Appendix B: Site Investigation Information

Brislington Meadows. Factual Report on Ground Investigation (report Ref: 36142)

BRISLINGTON MEADOWS

FACTUAL REPORT ON GROUND INVESTIGATION

Prepared for CAMPBELLREITH

Report Ref: 36142

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BRISLINGTON MEADOWS

FACTUAL REPORT ON GROUND INVESTIGATION

Prepared for CAMPBELLREITH

Report Ref: 36142

PROJECT: Housing development with associated access, public open space and ecological corridors.

CONSULTANT: CampbellReith

VOLUME - VERSION	STATUS	ORIGINATOR	CHECKER	APPROVED	DATE
1 of 1 – A	DRAFT	JE	JH	-	

ORIGINATOR	APPROVER
Joss Evans Senior Engineering Geologist	John Hanson Director

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REPORT **PAGE**

FIGURES **Nos.**

APPENDICES

1. INTRODUCTION

It is proposed to develop a site for housing with associated access, public open space and ecological corridors at Brislington Meadows, Bristol. Geotechnical Engineering Limited (GEL) was instructed by CampbellReith to carry out an investigation to determine the ground conditions.

The scope of works and terms and conditions of appointment were specified by the Client and GEL correspondence reference T31666, dated 20th October 2020. The investigation was carried out under direction and supervision of the Client.

This report describes the investigation and presents the findings.

2. SITE LOCATION AND GEOLOGY

The site is situated at Brislington Meadows, Bonville Road, Bristol, BS4 4NZ, Bristol and may be located by its National Grid co-ordinates ST 626 711.

The British Geological Survey (BGS) England and Wales (ST67SW, 1:10,560, 1961) indicate the site is underlain by Pennant Sandstone Formation of Carboniferous age. No superficial deposits are indicated.

3. GROUND INVESTIGATION

3.1 Fieldwork

The fieldwork was carried out in general accordance with BS5930:2015+A1:2020 during the period 2nd November to 20th November 2020 and comprised six rotary boreholes, twenty trial pits, four soakaways test and three dynamic cone penetrometer tests.

The exploratory hole locations were selected by the Consultant and set out by this Company and are shown on Figure 1. The ground level and co-ordinates at each exploratory hole were established by this Company using GPS techniques.

The boreholes, referenced BH01 to BH06 (Appendix A), were formed using a track-mounted Geotechnical Pioneer Rig. Initially, an inspection pit was hand excavated at each borehole location to a maximum depth of 1.20m to check for buried services. Disturbed samples were taken and retained in a combination of plastic tubs, bags and glass jars. Heavy duty dynamic sampling techniques were then employed to produce a continuous disturbed sample of 112mm nominal diameter. The samples were recovered in semi-rigid plastic liner.

On refusal to dynamic sampling the boreholes were continued by rotary core drilling techniques utilising a water flush. A double-tube swivel core barrel with semi-rigid plastic liner was utilised to recover a continuous sample of 90mm diameter.

The dynamic samples and rotary core were extracted horizontally from the sampler and core barrel respectively, the semi-rigid liner was cut to length and caps placed at each end to retain moisture content. All samples and core were retained in sequence in labelled, wooden coreboxes.

In BH01, BH02, BH04, BH05 and BH06, the boreholes were advanced from 14.70m using rotary open hole drilling techniques with a 70mm diameter tri-cone bit utilising water as the flushing medium. This technique was utilised in BH05 from 19.20m depth.

The penetration rate, the amount of flush and type of drill cuttings were continuously monitored by an Engineering Geologist as the probeholes were drilled.

On completion, slotted standpipes were installed in BH01 to BH06. Each standpipe consisted of a 50mm ID PVC slotted tube set in a granular filter medium and sealed above and below

with a bentonite plug. The installations in BH01 to BH05 were protected at the surface by a lockable stopcock cover set in concrete, while BH06 was protected by a steel borehole helmet. Installation details are given on the relevant borehole log.

During the first monitoring visit on 30th November 2020, it was noted that the installation in BH05 required repair. This resulted in groundwater dip data for 30th November and groundwater and gas data for 17th December 2020 being unavailable for BH05.

The installations were monitored for gas flow and then tested for methane, carbon dioxide, oxygen, hydrogen sulphide, and carbon monoxide using a Gas Data GFM 435 gas analyser. Subsequent readings, along with water level records, are tabulated in Appendix A.

The installations were monitored for Volatile Organic Compounds (VOC's) using a MiniRAE 2000 Portable Photo-Ionisation Detector (PID) with a 10.6eV gas discharge lamp. The detector uses an ultra violet light source to break down the chemicals into positive and negative ions (ionisation). The detector measures the charge of the ionised gas and converts the signal into current. The current is then amplified and displayed as "ppm"; after measurement the ions reform the original gas or vapour allowing it to be sampled. The readings are presented in Appendix A.

The trial pits, referenced TP01 to TP16 and SA01 to SA04 (Appendix A), were formed by a wheeled excavator with a 0.60m wide backactor bucket. Representative disturbed samples were taken and retained in sealed plastic bags and airtight containers to retain moisture content.

Soakaway tests were carried out in trial pits SA01 to SA04, in general accordance with BRE DG 365 (2016). The excavation sides were squared using the excavator bucket and the dimensions recorded within the test section. The trial pits were partially filled with clean water using a

dedicated bowser with a 75mm diameter outlet and the fall in level recorded against time. The results are presented in Appendix A.

Dynamic Cone Penetrometer tests (DCP), referenced TP14 DCP to TP16 DCP (Appendix A), were carried out adjacent to TP14 to TP16 using a CNS Farnell A2465 dynamic cone penetrometer. Probe depths were measured with respect to ground level and the number of blows for the penetration of the probe was recorded. Equivalent CBR values have been calculated and presented with the results in Appendix A.

On completion, all trial pits were backfilled with arisings compacted in suitable layers by the excavator bucket. The ground surface was left slightly proud to accommodate the future inevitable settlement of the backfill.

Samples for chemical analyses were dispatched from site directly to i2 Laboratories under a Chain of Custody. On completion of fieldwork all other samples were brought to this Company's laboratory for logging, testing and storage.

3.2 Logging

The logging of soils and rocks was carried out by an Engineering Geologist in general accordance with BS5930:2015+A1:2020. A key to the exploratory hole logs is presented in Appendix A.

Detailed descriptions of the samples are given in the borehole logs, Appendix A, along with details of sampling, groundwater ingress, installations and relevant comments on drilling techniques.

The hand excavated inspection pits and trial pit were logged in situ to a depth of approximately 1.20m and thereafter from the surface. Detailed descriptions are given on

the pit logs, Appendix A, along with details of sampling and in situ testing, groundwater ingress and relevant comments on stability and excavatability.

3.3 Laboratory Testing

A schedule of laboratory tests was prepared by the Consultant, the following tests being carried out in accordance with BS1377:1990, unless stated otherwise. The number in brackets refers to the test number given in that standard. The results are presented in Appendix B.

The natural water content was determined on thirteen selected samples in accordance with BS EN ISO 17892-1:2014.

Liquid limit, plastic limit and plasticity index tests [Part 2:4.3, 5.3 and 5.4] were carried out on thirteen selected samples. An Atterberg line plot has also been presented.

Particle size distributions were determined in accordance with BS EN ISO 17892-4:2016 for fourteen samples by wet sieving [5.2]. The fine fractions of one of these samples was further analysed by sedimentation using the pipette method [5.4]. The results are presented as grading curves.

The compaction characteristics of five selected soil samples were investigated using a 2.5kg rammer [Part 4:3.2 and 3.3/3.4]. The results are presented as a plot of dry density against moisture content.

The natural moisture content of rock was determined on seven selected cores and point load index tests were carried out on ten selected lengths of core in accordance with ISRM (2007).

The BRE SD1 (2005) suite of tests was carried out on six samples by Chemtest using in-house methods.

The organic matter content was determined for five selected samples using in-house methods by Chemtest.

Selected samples were despatched to i2 Analytical Ltd., where chemical analyses were carried out to in-house methods for a suite of contaminants. The results are presented in Appendix C.

GEOTECHNICAL ENGINEERING LIMITED

4. REFERENCES

British Standards Institution (2015): Code of practice for ground investigations. BS 5930:2015+A1:2020.

British Standards Institution (2016): Methods of test for soils for civil engineering purposes – Part 1: General requirements and sample preparation. BS1377-1:2016.

British Standards Institution (1990): Methods of tests for soils for civil engineering purposes. BS 1377 Parts 2-9.

British Standards Institution (2014): Geotechnical investigation and testing – Laboratory testing of soil. Part 1: Determination of water content. BS EN ISO 17892-1:2014.

British Standards Institution (2016): Geotechnical investigation and testing – Laboratory testing of soil. Part 4: Determination of particle size distribution. BS EN ISO 17892-4:2016.

Building Research Establishment (2005): Concrete in aggressive ground. BRE Special Digest 1. Third Edition.

Building Research Establishment (2016): Soakaway Design. Digest DG 365.

International Society for Rock Mechanics (2007). The complete ISRM suggested methods for rock characterization, testing and monitoring: 1974-2006, edited by R Ulusay & J A Hudson. Ankara, Turkey: Turkish National Group of the International Society for Rock Mechanics.

Key.

North

Locations By Type - RC

Locations By Type - TP

Notes:

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Client: CAMPBELLREITH

Site: BRISLINGTON MEADOWS

Title: EXPLORATORY HOLE LOCATION PLAN

Drawn By:	JE	Checked By:	JH	Paper Size:	A3
Scale:	1:2500			Date:	February 2021
Contract:	36142			Figure:	1

APPENDIX A

FIELDWORK DATA

Geotechnical Engineering Limited

BOREHOLE LOG

BH01

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS — Sheet 1 of 4

Start Date 16 November 2020 — Easting 362559.9 — Scale 1:50

End Date 17 November 2020 — Northing 171237.2 — Ground Level 61.40mOD — Depth 30.00 m

sample no & type	sample depth (m) from	to	casing depth (m)	samp. /core range	If	water record depth (m)	instru -ment	test type & value	description	depth (m)	reduced level (m)	legend
1B	0.05	0.15							Grass over brown partially organic silty gravelly fine to coarse SAND. Gravel is subangular and subrounded fine to coarse sandstone. Frequent rootlets and roots (up to 4mm diam).	0.25	61.15	
1ES	0.05	0.15										
2D	0.05	0.15										
2ES	0.40	0.60										
3B	0.40	0.60										
4D	0.40	0.60										
									Reddish brown silty sandy subangular and subrounded fine to coarse sandstone GRAVEL.	1.00	60.40	
3ES	1.00	1.20										
5B	1.00	1.20										
6D	1.00	1.20										
			1.30						Medium strong grey fine to medium SANDSTONE recovered as reddish brown silty very sandy subangular and subrounded tabular fine to coarse GRAVEL.	1.40	60.00	
7L	1.20	1.30		100	NI							
8C	1.30	2.70		43	22							
				0	30				Medium strong thickly laminated to very thinly bedded reddish brown fine to coarse SANDSTONE. Bedding fractures are 5 to 15° extremely closely and very closely spaced planar rough rarely infilled with reddish brown silt. 1.80 - 2.20m: Becoming grey. 1.85 - 2.20m: Subvertical fracture stepped rough.	2.20	59.20	
					NI							
					50							
					140							
9C	2.70	4.20	1.30	100					Weak to moderately weak very thinly to thinly bedded light grey fine to coarse SANDSTONE with frequent carbonaceous laminae (up to 3mm). Bedding fractures (1) are stained reddish brown 10° to 20° very closely to closely spaced planar rough with frequently infilled reddish brown sandy silty clay . Fractures (2) are stained reddish brown 40° to 60° and randomly orientated very closely to closely spaced planar and stepped rough with rare red staining and reddish brown sandy infill. 2.70 - 3.00m: Recovered non intact.	4.10	57.30	
				54								
				7								
10C	4.20	5.70	1.30	100					Medium strong very thinly to thinly bedded grey fine to coarse SANDSTONE with rare carbonaceous laminae (up to 1mm). Fractures are 5° to 15° very closely to closely spaced planar rough rarely infilled with red sandy silty clay.	5.00	56.40	
				100								
				87								
					NI							
					60							
					160							
11C	5.70	7.20	1.30	100					Moderately weak medium bedded grey fine to medium SANDSTONE. Bedding fractures (1) are 10 to 20° closely to medium spaced planar and stepped rough. Fractures (2) are 55 to 65° closely to medium spaced stepped rough. 5.50 - 6.35m: Becoming reddish brown.	6.35	55.05	
				75								
				68								
					70							
					240							
					240							
12C	7.20	8.70	1.30	100	20				Weak locally very weak reddish brown medium to thickly bedded fine to coarse SANDSTONE. Bedding fractures (1) are 10 to 25° closely to medium spaced stepped rough rarely infilled with reddish brown clayey silty sand. Fractures (2) are 70° closely to medium spaced stepped rough frequently stained red.			
				100	150							
				100	400							
									Continued Next Page			

HOLE CONSTRUCTION

TOP (m)	BASE (m)	TYPE	PLANT USED
0.00	1.20	Inspection Pit	Hand tools.
1.20	1.30	Windowless Sampler	Geotechnical Pioneer Rig.
1.30	14.70	Rotary Core	Geotechnical Pioneer Rig.

WATER STRIKE Groundwater not encountered prior to use of flush

DEPTH (m)	CASING (m)	ROSE TO (m)	AFTER (min)	REMARKS

CASING DEPTH

DIAM (mm)	BASE (m)
140	1.30

BACKFILL

TOP (m)	BASE (m)	MATERIAL
0.00	0.30	Concrete
0.30	0.50	Gravel
0.50	2.90	Bentonite
2.90	13.00	Gravel

INSTRUMENTATION

DEPTH (m)	TYPE
13.00	Standpipe

AGS

CONTRACT **36142**

CHECKED

BARREL DIAMETER

DIAM (mm)	BASE (m)
128	2.70
116	14.70
70	30.00

HOLE PROGRESS

DATE TIME	DEPTH (m)	CASING (m)	WATER (m)
16-11-2020 09:10	0.00	Nil	Dry
16-11-2020 15:30	14.70	1.30	1.42
17-11-2020 08:00	14.70	1.30	1.80
17-11-2020 11:30	30.00	1.30	1.60

REMARKS

Geotechnical Engineering Limited

BOREHOLE LOG

BH01

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS — Sheet 2 of 4

Start Date 16 November 2020 — Easting 362559.9 — Scale 1:50

End Date 17 November 2020 — Northing 171237.2 — Ground Level 61.40mOD — Depth 30.00 m

sample no & type	sample depth (m) from	to	casing depth (m)	samp. /core range	If	water record depth (m)	instru -ment	test type & value	description	depth (m)	reduced level (m)	legend
									Weak locally very weak reddish brown medium to thickly bedded fine to coarse SANDSTONE. Bedding fractures (1) are 10 to 25° closely to medium spaced stepped rough rarely infilled with reddish brown clayey silty sand. Fractures (2) are 70° closely to medium spaced stepped rough frequently stained red.			
13C	8.70 - 10.20		1.30	100 73 73					9.00m: 30° fracture stepped rough.			
					NI					9.80	51.60	
									Extremely weak friable reddish brown MUDSTONE locally tending to very stiff sandy silty clay.			
14C	10.20 - 11.70		1.30	100 90 73	NI 100 200				9.85 - 9.95m: Extremely weak black coal.	10.20	51.20	
									Very weak reddish brown MUDSTONE with closely spaced thick laminae of medium strong reddish grey fine sandstone. Fractures are randomly orientated extremely closely to closely spaced undulating smooth rarely stained yellow, red and black.	10.55	50.85	
									Very weak reddish brown MUDSTONE. Fractures are randomly orientated extremely closely to closely spaced undulating smooth rarely stained yellow, red and black.			
15C	11.70 - 13.20		1.30	93 30 30						12.30	49.10	
					NI				Moderately weak reddish brown fine to coarse SANDSTONE recovered as sandy subangular and subrounded fine to medium sandstone GRAVEL.	12.50	48.90	
					NI 150 250				Medium strong reddish brown fine to coarse SANDSTONE. Fractures are randomly orientated very closely to medium spaced stepped rough rarely infilled with reddish brown sandy silty clay.	13.20	48.20	
16C	13.20 - 14.70		1.30	100 97 97	NI 200 450				Medium strong medium to thickly bedded grey fine to coarse SANDSTONE. Bedding fractures are 25° medium spaced planar and stepped rough.			
									13.40 - 13.45m: 10° fracture planar rough infilled with reddish brown sandy silt.			
									Grey SANDSTONE (Driller's description). Open hole drilled.	14.70	46.70	
									Continued Next Page			

HOLE CONSTRUCTION

TOP (m)	BASE (m)	TYPE	PLANT USED
14.70	30.00	Rotary Open Hole	Geotechnical Pioneer Rig.

WATER STRIKE Groundwater not encountered prior to use of flush

DEPTH (m)	CASING (m)	ROSE TO (m)	AFTER (min)	REMARKS

CASING DEPTH

DIAM (mm)	BASE (m)

BACKFILL

TOP (m)	BASE (m)	MATERIAL
13.00	30.00	Bentonite

INSTRUMENTATION

DEPTH (m)	TYPE

AGS

CONTRACT **36142**

CHECKED

BARREL DIAMETER

DIAM (mm)	BASE (m)

HOLE PROGRESS

DATE TIME	DEPTH (m)	CASING (m)	WATER (m)

REMARKS

Geotechnical Engineering Limited

BOREHOLE LOG

BH01

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS — Sheet 3 of 4

Start Date 16 November 2020 — Easting 362559.9 — Scale 1:50

End Date 17 November 2020 — Northing 171237.2 — Ground Level 61.40mOD — Depth 30.00 m

sample no & type	sample depth (m) from	to	casing depth (m)	samp. /core range	If	water record depth (m)	instru -ment	test type & value	description	depth (m)	reduced level (m)	legend
									Continued Next Page			

HOLE CONSTRUCTION
TOP (m) BASE (m) TYPE PLANT USED

WATER STRIKE Groundwater not encountered prior to use of flush
DEPTH (m) CASING (m) ROSE TO (m) AFTER (min) REMARKS

CASING DEPTH
DIAM (mm) BASE (m)

BACKFILL
TOP (m) BASE (m) MATERIAL

INSTRUMENTATION
DEPTH (m) TYPE

AGS

BARREL DIAMETER
DIAM (mm) BASE (m)

HOLE PROGRESS
DATE TIME DEPTH (m) CASING (m) WATER (m)

REMARKS

CONTRACT **36142**

CHECKED

Geotechnical Engineering Limited

BOREHOLE LOG

BH01

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS — Sheet 4 of 4

Start Date 16 November 2020 — Easting 362559.9 — Scale 1:50

End Date 17 November 2020 — Northing 171237.2 — Ground Level 61.40mOD — Depth 30.00 m

sample no & type	sample depth (m) from	to	casing depth (m)	samp. /core range	If	water record depth (m)	instru -ment	test type & value	description	depth (m)	reduced level (m)	legend
									Borehole Completed at 30.00m	30.00	31.40	

HOLE CONSTRUCTION
TOP (m) BASE (m) TYPE PLANT USED

WATER STRIKE Groundwater not encountered prior to use of flush
DEPTH (m) CASING (m) ROSE TO (m) AFTER (min) REMARKS

CASING DEPTH
DIAM (mm) BASE (m)

BACKFILL
TOP (m) BASE (m) MATERIAL

INSTRUMENTATION
DEPTH (m) TYPE

AGS

CONTRACT **36142**

CHECKED

BARREL DIAMETER
DIAM (mm) BASE (m)

HOLE PROGRESS
DATE TIME DEPTH (m) CASING (m) WATER (m)

REMARKS

Geotechnical Engineering Limited

BOREHOLE LOG

BH02

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS — Sheet 1 of 4

Start Date 10 November 2020 — Easting 362523.2 — Scale 1:50

End Date 11 November 2020 — Northing 171129.6 — Ground Level 51.80mOD — Depth 30.00 m

sample no & type	sample depth (m) from	to	casing depth (m)	samp. /core range	If	water record depth (m)	instru -ment	test type & value	description	depth (m)	reduced level (m)	legend
1B	0.05	0.15							Grass over soft to firm brown gravelly sandy silty CLAY with frequent rootlets. Gravel is subangular and subrounded fine to medium sandstone.	0.30	51.50	
1ES	0.05	0.15										
2D	0.05	0.15										
2ES	0.40	0.60										
3B	0.40	0.60										
4D	0.40	0.60										
									Brown slightly silty sandy subangular fine to coarse sandstone GRAVEL.	0.90	50.90	
3ES	1.00	1.20							Brown slightly silty sandy subangular fine to coarse sandstone GRAVEL with low subangular sandstone cobble content.			
5B	1.00	1.20										
6D	1.00	1.20										
7L	1.20	2.70										
10D	1.70	1.80								1.80	50.00	
									Stiff reddish brown slightly gravelly silty CLAY. Gravel is subangular fine to coarse mudstone lithorelicts.	2.10	49.70	
4ES	2.20	2.30							2.00 - 2.10m: Weak sandstone bed recovered non intact.			
11D	2.30	2.40										
									Very weak locally weak thinly laminated reddish brown and grey MUDSTONE with rare beds (up to 50mm) of weak laminated orange, grey and red sandstone recovered as sandy subangular fine to coarse gravel with a high subangular mudstone cobble content.	2.70	49.10	
12C	2.70	4.20	2.70	86	NI							
				56								
				20								
13D	3.10	3.20										
					NI				Weak grey fine to coarse SANDSTONE recovered as slightly sandy subangular fine to coarse GRAVEL.	3.20	48.60	
					50							
					50				Very weak locally weak thinly bedded grey fine to coarse SANDSTONE with rare carbonaceous laminae (up to 2mm). Bedding fractures are 10° to 25° very closely spaced stepped rough rarely infilled with red silty sand.	3.80	48.00	
					60							
					60							
					180							
14C	4.20	5.70	2.70	100	40				Medium strong grey fine to coarse SANDSTONE. Bedding fractures (1) are 10 to 25° very closely to medium spaced stepped rough rarely infilled with soft red silty sand. Fractures (2) are 70° very closely to medium spaced stepped rough stained red.	4.20	47.60	
				93	200							
				80	430							
									Medium strong grey fine to coarse SANDSTONE. Bedding fractures (1) are 20 to 30° closely and medium spaced stepped rough rarely infilled with soft red clayey silty sand. Fractures (2) are 65 to 75° closely and medium spaced stepped rough stained red.			
15C	5.70	7.20	2.70	100								
				97								
				97								
16C	7.20	8.70	2.70	100								
				57								
				50								
									7.80 - 8.30m: Heavily fractured. Fractures are 70 to 90° stepped rough stained red rarely infilled with white quartz.			

Continued Next Page

HOLE CONSTRUCTION

TOP (m)	BASE (m)	TYPE	PLANT USED
0.00	1.20	Inspection Pit	Hand tools
1.20	2.70	Windowless Sampler	Geotechnical Pioneer Rig
2.70	14.70	Rotary Core	Geotechnical Pioneer Rig

WATER STRIKE Groundwater not encountered prior to use of flush

DEPTH (m)	CASING (m)	ROSE TO (m)	AFTER (min)	REMARKS

CASING DEPTH

DIAM (mm)	BASE (m)
140	2.70

BACKFILL

TOP (m)	BASE (m)	MATERIAL
0.00	0.30	Concrete
0.30	0.90	Bentonite
0.90	11.00	Gravel
11.00	30.00	Bentonite

INSTRUMENTATION

DEPTH (m)	TYPE
11.00	Standpipe

AGS

BARREL DIAMETER

DIAM (mm)	BASE (m)
128	2.70
116	14.70
70	30.00

HOLE PROGRESS

DATE TIME	DEPTH (m)	CASING (m)	WATER (m)
10-11-2020 08:45	0.00	Nil	Dry
10-11-2020 15:30	14.70	2.70	1.42
11-11-2020 08:20	14.70	2.70	2.30
11-11-2020 14:00	30.00	2.70	2.34

REMARKS

CONTRACT **36142**

CHECKED

Geotechnical Engineering Limited

BOREHOLE LOG

BH02

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS — Sheet 2 of 4

Start Date 10 November 2020 — Easting 362523.2 — Scale 1:50

End Date 11 November 2020 — Northing 171129.6 — Ground Level 51.80mOD — Depth 30.00 m

sample no & type	sample depth (m) from	to	casing depth (m)	samp. /core range	If	water record depth (m)	instru -ment	test type & value	description	depth (m)	reduced level (m)	legend
17C	8.70	10.20	2.70	100 90 83					Medium strong grey fine to coarse SANDSTONE. Bedding fractures (1) are 20 to 30° closely and medium spaced stepped rough rarely infilled with soft red clayey silty sand. Fractures (2) are 65 to 75° closely and medium spaced stepped rough stained red. 9.30m: 10° fracture undulating rough.			
18C	10.20	11.70	2.70	100 73 67								
19C	11.70	13.20	2.70	100 85 75	30 80 170				Medium strong dark grey MUDSTONE. Bedding fractures (1) are are 0 to 10° degrees closely spaced stepped smooth. Fractures (2) are 50 to 60° closely spaced stepped smooth.	11.60	40.20	
					90 150 360				Medium strong thinly bedded grey fine to coarse SANDSTONE with frequent black carbonaceous laminae (up to 2m). Bedding fractures (1) are 10° to 20° closely and medium spaced stepped rough rarely infilled with red clayey silty sandy. Fractures (2) are 70° closely and medium spaced stepped rough.	12.55	39.25	
20C	13.20	14.70	2.70	100 67 63								
									Grey SANDSTONE. No voids detected. (Driller's description). Open-hole drilled.	14.70	37.10	
									Continued Next Page			

HOLE CONSTRUCTION

TOP (m)	BASE (m)	TYPE	PLANT USED
14.70	30.00	Rotary Open Hole	Geotechnical Pioneer Rig

WATER STRIKE Groundwater not encountered prior to use of flush

DEPTH (m)	CASING (m)	ROSE TO (m)	AFTER (min)	REMARKS

CASING DEPTH

DIAM (mm)	BASE (m)

BACKFILL

TOP (m)	BASE (m)	MATERIAL

INSTRUMENTATION

DEPTH (m)	TYPE

AGS

CONTRACT **36142**

CHECKED

BARREL DIAMETER

DIAM (mm)	BASE (m)

HOLE PROGRESS

DATE TIME	DEPTH (m)	CASING (m)	WATER (m)

REMARKS

Geotechnical Engineering Limited

BOREHOLE LOG

BH02

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS — Sheet 3 of 4

Start Date 10 November 2020 — Easting 362523.2 — Scale 1:50

End Date 11 November 2020 — Northing 171129.6 — Ground Level 51.80mOD — Depth 30.00 m

sample no & type	sample depth (m) from	to	casing depth (m)	samp. /core range	If	water record depth (m)	instru -ment	test type & value	description	depth (m)	reduced level (m)	legend
									Continued Next Page			

HOLE CONSTRUCTION
TOP (m) BASE (m) TYPE PLANT USED

WATER STRIKE Groundwater not encountered prior to use of flush
DEPTH (m) CASING (m) ROSE TO (m) AFTER (min) REMARKS

CASING DEPTH
DIAM (mm) BASE (m)

BACKFILL
TOP (m) BASE (m) MATERIAL

INSTRUMENTATION
DEPTH (m) TYPE

AGS

BARREL DIAMETER
DIAM (mm) BASE (m)

HOLE PROGRESS
DATE TIME DEPTH (m) CASING (m) WATER (m)

REMARKS

CONTRACT **36142**

CHECKED

Geotechnical Engineering Limited

BOREHOLE LOG

BH02

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS — Sheet 4 of 4

Start Date 10 November 2020 — Easting 362523.2 — Scale 1:50

End Date 11 November 2020 — Northing 171129.6 — Ground Level 51.80mOD — Depth 30.00 m

sample no & type	sample depth (m) from	to	casing depth (m)	samp. /core range	If	water record depth (m)	instru -ment	test type & value	description	depth (m)	reduced level (m)	legend
									Borehole Completed at 30.00m	30.00	21.80	

HOLE CONSTRUCTION
TOP (m) BASE (m) TYPE PLANT USED

WATER STRIKE Groundwater not encountered prior to use of flush
DEPTH (m) CASING (m) ROSE TO (m) AFTER (min) REMARKS

CASING DEPTH
DIAM (mm) BASE (m)

BACKFILL
TOP (m) BASE (m) MATERIAL

INSTRUMENTATION
DEPTH (m) TYPE

AGS

CONTRACT **36142**

CHECKED

BARREL DIAMETER
DIAM (mm) BASE (m)

HOLE PROGRESS
DATE TIME DEPTH (m) CASING (m) WATER (m)

REMARKS

Geotechnical Engineering Limited

BOREHOLE LOG

BH03

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS — Sheet 1 of 4

Start Date 12 November 2020 — Easting 362520.5 — Scale 1:50

End Date 13 November 2020 — Northing 171079.7 — Ground Level 48.85mOD — Depth 30.00 m

sample no & type	sample depth (m) from	to	casing depth (m)	samp. /core range	If	water record depth (m)	instru -ment	test type & value	description	depth (m)	reduced level (m)	legend
1B	0.05	0.15							Grass over soft to firm brown slightly gravelly slightly sandy clayey SILT with rare rootlets. Gravel is subangular fine and medium sandstone rarely quartzite.	0.30	48.55	
1ES	0.05	0.15										
2D	0.05	0.15										
2ES	0.40	0.60										
4B	0.40	0.60										
5D	0.40	0.60							Soft orangish brown slightly gravelly slightly organic sandy silty CLAY. Gravel is subangular and subrounded fine to coarse sandstone.	0.60	48.25	
3ES	1.00	1.20				1.10			Firm orangish brown slightly sandy gravelly silty CLAY. Gravel is subangular fine to coarse mudstone lithorelicts .			
7B	1.00	1.20										
8D	1.00	1.20										
10L	1.20	2.30								1.55	47.30	
4ES	1.70	1.80							Reddish brown slightly sandy silty subangular fine to coarse sandstone GRAVEL with a high subangular sandstone cobble content.			
11D	1.80	1.90								2.00	46.85	
12D	2.10	2.20							Stiff light grey mottled orange slightly gravelly silty CLAY . Gravel is subangular fine and medium mudstone lithorelicts.			
5ES	2.10	2.20										
13C	2.30	2.70	2.30	100	NA					2.50	46.35	
14C	2.70	4.20	2.30	87 20 0					Reddish brown slightly sandy silty subangular fine to coarse sandstone GRAVEL with a high subangular sandstone cobble content.	2.90	45.95	
15D	3.00	3.10							Firm light grey mottled orange slightly gravelly silty CLAY. Gravel is subangular fine to coarse mudstone lithorelicts.	3.30	45.55	
					NI 30 80				Very weak thinly bedded grey MUDSTONE. Bedding fractures are 0 to 15° very closely and closely spaced stepped rough rarely infilled with soft grey and orange sandy silty clay.			
16C	4.20	5.70	2.30	100 50 40						4.60	44.25	
					60 70 190				Weak thinly bedded grey MUDSTONE. Bedding fractures are 0 to 10° closely spaced stepped and planar rough rarely infilled with grey sandy silty clay. 5.15 - 5.25m: Subvertical fracture undulating smooth.			
17C	5.70	7.20	2.30	100 90 90	40 160 250				Medium strong grey fine to coarse SANDSTONE with rare carbonaceous laminae (up to 2mm) . Bedding fractures are 10 to 20° closely and medium spaced planar rough.	5.70	43.15	
18C	7.20	8.70	2.30	100 100 67	45 80 100 30				Extremely weak thinly laminated dark grey MUDSTONE. Fractures are 0 ro 20° very closely and closely spaced planar and undulating smooth rarely infilled with dark grey slightly gravelly sandy silty clay.	7.45	41.40	
									Medium strong grey fine to coarse SANDSTONE. Bedding fractures are 10 to 20° very closely to medium spaced planar rough.	7.80	41.05	

Continued Next Page

HOLE CONSTRUCTION

TOP (m)	BASE (m)	TYPE	PLANT USED
0.00	1.20	Inspection Pit	Hand tools
1.20	2.30	Windowless Sampler	Geotechnical Pioneer Rig
2.30	14.70	Rotary Core	Geotechnical Pioneer Rig

WATER STRIKE

DEPTH (m)	CASING (m)	ROSE TO (m)	AFTER (min)	REMARKS
1.10	Nil	0.80	2	

CASING DEPTH

DIAM (mm)	BASE (m)
140	2.30

BACKFILL

TOP (m)	BASE (m)	MATERIAL
0.00	0.30	Concrete
0.30	0.40	Gravel
0.40	0.90	Bentonite
0.90	11.10	Gravel

INSTRUMENTATION

DEPTH (m)	TYPE
11.10	Standpipe

AGS

BARREL DIAMETER

DIAM (mm)	BASE (m)
128	2.30
116	14.70
70	19.20

HOLE PROGRESS

DATE TIME	DEPTH (m)	CASING (m)	WATER (m)
12-11-2020 08:10	0.00	Nil	Dry
12-11-2020 15:30	19.20	2.30	1.26
13-11-2020 08:40	19.20	2.30	1.80
13-11-2020 12:00	30.00	2.30	1.44

REMARKS

CONTRACT **36142**

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BOREHOLE LOG

BH03

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS — Sheet 2 of 4

Start Date 12 November 2020 — Easting 362520.5 — Scale 1:50

End Date 13 November 2020 — Northing 171079.7 — Ground Level 48.85mOD — Depth 30.00 m

sample no & type	sample depth (m) from	to	casing depth (m)	samp. /core range	If	water record depth (m)	instru -ment	test type & value	description	depth (m)	reduced level (m)	legend
					120 220				Medium strong grey fine to coarse SANDSTONE. Bedding fractures are 10 to 20° very closely to medium spaced planar rough. 8.35 - 8.45m: 35° fracture stepped rough. 8.45 - 8.80m: Frequent carbonaceous laminations (up to 5mm).			
19C	8.70 - 10.20		2.30	100 97 77						9.25	39.60	
					25 70 120				Moderately weak thinly bedded grey MUDSTONE. Bedding fractures are 0 to 10° very closely to closely spaced planar smooth rarely infilled with soft dark grey silty clay. 9.45 - 9.65m: Thin bed of medium strong fine to coarse sandstone. Fractures are 0 to 15° closely spaced undulating rough.	9.95	38.90	
20C	10.20 - 11.70		2.30	100 97 93	100 170 230				Moderately weak grey fine MUDSTONE. Bedding fractures are 0 to 10° closely to medium spaced undulating rough. 9.95 - 10.20m: Medium bed of medium strong grey SILTSTONE. Fractures 10 to 20° medium spaced undulating smooth.	10.90	37.95	
					100 280 900				Medium strong grey fine and medium SANDSTONE. Fractures are 0 to 10° medium and widely rarely closely spaced planar rough. 11.70m: Fractures becoming closely to widely spaced. 11.70 - 12.00m: Subvertical fracture planar rough infilled with quartzite.			
21C	11.70 - 13.20		2.30	100 100 100								
22C	13.20 - 14.70		2.30	100 100 80	NI 60 90 300 700 700					13.40	35.45	
									Medium strong thinly bedded grey and dark grey fine and medium SANDSTONE with frequent carbonaceous laminae (up to 5mm) . Bedding fractures are subhorizontal very closely to closely spaced undulating rough. 13.60 - 14.00m: 80° fracture undulating rough stained black.	13.70	35.15	
									Medium strong thinly bedded grey fine and medium SANDSTONE. Bedding fractures are subhorizontal medium and widely spaced planar rough.	14.70	34.15	
									Grey SANDSTONE. No voids detected. (Driller's description). Open-hole drilled.			
									Continued Next Page			

HOLE CONSTRUCTION

TOP (m)	BASE (m)	TYPE	PLANT USED
14.70	19.20	Rotary Open Hole	Geotechnical Pioneer Rig

WATER STRIKE

DEPTH (m)	CASING (m)	ROSE TO (m)	AFTER (min)	REMARKS

CASING DEPTH

DIAM (mm)	BASE (m)

BACKFILL

TOP (m)	BASE (m)	MATERIAL
11.10	30.00	Bentonite

INSTRUMENTATION

DEPTH (m)	TYPE

BARREL DIAMETER

DIAM (mm)	BASE (m)

HOLE PROGRESS

DATE TIME	DEPTH (m)	CASING (m)	WATER (m)

REMARKS

CONTRACT **36142**

CHECKED

Geotechnical Engineering Limited

BOREHOLE LOG

BH03

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS — Sheet 3 of 4

Start Date 12 November 2020 — Easting 362520.5 — Scale 1:50

End Date 13 November 2020 — Northing 171079.7 — Ground Level 48.85mOD — Depth 30.00 m

sample no & type	sample depth (m) from	to	casing depth (m)	samp. /core range	If	water record depth (m)	instru -ment	test type & value	description	depth (m)	reduced level (m)	legend

Continued Next Page

HOLE CONSTRUCTION
TOP (m) BASE (m) TYPE PLANT USED

WATER STRIKE
DEPTH (m) CASING (m) ROSE TO (m) AFTER (min) REMARKS

CASING DEPTH
DIAM (mm) BASE (m)

BACKFILL
TOP (m) BASE (m) MATERIAL

INSTRUMENTATION
DEPTH (m) TYPE

AGS

BARREL DIAMETER
DIAM (mm) BASE (m)

HOLE PROGRESS
DATE TIME DEPTH (m) CASING (m) WATER (m)

REMARKS

CONTRACT **36142**

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Geotechnical Engineering Limited

BOREHOLE LOG

BH03

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS — Sheet 4 of 4

Start Date 12 November 2020 — Easting 362520.5 — Scale 1:50

End Date 13 November 2020 — Northing 171079.7 — Ground Level 48.85mOD — Depth 30.00 m

sample no & type	sample depth (m) from	to	casing depth (m)	samp. /core range	If	water record depth (m)	instru -ment	test type & value	description	depth (m)	reduced level (m)	legend
									Borehole Completed at 30.00m	30.00	18.85	

HOLE CONSTRUCTION
TOP (m) BASE (m) TYPE PLANT USED

WATER STRIKE
DEPTH (m) CASING (m) ROSE TO (m) AFTER (min) REMARKS

CASING DEPTH
DIAM (mm) BASE (m)

BACKFILL
TOP (m) BASE (m) MATERIAL

INSTRUMENTATION
DEPTH (m) TYPE

AGS

BARREL DIAMETER
DIAM (mm) BASE (m)

HOLE PROGRESS
DATE TIME DEPTH (m) CASING (m) WATER (m)

REMARKS

CONTRACT **36142**

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Geotechnical Engineering Limited

BOREHOLE LOG

BH04

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS — Sheet 1 of 4

Start Date 05 November 2020 — Easting 362645.7 — Scale 1:50

End Date 06 November 2020 — Northing 171047.4 — Ground Level 58.75mOD — Depth 30.00 m

sample no & type	sample depth (m) from	to	casing depth (m)	samp. /core range	If	water record depth (m)	instru -ment	test type & value	description	depth (m)	reduced level (m)	legend
1B	0.00	0.15							Grass over brown slightly gravelly silty fine to coarse SAND with frequent rootlets. Gravel is subangular fine to medium sandstone.	0.30	58.45	
1ES	0.00	0.15										
2D	0.00	0.15										
2ES	0.40	0.60							Light reddish brown very gravelly very clayey SAND. Gravel is subangular fine to medium sandstone.	0.80	57.95	
3B	0.40	0.60										
4D	0.40	0.60										
3ES	1.00	1.20							Greyish brown sandy silty subangular and subrounded fine and medium sandstone GRAVEL with medium subangular sandstone cobble content.	1.10	57.65	
5B	1.00	1.20										
6D	1.00	1.20	0.00									
7L	1.20	2.70							SANDSTONE recovered as reddish brown and grey sandy silty fine to medium GRAVEL.			
8D	1.80	1.90										
						2.10				2.10	56.65	
4ES	2.20	2.30							Extremely to very weak grey MUDSTONE recovered as angular fine to coarse GRAVEL. Fractures are randomly orientated planar smooth rarely stained reddish brown and yellow and infilled with grey silty sand.			
10B	2.70	3.20	0.00									
9L	2.70	3.50										
11D	3.30	3.40										
12C	3.50	4.20	3.50	100 42 28	NI 50 140					3.90	54.85	
13C	4.20	5.70	3.50	100 0 0					Very weak locally extremely weak thinly laminated grey MUDSTONE. Fractures are randomly orientated very closely and closely spaced planar rough rarely stained red.			
14C	5.70	7.20	3.50	100 53 13	NI 90 180					5.90	52.85	
									Moderately weak thinly laminated grey MUDSTONE. Bedding fractures (1) are 10 to 30° very closely and closely spaced planar smooth rarely stained reddish brown (up to 5mm either side of fractures). Fractures (2) are 65 to 75 ° very closely and closely spaced rough rarely stained red and yellow.			
15C	7.20	8.70	3.50	100 63 40	NI				Extremely to very weak grey MUDSTONE recovered as angular fine to coarse GRAVEL. Rare reddish brown staining on fracture surfaces.	7.45	51.30	
					40 80				Moderately weak thinly laminated grey MUDSTONE. Fractures are 10 to 30° and 65° to 75° very closely and closely spaced planar smooth and rough rarely stained reddish brown (up to 5mm either side of fracture).	7.70	51.05	

Continued Next Page

HOLE CONSTRUCTION

TOP (m)	BASE (m)	TYPE	PLANT USED
0.00	1.20	Inspection Pit	Hand tools
1.20	3.50	Windowless Sampler	Geotechnical Pioneer Rig
3.50	14.70	Rotary Core	Geotechnical Pioneer Rig

WATER STRIKE

DEPTH (m)	CASING (m)	ROSE TO (m)	AFTER (min)	REMARKS
2.10	Nil	2.00	20	

CASING DEPTH

DIAM (mm)	BASE (m)
140	3.50

BACKFILL

TOP (m)	BASE (m)	MATERIAL
0.00	0.30	Concrete
0.30	0.50	Gravel
0.50	0.90	Bentonite
0.90	11.00	Gravel

INSTRUMENTATION

DEPTH (m)	TYPE
11.00	Standpipe

BARREL DIAMETER

DIAM (mm)	BASE (m)
128	3.50
116	14.70
70	30.00

HOLE PROGRESS

DATE TIME	DEPTH (m)	CASING (m)	WATER (m)
05-11-2020 12:00	0.00	Nil	Dry
05-11-2020 16:30	11.70	3.50	1.14
06-11-2020 08:00	11.70	3.50	1.30
06-11-2020 15:00	30.00	3.50	1.46

REMARKS

AGS

CONTRACT **36142**

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Geotechnical Engineering Limited

BOREHOLE LOG

BH04

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS — Sheet 2 of 4

Start Date 05 November 2020 — Easting 362645.7 — Scale 1:50

End Date 06 November 2020 — Northing 171047.4 — Ground Level 58.75mOD — Depth 30.00 m

sample no & type	sample depth (m) from	to	casing depth (m)	samp. /core range	If	water record depth (m)	instru -ment	test type & value	description	depth (m)	reduced level (m)	legend
					140				Moderately weak thinly laminated grey MUDSTONE. Fractures are 10 to 30° and 65° to 75° very closely and closely spaced planar smooth and rough rarely stained reddish brown (up to 5mm either side of fracture).			
16C	8.70	10.20	3.50	100 80 73								
									9.70 - 9.75m: Thin laminae of extremely weak black coal.			
									9.95 - 10.00m: Thin laminae of extremely weak black coal.			
17C	10.20	11.70	3.50	100 87 80	80 120 460				Medium strong grey fine and medium SANDSTONE with rare carbonaceous laminae (up to 2mm). Fractures are 10 to 20° and 65° to 75° closely to medium spaced planar smooth and rough rarely stained reddish yellow (up to 3mm either side of fractures) rarely infilled with soft grey silty clay.	10.20	48.55	
18C	11.70	13.20	3.50	93 83 80					11.80 - 13.35m: Light grey.			
19C	13.20	14.70	3.50	100 77 73								
									Grey SANDSTONE. No voids detected. (Driller's description). Open-hole drilled.	14.70	44.05	
									Continued Next Page			

HOLE CONSTRUCTION

TOP (m)	BASE (m)	TYPE	PLANT USED
14.70	30.00	Rotary Open Hole	Geotechnical Pioneer Rig

WATER STRIKE

DEPTH (m)	CASING (m)	ROSE TO (m)	AFTER (min)	REMARKS

CASING DEPTH

DIAM (mm)	BASE (m)

BACKFILL

TOP (m)	BASE (m)	MATERIAL
11.00	30.00	Bentonite

INSTRUMENTATION

DEPTH (m)	TYPE

AGS

CONTRACT **36142**

CHECKED

BARREL DIAMETER

DIAM (mm)	BASE (m)

HOLE PROGRESS

DATE TIME	DEPTH (m)	CASING (m)	WATER (m)

REMARKS

Geotechnical Engineering Limited

BOREHOLE LOG

BH04

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS

Sheet 3 of 4

Start Date 05 November 2020 Easting 362645.7 Scale 1:50

End Date 06 November 2020 Northing 171047.4 Ground Level 58.75mOD Depth 30.00 m

sample no & type	sample depth (m) from	to	casing depth (m)	samp. /core range	If	water record depth (m)	instru -ment	test type & value	description	depth (m)	reduced level (m)	legend

Continued Next Page

HOLE CONSTRUCTION
TOP (m) BASE (m) TYPE PLANT USED

WATER STRIKE
DEPTH (m) CASING (m) ROSE TO (m) AFTER (min) REMARKS

CASING DEPTH
DIAM (mm) BASE (m)

BACKFILL
TOP (m) BASE (m) MATERIAL

INSTRUMENTATION
DEPTH (m) TYPE

AGS

BARREL DIAMETER
DIAM (mm) BASE (m)

HOLE PROGRESS
DATE TIME DEPTH (m) CASING (m) WATER (m)

REMARKS

CONTRACT
36142

CHECKED

Geotechnical Engineering Limited

BOREHOLE LOG

BH04

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS — Sheet 4 of 4

Start Date 05 November 2020 — Easting 362645.7 — Scale 1:50

End Date 06 November 2020 — Northing 171047.4 — Ground Level 58.75mOD — Depth 30.00 m

sample no & type	sample depth (m) from	to	casing depth (m)	samp. /core range	If	water record depth (m)	instru -ment	test type & value	description	depth (m)	reduced level (m)	legend
									Borehole Completed at 30.00m	30.00	28.75	

HOLE CONSTRUCTION
TOP (m) BASE (m) TYPE PLANT USED

WATER STRIKE
DEPTH (m) CASING (m) ROSE TO (m) AFTER (min) REMARKS

CASING DEPTH
DIAM (mm) BASE (m)

BACKFILL
TOP (m) BASE (m) MATERIAL

INSTRUMENTATION
DEPTH (m) TYPE

AGS

BARREL DIAMETER
DIAM (mm) BASE (m)

HOLE PROGRESS
DATE TIME DEPTH (m) CASING (m) WATER (m)

REMARKS

CONTRACT **36142**

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Geotechnical Engineering Limited

BOREHOLE LOG

BH05

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS — Sheet 1 of 4

Start Date 18 November 2020 — Easting 362721.4 — Scale 1:50

End Date 19 November 2020 — Northing 171095.2 — Ground Level 65.70mOD — Depth 30.00 m

sample no & type	sample depth (m) from	to	casing depth (m)	samp. /core range	If	water record depth (m)	instru -ment	test type & value	description	depth (m)	reduced level (m)	legend
1D	0.05	0.15							Grass over reddish brown and brown slightly clayey slightly gravelly fine to coarse SAND with frequent rootlets. Gravel is subangular and subrounded fine to coarse sandstone.	0.25	65.45	
1ES	0.05	0.15										
2B	0.05	0.15										
2ES	0.40	0.60										
3D	0.40	0.60										
4B	0.40	0.60										
3ES	1.00	1.20							Reddish brown clayey very gravelly fine to coarse SAND. Gravel is subangular fine and medium sandstone.			
5D	1.00	1.20										
6B	1.00	1.20	0.00									
7L	1.20	2.00										
8D	1.70	1.80			NI					1.80	63.90	
9C	2.00	2.70	2.00	71 0 0					Weak reddish brown fine to coarse SANDSTONE recovered as slightly sandy subangular and subrounded fine to coarse GRAVEL.	2.70	63.00	
10C	2.70	4.20	2.00	100 19 7	NI 110				Weak reddish brown fine to coarse SANDSTONE. Fractures are randomly orientated extremely closely to closely spaced planar to stepped rough rarely infilled with reddish brown sandy silty clay.	4.20	61.50	
11C	4.20	5.70	2.00	100 46 39	NI 170 200				Very weak thinly bedded reddish brown fine to coarse SANDSTONE. Fractures are subhorizontal closely spaced stepped rough rarely infilled with slightly sandy slightly gravelly clay.	6.50	59.20	
12C	5.70	7.20	2.00	100 60 53								
					NI 150 380				Moderately weak locally weak reddish brown fine to coarse SANDSTONE. Fractures are 10 to 20° rarely subvertical very closely to medium spaced planar and stepped rough rarely infilled with red sandy silty clay .			
13C	7.20	8.70	2.00	100 97 73								

Continued Next Page

HOLE CONSTRUCTION

TOP (m)	BASE (m)	TYPE	PLANT USED
0.00	1.20	Inspection Pit	Hand tools
1.20	2.00	Windowless Sampler	Geotechnical Pioneer Rig
2.00	14.70	Rotary Core	Geotechnical Pioneer Rig

WATER STRIKE Groundwater not encountered prior to use of flush

DEPTH (m)	CASING (m)	ROSE TO (m)	AFTER (min)	REMARKS

CASING DEPTH

DIAM (mm)	BASE (m)
140	2.00

BACKFILL

TOP (m)	BASE (m)	MATERIAL
0.00	0.30	Concrete
0.30	0.50	Gravel
0.50	1.90	Bentonite
1.90	12.00	Gravel

INSTRUMENTATION

DEPTH (m)	TYPE
12.00	Standpipe

AGS

BARREL DIAMETER

DIAM (mm)	BASE (m)
128	2.00
116	14.70
70	30.00

HOLE PROGRESS

DATE TIME	DEPTH (m)	CASING (m)	WATER (m)
18-11-2020 07:45	0.00	Nil	Dry
18-11-2020 15:30	14.70	2.00	1.68
19-11-2020 08:20	14.70	2.00	2.36
19-11-2020 12:00	30.00	2.00	1.62

REMARKS

CONTRACT **36142**

CHECKED

Geotechnical Engineering Limited

BOREHOLE LOG

BH05

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS — Sheet 2 of 4

Start Date 18 November 2020 — Easting 362721.4 — Scale 1:50

End Date 19 November 2020 — Northing 171095.2 — Ground Level 65.70mOD — Depth 30.00 m

sample no & type	sample depth (m) from	to	casing depth (m)	samp. /core range	If	water record depth (m)	instru -ment	test type & value	description	depth (m)	reduced level (m)	legend
14C	8.70	10.20	2.00	100 83 73	30 200 260				Moderately weak locally weak reddish brown fine to coarse SANDSTONE. Fractures are 5 to 10° and 30° to 45° very closely to medium spaced planar rough rarely infilled with sandy silty clay.	8.90	56.80	
15C	10.20	10.90	2.00	100 21 8	NI 90 180				Moderately weak reddish brown fine to coarse SANDSTONE. Fractures are randomly orientated extremely closely to closely space stepped rough rarely stained red and brown.	9.95	55.75	
16C	10.90	11.70	2.00	100 91 88	70 160 270				Moderately weak reddish brown fine to coarse SANDSTONE. Fractures are 10 to 20° closely to medium spaced stepped rough rarely infilled with reddish brown sandy clay.	10.90	54.80	
17C	11.70	13.20	2.00	93 50 50	NI 200				Extremely weak locally very weak reddish brown fine to coarse SANDSTONE locally disintegrating to stiff sandy gravelly clay. Fractures are extremely closely to closely spaced undulating rough.	11.70	54.00	
18C	13.20	14.70	2.00	100 69 53	40 100 290				Weak locally moderately weak reddish brown fine to coarse SANDSTONE. Fractures very closely to medium spaced 0° to 20° and 40° to 50° undulating and planar rough rarely stained brown. 14.35 - 14.45m: Locally disintegrated to firm reddish brown sandy gravelly clay.	12.50	53.20	
									Grey SANDSTONE. No voids detected. (Driller's description). Open hole drilled.	14.70	51.00	
									Continued Next Page			

HOLE CONSTRUCTION

TOP (m)	BASE (m)	TYPE	PLANT USED
14.70	30.00	Rotary Open Hole	Geotechnical Pioneer Rig

WATER STRIKE Groundwater not encountered prior to use of flush

DEPTH (m)	CASING (m)	ROSE TO (m)	AFTER (min)	REMARKS

CASING DEPTH

DIAM (mm)	BASE (m)

BACKFILL

TOP (m)	BASE (m)	MATERIAL
12.00	30.00	Bentonite

INSTRUMENTATION

DEPTH (m)	TYPE

AGS

BARREL DIAMETER

DIAM (mm)	BASE (m)

HOLE PROGRESS

DATE TIME	DEPTH (m)	CASING (m)	WATER (m)

REMARKS

CONTRACT **36142**

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Geotechnical Engineering Limited

BOREHOLE LOG

BH05

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS — Sheet 3 of 4

Start Date 18 November 2020 — Easting 362721.4 — Scale 1:50

End Date 19 November 2020 — Northing 171095.2 — Ground Level 65.70mOD — Depth 30.00 m

sample no & type	sample depth (m) from	to	casing depth (m)	samp. /core range	If	water record depth (m)	instru -ment	test type & value	description	depth (m)	reduced level (m)	legend
									Continued Next Page			

HOLE CONSTRUCTION
TOP (m) BASE (m) TYPE PLANT USED

WATER STRIKE Groundwater not encountered prior to use of flush
DEPTH (m) CASING (m) ROSE TO (m) AFTER (min) REMARKS

CASING DEPTH
DIAM (mm) BASE (m)

BACKFILL
TOP (m) BASE (m) MATERIAL

INSTRUMENTATION
DEPTH (m) TYPE

AGS

BARREL DIAMETER
DIAM (mm) BASE (m)

HOLE PROGRESS
DATE TIME DEPTH (m) CASING (m) WATER (m)

REMARKS

CONTRACT **36142**

CHECKED

Geotechnical Engineering Limited

BOREHOLE LOG

BH05

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS — Sheet 4 of 4

Start Date 18 November 2020 — Easting 362721.4 — Scale 1:50

End Date 19 November 2020 — Northing 171095.2 — Ground Level 65.70mOD — Depth 30.00 m

sample no & type	sample depth (m) from	to	casing depth (m)	samp. /core range	If	water record depth (m)	instru -ment	test type & value	description	depth (m)	reduced level (m)	legend
									Borehole Completed at 30.00m	30.00	35.70	

HOLE CONSTRUCTION
TOP (m) BASE (m) TYPE PLANT USED

WATER STRIKE Groundwater not encountered prior to use of flush
DEPTH (m) CASING (m) ROSE TO (m) AFTER (min) REMARKS

CASING DEPTH
DIAM (mm) BASE (m)

BACKFILL
TOP (m) BASE (m) MATERIAL

INSTRUMENTATION
DEPTH (m) TYPE

AGS

CONTRACT **36142**

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BARREL DIAMETER
DIAM (mm) BASE (m)

HOLE PROGRESS
DATE TIME DEPTH (m) CASING (m) WATER (m)

REMARKS

Geotechnical Engineering Limited

BOREHOLE LOG

BH06

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS — Sheet 1 of 4

Start Date 03 November 2020 — Easting 362693.1 — Scale 1:50

End Date 04 November 2020 — Northing 170924.7 — Ground Level 56.85mOD — Depth 30.00 m

sample no & type	sample depth (m) from	to	casing depth (m)	samp. /core range	If	water record depth (m)	instru -ment	test type & value	description	depth (m)	reduced level (m)	legend
1B	0.10	0.20							Grass over brown slightly gravelly silty fine to coarse SAND with frequent rootlets. Gravel is subangular fine sandstone and chert.	0.20	56.65	
1ES	0.10	0.20										
2D	0.10	0.20										
2ES	0.20	0.40										
3B	0.20	0.40										
4D	0.20	0.40				0.80			Firm light grey and orange slightly sandy silty CLAY.			
3ES	1.00	1.20										
5B	1.00	1.20										
6D	1.00	1.20	0.00						Stiff light grey mottled orange and red gravelly silty CLAY. Gravel is subangular fine mudstone lithorelicts.	1.20	55.65	
7B	1.20	1.70										
8L	1.20	2.70										
9D	1.80	1.90										
10D	2.30	2.40							Stiff thinly and thickly laminated grey mottled orange slightly gravelly silty CLAY tending to extremely weak MUDSTONE with rare carbonaceous laminae (up to 2mm). Gravel is subangular fine to coarse mudstone lithorelicts.	2.00	54.85	
11C	2.70	4.20	2.70	93	NA							
12B	2.70	2.90		0								
				0	NI				Extremely to very weak grey MUDSTONE recovered as angular fine to coarse GRAVEL. Frequent yellowish brown staining on fracture surfaces.	2.90	53.95	
13D	3.70	3.80								3.80	53.05	
					NI				Very weak grey fine SANDSTONE. Fractures are randomly orientated very closely spaced planar rough rarely stained yellowish brown.			
					70							
14C	4.20	5.70	2.70	93								
				0								
15D	4.70	4.80		0								
										5.50	51.35	
16C	5.70	7.20	2.70	100					Extremely weak to very weak thinly and thickly laminated grey MUDSTONE recovered as silty subangular fine to coarse GRAVEL.			
				27								
17D	6.10	6.20		7								
										6.90	49.95	
					NI				Moderately weak locally weak grey fine SANDSTONE. Fractures are 0 to 30° and 70° to 80° closely spaced stepped and planar rough rarely infilled with slightly gravelly silty clay rarely stained yellowish brown.			
					130							
18C	7.20	8.70	2.70		200							
				93								
				70								
				70								

Continued Next Page

HOLE CONSTRUCTION

TOP (m)	BASE (m)	TYPE	PLANT USED
0.00	1.20	Inspection Pit	Hand tools
1.20	2.70	Windowless Sampler	Geotechnical Pioneer Rig
2.70	14.70	Rotary Core	Geotechnical Pioneer Rig

WATER STRIKE

DEPTH (m)	CASING (m)	ROSE TO (m)	AFTER (min)	REMARKS
0.80	Nil	0.30	20	

CASING DEPTH

DIAM (mm)	BASE (m)
140	2.70

BACKFILL

TOP (m)	BASE (m)	MATERIAL
0.00	0.20	Concrete
0.20	0.30	Gravel
0.30	0.90	Bentonite
0.90	9.00	Gravel

INSTRUMENTATION

DEPTH (m)	TYPE
9.00	Standpipe

AGS

BARREL DIAMETER

DIAM (mm)	BASE (m)
128	2.70
116	14.70
70	30.00

HOLE PROGRESS

DATE TIME	DEPTH (m)	CASING (m)	WATER (m)
03-11-2020 09:00	0.00	Nil	Dry
03-11-2020 16:00	7.20	2.70	1.17
04-11-2020 08:00	7.20	2.70	1.32
04-11-2020 16:30	30.00	2.70	1.49

REMARKS

CONTRACT **36142**

CHECKED

Geotechnical Engineering Limited

BOREHOLE LOG

BH06

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS — Sheet 2 of 4

Start Date 03 November 2020 — Easting 362693.1 — Scale 1:50

End Date 04 November 2020 — Northing 170924.7 — Ground Level 56.85mOD — Depth 30.00 m

sample no & type	sample depth (m) from	to	casing depth (m)	samp. /core range	If	water record depth (m)	instru -ment	test type & value	description	depth (m)	reduced level (m)	legend
					130 400 860					8.20	48.65	
19C	8.70	10.20	2.70	100 100 100					Moderately weak and weak grey fine SANDSTONE. Fractures are 0 to 25° and 70° to 80° closely to widely spaced planar rough.			
20C	10.20	11.70	2.70	100 97 97								
21C	11.70	13.20	2.70	100 97 93								
22C	13.20	14.70	2.70	100 100 70								
									Grey SANDSTONE. No voids detected. (Driller's description). Open hole drilled.	14.70	42.15	
									Continued Next Page			

HOLE CONSTRUCTION

TOP (m)	BASE (m)	TYPE	PLANT USED
14.70	30.00	Rotary Open Hole	Geotechnical Pioneer Rig

WATER STRIKE

DEPTH (m)	CASING (m)	ROSE TO (m)	AFTER (min)	REMARKS

CASING DEPTH

DIAM (mm)	BASE (m)

BACKFILL

TOP (m)	BASE (m)	MATERIAL
9.00	30.00	Bentonite

INSTRUMENTATION

DEPTH (m)	TYPE

BARREL DIAMETER

DIAM (mm)	BASE (m)

HOLE PROGRESS

DATE TIME	DEPTH (m)	CASING (m)	WATER (m)

REMARKS

CONTRACT 36142

CHECKED

Geotechnical Engineering Limited

BOREHOLE LOG

BH06

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS — Sheet 3 of 4

Start Date 03 November 2020 — Easting 362693.1 — Scale 1:50

End Date 04 November 2020 — Northing 170924.7 — Ground Level 56.85mOD — Depth 30.00 m

sample no & type	sample depth (m) from	to	casing depth (m)	samp. /core range	If	water record depth (m)	instru -ment	test type & value	description	depth (m)	reduced level (m)	legend
									Continued Next Page			

HOLE CONSTRUCTION
TOP (m) BASE (m) TYPE PLANT USED

WATER STRIKE
DEPTH (m) CASING (m) ROSE TO (m) AFTER (min) REMARKS

CASING DEPTH
DIAM (mm) BASE (m)

BACKFILL
TOP (m) BASE (m) MATERIAL

INSTRUMENTATION
DEPTH (m) TYPE

AGS

BARREL DIAMETER
DIAM (mm) BASE (m)

HOLE PROGRESS
DATE TIME DEPTH (m) CASING (m) WATER (m)

REMARKS

CONTRACT **36142**

CHECKED

Geotechnical Engineering Limited

BOREHOLE LOG

BH06

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS — Sheet 4 of 4

Start Date 03 November 2020 — Easting 362693.1 — Scale 1:50

End Date 04 November 2020 — Northing 170924.7 — Ground Level 56.85mOD — Depth 30.00 m

sample no & type	sample depth (m) from	to	casing depth (m)	samp. /core range	If	water record depth (m)	instru -ment	test type & value	description	depth (m)	reduced level (m)	legend
									Borehole Completed at 30.00m	30.00	26.85	

HOLE CONSTRUCTION
TOP (m) BASE (m) TYPE PLANT USED

WATER STRIKE
DEPTH (m) CASING (m) ROSE TO (m) AFTER (min) REMARKS

CASING DEPTH
DIAM (mm) BASE (m)

BACKFILL
TOP (m) BASE (m) MATERIAL

INSTRUMENTATION
DEPTH (m) TYPE

AGS

BARREL DIAMETER
DIAM (mm) BASE (m)

HOLE PROGRESS
DATE TIME DEPTH (m) CASING (m) WATER (m)

REMARKS

CONTRACT **36142**

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Geotechnical Engineering Limited

TRIAL PIT LOG

CLIENT CAMPBELLREITH

TP01

SITE BRISLINGTON MEADOWS

Sheet 1 of 1

Start Date 06 November 2020 Easting 362502.7

Scale 1:25

End Date 06 November 2020 Northing 171290.5 Ground Level 61.60mOD

Depth 1.10 m

sample no & type	sample depth (m) from	to	test type & value	water record	description	depth (m)	reduced level (m)	legend
1B 1ES 2D	0.00 0.00 0.00	0.15 0.15 0.15			Soft dark brown slightly gravelly sandy CLAY with a low subangular and subrounded sandstone cobble content and frequent rootlets. Gravel is subangular and subrounded fine to coarse sandstone.			
3B 4D	0.50 0.50	0.60 0.60			Moderately weak light greenish grey locally reddish brown fine to coarse SANDSTONE. Fractures are subvertical planar smooth and tight. Recovered as sandy clayey angular to subrounded fine to coarse gravel.	0.50	61.10	
2ES 5D 6LB	0.90 0.90 0.90	1.00 1.00 1.00						
					Trial pit Completed at 1.10m	1.10	60.50	

Equipment: JCB 3CX.

Pit width x length: 0.70m x 4.00m Sidewall stability: Stable.

Remarks: Trial pit terminated at 1.10m due to hard ground preventing progress.

Groundwater: Groundwater not encountered

Depth Strike (m)	Rose to (m)	Time to rise (min)	Remarks

Backfill details:

Depth Top (m)	Depth Base (m)	Material	Remarks
0.00	1.10	Arisings	

AGS

CONTRACT

36142

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EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

Geotechnical Engineering Limited

TRIAL PIT LOG

CLIENT CAMPBELLREITH

TP02

SITE BRISLINGTON MEADOWS

Sheet 1 of 1

Start Date 06 November 2020 Easting 362567.5

Scale 1:25

End Date 06 November 2020 Northing 171209.3 Ground Level 60.70mOD

Depth 3.70 m

sample no & type	sample depth (m) from	to	test type & value	water record	description	depth (m)	reduced level (m)	legend
1D	0.00	0.15			Soft dark brown slightly gravelly sandy CLAY with a low subangular and subrounded sandstone cobble content and frequent rootlets. Gravel is subangular and subrounded fine to coarse sandstone.			
1ES	0.00	0.15						
2B	0.00	0.15				0.20	60.50	
					Reddish brown and grey clayey fine to coarse SAND and angular and subangular fine to coarse sandstone GRAVEL.			
2ES	0.90	1.00						
3D	0.90	1.00						
4B	0.90	1.00						
					Moderately weak locally weak light greenish grey locally reddish brown fine to coarse SANDSTONE. Fractures are subvertical planar smooth tight and rare red matrix infill (up to 1mm). Recovered as fine to medium sand and angular and subrounded fine to coarse sandstone gravel with a high subangualr and subrounded sandstone cobble content.	1.20	59.50	
3ES	1.90	2.00						
5D	1.90	2.00						
6LB	1.90	2.00						
7D	2.50	2.60						
8D	3.40	3.50						
					Trial pit Completed at 3.70m	3.70	57.00	

Equipment: JCB 3CX

Pit width x length: 0.70m x 4.00m Sidewall stability: Stable.

Remarks: Trial pit terminated at 3.70m due to hard ground preventing progress.

Groundwater: Groundwater not encountered

Depth Strike (m)	Rose to (m)	Time to rise (min)	Remarks

Backfill details:

Depth Top (m)	Depth Base (m)	Material	Remarks
0.00	3.70	Arisings	

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

CONTRACT 36142

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Geotechnical Engineering Limited

TRIAL PIT LOG

CLIENT CAMPBELLREITH

TP03

SITE BRISLINGTON MEADOWS

Sheet 1 of 1

Start Date 05 November 2020 Easting 362617.2

Scale 1:25

End Date 05 November 2020 Northing 171170.0 Ground Level 62.30mOD

Depth 3.70 m

sample no & type	sample depth (m) from	to	test type & value	water record	description	depth (m)	reduced level (m)	legend
1D	0.00	0.15			Soft dark brown slightly gravelly slightly sandy CLAY with frequent rootlets. Gravel is subangular and subrounded fine to coarse sandstone.			
1ES	0.00	0.15						
2B	0.00	0.15						
						0.40	61.90	
					Moderately weak light greenish grey locally reddish brown fine to coarse SANDSTONE. Fractures are subvertical planar smooth tight and rare red matrix infill (up to 1mm). Recovered as subangular to subrounded fine to coarse gravel with a high subangular and subrounded sandstone cobble content.			
2ES	0.90	1.00						
3D	0.90	1.00						
4B	0.90	1.00						
5D	1.50	1.60						
6LB	1.90	2.00						
3ES	2.30	2.40						
7D	2.30	2.40						
8B	2.30	2.40						
9D	2.50	2.60						
10D	3.50	3.60						
					Trial pit Completed at 3.70m	3.70	58.60	

Equipment: JCB 3CX.

Pit width x length: 0.70m x 4.00m Sidewall stability: Stable.

Remarks: Trial pit terminated at 3.70m due to hard ground preventing progress.

Groundwater: Groundwater not encountered

Depth Strike (m)	Rose to (m)	Time to rise (min)	Remarks

Backfill details:

Depth Top (m)	Depth Base (m)	Material	Remarks
0.00	3.70	Arisings	

AGS

CONTRACT

36142

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EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

Geotechnical Engineering Limited

TRIAL PIT LOG

CLIENT CAMPBELLREITH

TP04

SITE BRISLINGTON MEADOWS

Sheet 1 of 1

Start Date 06 November 2020 Easting 362558.1

Scale 1:25

End Date 06 November 2020 Northing 171128.6 Ground Level 55.70mOD

Depth 2.60 m

sample no & type	sample depth (m) from	to	test type & value	water record	description	depth (m)	reduced level (m)	legend
1D 1ES 2B	0.00 0.00 0.00	0.15 0.15 0.15			Soft dark brown slightly gravelly sandy CLAY with a low subangular and subrounded sandstone cobble content and frequent rootlets. Gravel is subangular and subrounded fine to coarse sandstone.			
						0.50	55.20	
2ES 3D 4LB	0.90 0.90 0.90	1.00 1.00 1.00			Moderately weak light greenish grey locally reddish brown fine and medium SANDSTONE. Fractures are subvertical planar smooth and tight. Recovered as sandy angular to subrounded fine to coarse sandstone gravel with a medium subangular sandstone cobble content.			
5D	1.90	2.00						
6B	2.50	2.60						
					Trial pit Completed at 2.60m	2.60	53.10	

Equipment: JCB 3CX.

Pit width x length: 0.70m x 4.00m Sidewall stability: Stable.

Remarks: Trial pit terminated at 2.60m due to hard ground preventing progress.

Groundwater: Groundwater not encountered

Depth Strike (m)	Rose to (m)	Time to rise (min)	Remarks

Backfill details:

Depth Top (m)	Depth Base (m)	Material	Remarks
0.00	2.60	Arisings	

AGS

CONTRACT

36142

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EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

Geotechnical Engineering Limited

TRIAL PIT LOG

CLIENT CAMPBELLREITH

TP05

SITE BRISLINGTON MEADOWS

Sheet 1 of 1

Start Date 05 November 2020 Easting 362601.0

Scale 1:25

End Date 05 November 2020 Northing 171103.2 Ground Level 58.15mOD

Depth 3.00 m

sample no & type	sample depth (m) from	to	test type & value	water record	description	depth (m)	reduced level (m)	legend
1D	0.00	0.15			Soft dark brown slightly gravelly slightly sandy CLAY with frequent rootlets. Gravel is subangular and subrounded fine to coarse sandstone.			
1ES	0.00	0.15						
2B	0.00	0.15						
						0.20	57.95	
					Reddish brown and grey clayey SAND and subangular fine to coarse sandstone GRAVEL.			
2ES	0.70	0.80						
3D	0.70	0.80						
4B	0.70	0.80				0.80	57.35	
3ES	0.90	1.00			Moderately weak reddish brown locally light greenish grey fine to coarse SANDSTONE. Fractures are subvertical planar smooth tight and rare red matrix infill (up to 1mm). Recovered as sandy angular to subrounded fine to coarse GRAVEL with a high angular to subrounded sandstone cobble content.			
5B	0.90	1.00						
6D	0.90	1.00						
7D	1.50	1.60						
8B	1.90	2.00						
9D	2.50	2.60						
10LB	2.90	3.00						
					Trial pit Completed at 3.00m	3.00	55.15	

Equipment: JCB 3CX.

Pit width x length: 0.70m x 4.00m Sidewall stability: Stable.

Remarks: Trial pit terminated at 3.00m due to hard ground preventing progress.

Groundwater: Groundwater not encountered

Depth Strike (m)	Rose to (m)	Time to rise (min)	Remarks

Backfill details:

Depth Top (m)	Depth Base (m)	Material	Remarks
0.00	3.00	Arisings	

AGS

CONTRACT

36142

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EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

Geotechnical Engineering Limited

TRIAL PIT LOG

CLIENT CAMPBELLREITH

TP06

SITE BRISLINGTON MEADOWS

Sheet 1 of 1

Start Date 05 November 2020 Easting 362664.7

Scale 1:25

End Date 05 November 2020 Northing 171108.5 Ground Level 62.85mOD

Depth 3.00 m

sample no & type	sample depth (m) from	to	test type & value	water record	description	depth (m)	reduced level (m)	legend
1D	0.00	0.15			Soft dark brown slightly gravelly slightly sandy CLAY with frequent rootlets. Gravel is subangular and subrounded fine to coarse sandstone.			
1ES	0.00	0.15						
2B	0.00	0.15			Soft to firm reddish brown gravelly sandy silty CLAY. Gravel is angular to subrounded fine to coarse sandstone.	0.15	62.70	
2ES	0.70	0.80						
3D	0.70	0.80						
4B	0.70	0.80						
3ES	1.20	1.30						
5D	1.20	1.30						
6B	1.20	1.30			Moderately weak reddish brown locally light greenish grey fine to coarse SANDSTONE. Fractures are subvertical planar smooth tight and rare red matrix infill (up to 1mm). Recovered as sandy angular to subrounded fine to coarse GRAVEL with a high angular to subrounded sandstone cobble content.	1.30	61.55	
7D	1.50	1.60						
8D	2.50	2.60						
9LB	2.90	3.00						
					Trial pit Completed at 3.00m	3.00	59.85	

Equipment: JCB 3CX.

Pit width x length: 0.70m x 4.00m Sidewall stability: Stable.

Remarks: Trial pit terminated at 3.00m due to hard ground preventing progress.

Groundwater: Groundwater not encountered

Depth Strike (m)	Rose to (m)	Time to rise (min)	Remarks

Backfill details:

Depth Top (m)	Depth Base (m)	Material	Remarks
0.00	3.00	Arisings	

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

CONTRACT

36142

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Geotechnical Engineering Limited

TRIAL PIT LOG

CLIENT CAMPBELLREITH

TP07

SITE BRISLINGTON MEADOWS

Sheet 1 of 1

Start Date 05 November 2020 Easting 362747.1

Scale 1:25

End Date 05 November 2020 Northing 171140.7 Ground Level 67.85mOD

Depth 1.70 m

sample no & type	sample depth (m) from	to	test type & value	water record	description	depth (m)	reduced level (m)	legend
1D 1ES 2B	0.00 0.00 0.00	0.15 0.15 0.15			Soft dark brown slightly gravelly sandy CLAY with a low subangular and subrounded sandstone cobble content and frequent rootlets. Gravel is subangular and subrounded fine to coarse sandstone.			
					Soft to firm dark brown slightly gravelly slightly sandy CLAY. Gravel is subangular and subrounded fine to coarse sandstone.	0.20	67.65	
2ES 3D 4B	0.90 0.90 0.90	1.00 1.00 1.00			Moderately weak reddish brown locally light greenish grey fine to coarse SANDSTONE. Fractures are subvertical planar smooth tight and rare red matrix infill (up to 1mm). Recovered as sandy angular to subrounded fine to coarse GRAVEL with a high angular to subrounded sandstone cobble content.	0.70	67.15	
					Trial pit Completed at 1.70m	1.70	66.15	

Equipment: JCB 3CX.

Pit width x length: 0.70m x 4.00m Sidewall stability: Stable.

Remarks: Trial pit terminated at 1.70m due to hard ground preventing progress.

Groundwater: Groundwater not encountered

Depth Strike (m)	Rose to (m)	Time to rise (min)	Remarks

Backfill details:

Depth Top (m)	Depth Base (m)	Material	Remarks
0.00	1.70	Arisings	

CONTRACT

36142

CHECKED

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

Geotechnical Engineering Limited

TRIAL PIT LOG

CLIENT CAMPBELLREITH

TP08

SITE BRISLINGTON MEADOWS

Sheet 1 of 1

Start Date 05 November 2020 Easting 362807.5

Scale 1:25

End Date 05 November 2020 Northing 171109.0 Ground Level 67.30mOD

Depth 1.00 m

sample no & type	sample depth (m) from	to	test type & value	water record	description	depth (m)	reduced level (m)	legend
1D	0.00	0.15			Soft dark brown slightly gravelly slightly sandy CLAY with frequent rootlets. Gravel is subangular and subrounded fine to coarse sandstone.			
1ES	0.00	0.15						
2B	0.00	0.15						
						0.40	66.90	
					Moderately weak reddish brown locally light greenish grey fine to coarse SANDSTONE. Fractures are subvertical planar smooth tight and rare red matrix infill (up to 1mm). Recovered as sandy angular to subrounded fine to coarse GRAVEL with a high angular to suborunded sandstone cobble content.			
2ES	0.90	1.00						
3D	0.90	1.00						
4B	0.90	1.00				1.00	66.30	
					Trial pit Completed at 1.00m			

Equipment: JCB 3CX.

Pit width x length: 0.70m x 4.00m Sidewall stability: Stable.

Remarks: Trial pit terminated at 1.00m due to hard ground preventing progress.

Groundwater: Groundwater not encountered

Depth Strike (m)	Rose to (m)	Time to rise (min)	Remarks

Backfill details:

Depth Top (m)	Depth Base (m)	Material	Remarks
0.00	1.00	Arisings	

AGS

CONTRACT

36142

CHECKED

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

Geotechnical Engineering Limited

TRIAL PIT LOG

CLIENT CAMPBELLREITH

TP09

SITE BRISLINGTON MEADOWS

Sheet 1 of 1

Start Date 04 November 2020 Easting 362751.2

Scale 1:25

End Date 04 November 2020 Northing 171059.8 Ground Level 65.35mOD

Depth 4.00 m

sample no & type	sample depth (m) from	to	test type & value	water record	description	depth (m)	reduced level (m)	legend
1D	0.00	0.15			Soft dark brown slightly gravelly slightly sandy CLAY with frequent rootlets. Gravel is subangular and subrounded fine to coarse sandstone.			
1ES	0.00	0.15						
2B	0.00	0.15						
						0.25	65.10	
2ES	0.30	0.50			Moderately weak reddish brown and light greenish grey fine and medium SANDSTONE. Recovered as gravelly fine to medium SAND with a medium subangualr sandstone cobble content. Gravel is subangular fine to coarse sandstone.			
3D	0.30	0.50						
4LB	0.30	0.50						
3ES	0.80	1.00						
5D	0.80	1.00						
6B	0.80	1.00						
7D	1.90	2.00						
8B	2.50	2.70						
9D	2.90	3.00						
10B	3.50	3.60						
11D	3.90	4.00						
					Trial pit Completed at 4.00m	4.00	61.35	

Equipment: JCB 3CX.

Pit width x length: 0.70m x 4.00m Sidewall stability: Stable.

Remarks: Trial pit terminated at 4.00m due to hard ground preventing progress.

Groundwater: Groundwater not encountered

Depth Strike (m)	Rose to (m)	Time to rise (min)	Remarks

Backfill details:

Depth Top (m)	Depth Base (m)	Material	Remarks
0.00	4.00	Arisings	

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

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TRIAL PIT LOG

CLIENT CAMPBELLREITH

TP10

SITE BRISLINGTON MEADOWS

Sheet 1 of 2

Start Date 04 November 2020 Easting 362694.2

Scale 1:25

End Date 04 November 2020 Northing 171024.0 Ground Level 61.40mOD

Depth 4.80 m

sample no & type	sample depth (m) from	to	test type & value	water record	description	depth (m)	reduced level (m)	legend
1D	0.00	0.20			Soft dark brown slightly gravelly slightly sandy CLAY with frequent rootlets. Gravel is subangular and subrounded fine to coarse sandstone.			
1ES	0.00	0.20						
2B	0.00	0.20				0.20	61.20	
2ES	0.30	0.50			Reddish brown very sandy very clayey subangular and subrounded fine to coarse sandstone GRAVEL.			
3D	0.30	0.50						
4B	0.30	0.50						
3ES	1.90	2.10						
5B	1.90	2.10						
6D	1.90	2.10						
4ES	2.80	3.00			Moderately weak thinly bedded reddish brown and light greenish grey fine to coarse SANDSTONE. Recovered as angular and subangular fine to coarse sandstone GRAVEL.	2.80	58.60	
					Continued Next Page			

Equipment: JCB 3CX.

Pit width x length: 0.70m x 4.00m

Sidewall stability: Stable.

Groundwater: Groundwater not encountered

Depth Strike (m)	Rose to (m)	Time to rise (min)	Remarks

Backfill details:

Depth Top (m)	Depth Base (m)	Material	Remarks
0.00	4.80	Arisings	

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TRIAL PIT LOG

CLIENT CAMPBELLREITH

TP10

SITE BRISLINGTON MEADOWS

Sheet 2 of 2

Start Date 04 November 2020 Easting 362694.2

Scale 1:25

End Date 04 November 2020 Northing 171024.0 Ground Level 61.40mOD

Depth 4.80 m

sample no & type	sample depth (m) from	to	test type & value	water record	description	depth (m)	reduced level (m)	legend
					Moderately weak thinly bedded reddish brown and light greenish grey fine to coarse SANDSTONE. Recovered as angular and subangular fine to coarse sandstone GRAVEL.			
					Trial pit Completed at 4.80m	4.80	56.60	

Equipment: JCB 3CX.

Pit width x length: 0.70m x 4.00m

Sidewall stability: Stable.

Groundwater: Groundwater not encountered

Depth Strike (m)	Rose to (m)	Time to rise (min)	Remarks

Backfill details:

Depth Top (m)	Depth Base (m)	Material	Remarks
0.00	4.80	Arisings	

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EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

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TRIAL PIT LOG

CLIENT CAMPBELLREITH

TP11

SITE BRISLINGTON MEADOWS

Sheet 1 of 2

Start Date 03 November 2020 Easting 362749.9

Scale 1:25

End Date 03 November 2020 Northing 170997.7 Ground Level 61.95mOD

Depth 5.00 m

sample no & type	sample depth (m) from	to	test type & value	water record	description	depth (m)	reduced level (m)	legend
1B	0.00	0.15			Soft dark brown slightly gravelly slightly sandy CLAY with frequent rootlets. Gravel is subangular and subrounded fine to coarse sandstone.			
1ES	0.00	0.15						
1ES	0.00	0.15						
2D	0.00	0.15				0.20	61.75	
2ES	0.30	0.40			Reddish brown clayey sandy subangular and subrounded fine to coarse sandstone GRAVEL with a low subangular sandstone cobble content.			
2ES	0.30	0.40						
3B	0.30	0.40						
4D	0.30	0.40						
3ES	0.80	1.00						
3ES	0.80	1.00						
5D	0.80	1.00						
6B	0.80	1.00						
7LB	2.00	2.20						
8B	3.00	3.20				3.00	58.95	
					Moderately weak thinly bedded reddish brown and greenish grey medium to coarse SANDSTONE. Recovered as slightly sandy very gravelly sandstone COBBLES. Gravel is angular and subangular fine to coarse sandstone.			
					Continued Next Page			

Equipment: JCB 3CX.

Pit width x length: 0.70m x 3.00m

Sidewall stability: Stable.

Groundwater: Groundwater not encountered

Depth Strike (m)	Rose to (m)	Time to rise (min)	Remarks

Backfill details:

Depth Top (m)	Depth Base (m)	Material	Remarks
0.00	5.00	Arisings	

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EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

Geotechnical Engineering Limited

TRIAL PIT LOG

CLIENT CAMPBELLREITH

TP11

SITE BRISLINGTON MEADOWS

Sheet 2 of 2

Start Date 03 November 2020 Easting 362749.9

Scale 1:25

End Date 03 November 2020 Northing 170997.7 Ground Level 61.95mOD

Depth 5.00 m

sample no & type	sample depth (m) from	to	test type & value	water record	description	depth (m)	reduced level (m)	legend
9B	4.50	4.60			Moderately weak thinly bedded reddish brown and greenish grey medium to coarse SANDSTONE. Recovered as slightly sandy very gravelly sandstone COBBLES. Gravel is angular and subangular fine to coarse sandstone.			
					Trial pit Completed at 5.00m	5.00	56.95	

Equipment: JCB 3CX.

Pit width x length: 0.70m x 3.00m

Sidewall stability: Stable.

Groundwater: Groundwater not encountered

Depth Strike (m)	Rose to (m)	Time to rise (min)	Remarks

Backfill details:

Depth Top (m)	Depth Base (m)	Material	Remarks
0.00	5.00	Arisings	

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

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TRIAL PIT LOG

CLIENT CAMPBELLREITH

TP12

SITE BRISLINGTON MEADOWS

Sheet 1 of 1

Start Date 03 November 2020 Easting 362699.0

Scale 1:25

End Date 03 November 2020 Northing 170947.2 Ground Level 57.80mOD

Depth 3.60 m

sample no & type	sample depth (m) from	to	test type & value	water record	description	depth (m)	reduced level (m)	legend
1B	0.00	0.15			Soft dark brown slightly gravelly slightly sandy CLAY with frequent rootlets. Gravel is subangular and subrounded fine to coarse sandstone.			
1ES	0.00	0.15						
2D	0.00	0.15						
						0.20	57.60	
2ES	0.30	0.50			Soft light brown mottled light grey slightly sandy CLAY with rare rootlet traces.			
3B	0.30	0.50						
4D	0.30	0.50						
						0.70	57.10	
					Firm locally stiff orangish brown mottled light grey slightly sandy silty CLAY.			
3ES	0.90	1.10						
5LB	0.90	1.10						
6D	0.90	1.10						
						1.30	56.50	
					Reddish brown and grey slightly clayey very gravelly SAND. Gravel is subangular fine to coarse sandstone.			
					Trial pit Completed at 3.60m	3.60	54.20	

Equipment: JCB 3CX

Pit width x length: 0.70m x 4.00m Sidewall stability: Stable.

Remarks: Trial pit terminated at 3.60m due to hard ground preventing progress.

Groundwater: Groundwater not encountered

Depth Strike (m)	Rose to (m)	Time to rise (min)	Remarks

Backfill details:

Depth Top (m)	Depth Base (m)	Material	Remarks
0.00	3.60	Arisings	

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EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

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TRIAL PIT LOG

CLIENT CAMPBELLREITH

TP13

SITE BRISLINGTON MEADOWS

Sheet 1 of 1

Start Date 06 November 2020 Easting 362460.3

Scale 1:25

End Date 06 November 2020 Northing 171276.0 Ground Level 56.60mOD

Depth 0.85 m

sample no & type	sample depth (m) from	to	test type & value	water record	description	depth (m)	reduced level (m)	legend
1D 1ES 2LB	0.00 0.00 0.00	0.15 0.15 0.15			Soft dark brown slightly gravelly sandy CLAY with a low subangular and subrounded sandstone cobble content and frequent rootlets. Gravel is subangular and subrounded fine to coarse sandstone.	0.15	56.45	
					Reddish brown slightly clayey gravelly fine and medium SAND with medium cobble content. Gravel is subangular and subrounded fine to coarse sandstone. Cobbles are subangular to subrounded sandstone.	0.60	56.00	
2ES 3D 4B	0.70 0.70 0.70	0.80 0.80 0.80			Moderately weak light greenish grey locally reddish brown fine and medium SANDSTONE. Fractures are subvertical planar smooth and tight. Recovered as sandy clayey angular to subrounded fine to coarse sandstone GRAVEL with a high subangular sandstone cobble content.	0.85	55.75	
					Trial pit Completed at 0.85m			

Equipment: JCB 3CX.

Pit width x length: 0.70m x 4.00m Sidewall stability: Stable.

Remarks: Trial pit terminated at 0.85m due to hard ground preventing progress.

Groundwater: Groundwater not encountered

Depth Strike (m)	Rose to (m)	Time to rise (min)	Remarks

Backfill details:

Depth Top (m)	Depth Base (m)	Material	Remarks
0.00	0.85	Arisings	

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EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

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TRIAL PIT LOG

CLIENT CAMPBELLREITH

TP14

SITE BRISLINGTON MEADOWS

Sheet 1 of 1

Start Date 20 November 2020 Easting 362967.5

Scale 1:25

End Date 20 November 2020 Northing 171150.5 Ground Level 61.00mOD

Depth 2.00 m

sample no & type	sample depth (m) from	to	test type & value	water record	description	depth (m)	reduced level (m)	legend
					Yellowish brown slightly sandy subangular and subrounded fine and medium flint GRAVEL. (MADE GROUND)			
1B	0.20	0.30				0.15	60.85	
1ES	0.20	0.30			Grey slightly sandy subangular and subrounded fine to coarse limestone GRAVEL with a high subangular limestone cobble content. (MADE GROUND)			
2D	0.20	0.30				0.40	60.60	
2ES	0.50	0.60			Yellowish brown slightly gravelly fine to coarse SAND. Gravel is subangular fine to medium flint.			
3B	0.50	0.60						
4D	0.50	0.60				0.70	60.30	
					Reddish brown very gravelly fine to coarse SAND with low subangular sandstone cobble content. Gravel is subangular fine to coarse sandstone.			
3ES	0.90	1.00						
5B	0.90	1.00						
6D	0.90	1.00				1.10	59.90	
					Reddish brown clayey very sandy subangular fine to coarse sandstone GRAVEL with a medium subangular grey and reddish brown sandstone cobble content.			
4ES	1.70	1.80						
7B	1.70	1.80						
8D	1.70	1.80						
						1.90	59.10	
					Moderately weak fractured grey and reddish brown fine to coarse SANDSTONE recovered as sandy subangular fine to coarse gravel with a high subangular cobble content.	2.00	59.00	
					Trial pit Completed at 2.00m			

Equipment: JCB 3CX

Pit width x length: 0.70m x 1.70m Sidewall stability: Stable.

Remarks: DCP undertaken at 0.30m. Trial pit terminated at 2.00m due to hard ground preventing progress.

Groundwater:

Depth Strike (m)	Rose to (m)	Time to rise (min)	Remarks
1.90	1.95	20	Seepage. Water pooling in base of pit.

Backfill details:

Depth Top (m)	Depth Base (m)	Material	Remarks
0.00	2.00	Arisings	

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EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

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TRIAL PIT LOG

CLIENT CAMPBELLREITH

TP15

SITE BRISLINGTON MEADOWS

Sheet 1 of 1

Start Date 20 November 2020 Easting 362953.6

Scale 1:25

End Date 20 November 2020 Northing 171124.9 Ground Level 61.30mOD

Depth 2.00 m

sample no & type	sample depth (m) from	to	test type & value	water record	description	depth (m)	reduced level (m)	legend
					MADE GROUND comprising dark grey TARMACADAM.	0.10	61.20	
1B	0.20	0.30			Grey and pinkish brown slightly sandy subangular fine to coarse limestone GRAVEL with a high subangular limestone cobble content. (MADE GROUND)			
1ES	0.20	0.30				0.30	61.00	
2D	0.20	0.30			Firm orangish brown slightly sandy slightly gravelly silty CLAY. Gravel is subangular and subrounded fine and medium flint.			
2ES	0.40	0.50						
3B	0.40	0.50		▼				
4D	0.40	0.50			0.60m: Becoming sandy.			
						1.10	60.20	
3ES	1.20	1.30			Reddish brown silty gravelly fine to coarse SAND. Gravel is subangular fine to coarse sandstone.			
5B	1.20	1.30						
6D	1.20	1.30				1.40	59.90	
					Reddish brown sandy subangular fine to coarse sandstone GRAVEL with a high subangular grey and reddish brown sandstone cobble content.			
4ES	1.60	1.70		▼				
7B	1.60	1.70						
8D	1.60	1.70				1.80	59.50	
					Moderately weak fractured grey and reddish brown fine to coarse SANDSTONE recovered as sandy subangular fine to coarse gravel with a high subangular cobble content.	2.00	59.30	
					Trial pit Completed at 2.00m			

Equipment: JCB 3CX

Pit width x length: 0.70m x 1.80m Sidewall stability: Stable.

Remarks: DCP undertaken at 0.30m. Trial pit terminated at 2.00m due to hard ground preventing progress.

Groundwater:

Depth Strike (m)	Rose to (m)	Time to rise (min)	Remarks
0.50	0.50	20	Seepage. Water pooling in base of pit.
1.60	1.60	20	Seepage. Water pooling in base of pit.

Backfill details:

Depth Top (m)	Depth Base (m)	Material	Remarks
0.00	2.00	Arisings	

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EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

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TRIAL PIT LOG

CLIENT CAMPBELLREITH

TP16

SITE BRISLINGTON MEADOWS

Sheet 1 of 1

Start Date 20 November 2020 Easting 362909.0

Scale 1:25

End Date 20 November 2020 Northing 171118.0 Ground Level 61.35mOD

Depth 2.90 m

sample no & type	sample depth (m) from	to	test type & value	water record	description	depth (m)	reduced level (m)	legend
1B 1ES 2D	0.10	0.20			Grass over brown slightly gravelly slightly sandy clayey SILT with frequent black carbonaceous traces (up to 10mm) and frequent rootlets. Gravel is subangular and subrounded fine to coarse chert, brick, concrete and rare plastic fragments.			
2ES 3B 4D	0.40	0.50			Firm reddish brown slightly sandy slightly gravelly silty CLAY. Gravel is subangular to subrounded fine to medium flint.	0.35	61.00	
3ES 5B 6D	0.90	1.00			Stiff reddish brown slightly sandy CLAY.	0.80	60.55	
4ES 7B 8D	1.90	2.00		▼	Stiff orangish brown slightly sandy CLAY. 2.60m: Tending orangish brown and grey.	1.70	59.65	
10D 9B	2.80	2.90			Moderately weak fractured grey and reddish brown fine to coarse SANDSTONE recovered as sandy subangular fine to coarse gravel with a high subangular cobble content.	2.80 2.90	58.55 58.45	
					Trial pit Completed at 2.90m			

Equipment: JCB 3CX

Pit width x length: 0.70m x 2.10m Sidewall stability: Stable.

Remarks: DCP undertaken at 0.30m. Trial pit terminated at 2.90m due to hard ground preventing progress.

Groundwater:

Depth Strike (m)	Rose to (m)	Time to rise (min)	Remarks
1.80	1.80	20	Seepage. Water pooling in base of pit.

Backfill details:

Depth Top (m)	Depth Base (m)	Material	Remarks
0.00	2.90	Arisings	

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TRIAL PIT LOG

CLIENT CAMPBELLREITH

SA01

SITE BRISLINGTON MEADOWS

Sheet 1 of 1

Start Date 06 November 2020 Easting 362503.9

Scale 1:25

End Date 06 November 2020 Northing 171086.4 Ground Level 47.45mOD

Depth 2.50 m

sample no & type	sample depth (m) from	to	test type & value	water record	description	depth (m)	reduced level (m)	legend
1D 1ES 2B	0.00	0.15			Soft dark brown slightly gravelly sandy CLAY with frequent rootlets. Gravel is subangular and subrounded fine to coarse sandstone.			
						0.50	46.95	
					Reddish brown slightly clayey gravelly fine and medium SAND. Gravel is subangular and subrounded fine to coarse sandstone.			
2ES 3D 4B	0.90	1.00						
3ES 5D 6B	1.90	2.00						
				▼				
					Trial pit Completed at 2.50m	2.50	44.95	

Equipment: JCB 3CX.

Pit width x length: 0.70m x 2.00m Sidewall stability: Stable.

Remarks: BRE 365 Soakaway test undertaken in trial pit.

Groundwater:

Depth Strike (m)	Rose to (m)	Time to rise (min)	Remarks
2.50	2.50	20	

Backfill details:

Depth Top (m)	Depth Base (m)	Material	Remarks
0.00	2.50	Arisings	

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

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TRIAL PIT LOG

CLIENT CAMPBELLREITH

SA02

SITE BRISLINGTON MEADOWS

Sheet 1 of 1

Start Date 05 November 2020 Easting 362588.5

Scale 1:25

End Date 05 November 2020 Northing 171075.7 Ground Level 55.25mOD

Depth 3.10 m

sample no & type	sample depth (m) from	to	test type & value	water record	description	depth (m)	reduced level (m)	legend
1D 1ES 2B	0.00 0.00 0.00	0.15 0.15 0.15			Soft dark reddish brown slightly gravelly slightly sandy CLAY with frequent rootlets. Gravel is subangular and subrounded fine to coarse sandstone.			
						0.70	54.55	
2ES 3D 4B	0.90 0.90 0.90	1.00 1.00 1.00			Reddish brown slightly clayey gravelly fine and medium SAND with a high subangular and subrounded sandstone cobble content. Gravel is subangular and subrounded fine to coarse sandstone.			
5LB	1.30	1.40						
3ES 6D 7B	1.90 1.90 1.90	2.00 2.00 2.00						
					Medium strong locally weak light greenish grey locally reddish brown fine to coarse SANDSTONE. Fractures are subvertical planar smooth tight with rare dark red infill (up to 1mm).	2.80	52.45	
					Trial pit Completed at 3.10m	3.10	52.15	

Equipment: JCB 3CX.

Pit width x length: 0.70m x 2.85m Sidewall stability: Stable.

Remarks: BRE 365 Soakaway test undertaken in trial pit.

Groundwater:

Depth Strike (m)	Rose to (m)	Time to rise (min)	Remarks
3.10	3.10	20	

Backfill details:

Depth Top (m)	Depth Base (m)	Material	Remarks
0.00	3.10	Arisings	

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

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TRIAL PIT LOG

CLIENT CAMPBELLREITH

SA03

SITE BRISLINGTON MEADOWS

Sheet 1 of 1

Start Date 04 November 2020 Easting 362627.0

Scale 1:25

End Date 04 November 2020 Northing 171047.9 Ground Level 57.00mOD

Depth 1.80 m

sample no & type	sample depth (m) from	to	test type & value	water record	description	depth (m)	reduced level (m)	legend
1B	0.00	0.15			Soft dark brown slightly gravelly slightly sandy CLAY with frequent rootlets. Gravel is subangular and subrounded fine to coarse sandstone.			
1ES	0.00	0.15						
2D	0.00	0.15						
						0.20	56.80	
2ES	0.30	0.40			Reddish brown slightly clayey gravelly fine and medium SAND. Gravel is subangular and subrounded fine to coarse sandstone.			
3D	0.30	0.40						
4B	0.30	0.40						
						0.60	56.40	
					Reddish brown gravelly fine to coarse SAND. Gravel is angular to subrounded fine to coarse sandstone.			
3ES	1.10	1.20						
5B	1.10	1.20						
6D	1.10	1.20						
				▼				
					Trial pit Completed at 1.80m	1.80	55.20	

Equipment: JCB 3CX.

Pit width x length: 0.70m x 4.00m Sidewall stability: Stable.

Remarks: BRE 365 Soakaway test undertaken in trial pit.

Groundwater:

Depth Strike (m)	Rose to (m)	Time to rise (min)	Remarks
1.80	1.80	20	

Backfill details:

Depth Top (m)	Depth Base (m)	Material	Remarks
0.00	1.80	Arisings	

EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

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TRIAL PIT LOG

CLIENT CAMPBELLREITH

SA04

SITE BRISLINGTON MEADOWS

Sheet 1 of 1

Start Date 03 November 2020 Easting 362728.3

Scale 1:25

End Date 03 November 2020 Northing 170971.0 Ground Level 60.10mOD

Depth 2.30 m

sample no & type	sample depth (m) from	to	test type & value	water record	description	depth (m)	reduced level (m)	legend
1B 1ES 2D	0.10 0.10 0.10	0.30 0.30 0.30			Soft dark brown slightly gravelly slightly sandy CLAY with frequent rootlets. Gravel is subangular and subrounded fine to coarse sandstone.			
					Reddish brown slightly clayey gravelly fine and medium SAND. Gravel is subangular and subrounded fine to coarse sandstone.	0.30	59.80	
2ES 3LB 4D	0.90 0.90 0.90	1.10 1.10 1.10						
3ES 5LB 6D	2.10 2.10 2.10	2.30 2.30 2.30			Reddish brown slightly clayey sandy GRAVEL. Gravel is subangular fine to coarse sandstone.	2.10	58.00	
					Trial pit Completed at 2.30m	2.30	57.80	

Equipment: JCB 3CX.

Pit width x length: 0.70m x 4.00m Sidewall stability: Stable.

Remarks: BRE 365 Soakaway test undertaken in trial pit.

Groundwater:

Depth Strike (m)	Rose to (m)	Time to rise (min)	Remarks
2.30	2.00	20	

Backfill details:

Depth Top (m)	Depth Base (m)	Material	Remarks
0.00	2.30	Arisings	

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EXPLORATORY HOLE LOGS SHOULD BE READ IN CONJUNCTION WITH KEY SHEETS

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SOAKAWAY TEST

CLIENT CAMPBELLREITH
SITE BRISLINGTON MEADOWS
DATE 06/11/2020

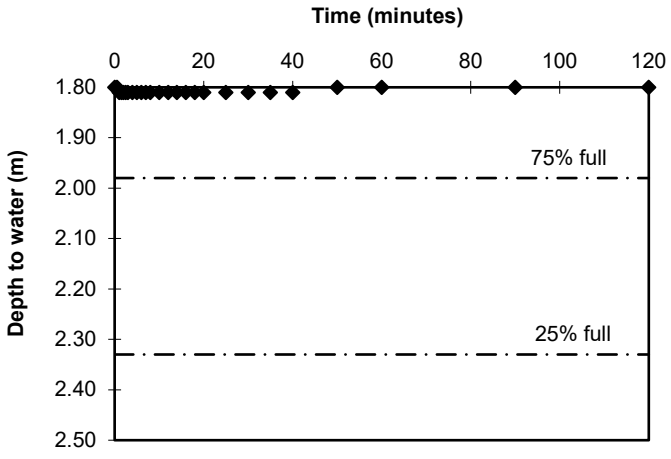
TRIAL PIT **SA01**

TEST 1

LENGTH	2.90	m
BREADTH	0.70	m
DEPTH	2.50	m
WATER LEVEL	2.50	m
FILL LEVEL	1.80	m
v_{p75-25}	n/a	m^3
a_{p50}	n/a	m^2
t_{p75-25}	n/a	min

soil infiltration rate, *f* *** x 10^{-*} ms^{-1}**

Insufficient fall in level to calculate infiltration rate.

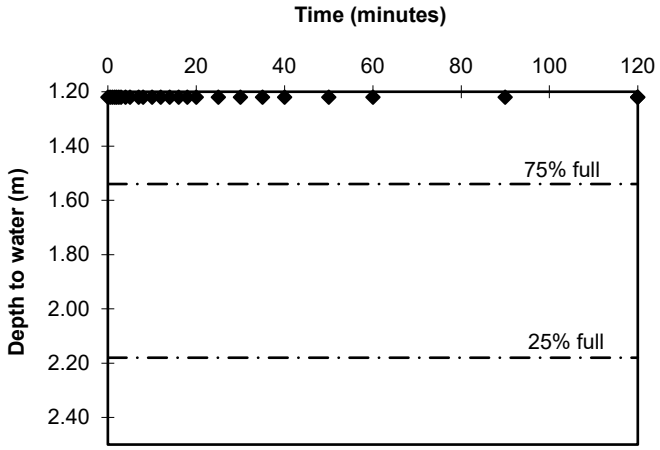


TEST 2

LENGTH	2.90	m
BREADTH	0.70	m
DEPTH	2.50	m
WATER LEVEL	2.50	m
FILL LEVEL	1.22	m
v_{p75-25}	n/a	m^3
a_{p50}	n/a	m^2
t_{p75-25}	n/a	min

soil infiltration rate, *f* *** x 10^{-*} ms^{-1}**

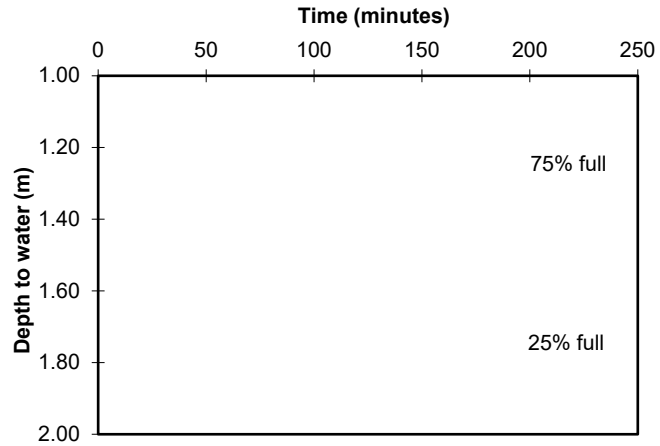
Insufficient fall in level to calculate infiltration rate.



TEST 3

LENGTH		m
BREADTH		m
DEPTH		m
WATER LEVEL		m
FILL LEVEL		m
v_{p75-25}		m^3
a_{p50}		m^2
t_{p75-25}		min

soil infiltration rate, *f* *** x 10^{-*}** **ms^{-1}**



Remarks Test carried out in accordance with BRE DG 365 (2016).

CONTRACT	CHECKED
36142	**CT**

TW/ JE

Geotechnical Engineering Limited

SOAKAWAY TEST

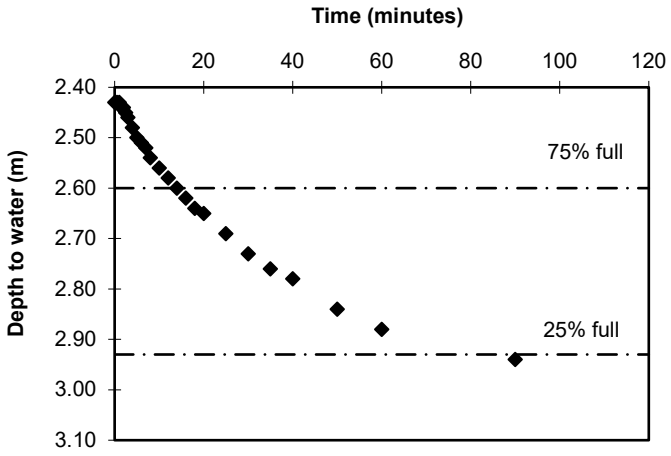
CLIENT CAMPBELLREITH
SITE BRISLINGTON MEADOWS
DATE 05/11/2020

TRIAL PIT **SA02**

TEST 1

LENGTH	2.85	m
BREADTH	0.70	m
DEPTH	3.10	m
WATER LEVEL	3.10	m
FILL LEVEL	2.43	m
v_{p75-25}	0.670	m^3
a_{p50}	4.370	m^2
t_{p75-25}	72	min

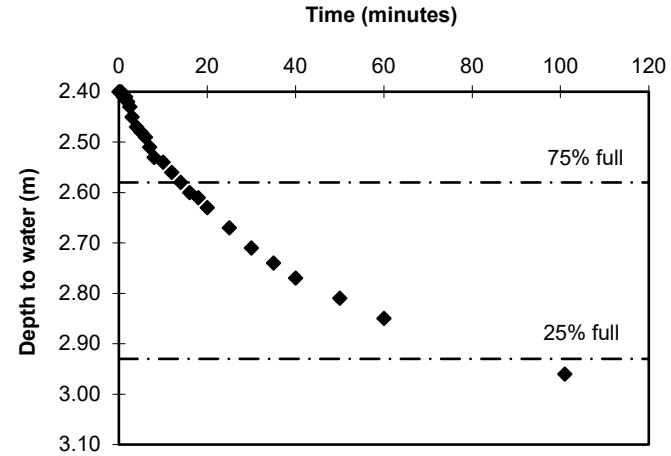
soil infiltration rate, *f* **3.5×10^{-5} ms^{-1}**



TEST 2

LENGTH	2.85	m
BREADTH	0.70	m
DEPTH	3.10	m
WATER LEVEL	3.10	m
FILL LEVEL	2.40	m
v_{p75-25}	0.690	m^3
a_{p50}	4.480	m^2
t_{p75-25}	79	min

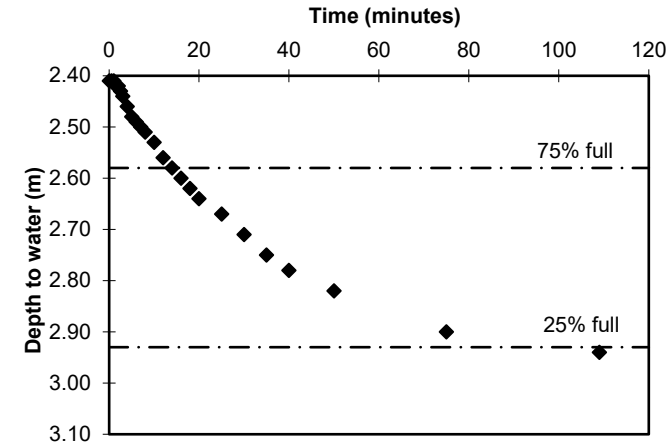
soil infiltration rate, *f* **3.3×10^{-5} ms^{-1}**



TEST 3

LENGTH	2.85	m
BREADTH	0.70	m
DEPTH	3.10	m
WATER LEVEL	3.10	m
FILL LEVEL	2.41	m
v_{p75-25}	0.690	m^3
a_{p50}	4.440	m^2
t_{p75-25}	87	min

soil infiltration rate, *f* **3.0×10^{-5} ms^{-1}**



Remarks Test carried out in accordance with BRE DG 365 (2016).

CONTRACT	CHECKED
36142	**CT**

TW/ JE

Geotechnical Engineering Limited

SOAKAWAY TEST

CLIENT CAMPBELLREITH
SITE BRISLINGTON MEADOWS
DATE 04/11/2020

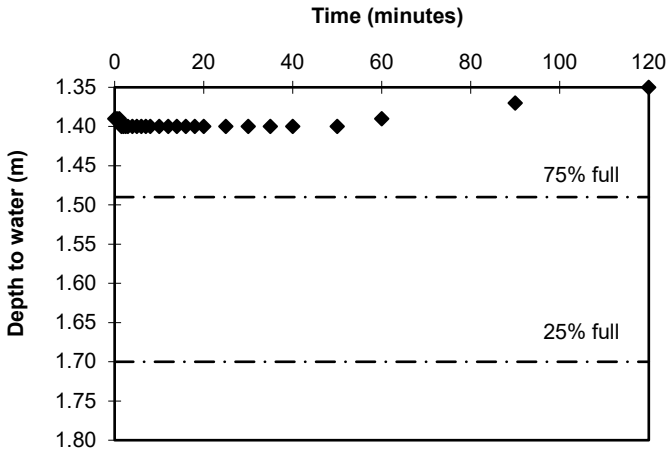
TRIAL PIT **SA03**

TEST 1

LENGTH	4.00	m
BREADTH	0.70	m
DEPTH	1.80	m
WATER LEVEL	1.80	m
FILL LEVEL	1.39	m
v_{p75-25}	n/a	m^3
a_{p50}	n/a	m^2
t_{p75-25}	n/a	min

soil infiltration rate, *f* *** x 10^{-*} ms^{-1}**

Unable to calculate infiltration rate as the level rose.

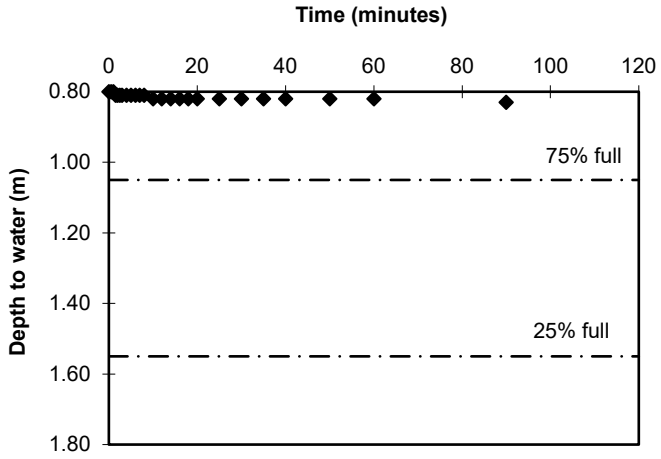


TEST 2

LENGTH	4.00	m
BREADTH	0.70	m
DEPTH	1.80	m
WATER LEVEL	1.35	m
FILL LEVEL	0.80	m
v_{p75-25}	n/a	m^3
a_{p50}	n/a	m^2
t_{p75-25}	n/a	min

soil infiltration rate, *f* *** x 10^{-*} ms^{-1}**

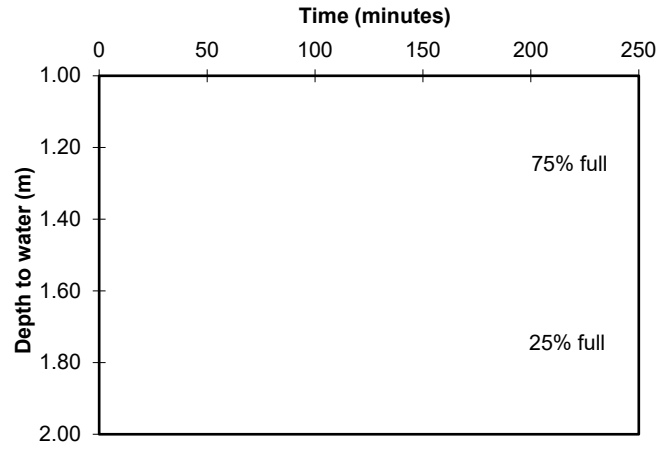
Insufficient fall in level to calculate infiltration rate.



TEST 3

LENGTH		m
BREADTH		m
DEPTH		m
WATER LEVEL		m
FILL LEVEL		m
v_{p75-25}		m^3
a_{p50}		m^2
t_{p75-25}		min

soil infiltration rate, *f* *** x 10^{-*}** **ms^{-1}**



Remarks Test carried out in accordance with BRE DG 365 (2016).

CONTRACT	CHECKED
36142	**CT**

TW/ JE

Geotechnical Engineering Limited

SOAKAWAY TEST

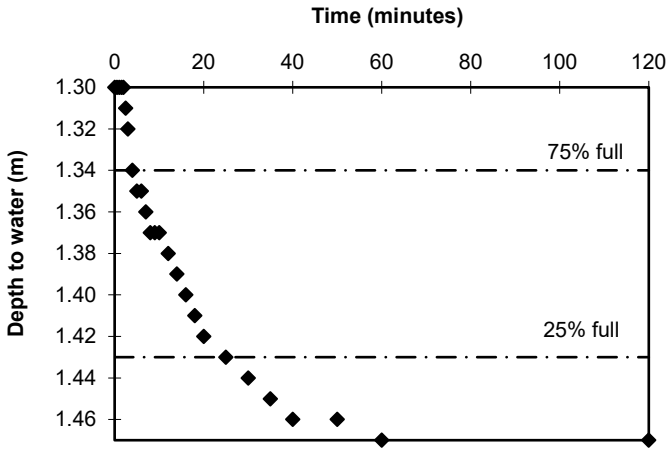
CLIENT CAMPBELLREITH
SITE BRISLINGTON MEADOWS
DATE 03/11/2020

TRIAL PIT **SA04**

TEST 1

LENGTH	3.60	m
BREADTH	0.80	m
DEPTH	2.00	m
WATER LEVEL	2.00	m
FILL LEVEL	1.30	m
v_{p75-25}	0.250	m^3
a_{p50}	8.290	m^2
t_{p75-25}	21	min

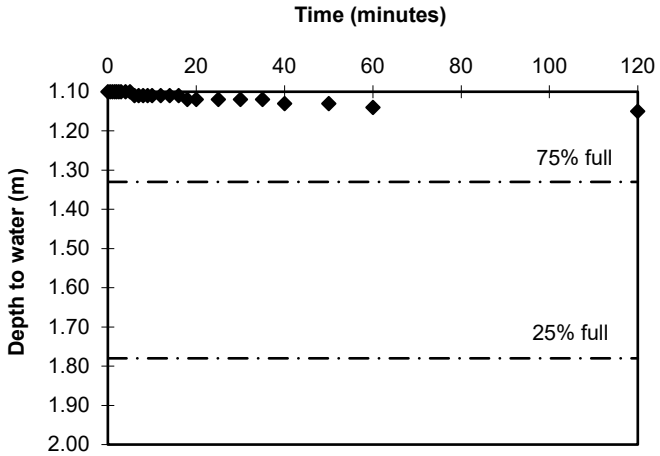
soil infiltration rate, *f* **2.3×10^{-5} ms^{-1}**
Calculated over depth range achieved for test.
Treat with caution



TEST 2

LENGTH	3.60	m
BREADTH	0.80	m
DEPTH	2.00	m
WATER LEVEL	2.00	m
FILL LEVEL	1.10	m
v_{p75-25}	n/a	m^3
a_{p50}	n/a	m^2
t_{p75-25}	n/a	min

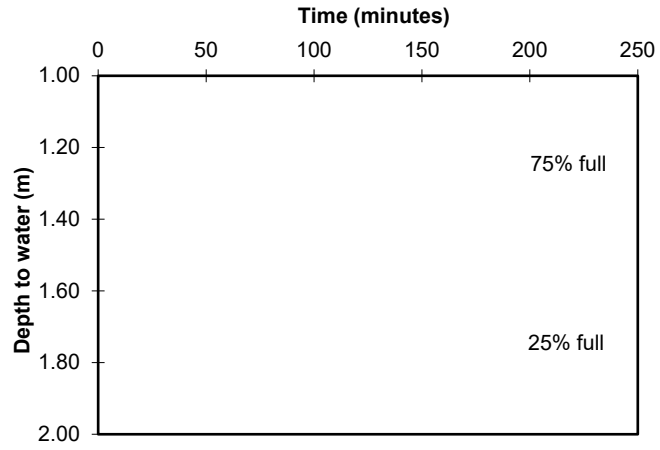
soil infiltration rate, *f* *** x 10^{-*} ms^{-1}**
Insufficient fall in level to calculate infiltration rate.



TEST 3

LENGTH		m
BREADTH		m
DEPTH		m
WATER LEVEL		m
FILL LEVEL		m
v_{p75-25}		m^3
a_{p50}		m^2
t_{p75-25}		min

soil infiltration rate, *f* *** x 10^{-*}** **ms^{-1}**



Remarks Test carried out in accordance with BRE DG 365 (2016).

CONTRACT	CHECKED
36142	**CT**

TW/ JE

Geotechnical Enigneering Limited

DYNAMIC CONE PENETROMETER TESTING

TP14 DCP

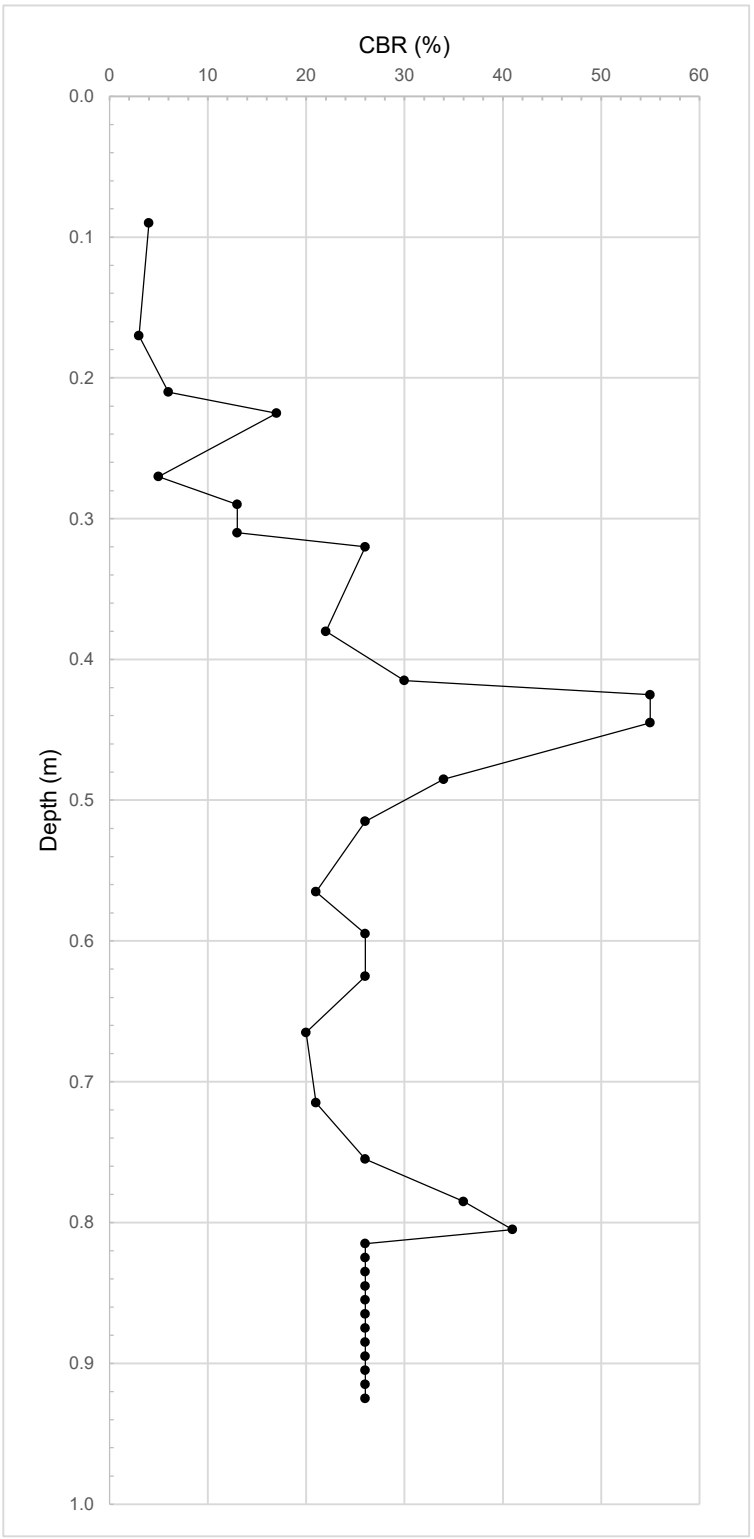
CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS

DATE 20/11/2020

Initial Scale reading (mm) 0 Datum bgl (mm) 25

no. of blows	Scale reading (mm)	Penetration Increment (mm)	Depth bgl (m)	DCP (mm/blow)	CBR (%)
1	65		0.09	65	4
1	145		0.17	80	3
1	185		0.21	40	6
1	200		0.23	15	17
1	245		0.27	45	5
1	265		0.29	20	13
1	285		0.31	20	13
1	295		0.32	10	26
5	355		0.38	12	22
4	390		0.42	9	30
2	400		0.43	5	55
4	420		0.45	5	55
5	460		0.49	8	34
3	490		0.52	10	26
4	540		0.57	13	21
3	570		0.60	10	26
3	600		0.63	10	26
3	640		0.67	13	20
4	690		0.72	13	21
4	730		0.76	10	26
4	760		0.79	8	36
3	780		0.81	7	41
1	790		0.82	10	26
1	800		0.83	10	26
1	810		0.84	10	26
1	820		0.85	10	26
1	830		0.86	10	26
1	840		0.87	10	26
1	850		0.88	10	26
1	860		0.89	10	26
1	870		0.90	10	26
1	880		0.91	10	26
1	890		0.92	10	26
1	900		0.93	10	26



Remarks:

Test carried out in accordance with operating instructions for the dynamic cone penetrometer Model A2465 by CNS Farnell Ltd. CBR correlation based on the relationship Log10 (CBR) = 2.48 - 1.057 * Log10 (mm/blow) developed by TRL taken from The Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)

CONTRACT	CHECKED
36142	

Geotechnical Enigneering Limited

DYNAMIC CONE PENETROMETER TESTING

TP15 DCP

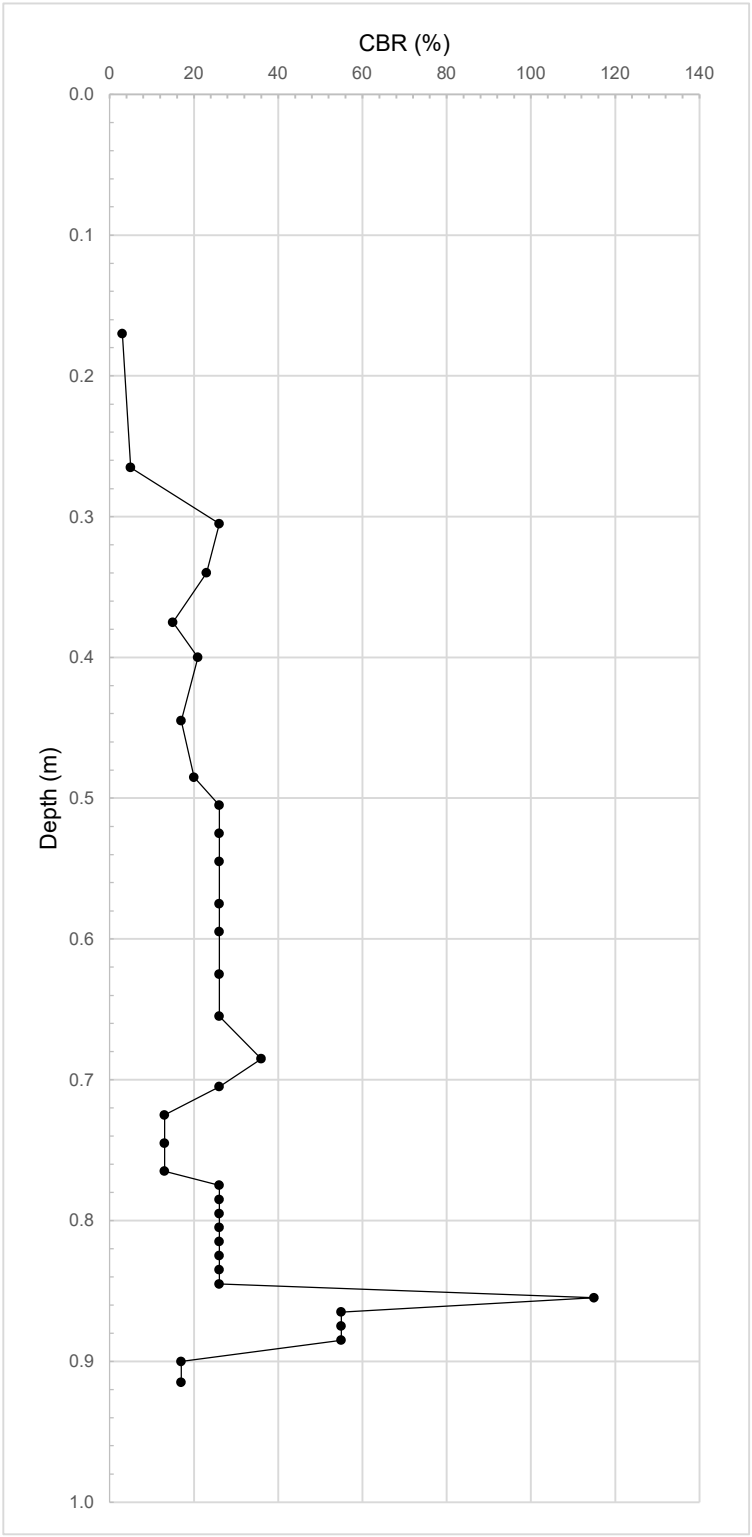
CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS

DATE 20/11/2020

Initial Scale reading (mm) 0 Datum bgl (mm) 15

no. of blows	Scale reading (mm)	Penetration Increment (mm)	Depth bgl (m)	DCP (mm/blow)	CBR (%)
2	155		0.17	78	3
2	250		0.27	48	5
4	290		0.31	10	26
3	325		0.34	12	23
2	360		0.38	18	15
2	385		0.40	13	21
3	430		0.45	15	17
3	470		0.49	13	20
2	490		0.51	10	26
2	510		0.53	10	26
2	530		0.55	10	26
3	560		0.58	10	26
2	580		0.60	10	26
3	610		0.63	10	26
3	640		0.66	10	26
4	670		0.69	8	36
2	690		0.71	10	26
1	710		0.73	20	13
1	730		0.75	20	13
1	750		0.77	20	13
1	760		0.78	10	26
1	770		0.79	10	26
1	780		0.80	10	26
1	790		0.81	10	26
1	800		0.82	10	26
1	810		0.83	10	26
1	820		0.84	10	26
1	830		0.85	10	26
4	840		0.86	3	115
2	850		0.87	5	55
2	860		0.88	5	55
2	870		0.89	5	55
1	885		0.90	15	17
1	900		0.92	15	17



Remarks:

Test carried out in accordance with operating instructions for the dynamic cone penetrometer Model A2465 by CNS Farnell Ltd. CBR correlation based on the relationship Log10 (CBR) = 2.48 - 1.057 * Log10 (mm/blow) developed by TRL taken from The Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)

CONTRACT	CHECKED
36142	

Geotechnical Enigneering Limited

DYNAMIC CONE PENETROMETER TESTING

TP16 DCP

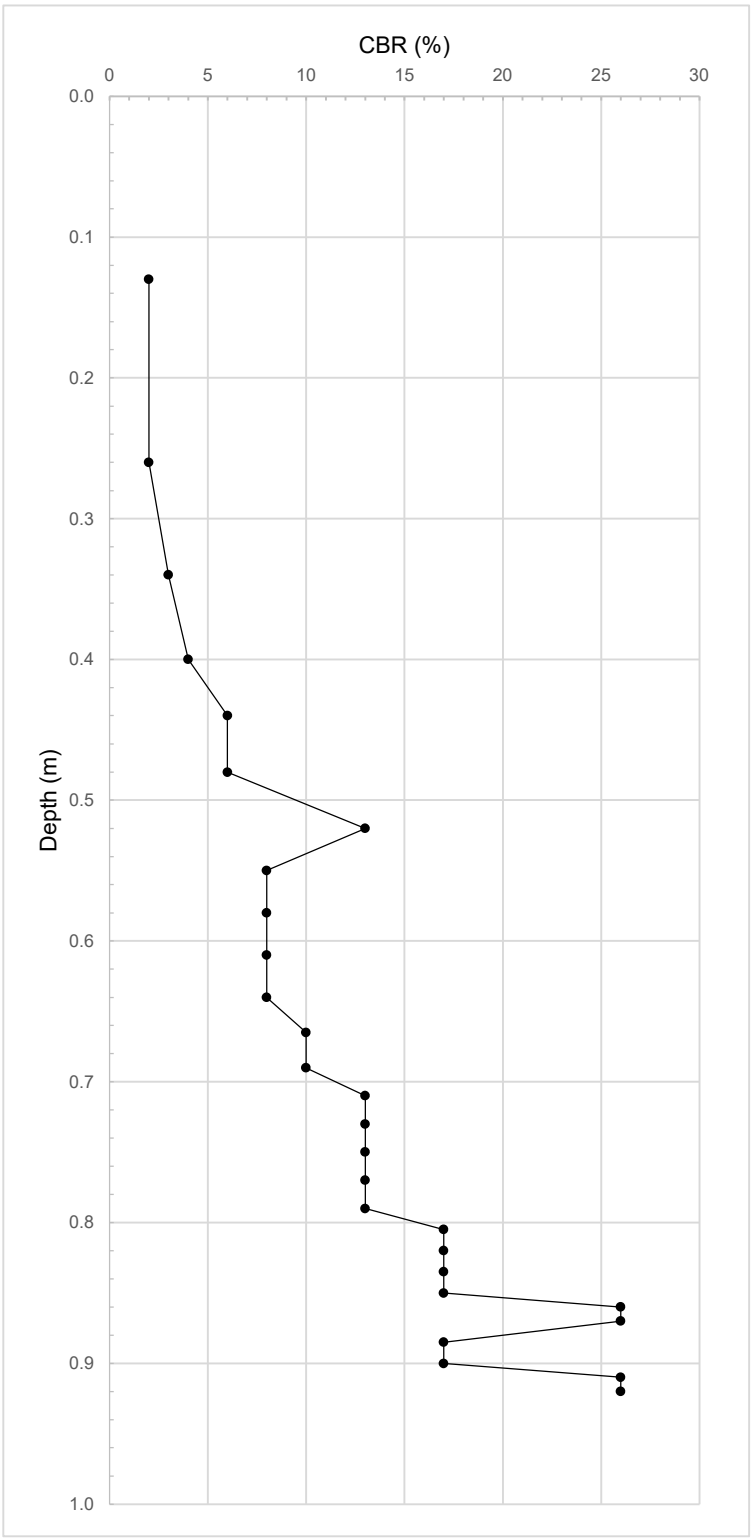
CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS

DATE 20/11/2020

Initial Scale reading (mm) 0 Datum bgl (mm) 20

no. of blows	Scale reading (mm)	Penetration Increment (mm)	Depth bgl (m)	DCP (mm/blow)	CBR (%)
1	110		0.13	110	2
1	240		0.26	130	2
1	320		0.34	80	3
1	380		0.40	60	4
1	420		0.44	40	6
1	460		0.48	40	6
2	500		0.52	20	13
1	530		0.55	30	8
1	560		0.58	30	8
1	590		0.61	30	8
1	620		0.64	30	8
1	645		0.67	25	10
1	670		0.69	25	10
1	690		0.71	20	13
1	710		0.73	20	13
1	730		0.75	20	13
1	750		0.77	20	13
1	770		0.79	20	13
1	785		0.81	15	17
1	800		0.82	15	17
1	815		0.84	15	17
1	830		0.85	15	17
1	840		0.86	10	26
1	850		0.87	10	26
1	865		0.89	15	17
1	880		0.90	15	17
1	890		0.91	10	26
1	900		0.92	10	26



Remarks:

Test carried out in accordance with operating instructions for the dynamic cone penetrometer Model A2465 by CNS Farnell Ltd. CBR correlation based on the relationship Log10 (CBR) = 2.48 - 1.057 * Log10 (mm/blow) developed by TRL taken from The Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)

CONTRACT	CHECKED
36142	

Geotechnical Engineering Limited

GAS AND GROUNDWATER LEVELS

CLIENT: CAMPBELLREITH

SITE: BRISLINGTON MEADOWS

Borehole /trial pit no.	date and time	barometric pressure (mb)	pressure differentiation (mm H2O)	carbon dioxide (%)	methane (%)	oxygen (%)	LEL (%)	hydrogen sulphide (ppm)	carbon monoxide (ppm)	VOC (ppm)	gas flow (ltr/hr)	termperature (°C)	water level (m - bgl)	remarks
BH01	30/11/2020 09:50	1020	0								0.0	7		
BH01	30/11/2020 09:51	1020	0								0.0	7		
BH01	30/11/2020 09:52	1020	0								0.0	7		
BH01	30/11/2020 09:53			0.3	0.0	18.7	0.0	0	0	0.0				
BH01	30/11/2020 09:53			0.1	0.0	19.0	0.0	0	0	0.0				
BH01	30/11/2020 09:53			0.1	0.0	19.1	0.0	0	0	0.0				
BH01	30/11/2020 09:53			0.1	0.0	18.6	0.0	0	0	0.0				
BH01	30/11/2020 09:54			0.1	0.0	19.1	0.0	0	0	0.0				
BH01	30/11/2020 09:54			0.1	0.0	19.0	0.0	0	0	0.0				
BH01	30/11/2020 09:54			0.0	0.0	18.9	0.0	0	0	0.0				
BH01	30/11/2020 09:54			0.0	0.0	19.2	0.0	0	0	0.0				
BH01	30/11/2020 09:55			0.0	0.0	19.0	0.0	0	0	0.0				
BH01	30/11/2020 09:56			0.0	0.0	19.1	0.0	0	0	0.0				
BH01	30/11/2020 09:57			0.0	0.0	19.0	0.0	0	0	0.0				
BH01	30/11/2020 09:58												2.30	
BH01	17/12/2020 10:05	1009	-3								-0.4			
BH01	17/12/2020 10:06	1009	-2								-0.3			

remarks

# denotes results exceeding capacity of gas monitoring equipment

VOC - Photoionisation Detector Mini RAE 2000 measures VOC vapours with 10.6eV lamp calibrated against isobutylene

CONTRACT	CHECKED
36142	**JH**

Geotechnical Engineering Limited

GAS AND GROUNDWATER LEVELS

CLIENT: CAMPBELLREITH

SITE: BRISLINGTON MEADOWS

Borehole /trial pit no.	date and time	barometric pressure (mb)	pressure differentiation (mm H2O)	carbon dioxide (%)	methane (%)	oxygen (%)	LEL (%)	hydrogen sulphide (ppm)	carbon monoxide (ppm)	VOC (ppm)	gas flow (ltr/hr)	termperature (°C)	water level (m - bgl)	remarks
BH01	17/12/2020 10:07	1009	-1								-0.2			
BH01	17/12/2020 10:08			1.6	0.0	17.0	0.0	0	10					
BH01	17/12/2020 10:08			0.9	0.0	16.6	0.0	0	0					
BH01	17/12/2020 10:08			0.6	0.0	18.1	0.0	0	0					
BH01	17/12/2020 10:09			0.5	0.0	18.1	0.0	0						
BH01	17/12/2020 10:09			0.4	0.0	19.1	0.0	0	0					
BH01	17/12/2020 10:09			0.4	0.0	119.3	0.0	0	0					
BH01	17/12/2020 10:09			0.3	0.0	19.4	0.0	0	0					
BH01	17/12/2020 10:10			0.3	0.0	16.5	0.0	0	0					
BH01	17/12/2020 10:11			0.3	0.0	19.6	0.0	0	0					
BH01	17/12/2020 10:12			0.3	0.0	19.7	0.0	0	0					
BH01	17/12/2020 10:13			0.2	0.0	19.7	0.0	0	0					
BH01	17/12/2020 10:15									3.0				
BH01	17/12/2020 10:16									3.3				
BH01	17/12/2020 10:17									3.3				
BH01	17/12/2020 10:18												2.23	
BH01	11/01/2021 10:15	1014	-1								-0.1			

remarks

# denotes results exceeding capacity of gas monitoring equipment

VOC - Photoionisation Detector Mini RAE 2000 measures VOC vapours with 10.6eV lamp calibrated against isobutylene

CONTRACT	CHECKED
36142	**JH**

Geotechnical Engineering Limited

GAS AND GROUNDWATER LEVELS

CLIENT: CAMPBELLREITH

SITE: BRISLINGTON MEADOWS

Borehole /trial pit no.	date and time	barometric pressure (mb)	pressure differentiation (mm H2O)	carbon dioxide (%)	methane (%)	oxygen (%)	LEL (%)	hydrogen sulphide (ppm)	carbon monoxide (ppm)	VOC (ppm)	gas flow (ltr/hr)	termperature (°C)	water level (m - bgl)	remarks
BH01	11/01/2021 10:16	1014	-2								-0.3			
BH01	11/01/2021 10:17	1014	-2								-0.3			
BH01	11/01/2021 10:18	1014	-2								-0.3			
BH01	11/01/2021 10:19	1014	-2								-0.2			
BH01	11/01/2021 10:20			4.9	0.0	7.4	0.0	0	0	0.1				
BH01	11/01/2021 10:21			4.9	0.0	7.2	0.0	0	0	0.0				
BH01	11/01/2021 10:22			4.9	0.0	6.8	0.0	0	0	0.0				
BH01	11/01/2021 10:23			5.0	0.0	6.1	0.0	0	0	0.0				
BH01	11/01/2021 10:24			4.9	0.0	5.7	0.0	0	0	0.0				
BH01	11/01/2021 10:27												1.93	

remarks

# denotes results exceeding capacity of gas monitoring equipment

VOC - Photoionisation Detector Mini RAE 2000 measures VOC vapours with 10.6eV lamp calibrated against isobutylene

CONTRACT	CHECKED
36142	**JH**

Geotechnical Engineering Limited

GAS AND GROUNDWATER LEVELS

CLIENT: CAMPBELLREITH

SITE: BRISLINGTON MEADOWS

Borehole /trial pit no.	date and time	barometric pressure (mb)	pressure differentiation (mm H2O)	carbon dioxide (%)	methane (%)	oxygen (%)	LEL (%)	hydrogen sulphide (ppm)	carbon monoxide (ppm)	VOC (ppm)	gas flow (ltr/hr)	termperature (°C)	water level (m - bgl)	remarks
BH02	30/11/2020 10:25	1021	0								0.0	7		
BH02	30/11/2020 10:26	1021	0								0.0	7		
BH02	30/11/2020 10:27	1021	0								0.0	7		
BH02	30/11/2020 10:28			0.0	0.0	18.8	0.0	0	0	0.0				
BH02	30/11/2020 10:28			0.0	0.0	19.1	0.0	0	0	0.0				
BH02	30/11/2020 10:28			0.0	0.0	19.2	0.0	0	0	0.0				
BH02	30/11/2020 10:28			0.0	0.0	19.4	0.0	0	0	0.0				
BH02	30/11/2020 10:29			0.0	0.0	18.9	0.0	0	0	0.0				
BH02	30/11/2020 10:29			0.0	0.0	19.0	0.0	0	0	0.0				
BH02	30/11/2020 10:29			0.0	0.0	18.7	0.0	0	0	0.0				
BH02	30/11/2020 10:29			0.0	0.0	19.2	0.0	0	0	0.0				
BH02	30/11/2020 10:30			0.0	0.0	19.3	0.0	0	0	0.0				
BH02	30/11/2020 10:31			0.0	0.0	19.2	0.0	0	0	0.0				
BH02	30/11/2020 10:32			0.0	0.0	19.3	0.0	0	0	0.0				
BH02	30/11/2020 10:33												4.25	
BH02	17/12/2020 10:30	1019	0								0.0			
BH02	17/12/2020 10:31	1019	-1								-0.1			

remarks

# denotes results exceeding capacity of gas monitoring equipment

VOC - Photoionisation Detector Mini RAE 2000 measures VOC vapours with 10.6eV lamp calibrated against isobutylene

CONTRACT	CHECKED
36142	**JH**

Geotechnical Engineering Limited

GAS AND GROUNDWATER LEVELS

CLIENT: CAMPBELLREITH

SITE: BRISLINGTON MEADOWS

Borehole /trial pit no.	date and time	barometric pressure (mb)	pressure differentiation (mm H2O)	carbon dioxide (%)	methane (%)	oxygen (%)	LEL (%)	hydrogen sulphide (ppm)	carbon monoxide (ppm)	VOC (ppm)	gas flow (ltr/hr)	termperature (°C)	water level (m - bgl)	remarks
BH02	17/12/2020 10:32	1019	0								0.0			
BH02	17/12/2020 10:33			0.9	0.0	6.6	0.0	0	10					
BH02	17/12/2020 10:33			0.9	0.0	3.4	0.0	0	0					
BH02	17/12/2020 10:33			0.8	0.0	5.2	0.0	0	0					
BH02	17/12/2020 10:34			0.8	0.0	7.2	0.0	0	0					
BH02	17/12/2020 10:34			0.8	0.0	7.5	0.0	0	0					
BH02	17/12/2020 10:34			0.7	0.0	7.0	0.0	0	0					
BH02	17/12/2020 10:34			0.7	0.0	7.6	0.0	0	0					
BH02	17/12/2020 10:35			0.7	0.0	9.1	0.0	0	0					
BH02	17/12/2020 10:36			0.7	0.0	9.6	0.0	0	0					
BH02	17/12/2020 10:37			0.6	0.0	10.9	0.0	0	0					
BH02	17/12/2020 10:38			0.6	0.0	11.4	0.0	0	0					
BH02	17/12/2020 10:40									4.1				
BH02	17/12/2020 10:41									2.7				
BH02	17/12/2020 10:42									1.6				
BH02	17/12/2020 10:43												3.31	
BH02	11/01/2021 09:55	1014	-2								-0.3			

remarks

# denotes results exceeding capacity of gas monitoring equipment

VOC - Photoionisation Detector Mini RAE 2000 measures VOC vapours with 10.6eV lamp calibrated against isobutylene

CONTRACT	CHECKED
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Geotechnical Engineering Limited

GAS AND GROUNDWATER LEVELS

CLIENT: CAMPBELLREITH

SITE: BRISLINGTON MEADOWS

Borehole /trial pit no.	date and time	barometric pressure (mb)	pressure differentiation (mm H2O)	carbon dioxide (%)	methane (%)	oxygen (%)	LEL (%)	hydrogen sulphide (ppm)	carbon monoxide (ppm)	VOC (ppm)	gas flow (ltr/hr)	termperature (°C)	water level (m - bgl)	remarks
BH02	11/01/2021 09:56	1015	-1								-0.1			
BH02	11/01/2021 09:57	1015	0								0.0			
BH02	11/01/2021 09:58	1015	0								-0.1			
BH02	11/01/2021 09:59	1014	0								0.0			
BH02	11/01/2021 10:00			0.7	0.0	13.8	0.0	0	0	0.0				
BH02	11/01/2021 10:01			0.5	0.0	15.8	0.0	0	0	0.0				
BH02	11/01/2021 10:02			0.5	0.0	16.3	0.0	0	0	0.0				
BH02	11/01/2021 10:03			0.4	0.0	16.5	0.0	0	0	0.0				
BH02	11/01/2021 10:04			0.4	0.0	16.8	0.0	0	0	0.0				
BH02	11/01/2021 10:08												4.02	

remarks

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VOC - Photoionisation Detector Mini RAE 2000 measures VOC vapours with 10.6eV lamp calibrated against isobutylene

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GAS AND GROUNDWATER LEVELS

CLIENT: CAMPBELLREITH

SITE: BRISLINGTON MEADOWS

Borehole /trial pit no.	date and time	barometric pressure (mb)	pressure differentiation (mm H2O)	carbon dioxide (%)	methane (%)	oxygen (%)	LEL (%)	hydrogen sulphide (ppm)	carbon monoxide (ppm)	VOC (ppm)	gas flow (ltr/hr)	termperature (°C)	water level (m - bgl)	remarks
BH03	30/11/2020 10:58	1020	0								0.0	7		
BH03	30/11/2020 10:59	1020	0								0.0	7		
BH03	30/11/2020 11:00	1020	0								0.0	7		
BH03	30/11/2020 11:01			0.0	0.0	19.0	0.0	0	0	0.0				
BH03	30/11/2020 11:01			0.0	0.0	18.7	0.0	0	0	0.0				
BH03	30/11/2020 11:01			0.0	0.0	18.6	0.0	0	0	0.0				
BH03	30/11/2020 11:01			0.0	0.0	18.8	0.0	0	0	0.0				
BH03	30/11/2020 11:02			0.0	0.0	19.1	0.0	0	0	0.0				
BH03	30/11/2020 11:02			0.0	0.0	19.0	0.0	0	0	0.0				
BH03	30/11/2020 11:02			0.0	0.0	19.1	0.0	0	0	0.0				
BH03	30/11/2020 11:02			0.0	0.0	18.9	0.0	0	0	0.0				
BH03	30/11/2020 11:03			0.0	0.0	19.0	0.0	0	0	0.0				
BH03	30/11/2020 11:04			0.0	0.0	19.1	0.0	0	0	0.0				
BH03	30/11/2020 11:05												2.86	
BH03	17/12/2020 09:30	1010	142								15.3			
BH03	17/12/2020 09:31	1010	51								6.4			
BH03	17/12/2020 09:32	1010	50								6.5			

remarks

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VOC - Photoionisation Detector Mini RAE 2000 measures VOC vapours with 10.6eV lamp calibrated against isobutylene

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Geotechnical Engineering Limited

GAS AND GROUNDWATER LEVELS

CLIENT: CAMPBELLREITH

SITE: BRISLINGTON MEADOWS

Borehole /trial pit no.	date and time	barometric pressure (mb)	pressure differentiation (mm H2O)	carbon dioxide (%)	methane (%)	oxygen (%)	LEL (%)	hydrogen sulphide (ppm)	carbon monoxide (ppm)	VOC (ppm)	gas flow (ltr/hr)	termperature (°C)	water level (m - bgl)	remarks
BH03	17/12/2020 09:35			4.5	0.0	9.1	0.0	0	10					
BH03	17/12/2020 09:35			4.2	0.0	8.2	0.0	0	0					
BH03	17/12/2020 09:35			37.0	0.0	9.5	0.0	0	0					
BH03	17/12/2020 09:36			3.3	0.0	10.3	0.0	0	0					
BH03	17/12/2020 09:36			3.1	0.0	10.7	0.0	0	0					
BH03	17/12/2020 09:36			3.0	0.0	11.1	0.0	0	0					
BH03	17/12/2020 09:36			2.9	0.0	11.4	0.0	0	0					
BH03	17/12/2020 09:37			2.7	0.0	11.8	0.0	0	0					
BH03	17/12/2020 09:38			2.4	0.0	12.5	0.0	0	0					
BH03	17/12/2020 09:39			2.3	0.0	12.6	0.0	0	0					
BH03	17/12/2020 09:40			2.4	0.0	12.7	0.0	0	0					
BH03	17/12/2020 09:42									0.0				
BH03	17/12/2020 09:43									0.0				
BH03	17/12/2020 09:45												2.06	
BH03	11/01/2021 09:38	1014	128								14.2			
BH03	11/01/2021 09:39	1014	106								11.7			
BH03	11/01/2021 09:40	1014	95								10.7			

remarks

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VOC - Photoionisation Detector Mini RAE 2000 measures VOC vapours with 10.6eV lamp calibrated against isobutylene

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GAS AND GROUNDWATER LEVELS

CLIENT: CAMPBELLREITH

SITE: BRISLINGTON MEADOWS

Borehole /trial pit no.	date and time	barometric pressure (mb)	pressure differentiation (mm H2O)	carbon dioxide (%)	methane (%)	oxygen (%)	LEL (%)	hydrogen sulphide (ppm)	carbon monoxide (ppm)	VOC (ppm)	gas flow (ltr/hr)	termperature (°C)	water level (m - bgl)	remarks
BH03	11/01/2021 09:41	1014	86								9.7			
BH03	11/01/2021 09:42	1014	81								9.4			
BH03	11/01/2021 09:43			3.9	0.0	9.7	0.0	0	0	0.0				
BH03	11/01/2021 09:44			3.9	0.0	9.6	0.0	0	0	0.0				
BH03	11/01/2021 09:45			3.9	0.0	9.6	0.0	0	0	0.0				
BH03	11/01/2021 09:46			3.9	0.0	9.6	0.0	0	0	0.0				
BH03	11/01/2021 09:47			3.9	0.0	9.5	0.0	0	0	0.0				
BH03	11/01/2021 09:49												1.85	

remarks

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VOC - Photoionisation Detector Mini RAE 2000 measures VOC vapours with 10.6eV lamp calibrated against isobutylene

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GAS AND GROUNDWATER LEVELS

CLIENT: CAMPBELLREITH

SITE: BRISLINGTON MEADOWS

Borehole /trial pit no.	date and time	barometric pressure (mb)	pressure differentiation (mm H2O)	carbon dioxide (%)	methane (%)	oxygen (%)	LEL (%)	hydrogen sulphide (ppm)	carbon monoxide (ppm)	VOC (ppm)	gas flow (ltr/hr)	termperature (°C)	water level (m - bgl)	remarks
BH04	30/11/2020 11:35	1021	0								0.0	7		
BH04	30/11/2020 11:36	1021	0								0.0	7		
BH04	30/11/2020 11:37	1021	0								0.0	7		
BH04	30/11/2020 11:38			1.1	0.3	19.3	6.0	0	0	0.0				
BH04	30/11/2020 11:38			1.6	0.6	16.5	12.0	0	0	0.0				
BH04	30/11/2020 11:38			2.1	0.1	9.1	2.0	0	0	0.0				
BH04	30/11/2020 11:38			2.2	0.1	4.2	2.0	0	0	0.0				
BH04	30/11/2020 11:39			2.2	0.0	2.4	0.0	0	0	0.0				
BH04	30/11/2020 11:39			2.2	0.0	1.6	0.0	0	0	0.0				
BH04	30/11/2020 11:39			2.2	0.0	1.4	0.0	0	0	0.0				
BH04	30/11/2020 11:39			2.2	0.0	1.6	0.0	0	0	0.0				
BH04	30/11/2020 11:40			2.2	0.0	1.4	0.0	0	0	0.0				
BH04	30/11/2020 11:41			2.2	0.0	1.5	0.0	0	0	0.0				
BH04	30/11/2020 11:42			2.2	0.0	1.4	0.0	0	0	0.0				
BH04	30/11/2020 11:43												5.58	
BH04	17/12/2020 11:05	1010	6								2.4			
BH04	17/12/2020 11:06	1010	3								0.6			

remarks

# denotes results exceeding capacity of gas monitoring equipment

VOC - Photoionisation Detector Mini RAE 2000 measures VOC vapours with 10.6eV lamp calibrated against isobutylene

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Geotechnical Engineering Limited

GAS AND GROUNDWATER LEVELS

CLIENT: CAMPBELLREITH

SITE: BRISLINGTON MEADOWS

Borehole /trial pit no.	date and time	barometric pressure (mb)	pressure differentiation (mm H2O)	carbon dioxide (%)	methane (%)	oxygen (%)	LEL (%)	hydrogen sulphide (ppm)	carbon monoxide (ppm)	VOC (ppm)	gas flow (ltr/hr)	termperature (°C)	water level (m - bgl)	remarks
BH04	17/12/2020 11:07	1010	3								0.5			
BH04	17/12/2020 11:08			1.5	0.0	4.1	0.0	0	10					
BH04	17/12/2020 11:08			2.0	0.0	1.8	0.0	0	0					
BH04	17/12/2020 11:08			2.0	0.0	2.3	0.0	0	0					
BH04	17/12/2020 11:09			1.9	0.0	2.6	0.0	0	0					
BH04	17/12/2020 11:09			1.9	0.0	3.3	0.0	0	0					
BH04	17/12/2020 11:09			1.8	0.0	3.7	0.0	0	0					
BH04	17/12/2020 11:09			1.7	0.0	4.1	0.0	0	0					
BH04	17/12/2020 11:10			1.7	0.0	4.5	0.0	0	0					
BH04	17/12/2020 11:11			1.6	0.0	5.0	0.0	0	0					
BH04	17/12/2020 11:12			1.6	0.0	5.4	0.0	0	0					
BH04	17/12/2020 11:13			1.6	0.0	5.6	0.0	0	0					
BH04	17/12/2020 11:15									1.0				
BH04	17/12/2020 11:16									0.9				
BH04	17/12/2020 11:17									1.0				
BH04	17/12/2020 11:18												4.39	
BH04	11/01/2021 09:16			2.5	0.0	6.8	0.0	0	0	0.2				

remarks

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VOC - Photoionisation Detector Mini RAE 2000 measures VOC vapours with 10.6eV lamp calibrated against isobutylene

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Geotechnical Engineering Limited

GAS AND GROUNDWATER LEVELS

CLIENT: CAMPBELLREITH

SITE: BRISLINGTON MEADOWS

Borehole /trial pit no.	date and time	barometric pressure (mb)	pressure differentiation (mm H2O)	carbon dioxide (%)	methane (%)	oxygen (%)	LEL (%)	hydrogen sulphide (ppm)	carbon monoxide (ppm)	VOC (ppm)	gas flow (ltr/hr)	termperature (°C)	water level (m - bgl)	remarks
BH04	11/01/2021 09:20	1012	0								-0.1			
BH04	11/01/2021 09:21	1012	0								0.0			
BH04	11/01/2021 09:22	1012	0								0.0			
BH04	11/01/2021 09:23	1012	0								0.0			
BH04	11/01/2021 09:24	1012	0								0.0			
BH04	11/01/2021 09:25			3.1	0.0	5.3	0.0	0	0	0.3				
BH04	11/01/2021 09:27			2.5	0.0	6.9	0.0	0	0	0.2				
BH04	11/01/2021 09:28			2.5	0.0	6.9	0.0	0	0	0.2				
BH04	11/01/2021 09:29			2.4	0.0	7.1	0.0	0	0	0.2				
BH04	11/01/2021 09:32												2.62	

remarks

# denotes results exceeding capacity of gas monitoring equipment

VOC - Photoionisation Detector Mini RAE 2000 measures VOC vapours with 10.6eV lamp calibrated against isobutylene

CONTRACT	CHECKED
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Geotechnical Engineering Limited

GAS AND GROUNDWATER LEVELS

CLIENT: CAMPBELLREITH

SITE: BRISLINGTON MEADOWS

Borehole /trial pit no.	date and time	barometric pressure (mb)	pressure differentiation (mm H2O)	carbon dioxide (%)	methane (%)	oxygen (%)	LEL (%)	hydrogen sulphide (ppm)	carbon monoxide (ppm)	VOC (ppm)	gas flow (ltr/hr)	termperature (°C)	water level (m - bgl)	remarks
BH05	30/11/2020 09:26	1021	-7								-1.2	7		
BH05	30/11/2020 09:27	1021	-7								-1.2	7		
BH05	30/11/2020 09:28	1021	-7								-1.2	7		
BH05	30/11/2020 09:29			0.0	0.0	19.0	0.0	0	0	0.0				
BH05	30/11/2020 09:29			0.5	0.0	18.8	0.0	0	0	0.0				
BH05	30/11/2020 09:29			0.6	0.0	18.1	0.0	0	0	0.0				
BH05	30/11/2020 09:29			0.6	0.0	17.8	0.0	0	0	0.0				
BH05	30/11/2020 09:30			0.6	0.0	17.6	0.0	0	0	0.0				
BH05	30/11/2020 09:30			0.6	0.0	17.4	0.0	0	0	0.0				
BH05	30/11/2020 09:30			0.6	0.0	17.5	0.0	0	0	0.0				
BH05	30/11/2020 09:30			0.6	0.0	17.2	0.0	0	0	0.0				
BH05	30/11/2020 09:31			0.6	0.0	17.2	0.0	0	0	0.0				
BH05	30/11/2020 09:32			0.6	0.0	17.2	0.0	0	0	0.0				
BH05	30/11/2020 09:33			0.6	0.0	17.2	0.0	0	0	0.0				
BH05	11/01/2021 10:33	1014	0								0.1			
BH05	11/01/2021 10:34	1014	0								0.0			
BH05	11/01/2021 10:35	1014	2								0.4			

remarks

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36142	**JH**

Geotechnical Engineering Limited

GAS AND GROUNDWATER LEVELS

CLIENT: CAMPBELLREITH

SITE: BRISLINGTON MEADOWS

Borehole /trial pit no.	date and time	barometric pressure (mb)	pressure differentiation (mm H2O)	carbon dioxide (%)	methane (%)	oxygen (%)	LEL (%)	hydrogen sulphide (ppm)	carbon monoxide (ppm)	VOC (ppm)	gas flow (ltr/hr)	termperature (°C)	water level (m - bgl)	remarks
BH05	11/01/2021 10:36	1014	0								0.0			
BH05	11/01/2021 10:37	1014	3								0.8			
BH05	11/01/2021 10:38			4.2	0.0	6.7	0.0	0	0	0.0				
BH05	11/01/2021 10:39			2.4	0.0	11.3	0.0	0	0	0.0				
BH05	11/01/2021 10:40			2.0	0.0	13.4	0.0	0	0	0.0				
BH05	11/01/2021 10:41			1.7	0.0	14.3	0.0	0	0	0.0				
BH05	11/01/2021 10:42			1.6	0.0	14.8	0.0	0	0	0.0				
BH05	11/01/2021 10:45												7.41	

remarks

# denotes results exceeding capacity of gas monitoring equipment

VOC - Photoionisation Detector Mini RAE 2000 measures VOC vapours with 10.6eV lamp calibrated against isobutylene

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36142	**JH**

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GAS AND GROUNDWATER LEVELS

CLIENT: CAMPBELLREITH

SITE: BRISLINGTON MEADOWS

Borehole /trial pit no.	date and time	barometric pressure (mb)	pressure differentiation (mm H2O)	carbon dioxide (%)	methane (%)	oxygen (%)	LEL (%)	hydrogen sulphide (ppm)	carbon monoxide (ppm)	VOC (ppm)	gas flow (ltr/hr)	termperature (°C)	water level (m - bgl)	remarks
BH06	30/11/2020 12:10	1021	2								0.7	7		
BH06	30/11/2020 12:11	1021	2								0.7	7		
BH06	30/11/2020 12:12	1021	2								0.7	7		
BH06	30/11/2020 12:13			0.0	0.0	18.8	0.0	0	0	0.0				
BH06	30/11/2020 12:14			1.3	0.0	18.2	0.0	0	0	0.0				
BH06	30/11/2020 12:15			1.2	0.0	18.4	0.0	0	10	0.0				
BH06	30/11/2020 12:16			1.1	0.0	18.5	0.0	0	24	0.0				
BH06	30/11/2020 12:17			0.9	0.0	18.6	0.0	0	26	0.0				
BH06	30/11/2020 12:18			0.8	0.0	18.5	0.0	0	31	0.0				
BH06	30/11/2020 12:19			0.7	0.0	18.2	0.0	0	31	0.0				
BH06	30/11/2020 12:20			0.7	0.0	18.7	0.0	0	29	0.0				
BH06	30/11/2020 12:21			0.6	0.0	19.1	0.0	0	27	0.0				
BH06	30/11/2020 12:22			0.5	0.0	18.8	0.0	0	23	0.0				
BH06	30/11/2020 12:23			0.3	0.0	19.0	0.0	0	15	0.0				
BH06	30/11/2020 12:24												1.01	
BH06	17/12/2020 08:40	1010	-5								-0.9			
BH06	17/12/2020 08:41	1009	-4								-0.6			

remarks

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GAS AND GROUNDWATER LEVELS

CLIENT: CAMPBELLREITH

SITE: BRISLINGTON MEADOWS

Borehole /trial pit no.	date and time	barometric pressure (mb)	pressure differentiation (mm H2O)	carbon dioxide (%)	methane (%)	oxygen (%)	LEL (%)	hydrogen sulphide (ppm)	carbon monoxide (ppm)	VOC (ppm)	gas flow (ltr/hr)	termperature (°C)	water level (m - bgl)	remarks
BH06	17/12/2020 08:42	1009	-4								-0.7			
BH06	17/12/2020 08:45			2.3	0.0	16.1	0.0	0	10					
BH06	17/12/2020 08:45			2.2	0.0	16.0	0.0	0	0					
BH06	17/12/2020 08:45			1.9	0.0	16.5	0.0	0	0					
BH06	17/12/2020 08:46			1.4	0.0	17.3	0.0	0	0					
BH06	17/12/2020 08:46			1.2	0.0	17.7	0.0	0	0					
BH06	17/12/2020 08:46			1.1	0.0	17.9	0.0	0	0					
BH06	17/12/2020 08:46			1.0	0.0	18.1	0.0	0	0					
BH06	17/12/2020 08:47			0.9	0.0	18.4	0.0	0	0					
BH06	17/12/2020 08:48			7.0	0.0	19.0	0.0	0	0					
BH06	17/12/2020 08:49			0.5	0.0	19.3	0.0	0	0					
BH06	17/12/2020 08:50			0.5	0.0	19.4	0.0	0	0					
BH06	17/12/2020 08:51									0.1				
BH06	17/12/2020 08:52									0.0				
BH06	17/12/2020 08:53									0.0				
BH06	17/12/2020 08:55												1.04	
BH06	11/01/2021 09:00	1014	0								0.0			

remarks

# denotes results exceeding capacity of gas monitoring equipment

VOC - Photoionisation Detector Mini RAE 2000 measures VOC vapours with 10.6eV lamp calibrated against isobutylene

CONTRACT	CHECKED
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GAS AND GROUNDWATER LEVELS

CLIENT: CAMPBELLREITH

SITE: BRISLINGTON MEADOWS

Borehole /trial pit no.	date and time	barometric pressure (mb)	pressure differentiation (mm H2O)	carbon dioxide (%)	methane (%)	oxygen (%)	LEL (%)	hydrogen sulphide (ppm)	carbon monoxide (ppm)	VOC (ppm)	gas flow (ltr/hr)	termperature (°C)	water level (m - bgl)	remarks
BH06	11/01/2021 09:01	1014	0								0.0			
BH06	11/01/2021 09:02	1014	0								0.0			
BH06	11/01/2021 09:03	1014	0								0.0			
BH06	11/01/2021 09:04	1014	0								0.0			
BH06	11/01/2021 09:05			1.3	0.0	19.3	0.0	0	0	0.0				
BH06	11/01/2021 09:06			0.9	0.0	19.0	0.0	0	0	0.0				
BH06	11/01/2021 09:07			0.5	0.0	19.5	0.0	0	0	0.0				
BH06	11/01/2021 09:08			0.4	0.0	20.1	0.0	0	0	0.0				
BH06	11/01/2021 09:09			0.3	0.0	20.2	0.0	0	0	0.0				
BH06	11/01/2021 09:12												1.03	

remarks

# denotes results exceeding capacity of gas monitoring equipment

VOC - Photoionisation Detector Mini RAE 2000 measures VOC vapours with 10.6eV lamp calibrated against isobutylene

CONTRACT	CHECKED
36142	**JH**

APPENDIX B

LABORATORY TESTING

2718

GEOTECHNICAL ENGINEERING LIMITED

Version No.	1
For the attention of Joss Evans / Richard Heath	Page No. 1 of 30
	Date of Issue 03/02/2021

TEST REPORT

PROJECT/SITE	Brislington Meadows	Samples received	17/12/2020
GEL REPORT NUMBER	36142	Schedule received	17/12/2020
Your ref/PO:		Testing commenced	23/01/2021
Test report refers to	Schedule 1	Status	Final

SUMMARY OF RESULTS ATTACHED

TEST METHOD & DESCRIPTION	QUANTITY	ACCREDITED TEST
BS EN ISO 17892-1: 2014:5. Water Content	13	YES
BS1377: Part 2: 1990:4.2-4.4&5.2-5.4, Liquid & Plastic Limits	13	YES
BS EN ISO 17892-4: 2016: 5.2, Particle Size Distribution - Wet Sieve	14	YES
BS EN ISO 17892-4: 2016: 5.4, Particle Size Distribution - Pipette	1	YES
BS1377: Part 4: 1990:3, Dry Density/Moisture Content Relationship	5	YES
ISRM: 2007: Water Content of Rock	7	NO
ISRM: 2007: Point Load Strength Test	10	YES
BRE SD1 Suite (Subcontracted)	6	YES/NO
Organic Matter Content (subcontracted)	5	YES

Remarks

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The results reported relate to samples received in the laboratory

Approved Signatories:

T Best (Deputy Laboratory Manager) E Crimp (Senior Engineer)

J Hanson (Director) N Parry (Director)

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Sort code: 16-22-11 **Bank account**: 11125135

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LIQUID AND PLASTIC LIMITS

BS.1377 : PART 2 : 1990 : 4 and 5

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS

borehole /trial pit no.	sample no./type	sample depth (m)	specimen depth (m)	natural water content (%)	specimen preparation and test method	fraction >0.425 mm (%)	liquid limit (%)	plastic limit (%)	plasticity index (%)	description and remarks
BH02	10D	1.70	1.70	12.1	BXE	63	31	20	11	Brown sandy very clayey GRAVEL
BH03	2D	0.05	0.05	32.8	BXE	30	48	28	20	Brown slightly sandy slightly gravelly clayey SILT with rare rootlets
BH03	8D	1.00	1.00	30.5	BXE	25	37	22	15	Orangish brown slightly sandy slightly gravelly silty CLAY
BH03	12D	2.10	2.10	15.2	BXE	32	44	22	22	Brown mottled orange and grey slightly sandy slightly gravelly silty CLAY
BH06	4D	0.20	0.20	37.9	BXE	2	49	23	26	Orangish brown mottled grey slightly sandy silty CLAY
BH06	10D	2.30	2.30	9.6	BXE	60	42	23	19	Greyish brown sandy very clayey GRAVEL
TP06	3D	0.70	0.70	15.4	BXE#	46	38	19	19	Reddsih brown slightly sandy slightly gravelly silty CLAY
TP06	5D	1.20	1.20	23.2	BXE	8	57	23	34	Multi coloured slightly gravelly slightly sandy silty CLAY
TP12	6D	0.90	0.90	26	BXE	2	45	19	26	Orangish brown mottled grey slightly sandy silty CLAY
TP15	4D	0.40	0.40	26.7	BXE	2	59	22	37	Orangish brown slightly sandy CLAY
TP16	2D	0.10	0.10	31.1	BXE	20	54	30	24	Brown slightly gravelly slightly sandy clayey SILT with rare rootlets
TP16	6D	0.90	0.90	29.4	BXE	3	51	21	30	Orangish brown slightly sandy CLAY
TP16	8D	1.90	1.90	25.6	BXE	4	64	23	41	Light brown mottled grey slightly gravelly slightly sandy CLAY

general remarks

natural water content determined in accordance with BS EN ISO 17892 - 1 : 2014 (unless specified)

NP denotes non plastic

# denotes sample tested is smaller than that which is recommended in accordance with BS1377 or BS EN ISO 17892

specimen preparation		test method	CONTRACT	CHECKED
A - as received	D - oven dried (60oC)	X - cone penetrometer (test 4.3)		
B - washed on 0.425mm sieve	E - oven dried (105oC)	Y - cone penetrometer (test 4.4)	**36142**	**TB**
C - air dried	F - not known	Z - casagrande apparatus (test 4.5)		

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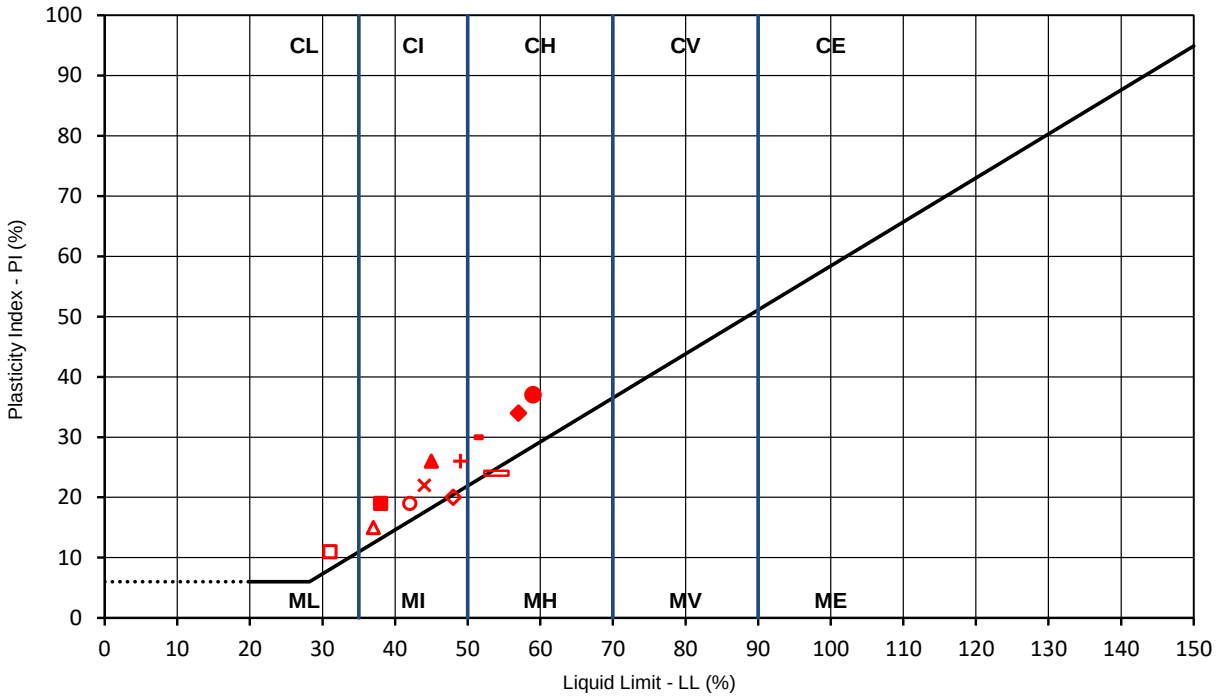
ATTERBERG LINE PLOT

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS



	BH/TP No.	depth (m)	LL	PL	PI	remarks
□	BH02	1.70	31	20	11	
◇	BH03	0.05	48	28	20	
△	BH03	1.00	37	22	15	
×	BH03	2.10	44	22	22	
+	BH06	0.20	49	23	26	
○	BH06	2.30	42	23	19	
■	TP06	0.70	38	19	19	
◆	TP06	1.20	57	23	34	
▲	TP12	0.90	45	19	26	
●	TP15	0.40	59	22	37	
▭	TP16	0.10	54	30	24	
▪	TP16	0.90	51	21	30	

CONTRACT	CHECKED
36142	**TB**

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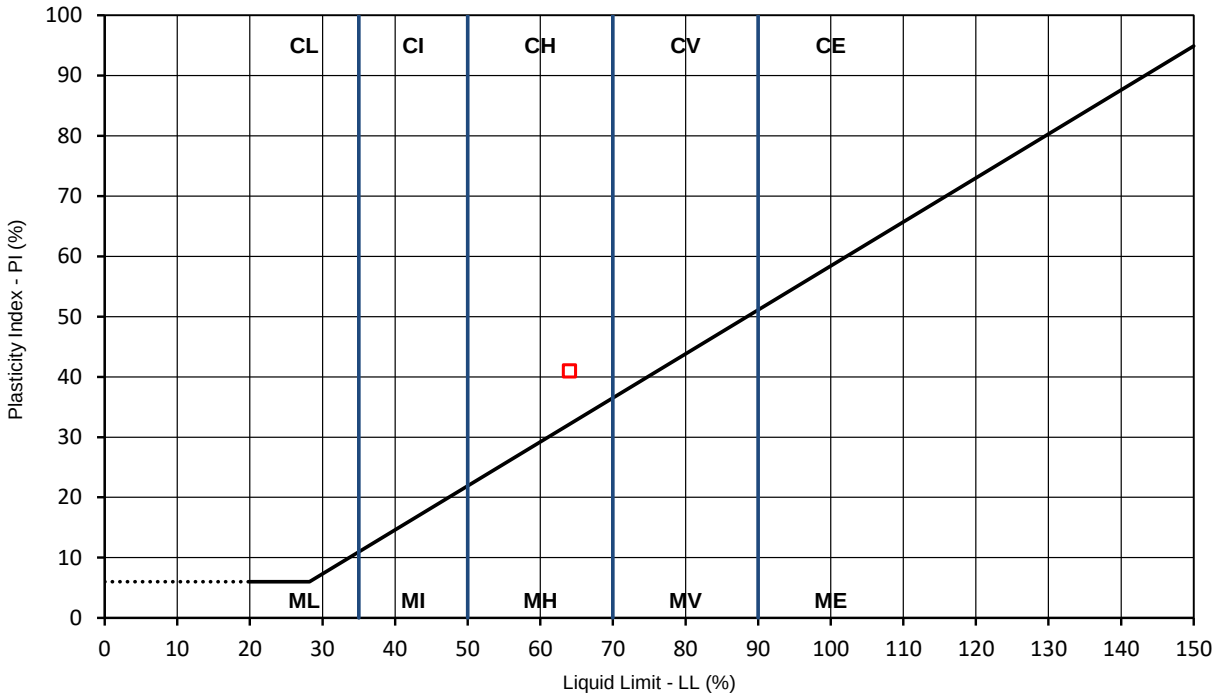
ATTERBERG LINE PLOT

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS



	BH/TP No.	depth (m)	LL	PL	PI	remarks
☐	TP16	1.90	64	23	41	

CONTRACT	CHECKED
36142	**TB**

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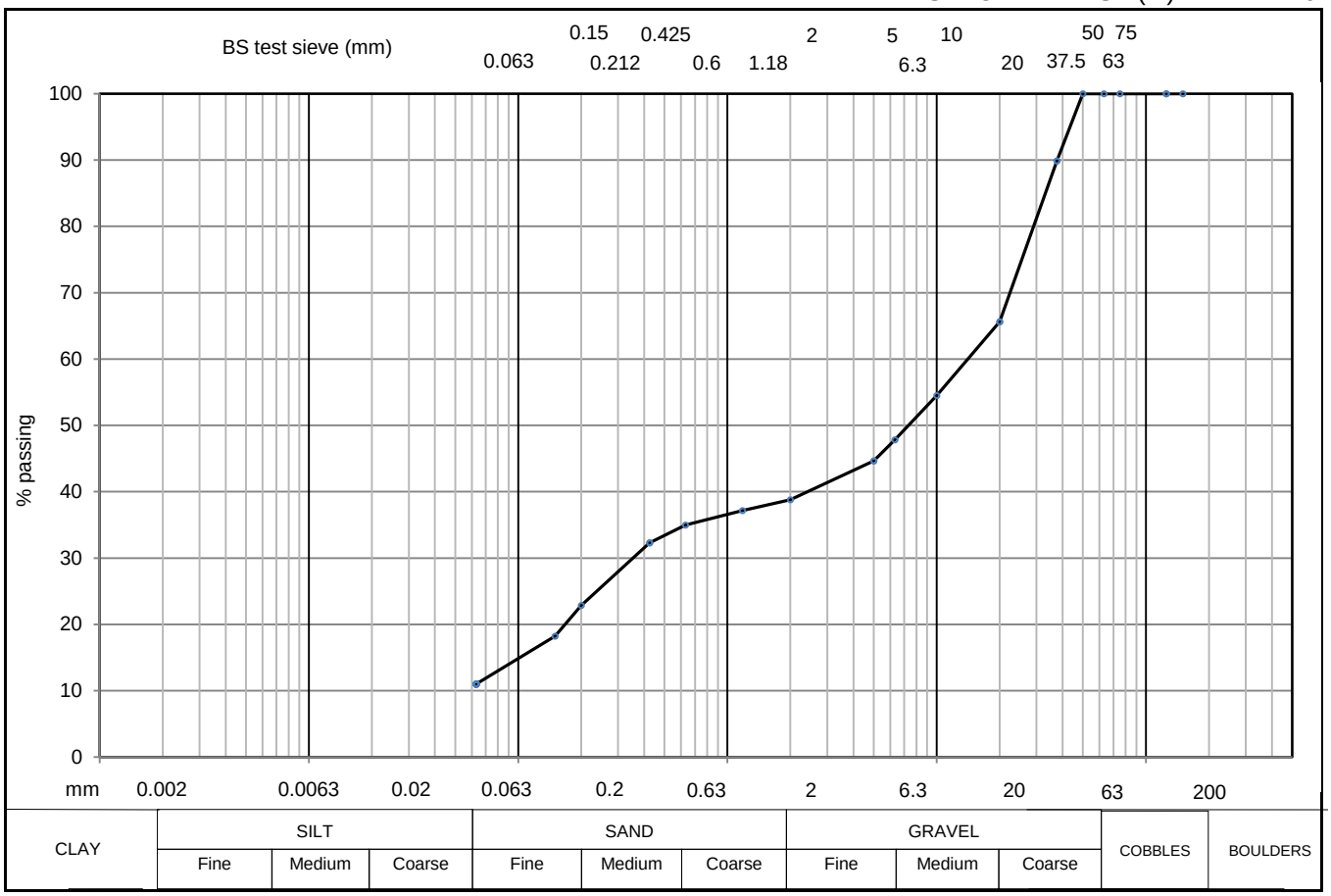
PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892 - 4 : 2016 : 5

CLIENT	CAMPBELLREITH	BH/TP No.	BH01
SITE	BRISLINGTON MEADOWS	SAMPLE No./TYPE	5B
		SAMPLE DEPTH (m)	1.00
DESCRIPTION	Brown clayey very sandy GRAVEL	SPECIMEN TOP (m)	1.00
		SPECIMEN BASE (m)	1.20



soil type	% fraction
CLAY	
SILT	
SILT & CLAY	11
SAND	28
GRAVEL	61
COBBLE & BOULDER	0
test method(s)	5.2
test method	
5.2 - sieving	
5.3 - sedimentation by hydrometer	
5.4 - sedimentation by pipette	

BS test sieve (mm)	% passing
150	
75	
63	
50	100
37.5	90
20	66
10	55
6.3	48

BS test sieve (mm)	% passing
5	45
2	39
1.18	37
0.63	35
0.425	32
0.2	23
0.15	18
0.063	11

BS test sieve (µm)	% finer
20	
6	
2	

remarks

# denotes sample tested is smaller than that which is recommended in accordance with BS EN 17892

Particle density assigned an assumed value of 2.70 Mg/m3

CONTRACT	CHECKED
36142	**NP**

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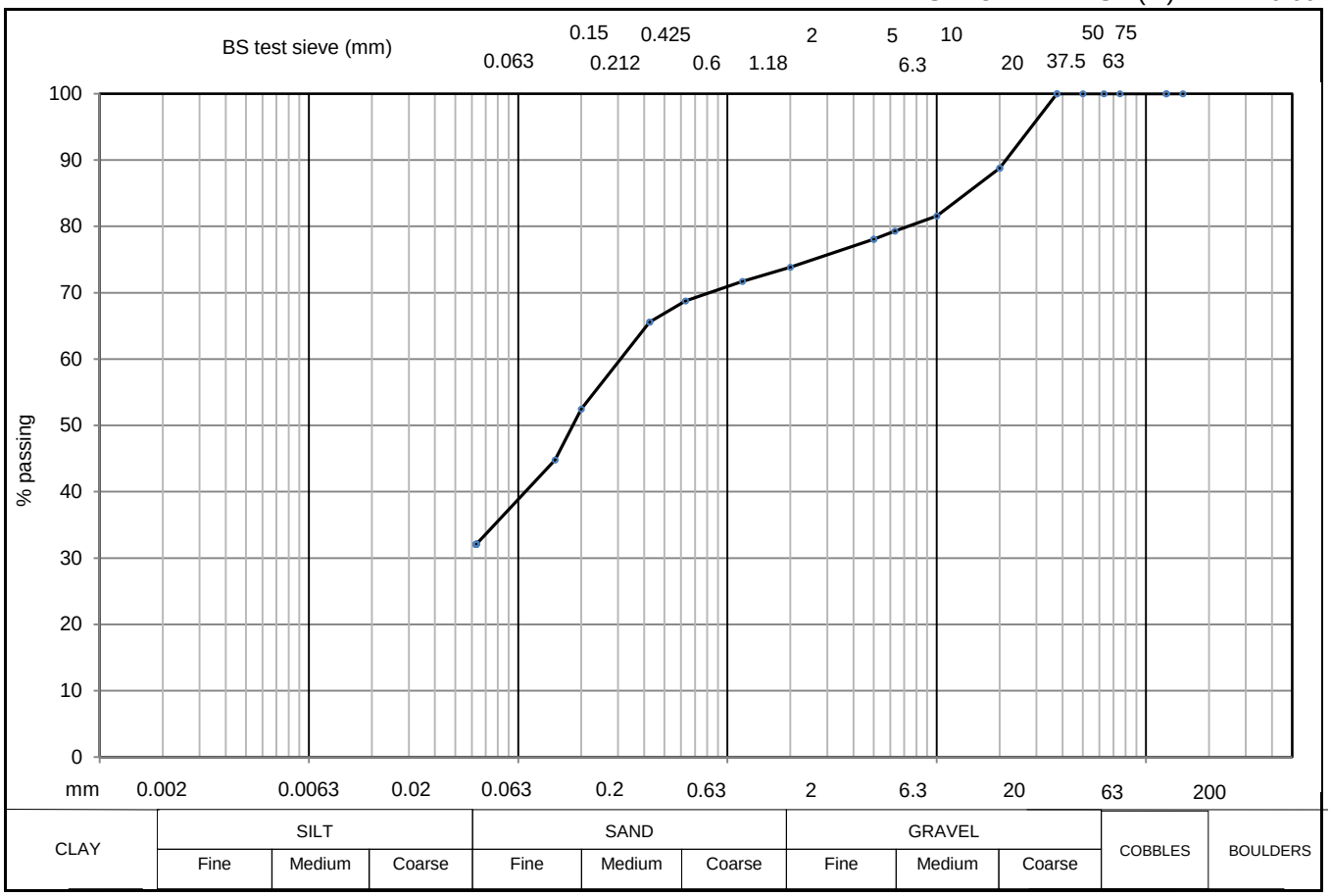
PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892 - 4 : 2016 : 5

CLIENT	CAMPBELLREITH	BH/TP No.	BH04
SITE	BRISLINGTON MEADOWS	SAMPLE No./TYPE	3B
		SAMPLE DEPTH (m)	0.40
DESCRIPTION	Brown very gravelly very clayey SAND	SPECIMEN TOP (m)	0.40
		SPECIMEN BASE (m)	0.60



soil type	% fraction
CLAY	
SILT	
SILT & CLAY	32
SAND	42
GRAVEL	26
COBBLE & BOULDER	0
test method(s)	5.2

test method

5.2 - sieving

5.3 - sedimentation by hydrometer

5.4 - sedimentation by pipette

BS test sieve (mm)	% passing
150	
75	
63	
50	
37.5	100
20	89
10	82
6.3	79

BS test sieve (mm)	% passing
5	78
2	74
1.18	72
0.63	69
0.425	66
0.2	52
0.15	45
0.063	32

BS test sieve (µm)	% finer
20	
6	
2	

remarks

# denotes sample tested is smaller than that which is recommended in accordance with BS EN 17892

Particle density assigned an assumed value of 2.70 Mg/m3

CONTRACT	CHECKED
36142	**NP**

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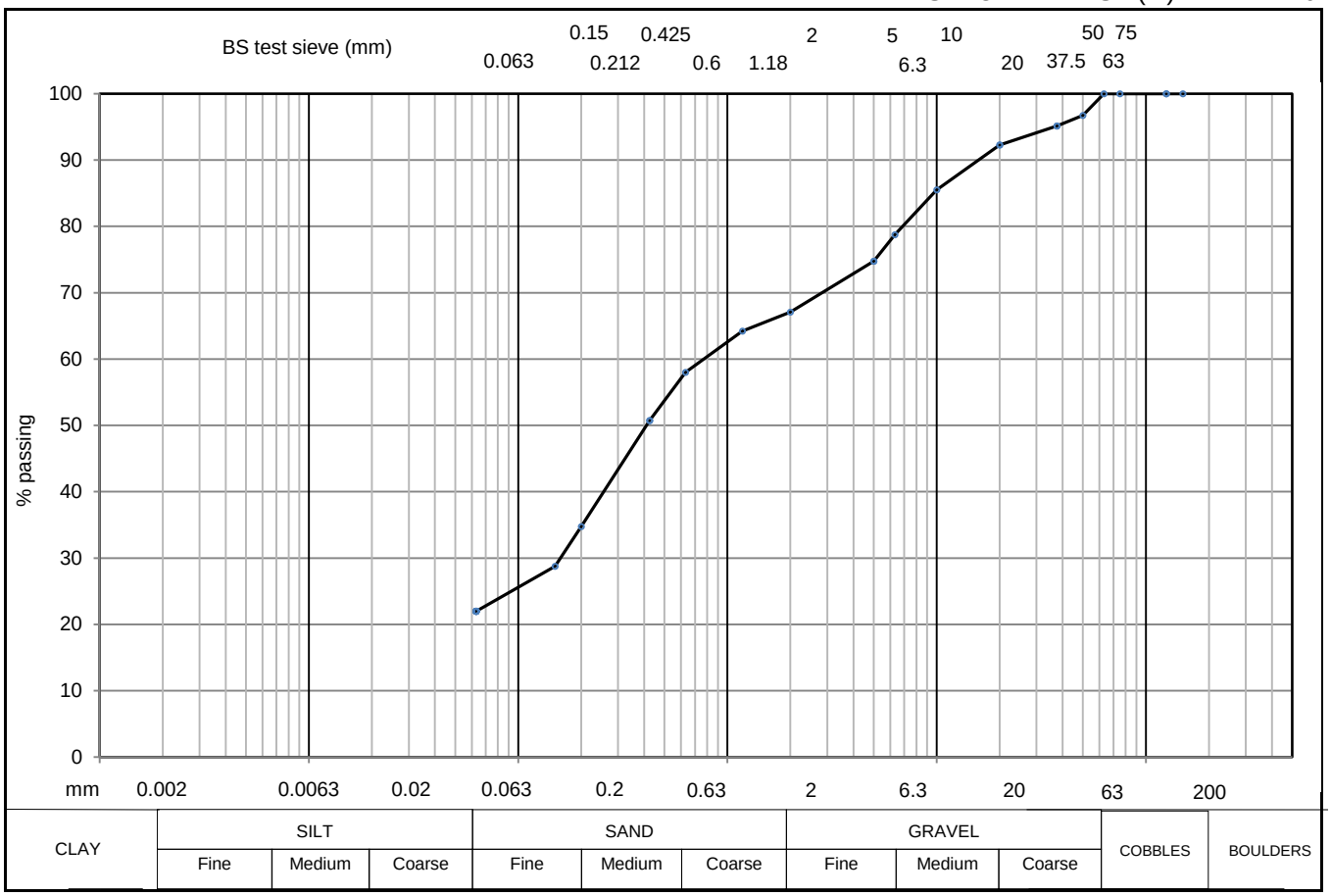
PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892 - 4 : 2016 : 5

CLIENT	CAMPBELLREITH	BH/TP No.	BH05
SITE	BRISLINGTON MEADOWS	SAMPLE No./TYPE	6B
		SAMPLE DEPTH (m)	1.00
DESCRIPTION	Reddish brown very clayey very gravelly SAND	SPECIMEN TOP (m)	1.00
		SPECIMEN BASE (m)	1.20



soil type	% fraction
CLAY	
SILT	
SILT & CLAY	22
SAND	45
GRAVEL	33
COBBLE & BOULDER	0
test method(s)	5.2
test method	
5.2 - sieving	
5.3 - sedimentation by hydrometer	
5.4 - sedimentation by pipette	

BS test sieve (mm)	% passing
150	
75	
63	100
50	97
37.5	95
20	92
10	86
6.3	79

BS test sieve (mm)	% passing
5	75
2	67
1.18	64
0.63	58
0.425	51
0.2	35
0.15	29
0.063	22

BS test sieve (µm)	% finer
20	
6	
2	

remarks

# denotes sample tested is smaller than that which is recommended in accordance with BS EN 17892

Particle density assigned an assumed value of 2.70 Mg/m3

CONTRACT	CHECKED
36142	**NP**

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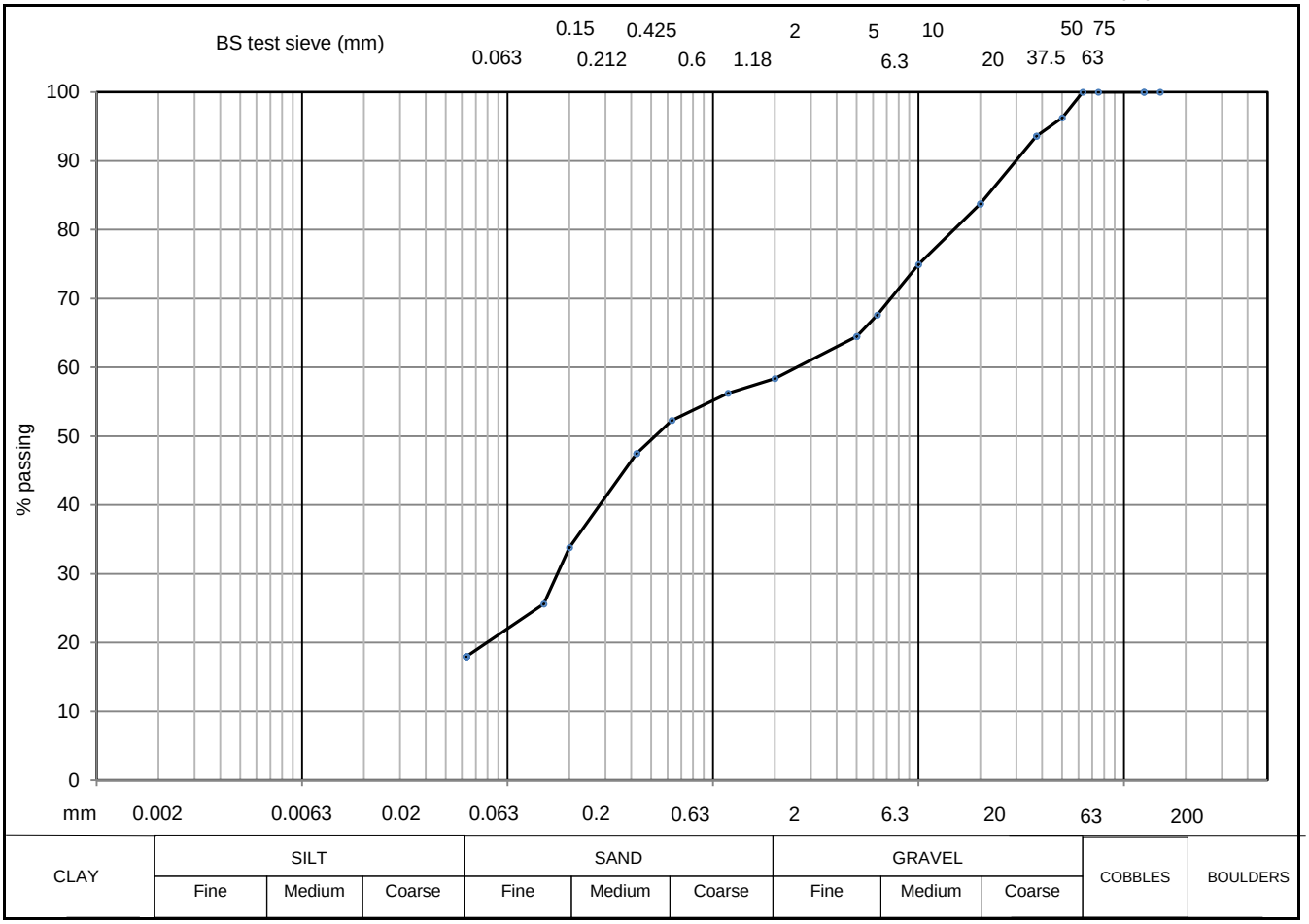
PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892 - 4 : 2016 : 5

CLIENT	CAMPBELLREITH	BH/TP No.	TP02
SITE	BRISLINGTON MEADOWS	SAMPLE No./TYPE	4B
		SAMPLE DEPTH (m)	0.90
DESCRIPTION	Reddish brown clayey SAND and GRAVEL	SPECIMEN TOP (m)	0.90
		SPECIMEN BASE (m)	1.00



soil type	% fraction
CLAY	
SILT	
SILT & CLAY	18
SAND	40
GRAVEL	42
COBBLE & BOULDER	0
test method(s)	5.2
test method	
5.2 - sieving	
5.3 - sedimentation by hydrometer	
5.4 - sedimentation by pipette	

BS test sieve (mm)	% passing	BS test sieve (mm)	% passing	BS test sieve (µm)	% finer
150		5	64	20	
75		2	58	6	
63	100	1.18	56	2	
50	96	0.63	52		
37.5	94	0.425	47		
20	84	0.2	34		
10	75	0.15	26		
6.3	68	0.063	18		

remarks

# denotes sample tested is smaller than that which is recommended in accordance with BS EN 17892

Particle density assigned an assumed value of 2.70 Mg/m^3

CONTRACT	CHECKED
36142	**NP**

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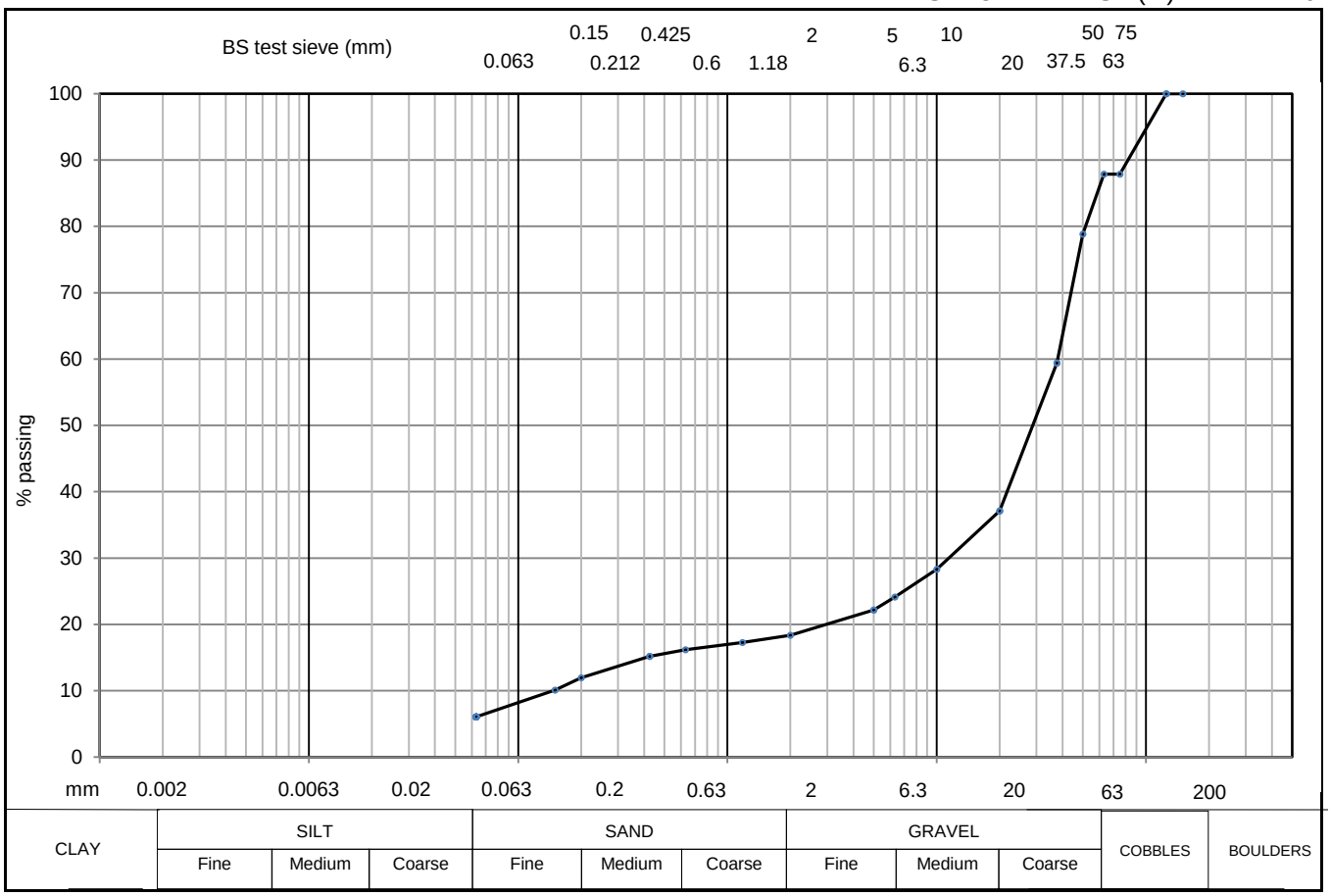
PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892 - 4 : 2016 : 5

CLIENT	CAMPBELLREITH	BH/TP No.	TP03
SITE	BRISLINGTON MEADOWS	SAMPLE No./TYPE	8B
		SAMPLE DEPTH (m)	2.30
DESCRIPTION	Purplish brown clayey sandy GRAVEL with medium cobble content	SPECIMEN TOP (m)	2.30
		SPECIMEN BASE (m)	2.40



soil type	% fraction
CLAY	
SILT	
SILT & CLAY	6
SAND	12
GRAVEL	70
COBBLE & BOULDER	12
test method(s)	5.2

test method

5.2 - sieving

5.3 - sedimentation by hydrometer

5.4 - sedimentation by pipette

BS test sieve (mm)	% passing	BS test sieve (mm)	% passing	BS test sieve (µm)	% finer
150	100	5	22	20	
75	88	2	18	6	
63	88	1.18	17	2	
50	79	0.63	16		
37.5	59	0.425	15		
20	37	0.2	12		
10	28	0.15	10		
6.3	24	0.063	6		

remarks

# denotes sample tested is smaller than that which is recommended in accordance with BS EN 17892

Particle density assigned an assumed value of 2.70 Mg/m3

CONTRACT	CHECKED
36142	**TB**

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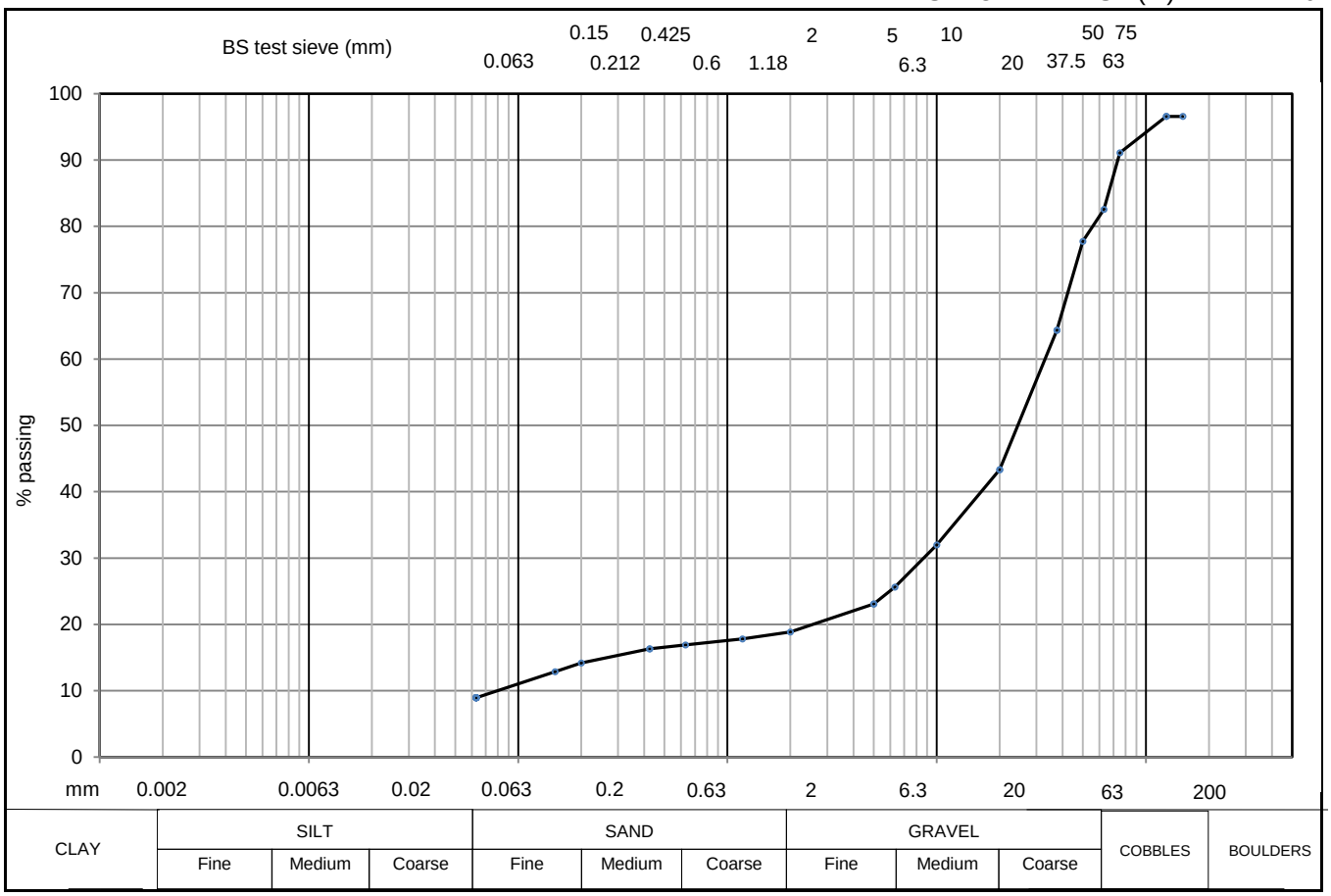
PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892 - 4 : 2016 : 5

CLIENT	CAMPBELLREITH	BH/TP No.	TP04
SITE	BRISLINGTON MEADOWS	SAMPLE No./TYPE	4LB
		SAMPLE DEPTH (m)	0.90
DESCRIPTION	Brown silty sandy GRAVEL with medium cobble content	SPECIMEN TOP (m)	0.90
		SPECIMEN BASE (m)	1.10



soil type	% fraction
CLAY	
SILT	
SILT & CLAY	9
SAND	10
GRAVEL	64
COBBLE & BOULDER	17
test method(s)	5.2#

test method

5.2 - sieving

5.3 - sedimentation by hydrometer

5.4 - sedimentation by pipette

BS test sieve (mm)	% passing	BS test sieve (mm)	% passing	BS test sieve (µm)	% finer
150	97	5	23	20	
75	91	2	19	6	
63	83	1.18	18	2	
50	78	0.63	17		
37.5	64	0.425	16		
20	43	0.2	14		
10	32	0.15	13		
6.3	26	0.063	9		

remarks

# denotes sample tested is smaller than that which is recommended in accordance with BS EN 17892

Particle density assigned an assumed value of 2.70 Mg/m3

CONTRACT	CHECKED
36142	**TB**

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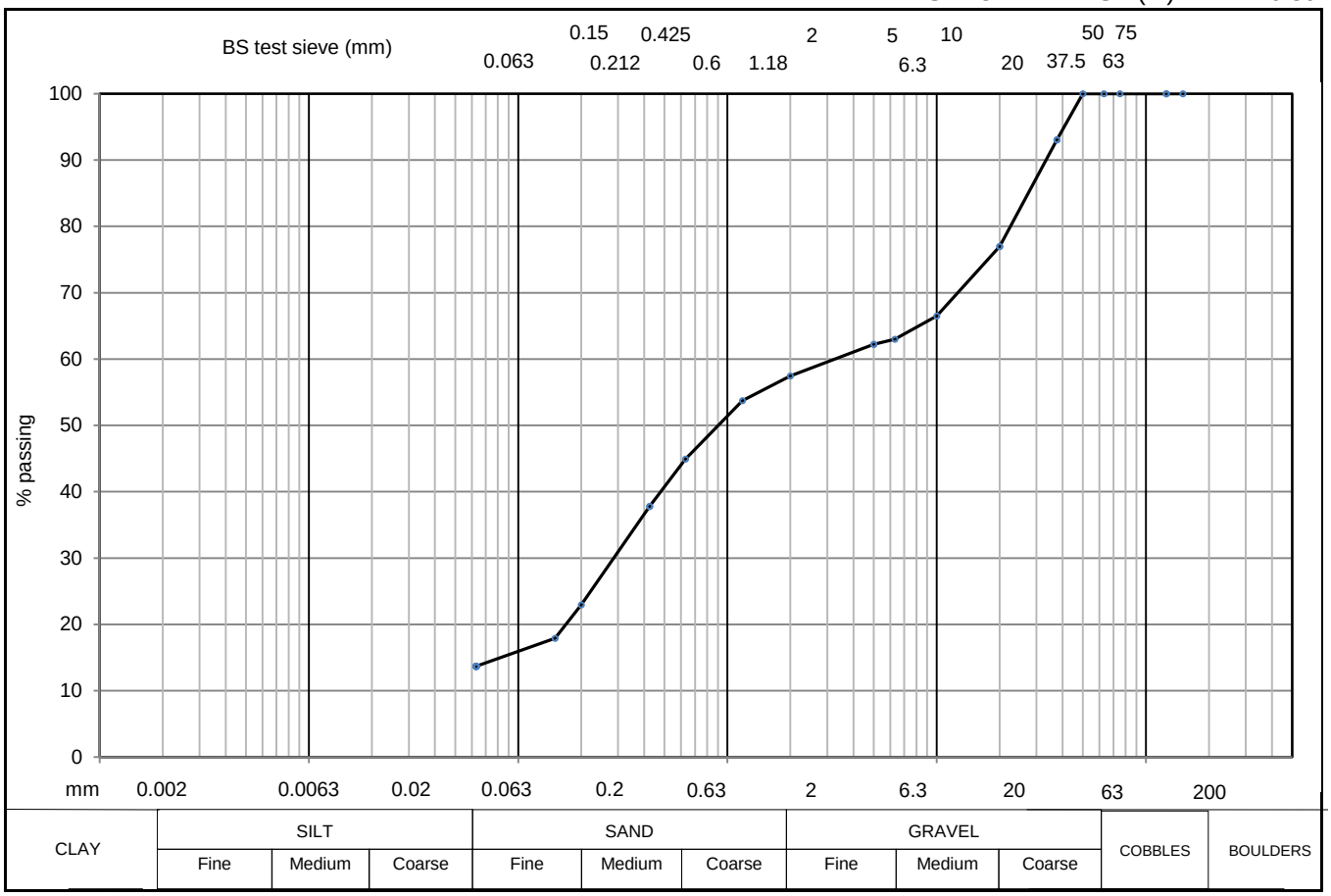
PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892 - 4 : 2016 : 5

CLIENT	CAMPBELLREITH	BH/TP No.	TP05
SITE	BRISLINGTON MEADOWS	SAMPLE No./TYPE	4B
		SAMPLE DEPTH (m)	0.70
DESCRIPTION	Reddish brown clayey SAND and GRAVEL	SPECIMEN TOP (m)	0.70
		SPECIMEN BASE (m)	0.80



soil type	% fraction
CLAY	
SILT	
SILT & CLAY	14
SAND	44
GRAVEL	43
COBBLE & BOULDER	0
test method(s)	5.2
test method	
5.2 - sieving	
5.3 - sedimentation by hydrometer	
5.4 - sedimentation by pipette	

BS test sieve (mm)	% passing
150	
75	
63	
50	100
37.5	93
20	77
10	67
6.3	63

BS test sieve (mm)	% passing
5	62
2	57
1.18	54
0.63	45
0.425	38
0.2	23
0.15	18
0.063	14

BS test sieve (µm)	% finer
20	
6	
2	

remarks

# denotes sample tested is smaller than that which is recommended in accordance with BS EN 17892

Particle density assigned an assumed value of 2.70 Mg/m3

CONTRACT	CHECKED
36142	**TB**

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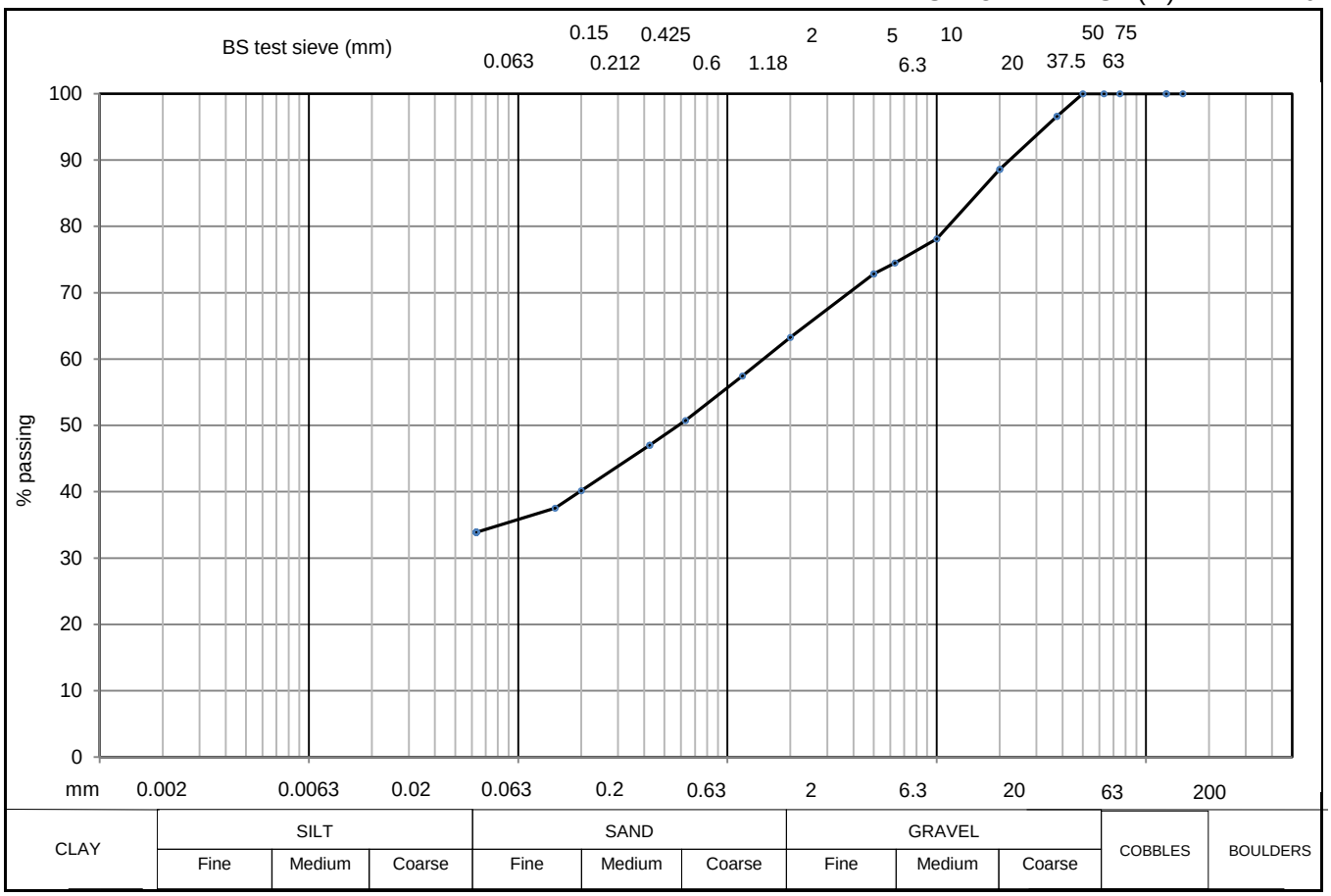
PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892 - 4 : 2016 : 5

CLIENT	CAMPBELLREITH	BH/TP No.	TP10
SITE	BRISLINGTON MEADOWS	SAMPLE No./TYPE	5B
		SAMPLE DEPTH (m)	1.90
DESCRIPTION	Brown mottled grey very sandy very clayey GRAVEL	SPECIMEN TOP (m)	1.90
		SPECIMEN BASE (m)	2.10



soil type	% fraction
CLAY	
SILT	
SILT & CLAY	34
SAND	29
GRAVEL	37
COBBLE & BOULDER	0
test method(s)	5.2

test method

5.2 - sieving

5.3 - sedimentation by hydrometer

5.4 - sedimentation by pipette

BS test sieve (mm)	% passing	BS test sieve (mm)	% passing	BS test sieve (µm)	% finer
150		5	73	20	
75		2	63	6	
63		1.18	57	2	
50	100	0.63	51		
37.5	97	0.425	47		
20	89	0.2	40		
10	78	0.15	38		
6.3	74	0.063	34		

remarks

# denotes sample tested is smaller than that which is recommended in accordance with BS EN 17892

Particle density assigned an assumed value of 2.70 Mg/m3

CONTRACT	CHECKED
36142	**NP**

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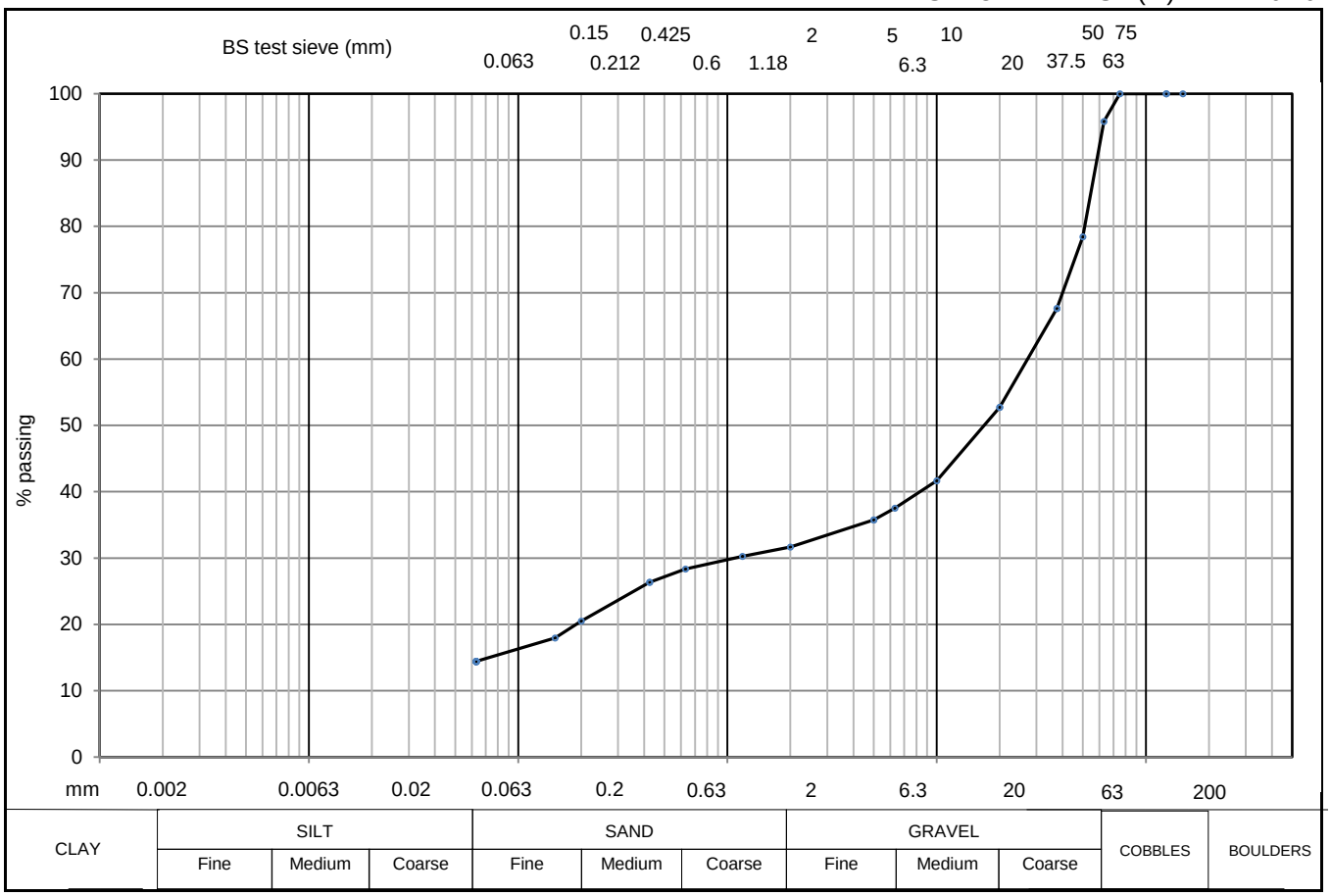
PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892 - 4 : 2016 : 5

CLIENT	CAMPBELLREITH	BH/TP No.	TP11
SITE	BRISLINGTON MEADOWS	SAMPLE No./TYPE	3B
		SAMPLE DEPTH (m)	0.30
DESCRIPTION	Brown clayey sandy GRAVEL with low cobble content	SPECIMEN TOP (m)	0.30
		SPECIMEN BASE (m)	0.40



soil type	% fraction
CLAY	
SILT	
SILT & CLAY	14
SAND	17
GRAVEL	64
COBBLE & BOULDER	4
test method(s)	5.2

test method

5.2 - sieving

5.3 - sedimentation by hydrometer

5.4 - sedimentation by pipette

BS test sieve (mm)	% passing	BS test sieve (mm)	% passing	BS test sieve (µm)	% finer
150		5	36	20	
75	100	2	32	6	
63	96	1.18	30	2	
50	78	0.63	28		
37.5	68	0.425	26		
20	53	0.2	20		
10	42	0.15	18		
6.3	38	0.063	14		

remarks

# denotes sample tested is smaller than that which is recommended in accordance with BS EN 17892

Particle density assigned an assumed value of 2.70 Mg/m3

CONTRACT	CHECKED
36142	**TB**

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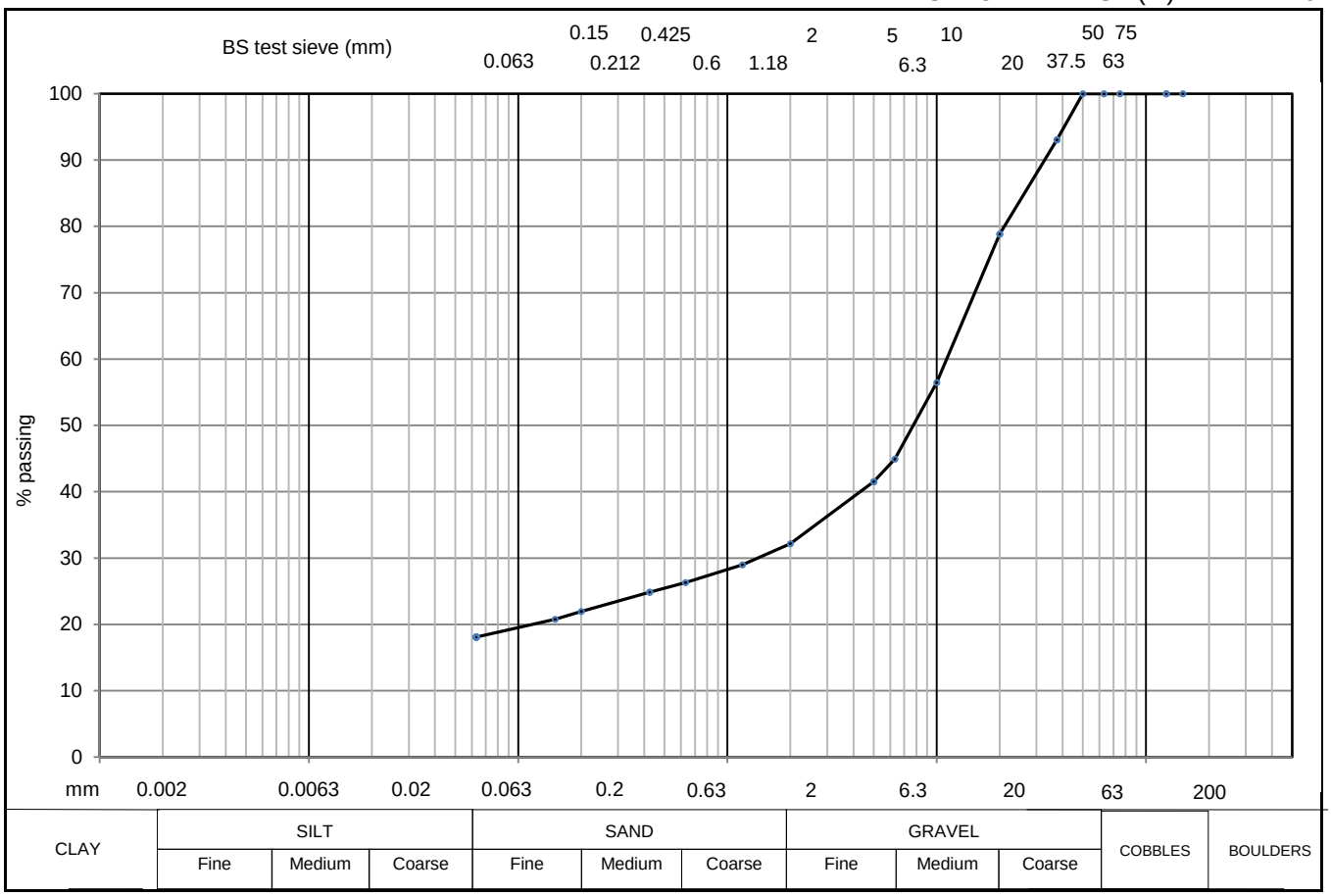
PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892 - 4 : 2016 : 5

CLIENT	CAMPBELLREITH	BH/TP No.	TP11
SITE	BRISLINGTON MEADOWS	SAMPLE No./TYPE	7LB
		SAMPLE DEPTH (m)	2.00
DESCRIPTION	Brown sandy clayey GRAVEL	SPECIMEN TOP (m)	2.00
		SPECIMEN BASE (m)	2.20



soil type	% fraction
CLAY	
SILT	
SILT & CLAY	18
SAND	14
GRAVEL	68
COBBLE & BOULDER	0
test method(s)	5.2
test method	
5.2 - sieving	
5.3 - sedimentation by hydrometer	
5.4 - sedimentation by pipette	

BS test sieve (mm)	% passing	BS test sieve (mm)	% passing	BS test sieve (µm)	% finer
150		5	42	20	
75		2	32	6	
63		1.18	29	2	
50	100	0.63	26		
37.5	93	0.425	25		
20	79	0.2	22		
10	56	0.15	21		
6.3	45	0.063	18		

remarks

# denotes sample tested is smaller than that which is recommended in accordance with BS EN 17892

Particle density assigned an assumed value of 2.70 Mg/m3

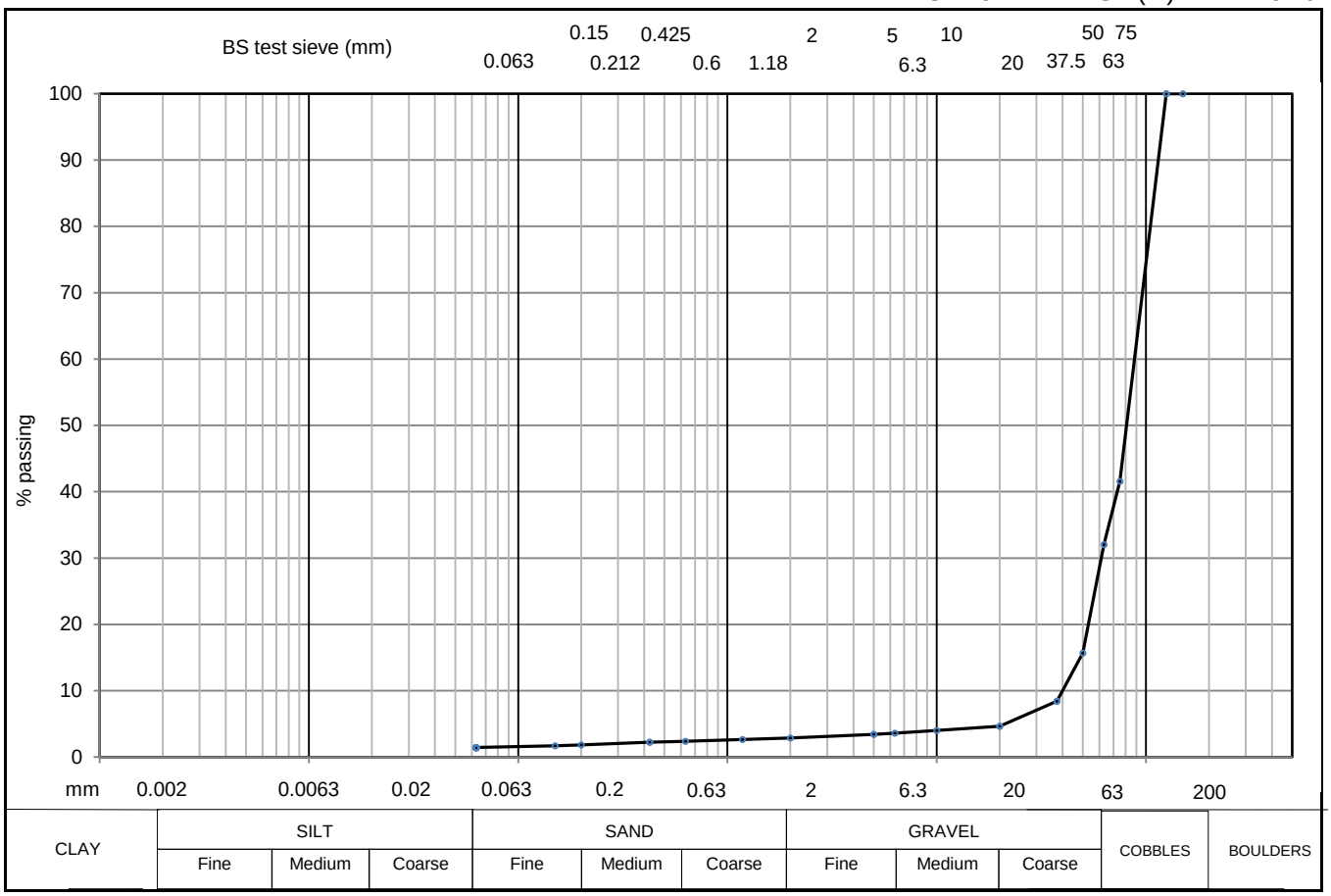
CONTRACT	CHECKED
36142	**TB**

Geotechnical Engineering Limited

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892 - 4 : 2016 : 5

CLIENT	CAMPBELLREITH	BH/TP No.	TP11
SITE	BRISLINGTON MEADOWS	SAMPLE No./TYPE	8B
		SAMPLE DEPTH (m)	3.00
DESCRIPTION	Brown slightly sandy very gravelly COBBLES	SPECIMEN TOP (m)	3.00
		SPECIMEN BASE (m)	3.20



soil type	% fraction
CLAY	
SILT	
SILT & CLAY	1
SAND	1
GRAVEL	29
COBBLE & BOULDER	68
test method(s)	5.2#

test method

5.2 - sieving

5.3 - sedimentation by hydrometer

5.4 - sedimentation by pipette

BS test sieve (mm)	% passing	BS test sieve (mm)	% passing	BS test sieve (µm)	% finer
150	100	5	3	20	
75	42	2	3	6	
63	32	1.18	3	2	
50	16	0.63	2		
37.5	8	0.425	2		
20	5	0.2	2		
10	4	0.15	2		
6.3	4	0.063	1		

remarks

# denotes sample tested is smaller than that which is recommended in accordance with BS EN 17892

Particle density assigned an assumed value of 2.70 Mg/m3

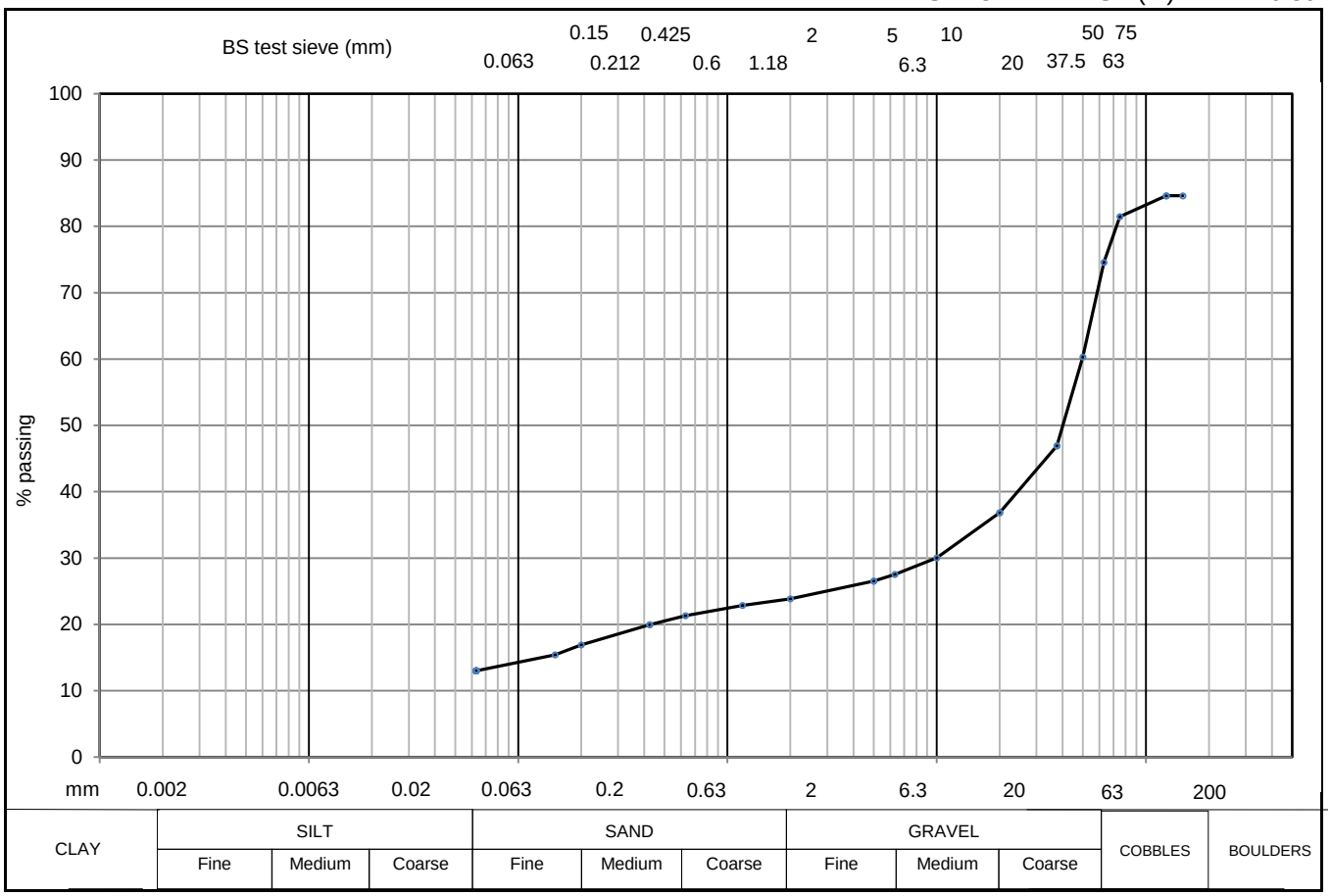
CONTRACT	CHECKED
36142	**NP**

Geotechnical Engineering Limited

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892 - 4 : 2016 : 5

CLIENT	CAMPBELLREITH	BH/TP No.	TP13
SITE	BRISLINGTON MEADOWS	SAMPLE No./TYPE	4B
		SAMPLE DEPTH (m)	0.70
DESCRIPTION	Greyish brown sandy clayey GRAVEL with high cobble content	SPECIMEN TOP (m)	0.70
		SPECIMEN BASE (m)	0.80



soil type	% fraction
CLAY	
SILT	
SILT & CLAY	13
SAND	11
GRAVEL	51
COBBLE & BOULDER	25
test method(s)	5.2

test method

5.2 - sieving

5.3 - sedimentation by hydrometer

5.4 - sedimentation by pipette

BS test sieve (mm)	% passing	BS test sieve (mm)	% passing	BS test sieve (µm)	% finer
150	85	5	27	20	
75	81	2	24	6	
63	75	1.18	23	2	
50	60	0.63	21		
37.5	47	0.425	20		
20	37	0.2	17		
10	30	0.15	15		
6.3	28	0.063	13		

remarks

# denotes sample tested is smaller than that which is recommended in accordance with BS EN 17892

Particle density assigned an assumed value of 2.70 Mg/m3

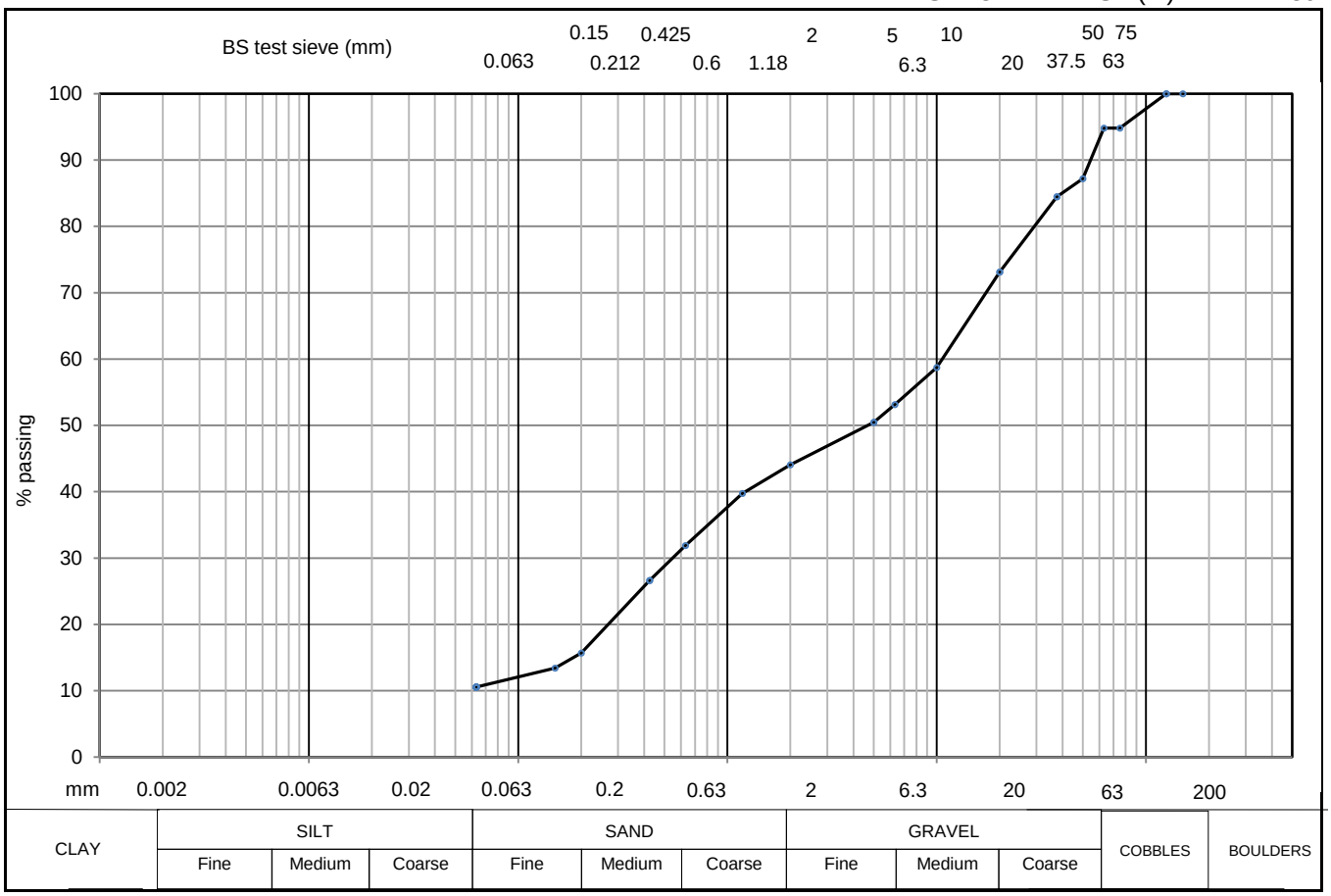
CONTRACT	CHECKED
36142	**TB**

Geotechnical Engineering Limited

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892 - 4 : 2016 : 5

CLIENT	CAMPBELLREITH	BH/TP No.	TP14
SITE	BRISLINGTON MEADOWS	SAMPLE No./TYPE	7B
		SAMPLE DEPTH (m)	1.70
DESCRIPTION	Reddish brown clayey very sandy GRAVEL with medium cobble content	SPECIMEN TOP (m)	1.70
		SPECIMEN BASE (m)	1.80



soil type	% fraction
CLAY	
SILT	
SILT & CLAY	11
SAND	34
GRAVEL	51
COBBLE & BOULDER	5
test method(s)	5.2

test method

5.2 - sieving

5.3 - sedimentation by hydrometer

5.4 - sedimentation by pipette

BS test sieve (mm)	% passing	BS test sieve (mm)	% passing	BS test sieve (µm)	% finer
150	100	5	50	20	
75	95	2	44	6	
63	95	1.18	40	2	
50	87	0.63	32		
37.5	84	0.425	27		
20	73	0.2	16		
10	59	0.15	13		
6.3	53	0.063	11		

remarks

# denotes sample tested is smaller than that which is recommended in accordance with BS EN 17892

Particle density assigned an assumed value of 2.70 Mg/m3

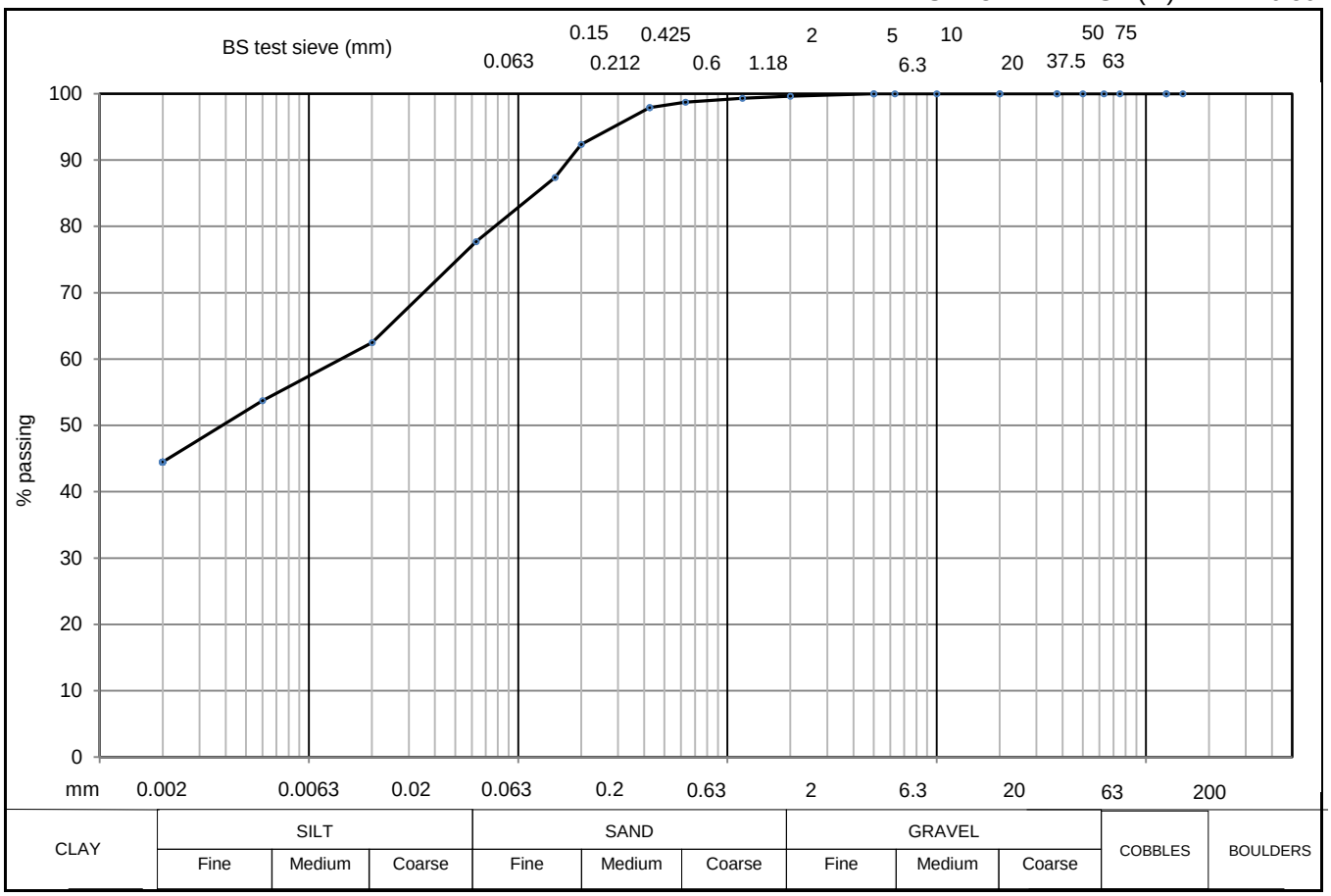
CONTRACT	CHECKED
36142	**TB**

Geotechnical Engineering Limited

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892 - 4 : 2016 : 5

CLIENT	CAMPBELLREITH	BH/TP No.	TP15
SITE	BRISLINGTON MEADOWS	SAMPLE No./TYPE	3B
		SAMPLE DEPTH (m)	0.40
DESCRIPTION	Orangish brown slightly sandy silty CLAY	SPECIMEN TOP (m)	0.40
		SPECIMEN BASE (m)	0.50



soil type	% fraction
CLAY	45
SILT	33
SILT & CLAY	78
SAND	22
GRAVEL	0
COBBLE & BOULDER	0
test method(s)	5.2 & 5.4
test method	
5.2 - sieving	
5.3 - sedimentation by hydrometer	
5.4 - sedimentation by pipette	

BS test sieve (mm)	% passing
150	
75	
63	
50	
37.5	
20	
10	
6.3	

BS test sieve (mm)	% passing
5	100
2	100
1.18	99
0.63	99
0.425	98
0.2	92
0.15	87
0.063	78

BS test sieve (µm)	% finer
20	62
6	54
2	44

remarks

# denotes sample tested is smaller than that which is recommended in accordance with BS EN 17892

Particle density assigned an assumed value of 2.70 Mg/m3

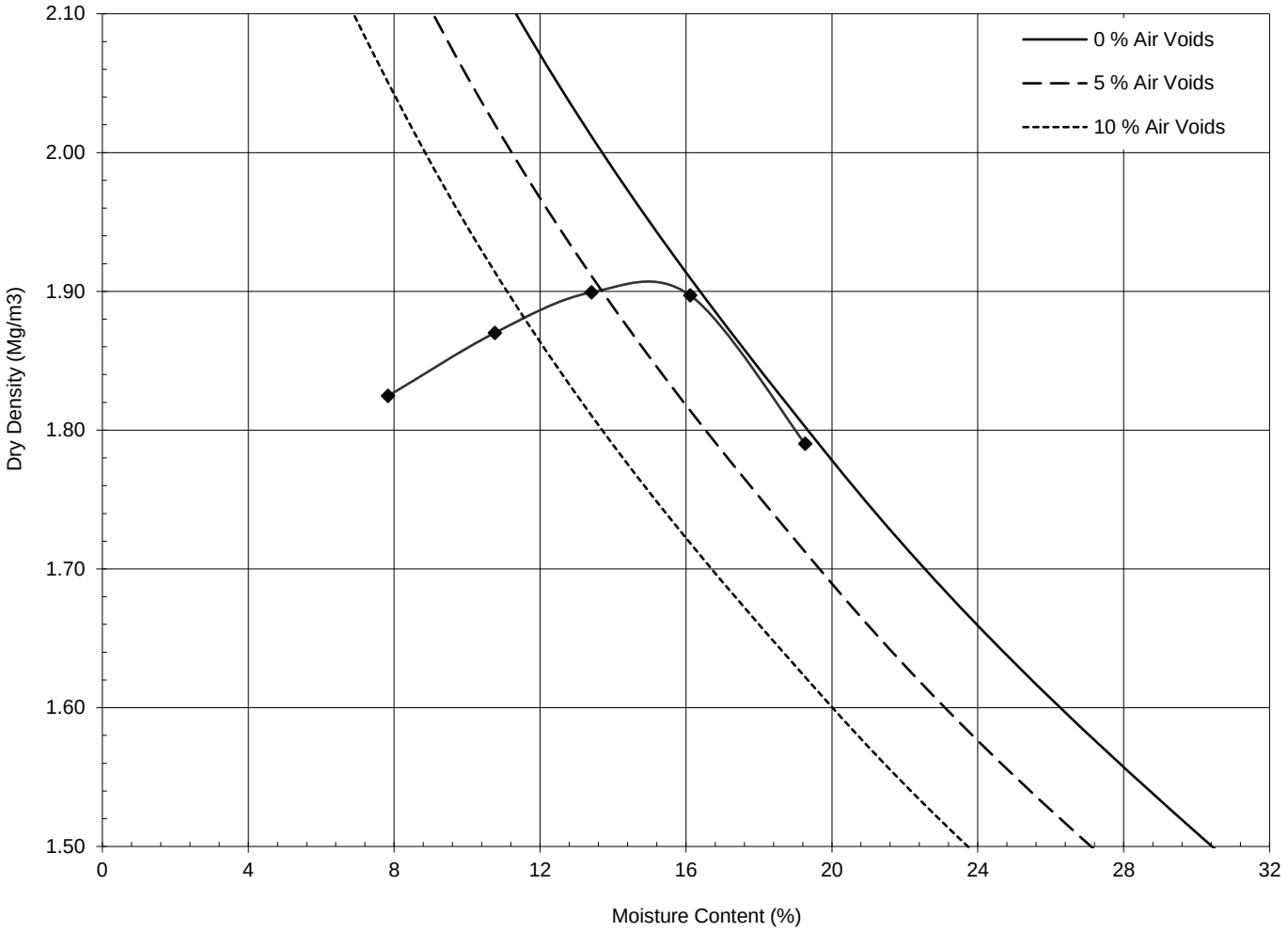
CONTRACT	CHECKED
36142	**NP**

Geotechnical Engineering Limited

DRY DENSITY/MOISTURE CONTENT RELATIONSHIP

BS. 1377 : Part 4 : 1990 : 3

CLIENT	CAMPBELLREITH	BH/TP No.	TP06
SITE	BRISLINGTON MEADOWS	SAMPLE No./TYPE	4B
DESCRIPTION	Reddish brown slightly gravelly slightly sandy CLAY	SAMPLE DEPTH (m)	0.70
		SPECIMEN DEPTH (m)	0.70



test method		3.3.4.2 2.5kg dynamic compaction - 1L mould			
preparation procedure		3.2.6.1 (grading zone 1, crushable)			
sample preparation		C			
proportion retained on 37.5mm sieve	%	0	initial moisture content	%	16
proportion retained on 20mm sieve	%	0	maximum dry density	(Mg/m3)	1.91
particle density	(Mg/m3)	#2.76	optimum moisture content	%	15

remarks

# denotes particle density has been assigned an assumed value

C denotes sample has been chopped to pass 20mm sieve

S denotes sample has been shredded to pass 20mm sieve

R denotes sample material has been recycled between/for points

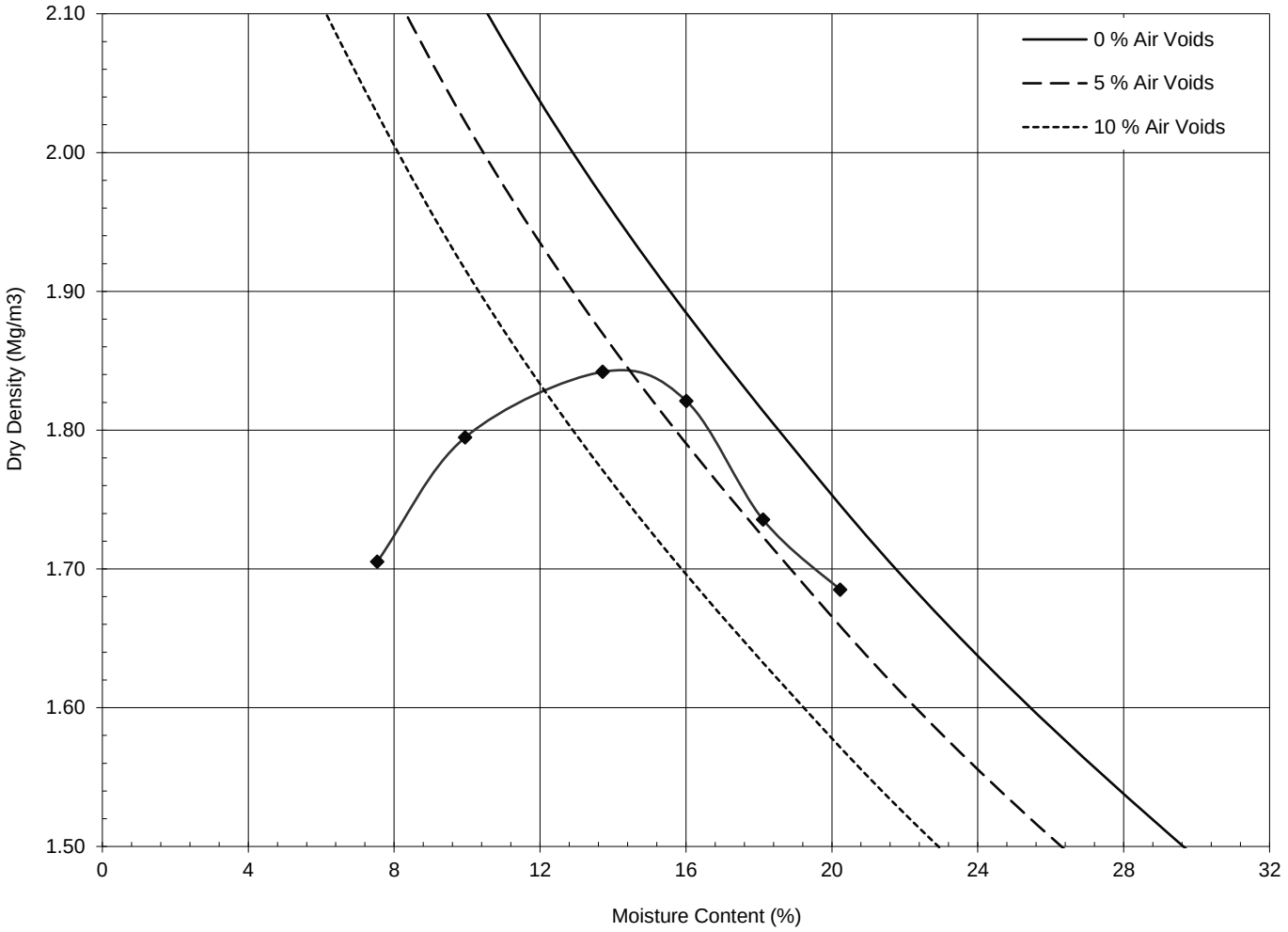
CONTRACT	CHECKED
36142	**NP**

Geotechnical Engineering Limited

DRY DENSITY/MOISTURE CONTENT RELATIONSHIP

BS. 1377 : Part 4 : 1990 : 3

CLIENT	CAMPBELLREITH	BH/TP No.	TP12
SITE	BRISLINGTON MEADOWS	SAMPLE No./TYPE	3B
DESCRIPTION	Orangish brown mottled grey slightly sandy CLAY	SAMPLE DEPTH (m)	0.30
		SPECIMEN DEPTH (m)	0.30



test method		3.3.4.1 2.5kg dynamic compaction - 1L mould			
preparation procedure		3.2.4.1 (grading zone 1)			
sample preparation		C R			
proportion retained on 37.5mm sieve	%	0	initial moisture content	%	21
proportion retained on 20mm sieve	%	0	maximum dry density	(Mg/m3)	1.84
particle density	(Mg/m3)	#2.70	optimum moisture content	%	14

remarks

# denotes particle density has been assigned an assumed value

C denotes sample has been chopped to pass 20mm sieve

S denotes sample has been shredded to pass 20mm sieve

R denotes sample material has been recycled between/for points

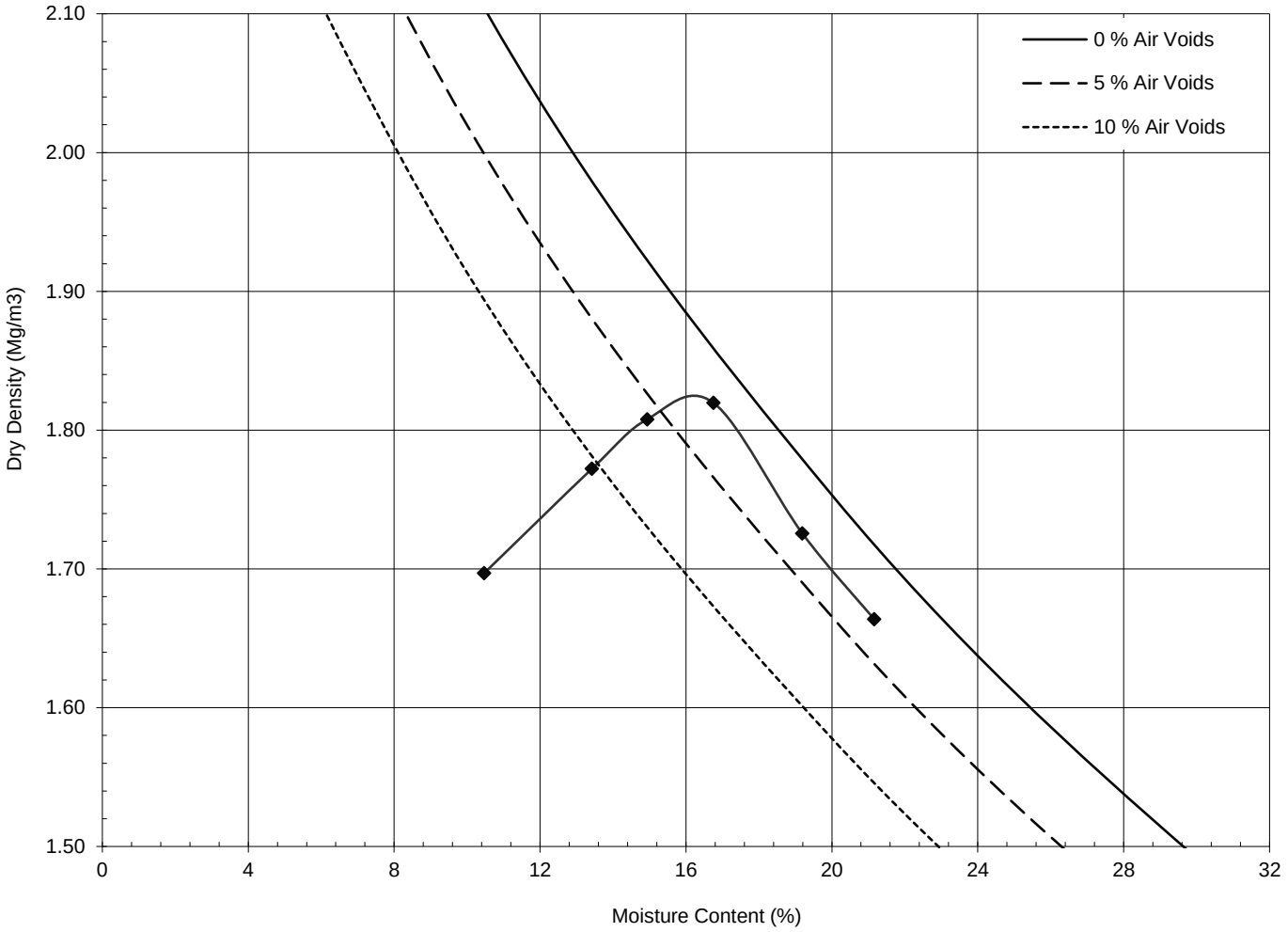
CONTRACT	CHECKED
36142	**NP**

Geotechnical Engineering Limited

DRY DENSITY/MOISTURE CONTENT RELATIONSHIP

BS. 1377 : Part 4 : 1990 : 3

CLIENT	CAMPBELLREITH	BH/TP No.	TP12
SITE	BRISLINGTON MEADOWS	SAMPLE No./TYPE	5LB
DESCRIPTION	Greyish brown motted orangish brown slightly sandy CLAY	SAMPLE DEPTH (m)	0.90
		SPECIMEN DEPTH (m)	0.90



test method		3.3.4.1 2.5kg dynamic compaction - 1L mould			
preparation procedure		3.2.4.1 (grading zone 1)			
sample preparation		C R			
proportion retained on 37.5mm sieve	%	0	initial moisture content	%	24
proportion retained on 20mm sieve	%	0	maximum dry density	(Mg/m3)	1.82
particle density	(Mg/m3)	#2.70	optimum moisture content	%	16

remarks

# denotes particle density has been assigned an assumed value

C denotes sample has been chopped to pass 20mm sieve

S denotes sample has been shredded to pass 20mm sieve

R denotes sample material has been recycled between/for points

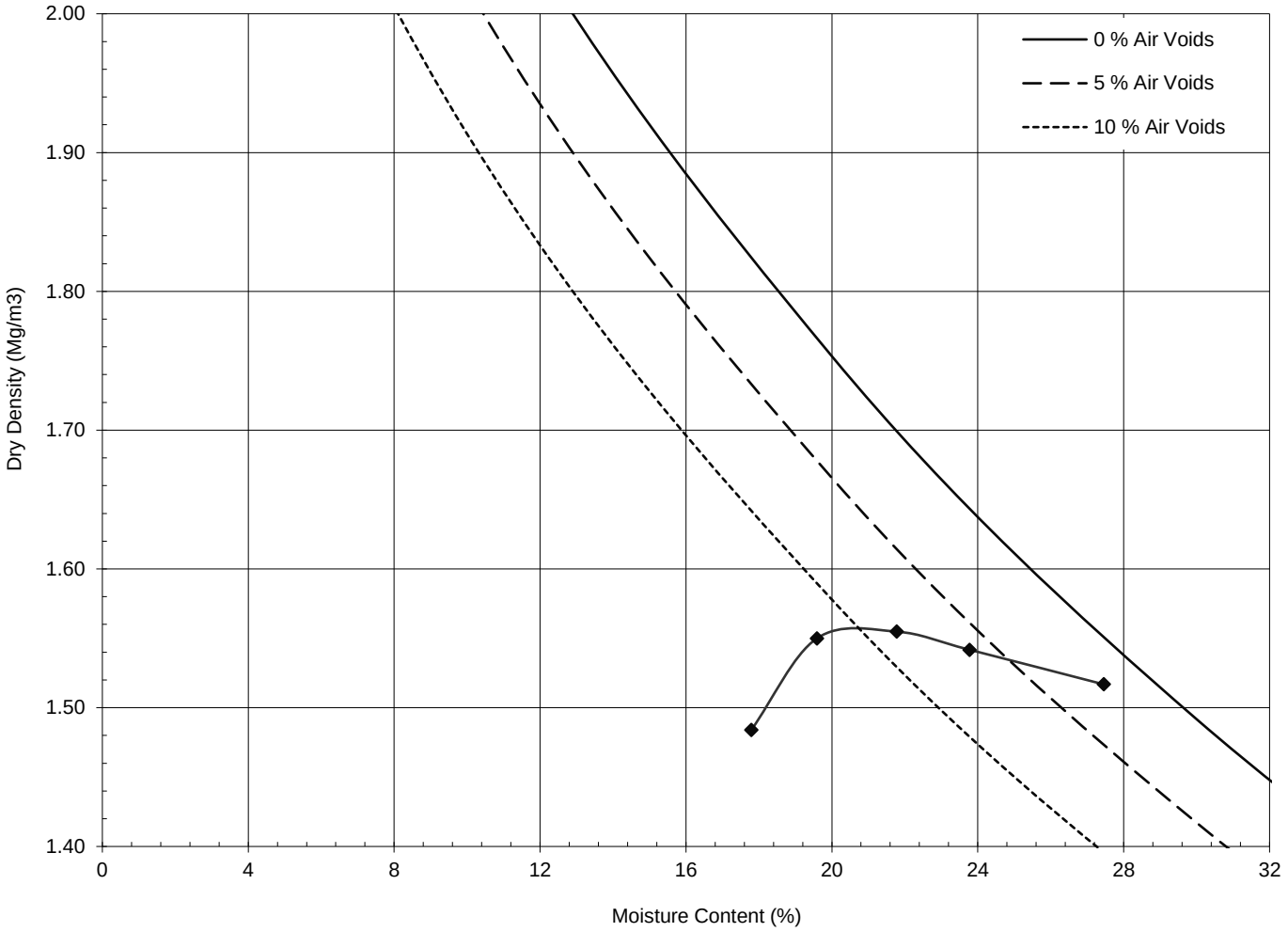
CONTRACT	CHECKED
36142	**NP**

Geotechnical Engineering Limited

DRY DENSITY/MOISTURE CONTENT RELATIONSHIP

BS. 1377 : Part 4 : 1990 : 3

CLIENT	CAMPBELLREITH	BH/TP No.	TP15
SITE	BRISLINGTON MEADOWS	SAMPLE No./TYPE	3B
DESCRIPTION	Orangish brown slightly gravelly slightly sandy CLAY	SAMPLE DEPTH (m)	0.40
		SPECIMEN DEPTH (m)	0.40



test method		3.3.4.1 2.5kg dynamic compaction - 1L mould			
preparation procedure		3.2.4.1 (grading zone 1)			
sample preparation		C R			
proportion retained on 37.5mm sieve	%	0	initial moisture content	%	28
proportion retained on 20mm sieve	%	0	maximum dry density	(Mg/m3)	1.56
particle density	(Mg/m3)	#2.70	optimum moisture content	%	21

remarks

# denotes particle density has been assigned an assumed value

C denotes sample has been chopped to pass 20mm sieve

S denotes sample has been shredded to pass 20mm sieve

R denotes sample material has been recycled between/for points

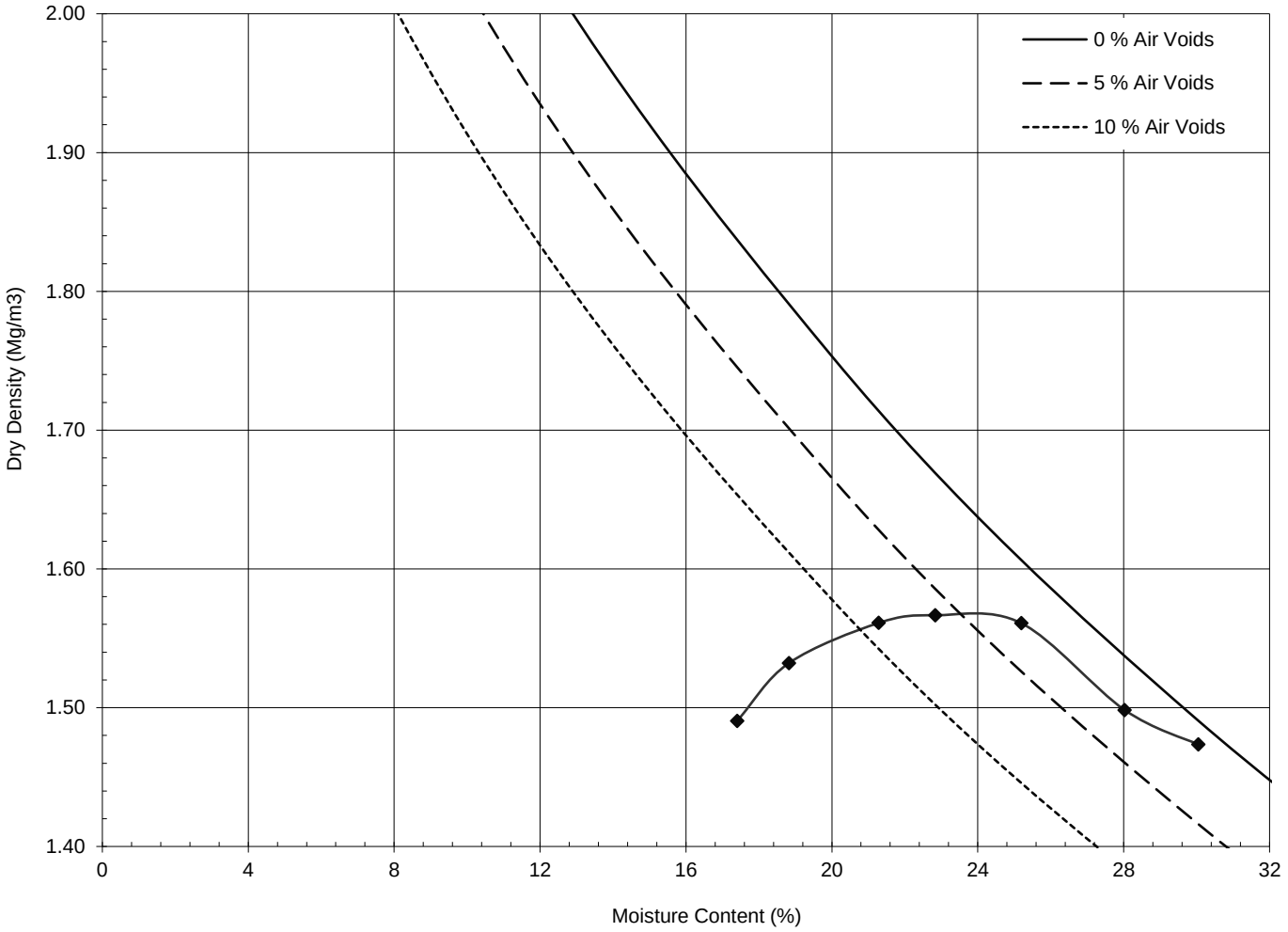
CONTRACT	CHECKED
36142	**NP**

Geotechnical Engineering Limited

DRY DENSITY/MOISTURE CONTENT RELATIONSHIP

BS. 1377 : Part 4 : 1990 : 3

CLIENT	CAMPBELLREITH	BH/TP No.	TP16
SITE	BRISLINGTON MEADOWS	SAMPLE No./TYPE	7B
DESCRIPTION	Orangish brown slightly gravelly slightly sandy CLAY	SAMPLE DEPTH (m)	1.90
		SPECIMEN DEPTH (m)	1.90



test method		3.3.4.1 2.5kg dynamic compaction - 1L mould			
preparation procedure		3.2.4.1 (grading zone 1)			
sample preparation		C R			
proportion retained on 37.5mm sieve	%	0	initial moisture content	%	25
proportion retained on 20mm sieve	%	0	maximum dry density	(Mg/m3)	1.58
particle density	(Mg/m3)	#2.70	optimum moisture content	%	23

remarks

# denotes particle density has been assigned an assumed value

C denotes sample has been chopped to pass 20mm sieve

S denotes sample has been shredded to pass 20mm sieve

R denotes sample material has been recycled between/for points

CONTRACT	CHECKED
36142	**TB**

Geotechnical Engineering Limited

ROCK WATER CONTENT

I.S.R.M. Suggested Methods : 2007 Edition

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS

borehole /trial pit no.	sample		specimen depth (m)	natural water content (%)	description and remarks
	no./type	depth (m)			
BH01	8C	1.30	1.84	2.2	Orangish brown SANDSTONE
BH04	12C	3.50	4.10	3.5	Orangish brown MUDSTONE
BH05	10C	2.70	3.60	4.8	Reddish brown SANDSTONE
BH05	13C	7.20	8.00	2.2	Light brown SANDSTONE
BH05	16C	10.90	11.03	5.4	Reddish brown SANDSTONE
BH06	14C	4.20	4.40	1.8	Grey SANDSTONE
BH06	19C	8.70	8.90	5.4	Grey SANDSTONE

general remarks
natural water content determined unless otherwise specified

test method
samples oven dried at 105°C

CONTRACT	CHECKED
36142	**NP**

Geotechnical Engineering Limited

POINT LOAD STRENGTH TEST

I.S.R.M. Suggested Methods : 2007 Edition

CLIENT CAMPBELLREITH

SITE BRISLINGTON MEADOWS

borehole /trial pit no.	sample depth (m)	test type	test orien-tation	moisture condition	width W (mm)	length L (mm)	platen sep. D (mm)	failure load P (kN)	equiv. diam. De (mm)	Is (MPa)	size factor	Is(50) (MPa)	description and remarks
BH01	3.40	A	X	P	90		50	0.17	75.69	0.03	1.21	0.04	Orangish brown SANDSTONE
BH03	2.70	A	X	P	80		40	0.12	63.83	0.03	1.12	0.03	Reddish brown and grey SANDSTONE
BH04	5.17	A	X	P	75		45	0.14	65.55	0.03	1.13	0.04	Grey and brown SILTSTONE
BH05	5.30	A	X	P	90		45	0.28	71.81	0.05	1.18	0.06	Reddish brown SANDSTONE
BH05	11.03	A	X	P	90		65	0.14	86.30	0.02	1.28	0.02	Reddish brown SANDSTONE
BH05	11.03	D	Y	P		60	90	0.27	90.00	0.03	1.30	0.04	Reddish brown SANDSTONE
BH06	6.60	A	X	P	70		60	1.27	73.13	0.24	1.19	0.28	Light grey MUDSTONE
BH06	8.90	A	X	P	90		50	1.35	75.69	0.24	1.21	0.28	Light grey SANDSTONE
BH06	8.90	D	Y	P		40	90	0.40	90.00	0.05	1.30	0.06	Light grey SANDSTONE
TP03	0.90	A	X	P	110		35	2.03	70.01	0.41	1.16	0.48	Reddish grey SANDSTONE

general remarks

tests carried out in accordance with I.S.R.M.(2007): Suggested Methods for Determining Point Load Strength

test machine PLM02

test type	test orientation relative to discontinuities		moisture condition	CONTRACT	CHECKED
A - axial	X - perpendicular	U - unknown	N - natural moisture content		
D - diametral	Y - parallel		P - partially air dried	**36142**	**NP**
I - irregular lump	Z - oblique		S - soaked		

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	21-00374-1
Initial Date of Issue:	14-Jan-2021
Client	Geotechnical Engineering Ltd
Client Address:	Centurion House Olympus Park Quedgeley Gloucester Gloucestershire GL2 4NF
Contact(s):	GEL Tom Best
Project	36142 Brislington Meadows

Quotation No.:		**Date Received:**	11-Jan-2021
Order No.:	36142/TB	**Date Instructed:**	11-Jan-2021
No. of Samples:	11		
Turnaround (Wkdays):	5	**Results Due:**	15-Jan-2021
Date Approved:	14-Jan-2021		

Approved By:

Details: Glynn Harvey, Technical Manager

Results - Soil

Project: 36142 Brislington Meadows

Client: Geotechnical Engineering Ltd				**Chemtest Job No.:**	21-00374	21-00374	21-00374	21-00374	21-00374	21-00374	21-00374	21-00374	21-00374
Quotation No.:				**Chemtest Sample ID.:**	1122085	1122086	1122087	1122088	1122089	1122090	1122091	1122092	1122093
Order No.: 36142/TB				Client Sample Ref.:	5	12	5	6	9	3	4	4	6
				Sample Location:	BH03	BH03	BH05	BH06	BH06	TP02	TP06	TP11	TP12
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	0.40	2.10	1.00	1.00	1.80	0.90	0.70	0.30	0.90
				Bottom Depth (m):	0.60	2.20	1.20	1.20	1.90	1.00	0.80	0.40	1.10
				Date Sampled:	05-Jan-2021	05-Jan-2021	05-Jan-2021	05-Jan-2021	05-Jan-2021	05-Jan-2021	05-Jan-2021	05-Jan-2021	05-Jan-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Moisture	N	2030	%	0.020	14	13	13	17	15	11	13	8.6	17
pH (2.5:1)	N	2010		4.0			6.8		6.8	7.5		6.8	6.7
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010			< 0.010		< 0.010	< 0.010		< 0.010	< 0.010
Total Sulphur	U	2175	%	0.010			< 0.010		0.029	< 0.010		0.059	0.018
Sulphate (Acid Soluble)	U	2430	%	0.010			0.012		0.036	< 0.010		0.015	0.032
Organic Matter	U	2625	%	0.40	0.88	1.0		1.9			< 0.40		

Results - Soil

Project: 36142 Brislington Meadows

Client: Geotechnical Engineering Ltd			**Chemtest Job No.:**		21-00374	21-00374
Quotation No.:			**Chemtest Sample ID.:**		1122094	1122095
Order No.: 36142/TB			Client Sample Ref.:		3	4
			Sample Location:		TP16	TP16
			Sample Type:		SOIL	SOIL
			Top Depth (m):		0.40	0.40
			Bottom Depth (m):		0.50	0.50
			Date Sampled:		05-Jan-2021	05-Jan-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
Moisture	N	2030	%	0.020	17	18
pH (2.5:1)	N	2010		4.0	7.7	
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	< 0.010	
Total Sulphur	U	2175	%	0.010	0.012	
Sulphate (Acid Soluble)	U	2430	%	0.010	0.034	
Organic Matter	U	2625	%	0.40		< 0.40

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied

B - Sample age exceeds stability time (sampling to extraction)

C - Sample not received in appropriate containers

D - Broken Container

E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 45 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com

APPENDIX C

CHEMICAL ANALYSES

Joss Evans
Geotechnical Engineering Ltd
Centurion House
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Gloucester
GL2 4NF

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i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 20-40620

Project / Site name:	Brislington Meadows	**Samples received on:**	06/11/2020
Your job number:	36142	**Samples instructed on/ Analysis started on:**	11/11/2020
Your order number:	36142 WF	**Analysis completed by:**	17/11/2020
Report Issue Number:	1	**Report issued on:**	17/11/2020
Samples Analysed:	2 soil samples		

Signed: Karolina Marek

Karolina Marek
PL Head of Reporting Team
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

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

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 20-40620
Project / Site name: Brislington Meadows
Your Order No: 36142 WF

Lab Sample Number				1679356	1679357
Sample Reference				TP10	TP09
Sample Number				None Supplied	None Supplied
Depth (m)				0.30-0.50	0.30-0.50
Date Sampled				04/11/2020	04/11/2020
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
Stone Content	%	0.1	NONE	< 0.1	53
Moisture Content	%	0.01	NONE	13	6.1
Total mass of sample received	kg	0.001	NONE	1.5	1.5
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected
General Inorganics					
pH - Automated	pH Units	N/A	MCERTS	5.8	6.1
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1
Total Organic Carbon (TOC)	%	0.1	MCERTS	1	-
Total Phenols					
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0
Speciated PAHs					
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Total PAH					
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80

Analytical Report Number: 20-40620
Project / Site name: Brislington Meadows
Your Order No: 36142 WF

Lab Sample Number				1679356	1679357
Sample Reference				TP10	TP09
Sample Number				None Supplied	None Supplied
Depth (m)				0.30-0.50	0.30-0.50
Date Sampled				04/11/2020	04/11/2020
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
Heavy Metals / Metalloids					
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.1	4.9
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.75	1.5
Boron (water soluble)	mg/kg	0.2	MCERTS	0.6	0.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	13	18
Copper (aqua regia extractable)	mg/kg	1	MCERTS	23	5.4
Lead (aqua regia extractable)	mg/kg	1	MCERTS	100	7.6
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	13	19
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	18	19
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	65	42
Petroleum Hydrocarbons					
TPH C10 - C40	mg/kg	10	MCERTS	< 10	< 10
TPH2 (C6 - C10)	mg/kg	0.1	MCERTS	< 0.1	< 0.1
TPH C6 - C40	mg/kg	10	NONE	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 20-40620
Project / Site name: Brislington Meadows

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
1679356	TP10	None Supplied	0.30-0.50	Brown loam and clay with gravel and vegetation.
1679357	TP09	None Supplied	0.30-0.50	Brown loam and clay with gravel and stones.

Analytical Report Number : 20-40620
Project / Site name: Brislington Meadows

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
TPH2 (Soil)	Determination of hydrocarbons C6-C10 by headspace GC-MS.	In-house method based on USEPA8260	L088-PL	W	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
TPH Banding in Soil by FID	Determination of hexane extractable hydrocarbons in soil by GC-FID.	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	W	MCERTS
TPH C6 - C40 (soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method.	L076-PL	W	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Sample Deviation Report

Analytical Report Number : 20-40620
Project / Site name: Brislington Meadows

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
TP09	None Supplied	S	1679357	c	Total cyanide in soil	L080-PL	c
TP10	None Supplied	S	1679356	c	Total cyanide in soil	L080-PL	c

Key: **a** - No sampling date **b** - Incorrect container
c - Holding time **d** - Headspace **e** - Temperature

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Analytical Report Number : 20-40626

Project / Site name:	Brislington Meadows	**Samples received on:**	11/11/2020
Your job number:	36142	**Samples instructed on/ Analysis started on:**	11/11/2020
Your order number:	35403-DO	**Analysis completed by:**	17/11/2020
Report Issue Number:	1	**Report issued on:**	17/11/2020
Samples Analysed:	7 soil samples		

Signed: Karolina Marek

Karolina Marek
PL Head of Reporting Team
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 20-40626
Project / Site name: Brislington Meadows
Your Order No: 35403-DO

Lab Sample Number				1679408	1679409	1679410	1679411
Sample Reference				TP6	TP6	TP3	TP8
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.15	0.70-0.80	0.00-0.15	0.00-0.15
Date Sampled				05/11/2020	05/11/2020	05/11/2020	05/11/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
Stone Content	%	0.1	NONE	-	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	-	13	15	15
Total mass of sample received	kg	0.001	NONE	-	1.5	1.5	1.5
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	Not-detected	Not-detected
General Inorganics							
pH - Automated	pH Units	N/A	MCERTS	-	8.8	7.9	7.7
Total Cyanide	mg/kg	1	MCERTS	-	< 1	< 1	< 1
Total Organic Carbon (TOC)	%	0.1	MCERTS	-	-	2.2	-
Total Phenols							
Total Phenols (monohydric)	mg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0
Speciated PAHs							
Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05
Total PAH							
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	< 0.80	< 0.80	< 0.80

Analytical Report Number: 20-40626
Project / Site name: Brislington Meadows
Your Order No: 35403-DO

Lab Sample Number				1679408	1679409	1679410	1679411
Sample Reference				TP6	TP6	TP3	TP8
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.15	0.70-0.80	0.00-0.15	0.00-0.15
Date Sampled				05/11/2020	05/11/2020	05/11/2020	05/11/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
Heavy Metals / Metalloids							
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-	24	12	17
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	-	4.7	0.93	1.3
Boron (water soluble)	mg/kg	0.2	MCERTS	-	< 0.2	0.8	0.5
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-	< 0.2	0.4	0.6
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-	31	14	23
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-	3.4	21	28
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-	17	99	96
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-	24	11	17
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	-	63	23	32
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-	43	80	120
Petroleum Hydrocarbons							
TPH C10 - C40	mg/kg	10	MCERTS	-	< 10	< 10	< 10
TPH2 (C6 - C10)	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	< 0.1
TPH C6 - C40	mg/kg	10	NONE	-	< 10	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 20-40626
Project / Site name: Brislington Meadows
Your Order No: 35403-DO

Lab Sample Number				1679412	1679413	1679414
Sample Reference				TP7	TP7	TP5
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.15	0.90-1.00	0.70-0.80
Date Sampled				05/11/2020	05/11/2020	05/11/2020
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**			
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	15	8.7	8.6
Total mass of sample received	kg	0.001	NONE	1.5	1.5	1.5
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	Not-detected
General Inorganics						
pH - Automated	pH Units	N/A	MCERTS	7.4	-	7.2
Total Cyanide	mg/kg	1	MCERTS	< 1	-	< 1
Total Organic Carbon (TOC)	%	0.1	MCERTS	-	1.5	-
Total Phenols						
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	-	< 1.0
Speciated PAHs						
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05
Total PAH						
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	-	< 0.80

Analytical Report Number: 20-40626
Project / Site name: Brislington Meadows
Your Order No: 35403-DO

Lab Sample Number				1679412	1679413	1679414
Sample Reference				TP7	TP7	TP5
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.15	0.90-1.00	0.70-0.80
Date Sampled				05/11/2020	05/11/2020	05/11/2020
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**			
Heavy Metals / Metalloids						
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	17	-	4
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.3	-	0.98
Boron (water soluble)	mg/kg	0.2	MCERTS	0.6	-	< 0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	20	-	16
Copper (aqua regia extractable)	mg/kg	1	MCERTS	27	-	6.1
Lead (aqua regia extractable)	mg/kg	1	MCERTS	94	-	15
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	15	-	17
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	-	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	30	-	19
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	100	-	36
Petroleum Hydrocarbons						
TPH C10 - C40	mg/kg	10	MCERTS	< 10	-	< 10
TPH2 (C6 - C10)	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1
TPH C6 - C40	mg/kg	10	NONE	< 10	-	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 20-40626
Project / Site name: Brislington Meadows

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
1679409	TP6	None Supplied	0.70-0.80	Brown clay and loam with gravel and vegetation.
1679410	TP3	None Supplied	0.00-0.15	Brown loam and clay with gravel and vegetation.
1679411	TP8	None Supplied	0.00-0.15	Brown loam and clay with gravel and vegetation.
1679412	TP7	None Supplied	0.00-0.15	Brown loam and clay with gravel and vegetation.
1679413	TP7	None Supplied	0.90-1.00	Brown loam and clay with gravel and vegetation.
1679414	TP5	None Supplied	0.70-0.80	Brown loam and clay with gravel and vegetation.

Analytical Report Number : 20-40626
Project / Site name: Brislington Meadows

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
TPH2 (Soil)	Determination of hydrocarbons C6-C10 by headspace GC-MS.	In-house method based on USEPA8260	L088-PL	W	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
TPH Banding in Soil by FID	Determination of hexane extractable hydrocarbons in soil by GC-FID.	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	W	MCERTS
TPH C6 - C40 (soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method.	L076-PL	W	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

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Analytical Report Number : 20-40846

Project / Site name:	Brislington Meadows	**Samples received on:**	05/11/2020
Your job number:	36142	**Samples instructed on/ Analysis started on:**	12/11/2020
Your order number:	36025 MH	**Analysis completed by:**	18/11/2020
Report Issue Number:	1	**Report issued on:**	18/11/2020
Samples Analysed:	1 soil sample		

Signed: Karolina Marek

Karolina Marek
PL Head of Reporting Team
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 20-40846
Project / Site name: Brislington Meadows
Your Order No: 36025 MH

Lab Sample Number				1680652
Sample Reference				BH6
Sample Number				None Supplied
Depth (m)				0.40-0.60
Date Sampled				05/11/2020
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	24
Total mass of sample received	kg	0.001	NONE	2
General Inorganics				
pH - Automated	pH Units	N/A	MCERTS	7.5
Total Cyanide	mg/kg	1	MCERTS	< 1
Total Phenols				
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0
Speciated PAHs				
Naphthalene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05
Total PAH				
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80
Heavy Metals / Metalloids				
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	12
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.7
Boron (water soluble)	mg/kg	0.2	MCERTS	< 0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	20
Copper (aqua regia extractable)	mg/kg	1	MCERTS	11
Lead (aqua regia extractable)	mg/kg	1	MCERTS	21
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	13
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	2.5
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	31
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	57

Analytical Report Number: 20-40846
Project / Site name: Brislington Meadows
Your Order No: 36025 MH

Lab Sample Number				1680652
Sample Reference				BH6
Sample Number				None Supplied
Depth (m)				0.40-0.60
Date Sampled				05/11/2020
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Petroleum Hydrocarbons				
TPH C10 - C40	mg/kg	10	MCERTS	57
TPH2 (C6 - C10)	mg/kg	0.1	MCERTS	< 0.1
TPH C6 - C40	mg/kg	10	NONE	57

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 20-40846
Project / Site name: Brislington Meadows

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
1680652	BH6	None Supplied	0.40-0.60	Brown clay and sand with gravel.

Analytical Report Number : 20-40846
Project / Site name: Brislington Meadows

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
TPH2 (Soil)	Determination of hydrocarbons C6-C10 by headspace GC-MS.	In-house method based on USEPA8260	L088-PL	W	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
TPH Banding in Soil by FID	Determination of hexane extractable hydrocarbons in soil by GC-FID.	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	W	MCERTS
TPH C6 - C40 (soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method.	L076-PL	W	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Sample Deviation Report

Analytical Report Number : 20-40846
Project / Site name: Brislington Meadows

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
BH6	None Supplied	S	1680652	c	Total cyanide in soil	L080-PL	c

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Analytical Report Number : 20-41125

Project / Site name:	Brislington Meadows	**Samples received on:**	11/11/2020
Your job number:	36142	**Samples instructed on/ Analysis started on:**	12/11/2020
Your order number:	36025--MH	**Analysis completed by:**	18/11/2020
Report Issue Number:	1	**Report issued on:**	18/11/2020
Samples Analysed:	1 soil sample		

Signed: A. Czerwińska

Agnieszka Czerwińska
Technical Reviewer (Reporting Team)
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 20-41125
Project / Site name: Brislington Meadows
Your Order No: 36025--MH

Lab Sample Number				1682177
Sample Reference				BH4
Sample Number				None Supplied
Depth (m)				0.40-0.60
Date Sampled				05/11/2020
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	11
Total mass of sample received	kg	0.001	NONE	2
General Inorganics				
pH - Automated	pH Units	N/A	MCERTS	6.9
Total Cyanide	mg/kg	1	MCERTS	< 1
Total Phenols				
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0
Speciated PAHs				
Naphthalene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05
Total PAH				
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80
Heavy Metals / Metalloids				
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	6.4
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.75
Boron (water soluble)	mg/kg	0.2	MCERTS	< 0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	15
Copper (aqua regia extractable)	mg/kg	1	MCERTS	100
Lead (aqua regia extractable)	mg/kg	1	MCERTS	470
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	15
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	20
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	44

Analytical Report Number: 20-41125
Project / Site name: Brislington Meadows
Your Order No: 36025--MH

Lab Sample Number				1682177
Sample Reference				BH4
Sample Number				None Supplied
Depth (m)				0.40-0.60
Date Sampled				05/11/2020
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Petroleum Hydrocarbons				
TPH C10 - C40	mg/kg	10	MCERTS	68
TPH2 (C6 - C10)	mg/kg	0.1	MCERTS	< 0.1
TPH C6 - C40	mg/kg	10	NONE	68

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 20-41125
Project / Site name: Brislington Meadows

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Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
1682177	BH4	None Supplied	0.40-0.60	Brown loam and clay with gravel and vegetation.

Analytical Report Number : 20-41125
Project / Site name: Brislington Meadows

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
TPH2 (Soil)	Determination of hydrocarbons C6-C10 by headspace GC-MS.	In-house method based on USEPA8260	L088-PL	W	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
TPH Banding in Soil by FID	Determination of hexane extractable hydrocarbons in soil by GC-FID.	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	W	MCERTS
TPH C6 - C40 (soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method.	L076-PL	W	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Sample Deviation Report

Analytical Report Number : 20-41125
Project / Site name: Brislington Meadows

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
BH4	None Supplied	S	1682177	c	Total cyanide in soil	L080-PL	c

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Analytical Report Number : 20-41939

Project / Site name:	Brislington Meadows	**Samples received on:**	17/11/2020
Your job number:	36142	**Samples instructed on/ Analysis started on:**	17/11/2020
Your order number:	36025-MH	**Analysis completed by:**	24/11/2020
Report Issue Number:	1	**Report issued on:**	24/11/2020
Samples Analysed:	1 soil sample		

Signed:

Rachel Bradley
Deputy Quality Manager
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

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Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 20-41939
Project / Site name: Brislington Meadows
Your Order No: 36025-MH

Lab Sample Number				1687322
Sample Reference				BH2
Sample Number				None Supplied
Depth (m)				0.40-0.60
Date Sampled				10/11/2020
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	12
Total mass of sample received	kg	0.001	NONE	1.2
General Inorganics				
pH - Automated	pH Units	N/A	MCERTS	7.5
Total Cyanide	mg/kg	1	MCERTS	< 1
Total Phenols				
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0
Speciated PAHs				
Naphthalene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05
Total PAH				
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80
Heavy Metals / Metalloids				
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	12
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.85
Boron (water soluble)	mg/kg	0.2	MCERTS	< 0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	23
Copper (aqua regia extractable)	mg/kg	1	MCERTS	49
Lead (aqua regia extractable)	mg/kg	1	MCERTS	28
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	34
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	24
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	150

Analytical Report Number: 20-41939
Project / Site name: Brislington Meadows
Your Order No: 36025-MH

Lab Sample Number				1687322
Sample Reference				BH2
Sample Number				None Supplied
Depth (m)				0.40-0.60
Date Sampled				10/11/2020
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Petroleum Hydrocarbons				
TPH C10 - C40	mg/kg	10	MCERTS	21
TPH2 (C6 - C10)	mg/kg	0.1	MCERTS	< 0.1
TPH C6 - C40	mg/kg	10	NONE	21

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 20-41939
Project / Site name: Brislington Meadows

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
1687322	BH2	None Supplied	0.40-0.60	Brown clay and loam with gravel.

Analytical Report Number : 20-41939
Project / Site name: Brislington Meadows

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
TPH2 (Soil)	Determination of hydrocarbons C6-C10 by headspace GC-MS.	In-house method based on USEPA8260	L088-PL	W	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
TPH Banding in Soil by FID	Determination of hexane extractable hydrocarbons in soil by GC-FID.	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	W	MCERTS
TPH C6 - C40 (soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method.	L076-PL	W	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Sample Deviation Report

Analytical Report Number : 20-41939
Project / Site name: Brislington Meadows

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
BH2	None Supplied	S	1687322	c	Total cyanide in soil	L080-PL	c

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Analytical Report Number : 20-42118

Project / Site name:	Brislington Meadows	**Samples received on:**	11/11/2020
Your job number:	36142	**Samples instructed on/ Analysis started on:**	19/11/2020
Your order number:	36142-WF	**Analysis completed by:**	26/11/2020
Report Issue Number:	1	**Report issued on:**	26/11/2020
Samples Analysed:	4 soil samples		

Signed: A. Czerwińska

Agnieszka Czerwińska
Technical Reviewer (Reporting Team)
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

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

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 20-42118
Project / Site name: Brislington Meadows
Your Order No: 36142-WF

Lab Sample Number				1688357	1688358	1688359	1688360
Sample Reference				TP13	TP4	TP2	TP1
Sample Number				1	1	2	1
Depth (m)				0.00-0.15	0.00-0.15	0.90-1.00	0.00-0.15
Date Sampled				Deviating	Deviating	Deviating	Deviating
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	11	8.6	8	11
Total mass of sample received	kg	0.001	NONE	1.2	1.2	1.2	1.2
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected
General Inorganics							
pH - Automated	pH Units	N/A	MCERTS	7	6.7	6.7	5.2
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1
Total Phenols							
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs							
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	2.6
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.31
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	2.5
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	4.2
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	1.8
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	1.4
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.89
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.64
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	1.2
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.35
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.47
Total PAH							
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	< 0.80	16.3

Analytical Report Number: 20-42118
Project / Site name: Brislington Meadows
Your Order No: 36142-WF

Lab Sample Number				1688357	1688358	1688359	1688360
Sample Reference				TP13	TP4	TP2	TP1
Sample Number				1	1	2	1
Depth (m)				0.00-0.15	0.00-0.15	0.90-1.00	0.00-0.15
Date Sampled				Deviating	Deviating	Deviating	Deviating
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
Heavy Metals / Metalloids							
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	15	12	5.6	19
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.67	0.62	1.1	0.83
Boron (water soluble)	mg/kg	0.2	MCERTS	0.5	0.5	0.2	0.4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	0.7
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	15	14	11	17
Copper (aqua regia extractable)	mg/kg	1	MCERTS	26	30	5.8	40
Lead (aqua regia extractable)	mg/kg	1	MCERTS	69	110	6	100
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	21	21	15	18
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	22	18	15	24
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	110	76	25	100
Petroleum Hydrocarbons							
TPH C10 - C40	mg/kg	10	MCERTS	< 10	< 10	< 10	42
TPH2 (C6 - C10)	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1
TPH C6 - C40	mg/kg	10	NONE	< 10	< 10	< 10	42

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 20-42118
Project / Site name: Brislington Meadows

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
1688357	TP13	1	0.00-0.15	Brown loam with vegetation.
1688358	TP4	1	0.00-0.15	Brown loam with vegetation.
1688359	TP2	2	0.90-1.00	Brown loam with gravel.
1688360	TP1	1	0.00-0.15	Brown loam with vegetation.

Analytical Report Number : 20-42118
Project / Site name: Brislington Meadows

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
TPH2 (Soil)	Determination of hydrocarbons C6-C10 by headspace GC-MS.	In-house method based on USEPA8260	L088-PL	W	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
TPH Banding in Soil by FID	Determination of hexane extractable hydrocarbons in soil by GC-FID.	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	W	MCERTS
TPH C6 - C40 (soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method.	L076-PL	W	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Analytical Report Number : 20-42118
Project / Site name: Brislington Meadows

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
TP1	1	S	1688360	a	None Supplied	None Supplied	None Supplied
TP13	1	S	1688357	a	None Supplied	None Supplied	None Supplied
TP2	2	S	1688359	a	None Supplied	None Supplied	None Supplied
TP4	1	S	1688358	a	None Supplied	None Supplied	None Supplied

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Analytical Report Number : 20-42284

Project / Site name:	Brislington Meadows	**Samples received on:**	12/11/2020
Your job number:	36142	**Samples instructed on/ Analysis started on:**	19/11/2020
Your order number:	36025 MH	**Analysis completed by:**	25/11/2020
Report Issue Number:	1	**Report issued on:**	25/11/2020
Samples Analysed:	1 soil sample		

Signed:

Rachel Bradley
Deputy Quality Manager
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

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soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

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An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 20-42284
Project / Site name: Brislington Meadows
Your Order No: 36025 MH

Lab Sample Number				1689212
Sample Reference				BH3
Sample Number				None Supplied
Depth (m)				0.40-0.60
Date Sampled				12/11/2020
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	9.7
Total mass of sample received	kg	0.001	NONE	2
General Inorganics				
pH - Automated	pH Units	N/A	MCERTS	6.3
Total Cyanide	mg/kg	1	MCERTS	< 1
Total Phenols				
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0
Speciated PAHs				
Naphthalene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05
Total PAH				
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80
Heavy Metals / Metalloids				
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	13
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.9
Boron (water soluble)	mg/kg	0.2	MCERTS	< 0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	21
Copper (aqua regia extractable)	mg/kg	1	MCERTS	71
Lead (aqua regia extractable)	mg/kg	1	MCERTS	190
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	23
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	23
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	110

Analytical Report Number: 20-42284
Project / Site name: Brislington Meadows
Your Order No: 36025 MH

Lab Sample Number				1689212
Sample Reference				BH3
Sample Number				None Supplied
Depth (m)				0.40-0.60
Date Sampled				12/11/2020
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Petroleum Hydrocarbons				
TPH C10 - C40	mg/kg	10	MCERTS	< 10
TPH2 (C6 - C10)	mg/kg	0.1	MCERTS	< 0.1
TPH C6 - C40	mg/kg	10	NONE	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 20-42284
Project / Site name: Brislington Meadows

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
1689212	BH3	None Supplied	0.40-0.60	Light brown sandy clay with gravel.

Analytical Report Number : 20-42284
Project / Site name: Brislington Meadows

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
TPH2 (Soil)	Determination of hydrocarbons C6-C10 by headspace GC-MS.	In-house method based on USEPA8260	L088-PL	W	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
TPH Banding in Soil by FID	Determination of hexane extractable hydrocarbons in soil by GC-FID.	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	W	MCERTS
TPH C6 - C40 (soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method.	L076-PL	W	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Sample Deviation Report

Analytical Report Number : 20-42284
Project / Site name: Brislington Meadows

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
BH3	None Supplied	S	1689212	c	Total cyanide in soil	L080-PL	c

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Analytical Report Number : 20-44651

Project / Site name:	Brislington Meadows	**Samples received on:**	25/11/2020
Your job number:	36142	**Samples instructed on/ Analysis started on:**	03/12/2020
Your order number:	36025-MH	**Analysis completed by:**	09/12/2020
Report Issue Number:	1	**Report issued on:**	09/12/2020
Samples Analysed:	3 soil samples		

Signed:

Rachel Bradley
Deputy Quality Manager
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

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soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

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An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 20-44651
Project / Site name: Brislington Meadows
Your Order No: 36025-MH

Lab Sample Number				1702198	1702199	1702200
Sample Reference				TP14	TP15	TP16
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				0.20-0.30	0.20-0.30	0.10-0.20
Date Sampled				20/11/2020	20/11/2020	20/11/2020
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**			
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	0.6	2.4	20
Total mass of sample received	kg	0.001	NONE	2	2	2
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected
General Inorganics						
pH - Automated	pH Units	N/A	MCERTS	9.1	9	7.6
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1
Total Phenols						
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Speciated PAHs						
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Total PAH						
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	< 0.80
Heavy Metals / Metalloids						
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	2.1	16	19
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.08	0.22	1.5
Boron (water soluble)	mg/kg	0.2	MCERTS	0.2	< 0.2	< 0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	1	1.2	0.9
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	9.9	9.1	26
Copper (aqua regia extractable)	mg/kg	1	MCERTS	3.1	7.3	31
Lead (aqua regia extractable)	mg/kg	1	MCERTS	6.6	41	100
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	2.1	6.3	18
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	1.2	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	4.9	10	44
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	17	100	170

Analytical Report Number: 20-44651
Project / Site name: Brislington Meadows
Your Order No: 36025-MH

Lab Sample Number				1702198	1702199	1702200
Sample Reference				TP14	TP15	TP16
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				0.20-0.30	0.20-0.30	0.10-0.20
Date Sampled				20/11/2020	20/11/2020	20/11/2020
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**			
Petroleum Hydrocarbons						
TPH C10 - C40	mg/kg	10	MCERTS	24	98	< 10
TPH2 (C6 - C10)	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1
TPH C6 - C40	mg/kg	10	NONE	24	98	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 20-44651
Project / Site name: Brislington Meadows

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
1702198	TP14	None Supplied	0.20-0.30	Light brown gravel.**
1702199	TP15	None Supplied	0.20-0.30	Light brown clay and sand with gravel.
1702200	TP16	None Supplied	0.10-0.20	Brown loam and clay with gravel and vegetation.

**Non MCERTS matrix.

Analytical Report Number : 20-44651
Project / Site name: Brislington Meadows

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
TPH2 (Soil)	Determination of hydrocarbons C6-C10 by headspace GC-MS.	In-house method based on USEPA8260	L088-PL	W	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
TPH Banding in Soil by FID	Determination of hexane extractable hydrocarbons in soil by GC-FID.	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	W	MCERTS
TPH C6 - C40 (soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method.	L076-PL	W	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Sample Deviation Report

Analytical Report Number : 20-44651
Project / Site name: Brislington Meadows

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
TP14	None Supplied	S	1702198	c	Total cyanide in soil	L080-PL	c
TP15	None Supplied	S	1702199	c	Total cyanide in soil	L080-PL	c
TP16	None Supplied	S	1702200	c	Total cyanide in soil	L080-PL	c

4041

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Analytical Report Number : 20-45732

Project / Site name:	Brislington Meadow	**Samples received on:**	30/11/2020
Your job number:	36142	**Samples instructed on/ Analysis started on:**	07/12/2020
Your order number:		**Analysis completed by:**	15/12/2020
Report Issue Number:	1	**Report issued on:**	15/12/2020
Samples Analysed:	5 water samples		

Signed: A. Czerwińska

Agnieszka Czerwińska
Technical Reviewer (Reporting Team)
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

UKAS TESTING 4041

Analytical i2 Environmental Science

Analytical Report Number: 20-45732
Project / Site name: Brislington Meadow

Lab Sample Number				1708108	1708109	1708110	1708111
Sample Reference				BH01	BH02	BH03	BH04
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				30/11/2020	30/11/2020	30/11/2020	30/11/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
General Inorganics							
pH	pH Units	N/A	ISO 17025	7.6	8	7	7.3
Total Cyanide (Low Level 1 µg/l)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
Free Cyanide (Low Level 1 µg/l)	µg/l	1	ISO 17025	< 1	< 1	< 1	< 1
Thiocyanate as SCN	µg/l	200	ISO 17025	< 200	< 200	< 200	< 200
Sulphate as SO4	µg/l	45	ISO 17025	101000	182000	16000	106000
Total Sulphur	µg/l	15	NONE	34000	61000	5300	35000
Sulphide	µg/l	5	NONE	170	37	90	68
Phenols by HPLC							
Catechol	µg/l	0.5	NONE	< 0.5	< 0.5	< 0.5	< 0.5
Resorcinol	µg/l	0.5	NONE	< 0.5	< 0.5	< 0.5	< 0.5
Ethylphenol & Dimethylphenol	µg/l	0.5	NONE	< 0.5	< 0.5	< 0.5	< 0.5
Cresols	µg/l	0.5	NONE	< 0.5	< 0.5	< 0.5	< 0.5
Naphthols	µg/l	0.5	NONE	< 0.5	< 0.5	< 0.5	< 0.5
Isopropylphenol	µg/l	0.5	NONE	< 0.5	< 0.5	< 0.5	< 0.5
Phenol	µg/l	0.5	NONE	< 0.5	< 0.5	< 0.5	< 0.5
Trimethylphenol	µg/l	0.5	NONE	< 0.5	< 0.5	< 0.5	< 0.5
Total Phenols							
Total Phenols (HPLC)	µg/l	3.5	NONE	< 3.5	< 3.5	< 3.5	< 3.5
Speciated PAHs							
Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Total PAH							
Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16	< 0.16	< 0.16	< 0.16
Heavy Metals / Metalloids							
Arsenic (dissolved)	µg/l	0.15	ISO 17025	0.65	1.13	0.15	1.86
Boron (dissolved)	µg/l	10	ISO 17025	52	42	39	100
Cadmium (dissolved)	µg/l	0.02	ISO 17025	0.02	0.02	0.22	< 0.02
Chromium (hexavalent)	µg/l	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0
Chromium (dissolved)	µg/l	0.2	ISO 17025	2.7	2	1.7	2.1
Copper (dissolved)	µg/l	0.5	ISO 17025	3.7	1.3	5.7	1.4
Lead (dissolved)	µg/l	0.2	ISO 17025	< 0.2	< 0.2	< 0.2	< 0.2

Analytical Report Number: 20-45732
Project / Site name: Brislington Meadow

Lab Sample Number				1708108	1708109	1708110	1708111
Sample Reference				BH01	BH02	BH03	BH04
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				30/11/2020	30/11/2020	30/11/2020	30/11/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05	0.07	< 0.05	< 0.05
Nickel (dissolved)	µg/l	0.5	ISO 17025	4.8	2.1	15	4.4
Selenium (dissolved)	µg/l	0.6	ISO 17025	15	< 0.6	2.5	< 0.6
Zinc (dissolved)	µg/l	0.5	ISO 17025	5.1	2.3	4.6	5
Petroleum Hydrocarbons							
TPH1 (C10 - C40)	µg/l	10	NONE	< 10	< 10	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 20-45732
Project / Site name: Brislington Meadow

Lab Sample Number				1708112
Sample Reference				BH06
Sample Number				None Supplied
Depth (m)				None Supplied
Date Sampled				30/11/2020
Time Taken				None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
General Inorganics				
pH	pH Units	N/A	ISO 17025	6.6
Total Cyanide (Low Level 1 µg/l)	µg/l	1	ISO 17025	< 1.0
Free Cyanide (Low Level 1 µg/l)	µg/l	1	ISO 17025	< 1
Thiocyanate as SCN	µg/l	200	ISO 17025	< 200
Sulphate as SO4	µg/l	45	ISO 17025	28600
Total Sulphur	µg/l	15	NONE	9500
Sulphide	µg/l	5	NONE	52
Phenols by HPLC				
Catechol	µg/l	0.5	NONE	< 0.5
Resorcinol	µg/l	0.5	NONE	< 0.5
Ethylphenol & Dimethylphenol	µg/l	0.5	NONE	< 0.5
Cresols	µg/l	0.5	NONE	< 0.5
Naphthols	µg/l	0.5	NONE	< 0.5
Isopropylphenol	µg/l	0.5	NONE	< 0.5
Phenol	µg/l	0.5	NONE	< 0.5
Trimethylphenol	µg/l	0.5	NONE	< 0.5
Total Phenols				
Total Phenols (HPLC)	µg/l	3.5	NONE	< 3.5
Speciated PAHs				
Naphthalene	µg/l	0.01	ISO 17025	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01
Fluorene	µg/l	0.01	ISO 17025	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01
Pyrene	µg/l	0.01	ISO 17025	< 0.01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01
Total PAH				
Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16
Heavy Metals / Metalloids				
Arsenic (dissolved)	µg/l	0.15	ISO 17025	1.78
Boron (dissolved)	µg/l	10	ISO 17025	210
Cadmium (dissolved)	µg/l	0.02	ISO 17025	0.04
Chromium (hexavalent)	µg/l	5	ISO 17025	< 5.0
Chromium (dissolved)	µg/l	0.2	ISO 17025	2.5
Copper (dissolved)	µg/l	0.5	ISO 17025	6.5
Lead (dissolved)	µg/l	0.2	ISO 17025	1.7

Analytical Report Number: 20-45732
Project / Site name: Brislington Meadow

Lab Sample Number				1708112
Sample Reference				BH06
Sample Number				None Supplied
Depth (m)				None Supplied
Date Sampled				30/11/2020
Time Taken				None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05
Nickel (dissolved)	µg/l	0.5	ISO 17025	16
Selenium (dissolved)	µg/l	0.6	ISO 17025	0.8
Zinc (dissolved)	µg/l	0.5	ISO 17025	7.7
Petroleum Hydrocarbons				
TPH1 (C10 - C40)	µg/l	10	NONE	84

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 20-45732
Project / Site name: Brislington Meadow

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in water by ICP-MS (dissolved)	Determination of metals in water by acidification followed by ICP-MS. Accredited Matrices: SW, GW, PW except B=SW,GW, Hg=SW,PW, Al=SW,PW.	In-house method based on USEPA Method 6020 & 200.8 "for the determination of trace elements in water by ICP-MS.	L012-PL	W	ISO 17025
Boron in water	Determination of boron in water by acidification followed by ICP-OES. Accredited matrices: SW PW GW	In-house method based on MEWAM	L039-PL	W	ISO 17025
Phenols, speciated, in water, by HPLC	Determination of speciated phenols by HPLC.	In house method based on Blue Book Method.	L030-PL	W	NONE
Hexavalent chromium in water	Determination of hexavalent chromium in water by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method by continuous flow analyser. Accredited Matrices SW, GW, PW.	L080-PL	W	ISO 17025
Speciated EPA-16 PAHs in water	Determination of PAH compounds in water by extraction in dichloromethane followed by GC-MS with the use of surrogate and internal standards. Accredited matrices: SW PW GW	In-house method based on USEPA 8270	L102B-PL	W	ISO 17025
Sulphide in water	Determination of sulphide in water by ion selective electrode.	In-house method	L029-PL	W	NONE
Thiocyanate in water	Determination of thiocyanate in water by discreet analyser (colorimetry). Accredited matrices SW, GW, PW.	In house method based on SMWW 4500-CN-M. Accredited matrices: SW, PW, GW.	L082-PL	W	ISO 17025
Sulphate in water	Determination of sulphate in water by acidification followed by ICP-OES. Accredited matrices: SW PW GW, PrW.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Total Sulphur in water	Determination of total sulphur in water by acidification followed by ICP-OES.	In-house method based on MEWAM 1986 Methods for the Determination of Metals in Soil""	L039-PL	W	NONE
TPH1 (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS.	In-house method	L070-PL	W	NONE
Low level total cyanide in water	Determination of total cyanide by distillation followed by colorimetry. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
pH at 20oC in water (automated)	Determination of pH in water by electrometric measurement. Accredited matrices: SW PW GW	In house method.	L099-PL	W	ISO 17025
Free cyanide (low level) in water	Determination of free cyanide by distillation followed by colorimetry.Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Sample Deviation Report

Analytical Report Number : 20-45732
Project / Site name: Brislington Meadow

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
BH01	None Supplied	W	1708108	c	Hexavalent chromium in water	L080-PL	c
BH01	None Supplied	W	1708108	c	Boron in water	L039-PL	c
BH01	None Supplied	W	1708108	c	Free cyanide (low level) in water	L080-PL	c
BH01	None Supplied	W	1708108	c	Low level total cyanide in water	L080-PL	c
BH01	None Supplied	W	1708108	c	Metals in water by ICP-MS (dissolved)	L012-PL	c
BH01	None Supplied	W	1708108	c	Sulphate in water	L039-PL	c
BH01	None Supplied	W	1708108	c	Sulphide in water	L029-PL	c
BH01	None Supplied	W	1708108	c	pH at 20oC in water (automated)	L099-PL	c
BH02	None Supplied	W	1708109	c	Hexavalent chromium in water	L080-PL	c
BH02	None Supplied	W	1708109	c	Boron in water	L039-PL	c
BH02	None Supplied	W	1708109	c	Free cyanide (low level) in water	L080-PL	c
BH02	None Supplied	W	1708109	c	Low level total cyanide in water	L080-PL	c
BH02	None Supplied	W	1708109	c	Metals in water by ICP-MS (dissolved)	L012-PL	c
BH02	None Supplied	W	1708109	c	Sulphate in water	L039-PL	c
BH02	None Supplied	W	1708109	c	Sulphide in water	L029-PL	c
BH02	None Supplied	W	1708109	c	pH at 20oC in water (automated)	L099-PL	c
BH03	None Supplied	W	1708110	c	Hexavalent chromium in water	L080-PL	c
BH03	None Supplied	W	1708110	c	Boron in water	L039-PL	c
BH03	None Supplied	W	1708110	c	Free cyanide (low level) in water	L080-PL	c
BH03	None Supplied	W	1708110	c	Low level total cyanide in water	L080-PL	c
BH03	None Supplied	W	1708110	c	Metals in water by ICP-MS (dissolved)	L012-PL	c
BH03	None Supplied	W	1708110	c	Sulphate in water	L039-PL	c
BH03	None Supplied	W	1708110	c	Sulphide in water	L029-PL	c
BH03	None Supplied	W	1708110	c	pH at 20oC in water (automated)	L099-PL	c
BH04	None Supplied	W	1708111	c	Hexavalent chromium in water	L080-PL	c
BH04	None Supplied	W	1708111	c	Boron in water	L039-PL	c
BH04	None Supplied	W	1708111	c	Free cyanide (low level) in water	L080-PL	c
BH04	None Supplied	W	1708111	c	Low level total cyanide in water	L080-PL	c
BH04	None Supplied	W	1708111	c	Metals in water by ICP-MS (dissolved)	L012-PL	c
BH04	None Supplied	W	1708111	c	Sulphate in water	L039-PL	c
BH04	None Supplied	W	1708111	c	Sulphide in water	L029-PL	c
BH04	None Supplied	W	1708111	c	pH at 20oC in water (automated)	L099-PL	c
BH06	None Supplied	W	1708112	c	Hexavalent chromium in water	L080-PL	c
BH06	None Supplied	W	1708112	c	Boron in water	L039-PL	c
BH06	None Supplied	W	1708112	c	Free cyanide (low level) in water	L080-PL	c
BH06	None Supplied	W	1708112	c	Low level total cyanide in water	L080-PL	c
BH06	None Supplied	W	1708112	c	Metals in water by ICP-MS (dissolved)	L012-PL	c
BH06	None Supplied	W	1708112	c	Sulphate in water	L039-PL	c
BH06	None Supplied	W	1708112	c	Sulphide in water	L029-PL	c
BH06	None Supplied	W	1708112	c	pH at 20oC in water (automated)	L099-PL	c

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Analytical Report Number : 20-48600

Project / Site name:	Brislington Meadows	**Samples received on:**	18/12/2020
Your job number:	36142	**Samples instructed on/ Analysis started on:**	18/12/2020
Your order number:	1620037217	**Analysis completed by:**	30/12/2020
Report Issue Number:	1	**Report issued on:**	30/12/2020
Samples Analysed:	1 water sample		

Signed: A. Czerwińska

Agnieszka Czerwińska
Technical Reviewer (Reporting Team)
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 20-48600
Project / Site name: Brislington Meadows

Your Order No: 1620037217

Lab Sample Number				1725098
Sample Reference				BH05
Sample Number				None Supplied
Depth (m)				9.70
Date Sampled				17/12/2020
Time Taken				None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
General Inorganics				
pH	pH Units	N/A	ISO 17025	6.9
Total Cyanide (Low Level 1 µg/l)	µg/l	1	ISO 17025	< 1.0
Free Cyanide (Low Level 1 µg/l)	µg/l	1	ISO 17025	< 1
Thiocyanate as SCN	µg/l	200	ISO 17025	< 200
Sulphate as SO4	mg/l	0.045	ISO 17025	26.5
Total Sulphur	µg/l	15	NONE	8800
Sulphide	µg/l	5	NONE	< 5.0
Phenols by HPLC				
Catechol	µg/l	0.5	NONE	< 0.5
Resorcinol	µg/l	0.5	NONE	< 0.5
Ethylphenol & Dimethylphenol	µg/l	0.5	NONE	< 0.5
Cresols	µg/l	0.5	NONE	< 0.5
Naphthols	µg/l	0.5	NONE	< 0.5
Isopropylphenol	µg/l	0.5	NONE	< 0.5
Phenol	µg/l	0.5	NONE	< 0.5
Trimethylphenol	µg/l	0.5	NONE	< 0.5
Total Phenols				
Total Phenols (HPLC)	µg/l	3.5	NONE	< 3.5
Speciated PAHs				
Naphthalene	µg/l	0.01	ISO 17025	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01
Fluorene	µg/l	0.01	ISO 17025	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01
Pyrene	µg/l	0.01	ISO 17025	< 0.01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01
Total PAH				
Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16

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Sample Reference				BH05
Sample Number				None Supplied
Depth (m)				9.70
Date Sampled				17/12/2020
Time Taken				None Supplied
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Heavy Metals / Metalloids				
Boron (dissolved)	µg/l	10	ISO 17025	37
Chromium (hexavalent)	µg/l	5	ISO 17025	< 5.0
Arsenic (dissolved)	µg/l	0.15	ISO 17025	0.52
Cadmium (dissolved)	µg/l	0.02	ISO 17025	0.05
Chromium (dissolved)	µg/l	0.2	ISO 17025	2
Copper (dissolved)	µg/l	0.5	ISO 17025	2.2
Lead (dissolved)	µg/l	0.2	ISO 17025	< 0.2
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05
Nickel (dissolved)	µg/l	0.5	ISO 17025	7.4
Selenium (dissolved)	µg/l	0.6	ISO 17025	< 0.6
Zinc (dissolved)	µg/l	0.5	ISO 17025	11
Petroleum Hydrocarbons				
TPH1 (C10 - C40)	µg/l	10	NONE	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

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Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in water by ICP-MS (dissolved)	Determination of metals in water by acidification followed by ICP-MS. Accredited Matrices: SW, GW, PW except B=SW,GW, Hg=SW,PW, Al=SW,PW.	In-house method based on USEPA Method 6020 & 200.8 "for the determination of trace elements in water by ICP-MS.	L012-PL	W	ISO 17025
Boron in water	Determination of boron in water by acidification followed by ICP-OES. Accredited matrices: SW PW GW	In-house method based on MEWAM	L039-PL	W	ISO 17025
Phenols, speciated, in water, by HPLC	Determination of speciated phenols by HPLC.	In house method based on Blue Book Method.	L030-PL	W	NONE
Hexavalent chromium in water	Determination of hexavalent chromium in water by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method by continuous flow analyser. Accredited Matrices SW, GW, PW.	L080-PL	W	ISO 17025
Speciated EPA-16 PAHs in water	Determination of PAH compounds in water by extraction in dichloromethane followed by GC-MS with the use of surrogate and internal standards. Accredited matrices: SW PW GW	In-house method based on USEPA 8270	L102B-PL	W	ISO 17025
Sulphide in water	Determination of sulphide in water by ion selective electrode.	In-house method	L029-PL	W	NONE
Thiocyanate in water	Determination of thiocyanate in water by discreet analyser (colorimetry). Accredited matrices SW, GW, PW.	In house method based on SMWW 4500-CN-M. Accredited matrices: SW, PW, GW.	L082-PL	W	ISO 17025
Sulphate in water	Determination of sulphate in water by acidification followed by ICP-OES. Accredited matrices: SW PW GW, PrW.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Total Sulphur in water	Determination of total sulphur in water by acidification followed by ICP-OES.	In-house method based on MEWAM 1986 Methods for the Determination of Metals in Soil""	L039-PL	W	NONE
TPH1 (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS.	In-house method	L070-PL	W	NONE
Low level total cyanide in water	Determination of total cyanide by distillation followed by colorimetry. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
pH at 20oC in water (automated)	Determination of pH in water by electrometric measurement. Accredited matrices: SW PW GW	In house method.	L099-PL	W	ISO 17025
Free cyanide (low level) in water	Determination of free cyanide by distillation followed by colorimetry.Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Sample Deviation Report

Analytical Report Number : 20-48600
Project / Site name: Brislington Meadows

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
BH05	None Supplied	W	1725098	c	pH at 20oC in water (automated)	L099-PL	c