

Appendix 11

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INITIALS.....
18 MAR 2004
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PROJECTING
LAWRENCE
LICENSING

**Factual Report on
Laboratory Testing
(GeoTesting Ltd)**

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Report to
**Environment & Resource
Management Ltd.**

For

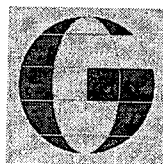
Brownfield Restoration Ireland Ltd.
at
Whitestown Lower, Co. Wicklow.

Factual Report on Laboratory Testing

Report No. G.042.01

February 2004

Prepared By



GEOTESTING LIMITED

UNIT 21 LINK BUSINESS PARK, KILCULLEN, CO. KILDARE

TEL NO: 045-482248

FAX NO: 045-482288

E-Mail: geotestingltd@eircom.net

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Whitestown Lower, Co. Wicklow.

Factual Report on Laboratory Testing

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WHITESTOWN LOWER, CO. WICKLOW.
BROWNFIELD RESTORATION IRELAND LTD.

1. INTRODUCTION

GeoTesting Ltd was appointed by Environment & Resource Management Ltd (ERML) to carry out laboratory testing of samples taken from O' Reilly's Pit, Whitestown Lower, Co. Wicklow. Nine samples were taken by staff of ERML, from trial pits on site at Whitestown. These samples were delivered to the laboratory of GeoTesting Ltd for analysis.

2. LABORATORY WORK DESCRIPTION

2.1 Moisture Content Determination

The natural moisture content of the sample was determined by oven drying (Test 3.2 of BS 1377: Part 2: 1990).

2.2 Particle Size Distribution

The grading of these samples was determined by wet sieving analysis (Tests 9.2 of BS 1377:Part 2:1990). The hydrometer sedimentation method was used to determine the percentages of silts and clays (Clause 9.5 of BS 1377:Part 2:1990). One number sample was not suitable to particle size distribution due to high organic matter content. This sample was retained in the event of further testing.

These results are presented as a particle size distribution curve (PSD) together with tabulated proportions of gravel, sand, and fines size particles.


GEO TESTING LIMITED


PARTICLE SIZE DISTRIBUTION TEST RESULTS

Sample	Client Reference	% Gravel	% Sand	% Fines	
				% Silt	% Clay
BWD01	TP 39B	7.4	44.7	45.9	2.0
BWD 02	TP 65 (2.1-3.1)	2.1	43.9	51.5	2.5
BWD 03	BH 04.05	31.4	53.0	15.6	
BWD 04	BH 04.04	47.9	38.6	13.5	
BWD 05	TP 65 (3.4-4.1)	38.8	43.0	18.2	
BWD 06	TP 33	57.6	41.0	1.4	
BWD 07	TP 19B	54.1	44.6	1.3	
BWD 08	TP 59B	42.1	52.0	5.9	
BWD 09	TP 65	HIGH ORGANIC PEAT MATERIAL			

If you have any questions regarding this report, please advise.

Respectfully Submitted


 Ruth Treacy BSc. Ag., MSc. Eng Tech


 Peter Corrigan B.A., B.A.I., M.I.E.I.



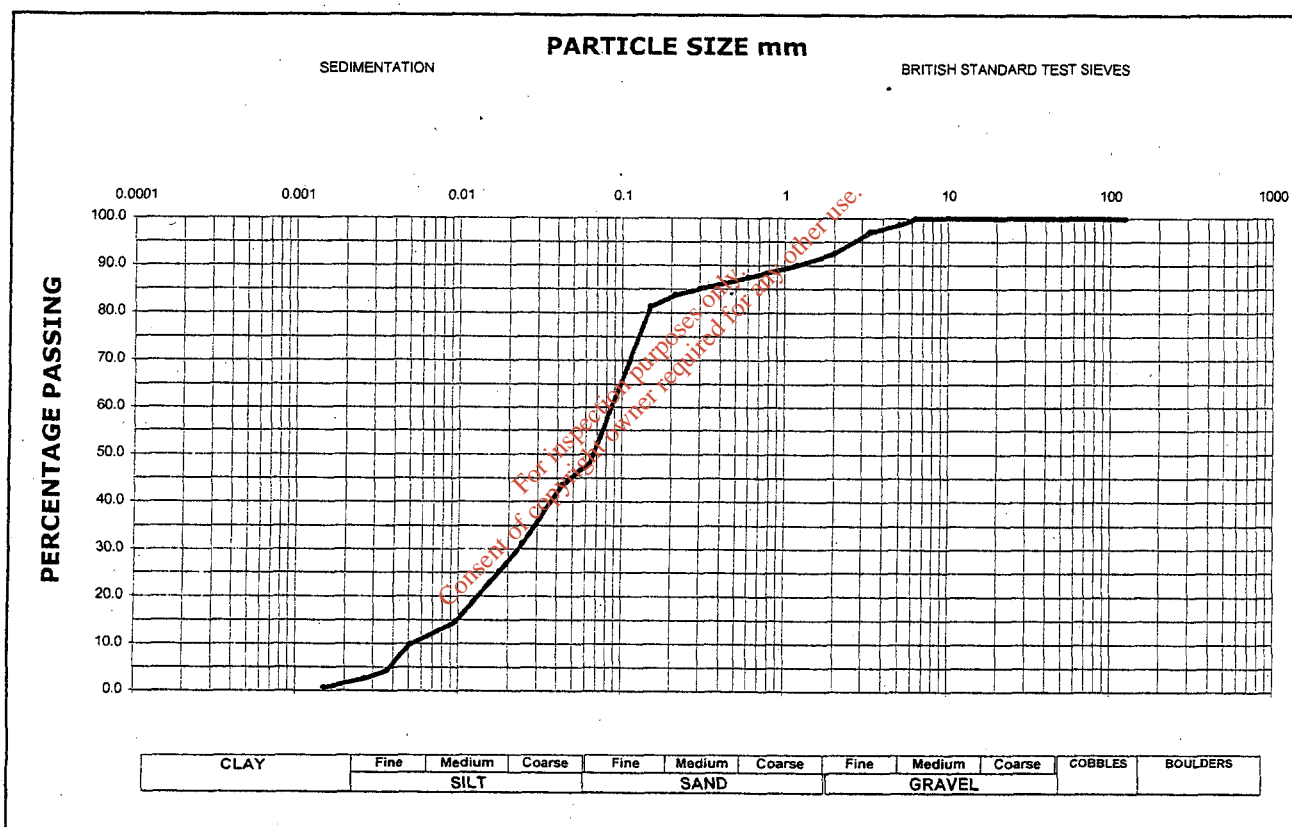
GeoTesting Ltd

Determination of Particle Size Distribution

BS 1377 : Part 2 : 1990 : 9

Job Number	G.042	Location	TP 39B
Sample Number	BWD 01		Brownfield
Sample Date	18/12/03		Whitestown
Sampled By	C. Wall		Co. Wicklow

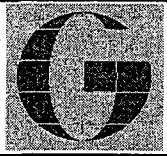
Moisture Content	Soil Description	Soft greyish brown very sandy SILT
25.6 %		



Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing
125 mm	100.0	63 mm	100.0	28 mm	100.0	10mm	100.0	3.35 mm	97.2	600 μm	87.5	212 μm	83.8
100 mm	100.0	50 mm	100.0	20mm	100.0	6.3mm	100.0	2 mm	92.6	425 μm	86.3	150 μm	81.3
75 mm	100.0	37.5 mm	100.0	14mm	100.0	5 mm	98.6	1.18 mm	90.0	300 μm	85.0	63 μm	47.9

Comments

Tested By	Date	Checked By	Date	Signed	Name	Position	✓
RT	24-Feb-04	DT	25-Feb-04	<i>Peter Corrigan</i>	Dave Tutty	Lab Manager	
					Peter Corrigan	Eng Manager	✓



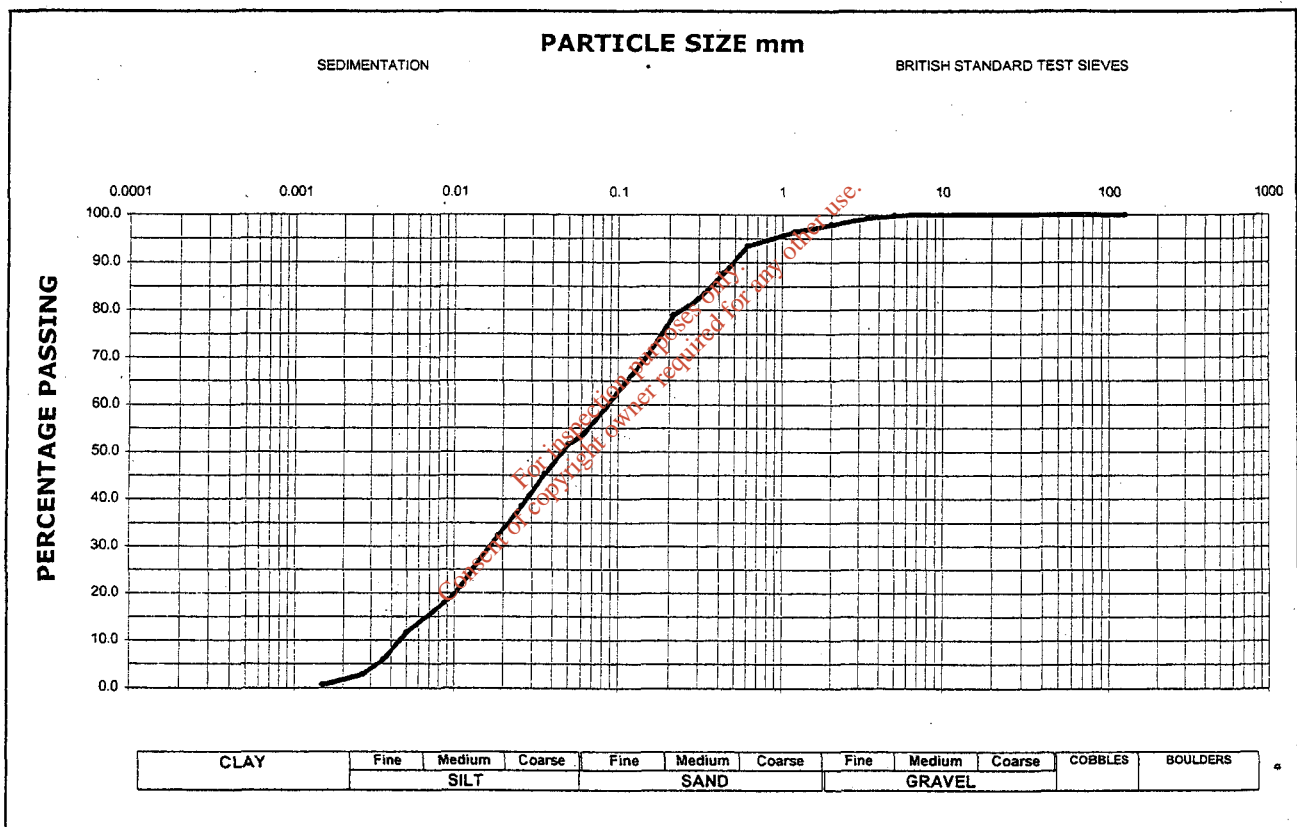
GeoTesting Ltd

Determination of Particle Size Distribution

BS 1377 : Part 2 : 1990 : 9

Job Number	G.042	Location	TP 65 (2.1-3.1)
Sample Number	BWD 02		Brownfield
Sample Date	17/12/03		Whitestown
Sampled By	C. Wall		Co. Wicklow

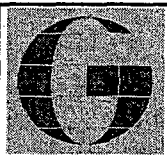
Moisture Content	Soil Description	Firm greenish grey SILT with organics
27.6 %		



Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing
125 mm	100.0	63 mm	100.0	28 mm	100.0	10mm	100.0	3.35 mm	99.3	600 μ m	93.5	212 μ m	78.9
100 mm	100.0	50 mm	100.0	20mm	100.0	6.3mm	100.0	2 mm	97.9	425 μ m	87.8	150 μ m	70.4
75 mm	100.0	37.5 mm	100.0	14mm	100.0	5 mm	99.8	1.18 mm	96.4	300 μ m	82.3	63 μ m	54.0

Comments

Tested By	Date	Checked By	Date	Signed	Name	Position	✓
RT	24-Feb-04	DT	25-Feb-04		Dave Tutty Peter Corrigan	Lab Manager Eng Manager	✓



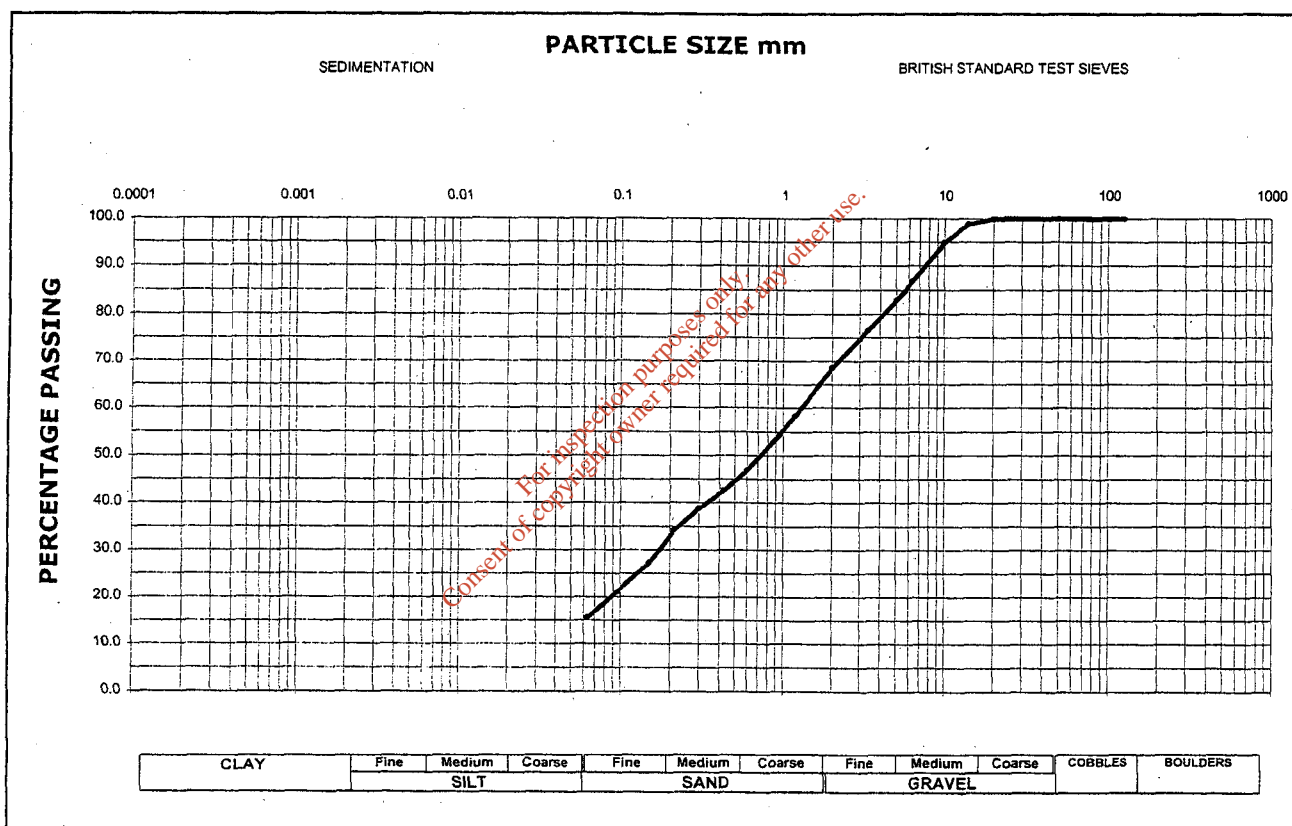
GeoTesting Ltd

Determination of Particle Size Distribution

BS 1377 : Part 2 : 1990 : 9

Job Number	G.042	Location	BH 4.05
Sample Number	BWD 03		Brownfield
Sample Date	-		Whitestown
Sampled By	C. Wall		Co. Wicklow

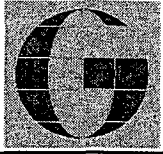
Moisture Content	Soil Description	Loose brown slightly gravelly SAND
9.6 %		



Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing
125 mm	100.0	63 mm	100.0	28 mm	100.0	10mm	94.9	3.35 mm	76.5	600 μm	46.9	212 μm	34.1
100 mm	100.0	50 mm	100.0	20mm	100.0	6.3mm	86.7	2 mm	68.6	425 μm	42.6	150 μm	27.2
75 mm	100.0	37.5 mm	100.0	14mm	98.9	5 mm	82.9	1.18 mm	58.2	300 μm	38.8	63 μm	15.6

Comments

Tested By	Date	Checked By	Date	Signed	Name	Position	✓
RT	24-Feb-04	DT	25-Feb-04		Dave Tutty Peter Corrigan	Lab Manager Eng Manager	<input checked="" type="checkbox"/>



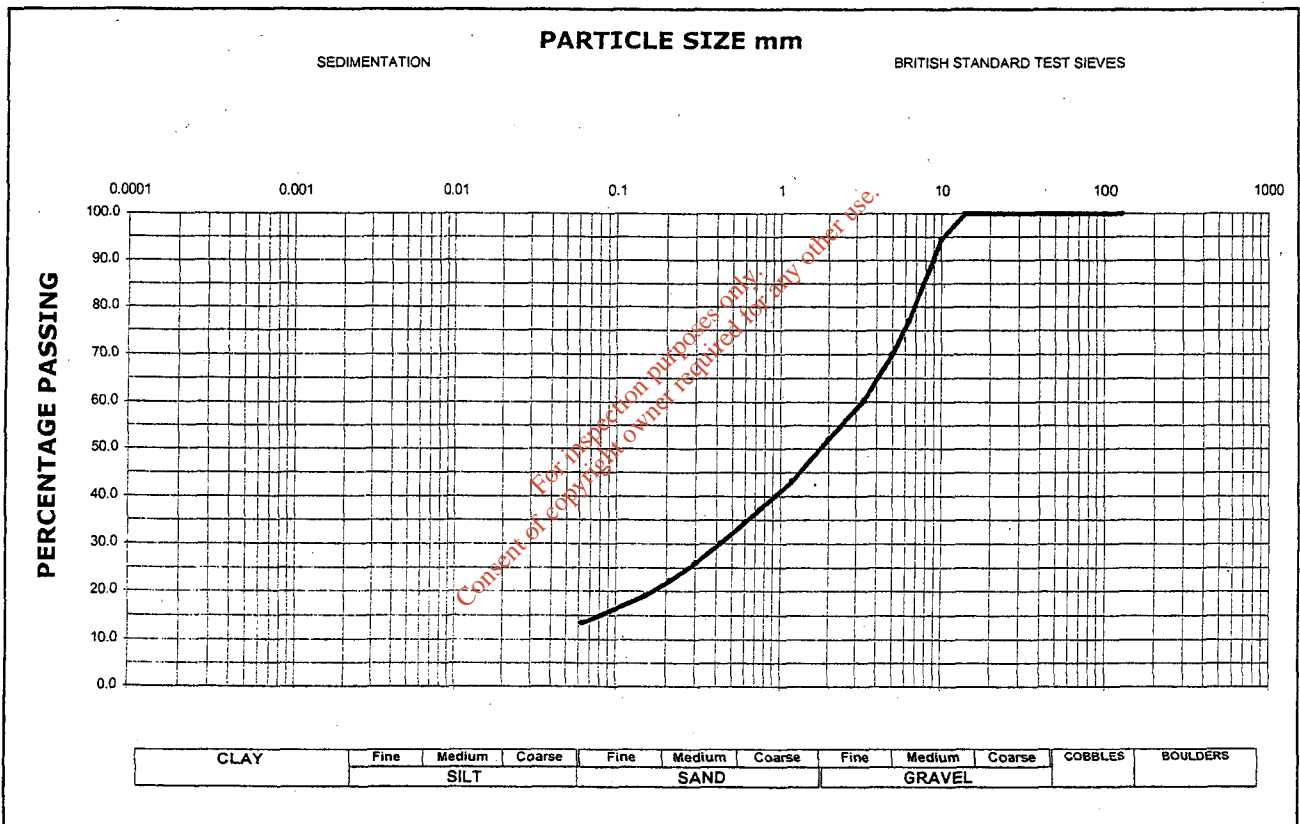
GeoTesting Ltd

Determination of Particle Size Distribution

BS 1377 : Part 2 : 1990 : 9

Job Number	G.042	Location	BH 4.04
Sample Number	BWD 04		Brownfield
Sample Date	-		Whitestown
Sampled By	C. Wall		Co. Wicklow

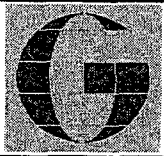
Moisture Content	Soil Description	Loose brown
9.8 %		sandy GRAVEL



Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing
125 mm	100.0	63 mm	100.0	28 mm	100.0	10mm	94.5	3.35 mm	60.4	600 μm	34.5	212 μm	22.3
100 mm	100.0	50 mm	100.0	20mm	100.0	6.3mm	76.9	2 mm	52.1	425 μm	30.2	150 μm	19.0
75 mm	100.0	37.5 mm	100.0	14mm	100.0	5 mm	70.2	1.18 mm	43.2	300 μm	26.0	63 μm	13.5

Comments

Tested By	Date	Checked By	Date	Signed	Name	Position	✓
RT	24-Feb-04	DT	25-Feb-04	<i>[Signature]</i>	Dave Tutty	Lab Manager	
					Peter Corrigan	Eng Manager	<i>[Signature]</i>



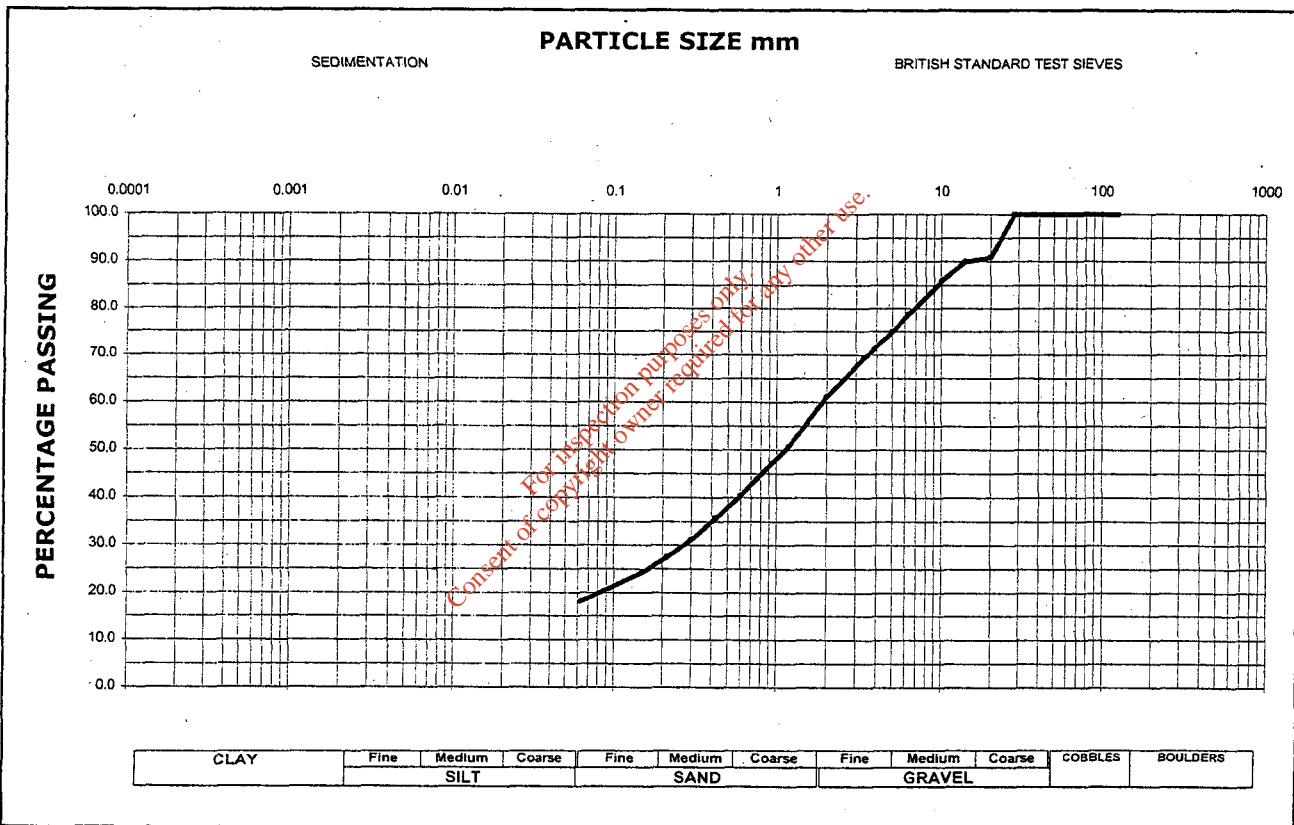
GeoTesting Ltd

Determination of Particle Size Distribution

BS 1377 : Part 2 : 1990 : 9

Job Number	G.042	Location	TP 65 (3.4-4.1)
Sample Number	BWD 05		Brownfield
Sample Date	19/12/03		Whitestown
Sampled By	C. Wall		Co. Wicklow

Moisture Content	Soil Description	Soft greyish brown slightly silty gravelly SAND
20.7 %		



Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing
125 mm	100.0	63 mm	100.0	28 mm	100.0	10mm	85.9	3.35 mm	69.4	600 μm	40.4	212 μm	27.4
100 mm	100.0	50 mm	100.0	20mm	90.9	6.3mm	78.8	2 mm	61.2	425 μm	35.8	150 μm	24.3
75 mm	100.0	37.5 mm	100.0	14mm	90.0	5 mm	75.0	1.18 mm	50.8	300 μm	31.1	63 μm	18.2

Comments

Tested By	Date	Checked By	Date	Signed	Name	Position	✓
RT	24-Feb-04	DT	25-Feb-04		Dave Tutty	Lab Manager	
					Peter Corrigan	Eng Manager	<input checked="" type="checkbox"/>



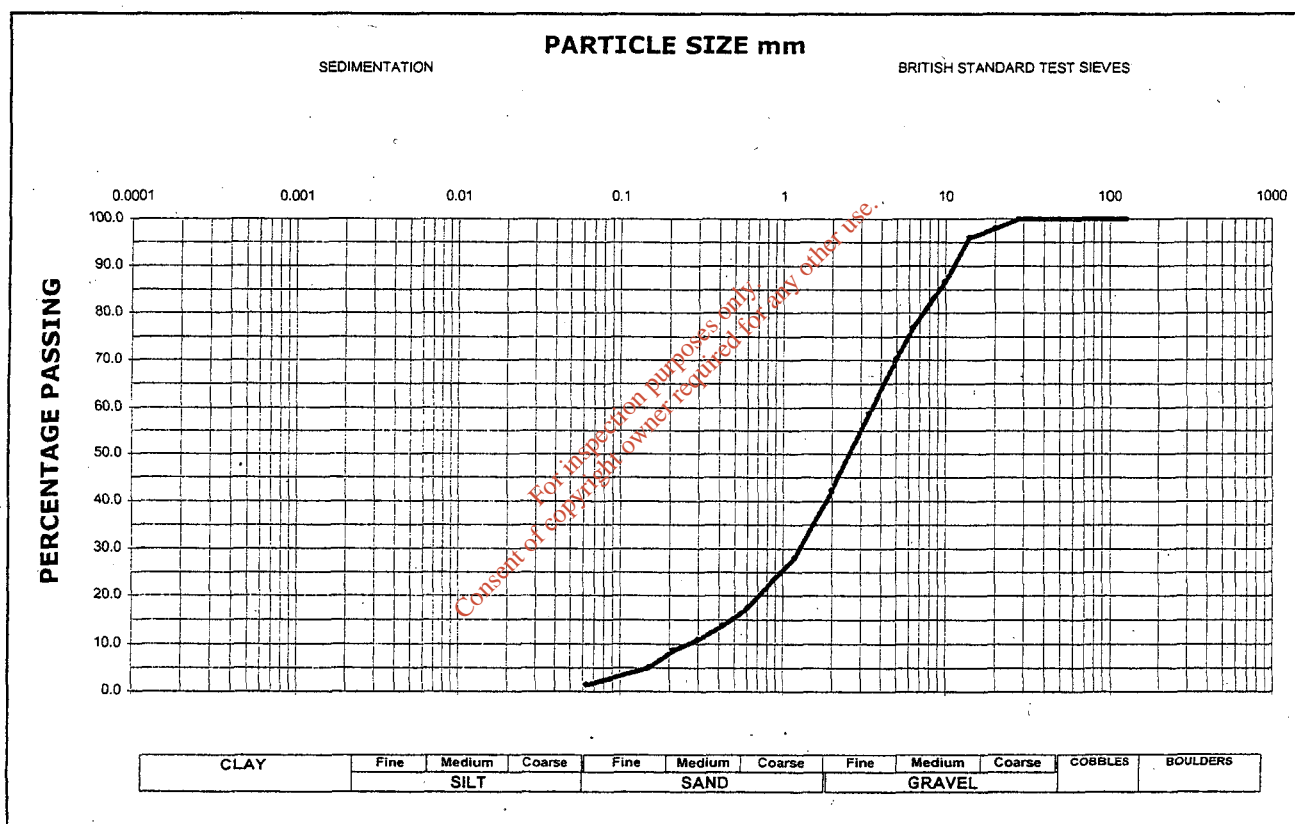
GeoTesting Ltd

Determination of Particle Size Distribution

BS 1377 : Part 2 : 1990 : 9

Job Number	G.042	Location	TP 33
Sample Number	BWD 06		Brownfield
Sample Date	-		Whitestown
Sampled By	C. Wall		Co. Wicklow

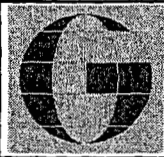
Moisture Content	Soil Description	Loose greyish brown slightly sandy GRAVEL
14.2 %		



Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing
125 mm	100.0	63 mm	100.0	28 mm	100.0	10mm	86.8	3.35 mm	58.8	600 μm	17.4	212 μm	8.7
100 mm	100.0	50 mm	100.0	20mm	98.0	6.3mm	76.8	2 mm	42.4	425 μm	13.9	150 μm	5.0
75 mm	100.0	37.5 mm	100.0	14mm	96.0	5 mm	70.3	1.18 mm	28.1	300 μm	10.9	63 μm	1.4

Comments

Tested By	Date	Checked By	Date	Signed	Name	Position	✓
RT	24-Feb-04	DT	25-Feb-04	<i>[Signature]</i>	Dave Tutty	Lab Manager	
					Peter Corrigan	Eng Manager	



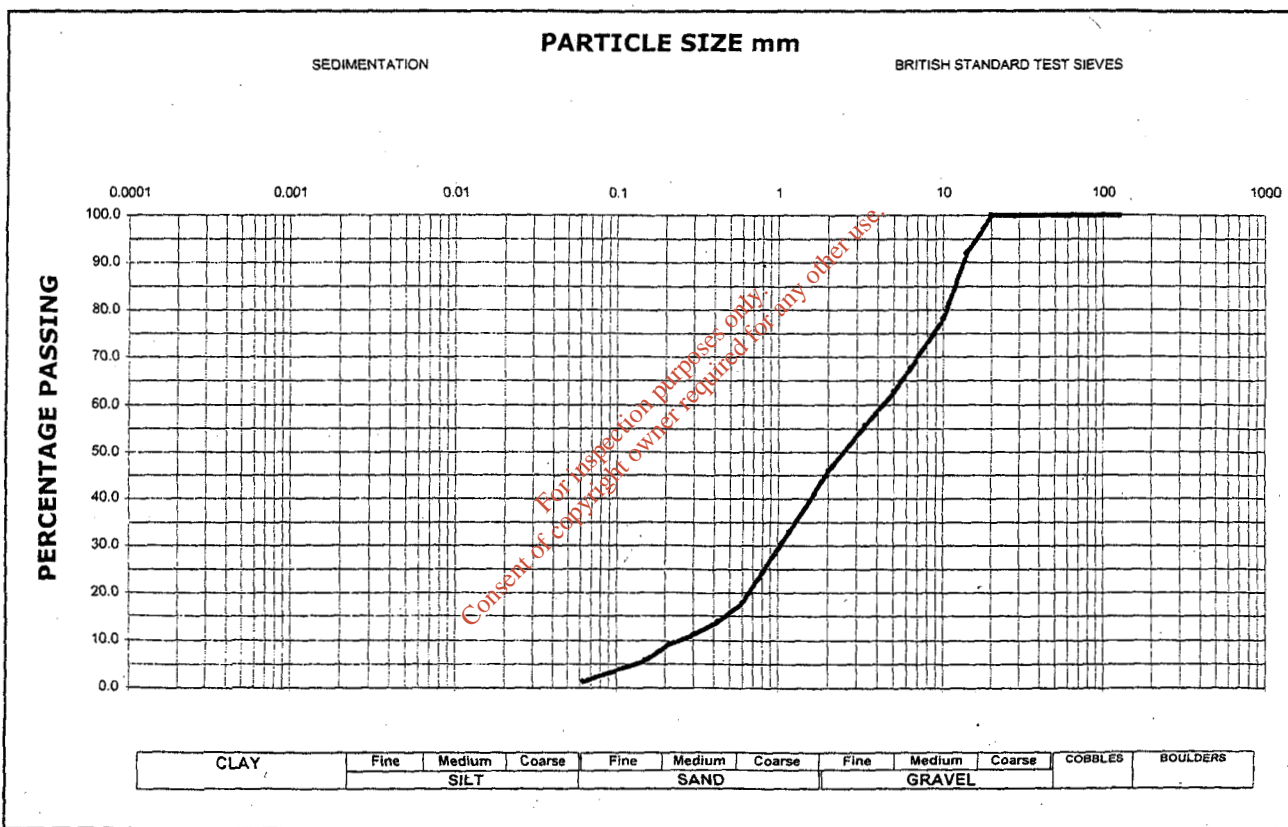
GeoTesting Ltd

Determination of Particle Size Distribution

BS 1377 : Part 2 : 1990 : 9

Job Number	G.042	Location	TP 19B
Sample Number	BWD 07		Brownfield
Sample Date	17/12/03		Whitestown
Sampled By	C. Wall		Co. Wicklow

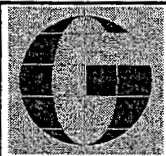
Moisture Content	Soil Description
9.1 %	Loose greyish brown slightly sandy GRAVEL



Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing
125 mm	100.0	63 mm	100.0	28 mm	100.0	10mm	78.2	3.35 mm	55.8	600 μm	17.9	212 μm	9.2
100 mm	100.0	50 mm	100.0	20mm	100.0	6.3mm	67.7	2 mm	45.9	425 μm	13.8	150 μm	5.7
75 mm	100.0	37.5 mm	100.0	14mm	92.0	5 mm	62.8	1.18 mm	33.1	300 μm	11.1	63 μm	1.3

Comments

Tested By	Date	Checked By	Date	Signed	Name	Position	✓
RT	24-Feb-04	DT	25-Feb-04	<i>[Signature]</i>	Dave Tutty	Lab Manager	
					Peter Corrigan	Eng Manager	✓



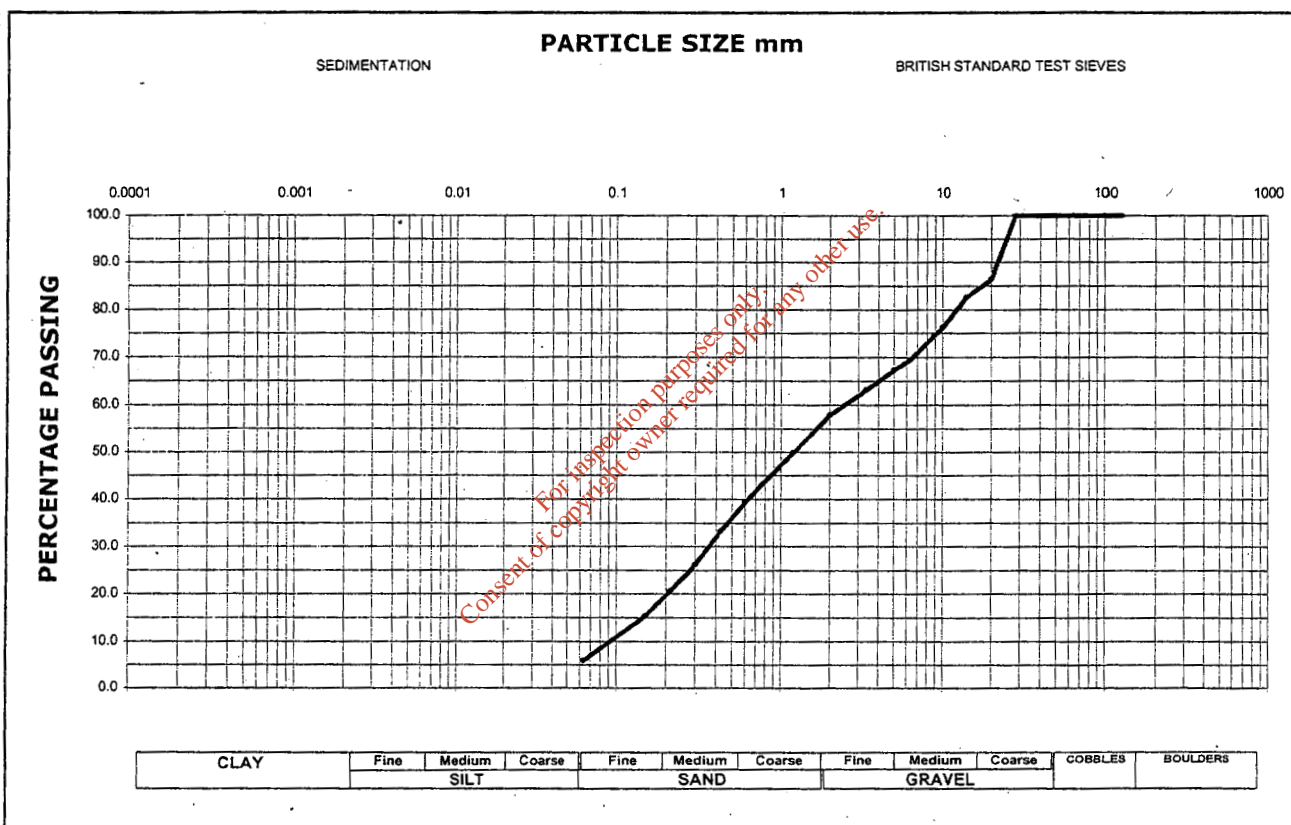
GeoTesting Ltd

Determination of Particle Size Distribution

BS 1377 : Part 2 : 1990 : 9

Job Number	G.042	Location	TP 59B
Sample Number	BWD 08		Brownfield
Sample Date	17/12/03		Whitestown
Sampled By	C. Wall		Co. Wicklow

Moisture Content	Soil Description	Loose greyish brown gravelly SAND
11.7 %		



Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing	Sieve Size	% Passing
125 mm	100.0	63 mm	100.0	28 mm	100.0	10mm	76.2	3.35 mm	63.2	600 μm	39.4	212 μm	20.6
100 mm	100.0	50 mm	100.0	20mm	86.5	6.3mm	69.6	2 mm	57.9	425 μm	33.2	150 μm	15.4
75 mm	100.0	37.5 mm	100.0	14mm	82.5	5 mm	67.4	1.18 mm	49.9	300 μm	26.2	63 μm	5.9

Comments

Tested By	Date	Checked By	Date	Signed	Name	Position	✓
RT	24-Feb-04	DT	25-Feb-04	<i>[Signature]</i>	Dave Tutty	Lab Manager	
					Peter Corrigan	Eng Manager	✓

ENVIRONMENTAL PROTECTION
AGENCY WASTE LICENSE
RECEIVED
18 MAR 2004
INITIALS.....

Appendix 12

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Groundwater

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Borehole Logs

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Drill Rig: Unknown

Date Drilled: Unknown

Logged By:

TOC 143.98 mOD

Boring Number: MW-03-2

AS (February 2004)

Sample	Completion	Depth Feet	Lithology	Description		
		2		presumed overburden		
		4				
		6				
		8				
		10				
		12				
		14				SLATE weathered, broken, light green
		16				SLATE dark green unbroken

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Completion Notes:

Cores found stored at Whitestown Lower site. Logged by ERML Geologist. Details of depth taken from side of core box. Completion unknown.

Site:

Brownfield Restoration Ireland Ltd
Whitestown Lower
Co. Wicklow

Project No.: 03.116

Page 1



Drill Rig: Unknown

Date Drilled: Unknown

Logged By:

TOC 144.76 mOD

Boring Number: MW-03-4

AS (February 2004)

Sample	Completion	Depth Feet	Lithology	Description
		2		presumed overburden
		4		soft weathered pale grey SLATE fractured pale grey SLATE
		6		
		8		
		10		
		12		
		14		
		16		

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Completion Notes:

Cores found at Whitestown Lower site. Logged by ERML Geologist. Details of depth taken from side of core box. Completion unknown.

Site:

Brownfield Restoration Ireland Ltd
Whitestown Lower
Co. Wicklow

Project No.: 03.116

Page 1



Drill Rig: Unknown

Date Drilled: Unknown

Logged By:

TOC 143.64 mOD

Boring Number: MW-03-5

AS (February 2004)

Sample	Completion	Depth Feet	Lithology	Description
				presumed overburden
		2		
		4		SLATE pale green, jointed
		6		
		8		SLATE green, weathered, very broken SLATE green, fine grained
		10		SLATE broken
		12		
		14		
		16		

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Completion Notes:

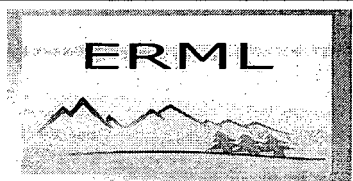
Cores found stored at Whitestown Lower site. Logged by ERML Geologist. Details of depth taken from side of core box. Completion unknown.

Site:

Brownfield Restoration Ireland Ltd
Whitestown Lower
Co. Wicklow

Project No.: 03.116

Page 1



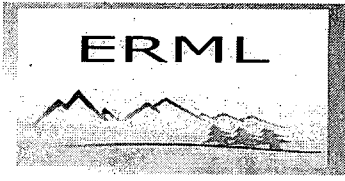
Environment & Resource Management Ltd. Borehole Log

Rotary Percussion	Date Drilled: 23/01/04	Logged By: ES/CH
TOC: 140.11 mOD	Boring No: MW-04-1	

Sample	Completion	Depth metres	Lithology	Description
		0		SAND AND GRAVEL (made ground)
		2		SLATE weathered, light brown
		4		
		6		
		8		SLATE dark grey green blue
		10		
		12		
		14		
		16		

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Groundwater Strike: 7.2m bgl Completion: Slotted PVC 4.5m to 8.0m bgl Solid PVC riser 0m to 4.5m bgl Bentonite seal 3.4m to 4.0m Washed gravel below bentonite seal, natural backfill above bentonite seal	Site: Brownfield Restoration Ireland Ltd. Whitestown Lower Co. Wicklow
	Project No.: 03.116 Page 1



Environment & Resource Management Ltd.

Borehole Log

Rotary Percussion

Date Drilled: 23/01/04

Logged By: ES/CH

TOC: 144.48 mOD

Boring Number: MW-04-2

Sample	Completion	Depth Metres	Lithology	Description
				SAND AND GRAVEL (made ground)
		2		SLATE very weathered, consolidated, coarse, angular clasts
		4		SLATE weathered, light brown
		6		SLATE weathered, competent, light brown
		8		SLATE dark grey blue green
		10		
		14		
		16		

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Groundwater strikes:
5.0m, 5.5m, 7.0m bgl.

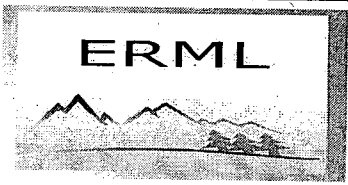
Completion:
 Slotted PVC screen 4.5m to 8.0m bgl
 Solid PVC riser 0m to 4.5m bgl
 Bentonite seal 3.4m to 4m bgl
 Washed gravel below bentonite seal, natural backfill above bentonite seal

Site:

Brownfield Restoration Ireland Ltd.
 Whitestown Lower
 Co. Wicklow

Project No.: 03.116

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Environment & Resource Management Ltd.

Borehole Log

Rotary Percussion

Date Drilled: 27/01/04

Logged By: ES/CH

TOC:143.84 mOD

Boring Number: MW-04-3

Sample	Completion	Depth Metres	Lithology	Description
				SAND AND GRAVEL (made ground)
		2		SLATE very weathered, consolidated, coarse, angular clasts
		4		SLATE dark grey, blue green
		6		
		8		
		10		
		12		
		14		
		16		

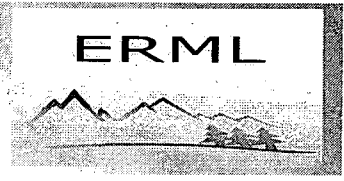
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Groundwater strikes:
5.5m & 7.0m bgl
Completion:
Slotted PVC screen: 4.5m to 8.0m bgl
Solid PVC riser: 0m to 4.5m
Bentonite seal: 3.4m to 4m bgl
Washed gravel below bentonite seal, natural backfill above bentonite seal

Site:
Brownfield Restoration Ireland Ltd.
Whitestown Lower
Co. Wicklow

Project No.: 03.116

Page 1



Environment & Resource Management Ltd.

Borehole Log

Rotary Percussion	Date Drilled: 26/01/04	Logged By: ES/CH
TOC:146.90 mOD	Boring Number: MW-04-4	

Sample	Completion	Depth Metres	Lithology	Description
		0		SAND AND GRAVEL (made ground)
		2		clayey SAND AND GRAVEL
		4		clayey SAND
		6		coarse GRAVEL
		8		SLATE very weathered, consolidated, coarse, angular clasts
		10		SLATE dark grey, blue green
		14		
		16		

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Groundwater strikes:
5.5m & 5.8m bgl

Completion:
Slotted PVC Screen: 4m to 11m bgl
Solid PVC riser: 0m to 4m bgl
Bentonite seal: 2.9m to 3.5m bgl
Washed gravel below bentonite seal, natural backfill above bentonite seal

Site:
Brownfield Restoration Ireland Ltd.
Whitestown Lower
Co. Wicklow



Rotary Percussion

Date Drilled: 26/01/04

Logged By: ES/CH

TOC:143.71 m OD

Boring Number: MW-04-5

Sample	Completion	Depth Metres	Lithology	Description
				SAND AND GRAVEL (made ground)
		2		light brown, silty, SAND
		4		clayey SAND AND GRAVEL
		6		coarse SAND AND GRAVEL
		8		coarse SAND
		10		coarse SAND AND GRAVEL weathered light brown SLATE
		12		SLATE dark grey, blue green
		14		
		16		

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Groundwater strikes:
5.5m & 7.8m bgl
Completion:
Slotted PVC screen: 4m to 11m bgl
Solid PVC riser: 0m to 4m bgl
Bentonite Seal: 2.9m to 3.5m bgl
Washed gravel below bentonite seal, natural backfill above bentonite seal.

Site:
Brownfield Restoration Ireland Ltd.
Whitestown Lower
Co. Wicklow

Groundwater Sampling
Logs 12/12/03

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No. 3 Tara Court
 Naas, Co. Kildare
 tel 045-874411, fax 045-874549

Environment & Resource Management Ltd

Groundwater Sampling Log

Site Location: Whitestown	Location ID: MW1
Project No.: 03.116	Sampler: AS
Date: 12/12/2003	Stickup (m): 0.59
TOC Elevation (mOD): 136.32	Well Depth(mBTOC): 1.9
SWL (mBTOC): 1.18	SWL (mOD): 135.14
Head(m): 0.72	Well ID(mm): 50
Volume in Well (L): 1.4	Volume Purged(L): 4
Rope Type: Nylon	Bailer Type: Dedicated
Decon Procedure: Dedicated Bailer	

Field Parameters

Colour: Brown and silty	Odour: None
Temperature (°C): 11.3	Conductivity (µS/cm): 723
pH: 7.61	DO (mg/l): -
Comment:	

Analysis Requested	Container Type/Volume	Preserved	Comments
	2 No. 1L Plastic		
	2 No. 500mL Glass		
	1 No. 100mL Plastic	NaOH	
	1 No. 100mL Plastic	H ₂ SO ₄	
	2 No. Vials		
	1 No. Sterile		



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Groundwater Sampling Log

Site Location: Whitestown	Location ID: MW2
Project No.: 03.116	Sampler: AS
Date: 12/12/2003	Stickup(m): 0.54
TOC Elevation (msl): 154.03	Well Depth(mBTOC): 12.17
SWL (mBTOC): 5.53	SWL (mOD): 148.5
Head(m): 6.64	Well ID(mm): 50
Volume in Well (L): 13.0	Volume Purged(L): 39
Rope Type: Nylon	Bailer Type: Dedicated
Decon Procedure: Dedicated Bailer	

Field Parameters

Colour: Clear	Odour: None
Temperature (°C): 11.7	Conductivity (µS/cm): 315
pH: 6.81	DO (mg/l): -
Comment:	

Analysis Requested	Container Type/Volume	Preserved	Comments
	2 No. 1L Plastic		
	2 No. 500mL Glass		
	1 No. 100mL Plastic	NaOH	
	1 No. 100mL Plastic	H ₂ SO ₄	
	2 No. Vials		
	1 No. Sterile		



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Groundwater Sampling Log

Site Location:	Whitestown	Location ID:	MW3
Project No.:	03.116	Sampler:	AS
Date:	12/12/2003	Stickup(m):	0.5
TOC Elevation (msl):	156.22	Well Depth(mBTOC):	15.4
SWL (mBTOC):	6.05	SWL (mOD):	150.17
Head(m):	9.35	Well ID(mm):	50
Volume in Well (L):	18.4	Volume Purged(L):	55
Rope Type:	Nylon	Bailer Type:	Dedicated
Decon Procedure:	Dedicated Bailer		

Field Parameters

Colour:	Cloudy, brown	Odour:	None
Temperature (°C):	10.9	Conductivity (µS/cm):	421
pH:	6.78	DO (mg/l):	
Comment:			

Analysis Requested	Container Type/Volume	Preserved	Comments
	2 No. 1L Plastic		
	2 No. 500mL Glass		
	1 No. 100mL Plastic	NaOH	
	1 No. 100mL Plastic	H ₂ SO ₄	
	2 No. Vials		
	1 No. Sterile		



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Groundwater Sampling Log

Site Location: Whitestown	Location ID: MW4
Project No.: 03.116	Sampler: AS
Date: 12/12/2003	Stickup(m): 0.5
TOC Elevation (msl): 141.58	Well Depth(mBTOC): 2.07
SWL (mBTOC): 1.34	SWL (mOD): 140.24
Head(m): 0.73	Well ID(mm): 50
Volume in Well (L): 1.4	Volume Purged(L): 4
Rope Type: Nylon	Bailer Type: Dedicated
Decon Procedure: Dedicated Bailer	

Field Parameters

Colour: Slightly cloudy	Odour: None
Temperature (°C): 9.7	Conductivity (µS/cm): 275
pH: 7.2	DO (mg/l): -
Comment:	

Analysis Requested	Container Type/Volume	Preserved	Comments
	2 No. 1L Plastic		
	2 No. 500mL Glass		
	1 No. 100mL Plastic	NaOH	
	1 No. 100mL Plastic	H ₂ SO ₄	
	2 No. Vials		
	1 No. Sterile		

Groundwater Sampling Log			
Site Location:	Whitestown	Location ID:	MW5
Project No.:	03.116	Sampler:	ES
Date:	12/12/2003	Stickup(m):	0.69
TOC Elevation (msl):	141.34	Well Depth(mBTOC):	4.05
SWL (mBTOC):	2.53	SWL (MOD):	138.81
Head(m):	1.52	Well ID(mm):	50
Volume in Well (L):	3.0	Volume Purged(L):	9
Rope Type:	Nylon	Bailer Type:	Dedicated
Decon Procedure:	Dedicated Bailer		
Field Parameters			
Colour:	Clear	Odour:	None
Temperature (°C):	12.4	Conductivity (µS/cm):	90
pH:	8.15	DO (mg/l):	
Comment:			
Analysis Requested	Container Type/Volume	Preserved	Comments
	2 No. 1L Plastic		
	2 No. 500mL Glass		
	1 No. 100mL Plastic	NaOH	
	1 No. 100mL Plastic	H ₂ SO ₄	
	2 No. Vials		
	1 No. Sterile		

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Groundwater Sampling Log

Site Location: Whitestown	Location ID: MW6
Project No.: 03.116	Sampler: ES
Date: 12/12/2003	Stickup(m): 0.63
TOC Elevation (msl): 140.34	Well Depth(mBTOC): 3.35
SWL (mBTOC): 2.59	SWL (mOD): 137.75
Head(m): 0.76	Well ID(mm): 50
Volume in Well (L): 1.5	Volume Purged(L): 4
Rope Type: Nylon	Bailer Type: Dedicated
Decon Procedure: Dedicated Bailer	

Field Parameters

Colour: Clear with slight brownish tinge	Odour: None
Temperature (°C): 9.3	Conductivity (µS/cm): 98
pH: 6.78	DO (mg/l): -
Comment:	

Analysis Requested	Container Type/Volume	Preserved	Comments
	2 No. 1L Plastic		
	2 No. 500mL Glass		
	1 No. 100mL Plastic	NaOH	
	1 No. 100mL Plastic	H ₂ SO ₄	
	2 No. Vials		
	1 No. Sterile		



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Groundwater Sampling Log

Site Location: Whitestown **Location ID:** MW7
Project No.: 03.116 **Sampler:** ES
Date: 12/12/2003 **Stickup(m):** 0.82
TOC Elevation (msl): 140.06 **Well Depth(mBTOC):** 3
SWL (mBTOC): 2.02 **SWL (mOD):** 138.04
Head(m): 0.98 **Well ID(mm):** 50
Volume in Well (L): 1.9 **Volume Purged(L):** 6
Rope Type: Nylon **Bailer Type:** Dedicated
Decon Procedure: Dedicated Bailer

Field Parameters

Colour: Brown **Odour:** None
Temperature (°C): 10.5 **Conductivity (µS/cm):** 557
pH: 7.19 **DO (mg/l):** -
Comment: _____

Analysis Requested	Container Type/Volume	Preserved	Comments
	2 No. 1L Plastic		
	2 No. 500mL Glass		
	1 No. 100mL Plastic	NaOH	
	1 No. 100mL Plastic	H ₂ SO ₄	
	2 No. Vials		
	1 No. Sterile		



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Groundwater Sampling Log

Site Location: Whitestown	Location ID: MW8
Project No.: 03.116	Sampler: AS
Date: 12/12/2003	Stickup(m): 0.55
TOC Elevation (msl): 138.74	Well Depth(mBTOC): 3.3
SWL (mBTOC): 1.08	SWL (mOD): 137.66
Head(m): 2.22	Well ID(mm): 50
Volume in Well (L): 4.4	Volume Purged(L): 13
Rope Type: Nylon	Bailer Type: Dedicated
Decon Procedure: Dedicated Bailer	

Field Parameters

Colour: Clear	Odour: None
Temperature (°C): 8	Conductivity (µS/cm): 599
pH: 7.09	DO (mg/l): -
Comment:	

Analysis Requested	Container Type/Volume	Preserved	Comments
	2 No. 1L Plastic		
	2 No. 500mL Glass		
	1 No. 100mL Plastic	NaOH	
	1 No. 100mL Plastic	H ₂ SO ₄	
	2 No. Vials		
	1 No. Sterile		

Groundwater Sampling Log			
Site Location:	Whitestown	Location ID:	MW9
Project No.:	03.116	Sampler:	AS
Date:	12/12/2003	Stickup(m):	0.63
TOC Elevation (msl):	138.76	Well Depth(mBTOC):	3.58
SWL (mBTOC):	1.81	SWL (mOD):	136.95
Head(m):	1.77	Well ID(mm):	50
Volume in Well (L):	3.5	Volume Purged(L):	10
Rope Type:	Nylon	Bailer Type:	Dedicated
Decon Procedure:	Dedicated Bailer		
Field Parameters			
Colour:	Cloudy and brown	Odour:	None
Temperature (°C):	9.5	Conductivity (µs/cm):	806
pH:	6.95	DO (mg/l):	-
Comment:			
Analysis Requested	Container Type/Volume	Preserved	Comments
	2 No. 1L Plastic		
	2 No. 500mL Glass		
	1 No. 100mL Plastic	NaOH	
	1 No. 100mL Plastic	H ₂ SO ₄	
	2 No. Vials		
	1 No. Sterile		

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Groundwater Sampling Log

Site Location: Whitestown **Location ID:** MW10
Project No.: 03.116 **Sampler:** AS
Date: 12/12/2003 **Stickup(m):** 0.23
TOC Elevation (msl): 137.98 **Well Depth(mBTOC):** 1.89
SWL (mBTOC): 1.05 **SWL (MOD):** 136.93
Head(m): 0.84 **Well ID(mm):** 50
Volume in Well (L): 1.7 **Volume Purged(L):** 5
Rope Type: Nylon **Bailer Type:** Dedicated
Decon Procedure: Dedicated Bailer

Field Parameters

Colour: Cloudy and brown **Odour:** Slight organic odour
Temperature (°C): 9.8 **Conductivity (µS/cm):** 764
pH: 6.98 **DO (mg/l):** -
Comment:

Analysis Requested	Container Type/Volume	Preserved	Comments
	2 No. 1L Plastic		
	2 No. 500mL Glass		
	1 No. 100mL Plastic	NaOH	
	1 No. 100mL Plastic	H ₂ SO ₄	
	2 No. Vials		
	1 No. Sterile		



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Groundwater Sampling Log

Site Location:	Whitestown	Location ID:	MW11
Project No.:	03.116	Sampler:	AS
Date:	12/12/2003	Stickup(m):	0.55
TOC Elevation (msl):	143.58	Well Depth(mBTC):	18.72
SWL (mBTC):	2.08	SWL (MOD):	141.5
Head(m):	16.64	Well ID(mm):	50
Volume in Well (L):	32.7	Volume Purged(L):	98
Rope Type:	Nylon	Bailer Type:	Dedicated
Decon Procedure:	Dedicated Bailer		

Field Parameters

Colour:	Clear	Odour:	None
Temperature (°C):	10.9	Conductivity (µS/cm):	421
pH:	6.78	DO (mg/l):	-
Comment:			

Analysis Requested	Container Type/Volume	Preserved	Comments
	2 No. 1L Plastic		
	2 No. 500mL Glass		
	1 No. 100mL Plastic	NaOH	
	1 No. 100mL Plastic	H ₂ SO ₄	
	2 No. Vials		
	1 No. Sterile		



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Groundwater Sampling Log

Site Location:	Whitestown	Location ID:	MW12
Project No.:	03.116	Sampler:	AS
Date:	12/12/2003	Stickup(m):	
TOC Elevation (msl):	143.38	Well Depth(mBTOC):	3.12
SWL (mBTOC):	-	SWL (mOD):	-
Head(m):	-	Well ID(mm):	50
Volume in Well (L):	-	Volume Purged(L):	-
Rope Type:	-	Bailer Type:	-
Decon Procedure:			

Field Parameters

Colour:		Odour:	-
Temperature (°C):		Conductivity (µS/cm):	-
pH:		DO (mg/l):	-
Comment:			

Analysis Requested	Container Type/Volume	Preserved	Comments

WELL DRY



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Groundwater Sampling Log

Site Location: Whitestown **Location ID:** MW03-1
Project No.: 03.116 **Sampler:** AS
Date: 12/12/2003 **Stickup(m):** 0.3
TOC Elevation (msl): 147.17 **Well Depth(mBTOC):** 8.81
SWL (mBTOC): - **SWL (mOD):** dry
Head(m): - **Well ID(mm):** 50
Volume in Well (L): - **Volume Purged(L):** -
Rope Type: - **Bailer Type:** -
Decon Procedure:

Field Parameters

Colour: _____ **Odour:** _____
Temperature (°C): _____ **Conductivity (µS/cm):** _____
pH: _____ **DO (mg/l):** _____
Comment: _____

Analysis Requested	Container Type/Volume	Preserved	Comments
WELL DRY			



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Groundwater Sampling Log

Site Location: Whitestown **Location ID:** MW03-2
Project No.: 03.116 **Sampler:** AS
Date: 12/12/2003 **Stickup(m):** 0.34
TOC Elevation (msl): 143.98 **Well Depth(mBTOC):** 17.24
SWL (mBTOC): 6.75 **SWL (mOD):** 137.23
Head(m): 10.49 **Well ID(mm):** 50
Volume in Well (L): 20.6 **Volume Purged(L):** 62
Rope Type: Nylon **Bailer Type:** Dedicated
Decon Procedure: Dedicated Bailer

Field Parameters

Colour: Clear **Odour:** None
Temperature (°C): 10.9 **Conductivity (µS/cm):** 951
pH: 7.11 **DO (mg/l):** -

Comment: _____

Analysis Requested	Container Type/Volume	Preserved	Comments
	2 No. 1L Plastic		
	2 No. 500mL Glass		
	1 No. 100mL Plastic	NaOH	
	1 No. 100mL Plastic	H ₂ SO ₄	
	2 No. Vials		
	1 No. Sterile		



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Groundwater Sampling Log

Site Location:	Whitestown	Location ID:	MW03-3
Project No.:	03.116	Sampler:	AS
Date:	12/12/2003	Stickup(m):	0.25
TOC Elevation (msl):	149.21	Well Depth(mBTOC):	12.54
SWL (mBTOC):	10.99	SWL (mOD):	138.22
Head(m):	1.55	Well ID(mm):	50
Volume in Well (L):	3.0	Volume Purged(L):	9
Rope Type:	Nylon	Bailer Type:	Dedicated
Decon Procedure: Dedicated Bailer			

Field Parameters

Colour:	Brown and cloudy	Odour:	Slight odour
Temperature (°C):	12	Conductivity (µS/cm):	1409
pH:	6.76	DO (mg/l):	-
Comment:			

Analysis Requested	Container Type/Volume	Preserved	Comments
	2 No. 1L Plastic		
	2 No. 500mL Glass		
	1 No. 100mL Plastic	NaOH	
	1 No. 100mL Plastic	H ₂ SO ₄	
	2 No. Vials		
	1 No. Sterile		



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Groundwater Sampling Log

Site Location: Whitestown	Location ID: MW03-4
Project No.: 03.116	Sampler: AS
Date: 12/12/2003	Stickup(m): 0.28
TOC Elevation (msl): 144.76	Well Depth(mBTOC): 7.66
SWL (mBTOC): 3.58	SWL (MOD): 141.18
Head(m): 4.08	Well ID(mm): 50
Volume in Well (L): 8.0	Volume Purged(L): 24
Rope Type: Nylon	Bailer Type: Dedicated
Decon Procedure: Dedicated Bailer	

Field Parameters

Colour: Clear	Odour: None
Temperature (°C): 11.4	Conductivity (µS/cm): 573
pH: 7.47	DO (mg/l): -
Comment:	

Analysis Requested	Container Type/Volume	Preserved	Comments
	2 No. 1L Plastic		
	2 No. 500mL Glass		
	1 No. 100mL Plastic	NaOH	
	1 No. 100mL Plastic	H ₂ SO ₄	
	2 No. Vials		
	1 No. Sterile		



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Groundwater Sampling Log

Site Location: Whitestown	Location ID: MW03-5
Project No.: 03.116	Sampler: AS
Date: 12/12/2003	Stickup(m): 0.05
TOC Elevation (msl): 143.64	Well Depth(mBTOC): 13.82
SWL (mBTOC): 3.48	SWL (mOD): 140.16
Head(m): 10.34	Well ID(mm): 50
Volume in Well (L): 20.3	Volume Purged(L): 61
Rope Type: Nylon	Bailer Type: Dedicated
Decon Procedure: Dedicated Bailer	

Field Parameters

Colour: Clear	Odour: None
Temperature (°C): 11.1	Conductivity (µS/cm): 560
pH: 7.44	DO (mg/l): -

Comment: _____

Analysis Requested	Container Type/Volume	Preserved	Comments
	2 No. 1L Plastic		
	2 No. 500mL Glass		
	1 No. 100mL Plastic	NaOH	
	1 No. 100mL Plastic	H ₂ SO ₄	
	2 No. Vials		
	1 No. Sterile		

Groundwater Sampling
Logs 25/02/04

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Groundwater Sampling Log

Site Location: Whitestown	Location ID: MW04-1
Project No.: 03.116	Sampler: AS
Date: 25/02/2004	Stickup (m): 0.21
TOC Elevation (msl): 140.11	Well Depth(mBTOC): 6.42
SWL (mBTOC): 1.51	SWL (mOD): 138.6
Head(m): 4.91	Well ID(mm): 50
Volume in Well (L): 9.6	Volume Purged(L): 29
Rope Type: Nylon	Bailer Type: Dedicated
Decon Procedure: Dedicated Bailer	

Field Parameters

Colour: Clear, brown tint	Odour: None
Temperature (°C): 7.9	Conductivity (µS/cm): 400
pH: 7.1	DO (mg/l): -
Comment:	

Analysis Requested	Container Type/Volume	Preserved	Comments
	2 No. 1L Plastic		
	1 No. 1L Glass		
	2 No. 100mL Plastic	NaOH	
	1 No. 100mL Plastic	H ₂ SO ₄	
	2 No. Glass Vial		
	4 No. Sterile		



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Groundwater Sampling Log

Site Location: Whitestown	Location ID: MW04-2
Project No.: 03.116	Sampler: AS
Date: 25/02/2004	Stickup (m): 0.54
TOC Elevation (msl): 144.48	Well Depth(mBTOC): 7.86
SWL (mBTOC): 1.12	SWL (mOD): 143.36
Head(m): 6.74	Well ID(mm): 50
Volume in Well (L): 13.2	Volume Purged(L): 39
Rope Type: Nylon	Bailer Type: Dedicated
Decon Procedure: Dedicated Bailer	

Field Parameters

Colour: Clear	Odour: None
Temperature (°C): 7.8	Conductivity (µS/cm): 532
pH: 7.2	DO (mg/l): -
Comment:	

Analysis Requested	Container Type/Volume	Preserved	Comments
	2 No. 1L Plastic		
	1 No. 1L Glass		
	2 No. 100mL Plastic	NaOH	
	1 No. 100mL Plastic	H ₂ SO ₄	
	2 No. Glass Vial		
	4 No. Sterile		



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Groundwater Sampling Log

Site Location: Whitestown	Location ID: MW04-3
Project No.: 03.116	Sampler: AS
Date: 25/02/2004	Stickup (m): 0.58
TOC Elevation (msl): 143.84	Well Depth(mBTOC): 7.62
SWL (mBTOC): 1.24	SWL (mOD): 142.6
Head(m): 6.38	Well ID(mm): 50
Volume in Well (L): 12.5	Volume Purged(L): 37
Rope Type: Nylon	Bailer Type: Dedicated
Decon Procedure: Dedicated Bailer	

Field Parameters

Colour: Clear	Odour: None
Temperature (°C): 6.4	Conductivity (µS/cm): 408
pH: 7.5	DO (mg/l): -
Comment:	

Analysis Requested	Container Type/Volume	Preserved	Comments
	2 No. 1L Plastic		
	1 No. 1L Glass		
	2 No. 100mL Plastic	NaOH	
	1 No. 100mL Plastic	H ₂ SO ₄	
	2 No. Glass Vial		
	4 No. Sterile		



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Groundwater Sampling Log

Site Location: Whitestown **Location ID:** MW04-4
Project No.: 03.116 **Sampler:** AS
Date: 25/02/2004 **Stickup (m):** 0.45
TOC Elevation (msl): 146.9 **Well Depth(mBTOC):** 9.83
SWL (mBTOC): 8.11 **SWL (mOD):** 138.79
Head(m): 1.72 **Well ID(mm):** 50
Volume in Well (L): 3.4 **Volume Purged(L):** 10
Rope Type: Nylon **Bailer Type:** Dedicated
Decon Procedure: Dedicated Bailer

Field Parameters

Colour: Cloudy **Odour:** None
Temperature (°C): 8.5 **Conductivity (µS/cm):** 860
pH: 6.8 **DO (mg/l):** -
Comment:

Analysis Requested	Container Type/Volume	Preserved	Comments
	2 No. 1L Plastic		
	1 No. 1L Glass		
	2 No. 100mL Plastic	NaOH	
	1 No. 100mL Plastic	H ₂ SO ₄	
	2 No. Glass Vial		
	4 No. Sterile		



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Groundwater Sampling Log

Site Location: Whitestown **Location ID:** MW04-5
Project No.: 03.116 **Sampler:** AS
Date: 25/02/2004 **Stickup (m):** 0.26
TOC Elevation (msl): 143.71 **Well Depth(mBTOC):** 9.74
SWL (mBTOC): 5.09 **SWL (mOD):** 138.62
Head(m): 4.65 **Well ID(mm):** 50
Volume in Well (L): 9.1 **Volume Purged(L):** 27
Rope Type: Nylon **Bailer Type:** Dedicated
Decon Procedure: Dedicated Bailer

Field Parameters

Colour: Clear **Odour:** None
Temperature (°C): 7.3 **Conductivity (µS/cm):** 808
pH: 6.8 **DO (mg/l):** -
Comment:

Analysis Requested	Container Type/Volume	Preserved	Comments
	2 No. 1L Plastic		
	1 No. 1L Glass		
	2 No. 100mL Plastic	NaOH	
	1 No. 100mL Plastic	H ₂ SO ₄	
	2 No. Glass Vial		
	4 No. Sterile		