Consolidated Undrained Triaxial Compression Test
BS 1377 : Part 8 : 1990

Specimen Details

Borehole		BH12
Sample No.		
Depth	m	4.0-4.45
Date		20/10/2009

Test Setup

Date started	14/10/2009	14/10/2009	14/10/2009
Date Finished	18/10/2009	18/10/2009	18/10/2009
Top Drain Used	y	y	y
Base Drain Used	y	y	y
Side Drains Used	y	y	y
Pressure System Number	P5	P10	P4
Cell Number	C5	C10	C4

Saturation

Cell Pressure Incr.	kPa	100.00	100.00	100.00
Back Pressure Incr.	kPa	95.00	95.00	95.00
Differential Pressure	kPa	5.00	5.00	5.00
Final Cell Pressure	kPa	300.00	400.00	500.00
Final Pore Pressure	kPa	293.00	389.00	494.00
Final B Value		0.97	1.00	1.00

Consolidation

Effective Pressure	kPa	100.00	200.00	300.00
Cell Pressure	kPa	300.00	400.00	500.00
Back Pressure	kPa	200.00	200.00	200.00
Excess Pore Pressure	kPa	94.00	189.00	294.00
Pore Pressure at End	kPa	200.00	200.00	200.00
Consolidated Volume	cm^3	72.39	70.97	69.47
Consolidated Height	mm	71.93	71.50	71.01
Consolidated Area	mm^2	1014.27	1001.99	989.22
Vol. Compressibility	m^2/MN	0.84868	0.92920	1.00614
Consolidation Coef.	$m^2/yr.$	0.12096	2.27131	0.05663

Alan Walters
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04/11/09
Date

Client Ref
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Bantry Inner Harbour

Contract No
GEO/8790/09

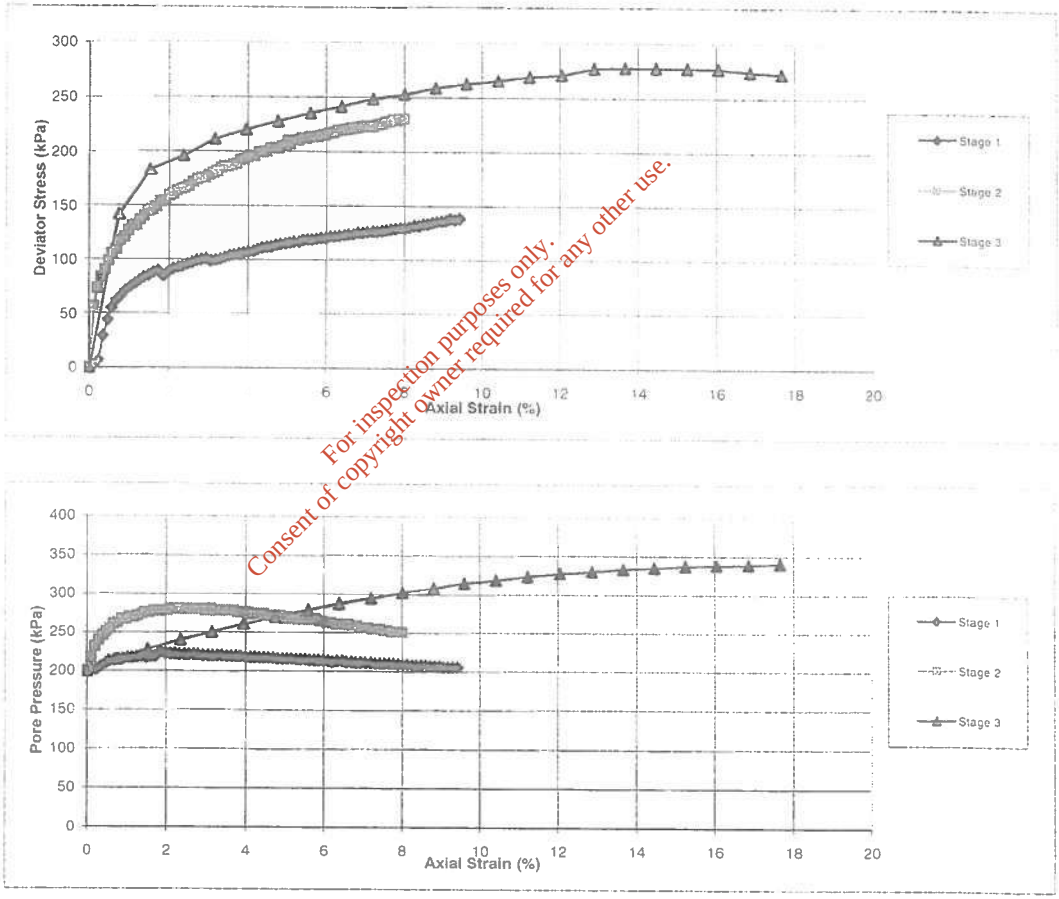
LABORATORY TESTING SERVICES LIMITED

Consolidated Undrained Triaxial Compression Test
BS 1377 : Part 8 : 1990

Specimen Details

Borehole		BH12
Sample No.		
Depth	m	4.0-4.45
Date		20/10/2009

Shearing Stage



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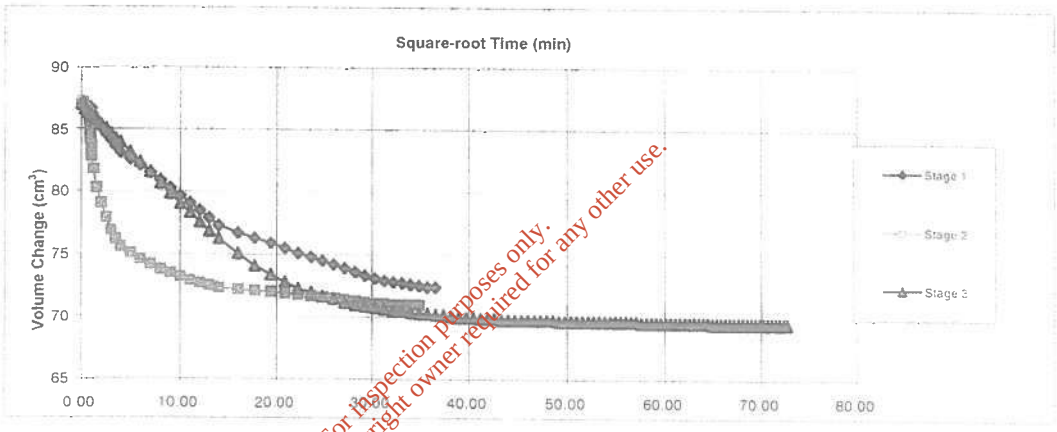
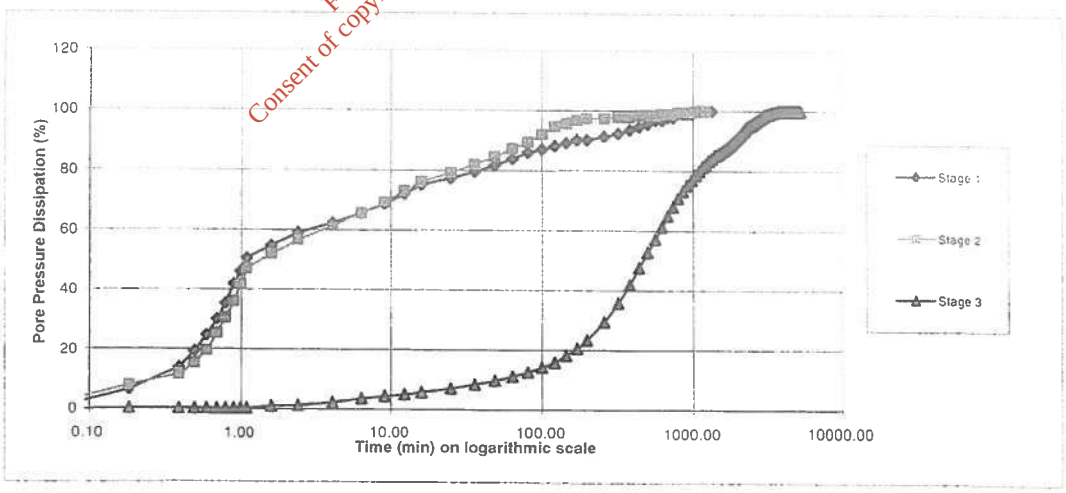
Specimen Details

Borehole		BH12
Sample No.		
Depth	m	4.0-4.45
Date		20/10/2009

Consolidation Stage





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Specimen Details

Borehole		BH12
Sample No.		
Depth	m	4.0-4.45
Date		20/10/2009

Shearing

Initial Cell Pressure	kPa	300	400	500
Initial Pore Pressure	kPa	200	200	200
Rate of Strain	mm/min	0.0063	0.0298	0.0029
Max Deviator Stress				
Axial Strain		9.426	8.000	13.673
Axial Stress	kPa	144.665	235.97	284.49
Cor. Deviator stress	kPa	139.842	230.44	277.94
Effective Major Stress	kPa	232.842	379.44	443.94
Effective Minor Stress	kPa	94.000	149.00	166.00
Effective Stress Ratio		2.477	2.547	2.67
s'	kPa	163.421	264.22	304.97
t'	kPa	69.421	115.22	138.97
Max Effective Priciple Stress Ratio				
Axial Strain		9.172	5.776	16.053
Axial Stress	kPa	121.542	219.105	284.287
Cor. Deviator stress	kPa	116.587	214.027	277.359
Effective Major Stress	kPa	200.587	347.027	438.359
Effective Minor Stress	kPa	84.000	133.000	161.000
Effective Stress Ratio		2.388	2.609	2.723
s'	kPa	142.294	240.013	299.679
t'	kPa	58.294	107.013	138.679
Shear Resistance Angle	degs			27.0
Cohesion c'	kPa			0

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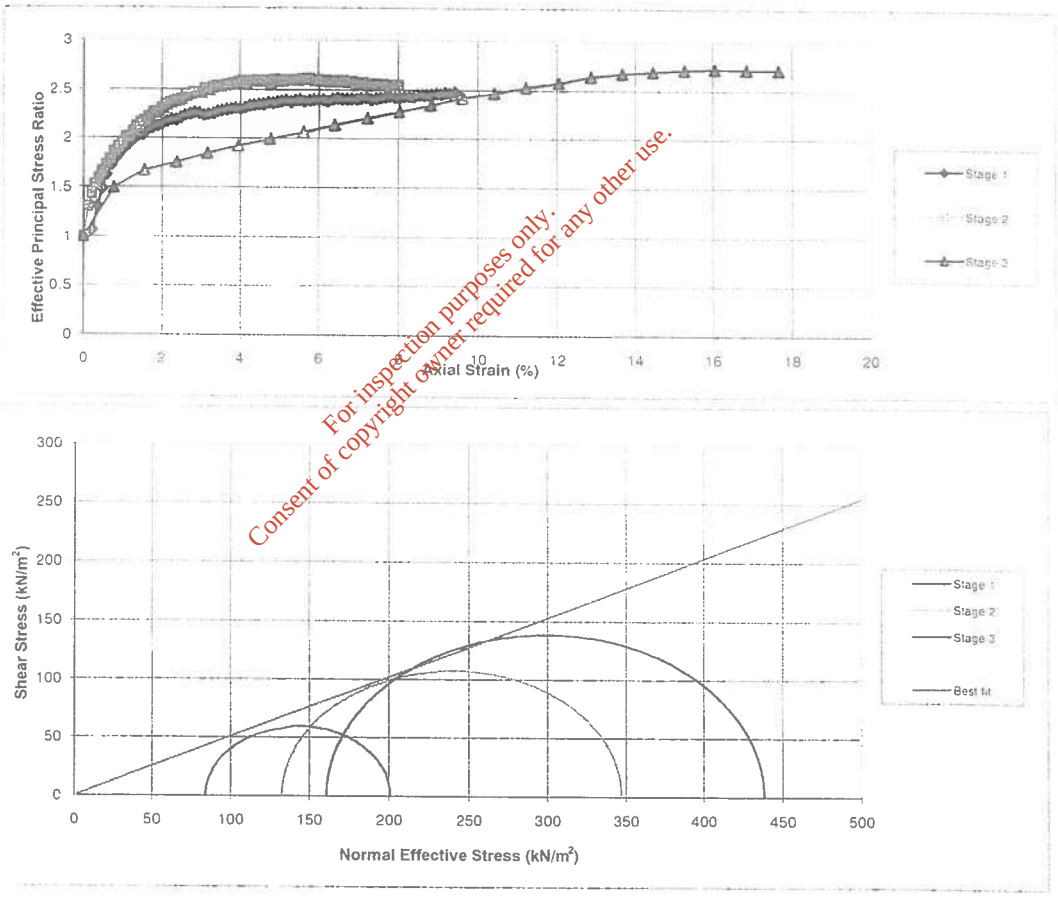
Specimen Details

Borehole		BH12
Sample No.		
Depth	m	4.0-4.45
Date		20/10/2009

Shearing Stage



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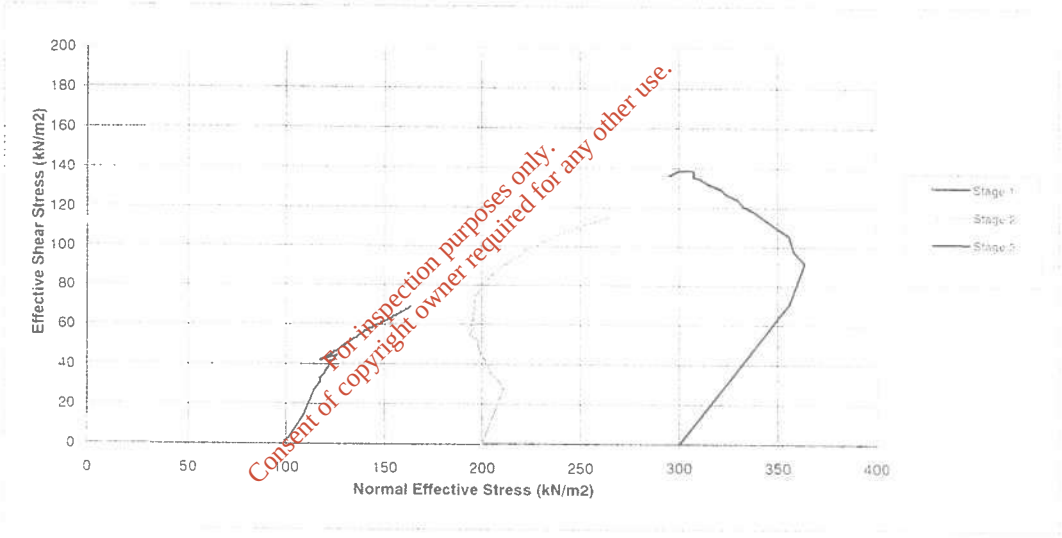
Specimen Details

Borehole		BH12
Sample No.		
Depth	m	4.0-4.45
Date		20/10/2009

Shearing Stage



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Consolidated Undrained Triaxial Compression Test
BS 1377 : Part 8 : 1990

Specimen Details

Borehole		BH12
Sample No.		
Depth	m	8.2
Date		25/10/2009
Disturbed / Undisturbed		Undisturbed

Description of Specimen

Grey organic silty CLAY

Initial Specimen Conditions

Height	mm	76.14	76.10	76.14
Diameter	mm	38.18	38.16	38.18
Area	mm^2	1144.88	1143.69	1144.88
Volume	cm^3	87.17	87.03	87.17
Mass	g	172.75	172.26	175.00
Dry Mass	g	137.39	135.84	138.18
Density	Mg/m^3	1.98	1.98	2.01
Dry Density	Mg/m^3	1.58	1.56	1.59
Moisture Content	%	26	27	27
Specific Gravity (assumed/measured)	kN/m^3	2.65 assumed	2.65 assumed	2.65 assumed

Final Specimen Conditions

Moisture Content	%	10	21	22
Density	Mg/m^3	2.04	1.98	2.27
Dry Density	Mg/m^3	1.85	1.64	1.86

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Consolidated Undrained Triaxial Compression Test
BS 1377 : Part 8 : 1990

Specimen Details

Borehole		BH12
Sample No.		
Depth	m	8.2
Date		25/10/2009

Test Setup

Date started	18/10/2009	18/10/2009	18/10/2009
Date Finished	22/10/2009	22/10/2009	22/10/2009
Top Drain Used	y	y	y
Base Drain Used	y	y	y
Side Drains Used	y	y	y
Pressure System Number	P6	P10	P4
Cell Number	C6	C10	C4

Saturation

Cell Pressure Incr.	kPa	100.00	100.00	100.00
Back Pressure Incr.	kPa	95.00	95.00	95.00
Differential Pressure	kPa	5.00	5.00	5.00
Final Cell Pressure	kPa	300.00	400.00	600.00
Final Pore Pressure	kPa	294.00	389.00	596.00
Final B Value		0.99	1.00	1.00

Consolidation

Effective Pressure	kPa	100.00	200.00	300.00
Cell Pressure	kPa	300.00	400.00	600.00
Back Pressure	kPa	200.00	200.00	300.00
Excess Pore Pressure	kPa	94.00	189.00	296.00
Pore Pressure at End	kPa	200.00	200.00	300.00
Consolidated Volume	cm^3	74.37	82.73	74.37
Consolidated Height	mm	72.41	74.85	72.41
Consolidated Area	mm^2	1032.81	1106.02	1032.81
Vol. Compressibility	m^2/MN	0.73418	0.24703	0.48946
Consolidation Coef.	$m^2/yr.$	0.11879	0.76657	0.09248

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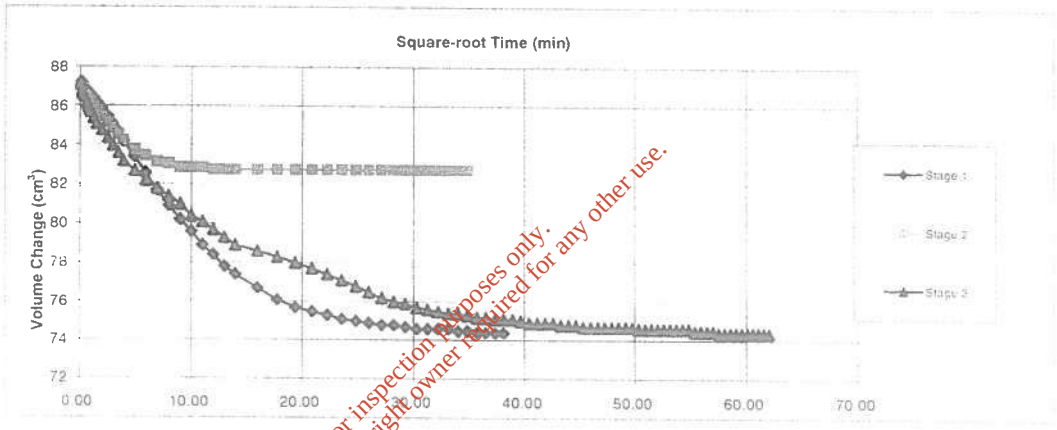
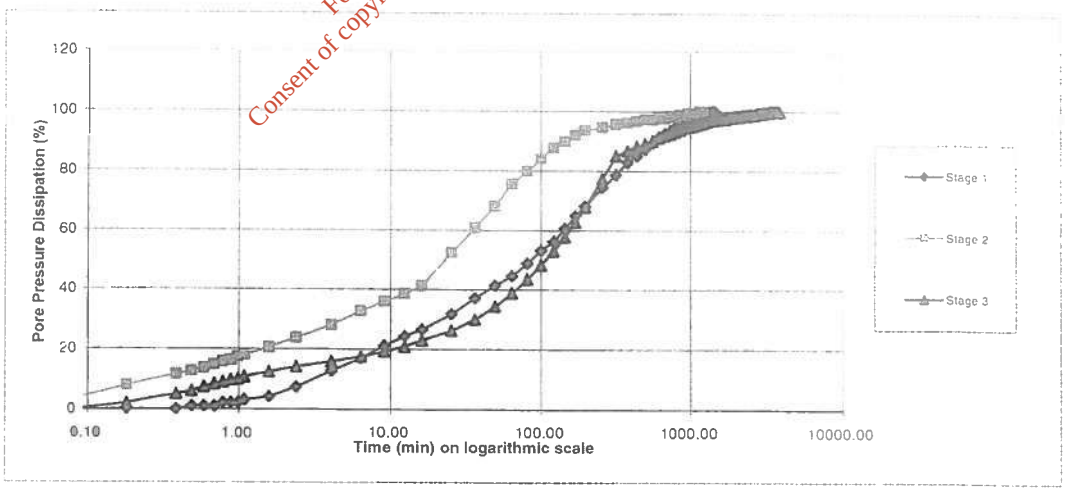
Specimen Details

Borehole		BH12
Sample No.		
Depth	m	8.2
Date		25/10/2009

Consolidation Stage





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Specimen Details

Borehole		BH12
Sample No.		
Depth	m	8.2
Date		25/10/2009

Shearing

Initial Cell Pressure	kPa	300	400	600
Initial Pore Pressure	kPa	200	200	300
Rate of Strain	mm/min	0.0062	0.0415	0.0038
Max Deviator Stress				
Axial Strain		5.289	7.642	7.443
Axial Stress	kPa	96.287	171.69	181.20
Cor. Deviator stress	kPa	92.309	166.23	175.65
Effective Major Stress	kPa	131.309	277.23	265.65
Effective Minor Stress	kPa	40.000	111.00	90.00
Effective Stress Ratio		3.283	2.498	2.95
s'	kPa	85.655	194.11	177.83
t'	kPa	45.655	83.11	87.83
Max Effective Priciple Stress Ratio				
Axial Strain		0.062	3.541	7.996
Axial Stress	kPa	96.411	140.239	180.657
Cor. Deviator stress	kPa	91.275	135.618	175.018
Effective Major Stress	kPa	130.275	200.618	262.018
Effective Minor Stress	kPa	39.000	65.000	87.000
Effective Stress Ratio		3.340	3.086	3.012
s'	kPa	84.637	132.809	174.509
t'	kPa	45.637	67.809	87.509
Shear Resistance Angle	degs			31.0
Cohesion c'	kPa			0

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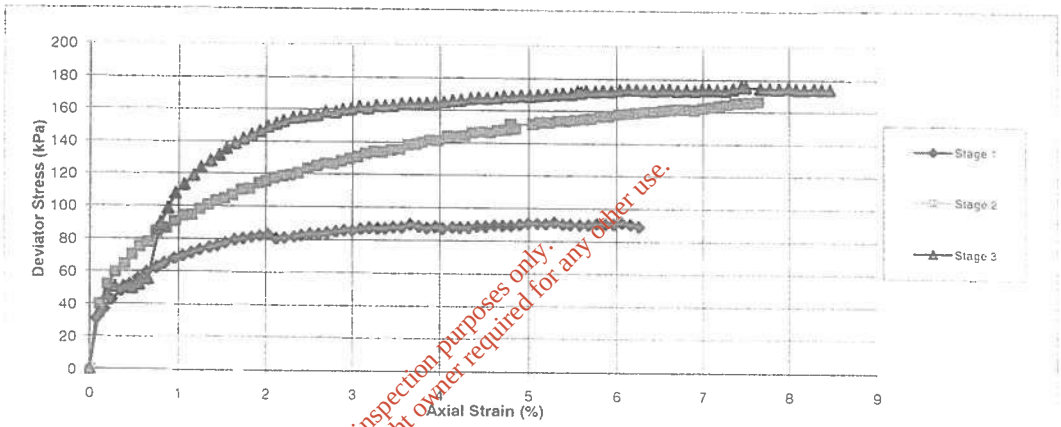
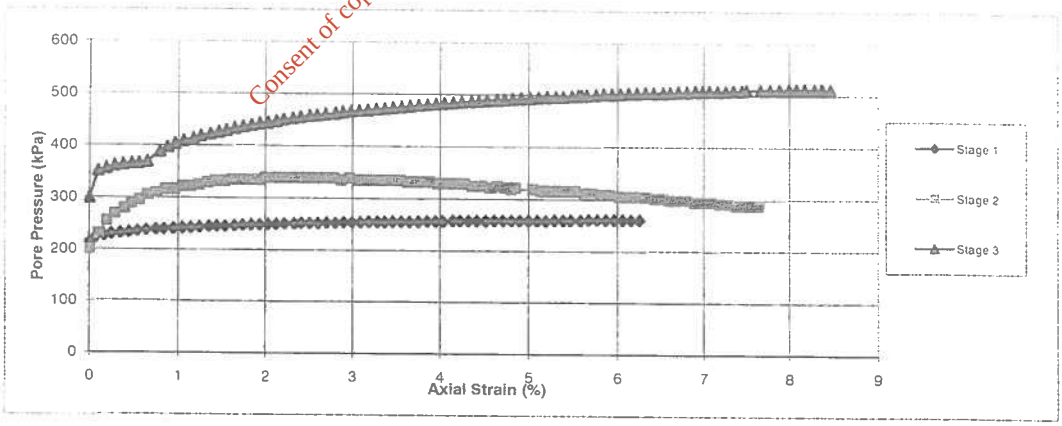
Specimen Details

Borehole		BH12
Sample No.		
Depth	m	8.2
Date		25/10/2009

Shearing Stage





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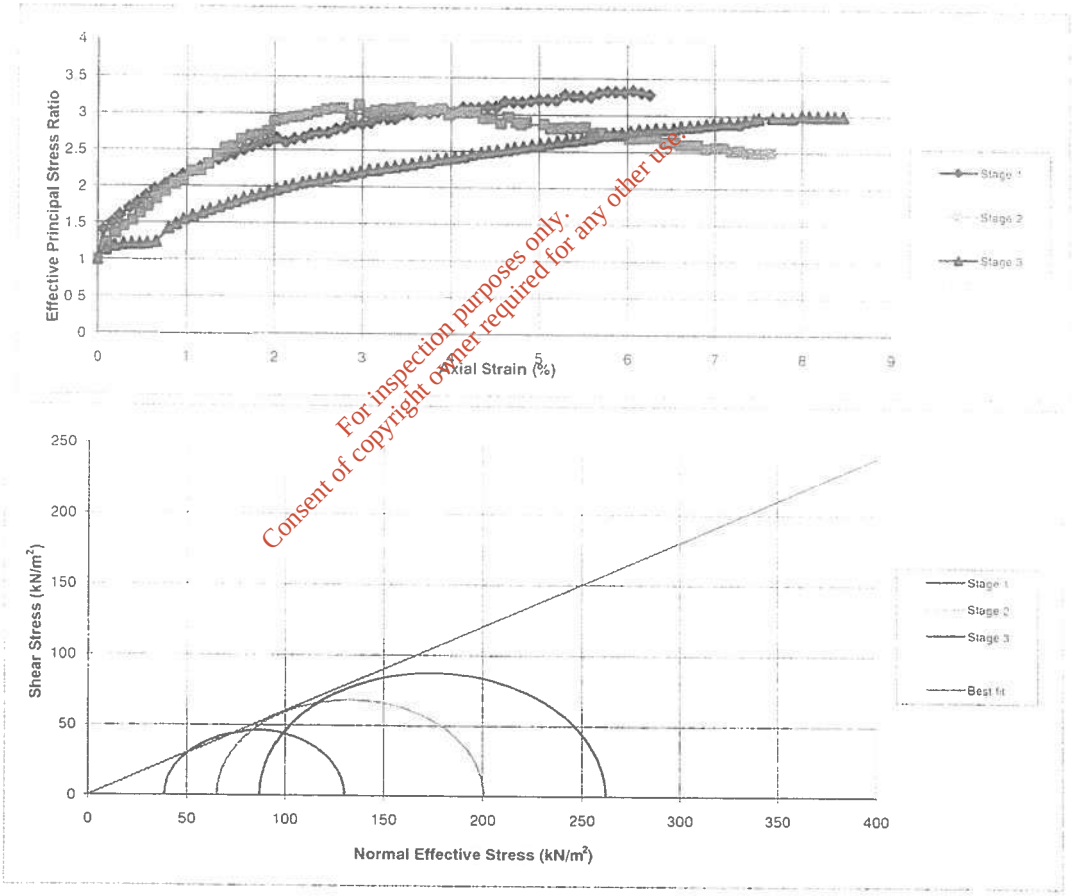
Specimen Details

Borehole		BH12
Sample No.		
Depth	m	8.2
Date		25/10/2009

Shearing Stage



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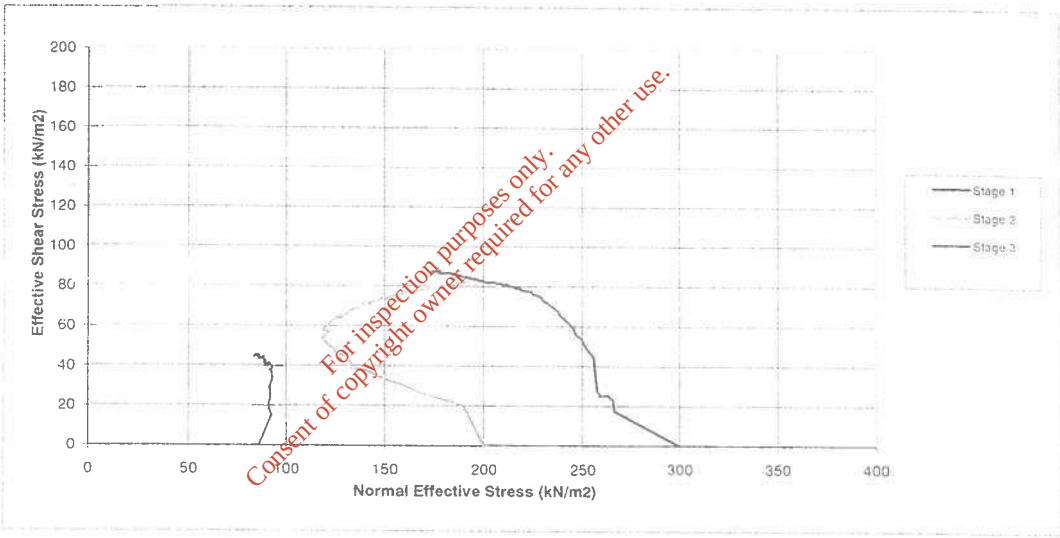
Specimen Details

Borehole		BH12
Sample No.		
Depth	m	8.2
Date		25/10/2009

Shearing Stage



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Bantry Inner Harbour

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GEO/8790/09

Consolidated Undrained Triaxial Compression Test
BS 1377 : Part 8 : 1990

Specimen Details

Borehole		BH14
Sample No.		
Depth	m	5.5
Date		28/10/2009
Disturbed / Undisturbed		Undisturbed

Description of Specimen

Grey silty organic CLAY

Initial Specimen Conditions

Height	mm	76.24	76.22	76.18
Diameter	mm	38.16	38.16	38.20
Area	mm^2	1143.69	1143.69	1146.08
Volume	cm^3	87.19	87.17	87.31
Mass	g	147.24	145.92	148.24
Dry Mass	g	97.69	97.24	96.94
Density	Mg/m^3	1.69	1.67	1.70
Dry Density	Mg/m^3	1.11	1.12	1.11
Moisture Content	%	52	50	53
Specific Gravity (assumed/measured)	kN/m^3	2.65 assumed	2.65 assumed	2.65 assumed

Final Specimen Conditions

Moisture Content	%	30	25	32
Density	Mg/m^3	1.52	1.55	1.71
Dry Density	Mg/m^3	1.17	1.24	1.29

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BS 1377 : Part 8 : 1990

Specimen Details

Borehole		BH14
Sample No.		
Depth	m	5.5
Date		28/10/2009

Test Setup

Date started	22/10/2009	22/10/2009	22/10/2009
Date Finished	27/10/2009	27/10/2009	27/10/2009
Top Drain Used	y	y	y
Base Drain Used	y	y	y
Side Drains Used	y	y	y
Pressure System Number	P6	P10	P4
Cell Number	C6	C10	C4

Saturation

Cell Pressure Incr.	kPa	100.00	100.00	100.00
Back Pressure Incr.	kPa	95.00	95.00	95.00
Differential Pressure	kPa	5.00	5.00	5.00
Final Cell Pressure	kPa	400.00	400.00	600.00
Final Pore Pressure	kPa	294.00	392.00	594.00
Final B Value		0.96	1.00	1.00

Consolidation

Effective Pressure	kPa	100.00	200.00	300.00
Cell Pressure	kPa	300.00	400.00	600.00
Back Pressure	kPa	200.00	200.00	300.00
Excess Pore Pressure	kPa	94.00	192.00	294.00
Pore Pressure at End	kPa	200.00	200.00	300.00
Consolidated Volume	cm^3	83.09	78.27	75.11
Consolidated Height	mm	75.05	73.63	72.63
Consolidated Area	mm^2	1107.83	1065.84	1039.32
Vol. Compressibility	m^2/MN	0.23511	0.51049	0.46578
Consolidation Coef.	$m^2/yr.$	0.71866	0.76577	0.10392

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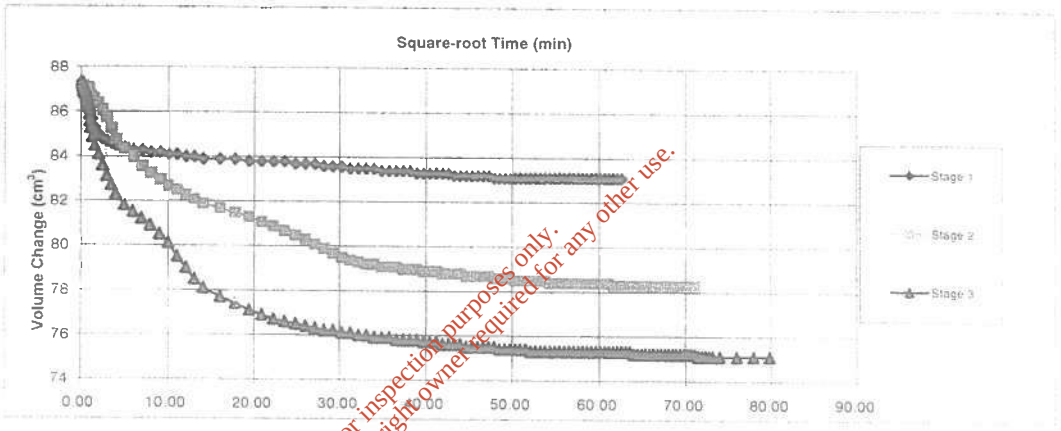
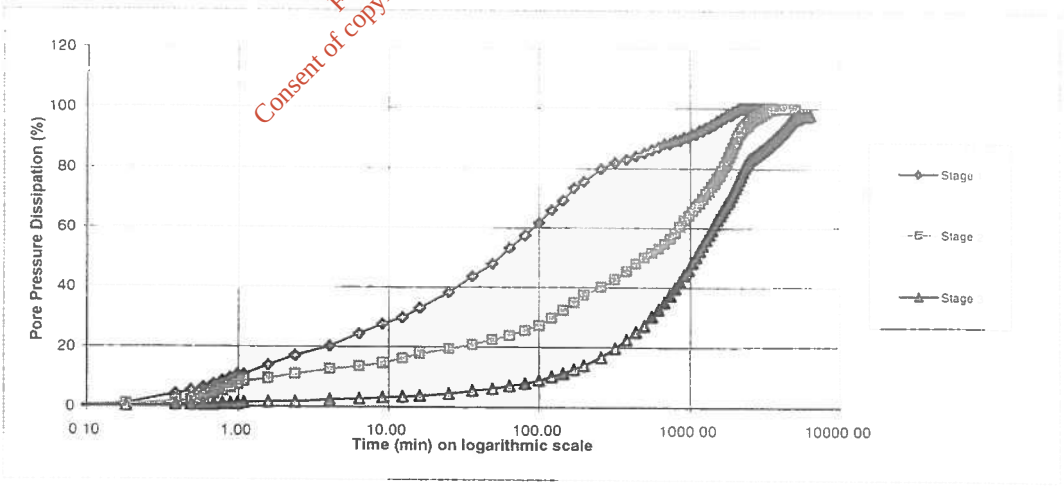
Specimen Details

Borehole		BH14
Sample No.		
Depth	m	5.5
Date		28/10/2009

Consolidation Stage





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BS 1377 : Part 8 : 1990

Specimen Details

Borehole		BH14
Sample No.		
Depth	m	5.5
Date		28/10/2009

Shearing

Initial Cell Pressure	kPa	300	400	600
Initial Pore Pressure	kPa	200	200	300
Rate of Strain	mm/min	0.0390	0.0408	0.0055
Max Deviator Stress				
Axial Strain		6.103	7.769	4.929
Axial Stress	kPa	104.251	177.91	212.22
Cor. Deviator stress	kPa	100.107	172.43	207.07
Effective Major Stress	kPa	148.107	243.43	311.07
Effective Minor Stress	kPa	49.000	71.00	104.00
Effective Stress Ratio		3.023	3.429	2.99
s'	kPa	98.553	157.21	207.53
t'	kPa	49.553	86.21	103.53
Max Effective Priciple Stress Ratio				
Axial Strain		6.103	7.973	6.746
Axial Stress	kPa	104.251	178.902	215.342
Cor. Deviator stress	kPa	99.107	173.375	209.901
Effective Major Stress	kPa	148.107	243.375	310.901
Effective Minor Stress	kPa	49.000	70.000	101.000
Effective Stress Ratio		3.023	3.477	3.078
s'	kPa	98.553	156.688	205.950
t'	kPa	49.553	86.688	104.950
Shear Resistance Angle	degs			31.0
Cohesion c'	kPa			0

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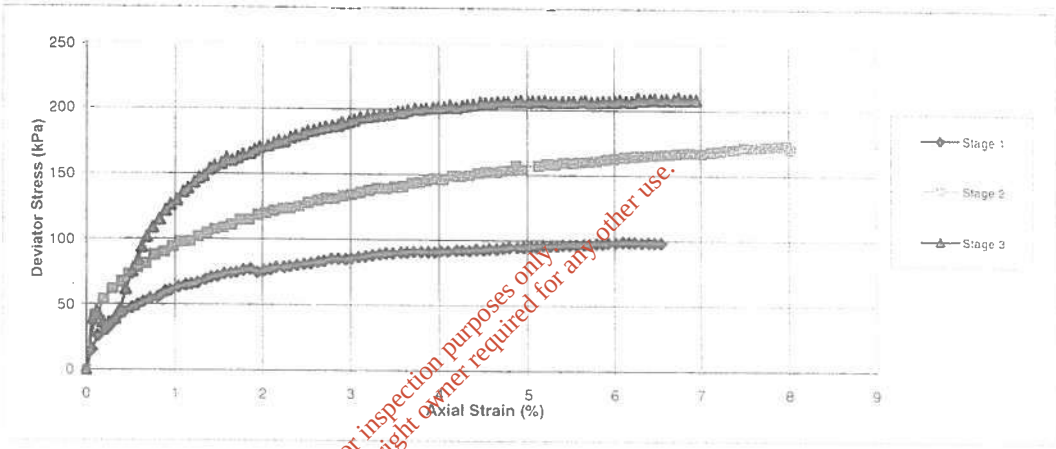
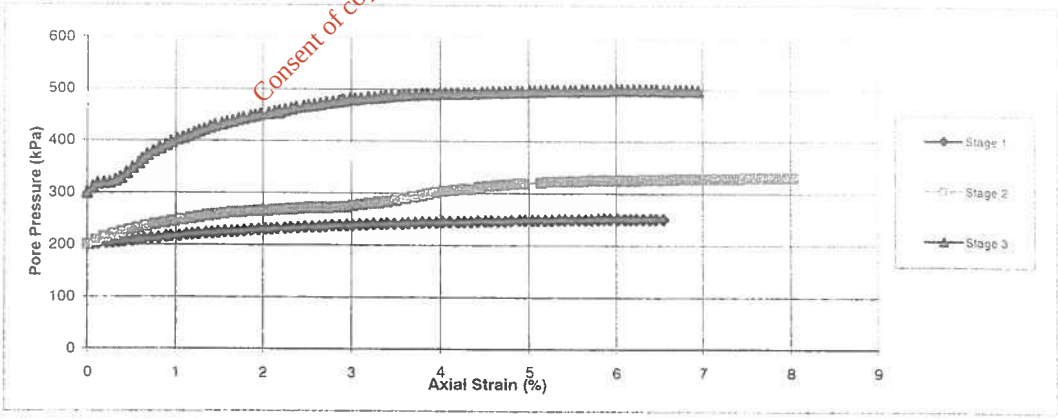
Specimen Details

Borehole		BH14
Sample No.		
Depth	m	5.5
Date		28/10/2009

Shearing Stage





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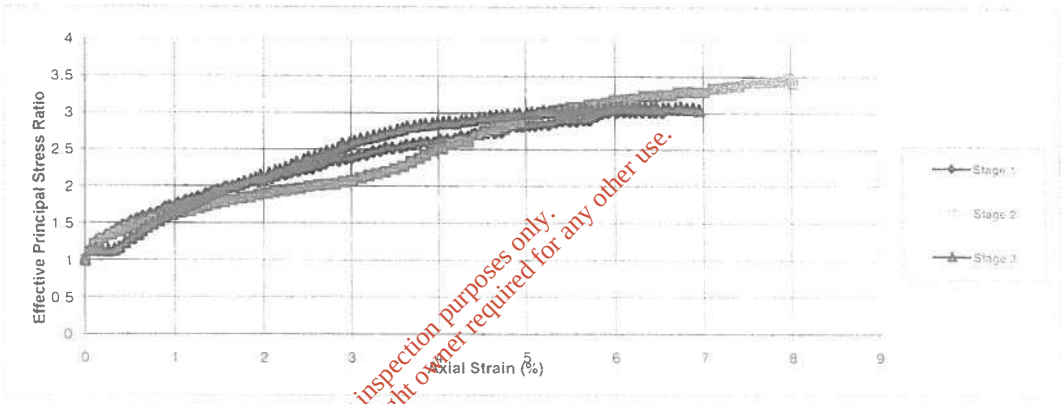
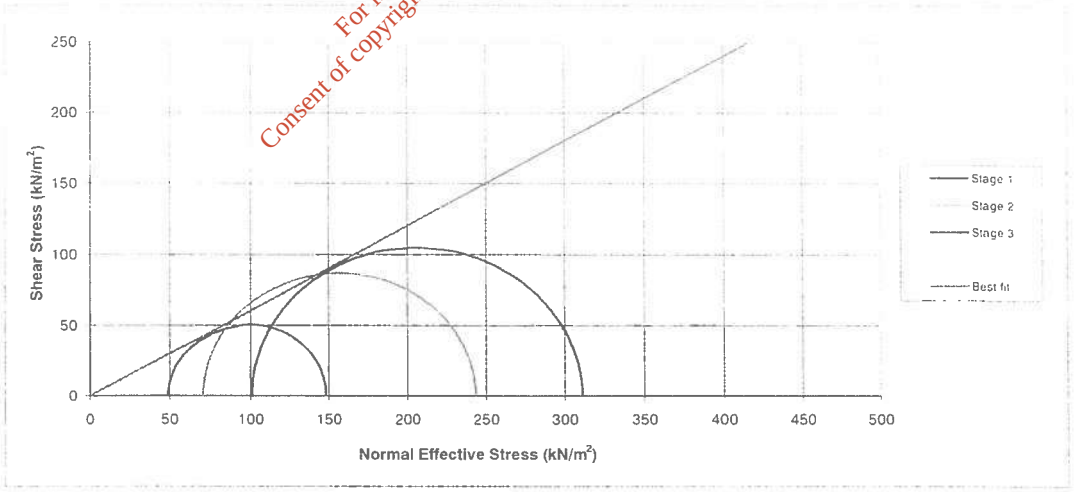
Specimen Details

Borehole		BH14
Sample No.		
Depth	m	5.5
Date		28/10/2009

Shearing Stage





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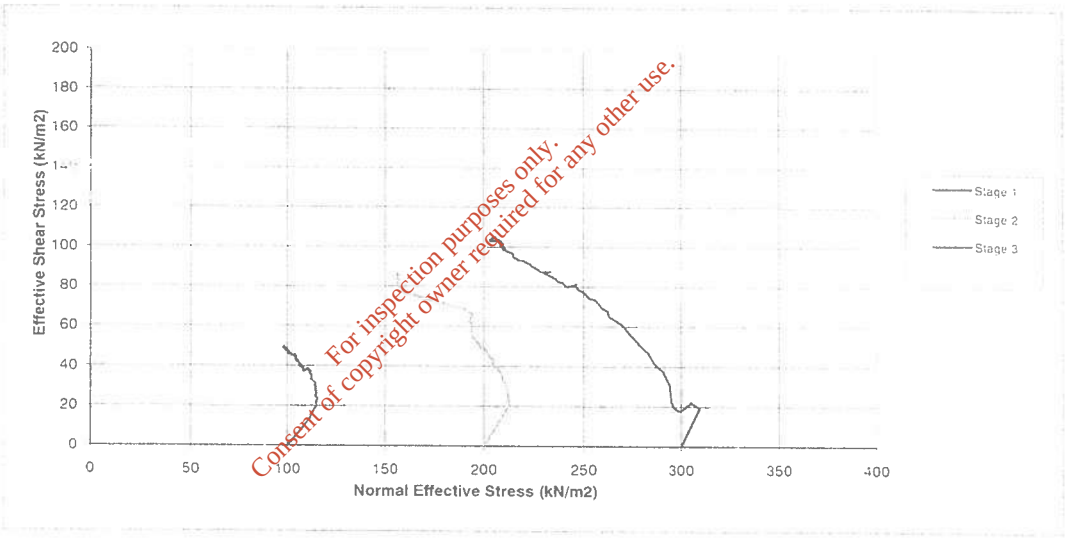
Specimen Details

Borehole		BH14
Sample No.		
Depth	m	5.5
Date		28/10/2009

Shearing Stage



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BS 1377 : Part 8 : 1990

Specimen Details

Borehole		BH14
Sample No.		
Depth	m	9
Date		03/11/2009
Disturbed / Undisturbed		Undisturbed

Description of Specimen

Grey very silty Clay very soft

Initial Specimen Conditions

Height	mm	76.14	76.26	76.38
Diameter	mm	38.14	38.10	38.18
Area	mm^2	1142.49	1140.09	1144.76
Volume	cm^3	86.99	86.94	87.44
Mass	g	174.86	167.05	166.84
Dry Mass	g	131.47	127.22	125.73
Density	Mg/m^3	2.01	1.92	1.91
Dry Density	Mg/m^3	1.51	1.46	1.44
Moisture Content	%	33	31	33
Specific Gravity (assumed/measured)	kN/m^3	2.65 assumed	2.65 assumed	2.65 assumed

Final Specimen Conditions

Moisture Content	%	24	22	25
Density	Mg/m^3	1.93	1.87	1.92
Dry Density	Mg/m^3	1.56	1.54	1.54

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03/11/09
Date

LABORATORY TESTING SERVICES LIMITED

Bantry Inner Harbour

Client Ref
PC9030
Contract No
GEO/8790/09

Consolidated Undrained Triaxial Compression Test
BS 1377 : Part 8 : 1990

Specimen Details

Borehole		BH14
Sample No.		
Depth	m	9
Date		03/11/2009

Test Setup

Date started	29/10/2009	27/10/2008	29/10/2009
Date Finished	02/11/2009	30/10/2008	02/11/2009
Top Drain Used	y	y	y
Base Drain Used	y	y	y
Side Drains Used	y	y	y
Pressure System Number	P8	P10	P2
Cell Number	C8	C10	C2

Saturation

Cell Pressure Incr.	kPa	100.00	100.00	100.00
Back Pressure Incr.	kPa	95.00	95.00	95.00
Differential Pressure	kPa	5.00	5.00	5.00
Final Cell Pressure	kPa	500.00	500.00	600.00
Final Pore Pressure	kPa	490.00	389.00	589.00
Final B Value		1.00	1.00	1.00

Consolidation

Effective Pressure	kPa	150.00	250.00	350.00
Cell Pressure	kPa	500.00	500.00	600.00
Back Pressure	kPa	350.00	250.00	250.00
Excess Pore Pressure	kPa	140.00	239.00	339.00
Pore Pressure at End	kPa	350.00	250.00	250.00
Consolidated Volume	cm^3	84.49	82.64	81.64
Consolidated Height	mm	75.41	75.00	74.69
Consolidated Area	mm^2	1120.60	1102.50	1094.14
Vol. Compressibility	m^2/MN	0.08211	0.19783	0.26533
Consolidation Coef.	$m^2/yr.$	0.45946	0.76497	0.24302

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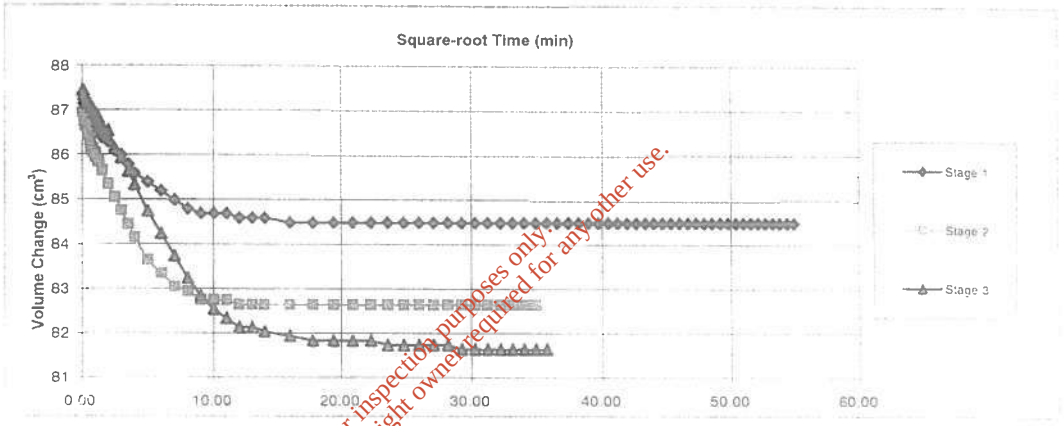
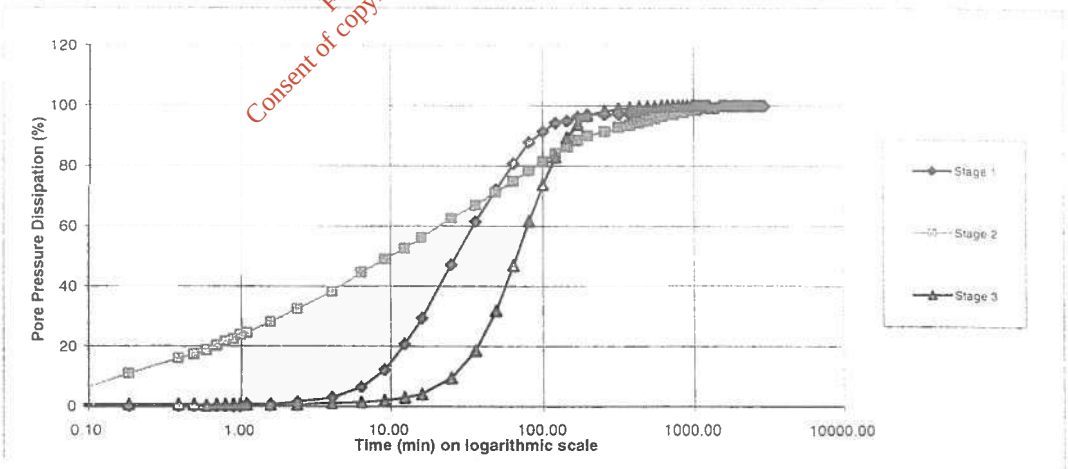
BS 1377 : Part 8 : 1990

Specimen Details

Borehole		BH14
Sample No.		
Depth	m	9
Date		03/11/2009

Consolidation Stage





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Consolidated Undrained Triaxial Compression Test
BS 1377 : Part 8 : 1990

Specimen Details

Borehole		BH14
Sample No.		
Depth	m	9
Date		03/11/2009

Shearing

Initial Cell Pressure	kPa	500	500	600
Initial Pore Pressure	kPa	350	250	250
Rate of Strain	mm/min	0.0251	0.0416	0.0132
Max Deviator Stress				
Axial Strain		6.431	7.626	12.103
Axial Stress	kPa	212.922	476.82	587.24
Cor. Deviator stress	kPa	208.709	471.37	580.94
Effective Major Stress	kPa	330.709	694.37	881.94
Effective Minor Stress	kPa	123.000	223.00	301.00
Effective Stress Ratio		2.689	3.114	2.93
s'	kPa	226.855	458.68	591.47
t'	kPa	103.855	235.68	290.47
Max Effective Priciple Stress Ratio				
Axial Strain		6.312	5.506	10.684
Axial Stress	kPa	209.849	404.972	553.459
Cor. Deviator stress	kPa	204.661	399.948	547.388
Effective Major Stress	kPa	325.661	614.948	830.388
Effective Minor Stress	kPa	121.000	215.000	283.000
Effective Stress Ratio		2.691	2.860	2.934
s'	kPa	223.330	414.974	556.694
t'	kPa	102.330	199.974	273.694
Shear Resistance Angle	degs			29.0
Cohesion c'	kPa			0

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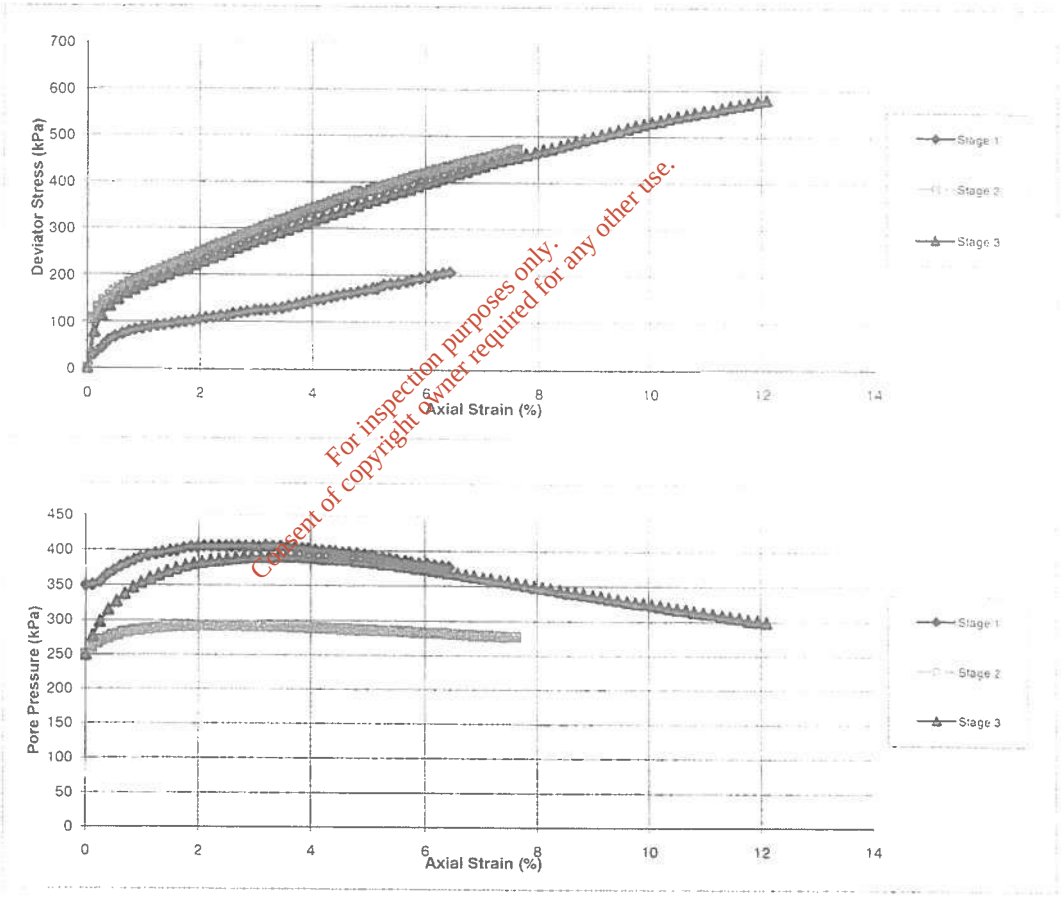
BS 1377 : Part 8 : 1990

Specimen Details

Borehole		BH14
Sample No.		
Depth	m	9
Date		03/11/2009

Shearing Stage



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BS 1377 : Part 8 : 1990

Specimen Details

Borehole		BH14
Sample No.		
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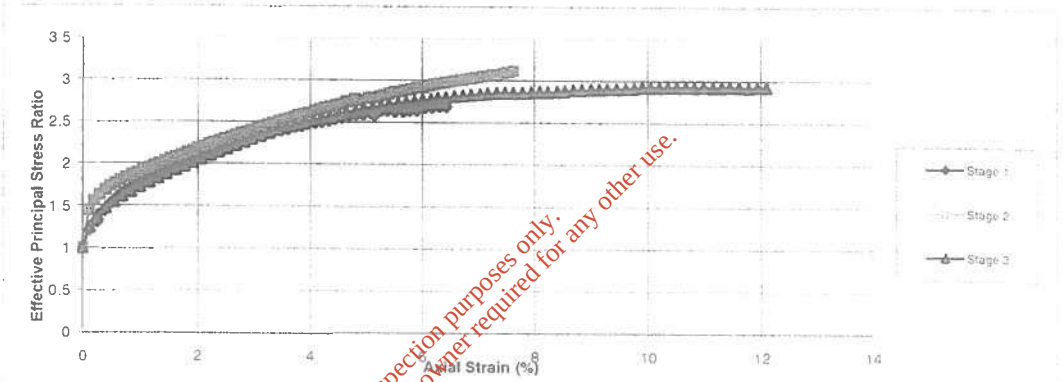
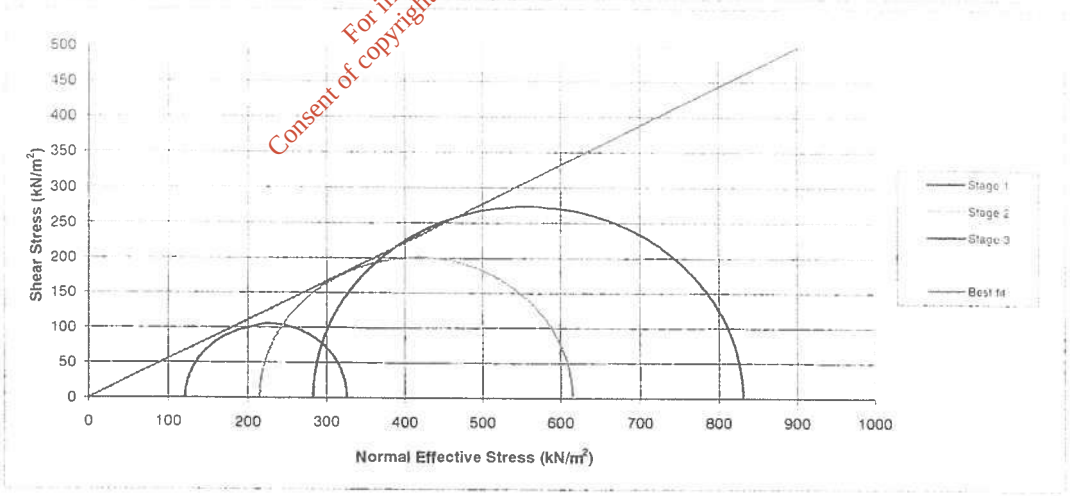
Shearing Stage





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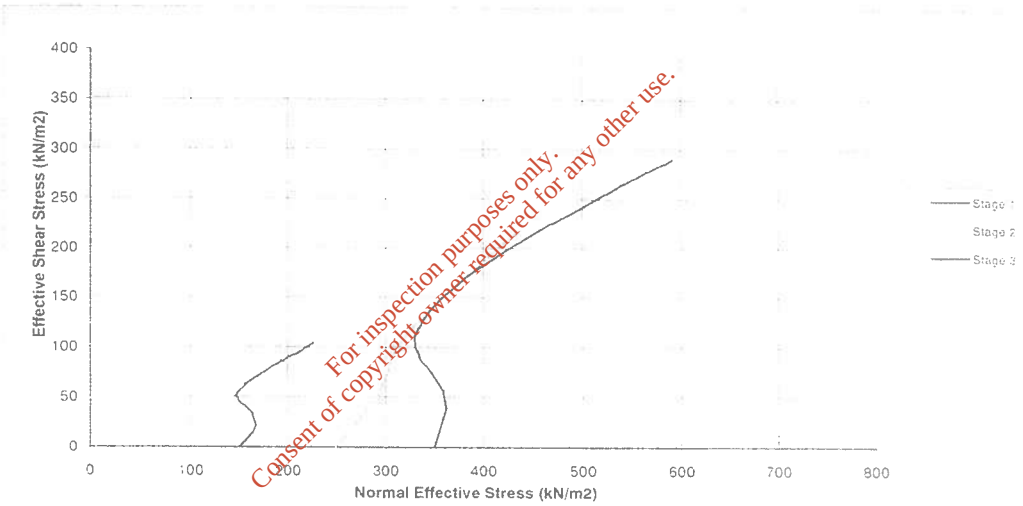
Sample No.		
Depth	m	9
Date		03/11/2009

Shearing Stage



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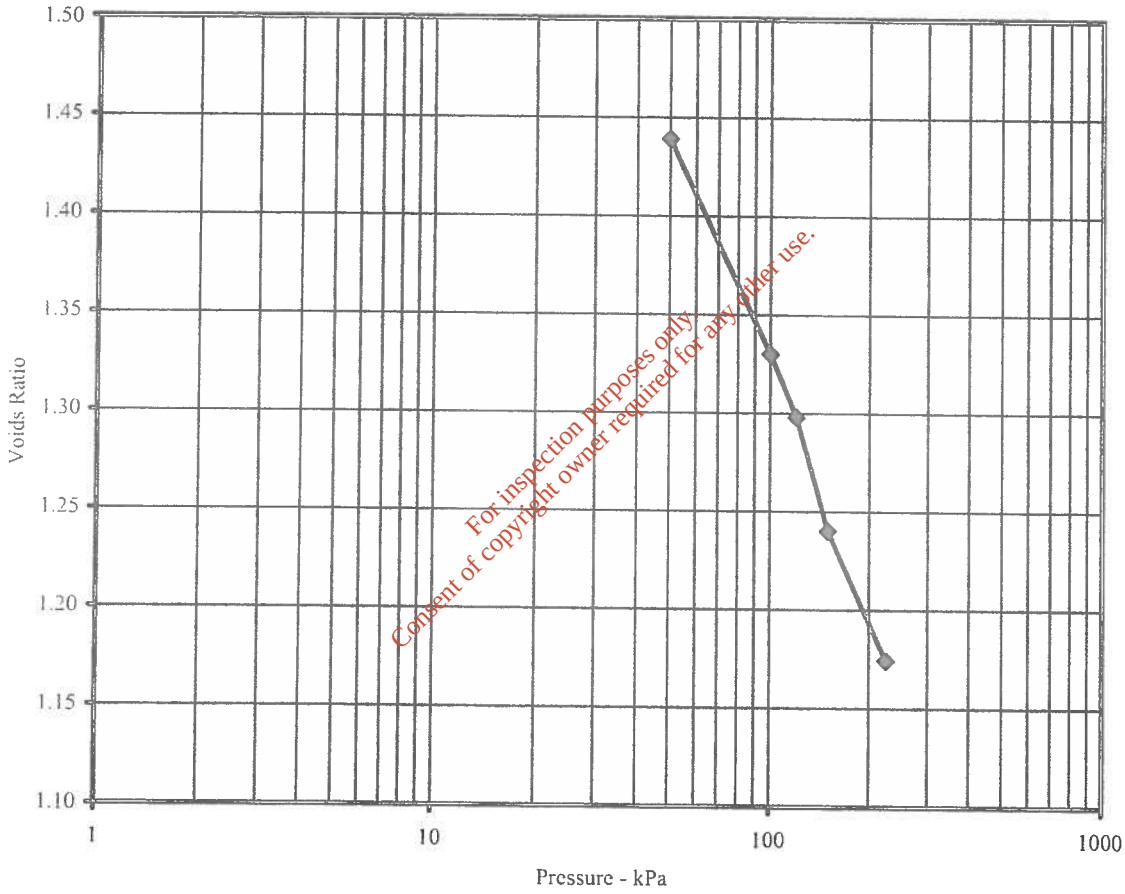
LABORATORY TESTING SERVICES LIMITED

ONE DIMENSIONAL CONSOLIDATION

BS1377: Part 5: 1990

Hole Number: **BH01** Sample Number: N/A Depth (m): **1.50**

Initial Conditions		Pressure Range kPa			Mv m2/MN	Cv m2/yr	Method of time fitting used Cv Calculated using t90
Moisture Content (%):	72						
Bulk Density (Mg/m3):	1.61	0	-	50	2.837	2.065	Nominal Laboratory Temperature 20'C
Dry Density (Mg/m3):	0.93	50	-	100	0.894	1.671	
Voids Ratio:	1.8422	100	-	120	0.689	0.519	Location of specimen with sample Top
Degree of saturation:	104.2	120	-	150	0.839	0.651	
Height (mm):	18.67	150	-	225	0.391	1.927	Remarks:
Diameter (mm)	75.11						
Particle Density (Mg/m3): Assumed	2.65						



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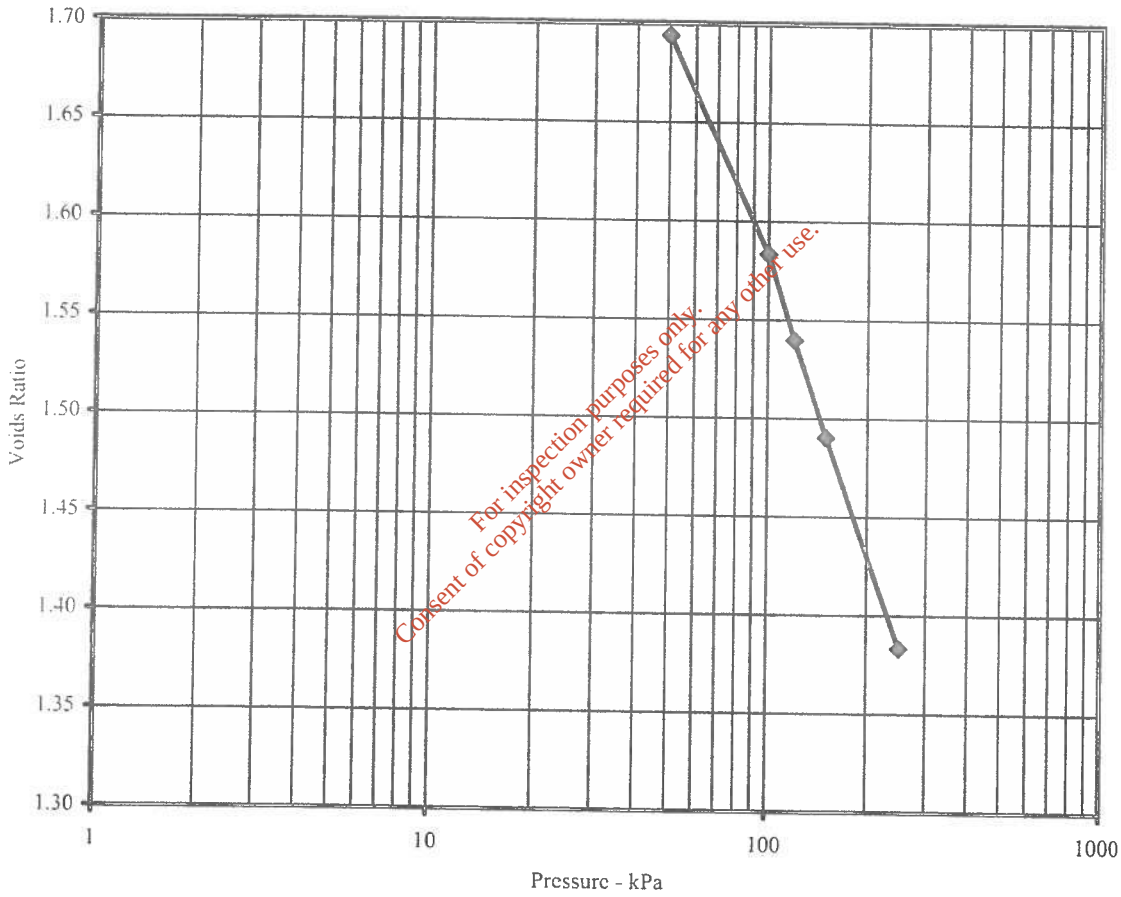
BS1377: Part 5· 1990

Hole Number: **BH01** Sample Number: N A Depth (m): **2.50**

Initial Conditions		Pressure Range kPa			Mv m2/MN	Cv m2/yr	Method of time fitting used Cv Calculated using t90
Moisture Content (%):	58						
Bulk Density (Mg/m3):	1.38	0	-	50	2.242	0.666	Nominal Laboratory Temperature 20'C
Dry Density (Mg/m3):	0.87	50	-	100	0.821	0.763	
Voids Ratio:	2.0339	100	-	120	0.845	0.719	Location of specimen with sample Top
Degree of saturation:	75.5	120	-	150	0.648	0.397	
Height (mm):	18.55	150	-	250	0.430	0.651	Remarks:
Diameter (mm)	75.25						
Particle Density (Mg/m3): Assumed	2.65						



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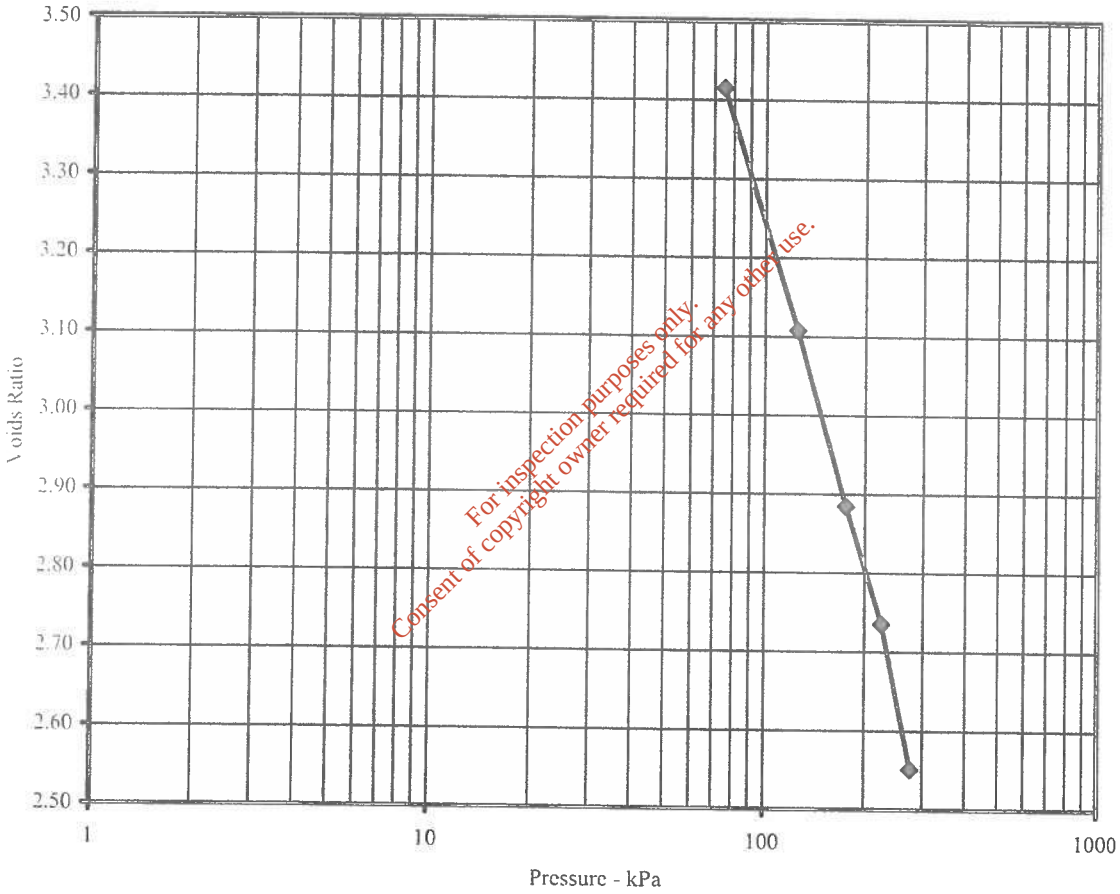
Hole Number: **BH01** Sample Number: N/A Depth (m): **4.50**

Initial Conditions		Pressure Range kPa			Mv m2/MN	Cv m2/yr	Method of time fitting used Cv Calculated using t90
Moisture Content (%):	169						
Bulk Density (Mg/m3):	1.26	0	-	75	2.887	5.367	Nominal Laboratory Temperature 20'C
Dry Density (Mg/m3):	0.47	75	-	125	1.392	1.524	
Voids Ratio:	4.6354	125	-	175	1.088	1.345	Location of specimen with sample Top
Degree of saturation:	96.6	175	-	225	0.769	1.273	
Height (mm):	19.82	225	-	275	0.985	0.705	Remarks:
Diameter (mm)	75.15						
Particle Density (Mg/m3):	2.65						
Assumed							



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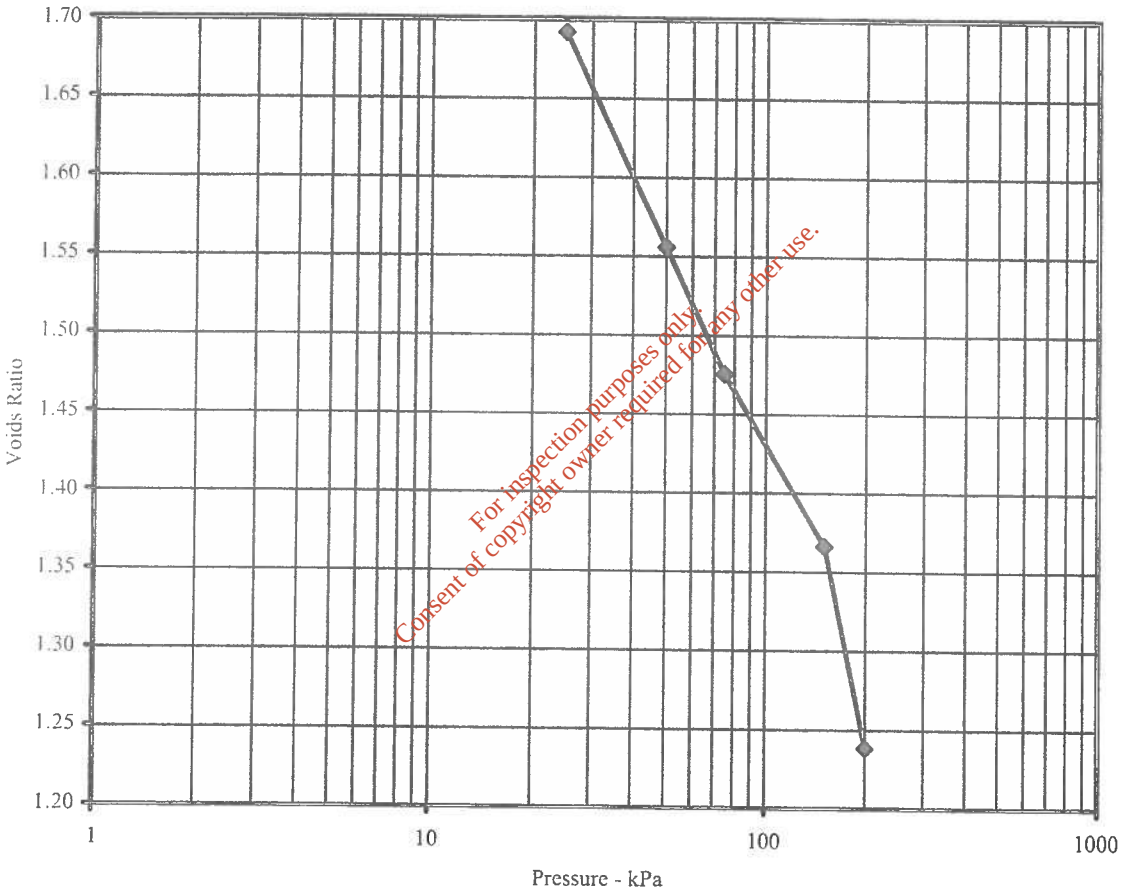
BS1377: Part 5: 1990

Hole Number: **BH04** Sample Number: N/A Depth (m): **1.50**

Initial Conditions		Pressure Range kPa			Mv m2/MN	Cv m2/yr	Method of time fitting used Cv Calculated using t90
Moisture Content (%):	83						
Bulk Density (Mg/m3):	1.56	0	-	25	5.346	0.524	Nominal Laboratory Temperature 20'C
Dry Density (Mg/m3):	0.85	25	-	50	2.022	0.426	
Voids Ratio:	2.1073	50	-	75	1.256	0.310	Location of specimen with sample Top
Degree of saturation:	104.0	75	-	150	0.589	0.375	
Height (mm):	18.66	150	-	200	1.082	0.321	Remarks:
Diameter (mm)	75.21						
Particle Density (Mg/m3):	2.65						
Assumed							



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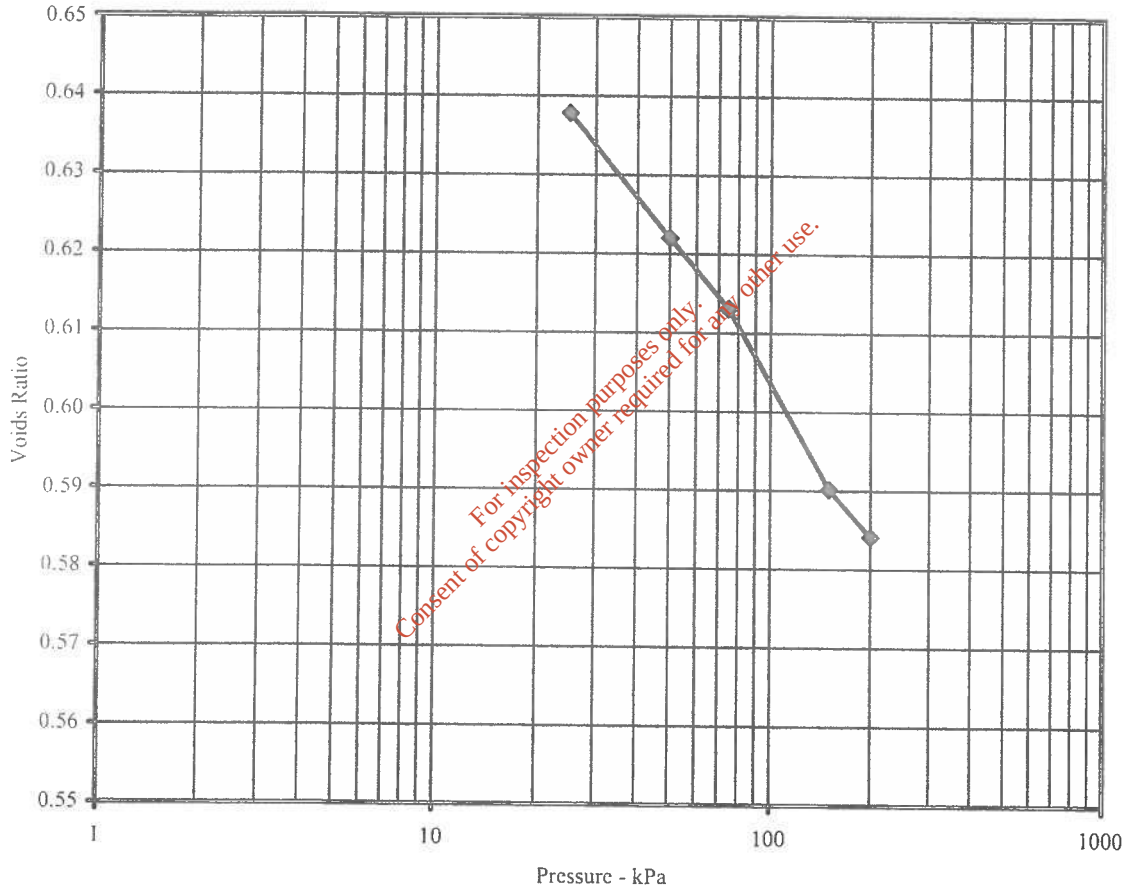
BS1377: Part 5: 1990

Hole Number: **BH04** Sample Number: N/A Depth (m): **2.50**

Initial Conditions		Pressure Range kPa			Mv m2/MN	Cv m2/yr	Method of time fitting used Cv Calculated using t90
Moisture Content (%):	33						
Bulk Density (Mg/m3):	2.06	0	-	25	1.512	1.407	Nominal Laboratory Temperature 20'C
Dry Density (Mg/m3):	1.56	25	-	50	0.386	3.742	
Voids Ratio:	0.7022	50	-	75	0.221	2.821	Location of specimen with sample Top
Degree of saturation:	122.7	75	-	150	0.189	4.918	
Height (mm):	18.65	150	-	200	0.076	4.789	Remarks:
Diameter (mm)	75.18						
Particle Density (Mg/m3): Assumed	2.65						



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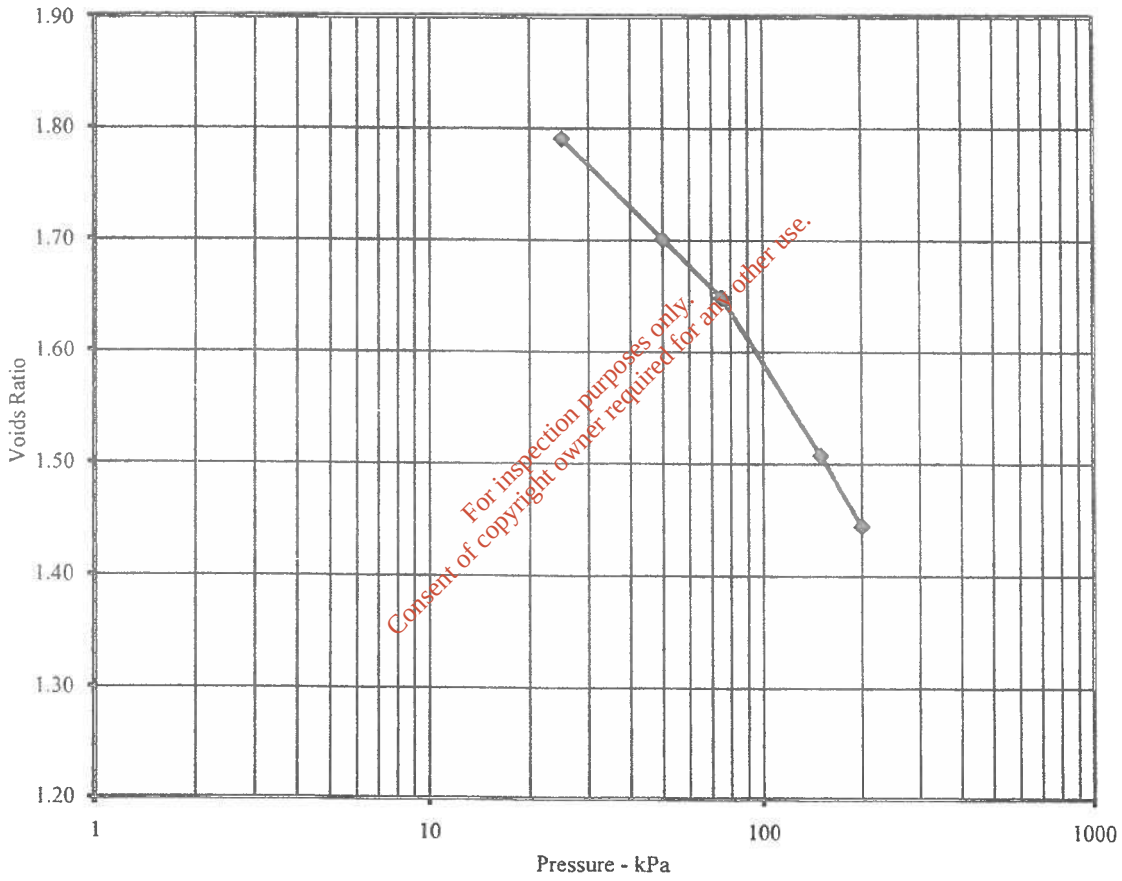
BS1377: Part 5: 1990

Hole Number: **BH07** Sample Number: N/A Depth (m): **2.60**

Initial Conditions		Pressure Range kPa			Mv m2/MN	Cv m2/yr	Method of time fitting used
Moisture Content (%):	74						Cv Calculated using t90
Bulk Density (Mg/m3):	1.56	0	-	25	2.197	10.165	Nominal Laboratory Temperature
Dry Density (Mg/m3):	0.90	25	-	50	1.289	5.406	20'C
Voids Ratio:	1.9531	50	-	75	0.774	5.715	Location of specimen with sample
Degree of saturation:	100.5	75	-	150	0.711	5.130	Top
Height (mm):	19.9	150	-	200	0.505	0.807	Remarks:
Diameter (mm)	75.26						
Particle Density (Mg/m3):	2.65						
Assumed							



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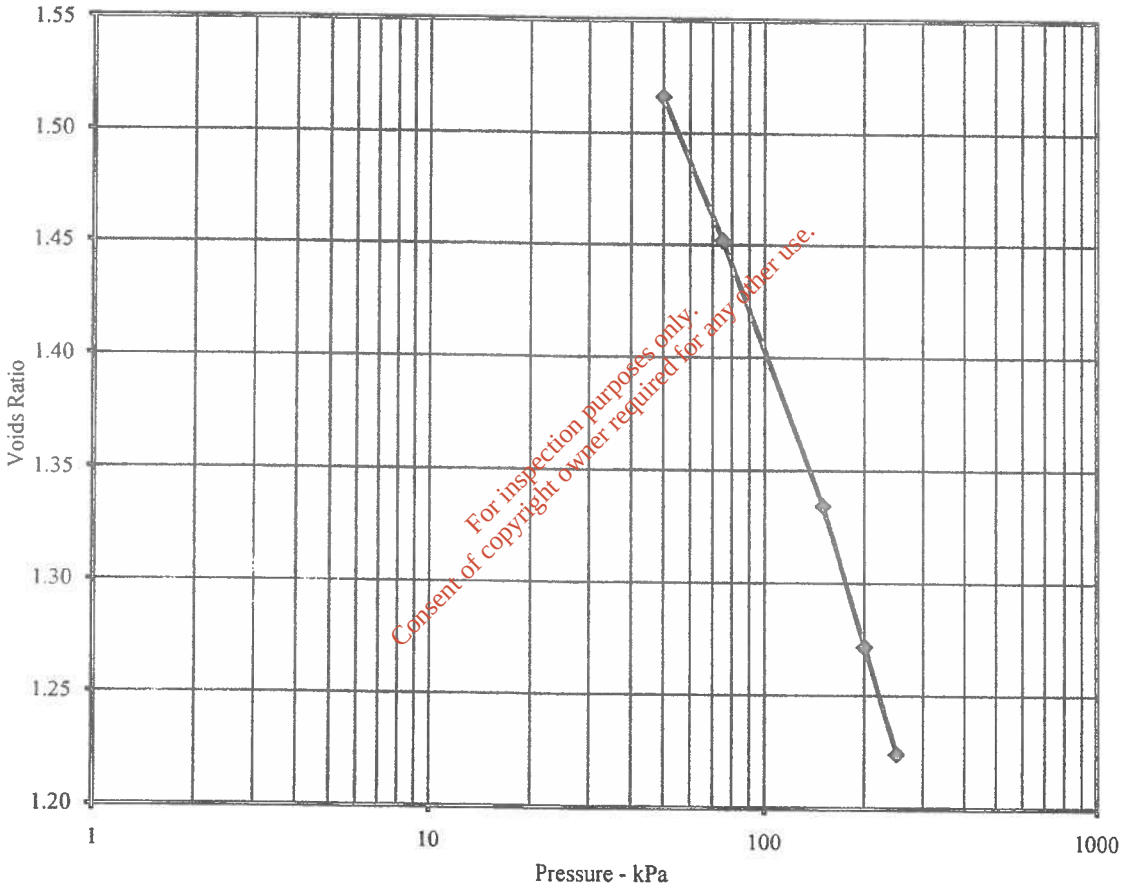
BS1377: Part 5: 1990

Hole Number: **BH07** Sample Number: N/A Depth (m): **3.70**

Initial Conditions		Pressure Range kPa			Mv m2/MN	Cv m2/yr	Method of time fitting used Cv Calculated using t90
Moisture Content (%):	60						
Bulk Density (Mg/m3):	1.52	0	-	50	1.911	1.491	Nominal Laboratory Temperature 20'C
Dry Density (Mg/m3):	0.95	50	-	75	1.023	1.353	
Voids Ratio:	1.7820	75	-	150	0.639	1.286	Location of specimen with sample Top
Degree of saturation:	89.3	150	-	200	0.537	1.191	
Height (mm):	19.89	200	-	250	0.421	0.805	Remarks:
Diameter (mm)	74.95						
Particle Density (Mg/m3): Assumed	2.65						



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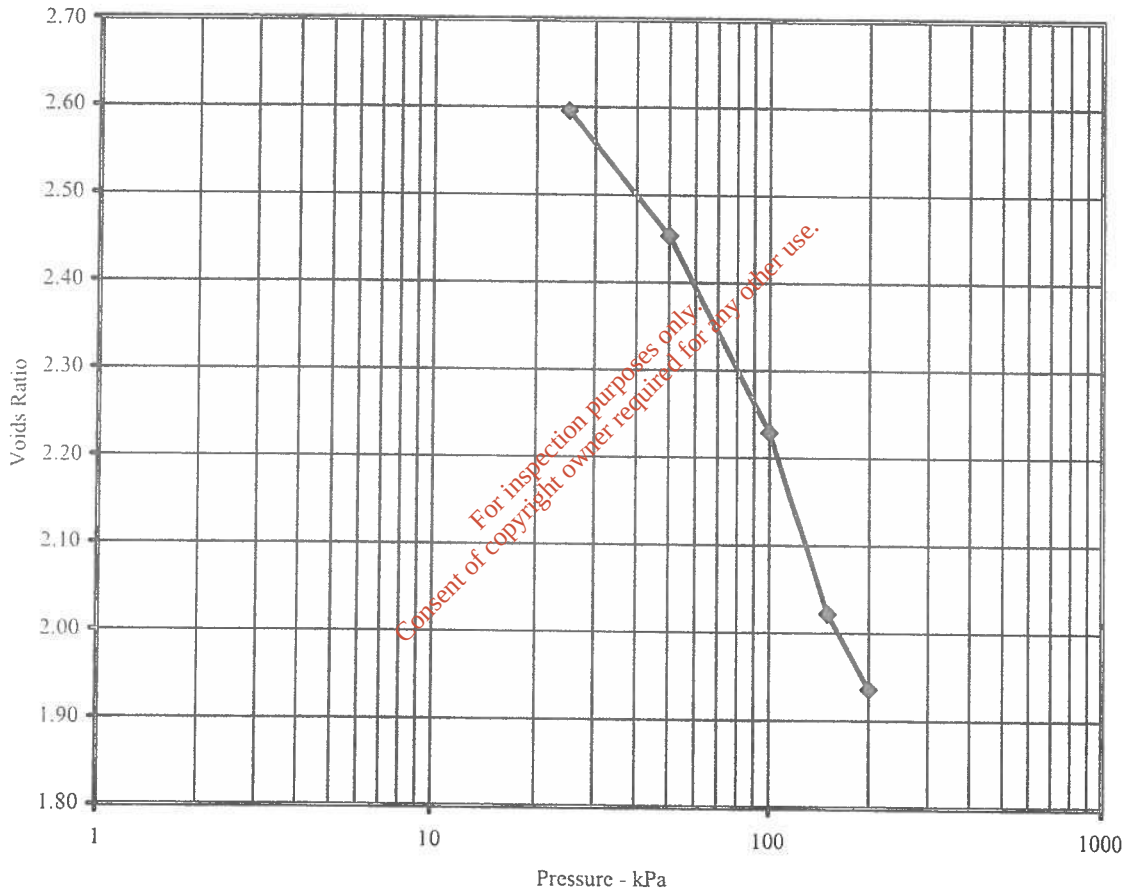
BS1377: Part 5: 1990

Hole Number: **BH08** Sample Number: N/A Depth (m): **3.00**

Initial Conditions		Pressure Range kPa			Mv m2/MN	Cv m2/yr	Method of time fitting used Cv Calculated using t90
Moisture Content (%):	96						
Bulk Density (Mg/m3):	1.39	0	-	25	1.596	1.436	Nominal Laboratory Temperature 20'C
Dry Density (Mg/m3):	0.71	25	-	50	1.586	0.952	
Voids Ratio:	2.7454	50	-	100	1.301	0.594	Location of specimen with sample Top
Degree of saturation:	92.7	100	-	150	1.281	0.402	
Height (mm):	18.55	150	-	200	0.571	0.645	Remarks:
Diameter (mm)	75.25						
Particle Density (Mg/m3): Assumed	2.65						



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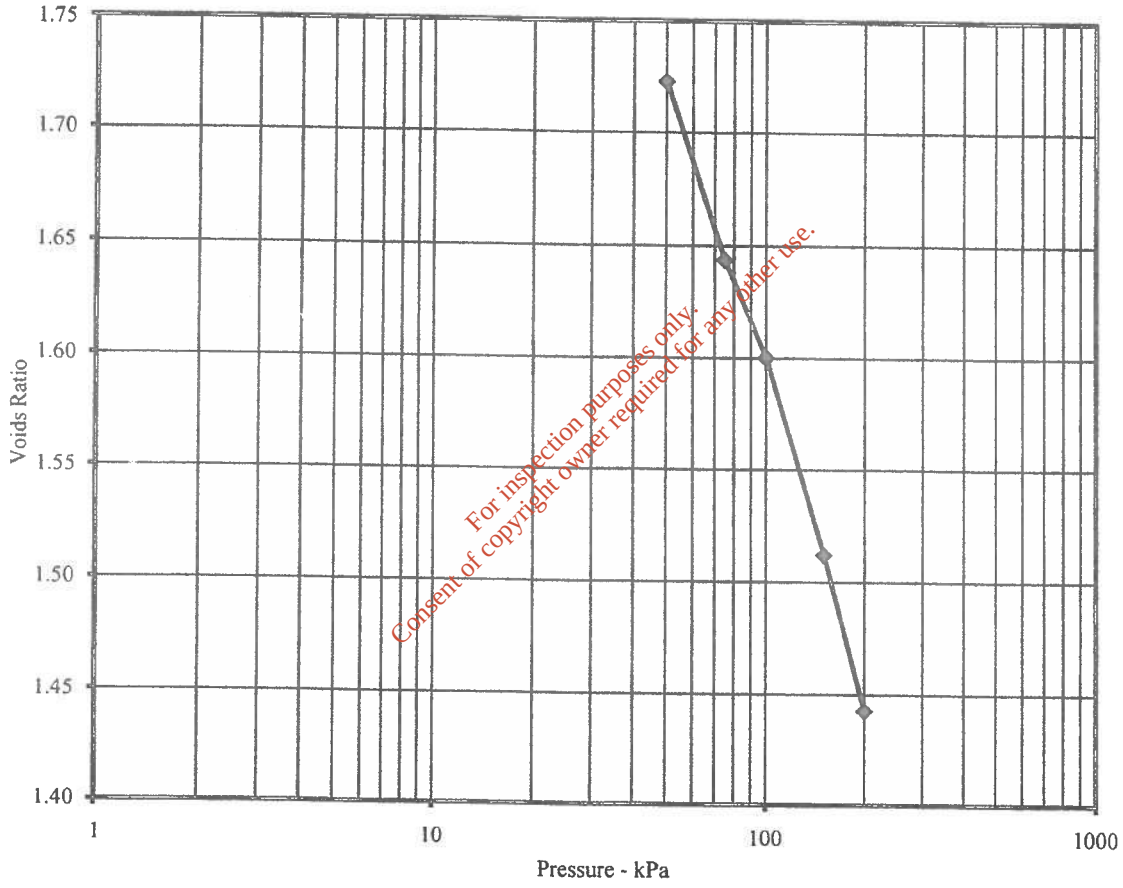
BS1377: Part 5: 1990

Hole Number: **BH12** Sample Number: N/A Depth (m): **2.00**

Initial Conditions		Pressure Range kPa			Mv m2/MN	Cv m2/yr	Method of time fitting used Cv Calculated using t90
Moisture Content (%):	74						
Bulk Density (Mg/m3):	1.50	0	-	50	2.324	3.036	Nominal Laboratory Temperature 20'C
Dry Density (Mg/m3):	0.86	50	-	75	1.163	2.120	
Voids Ratio:	2.0809	75	-	100	0.658	1.943	Location of specimen with sample Top
Degree of saturation:	94.8	100	-	150	0.678	1.847	
Height (mm):	19.85	150	-	200	0.552	1.622	Remarks:
Diameter (mm)	75.08						
Particle Density (Mg/m3): Assumed	2.65						



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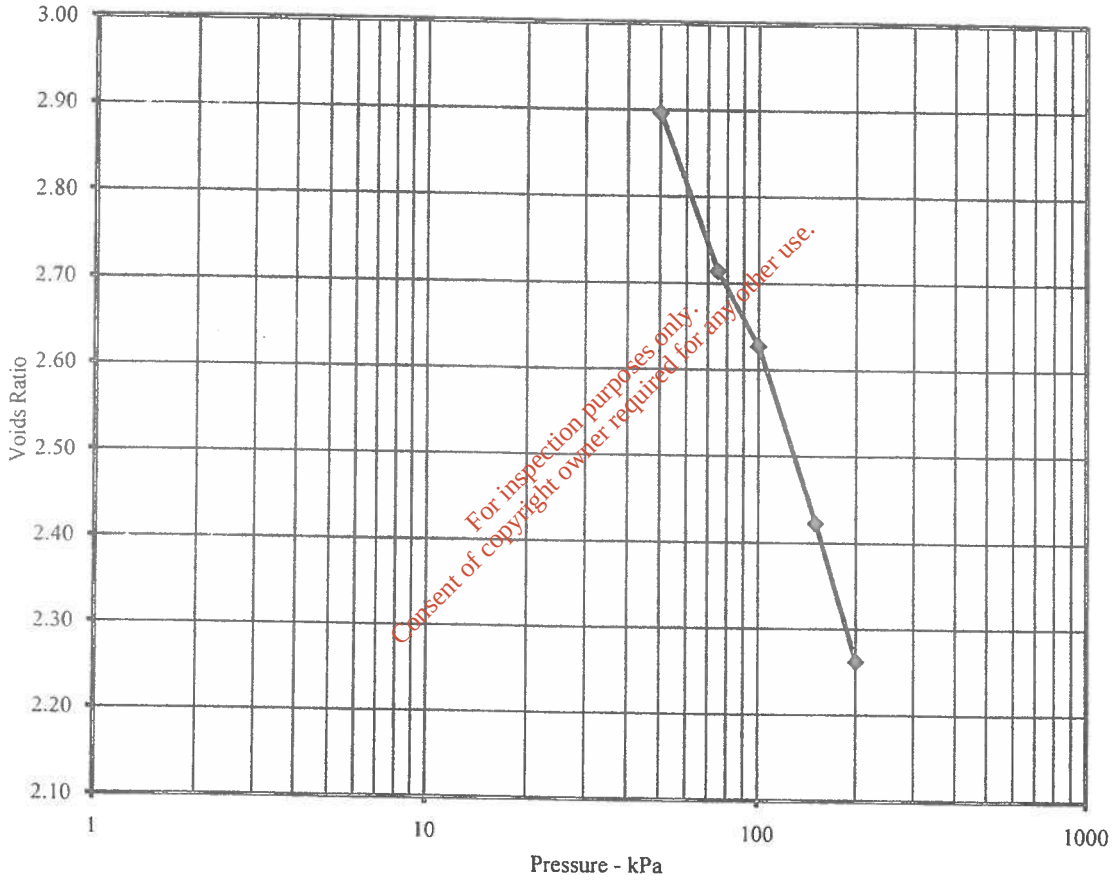
BS1377: Part 5: 1990

Hole Number: **BH12** Sample Number: N/A Depth (m): **4.00**

Initial Conditions		Pressure Range kPa			Mv m2/MN	Cv m2/yr	Method of time fitting used Cv Calculated using t90
Moisture Content (%):	138						
Bulk Density (Mg/m3):	1.36	0	-	50	3.262	1.300	Nominal Laboratory Temperature 20'C
Dry Density (Mg/m3):	0.57	50	-	75	1.874	0.718	
Voids Ratio:	3.6563	75	-	100	0.937	1.012	Location of specimen with sample Top
Degree of saturation:	100.4	100	-	150	1.129	0.616	
Height (mm):	19.15	150	-	200	0.938	0.424	Remarks:
Diameter (mm)	76.39						
Particle Density (Mg/m3): Assumed	2.65						



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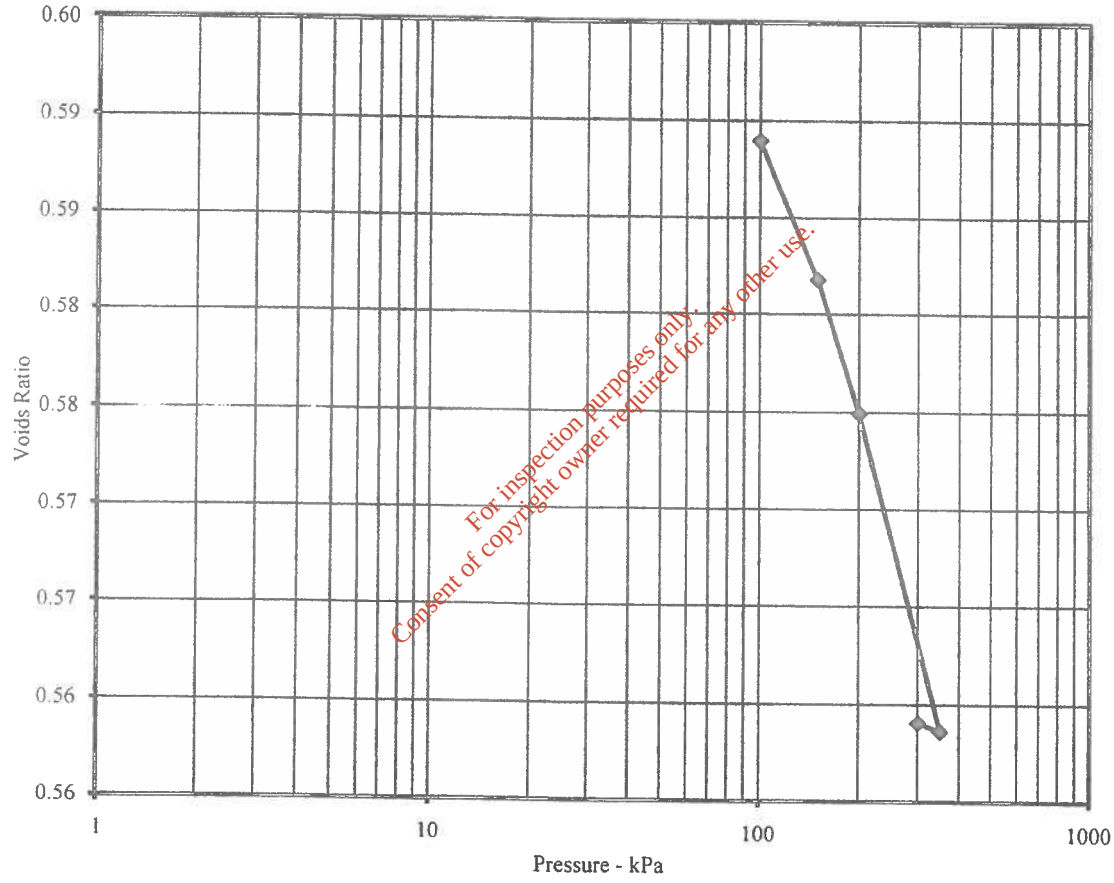
BS1377: Part 5: 1990

Hole Number: **BH12** Sample Number: N/A Depth (m): **8.20**

Initial Conditions		Pressure Range kPa			Mv m2/MN	Cv m2/yr	Method of time fitting used Cv Calculated using t90
Moisture Content (%):	28						
Bulk Density (Mg/m3):	2.04	0	-	100	0.398	5.336	Nominal Laboratory Temperature 20'C
Dry Density (Mg/m3):	1.60	100	-	150	0.090	7.927	
Voids Ratio:	0.6549	150	-	200	0.086	8.111	Location of specimen with sample Top
Degree of saturation:	111.9	200	-	350	0.069	7.165	
Height (mm):	18.65	350	-	300	0.006	25.005	Remarks:
Diameter (mm)	75.18						
Particle Density (Mg/m3): Assumed	2.65						



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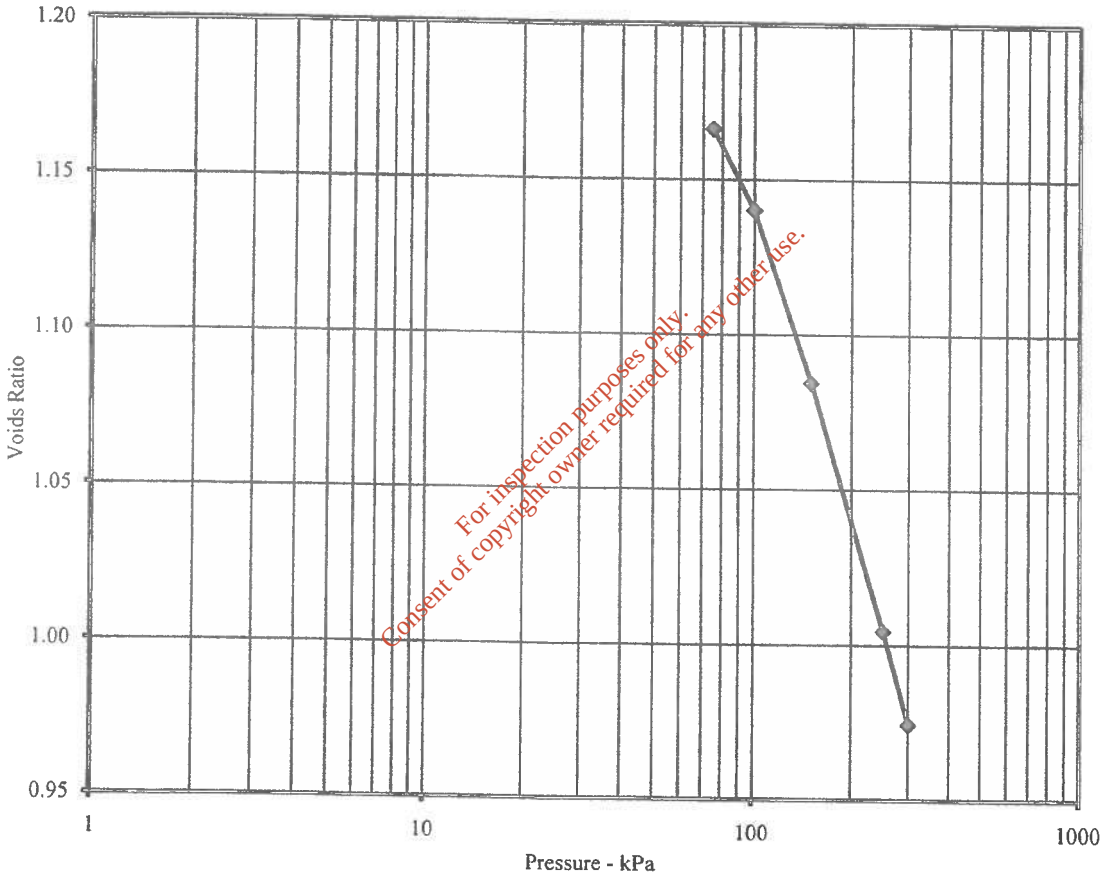
BS1377: Part 5: 1990

Hole Number: **BH14** Sample Number: N/A Depth (m): **5.50**

Initial Conditions		Pressure Range kPa			Mv m2/MN	Cv m2/yr	Method of time fitting used Cv Calculated using t90
Moisture Content (%):	52						
Bulk Density (Mg/m3):	1.69	0	-	75	1.261	2.713	Nominal Laboratory Temperature 20'C
Dry Density (Mg/m3):	1.11	75	-	100	0.483	1.147	
Voids Ratio:	1.3927	100	-	150	0.521	1.826	Location of specimen with sample Top
Degree of saturation:	99.3	150	-	250	0.384	1.600	
Height (mm):	18.55	250	-	300	0.301	0.750	Remarks:
Diameter (mm)	75.25						
Particle Density (Mg/m3):	2.65						
Assumed							



Checked By **Date** **Approved By** **Date**

LABORATORY TESTING SERVICES LIMITED

Bantry Inner Harbour

Contract No. 8790/09
Client Ref No. PC9030

UKAS 2788

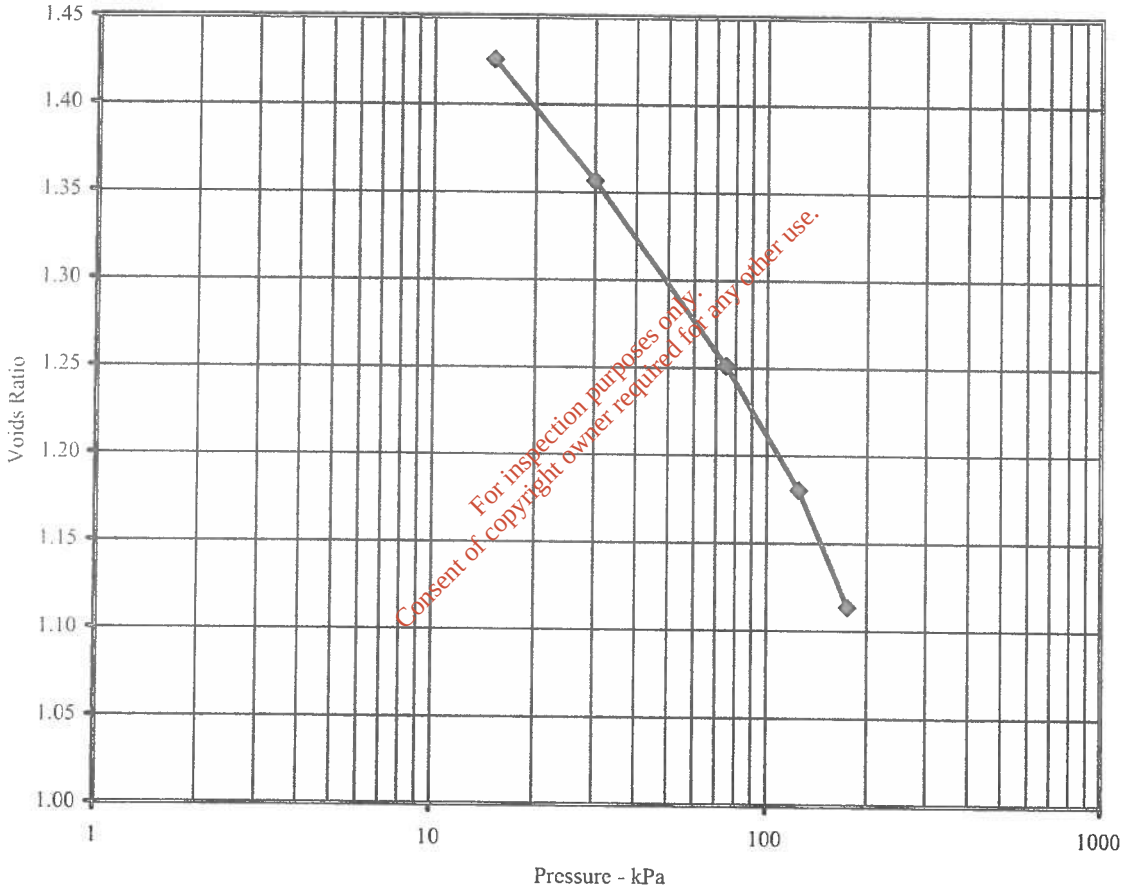
page of

ONE DIMENSIONAL CONSOLIDATION

BS1377: Part 5: 1990

Hole Number: **BH15** Sample Number: N/A Depth (m): **1.50**

Initial Conditions		Pressure Range kPa			Mv m2/MN	Cv m2/yr	Method of time fitting used Cv Calculated using t90
Moisture Content (%):	57						
Bulk Density (Mg/m3):	1.62	0	-	15	3.565	0.440	Nominal Laboratory Temperature 20'C
Dry Density (Mg/m3):	1.03	15	-	30	1.891	0.335	
Voids Ratio:	1.5625	30	-	75	0.995	0.466	Location of specimen with sample Top
Degree of saturation:	96.7	75	-	125	0.629	0.346	
Height (mm):	18.4	125	-	175	0.613	0.258	Remarks:
Diameter (mm)	75.23						
Particle Density (Mg/m3): Assumed	2.65						



Alan Walker **Checked By** 14/01/2009 **Date**

Approved By 14/01/2009 **Date**

LABORATORY TESTING SERVICES LIMITED

Bantry Inner Harbour

Contract No. 8578/09
Client Ref No. PC9030

UKAS TESTING 2788

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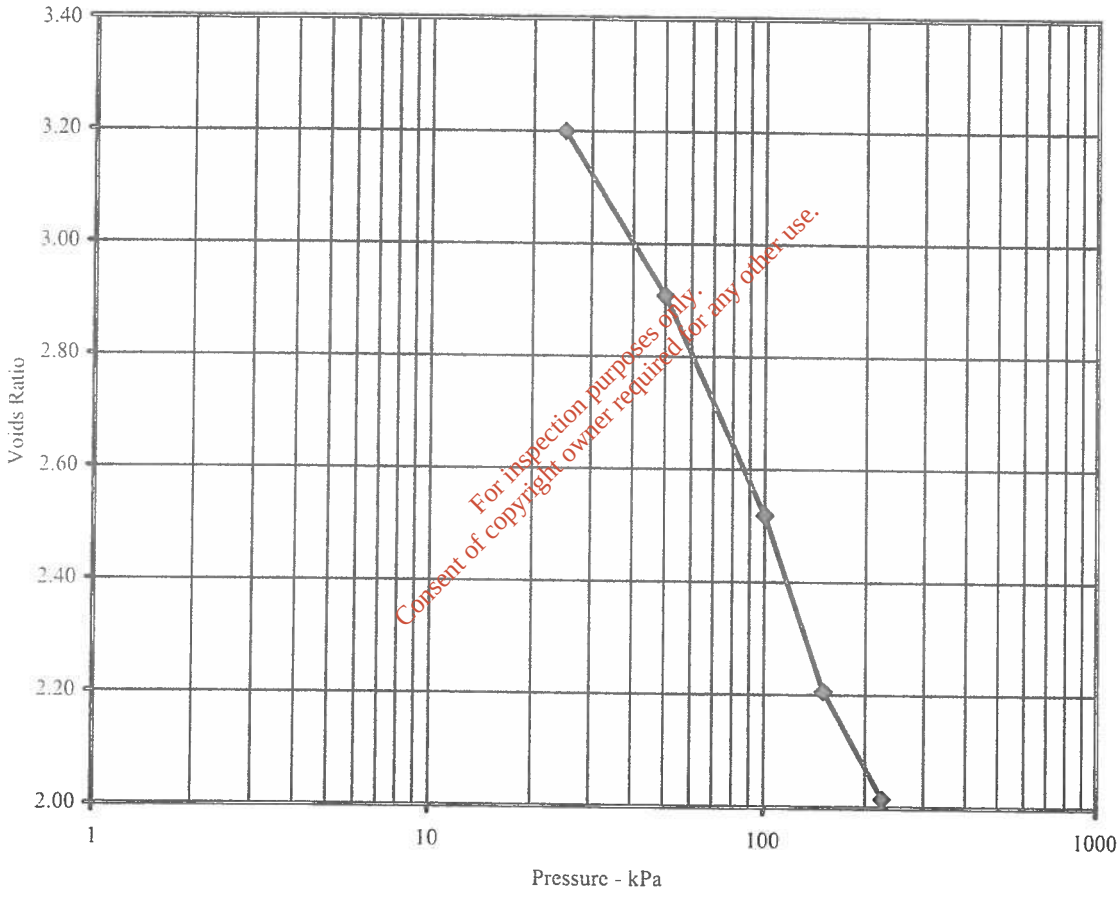
ONE DIMENSIONAL CONSOLIDATION

BS1377: Part 5: 1990

Hole Number: **BH15** Sample Number: N/A Depth (m): **3.00**

Initial Conditions		Pressure Range kPa			Mv m2/MN	Cv m2/yr	Method of time fitting used Cv Calculated using t90
Moisture Content (%):	134						
Bulk Density (Mg/m3):	1.34	0	-	25	3.760	3.582	Nominal Laboratory Temperature 20'C
Dry Density (Mg/m3):	0.57	25	-	50	2.771	2.672	
Voids Ratio:	3.6348	50	-	100	1.996	1.531	Location of specimen with sample Top
Degree of saturation:	97.4	100	-	150	1.773	0.768	
Height (mm):	18.64	150	-	225	0.791	1.066	Remarks:
Diameter (mm)	75.1						
Particle Density (Mg/m3): Assumed	2.65						



Alan Wakes 14/01/2009 — **Checked By** **Date**

14/01/2009 — **Approved By** **Date**

LABORATORY TESTING SERVICES LIMITED

Bantry Inner Harbour

Contract No. 8578/09
Client Ref No. PC9030

UKAS TESTING 2788

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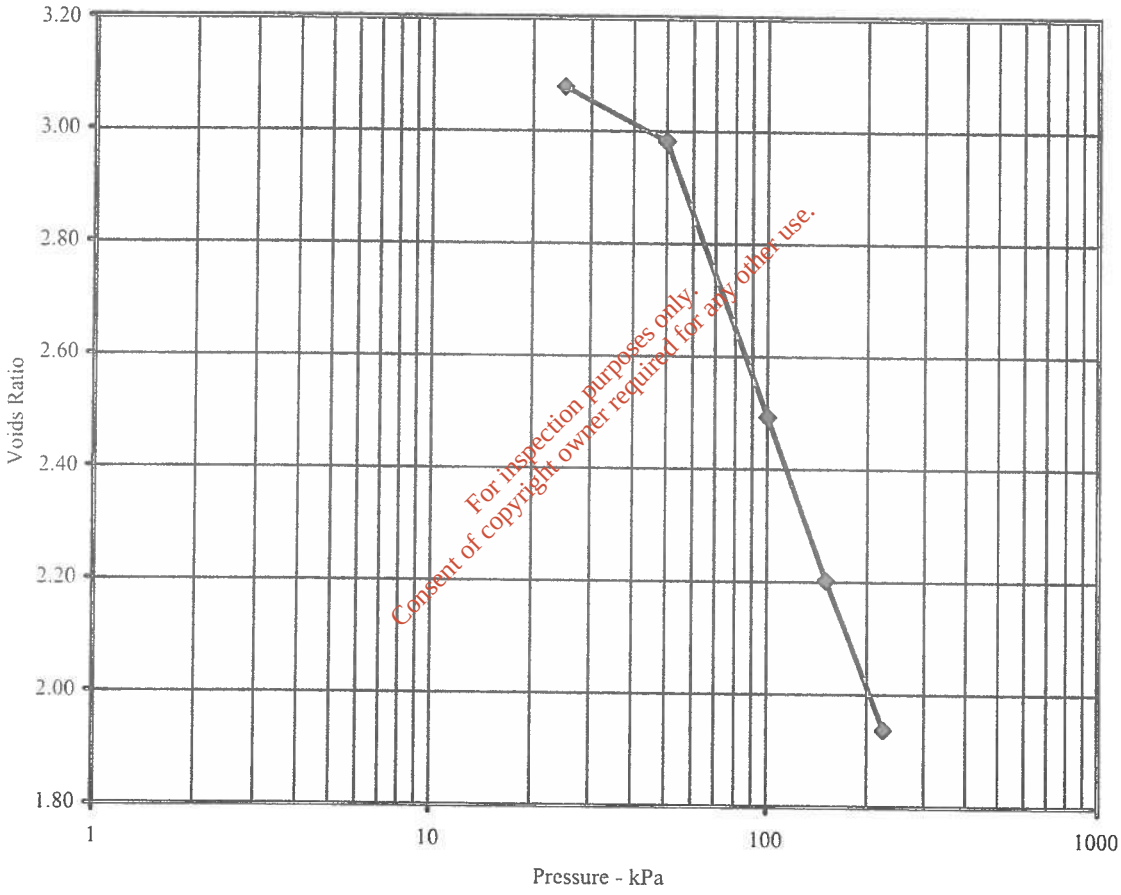
ONE DIMENSIONAL CONSOLIDATION

BS1377: Part 5: 1990

Hole Number: **BH15** Sample Number: N/A Depth (m): **4.00**

Initial Conditions		Pressure Range kPa			Mv m2/MN	Cv m2/yr	Method of time fitting used Cv Calculated using t90
Moisture Content (%):	112						
Bulk Density (Mg/m3):	1.34	0	-	25	1.026	9.574	Nominal Laboratory Temperature 20'C
Dry Density (Mg/m3):	0.63	25	-	50	0.943	4.989	
Voids Ratio:	3.1855	50	-	100	2.457	0.953	Location of specimen with sample Top
Degree of saturation:	93.4	100	-	150	1.664	0.549	
Height (mm):	19.89	150	-	225	1.102	0.457	Remarks:
Diameter (mm)	74.95						
Particle Density (Mg/m3): Assumed	2.65						



Alan Walters 14/01/2009 — **Checked By** **Date**

14/01/2009 — **Approved By** **Date**

LABORATORY TESTING SERVICES LIMITED

Bantry Inner Harbour

Contract No. 8578/09
Client Ref No. PC9030

UKAS TESTING 2788

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National Laboratory Service

Final Report

0754

Report ID - 20015965 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 05-Jan-2010

Colette Kelly
Priority Geotechnical Ltd
Unit 12
Owenacurra Business Park
Midleton
Co. Cork

Dear Colette

Please find attached the results for the batch of samples described below.

Samples Taken on:	05-Aug-2009
Samples Registered on:	10-Aug-2009
Results for Batch Number	20015965

You will be invoiced shortly by our accounts department.

If we can be of further assistance then please do not hesitate to contact us.

Yours sincerely

William Fardon
Customer Services Team Leader
Tel: (0113) 231 2177
nls@environment-agency.gov.uk

Opinions and interpretations expressed herein are outside the scope of UKAS Accreditation. Details of analytical procedures and performance data are available on request. The date of sample analysis is available on request.

The Environment Agency carries out analytical work to high standards and within the scope of its UKAS accreditation, but has no knowledge of whether the circumstances or the validity of the procedures used to obtain the samples provided to the laboratory were representative of the need for which the information was required.
The Environment Agency and/or its staff does not therefore accept any liability for the consequences of any acts or omissions made on the basis of the analysis or advice or interpretation provided.

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20015965 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 05-Jan-2010

Client: Priority Geotechnical Ltd
Folder No: 001106601
Comments: BH1 @ 0.5
Quote No: 4944

Project: Marine Sediment Analysis
Sampled on: 4-Aug-09 @ (Time not supplied)
Matrix: Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	2.120	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	0.950	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	7.4800	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	0.02300	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	11600.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	8.420	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.1560	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	14.0000	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	14.100	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	17.500	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	20.300	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	23.300	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	69.600	mg/kg	0.2	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	< 0.00400	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	0.01310	mg/kg	0.003	UKAS	LE	897

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20015965 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 05-Jan-2010

Client: Priority Geotechnical Ltd
Folder No: 001106602
Comments: BH3 @ 0.5
Quote No: 4944

Project: Marine Sediment Analysis
Sampled on: 29-Jul-09 @ (Time not supplied)
Matrix: Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	6.090	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	4.300	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	234.0000	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	0.57600	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	19300.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	10.400	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.4820	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	32.0000	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	71.600	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	254.000	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	28.100	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	28.300	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	259.000	mg/kg	0.2	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	0.00600	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	0.18300	mg/kg	0.003	UKAS	LE	897

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ENVIRONMENT AGENCY

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20015965 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 05-Jan-2010

Client: Priority Geotechnical Ltd
Folder No: 001106603
Comments: BH4 @ 0.5
Quote No: 4944

Project: Marine Sediment Analysis
Sampled on: 9-Aug-09 @ (Time not supplied)
Matrix: Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	5.330	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	5.020	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	422.0000	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	1.97000	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	15600.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	13.300	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.7580	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	24.9000	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	91.000	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	106.000	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	26.600	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	21.800	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	238.000	mg/kg	0.2	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	< 0.00500	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	0.23600	mg/kg	0.003	UKAS	LE	897

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National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20015764 - 1

Batch description: Bantry Harbour - PC9030

Reported on: 09-Sep-2009

Client:	Priority Geotechnical Ltd	Project:	Marine Sediment Analysis
Folder No:	001094925	Sampled on:	21-Jul-09 @ (Time not supplied)
Comments:	BH5 @ 0.5m		
Quote No:	4944	Matrix:	Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	3.120	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	2.700	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	107.0000	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	0.23300	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	16600.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	10.300	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.2180	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	19.3000	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	20.300	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	38.300	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	25.800	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	25.500	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	72.200	mg/kg	0.2	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	< 0.00400	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	< 0.00400	mg/kg	0.003	UKAS	LE	897

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ENVIRONMENT AGENCY

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20016068 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 16-Sep-2009

Client: Priority Geotechnical Ltd
Folder No: 001110366
Comments: BH6 @ 0.5m
Quote No: 4944

Project: Marine Sediment Analysis
Sampled on: 13-Aug-09 @ (Time not supplied)
Matrix: Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	1.580	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	0.750	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	37.4000	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	0.01700	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	15700.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	8.410	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.0790	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	21.5000	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	14.600	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	6.680	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	44.200	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	53.500	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	63.300	mg/kg	0.2	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	< 0.00786	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	< 0.00300	mg/kg	0.003	UKAS	LE	897

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National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20016068 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 16-Sep-2009

Client: Priority Geotechnical Ltd
Folder No: 001110367
Comments: BH7 @ 0.5m
Quote No: 4944

Project: Marine Sediment Analysis
Sampled on: 13-Aug-09 @ (Time not supplied)
Matrix: Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	0.960	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	0.490	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	453.0000	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	0.07000	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	9770.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	12.200	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.3570	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	35.3000	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	235.000	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	354.000	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	23.500	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	66.700	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	1770.000	mg/kg	0.2	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	0.05240	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	0.09000	mg/kg	0.003	UKAS	LE	897

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20015764 - 1

Batch description: Bantry Harbour - PC9030

Reported on: 09-Sep-2009

Client:	Priority Geotechnical Ltd	Project:	Marine Sediment Analysis
Folder No:	001094926	Sampled on:	22-Jul-09 @ (Time not supplied)
Comments:	BH9 @ 0.5m		
Quote No:	4944	Matrix:	Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	1.380	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	1.010	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	63.5000	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	0.05000	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	17600.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	12.500	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.0930	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	17.4000	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	14.800	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	14.800	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	32.800	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	53.000	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	66.200	mg/kg	0.2	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	< 0.00300	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	< 0.00300	mg/kg	0.003	UKAS	LE	897

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ENVIRONMENT AGENCY

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20015764 - 1

Batch description: Bantry Harbour - PC9030

Reported on: 09-Sep-2009

Client:	Priority Geotechnical Ltd	Project:	Marine Sediment Analysis
Folder No:	001094927	Sampled on:	24-Jul-09 @ (Time not supplied)
Comments:	BH10 @ 0.5m		
Quote No:	4944	Matrix:	Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	0.800	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	0.550	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	17.4400	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	0.18000	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	15700.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	6.970	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.1340	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	16.9000	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	13.300	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	25.200	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	36.900	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	24.800	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	71.400	mg/kg	0.2	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	< 0.00300	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	< 0.00300	mg/kg	0.003	UKAS	LE	897

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ENVIRONMENT AGENCY

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20015764 - 1

Batch description: Bantry Harbour - PC9030

Reported on: 09-Sep-2009

Client:	Priority Geotechnical Ltd	Project:	Marine Sediment Analysis
Folder No:	001094928	Sampled on:	24-Jul-09 @ (Time not supplied)
Comments:	BH11 @ 0.5m		
Quote No:	4944	Matrix:	Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	7.610	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	3.890	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	17.9800	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	0.19800	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	8580.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	10.000	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.2030	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	10.7000	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	15.900	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	15.800	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	15.000	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	24.100	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	108.000	mg/kg	0.2	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	< 0.00300	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	< 0.00300	mg/kg	0.003	UKAS	LE	897

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ENVIRONMENT AGENCY

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20016068 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 16-Sep-2009

Client:	Priority Geotechnical Ltd	Project:	Marine Sediment Analysis
Folder No:	001110368	Sampled on:	13-Aug-09 @ (Time not supplied)
Comments:	BH12 @ 0.5m		
Quote No:	4944	Matrix:	Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	1.060	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	< 0.400	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	3.7900	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	0.01800	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	17000.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	10.300	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.0850	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	20.8000	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	13.000	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	12.300	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	42.800	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	75.800	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	112.000	mg/kg	0.2	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	< 0.00786	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	< 0.00300	mg/kg	0.003	UKAS	LE	897

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ENVIRONMENT AGENCY

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20015764 - 1

Batch description: Bantry Harbour - PC9030

Reported on: 09-Sep-2009

Client:	Priority Geotechnical Ltd	Project:	Marine Sediment Analysis
Folder No:	001094929	Sampled on:	24-Jul-09 @ (Time not supplied)
Comments:	BH15 @ 0.5m		
Quote No:	4944	Matrix:	Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	4.060	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	2.060	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	61.7000	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	0.14100	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	26500.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	18.900	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.2440	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	27.0000	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	21.000	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	29.400	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	34.000	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	24.500	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	85.800	mg/kg	0.2	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	< 0.00400	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	< 0.00400	mg/kg	0.003	UKAS	LE	897

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ENVIRONMENT AGENCY

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20015764 - 1

Batch description: Bantry Harbour - PC9030

Reported on: 09-Sep-2009

Client: Priority Geotechnical Ltd
Folder No: 001096094
Comments: CRM
Quote No: 4944

Project: Marine Sediment Analysis
Sampled on: 28-Jul-09 @ (Time not supplied)
Matrix: Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	0.540	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	0.538	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	1.4100	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	0.08800	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	52500.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	19.000	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.1860	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	66.8000	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	28.200	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	19.100	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	54.600	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	39.000	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	137.000	mg/kg	0.2	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	518.00000	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	266.00000	mg/kg	0.003	UKAS	LE	897

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Analytical Report

Final Report

0754

Report ID - 20015764 - 1

Batch description: Bantry Harbour - PC9030

Reported on: 09-Sep-2009

Method Description Summary for all samples in batch Number 20015764

Testcode	Method Reference and Description
402	NLS I UVF 10.2 - HCs - methanol digested; pentane xch; by UV fluorescence spectrometry
404	LL I CHN 11.2 & 11.3 - combusted; determined by TCD; Organic C - acid pretreated to remove inorganic carbonates
897	LE O Organotins (GCMS) 01 - acetic acid/methanol extracted; derivatised; determined GCMS (SIM); from "as received" sample
1041	LL ME ICPMS 12.1 & 12.4- Metals - microwave aqua regia digested; determined by ICPMS
1042	LL ME Hg 10.8 - Mercury - microwave aqua regia digeste; acidic SnCl2 reduced; determined by CV-AFS
1043	LL ME ICP-OES 22.1 & 22.2 - Metals - microwave aqua regia digested; determined by ICPOES

Chris Hunter
Laboratory Site Manager

All reporting limits quoted are those achievable for clean samples of the relevant matrix. No allowance is made for instances when dilutions are necessary owing to the nature of the sample or insufficient volume of the sample being available. In these cases higher reporting limits may be quoted and will be above the MRV.

Solid sample results are determined on a "dried" sample fraction except for parameters where the method description identifies that "as received" sample was used.

Please note all samples will be retained for thirty working days after reporting unless otherwise agreed with Customer Services

Key to Accreditation: UKAS = Methodology accredited to ISO/IEC 17025:2005, MCertS = Methodology accredited to MCertS Performance Standard for testing of soils, none = Methodology not accredited
Key to Lab ID: LE = Leeds, LL = Llanelli, NM = Nottingham, SX = Starcross, SC = Sub-Contracted outside NLS, FI = Field Data, NLS = Calculated

END OF TEST REPORT

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National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20016177 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 29-Sep-2009

Client: Priority Geotechnical Ltd
Folder No: 001115085
Comments: BH16 @ 0.5m
Quote No: 4944

Project: Marine Sediment Analysis
Sampled on: 20-Aug-09 @ (Time not supplied)
Matrix: Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	< 0.400	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	< 0.400	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	13.9000	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	0.02430	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	5490.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	4.080	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.0520	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	8.8700	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	4.060	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	7.320	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	14.700	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	12.200	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	33.100	mg/kg	0.2	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	< 0.00300	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	< 0.00300	mg/kg	0.003	UKAS	LE	897

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ENVIRONMENT AGENCY

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20016177 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 29-Sep-2009

Client: Priority Geotechnical Ltd
Folder No: 001115086
Comments: CRM
Quote No: 4944

Project: Marine Sediment Analysis
Sampled on: 24-Aug-09 @ (Time not supplied)
Matrix: Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	0.524	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	0.539	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	1.3700	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	0.10800	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	54100.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	18.600	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.1820	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	65.9000	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	29.200	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	18.700	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	61.000	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	39.700	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	136.000	mg/kg	0.2	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	0.79800	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	0.26400	mg/kg	0.003	UKAS	LE	897

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Starcross
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ENVIRONMENT AGENCY

Method Description Summary for all samples in batch Number 20016177

Testcode	Method Reference and Description
402	NLS I UVF 10.2 - HCs - methanol digested; pentane xch; by UV fluorescence spectrometry
404	LL I CHN 11.2 & 11.3 - combusted; determined by TCD; Organic C - acid pretreated to remove inorganic carbonates
897	LE O Organotins (GCMS) 01 - acetic acid/methanol extracted; derivatised; determined GCMS (SIM); from "as received" sample
1041	LL ME ICPMS 12.1 & 12.4- Metals - microwave aqua regia digested; determined by ICPMS
1042	LL ME Hg 10.8 - Mercury - microwave aqua regia digeste; acidic SnCl2 reduced; determined by CV-AFS
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Chris Hunter
Laboratory Site Manager

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Key to Lab ID: LE = Leeds, LL = Llanelli, NM = Nottingham, SX = Starcross, SC = Sub-Contracted outside NLS, FI = Field Data, NLS = Calculated

END OF TEST REPORT

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20015965 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 05-Jan-2010

Client: Priority Geotechnical Ltd
Folder No: 001106596
Comments: GS1 @ 0.5
Quote No: 4944

Project: Marine Sediment Analysis
Sampled on: 5-Aug-09 @ (Time not supplied)
Matrix: Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon, Organic : Dry Wt as C	4.620	%	0.4	None	LL	404
Mercury : Dry Wt	1.00000	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	17400.000	mg/kg	0.4	UKAS	LL	1043
Copper : Dry Wt	62.900	mg/kg	0.1	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	< 0.00600	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	< 0.00600	mg/kg	0.003	UKAS	LE	897

National Laboratory Service

Analytical Report

Partial Reports - results awaited - awaiting LSM approval

0754

Report ID - 20015965 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 06-Oct-2009

Colette Kelly
Priority Geotechnical Ltd
Unit 12
Owenacurra Business Park
Midleton
Co. Cork

Dear Colette

Please find attached the results for the batch of samples described below.

Samples Taken on:	05-Aug-2009
Samples Registered on:	10-Aug-2009
Results for Batch Number	20015965

You will be invoiced shortly by our accounts department.

If we can be of further assistance then please do not hesitate to contact us.

Yours sincerely

William Fardon
Customer Services Team Leader
Tel: (0113) 231 2177
nls@environment-agency.gov.uk

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20015965 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 05-Jan-2010

Client: Priority Geotechnical Ltd
Folder No: 001106594
Comments: GS2 @ 0.5
Quote No: 4944

Project: Marine Sediment Analysis
Sampled on: 5-Aug-09 @ (Time not supplied)
Matrix: Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	3.850	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	< 0.400	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	177.0000	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	0.45600	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	19600.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	14.400	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.3620	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	24.3000	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	43.900	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	48.800	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	36.300	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	26.200	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	162.000	mg/kg	0.2	UKAS	LL	1041
Aldrin DW	< 1.00	ug/kg	1	UKAS	LL	672
DDE -pp DW	3.50	ug/kg	2	UKAS	LL	672
DDT -op DW	< 1.00	ug/kg	1	UKAS	LL	672
DDT -pp DW	< 2.00	ug/kg	2	UKAS	LL	672
Dieldrin DW	< 3.00	ug/kg	3	UKAS	LL	672
Endrin DW	< 2.00	ug/kg	2	UKAS	LL	672
HCBD DW	< 1.00	ug/kg	1	UKAS	LL	672
HCH -alpha DW	< 1.00	ug/kg	1	UKAS	LL	672
HCH -beta DW	< 1.00	ug/kg	1	UKAS	LL	672
HCH -delta DW	< 1.00	ug/kg	1	UKAS	LL	672
HCH -gamma DW	< 1.00	ug/kg	1	UKAS	LL	672
Hexachlorobenzene DW	< 1.00	ug/kg	1	UKAS	LL	672
Isodrin DW	< 2.00	ug/kg	2	UKAS	LL	672
TDE -pp DW	4.40	ug/kg	1	UKAS	LL	672
Anthracene : Dry Wt	93.00	ug/kg	2	UKAS	LL	1051
Benzo(a)anthracene : Dry Wt	253.00	ug/kg	2	UKAS	LL	1051
Benzo(a)pyrene : Dry Wt	307.00	ug/kg	2	UKAS	LL	1051
Benzo(b)fluoranthene : Dry Wt	258.0	ug/kg	10	UKAS	LL	1051
Benzo(ghi)perylene : Dry Wt	180.0	ug/kg	10	UKAS	LL	1051
Benzo(k)fluoranthene : Dry Wt	< 130.0	ug/kg	10	UKAS	LL	1051
Chrysene : Dry Wt	253.00	ug/kg	2	UKAS	LL	1051
Fluoranthene : Dry Wt	463.00	ug/kg	2	UKAS	LL	1051

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Indeno(123cd)pyrene Dry Wt	186.0	ug/kg	10	UKAS	LL	1051
Naphthalene : Dry Wt	95.2	ug/kg	30	None	LL	1051
Phenanthrene : Dry Wt	210.0	ug/kg	10	UKAS	LL	1051
Pyrene : Dry Wt	427.00	ug/kg	2	UKAS	LL	1051
PCB 028 DW	< 0.100	ug/kg	0.1	UKAS	LL	685
PCB 052 DW	< 0.100	ug/kg	0.1	UKAS	LL	685
PCB 101 DW	< 0.100	ug/kg	0.1	UKAS	LL	685
PCB 118 DW	< 0.100	ug/kg	0.1	UKAS	LL	685
PCB 138 DW	< 0.100	ug/kg	0.1	UKAS	LL	685
PCB 153 DW	2.840	ug/kg	0.1	UKAS	LL	685
PCB 180 DW	11.700	ug/kg	0.1	UKAS	LL	685
Dibutyl Tin : Dry Wt as cation	< 0.00500	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	< 0.00500	mg/kg	0.003	UKAS	LE	897
Dry Solids @ 30°C	65.400	%	0.5	None	LE	1130
Sample Preparation	Report	Text		None	LE	924

Folder Number: 1106594
The sample was received in a 1ltr plastic pot and 120ml glass jar weighing over 2200g in total.
The sample appeared to be black wet gritty sediment with lots of stones and a sulphur smell.

336.37g of the sample was taken for drying at <30degC which gave 222.86g of dried sample.
The sample was sieved to <10mm before being crushed using a pestle and mortar.
21.5g stone waste was discarded after sieving at 10mm and 64.50g stone waste at 2mm.
The sample was received unpreserved.

All parameters are determined on the air-dried (<30degC) portion except those requiring a wet sample fraction where as received (wet) sample was used.

Dry Weight (DW) results are reported as determined at <30degC.

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20015965 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 05-Jan-2010

Client: Priority Geotechnical Ltd
Folder No: 001106604
Comments: GS3 @ 0.5
Quote No: 4944

Project: Marine Sediment Analysis
Sampled on: 5-Aug-09 @ (Time not supplied)
Matrix: Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	2.960	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	2.000	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	325.0000	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	0.52400	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	16700.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	18.700	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.6260	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	24.1000	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	52.600	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	65.800	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	31.700	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	25.400	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	181.000	mg/kg	0.2	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	< 0.00500	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	0.02360	mg/kg	0.003	UKAS	LE	897

National Laboratory Service

Analytical Report

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0754

Report ID - 20015965 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 05-Jan-2010

Client:	Priority Geotechnical Ltd	Project:	Marine Sediment Analysis
Folder No:	001106597	Sampled on:	5-Aug-09 @ (Time not supplied)
Comments:	GS4 @ 0.5		
Quote No:	4944	Matrix:	Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon, Organic : Dry Wt as C	2.440	%	0.4	None	LL	404
Mercury : Dry Wt	0.32800	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	18300.000	mg/kg	0.4	UKAS	LL	1043
Copper : Dry Wt	47.700	mg/kg	0.1	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	< 0.00300	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	0.01310	mg/kg	0.003	UKAS	LE	897

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ENVIRONMENT AGENCY

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Analytical Report

Final Report

0754

Report ID - 20015965 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 05-Jan-2010

Client:	Priority Geotechnical Ltd	Project:	Marine Sediment Analysis
Folder No:	001106598	Sampled on:	5-Aug-09 @ (Time not supplied)
Comments:	GS5 @ 0.5		
Quote No:	4944	Matrix:	Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon, Organic : Dry Wt as C	2.090	%	0.4	None	LL	404
Mercury : Dry Wt	0.34300	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	14600.000	mg/kg	0.4	UKAS	LL	1043
Copper : Dry Wt	49.700	mg/kg	0.1	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	< 0.00800	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	< 0.00800	mg/kg	0.003	UKAS	LE	897

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ENVIRONMENT AGENCY

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20015965 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 05-Jan-2010

Client:	Priority Geotechnical Ltd	Project:	Marine Sediment Analysis
Folder No:	001106599	Sampled on:	5-Aug-09 @ (Time not supplied)
Comments:	GS6 @ 0.5		
Quote No:	4944	Matrix:	Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon, Organic : Dry Wt as C	1.690	%	0.4	None	LL	404
Mercury : Dry Wt	0.54100	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	14700.000	mg/kg	0.4	UKAS	LL	1043
Copper : Dry Wt	45.300	mg/kg	0.1	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	< 0.00500	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	0.02100	mg/kg	0.003	UKAS	LE	897

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ENVIRONMENT AGENCY

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20015965 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 05-Jan-2010

Client: Priority Geotechnical Ltd
Folder No: 001106605
Comments: GS7 @ 0.5
Quote No: 4944

Project: Marine Sediment Analysis
Sampled on: 5-Aug-09 @ (Time not supplied)
Matrix: Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	5.120	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	4.240	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	190.0000	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	0.79000	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	15300.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	12.800	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.5650	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	23.0000	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	71.200	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	81.900	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	28.700	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	24.900	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	206.000	mg/kg	0.2	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	< 0.00500	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	0.52400	mg/kg	0.003	UKAS	LE	897

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National Laboratory Service

Analytical Report

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0754

Report ID - 20015965 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 05-Jan-2010

Client: Priority Geotechnical Ltd
Folder No: 001107780
Comments: CRM
Quote No: 4944

Project: Marine Sediment Analysis
Sampled on: 12-Aug-09 @ (Time not supplied)
Matrix: Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	0.520	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	0.537	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	1.4200	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	0.10400	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	3440.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	18.400	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.1910	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	73.2000	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	28.800	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	29.300	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	62.500	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	40.500	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	139.000	mg/kg	0.2	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	0.59100	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	0.26300	mg/kg	0.003	UKAS	LE	897

National Laboratory Service

Analytical Report

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0754

Report ID - 20015965 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 05-Jan-2010

Client: Priority Geotechnical Ltd
Folder No: 001106595
Comments: GS8 @ 0.5
Quote No: 4944

Project: Marine Sediment Analysis
Sampled on: 5-Aug-09 @ (Time not supplied)
Matrix: Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	2.360	%	0.4	None	LL	404
Carbon, Organic : Dry Wt as C	0.980	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	201.0000	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	0.02500	mg/kg	0.001	None	LL	1042
Aluminium : Dry Wt	16400.000	mg/kg	0.4	None	LL	1043
Arsenic : Dry Wt	11.400	mg/kg	0.1	None	LL	1041
Cadmium : Dry Wt	0.1580	mg/kg	0.01	None	LL	1041
Chromium : Dry Wt	23.5000	mg/kg	0.05	None	LL	1041
Copper : Dry Wt	19.900	mg/kg	0.1	None	LL	1041
Lead : Dry Wt	11.700	mg/kg	0.2	None	LL	1041
Lithium : Dry Wt	42.400	mg/kg	0.1	None	LL	1041
Nickel : Dry Wt	87.100	mg/kg	0.3	None	LL	1041
Zinc : Dry Wt	90.700	mg/kg	0.2	None	LL	1041
Aldrin DW	< 1.00	ug/kg	1	None	LL	672
DDE -pp DW	< 2.00	ug/kg	2	None	LL	672
DDT -op DW	< 1.00	ug/kg	1	None	LL	672
DDT -pp DW	8.40	ug/kg	2	None	LL	672
Dieldrin DW	< 3.00	ug/kg	3	None	LL	672
Endrin DW	< 2.00	ug/kg	2	None	LL	672
HCBD DW	< 1.00	ug/kg	1	None	LL	672
HCH -alpha DW	< 1.00	ug/kg	1	None	LL	672
HCH -beta DW	< 1.00	ug/kg	1	None	LL	672
HCH -delta DW	< 1.00	ug/kg	1	None	LL	672
HCH -gamma DW	< 1.00	ug/kg	1	None	LL	672
Hexachlorobenzene DW	< 1.00	ug/kg	1	None	LL	672
Isodrin DW	< 2.00	ug/kg	2	None	LL	672
TDE -pp DW	< 1.00	ug/kg	1	None	LL	672
Anthracene : Dry Wt	278.00	ug/kg	2	None	LL	1051
Benzo(a)anthracene : Dry Wt	705.00	ug/kg	2	None	LL	1051
Benzo(a)pyrene : Dry Wt	872.00	ug/kg	2	None	LL	1051
Benzo(b)fluoranthene : Dry Wt	642.0	ug/kg	10	None	LL	1051
Benzo(ghi)perylene : Dry Wt	447.0	ug/kg	10	None	LL	1051
Benzo(k)fluoranthene : Dry Wt	353.0	ug/kg	10	None	LL	1051
Chrysene : Dry Wt	764.00	ug/kg	2	None	LL	1051
Fluoranthene : Dry Wt	1330.00	ug/kg	2	None	LL	1051

Indeno(123cd)pyrene Dry Wt	425.0	ug/kg	10	None	LL	1051
Naphthalene : Dry Wt	< 50.0	ug/kg	30	None	LL	1051
Phenanthrene : Dry Wt	884.0	ug/kg	10	None	LL	1051
Pyrene : Dry Wt	1180.00	ug/kg	2	None	LL	1051
PCB 028 DW	< 0.100	ug/kg	0.1	None	LL	685
PCB 052 DW	< 0.100	ug/kg	0.1	None	LL	685
PCB 101 DW	< 0.100	ug/kg	0.1	None	LL	685
PCB 118 DW	< 0.100	ug/kg	0.1	None	LL	685
PCB 138 DW	< 0.100	ug/kg	0.1	None	LL	685
PCB 153 DW	< 0.100	ug/kg	0.1	None	LL	685
PCB 180 DW	< 0.100	ug/kg	0.1	None	LL	685
Dibutyl Tin : Dry Wt as cation	< 0.00300	mg/kg	0.003	None	LE	897
Tributyl Tin : Dry Wt as cation	0.01050	mg/kg	0.003	None	LE	897
Dry Solids @ 30°C	93.200	%	0.5	None	LE	1130
Sample Preparation	Report	Text		None	LE	924

Folder Number: 1106595
The sample was received in a 1ltr plastic pot and 120ml glass jar weighing over 2200g in total.
The sample appeared to be black wet gritty sediment with large pebbles.

555.82g of the sample was taken for drying at <30degC which gave 518.68g of dried sample.
The sample was sieved to <10mm before being crushed using a jawcrusher.
no stone waste was discarded after sieving at 10mm.
The sample was received unpreserved.

All parameters are determined on the air-dried (<30degC) portion except those requiring a wet sample fraction where as received (wet) sample was used.

Dry Weight (DW) results are reported as determined at <30degC.

National Laboratory Service

Analytical Report

Partial Reports - results awaited - awaiting LSM approval

0754

Report ID - 20015965 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 06-Oct-2009

Client: Priority Geotechnical Ltd
Folder No: 001107780
Comments: CRM
Quote No: 4944

Project: Marine Sediment Analysis
Sampled on: 12-Aug-09 @ (Time not supplied)
Matrix: Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	0.520	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	0.537	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	1.4200	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	0.10400	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	3440.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	18.400	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.1910	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	73.2000	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	28.800	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	20.300	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	62.500	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	40.500	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	139.000	mg/kg	0.2	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	0.59100	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	0.26300	mg/kg	0.003	UKAS	LE	897

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20016067 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 16-Sep-2009

Client:	Priority Geotechnical Ltd	Project:	Marine Sediment Analysis
Folder No:	001110357	Sampled on:	13-Aug-09 @ (Time not supplied)
Comments:	GS9 @ 0.5m		
Quote No:	4944	Matrix:	Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon, Organic : Dry Wt as C	3.340	%	0.4	None	LL	404
Mercury : Dry Wt	4.59000	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	8420.000	mg/kg	0.4	UKAS	LL	1043
Copper : Dry Wt	207.000	mg/kg	0.1	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	< 0.01310	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	< 0.00500	mg/kg	0.003	UKAS	LE	897

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20016068 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 16-Sep-2009

Client: Priority Geotechnical Ltd
Folder No: 001110369
Comments: GS10 @ 0.5m
Quote No: 4944

Project: Marine Sediment Analysis
Sampled on: 13-Aug-09 @ (Time not supplied)
Matrix: Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	3.150	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	2.710	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	78.8000	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	0.32400	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	9200.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	11.400	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.2600	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	13.3000	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	33.900	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	29.700	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	26.000	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	21.700	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	101.000	mg/kg	0.2	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	< 0.01050	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	0.20000	mg/kg	0.003	UKAS	LE	897

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ENVIRONMENT AGENCY

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20016068 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 16-Sep-2009

Client: Priority Geotechnical Ltd
Folder No: 001110371
Comments: GS11 @ 0.5m
Quote No: 4944

Project: Marine Sediment Analysis
Sampled on: 13-Aug-09 @ (Time not supplied)
Matrix: Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	1.370	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	0.960	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	180.0000	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	0.19700	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	8830.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	9.280	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.2320	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	12.6000	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	21.400	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	32.000	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	24.300	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	20.300	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	86.900	mg/kg	0.2	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	< 0.00786	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	< 0.00300	mg/kg	0.003	UKAS	LE	897

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20016067 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 16-Sep-2009

Client:	Priority Geotechnical Ltd	Project:	Marine Sediment Analysis
Folder No:	001110358	Sampled on:	13-Aug-09 @ (Time not supplied)
Comments:	GS12 @ 0.5m		
Quote No:	4944	Matrix:	Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon, Organic : Dry Wt as C	1.560	%	0.4	None	LL	404
Mercury : Dry Wt	0.01000	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	7110.000	mg/kg	0.4	UKAS	LL	1043
Copper : Dry Wt	14.800	mg/kg	0.1	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	< 0.00786	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	< 0.00300	mg/kg	0.003	UKAS	LE	897

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ENVIRONMENT AGENCY

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20016067 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 16-Sep-2009

Client:	Priority Geotechnical Ltd	Project:	Marine Sediment Analysis
Folder No:	001110359	Sampled on:	13-Aug-09 @ (Time not supplied)
Comments:	GS13 @ 0.5m		
Quote No:	4944	Matrix:	Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon, Organic : Dry Wt as C	0.830	%	0.4	None	LL	404
Mercury : Dry Wt	0.26800	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	8660.000	mg/kg	0.4	UKAS	LL	1043
Copper : Dry Wt	27.100	mg/kg	0.1	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	< 0.01050	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	0.02000	mg/kg	0.003	UKAS	LE	897

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20016067 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 16-Sep-2009

Client:	Priority Geotechnical Ltd	Project:	Marine Sediment Analysis
Folder No:	001110360	Sampled on:	13-Aug-09 @ (Time not supplied)
Comments:	GS14 @ 0.5m		
Quote No:	4944	Matrix:	Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon, Organic : Dry Wt as C	< 0.400	%	0.4	None	LL	404
Mercury : Dry Wt	0.01700	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	4580.000	mg/kg	0.4	UKAS	LL	1043
Copper : Dry Wt	4.040	mg/kg	0.1	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	< 0.00786	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	< 0.00300	mg/kg	0.003	UKAS	LE	897

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ENVIRONMENT AGENCY

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20016069 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 04-Jan-2010

Client: Priority Geotechnical Ltd
Folder No: 001110446
Comments: GS15 @ 0.5m
Quote No: 4944

Project: Marine Sediment Analysis
Sampled on: 13-Aug-09 @ (Time not supplied)
Matrix: Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	< 0.400	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	< 0.400	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	55.2000	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	0.03500	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	5440.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	4.420	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.0900	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	8.4900	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	6.940	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	13.700	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	15.300	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	13.300	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	55.300	mg/kg	0.2	UKAS	LL	1041
Aldrin DW	< 1.00	ug/kg	1	UKAS	LL	672
DDE -pp DW	< 2.00	ug/kg	2	UKAS	LL	672
DDT -op DW	< 1.00	ug/kg	1	UKAS	LL	672
DDT -pp DW	< 2.00	ug/kg	2	UKAS	LL	672
Dieldrin DW	< 3.00	ug/kg	3	UKAS	LL	672
Endrin DW	< 2.00	ug/kg	2	UKAS	LL	672
HCBD DW	< 1.00	ug/kg	1	UKAS	LL	672
HCH -alpha DW	< 1.00	ug/kg	1	UKAS	LL	672
HCH -beta DW	< 1.00	ug/kg	1	UKAS	LL	672
HCH -delta DW	< 1.00	ug/kg	1	UKAS	LL	672
HCH -gamma DW	< 1.00	ug/kg	1	UKAS	LL	672
Hexachlorobenzene DW	< 1.00	ug/kg	1	UKAS	LL	672
Isodrin DW	< 2.00	ug/kg	2	UKAS	LL	672
TDE -pp DW	< 1.00	ug/kg	1	UKAS	LL	672
Anthracene : Dry Wt	24.70	ug/kg	2	UKAS	LL	1051
Benzo(a)anthracene : Dry Wt	78.70	ug/kg	2	UKAS	LL	1051
Benzo(a)pyrene : Dry Wt	87.00	ug/kg	2	UKAS	LL	1051
Benzo(b)fluoranthene : Dry Wt	85.4	ug/kg	10	UKAS	LL	1051
Benzo(ghi)perylene : Dry Wt	52.4	ug/kg	10	UKAS	LL	1051
Benzo(k)fluoranthene : Dry Wt	45.3	ug/kg	10	UKAS	LL	1051
Chrysene : Dry Wt	75.90	ug/kg	2	UKAS	LL	1051
Fluoranthene : Dry Wt	134.00	ug/kg	2	UKAS	LL	1051

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Indeno(123cd)pyrene Dry Wt	57.1	ug/kg	10	UKAS	LL	1051
Naphthalene : Dry Wt	206.0	ug/kg	30	None	LL	1051
Phenanthrene : Dry Wt	45.9	ug/kg	10	UKAS	LL	1051
Pyrene : Dry Wt	128.00	ug/kg	2	UKAS	LL	1051
PCB 028 DW	< 0.100	ug/kg	0.1	UKAS	LL	685
PCB 052 DW	< 0.100	ug/kg	0.1	UKAS	LL	685
PCB 101 DW	< 0.100	ug/kg	0.1	UKAS	LL	685
PCB 118 DW	< 0.100	ug/kg	0.1	UKAS	LL	685
PCB 138 DW	< 0.100	ug/kg	0.1	UKAS	LL	685
PCB 153 DW	0.130	ug/kg	0.1	UKAS	LL	685
PCB 180 DW	0.410	ug/kg	0.1	UKAS	LL	685
Dibutyl Tin : Dry Wt as cation	< 0.01050	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	< 0.00400	mg/kg	0.003	UKAS	LE	897
Dry Solids @ 30°C	73.000	%	0.5	None	LE	1130
Sample Preparation	Report	Text	None		LE	924

Folder Number: 1110446
The sample was received in a 1ltr plastic pot and 120ml glass jar weighing approx. 2188g in total.
The sample appeared to be dark brown very wet sandy sediment with plant material and plastic bag.

433.30g of the sample was taken for drying at <30degC which gave 318.59g of dried sample(weights include tray weight)
The sample was sieved to <10mm before being crushed using a pestle and mortar.
No waste was discarded after sieving at 10mm.
The sample was received unpreserved.

All parameters are determined on the air-dried (<30degC) portion except those requiring a wet sample fraction where as received (wet) sample was used.

Dry Weight (DW) results are reported as determined at <30degC.

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20016067 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 16-Sep-2009

Client:	Priority Geotechnical Ltd	Project:	Marine Sediment Analysis
Folder No:	001110361	Sampled on:	13-Aug-09 @ (Time not supplied)
Comments:	GS16 @ 0.5m		
Quote No:	4944	Matrix:	Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon, Organic : Dry Wt as C	4.410	%	0.4	None	LL	404
Mercury : Dry Wt	0.42900	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	9170.000	mg/kg	0.4	UKAS	LL	1043
Copper : Dry Wt	46.700	mg/kg	0.1	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	< 0.01050	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	< 0.00400	mg/kg	0.003	UKAS	LE	897

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20016068 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 16-Sep-2009

Client: Priority Geotechnical Ltd
Folder No: 001110370
Comments: GS17 @ 0.5m
Quote No: 4944

Project: Marine Sediment Analysis
Sampled on: 13-Aug-09 @ (Time not supplied)
Matrix: Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	7.620	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	6.190	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	358.0000	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	0.43400	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	10800.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	9.070	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.5560	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	20.2000	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	52.100	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	78.600	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	24.700	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	21.900	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	235.000	mg/kg	0.2	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	< 0.01310	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	0.05000	mg/kg	0.003	UKAS	LE	897

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20016068 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 16-Sep-2009

Client: Priority Geotechnical Ltd
Folder No: 001110372
Comments: CRM
Quote No: 4944

Project: Marine Sediment Analysis
Sampled on: 13-Aug-09 @ (Time not supplied)
Matrix: Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	0.523	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	0.513	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	1.4200	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	0.09900	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	70400.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	19.400	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.1960	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	86.0000	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	30.900	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	20.700	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	66.600	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	41.900	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	142.000	mg/kg	0.2	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	0.51800	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	0.27100	mg/kg	0.003	UKAS	LE	897

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20016068 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 16-Sep-2009

Method Description Summary for all samples in batch Number 20016068

Testcode	Method Reference and Description
402	NLS I UVF 10.2 - HCs - methanol digested; pentane xch; by UV fluorescence spectrometry
404	LL I CHN 11.2 & 11.3 - combusted; determined by TCD; Organic C - acid pretreated to remove inorganic carbonates
897	LE O Organotins (GCMS) 01 - acetic acid/methanol extracted; derivatised; determined GCMS (SIM); from "as received" sample
1041	LL ME ICPMS 12.1 & 12.4- Metals - microwave aqua regia digested; determined by ICPMS
1042	LL ME Hg 10.8 - Mercury - microwave aqua regia digeste; acidic SnCl2 reduced; determined by CV-AFS
1043	LL ME ICP-OES 22.1 & 22.2 - Metals - microwave aqua regia digested; determined by ICPOES

Chris Hunter
Laboratory Site Manager

All reporting limits quoted are those achievable for clean samples of the relevant matrix. No allowance is made for instances when dilutions are necessary owing to the nature of the sample or insufficient volume of the sample being available. In these cases higher reporting limits may be quoted and will be above the MRV.

Solid sample results are determined on a "dried" sample fraction except for parameters where the method description identifies that "as received" sample was used.

Please note all samples will be retained for thirty working days after reporting unless otherwise agreed with Customer Services

Key to Accreditation: UKAS = Methodology accredited to ISO/IEC 17025:2005, MCertS = Methodology accredited to MCertS Performance Standard for testing of soils, none = Methodology not accredited
Key to Lab ID: LE = Leeds, LL = Llanelli, NM = Nottingham, SX = Starcross, SC = Sub-Contracted outside NLS, FI = Field Data, NLS = Calculated

END OF TEST REPORT

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ENVIRONMENT AGENCY

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20016067 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 16-Sep-2009

Client:	Priority Geotechnical Ltd	Project:	Marine Sediment Analysis
Folder No:	001110362	Sampled on:	13-Aug-09 @ (Time not supplied)
Comments:	GS18 @ 0.5m		
Quote No:	4944	Matrix:	Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon, Organic : Dry Wt as C	5.810	%	0.4	None	LL	404
Mercury : Dry Wt	1.13000	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	14600.000	mg/kg	0.4	UKAS	LL	1043
Copper : Dry Wt	70.200	mg/kg	0.1	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	< 0.01570	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	0.20000	mg/kg	0.003	UKAS	LE	897

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ENVIRONMENT AGENCY

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20015965 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 05-Jan-2010

Client: Priority Geotechnical Ltd
Folder No: 001108633
Comments: GS19 @ 0.5m
Quote No: 4944

Project: Marine Sediment Analysis
Sampled on: 8-Jul-09 @ (Time not supplied)
Matrix: Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	7.980	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	6.930	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	1019.0000	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	1.18000	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	8650.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	15.900	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.7300	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	21.6000	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	68.800	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	79.500	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	20.500	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	18.900	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	256.000	mg/kg	0.2	UKAS	LL	1041
Aldrin DW	< 1.00	ug/kg	1	UKAS	LL	672
DDE -pp DW	< 2.00	ug/kg	2	UKAS	LL	672
DDT -op DW	< 1.00	ug/kg	1	UKAS	LL	672
DDT -pp DW	< 2.00	ug/kg	2	UKAS	LL	672
Dieldrin DW	< 3.00	ug/kg	3	UKAS	LL	672
Endrin DW	< 2.00	ug/kg	2	UKAS	LL	672
HCBD DW	< 1.00	ug/kg	1	UKAS	LL	672
HCH -alpha DW	< 1.00	ug/kg	1	UKAS	LL	672
HCH -beta DW	< 1.00	ug/kg	1	UKAS	LL	672
HCH -delta DW	< 1.00	ug/kg	1	UKAS	LL	672
HCH -gamma DW	< 1.00	ug/kg	1	UKAS	LL	672
Hexachlorobenzene DW	< 1.00	ug/kg	1	UKAS	LL	672
Isodrin DW	< 2.00	ug/kg	2	UKAS	LL	672
TDE -pp DW	< 1.00	ug/kg	1	UKAS	LL	672
Anthracene : Dry Wt	909.00	ug/kg	2	UKAS	LL	1051
Benzo(a)anthracene : Dry Wt	2470.00	ug/kg	2	UKAS	LL	1051
Benzo(a)pyrene : Dry Wt	4460.00	ug/kg	2	UKAS	LL	1051
Benzo(b)fluoranthene : Dry Wt	3370.0	ug/kg	10	UKAS	LL	1051
Benzo(ghi)perylene : Dry Wt	1970.0	ug/kg	10	UKAS	LL	1051
Benzo(k)fluoranthene : Dry Wt	1780.0	ug/kg	10	UKAS	LL	1051
Chrysene : Dry Wt	5760.00	ug/kg	2	UKAS	LL	1051
Fluoranthene : Dry Wt	5560.00	ug/kg	2	UKAS	LL	1051

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Indeno(123cd)pyrene Dry Wt	1850.0	ug/kg	10	UKAS	LL	1051
Naphthalene : Dry Wt	710.0	ug/kg	30	None	LL	1051
Phenanthrene : Dry Wt	2920.0	ug/kg	10	UKAS	LL	1051
Pyrene : Dry Wt	4120.00	ug/kg	2	UKAS	LL	1051
PCB 028 DW	< 0.100	ug/kg	0.1	UKAS	LL	685
PCB 052 DW	< 0.100	ug/kg	0.1	UKAS	LL	685
PCB 101 DW	< 0.100	ug/kg	0.1	UKAS	LL	685
PCB 118 DW	< 0.100	ug/kg	0.1	UKAS	LL	685
PCB 138 DW	2.710	ug/kg	0.1	UKAS	LL	685
PCB 153 DW	5.810	ug/kg	0.1	UKAS	LL	685
PCB 180 DW	23.100	ug/kg	0.1	UKAS	LL	685
Dibutyl Tin : Dry Wt as cation	0.26200	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	0.30000	mg/kg	0.003	UKAS	LE	897
Dry Solids @ 30°C	49.000	%	0.5	None	LE	1130
Sample Preparation	Report	Text		None	LE	924

Folder Number: 1108633
The sample was received in a 120ml glass pot weighing approx. 333g in total.
The sample appeared to be black very wet soft gritty sediment.

93.23g of the sample was taken for drying at <30degC which gave 48.44g of dried sample(weights include tray weight)
The sample was sieved to <10mm before being crushed using a pestle and mortar.
No waste was discarded after sieving at 10mm.
The sample was received unpreserved.

All parameters are determined on the air dried (<30degC) portion except those requiring a wet sample fraction where as received (wet) sample was used.

Dry Weight (DW) results are reported as determined at <30degC.

Method Description Summary for all samples in batch Number 20015965

Testcode	Method Reference and Description
140	LE O HRMS2 - OCPs, PCBs - acetone/DCM ASE; 3-stg clean up; determined by HR-GC + LR-MS (SIM)
402	NLS I UVF 10.2 - HCs - methanol digested; pentane xch; by UV fluorescence spectrometry
404	LL I CHN 11.2 & 11.3 - combusted; determined by TCD; Organic C - acid pretreated to remove inorganic carbonates
672	LL O PESTICIDES - solvent extracted; determined by GCMS (SIM)
685	LL O PCBs - solvent extracted; determined by GCMS (SIM)
897	LE O Organotins (GCMS) 01 - acetic acid/methanol extracted; derivatised; determined GCMS (SIM); from "as received" sample
924	Sample Preparation; Dry Solids (30°C); from "as received" sample
1041	LL ME ICPMS 12.1 & 12.4- Metals - microwave aqua regia digested; determined by ICPMS
1042	LL ME Hg 10.8 - Mercury - microwave aqua regia digeste; acidic SnCl2 reduced; determined by CV-AFS
1043	LL ME ICP-OES 22.1 & 22.2 - Metals - microwave aqua regia digested; determined by ICPOES
1051	LL O PAHs - solvent extracted; determined by GCMS (EI)
1130	Not Available

Chris Hunter
Laboratory Site Manager

All reporting limits quoted are those achievable for clean samples of the relevant matrix. No allowance is made for instances when dilutions are necessary owing to the nature of the sample or insufficient volume of the sample being available. In these cases higher reporting limits may be quoted and will be above the MRV.

Solid sample results are determined on a "dried" sample fraction except for parameters where the method description identifies that "as received" sample was used.

Please note all samples will be retained for thirty working days after reporting unless otherwise agreed with Customer Services

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END OF TEST REPORT

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20016067 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 16-Sep-2009

Client:	Priority Geotechnical Ltd	Project:	Marine Sediment Analysis
Folder No:	001110363	Sampled on:	13-Aug-09 @ (Time not supplied)
Comments:	GS20 @ 0.5m		
Quote No:	4944	Matrix:	Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon, Organic : Dry Wt as C	< 0.400	%	0.4	None	LL	404
Mercury : Dry Wt	0.37400	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	8800.000	mg/kg	0.4	UKAS	LL	1043
Copper : Dry Wt	25.100	mg/kg	0.1	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	< 0.01310	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	< 0.00500	mg/kg	0.003	UKAS	LE	897

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ENVIRONMENT AGENCY

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20016067 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 16-Sep-2009

Client:	Priority Geotechnical Ltd	Project:	Marine Sediment Analysis
Folder No:	001110364	Sampled on:	13-Aug-09 @ (Time not supplied)
Comments:	CRM		
Quote No:	4944	Matrix:	Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon, Organic : Dry Wt as C	0.535	%	0.4	None	LL	404
Mercury : Dry Wt	0.10100	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	57800.000	mg/kg	0.4	UKAS	LL	1043
Copper : Dry Wt	29.800	mg/kg	0.1	UKAS	LL	1041
Dibutyl Tin : Dry Wt as cation	0.59100	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	0.23600	mg/kg	0.003	UKAS	LE	897

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ENVIRONMENT AGENCY

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20016067 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 16-Sep-2009

Method Description Summary for all samples in batch Number 20016067

Testcode	Method Reference and Description
404	LL I CHN 11.2 & 11.3 - combusted; determined by TCD; Organic C - acid pretreated to remove inorganic carbonates
897	LE O Organotins (GCMS) 01 - acetic acid/methanol extracted; derivatised; determined GCMS (SIM); from "as received" sample
1041	LL ME ICPMS 12.1 & 12.4- Metals - microwave aqua regia digested; determined by ICPMS
1042	LL ME Hg 10.8 - Mercury - microwave aqua regia digeste; acidic SnCl2 reduced; determined by CV-AFS
1043	LL ME ICP-OES 22.1 & 22.2 - Metals - microwave aqua regia digested; determined by ICPOES

Chris Hunter
Laboratory Site Manager

All reporting limits quoted are those achievable for clean samples of the relevant matrix. No allowance is made for instances when dilutions are necessary owing to the nature of the sample or insufficient volume of the sample being available. In these cases higher reporting limits may be quoted and will be above the MRV.

Solid sample results are determined on a "dried" sample fraction except for parameters where the method description identifies that "as received" sample was used.

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Key to Lab ID: LE = Leeds, LL = Llanelli, NM = Nottingham, SX = Starcross, SC = Sub-Contracted outside NLS, FI = Field Data, NLS = Calculated

END OF TEST REPORT

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Analytical Report

Final Report

0754

Report ID - 20016069 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 04-Jan-2010

Client: Priority Geotechnical Ltd
Folder No: 001110447
Comments: GS21 @ 0.5m
Quote No: 4944

Project: Marine Sediment Analysis
Sampled on: 13-Aug-09 @ (Time not supplied)
Matrix: Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	4.320	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	3.070	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	35.5000	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	0.11900	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	18300.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	11.900	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.4010	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	30.0000	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	40.200	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	33.500	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	31.000	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	25.400	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	90.800	mg/kg	0.2	UKAS	LL	1041
Aldrin DW	< 1.00	ug/kg	1	UKAS	LL	672
DDE -pp DW	< 2.00	ug/kg	2	UKAS	LL	672
DDT -op DW	< 1.00	ug/kg	1	UKAS	LL	672
DDT -pp DW	< 2.00	ug/kg	2	UKAS	LL	672
Dieldrin DW	< 3.00	ug/kg	3	UKAS	LL	672
Endrin DW	< 2.00	ug/kg	2	UKAS	LL	672
HCBD DW	< 1.00	ug/kg	1	UKAS	LL	672
HCH -alpha DW	< 1.00	ug/kg	1	UKAS	LL	672
HCH -beta DW	< 1.00	ug/kg	1	UKAS	LL	672
HCH -delta DW	< 1.00	ug/kg	1	UKAS	LL	672
HCH -gamma DW	< 1.00	ug/kg	1	UKAS	LL	672
Hexachlorobenzene DW	< 1.00	ug/kg	1	UKAS	LL	672
Isodrin DW	< 2.00	ug/kg	2	UKAS	LL	672
TDE -pp DW	< 1.00	ug/kg	1	UKAS	LL	672
Anthracene : Dry Wt	30.70	ug/kg	2	UKAS	LL	1051
Benzo(a)anthracene : Dry Wt	131.00	ug/kg	2	UKAS	LL	1051
Benzo(a)pyrene : Dry Wt	168.00	ug/kg	2	UKAS	LL	1051
Benzo(b)fluoranthene : Dry Wt	150.0	ug/kg	10	UKAS	LL	1051
Benzo(ghi)perylene : Dry Wt	103.0	ug/kg	10	UKAS	LL	1051
Benzo(k)fluoranthene : Dry Wt	< 71.2	ug/kg	10	UKAS	LL	1051
Chrysene : Dry Wt	135.00	ug/kg	2	UKAS	LL	1051
Fluoranthene : Dry Wt	222.00	ug/kg	2	UKAS	LL	1051

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NLS Nottingham
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Starcross
Exeter
EX6 8PE

Environment Agency

Report ID - 20016069 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 04-Jan-2010

Indeno(123cd)pyrene Dry Wt	107.0	ug/kg	10	UKAS	LL	1051
Naphthalene : Dry Wt	241.0	ug/kg	30	None	LL	1051
Phenanthrene : Dry Wt	95.9	ug/kg	10	UKAS	LL	1051
Pyrene : Dry Wt	221.00	ug/kg	2	UKAS	LL	1051
PCB 028 DW	< 0.100	ug/kg	0.1	UKAS	LL	685
PCB 052 DW	0.220	ug/kg	0.1	UKAS	LL	685
PCB 101 DW	0.250	ug/kg	0.1	UKAS	LL	685
PCB 118 DW	0.130	ug/kg	0.1	UKAS	LL	685
PCB 138 DW	0.280	ug/kg	0.1	UKAS	LL	685
PCB 153 DW	0.750	ug/kg	0.1	UKAS	LL	685
PCB 180 DW	1.710	ug/kg	0.1	UKAS	LL	685
Dibutyl Tin : Dry Wt as cation	< 0.01310	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	< 0.00500	mg/kg	0.003	UKAS	LE	897
Dry Solids @ 30°C	49.200	%	0.5	None	LE	1130
Sample Preparation	Report	Text		None	LE	924

Folder Number: 1110447
The sample was received in a 1ltr plastic pot and 120ml glass jar weighing approx. 1852g in total.
The sample appeared to be dark brown very wet soft sticky clay sediment.

289.27g of the sample was taken for drying at <30degC which gave 146.40g of dried sample(weights include tray weight)
The sample was sieved to <10mm before being crushed using a pestle and mortar.
No waste was discarded after sieving at 10mm.
The sample was received unpreserved.

All parameters are determined on the air-dried (<30degC) portion except those requiring a wet sample fraction where as received (wet) sample was used.

Dry Weight (DW) results are reported as determined at <30degC.

National Laboratory Service

Analytical Report

Final Report

0754

Report ID - 20016069 - 1

Batch description: PC9030 Bantry Harbour

Reported on: 04-Jan-2010

Client: Priority Geotechnical Ltd
Folder No: 001110448
Comments: CRM
Quote No: 4944

Project: Marine Sediment Analysis
Sampled on: 17-Aug-09 @ (Time not supplied)
Matrix: Sediment

Analyte	Result	Units	MRV	Accred	Lab ID	Testcode
Carbon : Dry Wt	0.539	%	0.4	UKAS	LL	404
Carbon, Organic : Dry Wt as C	0.535	%	0.4	None	LL	404
Hydrocarbons : Total : Dry Wt as Ekofisk	1.4000	mg/kg	0.05	None	LL	402
Mercury : Dry Wt	0.10000	mg/kg	0.001	UKAS	LL	1042
Aluminium : Dry Wt	70100.000	mg/kg	0.4	UKAS	LL	1043
Arsenic : Dry Wt	18.800	mg/kg	0.1	UKAS	LL	1041
Cadmium : Dry Wt	0.1890	mg/kg	0.01	UKAS	LL	1041
Chromium : Dry Wt	84.6000	mg/kg	0.05	UKAS	LL	1041
Copper : Dry Wt	30.000	mg/kg	0.1	UKAS	LL	1041
Lead : Dry Wt	21.000	mg/kg	0.2	UKAS	LL	1041
Lithium : Dry Wt	65.200	mg/kg	0.1	UKAS	LL	1041
Nickel : Dry Wt	41.200	mg/kg	0.3	UKAS	LL	1041
Zinc : Dry Wt	141.000	mg/kg	0.2	UKAS	LL	1041
Aldrin DW	88.80	ug/kg	1	UKAS	LL	672
DDE -pp DW	105.30	ug/kg	2	UKAS	LL	672
DDT -op DW	88.50	ug/kg	1	UKAS	LL	672
DDT -pp DW	86.90	ug/kg	2	UKAS	LL	672
Dieldrin DW	102.20	ug/kg	3	UKAS	LL	672
Endrin DW	89.90	ug/kg	2	UKAS	LL	672
HCBD DW	146.90	ug/kg	1	UKAS	LL	672
HCH -alpha DW	104.20	ug/kg	1	UKAS	LL	672
HCH -beta DW	84.70	ug/kg	1	UKAS	LL	672
HCH -delta DW	76.90	ug/kg	1	UKAS	LL	672
HCH -gamma DW	108.10	ug/kg	1	UKAS	LL	672
Hexachlorobenzene DW	79.60	ug/kg	1	UKAS	LL	672
Isodrin DW	76.90	ug/kg	2	UKAS	LL	672
TDE -pp DW	108.90	ug/kg	1	UKAS	LL	672
Anthracene : Dry Wt	171.00	ug/kg	2	UKAS	LL	1051
Benzo(a)anthracene : Dry Wt	311.00	ug/kg	2	UKAS	LL	1051
Benzo(a)pyrene : Dry Wt	288.00	ug/kg	2	UKAS	LL	1051
Benzo(b)fluoranthene : Dry Wt	430.0	ug/kg	10	UKAS	LL	1051
Benzo(ghi)perylene : Dry Wt	255.0	ug/kg	10	UKAS	LL	1051
Benzo(k)fluoranthene : Dry Wt	209.0	ug/kg	10	UKAS	LL	1051
Chrysene : Dry Wt	191.00	ug/kg	2	UKAS	LL	1051
Fluoranthene : Dry Wt	564.00	ug/kg	2	UKAS	LL	1051

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Staplake Mount
Starcross
Exeter
EX6 8PE

ENVIRONMENT AGENCY

Indeno(123cd)pyrene Dry Wt	273.0	ug/kg	10	UKAS	LL	1051
Naphthalene : Dry Wt	1130.0	ug/kg	30	None	LL	1051
Phenanthrene : Dry Wt	397.0	ug/kg	10	UKAS	LL	1051
Pyrene : Dry Wt	469.00	ug/kg	2	UKAS	LL	1051
PCB 028 DW	3.850	ug/kg	0.1	UKAS	LL	685
PCB 052 DW	5.930	ug/kg	0.1	UKAS	LL	685
PCB 101 DW	4.750	ug/kg	0.1	UKAS	LL	685
PCB 118 DW	3.630	ug/kg	0.1	UKAS	LL	685
PCB 138 DW	2.850	ug/kg	0.1	UKAS	LL	685
PCB 153 DW	4.850	ug/kg	0.1	UKAS	LL	685
PCB 180 DW	2.830	ug/kg	0.1	UKAS	LL	685
Dibutyl Tin : Dry Wt as cation	0.51800	mg/kg	0.003	UKAS	LE	897
Tributyl Tin : Dry Wt as cation	0.27100	mg/kg	0.003	UKAS	LE	897

Method Description Summary for all samples in batch Number 20016069

Testcode	Method Reference and Description
140	LE O HRMS2 - OCPs, PCBs - acetone/DCM ASE; 3-stg clean up; determined by HR-GC + LR-MS (SIM)
402	NLS I UVF 10.2 - HCs - methanol digested; pentane xch; by UV fluorescence spectrometry
404	LL I CHN 11.2 & 11.3 - combusted; determined by TCD; Organic C - acid pretreated to remove inorganic carbonates
672	LL O PESTICIDES - solvent extracted; determined by GCMS (SIM)
685	LL O PCBs - solvent extracted; determined by GCMS (SIM)
897	LE O Organotins (GCMS) 01 - acetic acid/methanol extracted; derivatised; determined GCMS (SIM); from "as received" sample
924	Sample Preparation; Dry Solids (30°C); from "as received" sample
1041	LL ME ICPMS 12.1 & 12.4- Metals - microwave aqua regia digested; determined by ICPMS
1042	LL ME Hg 10.8 - Mercury - microwave aqua regia digeste; acidic SnCl2 reduced; determined by CV-AFS
1043	LL ME ICP-OES 22.1 & 22.2 - Metals - microwave aqua regia digested; determined by ICPOES
1051	LL O PAHs - solvent extracted; determined by GCMS (EI)
1130	Not Available

Chris Hunter
Laboratory Site Manager

All reporting limits quoted are those achievable for clean samples of the relevant matrix. No allowance is made for instances when dilutions are necessary owing to the nature of the sample or insufficient volume of the sample being available. In these cases higher reporting limits may be quoted and will be above the MRV.

Solid sample results are determined on a "dried" sample fraction except for parameters where the method description identifies that "as received" sample was used.

Please note all samples will be retained for thirty working days after reporting unless otherwise agreed with Customer Services

Key to Accreditation: UKAS = Methodology accredited to ISO/IEC 17025:2005, MCertS = Methodology accredited to MCertS Performance Standard for testing of soils, none = Methodology not accredited
Key to Lab ID: LE = Leeds, LL = Llanelli, NM = Nottingham, SX = Starcross, SC = Sub-Contracted outside NLS, FI = Field Data, NLS = Calculated

END OF TEST REPORT

Priority Geotechnical Limited

Point Load Test Results

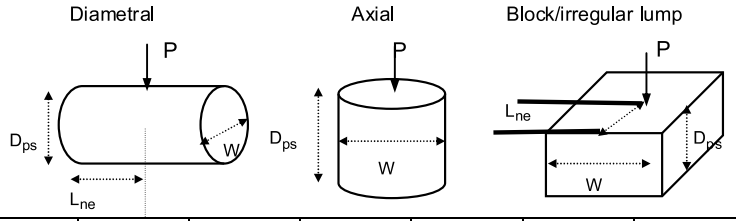
Project: **Bantry Inner Harbour**

Project No: PC9030

Carried out by: ER

Test Type
D - Diametral, A - Axial, I - Irregular Lump
Direction (U = unknown or random)
Par - parallel to planes of weakness
Per - perpendicular to planes of weakness
Dimensions
Dps - Distance between platens (platen separation)
Dps' - at failure
Lne - Length from platens to nearest free end
W - Width of shortest dimension perpendicular to load, P

Machine Ram Area, cm^2



Borehole	Sample Top, m BGL	Sample Ref	Sample Type	Sample Base, m BGL	Specimen Ref	Specimen Depth, m BGL	Description	Test Type see ISRM Fig 5 and 8		Failure Valid (Y/N)	Dimensions			Gauge reading, kN	P Failure Load, kN	De equivalent diameter, mm	Is MPa	Is(50) point load index, MPa	Remarks
								Type (D, A, I)	Direction (Par/Per/U)		L mm	Dps, mm	W mm						
BH02	10	14	C	10.15	1	10.15	Siltstone	D	Per	Y	35	60	60	24.53	24.53	60.0	6.81	7.39	Rough Planar
BH04	9.5	21	C	9.8	1	9.8	Siltstone	D	Per	Y	95	60	60	2.89	2.89	60.0	0.80	0.87	Rough Stepped
BH04	10.7	22	C	10.9	2	10.9	Siltstone	D	Per	Y	30	61	61	1.975	1.98	61.0	0.53	0.58	Rough Undulated
BH05	6.15	14	C	6.25	1	6.25	Siltstone	D	Per	Y	45	60	60	1.435	1.44	60.0	0.40	0.43	Smooth Undulated
BH05	8	16	C	8.1	2	8.1	Siltstone	I	Per	Y	10	58	61	10.755	10.76	67.1	2.39	2.73	Rough Stepped
BH05	10.5	17	C	10.6	3	10.6	Siltstone	D	Per	Y	15	61	61	0.545	0.55	61.0	0.15	0.16	Smooth Planar
BH06	6.5	6	C	6.7	1	6.7	Limestone	D	Per	Y	40	61	61	7.23	7.23	61.0	1.94	2.12	Rough Undulated
BH06	8.3	8	C	8.65	2	8.65	Limestone	D	Per	Y	170	61	61	16.655	16.66	61.0	4.48	4.89	Rough Stepped
BH08	9	27	C	9.2	1	9.2	Siltstone	D	Per	Y	60	61	61	6.035	6.04	61.0	1.62	1.77	Rough Undulated
BH08	10.9	29	C	11.05	2	11.05	Siltstone	D	Per	Y	45	61	61	5.905	5.91	61.0	1.59	1.74	Rough Undulated
BH09	1.2	5	C	1.3	1	1.3	Mudstone	D	Per	Y	15	61	61	2.455	2.46	61.0	0.66	0.72	Rough Stepped
BH09	2.3	6	C	2.5	2	2.5	Mudstone	I	Per	Y	45	61	57	5.72	5.72	66.5	1.29	1.47	Rough Undulated
BH09	3	7	C	3.1	3	3.1	Mudstone	I	Per	Y	20	57	61	8.88	8.88	66.5	2.01	2.28	Rough Undulated
BH09	5.5	8	C	5.6	4	5.6	Mudstone	I	Per	Y	5	61	50	1.825	1.83	62.3	0.47	0.52	Rough Undulated
BH09	6.7	9	C	6.8	5	6.8	Mudstone	D	Per	Y	10	61	61	6.435	6.44	61.0	1.73	1.89	Rough Undulated
BH10	5.2	6	C	5.45	1	5.45	Limestone	I	Per	Y	20	39	61	3.23	3.23	55.0	1.07	1.11	Rough Stepped
BH10	6.5	8	C	6.7	2	6.7	Limestone	D	Per	Y	50	61	61	24.245	24.25	61.0	6.52	7.13	Rough Undulated
BH14	12	20	C	12.1	1	12.1	Mudstone	D	Per	Y	30	66	66	2.065	2.07	66.0	0.47	0.54	Smooth Planar
BH14	13	21	C	13.1	2	13.1	Mudstone	D	Per	Y	25	67	67	1.695	1.70	67.0	0.38	0.43	Smooth Stepped
BH14	14.2	22	C	14.2	3	14.2	Mudstone	D	Per	Y	30	67	67	0.5	0.50	67.0	0.11	0.13	Smooth Planar
BH15	11.5	29	C	11.6	1	11.6	Mudstone	D	Per	Y	25	61	61	1.02	1.02	61.0	0.27	0.30	Smooth Planar
BH15	14.5	30	C	14.65	2	14.65	Mudstone	D	Per	Y	25	61	61	0.935	0.94	61.0	0.25	0.27	Smooth Planar
BH17	11.4	10	C	11.55	1	11.55	Limestone	D	Per	Y	50	61	61	2.57	2.57	61.0	0.69	0.76	Rough Undulated
BH17	12.6	12	C	12.6	2	12.6	Limestone	D	Per	Y	15	61	61	15.74	15.74	61.0	4.23	4.63	Rough Undulated

Unconfined Compressive Strength, UCS

Job Name	**Bantry Inner Harbour**
Job Number	**PC 030**

Borehole:	**BH05**	
Depth:	**6.8-7.0**	**m**
Rock Type	**Siltstone**	

Bulk Density	**2.8**	**Mg/m^3**
Load at Failure, P	**1 2**	**kN**
Stress at Failure	**65.2**	**MPa**

Failure mode

NOTES:

Operator	ER
Checked	GH

Unconfined Compressive Strength, UCS

Job Name	**Bantry Inner Harbour**
Job Number	**PC 030**

Borehole:	**BH06**	
Depth:	**7.8-8.3**	**m**
Rock Type	**Limestone**	

Bulk Density	**2.73**	**Mg/m^3**
Load at Failure, P	**104**	**kN**
Stress at Failure	**35.2**	**MPa**

Failure mode

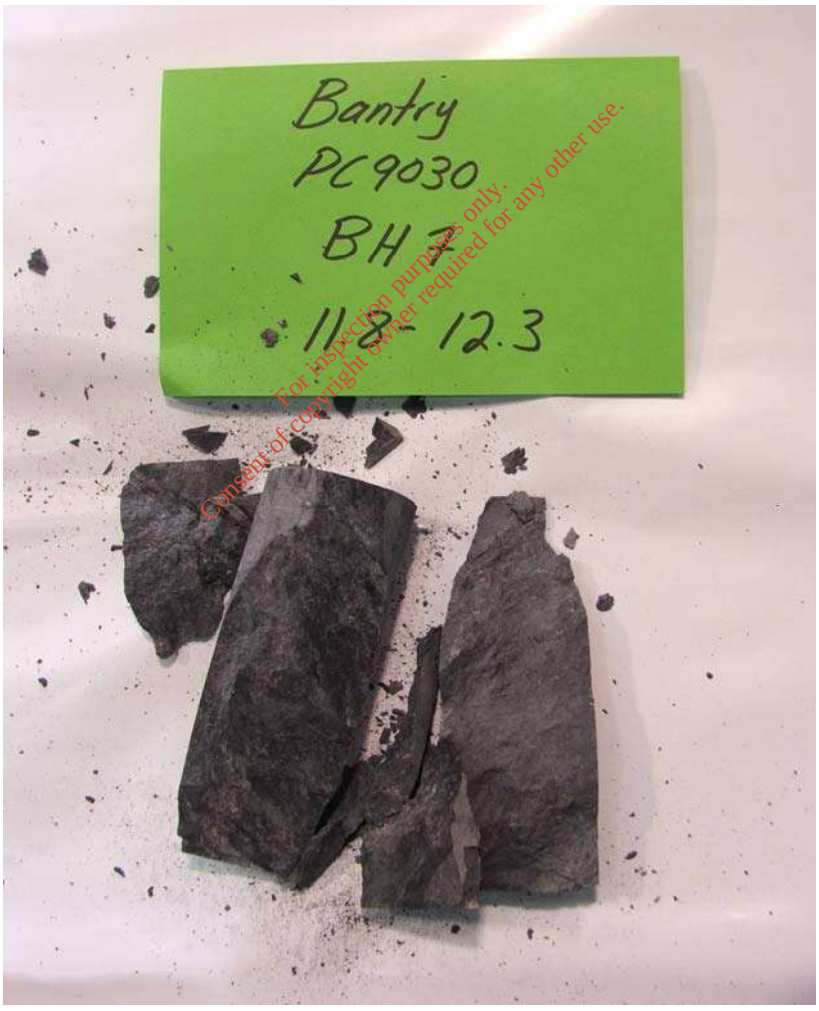
NOTES:

Operator	ER
Checked	GH

Unconfined Compressive Strength, UCS

Job Name	**Bantry Inner Harbour**	
Job Number	**PC 030**	
Borehole:	**BH07**	
Depth:	**11.8-12.3**	**m**
Rock Type	**Mudstone**	

Bulk Density	**2.75**	**Mg/m^3**
Load at Failure, P	**62**	**kN**
Stress at Failure	**21.23**	**MPa**



Failure mode

NOTES:

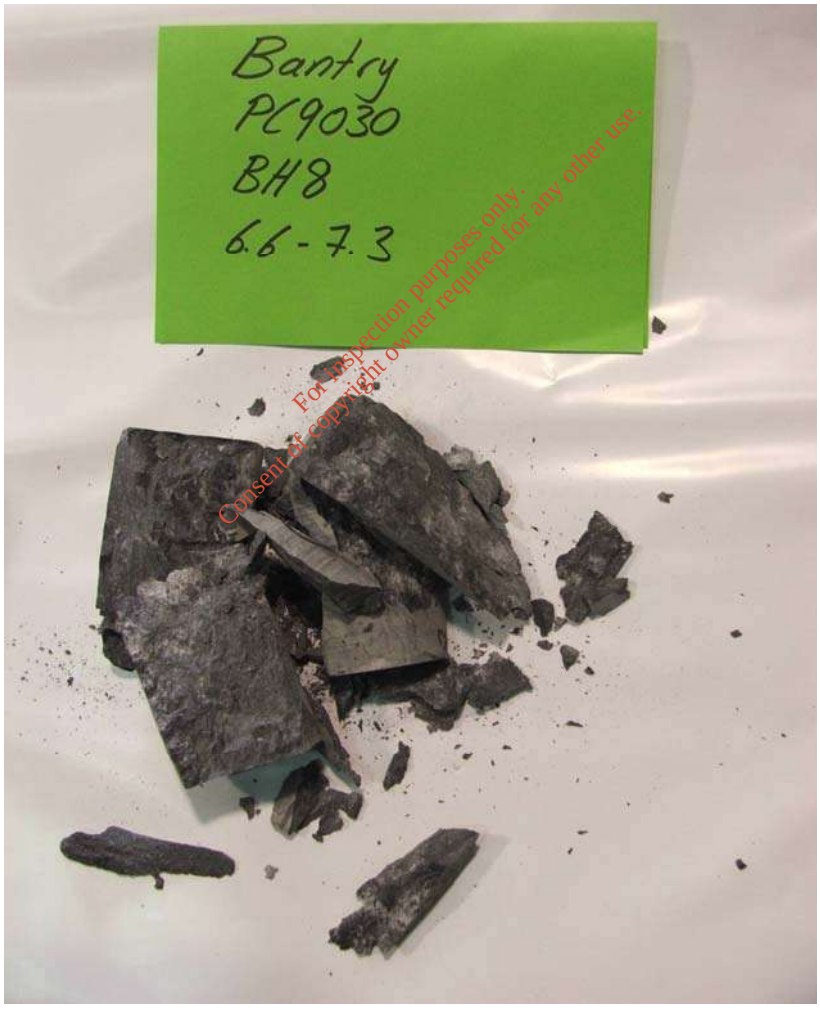
Operator	ER
Checked	GH

Unconfined Compressive Strength, UCS

Job Name	**Bantry Inner Harbour**
Job Number	**PC 030**

Borehole:	**BH08**	
Depth:	**6.6-7.3**	**m**
Rock Type	**Siltstone**	

Bulk Density	**2.86**	**Mg/m^3**
Load at Failure, P	**313**	**kN**
Stress at Failure	**107.2**	**MPa**



Failure mode

NOTES:

Operator	ER
Checked	GH