

IGSL Limited

DBFL

Scholarstown Road
Residential

Site Investigation Report

Project No. 21527

March 2019



Report



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Report on a Site Investigation
For
Scholarstown Road Residential
On behalf of
DBFL

Report No. 21527

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1.0 Introduction

The site for the proposed residential development lies within the lands surrounding Beechpark House, and is fronted by Scholarstown Road. An investigation of ground conditions was carried out in October 2017 and the findings were presented in Report No.21167. The investigation revealed brown sandy gravelly clay in a firm to stiff condition, becoming very stiff with depth. In some areas, the gravelly clay was overlain by made ground, present to a maximum depth of 2.2 metres. The boreholes were terminated at a maximum depth of 6.6 metres.

Since the revised development plans now include basement structures, it was considered advisable to carry out further fieldworks, with particular note of the presence, composition and condition of bedrock within the scheduled depth. The additional fieldworks included the following elements.

- Boreholes were constructed in an additional seven locations, numbered BH04 to BH10.
- Rotary techniques were employed at four borehole locations to detect the presence of bedrock.
- Window sampling techniques were employed in six locations to facilitate detailed examination of the upper soils.
- Infiltration tests were performed in two locations to ascertain the suitability of the sub-soils for soakaway purposes.

This report contains the fieldwork records and the results of associated geotechnical and environmental tests. Also included is a discussion of ground conditions in relation to the proposed development.

2.0 Fieldwork

2.1 Boreholes

Boreholes were constructed in the locations indicated on the site plan enclosed in Appendix 7 while the descriptions and depths of the various soils encountered are shown on the boring records enclosed in Appendix 1. Also shown on these records are the depths at which samples were recovered, the results of Standard Penetration Tests, and the groundwater conditions observed during the course of boring operations.

The boreholes revealed an upper layer of firm light brown sandy clay with occasional gravel, present to depths ranging from 0.9 metres to 1.3 metres. This material was underlain by brown sandy gravelly clay which was in stiff to very stiff condition. The boreholes were terminated on obstructions encountered at depths ranging from 2.4 metres to 8.4 metres.

While groundwater ingress was confined to BH05A (8.4 metres) and BH6A (2.4 metres), standpipes were installed in BH04 and BH09 to facilitate monitoring of groundwater depths.

The borehole findings are summarised in Table 1.

Location	Depth to stiff gravelly CLAY (m bgl)	Depth achieved (m bgl)	Groundwater Strike (m bgl)	Rose to (m bgl)	Standpipe Installation (m bgl)
BH04	1.30	3.40	None	None	3.4
BH05A	1.20	8.40	8.40	7.90	
BH06	1.25	2.40	None	None	
BH6A	1.00	3.50	2.40	2.40	
BH07	0.90	3.50	None	None	
BH08	1.20	3.40	None	None	
BH09	0.90	5.40	None	None	5.4
BH10	1.00	4.90	None	None	

Table 1.

2.2 Rotary Drilling

Rotary techniques were employed at each of the borehole locations to ascertain the depth and composition of bedrock. Open hole drilling techniques (Symmetrix) to penetrate the overburden soils, identifying the drilled soils from the flush returns, and the soil condition from Standard Penetration Tests (SPT).

In all locations there were no indications of bedrock to the scheduled depth of thirteen metres. The sub-soils were classified as very stiff to hard brown and grey-brown sandy gravelly clay, grading in places to clayey gravel.

Since groundwater strikes are difficult to detect during rotary drilling, a standpipe was installed in RC06 to permit long term groundwater monitoring.

2.3 Window Samples

Window samples are obtained by driving steel tubes, one metre in length, into the sub-soils. The soil is retained in rigid plastic liners which are sealed and returned to the laboratory for examination and testing. Sampling is continuous, so that an accurate and unbroken record of the soil composition and stratification is obtained.

The window sample records contain the soil descriptions and the number of drop-hammer blows required to drive the sample tube through each one metre penetration. Also shown is the recovery in terms of the percentage of the driven length.

While the window samples provide information on the sub-soil composition their primary purpose on this site was to facilitate the recovery of samples for environmental testing purposes.

2.4 Infiltration Tests

The infiltration tests were performed in accordance with BRE Digest 365 'Soakaway Design'.

To obtain a measure of the infiltration rate of the sub-soils, water is poured into the test pit, and records taken of the fall in water level against time. This procedure is repeated twice more to ensure saturation of the sub-soils. Normally the results for the final stage of testing, following the saturation periods, are used for soakaway design purposes. The infiltration rate is the volume of water dispersed per unit exposed area per unit of time, and is generally expressed as metres/minute or metres/second.

At SA01, there was no measurable fall in water level at the first saturation stage of 60 minutes. Water seepages were also observed at SA01 at depths of 0.9 and 1.8 metres. At SA2 a fall in water level of 15 mm was recorded over a period of 25 minutes, with no further fall during the following 35 minutes. No further testing was considered practical or necessary.

3.0 Laboratory Testing (Geotechnical)

3.1 Particle Size Distributions

Grading curves for selected samples indicate that the sub-soils are well-graded with fines content values ranging from 37% to 51%.

3.2 Index Properties

The results of plastic and liquid tests classify the sub-soils as clays of low to medium plasticity.

3.3 Chemical Tests

The results of chemical testing showed low concentrations of soluble sulphates. In addition, the pH values indicated near neutral conditions.

Since the soluble sulphate concentrations were significantly below 0.5 g/l, and pH values were above 2.5, a Design Sulphate Class of DS-1 may be assumed in accordance with Table C1 of BRE Special Digest 1 Concrete in Aggressive Ground: 2005.

Assuming a static groundwater table, an ACEC (Aggressive Chemical Environment for Concrete) Classification of AC-1s is applicable

4.0 Laboratory Testing (Environmental)

Environmental testing was scheduled on samples recovered from boreholes and window samples in order to screen for inherent contamination and to assess their suitability for disposal to an inert landfill.

Samples were tested in accordance with the RILTA Suite, which is used to determine the suitability of soils for disposal to a landfill. The RILTA suite includes Heavy Metals, Polycyclic Aromatic Hydrocarbons (PAH), TPH-CWG, BTEX, PCB and Total Organic Carbon (TOC) carried out on dry soil samples. Also included are leachate analyses, whereby leachate is generated in accordance with CEN 10:1 specification and this is tested for the presence of recognised contaminants including Heavy Metals, Dissolved Organic Carbon (DOC) and Total Dissolved Solids (TDS). An Asbestos Screen is also included in the RILTA Suite

5.0 Discussion

The boreholes revealed an upper layer of firm light brown sandy clay, present to depths ranging from 0.9 metres to 1.3 metres. In all locations these deposits were underlain by brown sandy gravelly clay in a stiff to very stiff condition. While the boreholes met obstructions at depths ranging from 2.4 metres to 8.4 metres, the presence of very stiff to hard gravelly clay and clayey gravel was proved by rotary drilling to the scheduled depth of thirteen metres.

Water ingress was observed as seepages in two boreholes at a shallowest depth of 2.4 m BGL. However, seepages were also observed at depths of 0.9 and 1.8 metres in the infiltration test pit SA01. Subsequent groundwater monitoring has revealed a groundwater level of 3.85 metres in BH09, while the standpipe at BH04 was dry.

5.1 Structural Foundations

These soils are glacial in origin, and have been heavily over-consolidated. They will, therefore, provide a stable and relatively incompressible founding medium. However, it will be important to ensure that foundations are placed below the weathered upper soils which are present to depths ranging from 0.9 metres to 1.3 metres. At these depths an allowable bearing capacity of approximately 150 kN/m² can be assumed. However, there are indications that the soil condition improves with depth.

From the aspect of basements, no bedrock was encountered to a depth of thirteen metres. Assuming a typical single-level basement excavation depth of c.4m, it is anticipated that the basement foundations will be constructed on very stiff gravelly clay with an allowable bearing capacity of the order of 250 to 300 kPa.

Moderate groundwater ingress was noted at a depth of 8.4 metres in BH05A, and a seepage was noted at 2.4 metres in BH06A. Water was also noted at a depth of 3.85 metres in the standpipe installed in BH04. During infiltration testing, water seepages were recorded within the upper 2 metres in test pit SA01. It will, therefore, be important to establish the groundwater conditions approaching the construction period and ongoing periodic monitoring of the standpipes is strongly recommended, particularly after prolonged periods of heavy rainfall.

While flow rates through glacial clays are typically very slow due to their low permeability, granular (sand/gravel) lenses are not uncommon within glacial clays and increased flow rates would be expected through these lenses if intercepted.

5.2 Infiltration

Since the results of the infiltration tests show that the sub-soils are relatively impermeable, soakaways will not function. It will, therefore, be necessary to discharge groundwater to an existing surface water system, using attenuation techniques to regulate the flow.

5.3 Environmental Considerations

The results of WAC analyses showed that all samples satisfy the criteria for inert waste as stipulated in the European Landfill Directive. Therefore, it would be expected that these samples would be accepted by a licensed inert landfill.

If required, the results of the RILTA Suite can also be used to carry out a Waste Characterisation Assessment (WCA). This assessment is undertaken by an environmental specialist and determines whether the soils are hazardous or non-hazardous in advance of being dispatched to landfill.

It should be noted that the chosen landfill should be furnished with the WAC results and Waste Characterisation Report in advance of any soils being removed from site. Depending on the extent and depth of excavation, the landfill may require additional testing to achieve the frequency of analysis (i.e. number of samples per unit volume of excavation) that meets their license requirements.

Appendix 1 Boring Records



GEOTECHNICAL BORING RECORD

REPORT NUMBER

21527

CONTRACT Scholarstown Road , Dublin		BOREHOLE NO. BH04
CO-ORDINATES		SHEET Sheet 1 of 1
GROUND LEVEL (m AOD)	RIG TYPE Dando 2000 BOREHOLE DIAMETER (mm) 200 BOREHOLE DEPTH (m) 3.40	DATE COMMENCED 06/02/2019 DATE COMPLETED 11/02/2019
CLIENT Ardstone Ltd. ENGINEER DBFL	SPT HAMMER REF. NO. ENERGY RATIO (%)	BORED BY D.Tolster PROCESSED BY F.C

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	Firm light brown sandy SILT/CLAY with some gravel					ENV	0.50			
1				1.30	AA105516	B	1.00	N = 6 (1, 1, 1, 1, 2, 2)		
2	Stiff brown sandy gravelly SILT/CLAY with occasional cobbles and boulders				AA105517	B	2.00	N = 19 (2, 4, 5, 4, 5, 5)		
3				3.40	AA105518	B	3.00	N = 40 (4, 11, 8, 8, 14, 10)		
4	Obstruction End of Borehole at 3.40 m									

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
3.2	3.4	2							No water strike

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments
11-02-19	3.40	1.00	3.40	50mm SP					

REMARKS CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) Sample B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) U - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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GEOTECHNICAL BORING RECORD

REPORT NUMBER

21527

CONTRACT Scholarstown Road , Dublin

BOREHOLE NO. BH05

CO-ORDINATES

RIG TYPE

Dando 2000

SHEET

Sheet 1 of 1

GROUND LEVEL (m AOD)

BOREHOLE DIAMETER (mm)

200

DATE COMMENCED 05/02/2019

BOREHOLE DEPTH (m)

1.00

DATE COMPLETED 05/02/2019

CLIENT Ardstone Ltd.

SPT HAMMER REF. NO.

BORED BY D.Tolster

ENGINEER DBFL

ENERGY RATIO (%)

PROCESSED BY F.C

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	Firm light brown sandy SILT/CLAY with some gravel					ENV	0.50			
1	Obstruction End of Borehole at 1.00 m			1.00	AA105506	B	1.00		N = 12 (3, 2, 2, 3, 3, 4)	
2										
3										
4										
5										
6										
7										
8										
9										

HARD STRATA BORING/CHISELLING

WATER STRIKE DETAILS

From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
0.8	1	1							No water strike

GROUNDWATER PROGRESS

INSTALLATION DETAILS					Date	Hole Depth	Casing Depth	Depth to Water	Comments
Date	Tip Depth	RZ Top	RZ Base	Type					

REMARKS CAT scanned location and hand dug inspection pit carried out . Obstruction encountered at 1.00m . Relocated to BH05A and attempted rebore

Sample Legend

D - Small Disturbed (tub) Sample
 B - Bulk Disturbed
 LB - Large Bulk Disturbed
 Env - Environmental Sample (Jar + Vial + Tub)
 U - Undisturbed 100mm Diameter Sample
 P - Undisturbed Piston Sample
 W - Water Sample



GEOTECHNICAL BORING RECORD

REPORT NUMBER

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CONTRACT Scholarstown Road , Dublin		BOREHOLE NO. BH05A
CO-ORDINATES		SHEET Sheet 1 of 1
GROUND LEVEL (m AOD)	RIG TYPE Dando 2000 BOREHOLE DIAMETER (mm) 200 BOREHOLE DEPTH (m) 8.40	DATE COMMENCED 05/02/2019 DATE COMPLETED 06/02/2019
CLIENT Ardstone Ltd. ENGINEER DBFL	SPT HAMMER REF. NO. ENERGY RATIO (%)	BORED BY D.Tolster PROCESSED BY F.C

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details		
					Ref. Number	Sample Type	Depth (m)	Recovery				
0	Firm light brown sandy SILT/CLAY with some gravel											
1	Stiff to very stiff light brown sandy gravelly SILT/CLAY with occasional cobbles nad boulders			1.20	AA101709	B	1.00		N = 11 (2, 1, 3, 2, 2, 4)			
2					AA105507	B	2.00					
3					AA105508	B	3.00				N = 22 (3, 3, 5, 5, 5, 7)	
4												
5												
4	Very stiff dark brown sandy SILT/CLAY with some cobbles			3.80	AA105509	B	4.00	N = 33 (3, 5, 6, 8, 9, 10)				
5	Very stiff brown/grey gravelly SILT/CLAY with some cobbles and occasional boulders			4.50					N = 40 (4, 6, 7, 10, 13, 10)			
6					AA105510	B	5.00					
7					AA105511	B	6.00				N = 39 (3, 6, 8, 9, 10, 12)	
8					AA105512	B	7.00					
8				8.40	AA105513	B	8.00	N = 36 (4, 7, 7, 8, 11, 10)				
9	End of Borehole at 8.40 m							N = 50/225 mm (7, 10, 13, 17, 20)				

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
4.7	4.9	0.5		8.40	8.40	No	7.90	20	Moderate
8.2	8.4	2							

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) Sample B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) W - Water Sample U - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample
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GEOTECHNICAL BORING RECORD

REPORT NUMBER

21527

CONTRACT Scholarstown Road , Dublin			BOREHOLE NO. BH06	
CO-ORDINATES			SHEET Sheet 1 of 1	
GROUND LEVEL (m AOD)		RIG TYPE Dando 2000		DATE COMMENCED 11/02/2019
		BOREHOLE DIAMETER (mm) 200		DATE COMPLETED 11/02/2019
		BOREHOLE DEPTH (m) 2.40		
CLIENT Ardstone Ltd.		SPT HAMMER REF. NO.		BORED BY D.Tolster
ENGINEER DBFL		ENERGY RATIO (%)		PROCESSED BY F.C

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	Firm brown sandy SILT/CLAY with some gravel and occasional cobbles					ENV	0.50			
1				1.25	AA105519	B	1.00		N = 12 (2, 2, 2, 2, 4, 4)	
2	Stiff to very stiff brown sandy gravelly SILT/CLAY with occasional cobbles and boulders					ENV	1.50			
2				2.40	AA105520	B	2.00		N = 38 (2, 5, 6, 6, 10, 16)	
3	Obstruction End of Borehole at 2.40 m									
4										
5										
6										
7										
8										
9										

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
2.2	2.4	1.5							No water strike
INSTALLATION DETAILS				GROUNDWATER PROGRESS					
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

<p>REMARKS CAT scanned location and hand dug inspection pit carried out . Obstruction encountered at 2.40.Relocated to BH06A and attempted rebore.</p>	<p>Sample Legend</p> <p>D - Small Disturbed (tub) Sample B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) U - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample</p>
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GEOTECHNICAL BORING RECORD

REPORT NUMBER

21527

CONTRACT Scholarstown Road , Dublin		BOREHOLE NO. BH06A
CO-ORDINATES		SHEET Sheet 1 of 1
GROUND LEVEL (m AOD)	RIG TYPE Dando 2000 BOREHOLE DIAMETER (mm) 200 BOREHOLE DEPTH (m) 3.50	DATE COMMENCED 11/02/2019 DATE COMPLETED 11/02/2019
CLIENT Ardstone Ltd. ENGINEER DBFL	SPT HAMMER REF. NO. ENERGY RATIO (%)	BORED BY D.Tolster PROCESSED BY F.C

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	Firm brown sandy SILT/CLAY with some gravel and occasional cobbles					ENV	0.50			
1	Stiff to very stiff brown sandy gravelly SILT/CLAY with occasional cobbles and boulders			1.00	AA105521	B	1.00		N = 13 (1, 2, 3, 3, 3, 4)	
						ENV	1.50			
2					AA105522	B	2.00			
						ENV	2.50			
3				3.50	AA105523	B	3.00		N = 25 (4, 4, 5, 6, 6, 8)	
4	Obstruction End of Borehole at 3.50 m								N = 50/225 mm (9, 10, 18, 18, 14)	

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
3.1	3.2	0.5		2.40	2.40	No	No	20	Seepage
3.4	3.5	1.5							

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) Sample B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) U - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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GEOTECHNICAL BORING RECORD

REPORT NUMBER

21527

CONTRACT Scholarstown Road , Dublin		BOREHOLE NO. BH07
CO-ORDINATES		SHEET Sheet 1 of 1
GROUND LEVEL (m AOD)	RIG TYPE Dando 2000 BOREHOLE DIAMETER (mm) 200 BOREHOLE DEPTH (m) 3.50	DATE COMMENCED 04/02/2019 DATE COMPLETED 04/02/2019
CLIENT Ardstone Ltd. ENGINEER DBFL	SPT HAMMER REF. NO. ENERGY RATIO (%)	BORED BY D.Tolster PROCESSED BY F.C

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	Soft to firm light brown sandy SILT/CLAY with gravel									
0.90										
1	Stiff to very stiff brown sandy gravelly SIILT/CLAY with occasional cobbles and boulders				AA105503	B	1.00		N = 21 (2, 4, 5, 5, 6)	
						ENV	1.50			
2					AA105504	B	2.00		N = 32 (4, 4, 7, 8, 7, 10)	
						ENV	2.50			
3					AA105505	B	3.00		N = 48 (3, 6, 10, 11, 13, 14)	
3.50										
4	Obstruction End of Borehole at 3.50 m									
5										
6										
7										
8										
9										

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
3.3	3.5	2							No water strike
INSTALLATION DETAILS				GROUNDWATER PROGRESS					
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments

REMARKS CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) Sample B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) U - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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GEOTECHNICAL BORING RECORD

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CONTRACT Scholarstown Road , Dublin		BOREHOLE NO. BH08
CO-ORDINATES		SHEET Sheet 1 of 1
GROUND LEVEL (m AOD)	RIG TYPE Dando 2000 BOREHOLE DIAMETER (mm) 200 BOREHOLE DEPTH (m) 3.40	DATE COMMENCED 14/02/2019 DATE COMPLETED 14/02/2019
CLIENT Ardstone Ltd. ENGINEER DBFL	SPT HAMMER REF. NO. ENERGY RATIO (%)	BORED BY D.Tolster PROCESSED BY F.C

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	Soft to firm light brown sandy SILT/CLAY with some gravel					ENV	0.50			
1	Stiff to very stiff brown sandy SILT/CLAY with some gravel and occasional cobbles			1.20	AA105535	B	1.00		N = 10 (1, 2, 2, 2, 3, 3)	
2				AA105536	B	2.00		N = 25 (4, 4, 5, 5, 6, 9)		
3				AA105537	B	3.00		N = 50/275 mm (23, 25, 15, 14, 11, 10)		
3.40	Obstruction End of Borehole at 3.40 m									
4										
5										
6										
7										
8										
9										

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
3.2	3.4	1.5							No water strike

INSTALLATION DETAILS					Date	Hole Depth	Casing Depth	Depth to Water	Comments
Date	Tip Depth	RZ Top	RZ Base	Type					

REMARKS CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) Sample B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub)	U - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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IGSL BH LOG CHISEL SEPARATED 21527.GPJ IGSL GDT 18/2/19



GEOTECHNICAL BORING RECORD

REPORT NUMBER

21527

CONTRACT Scholarstown Road , Dublin		BOREHOLE NO. BH09
CO-ORDINATES		SHEET Sheet 1 of 1
GROUND LEVEL (m AOD)	RIG TYPE Dando 2000 BOREHOLE DIAMETER (mm) 200 BOREHOLE DEPTH (m) 5.40	DATE COMMENCED 13/02/2019 DATE COMPLETED 13/02/2019
CLIENT Ardstone Ltd. ENGINEER DBFL	SPT HAMMER REF. NO. ENERGY RATIO (%)	BORED BY D.Tolster PROCESSED BY F.C

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	Soft to firm light brown sandy SILT/CLAY with some gravel			0.90		ENV	0.50			
1	Stiff to very stiff light brown sandy gravelly SILT/CLAY with occasional cobbles				AA105530	B	1.00		N = 20 (3, 4, 4, 5, 5, 6)	
						ENV	1.50			
2					AA105531	B	2.00			N = 29 (5, 8, 5, 5, 7, 12)
						ENV	2.50			
3	Very stiff dark brown/grey sandy gravelly SILT/CLAY with some cobbles and occasional boulders				AA105532	B	3.00	N = 32 (2, 3, 7, 10, 7, 8)		
4						ENV	3.50			
4					AA105533	B	4.00	N = 31 (4, 4, 6, 8, 8, 9)		
5						ENV	4.50			
5	Obstruction End of Borehole at 5.40 m				AA105534	B	5.00	N = 49 (5, 6, 9, 9, 14, 17)		
6						ENV	5.40			
7										
8										
9										

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
5.2	5.4	2							No water strike

INSTALLATION DETAILS					GROUNDWATER PROGRESS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments
13-02-19	5.40	1.00	5.40	50mm SP					

REMARKS CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) Sample B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) U - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
---	--

IGSL BH LOG CHISEL SEPARATED 21527.GPJ IGSL.GDT 18/2/19



GEOTECHNICAL BORING RECORD

REPORT NUMBER

21527

CONTRACT Scholarstown Road , Dublin			BOREHOLE NO. BH10	
CO-ORDINATES			SHEET Sheet 1 of 1	
GROUND LEVEL (m AOD)		RIG TYPE Dando 2000		DATE COMMENCED 12/02/2019
		BOREHOLE DIAMETER (mm) 200		DATE COMPLETED 13/02/2019
		BOREHOLE DEPTH (m) 4.90		
CLIENT Ardstone Ltd.		SPT HAMMER REF. NO.		BORED BY D.Tolster
ENGINEER DBFL		ENERGY RATIO (%)		PROCESSED BY F.C

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	Soft light brown sandy SILT/CLAY with some gravel	X								
1	Stiff to very stiff brown sandy gravelly SILT/CLAY with some cobbles and occasional boulders	X		1.00	AA105524	B	1.00		N = 5 (1, 0, 0, 1, 2, 2)	
		X				ENV	1.50			
2		X				AA105525	B	2.00		N = 21 (1, 2, 4, 4, 5, 8)
		X					ENV	2.50		
3	Very stiff dark brown sandy gravelly SILT/CLAY with cobbles and boulders	X		3.60	AA105526	B	3.00		N = 35 (3, 6, 8, 8, 9, 10)	
		X				AA105527	B	3.60		
4		X				AA105528	B	4.00		
5	Obstruction End of Borehole at 4.90 m	X		4.90	AA105529	B	4.90		N = 50/75 mm (14, 11, 50)	

HARD STRATA BORING/CHISELLING					WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments		Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
4.7	4.9	2								No water strike
INSTALLATION DETAILS					GROUNDWATER PROGRESS					
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments	

REMARKS CAT scanned location and hand dug inspection pit carried out .	Sample Legend D - Small Disturbed (tub) Sample B - Bulk Disturbed LB - Large Bulk Disturbed Env - Environmental Sample (Jar + Vial + Tub) U - Undisturbed 100mm Diameter Sample P - Undisturbed Piston Sample W - Water Sample
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IGSL BH LOG CHISEL SEPARATED 21527.GPJ IGSL GDT 18/2/19

Appendix 2 Rotary Records



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

21527

CONTRACT Scholarstown Road, Dublin		DRILLHOLE NO RC04
CO-ORDINATES		SHEET Sheet 1 of 2
GROUND LEVEL (mOD)		DATE DRILLED 21/02/2019
CLIENT Ardstone Ltd.		DATE LOGGED 22/02/2019
ENGINEER DBFL		DRILLED BY IGSL
RIG TYPE Geo205		LOGGED BY D.O'Shea
FLUSH Air/Mist		
INCLINATION (deg) -90		
CORE DIAMETER (mm) 78		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
0					0 250 500			Hole Opened by Shell & Auger - See BH04				
1.50												
2		0	0	0								
3.00												
3.40									3.40			
4		0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of grey/brown gravelly CLAY				
4.30									4.30			
4.50								SYMMETRIX DRILLING: No recovery, observed by driller as returns of stiff grey/brown sandy gravelly CLAY with occasional cobbles				N = 37 (5, 7, 7, 10, 10, 10)
5		0	0	0								
6.00												N = 80 (8, 14, 16, 17, 20, 27)
7		0	0	0								
7.50												N = 51 (3, 7, 9, 10, 14, 18)
8		0	0	0								
9.00												N = 91 (5, 10, 13, 19, 27, 32)
9		0	0	0								

REMARKS Hole cased 0.00-13.00m.								WATER STRIKE DETAILS						
								Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments	
													No water strike recorded	
INSTALLATION DETAILS								GROUNDWATER DETAILS						
								Date	Hole Depth	Casing Depth	Depth to Water	Comments		
Date	Tip Depth	RZ Top	RZ Base	Type										

IGSL RC FI 10M 21527.GPJ IGSL_GDT 11/03/19



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

21527

CONTRACT Scholarstown Road, Dublin		DRILLHOLE NO RC04
CO-ORDINATES		SHEET Sheet 2 of 2
GROUND LEVEL (mOD)		DATE DRILLED 21/02/2019
CLIENT Ardstone Ltd.		DATE LOGGED 22/02/2019
ENGINEER DBFL		DRILLED BY IGSL
RIG TYPE Geo205		LOGGED BY D.O'Shea
FLUSH Air/Mist		
INCLINATION (deg) -90		
CORE DIAMETER (mm) 78		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
10	10.50				0 250 500			SYMMETRIX DRILLING: No recovery, observed by driller as returns of stiff grey/brown sandy gravelly CLAY with occasional cobbles (<i>continued</i>)				N = 141 (4, 9, 20, 29, 44, 48)
11		0	0	0								
12		0	0	0								N = 50/20 mm (21, 50)
13								End of Borehole at 13.00 m	13.00			
14												
15												
16												
17												
18												
19												

REMARKS Hole cased 0.00-13.00m.					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
										No water strike recorded
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type						

IGSL RC FI 10M 21527.GPJ IGSL.GDT 11/03/19



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

21527

CONTRACT Scholarstown Road, Dublin		DRILLHOLE NO RC06
CO-ORDINATES		SHEET Sheet 1 of 2
GROUND LEVEL (mOD)		DATE DRILLED 25/02/2019
CLIENT Ardstone Ltd.		DATE LOGGED 26/02/2019
ENGINEER DBFL		DRILLED BY IGSL
RIG TYPE Geo205		LOGGED BY D.O'Shea
FLUSH Air/Mist		
INCLINATION (deg) -90		
CORE DIAMETER (mm) 78		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
0								Hole Opened by Shell & Auger - See BH06				
1.50												
2		0	0	0								
3.00												
3.50		0	0	0					3.50			
4								SYMMETRIX DRILLING: No recovery, observed by driller as returns of grey/brown clayey sandy GRAVEL				
4.50												
5		0	0	0								
5.20									5.20			N = 36 (3, 4, 6, 9, 11, 10)
6								SYMMETRIX DRILLING: No recovery, observed by driller as returns of dark grey/brown sandy gravelly CLAY with occasional cobbles				
6.00												
7		0	0	0								
7.20									7.20			N = 37 (4, 7, 7, 8, 9, 13)
7.50								SYMMETRIX DRILLING: No recovery, observed by driller as returns of grey/brown clayey sandy GRAVEL with occasional cobbles				
8		0	0	0								
9												
9.00		0	0	0								N = 172 (3, 25, 46, 32, 46, 48)
		0	0	0								N = 149 (4, 12, 25, 37, 43, 44)

REMARKS Hole cased 0.00-13.00m.					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					10.60	10.60	12.80			Seepage
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type						
26-02-19	11.00	1.00	11.00	50mm SP						

IGSL RC Fl 10M 21527.GPJ IGSL_GDT 11/03/19



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

21527

CONTRACT Scholarstown Road, Dublin		DRILLHOLE NO RC06
CO-ORDINATES		SHEET Sheet 2 of 2
GROUND LEVEL (mOD)		DATE DRILLED 25/02/2019
CLIENT Ardstone Ltd.		DATE LOGGED 26/02/2019
ENGINEER DBFL		DRILLED BY IGSL
RIG TYPE Geo205		LOGGED BY D.O'Shea
FLUSH Air/Mist		
INCLINATION (deg) -90		
CORE DIAMETER (mm) 78		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
10	10.50							SYMMETRIX DRILLING: No recovery, observed by driller as returns of grey/brown clayey sandy GRAVEL with occasional cobbles (<i>continued</i>)				N = 85 (7, 14, 19, 21, 26)
11		0	0	0					11.40			
12	12.00						SYMMETRIX DRILLING: No recovery, observed by driller as returns of grey/brown slightly clayey sandy GRAVEL		12.60			
13	13.00							SYMMETRIX DRILLING: No recovery, observed by driller as returns of stiff grey/brown gravelly CLAY End of Borehole at 13.00 m	13.00			N = 50/40 mm (17, 50)
14												
15												
16												
17												
18												
19												

REMARKS Hole cased 0.00-13.00m.					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					10.60	10.60	12.80			Seepage
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type	26-02-19	13.00	13.00	Dry	Water level recorded 5 mins after end of drilling.	
26-02-19	11.00	1.00	11.00	50mm SP						

IGSL RC Fl 10M 21527 GPJ IGSL_GDT 11/3/19



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

21527

CONTRACT Scholarstown Road, Dublin		DRILLHOLE NO RC08
CO-ORDINATES		SHEET Sheet 1 of 2
GROUND LEVEL (mOD)		DATE DRILLED 27/02/2019
CLIENT Ardstone Ltd.		DATE LOGGED 27/02/2019
ENGINEER DBFL		DRILLED BY IGSL
RIG TYPE Geo205		LOGGED BY D.O'Shea
FLUSH Air/Mist		
INCLINATION (deg) -90		
CORE DIAMETER (mm) 78		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
0								Hole Opened by Shell & Auger - See BH08				
1.50												
2		0	0	0								
3												
3.00									3.40			
4		0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of COBBLE	3.70			
4.50								SYMMETRIX DRILLING: No recovery, observed by driller as returns of dark grey/brown/black sandy gravelly CLAY with occasional cobbles				N = 66 (6, 7, 9, 15, 21, 21)
5		0	0	0					5.50			
6								SYMMETRIX DRILLING: No recovery, observed by driller as returns of dark grey/brown sandy gravelly CLAY with occasional cobbles	6.50			N = 91 (8, 13, 20, 21, 23, 27)
6.00		0	0	0					6.80			
7								SYMMETRIX DRILLING: No recovery, observed by driller as returns of COBBLE				
7.50								SYMMETRIX DRILLING: No recovery, observed by driller as returns of grey/brown slightly clayey sandy GRAVEL with occasional cobbles				N = 64 (5, 7, 13, 14, 17, 20)
8		0	0	0								
9												
9.00		0	0	0								N = 59 (4, 6, 8, 15, 18, 18)
									10.00			

REMARKS Hole cased 0.00-13.00m.					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
					8.60	8.60				Seepage
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type						

IGSL RC FI 10M 21527.GPJ IGSL.GDT 11/03/19



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

21527

CONTRACT Scholarstown Road, Dublin		DRILLHOLE NO RC08
CO-ORDINATES		SHEET Sheet 2 of 2
GROUND LEVEL (mOD)		DATE DRILLED 27/02/2019
CLIENT Ardstone Ltd.		DATE LOGGED 27/02/2019
ENGINEER DBFL		DRILLED BY IGSL
RIG TYPE Geo205		LOGGED BY D.O'Shea
FLUSH Air/Mist		
INCLINATION (deg) -90		
CORE DIAMETER (mm) 78		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
10	10.50				0 250 500			SYMMETRIX DRILLING: No recovery, observed by driller as returns of grey/brown slightly silty sandy GRAVEL				N = 54 (5, 5, 6, 11, 17, 20)
11		0	0	0								N = 82 (8, 10, 14, 21, 23, 24)
12	12.00											N = 133 (7, 16, 28, 30, 34, 41)
13	13.00							End of Borehole at 13.00 m	13.00			
14												
15												
16												
17												
18												
19												

REMARKS Hole cased 0.00-13.00m.						WATER STRIKE DETAILS					
						Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
						8.60	8.60				Seepage
INSTALLATION DETAILS						GROUNDWATER DETAILS					
						Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type	27-02-19	13.00	13.00	7.10	Water level recorded 5 mins after end of drilling.		

IGSL RC FI 10M 21527.GPJ IGSL.GDT 11/03/19



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

21527

CONTRACT Scholarstown Road, Dublin	DRILLHOLE NO RC10
CO-ORDINATES	SHEET Sheet 1 of 2
GROUND LEVEL (mOD)	DATE DRILLED 26/02/2019
CLIENT Ardstone Ltd.	DATE LOGGED 26/02/2019
ENGINEER DBFL	DRILLED BY IGSL
RIG TYPE Geo205	LOGGED BY D.O'Shea
FLUSH Air/Mist	
INCLINATION (deg) -90	
CORE DIAMETER (mm) 78	

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)
0					0 250 500			Hole Opened by Shell & Auger - See BH10				
1.50												
2		0	0	0								
3												
3.00												
4		0	0	0								
4.50												
5		0	0	0					5.00			
5							(Symbol: circles with dots)	SYMMETRIX DRILLING: No recovery, observed by driller as returns of grey/brown/black clayey sandy GRAVEL				
6									5.90			N = 27 (3, 4, 6, 7, 7)
6.00		0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of grey/brown/black slightly clayey sandy GRAVEL with occasional cobbles				
7												
7.50									7.30			N = 42 (4, 9, 8, 9, 12, 13)
8		0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of grey/brown sandy gravelly CLAY with occasional cobbles				
9									9.10			N = 71 (12, 37, 20, 18, 16, 17)
9.00		0	0	0				SYMMETRIX DRILLING: No recovery, observed by driller as returns of stiff grey/brown gravelly CLAY				

REMARKS Hole cased 0.00-13.00m.								WATER STRIKE DETAILS						
								Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments	
													No water strike recorded	
INSTALLATION DETAILS								GROUNDWATER DETAILS						
								Date	Hole Depth	Casing Depth	Depth to Water	Comments		
Date	Tip Depth	RZ Top	RZ Base	Type										

IGSL RC Fl 10M 21527.GPJ IGSL.GDT 11/03/19



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

21527

CONTRACT Scholarstown Road, Dublin		DRILLHOLE NO RC10
CO-ORDINATES		SHEET Sheet 2 of 2
GROUND LEVEL (mOD)		DATE DRILLED 26/02/2019
CLIENT Ardstone Ltd.		DATE LOGGED 26/02/2019
ENGINEER DBFL		DRILLED BY IGSL
RIG TYPE Geo205		LOGGED BY D.O'Shea
FLUSH Air/Mist		
INCLINATION (deg) -90		
CORE DIAMETER (mm) 78		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing Log (mm)	Non-intact Zone	Legend	Description	Depth (m)	Elevation	Standpipe Details	SPT (N Value)	
10	10.50				0 250 500		○	SYMMETRIX DRILLING: No recovery, observed by driller as returns of stiff grey/brown gravelly CLAY (<i>continued</i>)				N = 127 (9, 18, 26, 30, 31, 40)	
11		0	0	0			○						
12	12.00						○						N = 50/45 mm (14, 38, 50)
13	13.00	0	0	0			○	End of Borehole at 13.00 m	13.00			N = 50/20 mm (25, 42, 50)	
14													
15													
16													
17													
18													
19													

REMARKS Hole cased 0.00-13.00m.					WATER STRIKE DETAILS					
					Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
										No water strike recorded
INSTALLATION DETAILS					GROUNDWATER DETAILS					
					Date	Hole Depth	Casing Depth	Depth to Water	Comments	
Date	Tip Depth	RZ Top	RZ Base	Type						

IGSL RC FI 10M 21527.GPJ IGSL.GDT 11/3/19

Appendix 3 Window Sample Records



IGSL Ltd

WINDOW SAMPLE RECORD

REPORT NUMBER

21527

CONTRACT Scholarstown Road Dublin

BH NO.

WS01

SHEET

Sheet 1 of 1

CO-ORDINATES(_)

GROUND LEVEL (mOD)

DATE DRILLED

14/02/2019

DATE LOGGED

14/02/2019

CLIENT ENGINEER DBFL

DRILLED BY

CK

LOGGED BY

KD

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples		
									Ref. Number	Sample Type	Depth (m)
0.0	TOPSOIL very stiff dark brown gravelly clay with roots and grass. Gravel is subangular to subrounded.					0.00-1.00	100	94 blows			
	Firm brown gravelly CLAY with rare roots. Gravel is angular to subrounded.		0.30							ENV	0.50-0.50
	Brown gravelly clayey SAND. Gravel is angular to rounded.		0.85								
1.0						1.00-2.00	70	117 blows			
	Stiff brown gravelly sandy CLAY. Gravel is angular to subrounded.		1.60							ENV	1.50-1.50
2.0	Firm brown gravelly slightly sandy CLAY. Gravel is angular to subrounded.		2.00			2.00-3.00	100	Refusal blows			
3.0	Final Depth 3.00m		3.00								

General Remarks

Installations

WS WITH DISCRETE SAMPLES 21527.GPJ IGSL_GDT_22/2/19



IGSL Ltd

WINDOW SAMPLE RECORD

REPORT NUMBER

21527

CONTRACT Scholarstown Road Dublin

BH NO.

WS02

SHEET

Sheet 1 of 1

CO-ORDINATES(_)

GROUND LEVEL (mOD)

DATE DRILLED

14/02/2019

DATE LOGGED

14/02/2019

CLIENT ENGINEER DBFL

DRILLED BY

CK

LOGGED BY

KD

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples		
									Ref. Number	Sample Type	Depth (m)
0.0	TOPSOIL stiff dark brown gravelly clay with roots and grass. Gravel is subangular to subrounded.		0.20			0.00-1.00	100	112 blows			
	Stiff brown with grey and dark brown mottling gravelly slightly sandy CLAY. Gravel is angular to subrounded.										ENV
1.0			1.70			1.00-1.70	100	Refusal blows			
											ENV
	Final Depth 1.70m										
2.0											
3.0											

General Remarks

Installations



IGSL Ltd

WINDOW SAMPLE RECORD

REPORT NUMBER

21527

CONTRACT Scholarstown Road Dublin

BH NO.

WS03

SHEET

Sheet 1 of 1

CO-ORDINATES(_)

GROUND LEVEL (mOD)

DATE DRILLED

14/02/2019

DATE LOGGED

14/02/2019

CLIENT ENGINEER DBFL

DRILLED BY

CK

LOGGED BY

KD

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples		
									Ref. Number	Sample Type	Depth (m)
0.0	TOPSOIL very stiff dark brown gravell CLAY with roots and grass. Gravel is subangular to subrounded.		0.30			0.00-1.00	100	74 blows			
	Stiff brown with dark brown mottling gravelly slightly sandy CLAY with rare roots. Gravel is subangular to rounded.										ENV
1.0						1.00-2.00	60	112 blows			
	Firm brown gravelly clayey SAND. Gravel is angular to rounded.		1.50						ENV	1.50-1.50	
2.0						2.00-3.00	10	220 blows			
	Firm brown gravelly slightly sandy CLAY. Gravel is subangular to subrounded.		2.00								
3.0	Final Depth 3.00m		3.00								

General Remarks

Installations

WS WITH DISCRETE SAMPLES 21527.GPJ IGSL_GDT_22/2/19



IGSL Ltd

WINDOW SAMPLE RECORD

REPORT NUMBER

21527

CONTRACT Scholarstown Road Dublin

BH NO.

WS04

SHEET

Sheet 1 of 1

CO-ORDINATES(_)

GROUND LEVEL (mOD)

DATE DRILLED

14/02/2019

DATE LOGGED

14/02/2019

CLIENT ENGINEER DBFL

DRILLED BY LOGGED BY

CK
KD

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples		
									Ref. Number	Sample Type	Depth (m)
0.0	TOPSOIL very stiff dark brown gravelly clay with roots and grass. Gravel is subangular to subrounded.		0.30			0.00-1.00	100			ENV	0.50-0.50
	Firm brown with mottled grey gravelly sandy CLAY. Gravel is angular to subrounded.					1.00-2.00	100				
1.0											
2.0	Light brown gravelly clayey SAND. Gravel is angular to subrounded.		2.00			2.00-2.20	100				
	Final Depth 2.20m		2.20								
3.0											

General Remarks

Installations

WS WITH DISCRETE SAMPLES 21527.GPJ IGSL_GDT_22/2/19



IGSL Ltd

WINDOW SAMPLE RECORD

REPORT NUMBER

21527

CONTRACT Scholarstown Road Dublin

BH NO.

WS05

SHEET

Sheet 1 of 1

CO-ORDINATES(_)

GROUND LEVEL (mOD)

DATE DRILLED

14/02/2019

DATE LOGGED

14/02/2019

CLIENT ENGINEER DBFL

DRILLED BY

CK

LOGGED BY

KD

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples		
									Ref. Number	Sample Type	Depth (m)
0.0	TOPSOIL very stiff dark brown slightly gravelly CLAY with roots and grass. Gravel is subangular to subrounded.					0.00-1.00	100	62 blows			
	Firm brown gravelly slightly sandy CLAY. Gravel is angular to subrounded.		0.30							ENV	0.50-0.50
	Firm brown gravelly sandy CLAY. Gravel is angular to rounded.		0.80							ENV	1.50-1.50
1.0						1.00-2.00	100	141 blows			
										ENV	2.50-2.50
2.0						2.00-3.00	100	240 blows			
										ENV	2.50-2.50
3.0	Final Depth 3.00m		3.00								

General Remarks

Installations

WS WITH DISCRETE SAMPLES 21527.GPJ IGSL_GDT_22/2/19



IGSL Ltd

WINDOW SAMPLE RECORD

REPORT NUMBER

21527

CONTRACT Scholarstown Road Dublin

BH NO.

WS06

SHEET

Sheet 1 of 1

CO-ORDINATES(_)

GROUND LEVEL (mOD)

DATE DRILLED

14/02/2019

DATE LOGGED

14/02/2019

CLIENT ENGINEER DBFL

DRILLED BY LOGGED BY

CK
KD

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples		
									Ref. Number	Sample Type	Depth (m)
0.0	TOPSOIL stiff dark brown gravelly clay with roots and grass. Gravel is subangular to rounded.		0.30			0.00-1.00	100	87 blows			
	Firm brown gravelly slightly sandy CLAY. Gravel is angular to subrounded.										ENV
1.0						1.00-2.00	100	148 blows			
	Firm brown gravelly sandy CLAY with sand rich pockets present. Gravel is rounded to subangular.		1.70							ENV	1.50-1.50
2.0	Firm, brown gravelly sandy CLAY. Gravel is angular to subrounded.		2.00			2.00-2.70	86	Refusal blows			
										ENV	2.50-2.50
	Final Depth 2.70m		2.70								
3.0											

General Remarks

Installations

WS WITH DISCRETE SAMPLES 21527.GPJ IGSL_GDT_22/2/19

Appendix 4 Infiltration Test Results

Soakaway Design f -value from field tests

IGSL

Contract: Scholarstown Road, Dublin
 Test No. SA1
 Engineer DBFL
 Date: 31/01/2019

Contract No. 21527

Summary of ground conditions



from	to	Description	Ground water
0.00	0.35	TOPSOIL	Seepage at 1.0m and 1.8m
0.35	0.75	Soft to firm, brown/dark brown slightly sandy slightl gravelly CLAY with occasional cobbles (possible fill)	
0.75	1.20	Soft to firm, light brown/brown, sl. Sandy sl. Gravelly CLAY with cobbles	
1.20	2.00	Firm to stiff, light brown/brown, sl. Sandy gravelly silty CLAY with cobbles	

Notes:

Field Data

Depth to Water (m)	Elapsed Time (min)
1.020	0.00
1.020	1.00
1.020	2.00
1.020	3.00
1.020	4.00
1.020	5.00
1.020	6.00
1.020	7.00
1.020	8.00
1.020	9.00
1.020	10.00
1.020	12.00
1.020	14.00
1.020	16.00
1.020	18.00
1.020	20.00
1.020	25.00
1.020	30.00
1.020	40.00
1.020	50.00
1.020	60.00

Field Test

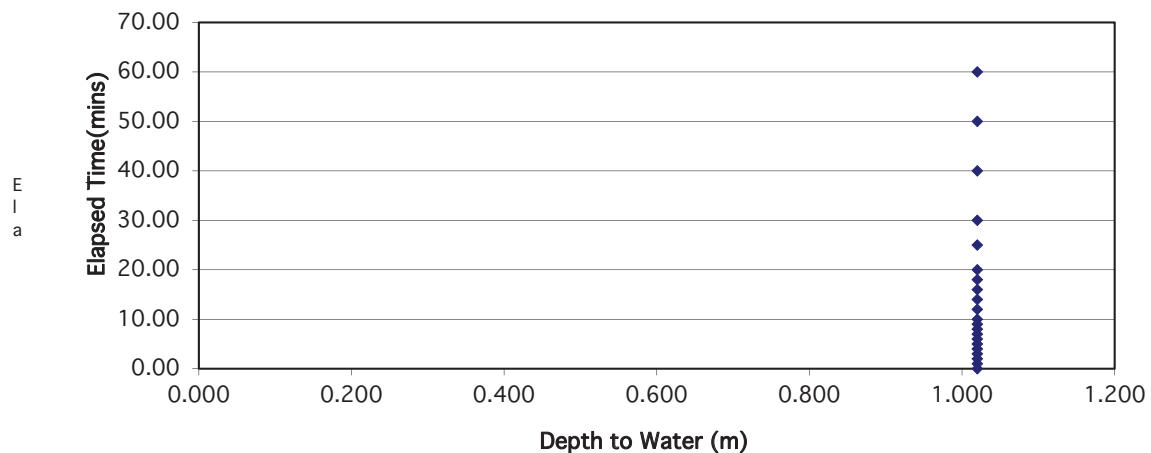
Depth of Pit (D)	2.00	m
Width of Pit (B)	0.50	m
Length of Pit (L)	2.50	m
Initial depth to Water =	1.020	m
Final depth to water =	1.020	m
Elapsed time (mins)=	60.00	
Top of permeable soil		
Base of permeable soil		

No Water Movement

Base area=	1.25	m ²
*Av. side area of permeable stratum over test period	5.88	m ²
Total Exposed area =	7.13	m ²

Infiltration rate (f) = Volume of water used/unit exposed area / unit time
f= 0 m/min or 0 m/sec

Depth of water vs Elapsed Time (mins)



Soakaway Design f -value from field tests

IGSL

Contract: Scholarstown Road, Dublin
 Test No. SA2
 Engineer DBFL
 Date: 31/01/2019

Contract No. 21527

Summary of ground conditions


from	to	Description	Ground water
0.00	0.25	TOPSOIL	DRY
0.25	0.90	Firm, brown, slightly sandy slightly gravelly silty CLAY with occasional cobbles	
0.90	1.80	Firm to stiff, light brown/brown, slightly sandy gravelly silty CLAY with many cobbles and some boulders	

Notes:

Field Data

Depth to Water (m)	Elapsed Time (min)
0.880	0.00
0.880	1.00
0.880	2.00
0.880	3.00
0.880	4.00
0.880	5.00
0.885	6.00
0.885	7.00
0.885	8.00
0.885	9.00
0.885	10.00
0.885	12.00
0.890	14.00
0.890	16.00
0.890	18.00
0.890	20.00
0.895	25.00
0.895	30.00
0.895	40.00
0.895	50.00
0.895	60.00

Field Test

Depth of Pit (D)	1.80	m
Width of Pit (B)	0.50	m
Length of Pit (L)	2.50	m
Initial depth to Water =	0.88	m
Final depth to water =	0.895	m
Elapsed time (mins)=	60.00	
Top of permeable soil		
Base of permeable soil		m

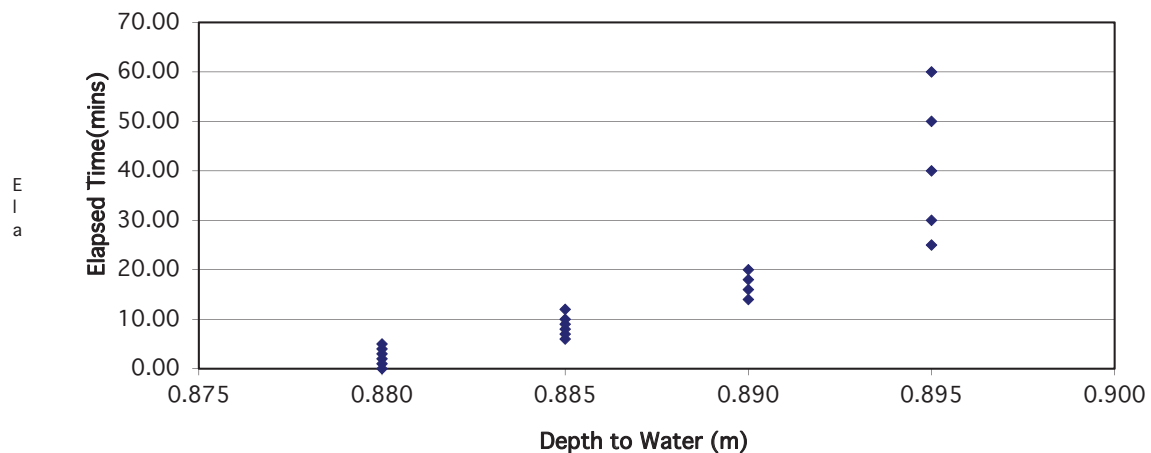
Water Movement stop at 0.895m

Base area=	1.25	m ²
*Av. side area of permeable stratum over test period	5.475	m ²
Total Exposed area =	6.725	m ²

Infiltration rate (f) = Volume of water used/unit exposed area / unit time

f= 4.6E-05 m/min or 7.74473E-07 m/sec

Depth of water vs Elapsed Time (mins)





TRIAL PIT RECORD

REPORT NUMBER

21527

CONTRACT Scholarstown Road , Dublin		TRIAL PIT NO. TP/SA1
LOGGED BY I.Reeder		SHEET Sheet 1 of 1
CLIENT ENGINEER Ardstone Ltd. DBFL		DATE STARTED 31/01/2019 DATE COMPLETED 31/01/2019
CO-ORDINATES		EXCAVATION METHOD 3T mini digger
GROUND LEVEL (m)		

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples			Vane Test (KPa)	Hand Penetrometer (KPa)
						Sample Ref	Type	Depth		
0.0	TOPSOIL									
0.35	Soft to firm, brown/dark brown slightly sandy slightly gravelly CLAY with low subangular to subrounded cobbles boulders and tree roots content (possible fill)									
0.75	Soft to firm, light brown/brown slightly sandy slightly gravelly CLAY with low cobbles content				↓ (Seepage)	AA101601	B	0.90-0.90		
1.20	Firm to stiff, light brown/brown, slightly sandy gravelly silty CLAY with high subangular to subrounded cobbles content				↓ (Seepage)					
2.00	End of Trial Pit at 2.00m		2.00			AA101602	B	1.90-1.90		
3.0										
4.0										

Groundwater Conditions
Seepage flow at 1.0m and 1.8m

Stability
TP stable

General Remarks
SA test 1 done in TP1 location

IGSL TP LOG 21527.GPJ IGSL GDT 25/2/19



TRIAL PIT RECORD

REPORT NUMBER

21527

CONTRACT Scholarstown Road , Dublin		TRIAL PIT NO. TP/SA2
LOGGED BY I.Reider		SHEET Sheet 1 of 1
CLIENT ENGINEER Ardstone Ltd. DBFL		DATE STARTED 31/01/2019 DATE COMPLETED 31/01/2019
CO-ORDINATES		EXCAVATION METHOD 3T mini digger
GROUND LEVEL (m)		

Depth (m)	Geotechnical Description	Legend	Elevation	Water Strike	Samples			Vane Test (KPa)	Hand Penetrometer (KPa)
					Sample Ref	Type	Depth		
0.0	TOPSOIL								
0.25	Firm, brown, slightly sandy slightly gravelly silty CLAY with low subangular to subrounded cobbles content								
0.90	Firm to stiff, light brown/brown, slightly sandy gravelly silty CLAY with high subangular to subrounded cobbles and boulders content				AA101603	B	0.80-0.80		
1.80	TP terminated due to big boulders End of Trial Pit at 1.80m				AA101604	B	1.70-1.70		

Groundwater Conditions
TP dry

Stability
TP stable

General Remarks
SA test 1 done in TP1 location

Appendix 5 Laboratory Test Results (Geotechnical)

IGSL Ltd
 Materials Laboratory
 Unit J5, M7 Business Park
 Newhall, Naas
 Co. Kildare
 045 846176

Test Report

Determination of Moisture Content, Liquid & Plastic Limits

Tested in accordance with BS1377:Part 2:1990, clauses 3.2*, 4.3, 4.4 & 5.3



Report No. **R98747** Contract No. 21527 Contract Name: Scholarstown Road , Dublin
 Customer DBFL Consulting Engineers,Ormond House, Upper Ormond Quay, Dublin 7, Ireland
 Samples Received: 18/02/19 Date Tested: 28/2/19

BH/TP	Sample No.	Depth (m)	Lab. Ref	Sample Type	Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity Index	% <425µm	Preparation	Liquid Limit Clause	Classification (BS5930)	Description
BH04	AA105517	2.0	A19/0561	B	17	41	20	21	70	WS	4.4	C I	Brown sandy gravelly CLAY
BH05A	AA105508	3.0	A19/0562	B	16	31	15	16	63	WS	4.4	C L	Brown slightly sandy, slightly gravelly, CLAY
BH05A	AA105511	6.0	A19/0563	B	17	28	13	15	78	WS	4.4	C L	Dark brown sandy gravelly CLAY
BH07	AA105504	2.0	A19/0564	B	10	29	14	15	61	WS	4.4	C L	Brown sandy gravelly CLAY
BH09	AA105532	3.0	A19/0565	B	9.0	27	14	13	53	WS	4.4	C L	Brown slightly sandy, gravelly, CLAY with some cobbles
BH10	AA105524	1.0	A19/0566	B	21	37	18	19	64	WS	4.4	C I	Mottled brown sandy gravelly CLAY
BH10	AA105528	4.0	A19/0567	B	14	31	16	15	53	WS	4.4	C L	Mottled brown sandy gravelly CLAY

Notes: Preparation: WS - Wet sieved Sample Type: B - Bulk Disturbed
 AR - As received U - Undisturbed
 NP - Non plastic
 Liquid Limit 4.3 Cone Penetrometer definitive method
 Clause: 4.4 Cone Penetrometer one point method

Remarks:
 NOTE: *Clause 3.2 of BS1377 is a "withdrawn" standard due to publication of ISO17892-1:2014
 Opinions and interpretations are outside the scope of accreditation.
 The results relate to the specimens tested. Any remaining material will be retained for one month.

IGSL Ltd Materials Laboratory	Persons authorized to approve reports	Approved by	Date	Page
	H Byrne (Laboratory Manager)		15/3/19	1 of 1

TEST REPORT

Determination of Particle Size Distribution

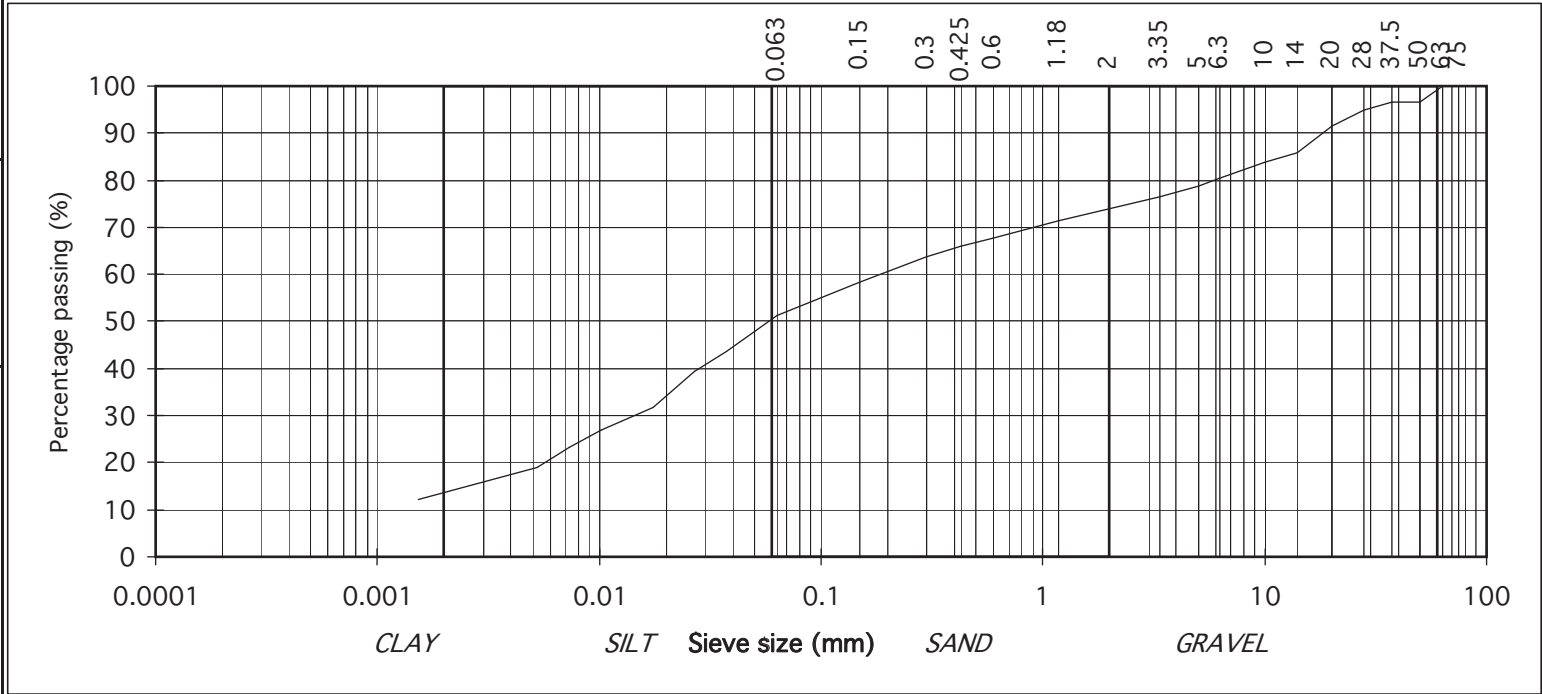
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)



particle size	% passing	
75	100	COBBLES
63	100	
50	97	
37.5	97	
28	95	
20	92	
14	86	
10	84	
6.3	80	
5	79	
3.35	77	GRAVEL
2	74	
1.18	71	
0.6	68	
0.425	66	
0.3	64	
0.15	58	
0.063	51	
0.037	44	
0.027	39	
0.017	32	SILT/CLAY
0.010	27	
0.007	23	
0.005	19	
0.002	12	

Contract No: 21527 Report No. R99466
 Contract: Scholarstown Road , Dublin
 BH/TP : BH05A
 Sample No. AA105508 Lab. Sample No. A19/0562
 Sample Type: B
 Depth (m) 3.00 Customer: DBFL Consulting Engineers, Ormond House, Upper Ormond Quay, Dublin 7, Ireland
 Date Received 18/02/2019 Date Testing started 28/02/2019
 Description: Brown slightly sandy, slightly gravelly, CLAY

Remarks Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016



IGSL Ltd Materials Laboratory	Approved by:	Date:	Page no:
	<i>H Byrne</i>	13/03/19	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT
Determination of Particle Size Distribution
 Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
 (note: Sedimentation stage not accredited)

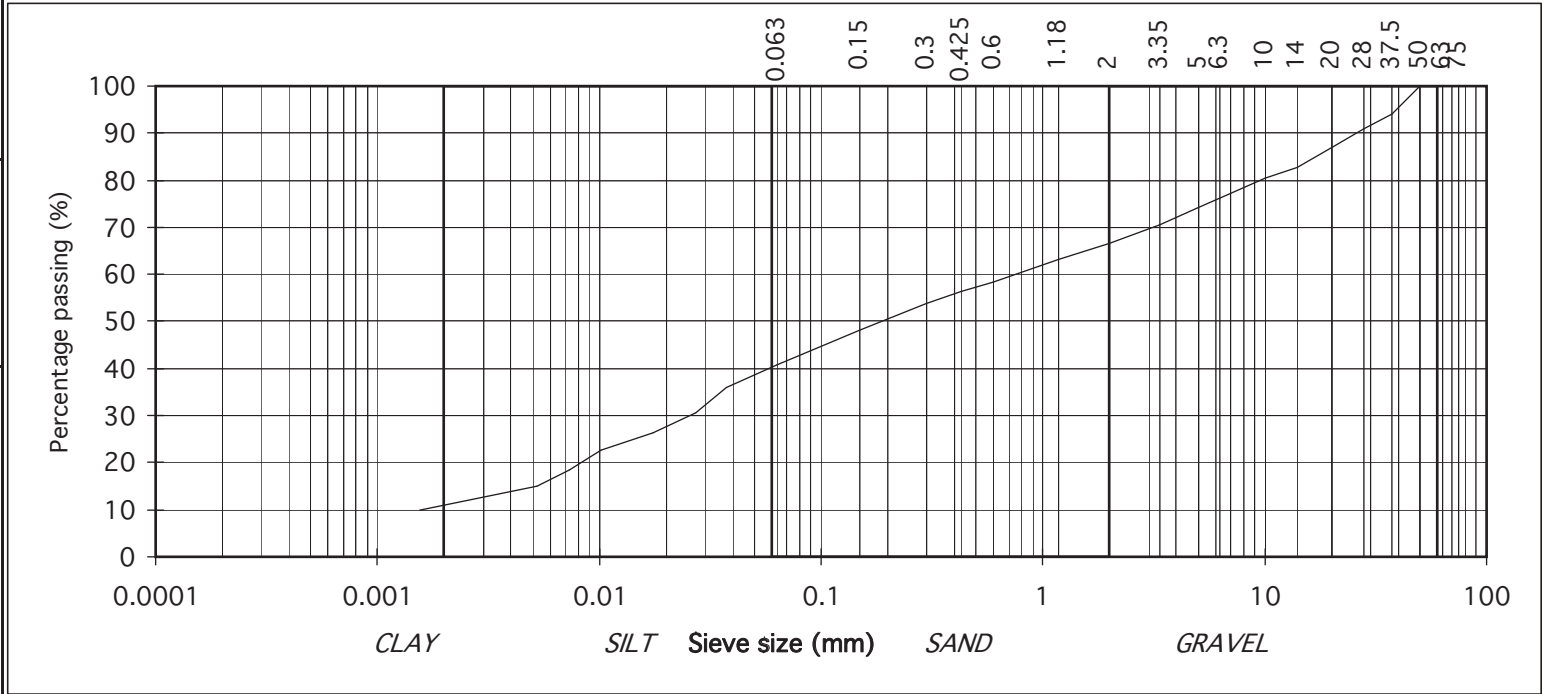


particle size	% passing	
75	100	COBBLES
63	100	
50	100	
37.5	94	
28	91	
20	87	
14	83	GRAVEL
10	81	
6.3	76	
5	74	
3.35	71	
2	67	
1.18	63	SAND
0.6	58	
0.425	56	
0.3	54	
0.15	48	
0.063	41	
0.038	36	SILT/CLAY
0.027	31	
0.018	26	
0.010	23	
0.007	18	
0.005	15	
0.002	10	

Contract No: 21527 Report No. R99165
 Contract: Scholarstown Road , Dublin
 BH/TP : BH08
 Sample No. AA105536 Lab. Sample No. A19/0565
 Sample Type: B
 Depth (m) 2.00 Customer: DBFL Consulting Engineers, Ormond House, Upper Ormond Quay, Dublin 7, Ireland
 Date Received 18/02/2019 Date Testing started 28/02/2019
 Description: Brown slightly sandy, slightly gravelly, SILT/CLAY

Remarks

Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016



IGSL Ltd Materials Laboratory

Approved by: *H Byrne*

Date: 15/03/18

Page no: 1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

TEST REPORT

Determination of Particle Size Distribution

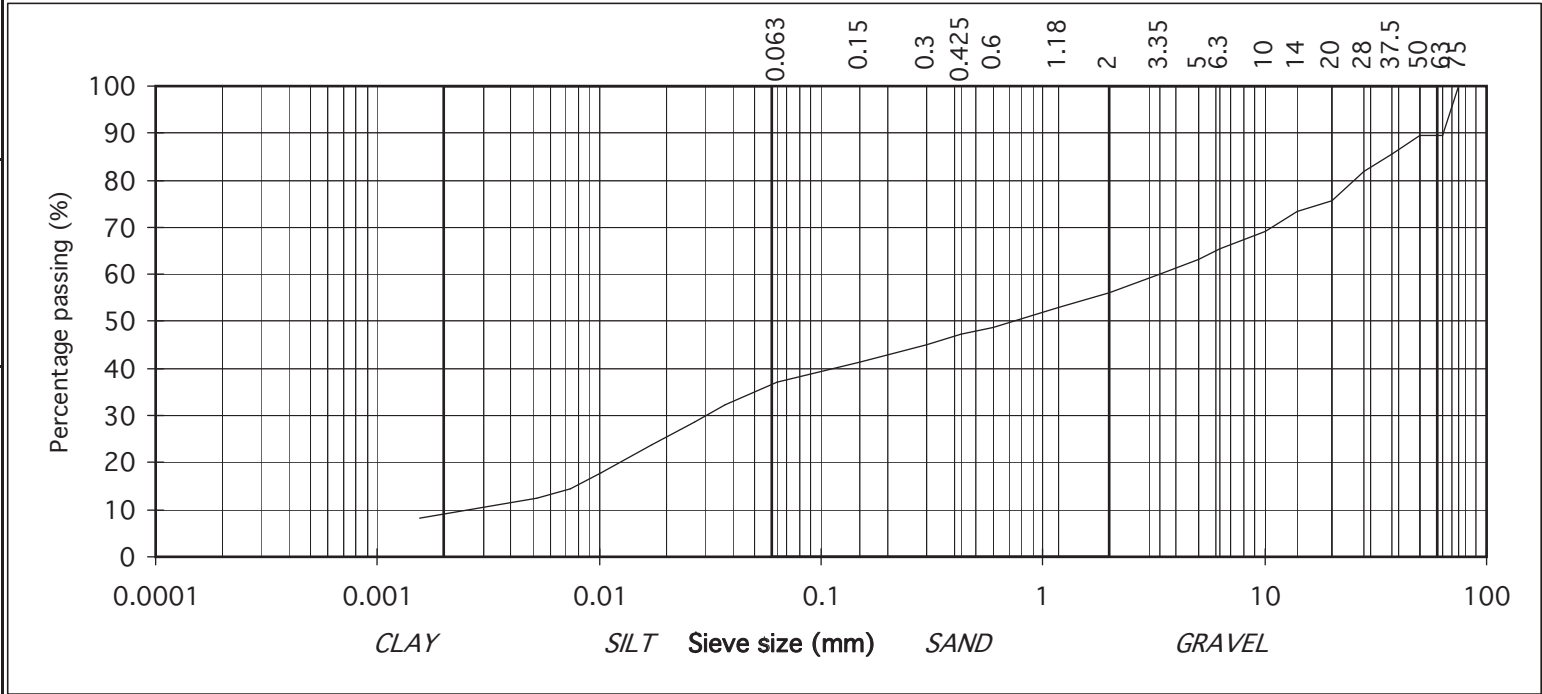
Tested in accordance with: BS1377:Part2:1990 , clause 9.2 & 9.5
(note: Sedimentation stage not accredited)



particle size	% passing		
75	100	COBBLES	
63	89		
50	89		
37.5	86		
28	82		
20	76		
14	73		
10	69		
6.3	65		
5	63		
3.35	60	GRAVEL	
2	56		
1.18	53		
0.6	49		
0.425	47		
0.3	45		
0.15	41		
0.063	37		
0.037	32		
0.027	29		
0.017	24	SAND	
0.010	18		
0.007	15		
0.005	12		
0.002	8		
			SILT/CLAY

Contract No: 21527 Report No. R99268
 Contract: Scholarstown Road , Dublin
 BH/TP : BH09
 Sample No. AA105532 Lab. Sample No. A19/0566
 Sample Type: B
 Depth (m) 3.00 Customer: DBFL Consulting Engineers, Ormond House, Upper Ormond Quay, Dublin 7, Ireland
 Date Received 18/02/2019 Date Testing started 28/02/2019
 Description: Brown slightly sandy, gravelly, CLAY with some cobbles

Remarks Note: Clause 9.2 and Clause 9.5 of BS1377:Part 2:1990 have been superseded by ISO17892-4:2016 Sample size did not meet the requirements of BS1377



IGSL Ltd Materials Laboratory	Approved by:	Date:	Page no:
	<i>H Byrne</i>	15/03/19	1 of 1

Persons authorised to approve report: J Barrett (Quality Manager) H Byrne (Laboratory Manager)

Appendix 6 Laboratory Test Results (Environmental)



Final Report

Report No.: 19-06936-1

Initial Date of Issue: 14-Mar-2019

Client: IGSL

Client Address: M7 Business Park
Naas
County Kildare
Ireland

Contact(s): Darren Keogh

Project: Schlorstown Rd

Quotation No.: **Date Received:** 26-Feb-2019

Order No.: **Date Instructed:** 26-Feb-2019

No. of Samples: 14

Turnaround (Wkdays): 7 **Results Due:** 06-Mar-2019

Date Approved: 14-Mar-2019

Approved By:



Details: Martin Dyer, Laboratory Manager

Project: Schlorstown Rd

Client: IGSL	Chemtest Job No.:																
Quotation No.:	Chemtest Sample ID.:																
	Sample Location:		WS1	WS1	WS2	WS2	WS3	WS3	WS4	WS4	WS5	WS5	WS5	WS6	WS6		
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL		
	Top Depth (m):		0.50	1.50	0.50	1.50	0.50	1.50	0.50	1.50	0.50	1.50	2.50	0.50	1.50		
Determinand	Accred.	SOP	Units	LOD													
Ammonium	U	1220	mg/l	0.050	0.24	0.23	0.43	0.25	0.21	0.28	0.37	0.31	0.43	0.27	0.25	0.28	0.25
Ammonium	N	1220	mg/kg	0.10	2.4	2.3	4.3	2.5	2.1	2.8	3.7	3.1	4.3	2.7	2.5	2.8	2.5
Boron (Dissolved)	U	1450	µg/l	20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Boron (Dissolved)	U	1450	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20

Project: **Schlörstow Rd**

Results - Leachate

Client: IGSL	Chemtest Job No.: 19-06936				
Quotation No.:	Chemtest Sample ID.: 781993				
	Sample Location:				WS6
	Sample Type:				SOIL
	Top Depth (m):				2.50
Determinand	Accred.	SOP	Units	LOD	
Ammonium	U	1220	mg/l	0.050	0.24
Ammonium	N	1220	mg/kg	0.10	2.4
Boron (Dissolved)	U	1450	µg/l	20	< 20
Boron (Dissolved)	U	1450	mg/kg	0.20	< 0.20

Results - Soil

Project: Schlorstown Rd

Client: IGSL	Chemtest Job No.:				19-06936	19-06936	19-06936	19-06936	19-06936	19-06936	19-06936	19-06936	19-06936	19-06936
Quotation No.:	Chemtest Sample ID.:				781980	781981	781982	781983	781984	781985	781986	781987	781988	
	Sample Location:				WS1	WS1	WS2	WS2	WS3	WS3	WS4	WS4	WS5	
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
	Top Depth (m):				0.50	1.50	0.50	1.50	0.50	1.50	0.50	1.50	0.50	
	Asbestos Lab:				COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	
Determinand	Accred.	SOP	Units	LOD										
ACM Type	U	2192		N/A	-	-	-	-	-	-	-	-	-	
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	
ACM Detection Stage	U	2192		N/A	-	-	-	-	-	-	-	-	-	
Moisture	N	2030	%	0.020	18	7.8	15	11	13	19	12	8.7	13	
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	0.47	
Sulphur (Elemental)	U	2180	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	
Cyanide (Total)	U	2300	mg/kg	0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	[A] 1.3	[A] 4.7	[A] 0.65	[A] 2.8	[A] 0.98	[A] 1.5	[A] 8.3	[A] 7.1	[A] 5.9	
Sulphate (Acid Soluble)	U	2430	%	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] 0.017	[A] < 0.010	[A] 0.014	
Arsenic	U	2450	mg/kg	1.0	25	35	23	94	23	21	29	22	27	
Barium	U	2450	mg/kg	10	67	30	42	66	41	60	44	46	53	
Cadmium	U	2450	mg/kg	0.10	2.5	0.98	1.6	1.5	1.2	2.1	1.4	1.3	1.4	
Chromium	U	2450	mg/kg	1.0	30	14	26	34	28	32	23	16	17	
Molybdenum	U	2450	mg/kg	2.0	4.1	< 2.0	3.3	< 2.0	< 2.0	2.8	< 2.0	2.0	< 2.0	
Antimony	N	2450	mg/kg	2.0	2.4	< 2.0	< 2.0	3.2	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Copper	U	2450	mg/kg	0.50	43	13	38	32	22	28	20	18	17	
Mercury	U	2450	mg/kg	0.10	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	
Nickel	U	2450	mg/kg	0.50	79	23	56	51	42	60	43	36	43	
Lead	U	2450	mg/kg	0.50	32	28	32	31	26	25	17	14	15	
Selenium	U	2450	mg/kg	0.20	1.5	< 0.20	1.0	0.36	0.58	0.82	< 0.20	< 0.20	< 0.20	
Zinc	U	2450	mg/kg	0.50	120	44	110	88	86	92	49	50	48	
Chromium (Trivalent)	N	2490	mg/kg	1.0	30	14	26	34	28	32	23	16	17	
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Total Organic Carbon	U	2625	%	0.20	[A] 0.88	[A] 0.90	[A] 0.45	[A] 0.91	[A] 0.42	[A] 0.55	[A] 2.8	[A] 0.75	[A] 0.71	
Mineral Oil	N	2670	mg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	

Project: Schlorstown Rd

Client: IGSL	Chemtest Job No.:												
Quotation No.:	Chemtest Sample ID.:												
	Sample Location:												
	Sample Type:												
	Top Depth (m):												
	Asbestos Lab:												
Determinand	Accred.	SOP	Units	LOD									
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	[A] < 10	[A] < 10	[A] < 10	[A] < 10	[A] < 10	[A] < 10	[A] < 10	[A] < 10	[A] < 10
Benzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Toluene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Ethylbenzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
m & p-Xylene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
o-Xylene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Naphthalene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Pyrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]anthracene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Coronene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 17 PAH's	N	2800	mg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
PCB 28	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
PCB 52	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
PCB 90+101	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
PCB 118	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
PCB 153	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
PCB 138	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
PCB 180	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Total PCBs (7 Congeners)	N	2815	mg/kg	0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10
Total Phenols	U	2920	mg/kg	0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30

Project: Schlorstown Rd

Client: IGSL	Chemtest Job No.:				19-06936	19-06936	19-06936	19-06936	19-06936
Quotation No.:	Chemtest Sample ID.:				781989	781990	781991	781992	781993
	Sample Location:				WS5	WS5	WS6	WS6	WS6
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				1.50	2.50	0.50	1.50	2.50
	Asbestos Lab:				COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD					
ACM Type	U	2192		N/A	-	-	-	-	-
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-	-	-	-	-
Moisture	N	2030	%	0.020	12	9.1	13	11	10
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40
Sulphur (Elemental)	U	2180	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Cyanide (Total)	U	2300	mg/kg	0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	[A] 9.6	[A] 5.5	[A] 4.8	[A] 6.3	[A] 5.8
Sulphate (Acid Soluble)	U	2430	%	0.010	[A] < 0.010	[A] < 0.010	[A] 0.012	[A] < 0.010	[A] < 0.010
Arsenic	U	2450	mg/kg	1.0	28	42	27	30	30
Barium	U	2450	mg/kg	10	41	77	54	44	57
Cadmium	U	2450	mg/kg	0.10	1.4	1.4	1.7	1.6	1.2
Chromium	U	2450	mg/kg	1.0	14	28	22	17	17
Molybdenum	U	2450	mg/kg	2.0	2.1	< 2.0	< 2.0	3.3	< 2.0
Antimony	N	2450	mg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Copper	U	2450	mg/kg	0.50	16	22	23	19	19
Mercury	U	2450	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.12
Nickel	U	2450	mg/kg	0.50	28	38	46	40	31
Lead	U	2450	mg/kg	0.50	17	20	24	16	26
Selenium	U	2450	mg/kg	0.20	< 0.20	< 0.20	< 0.20	1.6	0.26
Zinc	U	2450	mg/kg	0.50	49	72	75	63	98
Chromium (Trivalent)	N	2490	mg/kg	1.0	14	28	22	17	17
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Organic Carbon	U	2625	%	0.20	[A] 0.33	[A] 0.28	[A] 0.34	[A] 0.55	[A] 0.75
Mineral Oil	N	2670	mg/kg	10	< 10	< 10	< 10	< 10	< 10
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0

Project: Schlorstown Rd

Client: IGSL	Chemtest Job No.:		19-06936	19-06936	19-06936	19-06936	19-06936	
Quotation No.:	Chemtest Sample ID.:		781989	781990	781991	781992	781993	
	Sample Location:		WS5	WS5	WS6	WS6	WS6	
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	
	Top Depth (m):		1.50	2.50	0.50	1.50	2.50	
	Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	
Determinand	Accred.	SOP	Units	LOD				
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	[A] < 10	[A] < 10	[A] < 10	[A] < 10
Benzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Toluene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Ethylbenzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
m & p-Xylene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
o-Xylene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Naphthalene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Pyrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]anthracene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Coronene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 17 PAH's	N	2800	mg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0
PCB 28	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
PCB 52	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
PCB 90+101	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
PCB 118	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
PCB 153	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
PCB 138	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
PCB 180	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Total PCBs (7 Congeners)	N	2815	mg/kg	0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10
Total Phenols	U	2920	mg/kg	0.30	< 0.30	< 0.30	< 0.30	< 0.30

Results - Single Stage WAC

Project: Schlorstown Rd

Chemtest Job No: 19-06936					Landfill Waste Acceptance Criteria Limits		
Chemtest Sample ID: 781980						Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill
Sample Ref:							
Sample ID:							
Sample Location: WS1							
Top Depth(m): 0.50							
Bottom Depth(m):							
Sampling Date:							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.88	3	5	6
Loss On Ignition	2610	U	%	3.6	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		7.6	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.020	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0012	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	1.3	13	800	15000	25000
Fluoride	1220	U	0.15	1.5	10	150	500
Sulphate	1220	U	2.2	22	1000	20000	50000
Total Dissolved Solids	1020	N	16	160	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	9.1	91	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	18

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: Schlorstown Rd

Chemtest Job No: 19-06936					Landfill Waste Acceptance Criteria		
Chemtest Sample ID: 781981						Limits	
Sample Ref:						Inert Waste Landfill	Stable, Non- reactive hazardous waste in non- hazardous Landfill
Sample ID:							
Sample Location: WS1							
Top Depth(m): 1.50							
Bottom Depth(m):							
Sampling Date:							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.90	3	5	6
Loss On Ignition	2610	U	%	0.99	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		8.7	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.11	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	< 0.0010	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.11	1.1	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	32	320	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	9.3	93	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	7.8

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: Schlorstown Rd

Chemtest Job No: 19-06936 Chemtest Sample ID: 781982 Sample Ref: Sample ID: Sample Location: WS2 Top Depth(m): 0.50 Bottom Depth(m): Sampling Date:				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.45	3	5	6
Loss On Ignition	2610	U	%	1.1	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		7.7	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.027	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	< 0.0010	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	0.0048	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	1.8	18	800	15000	25000
Fluoride	1220	U	0.12	1.2	10	150	500
Sulphate	1220	U	2.0	20	1000	20000	50000
Total Dissolved Solids	1020	N	23	230	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	7.4	74	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	15

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: Schlorstown Rd

Chemtest Job No: 19-06936					Landfill Waste Acceptance Criteria Limits		
Chemtest Sample ID: 781983					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Ref:							
Sample ID:							
Sample Location: WS2							
Top Depth(m): 1.50							
Bottom Depth(m):							
Sampling Date:							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.91	3	5	6
Loss On Ignition	2610	U	%	1.8	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		8.4	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.0040	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	< 0.0010	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.13	1.3	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	36	360	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	7.9	79	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	11

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: Schlorstown Rd

Chemtest Job No: 19-06936					Landfill Waste Acceptance Criteria		
Chemtest Sample ID: 781984					Limits		
Sample Ref:					Inert Waste Landfill	Stable, Non- reactive hazardous waste in non- hazardous Landfill	Hazardous Waste Landfill
Sample ID:							
Sample Location: WS3							
Top Depth(m): 0.50							
Bottom Depth(m):							
Sampling Date:							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.42	3	5	6
Loss On Ignition	2610	U	%	2.1	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		8.1	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.053	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0014	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	1.1	11	800	15000	25000
Fluoride	1220	U	0.17	1.7	10	150	500
Sulphate	1220	U	1.4	14	1000	20000	50000
Total Dissolved Solids	1020	N	16	160	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	6.5	65	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	13

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: Schlorstown Rd

Chemtest Job No: 19-06936					Landfill Waste Acceptance Criteria Limits		
Chemtest Sample ID: 781985					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Ref:							
Sample ID:							
Sample Location: WS3							
Top Depth(m): 1.50							
Bottom Depth(m):							
Sampling Date:							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.55	3	5	6
Loss On Ignition	2610	U	%	3.7	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		8.2	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	< 0.0020	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0016	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	1.1	11	800	15000	25000
Fluoride	1220	U	0.16	1.6	10	150	500
Sulphate	1220	U	1.1	11	1000	20000	50000
Total Dissolved Solids	1020	N	37	370	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	10	100	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	19

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: Schlorstown Rd

Chemtest Job No: 19-06936 Chemtest Sample ID: 781986 Sample Ref: Sample ID: Sample Location: WS4 Top Depth(m): 0.50 Bottom Depth(m): Sampling Date:					Landfill Waste Acceptance Criteria Limits		
					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 2.8	3	5	6
Loss On Ignition	2610	U	%	2.2	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		8.4	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.011	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0014	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	1.2	12	800	15000	25000
Fluoride	1220	U	0.18	1.8	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	48	470	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	9.3	93	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	12

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: Schlorstown Rd

Chemtest Job No: 19-06936					Landfill Waste Acceptance Criteria Limits		
Chemtest Sample ID: 781987					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Ref:							
Sample ID:							
Sample Location: WS4							
Top Depth(m): 1.50							
Bottom Depth(m):							
Sampling Date:							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.75	3	5	6
Loss On Ignition	2610	U	%	1.5	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		8.6	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.051	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0033	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	0.0018	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	0.0019	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.11	1.1	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	38	380	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	10	100	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	8.7

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: Schlorstown Rd

Chemtest Job No: 19-06936 Chemtest Sample ID: 781988 Sample Ref: Sample ID: Sample Location: WS5 Top Depth(m): 0.50 Bottom Depth(m): Sampling Date:					Landfill Waste Acceptance Criteria Limits		
					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.71	3	5	6
Loss On Ignition	2610	U	%	2.2	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		8.5	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.051	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0023	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	1.6	16	800	15000	25000
Fluoride	1220	U	0.29	2.9	10	150	500
Sulphate	1220	U	2.0	20	1000	20000	50000
Total Dissolved Solids	1020	N	56	560	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	11	110	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	13

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: Schlorstown Rd

Chemtest Job No: 19-06936					Landfill Waste Acceptance Criteria Limits		
Chemtest Sample ID: 781989					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Ref:							
Sample ID:							
Sample Location: WS5							
Top Depth(m): 1.50							
Bottom Depth(m):							
Sampling Date:							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.33	3	5	6
Loss On Ignition	2610	U	%	1.6	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		8.5	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.069	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0030	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	0.0033	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.14	1.4	10	150	500
Sulphate	1220	U	4.2	42	1000	20000	50000
Total Dissolved Solids	1020	N	42	420	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	9.5	95	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	12

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: Schlorstown Rd

Chemtest Job No: 19-06936 Chemtest Sample ID: 781990 Sample Ref: Sample ID: Sample Location: WS5 Top Depth(m): 2.50 Bottom Depth(m): Sampling Date:					Landfill Waste Acceptance Criteria Limits		
					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.28	3	5	6
Loss On Ignition	2610	U	%	1.8	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		8.6	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.081	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0027	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.097	< 1.0	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	32	320	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	9.9	99	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	9.1

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: Schlorstown Rd

Chemtest Job No: 19-06936 Chemtest Sample ID: 781991 Sample Ref: Sample ID: Sample Location: WS6 Top Depth(m): 0.50 Bottom Depth(m): Sampling Date:					Landfill Waste Acceptance Criteria Limits		
					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.34	3	5	6
Loss On Ignition	2610	U	%	2.3	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		8.4	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.12	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0012	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.16	1.6	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	43	430	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	11	110	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	13

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: Schlorstown Rd

Chemtest Job No: 19-06936					Landfill Waste Acceptance Criteria		
Chemtest Sample ID: 781992					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Ref:							
Sample ID:							
Sample Location: WS6							
Top Depth(m): 1.50							
Bottom Depth(m):							
Sampling Date:							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.55	3	5	6
Loss On Ignition	2610	U	%	1.8	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		8.5	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.21	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0020	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	0.0012	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	1.0	10	800	15000	25000
Fluoride	1220	U	0.10	1.0	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	38	380	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	8.8	88	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	11

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: Schlorstown Rd

Chemtest Job No: 19-06936					Landfill Waste Acceptance Criteria		
Chemtest Sample ID: 781993					Limits	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Ref:					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID:							
Sample Location: WS6							
Top Depth(m): 2.50							
Bottom Depth(m):							
Sampling Date:							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.75	3	5	6
Loss On Ignition	2610	U	%	1.4	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		8.6	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.035	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0083	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	0.00091	0.0091	0.01	0.2	2
Molybdenum	1450	U	0.0011	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.11	1.1	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	34	340	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	10	100	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	10

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request. The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
781980			WS1		A	Amber Glass 250ml
781980			WS1		A	Amber Glass 60ml
781981			WS1		A	Amber Glass 250ml
781981			WS1		A	Amber Glass 60ml
781982			WS2		A	Amber Glass 250ml
781982			WS2		A	Amber Glass 60ml
781983			WS2		A	Amber Glass 250ml
781983			WS2		A	Amber Glass 60ml
781984			WS3		A	Amber Glass 250ml
781984			WS3		A	Amber Glass 60ml
781985			WS3		A	Amber Glass 250ml
781985			WS3		A	Amber Glass 60ml
781986			WS4		A	Amber Glass 250ml
781986			WS4		A	Amber Glass 60ml
781987			WS4		A	Amber Glass 250ml
781987			WS4		A	Amber Glass 60ml
781988			WS5		A	Amber Glass 250ml
781988			WS5		A	Amber Glass 60ml
781989			WS5		A	Amber Glass 250ml
781989			WS5		A	Amber Glass 60ml
781990			WS5		A	Amber Glass 250ml
781990			WS5		A	Amber Glass 60ml

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request. The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
781991			WS6		A	Amber Glass 250ml
781991			WS6		A	Amber Glass 60ml
781992			WS6		A	Amber Glass 250ml
781992			WS6		A	Amber Glass 60ml
781993			WS6		A	Amber Glass 250ml
781993			WS6		A	Amber Glass 60ml

SOP	Title	Parameters included	Method summary
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	pH	pH Meter
2015	Acid Neutralisation Capacity	Acid Reserve	Titration
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.
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2180	Sulphur (Elemental) in Soils by HPLC	Sulphur	Dichloromethane extraction / HPLC with UV detection
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N-dimethyl-p-phenylenediamine.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2610	Loss on Ignition	loss on ignition (LOI)	Determination of the proportion by mass that is lost from a soil by ignition at 550°C.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8, >C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35–C44 Aromatics: >C5–C7, >C7–C8, >C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35–C44	Dichloromethane extraction / GCxGC FID detection

SOP	Title	Parameters included	Method summary
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2815	Polychlorinated Biphenyls (PCB) ICES7Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.
640	Characterisation of Waste (Leaching)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge

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



Final Report

Report No.: 19-07677-1

Initial Date of Issue: 20-Mar-2019

Client: IGSL

Client Address: M7 Business Park
Naas
County Kildare
Ireland

Contact(s): Darren Keogh

Project: 21527 Scholarstown Road Dublin

Quotation No.: **Date Received:** 04-Mar-2019

Order No.: **Date Instructed:** 04-Mar-2019

No. of Samples: 19

Turnaround (Wkdays): 10 **Results Due:** 15-Mar-2019

Date Approved: 20-Mar-2019

Approved By:

Details: Martin Dyer, Laboratory Manager

Project: 21527 Scholarstown Road Dublin

Client: IGSL		Chemtest Job No.: 19-07677															
Quotation No.:		Chemtest Sample ID.:															
		785881	785882	785884	785885	785886	785887	785888	785889	785891	785892	785893	785894	785895			
		Sample Location:															
		BH4	BH4	BH5	BH5	BH6	BH6	BH7	BH7	BH7	BH8	BH8	BH8	BH9			
		Sample Type:															
		SOIL															
		Top Depth (m):															
		0.5	1.5	0.5	1.5	0.5	1.5	0.5	1.5	2.5	0.5	1.5	2.5	0.5			
Determinand	Accred.	SOP	Units	LOD													
Ammonium	U	1220	mg/l	0.050	0.48	0.23	0.18	0.22	0.19	0.17	0.30	0.15	0.21	0.29	0.11	0.13	0.14
Ammonium	N	1220	mg/kg	0.10	4.8	2.3	1.8	2.2	1.9	1.7	3.0	1.5	2.1	2.9	1.1	1.3	1.4
Boron (Dissolved)	U	1450	µg/l	20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Boron (Dissolved)	U	1450	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20

Project: 21527 Scholarstown Road Dublin

Client: IGSL	Chemtest Job No.: 19-07677				19-07677	19-07677	19-07677	19-07677
Quotation No.:	Chemtest Sample ID.:				785896	785897	785898	785899
	Sample Location:				BH9	BH9	BH10	BH10
	Sample Type:				SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				1.5	2.5	0.5	1.5
Determinand	Accred.	SOP	Units	LOD				
Ammonium	U	1220	mg/l	0.050	0.12	0.12	0.21	0.18
Ammonium	N	1220	mg/kg	0.10	1.2	1.2	2.1	1.8
Boron (Dissolved)	U	1450	µg/l	20	< 20	< 20	< 20	< 20
Boron (Dissolved)	U	1450	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20

Results - Soil

Client: IGSL	Chemtest Job No.:		19-07677	19-07677	19-07677	19-07677	19-07677	19-07677	19-07677	19-07677	19-07677	19-07677
Quotation No.:	Chemtest Sample ID.:		785881	785882	785883	785884	785885	785886	785887	785888	785889	785889
	Sample Location:		BH4	BH4	BH4	BH5	BH5	BH6	BH6	BH7	BH7	BH7
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):		0.5	1.5	2.0	0.5	1.5	0.5	1.5	0.5	1.5	1.5
	Asbestos Lab:		COVENTRY	COVENTRY		COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD								
ACM Type	U	2192		N/A	-	-	-	-	-	-	-	-
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-	-	-	-	-	-	-	-
Moisture	N	2030	%	0.020	18	14	16	17	26	15	12	15
pH	U	2010		N/A			[A] 6.6					
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40	< 0.40	< 0.40		< 0.40	0.57	< 0.40	< 0.40	< 0.40
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010			< 0.010					
Sulphur (Elemental)	U	2180	mg/kg	1.0	[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Cyanide (Total)	U	2300	mg/kg	0.50	[A] < 0.50	[A] < 0.50		[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	[A] 1.6	[A] 6.1		[A] 4.2	[A] 3.5	[A] 4.8	[A] 9.2	[A] 3.8
Sulphate (Acid Soluble)	U	2430	%	0.010	[A] 0.015	[A] 0.013		[A] 0.022	[A] 0.026	[A] 0.014	[A] 0.011	[A] < 0.010
Arsenic	U	2450	mg/kg	1.0	17	16		18	17	21	22	22
Barium	U	2450	mg/kg	10	69	39		34	66	89	39	43
Cadmium	U	2450	mg/kg	0.10	2.1	1.3		1.3	2.1	1.9	1.5	1.5
Chromium	U	2450	mg/kg	1.0	25	16		14	22	25	13	25
Molybdenum	U	2450	mg/kg	2.0	2.6	2.2		< 2.0	2.6	2.4	2.1	2.1
Antimony	N	2450	mg/kg	2.0	< 2.0	< 2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Copper	U	2450	mg/kg	0.50	35	21		18	35	28	18	23
Mercury	U	2450	mg/kg	0.10	< 0.10	< 0.10		< 0.10	0.15	0.51	< 0.10	< 0.10
Nickel	U	2450	mg/kg	0.50	59	38		30	46	54	38	43
Lead	U	2450	mg/kg	0.50	28	16		20	44	31	17	28
Selenium	U	2450	mg/kg	0.20	0.89	< 0.20		< 0.20	0.62	0.59	0.29	0.63
Zinc	U	2450	mg/kg	0.50	100	54		44	85	150	89	91
Chromium (Trivalent)	N	2490	mg/kg	1.0	25	16		14	22	25	13	25
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Organic Carbon	U	2625	%	0.20	[A] 0.46	[A] 0.27		[A] 0.50	[A] 1.1	[A] 0.41	[A] < 0.20	[A] 0.36
Mineral Oil	N	2670	mg/kg	10	< 10	< 10		< 10	< 10	< 10	< 10	< 10
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0	[A] 8.8	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	[A] 8.8	[A] < 5.0		[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0

Results - Soil

Client: IGSL	Chemtest Job No.:		19-07677	19-07677	19-07677	19-07677	19-07677	19-07677	19-07677	19-07677	19-07677	19-07677
Quotation No.:	Chemtest Sample ID.:		785881	785882	785883	785884	785885	785886	785887	785888	785889	785889
	Sample Location:		BH4	BH4	BH4	BH5	BH5	BH6	BH6	BH7	BH7	BH7
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):		0.5	1.5	2.0	0.5	1.5	0.5	1.5	0.5	1.5	1.5
	Asbestos Lab:		COVENTRY	COVENTRY		COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD								
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	[A] 12	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	[A] 12	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	[A] 20	[A] < 10	[A] < 10	[A] < 10	[A] < 10	[A] < 10	[A] < 10	[A] < 10
Benzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Toluene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Ethylbenzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
m & p-Xylene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
o-Xylene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Naphthalene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Pyrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]anthracene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Coronene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 17 PAH's	N	2800	mg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
PCB 28	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
PCB 52	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
PCB 90+101	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
PCB 118	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
PCB 153	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
PCB 138	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
PCB 180	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Total PCBs (7 Congeners)	N	2815	mg/kg	0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10
Total Phenols	U	2920	mg/kg	0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30

Results - Soil

Client: IGSL	Chemtest Job No.:		19-07677	19-07677	19-07677	19-07677	19-07677	19-07677	19-07677	19-07677	19-07677	19-07677
Quotation No.:	Chemtest Sample ID.:		785890	785891	785892	785893	785894	785895	785896	785897	785898	785898
	Sample Location:		BH7	BH7	BH8	BH8	BH8	BH9	BH9	BH9	BH10	BH10
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):		0.20	2.5	0.5	1.5	2.5	0.5	1.5	2.5	0.5	0.5
	Asbestos Lab:			COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD								
ACM Type	U	2192		N/A		-	-	-	-	-	-	-
Asbestos Identification	U	2192	%	0.001		No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage	U	2192		N/A		-	-	-	-	-	-	-
Moisture	N	2030	%	0.020	12	13	12	11	11	15	13	11
pH	U	2010		N/A	[A] 8.5							
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40		< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	< 0.010							
Sulphur (Elemental)	U	2180	mg/kg	1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Cyanide (Total)	U	2300	mg/kg	0.50		[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50		[A] 6.5	[A] 5.9	[A] 4.4	[A] 6.3	[A] 2.2	[A] 3.7	[A] 8.7
Sulphate (Acid Soluble)	U	2430	%	0.010		[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Arsenic	U	2450	mg/kg	1.0		26	19	21	28	22	22	19
Barium	U	2450	mg/kg	10		69	34	40	66	60	80	36
Cadmium	U	2450	mg/kg	0.10		1.2	1.4	1.5	1.3	1.5	1.3	1.4
Chromium	U	2450	mg/kg	1.0		26	18	22	29	23	25	24
Molybdenum	U	2450	mg/kg	2.0		< 2.0	< 2.0	< 2.0	2.6	< 2.0	< 2.0	2.1
Antimony	N	2450	mg/kg	2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Copper	U	2450	mg/kg	0.50		21	21	20	26	23	25	25
Mercury	U	2450	mg/kg	0.10		< 0.10	0.14	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	U	2450	mg/kg	0.50		39	36	36	44	49	48	55
Lead	U	2450	mg/kg	0.50		22	23	23	25	25	27	29
Selenium	U	2450	mg/kg	0.20		0.25	0.28	< 0.20	0.32	0.49	0.36	1.1
Zinc	U	2450	mg/kg	0.50		67	67	71	73	84	90	89
Chromium (Trivalent)	N	2490	mg/kg	1.0		26	18	22	29	23	25	24
Chromium (Hexavalent)	N	2490	mg/kg	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Organic Carbon	U	2625	%	0.20		[A] < 0.20	[A] 0.29	[A] < 0.20	[A] < 0.20	[A] 0.24	[A] 0.22	[A] 0.25
Mineral Oil	N	2670	mg/kg	10		< 10	< 10	< 10	< 10	< 10	< 10	< 10
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0		[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0		[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0

Results - Soil

Client: IGSL	Chemtest Job No.:		19-07677	19-07677	19-07677	19-07677	19-07677	19-07677	19-07677	19-07677	19-07677	19-07677
Quotation No.:	Chemtest Sample ID.:		785890	785891	785892	785893	785894	785895	785896	785897	785898	785898
	Sample Location:		BH7	BH7	BH8	BH8	BH8	BH9	BH9	BH9	BH10	BH10
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):		0.20	2.5	0.5	1.5	2.5	0.5	1.5	2.5	0.5	0.5
	Asbestos Lab:			COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD								
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	[A] < 10	[A] < 10	[A] < 10	[A] < 10	[A] < 10	[A] < 10	[A] < 10	[A] < 10
Benzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Toluene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Ethylbenzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
m & p-Xylene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] 2.7	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
o-Xylene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Naphthalene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Pyrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]anthracene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Coronene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 17 PAH's	N	2800	mg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
PCB 28	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
PCB 52	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
PCB 90+101	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
PCB 118	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
PCB 153	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
PCB 138	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
PCB 180	U	2815	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Total PCBs (7 Congeners)	N	2815	mg/kg	0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10
Total Phenols	U	2920	mg/kg	0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30

Client: IGSL		Chemtest Job No.:		19-07677	
Quotation No.:		Chemtest Sample ID.:		785899	
		Sample Location:		BH10	
		Sample Type:		SOIL	
		Top Depth (m):		1.5	
		Asbestos Lab:		COVENTRY	
Determinand	Accred.	SOP	Units	LOD	
ACM Type	U	2192		N/A	-
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-
Moisture	N	2030	%	0.020	12
pH	U	2010		N/A	
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40	< 0.40
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	
Sulphur (Elemental)	U	2180	mg/kg	1.0	[A] < 1.0
Cyanide (Total)	U	2300	mg/kg	0.50	[A] < 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	[A] 5.0
Sulphate (Acid Soluble)	U	2430	%	0.010	[A] < 0.010
Arsenic	U	2450	mg/kg	1.0	28
Barium	U	2450	mg/kg	10	55
Cadmium	U	2450	mg/kg	0.10	1.5
Chromium	U	2450	mg/kg	1.0	22
Molybdenum	U	2450	mg/kg	2.0	2.0
Antimony	N	2450	mg/kg	2.0	< 2.0
Copper	U	2450	mg/kg	0.50	23
Mercury	U	2450	mg/kg	0.10	< 0.10
Nickel	U	2450	mg/kg	0.50	41
Lead	U	2450	mg/kg	0.50	23
Selenium	U	2450	mg/kg	0.20	0.38
Zinc	U	2450	mg/kg	0.50	74
Chromium (Trivalent)	N	2490	mg/kg	1.0	22
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50
Total Organic Carbon	U	2625	%	0.20	[A] 0.25
Mineral Oil	N	2670	mg/kg	10	< 10
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0	[A] < 1.0

Client: IGSL		Chemtest Job No.:		19-07677	
Quotation No.:		Chemtest Sample ID.:		785899	
		Sample Location:		BH10	
		Sample Type:		SOIL	
		Top Depth (m):		1.5	
		Asbestos Lab:		COVENTRY	
Determinand	Accred.	SOP	Units	LOD	
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	[A] < 10
Benzene	U	2760	µg/kg	1.0	[A] < 1.0
Toluene	U	2760	µg/kg	1.0	[A] < 1.0
Ethylbenzene	U	2760	µg/kg	1.0	[A] < 1.0
m & p-Xylene	U	2760	µg/kg	1.0	[A] < 1.0
o-Xylene	U	2760	µg/kg	1.0	[A] < 1.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	[A] < 1.0
Naphthalene	U	2800	mg/kg	0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10
Acenaphthene	U	2800	mg/kg	0.10	< 0.10
Fluorene	U	2800	mg/kg	0.10	< 0.10
Phenanthrene	U	2800	mg/kg	0.10	< 0.10
Anthracene	U	2800	mg/kg	0.10	< 0.10
Fluoranthene	U	2800	mg/kg	0.10	< 0.10
Pyrene	U	2800	mg/kg	0.10	< 0.10
Benzo[a]anthracene	U	2800	mg/kg	0.10	< 0.10
Chrysene	U	2800	mg/kg	0.10	< 0.10
Benzo[b]fluoranthene	U	2800	mg/kg	0.10	< 0.10
Benzo[k]fluoranthene	U	2800	mg/kg	0.10	< 0.10
Benzo[a]pyrene	U	2800	mg/kg	0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	2800	mg/kg	0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10
Benzo[g,h,i]perylene	U	2800	mg/kg	0.10	< 0.10
Coronene	N	2800	mg/kg	0.10	< 0.10
Total Of 17 PAH's	N	2800	mg/kg	2.0	< 2.0
PCB 28	U	2815	mg/kg	0.010	[A] < 0.010
PCB 52	U	2815	mg/kg	0.010	[A] < 0.010
PCB 90+101	U	2815	mg/kg	0.010	[A] < 0.010
PCB 118	U	2815	mg/kg	0.010	[A] < 0.010
PCB 153	U	2815	mg/kg	0.010	[A] < 0.010
PCB 138	U	2815	mg/kg	0.010	[A] < 0.010
PCB 180	U	2815	mg/kg	0.010	[A] < 0.010
Total PCBs (7 Congeners)	N	2815	mg/kg	0.10	[A] < 0.10
Total Phenols	U	2920	mg/kg	0.30	< 0.30

Results - Single Stage WAC

Project: 21527 Scholarstown Road Dublin

Chemtest Job No: 19-07677					Landfill Waste Acceptance Criteria Limits		
Chemtest Sample ID: 785881					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Ref:							
Sample ID:							
Sample Location: BH4							
Top Depth(m): 0.5							
Bottom Depth(m):							
Sampling Date:							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.46	3	5	6
Loss On Ignition	2610	U	%	1.5	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] 20	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		7.4	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	< 0.0020	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0012	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	2.1	21	800	15000	25000
Fluoride	1220	U	0.13	1.3	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	9.1	91	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	13	130	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	18

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 21527 Scholarstown Road Dublin

Chemtest Job No: 19-07677 Chemtest Sample ID: 785882 Sample Ref: Sample ID: Sample Location: BH4 Top Depth(m): 1.5 Bottom Depth(m): Sampling Date:				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.27	3	5	6
Loss On Ignition	2610	U	%	1.9	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		8.3	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.029	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0012	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.15	1.5	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	34	340	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	12	120	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	14

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 21527 Scholarstown Road Dublin

Chemtest Job No: 19-07677 Chemtest Sample ID: 785884 Sample Ref: Sample ID: Sample Location: BH5 Top Depth(m): 0.5 Bottom Depth(m): Sampling Date:				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.50	3	5	6
Loss On Ignition	2610	U	%	2.4	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		8.3	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.022	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0012	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.12	1.2	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	24	240	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	10	100	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	17

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 21527 Scholarstown Road Dublin

Chemtest Job No: 19-07677 Chemtest Sample ID: 785885 Sample Ref: Sample ID: Sample Location: BH5 Top Depth(m): 1.5 Bottom Depth(m): Sampling Date:				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 1.1	3	5	6
Loss On Ignition	2610	U	%	3.3	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		8.0	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.020	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	< 0.0010	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	1.3	13	800	15000	25000
Fluoride	1220	U	0.13	1.3	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	23	230	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	13	130	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	26

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 21527 Scholarstown Road Dublin

Chemtest Job No: 19-07677 Chemtest Sample ID: 785886 Sample Ref: Sample ID: Sample Location: BH6 Top Depth(m): 0.5 Bottom Depth(m): Sampling Date:				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.41	3	5	6
Loss On Ignition	2610	U	%	1.7	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		8.1	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.013	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0010	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.13	1.3	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	37	370	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	13	130	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	15

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 21527 Scholarstown Road Dublin

Chemtest Job No: 19-07677 Chemtest Sample ID: 785887 Sample Ref: Sample ID: Sample Location: BH6 Top Depth(m): 1.5 Bottom Depth(m): Sampling Date:					Landfill Waste Acceptance Criteria Limits		
					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] < 0.20	3	5	6
Loss On Ignition	2610	U	%	1.8	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		8.5	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.058	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0015	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	0.0034	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	0.0029	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.15	1.5	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	36	360	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	13	130	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	12

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 21527 Scholarstown Road Dublin

Chemtest Job No: 19-07677 Chemtest Sample ID: 785888 Sample Ref: Sample ID: Sample Location: BH7 Top Depth(m): 0.5 Bottom Depth(m): Sampling Date:					Landfill Waste Acceptance Criteria Limits		
					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.36	3	5	6
Loss On Ignition	2610	U	%	1.5	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		8.3	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.032	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0010	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	1.0	10	800	15000	25000
Fluoride	1220	U	0.15	1.5	10	150	500
Sulphate	1220	U	1.8	18	1000	20000	50000
Total Dissolved Solids	1020	N	31	310	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	17	170	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	15

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 21527 Scholarstown Road Dublin

Chemtest Job No: 19-07677 Chemtest Sample ID: 785889 Sample Ref: Sample ID: Sample Location: BH7 Top Depth(m): 1.5 Bottom Depth(m): Sampling Date:				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.28	3	5	6
Loss On Ignition	2610	U	%	1.2	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		8.5	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.053	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0022	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.12	1.2	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	36	360	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	16	160	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	9.3

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 21527 Scholarstown Road Dublin

Chemtest Job No: 19-07677 Chemtest Sample ID: 785891 Sample Ref: Sample ID: Sample Location: BH7 Top Depth(m): 2.5 Bottom Depth(m): Sampling Date:				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] < 0.20	3	5	6
Loss On Ignition	2610	U	%	1.8	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		8.7	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.042	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0020	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.12	1.2	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	33	330	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	14	140	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	13

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 21527 Scholarstown Road Dublin

Chemtest Job No: 19-07677					Landfill Waste Acceptance Criteria Limits		
Chemtest Sample ID: 785892					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Ref:							
Sample ID:							
Sample Location: BH8							
Top Depth(m): 0.5							
Bottom Depth(m):							
Sampling Date:							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.29	3	5	6
Loss On Ignition	2610	U	%	1.4	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		8.4	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.040	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	< 0.0010	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	1.3	13	800	15000	25000
Fluoride	1220	U	0.22	2.2	10	150	500
Sulphate	1220	U	1.0	10	1000	20000	50000
Total Dissolved Solids	1020	N	35	350	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	16	160	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	12

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 21527 Scholarstown Road Dublin

Chemtest Job No: 19-07677 Chemtest Sample ID: 785893 Sample Ref: Sample ID: Sample Location: BH8 Top Depth(m): 1.5 Bottom Depth(m): Sampling Date:				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] < 0.20	3	5	6
Loss On Ignition	2610	U	%	1.7	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		8.2	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.043	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	< 0.0010	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.12	1.2	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	34	340	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	18	180	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	11

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 21527 Scholarstown Road Dublin

Chemtest Job No: 19-07677					Landfill Waste Acceptance Criteria Limits		
Chemtest Sample ID: 785894					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Ref:							
Sample ID:							
Sample Location: BH8							
Top Depth(m): 2.5							
Bottom Depth(m):							
Sampling Date:							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] < 0.20	3	5	6
Loss On Ignition	2610	U	%	0.82	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		8.5	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.038	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0017	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.13	1.3	10	150	500
Sulphate	1220	U	1.3	13	1000	20000	50000
Total Dissolved Solids	1020	N	40	400	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	16	160	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	11

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 21527 Scholarstown Road Dublin

Chemtest Job No: 19-07677 Chemtest Sample ID: 785895 Sample Ref: Sample ID: Sample Location: BH9 Top Depth(m): 0.5 Bottom Depth(m): Sampling Date:				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.24	3	5	6
Loss On Ignition	2610	U	%	2.2	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		7.7	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.012	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	< 0.0010	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.13	1.3	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	8.5	84	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	17	170	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	15

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 21527 Scholarstown Road Dublin

Chemtest Job No: 19-07677					Landfill Waste Acceptance Criteria Limits		
Chemtest Sample ID: 785896					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Ref:							
Sample ID:							
Sample Location: BH9							
Top Depth(m): 1.5							
Bottom Depth(m):							
Sampling Date:							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.22	3	5	6
Loss On Ignition	2610	U	%	1.4	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		8.4	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.034	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	< 0.0010	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.13	1.3	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	30	300	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	16	160	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	13

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 21527 Scholarstown Road Dublin

Chemtest Job No: 19-07677 Chemtest Sample ID: 785897 Sample Ref: Sample ID: Sample Location: BH9 Top Depth(m): 2.5 Bottom Depth(m): Sampling Date:				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.25	3	5	6
Loss On Ignition	2610	U	%	1.0	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		8.7	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.021	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0011	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	< 0.0010	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.099	< 1.0	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	29	290	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	14	140	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	11

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 21527 Scholarstown Road Dublin

Chemtest Job No: 19-07677 Chemtest Sample ID: 785898 Sample Ref: Sample ID: Sample Location: BH10 Top Depth(m): 0.5 Bottom Depth(m): Sampling Date:				Landfill Waste Acceptance Criteria Limits			
				Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.35	3	5	6
Loss On Ignition	2610	U	%	1.0	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		7.8	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.035	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	< 0.0010	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	0.0011	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.28	2.8	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	9.8	97	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	17	170	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	18

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 21527 Scholarstown Road Dublin

Chemtest Job No: 19-07677					Landfill Waste Acceptance Criteria Limits		
Chemtest Sample ID: 785899					Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Ref:							
Sample ID:							
Sample Location: BH10							
Top Depth(m): 1.5							
Bottom Depth(m):							
Sampling Date:							
Determinand	SOP	Accred.	Units				
Total Organic Carbon	2625	U	%	[A] 0.25	3	5	6
Loss On Ignition	2610	U	%	1.2	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 Congeners)	2815	U	mg/kg	< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	U	mg/kg	[A] < 10	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg	< 2.0	100	--	--
pH	2010	U		8.4	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.040	--	To evaluate	To evaluate
Eluate Analysis			10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	< 0.0010	< 0.050	0.5	2	25
Barium	1450	U	0.0029	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.050	0.5	10	70
Copper	1450	U	< 0.0010	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	< 0.0010	< 0.050	0.5	10	30
Nickel	1450	U	0.0075	0.075	0.4	10	40
Lead	1450	U	< 0.0010	< 0.010	0.5	10	50
Antimony	1450	U	< 0.0010	< 0.010	0.06	0.7	5
Selenium	1450	U	< 0.0010	< 0.010	0.1	0.5	7
Zinc	1450	U	0.019	< 0.50	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.12	1.2	10	150	500
Sulphate	1220	U	< 1.0	< 10	1000	20000	50000
Total Dissolved Solids	1020	N	33	320	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	17	170	500	800	1000

Solid Information

Dry mass of test portion/kg	0.090
Moisture (%)	12

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request. The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
785881			BH4		A	Amber Glass 250ml
785881			BH4		A	Amber Glass 60ml
785882			BH4		A	Amber Glass 250ml
785882			BH4		A	Amber Glass 60ml
785883			BH4		A	Amber Glass 250ml
785884			BH5		A	Amber Glass 250ml
785884			BH5		A	Amber Glass 60ml
785885			BH5		A	Amber Glass 250ml
785885			BH5		A	Amber Glass 60ml
785886			BH6		A	Amber Glass 250ml
785886			BH6		A	Amber Glass 60ml
785887			BH6		A	Amber Glass 250ml
785887			BH6		A	Amber Glass 60ml
785888			BH7		A	Amber Glass 250ml
785888			BH7		A	Amber Glass 60ml
785889			BH7		A	Amber Glass 250ml
785889			BH7		A	Amber Glass 60ml
785890			BH7		A	Amber Glass 250ml
785891			BH7		A	Amber Glass 250ml
785891			BH7		A	Amber Glass 60ml
785892			BH8		A	Amber Glass 250ml
785892			BH8		A	Amber Glass 60ml

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request. The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
785893			BH8		A	Amber Glass 250ml
785893			BH8		A	Amber Glass 60ml
785894			BH8		A	Amber Glass 250ml
785894			BH8		A	Amber Glass 60ml
785895			BH9		A	Amber Glass 250ml
785895			BH9		A	Amber Glass 60ml
785896			BH9		A	Amber Glass 250ml
785896			BH9		A	Amber Glass 60ml
785897			BH9		A	Amber Glass 250ml
785897			BH9		A	Amber Glass 60ml
785898			BH10		A	Amber Glass 250ml
785898			BH10		A	Amber Glass 60ml
785899			BH10		A	Amber Glass 250ml
785899			BH10		A	Amber Glass 60ml

SOP	Title	Parameters included	Method summary
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	pH	pH Meter
2015	Acid Neutralisation Capacity	Acid Reserve	Titration
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.
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2180	Sulphur (Elemental) in Soils by HPLC	Sulphur	Dichloromethane extraction / HPLC with UV detection
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N-dimethyl-p-phenylenediamine.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2610	Loss on Ignition	loss on ignition (LOI)	Determination of the proportion by mass that is lost from a soil by ignition at 550°C.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8, >C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35–C44 Aromatics: >C5–C7, >C7–C8, >C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35–C44	Dichloromethane extraction / GCxGC FID detection

SOP	Title	Parameters included	Method summary
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2815	Polychlorinated Biphenyls (PCB) ICES7Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.
640	Characterisation of Waste (Leaching)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge

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

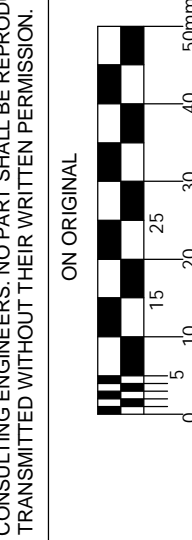
Charges may apply to extended sample storage

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

customerservices@chemtest.com

Appendix 7 Site Plan

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- NOTES:**
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 2. ALL DIMENSIONS ARE GIVEN UNLESS OTHERWISE SPECIFIED.
 3. CONTRACTOR TO VERIFY ALL DIMENSIONS AND TO REPORT TO DBF CONSULTING ENGINEERS ANY DISCREPANCIES IN THE PLANNING PERMISSION AND/OR IN THE DIMENSIONS OF THE PROPOSED WORK.
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- SITE INVESTIGATION LEGEND**
- CBR: Cone Penetration Test (15 No.)
 - TP: Test Pit
 - BH: Borehole
 - WS: Water Sample
 - DPT: Depth Test
 - CBR: Cone Penetration Test (15 No.)
 - TP: Test Pit
 - BH: Borehole
 - WS: Water Sample
 - DPT: Depth Test

ORDNANCE SURVEY IRELAND LICENCE
No. EN 0017919
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GOVERNMENT OF IRELAND

NO.	REVISION	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
1	ISSUED FOR PERMIT	01/11/2024	PRELIMINARY DESIGN	DBF	DBF
2	FOR COMMENT	01/11/2024	REVISED DESIGN	DBF	DBF
3	FOR COMMENT	01/11/2024	REVISED DESIGN	DBF	DBF
4	FOR COMMENT	01/11/2024	REVISED DESIGN	DBF	DBF
5	FOR COMMENT	01/11/2024	REVISED DESIGN	DBF	DBF
6	FOR COMMENT	01/11/2024	REVISED DESIGN	DBF	DBF
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8	FOR COMMENT	01/11/2024	REVISED DESIGN	DBF	DBF
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10	FOR COMMENT	01/11/2024	REVISED DESIGN	DBF	DBF

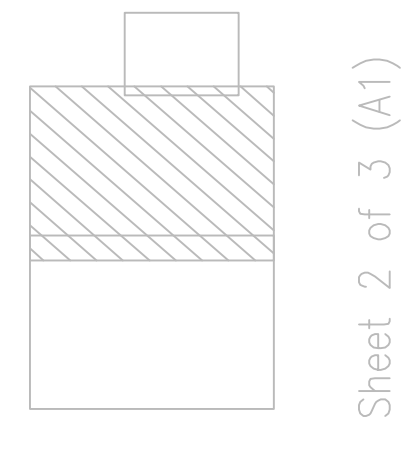
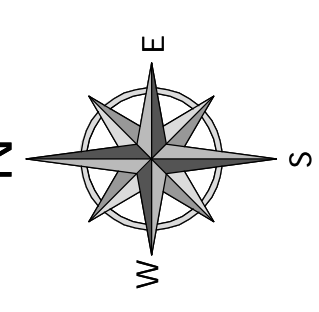
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Tel: +353 1 454 8888
www.dbf.ie

**RESIDENTIAL DEVELOPMENT
SCHOLARSTOWN**

**SITE INVESTIGATION WORKS
PHASE 2**

**ARCHITECT
JOHN FLEMING ARCHITECT**

SCALE: 1:200
VALUE: €100,000
FILE REF: 170232/1001
DBF NO: 170232-1001



Sheet 2 of 3 (A1)

Sheet 1 of 3 (A1)