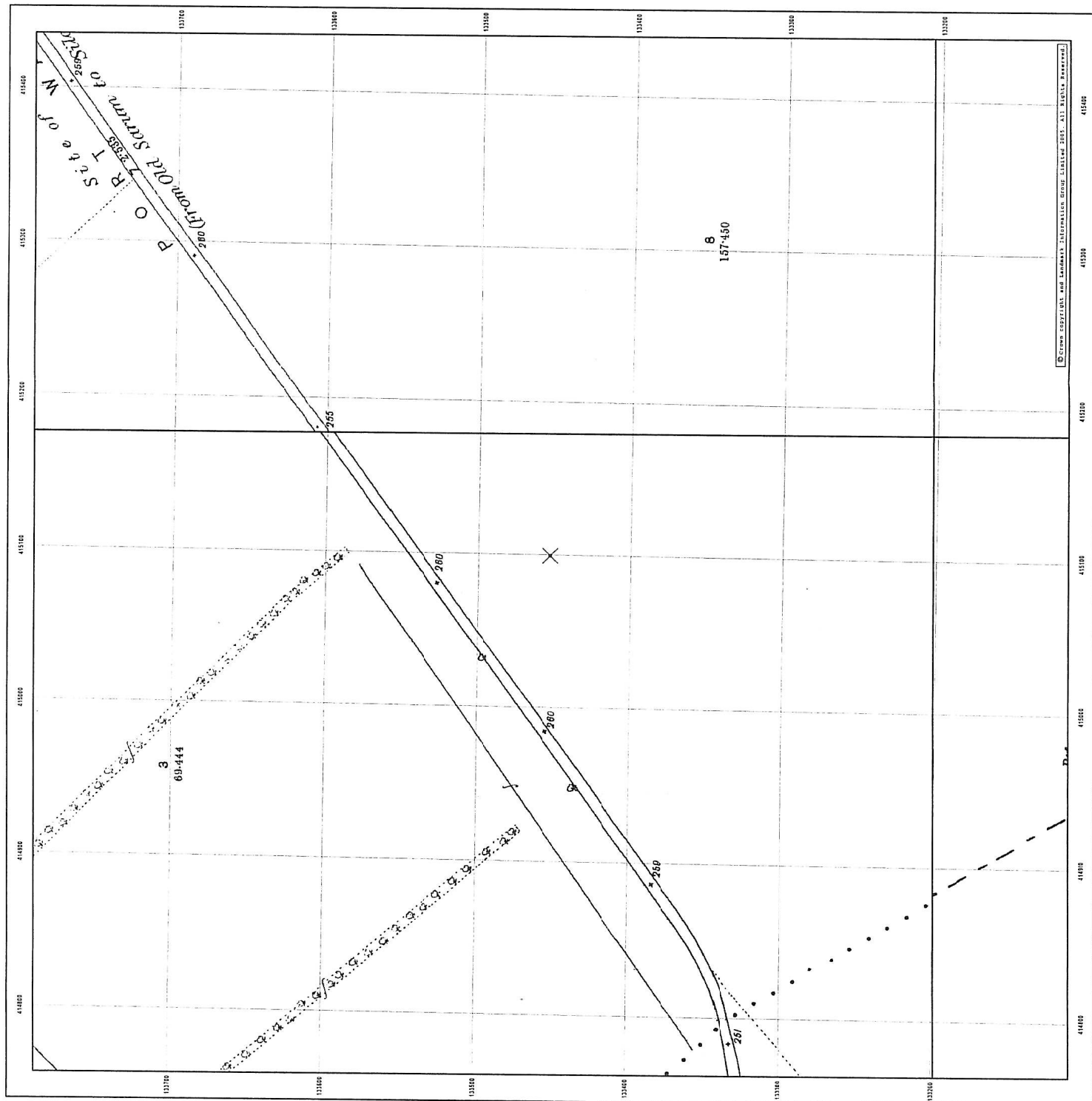


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Bristol

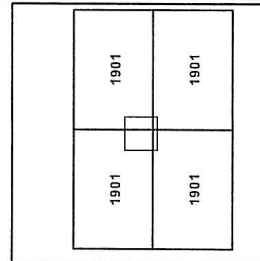
Old Serum

Salisbury

	Quarry		Sand Pit		Marsh		Reeds
	Gravel Pit		Clay Pit		Rough Pasture		Furze
	Refuse Heap		Shingle		Oysters		Ford
	Railway crossing River or Canal		Railway crossing Road		Level Crossing		Road crossing Railway
	Embankment		Cutting		Road over River or Canal		Arrow denotes flow of Water

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:500 scale was adopted for mapping urban areas and by 1856 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published data given on the night is often some years later than the surveyed data. The 1931, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in adjoining areas.

voice map scale - 1:2,500



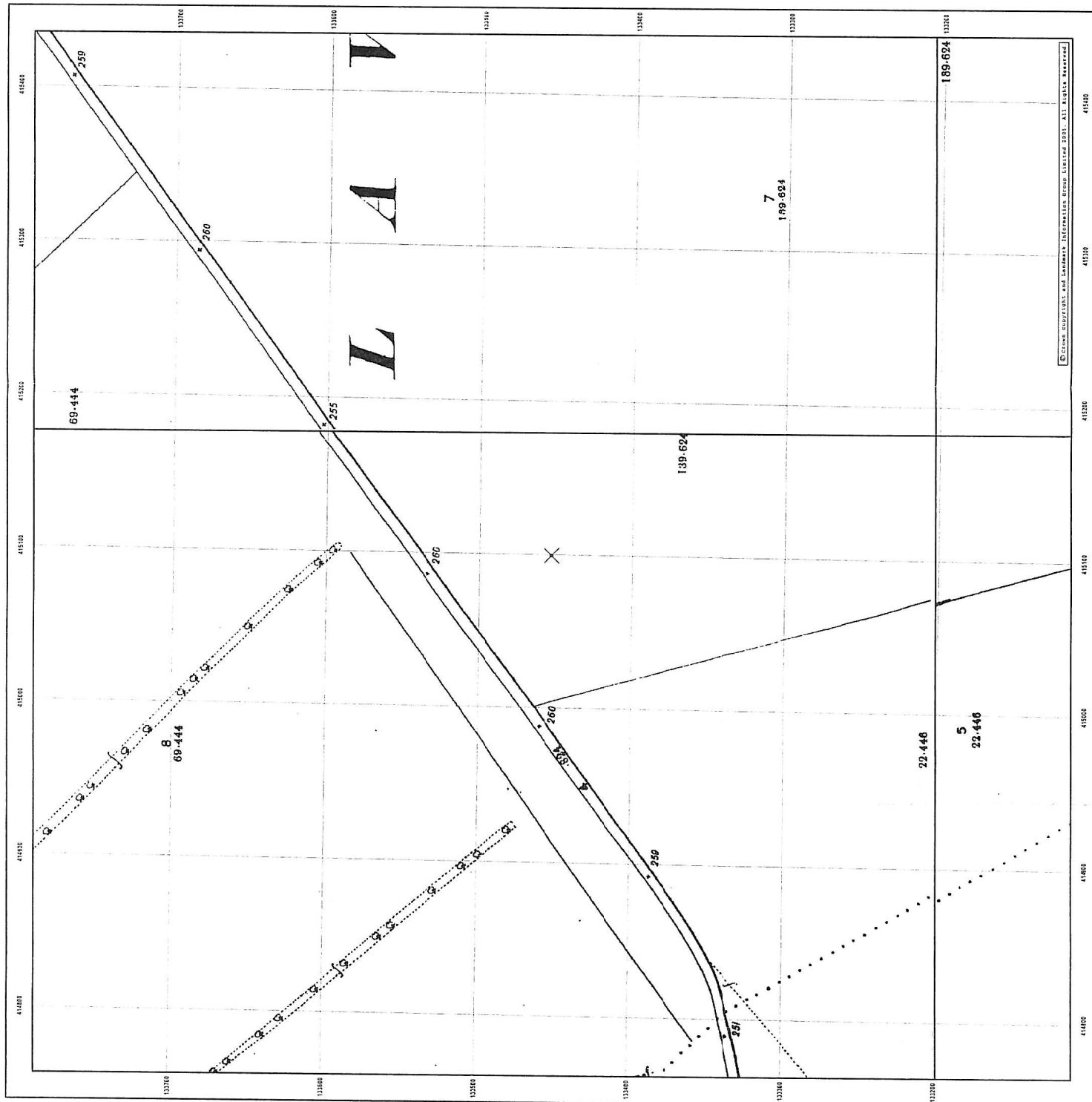
Date(s) of Publication

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CLIENT DETAILS

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Customer Ref: J F0004367
Structural Soils
The Old School House Stillhouse Lane, Bedminster
Bristol

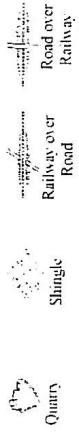
853 4E8

SITE DETAILS		Grid Reference	415100	133450
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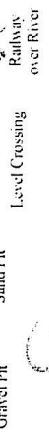
000003 P10

Salisbury

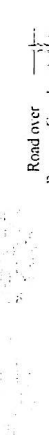
Historical Map Legend



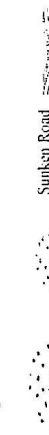
Railway over



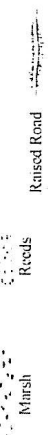
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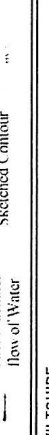
Rough Pasture



•



1-10-00



WILTSHIRE

WILTSHIRE

historical maps shown were reproduced from maps predominantly held at the scale adopted for 1:250,000 maps of Wales and Scotland in the 1840's. In 1854 a 1:250,000 scale was adopted for mapping urban areas; these maps were used to update the 1:250,000 maps. The published date given on the map therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independence of a single county or group of counties, is rare due to significant inaccuracies in

In the late 1940's, a Provisional Edition was produced, which updated the 1:10,000 mapping in a number of sources. The maps appear limited - with all military camps and other strategic sites removed. These maps were initially printed with the National Grid. In 1970, the 1:10,000 maps were produced using the Universal Mercator Projection. The revision series continued until recently, with new editions appearing every 16 years or so for urban areas.

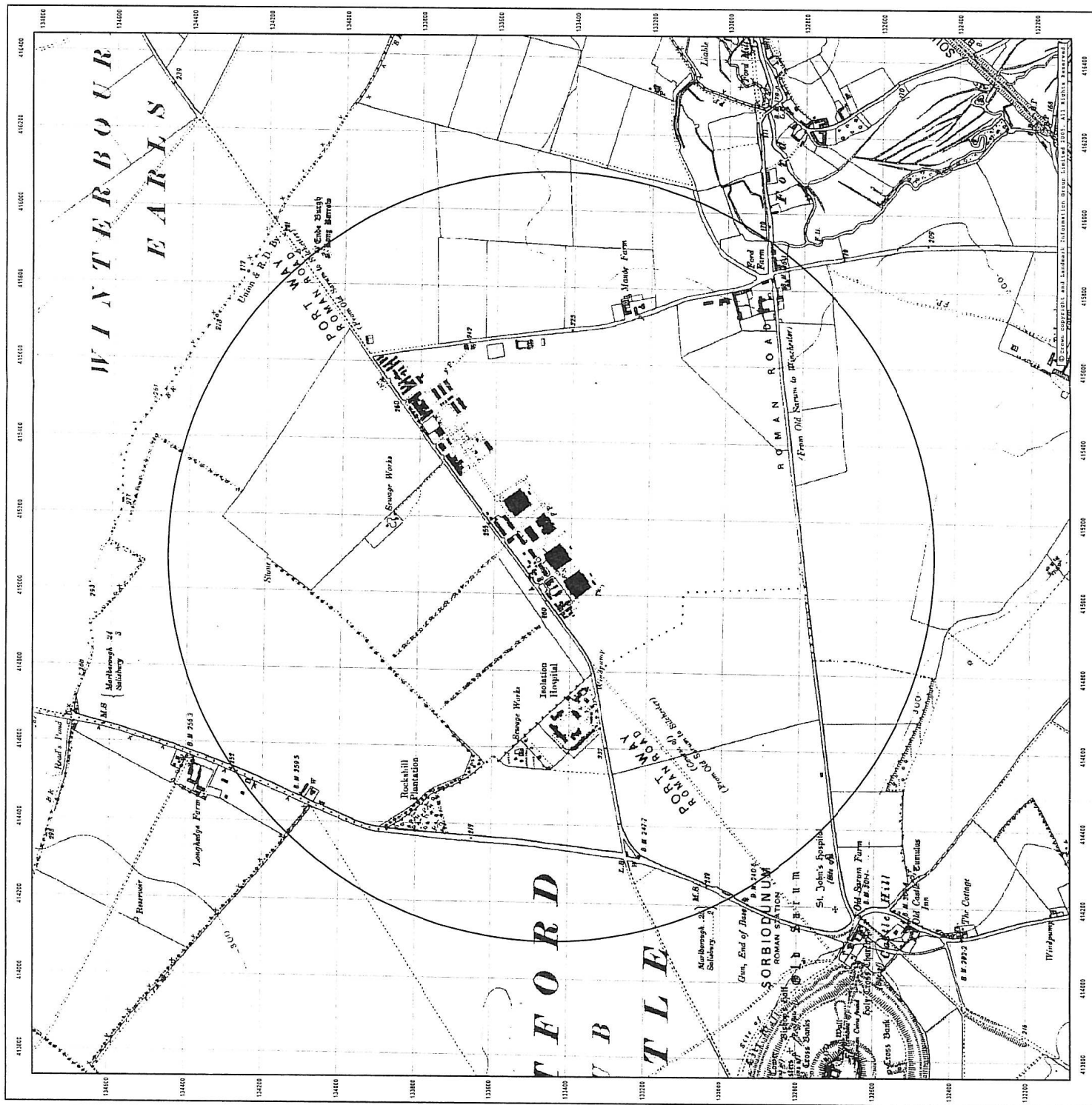
price range - \$90-\$200

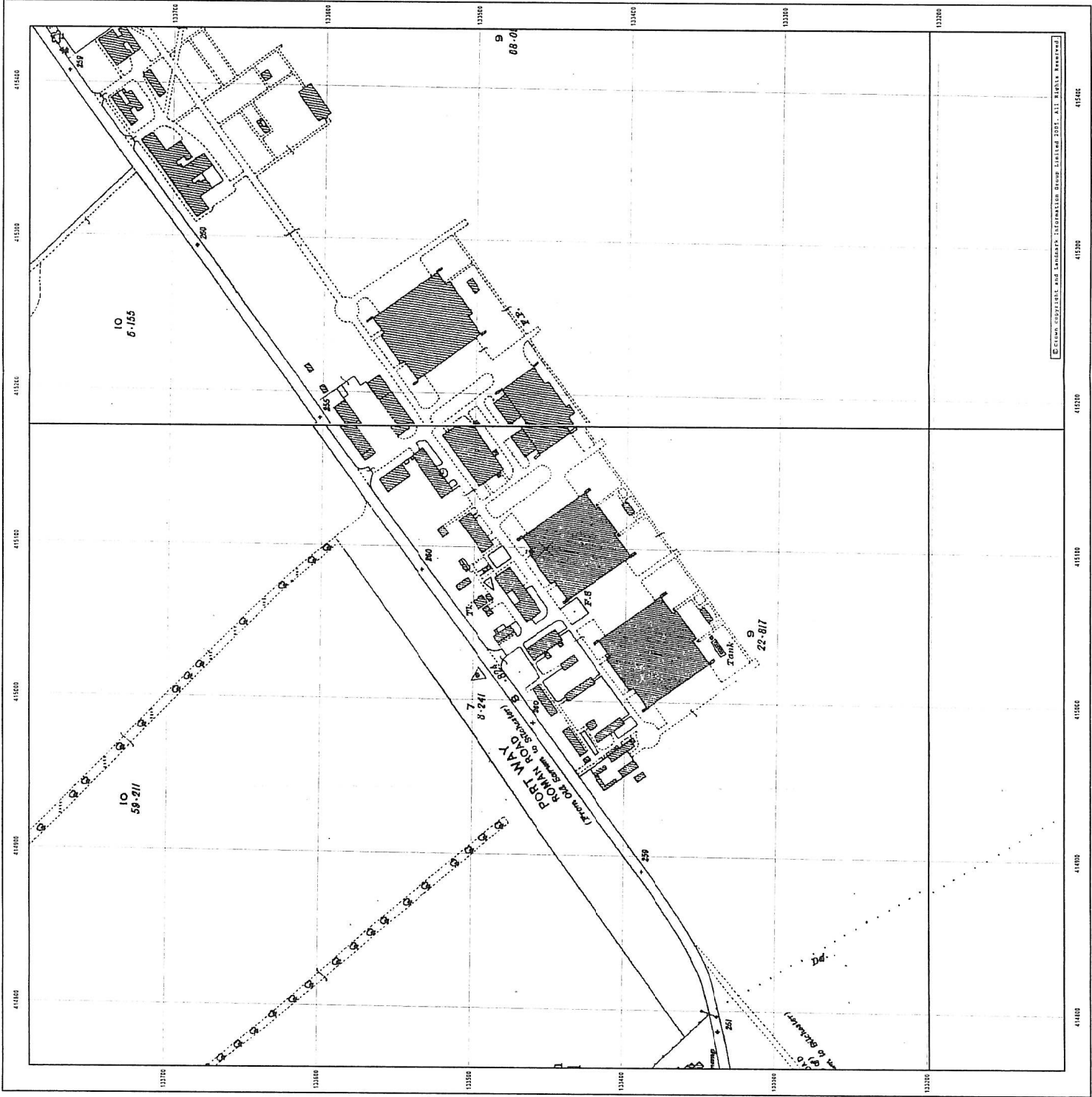
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CLIENT DETAILS

Envirocheck Order No. EC9058661_1_1
Customer Ref: S Pend.41367
Structural Soils
The Old School House Stillhouse Lane, Bedminster
Bristol
BS3 4EB

SITE DETAILS

Grid Reference 415100 133450
Old Sarum
Salisbury

Historical Map Legend

Quarry	Sand Pit	Marsh	Reeds
Gravel Pit	Clay Pit	Rough Pasture	Furze
Refuse Heap	Shingle	Oysters	Ford
Railway crossing River or Canal	Railway crossing Road	Level Crossing	Road crossing Railway
Embankment	Cutting	Road over River or Canal	Arrow denotes flow of Water
Road over single Stream			

WILTSHIRE

The historical maps shown were reproduced from maps produced by the Ordnance Survey for the purpose of mapping the area. The maps were not 1:2500 scale but were adapted for mapping urban areas. The maps were produced by the Ordnance Survey in 1926. The published data given on the right is for the year 1926. The maps were produced by the Ordnance Survey in 1926. The published data given on the right is for the year 1926. The maps were produced by the Ordnance Survey in 1926. The published data given on the right is for the year 1926.

Date(s) of Publication

1926 1926 1926 1926

OS Ordnance Survey
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CLIENT DETAILS

Envirocheck Order No. EC9058661_1_1

Customer Ref: S Pond.41367

Structural Soils

The Old School House Stillhouse Lane, Bedminster

Bristol

BS3 4EB

SITE DETAILS

Grid Reference 415100 133450

Old Sarum

Salisbury

Historical Map Legend

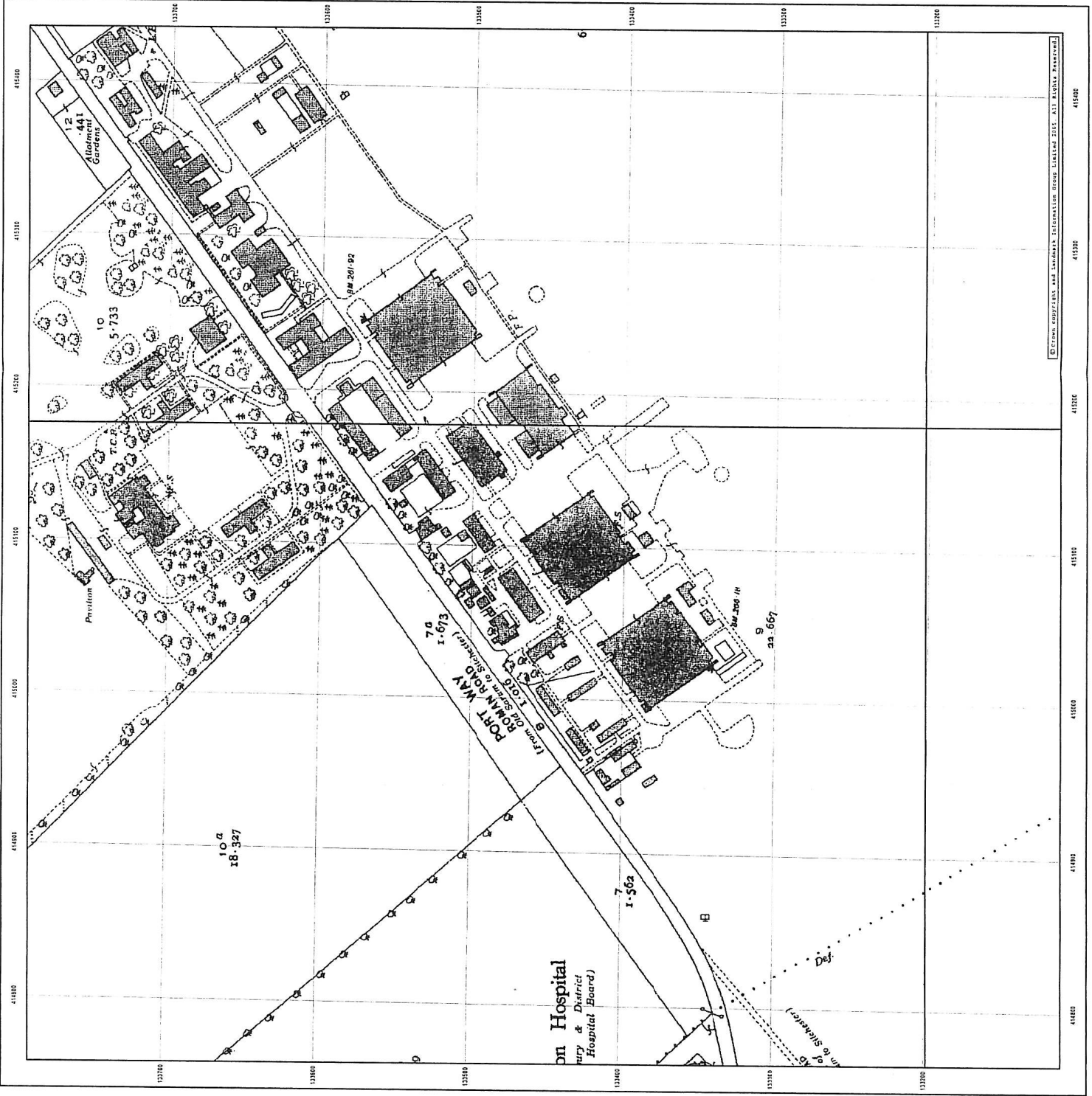
Quarry	Sand Pit	Marsh	Reeds
Gravel Pit	Clay Pit	Rough Pasture	Furze
Refuse Heap	Shingle	Oysters	Ford
Railway crossing River or Canal	Railway crossing Road	Level Crossing	Road crossing Railway
Embankment	Cutting	Road over River or Canal	Arrow denotes flow of Water
Road over single Stream			

WILTSHIRE

The historical maps shown were reproduced from maps previously held at the scale of 1:25,000. The 1:25,000 scale was adopted for mapping urban areas and for the purpose of showing the location of the site. The 1:25,000 scale was adopted for mapping urban areas and for the purpose of showing the location of the site. The 1:25,000 scale was adopted for mapping urban areas and for the purpose of showing the location of the site.

1939	1939
1936	1939

Date(s) of Publication



CLIENT DETAILS Envirocheck Order No. EC9058661_1_1

Customer Ref: S Pond 41367

Customer Ref: 3 F00041307
Structural Solis
The Old School House Stillhouse Lane, Bedminster
Bristol
BS3 4EB

SITE DETAILS		Grid Reference	415100	133450
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WINE'S PIC

Salisbury

Historical Map Legend

Quartz	Shingle
	

Gravel Pit

Other Pits

Rough Pasture

100

Marsh
ReedsOsiers
Inst

Arrow denotes

WILTSHIRE

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 this 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:62,500 maps. The published data given on the 1981 therefore is often some years later than the surveyed data. Before 1931, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in adjoining areas.

In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping of the area. The maps appear to have been derived from a number of sources. The maps appear to be a combination of military maps and other unpublished - with old military camps and other strategic sites removed. These maps were initially overlaid with the National Grid. In 1970, the first 1:50,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Source map scale: 1:10,500

Date(s) of Publication

of 13

Ordnance
Survey

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CLIENT DETAILS
Envirocheck Order No. EC9058661 1 1

Customer Ref: S Bond 41767
(06-Jun-2008 16:37)

SITE DETAILS		Grid Reference	415100	133450
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WINDS PLO

Salisbury

Historical Map Legend

 Gravel Pit 木々木々 Coniferous Trees 山山山山 Heath

 Lake, Loch or Pond

	Refuse or Slag Heap	— — • — —	People Transmission	— — — — —	Sailings
---	------------------------	-----------	------------------------	-----------	----------

The diagram shows a cross-section of a road embankment. It consists of several layers: a top layer of sand, a layer of cutting, and a standard gauge layer. The layers are labeled on the right side of the diagram.

Under	Road	Road	Level	Foot	Single Track
		Over	Crossing	Bridge	

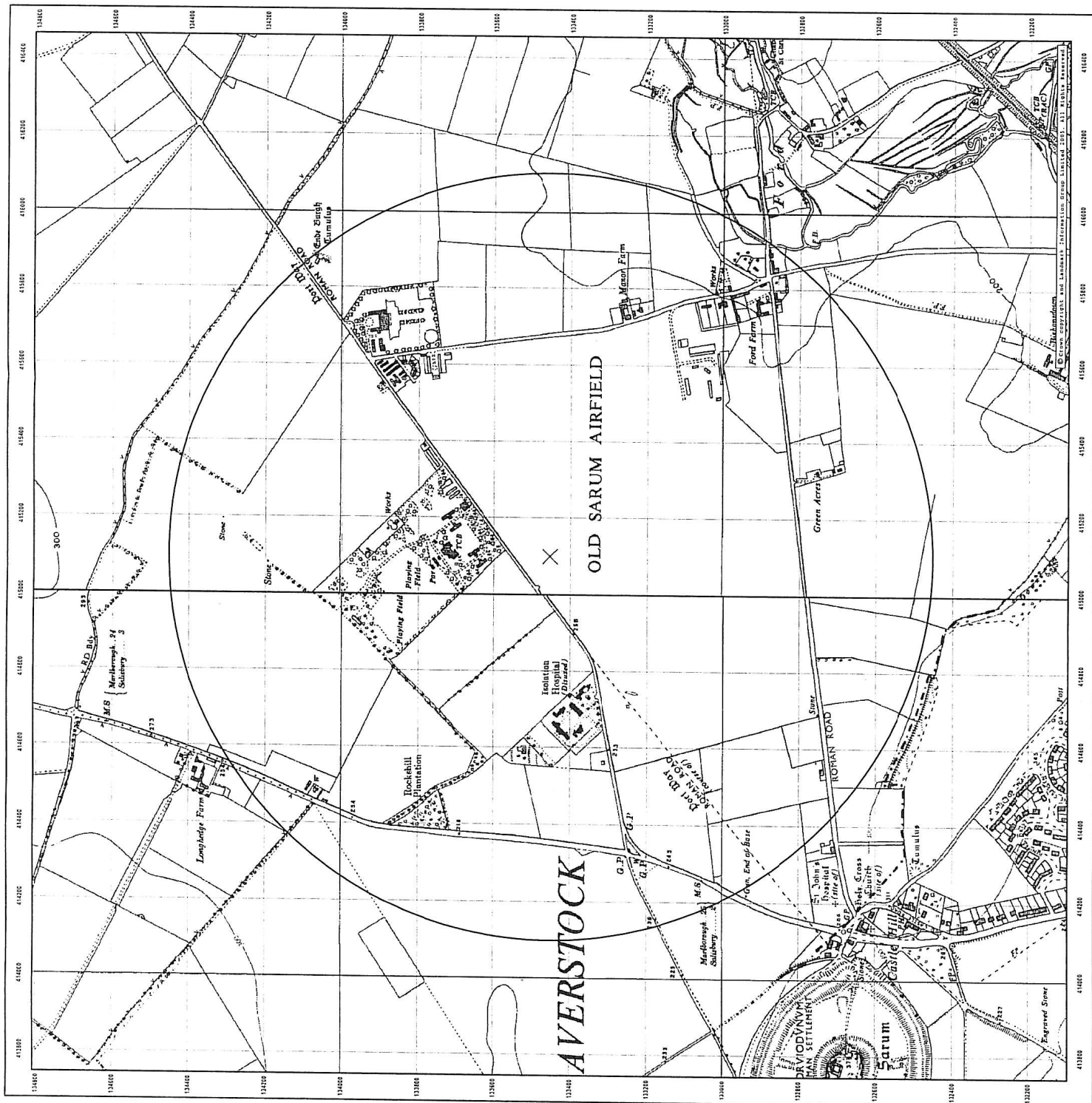
historical maps shown were reproduced from a predominantly held at the scale adopted for Ireland, Wales and Scotland in the 1840's. In 1954

ways of the Cassini Projection, with independent
ways of a single county or group of counties,
ing like to significant inaccuracies in
ing areas.

1:10,000 maps were produced using the
 adverse Meridian Projection. The revision
 was continued until recently, with new editions
 every 10 years or so for urban areas.

OS **LANDMARK**
Ordnance Survey[®] Information Group
Leicester Square

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Customer Ref: S Pond.41367

Structural Soils
The Old School House Stillhouse Lane, Bedminster

Bristol

SITE DETAILS

Grid Reference	415100	133450
----------------	--------	--------

Wines PLC

Salisbury

Historical Map Legend

	Non-coniferous Trees		Pylon
	Coniferous Trees		Telephone Line (where shown)
	Orchard		Electricity Transmission Line (with poles)
	Rough Grassland		Gravel Pit
	Heath		Shingle
	Scrub		Refuse Tip or Slag Heap
	Marsh, Salt Marsh or Reeds		Sand
	County Boundary (England only)		Sand Pit
	Civil Parish or Community Boundary		Slopes
	Constituency Boundary		District, Unitary, Metropolitan, London Borough Boundary

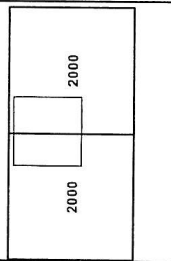
ORDNANCE SURVEY PLAN

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan® which replaced the old 1:10,000 maps originally

The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depicts includes county, unitary authority, district, civil parish and constituency.

Source map scale - 1:10,000

Source map scale - 1:10,000



Date(s) of Publication

6510



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