

TRIAL PIT LOG

Project Bodicote				TRIAL PIT No TP116
Job No 12151J	Date 06-12-12 06-12-12	Ground Level (m)	Co-Ordinates ()	
Contractor				Sheet 1 of 1

STRATA		SAMPLES & TESTS			
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.25		TOPSOIL: Soft to firm brown slightly sandy CLAY with occasional roots and rootlets and rare subangular medium gravel of limestone.			
0.25-0.40		Firm brown slightly sandy locally slightly gravelly CLAY. Gravel is angular, fine and medium of limestone.	0.40	ES	
0.40-0.50		Weak grey LIMESTONE.			
0.50-3.50		Stiff grey locally orange brown slightly sandy fissured SILT/CLAY. Rust coloured staining on some fissure surfaces.	0.95	D	
			1.75	D	

BROWNFIELD TP 12151J BODICOTE.GPJ GINT STD AGS 3_1.GDT 15/1/13

Shoring/Support: Stability: 	GENERAL REMARKS
	No Groundwater encountered

All dimensions in metres Scale 1:25	Client Banner Homes	Method/Trial Pit excavated using JCB Plant Used 3CX with 0.3 m bucket	Logged By CG
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TRIAL PIT LOG

Project Bodicote				TRIAL PIT No TP117
Job No 12151J	Date 06-12-12 06-12-12	Ground Level (m)	Co-Ordinates ()	
Contractor				Sheet 1 of 1

STRATA		SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	Remarks/Tests
0.00-0.20		TOPSOIL: Soft to firm brown slightly sandy CLAY with occasional roots and rootlets and rare subangular medium gravel of limestone.	0.10	J
0.20-0.65		Firm brown slightly sandy locally slightly gravelly CLAY. Gravel is angular, fine and medium of limestone.		
0.65-0.95		Brown very clayey angular GRAVEL AND COBBLE of Limestone and Ironstone.	0.60 0.60	D ES
0.95-1.90		Stiff grey locally orange brown slightly sandy fissured CLAY. Rust coloured staining on some fissure surfaces.	1.10	HV 110, 102 kN/m2
			1.60	D
1.90-2.90		Stiff grey locally orange brown slightly sandy fissured SILT/CLAY. Rust coloured staining on some fissure surfaces.	1.80	HV 100, 110 kN/m2
2.90-2.95		Moderately weak LIMESTONE and IRONSTONE recovered as angular cobbles.		

BROWNFIELD TP_12151J_BODICOTE.GPJ_GINT STD AGS 3_1.GDT 15/1/13

<p>Shoring/Support: Stability:</p> <div style="text-align: center;"> </div>	<p>GENERAL REMARKS</p> <p>No Groundwater encountered</p>
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All dimensions in metres Scale 1:25	Client Banner Homes	Method/Trial Pit excavated using JCB Plant Used 3CX with 0.3 m bucket	Logged By CG
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TRIAL PIT LOG

Project Bodicote				TRIAL PIT No TP118
Job No 12151J	Date 06-12-12 06-12-12	Ground Level (m)	Co-Ordinates ()	
Contractor				Sheet 1 of 1

STRATA		SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	Remarks/Tests
0.00-0.25	1	TOPSOIL: Soft to firm brown slightly sandy CLAY with occasional roots and rootlets and rare subangular medium gravel of limestone.	0.10	ES
0.25-0.65	2	Firm brown slightly sandy locally slightly gravelly CLAY. Gravel is angular, fine and medium of limestone..		
0.65-1.95	3	Stiff grey locally orange brown sligtly sandy fissured CLAY. Rust coloured staining on some fissure surfaces.	1.00 1.20	
1.95-2.00	4	Moderately weak LIMESTONE and IRONSTONE recovered as angular cobbles.	1.75 1.80	D HV 92, 102 kN/m2

<p>Shoring/Support: Stability:</p> <div style="text-align: center;"> <p style="margin-left: 20px;">← 2.5 → A D B 0.4 C</p> </div>	<p>GENERAL REMARKS</p> <p>No Groundwater encountered</p>
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All dimensions in metres Scale 1:25	Client Banner Homes	Method/Trial Pit excavated using JCB Plant Used 3CX with 0.3 m bucket	Logged By CG
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BROWNFIELD TP_12151J_BODICOTE.GPJ_GINT STD AGS 3_1.GDT 15/1/13

TRIAL PIT LOG

Project Bodicote				TRIAL PIT No TP119
Job No 12151J	Date 07-12-12 07-12-12	Ground Level (m)	Co-Ordinates ()	
Contractor				Sheet 1 of 1

STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.20		TOPSOIL: Soft to firm brown slightly sandy CLAY with occasional roots and rootlets and rare subangular medium gravel of limestone.			
0.20-0.45		Firm brown slightly sandy locally slightly gravelly CLAY. Gravel is angular, fine and medium of limestone. Rare cobble of limestone noted.			
0.45-1.70		Firm becoming stiff below 1 m grey locally orange brown slightly sandy fissured SILT/CLAY. Rust coloured staining on some fissure surfaces. Occasional angular coars egravel of limestone below 1 m			
1.70-2.50		Compact grey locally orange brown slightly sandy fissured SILT. Rust coloured staining on some fissure surfaces.			


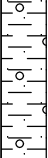

BROWNFIELD TP_12151J_BODICOTE.GPJ_GINT STD AGS 3_1.GDT 15/1/13

Shoring/Support: Stability: 	GENERAL REMARKS
	No Groundwater encountered

All dimensions in metres Scale 1:25	Client Banner Homes	Method/Trial Pit excavated using JCB Plant Used 3CX with 0.3 m bucket	Logged By CG
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TRIAL PIT LOG

Project Bodicote				TRIAL PIT No TP120
Job No 12151J	Date 07-12-12 07-12-12	Ground Level (m)	Co-Ordinates ()	
Contractor				Sheet 1 of 1

STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.25		TOPSOIL: Soft to firm brown slightly sandy CLAY with occasional roots and rootlets and rare subangular medium gravel of limestone.			
0.25-0.80		Firm brown slightly sandy locally slightly gravelly CLAY. Gravel is angular, fine and medium of limestone. Rare cobble of limestone noted.			
0.80-1.35		Brown very clayey angular GRAVEL AND COBBLE of Limestone and Ironstone.			

Shoring/Support: Stability: 	GENERAL REMARKS
	No Groundwater encountered

All dimensions in metres Scale 1:25	Client Banner Homes	Method/Trial Pit excavated using JCB Plant Used 3CX with 0.3 m bucket	Logged By CG
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BROWNFIELD TP_12151J_BODICOTE.GPJ_GINT STD AGS 3_1.GDT 15/1/13

TRIAL PIT LOG

Project Bodicote				TRIAL PIT No TP121
Job No 12151J	Date 07-12-12 07-12-12	Ground Level (m)	Co-Ordinates ()	
Contractor				Sheet 1 of 1

STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.25	1	TOPSOIL: Soft to firm brown slightly sandy CLAY with occasional roots and rootlets and rare subangular medium gravel of limestone.			
0.25-0.60	2	Firm brown slightly sandy locally slightly gravelly CLAY. Gravel is angular, fine and medium of limestone..			
0.60-2.15	3	Stiff 1.5 m grey locally orange brown slightly sandy fissured CLAY. Rust coloured staining on some fissure surfaces.			
2.15-2.20	4	Moderately weak LIMESTONE and IRONSTONE recovered as angular cobbles.			

BROWNFIELD TP_12151J_BODICOTE.GPJ_GINT STD AGS 3_1.GDT 15/1/13

<p>Shoring/Support: Stability:</p> <div style="text-align: center;"> </div>	<p>GENERAL REMARKS</p> <p>No Groundwater encountered</p>		
All dimensions in metres Scale 1:25	Client Banner Homes	Method/Trial Pit excavated using JCB Plant Used 3CX with 0.3 m bucket	Logged By CG

APPENDIX F

Geotechnical Laboratory Test Results



LABORATORY REPORT



4043

Contract Number: PSL13/0111

Client's Reference:

Report Date: 10 January 2013

Client Name: Discovery CE
The Granary
Broadwell
Rugby
Warwickshire
CV23 8HF

For the attention of: Cathal Gillespie

Contract Title: Bodicote

Date Received: 08/01/2013

Date Commenced: 08/01/2013

Date Completed: 10/01/2013

Notes: Observations and Interpretations are outside the UKAS Accreditation

A copy of the Laboratory Schedule of accredited tests as issued by UKAS is attached to this report. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced in full, without the prior written approval of the laboratory.

Checked and Approved Signatories:

R Gunson
(Director)

A Watkins
(Director)

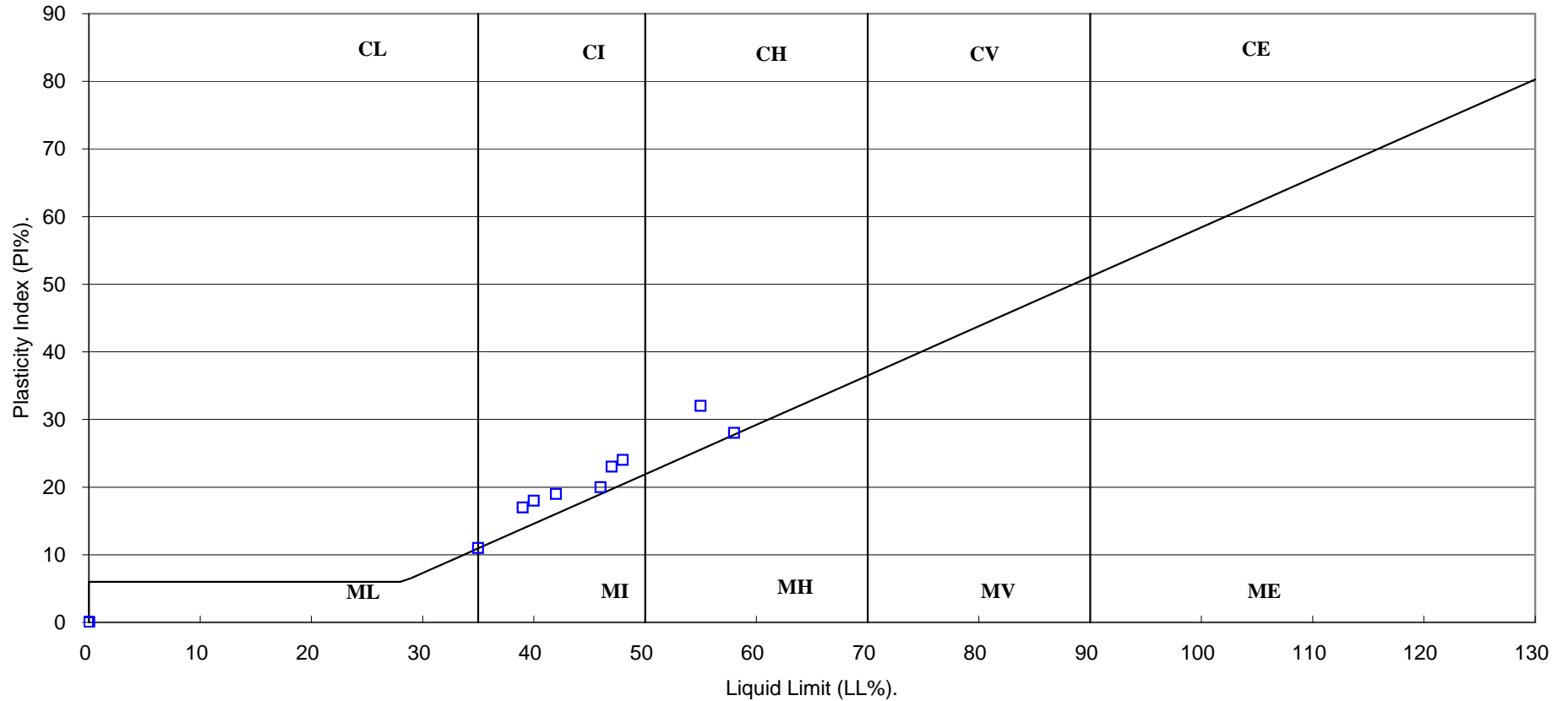

M Beastall
(Laboratory Manager)

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Page 1 of

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(B.S.5930 : 1999)



Compiled by	Date	Checked by	Date	Approved by	Date
<i>[Signature]</i>	10/01/13	<i>[Signature]</i>	10/01/13	<i>[Signature]</i>	10/01/13
BODICOTE.				Contract No: PSL13/0111	
				Client Ref:	

APPENDIX G

Chemical Laboratory Results

PBET Results



Cathal Gillespie

Discovery CE
The Granary
Broadwell House Farm
Broadwell
Rugby
Warwickshire
CV23 8HF

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e: c.gillespie@dce-services.co.uk

i2 Analytical Ltd.
Building 19,
BRE,
Garston,
Watford,
WD25 9XX

t: 01923 67 00 20

f: 01923 67 00 30

e: reception@i2analytical.com

Analytical Report Number : 12-38437

Replaces Analytical Report Number : 12-38437, issue no. 1

Project / Site name:	Bodicote	Samples received on:	14/12/2012
Your job number:	12151J	Samples instructed on:	14/12/2012
Your order number:		Analysis completed by:	24/12/2012
Report Issue Number:	2	Report issued on:	08/01/2013
Samples Analysed:	1 2 stage wac sample - 16 soil samples		

Signed:

Dr Claire Stone
Quality Manager
For & on behalf of i2 Analytical Ltd.

Signed:

Rexona Rahman
Customer Services Manager
For & on behalf of i2 Analytical Ltd.

Other office located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland

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

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting

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

Analytical Report Number: 12-38437

Project / Site name: Bodicote

Lab Sample Number				239817	239818	239819	239820	239821
Sample Reference				TP102	TP112	TP101	TP103	TP109
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.70	0.10	0.50	0.20
Date Sampled				05/12/2012	06/12/2012	05/12/2012	05/12/2012	05/12/2012
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	17	20	22	17	24
Total mass of sample received	kg	0.001	NONE	0.49	0.49	0.51	0.53	0.52

General Inorganics

	pH Units	N/A	MCERTS	-	-	-	-	-
pH								
Water Soluble Sulphate as SO ₄ (2:1)	g/l	0.0025	MCERTS	-	-	-	-	-
Water Soluble Sulphate as SO ₄ (2:1)	mg/kg	2.5	MCERTS	-	-	-	-	-
Total Organic Carbon (TOC)	%	0.1	MCERTS	-	0.4	-	-	-

Speciated PAHs

	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Naphthalene								
Acenaphthylene	mg/kg	0.2	MCERTS	-	< 0.20	-	-	-
Acenaphthene	mg/kg	0.1	MCERTS	-	< 0.10	-	-	-
Fluorene	mg/kg	0.2	MCERTS	-	< 0.20	-	-	-
Phenanthrene	mg/kg	0.2	MCERTS	-	< 0.20	-	-	-
Anthracene	mg/kg	0.1	MCERTS	-	< 0.10	-	-	-
Fluoranthene	mg/kg	0.2	MCERTS	-	< 0.20	-	-	-
Pyrene	mg/kg	0.2	MCERTS	-	< 0.20	-	-	-
Benzo(a)anthracene	mg/kg	0.2	MCERTS	-	< 0.20	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	-	< 0.10	-	-	-
Benzo(k)fluoranthene	mg/kg	0.2	MCERTS	-	< 0.20	-	-	-
Benzo(a)pyrene	mg/kg	0.1	MCERTS	-	< 0.10	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.2	MCERTS	-	< 0.20	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.2	MCERTS	-	< 0.20	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Coronene	mg/kg	0.05	NONE	-	< 0.05	-	-	-

Total PAH

Total WAC-17 PAHs	mg/kg	1.6	NONE	-	< 1.6	-	-	-
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Heavy Metals / Metalloids

	mg/kg	1	MCERTS	-	-	47	27	110
Arsenic (aqua regia extractable)								
Barium (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	70
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	-	-	-	-	4.9
Boron (water soluble)	mg/kg	0.2	MCERTS	-	-	-	-	1.1
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	-	-	-	-	< 4.0
Chromium (III)	mg/kg	1	NONE	-	-	-	-	240
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-	-	87	57	240
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	17
Lead (aqua regia extractable)	mg/kg	2	MCERTS	-	-	32	15	36
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	2	MCERTS	-	-	45	31	94
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	360
Zinc (aqua regia extractable)	mg/kg	2	MCERTS	-	-	-	-	210

Analytical Report Number: 12-38437

Project / Site name: Bodicote

Lab Sample Number				239817	239818	239819	239820	239821
Sample Reference				TP102	TP112	TP101	TP103	TP109
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.70	0.10	0.50	0.20
Date Sampled				05/12/2012	06/12/2012	05/12/2012	05/12/2012	05/12/2012
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monoaromatics								
Benzene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
Toluene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
p & m-xylene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
o-xylene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
Petroleum Hydrocarbons								
Mineral Oil (C10 - C40)	mg/kg	10	NONE	-	< 10	-	-	-
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.02	NONE	-	< 0.02	-	-	-
PCB Congener 52	mg/kg	0.02	NONE	-	< 0.02	-	-	-
PCB Congener 101	mg/kg	0.02	NONE	-	< 0.02	-	-	-
PCB Congener 118	mg/kg	0.02	NONE	-	< 0.02	-	-	-
PCB Congener 138	mg/kg	0.02	NONE	-	< 0.02	-	-	-
PCB Congener 153	mg/kg	0.02	NONE	-	< 0.02	-	-	-
PCB Congener 180	mg/kg	0.02	NONE	-	< 0.02	-	-	-
Total PCBs	mg/kg	0.3	NONE	-	< 0.30	-	-	-
Organochlorine Pesticides (OCP)								
Aldrin	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Alpha-BHC(Lindane)	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Beta-BHC(Lindane)	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Chlordane (sum of cis & trans isomers)	mg/kg	0.01	NONE	< 0.01	-	-	-	-
DDD	mg/kg	0.01	NONE	< 0.01	-	-	-	-
DDE	mg/kg	0.01	NONE	< 0.01	-	-	-	-
DDT	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Dieldrin	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Endosulphan I	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Endosulphan II	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Endosulphan Sulphate	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Endrin	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Gamma-BHC	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Heptachlor	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Heptachlor epoxide	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Hexachlorobenzene	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Hexachlorocyclohexane	mg/kg	0.01	NONE	< 0.01	-	-	-	-
pp-Methoxychlor	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Propyzamide	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Organophosphorus Pesticides (OPP)								
Azinphos methyl	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Diazinon	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Dichlorvos	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Dimethoate	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Etion	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Fenitrothion	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Malathion	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Mevinphos	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Parathion	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Pirimiphos methyl	mg/kg	0.01	NONE	< 0.01	-	-	-	-

Analytical Report Number: 12-38437

Project / Site name: Bodicote

Lab Sample Number				239822	239823	239824	239825	239826
Sample Reference				TP115	TP114	TP110	TP107	TP116
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.50	0.15	0.50	0.40
Date Sampled				06/12/2012	06/12/2012	05/12/2012	05/12/2012	06/12/2012
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	23	20	22	22	20
Total mass of sample received	kg	0.001	NONE	0.49	0.52	0.49	0.46	0.52

General Inorganics

	pH Units	N/A	MCERTS	-	-	-	-	6.5
pH	g/l	0.0025	MCERTS	-	-	-	-	0.015
Water Soluble Sulphate as SO ₄ (2:1)	mg/kg	2.5	MCERTS	-	-	-	-	15
Water Soluble Sulphate as SO ₄ (2:1)	%	0.1	MCERTS	-	-	-	-	-
Total Organic Carbon (TOC)								

Speciated PAHs

	mg/kg	0.05	MCERTS	-	-	-	-	-
Naphthalene	mg/kg	0.2	MCERTS	-	-	-	-	-
Acenaphthylene	mg/kg	0.1	MCERTS	-	-	-	-	-
Acenaphthene	mg/kg	0.2	MCERTS	-	-	-	-	-
Fluorene	mg/kg	0.2	MCERTS	-	-	-	-	-
Phenanthrene	mg/kg	0.1	MCERTS	-	-	-	-	-
Anthracene	mg/kg	0.2	MCERTS	-	-	-	-	-
Fluoranthene	mg/kg	0.2	MCERTS	-	-	-	-	-
Pyrene	mg/kg	0.2	MCERTS	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Chrysene	mg/kg	0.1	MCERTS	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.2	MCERTS	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.2	MCERTS	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.2	MCERTS	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	NONE	-	-	-	-	-
Coronene								

Total PAH

Total WAC-17 PAHs	mg/kg	1.6	NONE	-	-	-	-	-
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Heavy Metals / Metalloids

	mg/kg	1	MCERTS	98	73	210	70	46
Arsenic (aqua regia extractable)	mg/kg	0.06	MCERTS	-	3.2	-	3.1	-
Barium (aqua regia extractable)	mg/kg	0.2	MCERTS	-	1.2	-	0.7	-
Beryllium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Boron (water soluble)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	-
Cadmium (aqua regia extractable)	mg/kg	1	NONE	230	180	360	160	-
Chromium (hexavalent)	mg/kg	1	MCERTS	230	180	360	160	100
Chromium (III)	mg/kg	1	MCERTS	-	15	-	17	-
Chromium (aqua regia extractable)	mg/kg	2	MCERTS	39	22	33	27	31
Copper (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Lead (aqua regia extractable)	mg/kg	2	MCERTS	100	92	150	92	52
Mercury (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-	270	-	250	-
Selenium (aqua regia extractable)	mg/kg	2	MCERTS	-	170	-	210	-
Vanadium (aqua regia extractable)								
Zinc (aqua regia extractable)								

Analytical Report Number: 12-38437

Project / Site name: Bodicote

Lab Sample Number				239822	239823	239824	239825	239826
Sample Reference				TP115	TP114	TP110	TP107	TP116
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.50	0.15	0.50	0.40
Date Sampled				06/12/2012	06/12/2012	05/12/2012	05/12/2012	06/12/2012
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monoaromatics								
Benzene	µg/kg	1	MCERTS	-	-	-	-	-
Toluene	µg/kg	1	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
p & m-xylene	µg/kg	1	MCERTS	-	-	-	-	-
o-xylene	µg/kg	1	MCERTS	-	-	-	-	-
Petroleum Hydrocarbons								
Mineral Oil (C10 - C40)	mg/kg	10	NONE	-	-	-	-	-
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.02	NONE	-	-	-	-	-
PCB Congener 52	mg/kg	0.02	NONE	-	-	-	-	-
PCB Congener 101	mg/kg	0.02	NONE	-	-	-	-	-
PCB Congener 118	mg/kg	0.02	NONE	-	-	-	-	-
PCB Congener 138	mg/kg	0.02	NONE	-	-	-	-	-
PCB Congener 153	mg/kg	0.02	NONE	-	-	-	-	-
PCB Congener 180	mg/kg	0.02	NONE	-	-	-	-	-
Total PCBs	mg/kg	0.3	NONE	-	-	-	-	-
Organochlorine Pesticides (OCP)								
Aldrin	mg/kg	0.01	NONE	-	-	-	-	-
Alpha-BHC(Lindane)	mg/kg	0.01	NONE	-	-	-	-	-
Beta-BHC(Lindane)	mg/kg	0.01	NONE	-	-	-	-	-
Chlordane (sum of cis & trans isomers)	mg/kg	0.01	NONE	-	-	-	-	-
DDD	mg/kg	0.01	NONE	-	-	-	-	-
DDE	mg/kg	0.01	NONE	-	-	-	-	-
DDT	mg/kg	0.01	NONE	-	-	-	-	-
Dieldrin	mg/kg	0.01	NONE	-	-	-	-	-
Endosulphan I	mg/kg	0.01	NONE	-	-	-	-	-
Endosulphan II	mg/kg	0.01	NONE	-	-	-	-	-
Endosulphan Sulphate	mg/kg	0.01	NONE	-	-	-	-	-
Endrin	mg/kg	0.01	NONE	-	-	-	-	-
Gamma-BHC	mg/kg	0.01	NONE	-	-	-	-	-
Heptachlor	mg/kg	0.01	NONE	-	-	-	-	-
Heptachlor epoxide	mg/kg	0.01	NONE	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.01	NONE	-	-	-	-	-
Hexachlorocyclohexane	mg/kg	0.01	NONE	-	-	-	-	-
pp-Methoxychlor	mg/kg	0.01	NONE	-	-	-	-	-
Propyzamide	mg/kg	0.01	NONE	-	-	-	-	-
Organophosphorus Pesticides (OPP)								
Azinphos methyl	mg/kg	0.01	NONE	-	-	-	-	-
Diazinon	mg/kg	0.01	NONE	-	-	-	-	-
Dichlorvos	mg/kg	0.01	NONE	-	-	-	-	-
Dimethoate	mg/kg	0.01	NONE	-	-	-	-	-
Etion	mg/kg	0.01	NONE	-	-	-	-	-
Fenitrothion	mg/kg	0.01	NONE	-	-	-	-	-
Malathion	mg/kg	0.01	NONE	-	-	-	-	-
Mevinphos	mg/kg	0.01	NONE	-	-	-	-	-
Parathion	mg/kg	0.01	NONE	-	-	-	-	-
Pirimiphos methyl	mg/kg	0.01	NONE	-	-	-	-	-

Analytical Report Number: 12-38437

Project / Site name: Bodicote

Lab Sample Number				239827	239828	239829	239830	239831
Sample Reference				TP106	TP111	TP101	TP114	TP110
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.40	0.50	1.20	2.00	1.10
Date Sampled				05/12/2012	06/12/2012	05/12/2012	06/12/2012	05/12/2012
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	22	19	19	17	24
Total mass of sample received	kg	0.001	NONE	0.50	0.56	1.2	0.99	0.45

General Inorganics

	pH Units	N/A	MCERTS	-	-	6.9	7.0	7.0
pH	g/l	0.0025	MCERTS	-	-	0.0079	0.026	0.052
Water Soluble Sulphate as SO ₄ (2:1)	mg/kg	2.5	MCERTS	-	-	7.9	26	52
Water Soluble Sulphate as SO ₄ (2:1)	%	0.1	MCERTS	-	-	-	-	-
Total Organic Carbon (TOC)								

Speciated PAHs

	mg/kg	0.05	MCERTS	-	-	-	-	-
Naphthalene	mg/kg	0.2	MCERTS	-	-	-	-	-
Acenaphthylene	mg/kg	0.1	MCERTS	-	-	-	-	-
Acenaphthene	mg/kg	0.2	MCERTS	-	-	-	-	-
Fluorene	mg/kg	0.2	MCERTS	-	-	-	-	-
Phenanthrene	mg/kg	0.1	MCERTS	-	-	-	-	-
Anthracene	mg/kg	0.2	MCERTS	-	-	-	-	-
Fluoranthene	mg/kg	0.2	MCERTS	-	-	-	-	-
Pyrene	mg/kg	0.2	MCERTS	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Chrysene	mg/kg	0.1	MCERTS	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.2	MCERTS	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.2	MCERTS	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.2	MCERTS	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	NONE	-	-	-	-	-
Coronene								

Total PAH

Total WAC-17 PAHs	mg/kg	1.6	NONE	-	-	-	-	-
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Heavy Metals / Metalloids

	mg/kg	1	MCERTS	49	30	-	-	-
Arsenic (aqua regia extractable)	mg/kg	0.06	MCERTS	-	-	-	-	-
Barium (aqua regia extractable)	mg/kg	0.2	MCERTS	-	-	-	-	-
Beryllium (aqua regia extractable)	mg/kg	0.2	MCERTS	-	-	-	-	-
Boron (water soluble)	mg/kg	4	MCERTS	-	-	-	-	-
Cadmium (aqua regia extractable)	mg/kg	1	NONE	-	-	-	-	-
Chromium (hexavalent)	mg/kg	1	MCERTS	130	71	-	-	-
Chromium (III)	mg/kg	1	MCERTS	-	-	-	-	-
Chromium (aqua regia extractable)	mg/kg	2	MCERTS	23	16	-	-	-
Copper (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	-
Lead (aqua regia extractable)	mg/kg	2	MCERTS	56	39	-	-	-
Mercury (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-
Selenium (aqua regia extractable)	mg/kg	2	MCERTS	-	-	-	-	-
Vanadium (aqua regia extractable)	mg/kg	2	MCERTS	-	-	-	-	-
Zinc (aqua regia extractable)								



Analytical Report Number: 12-38437

Project / Site name: Bodicote

Lab Sample Number				239827	239828	239829	239830	239831
Sample Reference				TP106	TP111	TP101	TP114	TP110
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.40	0.50	1.20	2.00	1.10
Date Sampled				05/12/2012	06/12/2012	05/12/2012	06/12/2012	05/12/2012
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monoaromatics								
Benzene	µg/kg	1	MCERTS	-	-	-	-	-
Toluene	µg/kg	1	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
p & m-xylene	µg/kg	1	MCERTS	-	-	-	-	-
o-xylene	µg/kg	1	MCERTS	-	-	-	-	-
Petroleum Hydrocarbons								
Mineral Oil (C10 - C40)	mg/kg	10	NONE	-	-	-	-	-
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.02	NONE	-	-	-	-	-
PCB Congener 52	mg/kg	0.02	NONE	-	-	-	-	-
PCB Congener 101	mg/kg	0.02	NONE	-	-	-	-	-
PCB Congener 118	mg/kg	0.02	NONE	-	-	-	-	-
PCB Congener 138	mg/kg	0.02	NONE	-	-	-	-	-
PCB Congener 153	mg/kg	0.02	NONE	-	-	-	-	-
PCB Congener 180	mg/kg	0.02	NONE	-	-	-	-	-
Total PCBs	mg/kg	0.3	NONE	-	-	-	-	-
Organochlorine Pesticides (OCP)								
Aldrin	mg/kg	0.01	NONE	-	-	-	-	-
Alpha-BHC(Lindane)	mg/kg	0.01	NONE	-	-	-	-	-
Beta-BHC(Lindane)	mg/kg	0.01	NONE	-	-	-	-	-
Chlordane (sum of cis & trans isomers)	mg/kg	0.01	NONE	-	-	-	-	-
DDD	mg/kg	0.01	NONE	-	-	-	-	-
DDE	mg/kg	0.01	NONE	-	-	-	-	-
DDT	mg/kg	0.01	NONE	-	-	-	-	-
Dieldrin	mg/kg	0.01	NONE	-	-	-	-	-
Endosulphan I	mg/kg	0.01	NONE	-	-	-	-	-
Endosulphan II	mg/kg	0.01	NONE	-	-	-	-	-
Endosulphan Sulphate	mg/kg	0.01	NONE	-	-	-	-	-
Endrin	mg/kg	0.01	NONE	-	-	-	-	-
Gamma-BHC	mg/kg	0.01	NONE	-	-	-	-	-
Heptachlor	mg/kg	0.01	NONE	-	-	-	-	-
Heptachlor epoxide	mg/kg	0.01	NONE	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.01	NONE	-	-	-	-	-
Hexachlorocyclohexane	mg/kg	0.01	NONE	-	-	-	-	-
pp-Methoxychlor	mg/kg	0.01	NONE	-	-	-	-	-
Propyzamide	mg/kg	0.01	NONE	-	-	-	-	-
Organophosphorus Pesticides (OPP)								
Azinphos methyl	mg/kg	0.01	NONE	-	-	-	-	-
Diazinon	mg/kg	0.01	NONE	-	-	-	-	-
Dichlorvos	mg/kg	0.01	NONE	-	-	-	-	-
Dimethoate	mg/kg	0.01	NONE	-	-	-	-	-
Etion	mg/kg	0.01	NONE	-	-	-	-	-
Fenitrothion	mg/kg	0.01	NONE	-	-	-	-	-
Malathion	mg/kg	0.01	NONE	-	-	-	-	-
Mevinphos	mg/kg	0.01	NONE	-	-	-	-	-
Parathion	mg/kg	0.01	NONE	-	-	-	-	-
Pirimiphos methyl	mg/kg	0.01	NONE	-	-	-	-	-



Analytical Report Number: 12-38437

Project / Site name: Bodicote

Lab Sample Number				239832				
Sample Reference				TP117				
Sample Number				None Supplied				
Depth (m)				0.60				
Date Sampled				06/12/2012				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1				
Moisture Content	%	N/A	NONE	25				
Total mass of sample received	kg	0.001	NONE	0.45				

General Inorganics

pH	pH Units	N/A	MCERTS	7.1				
Water Soluble Sulphate as SO ₄ (2:1)	g/l	0.0025	MCERTS	0.024				
Water Soluble Sulphate as SO ₄ (2:1)	mg/kg	2.5	MCERTS	23				
Total Organic Carbon (TOC)	%	0.1	MCERTS	-				

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-				
Acenaphthylene	mg/kg	0.2	MCERTS	-				
Acenaphthene	mg/kg	0.1	MCERTS	-				
Fluorene	mg/kg	0.2	MCERTS	-				
Phenanthrene	mg/kg	0.2	MCERTS	-				
Anthracene	mg/kg	0.1	MCERTS	-				
Fluoranthene	mg/kg	0.2	MCERTS	-				
Pyrene	mg/kg	0.2	MCERTS	-				
Benzo(a)anthracene	mg/kg	0.2	MCERTS	-				
Chrysene	mg/kg	0.05	MCERTS	-				
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	-				
Benzo(k)fluoranthene	mg/kg	0.2	MCERTS	-				
Benzo(a)pyrene	mg/kg	0.1	MCERTS	-				
Indeno(1,2,3-cd)pyrene	mg/kg	0.2	MCERTS	-				
Dibenz(a,h)anthracene	mg/kg	0.2	MCERTS	-				
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-				
Coronene	mg/kg	0.05	NONE	-				

Total PAH

Total WAC-17 PAHs	mg/kg	1.6	NONE	-				
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-				
Barium (aqua regia extractable)	mg/kg	1	MCERTS	-				
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	-				
Boron (water soluble)	mg/kg	0.2	MCERTS	-				
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-				
Chromium (hexavalent)	mg/kg	4	MCERTS	-				
Chromium (III)	mg/kg	1	NONE	-				
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-				
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-				
Lead (aqua regia extractable)	mg/kg	2	MCERTS	-				
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-				
Nickel (aqua regia extractable)	mg/kg	2	MCERTS	-				
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-				
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	-				
Zinc (aqua regia extractable)	mg/kg	2	MCERTS	-				



Analytical Report Number: 12-38437

Project / Site name: Bodicote

Lab Sample Number				239832				
Sample Reference				TP117				
Sample Number				None Supplied				
Depth (m)				0.60				
Date Sampled				06/12/2012				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monoaromatics								
Benzene	µg/kg	1	MCERTS	-				
Toluene	µg/kg	1	MCERTS	-				
Ethylbenzene	µg/kg	1	MCERTS	-				
p & m-xylene	µg/kg	1	MCERTS	-				
o-xylene	µg/kg	1	MCERTS	-				
Petroleum Hydrocarbons								
Mineral Oil (C10 - C40)	mg/kg	10	NONE	-				
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.02	NONE	-				
PCB Congener 52	mg/kg	0.02	NONE	-				
PCB Congener 101	mg/kg	0.02	NONE	-				
PCB Congener 118	mg/kg	0.02	NONE	-				
PCB Congener 138	mg/kg	0.02	NONE	-				
PCB Congener 153	mg/kg	0.02	NONE	-				
PCB Congener 180	mg/kg	0.02	NONE	-				
Total PCBs	mg/kg	0.3	NONE	-				
Organochlorine Pesticides (OCP)								
Aldrin	mg/kg	0.01	NONE	-				
Alpha-BHC(Lindane)	mg/kg	0.01	NONE	-				
Beta-BHC(Lindane)	mg/kg	0.01	NONE	-				
Chlordane (sum of cis & trans isomers)	mg/kg	0.01	NONE	-				
DDD	mg/kg	0.01	NONE	-				
DDE	mg/kg	0.01	NONE	-				
DDT	mg/kg	0.01	NONE	-				
Dieldrin	mg/kg	0.01	NONE	-				
Endosulphan I	mg/kg	0.01	NONE	-				
Endosulphan II	mg/kg	0.01	NONE	-				
Endosulphan Sulphate	mg/kg	0.01	NONE	-				
Endrin	mg/kg	0.01	NONE	-				
Gamma-BHC	mg/kg	0.01	NONE	-				
Heptachlor	mg/kg	0.01	NONE	-				
Heptachlor epoxide	mg/kg	0.01	NONE	-				
Hexachlorobenzene	mg/kg	0.01	NONE	-				
Hexachlorocyclohexane	mg/kg	0.01	NONE	-				
pp-Methoxychlor	mg/kg	0.01	NONE	-				
Propyzamide	mg/kg	0.01	NONE	-				
Organophosphorus Pesticides (OPP)								
Azinphos methyl	mg/kg	0.01	NONE	-				
Diazinon	mg/kg	0.01	NONE	-				
Dichlorvos	mg/kg	0.01	NONE	-				
Dimethoate	mg/kg	0.01	NONE	-				
Etion	mg/kg	0.01	NONE	-				
Fenitrothion	mg/kg	0.01	NONE	-				
Malathion	mg/kg	0.01	NONE	-				
Mevinphos	mg/kg	0.01	NONE	-				
Parathion	mg/kg	0.01	NONE	-				
Pirimiphos methyl	mg/kg	0.01	NONE	-				



Analytical Report Number: 12-38437

Project / Site name: Bodicote

Lab Sample Number				239833				
Sample Reference				TP112				
Sample Number				None Supplied				
Depth (m)				0.70				
Date Sampled				06/12/2012				
Time Taken				None Supplied				
Analytical Parameter (Two-stage Leachate Analysis)	Units	Limit of detection	Accreditation Status					

General 2:1

Sulphate as SO ₄	mg/l	0.2	NONE	3.7				
Monohydric Phenols	mg/l	0.16	NONE	< 0.16				
Chloride	mg/l	4	NONE	< 4.0				
Fluoride	mg/l	0.05	NONE	0.89				
Dissolved Organic Carbon	mg/l	0.1	NONE	6.9				
Total Dissolved Solids	mg/l	4	NONE	60				
Arsenic	mg/l	0.01	NONE	< 0.010				
Cadmium	mg/l	0.0005	NONE	< 0.0005				
Chromium	mg/l	0.001	NONE	0.0030				
Lead	mg/l	0.005	NONE	< 0.0050				
Mercury	mg/l	0.0015	NONE	< 0.0015				
Selenium	mg/l	0.01	NONE	< 0.010				
Copper	mg/l	0.001	NONE	0.0017				
Nickel	mg/l	0.001	NONE	< 0.0010				
Zinc	mg/l	0.001	NONE	< 0.0010				
Antimony	mg/l	0.005	NONE	< 0.0050				
Molybdenum	mg/l	0.003	NONE	< 0.0030				
Barium	mg/l	0.005	NONE	0.017				

General 2:1

Sulphate as SO ₄	mg/kg	0.5	NONE	7.3				
Monohydric Phenols	mg/kg	0.4	NONE	< 0.40				
Chloride	mg/kg	12	NONE	< 12				
Fluoride	mg/kg	0.05	NONE	1.8				
Dissolved Organic Carbon	mg/kg	0.3	NONE	14				
Total Dissolved Solids	mg/kg	12	NONE	120				
Arsenic	mg/kg	0.03	NONE	< 0.030				
Cadmium	mg/kg	0.0015	NONE	< 0.0015				
Chromium	mg/kg	0.003	NONE	0.0061				
Lead	mg/kg	0.015	NONE	< 0.015				
Mercury	mg/kg	0.005	NONE	< 0.0050				
Selenium	mg/kg	0.03	NONE	< 0.030				
Copper	mg/kg	0.003	NONE	0.0035				
Nickel	mg/kg	0.002	NONE	< 0.0020				
Zinc	mg/kg	0.003	NONE	< 0.0030				
Antimony	mg/kg	0.015	NONE	< 0.015				
Molybdenum	mg/kg	0.01	NONE	< 0.010				
Barium	mg/kg	0.015	NONE	0.033				



Analytical Report Number: 12-38437

Project / Site name: Bodicote

Lab Sample Number				239833				
Sample Reference				TP112				
Sample Number				None Supplied				
Depth (m)				0.70				
Date Sampled				06/12/2012				
Time Taken				None Supplied				
Analytical Parameter (Two-stage Leachate Analysis)	Units	Limit of detection	Accreditation Status					

General 8:1

Sulphate as SO ₄	mg/l	0.2	NONE	1.1				
Monohydric Phenols	mg/l	0.13	NONE	< 0.13				
Chloride	mg/l	4	NONE	< 4.0				
Fluoride	mg/l	0.05	NONE	0.87				
Dissolved Organic Carbon	mg/l	0.1	NONE	3.6				
Total Dissolved Solids	mg/l	4	NONE	30				
Arsenic	mg/l	0.01	NONE	< 0.010				
Cadmium	mg/l	0.0005	NONE	< 0.0005				
Chromium	mg/l	0.001	NONE	0.0010				
Lead	mg/l	0.005	NONE	< 0.0050				
Mercury	mg/l	0.0015	NONE	< 0.0015				
Selenium	mg/l	0.01	NONE	< 0.010				
Copper	mg/l	0.003	NONE	< 0.0030				
Nickel	mg/l	0.001	NONE	< 0.0010				
Zinc	mg/l	0.001	NONE	< 0.0010				
Antimony	mg/l	0.005	NONE	< 0.0050				
Molybdenum	mg/l	0.003	NONE	< 0.0030				
Barium	mg/l	0.005	NONE	0.0090				

General 10:1

Sulphate as SO ₄	mg/kg	1	NONE	13				
Monohydric Phenols	mg/kg	0.5	NONE	< 0.50				
Chloride	mg/kg	15	NONE	< 15				
Fluoride	mg/kg	0.2	NONE	8.7				
Dissolved Organic Carbon	mg/kg	0.5	NONE	39				
Total Dissolved Solids	mg/kg	15	NONE	330				
Arsenic	mg/kg	0.05	NONE	< 0.050				
Cadmium	mg/kg	0.002	NONE	< 0.0020				
Chromium	mg/kg	0.005	NONE	0.012				
Lead	mg/kg	0.02	NONE	< 0.020				
Mercury	mg/kg	0.01	NONE	< 0.010				
Selenium	mg/kg	0.04	NONE	< 0.040				
Copper	mg/kg	0.002	NONE	0.0062				
Nickel	mg/kg	0.005	NONE	< 0.0050				
Zinc	mg/kg	0.004	NONE	< 0.0040				
Antimony	mg/kg	0.02	NONE	< 0.020				
Molybdenum	mg/kg	0.02	NONE	< 0.020				
Barium	mg/kg	0.02	NONE	0.096				

Analytical Report Number : 12-38437

Project / Site name: Bodicote

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

Stone content

of a sample is calculated as the % weight of the stones not passing a 2 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
239817	TP102	None Supplied	0.50	Light brown sandy clay.
239818	TP112	None Supplied	0.70	Light brown sandy clay.
239819	TP101	None Supplied	0.10	Brown sandy clay.
239820	TP103	None Supplied	0.50	Brown sandy clay.
239821	TP109	None Supplied	0.20	Brown sandy clay with vegetation.
239822	TP115	None Supplied	0.10	Brown sandy clay with vegetation.
239823	TP114	None Supplied	0.50	Brown sandy clay.
239824	TP110	None Supplied	0.15	Brown sandy clay.
239825	TP107	None Supplied	0.50	Brown sandy clay with vegetation.
239826	TP116	None Supplied	0.40	Brown sandy clay.
239827	TP106	None Supplied	0.40	Brown sandy clay.
239828	TP111	None Supplied	0.50	Light brown sandy clay with vegetation.
239829	TP101	None Supplied	1.20	Light brown sandy clay.
239830	TP114	None Supplied	2.00	Light brown clay and sand.
239831	TP110	None Supplied	1.10	Brown sandy clay.
239832	TP117	None Supplied	0.60	Brown sandy clay.

Analytical Report Number : 12-38437

Project / Site name: Bodicote

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
BTEX in soil	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073S-PL	W	MCERTS
Chloride in WAC leachate	Determination of chloride in leachate by Gallery discrete analyser.	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L080-PL	W	NONE
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	D	NONE
Dissolved organic carbon in WAC leachate	Determination of dissolved organic carbon in leachate by the measurement on a non-dispersive infrared analyser of carbon dioxide released by acidification.	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L037-PL	W	NONE
Fluoride in WAC leachate	Determination of fluoride in leachate by 1:1ratio with a buffer solution followed by Ion Selective Electrode.	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L033-PL	W	NONE
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Metals in WAC leachate	Determination of metals in leachate by acidification followed by ICP-OES.	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L039-PL	W	NONE
Mineral Oil (Soil)		in-house method	L064-PL		NONE
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE
Monohydric phenols (Phenol Index) in WAC leachate	Determination of phenols in leachate by continuous flow analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	NONE
Organochlorine pesticides in soil	Determination of organochlorine pesticides in soil by GC-MS	In-house method	L095-UK	W	NONE
Organophosphorous pesticides in soil	Determination of organophosphorous pesticides in soil by GC-MS	In-house method	L095-UK	W	NONE
PCB's By GC-MS in soil	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L027-PL	D	NONE



Analytical Report Number : 12-38437

Project / Site name: Bodicote

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
pH in soil	Determination of pH in soil by addition of water followed by electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L005-PL	W	MCERTS
Speciated WAC-17 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	NONE
Stones content of soil	Stones not passing through a 10 mm sieve is determined gravimetrically and reported as a percentage of the dry weight. Sample results are not corrected for the stone content of the sample.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Sulphate in WAC leachate	Determination of sulphate in leachate by acidification followed by ICP-OES.	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L039-PL	W	NONE
Sulphate, water soluble, in soil	Determination of water soluble sulphate by extraction with water followed by ICP-OES.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L038-PL	D	MCERTS
Total dissolved solids in WAC leachate	Determination of total dissolved solids in leachate by electrometric measurement.	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L004-PL	W	NONE
Total organic carbon in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L023-PL	D	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.



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Analytical Report Number : 13-38683

Project / Site name:	Bodicote	Samples received on:	14/12/2012
Your job number:	12151J	Samples instructed on:	04/01/2013
Your order number:		Analysis completed by:	16/01/2013
Report Issue Number:	1	Report issued on:	16/01/2013
Samples Analysed:	2 soil samples		

Signed:

Dr Claire Stone
Quality Manager
For & on behalf of i2 Analytical Ltd.

Signed:

Rexona Rahman
Customer Services Manager
For & on behalf of i2 Analytical Ltd.

Other office located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland

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

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting

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Analytical Report Number: 13-38683

Project / Site name: Bodicole

Lab Sample Number				241480	241481	241481D	CRM	
Sample Reference				TP114	TP110	Duplicate	-	
Sample Number				239823	239824			
Depth (m)				0.50	0.15			
Date Sampled				05/12/2012	05/12/2012			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	96	96	96	-	
Moisture Content	%	N/A	NONE	18	22	22	-	
Total mass of sample received	kg	0.001	NONE	0.52	0.49	0.49	-	

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	64	220	220	104	
Nickel (aqua regia extractable)	mg/kg	2	MCERTS	-	160	160	80	
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	230	-	-	356	

Bioaccessibility Testing - Unified BARGE Bioaccessibility Method Data

Stomach Phase

Arsenic (Bioaccessible)	mg/kg	1	None	4.2	5.8	5.8	5.0	
Arsenic Bioaccessible Fraction	%	-	None	6.5	2.6	2.6	4.8	
Nickel (Bioaccessible)	mg/kg	1	None	-	4.4	4.7	11.9	
Nickel Bioaccessible Fraction	%	-	None	-	2.8	2.9	14.9	
Vanadium (Bioaccessible)	mg/kg	1	None	10.7	-	-	7.7	
Vanadium Bioaccessible Fraction	%	-	None	4.7	-	-	2.2	

Stomach and Intestine Phase

Arsenic (Bioaccessible)	mg/kg	1	None	3.7	5.7	5.7	4.0	
Arsenic Bioaccessible Fraction	%	-	None	5.8	2.6	2.6	3.9	
Nickel (Bioaccessible)	mg/kg	1	None	-	3.7	3.6	7.3	
Nickel Bioaccessible Fraction	%	-	None	-	2.3	2.3	9.1	
Vanadium (Bioaccessible)	mg/kg	1	None	2.8	-	-	2.9	
Vanadium Bioaccessible Fraction	%	-	None	1.2	-	-	0.8	

Bioaccessibility Summary Data (Maximum value) Stomach Phase (S) or Stomach and Intestine Phase (SI)

Arsenic Bioaccessible Fraction	%	-	None	6.5	2.6	2.6	4.8	
Nickel Bioaccessible Fraction	%	-	None	-	2.8	2.9	14.9	
Vanadium Bioaccessible Fraction	%	-	None	4.7	-	-	2.2	



Analytical Report Number : 13-38683

Project / Site name: Bodicole

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

Stone content

of a sample is calculated as the % weight of the stones not passing a 2 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
241480	TP114	239823	0.50	Light brown clay and sand with vegetation and stones.
241481	TP110	239824	0.15	Light brown clay and sand.



Analytical Report Number : 13-38683

Project / Site name: Bodicole

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L019-UK	W	NONE
Stones content of soil	Stones not passing through a 250 µm sieve is determined gravimetrically and reported as a percentage of the dry weight. Sample results are not corrected for the stone content of the sample.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK	D	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

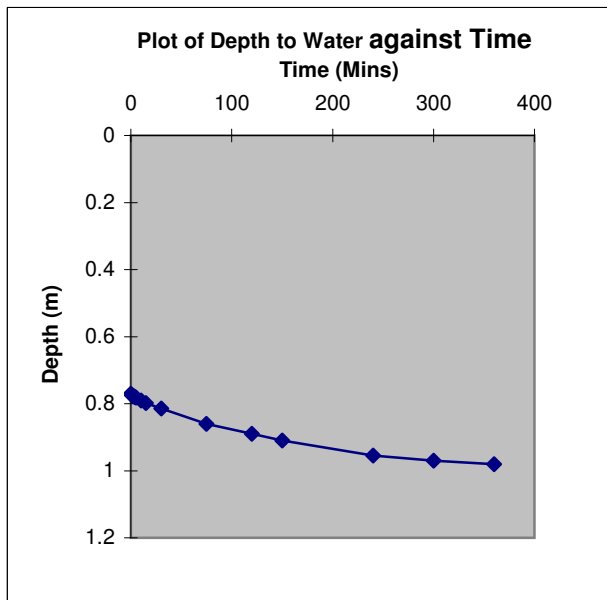
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Testing was carried out in accordance with the BARGE UBM protocol. The model used was the fasted model, in accordance with recommended protocol. Each batch of samples comprised one duplicate and one certified reference material, the data for both are reported. Both the the duplicate and certified reference material results meet the method defined criteria.

Bioaccessible Fraction (%) is calculated as follows: $\frac{\text{Element (bioaccessible)}}{\text{Element (total aqua regia extractable)}} \times 100$

APPENDIX H

Soakaway Results



Trial Pit No: TP119
 Date: 07/12/2012

Test Details

Length of Trial Pit **a** (m): 1.3
 Width of Trial Pit **b** (m): 0.4
 Depth of Trial Pit **D** (m): 2.5

Test Strata: SILTS

Maximum Effective Depth (m) 0.77

Volume Outflow between 75% and 25% effective depth ((Vp75-25)m3) N/A

Time for water to fall from 75% to 25% effective depth ((Tp75-25)mins) N/A

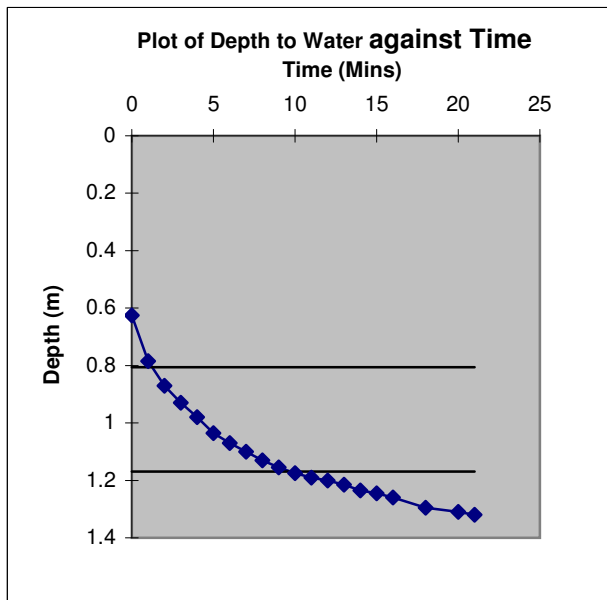
Outflow Area ((Ap50) m2) N/A

Time Elapsed (t) mins	Depth below Ground level at time t (m)
0	0.77
1	0.774
2	0.776
3	0.778
4	0.78
5	0.782
10	0.79
15	0.798
30	0.814
75	0.86
120	0.89
150	0.91
240	0.955
300	0.97
360	0.98

Soil Infiltration rate ((f)m/s) N/A

Remarks: Soakage rate insufficient to allow infiltration rate to be calculated

Soakaway Test	Project Oxford Road, Bodicote	Contract 12160J
		Figure A1
The Brownfield Consultancy		



Trial Pit No: TP120 - Test 1

Date: 07/12/2012

Test Details

Length of Trial Pit **a** (m): 1.1

Width of Trial Pit **b** (m): 0.4

Depth of Trial Pit **D** (m): 1.35

Test Strata: IRONSTONE

Maximum Effective Depth (m) 0.625

Volume Outflow between 75% and 25% effective depth ((Vp75-25)m3) 0.1595

Time for water to fall from 75% to 25% effective depth ((Tp75-25)mins) 8.4375

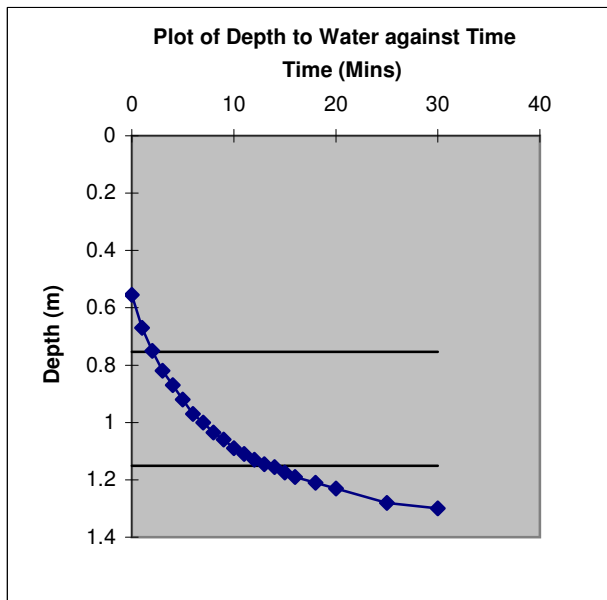
Outflow Area ((Ap50) m2) 1.5275

Time Elapsed (t) mins	Depth below Ground level at time t (m)
0	0.625
1	0.785
2	0.87
3	0.93
4	0.98
5	1.035
6	1.07
7	1.1
8	1.13
9	1.155
10	1.175
11	1.19
12	1.2
13	1.215
14	1.235
15	1.245
16	1.26
18	1.295
20	1.31
21	1.32

Soil Infiltration rate ((f)m/s) 2.06E-04

Remarks:

Soakaway Test	Project Oxford Road, Bodicote	Contract 12160J
		Figure A2
The Brownfield Consultancy		



Trial Pit No: TP120 - Test 2

Date: 07/12/2012

Test Details

Length of Trial Pit **a** (m): 1.1

Width of Trial Pit **b** (m): 0.4

Depth of Trial Pit **D** (m): 1.35

Test Strata: IRONSTONE

Maximum Effective Depth (m) 0.555

Volume Outflow between 75% and 25% effective depth ((Vp75-25)m3) 0.1749

Time for water to fall from 75% to 25% effective depth ((Tp75-25)mins) 11.57142857

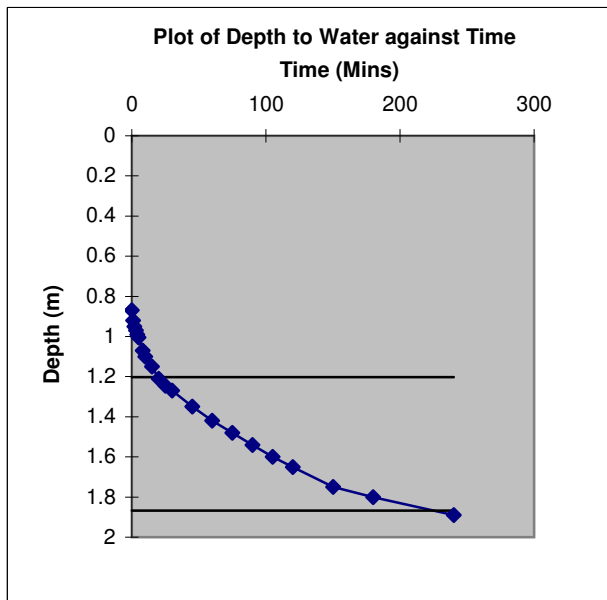
Outflow Area ((Ap50) m2) 1.6325

Soil Infiltration rate ((f)m/s) 1.54E-04

Time Elapsed (t) mins	Depth below Ground level at time t (m)
0	0.555
1	0.67
2	0.75
3	0.82
4	0.87
5	0.92
6	0.97
7	1
8	1.035
9	1.06
10	1.09
11	1.11
12	1.13
13	1.145
14	1.155
15	1.175
16	1.19
18	1.21
20	1.23
25	1.28
30	1.3

Remarks:

Soakaway Test	Project Oxford Road, Bodicote	Contract 12160J
		Figure A3
The Brownfield Consultancy		



Trial Pit No: TP121
 Date: 07/12/2012

Test Details

Length of Trial Pit **a** (m): 1.35
 Width of Trial Pit **b** (m): 0.4
 Depth of Trial Pit **D** (m): 2.2

Test Strata: CLAY/LIMESTONE

Maximum Effective Depth (m) 0.87

Volume Outflow between 75% and 25% effective depth ((Vp75-25)m3) 0.3591

Time for water to fall from 75% to 25% effective depth ((Tp75-25)mins) 205.625

Outflow Area ((Ap50) m2) 2.8675

Time Elapsed (t) mins	Depth below Ground level at time t (m)
0	0.87
1	0.92
2	0.95
3	0.97
4	0.99
5	1.005
8	1.07
10	1.1
15	1.15
20	1.21
25	1.245
30	1.27
45	1.35
60	1.42
75	1.48
90	1.54
105	1.6
120	1.65
150	1.75
180	1.8
240	1.89

Soil Infiltration rate ((f)m/s) 1.02E-05

Remarks: Note Infiltration likley to be primarily through base in limestone

Soakaway Test	Project Oxford Road, Bodicote	Contract 12160J
		Figure A4
The Brownfield Consultancy		

APPENDIX I

CLEA Spreadsheets

STEP 5: RESULTS

Find AC

Print Report

		Ratio of ADE to relevant Health	
		oral HCV	inhal HCV
Number	Chemical	(dimensionless)	(dimensionless)
1	Arsenic	0.39	1.00
2	Nickel	0.00	1.00
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
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22			
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25			
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27			
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29			
30			

STEP 5: RESULTS

Find AC

Print Report

		Ratio of ADE to relevant Health	
		oral HCV	inhal HCV
Number	Chemical	(dimensionless)	(dimensionless)
1	Vanadium	0.08	1.00
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
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APPENDIX J

Limitations

LIMITATIONS

This report is confidential and has been prepared solely for the benefit of the client and those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from [The Brownfield Consultancy](#).

Additional information, improved practice or changes in legislation may necessitate this report having to be reviewed in whole or in part after that date. If necessary, this report should be referred back to [The Brownfield Consultancy](#) for re-assessment and, if necessary, re-appraisal.

DESK TOP STUDIES

The work comprised a study of available documented information from a variety of sources. The opinions given in this report have been dictated by the finite data on which they are based and are relevant only to the purpose for which the report was commissioned. The information reviewed should not be considered exhaustive. Should additional information become available which may affect the opinions expressed in this report, [The Brownfield Consultancy](#) reserves the right to review such information and, if warranted, to modify the opinions accordingly.

The evaluation and conclusions do not preclude the existence of contamination, which could not reasonably have been revealed by the current work. Hence this report should be used for information purposes only and should not be construed as a comprehensive characterisation of all site conditions.

INTRUSIVE INVESTIGATIONS

The investigation of the site has been carried out to provide sufficient information concerning the type and degree of contamination, and ground and groundwater conditions to allow a reasonable risk assessment to be made.

Where intrusive investigations have been undertaken they have been designed to provide a reasonable level of assurance on the conditions. Given the discrete nature of sampling, no