

Poole Park Miniature Railway – Borough of Poole

Factual Report

NOVEMBER 2018



Poole Park Miniature Railway - Borough of Poole

Factual Report

Written By

Devon Wilson BSc (Hons) FGS

Checked By

Anthony Elkins BSc (Hons) MSc FGS

Approved by

Charlotte Wheatley BSc (Hons) MSc FGS CGeol

Alle. Chalette Wheetley

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18-96795

Issue Number

Issue	Revision No.	Date Issued	Description of Revision	Reviewed by:
01		15/11/2018		

Site Address
Poole Park Miniature Railway
Poole Park
Poole
BH15 2SF

Client Address
Borough of Poole
Unit 1 New Fields Bus. Park
Stinsford Road
Poole
Dorset
BH17 0NF

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1 INTRODUCTION

1.1 Terms of Reference

ACS Testing Ltd (ACS) were instructed by Cally Barnes from the Borough of Poole (the Client) in October 2018 to carry out a site investigation, laboratory testing and prepare a factual report for a site comprising Poole Park Miniature Railway, Poole Park, Poole, BH15 2SF.

1.2 Site Setting

The 'Site' is located within Poole Park, within the town of Poole, Dorset. The Site comprises a circular narrow-gauge railway of 10½ inch gauge running for approximately 640m. Part of the railway crosses an ornamental pond over a stone and concrete bridge. In the east of the railway there is a small engine shed with a turntable. The Site is as defined on Figure 1 and Figure 2.

1.3 Objective and Scope

The objective of this study is to provide geotechnical parameters to assist in the design of the proposed structures, and to provide soil geochemical information to inform waste soil disposal. It is understood that this information will be provided to contractors tendering to carry out the proposed development works. To enable this to be tendered an understanding of the ground condition beneath the railway track is required.

The scope of this study is as follows;

- Thirteen trial pits adjacent to the track and two on either side of the bridge excavated to a maximum depth of 1.00 metres below ground level (mbgl).
- ▶ Eighteen windowless boreholes drilled to a maximum depth of 4.00mbgl
- In situ geotechnical Standard Penetration Tests (SPT) at 1m vertical intervals within the windowless boreholes.
- Dynamic probe testing undertaken in boreholes where the proposed depth could not be achieved
- Take and submit soil samples for geotechnical and geochemical laboratory testing scheduled by the Client.
- The preparation of a factual report.

Due to an increase of the initial scope of works, the site investigation works were undertaken over two periods, the first between the 1st to the 5th October 2018 which comprised all the trial pits and thirteen of the windowless boreholes. The second phase was between the 18th and 19th October 2018 and comprised a further five windowless boreholes.

1.4 Proposed Development

We understand that the proposed development may include; ongoing maintenance and improvements of the track and bridge, replacement of the railway track with a similar or larger gauge and the extension of the railway track into a larger loop.



1.5 Limitations

ACS carried out the site investigation, collection of samples and laboratory analysis. It should be appreciated that there may be areas of the Site that have not been investigated where ground conditions may vary from those encountered. The contaminant concentrations or sub-surface features revealed may be more widespread than identified by the investigation carried out by the Client.

This factual report has been produced by ACS in accordance with the instructions received from the Client. The information contained in this report is intended for the use of the Client pursuant to the development described above. The information contained herein may not be appropriate to other development proposals.

We confirm that in preparing this report we have exercised reasonable skill and care as would be expected of a suitably qualified and experienced geoscience consultant working within the limits of the Client's instructions.

No liability can be accepted for information in other data sources or conditions not revealed by the sampling or testing. Any comments made on the basis of information obtained from the Client or other third parties are given in good faith on the assumption that the information is accurate; no independent validation of such information has been made by ACS Testing Ltd.



2 INTRUSIVE INVESTIGATION

2.1 Ground Investigation

An intrusive ground investigation was undertaken by ACS on Poole Park Miniature Railway, Poole comprising thirteen trial pits and eighteen windowless boreholes with in situ standard penetration testing. Dynamic probe testing was undertaken in boreholes where the maximum proposed depth could not be achieved by dynamic sampling to provide data on the ground bearing capacity. The locations of the boreholes are shown on Figure 2. Exploratory hole logs are included as Appendix A.

The positions of the exploratory holes were specified by the Client. Where possible each location comprised a trial pit to 1.0mbgl, followed by a borehole drilled through it or adjacent to the pit. A utility service drawing was provided by the Client and all locations were scanned with a Cable Avoidance Tool. A high voltage electricity cable is located beneath the track in the western part of the site which restricted investigation in this area.

2.2 Geotechnical and Geochemical Testing

In situ Standard Penetration Testing (SPT) was undertaken at regular vertical intervals within all windowless boreholes. Where the windowless boreholes could not achieve the specified 4mbgl depth, Super Heavy Dynamic Probe (DPSH) tests were undertaken within the boreholes to prove the density of material at a greater depth than the windowless sampling.

The following samples, scheduled by the Client, were submitted for testing -

- 9 general chemical suite metals, benzene/toluene/ethylbenzene/xylene (BTEX), soil organic matter, speciated polycyclic aromatic hydrocabons (PAH), polychlorinated biphenyls (PCB), speciated total petroleum hydrocarbons (TPH), pH.
- 9 Waste Acceptance Criteria (WAC)
- 8 pH and water soluble sulphate.

The geochemical laboratory test result certificates are included as Appendix B.

The investigation sampling and analysis plan are summarised in Table 1. The geotechnical and geochemical testing was scheduled by the Client's senior engineer.



Table 1 Summary of Sampling and Analysis Plan

Exploratory Hole	y of Sampling and Analysis Plan Reason for Location	Depth of Sample (mbgl)	Testing	
DPA	Through southern bridge arch	n/a	n/a	
DPB	Through northern bridge abutment	n/a	n/a	
TP01/WS01	Adjacent to northern bridge abutment	0.23-0.42	General chemical suite, waste acceptance criteria	
		0.65-1.00	pH and water soluble sulphate	
WS02	Through southern bridge abutment	n/a	n/a	
WS02A	Through central bridge pier	n/a	n/a	
WS03/TP02	Adjacent to southern bridge abutment	0.21-0.63	General chemical suite, waste acceptance criteria	
TP03	Beside Track (shallow tree roots)	0.42-0.87	pH and water soluble sulphate	
TP04/WS04	Beside Track (between points)	n/a	n/a	
TP05/WS05	Beside Track	0.00-0.66	General chemical suite, waste acceptance criteria	
		0.66-1.00	pH and water soluble sulphate	
TP06/WS06	Beside Track	n/a	n/a	
TP07/WS07 Beside Track	Beside Track	0.08-0.32	General chemical suite, waste acceptance criteria	
11 07/11007	FUT/W30T Beside Hack		General chemical suite, waste acceptance criteria	
TP08/WS08	Beside Track	0.29-0.58	pH and water soluble sulphate	
TP09/WS09	Beside Track	0.00-0.39	General chemical suite, waste acceptance criteria	
		0.76-1.00	pH and water soluble sulphate	
TP10	Beside Track	n/a	n/a	
TP11/WS11	Beside Track	0.00-0.21	General chemical suite, waste acceptance criteria	
		0.47-1.00	pH and water soluble sulphate	
TP12/WS12	Beside Track (shallow tree roots)	n/a	n/a	
TP13/WS13	Beside Track	0.00-0.64	General chemical suite, waste acceptance criteria	
		0.64-1.00	pH and water soluble sulphate	
TP14/WS14	Beside Track	0.15-0.60	General chemical suite, waste acceptance criteria	
		0.60-0.94	pH and water soluble sulphate	
WS15	Beside Track	n/a	n/a	
WS16	Beside engine shed	N/A	N/A	
WS17	Possible track extension area	N/A	N/A	
WS18	Possible track extension area	N/A	N/A	
WS19	Possible track extension area	N/A	N/A	



3 GROUND CONDITIONS

3.1 Ground Conditions Encountered

The ground conditions encountered during the Site investigation are summarised in Table 2 below. Full details are provided in the exploratory hole logs included as Appendix A and a photographic record of the investigation is included as Appendix C.

Table 2: Summary of strata in trial pits

Strata	Exploratory Holes	Depth to Base of Stratum (mbgl)
Hardstanding	DPB, TP01/WS01, TP02, WS02A, WS02,	0.02-0.16
(Bound Macadam)	TP03, WS03 TP07/WS07, TP10, WS16	0.42 (sub-layer within TP03)
		0.30 (in southern face of TP01)
Hardstanding	DPA, DPB, WS02, WS02A TP01/WS01 &	0.40 (in northern face of TP02)
(Concrete)	TP02	0.17-0.24 (bridge - deck)
		0.87-1.55 (beneath bridge)
Topsoil (TS)	TP09/WS09, TP11/WS11, TP12/WS12, WS18, WS19	0.16-0.56
Made Ground (MG)	All except: TP09/WS09, TP11/WS11, TP12/WS12, WS18, WS19	0.28 -0.87
Tidal Flat Deposits (TFD)	All except: DPA, DPB, TP05/WS05, WS18	0.81-2.42
Peat (part of TFD)	TP01/WS01, TP02, WS02, TP03, WS03, TP04/WS04, WS05, TP06/WS06, TP07/WS07, WS08, TP09/WS09, TP14/WS14, WS15, WS17, WS19	0.74-2.42
Poole Formation (PF)	All except: DPB, WS02A, TP02, TP03, TP11	Proven to 4.00

3.1.1 Hardstanding

Macadam surfacing was recorded in ten of the exploratory holes; DPB, TP01/WS01, TP02/WS02/WS02A, TP03/WS03, TP07/WS07, TP10 and WS16. The depth of the macadam was typically recorded between 0.02-0.16mbgl. A secondary layer of macadam was encountered within TP03 at a depth of 0.42mbgl.



Concrete surfacing was recorded during the investigation of the pedestrian and railway bridge within DPA, DPB, WS02 and WS02A. All four cores recorded between 0.13m and 0.15m of light greyish brown concrete making up the surface of the bridge deck reinforced with 8mm rebar. In DPB, WS02 and WS02A the surface layer comprised an additional 20-40mm of bound macadam. The construction of the bridge and the further concrete encountered at depth is discussed in detail in Section 4.

3.1.2 Made Ground

Made ground was encountered in all exploratory holes with the exception of TP09/WS09, TP11/WS11, TP12/WS12, WS18 and WS19. The made ground was revealed to vary in composition from light brown, dark brown and dark grey very gravelly fine to coarse sand or very sandy fine to coarse gravel of flint, brick, concrete and clinker. Occasional limestone boulders were recorded within TP13 and occasional metal fragments were recorded within TP14. The exploratory holes adjacent to or on the bridge revealed light greyish brown hardcore fill comprising gravel and cobbles of flint, brick and concrete.

3.1.3 Topsoil

Topsoil was recorded in five of the exploratory holes; TP09/WS09, TP11/WS11, TP12/WS12, WS18 and WS19 in the north-west section of the railway. The topsoil was recorded to comprise either a very soft to soft dark brown or grey slightly gravelly sandy silt or a dark greyish brown slightly gravelly silty fine to coarse sand. The gravel is fine to coarse sub-angular to sub-rounded of flint. Frequent roots and rootlets were recorded in all locations except WS18 which had only occasional rootlets.

3.1.4 Tidal Flat Deposits

Tidal Flat Deposits were encountered in all exploratory holes with the exception of DPA, DPB, , TP05/WS05, WS18. The deposits comprised a unit of light brown, greyish brown or brownish grey slightly gravelly silty fine to coarse sand interbedded with dark brown or greyish brown mottled dark grey slightly sandy to sandy pseudo-fibrous peat. Within WS17 a layer of firm dark grey very sandy organic silt with a strong organic odour was recorded. Rare layers of dark grey slightly gravelly sandy organic clays were also recorded. The depth of the Tidal Flat Deposits ranges from 0.81-2.42mbgl with the greatest depths recorded in the south-western and north-eastern sections of the railway.

3.1.5 Poole Formation

The Poole formation was encountered in all windowless boreholes proven to a depth of 4.00mbgl. The unit was found to generally underlie the Tidal Flat Deposits with the shallowest depths encountered being 0.56mbgl. The Poole Formation was found to comprise either a light grey mottled orange, occasionally clayey, fine to coarse sand, a light brown / grey slightly gravelly to gravelly fine to coarse sand, a soft light grey mottled orange very sandy silt or a soft light grey very sandy clay. The gravel was fine to coarse sub-angular to sub-rounded flint.

The presence of running sands within the Poole Formation presented challenging drilling conditions which meant that seventeen boreholes were not sampled to their intended depth.



3.1.6 Groundwater

Table 3 summarises the groundwater encountered during the Site investigation. Full details are provided in the exploratory hole logs included as Appendix A.

Table 3: Summary of Groundwater Observations

Exploratory Hole Reference	Groundwater Strike (mbgl)	Geology of Strike	Rest Water Level After 20 Minutes (mbgl)
WS01	2.00	Sand (PGF	2.00
TP02	0.65	Sandy peat (TFD)	0.62
WS02	1.00	Cobble sandy gravel (MG)	1.00
TP03	0.64	Gravelly sand (MG)	0.64
WS03	1.03	Sandy peat (TFD)	1.00
WS04	1.08	Sand (PF)	0.62
WS05	0.62	Gravelly silty sand (MG)	0.61
WS06	1.00	Sandy peat (TFD)	0.98
WS07	1.91	Sand (PF)	1.57
WS08	1.00	Clayey sand (TFD)	0.87
TP09	0.73	Sandy peat (TFD)	0.73
WS09	0.60	Sandy peat (TFD)	0.54
TP11	0.84	Gravelly sand (TFD)	0.82
WS11	0.32	Gravelly silty sand (TFD)	0.24
WS12	1.44	Sand (PF)	1.12
WS13	1.00	Silty sand (TFD)	0.99
WS14	1.00	Silty sand (PF)	0.98
TP15	0.93	Silty sand (PF)	0.93
WS15	1.00	Silty sand (PF)	0.78
WS16	1.30	Gravelly sand (PF)	0.48
WS17	1.72	Sandy silt (TDF)	1.05
WS18	0.83	Gravelly sand (PF)	0.62
WS19	1.30	Gravelly silty sand (PF)	0.93



4 BRIDGE INVESTIGATION

The site investigation included the ground conditions on and around the pedestrian and railway bridge situated in the south east of the Site. The bridge comprises concrete and stone construction and provides a crossing between two ornamental ponds. The bridge comprises two arches which appear to be constructed from precast concrete sections. A photographic record of the bridge investigation is included as Appendix C. Reference to 'depth' in this section relates to the depth below the surfacing of the bridge deck.

The coring of DPA, DPB, WS02 and WS02A recorded between 0.13m and 0.15m of light greyish brown concrete making up the surface of the bridge deck reinforced with 8mm rebar. In DPB, WS02 and WS02A the top surface layer comprised an additional 20-40mm of bound macadam.

DPA was progressed through the top of the southern bridge arch. Underlying the deck in this location was a section of dark grey pre-cast concrete. This hole was cored though the shoulder of two adjoining pre-cast concrete segments. Hand held core drilling was undertaken through the core hole/void/water column into the silt below where a secondary slab was encountered at 1.40m and was 0.15m thick. This slab was light grey brown in colour and reinforced with 10mm rebar. Limited sample recovery was achieved below this core to a depth of 2.3m. A further 2.6m of dynamic probe testing was undertaken to a final depth of 4.9m.

DPB and WS02A were cored outside of the arches, DPB through the northern abutment and WS02A through the central pier. The core holes encountered concrete at a depth of 0.66m and 0.67m respectively, underlying granular made ground. WS02A was terminated and moved, DPB was cored successfully however had to be terminated at 0.87m and no further penetration could be achieved and not all the core could be recovered. The recovered core from DPB comprised a greyish brown unreinforced concrete.

The windowless borehole WS02 was drilled successfully through the southern abutment to a depth of 3m. An additional 2m of dynamic probe testing undertaken to a final depth of 5m below the deck level. No concrete was encountered at the 0.66/0.67m depth as in the other cores on the bridge.

At each end of the bridge two trial pits and boreholes were excavated beside the abutments. TP01/WS01 was located to the north and TP02/WS03 to the south. The concrete deck was recorded on the southern face of TP01 with a thickness of 0.30m and on the northern face of TP02 with a thickness of 0.40m suggesting it thickens at the southern end of the bridge.



5 GEOTECHNICAL AND GEOCHEMICAL TESTING RESULTS

The results of the in situ and laboratory geotechnical and geochemical testing is summarised in the section below. Full results can be found on the borehole logs and laboratory certificates included as Appendices A and B.

5.1 Ground Corrosive to Concrete

The results from the pH and water soluble sulphate testing undertaken on soil samples are summarised in Table 4.

Table 4: Summary of pH and water soluble sulphate test results

Borehole Reference (Depth mbgl)	Geology	рН	Water Soluble Sulphate (mg/l)
TP01 (0.65-1.00)	Light grey mottled dark grey silty sand (TFD)	8.2	166
TP03 (0.42-0.87)	Greyish brown gravelly sand (MG)	7.5	133
TP05 (0.66-1.00)	Light grey mottled orange clayey sand (PF)	5.7	13.5
TP08 (0.29-0.58)	Dark greyish brown gravelly silty sand (MG)	6.7	135
TP09 (0.73-1.00)	Brownish grey sandy peat (TFD)	3.9	504
TP11 (0.47-1.00)	Greyish brown gravelly sand (TFD)	6.5	89.5
TP13 (0.64-1.00)	Greyish brown silty sand (TFD)	7.1	3.56
TP14 (0.60-0.94)	Dark grey mottled dark brown sand peat (TFD)	6.3	46

5.2 Standard Penetration Testing

The results from the insitu standard penetration testing undertaken during drilling is summarised in Table 5: Summary of standard penetration test results. The results of the individual tests are shown on the exploratory logs in Appendix A and graphically represented in Figure 4.

Table 5: Summary of standard penetration test results

Depth	Tidal Flat Deposits	Poole Formation			
(mbgl)	SPT[N] Range (Number of results)				
1.00	0-31 (15)	9-26 (3)			
2.00	14 (1)	0-38 (15)			
3.00	n/a	10-18 (4)			
4.00	n/a	19-20 (2)			



5.3 Dynamic Probe Testing

Dynamic probe testing comprising Super Heavy Dynamic Probe (B) tests which were undertaken in all of the boreholes except WS05 and WS14. Six of the DPSHs commenced at 2.0mbgl and ten commenced at 3.0mbgl and were generally tested to a further 2m depth. The results of the testing varied between 0 to 50 blows per 100mm of penetration.

The results of the testing are shown on the borehole logs presented in Appendix A.



6 WASTE SOIL CLASSIFICATION

The following summarises the results of the soil chemical analysis, solely in relation to classification of waste soil. The results of the soil geochemical testing are included at Appendix B.

6.1 Classification of Waste

Soil samples were tested to classify soil which may be required to remove from the Site as waste. To determine what type of landfill the soil can be disposed of there are two steps involved.

- 1) Testing of the solid fraction to determine if the sample has hazardous properties, enabling a waste code to be associated with the soil in accordance with Technical Guidance WM3. For waste soils there are two entries:
 - ▶ 17 05 03 soil and stones containing hazardous substances
 - ▶ 17 05 04 soil and stones other than those mentioned in 17 05 03
- 2) Preparation and testing of a leachate and solid component for comparison against published Waste Acceptance Criteria (WAC) to determine where the material can be disposed of in accordance with The Landfill Directive¹. The soil must be classified as one of the following, or be subjected to further treatment:
 - A landfill for hazardous waste
 - A landfill for non-hazardous waste; or
 - A landfill for inert waste

6.2 Total Solids Testing

The results of the soil chemical analysis (total concentrations) were entered into waste soil characterisation assessment software (CAT Waste) in order to determine whether each sample has non-hazardous or hazardous properties. A summary of the recommended European Waste Catalogue code for each of the samples analysed is summarised in Table 6. The output from the CAT Waste software is included in Appendix D.

¹ Department for Environment Food and Rural Affairs (2010). *Environmental Permitting Guidance The Landfill Directive*. Version 3.1.



Table 6: Summary of Hazardous / Non-Hazardous Waste Assessment

Sample Reference	Geology (Principal Constituent)	Hazardous Substances	European Waste Catalogue Code
TP01 (0.23-0.42m)	Made Ground (Gravel)	n/a	17 05 04
TP02 (0.21-0.63m)	Made Ground (Gravel)	Unknown Hydrocarbon	17 05 03
TP05 (0.00-0.66m)	Made Ground (Sand)	n/a	17 05 04
TP07(0.08-0.32m)	Made Ground (Sand)	n/a	17 05 04
TP07 (0.47-0.74m)	Tidal Flat Deposits (Peat)	n/a	17 05 04
TP09 (0.00-0.39m)	Topsoil (Sand)	n/a	17 05 04
TP11 (0.00-0.21m)	Topsoil (Silt)	n/a	17 05 04
TP13 (0.00-0.64m)	Made Ground (Sand)	n/a	17 05 04
TP14 (0.15-0.60m)	Made Ground (Gravel)	n/a	17 05 04

6.3 Waste Acceptance Criteria Testing

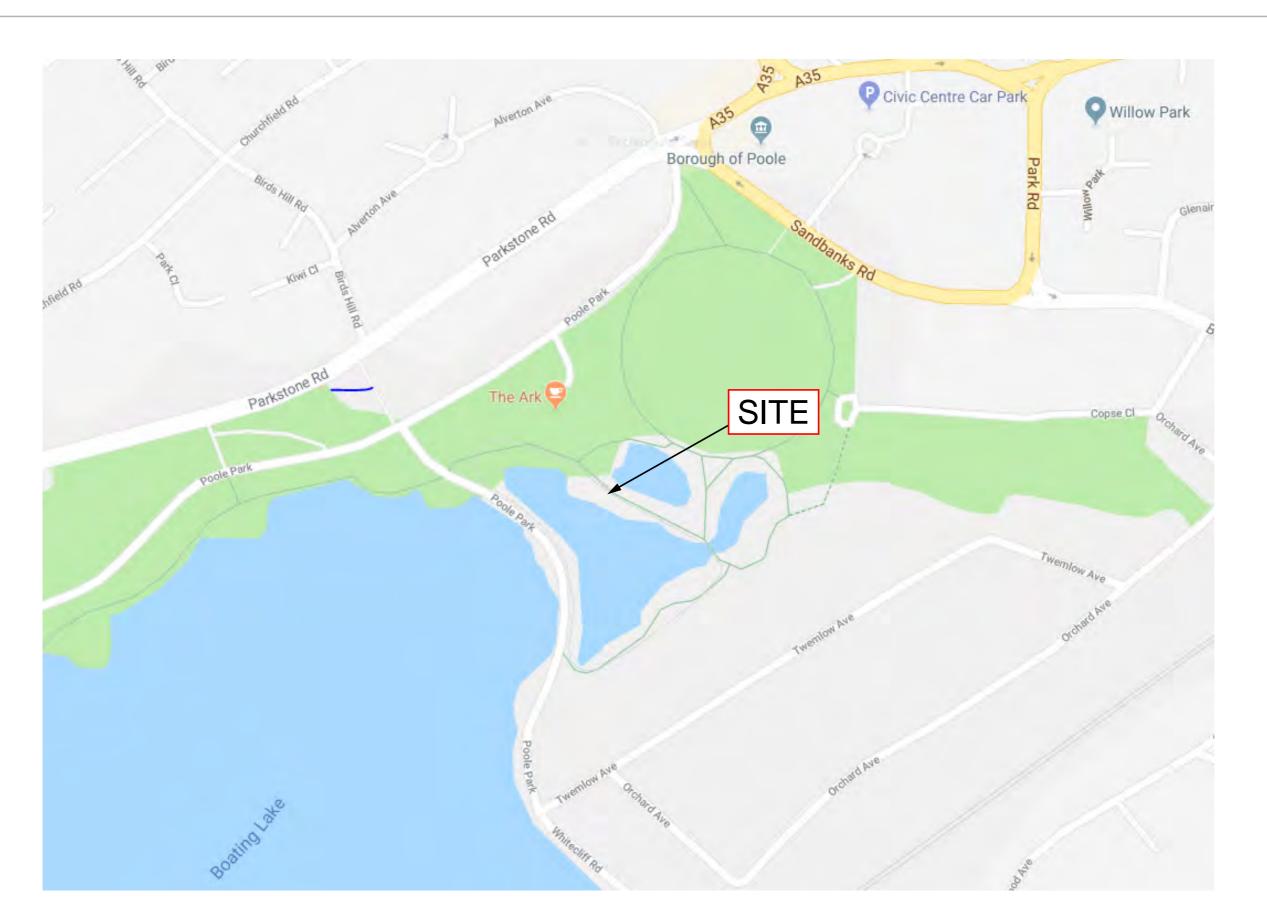
Considering the materials waste code the results of the WAC testing have then been compared to landfill waste acceptance criteria. Table 7 below summarises the type of waste management facility which may be able to receive the soil represented by each sample.

Table 7: Summary of Waste Classification

Sample Reference	Geology (Principal Constituent)	Landfill Waste Acceptance Criteria Specification – Exceedances	Disposal Facility
TP01 (0.23-0.42m)	Made Ground (Gravel)	None	Inert Waste
TP02 (0.21-0.63m)	Made Ground (Gravel)	Mineral Oil(C10-C40)	Stable Non-Reactive Hazardous
TP05 (0.00-0.66m)	Made Ground (Sand)	PAHs	Non-Hazardous
TP07 (0.08-0.32m)	Made Ground (Sand)	None	Inert Waste
TP07 (0.47-0.74m)	Tidal Flat Deposits (Peat)	Total Organic Carbon, Selenium, Sulphate	Non-Hazardous
TP09 (0.00-0.39m)	Topsoil (Sand)	None	Inert Waste
TP11 (0.00-0.21m)	Topsoil (Silt)	Total Organic Carbon	Non-Hazardous
TP13 (0.00-0.64m)	Made Ground (Sand)	None	Inert Waste
TP14 (0.15-0.60m)	Made Ground (Gravel)	Total Organic Carbon	Non-Hazardous



Figure 1 – Site Location Plan



Notes:

Key:



DO NOT SCALE

Drawing:

Site Location Plan

Client:

Borough of Poole

Project: Project No:
Poole Park Minature Railway 18-96795
Whitecliff Road Figure No:
Poole 1
BH15 2SF Revision:

Drawn By: Date:

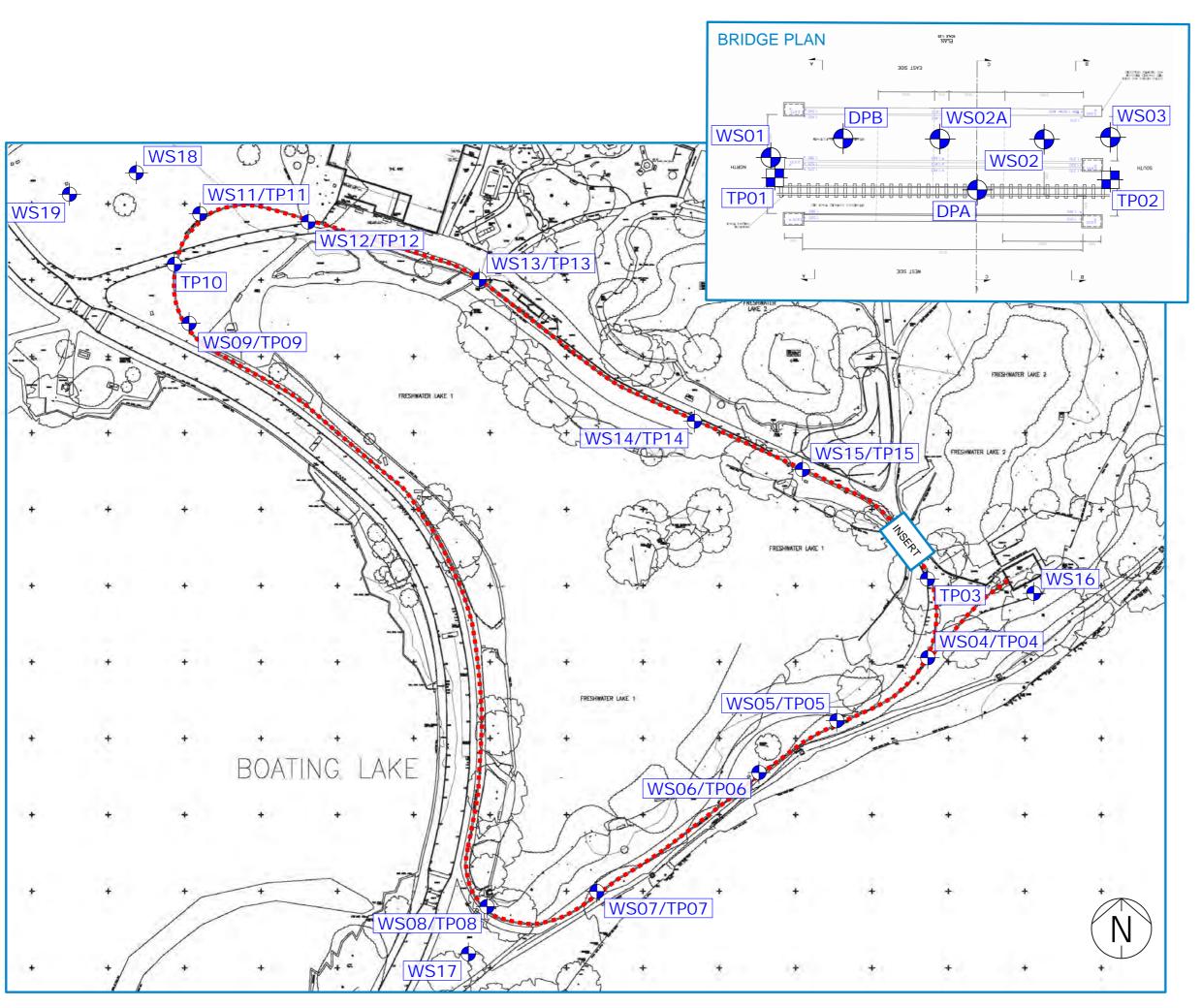
DR 2.11.18

Checked By: Date: 2.11.18



ACS Testing Ltd
Unit 14 Blackhill Road West
Holton Heath Trading Park
Poole, BH16 6LE
T: 01202 622858 | F: 01202 625045
E: geo@acstesting.co.uk | W: acstesting.co.uk
@ ACS Testing Ltd

Figure 2 – Exploratory Hole Location Plan



Notes:

Exploratory hole locations are approximate and have not been surveyed

DO NOT SCALE

Key:



- Exploratory Hole Location

- Miniature Railway

Drawing:

Exploratory Hole Location Plan

Client:

Borough of Poole

Project:

Poole Park Miniature Railway
Whitecliff Road
Poole
BH15 2SF

Revision: 02 (14/11/18)

Project No:

18-96795

Figure No:

02

 Drawn By:
 Date:

 AJE
 11/10/18

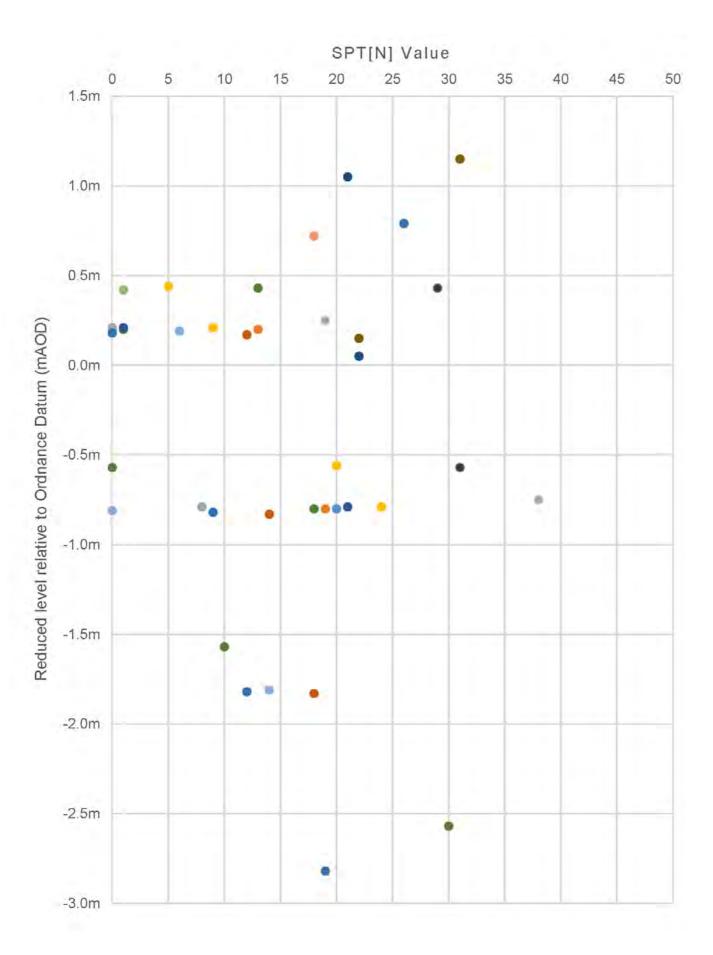
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ACS Testing Ltd
Unit 14 Blackhill Road West
Holton Heath Trading Park
Poole, BH16 6LE
T: 01202 622858 | F: 01202 625045
E: geo@acstesting.co.uk | W: acstesting.co.uk
@ ACS Testing Ltd

Figure 3 – Standard Penetration Results vs Depth

Notes:



Key:	
● WS01	● WS11
■ WS02	• WS12
■ WS03	• WS13
WS04	■ WS14
• WS05	WS15
• WS06	WS16
• WS07	WS17
• WS08	• WS18
• WS09	WS19

Drawing: Standard Penetration Results vs Depth

Client:

Borough of Poole

Project: Poole Park Miniature Railway 18-96795 Whitecliff Road Poole BH15 2SF

Date: Drawn By: AJE 14/11/18 Date:

Project No:

Figure No:

Revision:

03

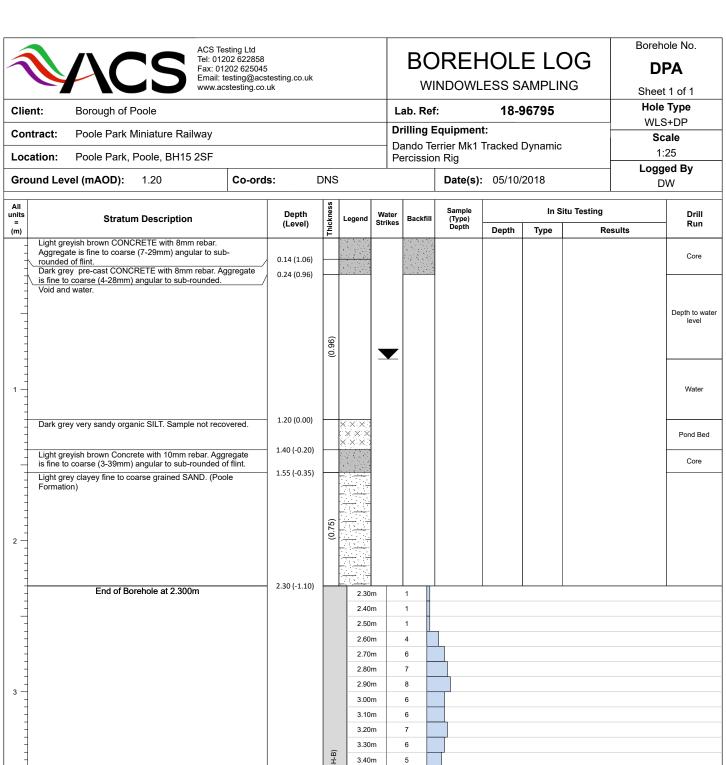
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APPENDIX A

Exploratory Hole Logs



End of Borehole at 2.300m	2.30 (-1.10)	(3.7.6) Dynamic Probe (DPSH-B)	2.30m 2.40m 2.50m 2.60m 2.70m 2.80m 3.00m 3.10m 3.20m 3.30m 3.40m 3.50m 3.60m 3.70m 3.80m 4.00m 4.10m 4.20m 4.30m 4.20m 4.30m 4.50m	1 1 1 1 4 6 7 8 6 6 6 7 6 5 3 4 2 2 2 5 6 6 7 7 6 6 7 7 6 6 7 7 6 6 6 7 7 6 6 6 6 6 7 7 6	
5 —			Depth (m)	Blows	Blows/100mm
General Remarks: Groundwater Observations:					

Consistency of fine grained soil assessed by hand worked tests in accordance with BS5930.
 Densities of granular material, if identified, based on N-Values derived from in situ SPT testing.
 Chalk descriptions, if identified, are in accordance with CIRIA C574

Groundwater Observation				
Data	Ctriko	Cooing		

Date	Strike	Casing	Time Elapsed	Standing	Remarks
05-10-2018	0.80m		0mins	0.00m	Depth to water from bridge deck = 0.80m



ACS Testing Ltd Tel: 01202 622858 Fax: 01202 625045 Email: testing@acstesting.co.uk www.acstesting.co.uk

Co-ords:

BOREHOLE LOG

WINDOWLESS SAMPLING

DPB

Borehole No.

Sheet 1 of 1

Client: Borough of Poole Lab. Ref: 18-96795

Hole Type WLS

Contract: Poole Park Miniature Railway

Scale 1:25

Location: Poole Park, Poole, BH15 2SF

Technical Notes (where applicable):
Consistency of fine grained soil assessed by hand worked tests in accordance with BS5930. Densities of granular material based on in situ SPT N-values. Chall describtions in accordance with CRIAL CST4'

Ground Level (mAOD): 1.20

Date(s): 05/10/2018 Not Surveyed

Drilling Equipment:

Logged By

ll its	Ot	Depth	ness		Water	D	Sample			In S	Situ Testing		Drill
n)	Stratum Description	(Level)	Thickness	Legend	Strikes	Backfill	Sample (Type) Depth	Dep	th	Туре	F	Results	Run
$\overline{}$	BOUND MACADAM. Light growish brown CONCRETE and 8mm rehar	0.04 (1.16)	Ė	#									Core
1	Light greyish brown CONCRETE and 8mm rebar. Aggregate is fine to coarse (2-38mm) angular to sub-	0.17 (1.03)		*******									
4	rounded of flint. MADE GROUND. Light brown angular to sub-angular COBBLES and BOULDERS of limestone and concrete.												
4	COBBLES and BOULDERS of limestone and concrete.		(0.49)										Hardcore
4			0)										
3		0.55 (0.54)											
-	Light greyish brown CONCRETE. Aggregate is fine to coarse (2-28mm) angular to sub-rounded of flint.	0.66 (0.54)											Core
1		0.87 (0.33)											Core
1	End of Borehole at 0.870m	0.87 (0.33)											
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3													
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1	arke:	1			Gra	durete	Observ	otion					
	arks: terminated at 0.87mbgl due to concrete obstruction.			H	Date	Str	Observ	Casing		Elapsed	Standing	Rema	orke
9	at old mag. and to controlle obolition.			L	Date	Jour	IKC	Jasiily	inne E	_iapaeu	Stariulity	Kem	21 NO



Ground Level (mAOD): 1.20

Borough of Poole

Client:

Contract:

Location:

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Co-ords:

Not Surveyed

BOREHOLE LOG

WINDOWLESS SAMPLING

18-96795

Borehole No. WS02A

Sheet 1 of 1

Hole Type

WLS

Scale 1:25

Drilling Equipment: Poole Park Miniature Railway Poole Park, Poole, BH15 2SF

Technical Notes (where applicable):
Consistency of fine grained soil assessed by hand worked tests in accordance with BS5930. Densities of granular material based on in situ SPT N-values. Chall describtions in accordance with CRIAL CST4'

Dando Terrier Mk1 Tracked Dynamic Percussion Rig

Date(s): 02/10/2018

Lab. Ref:

Logged By DW

GIU	uliu Level (IIIAOD). 1.20	Co-orus.	1101 3	uive	eyeu			Date(S)	. 02/1	0/2010)W
All	Stratum Description		Depth	Thickness	Legend	Water Strikes	Backfill	Sample (Type) Depth		In	Situ Testing	I	Drill
= (m)	Guatam 2000 ipilon	(Level)	Thic		Strikes		Depth	Depti	n Type		Results	Run
-	BOUND MACADAM. CONCRETE.	0.0	04 (1.16)		****								Core
		0.1	17 (1.03)		×××××		10113						
7	MADE GROUND. Light greyish brown slightly sand cobbly fine to coarse sub-angular to sub-rounded GRAVEL of flint and concrete. Cobbles comprise s	ay			******								
7	GRAVEL of flint and concrete. Cobbles comprise s angular to sub-rounded concrete.	ub-		()	****								(117mm d Rec=100
7	angular to sub rounded controlete.			(0.50)									1100-100
7													
3	End of Borehole at 0.670m	0.6	57 (0.53)				• : : : •						
1	End of Borenole at 0.070m												
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em	arks:	l				Groun	dwate	Observat	ions:				
mpl	ing terminated at 0.67mbgl due to concrete sub-slab.					Date	Str	ike Ca	sing T	ime Elapsed	Standing	Rem	arks



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BOREHOLE LOG

WINDOWLESS SAMPLING

Borehole No. WS02

WS02Sheet 1 of 1

Client: Borough of Poole

Lab. Ref: 18-96795

Drilling Equipment:

Hole Type WLS+DP

Contract: Poole

Ground Level (mAOD):

Poole Park Miniature Railway

Dando Terrier Mk1 Tracked Dynamic Percussion Rig

Scale 1:25

Location: Poole Park, Poole, BH15 2SF

Co-ords: DNS

Date(s): 02/10/2018

Logged By DW

	ana 2000 (mr.02).		_				- Date(6)	. 02/10				VV
All units = (m)	Stratum Description	Depth (Level)	Thickness	Legend	Water Strikes	Backfill	Sample (Type) Depth	Depth	In S	Situ Testing	Results	Drill Run
\···/	BOUND MACADAM.	0.02 (1.18)	=	DALD				Sopui	.,,,,,	1		
-	CONCRETE.	0.16 (1.03)	L			VXXV						Core
	MADE GROUND. Light greyish brown slightly sandy cobbly fine to coarse sub-angular to sub-rounded GRAVEL of flint and concrete. Cobbles comprise sub-angular to sub-rounded flint and concrete.	0.16 (1.05)										
			(1.00)		_			1.00	SPT(C)	N=12	(1,5/6,4,2,1)	Hand Dug Pit
' - - - -	Dark greyish brown slightly sandy pseudo-fibrous PEAT. Moderate organic odour. (Tidal Flat Deposits)	1.16 (0.04)		alka alka				1.00	351(0)	N-13	(1,5/0,4,2,1)	
			(0.84)	alle alle si a								(87mm dia) Rec=61%
2 -	Durain a fire CAND (Drillarle description)	2.00 (-0.80)		مالۍ مالۍ ساد ساد ساد			\$	2.00	SPT(C)	N=19	(2,4/3,4,5,7)	
3	Running fine SAND. (Driller's description). End of Borehole at 3.000m	3.00 (-1.80)	(1.00)									(87mm dia) Rec=0%
=	End of Botonoic at 0.000m			3.00		1						
_				3.10		1						
1				3.20)m	1						
=				3.30)m	0						
				3.40)m	3						
=				3.50)m	5	Ц					
=				3.60)m	6						
-			₽ 19	3.70)m	4						
=			l sac	3.80)m	4						
4 —) equ	3.90)m	6						
			Dynamic Probe (DPSH-B)	4.00)m	3						
-			nami	4.10)m	5						
=			l Q	4.20)m	8						
_				4.30)m	11						
_				4.40)m	9						
=				4.50		7						
=				4.60)m	8						
				4.70		8						
_				4.80)m	5						
5 —				4.90)m	7						
				Depth	(m) E	lows			ВІ	ows/100mm		
	General Remarks:				Grour	ndwater	Observati	ons:				
Densiti Chalk o 2. No s	sistency of fine grained soil assessed by hand worked tests in access of granular material, if identified, based on N-Values derived fro descriptions, if identified, are in accordance with CIRIA C574 nample recovery between 2.00-3.00m due to saturated material. Dy	m in situ SPT	testin	g. 0	Date 02-10-20			-	e Elapsed 20mins	Standing 1.00m	Rem	arks
ınderta	aken from 3.00mbgl.											



macadam.

Technical Notes (where applicable):

Consistency of fine grained soil assessed by hand worked tests in accordance with BS5930. Chalk descriptions in accordance with CIRIA C574.

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TRIAL PIT LOG

Trial Pit No.

TP01Sheet 1 of 1

Client Borough of Poole

Site Poole Park Miniature Railway

Location Poole Park, Poole, BH15 2SF

Depth (m):
1.00

Dimensions (m):

Lab Ref. 18-96795
Plant Used:

Groundwater: Not encountered

2t Tracked Mini Excavator

Hole Type
TP
Scale

1:10

Ground Level (mAOD): 1.20 Co-ords: DNS Date(s) 01/10/2018 Logged By

Grou	ind Level (mAOD): 1.20	Co-oras:	DNS			Date(s)	01/10/2	010		DW
All units			Depth	ess		Water	Sample		Testing	
(m)	Stratum Description		(Level)	Thickness	Legend	Strikes	(Type) Depth	Depth	Туре	Results
-	BOUND MACADAM.			F				20pm	.,,,,,	T.COG.IIC
-	MADE GROUND. Light brown ver to coarse SAND. Gravel is fine to angular to sub-rounded of flint and	coarse sub-	0.12 (1.08)				0.12 (D) 0.23			
-	MADE GROUND. Greyish brown cobbly fine to coarse sub-angular rounded GRAVEL of flint, brick and Clasts comprise sub-angular to sufflint brick and concrete.	to sub- d concrete.	0.23 (0.97)				(B)			
- - -	Dark grey mottled dark brown sligl pseudo-fibrous PEAT. Moderate o noted. (Tidal Flat Deposits)	ntly sandy rganic odour	- 0.42 (0.78)		e alte alte alte alte alte alte alte alt		0.42 0.42			
-	Light grey mottled dark grey silty f SAND. (Tidal Flat Deposits)	ine to coarse	- 0.65 (0.55)		**************************************	**************************************	0.65			
- - -				(0.35)			(D)			
1	End of Trial Pit at 1.000r	n	- 1.00 (0.20)		X-1-17, - X-1	<u> </u>	1.00			
- - -										
-										
-										
2 Remark	Base of concrete bridge deck measured a ks: beside narrow gauge railway. The track is macadam.	t 0.30mbgl on southe bedded on granular	rn face of trial p	oit. Trial nd partia	pit was excav		it Stability: S	table		



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DNS

TRIAL PIT LOG

Trial Pit No.

TP02

Sheet 1 of 1 **Hole Type** Lab Ref. Client Borough of Poole Dimensions (m): 18-96795 Depth TP (m): Plant Used: 0.70 Site Poole Park Miniature Railway Scale 1.00 2t Tracked Mini Excavator 1:10 Location Poole Park, Poole, BH15 2SF Logged By

Date(s) 1.21 01/10/2018 Ground Level (mAOD): Co-ords: DW Testing Depth (Level) Water Strikes Stratum Description (m) Depth Туре Results BOUND MACADAM. 0.09 (1.12) MADE GROUND. Light brown very gravelly fine to coarse SAND, Gravel is fine to coarse sub-(D) angular to sub-rounded of flint and concrete. Frequent rootlets and rare sub-angular to sub-0.21 (1.00) rounded flint and concrete cobbles. MADE GROUND. Light greyish brown slightly sandy cobbly fine to coarse sub-angular to subrounded GRAVEL of flint, brick and concrete. Cobbles comprise sub-angular to sub-rounded flint, brick and concrete. (0.42)(B) 0.63 (0.58) Dark grey mottled dark brown slightly sandy pseudo-fibrous PEAT. Moderate organic odour. (Tidal Flat Deposits) (0.37)(D) e alla alla di alla alla alla e alla alla di alla alla alla e alla alla di ale ale ale 1.00 (0.21) End of Trial Pit at 1.000m

Base of concrete bridge deck measured at 0.40mbgl. on northern face of trial pit. Trial pit was excavated beside narrow gauge railway. The track is bedded into granular made ground and partially covered with macadam.

Pit Stability:

Technical Notes (where applicable):

Consistency of fine grained soil assessed by hand worked tests in accordance with BS5930. Chalk descriptions in accordance with CIRIA C574.

Seepage from western face of trial pit. Slow flow rate.



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Co-ords:

BOREHOLE LOG

WINDOWLESS SAMPLING

Borehole No. **WS01**

Sheet 1 of 1

Client: Borough of Poole

Ground Level (mAOD):

Lab. Ref: 18-96795

Drilling Equipment:

Hole Type WLS+DP

Contract:

Poole Park Miniature Railway

Dando Terrier Mk1 Tracked Dynamic

Scale 1:25

Poole Park, Poole, BH15 2SF Location:

Percussion Rig Date(s): 02/10/2018

DNS

Logged By DW

			_				- Date(0)					VV
All units =	Stratum Description	Depth (Level)	Thickness	Legend	Water Strikes	Backfill	Sample (Type) Depth		,	Situ Testing		Drill Run
(m)	•	(26vei)	Thị		va		Depth	Depth	Туре	R	esults	Kuii
	Refer to TP01 Log.		(1.00)									TP01
1	Light grey mottled dark grey silty fine to coarse SAND. (Tidal Flat Deposits) Very soft grey peaty CLAY. Weak organic odour. (Tidal Flat Deposits) Dark greyish brown slightly sandy pseudo-fibrous PEAT.	1.00 (0.20) 1.04 (0.16) 1.39 (-0.19)	(0.35)	\$ 2016 2 216 - 216 216 - 216 216 - 216 216 - 216				1.00	SPT(C)	N=0 (0,0/0,0,0,0)	
-	Moderate organic odour. (Tidal Flat Deposits)		(0.61)	alle alle s alle al s								(87mm dia) Rec=100%
2	Medium dense light grey fine to coarse SAND. (Poole Formation)	2.00 (-0.80)	(0.38)					2.00	SPT(C)	N=20	(0,1/4,5,6,5)	
-	Medium dense light greyish brown very gravelly fine to coarse SAND. Gravel is fine sub-angular to rounded of flint. (Poole Formation) Light grey silty fine to coarse SAND. (Poole Formation) Firm grey very sandy SILT.	2.49 (-1.29)	(0.51)									(87mm dia) Rec=71%
4	End of Borehole at 3.000m	3.00 (-1.80)	Dynamic Probe (DPSH-B)	3.00 3.10 3.20 3.30 3.40 3.50 3.60 3.70 3.80 4.00 4.10 4.20 4.30 4.40 4.50 4.60 4.70 4.80 4.90	m m m m m m m m m m m m m m m m m m m	8 7 6 6 6 6 5 6 4 4 4 4 7 7 6 6 7 8 8 8 9 8 8 8 7 111 3lows			В	ows/100mm		
	General Remarks:	I.					Observati	ons:				
Densit Chalk	nsistency of fine grained soil assessed by hand worked tests in acc ies of granular material, if identified, based on N-Values derived fro descriptions, if identified, are in accordance with CIRIA C574 upling terminated at 3.00mbgl due to running sands. Dynamic prob bgl.	om in situ SPT t	estin	g. 0	Date 2-10-20			-	e Elapsed 20mins	Standing 2.00m	Rema	arks



1.19

Co-ords:

Ground Level (mAOD):

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TRIAL PIT LOG

01/10/2018

Date(s)

Trial Pit No.

TP03

	www	w.acstesting.co.uk			Sheet 1 of 1
Client	Borough of Poole	Depth	Dimensions (m):	Lab Ref. 18-96795	Hole Type
Site	Poole Park Miniature Railway	(m):	0.60	Plant Used: 2t Tracked Mini Excavator	Scale
Location	Poole Park, Poole, BH15 2SF	1.00	4.0	2t tracked Mini Excavator	1:10
					Logged By

DNS

DW Sample (Type) Depth Testing Depth (Level) Water Strikes Stratum Description (m) Depth Туре Results BOUND MACADAM. 0.16 (1.03) MADE GROUND. Light brown very gravelly fine to coarse grained SAND. Gravel is fine to coarse angular to sub-rounded of flint. Frequent rootlets and rare sub-angular to sub-rounded (D) flint brick and concrete cobbles. 0.40 (0.79) BOUND MACADAM. 0.42 (0.77) MADE GROUND. Greyish brown slightly gravelly silty fine to coarse grained SAND.

Gravel is fine to medium sub-angular to rounded of flint. Occasional ceramic pipe fragments. (0.45)(D) 0.87 (0.32) Dark grey mottled dark brown slightly sandy alic pseudo-fibrous PEAT. (Tidal Flat Deposits) (D) alic alic alic 1.00 (0.19) End of Trial Pit at 1.000m

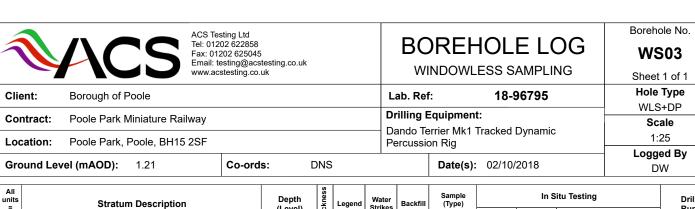
Remarks: Trial pit was excavated beside narrow gauge railway. The track is bedded into macadam.

Pit Stability: Stable

Technical Notes (where applicable):

Consistency of fine grained soil assessed by hand worked tests in accordance with BS5930. Chalk descriptions in accordance with CIRIA C574.

Groundwater: Seepage from western face of trial pit. Slow flow rate.



0.0	und Level (mAOD): 1.21	Co-ords: L)NS				Date(s)). UZ/I	0/2010			DW .
All units	Otantama Barant Car	Depth	ness	1	Water	Backfill	Sample		In	Situ Testing		Drill
= (m)	Stratum Description	(Level)	Thickness	Legend	Strikes	Backfill	ll (Type) Depth	Depti	h Type	R	esults	Run
	Refer to TP02 Log.		(1.00)									TP02
2 —	Dark brown mottled dark grey slightly sandy pseudo-PEAT. Moderate organic odour. (Tidal Flat Deposits) Light grey fine to coarse SAND. (Poole Formation)	1.00 (0.21) 1.29 (-0.08)		g alte, s slig alte g alte, s slig alte s slig	1			2.00	SPT(C)		1,2/3,2,2,1)	(87mm dia) Rec=44%
3		3.00 (-1.79)	(1.71)									(87mm dia) Rec=10%
-	End of Borehole at 3.000m	3.00 (1.75)		3.00		0						
=				3.10		2						
-				3.20		3						
-				3.40		3						
-				3.50	_	5						
=				3.60)m	5						
]			-FB	3.70)m	5						
=			DPSF	3.80		6						
4 -			pqou	3.90 4.00		5						
=			Dynamic Probe (DPSH-B)	4.10		5						
=			Dyne	4.20		6						
3				4.30)m	7						
				4.40		7						
=				4.50		7						
=				4.60		9 5						
				4.70		25						
-				4.90		50						
5 —									_	Jame (400:		
	General Remarks:			Depth		Blows ndwate	r Observat	ions:	<u>E</u>	lows/100mm		
1. Cor	sistency of fine grained soil assessed by hand worked	tests in accordance with E	3S59	30.	Date				ime Elapsed	Standing	Rem	narks
Densiti	es of granular material, if identified, based on N-Values descriptions, if identified, are in accordance with CIRIA	derived from in situ SPT t	estin	~	02-10-20			.00m	20mins	1.00m	T.GII	
2. Sam	pling terminated at 3.00mbgl due to running sands. Dy	namic probe testing under	taker	n from								
3.00ml	ogi.											



Technical Notes (where applicable):

Consistency of fine grained soil assessed by hand worked tests in accordance with BS5930. Chalk descriptions in accordance with CIRIA C574.

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TRIAL PIT LOG

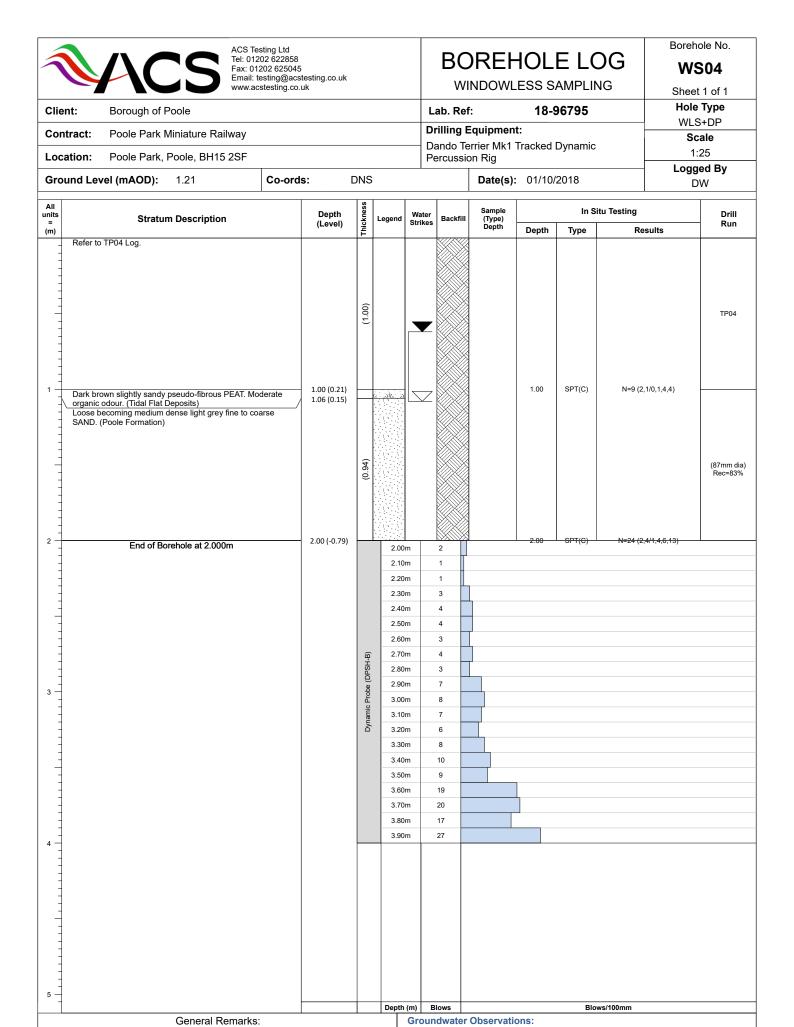
Groundwater: Not encountered.

Trial Pit No.

TP04

	www	w.acstesting.co.uk			Sheet 1 of 1
Client	Borough of Poole	Depth	Dimensions (m):	Lab Ref. 18-96795	Hole Type TP
Site	Poole Park Miniature Railway	(m):	0.65 sp	Plant Used: 2t Tracked Mini Excavator	Scale
Location	Poole Park, Poole, BH15 2SF	1.00	4.0	2t fracked Mini Excavator	1:10
					Logged By

Grou	ind Level (mAOD):	1.21	Co-ords:	DNS		C	ate(s)	01/10/2	018		DW
All units	Stratum	Description		Depth	ness	Lamand	Water	Sample		Testing	
= (m)	Stratum	Description		(Level)	Thickness	Legend	Strikes	(Type) Depth	Depth	Туре	Results
-	MADE GROUND. Dar to coarse SAND. Grav angular to sub-rounde	el is fine to	coarse		. (0.57)			0.09 (B)			
- - - - -	Dark brown slightly sa Moderate organic odor	ur. (Tidal Fla	it Deposits)	1.00 (0.21)	(0.43)	A soller		(D)			
	End of Trie	al Pit at 1.000n	1	1.00 (0.21)							
Remark	ks: Trial pit was excavated bes 0.00-0.09mbgl on northern	side narrow gau face of trial pit.	ge railway. Bound ma The track is bedded	acadam was re into granular m	corded b	oetween und.	Pi	t Stability: S	table		



Consistency of fine grained soil assessed by hand worked tests in accordance with BS5930.
 Densities of granular material, if identified, based on N-Values derived from in situ SPT testing.
 Chalk descriptions, if identified, are in accordance with CIRIA C574
 Sampling terminated at 2.00mbgl due to running sands. Dynamic probe testing undertaken from

2.00mbgl

 Date
 Strike
 Casing
 Time Elapsed
 Standing
 Remarks

 01-10-2018
 1.08m
 2.00m
 20mins
 0.62m



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TRIAL PIT LOG

Trial Pit No.

TP05

Sheet 1 of 1 **Hole Type** Client Borough of Poole Dimensions (m): Lab Ref. 18-96795 Depth ΤP (m): Plant Used: 0.60 Site Poole Park Miniature Railway Scale 1.00 2t Tracked Mini Excavator 1:10 Location Poole Park, Poole, BH15 2SF

Ground Level (mAOD): 1.18 Co-ords: DNS Date(s) 01/10/2018 Logged By

All units	Chrodium Deservication	Depth	ness	las	Water	Sample		Testing	
= (m)	Stratum Description	Depth (Level)	Thickness	Legend	Strikes	Sample (Type) Depth	Depth	Туре	Results
	MADE GROUND. Dark brown slightly gravelly silty fine SAND. Gravel is fine to coarse subangular to sub-rounded of flint and brick. Rare roots and rootlets noted.		(0.66)			(D)			
-	Light grey mottled light orange clayey fine SAND. (Poole Formation)	0.66 (0.52)				0.66			
-			(0.34)			(D)			
1 —	End of Trial Pit at 1.000m	1.00 (0.18)				1.00			

Remarks: Trial pit was excavated beside narrow gauge railway. The track is bedded into granular made ground.

Pit Stability: Stable

Technical Notes (where applicable):

Consistency of fine grained soil assessed by hand worked tests in accordance with BS5930. Chalk descriptions in accordance with CIRIA C574.

Groundwater: Not encountered



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Co-ords:

BOREHOLE LOG

WINDOWLESS SAMPLING

18-96795

Borehole No. **WS05**

Sheet 1 of 1

Borough of Poole Client:

Ground Level (mAOD): 1.18

Lab. Ref:

Not Surveyed

Drilling Equipment: Dando Terrier Mk1 Tracked Dynamic Percussion Rig

Date(s): 01/10/2018

Hole Type WLS Scale 1:25

Contract: Location: Poole Park Miniature Railway Poole Park, Poole, BH15 2SF

Logged By DW

All units	Stratum Description	Depth	Thickness	Legend	Water	Backfill	Sample (Type)		In:	Situ Testing	9	Drill
= (m)		(Level)	Thic		Strikes		(Type) Depth	Depth	Туре		Results	Run
=	Refer to TP05 Log.											
4												
4												
4												
4			(1.00)									TP05
7			-									
3												
=												
1 🕂	Loose brownish grey slightly gravelly silty fine to coarse	1.00 (0.18)		* × ×				1.00	SPT(C)	N=0	(0,0/0,0,0,0)	
=	SAND. Gravel is fine to coarse sub-angular to sub- rounded of flint. (Tidal Flat Deposits)		(0.37)	×××								
4			0.0	×××								
	Describe and all the same describes a second of the same DEAT	1.37 (-0.19)		×××								
3	Brownish grey slightly sandy clayey pseudo-fibrous PEAT. Weak organic odour. (Tidal Flat Deposits)			316. ×316.								(87mm dia
-				5 × 216. 3								Rec=86%
4			(0.57)	alte×alte alte×alte								
=				ياد.×ياد. عاد.×ياد								
=		101/076)		× ala. s								
2	Light grey slightly gravelly fine to coarse SAND. Gravel is fine to coarse sub-angular to sub-rounded of flint. (Poole	1.94 (-0.76)						2.00	SPT(C)	N=9	(0,2/2,2,3,2)	
7	Formation)	2.09 (-0.91)		×××								
3	Soft light grey very sandy SILT. Frequent rootlets. (Poole Formation)		<u>₹</u>	100 100 100								
=			(0.34)	$\times \times $								
-	Medium dense light grey fine to coarse SAND. (Poole	2.43 (-1.25)		×××								
-	Formation)											(87mm dia Rec=62%
-												
1												
=			(0.81)		1							
3 -			ľ		1			3.00	SPT(C)	N=11	2 (1,0/0,3,4,5)	
, -					-			3.00	SFI(C)	14-12	(1,0/0,3,4,3)	
-												
‡	Soft to firm very sandy SILT. (Poole Formation)	3.24 (-2.06)		X X X								
=			(0.37)									
4			6									(87mm dia
7	Light grey silty fine to coarse SAND. (Poole Formation)	3.61 (-2.43)		XXX								Rec=59%
]	Light groy only line to obtain on the transfer of the transfer			×××								
-			(0.39)	× ×								
_			ľ	× × ×								
4	End of Borehole at 4.000m	4.00 (-2.82)				//X////X		4.00	SPT(C)	N=19	0 (2,2/3,6,6,4)	
1												
]												
4												
-												
-												
=												
=												
5									<u> </u>			
em	arks:				Grour	dwater	Observa					
					Date	Str	ike Ca	-	ne Elapsed	Standing 0.61m	Rem	arks

01-10-2018

Technical Notes (where applicable):
Consistency of fine grained soil assessed by hand worked tests in accordance with BS5930. Densities of granular material based on in situ SPT N-values. Chall describtions in accordance with CRIAL CST4'

0.62m

0.00m

20mins

0.61m



TRIAL PIT LOG

Trial Pit No.

TP06 Sheet 1 of 1

Client	Borough of Poole	Depth	Dimensions (m):
Site	Poole Park Miniature Railway	(m):	0.60
Location	Poole Park, Poole, BH15 2SF	1.00	0.4

Remarks: Trial pit was excavated beside narrow gauge railway. The track is bedded into granular made ground.

Consistency of fine grained soil assessed by hand worked tests in accordance with BS5930. Chalk descriptions in accordance with CIRIA C574.

Technical Notes (where applicable):

Lab Ref. 18-96795 Plant Used:

2t Tracked Mini Excavator

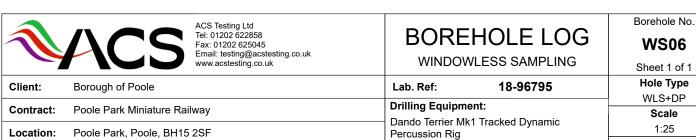
Pit Stability:

Groundwater: Not encountered

Hole Type ΤP Scale 1:10

Logged By Co-ords: Date(s) Ground Level (mAOD): 1.20 DNS 02/10/2018 DW

1	<u> </u>	1	L 60					•	
All units	Stratum Description	Depth	Thickness	Legend	Water	Sample (Type)		Testing	
= (m)		(Level)	Thic		Strikes	(Type) Depth	Depth	Туре	Results
- - -	MADE GROUND. Greyish brown gravelly fine to coarse SAND. Gravel is fine to coarse angular to sub-rounded of flint and clinker.		•			0.00 (D)	·		
- - - -	Light brown mottled greyish brown slightly gravelly silty fine to coarse SAND. Gravel is fine to medium angular to sub-rounded of flint. (Tidal Flat Deposits)	- 0.28 (0.92)	(1			0.28			
-		- 0.73 (0.47)	(0.45)			(D)			
- - -	Greyish brown mottled dark grey sandy pseudo- fibrous PEAT. Weak organic odour. (Tidal Flat Deposits)	0.73 (0.47)		allo allo allo allo allo allo allo allo		0.73 (D)			
1 -	End of Trial Pit at 1.000m	1.00 (0.20)		alle alle alle a		1.00			
-									
-									
-									
-									
-									
- - -									
2									



Ground Level (mAOD): 1.20 Co-ords: DNS Date(s): 03/10/2018 DW

	(iiii 25);			I	1		- Date(6)		10/2010			700
All units =	Stratum Description	Depth (Level)	Thickness	Legend	Water Strike	Backfil	Sample I (Type) Depth			Situ Testing	•	Drill Run
m)	Refer to TP06 Log.	(====,	Ē			X//XX/	Depth	Dept	h Type	<u> </u>	Results	
			(1.00)			5						TP06
	Dark greyish brown sandy pseudo-fibrous PEAT. Moderate organic odour. (Tidal Flat Deposits)	1.62 (-0.42)	(0.62)	e alle alle alle alle alle alle alle al	1			1.00	SPT(C)	N=1	(0,0/0,0,0,1)	(87mm dia) Rec=81%
2 —	Medium dense light grey fine to coarse SAND. (Poole Formation)	1.02 (0.42)						2.00	SPT(C)	N=18	3 (2,2/3,4,5,6)	
			(1.38)									(87mm dia Rec=51%
· -	End of Borehole at 3.000m	3.00 (-1.80)	- R	3.00)m	1	<u>a</u>					
_			Dynamic Probe (DPSH-B)	3.10)m	4						
=			Probe	3.20		4						
			amic	3.30		9						
=			Dy.	3.50		20						
=				3.60)m	21						
4				3.70	_	26						
=				3.80		28 36						
-				0.00		00						
=												
-												
=												
7												
=												
-												
5 -												
	General Remarks:			Depth		Blows	r Observati	one.	В	lows/100mm		
Co	nsistency of fine grained soil assessed by hand worked tests in ac	cordance with I	3S59	30.	Date				ime Elapsed	Standing	Rem	arks
ensit halk	ties of granular material, if identified, based on N-Values derived frond descriptions, if identified, are in accordance with CIRIA C574	om in situ SPT	testir	ıg. C	3-10-20			00m	20mins	0.98m		
San	npling terminated at 3.00mbgl due to running sands. Dynamic prob bgl.	e testing under	rtake	n from								



Trial pit was excavated beside narrow gauge railway. The track is bedded into granular made ground and partially covered with macadam.

Consistency of fine grained soil assessed by hand worked tests in accordance with BS5930. Chalk descriptions in accordance with CIRIA C574.

Technical Notes (where applicable):

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TRIAL PIT LOG

Pit Stability:

Stable

Groundwater: Not encounterd

Trial Pit No.

TP07

Sheet 1 of 1 **Hole Type** Client Borough of Poole Dimensions (m): Lab Ref. 18-96795 Depth TP (m): Plant Used: 0.70 Site Poole Park Miniature Railway Scale 1.00 2t Tracked Mini Excavator 1:10 Location Poole Park, Poole, BH15 2SF Logged By

Grou	nd Level (mAOD): 1.21	Co-ords:	DNS		Da	ate(s)	01/10/20	018		ged By DW
All units =	Stratum Description	1	Depth (Level)	Thickness	Legend	Water Strikes	Sample (Type) Depth	_	Testing	
(m)	BOUND MACADAM.		(Level)	Ţ		Julkes	Depth	Depth	Туре	Results
-	MADE GROUND. Dark brown slig silty fine to coarse SAND. Gravel coarse angular to sub-rounded of	is fine to	- 0.08 (1.13)		A CHAPTER ST		0.08 (D)			
-	Light brown fine to coarse SAND. Deposits)	(Tidal Flat	0.32 (0.89)				0.32 (D)			
- - - -	Dark brown mottled dark grey sar fibrous PEAT. Moderate organic of Flat Deposits)	ndy pseudo- dour. (Tidal	- 0.47 (0.74)		e she she se she she se		0.47 (D)			
-			0.74 (0.47)		salis salis salis sa s salis salis sas		0.74			
-	Light grey mottled dark grey clayer coarse SAND. (Tidal Flat Deposit	ey fine to s)	0.74 (0.47)				0.74 (D)			
- -	Dark brown mottled dark grey sar fibrous PEAT. Moderate organic of Flat Deposits)	ndy pseudo- odour. (Tidal	0.89 (0.32)		onie onie stre si e otto otto stre si e otto otto si e otto otto stre si		0.89 (D)			
1	End of Trial Pit at 1.000	m	- 1.00 (0.21)							



WS07

Sheet 1 of 1

Borehole No.

18-96795

Drilling Equipment:

Hole Type WLS+DP

Contract: Poole Park Miniature Railway

Dando Terrier Mk1 Tracked Dynamic

Scale 1:25

Location: Poole Park, Poole, BH15 2SF Percussion Rig Logged By Ground Level (mAOD): 1.21 Co-ords: DNS **Date(s):** 03/10/2018 DW

	, ,						. ,					VV
All units =	Stratum Description	Depth (Level)	Thickness	Legend	Wate Strike	r Backfill	Sample I (Type) Depth			Situ Testing		Drill Run
(m)		(20461)	Ĕ					Depth	Туре	1	Results	IXUII
111111111111111111111111111111111111111	Refer to TP07 Log.	100(23)	(1.00)					1.00	207/6		(0.0/0.00.1)	TP07
1 -	Dark brown mottled dark grey sandy pseudo-fibrous PEAT. Moderate organic odour. (Tidal Flat Deposits) Light greyish brown peaty fine to coarse SAND. (Tidal Flat	1.00 (0.21)	(0.32)	e alte a alte alte e alte a alte alte e alte a				1.00	SPT(C)	N=1	(0,0/0,0,0,1)	
	Deposits) Medium dense light grey fine to coarse SAND. (Poole Formation)	- 1.47 (-0.26)		alk.		7						(87mm dia) Rec=81%
2		- 3.00 (-1.79)	(1.53)					2.00	SPT(C)	N=2	1 (4,6/4,5,5,7)	(87mm dia) Rec=53%
4	End of Borehole at 3.000m	5.00 (-1.79)	Dynamic Probe (DPSH-B)	3.000 3.10 3.20 3.30 3.40 3.50 3.60 3.70 3.80 3.90	Om	1 4 10 12 12 17 25 37 36 35						
5												
	General Remarks:			Depth		Blows	r Observati	ione:	В	lows/100mm		
1. Cor	nsistency of fine grained soil assessed by hand worked tests in ac	cordance with E	3S59	30.	Date				ne Elapsed	Standing	Rem	arks
Densiti Chalk	ies of granular material, if identified, based on N-Values derived fr descriptions, if identified, are in accordance with CIRIA C574 opling terminated at 3.00mbgl due to running sands. Dynamic prol	om in situ SPT	testin	g. C	03-10-20			00m	20mins	1.57m	Neill	



Trial pit was excavated beside narrow gauge railway. Kerbstone recorded on southern face of trial pit between 0.05-0.29mbgl. The track is bedded into granular made ground.

Consistency of fine grained soil assessed by hand worked tests in accordance with BS5930. Chalk descriptions in accordance with CIRIA C574.

Technical Notes (where applicable):

Site

Poole Park Miniature Railway

(m):

1.00

 TRIAL PIT LOG
 TP08

 Sheet 1 of 1
 Hole Type

 Lab Ref.
 18-96795
 TP

 Plant Used:
 Scale

 2t Tracked Mini Excavator
 1410

Trial Pit No.

Location Poole Park, Poole, BH15 2SF

Ground Level (mAOD): 1.17 Co-ords: DNS

Date(s) 01/10/2018

1:10

Logged By

DW

0.65

All		Donth	ess		10/2424	Sample		Testing	
units = (m)	Stratum Description	Depth (Level)	Thickness	Legend	Water Strikes	Sample (Type) Depth	Depth	Туре	Results
-	MADE GROUND. Dark greyish brown slightly gravelly silty fine to coarse SAND. Gravel is fine to coarse angular to sub-rounded of flint and concrete.		. (0.58)			0.29	·		
- - -		0.58 (0.59)				(D)			
-	Brownish grey clayey organic fine to coarse SAND. (Tidal Flat Deposits)	0.50 (0.55)	(0.36)	alle alle a a a a a a a a a a a a a a a		0.58 (D)			
1 -	Soft light grey mottled dark grey slightly sandy CLAY. (Poole Formation) End of Trial Pit at 1.000m	0.94 (0.23)		coller of coller		0.9年 (D) 0.94 (D) 1.00			
- - -									
- - -									
_ - -									
- - - -									
2 —									

Pit Stability:

Groundwater: Not encountered



BOREHOLE LOG

WINDOWLESS SAMPLING

Borehole No. WS08

Hole Type

Sheet 1 of 1

Client: Borough of Poole

Ground Level (mAOD):

Contract:

Lab. Ref: 18-96795

Drilling Equipment:

Dando Terrier Mk1 Tracked Dynamic Percussion Rig WLS+DP Scale 1:25

Location: Poole Park, Poole, BH15 2SF

Poole Park Miniature Railway

Co-ords:

DNS

Date(s): 03/10/2018

	ind Level (IIIAOD).	Co-orus.	סמוכ				Date(S)	. 03/1	0/2010			DW
All units =	Stratum Description	Depth (Level)	Thickness	Legend	Water Strikes	Backfil	Sample II (Type) Depth			Situ Testing	J	Drill Run
m)	Refer to TP08 Log.	(Level)	Ē			K////X//	Depth	Depti	n Type		Results	- Itali
	, dad 6 11 50 Edg.		(1.00)		•							TP08
1	Soft dark grey slightly gravelly sandy organic CLAY. is fine to medium sub-angular to sub-rounded of flint Occasional roots and rootlets. (Tidal Flat Deposits) Dark brown sandy pseudo-fibrous PEAT. Soft grey very sandy SILT. (Tidal Flat Deposits)	1.00 (0.17) 1.21 (-0.04)	(0.48)					1.00	SPT(C)	N=12	2 (0.0/2,3,3,4)	(87mm dia)
2 —	Medium dense grey fine to coarse SAND. (Tidal Flat Deposits)	205 (200)	(0.37)	× × × × × ×				2.00	SPT(C)	N=14	4 (0,0/2,4,4,4)	Rec=81%
-	Dark brown sandy pseudo-fibrous PEAT. Weak organ odour. (Tidal Flat Deposits) Light grey mottled dark grey fine to coarse SAND. (P	2.42(4.25)	18.	s alte al alte alte s alte al alte alte s alte al								(67. 11.)
3	Formation)	3.00 (-1.83)	(0.58)					3.00	SPT(C)	N=18	3 (1,1/2,5,5,6)	(87mm dia) Rec=75%
-	End of Borehole at 3.000m			3.00		2					,	
=				3.10		7						
-				3.30		5						
-				3.40		3						
7				3.50	m	2						
3				3.60	m	3						
1			9 H	3.70		3						
7			(DPS	3.80		6						
1			Probe	3.90 4.00		17						
-			Dynamic Probe (DPSH-B)	4.10		21						
7			Dyn	4.20	m	24						
-				4.30	m	23						
_				4.40		19						
1				4.50		15 13						
=				4.60		12						
=				4.80		9						
_ ‡				4.90	m	8						
5 —		-		Depth	(m) E	lows			В	lows/100mm		
	General Remarks:						r Observati	ons:				
Cons	sistency of fine grained soil assessed by hand worked as of granular material, if identified, based on N-Values	tests in accordance with	BS593		Date			-	ime Elapsed	Standing	Rer	narks
onciti-		C574	(CSUI)	J. [7	3-10-20	10 1	.00m 2.0	00m	20mins	0.87m	1	



TRIAL PIT LOG

Trial Pit No.

TP09

Sheet 1 of 1 **Hole Type** Client Borough of Poole Dimensions (m): Lab Ref. 18-96795 Depth ΤP (m): Plant Used: 0.65 Site Poole Park Miniature Railway Scale 1.00 2t Tracked Mini Excavator 1:10 Location Poole Park, Poole, BH15 2SF

Logged By Co-ords: Date(s) 02/10/2018 Ground Level (mAOD): 1.43 DNS DW

All units	Stratum Decariation	Depth	Thickness	Legend	Water	Sample (Type)		Testing	
= (m)	Stratum Description	(Level)	Thick	Legena	Strikes	(Type) Depth	Depth	Туре	Results
-	TOPSOIL. Dark brown slightly gravelly silty organic fine SAND. Gravel is fine to coarse angular to sub-rounded of flint. Frequent rootlets.	- 0.39 (1.04)	(0.39)			(D)			
- - - - - -	Multicoloured greyish brown, orange and dark grey silty fine SAND. (Tidal Flat Deposits)		(0.34)			(D)			
-	Light brownish grey very sandy pseudo-fibrous PEAT. Weak organic odour. (Tidal Flat Deposits)	0.73 (0.70)		allo alto alto a		0.73 0.73			
-		- 1.00 (0.43)		allo alle alle es alle alle alle se alle alle alle se alle alle alle se alle alle alle alle alle alle alle alle		(B)			
1 🕇	End of Trial Pit at 1.000m	1.00 (0.43)							

Remarks: Trial pit was excavated beside narrow gauge railway. The track is bedded into granular topsoil.

Pit Stability:

Technical Notes (where applicable):

Consistency of fine grained soil assessed by hand worked tests in accordance with BS5930. Chalk descriptions in accordance with CIRIA C574.

Groundwater: Seepage from southern face of trial pit. Slow flow rate



BOREHOLE LOG

WINDOWLESS SAMPLING

Borehole No. **WS09**

Sheet 1 of 1

Client: Borough of Poole Lab. Ref: 18-96795

Drilling Equipment:

Hole Type WLS+DP

Contract:

Poole Park Miniature Railway

Dando Terrier Mk1 Tracked Dynamic Percussion Rig

Scale 1:25

Location: Poole Park, Poole, BH15 2SF

Gro	ound Level (mAOD): 1.43 Co-o	rds: [ONS				Date(s):	: 04/10	0/2018			ged By DW
All units	Stratum Description	Depth	Thickness	Legend	Water	Backfill	Sample (Type)		ln :	Situ Testing		Drill
= (m)	oratum bescription	(Level)	Pic	Legena	Strikes	Duckin	I (Type) Depth	Depth	Туре	F	Results	Run
	Refer to TP09 Log.		(1.00)		*							TP09
1	Greyish brown very sandy pseudo-fibrous PEAT. Weak organic odour. (Tidal Flat Deposits) Medium dense brownish grey slightly sandy silty fine to coarse sub-angular to sub-rounded GRAVEL of flint. (Tidal Flat Deposits) Dense light grey fine to coarse SAND. (Poole Formation)	1.00 (0.43) 1.34 (0.09) 1.46 (-0.03)	(0.34)	is in its				1.00	SPT(C)		(4.5/6.7.9.7)	(87mm dia) Rec=82%
2			(1.54)					2.00	SPT(C)	N=31	(5,6/7,7,8,9)	(87mm dia) Rec=51%
3 -	End of Borehole at 3.000m	3.00 (-1.57)		3.00	m	1	<u> </u>					
-				3.10		2						
=				3.20	m	3						
				3.30	m	4						
_				3.40		4						
. =				3.50		4						
. 7				3.60		3						
]			SH-B	3.80		3						
			e (P	3.90		6						
4 —			Prob	4.00	m	8						
]			Dynamic Probe (DPSH-B)	4.10	m	5						
-			Dy	4.20		5						
_				4.30		7						
_				4.40		18						
]				4.50		6						
=				4.70		7						
				4.80		9						
				4.90		8						
5 —				Depth	(m) PI	ows			RI	ows/100mm		
	General Remarks:			Debru			r Observati	ons:	В	Office of the state of the stat		
1. Co	nsistency of fine grained soil assessed by hand worked tests in	accordance with E	3S59	30.	Date				me Elapsed	Standing	Rem	narks
Densit Chalk	ies of granular material, if identified, based on N-Values derived descriptions, if identified, are in accordance with CIRIA C574 npling terminated at 3.00mbgl due to running sands. Dynamic p	d from in situ SPT	testin	g. 0	4-10-201			00m	20mins	0.54m		



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TRIAL PIT LOG

Trial Pit No.

TP10

Sheet 1 of 1 **Hole Type** Client Borough of Poole Dimensions (m): Lab Ref. 18-96795 Depth ΤP (m): Plant Used: 0.65 Site Poole Park Miniature Railway Scale 1.00 2t Tracked Mini Excavator 1:10 Location Poole Park, Poole, BH15 2SF Logged By

l ts	Stratum	Description		Depth	Thickness	Legend	Water Strikes	Sample (Type)		Testing	
)				(Level)	Ę	-	Strikes	(Type) Depth	Depth	Туре	Result
	BOUND MACADAM.										
}	MADE GROUND. Dark	arevish bro	own verv	0.07 (1.47)				0.07			
1	sandy fine to medium s	ub-angular	to sub-					(D)			
+	rounded GRAVEL of flir	nt and limes	stone.					(D)			
1	Multicoloured greyish b	rown oron	ao and dark	0.21 (1.33)				0.21 0.21			
+	grey silty fine SAND. O	ccasional p	ockets of firm			x ^					
\perp	greyish brown very san	dy silt. (Tid	al Flat			x × x x x		(D)			
-	Deposits)					x × x x					
ŀ	Dark grey silty fine to co	narse SANI	D (Tidal Flat	0.38 (1.16)		X X XX		0.38 0.38			
	Deposits)		2. (x × x					
1						x × ^ × x					
1						× × × ×					
1					_	××××					
+					(0.43)	(x × x ·)		(B)			
+						××××					
4						X X X					
						x × x x x					
						× × × ×					
1	Firm light grey mottled	orange slig	htly gravelly	0.81 (0.73)		$\times \times \times \times \times$		0.81 0.81			
1	sandy SILT. Gravel is fit to sub-rounded of flint.	ne to coars	e sub-angular			$\times \times $					
1	to sub-rounded or filmt.	(Poole Foli	nation)			X X X X X X X X		(D)			
+						××××××					
+	End of Trial	Pit at 1.000n	1	1.00 (0.54)		x x x x x x x		1.00			
4											
4											
-											
1											
1											
+											
+											
4											
1											
1											
1											
+											
+											
+											
4											
				I		1					

Trial pit was excavated beside narrow gauge railway. The track is bedded into granular made ground and partially covered with macadam.

Pit Stability: Stable

Technical Notes (where applicable):

Consistency of fine grained soil assessed by hand worked tests in accordance with BS5930. Chalk descriptions in accordance with CIRIA C574.

Groundwater: Not encountered



Technical Notes (where applicable):

Consistency of fine grained soil assessed by hand worked tests in accordance with BS5930. Chalk descriptions in accordance with CIRIA C574.

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TRIAL PIT LOG

Trial Pit No.

Hole Type

ΤP

Scale

TP11Sheet 1 of 1

Client Borough of Poole

Site Poole Park Miniature Railway

Location Poole Park, Poole, BH15 2SF

Depth (m):
0.65
Plant Used:
2t Tracked Mini Excavator

1:10 Logged By

Seepage from south-eastern face of trial pit. Fast flow rate.

rour	nd Level (mAOD):	1.97	Co-ords:	DNS			Date(s)	02/10/2	018		DW
II its	Stratun	n Description	ı	Depth (Level)	Thickness	Legend	Water Strikes	Sample (Type) Depth		Testing	
-	TOPSOIL. Soft dark be slightly gravelly sandy coarse sub-angular to Frequent rootlets.	orown mottle	d dark grey		Thir		Strikes	(D)	Depth	Туре	Result
-	Dark grey slightly gray SAND. Gravel is fine to sub-rounded of flint. (to coarse sul	b-angular to	0.21 (1.76)				0.21 (D)			
-	Greyish brown gravel Gravel is fine to coars rounded of flint. (Tidal	se sub-angul	ar to sub-	0.47 (1.50)				0.47			
-					(0.53)			(B)			
+	End of Tri	ial Pit at 1.000r	m	1.00 (0.97)				1.00			
-											
-											



Contract:

Ground Level (mAOD):

ACS Testing Ltd Tel: 01202 622858 Fax: 01202 625045 Email: testing@acstesting.co.uk www.acstesting.co.uk

BOREHOLE LOG

WINDOWLESS SAMPLING

WS11

Borehole No.

Sheet 1 of 1

Client: Lab. Ref: Borough of Poole **Drilling Equipment:**

18-97184

Hole Type WLS+DP

Poole Park, Poole, BH15 2SF

Poole Park Miniature Railway

Dando Terrier Mk2 Tracked Dynamic Perussion Rig

Scale 1:25

Location:

Co-ords: DNS Date(s): 18/10/2018 Logged By DW

0.00	ind Level (mAOD). 1.97	Co-orus.	סמוכ				Date(S).	10/10	7/2010		L	OW
All units =	Stratum Description	Depth	Thickness	Legend	Water Strikes	Backfill	Sample (Type) Depth		In	Situ Testinç	9	Drill
= (m)		(Level)	Thic		JUNES	.,,,,,,	Depth	Depth	Туре		Results	Run
	Refer to TP11 Log.		(1.00)									TP11
1 —	Medium dense greyish brown gravelly fine to coarse S Gravel is fine to coarse sub-angular to sub-rounded or	SAND. 1.00 (0.97) f flint.			*			1.00	SPT(C)	N=18	8 (2,2/3,4,6,5)	
}	(Tidal Flat Deposits) Medium dense light brown fine to coarse SAND. (Poo	le 1.21 (0.76)		N.	1							
	Formation)		(0.79)									(87mm dia) Rec=100%
-												
2	End of Borehole at 2.000m	2.00 (-0.03)		2.00	.]m	2	1					
-				2.10		3						
1				2.20		4						
3				2.30	0m	5						
_				2.40		5						
1				2.50		6						
=				2.60		9						
-			Dynamic Probe (DPSH-B)	2.80		10						
. =			9 (D	2.90		13						
3 —			c Prot	3.00	0m	11						
			/nami	3.10		12						
-			۵	3.20		11 10						
]				3.40		13						
_				3.50		13						
=				3.60	0m	15						
-				3.70	0m	14						
-				3.80		13						
4 —				3.90	Om	9						
-												
=												
3												
_												
‡												
=												
=												
_ =												
5 —			-	Depti) (m) [Blows			R	lows/100mm		
	General Remarks:	<u> </u>		1 2000			Observation	ons:				
Cons	sistency of fine grained soil assessed by hand worked to so f granular material, if identified, based on N-Values	ests in accordance with	BS59	30.	Date			-	ne Elapsed	Standing	Ren	narks
halk d	escriptions, if identified, are in accordance with CIRIA C	574			18-10-20	18 0.:	32m 0.0	10m	20mins	0.24m		
Samp 00mb	oling terminated at 2.00mbgl due to running sands. Dyn	amic Probe testing unde	rtake	n from								



TRIAL PIT LOG

Trial Pit No. **TP12**

1712

Sheet 1 of 1 **Hole Type** Client Dimensions (m): Lab Ref. 18-96795 Borough of Poole Depth TP (m): Plant Used: 0.65 Site Poole Park Miniature Railway Scale 1.00 2t Tracked Mini Excavator 1:10 Location Poole Park, Poole, BH15 2SF Logged By

Date(s) 02/10/2018 Co-ords: Ground Level (mAOD): 2.15 DNS DW Sample (Type) Depth Testing Depth (Level) Water Strikes Stratum Description (m) Depth Туре Results TOPSOIL. Dark brown slightly gravelly silty fine SAND. Gravel is fine to coarse sub-angular to sub-rounded of flint. Frequent roots and rootlets. (0.43)(D) 0.43 (1.72) Light grey mottled greyish brown slightly gravelly fine to coarse SAND. Gravel is fine to coarse sub-angular to sub-rounded of flint. (Tidal Flat Deposits) (0.57)(B) 1.00 (1.15) End of Trial Pit at 1.000m

Remarks: Trial pit was excavated beside narrow gauge railway. The track is bedded into granular topsoil.

Pit Stability: Stable

Technical Notes (where applicable):

Consistency of fine grained soil assessed by hand worked tests in accordance with BS5930. Chalk descriptions in accordance with CIRIA C574.

Groundwater: Not encountered



 Ground Level (mAOD):
 2.15
 Co-ords:
 DNS
 Date(s):
 04/10/2018
 DW

Borehole No.

WS12

Sheet 1 of 1

Hole Type

WLS+DP

Scale

1:25

	, ,				1				DVV		
All units =	Stratum Description	Thickness	Legend	Water Strikes	Backfill	Sample (Type) Depth		ln :	Situ Testing	Drill Run	
(m)		(Level)	ĬĔ		Otrikes	×///×//	Depth	Depth	Туре	Results	Kuii
	Refer to TP12 Log.		(1.00)						207/0		TP12
1	Dense greyish brown mottled dark grey fine to coarse SAND. (Tidal Flat Deposits) Medium dense light grey mottled light brown fine to coarse SAND. (Poole Formation)	- 1.00 (1.15) - 1.33 (0.82)	(0.33)					2.00	SPT(C)	N=31 (5,5/7,8,8,8) N=22 (4,3/3,4,6,9)	(87mm dia) Rec=100%
3		- 3.00 (-0.85)	(1.67)								(87mm dia) Rec=81%
4	End of Borehole at 3.000m		Dynamic Probe (DPSH-B)	3.00 3.10 3.20 3.30 3.40 3.50 3.60 3.70 4.00 4.10 4.20 4.30 4.40 4.50 4.60 4.70 4.80 4.90		2 3 3 4 8 8 5 5 5 5 4 4 6 6 5 8 8 8 7 11					
-				Depth		Blows			ВІ	ows/100mm	
1 00-	General Remarks: sistency of fine grained soil assessed by hand worked tests in ac	cordance with "	SCEU.	30			r Observat			Standing:	Damanis -
Densiti Chalk	es of granular material, if identified, based on N-Values derived fr descriptions, if identified, are in accordance with CIRIA C574 pling terminated at 3.00mbgl due to running sands. Dynamic Prot	om in situ SPT	testin	g. C	Date 4-10-20			-	e Elapsed 20mins	Standing 1.12m	Remarks



Technical Notes (where applicable):

Consistency of fine grained soil assessed by hand worked tests in accordance with BS5930. Chalk descriptions in accordance with CIRIA C574.

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TRIAL PIT LOG

Groundwater: Not encountered

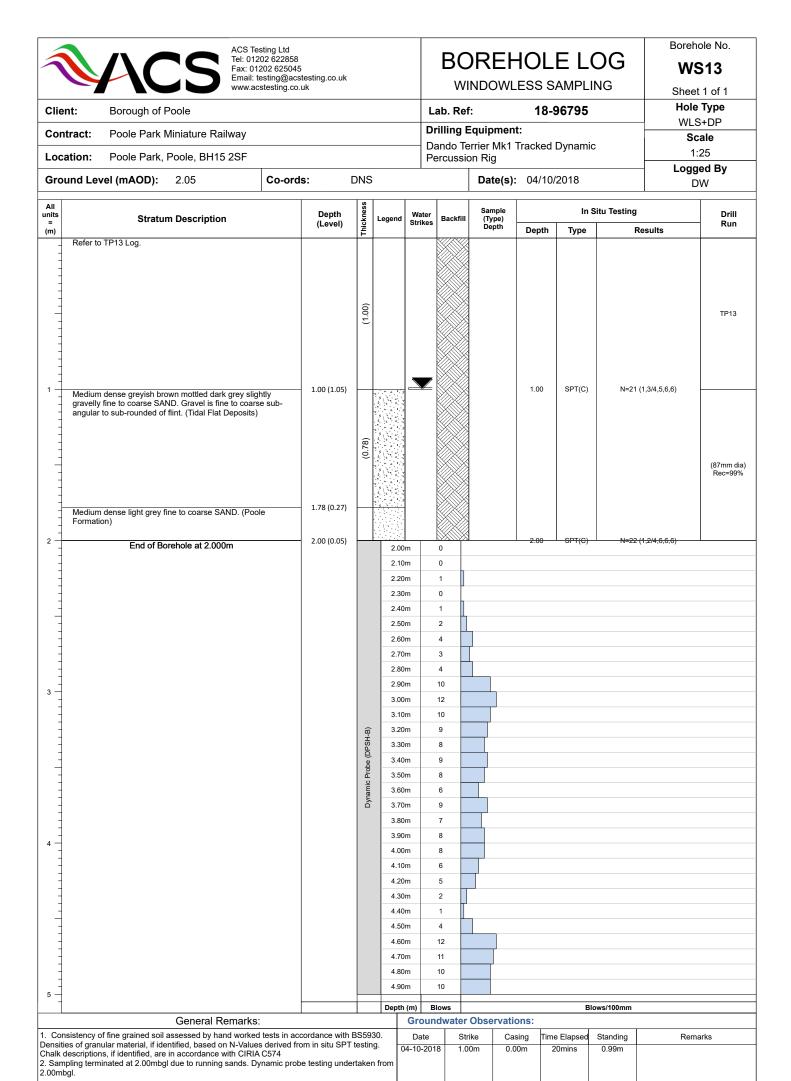
Trial Pit No.

TP13Sheet 1 of 1

Hole Type Client Borough of Poole Dimensions (m): Lab Ref. 18-96795 Depth ΤP (m): Plant Used: 0.65 Site Poole Park Miniature Railway Scale 1.00 2t Tracked Mini Excavator 1:10 Location Poole Park, Poole, BH15 2SF

Ground Level (mAOD): 2.05 Co-ords: DNS Date(s) 02/10/2018 DW

All	Stratum Description	Depth	Thickness	Legend	Water	Sample (Type)		Testing	
= (m)		(Level)	Thic	g	Strikes	(Type) Depth	Depth	Туре	Results
	MADE GROUND. Multicoloured dark grey, dark brown and orange very gravelly fine to coarse SAND. Gravel is fine to coarse angular to subrounded of flint and brick. Occasional angular to sub-angular limestone boulders and rootlets.		(0.64)			(D)			
-	Light greyish brown mottled dark grey silty fine SAND. (Tidal Flat Deposits)	0.64 (1.41)		××××××××××××××××××××××××××××××××××××××		0.64 0.64			
-	SAND. (Tidal Flat Deposits)		(0.36)			(B)			
1	End of Trial Pit at 1.000m	1.00 (1.05)				1.00			





Ground Level (mAOD):

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DNS

Co-ords:

1.43

TRIAL PIT LOG

02/10/2018

Trial Pit No. **TP14**

DW

		ww.acstesting.co.uk	ing.co.uk		Sheet 1 of 1
Client	Borough of Poole	Depth	Dimensions (m):	Lab Ref. 18-96795	Hole Type TP
Site	Poole Park Miniature Railway	(m):	0.65	Plant Used: 2t Tracked Mini Excavator	Scale
Location	Poole Park, Poole, BH15 2SF	1.00	0.4	2t Tracked Mini Excavator	1:10
					Logged By

Date(s)

					(0)				DVV
All units =	Stratum Description	Depth (Level)	Thickness	Legend	Water Strikes	Sample (Type) Depth		Testing	
(m)	MADE GROUND. Orange very sandy fine to coarse sub-angular to rounded GRAVEL of flint.	0.03 (1.40)	=			0.03	Depth	Туре	Results
-	MADE GROUND. Greyish brown slightly gravelly silty fine SAND. Gravel is fine to coarse angular to sub-rounded of flint. MADE GROUND. Dark grey slightly sandy fine to medium angular to sub-rounded GRAVEL of flint and clinker. Frequent angular brick cobbles and occasional metal fragments.	0.15 (1.28)				(D) 0.15			
- - - -			(0.45)			(D)			
-	Dark grey mottled dark brown sandy pseudo- fibrous PEAT. Weak organic odour. (Tidal Flat Deposits)	- 0.60 (0.83)	(0.34)	and the sale of th		0.60 (D)			
1 —	Light grey mottled dark grey silty fine to coarse SAND. (Poole Formation) End of Trial Pit at 1.000m	0.94 (0.49)		allie		0.94 (B) 0.94 (B) 1.00			
-									
-									
-									
-									
-									
2									

Remarks: Trial pit was excavated beside narrow gauge railway. The track is bedded into granular made ground.

Pit Stability:

Technical Notes (where applicable):

Consistency of fine grained soil assessed by hand worked tests in accordance with BS5930. Chalk descriptions in accordance with CIRIA C574.

Groundwater: Not encountered



BOREHOLE LOG

WINDOWLESS SAMPLING

18-96795

Borehole No. **WS14**

Sheet 1 of 1 Hole Type

Client: Borough of Poole

Technical Notes (where applicable):
Consistency of fine grained soil assessed by hand worked tests in accordance with BS5930. Densities of granular material based on in situ SPT N-values. Chall describtions in accordance with CRIAL CST4'

Lab. Ref:

Contract: Poole Park Miniature Railway Dando Terrier Mk1 Tracked Dynamic Percussion Rig Location: Poole Park, Poole, BH15 2SF

Drilling Equipment:

Scale 1:25

WLS

Logged By Ground Level (mAOD): 1.43 Co-ords: Date(s): 04/10/2018 Not Surveyed DW

All units	Stratum Description	Legend	Water Strikes	Backfill	Sample (Type)		In:	Situ Testing		Drill		
= (m)		(Level)	Thickness	Legenu	Strikes	Dackiiii	(Type) Depth	Depth	Туре	F	Results	Run
-	Refer to TP14 Log		(1.00)									TP14
1	Medium dense light greyish brown mottled dark grey silty fine SAND. (Tidal Flat Deposits) Dark grey mottled dark brown sandy pseudo-fibrous PEAT. Moderate organic odour. (Tidal Flat Deposits) Loose to very loose light grey fine to coarse SAND. (Poole Formation)	1.00 (0.43) 1.14 (0.29) 1.33 (0.10)	(1.04)	XXXXX E shlip; shlip shlip; shlip; shlip;				1.00	SPT(C)	N=13	(0.0/0.3.5.5)	(87mm dia) Rec=97%
2	Very soft to soft light grey mottled brown very sandy organic SILT. Weak organic odour. (Poole Formation)	- 2.37 (-0.94)	(1.04)	X X X X X X X X X X X X X X X X X X X				3.00	SPT(C)		(0,0/0,0,0,0)	(87mm dia) Rec=69%
	Medium dense light grey silty fine SAND. (Poole Formation)	- 3.41 (-1.98) - 4.00 (-2.57)	(0.59)	× γης × × γης × × γης × × γης × × γης × × γης × × γης ×				4.00	SPT(C)		(2,4/6,7,8,9)	(87mm dia) Rec=91%
	End of Borehole at 4.000m	4.00 (*2.57)			Groun	dwater	Observa		3 1(0)	11-50	(-,7/07,00,0)	
				-	Date	Stri			me Elapsed	Standing	Rema	arks
					4-10-201			.00m	20mins	0.98m		



TRIAL PIT LOG

Trial Pit No.

TP15

Sheet 1 of 1 **Hole Type** Lab Ref. Client Borough of Poole Dimensions (m): 18-96795 Depth TP (m): Plant Used: 0.65 Site Poole Park Miniature Railway Scale 2t Tracked Miniature Excavator 1.00 1:10 Location Poole Park, Poole, BH15 2SF Logged By

Date(s) Co-ords: 02/10/2018 Ground Level (mAOD): 1.19 DNS DW Testing Depth (Level) Water Strikes Stratum Description (m) Depth Туре Results MADE GROUND. Brownish orange very sandy 0.03 fine to coarse sub-angular to sub-rounded GRAVEL of flint. (D) 0.17 (1.02) MADE GROUND. Dark grey slightly sandy fine to medium angular to sub-rounded GRAVEL of flint, brick and clinker. (D) 0.35 (0.84) MADE GROUND. Orangish brown very sandy fine to coarse sub-angular to sub-rounded (D) GRAVEL of flint. 0.47 (0.72) Dark grey mottled brown slightly gravelly silty fine SAND. Gravel is fine to coarse angular to sub-rounded of flint. (Tidal Flat Deposits) (D) 0.67 (0.52) Light grey mottled dark grey silty fine to coarse SAND. (Poole Formation) (0.33)(B) 1.00 (0.19) End of Trial Pit at 1.000m

Remarks: Trial pit was excavated beside narrow gauge railway. Bound macadam was recorded between 0.00-0.03mbgl on western face of trial pit. The track is bedded into granular made ground.

Pit Stability: Stable

Technical Notes (where applicable):

Consistency of fine grained soil assessed by hand worked tests in accordance with BS5930. Chalk descriptions in accordance with CIRIA C574.

Groundwater:



BOREHOLE LOG

WINDOWLESS SAMPLING

Borehole No. WS15

VVS15Sheet 1 of 1

Client: Borough of Poole

Lab. Ref: 18-96795

Drilling Equipment:

Hole Type WLS+DP

Contract:
Location:

Poole Park Miniature Railway

Poole Park, Poole, BH15 2SF

Dando Terrier Mk1 Tracked Dynamic Percussion Rig

Scale 1:25

Ground Level (mAOD): 1.19

Co-ords: DNS

Date(s): 05/10/2018

All		.				Sample		le s	Situ Testing			
units = (m)	Stratum Description	Depth (Level)	Thickness	Legend	Water Strikes	Backfill	(Type) Depth	Depth	Туре	_	Results	Drill Run
-	MADE GROUND. Dark brown slightly gravelly silty fine SAND. Gravel is fine to medium sub-angular to sub-rounded	0.12 (1.07)							,,,			
-	of flint. Frequent wood fragments. MADE GROUND. Soft greyish brown slightly gravelly sandy SILT. Gravel is fine to medium sub-angular to sub-rounded											
1 1	of flint. MADE GROUND. Greyish brown slightly sandy silty fine to coarse sub-angular to sub-rounded GRAVEL of flint and	0.34 (0.85)										Hand Dug Pit
- - -	brick.		(0.43)									Tialid Dug Tit
-	Loose dark grey slightly gravelly silty fine to coarse SAND.	0.77 (0.42)										
1 —	Gravel is fine sub-angular to sub-rounded of flint. (Tidal Flat Deposits)		(0.32)	××××				1.00	SPT(C)	N=6	(0,1/2,2,1,1)	
}	Dark grey sandy pseudo-fibrous PEAT. Weak organic odour. (Tidal Flat Deposits)	1.09 (0.10)		2)16, 2) 2)16, 2)16, 2)								
-		1.36 (-0.17)		alla alla a alla a alla alla								
=	Loose light grey mottled dark grey fine to coarse SAND. (Poole Formation)	,	(0.36)									(87mm dia) Rec=95%
-		1.72 (-0.53)	O.									Nec-9576
-	Very soft to soft grey very sandy SILT. (Poole Formation)	1.72 (0.55)		(
2 -				X				2.00	SPT(C)	N=0	(0,0/0,0,0,0)	
-			(0.85)	X								
-				× × × · × × × × × ×								
	Very soft to soft light grey very sandy SILT. (Poole	2.57 (-1.38)		X								(87mm dia) Rec=100%
-	Formation)		(0.43)	× × × × × ×								
-			0)	X								
3 -	End of Borehole at 3.000m	3.00 (-1.81)		3.00		0	1	3.00	SPT(C)	N=14	(0,0/1,4,5,4)	
-				3.10		0						
-				3.30		1						
3				3.40	m	1						
=				3.50		0						
=				3.60		2						
-			Dynamic Probe (DPSH-B)	3.80		3						
_			De (DF	3.90	m	4						
4 —			c Prok	4.00	m	5						
-			ynami	4.10		6						
=			ا (6						
3				4.40		7						
_				4.50		4						
-				4.60		5						
=				4.70		5						
				4.80	m	7						
5 —				4.90	m	11						
-				Depth		ows			ВІ	ows/100mm		
1 0	General Remarks:	oordones with F	0050	20			Observati			a 1	_	
Densiti	nsistency of fine grained soil assessed by hand worked tests in access of granular material, if identified, based on N-Values derived from	corgance with E om in situ SPT	5559 testir		Date 5-10-201			-	e Elapsed Omins	Standing 0.78m	Rem	arks
2. Sam	descriptions, if identified, are in accordance with CIRIA C574 pling terminated at 3.00mbgl due to running sands. Dynamic Prob 00mbgl.	oe sampling un	derta		- 201					2.37		



BOREHOLE LOG

WINDOWLESS SAMPLING

WS16

Borehole No.

Sheet 1 of 1

Client: Borough of Poole Lab. Ref: 18-97184

Drilling Equipment:

Hole Type WLS+DP

Contract:

Poole Park Miniature Railway

Dando Terrier Mk2 Tracked Dynamic Perussion Rig

Scale 1:25

Poole Park, Poole, BH15 2SF Location:

BOURD DIACADAM Control promoted data systym variant with the control of the contr	Grou	und Level (mAOD): 1.25 Co-ord	ds: [ONS			Date(s): 19/10	0/2018			jed By)W
BOULD GACAGAM Mode Gardinal but these mediated day gray vary party Mode GACAGAM Better and rescedam Mode GACAGAM Garden is free to covere sub-angular to sub-counsed or first. GACAGAM Garden is free to covere sub-angular to sub-counsed or first. GACAGAM Garden is free to covere sub-angular to sub-counsed or first. GACAGAM Garden is free to covere sub-angular to sub-counsed or first. GACAGAM GACAGAM Better and rescedam Mode GACAGAM Better and rescedam Mode GACAGAM Mode GACAGAM Better and rescedam Mode GACAGAM Better and rescent sub-angular to sub-counsed or first. GACAGAM Better and rescent sub-angular to sub-counsed or first. GACAGAM Better and rescent sub-angular to sub-counsed or first. GACAGAM Better and rescent sub-angular to sub-counsed or first. GACAGAM Better and rescent sub-angular to sub-counsed or first. GACAGAM Better and rescent sub-angular to sub-counsed or first. GACAGAM Better and rescent sub-angular to sub-counsed or first. GACAGAM Better and rescent sub-angular to sub-counsed or first. GACAGAM Better and rescent sub-angular to sub-counsed or first. GACAGAM Better and rescent sub-angular to sub-counsed or first. GACAGAM Better and rescent sub-angular to sub-counsed or first. GACAGAM Better and rescent sub-angular to sub-counsed or first. GACAGAM Better and rescent sub-angular to sub-counsed or first. GACAGAM Better and rescent sub-angular to sub-counsed or first. GACAGAM Better and rescent sub-angular to sub-counsed or first. GACAGAM Better and rescent sub-angular to sub-counsed or first. GACAGAM Better and rescent sub-angular to sub-counsed or first. GACAGAM Better and rescent sub-counsed angular t	All units	Stratum Description		kness					In S	itu Testing		
MADE GROUND. Date brown method day gry very parky in the success of the course of the	= (m)		(Level)	声	Str	ikes			Type	F	Results	Run
Grand in the to course sub-normal country of the grands and sub-normal country of the grands and assessed by hard worked feel in accordance with 85530 nailes of grands reducing access and seeds on Novikusa deliver from in sub Sping and the sub-normal country of the grands reducing access and seeds on Novikusa deliver from in sub Sping and the sub-normal country of the grands reducing access and the sub-normal country of the grands reducing access and the sub-normal country of the grands reducing access and the sub-normal country of the grands reducing access and the sub-normal country of the grands reducing access and the sub-normal country of the grands reducing access and the sub-normal country of the grands reducing access and the sub-normal country of the grands reducing access and the sub-normal country of the grands reducing access and the sub-normal country of the grands reducing a sub-normal country of the grands reducing access and the sub-normal country of the grands reducing a sub-normal country of the grands and the sub-normal country of the grands reducing a sub-normal country of the grands and the sub-normal country of the grands reducing a sub-normal country of the grands redu		MADE GROUND. Dark brown mottled dark grey very sandy fine to coarse angular to sub -rounded GRAVEL of flint, limestone and macadam. MADE GROUND. Light brown gravelly silty fine to coarse SAND. Gravel is fine to coarse sub-angular to rounded of flint and clinker. MADE GROUND. Dark grey mottled light brown very gravelly fine to coarse SAND. Gravel is fine to coarse angular to sub-rounded of flint and clinker. Rare pockets of firm light grey very sandy silt. Dark greyish brown gravelly silty fine to coarse SAND. Gravel is fine to coarse sub-angular to sub-rounded of flint. (Tidal Flat Denosits)	0.09 (1.16) 0.21 (1.04) 0.32 (0.93)	(0.63)		•						Core Hand Dug Pit
Depth	1 -	Gravel is fine to coarse sub-angular to sub-rounded of flint. (Tidal Flat Deposits) Medium dense light grey gravelly fine to coarse SAND. Gravel is fine to coarse sub-angular to sub-rounded of flint. (Poole Formation)				Z		1.00	SPT(C)	N=19	(3,4/3,5,6,5)	
Containing of fine grained at all essessed by hand worked tests in accordance with BISS930. Containing of fine grained at all essessed by hand worked tests in accordance with BISS930. Containing of fine grained at all essessed by hand worked tests in accordance with BISS930. Containing of fine grained at all essessed by hand worked tests in accordance with BISS930. Containing of fine grained at all essessed by hand worked tests in accordance with BISS930. Containing of fine grained at all essessed by hand worked tests in accordance with BISS930. Containing of fine grained at all essessed by hand worked tests in accordance with BISS930. Containing of fine grained at all essessed by hand worked tests in accordance with BISS930. Containing of groundwater Disputs of groundwater Disputs of groundwater Street Containing of groundwater street inferred at the deciration of the grained at 2 contends of the training and all grainformed forms and groundwater strike inferred at the deciration of groundwater strike inferred at the containing and all grainformed forms and groundwater strike inferred at the containing and all grainformed forms and groundwater strike inferred at the containing and all grainformed forms. Containing the grainformed forms and groundwater strike inferred at the containing and groundwater str	2 —	brown fine to coarse SAND. (Poole Formation)		(0.83)				2.00	SPT(C)	N=38	(1,4/4,9,9,16)	(87mm dia) Rec=95%
Containing of fine grained at all essessed by hand worked tests in accordance with BISS930. Containing of fine grained at all essessed by hand worked tests in accordance with BISS930. Containing of fine grained at all essessed by hand worked tests in accordance with BISS930. Containing of fine grained at all essessed by hand worked tests in accordance with BISS930. Containing of fine grained at all essessed by hand worked tests in accordance with BISS930. Containing of fine grained at all essessed by hand worked tests in accordance with BISS930. Containing of fine grained at all essessed by hand worked tests in accordance with BISS930. Containing of fine grained at all essessed by hand worked tests in accordance with BISS930. Containing of groundwater Disputs of groundwater Disputs of groundwater Street Containing of groundwater street inferred at the deciration of the grained at 2 contends of the training and all grainformed forms and groundwater strike inferred at the deciration of groundwater strike inferred at the containing and all grainformed forms and groundwater strike inferred at the containing and all grainformed forms and groundwater strike inferred at the containing and all grainformed forms. Containing the grainformed forms and groundwater strike inferred at the containing and groundwater str	-											
240m 3	+	End of Borehole at 2.200m	2.20 (-0.95)		2.20m	2	Y1			1		
240m 3					-		H					
2.50m 8					l							
Consistercy of fine grained soil assessed by hand worked tests in accordance with BS5930. The state of granular material, if identified, sare in accordance with CIRIA C574 Asampling terminated at 2 Orbing by the orbin in stu SPT testings als descriptions, if identified, sare in accordance with CIRIA C574 Asampling terminated at 2 Orbing by the orbin in stu SPT testings als descriptions, if identified, sare in accordance with CIRIA C574 Asampling terminated at 2 Orbing by the orbin in stu SPT testings als descriptions, if identified, sare in accordance with CIRIA C574 Asampling terminated at 2 Orbing by the orbin in stu SPT testings als descriptions, if identified, sare in accordance with CIRIA C574 Asampling terminated at 2 Orbing by the orbin in stu SPT testings als descriptions, if identified, sare in accordance with CIRIA C574 Asampling terminated at 2 Orbing by the orbin in stu SPT testings and the orbin in stu SPT testings are consistency of the grained at 3 Orbing by the orbin in stu SPT testings and the orbin in stu SPT testings are consistency of the grained at 3 Orbing by the orbin in stu SPT testings are consistency of the grained at 3 Orbing by the orbin in stu SPT testings are consistency of the grained at 3 Orbing by the orbin in stu SPT testings are consistency of the grained at 3 Orbing by the orbin in stu SPT testings are consistency of the grained at 3 Orbing by the orbin in stu SPT testings are consistency of the grained at 3 Orbing by the orbin in stu SPT testings are consistency orbin at the orbin in stu SPT testings are consistency orbin at the orbin in stu SPT testings are consistency orbin at the orbin a	-				-							
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			,	3.							1.00M SP1.	



Contract:

Ground Level (mAOD):

ACS Testing Ltd Tel: 01202 622858 Fax: 01202 625045 Email: testing@acstesting.co.uk www.acstesting.co.uk

Co-ords:

DNS

BOREHOLE LOG

WINDOWLESS SAMPLING

18-97184

Borehole No. **WS17**

Sheet 1 of 1

Client: Lab. Ref: Borough of Poole **Drilling Equipment:** Hole Type WLS+DP

Poole Park Miniature Railway Poole Park, Poole, BH15 2SF

1.44

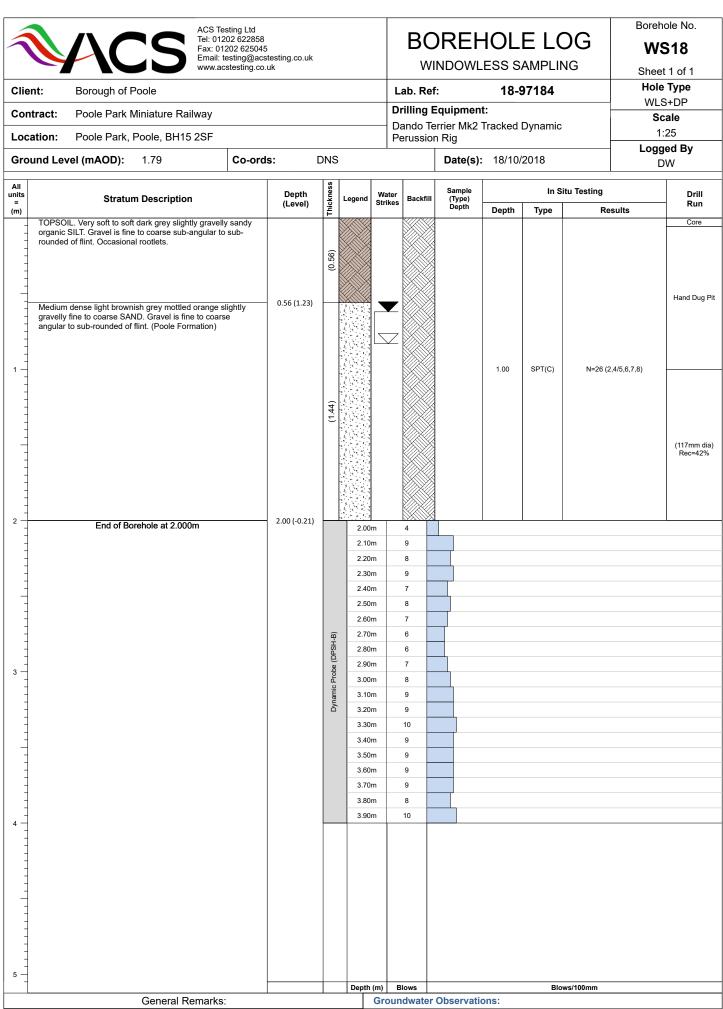
Dando Terrier Mk2 Tracked Dynamic Perussion Rig

Scale 1:25

Location:

Date(s): 18/10/2018

Stratum Description	Depth (Level)	Thickness	Legend	Water Strikes	Backfill	Sample (Type) Depth		_	Situ Testin		Drill Run
MADE GROUND. Greyish brown gravelly silty fine to coarse	, ,	두			\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Бериі	Depth	Туре		Results	
SAND. Gravel is fine to coarse sub-angular to sub-rounded of flint and clinker. Loose dark brown mottled brownish grey gravelly silty fine to coarse SAND. Gravel is fine to coarse sub-angular to sub-rounded of flint. (Tidal Flat Deposits)	0.37 (1.07)	(0.37)									Hand Dug Pit
		(0.96)		•			1.00	SPT(C)	N=	5 (0,0/0,1,2,2)	
Dark brown sandy pseudo-fibrous PEAT.	1.33 (0.11)		××××								
Firm dark grey very sandy organic SILT. Strong organic odour. (Tidal Flat Deposits)		(0.43)	× × × × × × × × × × × × × × × × × × ×								(87mm dia) Rec=95%
Medium dense dark grey gravelly fine to coarse SAND. Gravel is fine to coarse sub-angular to sub-rounded of flint. (Poole Formation)	1.76 (-0.32)	(0.43)					2.00	SPT(C)	N=2	20 (3,4/5,5,4,6)	
Medium dense light grey slightly gravelly fine to coarse SAND. Gravel is fine to coarse sub-angular to sub-rounded of flint. (Poole Formation)	2.19 (-0.75)	31)									(87mm dia) Rec=35%
End of Borobole at 3 000m	3.00 (-1.56)										
Little of Boreliole at 3.000m		DPSH4	3.00m 3.10m								
		Probe (3.20m								
		namic	3.30m 3.40m								
		٥	3.50m		6						
			-								
			3.90m		6						
			Denth (n	n) Pi	ows			В	lows/100mm		
General Remarks:						Observat	tions:		iowai iuuiiiii		
sistency of fine grained soil assessed by hand worked tests in acc s of granular material, if identified, based on N-Values derived fro escriptions, if identified, are in accordance with CIRIA C574	cordance with E om in situ SPT	3S59: testin		Date 10-201	1		asing Tir	ne Elapsed 20mins	Standing 1.05m	Rem	arks
	Loose dark brown mottled brownish grey gravelly silty fine to coarse SAND. Gravel is fine to coarse sub-angular to sub-rounded of flint. (Tidal Flat Deposits) Bark brown sandy pseudo-fibrous PEAT. Firm dark grey very sandy organic SILT. Strong organic odour. (Tidal Flat Deposits) Medium dense dark grey gravelly fine to coarse SAND. Gravel is fine to coarse sub-angular to sub-rounded of flint. (Poole Formation) Medium dense light grey slightly gravelly fine to coarse SAND. Gravel is fine to coarse sub-angular to sub-rounded of flint. (Poole Formation) End of Borehole at 3.000m End of Borehole at 3.000m	MADE GROUND. Greyish brown gravelly silty fine to coarse SAND. Gravel is fine to coarse sub-angular to sub-rounded of flint and clinker. Loose dark brown mottled brownish grey gravelly silty fine to coarse SAND. Gravel is fine to coarse sub-angular to sub-rounded of flint. (Tidal Flat Deposits) 1.33 (0.11) Medium dense dark grey gravelly fine to coarse SAND. 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1. Consistency of fine grained soil assessed by hand worked tests in accordance with BS5930. Densities of granular material, if identified, based on N-Values derived from in situ SPT testing. Chalk descriptions, if identified, are in accordance with CIRIA C574 2. Sampling terminated at 2.00mbgl due to running sands. Dynamic Probe testing undertaken from 2.00mbgl.

Remarks



Contract:

ACS Testing Ltd Tel: 01202 622858 Fax: 01202 625045 Email: testing@acstesting.co.uk www.acstesting.co.uk

BOREHOLE LOG

WINDOWLESS SAMPLING

Borehole No. **WS19**

Sheet 1 of 1

Client: Lab. Ref: 18-97184 Borough of Poole **Drilling Equipment:**

Hole Type WLS+DP

Poole Park Miniature Railway

Scale 1:25

Location: Poole Park, Poole, BH15 2SF Dando Terrier Mk2 Tracked Dynamic Perussion Rig

Logged By Ground Level (mAOD): 1.62 Co-ords: DNS Date(s): 19/10/2018 DW

1		1	I (n)								I	7 0
All units =	Stratum Description	Depth (Level)	Thickness	Legend	Water Strikes	Backfill	Sample (Type) Depth			Situ Testing		Drill Run
(m)	TOPSOIL. Dark greyish brown slightly gravelly silty fine to		F	/		X//XX//	2001	Depth	1 Type		Results	1
3	coarse SAND. Gravel is fine to coarse sub-angular to sub-	0.45 (4.45)										
7	rounded of flint. Frequent rootlets. Light brownish grey mottled dark brown silty organic fine to	0.16 (1.46)		galla X								
7	coarse SAND. (Tidal Flat Deposits)											
1	Dark brown slightly sandy pseudo-fibrous PEAT. (Tidal Flat	0.39 (1.23)	\mathbf{H}									
4	Deposits)			s alto alto								
1			.51)	s alts al alts alts								Hand Dug Pit
1			(0.5	s siles si								
				allo allo allo al								
1		0.90 (0.72)		શાંદ શાંદ								
1 —	Medium dense light brownish grey slightly gravelly silty fine to coarse SAND. Gravel is fine to coarse sub-angular to	0.50 (0.72)										
· -	sub-rounded of flint. (Poole Formation)											
-								1.20	SPT(C)	N=C	2 (2 2/2 2 2 2)	
-					$\overline{}$			1.20	3P1(C)	IN-S	9 (2,2/2,2,2,3)	
4												
1			(1.10)									
_			=									
												(87mm dia) Rec=100%
1												1100 10070
1												
-												
2	End of Borehole at 2.000m	2.00 (-0.38)		1 000	.	0						
7	End of Boronolo at 2.000m			2.00n								
7				2.10r		3						
7				2.20r		3						
				2.30n	n	4						
				2.40n	n	4						
-				2.50n	n	4						
=				2.60n	n	5						
-			φ	2.70r	m	5						
-			Dynamic Probe (DPSH-B)	2.80n	n	6						
_ F			<u>Q</u>	2.90n	n	5						
3 —			Prof	3.00n	n	6						
7			amic	3.10n	n	7						
7			D O	3.20n	n	5	T					
				3.30r	n	5						
1				3.40n		9						
				3.50n		7						
				3.60n		7						
-				3.70n		7						
+				-		8						
7				3.80n								
4 —				3.90n	n	11						
7												
1												
\exists												
1												
7												
7												
#												
5 —				-								
	Canaral Barrarilar		1	Depth (lows	Observe	tions:	Е	lows/100mm		
	General Remarks:		20500				Observa				_	
. Cons	sistency of fine grained soil assessed by hand worked tests in ac is of granular material, if identified, based on N-Values derived fi	corgance with I rom in situ SPT	ວວວ93 testino		Date	Str		-	me Elapsed	-		arks
Jensitie		· ·		- 119	9-10-201	o 1.3	0m 0).00m	20mins	0.93m	Groundwater s	итке ппепгеа
Chalk de	escriptions, if identified, are in accordance with CIRIA C574 bling terminated at 2.00mbgl due to running sands. Dynamic Pro	ha tarti	uta I.								due to being st 1.00m SPT.	ruck during

Poole Park Miniature Railway – Borough of Poole Factual Report

APPENDIX B

Geochemical Test Results

ACS Testing Ltd Unit 14 Blackhill Road West Holton Heath Trading Park Poole Dorset **BH16 6LE**



Certificate of Analysis

Certificate Number: 18-09563-Issue 1-Page: 1

GEO RESULTS Report Fao:

Site Address: Poole Park Minature Railway

Client Order No: 18-97284

Date of Sampling: 01/10/2018

Date Received: 15/10/2018

15/11/2018 **Report Date:**

Please find your certificates of test attached for your samples received in the laboratory on 15/10/2018 under our laboratory reference 18-09563.

Remarks:

None

Results reviewed by:

Test Certificates approved by:

David Redfern Technical Supervisor

Any opinions or interpretations indicated are outside the scope of our UKAS accreditation. This certificate should not be reproduced, except in full, without the express permission of the laboratory. The results included within the report are representative of the samples submitted for analysis. Excel copies of reports are valid only when accompanied by this PDF certificate. Client's Sample Description / ACS Material Description are noted for reference only.

Head Office Registered Office

Unit 14B Unit 14B Blackhill Road West

Blackhill Road West Holton Heath Trading Park Holton Heath Trading Park

Poole Poole Dorset BH16 6LE Dorset BH16 6LE

ACS Environmental Testing Limited Tel 01202 628680 Registered in England and Fax 01202 628642 Wales No. 6000065

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Certificate No. 18-09563-Issue 1-Page: 2
Site Address Poole Park Minature Railway



ACSE Sample Number Sample ID 38167 426801 - 18-97284 38169

Clients Sample Ref.

01 - 18-97284 426802 - 18-97284

426803 - 18-97284

Location / Sample Depth (m)

0.23-0.42m

TP02

Date Sampled

01/10/2018

TP01

0.65-1.00m -- -----01/10/2018

TP01

0.21-0.63m -----01/10/2018

Time Sampled Sample deviating codes Client's Sample Description

ef

Brown sandy GRAVEL

ef ef

ACS Testing Material Description

GRAVEL

Grey silty SAND

Brown sandy GRAVEL

ACSE Material Description (Principal Matrix - As Received)

SAND

GRAVEL

Determination	Units	Method	Prepared As	Result	AS	Result	AS	Result	AS
Anions									
Water Soluble Sulphate	mg/l	MT/ACSE/204	AD			166	*f		
BTEX									
Benzene	mg/kg	MT/ACSE/101	AR	0.12	*ef			0.13	*ef
Ethylbenzene	mg/kg	MT/ACSE/101	AR	< 0.10	*ef			< 0.10	*ef
m+p-xylene	mg/kg	MT/ACSE/101	AR	< 0.19	*ef			< 0.19	*ef
o-xylene	mg/kg	MT/ACSE/101	AR	< 0.10	*ef			< 0.10	*ef
Toluene	mg/kg	MT/ACSE/101	AR	0.12	*ef			0.11	*ef
Total BTEX	mg/kg	MT/ACSE/101	AR	< 0.60	*ef			< 0.60	*ef
Carbon									
Soil Organic Matter	%	MT/ACSE/102	AR	2.70				3.17	
FOC	%	MT/ACSE/102	AR	0.0156				0.0184	
TOC (Total Organic Carbon)	%	MT/ACSE/102	AR	1.55	*			1.82	*
Loss on Ignition									
Loss on Ignition (440 °C)	%	MT/ACSE/302	AD	2.1	*f			2.7	*f
Metals (Soil)									
Arsenic	mg/kg	MT/ACSE/201	AD	11.9	*			17.7	
Cadmium	mg/kg	MT/ACSE/201	AD	< 1.00	*			< 1.00	
Chromium	mg/kg	MT/ACSE/201	AD	40.8	*			51.6	
Copper	mg/kg	MT/ACSE/201	AD	23.1	*			18.4	
Mercury	mg/kg	MT/ACSE/202	AD	0.07	*			0.10	
Nickel	mg/kg	MT/ACSE/201	AD	12.1	*			11.4	
Lead	mg/kg	MT/ACSE/201	AD	89.6	*			73.9	
Selenium	mg/kg	MT/ACSE/201	AD	< 6.00	*			< 6.00	
Zinc	mg/kg	MT/ACSE/201		289	*			70.4	
Chromium III	mg/kg	NAM/ACSE/X1		40.8				51.6	
Chromium Hexavalent	mg/kg	NAM/ACSE/X1	1 AD	< 1.00	f			< 1.00	f
Petroleum Hydrocarbons									
Total TPH (C10-C40)	mg/kg	MT/ACSE/105	AR	363	*			1000	*
pH and Conductivity									
pH (@ 20 ℃)	units	MT/ACSE/301	AD	10.6	*ef	8.2	*ef	10.6	*ef
Poly Aromatic Hydrocarbons									
Naphthalene	mg/kg	MT/ACSE/106	AD	0.14	*f			0.22	*f
Acenaphthylene	mg/kg	MT/ACSE/106	AD	0.75	*f			1.43	*f
Acenaphthene	mg/kg	MT/ACSE/106	AD	0.11	*f			0.34	*f
Fluorene	mg/kg	MT/ACSE/106	AD	0.19	*f			0.43	*f
Phenanthrene	mg/kg	MT/ACSE/106		0.71	*f			2.36	*f
Anthracene	mg/kg	MT/ACSE/106		0.85	*f			2.22	*f
Fluoranthene	mg/kg	MT/ACSE/106		2.69	*f			7.78	*f
Pyrene	mg/kg	MT/ACSE/106		3.16	*f			7.90	*f
Benzo (a) anthracene	mg/kg	MT/ACSE/106		2.63	*f			4.93	*f
Chrysene	mg/kg	MT/ACSE/106		2.71	*f			4.55	*f
Benzo (b) fluoranthene	mg/kg	MT/ACSE/106		5.19	*f			7.63	*f
Benzo (k) fluoranthene	mg/kg	MT/ACSE/106	AD	1.64	*f			2.17	*f

Head Office Unit 14B

Tel 01202 628680

Fax 01202 628680

Registered Office Unit 14B

Blackhill Road West Holton Heath Trading Park Poole Blackhill Road West Holton Heath Trading Park

Poole

Dorset BH16 6LE Dorset BH16 6LE

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Page: 2 of 14

Certificate No. 18-09563-Issue 1-Page: 3
Site Address Poole Park Minature Railway



ACSE Sample Number 38167 Sample ID 426801 - 18-97284 426802 - 18-97284 426803 - 18-97284 Clients Sample Ref. TP01 TP01 TP02 Location / Sample Depth (m) 0.23-0.42m 0.65-1.00m 0.21-0.63m 01/10/2018 01/10/2018 01/10/2018 **Date Sampled Time Sampled** Sample deviating codes ef Client's Sample Description **ACS Testing Material Description Brown sandy GRAVEL Grey silty SAND Brown sandy GRAVEL** GRAVEL SAND **GRAVEL** ACSE Material Description (Principal Matrix - As Received)

Determination	Units	Method	Prepared As	Result	AS	Result	AS	Result	AS
Benzo (a) pyrene	mg/kg	MT/ACSE/106	S AD	4.04	*f			6.20	*f
Indeno (1 2 3-CD) pyrene	mg/kg	MT/ACSE/106	S AD	3.60	*f			4.38	*f
Dibenzo(a h)anthracene	mg/kg	MT/ACSE/106	S AD	0.98	*f			1.94	*f
Benzo(g h i)perylene	mg/kg	MT/ACSE/106	S AD	3.88	*f			4.57	*f
Total PAH	mg/kg	MT/ACSE/106	S AD	33.3	*f			59.0	*f
Polychlorinated Biphenyls (PCBs)									
PCB (7 Congeners)	mg/kg	IHP-GCMS	AD						
PCB (7 Congeners)	mg/kg	MT/ACSE/104	AD AD	< 1.00	*			< 1.00	*
Speciated BTEX									
MTBE	mg/kg	NAM/ACSE/X1	2 AR	< 0.05				< 0.05	
Hexane	mg/kg	NAM/ACSE/X0	6 AR	< 0.05				< 0.05	
Heptane	mg/kg	NAM/ACSE/X0	6 AR	< 0.05				< 0.05	
Octane	mg/kg	NAM/ACSE/X0	6 AR	< 0.05				< 0.05	
Benzene	mg/kg	NAM/ACSE/X0	6 AR	< 0.05				< 0.05	
Toluene	mg/kg	NAM/ACSE/X0	6 AR	< 0.05				< 0.05	
Ethylbenzene	mg/kg	NAM/ACSE/X0	6 AR	< 0.05				< 0.05	
m+p-xylene	mg/kg	NAM/ACSE/X0	6 AR	< 0.05				< 0.05	
o-xylene	mg/kg	NAM/ACSE/X0	6 AR	< 0.05				< 0.05	
Total BTEX	mg/kg	NAM/ACSE/X0	6 AR	< 0.05				< 0.05	
Speciated Petroleum Hydrocarbons									
C5-C6 Aliphatic	mg/kg	NAM/ACSE/X0	7 AR	< 0.10				< 0.10	
>C6-C8 Aliphatic	mg/kg	NAM/ACSE/X0	7 AR	< 0.10				< 0.10	
>C8-C10 Aliphatic	mg/kg	NAM/ACSE/X0	7 AR	< 10.0				< 10.0	
>C10-C12 Aliphatic	mg/kg	NAM/ACSE/X0	7 AR	< 10.0				< 10.0	
>C12-C16 Aliphatic	mg/kg	NAM/ACSE/X0	7 AR	< 10.0				< 10.0	
>C16-C21 Aliphatic	mg/kg	NAM/ACSE/X0	7 AR	< 10.0				< 10.0	
>C21-C35 Aliphatic	mg/kg	NAM/ACSE/X0	7 AR	35.2				150	
C6-C7 Aromatic	mg/kg	NAM/ACSE/X0	7 AR	< 0.10				< 0.10	
C7-C8 Aromatic	mg/kg	NAM/ACSE/X0	7 AR	< 0.10				< 0.10	
>C8-C10 Aromatic	mg/kg	NAM/ACSE/X0	7 AR	< 10.0				12.0	
>C10-C12 Aromatic	mg/kg	NAM/ACSE/X0	7 AR	< 10.0				< 10.0	
>C12-C16 Aromatic	mg/kg	NAM/ACSE/X0	7 AR	< 10.0				< 10.0	
>C16-C21 Aromatic	mg/kg	NAM/ACSE/X0	7 AR	< 10.0				< 10.0	
>C21-C35 Aromatic	mg/kg	NAM/ACSE/X0	7 AR	90.8				395	

Head Office Unit 14B Blackhill Road West Holton Heath Trading Park Poole Dorset BH16 6LF

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Total Speciated TPH

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Dorset BH16 6LE

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mg/kg

NAM/ACSE/X07

AR

126

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557

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Certificate No. 18-09563-Issue 1-Page: 4 **Site Address Poole Park Minature Railway**



ACSE Sample Number Sample ID 38170 426804 - 18-97284

SILT

426805 - 18-97284 426806 - 18-97284

Clients Sample Ref.

TP03 TP05 TP05

Location / Sample Depth (m)

Date Sampled

0.00-0.66m 0.42-0.87m 01/10/2018 01/10/2018 0.66-1.00m 01/10/2018

Time Sampled Sample deviating codes Client's Sample Description

ef

SILT

Brown gravelly silty SAND Brown gravelly silty SAND Grey mottled orange clayey SAND SILT

ACS Testing Material Description

ACSE Material Description (Principal Matrix - As Received)

Determination	Units	Method	Prepared As	Result	AS	Result	AS	Result	AS
Anions									
Water Soluble Sulphate	mg/l	MT/ACSE/204	AD	133	*f			13.5	*f
BTEX									
Benzene	mg/kg	MT/ACSE/101	AR			0.10	*ef		
Ethylbenzene	mg/kg	MT/ACSE/101	AR			< 0.10	*ef		
m+p-xylene	mg/kg	MT/ACSE/101	AR			< 0.19	*ef		
o-xylene	mg/kg	MT/ACSE/101	AR			< 0.10	*ef		
Toluene	mg/kg	MT/ACSE/101	AR			< 0.10	*ef		
Total BTEX	mg/kg	MT/ACSE/101	AR			< 0.60	*ef		
Carbon									
Soil Organic Matter	%	MT/ACSE/102	AR			2.59			
FOC	%	MT/ACSE/102	AR			0.0150			
TOC (Total Organic Carbon)	%	MT/ACSE/102	AR			1.49	*		
Loss on Ignition									
Loss on Ignition (440 ℃)	%	MT/ACSE/302	AD			3.2	*f		
Metals (Soil)									
Arsenic	mg/kg	MT/ACSE/201	AD			17.8	*#		
Cadmium	mg/kg	MT/ACSE/201	AD			< 1.00	*#		
Chromium	mg/kg	MT/ACSE/201	AD			38.8	*#		
Copper	mg/kg	MT/ACSE/201	AD			143	*#		
Mercury	mg/kg	MT/ACSE/202				0.40	*		
Nickel	mg/kg	MT/ACSE/201	AD			18.8	*#		
Lead	mg/kg	MT/ACSE/201	AD			92.8	*#		
Selenium	mg/kg	MT/ACSE/201	AD			< 6.00	*#		
Zinc	mg/kg	MT/ACSE/201	AD			125	*#		
Chromium III	mg/kg	NAM/ACSE/X1				38.8			
Chromium Hexavalent	mg/kg	NAM/ACSE/X1	1 AD			< 1.00	f		
Petroleum Hydrocarbons									
Total TPH (C10-C40)	mg/kg	MT/ACSE/105	AR			256	*#		
pH and Conductivity									
pH (@ 20 ℃)	units	MT/ACSE/301	AD	7.5	*ef	7.3	*ef	5.7	*ef
Poly Aromatic Hydrocarbons									
Naphthalene	mg/kg	MT/ACSE/106	AD			0.74	*#f		
Acenaphthylene	mg/kg	MT/ACSE/106	AD			3.87	*#f		
Acenaphthene	mg/kg	MT/ACSE/106	AD			0.28	*#f		
Fluorene	mg/kg	MT/ACSE/106	AD			0.65	*#f		
Phenanthrene	mg/kg	MT/ACSE/106	AD			3.02	*#f		
Anthracene	mg/kg	MT/ACSE/106				3.70	*#f		
Fluoranthene	mg/kg	MT/ACSE/106				12.3	*#f		
Pyrene	mg/kg	MT/ACSE/106				13.1	*#f		
Benzo (a) anthracene	mg/kg	MT/ACSE/106				8.32	*#f		
Chrysene	mg/kg	MT/ACSE/106				10.9	*#f		
Benzo (b) fluoranthene	mg/kg	MT/ACSE/106	AD			20.0	*#f		

Head Office Registered Office

Unit 14B Unit 14B Blackhill Road West Blackhill Road West Holton Heath Trading Park Holton Heath Trading Park

Poole Poole

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Page: 4 of 14

Certificate No. 18-09563-Issue 1-Page: 5 **Site Address Poole Park Minature Railway**



ACSE Sample Number 38170 Sample ID 426804 - 18-97284 426805 - 18-97284 426806 - 18-97284 Clients Sample Ref. TP03 TP05 TP05 Location / Sample Depth (m) 0.42-0.87m 0.00-0.66m 0.66-1.00m 01/10/2018 01/10/2018 01/10/2018

ef

Date Sampled Time Sampled Sample deviating codes Client's Sample Description

Brown gravelly silty SAND Brown gravelly silty SAND Grey mottled orange clayey SAND SILT SILT SILT

ACS Testing Material Description

ACSE Material Description (Principal Matrix - As Received)

Determination				-						
Benzo (a) pyrene mg/kg MT/ACSE/106 AD — 14.2 *#! — Indeno (1 2 3 CD) pyrene mg/kg MT/ACSE/106 AD — 13.5 *#! — Dibenzo(a) handrhasene mg/kg MT/ACSE/106 AD — 19.0 *#! — Benzo(g) hijperylene mg/kg MT/ACSE/106 AD — 19.0 *#! — Polychlorinated Biphenyls (PCBs) FOB(7 Congeners) mg/kg MT/ACSE/106 AD — — — — PCB (7 Congeners) mg/kg MT/ACSE/106 AD — — — — — PCB (7 Congeners) mg/kg MT/ACSE/106 AD —<	Determination	Units	Method	Prepared As	Result	AS	Result	AS	Result	AS
Indeno (1 2 3 CD) pyrene	Benzo (k) fluoranthene	mg/kg	MT/ACSE/106	S AD			5.99	*#f		
Dibenzo(a h)anthracene mg/kg MT/ACSE/106 AD — 4,689 *## — Benzo(a h)ipenylene mg/kg MT/ACSE/106 AD — 19,0 *## — Total PAH mg/kg MTACSE/106 AD — 134 *## — POBY Congeners) mg/kg MTACSE/108 AD — — — — PCB (7 Congeners) mg/kg MTACSE/104 AD — 1,00 * — PCB (7 Congeners) mg/kg MTACSE/104 AD — 1,00 * — PCB (7 Congeners) mg/kg MTACSE/104 AD — 1,00 * — PCB (7 Congeners) mg/kg MTACSE/104 AD — 1,00 * — PCB (7 Congeners) mg/kg MAMACSE/205 AR — 0,05 — — Heyane mg/kg NAMACSE/205 AR — 0,05 — —	Benzo (a) pyrene	mg/kg	MT/ACSE/106	S AD			14.2	*#f		
Benzo(g h j)penylene mg/kg MTACSE/106 AD — 19.0 *ff — POal PAH mg/kg MTACSE/108 AD — 134 *ff — POB (7 Congeners) mg/kg JHP-GCMS AD — — — PCB (7 Congeners) mg/kg MTACSE/104 AD — — — PCB (7 Congeners) mg/kg MTACSE/104 AD — — — PCB (7 Congeners) mg/kg MTACSE/104 AD — — — PCB (7 Congeners) mg/kg MTACSE/104 AD — 4.00 — PCB (7 Congeners) mg/kg MTACSE/104 AD — 4.00 — PCB (7 Congeners) mg/kg MAMACSE/206 AR — 4.005 — — PCB (7 Congeners) mg/kg MAMACSE/206 AR — 4.005 — — — PCB (2 Congeners) mg/kg MAMACSE/206 AR<	Indeno (1 2 3-CD) pyrene	mg/kg	MT/ACSE/106	S AD			13.5	*#f		
Total PAH	Dibenzo(a h)anthracene	mg/kg	MT/ACSE/106	S AD			4.69	*#f		
Polychlorinated Biphenyls (PCBs) mg/kg IHP-GCMS AD	Benzo(g h i)perylene	mg/kg	MT/ACSE/106	S AD			19.0	*#f		
PCB (7 Congeners) mg/kg IHP-GCMS AD	Total PAH	mg/kg	MT/ACSE/106	S AD			134	*#f		
PCB (7 Congeners) mg/kg MT/ACSE/104 AD < 1.00	Polychlorinated Biphenyls (PCBs)									
MTBE	PCB (7 Congeners)	mg/kg	IHP-GCMS	AD						
MTBE mg/kg NAM/ACSE/X12 AR < 0.05	PCB (7 Congeners)	mg/kg	MT/ACSE/104	4 AD			< 1.00	*		
Heyane	Speciated BTEX									
Heptane mg/kg NAM/ACSE/X06 AR < 0.05	MTBE	mg/kg	NAM/ACSE/X1	2 AR			< 0.05			
Octane mg/kg NAM/ACSE/X06 AR < 0.05 Benzene mg/kg NAM/ACSE/X06 AR < 0.05	Hexane	mg/kg	NAM/ACSE/X0	6 AR			< 0.05			
Benzene mg/kg NAM/ACSE/X06 AR < 0.05	Heptane	mg/kg	NAM/ACSE/X0	6 AR			< 0.05			
Toluene	Octane	mg/kg	NAM/ACSE/X0	6 AR			< 0.05			
Ethylbenzene mg/kg NAM/ACSE/X06 AR < 0.05	Benzene	mg/kg	NAM/ACSE/X0	6 AR			< 0.05			
m+p-xylene mg/kg NAM/ACSE/X06 AR < 0.05	Toluene	mg/kg	NAM/ACSE/X0	16 AR			< 0.05			
cxylene mg/kg NAM/ACSE/X06 AR < 0.05 Total BTEX mg/kg NAM/ACSE/X06 AR < 0.05	Ethylbenzene	mg/kg	NAM/ACSE/X0	16 AR			< 0.05			
Total BTEX mg/kg NAM/ACSE/X06 AR < 0.05 Speciated Petroleum Hydrocarbons	m+p-xylene	mg/kg	NAM/ACSE/X0	16 AR			< 0.05			
Speciated Petroleum Hydrocarbons C5-C6 Aliphatic mg/kg NAM/ACSE/X07 AR < 0.10	o-xylene	mg/kg	NAM/ACSE/X0	16 AR			< 0.05			
C5-C6 Aliphatic mg/kg NAM/ACSE/X07 AR < 0.10	Total BTEX	mg/kg	NAM/ACSE/X0	6 AR			< 0.05			
>C6-C8 Aliphatic mg/kg NAM/ACSE/X07 AR < 0.10	Speciated Petroleum Hydrocarbons									
>C8-C10 Aliphatic mg/kg NAM/ACSE/X07 AR < 10.0	C5-C6 Aliphatic	mg/kg	NAM/ACSE/X0	7 AR			< 0.10			
>C10-C12 Aliphatic mg/kg NAM/ACSE/X07 AR < 10.0	>C6-C8 Aliphatic	mg/kg	NAM/ACSE/X0	7 AR			< 0.10			
>C10-C12 Aliphatic mg/kg NAM/ACSE/X07 AR < 10.0	>C8-C10 Aliphatic	mg/kg	NAM/ACSE/X0	7 AR			< 10.0			
>C16-C21 Aliphatic mg/kg NAM/ACSE/X07 AR < 10.0		mg/kg	NAM/ACSE/X0	7 AR			< 10.0			
>C21-C35 Aliphatic mg/kg NAM/ACSE/X07 AR 73.1 C6-C7 Aromatic mg/kg NAM/ACSE/X07 AR < 0.10	>C12-C16 Aliphatic	mg/kg	NAM/ACSE/X0	7 AR			< 10.0			
C6-C7 Aromatic mg/kg NAM/ACSE/X07 AR < 0.10	>C16-C21 Aliphatic	mg/kg	NAM/ACSE/X0	7 AR			< 10.0			
C7-C8 Aromatic mg/kg NAM/ACSE/X07 AR < 0.10	>C21-C35 Aliphatic	mg/kg	NAM/ACSE/X0	7 AR			73.1			
>C8-C10 Aromatic mg/kg NAM/ACSE/X07 AR < 10.0	C6-C7 Aromatic	mg/kg	NAM/ACSE/X0	7 AR			< 0.10			
>C10-C12 Aromatic mg/kg NAM/ACSE/X07 AR < 10.0	C7-C8 Aromatic	mg/kg	NAM/ACSE/X0	7 AR			< 0.10			
>C12-C16 Aromatic mg/kg NAM/ACSE/X07 AR < 10.0	>C8-C10 Aromatic	mg/kg	NAM/ACSE/X0	7 AR			< 10.0			
>C16-C21 Aromatic mg/kg NAM/ACSE/X07 AR < 10.0	>C10-C12 Aromatic	mg/kg	NAM/ACSE/X0	7 AR			< 10.0			
>C21-C35 Aromatic mg/kg NAM/ACSE/X07 AR 105	>C12-C16 Aromatic	mg/kg	NAM/ACSE/X0	7 AR			< 10.0			
	>C16-C21 Aromatic	mg/kg	NAM/ACSE/X0	7 AR			< 10.0			
Total Speciated TPH mg/kg NAM/ACSE/X07 AR 178	>C21-C35 Aromatic	mg/kg	NAM/ACSE/X0	7 AR			105			
	Total Speciated TPH	mg/kg	NAM/ACSE/X0	7 AR			178			

Head Office Unit 14B Blackhill Road West

Unit 14B Blackhill Road West Holton Heath Trading Park Holton Heath Trading Park Poole

Registered Office

Poole

Dorset BH16 6LE Dorset BH16 6LE

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Certificate No. 18-09563-Issue 1-Page: 6 Site Address **Poole Park Minature Railway**



ACSE Sample Number Sample ID

38173 426807 - 18-97284

Clients Sample Ref.

TP07

Location / Sample Depth (m)

0.08-0.32m

426809 - 18-97284

Date Sampled

01/10/2018

0.47-0.74m

AS

426808 - 18-97284

TP07

01/10/2018

Result

TP08 0.29-0.58m

Time Sampled Sample deviating codes **Client's Sample Description**

ef ef 01/10/2018

ACS Testing Material Description

Brown gravelly SAND

AS

Dark brown mottled dark Brown gravelly silty SAND

AS

grey sandy PEAT SAND PEAT

SAND

Result

ACSE Material Description (Principal Matrix - As Received)

Determination Units Method Prepared As Result **Anions** mg/l MT/ACSE/204 AD

Water Soluble Sulphate 135 *f **BTEX** Benzene mg/kg MT/ACSE/101 AR < 0.10 *ef 0.29 *ef mg/kg MT/ACSE/101 AR *ef Ethylbenzene < 0.10 < 0.10 *ef m+p-xylene mg/kg MT/ACSE/101 AR < 0.19 *ef < 0.19 *ef MT/ACSE/101 AR ma/ka *ef o-xylene < 0.10 < 0.10 *ef mg/kg MT/ACSE/101 AR *ef < 0.10 Toluene < 0.10 *ef Total BTEX mg/kg MT/ACSE/101 AR < 0.60 *ef < 0.60 *ef Carbon MT/ACSE/102 Soil Organic Matter % AR 1.65 7.55 % MT/ACSE/102 AR < 0.0100 0.0438 FOC TOC (Total Organic Carbon) MT/ACSF/102 AR % 0.95 4.34 Loss on Ignition Loss on Ignition (440 ℃) % MT/ACSE/302 AD 2.2 *f 22 *f Metals (Soil) Arsenic mg/kg MT/ACSF/201 AD 10.7 *# 21.5 MT/ACSE/201 *# Cadmium mg/kg AD < 1.00 < 1.00 MT/ACSE/201 AD *# mg/kg 28.9 40.1 Chromium MT/ACSE/201 *# mg/kg AD 10.7 9.98 Copper mg/kg MT/ACSE/202 ΑD 0.09 *# 0.09 Mercury *# Nickel mg/kg MT/ACSE/201 AD 5.57 9.34 MT/ACSE/201 *# Lead mg/kg AD 59.8 79.1 MT/ACSE/201 *# Selenium mg/kg AD < 6.00 < 6.00 mg/kg MT/ACSE/201 ΑD *# Zinc 23.0 28.5 NAM/ACSE/X11 Chromium III mg/kg AD 28.9 40.1 NAM/ACSE/X11 ΑD Chromium Hexavalent mg/kg < 1.00 < 1.00 f **Petroleum Hydrocarbons** Total TPH (C10-C40) MT/ACSE/105 AR 384 *# mg/kg 114 pH and Conductivity MT/ACSE/301 pH (@ 20 °C) units AΠ 6.7 *ef 5.7 *ef 6.7 *ef **Poly Aromatic Hydrocarbons** Naphthalene mg/kg MT/ACSE/106 AD 0.11 *#f 0.48 *f MT/ACSE/106 Acenaphthylene ma/ka AD 0.70 *#f *f < 0.10 mg/kg MT/ACSE/106 ΑD *#1 *f Acenaphthene < 0.10 0.66 MT/ACSE/106 *#f *f Fluorene mg/kg AD 0.14 0.60 Phenanthrene mg/kg MT/ACSE/106 ΑD 0.30 *#f 0.90 *f *f Anthracene mg/kg MT/ACSE/106 AD 0.51 *#f 0.20 MT/ACSE/106 ΑD *#f 0.39 *f 1.34 Fluoranthene mg/kg ΑD *#f *f Pyrene mg/kg MT/ACSE/106 1.56 0.36 mg/kg MT/ACSE/106 AD 1.51 *#f 0.30 *f Benzo (a) anthracene

Head Office Unit 14B

Benzo (b) fluoranthene

Chrysene

Unit 14B Blackhill Road West Blackhill Road West Holton Heath Trading Park Holton Heath Trading Park

Poole Poole

Dorset BH16 6LE Dorset BH16 6LE

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mg/ka

mg/kg

Registered Office

MT/ACSE/106

MT/ACSE/106

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0.23

0.40

*f

*f

*#f

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AD

AD

1.50

3.54

Certificate No. 18-09563-Issue 1-Page: 7
Site Address Poole Park Minature Railway



ACSE Sample Number 38173 426807 - 18-97284 426808 - 18-97284 426809 - 18-97284 Sample ID Clients Sample Ref. **TP07 TP07 TP08** Location / Sample Depth (m) 0.08-0.32m 0.47-0.74m 0.29-0.58m 01/10/2018 01/10/2018 01/10/2018 **Date Sampled Time Sampled** Sample deviating codes ef ef ef **Client's Sample Description ACS Testing Material Description Brown gravelly SAND** Dark brown mottled dark Brown gravelly silty SAND grey sandy PEAT SAND SAND ACSE Material Description (Principal Matrix - As Received) PEAT Determination Units Method Prepared As Result AS Result AS Result AS Benzo (k) fluoranthene mg/kg MT/ACSE/106 ΑD 1.02 *#1 0.14 *f MT/ACSE/106 AD *#f *f Benzo (a) pyrene mg/kg 2.48 0.27 MT/ACSE/106 ΑD *#f *f Indeno (1 2 3-CD) pyrene mg/kg 2.20 0.27 ΑD *#f *f Dibenzo(a h)anthracene mg/kg MT/ACSE/106 0.61 0.19 Benzo(g h i)perylene mg/kg MT/ACSE/106 AD 2.07 *#f 0.23 *f MT/ACSE/106 AD *#1 *f Total PAH mg/kg 19.6 5.63 Polychlorinated Biphenyls (PCBs) PCB (7 Congeners) mg/kg IHP-GCMS AD < 1.00 < 1.00 mg/kg MT/ACSE/104 ΑD PCB (7 Congeners) **Speciated BTEX** MTBF NAM/ACSE/X12 mg/kg AR < 0.05 < 0.05 mg/kg NAM/ACSE/X06 AR Hexane < 0.05 < 0.05 NAM/ACSE/X06 Heptane mg/kg AR < 0.05 < 0.05

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Poole Dorset BH16 6LE

Octane

Benzene

Toluene

o-xylene

Ethylbenzene

m+p-xylene

Total BTEX

C5-C6 Aliphatic

>C6-C8 Aliphatic

>C8-C10 Aliphatic

>C10-C12 Aliphatic

>C12-C16 Aliphatic

>C16-C21 Aliphatic

>C21-C35 Aliphatic

C6-C7 Aromatic

C7-C8 Aromatic

>C8-C10 Aromatic

>C10-C12 Aromatic

>C12-C16 Aromatic

>C16-C21 Aromatic

>C21-C35 Aromatic

Total Speciated TPH

Speciated Petroleum Hydrocarbons

Tel 01202 628680 Fax 01202 628680 Registered Office
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Blackhill Road West
Holton Heath Trading Park
Poole
Dorset BH16 6LE

mg/kg

NAM/ACSE/X06

NAM/ACSE/X06

NAM/ACSE/X06

NAM/ACSE/X06

NAM/ACSE/X06

NAM/ACSE/X06

NAM/ACSE/X06

NAM/ACSE/X07

AR

< 0.05

< 0.05

< 0.05

< 0.05

< 0.05

< 0.05

< 0.05

< 0.10

< 0.10

< 10.0

< 10.0

< 10.0

< 10.0

< 0.10

< 0.10

< 10.0

< 10.0

< 10.0

< 10.0

137

166

29.5

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Wales No. 6000065

Quality Testing & Materials Consultancy to the Construction Industry

< 0.05

< 0.05

< 0.05

< 0.05

< 0.05

< 0.05

< 0.05

< 0.10

< 0.10

< 10.0

< 10.0

< 10.0

< 10.0

< 0.10

< 0.10

< 10.0

< 10.0

< 10.0

< 10.0

39.5

78.2

38.7

Page: 7 of 14

Certificate No. 18-09563-Issue 1-Page: 8 **Site Address Poole Park Minature Railway**



ACSE Sample Number

Sample ID

426810 - 18-97284

38176

SILT

Clients Sample Ref.

TP09 TP09 0.00-0.39m

426812 - 18-97284

Location / Sample Depth (m)

Prepared As Result

0.73-1.00m

426811 - 18-97284

TP11

Date Sampled Time Sampled 01/10/2018

AS

01/10/2018 ef

AS

0.00-0.21m 01/10/2018

Sample deviating codes **Client's Sample Description**

Brown gravelly silty SAND Grey very sandy PEAT

SAND

Result

Brown sandy gravelly SILT

AS

Result

ACS Testing Material Description

Method

ACSE Material Description (Principal Matrix - As Received)

Units

Determination	Ullits	welliou	riepaieu A	s nesuit	AS	nesuit	AS	nesuit	A3	
Anions										
Water Soluble Sulphate	mg/l	MT/ACSE/204	AD			504	*f			
ВТЕХ										
Benzene	mg/kg	MT/ACSE/101	AR	0.10	*ef			0.30	*ef	
Ethylbenzene	mg/kg	MT/ACSE/101	AR	< 0.10	*ef			< 0.10	*ef	
m+p-xylene	mg/kg	MT/ACSE/101	AR	< 0.19	*ef			< 0.19	*ef	
o-xylene	mg/kg	MT/ACSE/101	AR	< 0.10	*ef			< 0.10	*ef	
Toluene	mg/kg	MT/ACSE/101	AR	0.13	*ef			0.14	*ef	
Total BTEX	mg/kg	MT/ACSE/101	AR	< 0.60	*ef			< 0.60	*ef	
Carbon										
Soil Organic Matter	%	MT/ACSE/102	AR	3.53				11.4		
FOC	%	MT/ACSE/102	AR	0.0205				0.0661		
TOC (Total Organic Carbon)	%	MT/ACSE/102	AR	2.03	*			6.55	*	
Loss on Ignition										
Loss on Ignition (440 °C)	%	MT/ACSE/302	AD	7.2	*f			8.9	*f	
Metals (Soil)										
Arsenic	mg/kg	MT/ACSE/201	AD	9.83	*#			16.3	*#	
Cadmium	mg/kg	MT/ACSE/201	AD	< 1.00	*#			< 1.00	*#	
Chromium	mg/kg	MT/ACSE/201	AD	14.1	*#			21.4	*#	
Copper	mg/kg	MT/ACSE/201	AD	78.2	*#			67.4	*#	
Mercury	mg/kg	MT/ACSE/202	AD	0.17	*			0.21	*	
Nickel	mg/kg	MT/ACSE/201	AD	6.33	*#			12.1	*#	
Lead	mg/kg	MT/ACSE/201	AD	144	*#			60.8	*#	
Selenium	mg/kg	MT/ACSE/201	AD	< 6.00	*#			< 6.00	*#	
Zinc	mg/kg	MT/ACSE/201	AD	28.6	*#			223	*#	
Chromium III	mg/kg	NAM/ACSE/X11		14.1				21.4		
Chromium Hexavalent	mg/kg	NAM/ACSE/X11	AD	< 1.00	f			< 1.00	f	
Petroleum Hydrocarbons										
Total TPH (C10-C40)	mg/kg	MT/ACSE/105	AR	< 50.0	*#			410	*#	
pH and Conductivity										
pH (@ 20℃)	units	MT/ACSE/301	AD	6.6	*ef	3.9	*ef	6.9	*ef	
Poly Aromatic Hydrocarbons										
Naphthalene	mg/kg	MT/ACSE/106	AD	0.10	*#f			0.20	*#f	
Acenaphthylene	mg/kg	MT/ACSE/106	AD	0.40	*#f			0.77	*#f	
Acenaphthene	mg/kg	MT/ACSE/106	AD	< 0.10	*#f			0.12	*#f	
Fluorene	mg/kg	MT/ACSE/106	AD	0.10	*#f			0.17	*#f	
Phenanthrene	mg/kg	MT/ACSE/106	AD	0.39	*#f			0.67	*#f	
Anthracene	mg/kg	MT/ACSE/106	AD	0.28	*#f			0.61	*#f	
Fluoranthene	mg/kg	MT/ACSE/106	AD	1.23	*#f			1.79	*#f	
Pyrene	mg/kg	MT/ACSE/106	AD	1.07	*#f			1.83	*#f	
Benzo (a) anthracene	mg/kg	MT/ACSE/106	AD	1.05	*#f			1.47	*#f	
Chrysene	mg/kg	MT/ACSE/106	AD	0.98	*#f			1.46	*#f	

Head Office Unit 14B

Dorset BH16 6LE

Tel 01202 628680

Fax 01202 628680

Benzo (b) fluoranthene

Determination

Registered Office Unit 14B Blackhill Road West

Blackhill Road West Holton Heath Trading Park Poole

Poole

Holton Heath Trading Park

Dorset BH16 6LE

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mg/kg

MT/ACSE/106

Quality Testing & Materials Consultancy to the Construction Industry

2.67

*#f

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1.72

Certificate No. 18-09563-Issue 1-Page: 9 **Poole Park Minature Railway Site Address**



ACSE Sample Number Sample ID

38176 426810 - 18-97284

TP09

426811 - 18-97284

Clients Sample Ref.

38177 TP09

426812 - 18-97284

Location / Sample Depth (m)

0.00-0.39m 0.73-1.00m 01/10/2018 01/10/2018 **TP11** 0.00-0.21m

Date Sampled Time Sampled Sample deviating codes Client's Sample Description

ef

SAND

01/10/2018

ACS Testing Material Description

Brown gravelly silty SAND Grey very sandy PEAT SILT

Brown sandy gravelly SILT

Determination	Units	Method	Prepared As	Result	AS	Result	AS	Result	AS
Benzo (k) fluoranthene	mg/kg	MT/ACSE/106	AD	0.74	*#f			1.06	*#f
Benzo (a) pyrene	mg/kg	MT/ACSE/106	AD	1.28	*#f			1.98	*#f
Indeno (1 2 3-CD) pyrene	mg/kg	MT/ACSE/106	AD	0.93	*#f			1.53	*#f
Dibenzo(a h)anthracene	mg/kg	MT/ACSE/106	AD	0.31	*#f			0.43	*#f
Benzo(g h i)perylene	mg/kg	MT/ACSE/106	AD	0.85	*#f			1.43	*#f
Total PAH	mg/kg	MT/ACSE/106	AD	11.4	*#f			18.2	*#f
Polychlorinated Biphenyls (PCBs)									
PCB (7 Congeners)	mg/kg	IHP-GCMS	AD						
PCB (7 Congeners)	mg/kg	MT/ACSE/104	AD	< 1.00	*			< 1.00	*
Speciated BTEX									
MTBE	mg/kg	NAM/ACSE/X12	2 AR	< 0.05				< 0.05	
Hexane	mg/kg	NAM/ACSE/X06	6 AR	< 0.05				< 0.05	
Heptane	mg/kg	NAM/ACSE/X06	6 AR	< 0.05				< 0.05	
Octane	mg/kg	NAM/ACSE/X06	6 AR	< 0.05				< 0.05	
Benzene	mg/kg	NAM/ACSE/X06	6 AR	< 0.05				< 0.05	
Toluene	mg/kg	NAM/ACSE/X06	6 AR	< 0.05				< 0.05	
Ethylbenzene	mg/kg	NAM/ACSE/X06	6 AR	< 0.05				< 0.05	
m+p-xylene	mg/kg	NAM/ACSE/X06	6 AR	< 0.05				< 0.05	
o-xylene	mg/kg	NAM/ACSE/X06	6 AR	< 0.05				< 0.05	
Total BTEX	mg/kg	NAM/ACSE/X06	6 AR	< 0.05				< 0.05	
Speciated Petroleum Hydrocarbons									
C5-C6 Aliphatic	mg/kg	NAM/ACSE/X07	7 AR	< 0.10				< 0.10	
>C6-C8 Aliphatic	mg/kg	NAM/ACSE/X07	7 AR	< 0.10				< 0.10	
>C8-C10 Aliphatic	mg/kg	NAM/ACSE/X07	7 AR	< 10.0				< 10.0	
>C10-C12 Aliphatic	mg/kg	NAM/ACSE/X07	7 AR	< 10.0				< 10.0	
>C12-C16 Aliphatic	mg/kg	NAM/ACSE/X07	7 AR	< 10.0				< 10.0	
>C16-C21 Aliphatic	mg/kg	NAM/ACSE/X07	7 AR	< 10.0				< 10.0	
>C21-C35 Aliphatic	mg/kg	NAM/ACSE/X07	7 AR	29.5				59.4	
C6-C7 Aromatic	mg/kg	NAM/ACSE/X07	7 AR	< 0.10				< 0.10	
C7-C8 Aromatic	mg/kg	NAM/ACSE/X07	7 AR	< 0.10				< 0.10	
>C8-C10 Aromatic	mg/kg	NAM/ACSE/X07	7 AR	< 10.0				< 10.0	
>C10-C12 Aromatic	mg/kg	NAM/ACSE/X07	7 AR	< 10.0				< 10.0	
>C12-C16 Aromatic	mg/kg	NAM/ACSE/X07	7 AR	< 10.0				< 10.0	
>C16-C21 Aromatic	mg/kg	NAM/ACSE/X07	7 AR	< 10.0				< 10.0	
>C21-C35 Aromatic	mg/kg	NAM/ACSE/X07	7 AR	< 10.0				87.5	
Total Speciated TPH	mg/kg	NAM/ACSE/X07	7 AR	29.5				147	

Head Office Unit 14B Blackhill Road West

Holton Heath Trading Park Poole

Dorset BH16 6LE Tel 01202 628680 Fax 01202 628680

Unit 14B Blackhill Road West Holton Heath Trading Park Poole Dorset BH16 6LE

Registered Office

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Quality Testing & Materials Consultancy to the Construction Industry

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Certificate No. 18-09563-Issue 1-Page: 10 **Site Address Poole Park Minature Railway**



ACSE Sample Number Sample ID 38179 426813 - 18-97284

01/10/2018

Clients Sample Ref.

426814 - 18-97284 **TP11** TP13

426815 - 18-97284

Location / Sample Depth (m)

0.00-0.64m 0.47-1.00m

TP13

Date Sampled Time Sampled 01/10/2018 01/10/2018 0.64-1.00m

Sample deviating codes Client's Sample Description

ef

38180

Brown mottled sark grey

ACS Testing Material Description

Brown gravelly SAND

Multicoloured gravelly

ACSE Material Description (Principal Matrix - As Received)

SAND SAND SAND silty SAND SAND

Determination	Units	Method	Prepared As	Result	AS	Result	AS	Result	AS
Anions									
Water Soluble Sulphate	mg/l	MT/ACSE/204	AD	89.5	*f			3.56	*f
BTEX									
Benzene	mg/kg	MT/ACSE/101	AR			0.10	*ef		
Ethylbenzene	mg/kg	MT/ACSE/101	AR			< 0.10	*ef		
m+p-xylene	mg/kg	MT/ACSE/101	AR			< 0.19	*ef		
o-xylene	mg/kg	MT/ACSE/101	AR			< 0.10	*ef		
Toluene	mg/kg	MT/ACSE/101	AR			< 0.10	*ef		
Total BTEX	mg/kg	MT/ACSE/101	AR			< 0.60	*ef		
Carbon									
Soil Organic Matter	%	MT/ACSE/102	AR			4.44			
FOC	%	MT/ACSE/102	AR			0.0257			
TOC (Total Organic Carbon)	%	MT/ACSE/102	AR			2.55	*		
Loss on Ignition									
Loss on Ignition (440 °C)	%	MT/ACSE/302	AD			2.1	*f		
Metals (Soil)									
Arsenic	mg/kg	MT/ACSE/201	AD			12.0	*#		
Cadmium	mg/kg	MT/ACSE/201	AD			< 1.00	*#		
Chromium	mg/kg	MT/ACSE/201	AD			15.6	*#		
Copper	mg/kg	MT/ACSE/201	AD			121	*#		
Mercury	mg/kg	MT/ACSE/202				0.72	*#		
Nickel	mg/kg	MT/ACSE/201	AD			10.2	*#		
Lead	mg/kg	MT/ACSE/201	AD			204	*#		
Selenium	mg/kg	MT/ACSE/201	AD			< 6.00	*#		
Zinc	mg/kg	MT/ACSE/201	AD			95.2	*#		
Chromium III	mg/kg	NAM/ACSE/X1				15.6			
Chromium Hexavalent	mg/kg	NAM/ACSE/X1	1 AD			< 1.00	f		
Petroleum Hydrocarbons									
Total TPH (C10-C40)	mg/kg	MT/ACSE/105	AR			423	*#		
pH and Conductivity									
pH (@ 20 ℃)	units	MT/ACSE/301	AD	6.5	*ef	7.0	*ef	7.1	*ef
Poly Aromatic Hydrocarbons									
Naphthalene	mg/kg	MT/ACSE/106	AD			0.24	*#f		
Acenaphthylene	mg/kg	MT/ACSE/106	AD			0.45	*#f		
Acenaphthene	mg/kg	MT/ACSE/106	AD			0.11	*#f		
Fluorene	mg/kg	MT/ACSE/106	AD			0.14	*#f		
Phenanthrene	mg/kg	MT/ACSE/106				0.75	*#f		
Anthracene	mg/kg	MT/ACSE/106				0.46	*#f		
Fluoranthene	mg/kg	MT/ACSE/106				2.37	*#f		
Pyrene	mg/kg	MT/ACSE/106				2.15	*#f		
Benzo (a) anthracene	mg/kg	MT/ACSE/106				1.93	*#f		
Chrysene	mg/kg	MT/ACSE/106				1.66	*#f		
Benzo (b) fluoranthene	mg/kg	MT/ACSE/106	AD			3.01	*#f		

Head Office Registered Office Unit 14B Unit 14B

Blackhill Road West Blackhill Road West Holton Heath Trading Park Holton Heath Trading Park

Poole Poole

Dorset BH16 6LE Dorset BH16 6LE

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Certificate No. 18-09563-Issue 1-Page: 11
Site Address Poole Park Minature Railway



ACSE Sample Number 38179 38180 426813 - 18-97284 426814 - 18-97284 426815 - 18-97284 Sample ID Clients Sample Ref. **TP11 TP13 TP13** Location / Sample Depth (m) 0.47-1.00m 0.00-0.64m 0.64-1.00m 01/10/2018 01/10/2018 01/10/2018 **Date Sampled Time Sampled** Sample deviating codes ef ef **Client's Sample Description ACS Testing Material Description Brown gravelly SAND** Multicoloured gravelly Brown mottled sark grey SAND silty SAND SAND ACSE Material Description (Principal Matrix - As Received) SAND SAND Determination Units Method Prepared As Result AS Result AS Result AS Benzo (k) fluoranthene mg/kg MT/ACSE/106 ΑD 0.93 *#f MT/ACSE/106 AD Benzo (a) pyrene mg/kg 2.13 *#f MT/ACSE/106 ΑD *#f Indeno (1 2 3-CD) pyrene mg/kg 1.46 ΑD Dibenzo(a h)anthracene mg/kg MT/ACSE/106 0.51 *#f Benzo(g h i)perylene mg/kg MT/ACSE/106 AD 1.56 *#f MT/ACSE/106 AD Total PAH mg/kg 19.8 *#f Polychlorinated Biphenyls (PCBs) PCB (7 Congeners) mg/kg IHP-GCMS AD mg/kg MT/ACSE/104 ΑD PCB (7 Congeners) < 1.00 **Speciated BTEX** MTBF NAM/ACSE/X12 AR mg/kg < 0.05 mg/kg NAM/ACSE/X06 AR < 0.05 Hexane NAM/ACSE/X06 AR Heptane mg/kg < 0.05 Octane mg/kg NAM/ACSE/X06 AR < 0.05 NAM/ACSE/X06 AR Benzene mg/kg < 0.05 NAM/ACSE/X06 AR Toluene mg/kg < 0.05

Head Office Registered Office
Unit 14B Unit 14B
Blackhill Road West Blackhill Road We

Blackhill Road West
Holton Heath Trading Park
Poole
Poole
Poole

Poole Pool

Dorset BH16 6LE Dorset BH16 6L

Tel 01202 628680 Fax 01202 628680

Ethylbenzene

m+p-xylene o-xylene

Total BTEX

C5-C6 Aliphatic

>C6-C8 Aliphatic

>C8-C10 Aliphatic

>C10-C12 Aliphatic

>C12-C16 Aliphatic

>C16-C21 Aliphatic

>C21-C35 Aliphatic

C6-C7 Aromatic

C7-C8 Aromatic

>C8-C10 Aromatic

>C10-C12 Aromatic

>C12-C16 Aromatic

>C16-C21 Aromatic

>C21-C35 Aromatic

Total Speciated TPH

Speciated Petroleum Hydrocarbons

Poole
Dorset BH16 6LE
ACS Environmental Testing Limited
Registered in England and
Wales No. 6000065

mg/kg

NAM/ACSE/X06

NAM/ACSE/X06

NAM/ACSE/X06

NAM/ACSE/X06

NAM/ACSE/X07

AR

Quality Testing & Materials Consultancy to the Construction Industry

< 0.05

< 0.05

< 0.05

< 0.05

< 0.10

< 0.10

< 10.0

< 10.0

< 10.0

< 10.0

< 0.10

< 0.10

< 10.0

< 10.0

< 10.0

10.8

212

273

49.8

Page: 11 of 14

Certificate No. 18-09563-Issue 1-Page: 12 **Site Address Poole Park Minature Railway**



ACSE Sample Number

Sample ID

426816 - 18-97284

426817 - 18-97284

Clients Sample Ref.

TP14

38182

TP14

Location / Sample Depth (m)

ACSE Material Description (Principal Matrix - As Received)

0.60-0.94m 0.15-0.60m

Date Sampled Time Sampled 01/10/2018

01/10/2018 ef

Sample deviating codes Client's Sample Description

Grey mottled brown sandy

ACS Testing Material Description

Grey sandy GRAVEL

SAND

PEAT PEAT

·							
Determination	Units	Method	Prepared As	Result	AS	Result	AS
Anions							
Vater Soluble Sulphate	mg/l	MT/ACSE/204	AD			46.0	*f
BTEX							
Benzene	mg/kg	MT/ACSE/101	AR	0.10	*ef		
Ethylbenzene	mg/kg	MT/ACSE/101	AR	< 0.10	*ef		
n+p-xylene	mg/kg	MT/ACSE/101	AR	< 0.19	*ef		
p-xylene	mg/kg	MT/ACSE/101	AR	< 0.10	*ef		
Гoluene	mg/kg	MT/ACSE/101	AR	< 0.10	*ef		
Total BTEX	mg/kg	MT/ACSE/101	AR	< 0.60	*ef		
Carbon							
Soil Organic Matter	%	MT/ACSE/102	AR	26.8			
FOC	%	MT/ACSE/102	AR	0.156			
TOC (Total Organic Carbon)	%	MT/ACSE/102	AR	15.4	*		
Loss on Ignition							
_oss on Ignition (440 °C)	%	MT/ACSE/302	AD	2.9	*f		
Metals (Soil)							
Arsenic	mg/kg	MT/ACSE/201	AD	16.2	*#		
Cadmium	mg/kg	MT/ACSE/201	AD	< 1.00	*#		
Chromium	mg/kg	MT/ACSE/201	AD	46.6	*#		
Copper	mg/kg	MT/ACSE/201	AD	233	*#		
Mercury	mg/kg	MT/ACSE/202	AD	0.22	*#		
Nickel	mg/kg	MT/ACSE/201	AD	28.5	*#		
ead	mg/kg	MT/ACSE/201	AD	193	*#		
Selenium	mg/kg	MT/ACSE/201	AD	< 6.00	*#		
Zinc	mg/kg	MT/ACSE/201	AD	73.7	*#		
Chromium III	mg/kg	NAM/ACSE/X11	I AD	46.6			
Chromium Hexavalent	mg/kg	NAM/ACSE/X11	I AD	< 1.00	f		
Petroleum Hydrocarbons							
Fotal TPH (C10-C40)	mg/kg	MT/ACSE/105	AR	152	*#		
pH and Conductivity	<u> </u>						
bH (@ 20℃)	units	MT/ACSE/301	AD	7.2	*ef	6.3	*ef
Poly Aromatic Hydrocarbons	u.i.to		7.13	, . <u></u>		0.0	- Ci
	mg/kg	MT/ACSE/106	AD	0.60	*#f		
Naphthalene	mg/kg	MT/ACSE/106	AD	0.45	#1 *#f		
Acenaphthylene Acenaphthene	mg/kg	MT/ACSE/106	AD	0.45	#1 *#f		
Fluorene	mg/kg	MT/ACSE/106	AD	0.14	*#f		
Phenanthrene	mg/kg	MT/ACSE/106	AD	2.17	#1 *#f		
Anthracene	mg/kg	MT/ACSE/106	AD	0.77	*#f		
Fluoranthene	mg/kg	MT/ACSE/106	AD	4.71	*#f		
aorana iono	mg/kg	MT/ACSE/106	AD	3.96	*#f		
ovrene				5.55			
		MT/ACSE/106	AD	2 82	*#f		
Pyrene Benzo (a) anthracene Chrysene	mg/kg mg/kg	MT/ACSE/106 MT/ACSE/106	AD AD	2.82 3.12	*#f *#f		

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Blackhill Road West Blackhill Road West Holton Heath Trading Park Holton Heath Trading Park

Poole Poole

Dorset BH16 6LE Dorset BH16 6LE

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Quality Testing & Materials Consultancy to the Construction Industry

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Certificate No. 18-09563-Issue 1-Page: 13 **Site Address Poole Park Minature Railway**



ACSE Sample Number

Sample ID

38182 426816 - 18-97284

Clients Sample Ref.

TP14

426817 - 18-97284

Location / Sample Depth (m)

SAND

0.60-0.94m

Date Sampled

0.15-0.60m 01/10/2018

01/10/2018

TP14

Time Sampled Sample deviating codes Client's Sample Description

ef

ACS Testing Material Description

Grey sandy GRAVEL

Grey mottled brown sandy

PEAT PEAT

ACSE Material Description (Principal Matrix - As Received)

Determination	Units	Method	Prepared As	Result	AS	Result AS
Benzo (k) fluoranthene	mg/kg	MT/ACSE/106	AD	2.23	*#f	
Benzo (a) pyrene	mg/kg	MT/ACSE/106	AD	3.30	*#f	
Indeno (1 2 3-CD) pyrene	mg/kg	MT/ACSE/106	AD	2.96	*#f	
Dibenzo(a h)anthracene	mg/kg	MT/ACSE/106	AD	0.97	*#f	
Benzo(g h i)perylene	mg/kg	MT/ACSE/106	AD	2.92	*#f	
Total PAH	mg/kg	MT/ACSE/106	AD	36.2	*#f	
Polychlorinated Biphenyls (PCBs)						
PCB (7 Congeners)	mg/kg	IHP-GCMS	AD			
PCB (7 Congeners)	mg/kg	MT/ACSE/104	AD	< 1.00	*	
Speciated BTEX						
МТВЕ	mg/kg	NAM/ACSE/X1	2 AR	< 0.05		
Hexane	mg/kg	NAM/ACSE/X00	6 AR	< 0.05		
Heptane	mg/kg	NAM/ACSE/X00	6 AR	< 0.05		
Octane	mg/kg	NAM/ACSE/X00	6 AR	< 0.05		
Benzene	mg/kg	NAM/ACSE/X00	6 AR	< 0.05		
Toluene	mg/kg	NAM/ACSE/X00	6 AR	< 0.05		
Ethylbenzene	mg/kg	NAM/ACSE/X0	6 AR	< 0.05		
m+p-xylene	mg/kg	NAM/ACSE/X0	6 AR	< 0.05		
o-xylene	mg/kg	NAM/ACSE/X0	6 AR	< 0.05		
Total BTEX	mg/kg	NAM/ACSE/X0	6 AR	< 0.05		
Speciated Petroleum Hydrocarbons						
C5-C6 Aliphatic	mg/kg	NAM/ACSE/X0	7 AR	< 0.10		
>C6-C8 Aliphatic	mg/kg	NAM/ACSE/X0	7 AR	< 0.10		
>C8-C10 Aliphatic	mg/kg	NAM/ACSE/X0	7 AR	< 10.0		
>C10-C12 Aliphatic	mg/kg	NAM/ACSE/X0	7 AR	< 10.0		
>C12-C16 Aliphatic	mg/kg	NAM/ACSE/X0	7 AR	< 10.0		
>C16-C21 Aliphatic	mg/kg	NAM/ACSE/X0	7 AR	< 10.0		
>C21-C35 Aliphatic	mg/kg	NAM/ACSE/X0	7 AR	< 10.0		
C6-C7 Aromatic	mg/kg	NAM/ACSE/X0	7 AR	< 0.10		
C7-C8 Aromatic	mg/kg	NAM/ACSE/X0	7 AR	< 0.10		
>C8-C10 Aromatic	mg/kg	NAM/ACSE/X0	7 AR	< 10.0		
>C10-C12 Aromatic	mg/kg	NAM/ACSE/X0	7 AR	< 10.0		
>C12-C16 Aromatic	mg/kg	NAM/ACSE/X0	7 AR	< 10.0		
>C16-C21 Aromatic	mg/kg	NAM/ACSE/X0	7 AR	< 10.0		
>C21-C35 Aromatic	mg/kg	NAM/ACSE/X0	7 AR	105		
Total Speciated TPH	mg/kg	NAM/ACSE/X0	7 AR	105		

Head Office Unit 14B Blackhill Road West

Holton Heath Trading Park Poole

Dorset BH16 6LE

Tel 01202 628680 Fax 01202 628680 Registered Office Unit 14B

Blackhill Road West Holton Heath Trading Park

Poole

Dorset BH16 6LE

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Quality Testing & Materials Consultancy to the Construction Industry

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Certificate No. 18-09563-Issue 1-Page: 14
Site Address Poole Park Minature Railway



Technical Information for Analytical Results

Analysis

* - denotes analysis covered by our UKAS accreditation

- denoted analysis covered by our MCERTS certification

AD = Sample tested in air dried condition

AR = Sample tested in as-received condition.

D = Sample tested in dry condition.

L = Laboratory prepared leachate

SC = sub contracted

All MCERTS certified test values reported on a dry weight basis.

UKAS uncertainty available on request.

Where results are less than the limit of detection, the value of 0 is used in calculations.

Deviating Codes

Deviating Samples

The use of any of the following symbols indicates that the sample was deviating and it is possible therefore that the results provided may not be representative of the sample taken

- a The date and /or time of sampling has not been provided, therefore it is not known if the time lapse between sampling and analysis has exceeded the acceptable holding time(s)*.
- b The test item was received in a container which has not been recommended*
- c On receipt, the temperature of the sample received was found to fall outside the recommendations of BS ISO 18512:2007, Soil Quality. Guidance on long and short term storage of soil samples*.
- d The sample was received in a container that had not been filled as recommended*
- e The delay between sampling and sample receipt is greater than the recommended holding time for the analyte of interest in this matrix*.
- f The delay between sampling and analysis is greater than the recommended holding time for the analyte of interest in this matrix*.

*In accordance with the requirements of Technical Policy Statement TPS 63; UKAS Policy on Deviating Samples, all UKAS accredited testing laboratories are required to notify their clients that calibration or test results may be invalid where samples are found to be deviating. It is the opinion of ACSE that the term invalid should be interpreted as 'not fully representative of the sample taken at source'.

The following Additional Deviating Sample Codes may also be used.

I/S - Insufficient sample mass/volume received for accurate quantification of this analyte.

U/S - The sample received was deemed unsuitable for accurate determination of this analyte using the Test Methods available

Head Office Registered Office
Unit 14B Unit 14B
Blackhill Road West
Holton Heath Trading Park
Registered Office
Unit 14B
Blackhill Road West
Holton Heath Trading Park

Poole Poole

Dorset BH16 6LE Dorset BH16 6LE

Tel 01202 628680 ACS Environmental Testing Limited Registered in England and Wales No. 6000065

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ACS Testing Ltd Unit 14 Blackhill Road West Holton Heath Trading Park Poole Dorset BH16 6LE



Certificate of Analysis Landfill Waste Acceptance Criteria (WAC) (10:1)

Certificate Number: 18-09563-Issue 1-Page: 1

Site Address: Poole Park Minature Railway

Customer Order No: 18-97284

Date of Sampling: 01/10/2018

Date Received: 15/10/2018

Report Date: 15/11/2018

Please find your certificates of test attached for your samples received in the laboratory on 15/10/2018 under our laboratory reference 18-09563.

Remarks:

None

Results reviewed by:

Eoin Byrne Technical Supervisor

Results approved by:

David Redfern Technical Supervisor

Any opinions or interpretations indicated are outside the scope of our UKAS accreditation.

This certificate should not be reproduced, except in full, without the express permission of the laboratory.

The results included within the report are representative of the samples submitted for analysis.

Excel copies of reports are valid only when accompanied by this PDF certificate.

Client's Sample Description / ACS Material Description are noted for reference only.

Head Office Registered Office

Unit 14B Unit 14B

Blackhill Road West
Holton Heath Trading Park
Holton Heath Trading Park

Poole Poo Dorset BH16 6LE Dors

Dorset BH16 6LE

ACS Environmental Testing Limited

Tel 01202 628680 Registered in England and Wales No. 6000065

Fax 01202 628642

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Certificate No. 18-09563-Issue 1-Page: 2
Site Address Poole Park Minature Railway

ACSE Sample Number 38167

Sample ID 426801 - 18-97284

Clients Sample Ref. TP01

Material Source In Situ

Location / Sample Depth (m) 0.23-0.42m

Time Sampled

Date Sampled 01/10/2018

Sample Deviating Codes ef

Client's Sample Description

ACS Testing Material Description Brown sandy GRAVEL

Principal Matrix (as received) GRAVEL



LANDFILL WASTE ACCEPTANCE CRITERIA (WAC)							
TEST VALUES							
Mass of Undried Test Portion (Mw)	93.3	g	Volume of Leachant Used (L10)	0.897	litres		
Mass of Dried Test Portion (Mp)	90.0	g					
Moisture Content Ratio (MC)	3.6	%	Volume of Eluate (VE10)	0.853	litres		
Dry Matter Content (DR)	96.5	%					

Analyte	Method	AS	Sample Condition for	Results
			Analysis	
Total Organic Carbon (%)	MT/ACSE/102	*	As received	1.55
Loss on ignition (%)	MT/ACSE/302	*f	Air dried at 30°C	2.1
BTEX (mg/kg)	MT/ACSE/101	*ef	As received	< 0.60
PCBs (7 congeners) (mg/kg)	MT/ACSE/104	*	Air dried at 30°C	< 1.00
Mineral oil (C10 - C40) (mg/kg)	MT/ACSE/105	*	As received	363
PAHs (mg/kg)	MT/ACSE/106	*f	Air dried at 30°C	33.3
pH (units)	MT/ACSE/301	*ef	Air dried at 30°C	10.6
ELUATE ANALYSIS				
Analyte	Method	AS	Concentration in	Amount
			Eluate	Leached
Eluate Preparation	LP/ACSE/104		(mg/l)	(mg/kg)
Liquid : Solid Ratio (L/S)	LP/ACSE/101	*	L/S 10	L/S 10
pH (units)	MT/ACSE/301	*	11.0	
Temperature (°C)	MT/ACSE/301		20	
Conductivity (mS/m)	MT/ACSE/303	*	52.20	
Arsenic	MT/ACSE/205	*	< 0.003	< 0.0300
Barium	MT/ACSE/205	*	0.0909	0.909
Cadmium	MT/ACSE/205	*	< 0.0008	< 0.008
Chromium (total)	MT/ACSE/205	*	0.021	0.207
Copper	MT/ACSE/205	*	0.050	0.499
Mercury	MT/ACSE/202	*	< 0.0001	< 0.0010
Molybdenum	MT/ACSE/205	*	0.0017	0.017
Nickel	MT/ACSE/205	*	0.0030	0.030
Lead	MT/ACSE/205	*	< 0.004	< 0.040
Antimony	MT/ACSE/205	*	< 0.003	< 0.030
Selenium	MT/ACSE/205	*	< 0.006	< 0.060
Zinc	MT/ACSE/205	*	< 0.002	< 0.020
Chloride	MT/ACSE/204	*	8.59	85.92
Fluoride	MT/ACSE/204	*	< 0.01	< 0.050
Sulphate	MT/ACSE/204	*	8.03	80.26
Total dissolved solids	MT/ACSE/304	*	170	1700
Phenol index	MT/ACSE/107	*	< 0.05	< 0.50
Dissolved organic carbon	MT/ACSE/103	*	7.81	78.10

LANDFILL WASTE	LANDFILL WASTE ACCEPTANCE CRITERIA SPECIFICATION						
Inert Waste	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste					
3 %	5 %	6 %					
		10 %					
6							
1							
500							
100							
	>6						

LANDFILL WASTE	ACCEPTANCE CRITE	RIA SPECIFICATION
BS EN 12457-2	-2002 LIMIT VALUES (mg/kg) at L/S 10
Inert Waste	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15000	25000
10	150	500
1000	20000	50000
4000	60000	100000
1		
500	800	1000

Comments: (comments are beyond the scope of UKAS accreditation)

Key (at clients request):

Individual test result exceeds the landfill waste acceptance criteria limit for inert waste.

Certificate No. 18-09563-Issue 1-Page: 3
Site Address Poole Park Minature Railway

ACSE Sample Number 38169

Sample ID 426803 - 18-97284

Clients Sample Ref. TP02

Material Source In Situ

Location / Sample Depth (m) 0.21-0.63m

Time Sampled

Date Sampled 01/10/2018

Sample Deviating Codes ef

Client's Sample Description

ACS Testing Material Description Brown sandy GRAVEL

Principal Matrix (as received) GRAVEL



Timolpan matrix (as received) (11)	7VLL								
LANDFILL WASTE ACCEPTANCE CRITERIA (WAC)									
TEST VALUES									
Mass of Undried Test Portion (Mw)	93.8	g	Volume of Leachant Used (L10)	0.896	litres				
Mass of Dried Test Portion (Mp)	90.0	g							
Moisture Content Ratio (MC)	4.2	%	Volume of Eluate (VE10)	0.847	litres				
Dry Matter Content (DR)	96.0	%							

Analyte	Method	AS	Sample Condition for Analysis	Results
Total Organic Carbon (%)	MT/ACSE/102	*	As received	1.82
Loss on ignition (%)	MT/ACSE/302	*f	Air dried at 30°C	2.7
BTEX (mg/kg)	MT/ACSE/101	*ef	As received	< 0.60
PCBs (7 congeners) (mg/kg)	MT/ACSE/104	*	Air dried at 30°C	< 1.00
Mineral oil (C10 - C40) (mg/kg)	MT/ACSE/105	*	As received	1000
PAHs (mg/kg)	MT/ACSE/106	*f	Air dried at 30°C	59.0
pH (units)	MT/ACSE/301	*ef	Air dried at 30°C	10.6
ELUATE ANALYSIS				
Analyte	Method	AS	Concentration in Eluate	Amount Leached
Eluate Preparation	LP/ACSE/104		(mg/l)	(mg/kg)
Liquid : Solid Ratio (L/S)	LP/ACSE/101	*	L/S 10	L/S 10
pH (units)	MT/ACSE/301	*	10.7	
Temperature (°C)	MT/ACSE/301		20	
Conductivity (mS/m)	MT/ACSE/303	*	23.10	
Arsenic	MT/ACSE/205	*	0.006	0.0590
Barium	MT/ACSE/205	*	0.108	1.083
Cadmium	MT/ACSE/205	*	< 0.0008	< 0.008
Chromium (total)	MT/ACSE/205	*	0.007	0.068
Copper	MT/ACSE/205	*	0.035	0.351
Mercury	MT/ACSE/202	*	< 0.0001	< 0.0010
Molybdenum	MT/ACSE/205	*	0.0037	0.037
Nickel	MT/ACSE/205	*	0.0053	0.053
Lead	MT/ACSE/205	*	< 0.004	< 0.040
Antimony	MT/ACSE/205	*	< 0.003	< 0.030
Selenium	MT/ACSE/205	*	< 0.006	< 0.060
Zinc	MT/ACSE/205	*	< 0.002	< 0.020
Chloride	MT/ACSE/204	*	7.78	77.80
Fluoride	MT/ACSE/204	*	< 0.01	< 0.050
Sulphate	MT/ACSE/204	*	15.69	156.9
Total dissolved solids	MT/ACSE/304	*	165	1650
Phenol index	MT/ACSE/107	*	< 0.05	< 0.50
Dissolved organic carbon	MT/ACSE/103	*	19.8	197.9

LANDFILL WASTE	ACCEPTANCE CRITE	RIA SPECIFICATION
Inert Waste	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste
3 %	5 %	6 %
		10 %
6		
1		
500		
100		
	>6	

LANDFILL WASTE	ACCEPTANCE CRITE	RIA SPECIFICATION
BS EN 12457-	2-2002 LIMIT VALUES (mg/kg) at L/S 10
Inert Waste	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15000	25000
10	150	500
1000	20000	50000
4000	60000	100000
1		
500	800	1000

Comments: (comments are beyond the scope of UKAS accreditation)

Key (at clients request):

Individual test result exceeds the landfill waste acceptance criteria limit for inert waste.

Certificate No. 18-09563-Issue 1-Page: 4
Site Address Poole Park Minature Railway

ACSE Sample Number 38171

Sample ID 426805 - 18-97284

Clients Sample Ref.TP05Material SourceIn SituLocation / Sample Depth (m)0.00-0.66m

Time Sampled

Date Sampled 01/10/2018

Sample Deviating Codes ef

Client's Sample Description

ACS Testing Material Description Brown gravelly silty SAND

Principal Matrix (as received) SILT



LANDFILL WASTE ACCEPTANCE CRITERIA (WAC)								
TEST VALUES								
Mass of Undried Test Portion (Mw)	96.5	g	Volume of Leachant Used (L10)	0.894	litres			
Mass of Dried Test Portion (Mp)	90.0	g						
Moisture Content Ratio (MC)	7.2	%	Volume of Eluate (VE10)	0.861	litres			
Dry Matter Content (DR)	93.3	%						
COLUDE ANALYSIS			LANDELL WASTE	ACCEPTANCE CRITERIA SR	FOIFICATION			

SOLIDS ANALYSIS Analyte	Method	AS	Sample Condition for	Results
,			Analysis	
Total Organic Carbon (%)	MT/ACSE/102	*	As received	1.49
Loss on ignition (%)	MT/ACSE/302	*f	Air dried at 30 ℃	3.2
BTEX (mg/kg)	MT/ACSE/101	*ef	As received	< 0.60
PCBs (7 congeners) (mg/kg)	MT/ACSE/104	*	Air dried at 30℃	< 1.00
Mineral oil (C10 - C40) (mg/kg)	MT/ACSE/105	*#	As received	256
PAHs (mg/kg)	MT/ACSE/106	*#f	Air dried at 30℃	134
pH (units)	MT/ACSE/301	*ef	Air dried at 30℃	7.3
ELUATE ANALYSIS				
Analyte	Method	AS	Concentration in	Amount
			Eluate	Leached
Eluate Preparation	LP/ACSE/104		(mg/l)	(mg/kg)
Liquid : Solid Ratio (L/S)	LP/ACSE/101	*	L/S 10	L/S 10
pH (units)	MT/ACSE/301	*	9.2	
Temperature (°C)	MT/ACSE/301		20	
Conductivity (mS/m)	MT/ACSE/303	*	6.59	
Arsenic	MT/ACSE/205	*	< 0.003	< 0.0300
Barium	MT/ACSE/205	*	0.0800	0.800
Cadmium	MT/ACSE/205	*	< 0.0008	< 0.008
Chromium (total)	MT/ACSE/205	*	0.002	0.024
Copper	MT/ACSE/205	*	0.022	0.219
Mercury	MT/ACSE/202	*	< 0.0001	< 0.0010
Molybdenum	MT/ACSE/205	*	< 0.0010	< 0.010
Nickel	MT/ACSE/205	*	< 0.0008	< 0.008
Lead	MT/ACSE/205	*	< 0.004	< 0.040
Antimony	MT/ACSE/205	*	< 0.003	< 0.030
Selenium	MT/ACSE/205	*	0.007	0.071
Zinc	MT/ACSE/205	*	0.020	0.200
Chloride	MT/ACSE/204	*	< 3.00	< 30.00
Fluoride	MT/ACSE/204	*	0.22	2.172
Sulphate	MT/ACSE/204	*	4.66	46.62
Total dissolved solids	MT/ACSE/304	*	70	700.0
Phenol index	MT/ACSE/107	*	< 0.05	< 0.50
Dissolved organic carbon	MT/ACSE/103	*	13.9	139.2

LANDFILL WASTE ACCEPTANCE CRITERIA SPECIFICATION					
Inert Waste	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste			
3 %	5 %	6 %			
		10 %			
6					
1					
500					
100					
	>6				

LANDFILL WASTE	ACCEPTANCE CRITE	RIA SPECIFICATION
BS EN 12457-2	2-2002 LIMIT VALUES (mg/kg) at L/S 10
Inert Waste	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15000	25000
10	150	500
1000	20000	50000
4000	60000	100000
1		
500	800	1000

Comments: (comments are beyond the scope of UKAS accreditation)

Key (at clients request):

Individual test result exceeds the landfill waste acceptance criteria limit for inert waste.

Certificate No. 18-09563-Issue 1-Page: 5
Site Address Poole Park Minature Railway

ACSE Sample Number 38173

Sample ID 426807 - 18-97284

 Clients Sample Ref.
 TP07

 Material Source
 In Situ

 Location / Sample Depth (m)
 0.08-0.32m

Time Sampled

Date Sampled 01/10/2018

Sample Deviating Codes ef

Client's Sample Description

ACS Testing Material Description Brown gravelly SAND

Principal Matrix (as received) SAND



LANDFILL WASTE ACCEPTANCE CRITERIA (WAC)							
TEST VALUES							
Mass of Undried Test Portion (Mw)	93.4	g	Volume of Leachant Used (L10)	0.897	litres		
Mass of Dried Test Portion (Mp)	90.0	g					
Moisture Content Ratio (MC)	3.7	%	Volume of Eluate (VE10)	0.851	litres		
Dry Matter Content (DR)	96.4	%					

Analyte	Method	AS	Sample Condition for Analysis	Results
Total Organic Carbon (%)	MT/ACSE/102	*	As received	0.95
Loss on ignition (%)	MT/ACSE/302	*f	Air dried at 30°C	2.2
BTEX (mg/kg)	MT/ACSE/101	*ef	As received	< 0.60
PCBs (7 congeners) (mg/kg)	IHP-GCMS		Air dried at 30°C	< 1.00
Mineral oil (C10 - C40) (mg/kg)	MT/ACSE/105	*#	As received	384
PAHs (mg/kg)	MT/ACSE/106	*#f	Air dried at 30°C	19.6
pH (units)	MT/ACSE/301	*ef	Air dried at 30°C	6.7
ELUATE ANALYSIS				
Analyte	Method	AS	Concentration in Eluate	Amount Leached
Eluate Preparation	LP/ACSE/104		(mg/l)	(mg/kg)
Liquid : Solid Ratio (L/S)	LP/ACSE/101	*	L/S 10	L/S 10
pH (units)	MT/ACSE/301	*	8.7	
Temperature (°C)	MT/ACSE/301		20	
Conductivity (mS/m)	MT/ACSE/303	*	14.54	
Arsenic	MT/ACSE/205	*	< 0.003	< 0.0300
Barium	MT/ACSE/205	*	0.102	1.021
Cadmium	MT/ACSE/205	*	< 0.0008	< 0.008
Chromium (total)	MT/ACSE/205	*	0.003	0.035
Copper	MT/ACSE/205	*	< 0.008	< 0.080
Mercury	MT/ACSE/202	*	< 0.0001	< 0.0010
Molybdenum	MT/ACSE/205	*	0.0012	0.012
Nickel	MT/ACSE/205	*	0.0019	0.019
Lead	MT/ACSE/205	*	< 0.004	< 0.040
Antimony	MT/ACSE/205	*	< 0.003	< 0.030
Selenium	MT/ACSE/205	*	< 0.006	< 0.060
Zinc	MT/ACSE/205	*	< 0.002	< 0.020
Chloride	MT/ACSE/204	*	< 3.00	< 30.00
Fluoride	MT/ACSE/204	*	0.19	1.897
Sulphate	MT/ACSE/204	*	17.97	179.7
Total dissolved solids	MT/ACSE/304	*	130	1300
Phenol index	MT/ACSE/107	*	< 0.05	< 0.50
Dissolved organic carbon	MT/ACSE/103	*	7.99	79.90

LANDFILL WASTE	LANDFILL WASTE ACCEPTANCE CRITERIA SPECIFICATION						
Inert Waste	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste					
3 %	5 %	6 %					
		10 %					
6							
1							
500							
100							
	>6						

LANDFILL WASTE	ACCEPTANCE CRITE	RIA SPECIFICATION
BS EN 12457-2	2-2002 LIMIT VALUES (mg/kg) at L/S 10
Inert Waste	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15000	25000
10	150	500
1000	20000	50000
4000	60000	100000
1		
500	800	1000

Comments: (comments are beyond the scope of UKAS accreditation)

Key (at clients request):

Individual test result exceeds the landfill waste acceptance criteria limit for inert waste.

Certificate No. 18-09563-Issue 1-Page: 6
Site Address Poole Park Minature Railway

ACSE Sample Number 38174

Sample ID 426808 - 18-97284

Clients Sample Ref. TP07

Material Source In Situ

Location / Sample Depth (m) 0.47-0.74m

Time Sampled

Date Sampled 01/10/2018

Sample Deviating Codes ef

Client's Sample Description

ACS Testing Material Description Dark brown mottled dark grey sandy PEAT

Principal Matrix (as received) PEAT



LANDFILL WASTE ACCEPTANCE CRITERIA (WAC)							
TEST VALUES							
Mass of Undried Test Portion (Mw)	182.3	g	Volume of Leachant Used (L10)	0.808	litres		
Mass of Dried Test Portion (Mp)	90.0	g					
Moisture Content Ratio (MC)	103	%	Volume of Eluate (VE10)	0.795	litres		
Dry Matter Content (DR)	49.4	%					

Analyte	Method	AS	Sample Condition for Analysis	Results
Total Organic Carbon (%)	MT/ACSE/102	*	As received	4.34
Loss on ignition (%)	MT/ACSE/302	*f	Air dried at 30 ℃	22
BTEX (mg/kg)	MT/ACSE/101	*ef	As received	< 0.60
PCBs (7 congeners) (mg/kg)	IHP-GCMS		Air dried at 30 ℃	< 1.00
Mineral oil (C10 - C40) (mg/kg)	MT/ACSE/105	*	As received	114
PAHs (mg/kg)	MT/ACSE/106	*f	Air dried at 30 ℃	5.63
pH (units)	MT/ACSE/301	*ef	Air dried at 30 ℃	5.7
ELUATE ANALYSIS	,			
Analyte	Method	AS	Concentration in Eluate	Amount Leached
Eluate Preparation	LP/ACSE/104		(mg/l)	(mg/kg)
Liquid : Solid Ratio (L/S)	LP/ACSE/101	*	L/S 10	L/S 10
pH (units)	MT/ACSE/301	*	8.5	
Temperature (°C)	MT/ACSE/301		20	
Conductivity (mS/m)	MT/ACSE/303	*	32.60	
Arsenic	MT/ACSE/205	*	< 0.003	< 0.0300
Barium	MT/ACSE/205	*	0.446	4.459
Cadmium	MT/ACSE/205	*	< 0.0008	< 0.008
Chromium (total)	MT/ACSE/205	*	0.004	0.044
Copper	MT/ACSE/205	*	< 0.008	< 0.080
Mercury	MT/ACSE/202	*	< 0.0001	< 0.0010
Molybdenum	MT/ACSE/205	*	< 0.0010	< 0.010
Nickel	MT/ACSE/205	*	0.0016	0.016
Lead	MT/ACSE/205	*	< 0.004	< 0.040
Antimony	MT/ACSE/205	*	< 0.003	< 0.030
Selenium	MT/ACSE/205	*	0.016	0.161
Zinc	MT/ACSE/205	*	0.055	0.548
Chloride	MT/ACSE/204	*	9.96	99.58
Fluoride	MT/ACSE/204	*	0.18	1.810
Sulphate	MT/ACSE/204	*	137.9	1379
Total dissolved solids	MT/ACSE/304	*	220	2200
Phenol index	MT/ACSE/107	*	< 0.05	< 0.50
Dissolved organic carbon	MT/ACSE/103	*	18.5	185.0

LANDFILL WASTE	ACCEPTANCE CRITE	RIA SPECIFICATION
Inert Waste	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste
3 %	5 %	6 %
		10 %
6		
1		
500		
100		
	>6	

LANDFILL WASTE	ACCEPTANCE CRITE	RIA SPECIFICATION
BS EN 12457-2	-2002 LIMIT VALUES (mg/kg) at L/S 10
Inert Waste	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15000	25000
10	150	500
1000	20000	50000
4000	60000	100000
1		
500	800	1000

Comments: (comments are beyond the scope of UKAS accreditation)

Key (at clients request):

Individual test result exceeds the landfill waste acceptance criteria limit for inert waste.

Certificate No. 18-09563-Issue 1-Page: 7
Site Address Poole Park Minature Railway

ACSE Sample Number 38176

Sample ID 426810 - 18-97284

 Clients Sample Ref.
 TP09

 Material Source
 In Situ

 Location / Sample Depth (m)
 0.00-0.39m

Time Sampled

Date Sampled 01/10/2018

Sample Deviating Codes ef

Client's Sample Description ACS Testing Material Description

Brown gravelly silty SAND

Principal Matrix (as received) SILT



LANDFILL WASTE ACCEPTANCE CRITERIA (WAC)							
TEST VALUES							
Mass of Undried Test Portion (Mw)	93.2	g	Volume of Leachant Used (L10)	0.897	litres		
Mass of Dried Test Portion (Mp)	90.0	g					
Moisture Content Ratio (MC)	3.6	%	Volume of Eluate (VE10)	0.843	litres		
Dry Matter Content (DR)	96.6	%					

Analyte	Method	AS	Sample Condition for Analysis	Results
Total Organic Carbon (%)	MT/ACSE/102	*	As received	2.03
	MT/ACSE/302	*f	Air dried at 30 °C	7.2
Loss on ignition (%) BTEX (mg/kg)	MT/ACSE/302 MT/ACSE/101	*ef	As received	< 0.60
PCBs (7 congeners) (mg/kg)	MT/ACSE/101	*	As received Air dried at 30 ℃	
	MT/ACSE/104	*#	As received	< 1.00
Mineral oil (C10 - C40) (mg/kg)	MT/ACSE/106	# *#f	As received Air dried at 30 ℃	< 50.0 11.4
PAHs (mg/kg)	MT/ACSE/106 MT/ACSE/301	*ef		6.6
pH (units)	WIT/AGSE/301	еі	Air dried at 30 ℃	0.0
ELUATE ANALYSIS		_		
Analyte	Method	AS	Concentration in Eluate	Amount Leached
Eluate Preparation	LP/ACSE/104		(mg/l)	(mg/kg)
Liquid : Solid Ratio (L/S)	LP/ACSE/101	*	L/S 10	L/S 10
pH (units)	MT/ACSE/301	*	8.7	
Temperature (°C)	MT/ACSE/301		20	
Conductivity (mS/m)	MT/ACSE/303	*	6.85	
Arsenic	MT/ACSE/205	*	< 0.003	< 0.0300
Barium	MT/ACSE/205	*	0.0970	0.970
Cadmium	MT/ACSE/205	*	< 0.0008	< 0.008
Chromium (total)	MT/ACSE/205	*	0.003	0.030
Copper	MT/ACSE/205	*	0.026	0.257
Mercury	MT/ACSE/202	*	< 0.0001	< 0.0010
Molybdenum	MT/ACSE/205	*	0.0021	0.021
Nickel	MT/ACSE/205	*	0.0021	0.021
Lead	MT/ACSE/205	*	0.014	0.137
Antimony	MT/ACSE/205	*	< 0.003	< 0.030
Selenium	MT/ACSE/205	*	< 0.006	< 0.060
Zinc	MT/ACSE/205	*	0.010	0.095
Chloride	MT/ACSE/204	*	3.83	38.28
Fluoride	MT/ACSE/204	*	0.12	1.173
Sulphate	MT/ACSE/204	*	10.88	108.8
Total dissolved solids	MT/ACSE/304	*	45	450.0
Phenol index	MT/ACSE/107	*	< 0.05	< 0.50
Dissolved organic carbon	MT/ACSE/103	*	10.8	108.2

LANDFILL WASTE ACCEPTANCE CRITERIA SPECIFICATION					
Inert Waste	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste			
3 %	5 %	6 %			
		10 %			
6					
1					
500					
100					
	>6				

	>0	
LANDFILL WASTE	ACCEPTANCE CRITE	RIA SPECIFICATION
BS EN 12457-2	-2002 LIMIT VALUES (mg/kg) at L/S 10
Inert Waste	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15000	25000
10	150	500
1000	20000	50000
4000	60000	100000
1		
500	800	1000

Comments: (comments are beyond the scope of UKAS accreditation)

Key (at clients request):

Individual test result exceeds the landfill waste acceptance criteria limit for inert waste.

Certificate No. 18-09563-Issue 1-Page: 8
Site Address Poole Park Minature Railway

ACSE Sample Number 38178

Sample ID 426812 - 18-97284

 Clients Sample Ref.
 TP11

 Material Source
 In Situ

 Location / Sample Depth (m)
 0.00-0.21m

Time Sampled

Date Sampled 01/10/2018

Sample Deviating Codes ef

Client's Sample Description

ACS Testing Material Description Brown sandy gravelly SILT

Principal Matrix (as received) SILT



LANDFILL WASTE ACCEPTANCE CRITERIA (WAC)						
TEST VALUES						
Mass of Undried Test Portion (Mw)	102.2	g	Volume of Leachant Used (L10)	0.888	litres	
Mass of Dried Test Portion (Mp)	90.0	g				
Moisture Content Ratio (MC)	13.6	%	Volume of Eluate (VE10)	0.835	litres	
Dry Matter Content (DR)	88.0	%				
SOLIDS ANALYSIS			LANDFILL WASTE	ACCEPTANCE CRITERIA SP	ECIFICATION	

Analyte	Method	AS	Sample Condition for Analysis	Results
Total Organic Carbon (%)	MT/ACSE/102	*	As received	6.55
Loss on ignition (%)	MT/ACSE/302	*f	Air dried at 30°C	8.9
BTEX (mg/kg)	MT/ACSE/101	*ef	As received	< 0.60
PCBs (7 congeners) (mg/kg)	MT/ACSE/104	*	Air dried at 30℃	< 1.00
Mineral oil (C10 - C40) (mg/kg)	MT/ACSE/105	*#	As received	410
PAHs (mg/kg)	MT/ACSE/106	*#f	Air dried at 30°C	18.2
pH (units)	MT/ACSE/301	*ef	Air dried at 30°C	6.9
ELUATE ANALYSIS				
Analyte	Method	AS	Concentration in Eluate	Amount Leached
Eluate Preparation	LP/ACSE/104		(mg/l)	(mg/kg)
Liquid : Solid Ratio (L/S)	LP/ACSE/101	*	L/S 10	L/S 10
pH (units)	MT/ACSE/301	*	8.4	
Temperature (°C)	MT/ACSE/301		20	
Conductivity (mS/m)	MT/ACSE/303	*	11.02	
Arsenic	MT/ACSE/205	*	< 0.003	< 0.0300
Barium	MT/ACSE/205	*	0.170	1.702
Cadmium	MT/ACSE/205	*	< 0.0008	< 0.008
Chromium (total)	MT/ACSE/205	*	0.003	0.031
Copper	MT/ACSE/205	*	0.036	0.365
Mercury	MT/ACSE/202	*	< 0.0001	< 0.0010
Molybdenum	MT/ACSE/205	*	0.0014	0.014
Nickel	MT/ACSE/205	*	0.0058	0.058
Lead	MT/ACSE/205	*	< 0.004	< 0.040
Antimony	MT/ACSE/205	*	< 0.003	< 0.030
Selenium	MT/ACSE/205	*	0.010	0.096
Zinc	MT/ACSE/205	*	0.028	0.276
Chloride	MT/ACSE/204	*	9.12	91.23
Fluoride	MT/ACSE/204	*	0.61	6.124
Sulphate	MT/ACSE/204	*	4.61	46.07
Total dissolved solids	MT/ACSE/304	*	65	650.0
Phenol index	MT/ACSE/107	*	< 0.05	< 0.50
Dissolved organic carbon	MT/ACSE/103	*	17.2	172.1

LANDFILL WASTE ACCEPTANCE CRITERIA SPECIFICATION					
Inert Waste	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste			
3 %	5 %	6 %			
		10 %			
6					
1					
500					
100					
	>6				

	/0	
LANDFILL WASTE	ACCEPTANCE CRITE	RIA SPECIFICATION
BS EN 12457-2	-2002 LIMIT VALUES (mg/kg) at L/S 10
Inert Waste	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15000	25000
10	150	500
1000	20000	50000
4000	60000	100000
1		
500	800	1000

Comments: (comments are beyond the scope of UKAS accreditation)

Key (at clients request):

Individual test result exceeds the landfill waste acceptance criteria limit for inert waste.

Certificate No. 18-09563-Issue 1-Page: 9
Site Address Poole Park Minature Railway

ACSE Sample Number 38180

Sample ID 426814 - 18-97284

 Clients Sample Ref.
 TP13

 Material Source
 In Situ

 Location / Sample Depth (m)
 0.00-0.64m

Time Sampled

Date Sampled 01/10/2018

Sample Deviating Codes ef

Client's Sample Description
ACS Testing Material Description

Multicoloured gravelly SAND

Principal Matrix (as received) SAND



LANDFILL WASTE ACCEPTANCE CRITERIA (WAC)						
TEST VALUES						
Mass of Undried Test Portion (Mw)	90.0	g	Volume of Leachant Used (L10)	0.900	litres	
Mass of Dried Test Portion (Mp)	90.0	g				
Moisture Content Ratio (MC)	0.0	%	Volume of Eluate (VE10)	0.846	litres	
Dry Matter Content (DR)	100	%				

SOLIDS ANALYSIS Analyte	Method	AS	Sample Condition for	Results
,			Analysis	
Total Organic Carbon (%)	MT/ACSE/102	*	As received	2.55
Loss on ignition (%)	MT/ACSE/302	*f	Air dried at 30 ℃	2.1
BTEX (mg/kg)	MT/ACSE/101	*ef	As received	< 0.60
PCBs (7 congeners) (mg/kg)	MT/ACSE/104	*	Air dried at 30℃	< 1.00
Mineral oil (C10 - C40) (mg/kg)	MT/ACSE/105	*#	As received	423
PAHs (mg/kg)	MT/ACSE/106	*#f	Air dried at 30℃	19.8
pH (units)	MT/ACSE/301	*ef	Air dried at 30℃	7.0
ELUATE ANALYSIS				
Analyte	Method	AS	Concentration in	Amount
•			Eluate	Leached
Eluate Preparation	LP/ACSE/104		(mg/l)	(mg/kg)
Liquid : Solid Ratio (L/S)	LP/ACSE/101	*	L/S 10	L/S 10
pH (units)	MT/ACSE/301	*	8.7	
Temperature (°C)	MT/ACSE/301		20	
Conductivity (mS/m)	MT/ACSE/303	*	4.34	
Arsenic	MT/ACSE/205	*	< 0.003	< 0.0300
Barium	MT/ACSE/205	*	0.0715	0.715
Cadmium	MT/ACSE/205	*	< 0.0008	< 0.008
Chromium (total)	MT/ACSE/205	*	0.002	0.023
Copper	MT/ACSE/205	*	0.015	0.145
Mercury	MT/ACSE/202	*	< 0.0001	< 0.0010
Molybdenum	MT/ACSE/205	*	0.0024	0.024
Nickel	MT/ACSE/205	*	0.0020	0.020
Lead	MT/ACSE/205	*	< 0.004	< 0.040
Antimony	MT/ACSE/205	*	< 0.003	< 0.030
Selenium	MT/ACSE/205	*	< 0.006	< 0.060
Zinc	MT/ACSE/205	*	< 0.002	< 0.020
Chloride	MT/ACSE/204	*	< 3.00	< 30.00
Fluoride	MT/ACSE/204	*	0.52	5.173
Sulphate	MT/ACSE/204	*	< 3.00	< 30.00
Total dissolved solids	MT/ACSE/304	*	< 25	< 100.0
Phenol index	MT/ACSE/107	*	< 0.05	< 0.50
Dissolved organic carbon	MT/ACSE/103	*	7.31	73.10

LANDFILL WASTE ACCEPTANCE CRITERIA SPECIFICATION					
Inert Waste	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste			
3 %	5 %	6 %			
		10 %			
6					
1					
500					
100					
	>6				

	>0	
LANDFILL WASTE	ACCEPTANCE CRITE	RIA SPECIFICATION
BS EN 12457-2	-2002 LIMIT VALUES (mg/kg) at L/S 10
Inert Waste	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15000	25000
10	150	500
1000	20000	50000
4000	60000	100000
1		
500	800	1000

Comments: (comments are beyond the scope of UKAS accreditation)

Key (at clients request):

Individual test result exceeds the landfill waste acceptance criteria limit for inert waste.

Certificate No. 18-09563-Issue 1-Page: 10
Site Address Poole Park Minature Railway

ACSE Sample Number 38182

Sample ID 426816 - 18-97284

Clients Sample Ref. TP14

Material Source In Situ

Location / Sample Depth (m) 0.15-0.60m

Time Sampled

Date Sampled 01/10/2018

Sample Deviating Codes ef

Client's Sample Description ACS Testing Material Description

Grey sandy GRAVEL

Principal Matrix (as received) SAND



LANDFILL WASTE ACCEPTANCE CRITERIA (WAC)						
TEST VALUES						
Mass of Undried Test Portion (Mw)	90.7	g	Volume of Leachant Used (L10)	0.899	litres	
Mass of Dried Test Portion (Mp)	90.0	g				
Moisture Content Ratio (MC)	0.8	%	Volume of Eluate (VE10)	0.868	litres	
Dry Matter Content (DR)	99.2	%				

Analyte	Method	AS	Sample Condition for Analysis	Results
Total Organic Carbon (%)	MT/ACSE/102	*	As received	15.4
Loss on ignition (%)	MT/ACSE/302	*f	Air dried at 30 °C	2.9
BTEX (mg/kg)	MT/ACSE/101	*ef	As received	< 0.60
PCBs (7 congeners) (mg/kg)	MT/ACSE/104	*	Air dried at 30 ℃	< 1.00
Mineral oil (C10 - C40) (mg/kg)	MT/ACSE/105	*#	As received	152
PAHs (mg/kg)	MT/ACSE/106	*#f	Air dried at 30 ℃	36.2
pH (units)	MT/ACSE/301	*ef	Air dried at 30°C	7.2
ELUATE ANALYSIS				
Analyte	Method	AS	Concentration in Eluate	Amount Leached
Eluate Preparation	LP/ACSE/104		(mg/l)	(mg/kg)
Liquid : Solid Ratio (L/S)	LP/ACSE/101	*	L/S 10	L/S 10
pH (units)	MT/ACSE/301	*	8.5	
Temperature (°C)	MT/ACSE/301		20	
Conductivity (mS/m)	MT/ACSE/303	*	5.10	
Arsenic	MT/ACSE/205	*	< 0.003	< 0.0300
Barium	MT/ACSE/205	*	0.0730	0.730
Cadmium	MT/ACSE/205	*	< 0.0008	< 0.008
Chromium (total)	MT/ACSE/205	*	0.003	0.027
Copper	MT/ACSE/205	*	0.023	0.233
Mercury	MT/ACSE/202	*	< 0.0001	< 0.0010
Molybdenum	MT/ACSE/205	*	0.0023	0.023
Nickel	MT/ACSE/205	*	0.0020	0.020
Lead	MT/ACSE/205	*	< 0.004	< 0.040
Antimony	MT/ACSE/205	*	< 0.003	< 0.030
Selenium	MT/ACSE/205	*	< 0.006	< 0.060
Zinc	MT/ACSE/205	*	< 0.002	< 0.020
Chloride	MT/ACSE/204	*	< 3.00	< 30.00
Fluoride	MT/ACSE/204	*	0.61	6.137
Sulphate	MT/ACSE/204	*	< 3.00	< 30.00
Total dissolved solids	MT/ACSE/304	*	60	600.0
Phenol index	MT/ACSE/107	*	< 0.05	< 0.50
Dissolved organic carbon	MT/ACSE/103	*	4.54	45.40

LANDFILL WASTE ACCEPTANCE CRITERIA SPECIFICATION		
Inert Waste	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste
3 %	5 %	6 %
		10 %
6		
1		
500		
100		
	>6	

LANDFILL WASTE ACCEPTANCE CRITERIA SPECIFICATION				
BS EN 12457-2-2002 LIMIT VALUES (mg/kg) at L/S 10				
Inert Waste	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste		
0.5	2	25		
20	100	300		
0.04	1	5		
0.5	10	70		
2	50	100		
0.01	0.2	2		
0.5	10	30		
0.4	10	40		
0.5	10	50		
0.06	0.7	5		
0.1	0.5	7		
4	50	200		
800	15000	25000		
10	150	500		
1000	20000	50000		
4000	60000	100000		
1				
500	800	1000		

Comments: (comments are beyond the scope of UKAS accreditation)

Key (at clients request):

Individual test result exceeds the landfill waste acceptance criteria limit for inert waste.

Certificate No. 18-09563-Issue 1-Page: 11
Site Address Poole Park Minature Railway



Technical Information for Analytical Results

Analysis

* - denotes analysis covered by our UKAS accreditation

- denoted analysis covered by our MCERTS certification

AD = Sample tested in air dried condition.

AR = Sample tested in as-received condition.

D = Sample tested in dry condition.

L = Laboratory prepared leachate

SC = sub contracted

All MCERTS certified test values reported on a dry weight basis.

UKAS uncertainty available on request.

Where results are less than the limit of detection, the value of 0 is used in calculations.

For Phenol index, m- and p- cresol are reported as mixed isomers, calibrated with reference to a p-cresol reference solution.

The individual concentrations of m- and p- cresol cannot be quantified using this method, however, the result reported for the mixed isomers will be an over estimation of the true result in samples where m-cresol is present.

Deviating Codes

Deviating Samples

The use of any of the following symbols indicates that the sample was deviating and it is possible therefore that the results provided may not be representative of the sample taken.

- a The date and /or time of sampling has not been provided, therefore it is not known if the time lapse between sampling and analysis has exceeded the acceptable holding time(s)*.
- b The test item was received in a container which has not been recommended*
- c On receipt, the temperature of the sample received was found to fall outside the recommendations of BS ISO 18512:2007, Soil Quality. Guidance on long and short term storage of soil samples*.
- d The sample was received in a container that had not been filled as recommended*
- e The delay between sampling and sample receipt is greater than the recommended holding time for the analyte of interest in this matrix*.
- f The delay between sampling and analysis is greater than the recommended holding time for the analyte of interest in this matrix*.

*In accordance with the requirements of Technical Policy Statement TPS 63; UKAS Policy on Deviating Samples, all UKAS accredited testing laboratories are required to notify their clients that calibration or test results may be invalid where samples are found to be deviating. It is the opinion of ACSE that the term invalid should be interpreted as 'not fully representative of the sample taken at source'.

The following Additional Deviating Sample Codes may also be used.

I/S - Insufficient sample mass/volume received for accurate quantification of this analyte.

 $\ensuremath{\mathsf{U/S}}-$ The sample received was deemed unsuitable for accurate determination of this analyte using the Test Methods available

Head Office Registered Office
Unit 14B Unit 14B
Blackhill Road West
Holton Heath Trading Park
Poole Porset BH16 6LE
Registered Office
Unit 14B
Blackhill Road West
Holton Heath Trading Park
Poole
Dorset BH16 6LE

Tel 01202 628680 ACS Environmental Testing Limited Registered in England and Wales No. 6000065

Quality Testing & Materials Consultancy to the Construction Industry

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Poole Park Miniature Railway – Borough of Poole Factual Report

APPENDIX C

Photographic Record



Photo 1: TP01 prior to excavation.





Photo 2: TP01 track bed





Photo 3: Bridge deck slab revealed within TP01





Photo 4 TP01 arisings



Photo 4: TP02 prior to excavation





Photo 5: Track bed revealed within TP02



Photo 6: Bridge deck slab revealed within TP02





Photo 7: TP03 prior to excavation.



Photo 8: Groundwater within TP03





Photo 9: TP03 arisings.

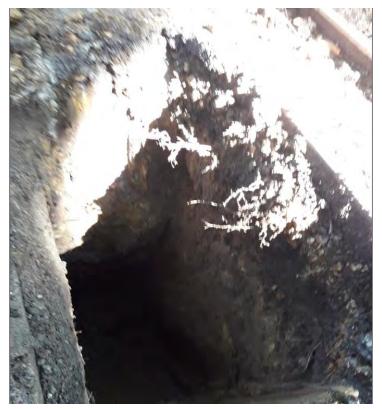


Photo 10: Track bed revealed within TP04





Photo 11: TP04 arisings



Photo 12: Track bed revealed within TP05





Photo13: Groundwater revealed withinTP05



Photo 14: TP05 arisings





Photo 15: TP06 after excavation



Photo 16: Track bed revealed within TP06





Photo 17: Arisings from TP06



Photo 18: Track bed revealed within TP07





Photo19: Arisings from TP07



Photo 20: Track bed revealed within WS08





Photo 21: TP08 arisings



Photo 22: Track bed revealed within TP09





Photo 23: Alternate view of track bed and ground profile within TP09



Photo 24: Groundwater seepage within TP09





Photo 25: TP09 arisings



Photo 26: Track bed revealed within TP10





Photo 27: TP10 arisings



Photo 28: View of the track bed revealed within TP11





Photo 29: Groundwater seepage within TP11



Photo 30: TP11 arisings





Photo 31: View of the track bed within TP12



Photo 32: General view of TP12





Photo33: Limestone boulder excavated from TP12



Photo 34: View of the arisings from TP12





Photo 35: View of the track bed material within TP13.



Photo 36: View of the arisings from TP13





Photo 37: View of the track bed within TP14



Photo 38: View of the track bed and made ground within TP14





Photo 39: View of the arisings from TP14



Photo 40: View of the track bed within TP15





Photo 41: Groundwater seepage within TP15



Photo 42: View of the arisings from TP15





Photo 43: Bridge investigation; Drilling of WS02 at southern extent of bridge





Photo 44: Drilling of WS06



Photo 45: Coring through bridge deck at location DPA





Photo 46: Underside of bridge arch adjacent to location DPA



Photo 47: Core through bridge deck at location DPA





Photo 48: Recovered sample from bridge deck arch at location DPA



Photo 49: Recovered sample from the sub-slab beneath the bridge at location DPA



Poole Park Miniature Railway – Borough of Poole Factual Report

APPENDIX D

CAT Waste Output

Classification Assessment Tool of Soil Wastes - Hazard Summary Sheet

Site Name	Poole Park Minature Railway
Location	Poole Park Minature Railway
Site ID	
Job Number	18-09563
Date	11/9/2018
User Name	edward.davies@acstesting.co.uk
Company Name	ACS Testing Ltd

Hole ID	Sample Depth	Hazardous Waste Y/N	HP1	HP2	HP3	HP4	HP5	HP6	HP7	HP8	HP9	HP10	HP11	HP12	HP13	HP14	HP15	HP16
TP01	0.23-0.42m	N	No	No	No	No	No	No	No									
TP02	0.21-0.63m	Y	No	No	No	No	No	No	Yes	No	No	No	Yes	No	No	No	No	No
TP05	0.00-0.66m	N	No	No	No	No	No	No	No									
TP07	0.08-0.32m	N	No	No	No	No	No	No	No									
TP07	0.47-0.74m	N	No	No	No	No	No	No	No									
TP09	0.00-0.39m	N	No	No	No	No	No	No	No									
TP11	0.00-0.21m	N	No	No	No	No	No	No	No									
TP13	0.00-0.64m	N	No	No	No	No	No	No	No									
TP14	0.15-0.60m	N	No	No	No	No	No	No	No									

Site Name	Poole Park Minature Railway
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Site ID	
Job Number	18-09563
Date	11/9/2018
User Name	edward.davies@acstesting.co.uk
Company Name	ACS Testing Ltd

Hole ID	Sample Depth	Contaminant	Contaminant Concentration (%)	Hazardous Waste Y/N	Hazard Property	Individual Hazard Statements Exceeded	Cumulative Hazard Statements Exceeded	Additional Hazard Statements (see notes section)
38167	0m	pН	0.00000	N				
38167	0m	Benzene	0.00001	N				H225 test
38167	0m	Toluene	0.00001	N				H225 test
38167	0m	Naphthalenene	0.00001	N				H228 test
38167	0m	Acenaphthylene	0.00008	N				
38167	0m	Acenaphthene	0.00001	N				
38167	0m	Fluorene	0.00002	N				
38167	0m	Phenanthrene	0.00007	N				
38167	0m	Anthracene	0.00009	N				
38167	0m	Fluoranthene	0.00027	N				
38167	0m	Pyrene	0.00032	N				
38167	0m	Benzo(a)anthracene	0.00026	N				
38167	0m	Chrysene	0.00027	N				
38167	0m	Benzo(b)fluoranthene	0.00052	N				
38167	0m	Benzo(k)fluoranthene	0.00016	N				
38167	0m	Benzo(a)pyrene	0.00040	N				
38167	0m	Indeno(1,2,3-cd)pyrene	0.00036	N				
38167	0m	Di-benz(a,h,)anthracene	0.00010	N				
38167	0m	Benzo(g,h,i)perylene	0.00039	N				
38167	0m	hydrocarbon/oil with marker	0.03630	N				H225 test
38167	0m	Arsenic	0.00183	N				
38167	0m	Chromium (Total)	0.00596	N				
38167	0m	Copper	0.00580	N				
38167	0m	Lead	0.00000	N				
38167	0m	Leadx	0.00896	N				
38167	0m	Mercury	0.00001	N				
38167	0m	Nickel	0.00319	N				
38167	0m	Zinc	0.00000	N				
38167	0m	Zincx	0.07136	N				
38169	0m	pН	0.00000	N				
38169	0m	Benzene	0.00001	N				H225 test
38169	0m	Toluene	0.00001	N				H225 test
38169	0m	Naphthalenene	0.00002	N				H228 test
38169	0m	Acenaphthylene	0.00014	N				
38169	0m	Acenaphthene	0.00003	N				
38169	0m	Fluorene	0.00004	N				
38169	0m	Phenanthrene	0.00024	N				
38169	0m	Anthracene	0.00022	N				

Site Name	Poole Park Minature Railway
Location	Poole Park Minature Railway
Site ID	
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User Name	edward.davies@acstesting.co.uk
Company Name	ACS Testing Ltd

Hole ID	Sample Depth	Contaminant	Contaminant Concentration (%)	Hazardous Waste Y/N	Hazard Property	Individual Hazard Statements Exceeded	Cumulative Hazard Statements Exceeded	Additional Hazard Statements (see notes section)
38169	0m	Fluoranthene	0.00078	N				
38169	0m	Pyrene	0.00079	N				
38169	0m	Benzo(a)anthracene	0.00049	N				
38169	0m	Chrysene	0.00046	N				
38169	0m	Benzo(b)fluoranthene	0.00076	N				
38169	0m	Benzo(k)fluoranthene	0.00022	N				
38169	0m	Benzo(a)pyrene	0.00062	N				
38169	0m	Indeno(1,2,3-cd)pyrene	0.00044	N				
38169	0m	Di-benz(a,h,)anthracene	0.00019	N				
38169	0m	Benzo(g,h,i)perylene	0.00046	N				
38169	0m	hydrocarbon/oil with marker	0.10120	Υ	HP7, HP11	H350, H340		H225 test
38169	0m	Arsenic	0.00272	N				
38169	0m	Chromium (Total)	0.00754	N				
38169	0m	Copper	0.00462	N				
38169	0m	Lead	0.00739	N				
38169	0m	Mercury	0.00001	N				
38169	0m	Nickel	0.00301	N				
38169	0m	Zinc	0.00000	N				
38169	0m	Zincx	0.01738	N				
38171	0m	pH	0.00000	N				
38171	0m	Benzene	0.00001	N				H225 test
38171	0m	Naphthalenene	0.00007	N				H228 test
38171	0m	Acenaphthylene	0.00039	N				
38171	0m	Acenaphthene	0.00003	N				
38171	0m	Fluorene	0.00007	N				
38171	0m	Phenanthrene	0.00030	N				
38171	0m	Anthracene	0.00037	N				
38171	0m	Fluoranthene	0.00123	N				
38171	0m	Pyrene	0.00131	N				
38171	0m	Benzo(a)anthracene	0.00083	N				
38171	0m	Chrysene	0.00109	N				
38171	0m	Benzo(b)fluoranthene	0.00200	N				
38171	0m	Benzo(k)fluoranthene	0.00060	N				
38171	0m	Benzo(a)pyrene	0.00142	N				
38171	0m	Indeno(1,2,3-cd)pyrene	0.00135	N				
38171	0m	Di-benz(a,h,)anthracene	0.00047	N				
38171	0m	Benzo(g,h,i)perylene	0.00190	N				
38171	0m	hydrocarbon/oil with marker	0.02560	N				H225 test

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Site ID	
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Date	11/9/2018
User Name	edward.davies@acstesting.co.uk
Company Name	ACS Testing Ltd

Hole ID	Sample Depth	Contaminant	Contaminant Concentration (%)	Hazardous Waste Y/N	Hazard Property	Individual Hazard Statements Exceeded	Cumulative Hazard Statements Exceeded	Additional Hazard Statements (see notes section)
38171	0m	Arsenic	0.00273	N				
38171	0m	Chromium (Total)	0.00567	N				
38171	0m	Copper	0.03592	N				
38171	0m	Lead	0.00928	N				
38171	0m	Mercury	0.00004	N				
38171	0m	Nickel	0.00496	N				
38171	0m	Zinc	0.00000	N				
38171	0m	Zincx	0.03086	N				
38173	0m	pН	0.00000	N				
38173	0m	Naphthalenene	0.00001	N				H228 test
38173	0m	Acenaphthylene	0.00007	N				
38173	0m	Fluorene	0.00001	N				
38173	0m	Phenanthrene	0.00003	N				
38173	0m	Anthracene	0.00005	N				
38173	0m	Fluoranthene	0.00013	N				
38173	0m	Pyrene	0.00016	N				
38173	0m	Benzo(a)anthracene	0.00015	N				
38173	0m	Chrysene	0.00015	N				
38173	0m	Benzo(b)fluoranthene	0.00035	N				
38173	0m	Benzo(k)fluoranthene	0.00010	N				
38173	0m	Benzo(a)pyrene	0.00025	N				
38173	0m	Indeno(1,2,3-cd)pyrene	0.00022	N				
38173	0m	Di-benz(a,h,)anthracene	0.00006	N				
38173	0m	Benzo(g,h,i)perylene	0.00021	N				
38173	0m	hydrocarbon/oil with marker	0.03840	N				H225 test
38173	0m	Arsenic	0.00164	N				
38173	0m	Chromium (Total)	0.00422	N				
38173	0m	Copper	0.00269	N				
38173	0m	Lead	0.00598	N				
38173	0m	Mercury	0.00001	N				
38173	0m	Nickel	0.00147	N				
38173	0m	Zinc	0.00000	N				
38173	0m	Zincx	0.00568	N				
38174	0m	pН	0.00000	N				
38174	0m	Benzene	0.00003	N				H225 test
38174	0m	Naphthalenene	0.00005	N				H228 test
38174	0m	Acenaphthene	0.00007	N				
38174	0m	Fluorene	0.00006	N				

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Site Name	Poole Park Minature Railway
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Site ID	
Job Number	18-09563
Date	11/9/2018
User Name	edward.davies@acstesting.co.uk
Company Name	ACS Testing Ltd

Hole ID	Sample Depth	Contaminant	Contaminant Concentration (%)	Hazardous Waste Y/N	Hazard Property	Individual Hazard Statements Exceeded	Cumulative Hazard Statements Exceeded	Additional Hazard Statements (see notes section)
38174	0m	Phenanthrene	0.00009	N				
38174	0m	Anthracene	0.00002	N				
38174	0m	Fluoranthene	0.00004	N				
38174	0m	Pyrene	0.00004	N				
38174	0m	Benzo(a)anthracene	0.00003	N				
38174	0m	Chrysene	0.00002	N				
38174	0m	Benzo(b)fluoranthene	0.00004	N				
38174	0m	Benzo(k)fluoranthene	0.00001	N				
38174	0m	Benzo(a)pyrene	0.00003	N				
38174	0m	Indeno(1,2,3-cd)pyrene	0.00003	N				
38174	0m	Di-benz(a,h,)anthracene	0.00002	N				
38174	0m	Benzo(g,h,i)perylene	0.00002	N				
38174	0m	hydrocarbon/oil with marker	0.01140	N				H225 test
38174	0m	Arsenic	0.00330	N				
38174	0m	Chromium (Total)	0.00586	N				
38174	0m	Copper	0.00251	N				
38174	0m	Lead	0.00791	N				
38174	0m	Mercury	0.00001	N				
38174	0m	Nickel	0.00246	N				
38174	0m	Zinc	0.00000	N				
38174	0m	Zincx	0.00704	N				
38176	0m	pН	0.00000	N				
38176	0m	Benzene	0.00001	N				H225 test
38176	0m	Toluene	0.00001	N				H225 test
38176	0m	Naphthalenene	0.00001	N				H228 test
38176	0m	Acenaphthylene	0.00004	N				
38176	0m	Fluorene	0.00001	N				
38176	0m	Phenanthrene	0.00004	N				
38176	0m	Anthracene	0.00003	N				
38176	0m	Fluoranthene	0.00012	N				
38176	0m	Pyrene	0.00011	N				
38176	0m	Benzo(a)anthracene	0.00011	N				
38176	0m	Chrysene	0.00010	N				
38176	0m	Benzo(b)fluoranthene	0.00017	N				
38176	0m	Benzo(k)fluoranthene	0.00007	N				
38176	0m	Benzo(a)pyrene	0.00013	N				
38176	0m	Indeno(1,2,3-cd)pyrene	0.00009	N				
38176	0m	Di-benz(a,h,)anthracene	0.00003	N				

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Site Name	Poole Park Minature Railway
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Site ID	
Job Number	18-09563
Date	11/9/2018
User Name	edward.davies@acstesting.co.uk
Company Name	ACS Testing Ltd

Hole ID	Sample Depth	Contaminant	Contaminant Concentration (%)	Hazardous Waste Y/N	Hazard Property	Individual Hazard Statements Exceeded	Cumulative Hazard Statements Exceeded	Additional Hazard Statements (see notes section)
38176	0m	Benzo(g,h,i)perylene 0.00009		N				
38176	0m	Arsenic	0.00151	N				
38176	0m	Chromium (Total)	0.00206	N				
38176	0m	Copper	0.01964	N				
38176	0m	Lead	0.00000	N				
38176	0m	Leadx	0.01440	N				
38176	0m	Mercury	0.00002	N				
38176	0m	Nickel	0.00167	N				
38176	0m	Zinc	0.00000	N				
38176	0m	Zincx	0.00706	N				
38178	0m	pН	0.00000	N				
38178	0m	Benzene	0.00003	N				H225 test
38178	0m	Toluene	0.00001	N				H225 test
38178	0m	Naphthalenene	0.00002	N				H228 test
38178	0m	Acenaphthylene	0.00008	N				
38178	0m	Acenaphthene	0.00001	N				
38178	0m	Fluorene	0.00002	N				
38178	0m	Phenanthrene	0.00007	N				
38178	0m	Anthracene	0.00006	N				
38178	0m	0m Fluoranthene		N				
38178	0m Pyrene		0.00018	N				
38178	0m Benzo(a)anthracene		0.00015	N				
38178	0m Chrysene (0.00015	N				
38178	0m	Benzo(b)fluoranthene	0.00027	N				
38178	0m	Benzo(k)fluoranthene	0.00011	N				
38178	0m	Benzo(a)pyrene	0.00020	N				
38178	0m	Indeno(1,2,3-cd)pyrene	0.00015	N				
38178	0m	Di-benz(a,h,)anthracene	0.00004	N				
38178	0m	Benzo(g,h,i)perylene	0.00014	N				
38178	0m	hydrocarbon/oil with marker	0.04100	N				H225 test
38178	0m	Arsenic	0.00250	N				
38178	0m	Chromium (Total)	0.00313	N				
38178	0m	Copper	0.01693	N				
38178	0m	Lead	0.00608	N				
38178	0m	Mercury	0.00002	N				
38178	0m	Nickel	0.00319	N				
38178	0m	Zinc	0.00000	N				
38178	0m	Zincx	0.05506	N				

Site Name	Poole Park Minature Railway
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Company Name	ACS Testing Ltd

Hole ID	Sample Depth	Contaminant	Contaminant Concentration (%)	Hazardous Waste Y/N	Hazard Property	Individual Hazard Statements Exceeded	Cumulative Hazard Statements Exceeded	Additional Hazard Statements (see notes section)
38180	0m	pН	0.00000	N				(222-222-22)
38180	0m	Benzene	0.00001	N				H225 test
38180	0m	Naphthalenene	0.00007	N				H228 test
38180	0m	Acenaphthylene	0.00005	N				1.25 (66)
38180	0m	Acenaphthene	0.00001	N				
38180	0m	Fluorene	0.00001	N				
38180	0m	Phenanthrene	0.00008	N				
38180	0m	Anthracene	0.00005	N				
38180	0m	Fluoranthene	0.00024	N				
38180	0m	Pyrene	0.00022	N				
38180	0m	Benzo(a)anthracene	0.00019	N				
38180	0m	Chrysene	0.00017	N				
38180	0m	Benzo(b)fluoranthene	0.00030	N				
38180	0m	Benzo(k)fluoranthene	0.00009	N				
38180	0m	Benzo(a)pyrene	0.00003	N				
38180	0m	Indeno(1,2,3-cd)pyrene	0.00021	N				
38180	0m	Di-benz(a,h,)anthracene	0.00015	N				
38180	0m	Benzo(g,h,i)perylene	0.00016	N				
38180	0m	hydrocarbon/oil with marker	0.04230	N				H225 test
38180	0m	Arsenic	0.00184	N				TIEEG (GGC
38180	0m Chromium (Total)		0.00228	N				
38180	Om Copper		0.03039	N				
38180	0m	Lead	0.00000	N				
38180	0m	Leadx	0.02040	N				
38180	0m	Mercury	0.00007	N				
38180	0m	Nickel	0.00269	N				
38180	0m	Zinc	0.00000	N				
38180	0m	Zincx	0.02351	N				
38182	0m	pH	0.00000	N				
38182	0m	Benzene	0.00001	N				H225 test
38182	0m	Naphthalenene	0.00006	N				H228 test
38182	0m	Acenaphthylene	0.00005	N				
38182	0m	Acenaphthene	0.00001	N				†
38182	0m	Fluorene	0.00001	N				†
38182	0m	Phenanthrene	0.00022	N				
38182	0m	Anthracene	0.00008	N				
38182	0m	Fluoranthene	0.00047	N				†
38182	0m	Pyrene	0.00047	N				†

TKINS CatWasteSoil Classification Assessment Tool of Soil Wastes - Individual Compound Information

Site Name	Poole Park Minature Railway
Location	Poole Park Minature Railway
Site ID	
Job Number	18-09563
Date	11/9/2018
User Name	edward.davies@acstesting.co.uk
Company Name	ACS Testing Ltd

Hole ID	Sample Depth	Contaminant	Contaminant Concentration (%)	Hazardous Waste Y/N	Hazard Property	Individual Hazard Statements Exceeded	Cumulative Hazard Statements Exceeded	Additional Hazard Statements (see notes section)
38182	0m	Benzo(a)anthracene	0.00028	N				
38182	0m	Chrysene	0.00031	N				
38182	0m	Benzo(b)fluoranthene	0.00048	N				
38182	0m	Benzo(k)fluoranthene	0.00022	N				
38182	0m	Benzo(a)pyrene	0.00033	N				
38182	0m	Indeno(1,2,3-cd)pyrene	0.00030	N				
38182	0m	Di-benz(a,h,)anthracene	0.00010	N				
38182	0m	Benzo(g,h,i)perylene	0.00029	N				
38182	0m	hydrocarbon/oil with marker	0.01520	N				H225 test
38182	0m	Arsenic	0.00249	N				
38182	0m	Chromium (Total)	0.00681	N				
38182	0m	Copper	0.05853	N				
38182	0m	Lead	0.00000	N				
38182	0m	Leadx	0.01930	N				
38182	0m	Mercury	0.00002	N				
38182	0m	Nickel	0.00751	N				
38182	0m	Zinc	0.00000	N				
38182	0m	Zincx	0.01820	N				





Notes - Additional Information on Hazard Properties

		11010	s - Additional information on mazard Properties
Hazardous Property	Description	Hazard Statement	Note
HP1	Explosive	H200, H201, H202, H203, H204, H240 and H241	A waste is assessed for HP1 via test methods, rather than a concentration limit. If you have substances or a mixture containing explosive properties the waste should be tested in accordance with the European Chemical Agency's guidance on the application of the CLP Criteria.
HP2	Oxidising	H270, H271, H272	A waste is assessed for HP2 via test methods, rather than a concentration limit. If you have substances or a mixture containing oxidising properties the waste should be tested in accordance with the European Chemical Agency's guidance on the application of the CLP Criteria.
HP3	Flammable	H220 to H226, H228, H242, H250, H251m H252, H260, H261	A waste is assessed for HP3 via test methods, rather than a concentration limit. If you have substances or a mixture containing flammable properties the waste should be tested in accordance with the European Chemical Agency's guidance on the application of the CLP Criteria. If a waste contains either H220, H221, H260 or H261 a calculation can be performed to identify the minimum amount of that substance that will trigger HP3.
HP5	Specific Target Organ Toxicity (STOT)	H304	Should a waste contain two or more compounds displaying H304 (Asp. Tox 1) and equal or exceed its specific concentration limit of 10%, then a waste will be hazardous by HP5 if its kinematic viscosity exceeds 20.5 mm²/s. Guidance should be sought from the CLP Criteria.
HP9	Infectious	N/A	A waste is assessed for HP9 via further testing, rather than a concentration limit. In cases where there is the potential for toxins to be present, further testing will be required. For healthcare waste reference should be made to the Department of health guidance: Safe management of healthcare waste.
HP12	Release of acute toxic gas	EUH029, EUH031, EUH032, H260 or H261	A waste is assessed for HP12 via test methods, rather than a concentration limit. If you have substances or a mixture that may release acute toxic gas the waste should be tested in accordance with the European Chemical Agency's guidance on the application of the CLP Criteria.
HP15	Explosive or explosive properties	H205, EUH001, EUH019 or EUH044	A waste is assessed for HP15 via test methods, rather than a concentration limit. If you have substances or a mixture that may exhibit explosive or explosive properties the waste should be tested in accordance with the European Chemical Agency's guidance on the application of the CLP Criteria.
HP16	Persistent organic pollutants	N/A	A waste is considered hazardous if the concentration of one or more compound (persistent organic pollutant) as listed in Appendix C of Environment Agency guidance WM3 is above its assigned concentration limit. For reference for dioxins and furans, this assessment incorporates the use of specific toxicity equivalent factors.