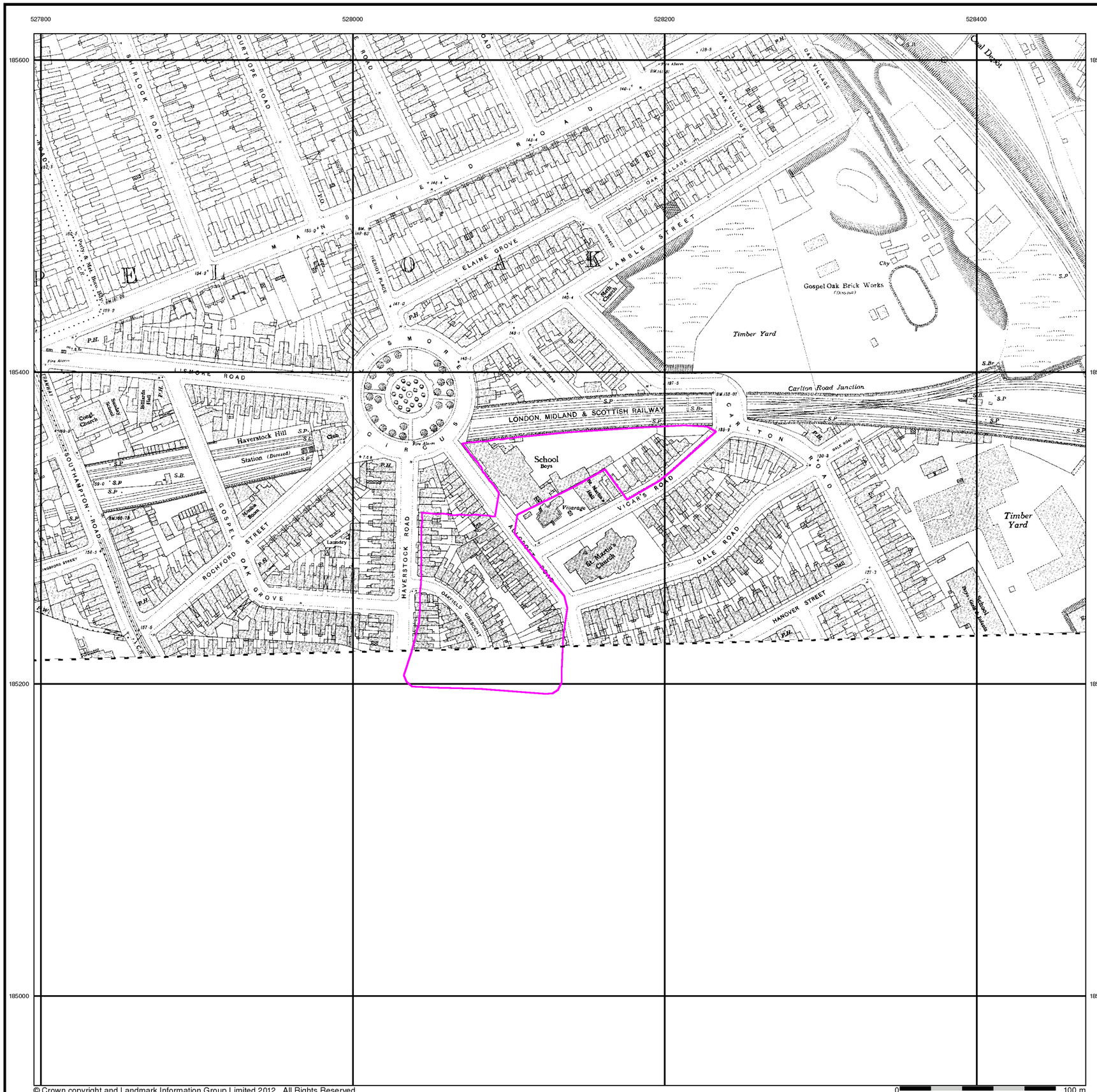


Envirocheck® Historical

London

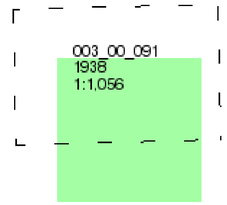
Published 1938

Source map scale - 1:1,056

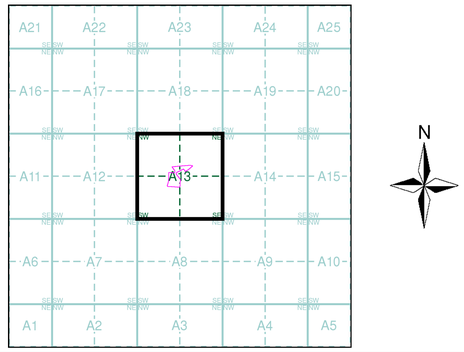
The 1:1056 scale of Ordnance Survey mapping was adopted from Ireland in 1848 and was used to survey towns with a population of over 4000, plus county towns of lesser population, in those counties mapped at the six-inch scale in 1841-55. The scale was the largest scale at which London was mapped by the Ordnance Survey and a 'skeleton' survey of the capital, showing little more than streets, street names, frontages and altitudes, was undertaken between 1848 and 1850. The majority of the 1:1056 surveys were later replaced by 1:500 surveys; although almost all the remainder were revised at this scale, sometimes more than once before 1895. The type of detail shown on the 1:1056 scale is broadly similar to that on 1:500; the apparent omission of minor details such as sewer access points and street lights may be as much a reflection of the generally earlier date of these plans, as of the specification of the map.

Please note: Due to the partial coverage of Historical Town Plans, it is possible that not all segments within an order will contain mapping. Only the segments that have Town Plan coverage will be generated.

Map Name(s) and Date(s)



Historical Town Plan - Segment A13



Order Details

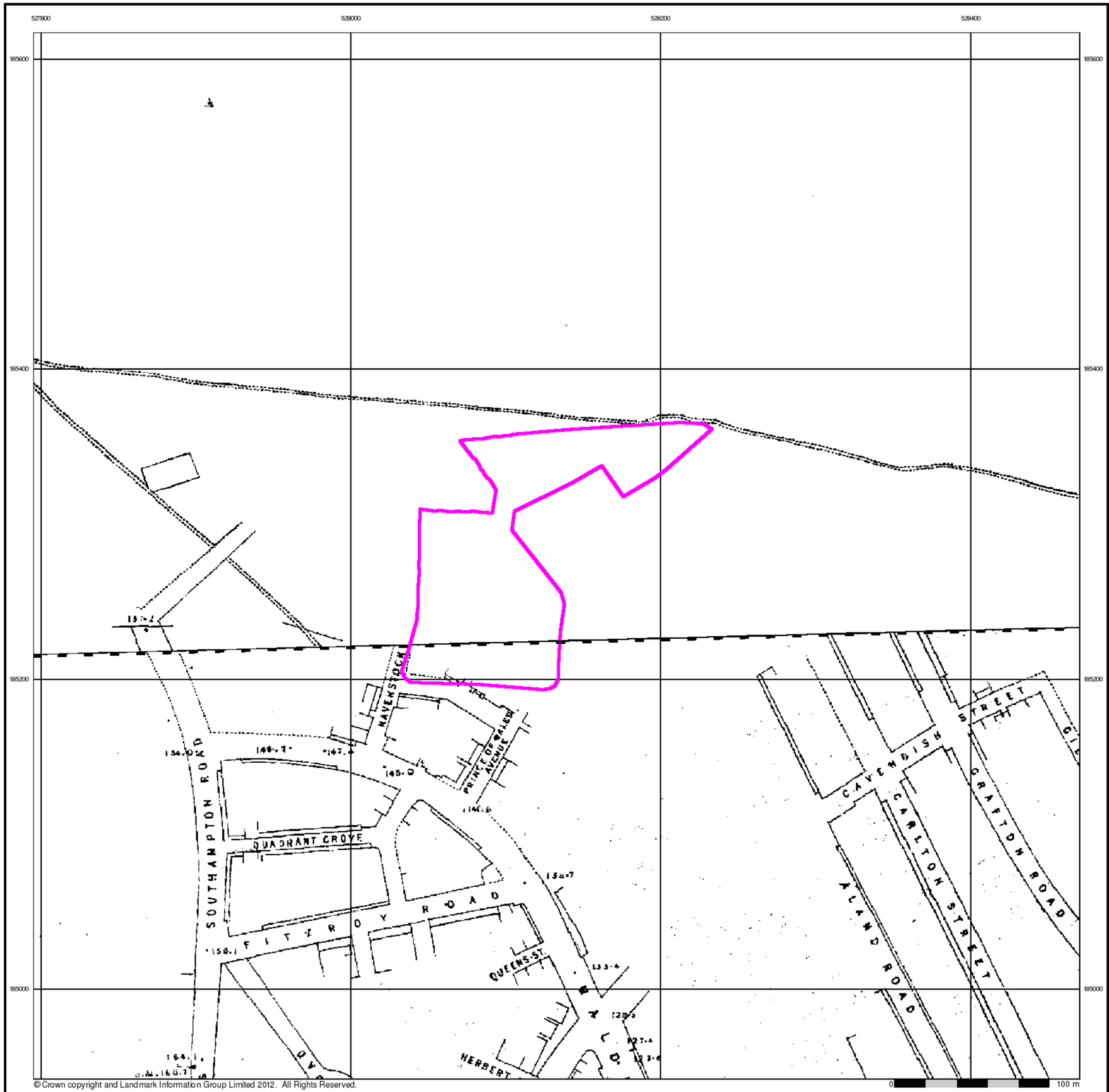
Order Number:	38669898_1_1
Customer Ref:	12-0083 Bacton
National Grid Reference:	528120, 185290
Slice:	A
Site Area (Ha):	1.48
Search Buffer (m):	0

Site Details

Site at 528080, 185250

Landmark® Information Group

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



Envirocheck® Historical

London

Published 1850 - 1851

Source map scale - 1:5,280

The historical town plans shown derive from Ordnance Survey mapping from the early to mid 1850s. The 1:2640 scale was introduced in the early 1850s, to survey districts covered by the Local Boards of Health and for a map of the Osborne Estate of Queen Victoria. The general style is similar to that of the early 1:2500s published shortly afterwards.
1:5280 scale was surveyed shortly afterwards in the mid 1850s as general purpose mapping with a standard of content similar to the more contemporary 1:10.560 mapping. The scale was also used for a reduction of the 1:1056 'skeleton survey' of London that was undertaken between 1848 and 1850.

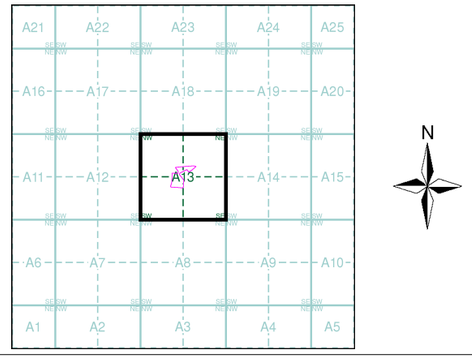
Please note: Due to the partial coverage of Historical Town Plans, it is possible that not all segments within an order will contain mapping. Only the segments that have Town Plan coverage will be generated.

Map Name(s) and Date(s)

003_00_000_SW
1850
1:5,280

007_00_000_NW
1851
1:5,280

Historical Town Plan - Segment A13



Order Details

Order Number:	38669898_1_1
Customer Ref:	12-0083 Bacton
National Grid Reference:	528120, 185290
Slice:	A
Site Area (Ha):	1.48
Search Buffer (m):	0

Site Details

Site at 528080, 185250

Landmark® Information Group
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

Envirocheck® Report:

Historical Data Report Datasheet

Order Details:

Order Number:
38669898_1_1

Customer Reference:
12-0083 Bacton

National Grid Reference:
528120, 185290

Slice:
A

Site Area (Ha):
1.48

Search Buffer (m):
1000

Site Details:

Site at 528080, 185250

Client Details:

Mr C Mehew
Rolton Group
The Charles Parker Building
Midland Road
Higham Ferrers
Northamptonshire
NN10 8DN

Contents

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 maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) 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 Landmark database to a distance defined by the client from 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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Report Version v47.0

Envirocheck® Historical

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Historical Building Plans Information					
Areas Cleared Due To Enemy Action	pg 1			1	9
Above Ground Fuel Tanks (100m)				n/a	n/a
Asbestos (100m)				n/a	n/a
Benzene/Benzole/Naphtha, Naphthalene/Kerosene (100m)				n/a	n/a
Electricity Generation (100m)				n/a	n/a
Electricity Sub-Stations (100m)				n/a	n/a
Gas Industry (100m)				n/a	n/a
Gas Storage (100m)				n/a	n/a
Gas Use (100m)				n/a	n/a
Oil Industry (100m)				n/a	n/a
Oil Storage (100m)				n/a	n/a
Oil Use (100m)				n/a	n/a
Paint based Oils (100m)				n/a	n/a
Paraffin (100m)				n/a	n/a
Petrol and Diesel Industry (100m)				n/a	n/a
Petrol and Diesel Storage (100m)				n/a	n/a
Petrol and Diesel Use (100m)				n/a	n/a
Potential Fuel Gas (100m)				n/a	n/a
Potential Fuel Oil (100m)				n/a	n/a
Potential Fuel Use (100m)				n/a	n/a
Potential Petrol and Diesel (100m)				n/a	n/a
Potential Tanks (100m)				n/a	n/a
Potentially Fuel-related Tanks (100m)				n/a	n/a
Underground Fuel Tanks (100m)				n/a	n/a
Historical Land Use Information					
Former Marshes					
Historical Flood Liabilities					
Potentially Contaminative Industrial Uses (Past Land Use)	pg 2		7	18	19
Potentially Infilled Land (Non-Water)	pg 4		1		3
Potentially Infilled Land (Water)	pg 4			1	1

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Historical Tanks and Energy Facilities					
Electrical Sub Station Facilities (100m)	pg 5		2	n/a	n/a
Electricity Industry Facilities (100m)				n/a	n/a
Gas Industry Facilities (100m)				n/a	n/a
Gas Monitoring Facilities (100m)				n/a	n/a
Miscellaneous Power Facilities (100m)				n/a	n/a
Oil Industry Facilities (100m)				n/a	n/a
Petroleum Storage Facilities (100m)				n/a	n/a
Potential Tanks (100m)	pg 5		2	n/a	n/a
Tanks (100m)	pg 5		2	n/a	n/a

Historical Building Plans Information

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	**Areas Cleared Due To Enemy Action** Use: Areas Cleared Due To Enemy Action Plan Name: 070_023_1957_geo1	A14SW (SE)	446	1	528529 184995
2	**Areas Cleared Due To Enemy Action** Use: Areas Cleared Due To Enemy Action Plan Name: 070_022_1963_geo1	A9NW (SE)	670	1	528717 184870
3	**Areas Cleared Due To Enemy Action** Use: Areas Cleared Due To Enemy Action Plan Name: 070_022_1957_geo1	A9NW (SE)	670	1	528717 184870
4	**Areas Cleared Due To Enemy Action** Use: Areas Cleared Due To Enemy Action Plan Name: 070_018_1963_geo1	A14NE (E)	716	1	528948 185335
5	**Areas Cleared Due To Enemy Action** Use: Areas Cleared Due To Enemy Action Plan Name: 070_018_1957_geo1	A14NE (E)	716	1	528948 185335
6	**Areas Cleared Due To Enemy Action** Use: Areas Cleared Due To Enemy Action Plan Name: 070_020_1957_geo1	A8SE (S)	736	1	528310 184481
7	**Areas Cleared Due To Enemy Action** Use: Areas Cleared Due To Enemy Action Plan Name: 070_022_1957_geo1	A9NW (SE)	802	1	528742 184676
8	**Areas Cleared Due To Enemy Action** Use: Areas Cleared Due To Enemy Action Plan Name: 070_025_1963_geo1	A9SW (SE)	943	1	528614 184387
9	**Areas Cleared Due To Enemy Action** Use: Areas Cleared Due To Enemy Action Plan Name: 070_025_1966_geo1	A9SW (SE)	943	1	528614 184387
10	**Areas Cleared Due To Enemy Action** Use: Areas Cleared Due To Enemy Action Plan Name: 070_025_1957_geo1	A9SW (SE)	943	1	528614 184387

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
11	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Railways Date of Mapping: 1876 - 1996	A13NW (N)	3	1	528122 185365
12	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Clay bricks & tiles [manufacture] Date of Mapping: 1896	A13NE (NE)	28	1	528193 185393
13	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Railways Date of Mapping: 1876 - 1996	A13NW (NW)	69	1	527992 185354
14	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Railways Date of Mapping: 1896 - 1996	A13NE (NE)	93	1	528324 185376
15	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Railways Date of Mapping: 1920 - 1951	A13NE (E)	166	1	528396 185387
16	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Railways Date of Mapping: 1876 - 1996	A13NE (NE)	247	1	528417 185526
17	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Coal storage and depot Date of Mapping: 1896	A13NE (NE)	250	1	528419 185528
18	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Factory or works - use not specified Date of Mapping: 1896	A13SE (E)	258	1	528455 185232
19	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Railways Date of Mapping: 1882 - 1991	A14NW (E)	260	1	528492 185363
20	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Sawmilling, planing & impregnation [i.e. treatment of timber] Date of Mapping: 1946	A14NW (E)	263	1	528482 185280
21	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Railways Date of Mapping: 1946 - 1951	A14NW (NE)	268	1	528478 185468
22	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Road haulage Date of Mapping: 1996	A14NW (NE)	275	1	528472 185496
23	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Air Shafts Date of Mapping: 1996	A14NW (NE)	285	1	528498 185464
24	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Railways Date of Mapping: 1882 - 1949	A14NW (E)	292	1	528519 185304
25	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Railways Date of Mapping: 1896 - 1951	A14NW (E)	298	1	528525 185421
26	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Railways Date of Mapping: 1882 - 1991	A14NW (E)	305	1	528531 185296
27	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Railways Date of Mapping: 1896 - 1996	A14NW (NE)	320	1	528525 185491
28	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Factory or works - use not specified Date of Mapping: 1991	A14SW (E)	325	1	528554 185278
29	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Railways Date of Mapping: 1876 - 1996	A18SE (N)	333	1	528270 185702
30	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Railways Date of Mapping: 1946 - 1951	A13NE (NE)	335	1	528466 185602
31	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Disturbed Ground Date of Mapping: 1876	A14NW (NE)	349	1	528523 185554

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
32	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Road haulage Date of Mapping: 1996	A14NW (E)	352	1	528574 185447
33	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Dyes & pigments [manufacture] Date of Mapping: 1920 - 1949	A13SE (SE)	356	1	528466 185076
34	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Railways Date of Mapping: 1882	A14SW (E)	394	1	528610 185250
35	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Coal storage and depot Date of Mapping: 1920 - 1949	A14SW (SE)	442	1	528567 185073
36	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Road haulage Date of Mapping: 1938 - 1951	A12NE (W)	526	1	527551 185489
37	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Hospitals Date of Mapping: 1896 - 1996	A12NE (W)	529	1	527534 185448
38	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Railways Date of Mapping: 1873 - 1996	A17SE (NW)	557	1	527660 185730
39	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Air Shafts Date of Mapping: 1938	A12SE (W)	563	1	527473 185259
40	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Factory or works - use not specified Date of Mapping: 1920 - 1938	A14SW (SE)	587	1	528701 185008
41	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Electricity production & distribution [inc large transformers] Date of Mapping: 1920 - 1946	A19SW (NE)	634	1	528743 185737
42	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Heap, unknown constituents Date of Mapping: 1946 - 1951	A19SW (NE)	634	1	528763 185708
43	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Railways Date of Mapping: 1876 - 1990	A19SW (NE)	655	1	528724 185795
44	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Air Shafts Date of Mapping: 1874	A12SW (W)	687	1	527347 185189
45	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Air Shafts Date of Mapping: 1938 - 1951	A12SW (W)	750	1	527284 185228
46	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Military Land Date of Mapping: 1920 - 1946	A19SW (NE)	801	1	528801 185926
47	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Railways Date of Mapping: 1882 - 1991	A8SE (S)	838	1	528231 184362
48	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Railways Date of Mapping: 1991	A8SW (S)	871	1	527925 184336
49	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Hospitals Date of Mapping: 1951	A14SE (E)	894	1	529117 185238
50	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Railways Date of Mapping: 1882 - 1991	A8SW (S)	898	1	528070 184298
51	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Railways Date of Mapping: 1874 - 1991	A8SW (S)	898	1	528032 184300
52	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Railways Date of Mapping: 1896 - 1991	A8SW (S)	915	1	528002 184284

Historical Land Use Information

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
53	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Railways Date of Mapping: 1896 - 1991	A7SE (SW)	976	1	527703 184282
54	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Sawmilling, planing & impregnation [i.e. treatment of timber] Date of Mapping: 1896	A7SW (SW)	990	1	527312 184526
55	**Potentially Infilled Land (Non-Water)** Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A13NE (NE)	28	1	528193 185393
56	**Potentially Infilled Land (Non-Water)** Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A12SE (W)	563	1	527473 185261
57	**Potentially Infilled Land (Non-Water)** Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A12SW (W)	687	1	527347 185189
58	**Potentially Infilled Land (Non-Water)** Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A12SW (W)	750	1	527284 185228
59	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1876	A13NE (NE)	265	1	528447 185517
60	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1873	A17SW (NW)	834	1	527290 185665

Historical Tanks and Energy Facilities

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
61	**Electrical Sub Station Facilities** Scale of Mapping: 1:1,250 Date of Mapping: 1954	A13NW (W)	84	1	527964 185331
61	**Electrical Sub Station Facilities** Scale of Mapping: 1:2,500 Date of Mapping: 1954	A13NW (W)	85	1	527963 185332
62	**Potential Tanks** Scale of Mapping: 1:2,500 Date of Mapping: 1970	A13SW (SW)	49	1	528058 185149
62	**Potential Tanks** Scale of Mapping: 1:1,250 Date of Mapping: 1966 - 1980	A13SW (SW)	51	1	528057 185147
63	**Tanks** Scale of Mapping: 1:1,250 Date of Mapping: 1953	A13NE (N)	36	1	528152 185398
63	**Tanks** Scale of Mapping: 1:2,500 Date of Mapping: 1954	A13NE (N)	37	1	528153 185399

No Historical Building Plans information available.

The following mapping has been analysed for Historical Land Use Information:

1:10,560	Mapsheet	Published Date
Middlesex	011_00	1873
Middlesex	016_00	1874
Middlesex	012_00	1876
Middlesex	017_00	1882
London	002_SE	1896
London	003_SW	1896
London	006_NE	1896
London	007_NW	1896
Middlesex	011_SE	1896
Middlesex	012_SW	1896
Middlesex	016_NE	1896
Middlesex	017_NW	1896
London	001_00	1920
London	002_00	1920
London	004_00	1920
London	005_00	1920
London	004_00	1938
London	005_00	1938
Middlesex	011_SE	1938
Essex	077_00	1946
Ordnance Survey Plan	TQ28NE	1951
Ordnance Survey Plan	TQ28SE	1951
1:10,000	**Mapsheet**	**Published Date**
Ordnance Survey Plan	TQ28SE	1991
Ordnance Survey Plan	TQ28NE	1996

Historical Map List

The following mapping has been analysed for Historical Tanks and Energy Facilities:

1:2,500	Mapsheet	Published Date
Ordnance Survey Plan	TQ2784	1954
Ordnance Survey Plan	TQ2785	1954
Ordnance Survey Plan	TQ2885	1954
Ordnance Survey Plan	TQ2884	1955
Ordnance Survey Plan	TQ2785	1970
Ordnance Survey Plan	TQ2884	1970
Ordnance Survey Plan	TQ2885	1970
1:1,250	**Mapsheet**	**Published Date**
Ordnance Survey Plan	TQ2885NW	1953
Ordnance Survey Plan	TQ2885SW	1953
Ordnance Survey Plan	TQ2784NE	1954
Ordnance Survey Plan	TQ2785NE	1954
Ordnance Survey Plan	TQ2785SE	1954
Ordnance Survey Plan	TQ2884NW	1954
Ordnance Survey Plan	TQ2784NE	1963
Ordnance Survey Plan	TQ2785SE	1966
Ordnance Survey Plan	TQ2884NW	1966
Ordnance Survey Plan	TQ2885NW	1966
Ordnance Survey Plan	TQ2885SW	1966
Ordnance Survey Plan	TQ2784NE	1973
Ordnance Survey Plan	TQ2785NE	1974
Ordnance Survey Plan	TQ2785SE	1974
Ordnance Survey Plan	TQ2885SW	1974
Ordnance Survey Plan	TQ2884NW	1975
Ordnance Survey Plan	TQ2885NW	1980
Ordnance Survey Plan	TQ2885SW	1980

Useful Contacts and Further Information

Contact	Name and Address	Contact Details
1	**Landmark Information Group Limited** 5 - 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Telephone: 01392 441761 Fax: 01392 441709 Email: cssupport@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

Historical Building Plans Information

This data set contains potentially contaminative features such as asbestos, petrol, oil and tanks captured from Historical Building Plans. The Historical Building Plans were produced by the London-based firm Charles E. Goad Ltd. as fire insurance plans, dating back to 1885. The firm ceased production of fire insurance plans in 1970. Most of the important towns and cities of the British Isles are covered. Historical Building Plans are usually at the scales of 1:480 (1 inch to 40 feet) for the British Isles. They were updated every 5-6 years by means of revision sheets designed to be pasted on to the original plans.

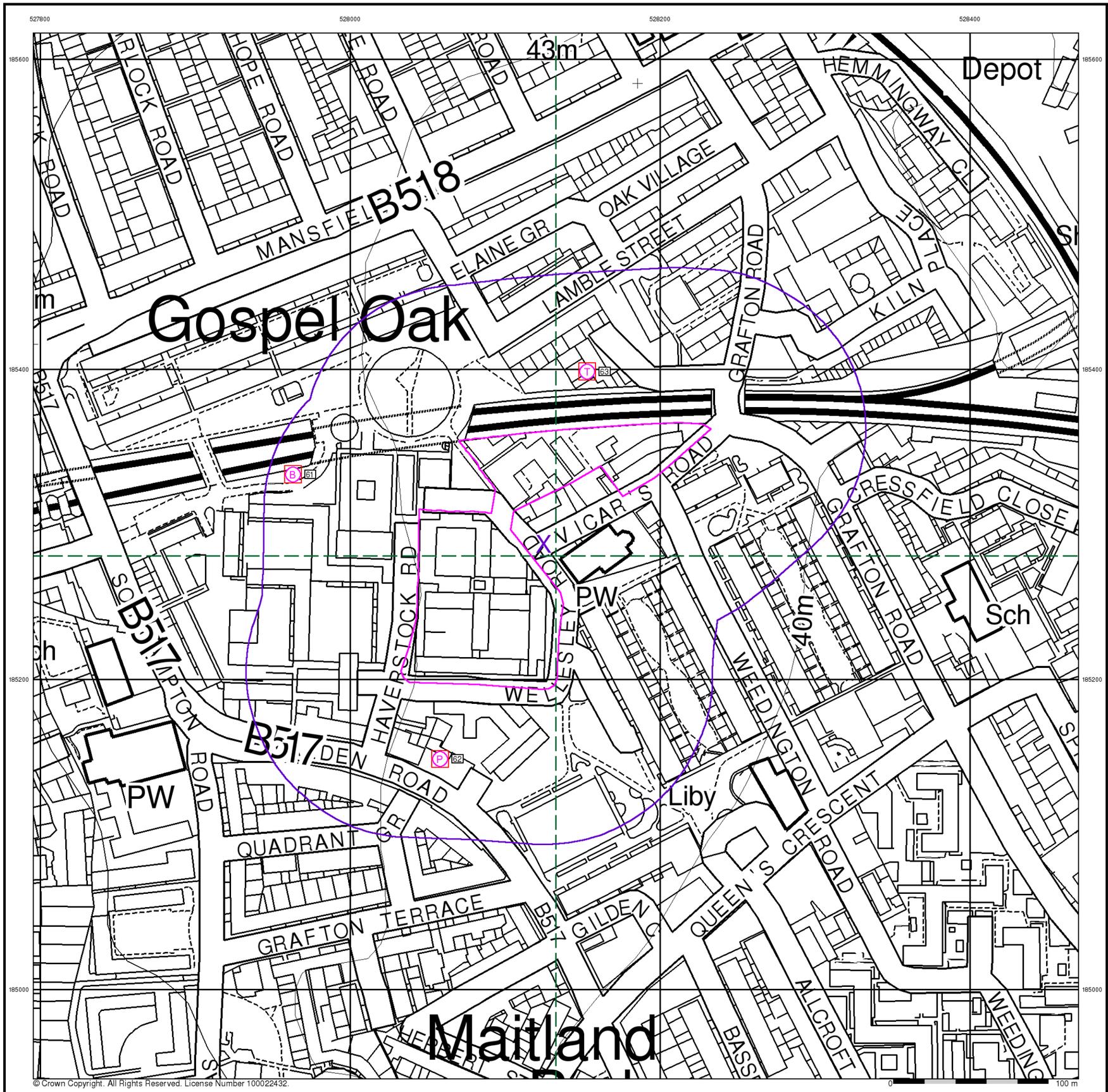
It should be noted that Historical Building Plans are only available for certain major towns and cities and in some cases there may only be partial coverage of the search area. It cannot therefore be assumed that the absence of responses under the Historical Building Plans section of this report indicates that no hazards exist. Please check the Historical Building Plans Map List table in the Historical Map List section of this report to establish if Historical Building Plans are available for this search area.

Historical Land Use Information

Landmark's Historical Land Use Data is the result of combined analysis of historical map data captured at 1:10,560 and 1:10,000. A unique comprehensive database of Historic Land Use from the 1840's to 1996 it includes 67 different types of potentially contaminated past industrial land use. This entailed analysing over 60,000 maps and is drawn from at least four, and up to six historical map editions. In addition a seventh layer was also created, known as the land use layer, containing areas of infilled land which are plotted via comparison between two or more map editions.

Historical Tanks and Energy Facilities

In addition to HLUD, additional analysis uncovered some of the most dangerous sources of contamination (past and present tanks, petrol storage, oil, gas, electricity, miscellaneous facilities). This data set covers over 390,000 Historical Tanks and Energy facilities in Great Britain and was captured from post war 1:2500 and 1:1250 Ordnance Survey historical mapping covering a period from 1943 to 1996.



Envirocheck® Historical

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location

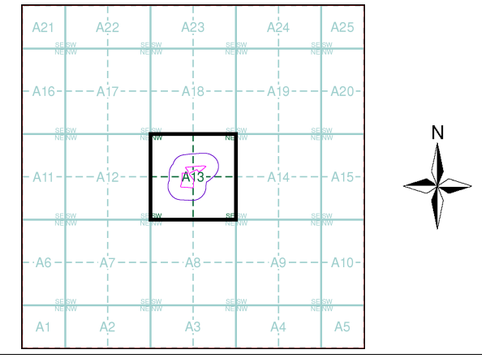
Historical Building Plans

- Area Cleared due to Enemy Action
- Asbestos
- Above Ground Fuel Tanks
- Benzene/Benzole/Naphtha, Naphthalene/Kerosene
- Electricity Generation
- Electricity Sub-Stations
- Gas Industry
- Gas Storage
- Gas Use
- Oil Industry
- Oil Storage
- Oil Use
- Paint based Oils
- Paraffin
- Petrol and Diesel Industry
- Petrol and Diesel Storage
- Petrol and Diesel Use
- Potential Fuel Gas
- Potential Fuel Oil
- Potential Fuel Use
- Potential Petrol and Diesel
- Potential Tanks
- Potentially Fuel-related Tanks
- Underground Fuel Tanks

Historical Tanks and Energy Facilities

- (B) Electrical Sub Station Facility
- (E) Electricity Industry Facility
- (G) Gas Industry Facility
- (V) Gas Monitoring Facility
- (M) Miscellaneous Power Facility
- (O) Oil Industry Facility
- (S) Petroleum Storage Facility
- (P) Potential Tank
- (T) Tank

Historical Data Report - Segment A13



Order Details

Order Number:	38669898_1_1
Customer Ref:	12-0083 Bacton
National Grid Reference:	528120, 185290
Slice:	A
Site Area (Ha):	1.48
Plot Buffer (m):	100

Site Details

Site at 528080, 185250

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Web: www.envirocheck.co.uk

Envirocheck® Historical

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location

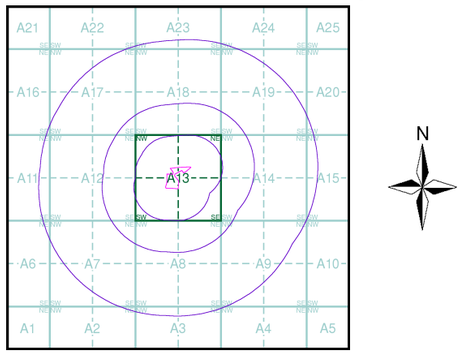
Historical Building Plans

- Area Cleared due to Enemy Action

Historical Land Use

- Former Marsh
- Historical Flood Liability
- Historical Flood Liability (Location)
- Potentially Contaminative Industrial Use (Past Land Use)
- Potentially Contaminative Industrial Use (Past Land Use) (Linear)
- Potentially Contaminative Industrial Use (Past Land Use) (Location)
- Potentially Infilled Land (Non-Water)
- Potentially Infilled Land (Non-Water) (Linear)
- Potentially Infilled Land (Non-Water) (Location)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water) (Linear)
- Potentially Infilled Land (Water) (Location)

Historical Data Report - Slice Map A



Order Details

Order Number:	38669898_1_1
Customer Ref:	12-0083 Bacton
National Grid Reference:	528120, 185290
Slice:	A
Site Area (Ha):	1.48
Search Buffer (m):	1000

Site Details

Site at 528080, 185250

Landmark® Information Group

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

APPENDIX C
EXPLORATORY HOLE LOGS

DATA SHEET - Symbols and Abbreviations used on Records

Sample Types

B	Bulk disturbed sample
BLK	Block sample
C	Core sample
D	Small disturbed sample (tub/jar)
E	Environmental test sample
ES	Environmental soil sample
EW	Environmental water sample
G	Gas sample
L	Liner sample
LB	Large bulk disturbed sample
P	Piston sample (PF - failed P sample)
TW	Thin walled push in sample
U	Open Tube - 102mm diameter with blows to take sample. (UF - failed U sample)
UT	Thin wall open drive tube sampler - 102mm diameter with blows to take sample. (UTF - failed UT sample)
V	Vial sample
W	Water sample
#	Sample Not Recovered

Insitu Testing / Properties

CBRP	CBR using TRL probe
CHP	Constant Head Permeability Test
COND	Electrical conductivity
HV	Strength from Hand Vane
ICBR	CBR Test
IDEN	Density Test
IRES	Resistivity Test
MEX	CBR using Mexecone Probe Test
PKR	Packer Permeability Test
PLT	Plate Load Test
PP	Strength from Pocket Penetrometer
Temp	Temperature
VHP	Variable Head Permeability Test
VN	Strength from Insitu Vane
w%	Water content

(All other strengths from undrained triaxial testing)

S	Standard Penetration Test (SPT)
C	SPT with cone
N	SPT Result
-/-	Blows/penetration (mm) after seating drive
-*/- (mm)	Total blows/penetration
( )	Extrapolated value

Groundwater

Water Strike

Depth Water Rose To

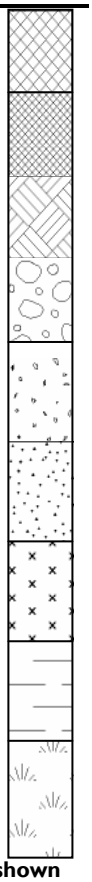
Instrumentation

Seal

Filter

Seal

Strata



Made Ground Type 1

Type 2

Topsoil

Cobbles and Boulders

Gravel

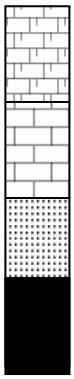
Sand

Silt

Clay

Peat

Note: Composite soil types shown by combined symbols



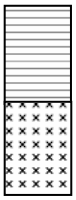
Chalk

Limestone

Sandstone

Coal

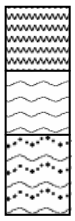
Strata, Continued



Mudstone

Siltstone

Metamorphic Rock

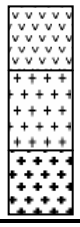


Fine Grained

Medium Grained

Coarse Grained

Igneous Rock



Fine Grained

Medium Grained

Coarse Grained

Backfill Materials

Arisings

Bentonite Seal

Concrete

Fine Gravel Filter

General Fill

Gravel Filter

Grout

Sand Filter

Tarmacadam

Rotary Core

RQD	Rock Quality Designation (% of intact core >100mm)
FRACTURE INDEX	Fractures/metre
FRACTURE SPACING (mm)	Maximum Minimum
NI	Non-intact core
NR	No core recovery
AZCL	Assumed zone of core loss

(where core recovery is unknown it is assumed to be at the base of the run)

BOREHOLE RECORD – Cable Percussion

Project **BACTON LOW RISE, GOSPEL OAK, NORTH LONDON**
Engineer **ROLTON GROUP**
Borehole **BH1**
Project No **PC124991**

Client **ROLTON GROUP**
Ground Level **42.45** m OD

Sampling			Properties			Strata			Scale 1:50
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD
						Tarmac. ** [MADE GROUND]	G.L. 0.10		42.45 42.35
0.30	D					**Concrete. ** [MADE GROUND]**	0.30		42.15
0.30	E						0.50		41.95
0.50- 0.70	B					**Orangish brown mottled grey and black slightly clayey very gravelly sand. Gravel is angular to subangular fine to coarse quartzite, flint and brick. [MADE GROUND]**	0.70		41.75
0.50	D								
0.70- 1.00	B								
0.70	D								
1.00	D								
1.00	E								
1.20- 1.65	D	1.20 (DRY)			S7				
1.70- 1.90	B					**Soft greyish brown mottled black sandy gravelly clay. Gravel is angular to rounded fine to coarse quartzite, flint and brick. With a slight hydrocarbon odour. [MADE GROUND]**	1.70		40.75
1.70	D								
2.00	D						2.00		40.45
2.00	E								
2.20- 2.65	U53	1.50 (DRY)	54	23		**Very soft dark grey mottled bluish grey and orange slightly sandy slightly gravelly slightly organic clay. Gravel is angular to subrounded fine to coarse flint, quartzite, brick and slag. With a slight hydrocarbon odour. [MADE GROUND] At 1.00m, mottling absent. Below 1.20m, becoming greenish grey mottled bluish grey.**	2.65		39.80
2.65	D								
2.70- 3.10	B								
3.90- 4.35	D	1.50 (DRY)			S23	**Soft orangish brown mottled black sandy gravelly clay. Gravel is angular to subrounded fine to coarse flint, quartzite and brick. [MADE GROUND]**			
						Stiff brown mottled bluish grey slightly gravelly CLAY. Gravel is subrounded fine to medium flint. At 2.20m, medium strength			
						Stiff fissured brown mottled grey CLAY. Fissures are extremely closely spaced, randomly orientated and stained bluish grey. At 2.65m, with rare subangular medium claystone gravel Below 3.90m, becoming laminated in parts.			
5.40- 5.85	U55	1.50 (DRY)				**At 4.10m, driller notes presence of claystone layer. Below 5.85m, slightly micaceous, fissures becoming extremely closely to very closely spaced smooth, dull and occasionally stained orange.**			
5.85	D								
7.00- 7.45	D	1.50 (DRY)			S15				
8.00	D					**Below 8.00m, becoming dark brownish grey with occasional fine to medium gravel sized silt pockets. Fissures generally subhorizontal to subvertical, dull, some polished.**			
8.20- 8.65	UT70	1.50 (DRY)	115	30		**At 8.20m, high strength**			
8.65	D								
9.80-10.25	D	1.50 (DRY)			S20	**Below 9.80m, becoming very stiff.**			

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit	DC	G.L.			16/08/12	08:00						None encountered during boring.
30.00	0.15	Cable Percussion	DC	14.80	1.50	DRY	16/08/12	18:00						
				14.80	1.50	DRY	17/08/12	08:00						
				30.00	1.50	DRY	17/08/12	18:00						

Remarks

Inspection pit hand excavated to 1.20m depth.
**** Drillers description.**
E sample = 1 x vial, 1 x plastic jar and 1 amber jar
A 50mm standpipe was installed to 10.00m with a slotted section from 2.00m to 10.00m with flush lockable protective cover. Backfill details from base of hole: bentonite seal up to 10.00m, gravel filter up to 2.00m, bentonite seal up to 0.30m, concrete up to ground level.
Chiselling: 15.90-16.30m for 60 minutes.

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with BS5930:1999 + A2:2010

Logged by **SC / CO**

Figure **1 of 3**
20/09/2012

geotechnics

BOREHOLE RECORD – Cable Percussion

Project **BACTON LOW RISE, GOSPEL OAK, NORTH LONDON**
Engineer **ROLTON GROUP**
Borehole **BH1**
Project No **PC124991**

Client **ROLTON GROUP**
Ground Level **42.45** m OD

Sampling			Properties			Strata			Scale 1:50
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD
10.30-10.70	B								
11.30-11.75	U80	1.50 (DRY)	157	28		At 11.30m, very high strength			
11.75	D								
12.80-13.25	D	1.50 (DRY)			S27				
14.30-14.75	U120	1.50 (DRY)	115	26		At 14.30m, high strength			
14.75	D					At 14.75m, with some fine to coarse gravel sized fragments of claystone.			
15.90-16.70	D					At 15.90m, claystone boulder.** Recovered as dark grey fine to coarse claystone gravel.			
16.70-17.15	D	1.50 (DRY)			S29	At 16.70m, with occasional fine to medium gravel sized silt pockets of rare shell fragments.			
18.20-18.50	UT130	1.50 (DRY)							
18.50	D					Below 18.50m, silt pockets absent.			
19.70-20.15	D	1.50 (DRY)			S33				

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater

Remarks **Driller notes claystone boulder pushed ahead of borehole from 15.9 to 16.7m, pushed aside at 16.7m.**

Logged by **SC / CO**

Figure **2 of 3**
20/09/2012

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with BS5930:1999 + A2:2010

geotechnics

BOREHOLE RECORD – Cable Percussion

Project **BACTON LOW RISE, GOSPEL OAK, NORTH LONDON**

Engineer **ROLTON GROUP**

Borehole **BH1**
Project No **PC124991**

Client **ROLTON GROUP**

Ground Level **42.45** m OD

Scale 1:50

Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD
21.20-21.65	**U120**	**1.50 (DRY)**	**125**	**28**		**At 21.20m, high strength**			
21.65	**D**								
22.70-23.15	**D**	**1.50 (DRY)**			**S32**				
24.20-24.50	**U130**	**1.50 (DRY)**							
24.50	**D**					**Below 24.85m, fissures subhorizontal and extremely closely spaced polished with an occasional silt dusting.**			
25.70-26.15	**D**	**1.50 (DRY)**			**S30**				
						Below 27.00m, fissure spacing increasing becoming randomly orientated, smooth, dull and clean.			
27.40-27.85	**UT110**	**1.50 (DRY)**	**165**	**26**		**At 27.40m, very high strength**			
27.85	**D**								
29.00-29.45	**D**	**1.50 (DRY)**			**S33**				
30.00	**D**						**30.00**		**12.45**
						End of Borehole			

Boring

Depth	Hole Dia	Technique	Crew

Progress

Depth of Hole	Depth Cased	Depth to Water	Date	Time

Groundwater

Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater

Remarks

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with BS5930:1999 + A2:2010

Logged by **SC / CO**

Figure **3 of 3**
20/09/2012

geotechnics

Fieldwork Results - SPT Results Summary

Project BACTON LOW RISE, GOSPEL OAK, NORTH LONDON **Project No** PC124991

Client ROLTON GROUP

Hole	Depth m bgl	Level m OD	Type	SWP (mm)	Seating Drive		Test Drive				SPT 'N' Value	Uncorrected SPT 'N'
					0-75 (mm)	75-150 (mm)	0-75 (mm)	75-150 (mm)	150-225 (mm)	225-300 (mm)		10 20 30 40 50
BH1	1.20	41.25	S	-	1	1	1	2	2	2	7	*
BH1	3.90	38.55	S	-	1	1	2	10	6	5	23	*
BH1	7.00	35.45	S	-	2	3	3	3	4	5	15	*
BH1	9.80	32.65	S	-	3	3	4	5	5	6	20	*
BH1	12.80	29.65	S	-	3	3	5	5	8	9	27	*
BH1	16.70	25.75	S	-	5	6	6	9	6	8	29	*
BH1	19.70	22.75	S	-	5	5	7	8	9	9	33	*
BH1	22.70	19.75	S	-	5	6	7	8	8	9	32	*
BH1	25.70	16.75	S	-	6	6	6	7	8	9	30	*
BH1	29.00	13.45	S	-	7	7	8	8	8	9	33	*

Remarks
In accordance with BS EN ISO22476-3:2005

-/- Blows/penetration (mm) after seating
-*/- Total blows/penetration (mm)
SWP Penetration under own weight (mm)

S - Standard Penetration Test (SPT)
C - SPT with cone
L - Split Spoon with liner used

BOREHOLE RECORD - Cable Percussion

Project **BACTON LOW RISE, GOSPEL OAK, NORTH LONDON**
Engineer **ROLTON GROUP**
Borehole **BH2**
Project No **PC124991**
Client **ROLTON GROUP**
Ground Level **43.45** m OD

Sampling			Properties			Strata			Scale 1:50
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD
							G.L.		43.45
						Tarmac. **	0.08		43.37
						[MADE GROUND]			
0.30- 0.50	B						0.30		43.15
0.30	D					Concrete. **	0.50		42.95
0.30	E					[MADE GROUND]			
0.50- 1.00	B								
0.50	D					Light brown mottled grey black, orange and yellow slightly clayey very gravelly sand. Gravel is angular to subangular fine to coarse brick, concrete and clinker.			
1.00	D						1.00		42.45
1.00	E								
1.10	D						1.20		42.25
1.20- 1.65	D	1.20 (DRY)			S6	[MADE GROUND]			
						Very soft brown mottled black, orange and yellow sandy gravelly clay. Gravel is angular to rounded fine to coarse clinker, brick and concrete.			
2.00	D					[MADE GROUND]	2.00		41.45
2.00	E								
						Soft greyish brown mottled black, orange and yellow sandy gravelly slightly organic clay. Gravel is angular to subrounded fine to coarse flint, quartzite, brick and clinker.			
2.70- 3.15	U50	1.50 (DRY)	55	33		[MADE GROUND]			
						At 1.10m, becoming slightly gravelly.			
						Soft greyish brown mottled bluish grey and orange slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to coarse flint and quartz.	3.15		40.30
3.15	D					[POSSIBLE MADE GROUND]			
3.20- 3.60	B								
						Firm brown mottled bluish grey slightly sandy CLAY.			
						At 2.70m, medium strength			
4.20- 4.65	D	1.50 (DRY)			S13	Firm fissured brown mottled bluish grey CLAY with some sand and fine gravel sized gypsum crystals. Fissures are extremely to very closely spaced randomly orientated, smooth, dull and occasionally stained orange.			
						Below 4.20m, thinly laminated in parts.			
						At 5.70m, fissures slightly polished with light			
5.70- 6.15	U70	1.50 (DRY)	96	31		blue grey staining.			
						At 5.70m, high strength			
6.15	D								
						Below 7.00m, becoming stiff.			
7.20- 7.65	D	1.50 (DRY)			S17				
8.70- 9.00	UT100	1.50 (DRY)							
9.00	D					Below 9.00m, becoming very stiff and dark greyish brown in colour.			
9.20- 9.50	B					At 9.00m, recovered with angular to subrounded fine to coarse gravel sized fragments of claystone.			

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit	DC	G.L.			20/08/12	08:00						None encountered during boring.
20.00	0.15	Cable Percussion	DC	20.00	1.50	DRY	20/08/12	18:00						

Remarks

Inspection pit hand excavated to 1.20m depth, 0.5 hours breaking out concrete.
** Drillers description.
E sample = 1 x vial, 1 x plastic jar and 1 amber jar
At 8.70m, UT shoe damaged
A 50mm standpipe was installed to 10.00m with a geowrapped slotted section from 2.00m to 10.00m with flush lockable protective cover. Backfill details from base of hole: arisings up to 12.00m, bentonite seal up to 10.00m, gravel filter up to 2.00m, bentonite seal up to 0.30m, concrete up to ground level.

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with BS5930:1999 + A2:2010

Logged by **CO**

Figure **1 of 2**

20/09/2012

geotechnics

BOREHOLE RECORD - Cable Percussion

Project **BACTON LOW RISE, GOSPEL OAK, NORTH LONDON** Engineer **ROLTON GROUP** Borehole **BH2** Project No **PC124991**

Client **ROLTON GROUP** Ground Level **43.45** m OD

Scale 1:50

Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD
10.20-10.65	D	1.50 (DRY)			S24	Below 10.20m, light bluish grey mottling absent.			
11.60	D					At 11.60m, recovered as angular to subrounded fine to coarse gravel sized fragments of light grey claystone.			
11.80-12.25	U90	1.50 (DRY)							
12.25	D					Below 12.25m, fissures becoming very closely spaced, randomly orientated, smooth, dull and with a slight silt dusting.			
13.30-13.75	D	1.50 (DRY)			S31				
14.80-15.25	U95	1.50 (DRY)							
15.25	D					Below 15.25m, with rare fine to medium gravel sized shell fragments, fissure spacing increasing and silt dusting absent.			
16.30-16.75	D	1.50 (DRY)			S29				
17.80	D					At 17.80m, recovered as angular to subrounded fine to coarse gravel sized fragments of light grey claystone.			
18.00-18.45	UT125	1.50 (DRY)							
18.45	D								
18.70	D					At 18.70m, recovered as angular to subrounded fine to coarse gravel sized fragments of light grey claystone.			
19.50-19.95	D	1.50 (DRY)			S36				
						End of Borehole	20.00		23.45

Boring

Depth	Hole Dia	Technique	Crew

Progress

Depth of Hole	Depth Cased	Depth to Water	Date	Time

Groundwater

Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater

Remarks

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with BS5930:1999 + A2:2010

Logged by **CO**

Figure **2 of 2**

20/09/2012

geotechnics

Fieldwork Results - *SPT Results Summary*

Project BACTON LOW RISE, GOSPEL OAK, NORTH LONDON **Project No** PC124991

Client ROLTON GROUP

Hole	Depth m bgl	Level m OD	Type	SWP (mm)	Seating Drive		Test Drive				SPT 'N' Value	Uncorrected SPT 'N' 10 20 30 40 50
					0-75 (mm)	75-150 (mm)	0-75 (mm)	75-150 (mm)	150-225 (mm)	225-300 (mm)		
BH2	1.20	42.25	S	-	1	1	2	1	2	1	6	*
BH2	4.20	39.25	S	-	1	2	3	3	3	4	13	*
BH2	7.20	36.25	S	-	2	3	4	4	4	5	17	*
BH2	10.20	33.25	S	-	3	4	4	7	7	6	24	*
BH2	13.30	30.15	S	-	3	5	8	8	6	9	31	*
BH2	16.30	27.15	S	-	2	5	5	7	8	9	29	*
BH2	19.50	23.95	S	-	4	7	7	8	9	12	36	*

Driller	David Cowling
Hammer No.	EQU436
Energy Ratio, Er (%)	74.00
Calibration Date	23/03/2012

Remarks
Equipment checked and calibration carried out in accordance with BS EN ISO 22476-3: 2005

-/- Blows/penetration (mm) after seating
-*/- Total blows/penetration (mm)
SWP Penetration under own weight (mm)

S - Standard Penetration Test (SPT)
C - SPT with cone
L - Split Spoon with liner used

BOREHOLE RECORD - Cable Percussion

Project **BACTON LOW RISE, GOSPEL OAK, NORTH LONDON** Engineer **ROLTON GROUP** Borehole **BH3** Project No **PC124991**

Client **ROLTON GROUP** Ground Level **43.78** m OD

Sampling			Properties			Strata			Scale 1:50
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD
						G.L.			**43.78**
						Asphalt. ** [MADE GROUND]	**0.07**		**43.71**
0.30	**D**								
0.50	**D**					**Concrete. ** [MADE GROUND]**	**0.40**		**43.38**
1.00	**E**					**Firm orange brown mottled red and blue sandy gravelly clay. Gravel is angular to subrounded fine to coarse brick, concrete, slate and flint. [MADE GROUND]**			
1.20- 1.65	**D**	**NIL (DRY)**			**S10**		**1.30**		**42.48**
2.00	**E**					**Firm orange brown slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to coarse flint and quartz.**			
2.70- 3.15	**U30**	**NIL (DRY)**	**72**	**31**		**Firm to stiff fissured brown mottled bluish grey CLAY. Fissures are extremely to very closely spaced, randomly orientated, smooth and dull with a slight silt dusting and occasional orange staining. At 2.70m, medium strength**	**2.50**		**41.28**
3.20	**D**								
4.20- 4.65	**D**	**2.50 (DRY)**			**S15**	**Below 4.20m, becoming thinly laminated in places.**			
5.70- 6.15	**U40**	**2.50 (DRY)**							
6.20	**D**					**At 6.20m, becoming slightly micaceous and with occasional orange staining on fissure surfaces.**			
7.20- 7.65	**D**	**2.50 (DRY)**			**S21**				
8.70- 9.15	**U70**	**2.50 (DRY)**							
9.20	**D**					**Below 9.20m, becoming very stiff and greyish brown in colour. Orange staining on fissure surfaces absent.**			

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20		**Inspection Pit**	**CR/PJ**	**G.L.**			**16/08/12**	**08:00**						**None encountered during boring.**
30.20	**0.15**	**Cable Percussion**	**CR/PJ**	**7.20**	**2.50**	**DRY**	**16/08/12**	**18:00**						
				7.20	**2.50**	**DRY**	**17/08/12**	**08:00**						
				30.20	**2.50**	**DRY**	**17/08/12**	**18:00**						

Remarks

Inspection pit hand excavated to 1.20m depth.
**** Drillers description.**
E sample = 1 x vial, 1 x plastic jar and 1 amber jar
A 50mm standpipe was installed to 5.00m with a geowrapped slotted section from 1.00m to 5.00m with flush lockable protective cover. Backfill details from base of hole: arisings up to 7.00m, bentonite seal up to 5.00m, gravel filter up to 1.00m, bentonite seal up to 0.30m, concrete up to ground level.

Logged by **SC/CO**

Figure **1 of 4**
20/09/2012

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with BS5930:1999 + A2:2010

geotechnics

BOREHOLE RECORD - Cable Percussion

Project **BACTON LOW RISE, GOSPEL OAK, NORTH LONDON** Engineer **ROLTON GROUP** Borehole **BH3** Project No **PC124991**

Client **ROLTON GROUP** Ground Level **43.78** m OD

Sampling			Properties			Strata			Scale 1:50
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD
10.20-10.65	D	2.50 (DRY)			S41	Between 10.20-10.65m, recovered with subangular medium to coarse claystone gravel. At 10.30m, driller notes thin mudstone band.			
11.70-12.15	U70	2.50 (DRY)							
12.20	D								
13.20-13.65	D	2.50 (DRY)			S29	Below 13.20m, becoming dark grey in colour and occasional silt partings.			
14.70-15.15	U80	2.50 (DRY)							
15.20	D								
15.50	D								
16.20-16.65	D	2.50 (DRY)			S27				
						At 17.50m, driller notes thin mudstone band.			
17.70-18.15	U80	2.50 (DRY)							
18.20	D								
19.20-19.65	D	2.50 (DRY)			S38				

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater

Remarks

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with BS5930:1999 + A2:2010

Logged by **SC/CO**

Figure **2 of 4**

20/09/2012

geotechnics

BOREHOLE RECORD - Cable Percussion

Project **BACTON LOW RISE, GOSPEL OAK, NORTH LONDON**
Engineer **ROLTON GROUP**
Borehole **BH3**
Project No **PC124991**

Client **ROLTON GROUP**
Ground Level **43.78** m OD

Sampling | Properties | Strata — Scale 1:50

Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD
20.70-21.15	U80	2.50 (DRY)							
21.20	D								
22.20-22.65	D	2.50 (DRY)			43				
23.70-24.15	U85	2.50 (DRY)							
24.20	D					Below 24.20m, fissures becoming randomly orientated occasionally subhorizontal very closely spaced, smooth, occasionally polished with black mottling.			
25.20-25.65	D	2.50 (DRY)			S50/ 295				
26.70-27.15	U85	2.50 (DRY)							
27.20	D								
28.20-28.63	D	2.50 (DRY)			S50/ 280				
29.70-30.15	U100	2.50 (DRY)							

Boring | Progress | Groundwater

Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater

Remarks

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with BS5930:1999 + A2:2010

Logged by **SC/CO**

Figure **3 of 4**
20/09/2012

geotechnics

BOREHOLE RECORD - Cable Percussion

Project **BACTON LOW RISE, GOSPEL OAK, NORTH LONDON**

Engineer **ROLTON GROUP**

Borehole **BH3**
Project No **PC124991**

Client **ROLTON GROUP**

Ground Level **43.78** m OD

Scale 1:50

Sampling			Properties			Strata			
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD
30.20	**D**					**At 30.20m, fissures become extremely closely spaced, subhorizontal, smooth, dull and clean with occasional black mottling.**	**30.20**		**13.58**
						End of Borehole			

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater

Remarks

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with BS5930:1999 + A2:2010

Logged by **SC/CO**

Figure **4 of 4**
20/09/2012

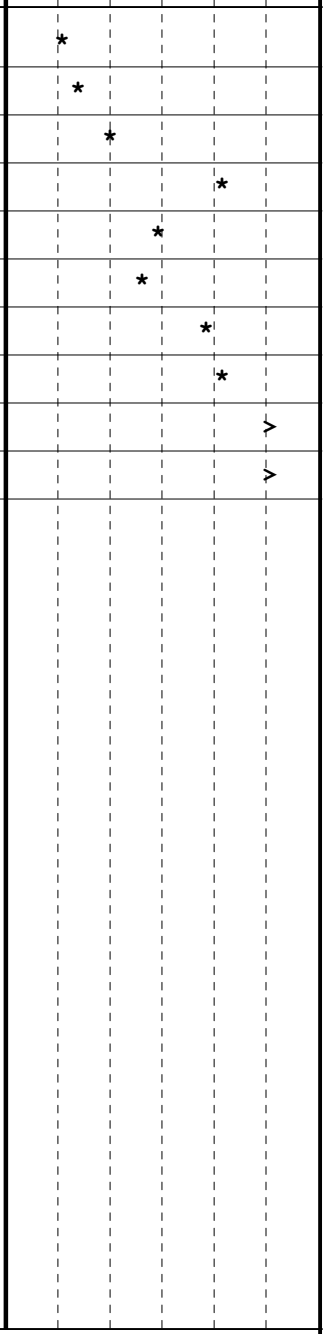
geotechnics

Fieldwork Results - SPT Results Summary

Project BACTON LOW RISE, GOSPEL OAK, NORTH LONDON **Project No** PC124991

Client ROLTON GROUP

Hole	Depth m bgl	Level m OD	Type	SWP (mm)	Seating Drive 0-75 (mm)	Seating Drive 75-150 (mm)	Test Drive 0-75 (mm)	Test Drive 75-150 (mm)	Test Drive 150-225 (mm)	Test Drive 225-300 (mm)	SPT 'N' Value
BH3	1.20	42.58	S	-	1	-	2	1	3	4	10
BH3	4.20	39.58	S	-	1	3	3	3	4	5	15
BH3	7.20	36.58	S	-	3	3	4	5	6	6	21
BH3	10.20	33.58	S	-	3	10	10	9	10	12	41
BH3	13.20	30.58	S	-	4	5	6	7	7	9	29
BH3	16.20	27.58	S	-	4	5	5	7	7	8	27
BH3	19.20	24.58	S	-	4	5	8	8	10	12	38
BH3	22.20	21.58		-	5	8	10	9	10	14	43
BH3	25.20	18.58	S	-	6	10	12	14	11	13/70	50/295
BH3	28.20	15.58	S	-	5	10	14	14	15	7/55	50/280



Driller	Chris Rainsbury
Hammer No.	SDS04
Energy Ratio, Er (%)	81.00
Calibration Date	13/02/2012

Remarks
Equipment checked and calibration carried out in accordance with BS EN ISO 22476-3: 2005

-/- Blows/penetration (mm) after seating
-*/- Total blows/penetration (mm)
SWP Penetration under own weight (mm)

S - Standard Penetration Test (SPT)
C - SPT with cone
L - Split Spoon with liner used