APPENDIX I

Figure 1 SITE LOCATION PLAN
Figure 2 EXPLORATORY HOLE LOCATION PLAN



KEY: Site Boundary

N

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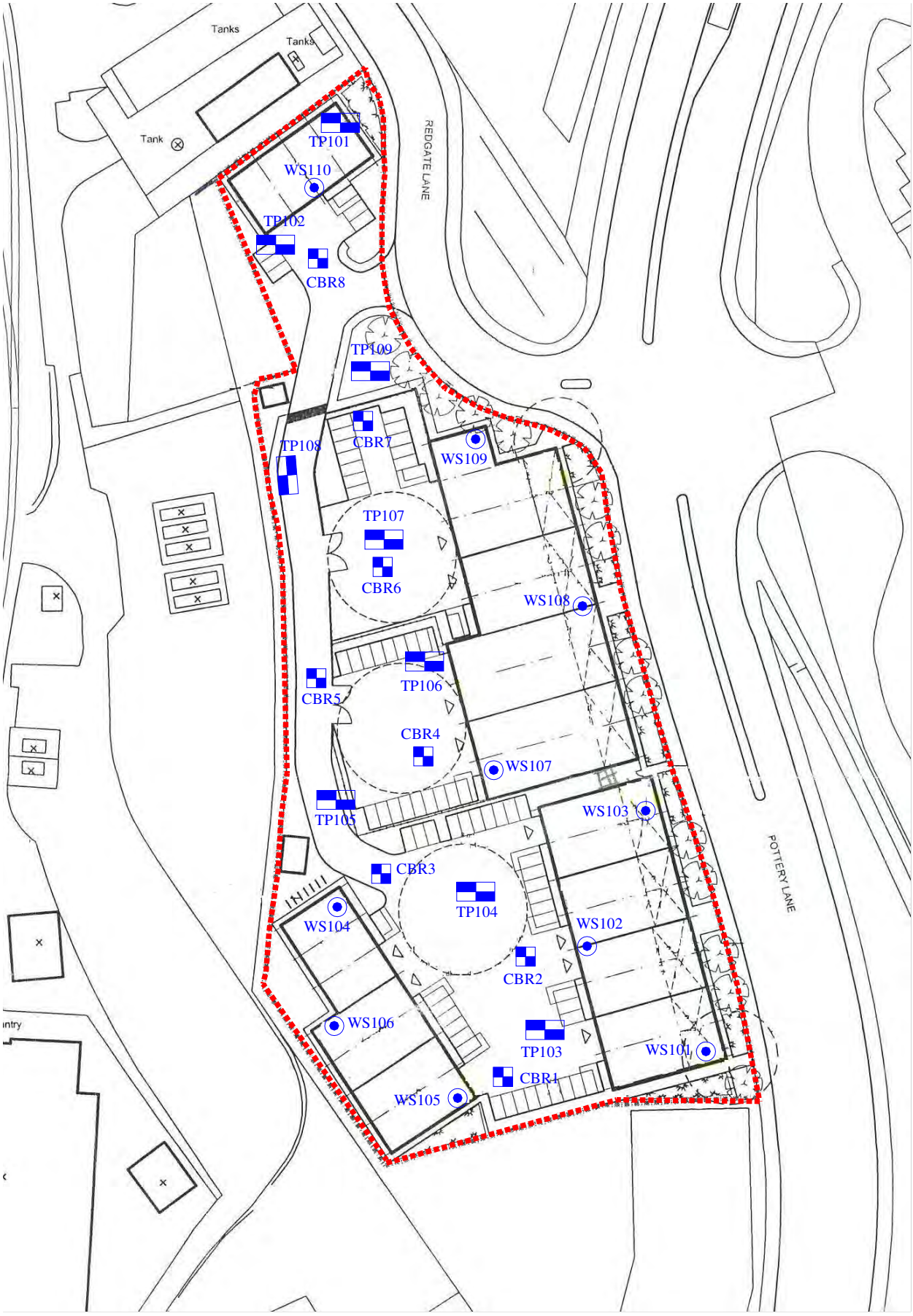
Redgate Lane, Longsight
Site Location Plan

Job No: 42912	Figure: 1.1
Scale: NTS	Drawn: JC NOV 07



KEY:

Site Boundary

WS101 — Approximate Window Sample Borehole Location

TP101 — Approximate Trial Pit Location

CBR1 — Approximate CBR Test Location

N

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Pottery Lane, Longsight, Manchester

Proposed Development Plan

Job No: 42912	Figure: 4.1
Scale: NTS	Drawn: April 2008 SR

APPENDIX II

REC LTD WINDOW SAMPLE PROBEHOLE & TRIAL PIT LOGS

Trial Pit Record

Trial Pit Number: TP101

Project Number: 42912
Contract Name: Pottery Lane, Longsight
Client: Quorum Estates Ltd
Engineer: S Roberts

Date Started: 31/03/08
Date Completed: 31/03/08
Elevation AOD (m): N/A
Co-ordinates: N/A
Excavation Method: JCB 3CX

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SUBSURFACE PROFILE				SAMPLES AND IN-SITU TESTING				
Depth (mbgl)	Legend	Description	Depth of Strata (mbgl)	Type	Depth (mbgl)	Water Level (mbgl)	P.I.D (ppm) 0 25 50 75 100	Field / Laboratory Testing
		MADE GROUND: Grass over dark brown very clayey gravelly fine to coarse SAND. Gravel is angular to subangular fine to coarse of brick, sandstone and concrete, with occasional fragments of glass, metal and cobbles of brick and concrete.	0.60	B DG	0.10-0.60 0.40			
1.0		MADE GROUND: Firm grey slightly sandy gravelly CLAY. Gravel is angular to subangular fine to coarse of brick, concrete and limestone.	1.10	DG	0.70			
2.0		Stiff brown grey mottled slightly gravelly CLAY. Gravel is subangular to subrounded fine to coarse of sandstone, siltstone and mudstone.	2.20	DG	1.20			
3.0		Trial pit completed at 2.20m bgl.						
4.0								

Key

B. Bulk (Bag)
W. Water
U100. 100mm Undisturbed
U38. 38mm Undisturbed Sample
SPT. Standard Penetration Test
D. Disturbed
G. Amber Glass Jar / Bottle
CPT. Cone Penetration Test
U100. Blows (Recovery mm)
V. 40ml Glass Vial
T. Plastic Tub
N. 'N' Value
HV. Hand Shear Vane
PID. Photo Ionisation Detector

Notes

Dimensions: 0.60m x 2.50m

Services: Prior to excavation the trial pit location was scanned with a Cable Avoidance Tool (CAT).

Stability: The sides remained stable during excavation.

Groundwater: Groundwater was not encountered during excavation.

Date: 16/04/08
Status: draft

Trial Pit Record

Trial Pit Number: TP102

Project Number: 42912
Contract Name: Pottery Lane, Longsight
Client: Quorum Estates Ltd
Engineer: S Roberts

Date Started: 31/03/08
Date Completed: 31/03/08
Elevation AOD (m): N/A
Co-ordinates: N/A
Excavation Method: JCB 3CX

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SUBSURFACE PROFILE				SAMPLES AND IN-SITU TESTING				
Depth (mbgl)	Legend	Description	Depth of Strata (mbgl)	Type	Depth (mbgl)	Water Level (mbgl)	P.I.D (ppm) 0 25 50 75 100	Field / Laboratory Testing
		MADE GROUND: Grass over dark brown very clayey gravelly fine to coarse SAND. Gravel is angular to subangular fine to coarse of brick, sandstone and concrete, with occasional fragments of glass, metal and cobbles of brick and concrete.	0.50	DG	0.30			
		MADE GROUND: Firm grey slightly sandy gravelly CLAY. Gravel is angular to subangular fine to coarse of brick, concrete and limestone.	0.90	DG	0.60			
1.0		MADE GROUND: Black sandy angular to subangular fine to coarse GRAVEL of ash and clinker.	1.10	DG	1.00	1.40m		
		MADE GROUND: Firm dark grey brown friable very sandy gravelly CLAY. Gravel is subangular fine to coarse of brick and sandstone.	1.70					
2.0		Stiff brown grey mottled slightly gravelly CLAY. Gravel is subangular to subrounded fine to coarse of sandstone, siltstone and mudstone.	2.30	B	1.70-2.20			
		Trial pit completed at 2.30m bgl.						
3.0								
4.0								

Key

B. Bulk (Bag)
W. Water
U100. 100mm Undisturbed
U38. 38mm Undisturbed Sample
SPT. Standard Penetration Test
D. Disturbed
G. Amber Glass Jar / Bottle
CPT. Cone Penetration Test
U100. Blows (Recovery mm)
V. 40ml Glass Vial
T. Plastic Tub
N. 'N' Value
HV. Hand Shear Vane
PID. Photo Ionisation Detector

Notes

Dimensions: 0.60m x 2.50m

Services: Prior to excavation the trial pit location was scanned with a Cable Avoidance Tool (CAT).

Stability: The sides remained stable during excavation.

Groundwater: A seepage of groundwater was encountered at 1.40m bgl during excavation.

Date: 16/04/08
Status: draft

Trial Pit Record

Trial Pit Number: TP103

Project Number: 42912
Contract Name: Pottery Lane, Longsight
Client: Quorum Estates Ltd
Engineer: S Roberts

Date Started: 31/03/08
Date Completed: 31/03/08
Elevation AOD (m): N/A
Co-ordinates: N/A
Excavation Method: JCB 3CX

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SUBSURFACE PROFILE				SAMPLES AND IN-SITU TESTING				
Depth (mbgl)	Legend	Description	Depth of Strata (mbgl)	Type	Depth (mbgl)	Water Level (mbgl)	P.I.D (ppm) 0 25 50 75 100	Field / Laboratory Testing
		MADE GROUND: Grass over grey black sandy angular to subangular fine to coarse GRAVEL of brick, limestone, ash and clinker.	0.40	DG B	0.30 0.10-0.60			
		MADE GROUND: Stiff dark grey brown friable gravelly CLAY. Gravel is subangular fine to coarse of brick.	0.90	DG	0.60	0.90m		
1.0		Stiff brown grey mottled slightly gravelly CLAY. Gravel is subangular to subrounded fine to coarse of sandstone, siltstone and mudstone.		DG	1.00			
2.0			2.30					
		Trial pit completed at 2.30m bgl.						
3.0								
4.0								

Key

B. Bulk (Bag)
W. Water
U100. 100mm Undisturbed
U38. 38mm Undisturbed Sample
SPT. Standard Penetration Test

D. Disturbed
G. Amber Glass Jar / Bottle
CPT. Cone Penetration Test
U100. Blows (Recovery mm)
V. 40ml Glass Vial

T. Plastic Tub
N. 'N' Value
HV. Hand Shear Vane
PID. Photo Ionisation Detector

Notes

Dimensions: 0.60m x 2.50m

Services: Prior to excavation the trial pit location was scanned with a Cable Avoidance Tool (CAT).

Stability: The sides remained stable during excavation.

Groundwater: A seepage of groundwater was encountered at 0.90m bgl during excavation.

Date: 16/04/08
Status: draft

Trial Pit Record

Trial Pit Number: TP104

Project Number: 42912
Contract Name: Pottery Lane, Longsight
Client: Quorum Estates Ltd
Engineer: S Roberts

Date Started: 31/03/08
Date Completed: 31/03/08
Elevation AOD (m): N/A
Co-ordinates: N/A
Excavation Method: JCB 3CX

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SUBSURFACE PROFILE				SAMPLES AND IN-SITU TESTING				
Depth (mbgl)	Legend	Description	Depth of Strata (mbgl)	Type	Depth (mbgl)	Water Level (mbgl)	P.I.D (ppm) 0 25 50 75 100	Field / Laboratory Testing
		MADE GROUND: Grass over grey black sandy angular to subangular fine to coarse GRAVEL of brick, limestone, ash and clinker, with occasional fragments of metal and cobbles of brick and concrete.	0.60	DG B	0.30 0.10-0.60			
1.0		MADE GROUND: Stiff dark grey brown friable gravelly CLAY. Gravel is subangular fine to coarse of brick.		DG	0.60	1.00m		
2.0		Land drain encountered at 2.00m bgl.	2.10	DG	1.00			
		Soft grey silty slightly gravelly CLAY. Gravel is subangular to subrounded fine to coarse of sandstone, siltstone and mudstone.	3.00					
3.0		Trial pit completed at 3.00m bgl.						
4.0								

Key

B. Bulk (Bag)
W. Water
U100. 100mm Undisturbed
U38. 38mm Undisturbed Sample
SPT. Standard Penetration Test
D. Disturbed
G. Amber Glass Jar / Bottle
CPT. Cone Penetration Test
U100. Blows (Recovery mm)
V. 40ml Glass Vial
T. Plastic Tub
N. 'N' Value
HV. Hand Shear Vane
PID. Photo Ionisation Detector

Notes

Dimensions: 0.60m x 2.50m

Services: Prior to excavation the trial pit location was scanned with a Cable Avoidance Tool (CAT).

Stability: The sides remained stable during excavation.

Groundwater: A seepage of groundwater was encountered at 1.00m bgl during excavation.

Date: 16/04/08
Status: draft

Trial Pit Record

Trial Pit Number: TP105

Project Number: 42912
Contract Name: Pottery Lane, Longsight
Client: Quorum Estates Ltd
Engineer: S Roberts

Date Started: 31/03/08
Date Completed: 31/03/08
Elevation AOD (m): N/A
Co-ordinates: N/A
Excavation Method: JCB 3CX

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SUBSURFACE PROFILE				SAMPLES AND IN-SITU TESTING				
Depth (mbgl)	Legend	Description	Depth of Strata (mbgl)	Type	Depth (mbgl)	Water Level (mbgl)	P.I.D (ppm) 0 25 50 75 100	Field / Laboratory Testing
		MADE GROUND: Grass over grey black sandy angular to subangular fine to coarse GRAVEL of brick, limestone, ash and clinker, with occasional fragments of metal and cobbles of brick and concrete.	0.50	DG	0.30			
		MADE GROUND: Firm dark grey sandy gravelly CLAY. Gravel is subangular fine to coarse of brick and sandstone.		DG B	0.70 0.50-1.00			
1.0						1.30m		
				DG	1.40			
		Land drain encountered at 1.90m bgl.	2.00					
2.0		Stiff brown grey mottled slightly gravelly CLAY. Gravel is subangular to subrounded fine to coarse of sandstone, siltstone and mudstone.	2.70					
		Trial pit completed at 2.70m bgl.						
3.0								
4.0								

Key

B. Bulk (Bag)
W. Water
U100. 100mm Undisturbed
U38. 38mm Undisturbed Sample
SPT. Standard Penetration Test
D. Disturbed
G. Amber Glass Jar / Bottle
CPT. Cone Penetration Test
U100. Blows (Recovery mm)
V. 40ml Glass Vial
T. Plastic Tub
N. 'N' Value
HV. Hand Shear Vane
PID. Photo Ionisation Detector

Notes

Dimensions: 0.60m x 2.50m

Services: Prior to excavation the trial pit location was scanned with a Cable Avoidance Tool (CAT).

Stability: The sides remained stable during excavation.

Groundwater: A seepage of groundwater was encountered at 1.30m bgl during excavation.

Date: 16/04/08
Status: draft

Trial Pit Record

Trial Pit Number: TP106

Project Number: 42912
Contract Name: Pottery Lane, Longsight
Client: Quorum Estates Ltd
Engineer: S Roberts

Date Started: 31/03/08
Date Completed: 31/03/08
Elevation AOD (m): N/A
Co-ordinates: N/A
Excavation Method: JCB 3CX

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SUBSURFACE PROFILE				SAMPLES AND IN-SITU TESTING				
Depth (mbgl)	Legend	Description	Depth of Strata (mbgl)	Type	Depth (mbgl)	Water Level (mbgl)	P.I.D (ppm) 0 25 50 75 100	Field / Laboratory Testing
0		MADE GROUND: Grass over grey black sandy angular to subangular fine to coarse GRAVEL of brick, sandstone, ash and clinker, with occasional fragments of metal.	1.00	DG	0.50	1.00m		
1.0		MADE GROUND: Stiff dark grey brown friable sandy gravelly CLAY. Gravel is subangular fine to coarse of brick and sandstone.	1.50	DG	1.20			
		Stiff brown grey mottled slightly gravelly CLAY. Gravel is subangular to subrounded fine to coarse of sandstone, siltstone and mudstone.	2.60	DG B	1.60 1.50-2.00			
2.0								
		Trial pit completed at 2.60m bgl.						
3.0								
4.0								

Key

B. Bulk (Bag)
W. Water
U100. 100mm Undisturbed
U38. 38mm Undisturbed Sample
SPT. Standard Penetration Test
D. Disturbed
G. Amber Glass Jar / Bottle
CPT. Cone Penetration Test
U100. Blows (Recovery mm)
V. 40ml Glass Vial
T. Plastic Tub
N. 'N' Value
HV. Hand Shear Vane
PID. Photo Ionisation Detector

Notes

Dimensions: 0.60m x 2.50m

Services: Prior to excavation the trial pit location was scanned with a Cable Avoidance Tool (CAT).

Stability: The sides remained stable during excavation.

Groundwater: A seepage of groundwater was encountered at 1.00m bgl during excavation.

Date: 16/04/08
Status: draft

Trial Pit Record

Trial Pit Number: TP107

Project Number: 42912
Contract Name: Pottery Lane, Longsight
Client: Quorum Estates Ltd
Engineer: S Roberts

Date Started: 31/03/08
Date Completed: 31/03/08
Elevation AOD (m): N/A
Co-ordinates: N/A
Excavation Method: JCB 3CX

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SUBSURFACE PROFILE				SAMPLES AND IN-SITU TESTING				
Depth (mbgl)	Legend	Description	Depth of Strata (mbgl)	Type	Depth (mbgl)	Water Level (mbgl)	P.I.D (ppm) 0 25 50 75 100	Field / Laboratory Testing
		MADE GROUND: Grass over grey black sandy angular to subangular fine to coarse GRAVEL of brick, sandstone, ash and clinker, with occasional fragments of metal.	0.50	DG	0.30	0.50m		
1.0		MADE GROUND: Stiff dark grey brown friable sandy gravelly CLAY. Gravel is subangular fine to coarse of brick and sandstone, with occasional fragments of timber.	1.30					
2.0		Stiff brown grey mottled slightly gravelly CLAY. Gravel is subangular to subrounded fine to coarse of sandstone, siltstone and mudstone.	2.30					
3.0		Trial pit completed at 2.30m bgl.						
4.0								

Key

B. Bulk (Bag)
W. Water
U100. 100mm Undisturbed
U38. 38mm Undisturbed Sample
SPT. Standard Penetration Test
D. Disturbed
G. Amber Glass Jar / Bottle
CPT. Cone Penetration Test
U100. Blows (Recovery mm)
V. 40ml Glass Vial
T. Plastic Tub
N. 'N' Value
HV. Hand Shear Vane
PID. Photo Ionisation Detector

Notes

Dimensions: 0.60m x 2.50m

Services: Prior to excavation the trial pit location was scanned with a Cable Avoidance Tool (CAT).

Stability: The sides remained stable during excavation.

Groundwater: A seepage of groundwater was encountered at 0.50m bgl during excavation.

Date: 16/04/08
Status: draft

Trial Pit Record

Trial Pit Number: TP108

Project Number: 42912
Contract Name: Pottery Lane, Longsight
Client: Quorum Estates Ltd
Engineer: S Roberts

Date Started: 31/03/08
Date Completed: 31/03/08
Elevation AOD (m): N/A
Co-ordinates: N/A
Excavation Method: JCB 3CX

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SUBSURFACE PROFILE				SAMPLES AND IN-SITU TESTING				
Depth (mbgl)	Legend	Description	Depth of Strata (mbgl)	Type	Depth (mbgl)	Water Level (mbgl)	P.I.D (ppm) 0 25 50 75 100	Field / Laboratory Testing
0		MADE GROUND: Grass over firm dark brown grey slightly sandy gravelly CLAY. Gravel is angular to subangular fine to coarse of brick, sandstone, and ash, with occasional fragments of glass.	1.70	B DG	0.20-0.70 0.30			
1.0								
2.0		Stiff brown grey mottled slightly gravelly CLAY. Gravel is subangular to subrounded fine to coarse of sandstone, siltstone and mudstone.	2.60					
3.0		Trial pit completed at 2.60m bgl.						
4.0								

Key

B. Bulk (Bag)
W. Water
U100. 100mm Undisturbed
U38. 38mm Undisturbed Sample
SPT. Standard Penetration Test
D. Disturbed
G. Amber Glass Jar / Bottle
CPT. Cone Penetration Test
U100. Blows (Recovery mm)
V. 40ml Glass Vial
T. Plastic Tub
N. 'N' Value
HV. Hand Shear Vane
PID. Photo Ionisation Detector

Notes

Dimensions: 0.60m x 2.50m
Services: Prior to excavation the trial pit location was scanned with a Cable Avoidance Tool (CAT).
Stability: The sides remained stable during excavation.
Groundwater: Groundwater was not encountered during excavation.

Date: 16/04/08
Status: draft

Trial Pit Record

Trial Pit Number: TP109

Project Number: 42912
Contract Name: Pottery Lane, Longsight
Client: Quorum Estates Ltd
Engineer: S Roberts

Date Started: 31/03/08
Date Completed: 31/03/08
Elevation AOD (m): N/A
Co-ordinates: N/A
Excavation Method: JCB 3CX

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SUBSURFACE PROFILE				SAMPLES AND IN-SITU TESTING				
Depth (mbgl)	Legend	Description	Depth of Strata (mbgl)	Type	Depth (mbgl)	Water Level (mbgl)	P.I.D (ppm) 0 25 50 75 100	Field / Laboratory Testing
		MADE GROUND: Grass over grey black sandy angular to subangular fine to coarse GRAVEL of brick, sandstone, ash and clinker.	0.40	DG	0.30	0.40m		
1.0		MADE GROUND: Stiff dark grey brown friable sandy gravelly CLAY. Gravel is subangular fine to coarse of brick and sandstone, with occasional fragments of timber.	1.40	DG	0.70			
2.0		Stiff brown grey mottled slightly gravelly CLAY. Gravel is subangular to subrounded fine to coarse of sandstone, siltstone and mudstone.	2.40	DG	1.50			
3.0		Trial pit completed at 2.40m bgl.						
4.0								

Key

B. Bulk (Bag)
W. Water
U100. 100mm Undisturbed
U38. 38mm Undisturbed Sample
SPT. Standard Penetration Test
D. Disturbed
G. Amber Glass Jar / Bottle
CPT. Cone Penetration Test
U100. Blows (Recovery mm)
V. 40ml Glass Vial
T. Plastic Tub
N. 'N' Value
HV. Hand Shear Vane
PID. Photo Ionisation Detector

Notes

Dimensions: 0.60m x 2.50m

Services: Prior to excavation the trial pit location was scanned with a Cable Avoidance Tool (CAT).

Stability: The sides remained stable during excavation.

Groundwater: A seepage of groundwater was encountered at 0.40m bgl during excavation.

Date: 16/04/08
Status: draft

Borehole Record - Window Sample

Probehole Number: WS101

Project Number: 42912
Contract Name: Pottery Lane, Longsight
Client: Quorum Estates
Engineer: S Roberts

Date Started: 02/04/08
Date Completed: 02/04/08
Elevation AOD (m): N/A
Co-ordinates: N/A
Drilling Equipment: Mini tracked window sampler rig

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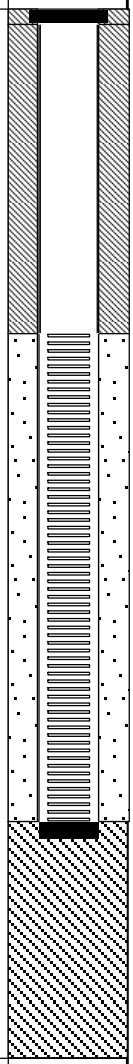
SUBSURFACE PROFILE				SAMPLES AND IN-SITU TESTING				
Depth (mbgl)	Legend	Description	Depth of Strata (mbgl)	Type	Depth (mbgl)	In-Situ Testing SPT / U100	Water Level (mbgl)	Monitoring Installation / Backfill
0		MADE GROUND: Grass over grey brown green sandy very gravelly CLAY. Gravel is angular to subangular fine to coarse of brick, sandstone, clinker, coal and limestone.	0.40	DG	0.30			
				DG	0.70			
1.0		MADE GROUND: Grey red sandy angular fine to coarse GRAVEL of brick, sandstone, coal and limestone.	1.00	SPT	1.00-1.45	S: 1/1/3/3/4/4 N= 14		
				DG	1.10			
		Stiff brown grey mottled gravelly CLAY. Gravel is subangular to subrounded fine to coarse of sandstone, siltstone, mudstone and coal.		HV	1.70	>120kN/m2		
				U100	1.70-2.00	134kN/m2		
2.0		Very stiff from circa 2.00m bgl.		SPT	2.00-2.45	S: 1/3/5/6/7/8 N= 26		
				HV	2.70	>240kN/m2		
				U100	2.70-3.00			
3.0				SPT	3.00-3.45	S: 3/4/6/10/10/10 N= 36		
				HV	3.70	>180kN/m2		
				U100	3.70-4.00			
4.0				SPT	4.00-4.45	S: 2/3/5/6/7/7 N= 25		
5.0				HV	5.00	>240kN/m2		
				SPT	5.00-5.45	S: 2/3/4/6/6/8 N= 24		
6.0				HV	6.00	>240kN/m2		
				SPT	6.00-6.45	S: 4/5/6/7/8/7 N= 28		
			6.45					
7.0		Probehole completed at 6.45m bgl.						



Key

B. Bulk (Bag)
W. Water
U100. 100mm Undisturbed
U38. 38mm Undisturbed Sample
SPT. Standard Penetration Test

D. Disturbed
G. Amber Glass Jar / Bottle
CPT. Cone Penetration Test
U100. Blows (Recovery mm)
V. 40ml Glass Vial

T. Plastic Tub
N. 'N' Value
HV. Hand Shear Vane
PID. Photo Ionisation Detector

Notes

Groundwater: Groundwater was not encountered during driling.

Services: Prior to drilling the location was scanned with a cable avoidance tool (CAT).

Additon of water: N/A

Casing diameter: 110mm

Date logged: 07/05/08

Status: draft

Borehole Record - Window Sample

Probehole Number: WS102

Project Number: 42912
Contract Name: Pottery Lane, Longsight
Client: Quorum Estates
Engineer: S Roberts

Date Started: 02/04/08
Date Completed: 02/04/08
Elevation AOD (m): N/A
Co-ordinates: N/A
Drilling Equipment: Mini tracked window sampler rig

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SUBSURFACE PROFILE				SAMPLES AND IN-SITU TESTING				
Depth (mbgl)	Legend	Description	Depth of Strata (mbgl)	Type	Depth (mbgl)	In-Situ Testing SPT / U100	Water Level (mbgl)	Monitoring Installation / Backfill
0		MADE GROUND: Grass over grey brown green sandy very gravelly CLAY. Gravel is angular to subangular fine to coarse of brick, sandstone, clinker, coal and limestone.	0.30	DG	0.20			
			0.60	DG	0.80			
1.0		MADE GROUND: Brown red sandy angular fine to coarse GRAVEL of brick, sandstone and coal.		SPT	1.00-1.45	S: 1/1/3/4/4/4 N= 15		
		Very stiff brown grey mottled slightly gravelly CLAY. Gravel is subangular to subrounded fine to coarse of sandstone, siltstone, mudstone and coal.						
2.0				SPT	2.00-2.45	S: 2/2/5/6/6/7 N= 24		
				HV	2.70	>240kN/m2		
				U100	2.70-3.00	245kN/m2		
3.0				SPT	3.00-3.45	S: 2/3/5/6/6/7 N= 24		
				HV	3.70	>240kN/m2		
4.0				SPT	4.00-4.45	S: 3/1/5/6/6/7 N= 24		
5.0				HV	5.00	>240kN/m2		
				SPT	5.00-5.45	S: 1/3/3/4/6/6 N= 19		
6.0				HV	6.00	>240kN/m2		
				SPT	6.00-6.45	S: 4/5/4/3/5/7 N= 21		
			6.45					
7.0		Probehole completed at 6.45m bgl.						

Key

B. Bulk (Bag)
W. Water
U100. 100mm Undisturbed
U38. 38mm Undisturbed Sample
SPT. Standard Penetration Test

D. Disturbed
G. Amber Glass Jar / Bottle
CPT. Cone Penetration Test
U100. Blows (Recovery mm)
V. 40ml Glass Vial

T. Plastic Tub
N. 'N' Value
HV. Hand Shear Vane
PID. Photo Ionisation Detector

Notes

Groundwater: Groundwater was not encountered during driling.

Services: Prior to drilling the location was scanned with a cable avoidance tool (CAT).

Additon of water: N/A

Casing diameter: 110mm

Date logged: 07/05/08

Status: draft

Borehole Record - Window Sample

Probehole Number: WS103

Project Number: 42912
Contract Name: Pottery Lane, Longsight
Client: Quorum Estates
Engineer: S Roberts

Date Started: 02/04/08
Date Completed: 02/04/08
Elevation AOD (m): N/A
Co-ordinates: N/A
Drilling Equipment: Mini tracked window sampler rig

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SUBSURFACE PROFILE				SAMPLES AND IN-SITU TESTING				
Depth (mbgl)	Legend	Description	Depth of Strata (mbgl)	Type	Depth (mbgl)	In-Situ Testing SPT / U100	Water Level (mbgl)	Monitoring Installation / Backfill
		MADE GROUND: Grass over grey brown green sandy very gravelly CLAY. Gravel is angular to subangular fine to coarse of brick, sandstone, clinker, coal and limestone.	0.30					
				DG	0.50		0.80m	
			0.80					
1.0		MADE GROUND: Brown black sandy angular fine to coarse GRAVEL of brick, sandstone, ash and clinker.		SPT	1.00-1.45	S: 1/1/3/3/3/4 N= 13		
		Stiff brown grey mottled slightly gravelly CLAY. Gravel is subangular to subrounded fine to coarse of sandstone, siltstone, mudstone and coal.		HV	1.70	220kN/m2		
				U100	1.70-2.00	177kN/m2		
2.0				SPT	2.00-2.45	S: 1/1/4/5/6/6 N= 21		
				HV	2.70	>240kN/m2		
				U100	2.70-3.00			
3.0				SPT	3.00-3.45	S: 2/4/5/7/7/7 N= 26		
4.0				HV	4.00	>240kN/m2		
				SPT	4.00-4.45	S: 2/3/5/5/5/5 N= 20		
5.0				HV	5.00	>240kN/m2		
				SPT	5.00-5.45	S: 2/3/3/4/5/5 N= 17		
6.0				HV	6.00	>240kN/m2		
				SPT	6.00-6.45	S: 3/4/5/5/5/6 N= 21		
			6.45					
7.0		Probehole completed at 6.45m bgl.						

Key

B. Bulk (Bag)
W. Water
U100. 100mm Undisturbed
U38. 38mm Undisturbed Sample
SPT. Standard Penetration Test

D. Disturbed
G. Amber Glass Jar / Bottle
CPT. Cone Penetration Test
U100. Blows (Recovery mm)
V. 40ml Glass Vial

T. Plastic Tub
N. 'N' Value
HV. Hand Shear Vane
PID. Photo Ionisation Detector

Notes

Groundwater: A seepage of groundwater was encountered at 0.80m during driling.

Services: Prior to drilling the location was scanned with a cable avoidance tool (CAT).

Additon of water: N/A

Casing diameter: 110mm

Date logged: 07/05/08

Status: draft

Borehole Record - Window Sample

Probehole Number: WS104

Project Number: 42912
Contract Name: Pottery Lane, Longsight
Client: Quorum Estates
Engineer: S Roberts

Date Started: 02/04/08
Date Completed: 02/04/08
Elevation AOD (m): N/A
Co-ordinates: N/A
Drilling Equipment: Mini tracked window sampler rig

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SUBSURFACE PROFILE				SAMPLES AND IN-SITU TESTING				
Depth (mbgl)	Legend	Description	Depth of Strata (mbgl)	Type	Depth (mbgl)	In-Situ Testing SPT / U100	Water Level (mbgl)	Monitoring Installation / Backfill
		MADE GROUND: Grass over brown black sandy very gravelly CLAY. Gravel is angular to subangular fine to coarse of brick, sandstone, clinker and coal.		DG	0.70			
1.0			1.10	SPT	1.00-1.45	S: 1/1/1/2/3/4 N= 10		
		Stiff brown grey mottled gravelly CLAY. Gravel is subangular to subrounded fine to coarse of sandstone, siltstone, mudstone and coal.		DG	1.20			
				HV	1.70	136kN/m2		
				U100	1.70-2.00	297kN/m2		
2.0		Very stiff from circa 2.00m bgl.		SPT	2.00-2.45	S: 1/2/4/4/6/6 N= 20		
				HV	2.70	>240kN/m2		
				U100	2.70-3.00			
3.0				SPT	3.00-3.45	S: 3/4/5/7/7/7 N= 26		
				HV	3.70	>240kN/m2		
				U100	3.70-4.00			
4.0				SPT	4.00-4.45	S: 1/4/5/6/7/7 N= 25		
5.0				HV	5.00	>240kN/m2	5.50m	
				SPT	5.00-5.45	S: 3/3/5/6/8/8 N= 27		
				DG	5.40			
				DG	5.60			
6.0				HV	6.00	>240kN/m2		
				SPT	6.00-6.45	S: 5/4/6/7/7/6 N= 26		
			6.45					
7.0		Probehole completed at 6.45m bgl.						

Key

B. Bulk (Bag)
W. Water
U100. 100mm Undisturbed
U38. 38mm Undisturbed Sample
SPT. Standard Penetration Test

D. Disturbed
G. Amber Glass Jar / Bottle
CPT. Cone Penetration Test
U100. Blows (Recovery mm)
V. 40ml Glass Vial

T. Plastic Tub
N. 'N' Value
HV. Hand Shear Vane
PID. Photo Ionisation Detector

Notes

Groundwater: A seepage of groundwater was encountered at 5.50m during driling.

Services: Prior to drilling the location was scanned with a cable avoidance tool (CAT).

Additon of water: N/A

Casing diameter: 110mm

Date logged: 07/05/08

Status: draft

Borehole Record - Window Sample

Probehole Number: WS105

Project Number: 42912
Contract Name: Pottery Lane, Longsight
Client: Quorum Estates
Engineer: S Roberts

Date Started: 02/04/08
Date Completed: 02/04/08
Elevation AOD (m): N/A
Co-ordinates: N/A
Drilling Equipment: Mini tracked window sampler rig

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SUBSURFACE PROFILE				SAMPLES AND IN-SITU TESTING				
Depth (mbgl)	Legend	Description	Depth of Strata (mbgl)	Type	Depth (mbgl)	In-Situ Testing SPT / U100	Water Level (mbgl)	Monitoring Installation / Backfill
		MADE GROUND: Grass over brown black sandy very gravelly CLAY. Gravel is angular to subangular fine to coarse of brick, sandstone, clinker and coal.		DG	0.40			
1.0			1.10	SPT	1.00-1.45	S: 1/1/2/1/2/3 N= 8		
		Stiff brown grey mottled gravelly CLAY. Gravel is subangular to subrounded fine to coarse of sandstone, siltstone, mudstone and coal.		HV	1.70	168kN/m2		
				U100	1.70-2.00	155kN/m2		
2.0		Very stiff from circa 2.00m bgl.		SPT	2.00-2.45	S: 1/1/4/4/4/7 N= 17		
				HV	2.70	>240kN/m2		
				U100	2.70-3.00			
3.0				SPT	3.00-3.45	S: 2/3/6/8/8/8 N= 30		
				HV	3.70	>240kN/m2		
				U100	3.70-4.00			
4.0				SPT	4.00-4.45	S: 2/1/5/4/5/6 N= 20		
5.0				HV	5.00	>240kN/m2		
				SPT	5.00-5.45	S: 1/4/4/6/6/6 N= 22		
6.0				HV	6.00	>240kN/m2		
				SPT	6.00-6.45	S: 2/3/5/7/8/7 N= 27		
			6.45					
7.0		Probehole completed at 6.45m bgl.						

Key

B. Bulk (Bag)
W. Water
U100. 100mm Undisturbed
U38. 38mm Undisturbed Sample
SPT. Standard Penetration Test
D. Disturbed
G. Amber Glass Jar / Bottle
CPT. Cone Penetration Test
U100. Blows (Recovery mm)
V. 40ml Glass Vial
T. Plastic Tub
N. 'N' Value
HV. Hand Shear Vane
PID. Photo Ionisation Detector

Notes

Groundwater: Groundwater was not encountered during driling.
Services: Prior to drilling the location was scanned with a cable avoidance tool (CAT).
Additon of water: N/A
Casing diameter: 110mm

Date logged: 07/05/08
Status: draft

Borehole Record - Window Sample

Probehole Number: WS106

Project Number: 42912
Contract Name: Pottery Lane, Longsight
Client: Quorum Estates
Engineer: S Roberts

Date Started: 03/04/08
Date Completed: 03/04/08
Elevation AOD (m): N/A
Co-ordinates: N/A
Drilling Equipment: Mini tracked window sampler rig

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SUBSURFACE PROFILE				SAMPLES AND IN-SITU TESTING				
Depth (mbgl)	Legend	Description	Depth of Strata (mbgl)	Type	Depth (mbgl)	In-Situ Testing SPT / U100	Water Level (mbgl)	Monitoring Installation / Backfill
		MADE GROUND: Grass over brown black sandy very gravelly CLAY. Gravel is angular to subangular fine to coarse of brick, sandstone, clinker and coal.		DG	0.30			
				B	0.10-1.10			
1.0			1.10	SPT	1.00-1.45	S: 1/1/2/1/2/3 N= 8		
		Stiff brown grey mottled gravelly CLAY. Gravel is subangular to subrounded fine to coarse of sandstone, siltstone, mudstone and coal.		HV	1.70	164kN/m2		
				U100	1.70-2.00			
2.0		Very stiff from circa 2.00m bgl.		SPT	2.00-2.45	S: 1/2/4/4/4/4 N= 16		
				HV	2.70	212kN/m2		
				U100	2.70-3.00	231kN/m2		
3.0				SPT	3.00-3.45	S: 2/4/9/8/9/8 N= 34		
						>240kN/m2		
4.0				HV	4.00	S: 2/3/5/5/6/6 N= 22		
				SPT	4.00-4.45			
5.0				HV	5.00	>240kN/m2		
				SPT	5.00-5.45	S: 1/2/5/4/6/5 N= 20		
6.0				HV	6.00	>240kN/m2		
				SPT	6.00-6.45	S: 1/3/4/5/5/7 N= 27		
			6.45					
7.0		Probehole completed at 6.45m bgl.						

Key

B. Bulk (Bag)
W. Water
U100. 100mm Undisturbed
U38. 38mm Undisturbed Sample
SPT. Standard Penetration Test
D. Disturbed
G. Amber Glass Jar / Bottle
CPT. Cone Penetration Test
U100. Blows (Recovery mm)
V. 40ml Glass Vial
T. Plastic Tub
N. 'N' Value
HV. Hand Shear Vane
PID. Photo Ionisation Detector

Notes

Groundwater: Groundwater was not encountered during driling.
Services: Prior to drilling the location was scanned with a cable avoidance tool (CAT).
Additon of water: N/A
Casing diameter: 110mm

Date logged: 07/05/08
Status: draft

Borehole Record - Window Sample

Probehole Number: WS107

Project Number: 42912
Contract Name: Pottery Lane, Longsight
Client: Quorum Estates
Engineer: S Roberts

Date Started: 03/04/08
Date Completed: 03/04/08
Elevation AOD (m): N/A
Co-ordinates: N/A
Drilling Equipment: Mini tracked window sampler rig

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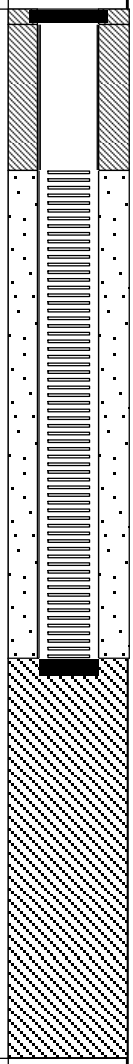
Depth (mbgl)	Description	Depth of Strata (mbgl)	Type	Depth (mbgl)	In-Situ Testing SPT / U100	Water Level (mbgl)
	MADE GROUND: Grass over grey brown sandy very gravelly CLAY. Gravel is angular to subangular fine to medium of brick, sandstone, clinker, coal and limestone.	0.20	DG	0.20		
			B	0.20-1.00		
	MADE GROUND: Brown black sandy angular to subangular fine to coarse GRAVEL of brick, ash and clinker.	0.90	SPT	1.00-1.45	S: 1/1/1/1/1/2 N= 5	1.50m
	MADE GROUND: Firm brown sandy gravelly CLAY. Gravel is subangular fine to coarse of brick and sandstone.	1.60				
		1.80	DG	1.90		
	MADE GROUND: Brown very clayey sandy angular to subangular fine to coarse GRAVEL of brick and sandstone.		SPT	2.00-2.45	S: -/-/-/-/-/1 N= 1	
			U100	2.70-3.00	36kN/m2	
	Spongy dark brown black fibrous very organic SAND (PEAT).		SPT	3.00-3.45	S: -/-/3/3/5/5 N= 16	
		3.50				
	Very stiff brown slightly gravelly CLAY. Gravel is subangular to subrounded fine to coarse of sandstone, siltstone, mudstone and coal.		HV	3.60	>240kN/m2	
			U100	3.70-4.00	142kN/m2	
			SPT	4.00-4.45	S: 1/2/6/4/5/6 N= 21	
			HV	5.00	224kN/m2	
			SPT	5.00-5.45	S: 1/2/6/4/5/6 N= 21	
			SPT	6.00-6.45	S: 1/4/4/4/4/7 N= 19	
		6.45				
	Probehole completed at 6.45m bgl.					



Key

B. Bulk (Bag)
W. Water
U100. 100mm Undisturbed
U38. 38mm Undisturbed Sample
SPT. Standard Penetration Test
D. Disturbed
G. Amber Glass Jar / Bottle
CPT. Cone Penetration Test
U100. Blows (Recovery mm)
V. 40ml Glass Vial
T. Plastic Tub
N. 'N' Value
HV. Hand Shear Vane
PID. Photo Ionisation Detector

Notes

Groundwater: A seepage of groundwater was encountered at 1.50m during driling.
Services: Prior to drilling the location was scanned with a cable avoidance tool (CAT).
Additon of water: N/A
Casing diameter: 110mm

Date logged: 07/05/08
Status: draft

Borehole Record - Window Sample

Probehole Number: WS108

Project Number: 42912
Contract Name: Pottery Lane, Longsight
Client: Quorum Estates
Engineer: S Roberts

Date Started: 03/04/08
Date Completed: 03/04/08
Elevation AOD (m): N/A
Co-ordinates: N/A
Drilling Equipment: Mini tracked window sampler rig

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SUBSURFACE PROFILE				SAMPLES AND IN-SITU TESTING				
Depth (mbgl)	Legend	Description	Depth of Strata (mbgl)	Type	Depth (mbgl)	In-Situ Testing SPT / U100	Water Level (mbgl)	Monitoring Installation / Backfill
		MADE GROUND: Grass over brown grey sandy very gravelly CLAY. Gravel is angular to subangular fine to coarse of brick, sandstone, clinker and coal.	0.20	DG	0.40			
1.0		MADE GROUND: Medium dense red grey slightly sandy angular to subangular fine to coarse GRAVEL of brick and concrete.	1.50	SPT	1.00-1.45	S: 3/1/1/3/3/3 N= 10		
		Very stiff brown gravelly CLAY. Gravel is subangular to subrounded fine to coarse of sandstone, siltstone, mudstone and coal.		DG HV U100	1.60 1.70 1.70-2.00	 184kN/m2 143kN/m2		
2.0				SPT	2.00-2.45	S: 2/2/4/5/5/7 N= 21		
				HV U100	2.70 2.70-3.00	>240kN/m2		
3.0				SPT	3.00-3.45	S: 2/4/6/7/7/7 N= 27		
4.0				HV	4.00	104kN/m2		
				SPT	4.00-4.45	S: 4/4/5/7/7/7 N= 26		
5.0				HV	5.00	192kN/m2		
				SPT	5.00-5.45	S: 3/4/4/6/6/7 N= 23		
6.0				SPT	6.00-6.45	S: 3/4/4/6/7/7 N= 24		
			6.45					
7.0		Probehole completed at 6.45m bgl.						

Key

B. Bulk (Bag)
W. Water
U100. 100mm Undisturbed
U38. 38mm Undisturbed Sample
SPT. Standard Penetration Test

D. Disturbed
G. Amber Glass Jar / Bottle
CPT. Cone Penetration Test
U100. Blows (Recovery mm)
V. 40ml Glass Vial

T. Plastic Tub
N. 'N' Value
HV. Hand Shear Vane
PID. Photo Ionisation Detector

Notes

Groundwater: Groundwater was not encountered during driling.

Services: Prior to drilling the location was scanned with a cable avoidance tool (CAT).

Additon of water: N/A

Casing diameter: 110mm

Date logged: 07/05/08

Status: draft

Borehole Record - Window Sample

Probehole Number: WS109

Project Number: 42912
Contract Name: Pottery Lane, Longsight
Client: Quorum Estates
Engineer: S Roberts

Date Started: 03/04/08
Date Completed: 03/04/08
Elevation AOD (m): N/A
Co-ordinates: N/A
Drilling Equipment: Mini tracked window sampler rig

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Depth (mbgl)	Legend	Description	Depth of Strata (mbgl)	Type	Depth (mbgl)	In-Situ Testing SPT / U100	Water Level (mbgl)	Monitoring Installation / Backfill
		SUBSURFACE PROFILE		**SAMPLES AND IN-SITU TESTING**				
		MADE GROUND: Grass over brown sandy very gravelly CLAY. Gravel is angular to subangular fine to coarse of brick, sandstone and concrete.	0.30	DG	0.40			
1.0		MADE GROUND: Loose red black sandy angular to subangular fine to coarse GRAVEL of brick, ash, clinker and concrete.	1.30	SPT	1.00-1.45	S: -/1/1/1/2/2 N= 6		
		Stiff brown gravelly CLAY. Gravel is subangular to subrounded fine to coarse of sandstone, siltstone, mudstone and coal.		HV	1.70	196kN/m2		
				U100	1.70-2.00			
2.0		Very stiff from circa 2.00m bgl.		SPT	2.00-2.45	S: 1/2/4/5/5/7 N= 21		
				HV	2.70	>240kN/m2		
				U100	2.70-3.00	219kN/m2		
3.0				SPT	3.00-3.45	S: 1/4/6/7/6/7 N= 26		
				HV	3.70	>240kN/m2		
				U100	3.70-4.00			
4.0				SPT	4.00-4.45	S: 1/3/5/5/6/6 N= 22		
5.0				HV	5.00	>240kN/m2		
				SPT	5.00-5.45	S: 2/3/4/5/5/6 N= 20		
6.0				HV	6.00	>240kN/m2		
				SPT	6.00-6.45	S: 2/3/4/5/5/7 N= 21		
			6.45					
7.0		Probehole completed at 6.45m bgl.						

Key

B. Bulk (Bag)
W. Water
U100. 100mm Undisturbed
U38. 38mm Undisturbed Sample
SPT. Standard Penetration Test
D. Disturbed
G. Amber Glass Jar / Bottle
CPT. Cone Penetration Test
U100. Blows (Recovery mm)
V. 40ml Glass Vial
T. Plastic Tub
N. 'N' Value
HV. Hand Shear Vane
PID. Photo Ionisation Detector

Notes

Groundwater: Groundwater was not encountered during driling.
Services: Prior to drilling the location was scanned with a cable avoidance tool (CAT).
Additon of water: N/A
Casing diameter: 110mm

Date logged: 07/05/08
Status: draft

Borehole Record - Window Sample

Probehole Number: WS110

Project Number: 42912
Contract Name: Pottery Lane, Longsight
Client: Quorum Estates
Engineer: S Roberts

Date Started: 03/04/08
Date Completed: 03/04/08
Elevation AOD (m): N/A
Co-ordinates: N/A
Drilling Equipment: Mini tracked window sampler rig

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SUBSURFACE PROFILE				SAMPLES AND IN-SITU TESTING				
Depth (mbgl)	Legend	Description	Depth of Strata (mbgl)	Type	Depth (mbgl)	In-Situ Testing SPT / U100	Water Level (mbgl)	Monitoring Installation / Backfill
		MADE GROUND: Grass over brown sandy very gravelly CLAY. Gravel is angular to subangular fine to coarse of brick, sandstone, ash, clinker and concrete.		DG	0.40			
1.0			1.20	SPT	1.00-1.45	S: 1/1/1/2/2/1 N= 6		
		Firm brown gravelly CLAY. Gravel is subangular to subrounded fine to coarse of sandstone, siltstone, mudstone and coal.		HV	1.70	208kN/m2		
				U100	1.70-2.00	151kN/m2		
2.0		Very stiff from circa 2.00m bgl.		SPT	2.00-2.45	S: 1/2/5/4/6/7 N= 22		
				HV	2.70	>240kN/m2		
				U100	2.70-3.00			
3.0				SPT	3.00-3.45	S: 1/4/5/6/7/7 N= 25		
				HV	3.70	>240kN/m2		
				U100	3.70-4.00	145kN/m2		
4.0				SPT	4.00-4.45	S: 3/4/5/7/7/8 N= 27		
5.0				HV	5.00	>240kN/m2		
				SPT	5.00-5.45	S: 1/2/4/5/5/6 N= 20		
6.0				HV	6.00	>240kN/m2		
			6.45	SPT	6.00-6.45	S: 4/5/6/6/8/8 N= 28		
7.0		Probehole completed at 6.45m bgl.						

Key

B. Bulk (Bag)
W. Water
U100. 100mm Undisturbed
U38. 38mm Undisturbed Sample
SPT. Standard Penetration Test
D. Disturbed
G. Amber Glass Jar / Bottle
CPT. Cone Penetration Test
U100. Blows (Recovery mm)
V. 40ml Glass Vial
T. Plastic Tub
N. 'N' Value
HV. Hand Shear Vane
PID. Photo Ionisation Detector

Notes

Groundwater: Groundwater was not encountered during driling.
Services: Prior to drilling the location was scanned with a cable avoidance tool (CAT).
Additon of water: N/A
Casing diameter: 110mm

Date logged: 07/05/08
Status: draft

APPENDIX III

CHEMICAL TESTING RESULTS

Scientific Analysis Laboratories

Certificate of Analysis

Report Number:	128537-1
Date of Report:	08-Apr-2008
Client:	Resource Environmental Consultants Ltd, Osprey House, Pacific Quay, Broadway, Salford. M50 2UE
Client Contact:	Mr Martin Dyer
Client Job Reference:	42912
Client Site Reference:	Pottery Lane
Date Job Received at SAL:	02-Apr-2008
Date Analysis Started:	03-Apr-2008
Date Analysis Completed:	08-Apr-2008

The results reported relate to samples received at the laboratory
Opinions and interpretations expressed herein are outside the scope of UKAS or MCERTS accreditation
This report should not be reproduced except in full without the written approval of the laboratory
Tests covered by this certificate were conducted in accordance with SAL SOPs

Key to symbols used in this report:
W: Analysis was sub-contracted and performed at another SAL Laboratory
S: Analysis was sub-contracted
N: Analysis is not UKAS accredited
U: Analysis is UKAS accredited
M: Analysis is MCERTS accredited

Report checked and authorised by: Mr Avais Hussain, Project Manager

UKAS TESTING
1549

Group

Index to caveats used in this report

Value	Description
ND	Not Detected
-	Not Required
9	LOD raised due to dilution of sample
13	Results have been blank corrected.

SAL Reference: 128537
Project Site: Pottery Lane
Customer Reference: 42912

Soil Analysed as Soil
REC Ltd 001S

				SAL Reference	**128537 001**	**128537 002**	**128537 003**
				Customer Sample Reference	**TP105 1.4M**	**TP107 0.3M**	**TP108 0.5M**
				Test Sample	**-**	**-**	**-**
Determinand	**Technique**	**LOD**	**Units**	**Symbol**			
Arsenic	ICP/OES	1	mg/kg	U	**8**	**20**	**43**
Cadmium	ICP/OES	1	mg/kg	U	<1	**2**	**4**
Chromium	ICP/OES	1	mg/kg	U	**13**	**16**	**16**
Lead	ICP/OES	1	mg/kg	U	**23**	**180**	**420**
Mercury	ICP/OES	1	mg/kg	U	<1	<1	**1**
Selenium	ICP/OES	2	mg/kg	U	<2	<2	<2
Boron (water-soluble)	ICP/OES	1	mg/kg	N	<1	<1	<1
Copper	ICP/OES	1	mg/kg	U	**11**	**82**	**200**
Nickel	ICP/OES	1	mg/kg	U	**8**	**24**	**24**
Zinc	ICP/OES	1	mg/kg	U	**22**	**200**	**540**
pH	Probe			U	**7.5**	**8.0**	**7.7**
Sulphate (Total)	ICP/OES	0.01	%	N	**0.02**	**0.18**	**0.20**
Sulphate(2:1)	ICP/OES	0.1	g/l	N	<0.1	<0.1	<0.1
Sulphide	Colorimetry	10	mg/kg	N	<10	<10	<10
Sulphur (Free)	Grav	500	mg/kg	N	<500	<500	<500
Cyanide (Total)	Colorimetry	1	mg/kg	U	<1	<1	<1
Phenols (Total-Mono)	Colorimetry	1	mg/kg	U	<1	<1	<1

SAL Reference: 128537
Project Site: Pottery Lane
Customer Reference: 42912

Soil Analysed as Soil
Total and Speciated USEPA16 PAH

				SAL Reference	**128537 001**	**128537 002**	**128537 003**
				Customer Sample Reference	**TP105 1.4M**	**TP107 0.3M**	**TP108 0.5M**
				Test Sample	**-**	**-**	**-**
Determinand	**Technique**	**LOD**	**Units**	**Symbol**			
Naphthalene	GC/MS (SIR)	0.01	mg/kg	U	<0.01	**0.07**	**0.23**
Acenaphthylene	GC/MS (SIR)	0.01	mg/kg	U	<0.01	<0.01	**0.03**
Acenaphthene	GC/MS (SIR)	0.01	mg/kg	U	<0.01	**0.10**	**0.64**
Fluorene	GC/MS (SIR)	0.01	mg/kg	U	<0.01	**0.08**	**0.50**
Phenanthrene	GC/MS (SIR)	0.01	mg/kg	U	**0.02**	**0.67**	**4.9**
Anthracene	GC/MS (SIR)	0.01	mg/kg	U	<0.01	**0.30**	**2.1**
Fluoranthene	GC/MS (SIR)	0.01	mg/kg	U	**0.03**	**0.74**	**7.2**
Pyrene	GC/MS (SIR)	0.01	mg/kg	U	**0.03**	**0.71**	**7.3**
Benzo(a)Anthracene	GC/MS (SIR)	0.01	mg/kg	U	**0.03**	**0.35**	**3.4**
Chrysene	GC/MS (SIR)	0.01	mg/kg	U	**0.02**	**0.36**	**3.3**
Benzo(b/k)Fluoranthene	GC/MS (SIR)	0.01	mg/kg	U	**0.03**	**0.50**	**4.4**
Benzo(a)Pyrene	GC/MS (SIR)	0.01	mg/kg	U	**0.02**	**0.28**	**2.9**
Indeno(123-cd)Pyrene	GC/MS (SIR)	0.01	mg/kg	U	**0.01**	**0.16**	**1.4**
Dibenzo(ah)Anthracene	GC/MS (SIR)	0.01	mg/kg	U	<0.01	**0.05**	**0.29**
Benzo(ghi)Perylene	GC/MS (SIR)	0.01	mg/kg	U	**0.02**	**0.21**	**1.6**
Polyaromatic Hydrocarbons (Total)	GC/MS (SIR)	0.01	mg/kg	U	**0.21**	**4.6**	**40**

SAL Reference: 128537
Project Site: Pottery Lane
Customer Reference: 42912

Soil Analysed as Soil
REC TPH (CWG)

				SAL Reference	**128537 001**	**128537 002**	**128537 003**
				Customer Sample Reference	**TP105 1.4M**	**TP107 0.3M**	**TP108 0.5M**
				Test Sample	**-**	**-**	**-**
Determinand	**Technique**	**LOD**	**Units**	**Symbol**			
Benzene	GC/MS (Headspace)	0.001	mg/kg	U	(13) <0.001	(13) <0.001	(13) <0.001
Toluene	GC/MS (Headspace)	0.001	mg/kg	U	(13) <0.001	(13) <0.001	(13) <0.001
EthylBenzene	GC/MS (Headspace)	0.001	mg/kg	U	<0.001	<0.001	<0.001
Meta/Para-Xylene	GC/MS (Headspace)	0.001	mg/kg	U	<0.001	<0.001	<0.001
Ortho-Xylene	GC/MS (Headspace)	0.001	mg/kg	U	<0.001	<0.001	<0.001
Methyl-tert-Butyl Ether	GC/MS (Headspace)	0.001	mg/kg	U	<0.001	<0.001	**0.001**
Total Petroleum Hydrocarbons (C5 - C6 aliphatic)	GC/MS (Headspace)	0.010	mg/kg	N	<0.010	<0.010	<0.010
Total Petroleum Hydrocarbons (C6-C8 aliphatic)	GC/MS (Headspace)	0.010	mg/kg	N	<0.010	<0.010	<0.010
Total Petroleum Hydrocarbons (C8-C10 aliphatic)	GC/MS (Headspace)	0.010	mg/kg	N	<0.010	<0.010	<0.010
Total Petroleum Hydrocarbons (C10-C12 aliphatic)	GC/FID	1	mg/kg	N	<1	(9) <10	<1
Total Petroleum Hydrocarbons (C12-C16 aliphatic)	GC/FID	1	mg/kg	N	(13) <1	**11**	**10**
Total Petroleum Hydrocarbons (C16-C21 aliphatic)	GC/FID	1	mg/kg	N	(13) <1	**27**	**18**
Total Petroleum Hydrocarbons (C21-C35 aliphatic)	GC/FID	1	mg/kg	N	(13) <1	**77**	**13**
Total Petroleum Hydrocarbons (Aliphatic) total	Calc		mg/kg	N	ND	**120**	**41**
Total Petroleum Hydrocarbons (C6 - C7 aromatic)	GC/MS (Headspace)	0.010	mg/kg	N	<0.010	<0.010	<0.010
Total Petroleum Hydrocarbons (C7-C8 aromatic)	GC/MS (Headspace)	0.010	mg/kg	N	<0.010	<0.010	<0.010
Total Petroleum Hydrocarbons (C8-C10 aromatic)	GC/MS (Headspace)	0.010	mg/kg	N	<0.010	<0.010	<0.010
Total Petroleum Hydrocarbons (C10-C12 aromatic)	GC/FID	1	mg/kg	N	<1	(9) <10	<1
Total Petroleum Hydrocarbons (C12-C16 aromatic)	GC/FID	1	mg/kg	N	<1	(9) <10	**10**
Total Petroleum Hydrocarbons (C16-C21 aromatic)	GC/FID	1	mg/kg	N	(13) <1	**17**	**75**

SAL Reference: 128537
Project Site: Pottery Lane
Customer Reference: 42912

Soil Analysed as Soil
REC TPH (CWG)

				SAL Reference	**128537 001**	**128537 002**	**128537 003**
				Customer Sample Reference	**TP105 1.4M**	**TP107 0.3M**	**TP108 0.5M**
				Test Sample	**-**	**-**	**-**
Determinand	**Technique**	**LOD**	**Units**	**Symbol**			
Total Petroleum Hydrocarbons (C21-C35 aromatic)	GC/FID	1	mg/kg	N	<1	**31**	**130**
Total Petroleum Hydrocarbons (Aromatic) total	Calc		mg/kg	N	ND	**48**	**220**
Total Petroleum Hydrocarbons (Aliphatic+Aromatic)	Calc		mg/kg	N	ND	**160**	**260**

SAL Reference: 128537
Project Site: Pottery Lane
Customer Reference: 42912

Soil Analysed as Soil
Miscellaneous

				SAL Reference	**128537 001**	**128537 002**	**128537 003**
				Customer Sample Reference	**TP105 1.4M**	**TP107 0.3M**	**TP108 0.5M**
				Test Sample	**-**	**-**	**-**
Determinand	**Technique**	**LOD**	**Units**	**Symbol**			
Asbestos (Screen Only)	Visual			N	ND	ND	ND

Scientific Analysis Laboratories

Certificate of Analysis

Report Number:	128798-1
Date of Report:	11-Apr-2008
Client:	Resource Environmental Consultants Ltd, Osprey House, Pacific Quay, Broadway, Salford. M50 2UE
Client Contact:	Mr Martin Dyer
Client Job Reference:	42912
Client Site Reference:	Pottery Lane
Date Job Received at SAL:	04-Apr-2008
Date Analysis Started:	07-Apr-2008
Date Analysis Completed:	11-Apr-2008

The results reported relate to samples received at the laboratory
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Report checked and authorised by: Mr Avais Hussain, Project Manager

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Group

Index to caveats used in this report

Value	Description
ND	Not Detected
-	Not Required
2	LOD Raised Due to Matrix Interference
3	LOD Raised Due to Elevated Blank
9	LOD raised due to dilution of sample
13	Results have been blank corrected.

SAL Reference: 128798
Project Site: Pottery Lane
Customer Reference: 42912

Soil Analysed as Soil
REC Ltd 001S

				SAL Reference	**128798 001**	**128798 002**	**128798 003**	**128798 004**	**128798 005**
				Customer Sample Reference	**WS101 0.3**	**WS104 5.4**	**WS104 5.6**	**WS107 0.3**	**WS109 0.4**
				Test Sample	**-**	**-**	**-**	**-**	**-**
Determinand	**Technique**	**LOD**	**Units**	**Symbol**					
Arsenic	ICP/OES	1	mg/kg	U	**8**	**7**	**5**	**61**	**20**
Cadmium	ICP/OES	1	mg/kg	U	<1	<1	<1	**1**	<1
Chromium	ICP/OES	1	mg/kg	U	**23**	**17**	**15**	**29**	**12**
Lead	ICP/OES	1	mg/kg	U	**73**	**11**	**10**	**40**	**25**
Mercury	ICP/OES	1	mg/kg	U	<1	<1	<1	<1	<1
Selenium	ICP/OES	2	mg/kg	U	<2	<2	<2	<2	<2
Boron (water-soluble)	ICP/OES	1	mg/kg	N	<1	<1	<1	<1	<1
Copper	ICP/OES	1	mg/kg	U	**31**	**18**	**19**	**110**	**130**
Nickel	ICP/OES	1	mg/kg	U	**30**	**24**	**23**	**87**	**52**
Zinc	ICP/OES	1	mg/kg	U	**110**	**63**	**46**	**75**	**67**
pH	Probe			U	**8.2**	**8.5**	**8.4**	**8.2**	**8.4**
Sulphate (Total)	ICP/OES	0.01	%	N	**0.05**	**0.18**	**0.24**	**0.22**	**0.26**
Sulphate(2:1)	ICP/OES	0.1	g/l	N	<0.1	<0.1	<0.1	<0.1	<0.1
Sulphide	Colorimetry	10	mg/kg	N	<10	<10	<10	<10	<10
Sulphur (Free)	Grav	500	mg/kg	N	<500	<500	<500	<500	<500
Cyanide (Total)	Colorimetry	1	mg/kg	U	<1	<1	<1	<1	<1
Phenols (Total-Mono)	Colorimetry	1	mg/kg	U	<1	<1	<1	<1	<1

SAL Reference: 128798
Project Site: Pottery Lane
Customer Reference: 42912

Soil Analysed as Soil
REC Ltd 001S

				SAL Reference	**128798 006**	**128798 007**
				Customer Sample Reference	**WS105 0.4**	**WS110 0.4**
				Test Sample	**-**	**-**
Determinand	**Technique**	**LOD**	**Units**	**Symbol**		
Arsenic	ICP/OES	1	mg/kg	U	**54**	**17**
Cadmium	ICP/OES	1	mg/kg	U	**2**	**2**
Chromium	ICP/OES	1	mg/kg	U	**32**	**29**
Lead	ICP/OES	1	mg/kg	U	**120**	**280**
Mercury	ICP/OES	1	mg/kg	U	<1	<1
Selenium	ICP/OES	2	mg/kg	U	<2	<2
Boron (water-soluble)	ICP/OES	1	mg/kg	N	<1	<1
Copper	ICP/OES	1	mg/kg	U	**220**	**180**
Nickel	ICP/OES	1	mg/kg	U	**66**	**35**
Zinc	ICP/OES	1	mg/kg	U	**190**	**410**
pH	Probe			U	**8.3**	**8.5**
Sulphate (Total)	ICP/OES	0.01	%	N	**0.18**	**0.20**
Sulphate(2:1)	ICP/OES	0.1	g/l	N	<0.1	<0.1
Sulphide	Colorimetry	10	mg/kg	N	<10	<10
Sulphur (Free)	Grav	500	mg/kg	N	<500	<500
Cyanide (Total)	Colorimetry	1	mg/kg	U	<1	<1
Phenols (Total-Mono)	Colorimetry	1	mg/kg	U	<1	<1

SAL Reference: 128798
Project Site: Pottery Lane
Customer Reference: 42912

Soil Analysed as Soil
Total and Speciated USEPA16 PAH

	SAL Reference	128798 001	128798 002	128798 003	128798 004	128798 005
	Customer Sample Reference	WS101 0.3	WS104 5.4	WS104 5.6	WS107 0.3	WS109 0.4
	Test Sample	-	-	-	-	-
Determinand	**Technique**	**LOD**	**Units**	**Symbol**		
Naphthalene	GC/MS (SIR)	0.01	mg/kg	U	(3)<0.05	(3)<0.05	(3)<0.05	**0.19**	**0.17**
Acenaphthylene	GC/MS (SIR)	0.01	mg/kg	U	(3)<0.05	(3)<0.05	(3)<0.05	**0.06**	**0.12**
Acenaphthene	GC/MS (SIR)	0.01	mg/kg	U	(3)<0.05	(3)<0.05	(3)<0.05	**0.05**	(3)<0.05
Fluorene	GC/MS (SIR)	0.01	mg/kg	U	(3)<0.05	(3)<0.05	(3)<0.05	**0.08**	(3)<0.05
Phenanthrene	GC/MS (SIR)	0.01	mg/kg	U	**0.26**	(3)<0.05	(3)<0.05	**0.62**	**0.38**
Anthracene	GC/MS (SIR)	0.01	mg/kg	U	**0.10**	(3)<0.05	(3)<0.05	**0.25**	**0.20**
Fluoranthene	GC/MS (SIR)	0.01	mg/kg	U	**0.66**	(3)<0.05	(3)<0.05	**0.28**	**0.53**
Pyrene	GC/MS (SIR)	0.01	mg/kg	U	**0.64**	(3)<0.05	(3)<0.05	**0.20**	**0.60**
Benzo(a)Anthracene	GC/MS (SIR)	0.01	mg/kg	U	**0.34**	(3)<0.05	(3)<0.05	(3)<0.05	**0.37**
Chrysene	GC/MS (SIR)	0.01	mg/kg	U	**0.31**	(3)<0.05	(3)<0.05	(3)<0.05	**0.35**
Benzo(b/k)Fluoranthene	GC/MS (SIR)	0.01	mg/kg	U	**0.42**	(3)<0.05	(3)<0.05	(3)<0.05	**0.48**
Benzo(a)Pyrene	GC/MS (SIR)	0.01	mg/kg	U	**0.30**	(3)<0.05	(3)<0.05	(3)<0.05	**0.35**
Indeno(123-cd)Pyrene	GC/MS (SIR)	0.01	mg/kg	U	**0.20**	(3)<0.05	(3)<0.05	(3)<0.05	**0.24**
Dibenzo(ah)Anthracene	GC/MS (SIR)	0.01	mg/kg	U	(3)<0.05	(3)<0.05	(3)<0.05	(3)<0.05	(3)<0.05
Benzo(ghi)Perylene	GC/MS (SIR)	0.01	mg/kg	U	**0.24**	(3)<0.05	(3)<0.05	(3)<0.05	**0.28**
Polyaromatic Hydrocarbons (Total)	GC/MS (SIR)	0.01	mg/kg	U	**3.5**	(3)<0.05	(3)<0.05	**1.7**	**4.1**

SAL Reference: 128798
Project Site: Pottery Lane
Customer Reference: 42912

Soil Analysed as Soil
Total and Speciated USEPA16 PAH

					SAL Reference	128798 006	128798 007
					Customer Sample Reference	WS105 0.4	WS110 0.4
					Test Sample	-	-
Determinand	**Technique**	**LOD**	**Units**	**Symbol**			
Naphthalene	GC/MS (SIR)	0.01	mg/kg	U		**0.08**	**0.14**
Acenaphthylene	GC/MS (SIR)	0.01	mg/kg	U		(3) <0.05	**0.08**
Acenaphthene	GC/MS (SIR)	0.01	mg/kg	U		(3) <0.05	**0.70**
Fluorene	GC/MS (SIR)	0.01	mg/kg	U		(3) <0.05	**0.61**
Phenanthrene	GC/MS (SIR)	0.01	mg/kg	U		(3) <0.05	**4.3**
Anthracene	GC/MS (SIR)	0.01	mg/kg	U		(3) <0.05	**2.7**
Fluoranthene	GC/MS (SIR)	0.01	mg/kg	U		**0.06**	**4.7**
Pyrene	GC/MS (SIR)	0.01	mg/kg	U		**0.06**	**4.4**
Benzo(a)Anthracene	GC/MS (SIR)	0.01	mg/kg	U		(3) <0.05	**1.6**
Chrysene	GC/MS (SIR)	0.01	mg/kg	U		(3) <0.05	**1.6**
Benzo(b/k)Fluoranthene	GC/MS (SIR)	0.01	mg/kg	U		(3) <0.05	**1.6**
Benzo(a)Pyrene	GC/MS (SIR)	0.01	mg/kg	U		(3) <0.05	**1.2**
Indeno(123-cd)Pyrene	GC/MS (SIR)	0.01	mg/kg	U		(3) <0.05	**0.91**
Dibenzo(ah)Anthracene	GC/MS (SIR)	0.01	mg/kg	U		(3) <0.05	**0.21**
Benzo(ghi)Perylene	GC/MS (SIR)	0.01	mg/kg	U		(3) <0.05	**1.1**
Polyaromatic Hydrocarbons (Total)	GC/MS (SIR)	0.01	mg/kg	U		**0.20**	**26**

SAL Reference: 128798
Project Site: Pottery Lane
Customer Reference: 42912

Soil Analysed as Soil
REC TPH (CWG)

	SAL Reference	128798 001	128798 002	128798 003	128798 004	128798 005
	Customer Sample Reference	WS101 0.3	WS104 5.4	WS104 5.6	WS107 0.3	WS109 0.4
	Test Sample	-	-	-	-	-

Determinand	Technique	LOD	Units	Symbol					
Benzene	GC/MS (Headspace)	0.001	mg/kg	U	(13) <0.001	(13) **0.003**	(13) **0.007**	(13) **0.004**	(2) <0.002
Toluene	GC/MS (Headspace)	0.001	mg/kg	U	(13) **0.005**	(13) **0.011**	(13) **0.038**	(13) **0.025**	(2,13) <0.002
EthylBenzene	GC/MS (Headspace)	0.001	mg/kg	U	<0.001	(2) <0.002	**0.003**	(2) <0.002	(2) <0.002
Meta/Para-Xylene	GC/MS (Headspace)	0.001	mg/kg	U	<0.001	**0.002**	**0.007**	**0.005**	(2) <0.002
Ortho-Xylene	GC/MS (Headspace)	0.001	mg/kg	U	<0.001	(2) <0.002	**0.004**	**0.003**	(2) <0.002
Methyl-tert-Butyl Ether	GC/MS (Headspace)	0.001	mg/kg	U	<0.001	(2) <0.002	**0.002**	**0.002**	**0.002**
Total Petroleum Hydrocarbons (C5 - C6 aliphatic)	GC/MS (Headspace)	0.010	mg/kg	N	<0.010	(2) <0.020	(2) <0.020	(2) <0.020	(2) <0.020
Total Petroleum Hydrocarbons (C6-C8 aliphatic)	GC/MS (Headspace)	0.010	mg/kg	N	<0.010	(2) <0.020	(2) <0.020	(2) <0.020	(2) <0.020
Total Petroleum Hydrocarbons (C8-C10 aliphatic)	GC/MS (Headspace)	0.010	mg/kg	N	<0.010	(2) <0.020	(2) <0.020	(2) <0.020	(2) <0.020
Total Petroleum Hydrocarbons (C10-C12 aliphatic)	GC/FID	1	mg/kg	N	(9) <10	<1	<1	<1	<1
Total Petroleum Hydrocarbons (C12-C16 aliphatic)	GC/FID	1	mg/kg	N	(9,13) <10	(13) <1	(13) <1	(13) <1	(13) <1
Total Petroleum Hydrocarbons (C16-C21 aliphatic)	GC/FID	1	mg/kg	N	(9,13) <10	(13) <1	(13) <1	(13) <1	(13) <1
Total Petroleum Hydrocarbons (C21-C35 aliphatic)	GC/FID	1	mg/kg	N	**47**	(13) <1	(13) <1	(13) <1	(13) <1
Total Petroleum Hydrocarbons (Aliphatic) total	Calc		mg/kg	N	**47**	ND	ND	ND	ND
Total Petroleum Hydrocarbons (C6 - C7 aromatic)	GC/MS (Headspace)	0.010	mg/kg	N	<0.010	(2) <0.020	(2) <0.020	(2) <0.020	(2) <0.020

SAL Reference: 128798
Project Site: Pottery Lane
Customer Reference: 42912

Soil Analysed as Soil
REC TPH (CWG)

				SAL Reference	**128798 001**	**128798 002**	**128798 003**	**128798 004**	**128798 005**
				Customer Sample Reference	**WS101 0.3**	**WS104 5.4**	**WS104 5.6**	**WS107 0.3**	**WS109 0.4**
				Test Sample	**-**	**-**	**-**	**-**	**-**
Determinand	**Technique**	**LOD**	**Units**	**Symbol**					
Total Petroleum Hydrocarbons (C7-C8 aromatic)	GC/MS (Headspace)	0.010	mg/kg	N	<0.010	(2) <0.020	**0.038**	**0.025**	(2) <0.020
Total Petroleum Hydrocarbons (C8-C10 aromatic)	GC/MS (Headspace)	0.010	mg/kg	N	<0.010	(2) <0.020	(2) <0.020	(2) <0.020	(2) <0.020
Total Petroleum Hydrocarbons (C10-C12 aromatic)	GC/FID	1	mg/kg	N	(9) <10	<1	<1	<1	<1
Total Petroleum Hydrocarbons (C12-C16 aromatic)	GC/FID	1	mg/kg	N	(9,13) <10	(13) <1	(13) <1	(13) <1	(13) <1
Total Petroleum Hydrocarbons (C16-C21 aromatic)	GC/FID	1	mg/kg	N	(9,13) <10	(13) <1	(13) <1	(13) <1	**3**
Total Petroleum Hydrocarbons (C21-C35 aromatic)	GC/FID	1	mg/kg	N	**97**	(13) <1	(13) <1	(13) <1	**11**
Total Petroleum Hydrocarbons (Aromatic) total	Calc		mg/kg	N	**97**	ND	ND	ND	**14**
Total Petroleum Hydrocarbons (Aliphatic+Aromatic)	Calc		mg/kg	N	**140**	ND	ND	ND	**14**

SAL Reference: 128798
Project Site: Pottery Lane
Customer Reference: 42912

Soil Analysed as Soil
REC TPH (CWG)

				SAL Reference		**128798 006**	**128798 007**
				Customer Sample Reference		**WS105 0.4**	**WS110 0.4**
				Test Sample		**-**	**-**
Determinand	**Technique**	**LOD**	**Units**	**Symbol**			
Benzene	GC/MS (Headspace)	0.001	mg/kg	U		(13) **0.001**	(13) <0.001
Toluene	GC/MS (Headspace)	0.001	mg/kg	U		(13) **0.010**	(13) <0.001

SAL Reference: 128798
Project Site: Pottery Lane
Customer Reference: 42912

Soil Analysed as Soil
REC TPH (CWG)

					SAL Reference	**128798 006**	**128798 007**
					Customer Sample Reference	**WS105 0.4**	**WS110 0.4**
					Test Sample	**-**	**-**
Determinand	**Technique**	**LOD**	**Units**	**Symbol**		
EthylBenzene	GC/MS (Headspace)	0.001	mg/kg	U	**0.001**	<0.001
Meta/Para-Xylene	GC/MS (Headspace)	0.001	mg/kg	U	**0.003**	<0.001
Ortho-Xylene	GC/MS (Headspace)	0.001	mg/kg	U	**0.002**	<0.001
Methyl-tert-Butyl Ether	GC/MS (Headspace)	0.001	mg/kg	U	<0.001	<0.001
Total Petroleum Hydrocarbons (C5 - C6 aliphatic)	GC/MS (Headspace)	0.010	mg/kg	N	<0.010	<0.010
Total Petroleum Hydrocarbons (C6-C8 aliphatic)	GC/MS (Headspace)	0.010	mg/kg	N	<0.010	<0.010
Total Petroleum Hydrocarbons (C8-C10 aliphatic)	GC/MS (Headspace)	0.010	mg/kg	N	<0.010	<0.010
Total Petroleum Hydrocarbons (C10-C12 aliphatic)	GC/FID	1	mg/kg	N	<1	(9)<10
Total Petroleum Hydrocarbons (C12-C16 aliphatic)	GC/FID	1	mg/kg	N	(13)<1	**23**
Total Petroleum Hydrocarbons (C16-C21 aliphatic)	GC/FID	1	mg/kg	N	(13)<1	**110**
Total Petroleum Hydrocarbons (C21-C35 aliphatic)	GC/FID	1	mg/kg	N	(13)<1	**240**
Total Petroleum Hydrocarbons (Aliphatic) total	Calc		mg/kg	N	ND	**370**
Total Petroleum Hydrocarbons (C6 - C7 aromatic)	GC/MS (Headspace)	0.010	mg/kg	N	<0.010	<0.010
Total Petroleum Hydrocarbons (C7-C8 aromatic)	GC/MS (Headspace)	0.010	mg/kg	N	**0.010**	<0.010
Total Petroleum Hydrocarbons (C8-C10 aromatic)	GC/MS (Headspace)	0.010	mg/kg	N	<0.010	<0.010
Total Petroleum Hydrocarbons (C10-C12 aromatic)	GC/FID	1	mg/kg	N	<1	(9)<10
Total Petroleum Hydrocarbons (C12-C16 aromatic)	GC/FID	1	mg/kg	N	(13)<1	**13**
Total Petroleum Hydrocarbons (C16-C21 aromatic)	GC/FID	1	mg/kg	N	(13)<1	**33**
Total Petroleum Hydrocarbons (C21-C35 aromatic)	GC/FID	1	mg/kg	N	(13)<1	**130**
Total Petroleum Hydrocarbons (Aromatic) total	Calc		mg/kg	N	ND	**180**
Total Petroleum Hydrocarbons (Aliphatic+Aromatic)	Calc		mg/kg	N	ND	**550**

Scientific Analysis Laboratories

Certificate of Analysis

Report Number:	130648-2
Date of Report:	02-May-2008
Client:	Resource Environmental Consultants Ltd, Osprey House, Pacific Quay, Broadway, Salford. M50 2UE
Client Contact:	Mr Martin Dyer
Client Job Reference:	42912
Client Site Reference:	Pottery Lane, Longsight
Date Job Received at SAL:	25-Apr-2008
Date Analysis Started:	29-Apr-2008
Date Analysis Completed:	01-May-2008

The results reported relate to samples received at the laboratory
Opinions and interpretations expressed herein are outside the scope of UKAS or MCERTS accreditation
This report should not be reproduced except in full without the written approval of the laboratory
Tests covered by this certificate were conducted in accordance with SAL SOPs

Key to symbols used in this report:
W: Analysis was sub-contracted and performed at another SAL Laboratory
S: Analysis was sub-contracted
N: Analysis is not UKAS accredited
U: Analysis is UKAS accredited
M: Analysis is MCERTS accredited

Report checked and authorised by: Mr Avais Hussain, Project Manager

UKAS TESTING
1549

Group

Index to caveats used in this report

Value	Description
-	Not Required
13	Results have been blank corrected.

SAL Reference: 130648
Project Site: Pottery Lane, Longsight
Customer Reference: 42912

Water Analysed as Water
REC Ltd 003

				SAL Reference	**130648 001**	**130648 002**	**130648 003**
				Customer Sample Reference	**WS110**	**WS104**	**WS101**
				Test Sample	**-**	**-**	**-**
Determinand	**Technique**	**LOD**	**Units**	**Symbol**			
Arsenic (Total)	ICP/MS (Total)	0.05	µg/l	N	**17**	**3.9**	**22**
Cadmium (Total)	ICP/MS (Total)	0.02	µg/l	N	**0.58**	**0.20**	**0.19**
Chromium (Total)	ICP/MS (Total)	1	µg/l	N	**22**	**23**	**12**
Lead (Total)	ICP/MS (Total)	0.3	µg/l	N	**140**	**7.3**	**51**
Mercury (Total)	ICP/MS (Total)	0.05	µg/l	N	**0.18**	<0.05	**0.10**
Selenium (Total)	ICP/MS (Total)	0.2	µg/l	N	**6.8**	**2.6**	**8.9**
Boron	ICP/OES	0.01	mg/l	N	**0.10**	**0.06**	**0.05**
Copper (Total)	ICP/MS (Total)	0.15	µg/l	N	**51**	**9.0**	**25**
Nickel (Total)	ICP/MS (Total)	0.1	µg/l	N	**19**	**10**	**9.0**
Zinc (Total)	ICP/MS (Total)	2	µg/l	N	**180**	**34**	**69**
pH	Probe			U	**8.2**	**7.6**	**9.0**
Sulphate (Total)	ICP/OES	50	mg/l	N	**110**	<50	**130**
Sulphide	Colorimetry	0.05	mg/l	N	<0.05	<0.05	<0.05
Cyanide (Total)	Colorimetry	0.05	mg/l	U	<0.05	<0.05	<0.05
Phenols (Total-Mono)	Colorimetry	0.1	mg/l	U	<0.1	<0.1	<0.1

SAL Reference: 130648
Project Site: Pottery Lane, Longsight
Customer Reference: 42912

Water Analysed as Water
Total and Speciated USEPA16 PAH

				SAL Reference	**130648 001**	**130648 002**	**130648 003**
				Customer Sample Reference	**WS110**	**WS104**	**WS101**
				Test Sample	**-**	**-**	**-**
Determinand	**Technique**	**LOD**	**Units**	**Symbol**			
Naphthalene	GC/MS (SIR)	0.01	µg/l	U	**0.39**	**0.34**	**0.43**
Acenaphthylene	GC/MS (SIR)	0.01	µg/l	U	**0.07**	<0.01	**0.02**
Acenaphthene	GC/MS (SIR)	0.01	µg/l	U	**0.23**	**0.01**	**0.12**
Fluorene	GC/MS (SIR)	0.01	µg/l	U	**0.19**	<0.01	**0.05**
Phenanthrene	GC/MS (SIR)	0.01	µg/l	U	**0.73**	**0.03**	**0.25**
Anthracene	GC/MS (SIR)	0.01	µg/l	U	**0.27**	<0.01	**0.06**
Fluoranthene	GC/MS (SIR)	0.01	µg/l	U	**0.96**	<0.01	**0.34**
Pyrene	GC/MS (SIR)	0.01	µg/l	U	**1.0**	<0.01	**0.33**
Benzo(a)Anthracene	GC/MS (SIR)	0.01	µg/l	U	**0.59**	<0.01	**0.19**
Chrysene	GC/MS (SIR)	0.01	µg/l	U	**0.73**	<0.01	**0.24**
Benzo(b/k)Fluoranthene	GC/MS (SIR)	0.01	µg/l	U	**1.2**	<0.01	**0.44**
Benzo(a)Pyrene	GC/MS (SIR)	0.01	µg/l	U	**0.86**	<0.01	**0.27**
Indeno(123-cd)Pyrene	GC/MS (SIR)	0.01	µg/l	U	**0.54**	<0.01	**0.21**
Dibenzo(ah)Anthracene	GC/MS (SIR)	0.01	µg/l	U	**0.14**	<0.01	**0.05**
Benzo(ghi)Perylene	GC/MS (SIR)	0.01	µg/l	U	**0.60**	<0.01	**0.25**
Polyaromatic Hydrocarbons (Total)	GC/MS (SIR)	0.01	µg/l	U	**8.5**	**0.38**	**3.3**

SAL Reference: 130648
Project Site: Pottery Lane, Longsight
Customer Reference: 42912

Water Analysed as Water
REC TPH (CWG)

					SAL Reference	130648 001	130648 002	130648 003
					Customer Sample Reference	WS110	WS104	WS101
					Test Sample	-	-	-
Determinand	**Technique**	**LOD**	**Units**	**Symbol**				
Benzene	GC/MS (Headspace)	0.001	mg/l	U	(13) <0.001	(13) <0.001	(13) <0.001
Toluene	GC/MS (Headspace)	0.001	mg/l	U	<0.001	<0.001	<0.001
EthylBenzene	GC/MS (Headspace)	0.001	mg/l	U	<0.001	<0.001	<0.001
Meta/Para-Xylene	GC/MS (Headspace)	0.001	mg/l	U	<0.001	<0.001	<0.001
Ortho-Xylene	GC/MS (Headspace)	0.001	mg/l	U	<0.001	<0.001	<0.001
Methyl-tert-Butyl Ether	GC/MS (Headspace)	0.001	mg/l	U	<0.001	<0.001	<0.001
Total Petroleum Hydrocarbons (C5 - C6 aliphatic)	GC/MS (Headspace)(LV)	0.010	mg/l	N	<0.010	<0.010	<0.010
Total Petroleum Hydrocarbons (C6-C8 aliphatic)	GC/MS (Headspace)(LV)	0.010	mg/l	N	<0.010	<0.010	<0.010
Total Petroleum Hydrocarbons (C8-C10 aliphatic)	GC/MS (Headspace)(LV)	0.010	mg/l	N	<0.010	<0.010	<0.010
Total Petroleum Hydrocarbons DW(C10-C12 aliphatic)	GC/FID (LV)	0.01	mg/l	N	<0.01	<0.01	<0.01
Total Petroleum Hydrocarbons DW(C12-C16 aliphatic)	GC/FID (LV)	0.01	mg/l	N	<0.01	**0.01**	<0.01
Total Petroleum Hydrocarbons DW(C16-C21 aliphatic)	GC/FID (LV)	0.01	mg/l	N	**0.03**	**0.04**	**0.02**
Total Petroleum Hydrocarbons DW(C21-C35 aliphatic)	GC/FID (LV)	0.01	mg/l	N	**0.05**	**0.08**	**0.07**
Total Petroleum Hydrocarbons (Aliphatic) total	Calc		mg/l	N	**0.08**	**0.12**	**0.09**
Total Petroleum Hydrocarbons (C6 - C7 aromatic)	GC/MS (Headspace)(LV)	0.010	mg/l	N	<0.010	<0.010	<0.010
Total Petroleum Hydrocarbons (C7-C8 aromatic)	GC/MS (Headspace)(LV)	0.010	mg/l	N	<0.010	<0.010	<0.010
Total Petroleum Hydrocarbons (C8-C10 aromatic)	GC/MS (Headspace)(LV)	0.010	mg/l	N	<0.010	<0.010	<0.010
Total Petroleum Hydrocarbons DW(C10-C12 aromatic)	GC/FID (LV)	0.01	mg/l	N	<0.01	<0.01	<0.01
Total Petroleum Hydrocarbons DW(C12-C16 aromatic)	GC/FID (LV)	0.01	mg/l	N	<0.01	**0.01**	<0.01
Total Petroleum Hydrocarbons DW(C16-C21 aromatic)	GC/FID (LV)	0.01	mg/l	N	**0.02**	**0.03**	**0.02**
Total Petroleum Hydrocarbons DW(C21-C35 aromatic)	GC/FID (LV)	0.01	mg/l	N	**0.11**	**0.13**	**0.11**

SAL Reference: 130648
Project Site: Pottery Lane, Longsight
Customer Reference: 42912

Water Analysed as Water
REC TPH (CWG)

				SAL Reference	**130648 001**	**130648 002**	**130648 003**
				Customer Sample Reference	**WS110**	**WS104**	**WS101**
				Test Sample	**-**	**-**	**-**
Determinand	**Technique**	**LOD**	**Units**	**Symbol**			
Total Petroleum Hydrocarbons (Aromatic) total	Calc		mg/l	N	**0.13**	**0.17**	**0.13**
Total Petroleum Hydrocarbons (Aliphatic+Aromatic)	Calc		mg/l	N	**0.21**	**0.29**	**0.22**

GEOTECHNICAL TESTING RESULTS

APPENDIX IV

PSL
Professional Soils Laboratory

LABORATORY REPORT

UKAS TESTING
4043

Contract Number: PSL08/0798

Client's Reference: Report Date: 02 May 2008

Client Name: REC Consulting Ltd
Osprey House
Pacific Quay
Broadway
Manchester
M50 2UE

For the attention of: Stuart Roberts

Contract Title: Pottery Lane, Longsight

Date Received: 8-Apr-08
Date Commenced: 8-Apr-08
Date Completed: 2-May-08

Notes: **Observations and Interpretations are outside the UKAS Accreditation**

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

Approved Signatories:

R Gunson	A Watkins	A D'Rozario	D Lambe
(Director)	(Director)	(Quality Manager)	(Senior Technician)

5 – 7 Hexthorpe Road, Hexthorpe,
Doncaster DN4 0AG
tel: +44 (0)870 240 1964
fax: +44 (0)870 240 1965
e-mail: rgunson@prosoils.co.uk
awatkins@prosoils.co.uk

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Depth m	Description of Sample
WS101		1.70-2.00	Brown mottled grey slightly gravelly slightly sandy CLAY.
WS101		3.70-4.00	Stiff brown slightly gravelly sandy CLAY.
WS102		2.70-3.00	Very stiff brown slightly gravelly sandy CLAY.
WS103		1.70-2.00	Very stiff brown slightly gravelly sandy CLAY.
WS104		1.70-2.00	Very stiff brown slightly gravelly sandy CLAY.
WS104		2.70-3.00	Brown very gravelly very sandy CLAY.
WS104		3.70-4.00	Brown slightly gravelly slightly sandy CLAY.
WS105		1.70-2.00	Very stiff brown slightly gravelly sandy CLAY.
WS105		3.70-4.00	Brown slightly gravelly slightly sandy CLAY.
WS106		0.10-1.10	MADE GROUND brownish grey very gravelly very sandy clay.
WS106		2.70-3.00	Very stiff brown slightly gravelly sandy CLAY.
WS107		0.20-1.00	MADE GROUND dark grey very sandy very clayey gravel.
WS107		2.70-3.00	Firm grey fibrous organic CLAY.
WS107		3.70-4.00	Stiff brown slightly gravelly slightly sandy CLAY.
WS108		1.70-2.00	Very stiff brown and grey slightly gravelly slightly sandy CLAY.
WS108		2.70-3.00	Brown slightly gravelly sandy CLAY.
WS109		1.70-2.00	Brown slightly gravelly sandy CLAY.
WS109		2.70-3.00	Very stiff brown and grey slightly gravelly slightly sandy CLAY.
WS110		1.70-2.00	Stiff brown and grey slightly gravelly slightly sandy CLAY.

PSL
Professional Soils Laboratory

Compiled by	Date	Checked by	Date	Approved by	Date
	2/5/18	AFS Rogers	2/5/18	AFS Rogers	2/5/18

POTTERY LANE, LONGSIGHT.

Contract No: PSL08/0798

Client Ref: 42912

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Depth m	Description of Sample
WS110		3.70-4.00	Stiff brown and grey slightly gravelly slightly sandy CLAY.

PSL
Professional Soils Laboratory

Compiled by	Date	Checked by	Date	Approved by	Date
	2/5/08	AFS Rogers	2/5/8	AFS Rogers	2/5/8

POTTERY LANE, LONGSIGHT.

Contract No: PSL08/0798

Client Ref: 42912

SUMMARY OF SOIL CLASSIFICATION TESTS

(B.S. 1377 : PART 2 : 1990)

Hole Number	Sample Number	Depth m	Moisture Content % Clause 3.2	Bulk Density Mg/m^3 Clause 7.2	Dry Density Mg/m^3 Clause 7.2	Particle Density Mg/m^3 Clause 8.	Liquid Limit % Clause 4.3/4.4	Plastic Limit % Clause 5.	Plasticity Index % Clause 5.	% Passing .425mm	Remarks
WS101		1.70-2.00	17				39	20	19	94	Intermediate plasticity CI.
WS102		2.70-3.00	16				40	19	21	94	Intermediate plasticity CI.
WS103		1.70-2.00	17				41	18	23	93	Intermediate plasticity CI.
WS104		3.70-4.00	14				35	17	18	92	Intermediate plasticity CI.
WS105		3.70-4.00	17				40	18	22	94	Intermediate plasticity CI.
WS106		2.70-3.00	16				39	18	21	94	Intermediate plasticity CI.
WS107		2.70-3.00	112				165	65	100	100	Extremely high plasticity CE.
WS108		2.70-3.00	15				40	19	21	92	Intermediate plasticity CI.
WS109		1.70-2.00	20				45	20	25	97	Intermediate plasticity CI.
WS110		3.70-4.00	15				37	19	18	95	Intermediate plasticity CI.

SYMBOLS : NP : Non Plastic * : Liquid Limit and Plastic Limit Wet Sieved.

PSL
Professional Soils Laboratory

Compiled by	Date	Checked by	Date	Approved by	Date
[signature]	2/5/08	AFD Rogaio	2/5/8	AFD Rogaio	2/5/8

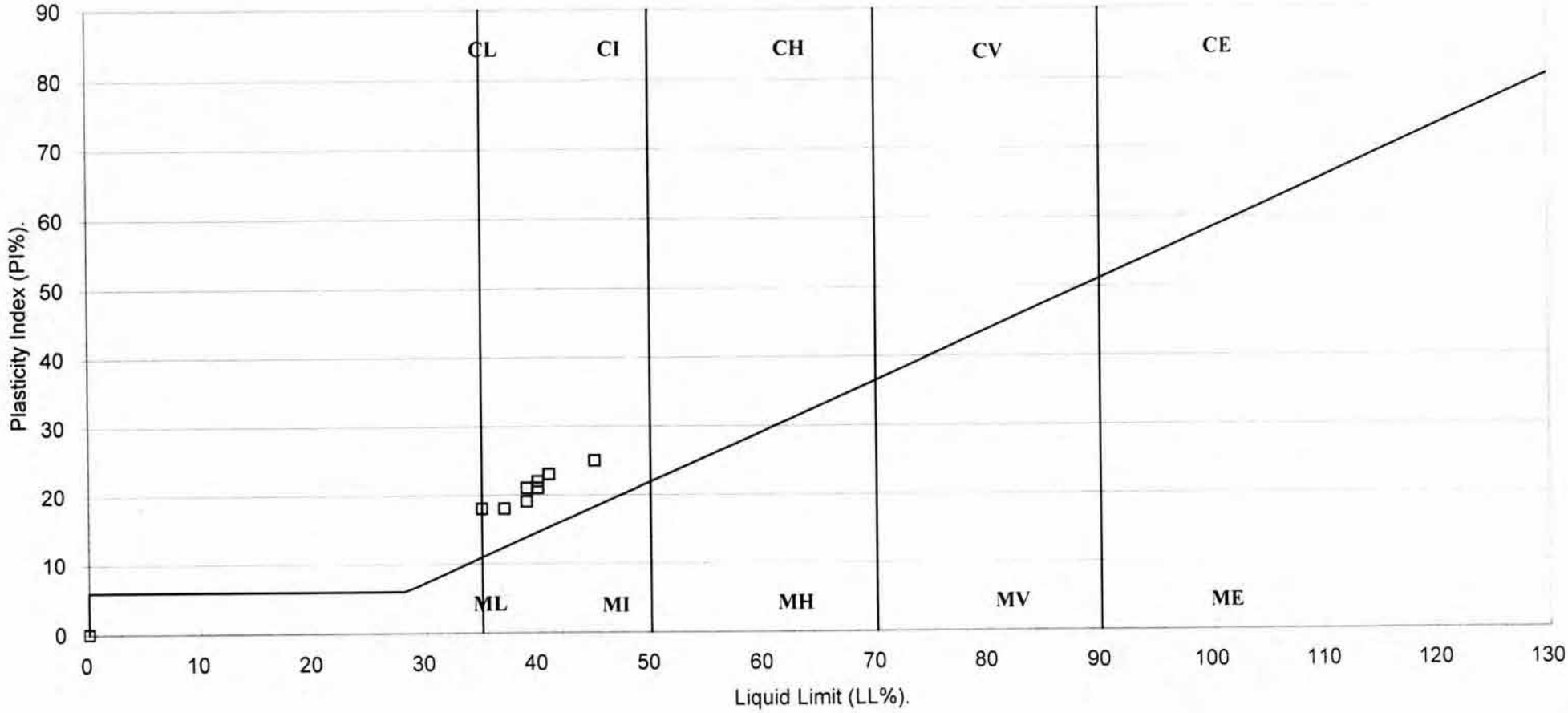
POTTERY LANE, LONGSIGHT.

Contract No: PSL08/0798

Client Ref: 42912

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(B.S.5930 : 1999)



PSL Professional Soils Laboratory	Compiled by	Date	Checked by	Date	Approved by	Date
	[signature]	2/5/08	AFS Rogaio	2/5/8	AFS Rogaio	2/5/8
	POTTERY LANE, LONGSIGHT.				Contract No:	PSL08/0798
					Client Ref:	42912

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Depth m	Description of Sample
TP101		0.10-0.60	MADE GROUND brown very sandy very clayey gravel.
TP102		1.70-2.20	Brown mottled grey slightly gravelly sandy CLAY.
TP103		0.10-0.60	MADE GROUND dark brown very sandy very clayey gravel.
TP105		0.50-1.00	Dark grey gravelly very sandy CLAY.
TP106		1.50-2.00	Brown mottled grey slightly gravelly slightly sandy CLAY.
TP108		0.20-0.70	MADE GROUND dark brown very clayey sand and gravel.

PSL
Professional Soils Laboratory

Compiled by	Date	Checked by	Date	Approved by	Date
	2/5/08	AFS Logan	02/05/08	AFS Logan	02/05/08

POTTERY LANE, LONGSIGHT.

Contract No: PSL08/0798

Client Ref: 42912

SUMMARY OF SOIL CLASSIFICATION TESTS

(B.S. 1377 : PART 2 : 1990)

Hole Number	Sample Number	Depth m	Moisture Content % Clause 3.2	Bulk Density Mg/m^3 Clause 7.2	Dry Density Mg/m^3 Clause 7.2	Particle Density Mg/m^3 Clause 8.	Liquid Limit % Clause 4.3/4.4	Plastic Limit % Clause 5.	Plasticity Index % Clause 5.	% Passing .425mm	Remarks
TP102		1.70-2.20	19				46	22	24	96	Intermediate plasticity CI.
TP106		1.50-2.00	23				46	20	26	97	Intermediate plasticity CI.

SYMBOLS : NP : Non Plastic * : Liquid Limit and Plastic Limit Wet Sieved.

PSL
Professional Soils Laboratory

Compiled by	Date	Checked by	Date	Approved by	Date
	2/5/08	AFS Nguni	02/05/08	AFS Nguni	02/05/08

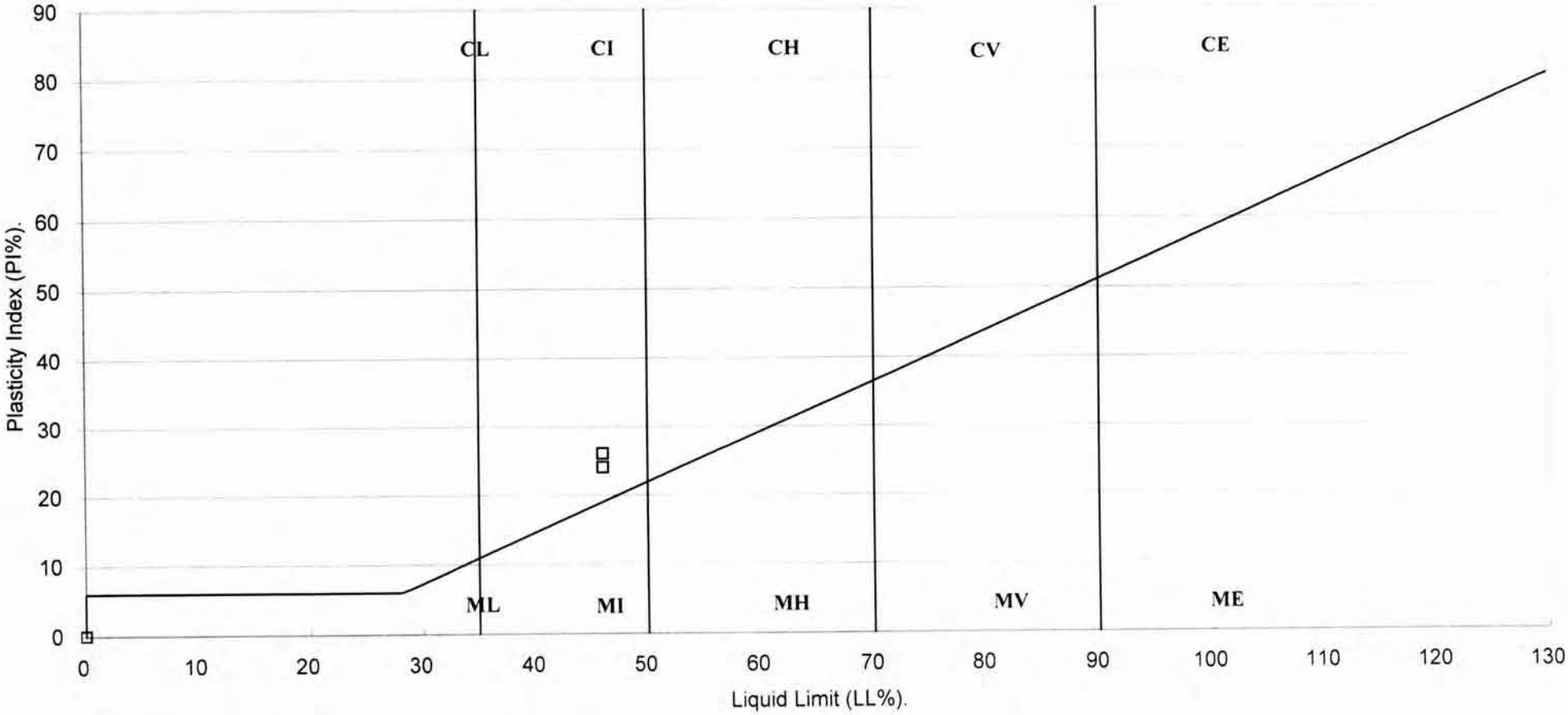
POTTERY LANE, LONGSIGHT.

Contract No: PSL08/0798

Client Ref: 42912

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(B.S.5930 : 1999)



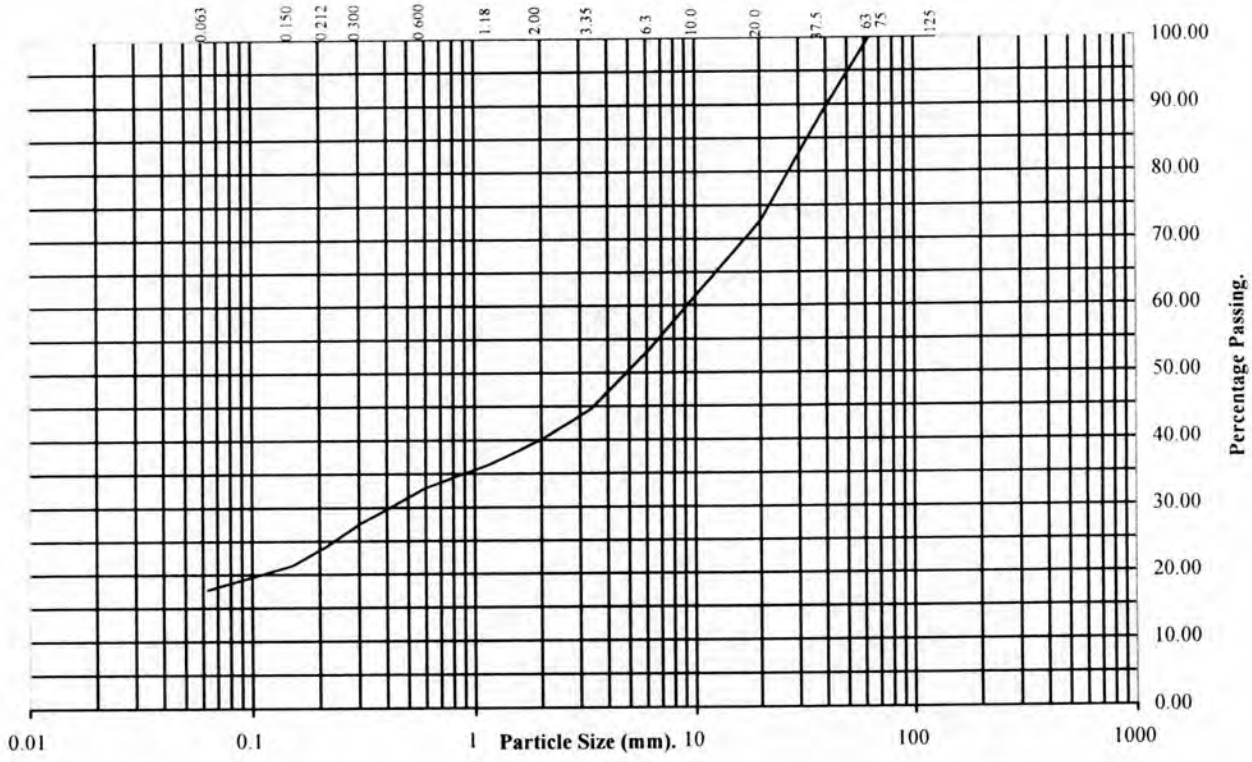
PSL Professional Soils Laboratory	Compiled by	Date	Checked by	Date	Approved by	Date
		2/5/08	AS'Rogano	02/05/08	AS'Rogano	02/05/08
	POTTERY LANE, LONGSIGHT.				Contract No:	PSL08/0798
					Client Ref:	42912

PARTICLE SIZE DISTRIBUTION TEST

BS1377:Part 2:1990

Wet Sieve: Clause 9.2

Trial Pit /Sample Number: **TP101** **Depth (m):** **0.10-0.60**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	88
20	73
10	62
6.3	54
3.35	45
2	40
1.18	36
0.6	33
0.3	27
0.212	24
0.15	21
0.063	18

Soil Fraction	Total Percentage
Cobbles	0
Gravel	60
Sand	22
Silt/Clay	18

Remarks:
See summary of soil descriptions.

Checked By	Date	Approved By	Date
AG'Rogaris	2/5/8	AG'Rogaris	2/5/8

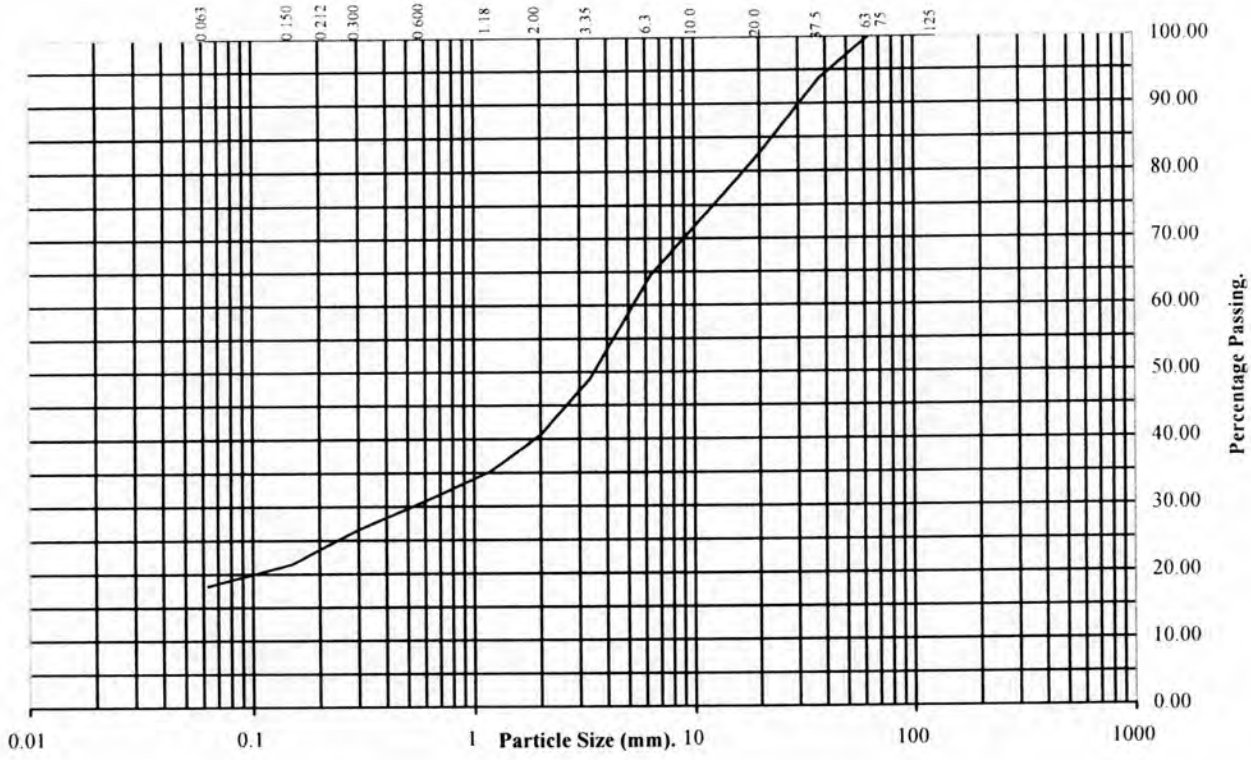
PSL Professional Soils Laboratory	POTTERY LANE, LONGSIGHT.	Contract No.: PSL08/0798

PARTICLE SIZE DISTRIBUTION TEST

BS1377:Part 2:1990

Wet Sieve: Clause 9.2

Trial Pit /Sample Number: TP103 **Depth (m): 0.10-0.60**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	94
20	83
10	72
6.3	65
3.35	49
2	41
1.18	35
0.6	31
0.3	27
0.212	24
0.15	21
0.063	18

Soil Fraction	Total Percentage
Cobbles	0
Gravel	59
Sand	23
Silt/Clay	18

Remarks:
See summary of soil descriptions.

Checked By	Date	Approved By	Date
[signature]	1/5/08	[signature]	02/05/08

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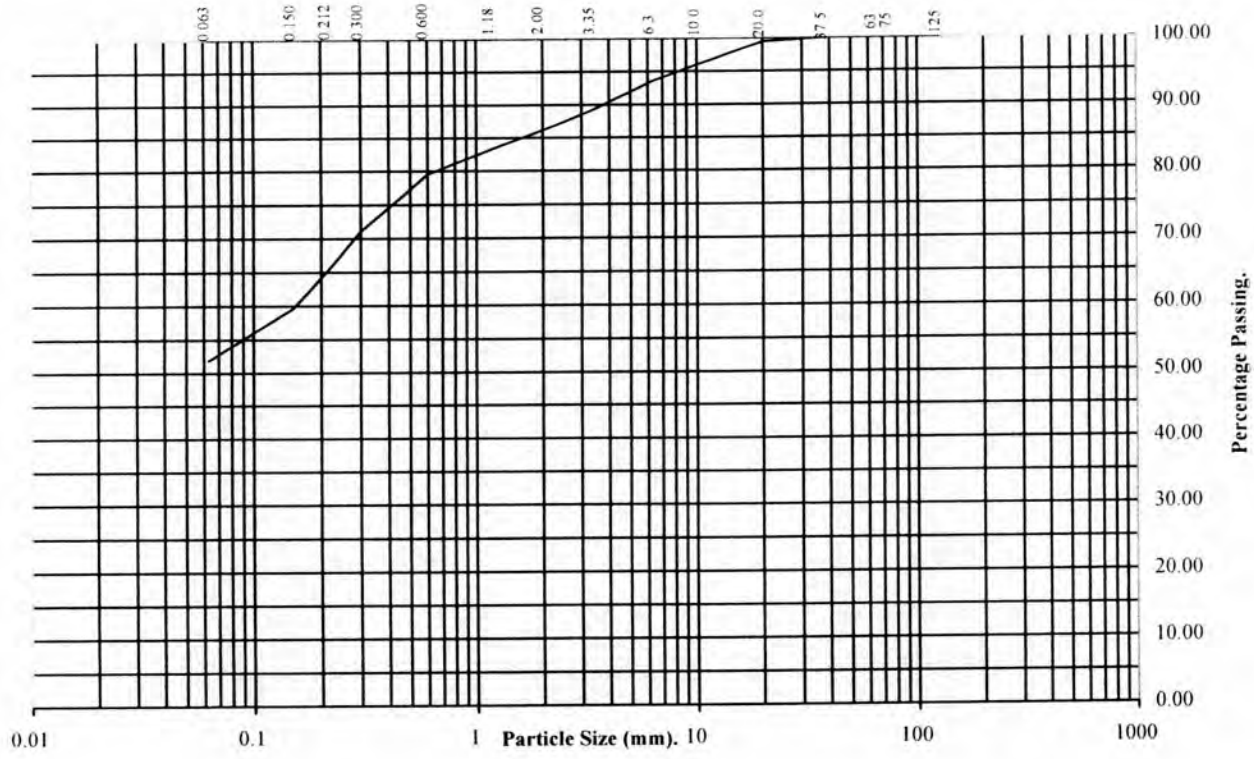
PARTICLE SIZE DISTRIBUTION TEST

BS1377:Part 2:1990

Wet Sieve: Clause 9.2

Trial Pit /Sample Number: **TP105** **Depth (m):** **0.50-1.00**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	99
10	96
6.3	94
3.35	89
2	86
1.18	83
0.6	80
0.3	71
0.212	65
0.15	60
0.063	52

Soil Fraction	Total Percentage
Cobbles	0
Gravel	14
Sand	34
Silt/Clay	52

Remarks:
See summary of soil descriptions.

Checked By	Date	Approved By	Date
AS Hogarth	02/05/08	AS Hogarth	02/05/08

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Contract No.:
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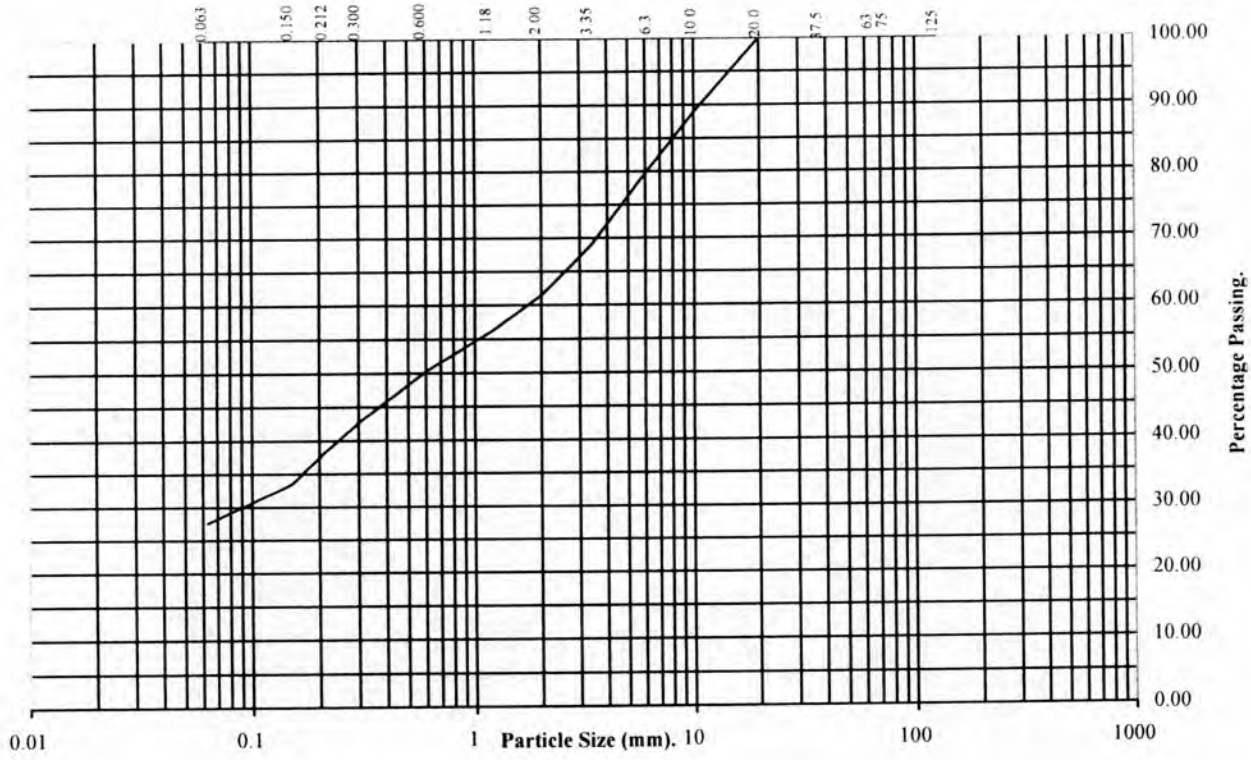
PARTICLE SIZE DISTRIBUTION TEST

BS1377:Part 2:1990

Wet Sieve: Clause 9.2

Trial Pit /Sample Number: **TP108** **Depth (m):** **0.20-0.70**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	89
6.3	81
3.35	69
2	62
1.18	56
0.6	50
0.3	43
0.212	38
0.15	33
0.063	28

Soil Fraction	Total Percentage
Cobbles	0
Gravel	38
Sand	34
Silt/Clay	28

Remarks:
See summary of soil descriptions.

Checked By	Date	Approved By	Date
AS Nguni	02/05/08	AS Nguni	02/05/08

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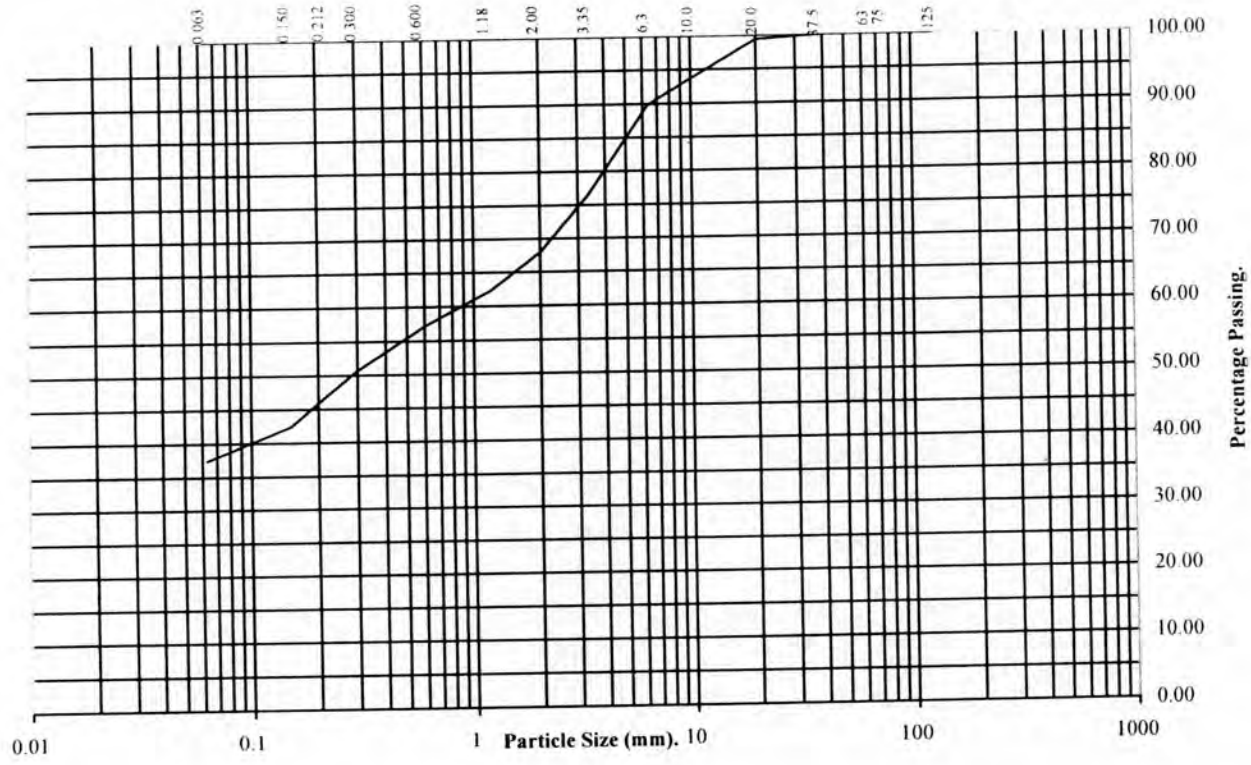
Contract No.:
PSL08/0798

PARTICLE SIZE DISTRIBUTION TEST

BS1377:Part 2:1990

Wet Sieve: Clause 9.2

Borehole/Sample Number: **WS106** **Depth (m):** **0.10-1.10**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	99
10	94
6.3	90
3.35	77
2	68
1.18	62
0.6	57
0.3	51
0.212	47
0.15	42
0.063	37

Soil Fraction	Total Percentage
Cobbles	0
Gravel	32
Sand	31
Silt/Clay	37

Remarks:
See summary of soil descriptions.

Checked By	Date	Approved By	Date
AFS'Agaro	2/5/18	AFS'Agaro	2/5/18

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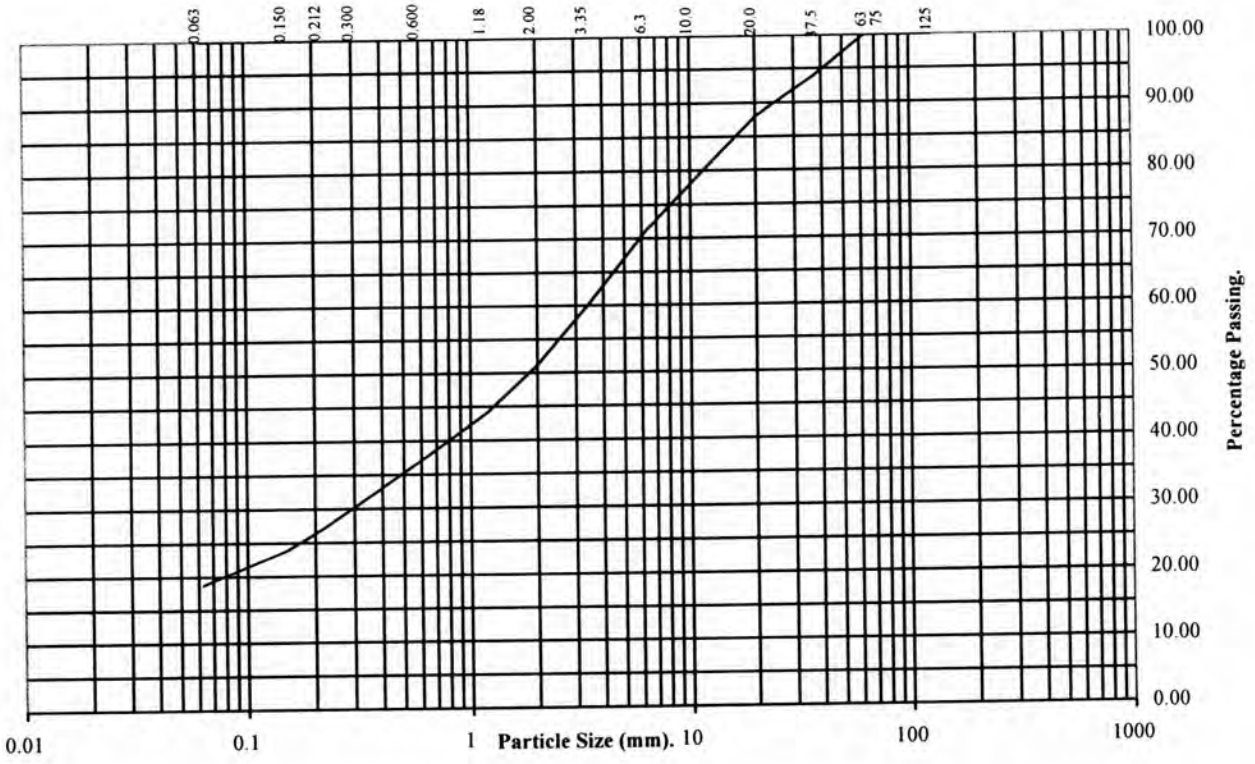
PARTICLE SIZE DISTRIBUTION TEST

BS1377:Part 2:1990

Wet Sieve: Clause 9.2

Borehole/Sample Number: WS107 **Depth (m):** 0.20-1.00



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	94
20	88
10	78
6.3	71
3.35	60
2	51
1.18	44
0.6	37
0.3	30
0.212	27
0.15	24
0.063	19

Soil Fraction	Total Percentage
Cobbles	0
Gravel	49
Sand	32
Silt/Clay	19

Remarks:
See summary of soil descriptions.

Checked By	Date	Approved By	Date
AS Hogarth	02/05/08	AS Hogarth	02/05/08

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POTTERY LANE, LONGSIGHT.

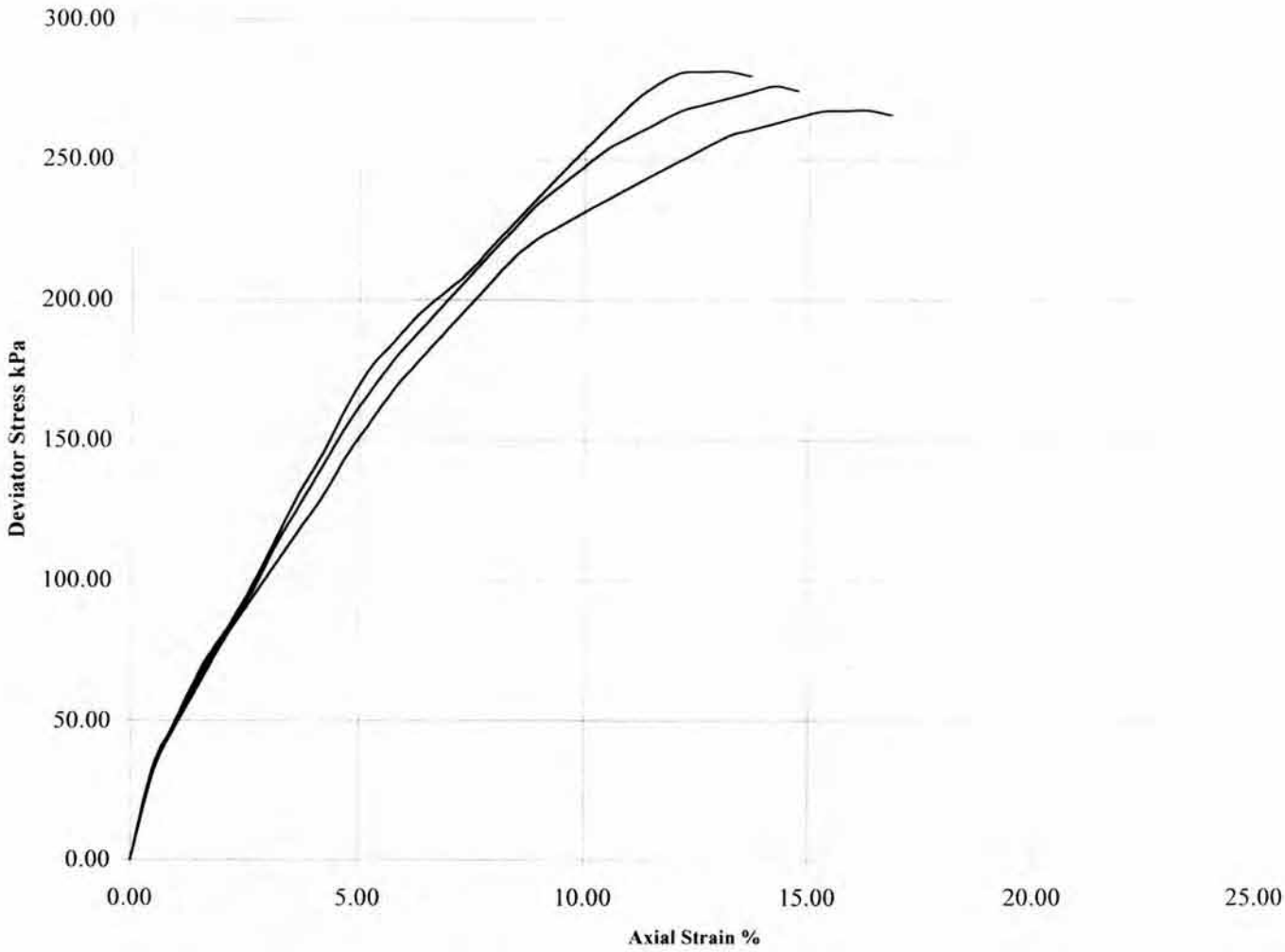
Contract No.: PSL08/0798

Undrained Shear Strength in Triaxial Compression

without measurement of Pore Pressure

B.S. 1377 : Part7 : Clause 8 : 1990

Borehole / Sample Number: WS101 Depth (m): 3.70-4.00



Diameter (mm):		38	Height (mm):		76	Test:	Set of Three, 38 mm Samples		
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Deviator Stress (kPa)	Cohesion (kPa)	Failure Strain (%)	Mode of Failure	Remarks
A	15.6	2.20	1.90	100	268	134	16.3	Plastic	See summary of soil descriptions.
B	17.3	2.18	1.86	200	282	141	13.2	Plastic	
C	15.9	2.18	1.88	400	276	138	14.2	Plastic	

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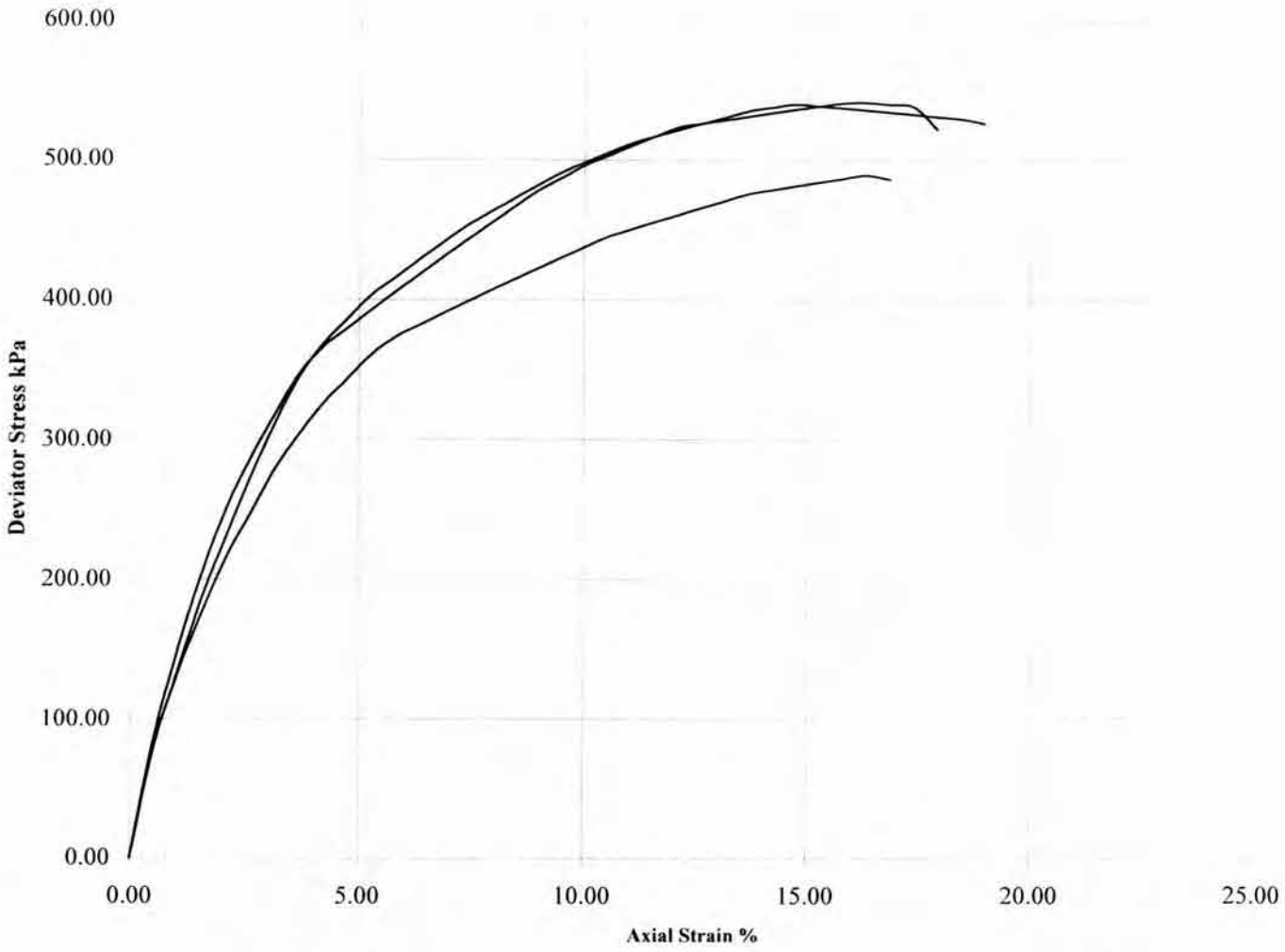
POTTERY LANE, LONGSIGHT. **Contract No: PSL08/0798**

Undrained Shear Strength in Triaxial Compression

without measurement of Pore Pressure

B.S. 1377 : Part7 : Clause 8 : 1990

Borehole / Sample Number: WS102 Depth (m): 2.70-3.00



Diameter (mm):		38	Height (mm):		76	Test:	Set of Three, 38 mm Samples		
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Deviator Stress (kPa)	Cohesion (kPa)	Failure Strain (%)	Mode of Failure	Remarks
A	16.0	2.11	1.82	50	489	245	16.3	Brittle	See summary of soil descriptions.
B	16.0	2.16	1.86	100	542	271	16.3	Brittle	
C	16.1	2.13	1.83	200	541	270	14.7	Brittle	

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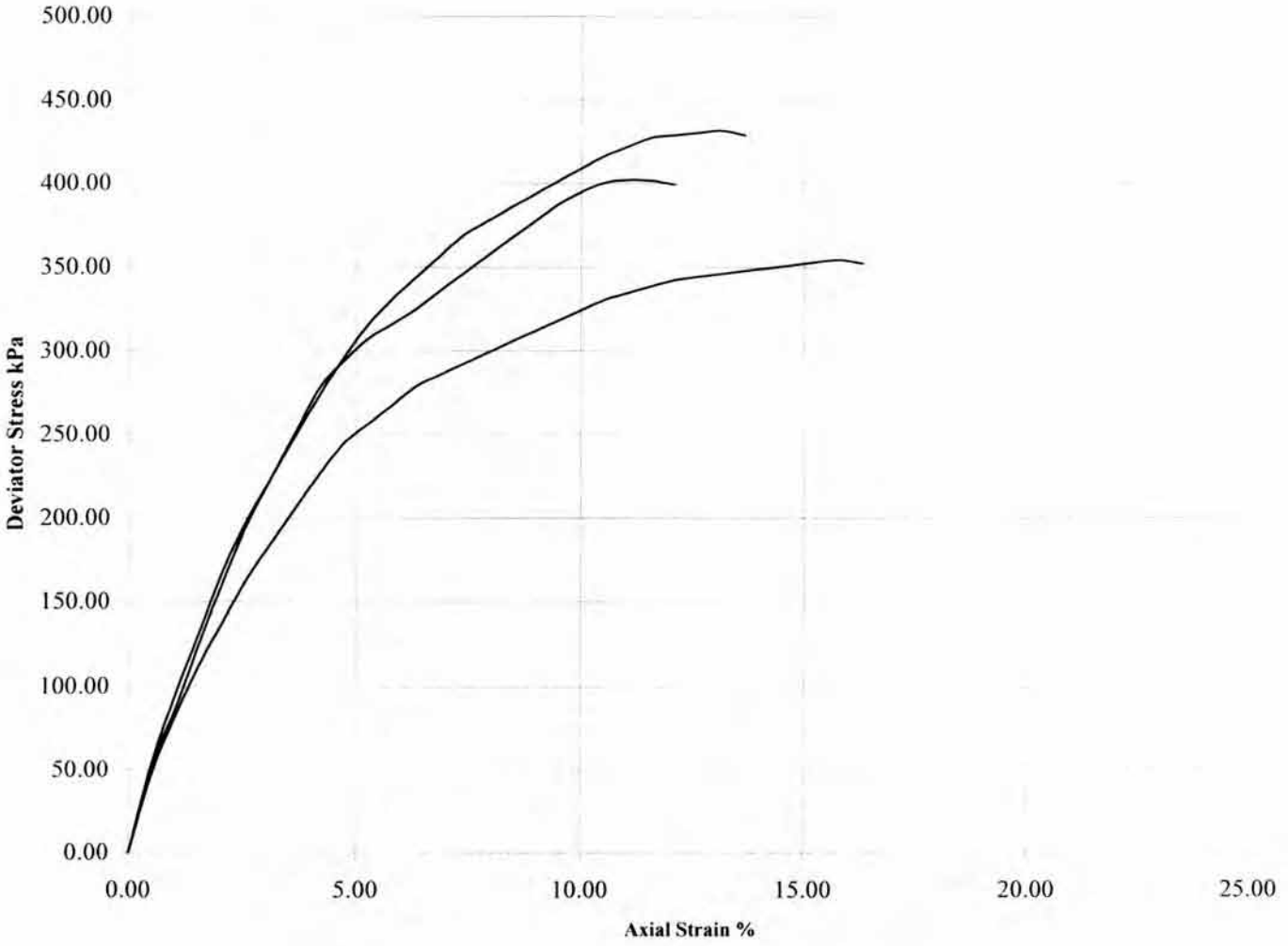
Undrained Shear Strength in Triaxial Compression

without measurement of Pore Pressure

B.S. 1377 : Part7 : Clause 8 : 1990

Borehole / Sample Number: WS103 Depth (m): 1.70-2.00



Diameter (mm):		38	Height (mm):		76	Test:	Set of Three, 38 mm Samples		
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Deviator Stress (kPa)	Cohesion (kPa)	Failure Strain (%)	Mode of Failure	Remarks See summary of soil descriptions.
A	17.3	2.18	1.86	50	354	177	15.8	Plastic	
B	16.5	2.17	1.86	100	402	201	11.1	Plastic	
C	16.7	2.14	1.83	200	432	216	13.2	Plastic	

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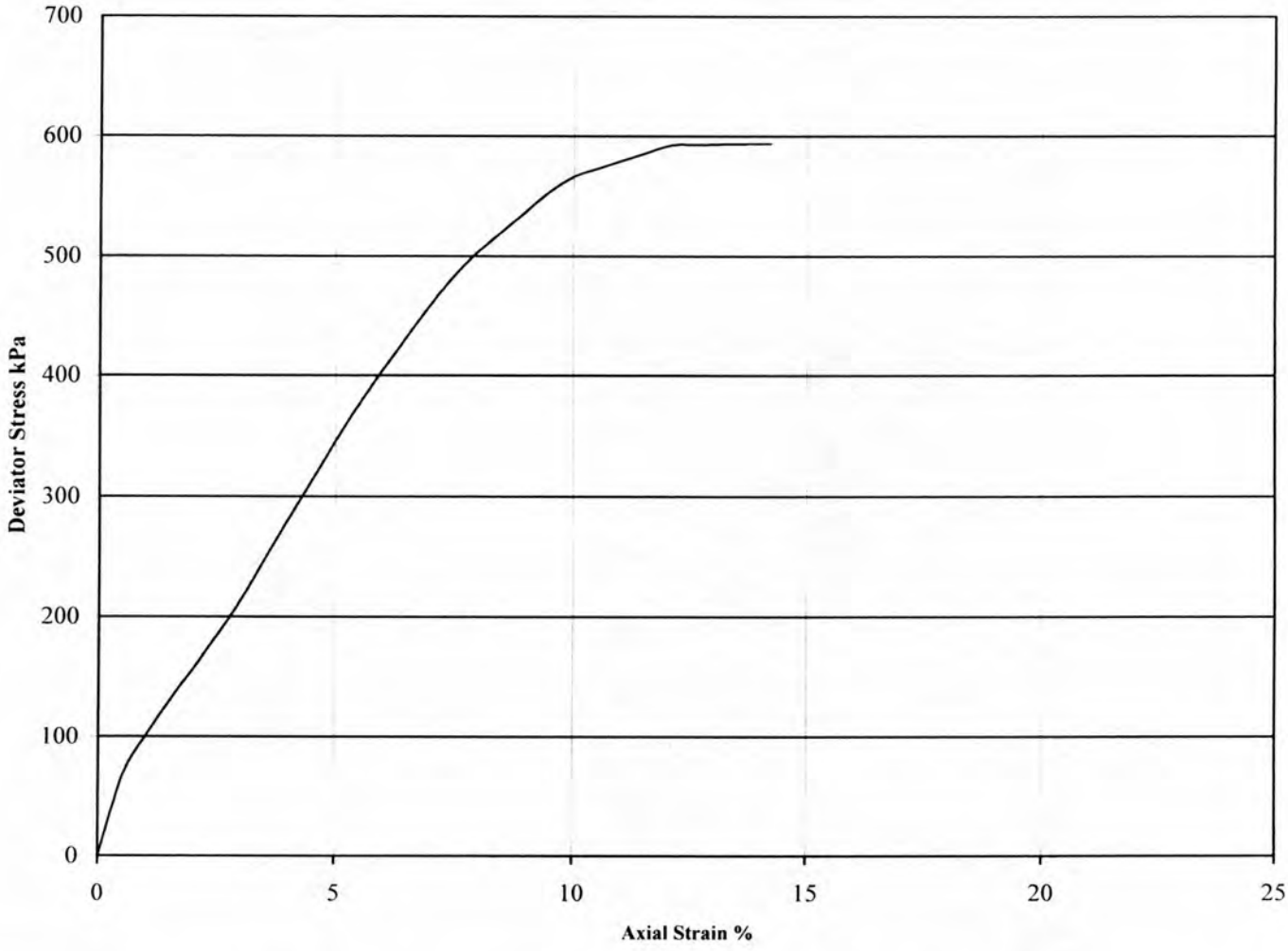
Undrained Shear Strength in Triaxial Compression

without measurement of Pore Pressure

B.S. 1377 : Part7 : Clause 8 : 1990

Borehole Number: **WS104** Depth (m): **1.70-2.00**



Diameter (mm):		38	Height (mm):		76	Test:	38 mm Single Stage.		
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Deviator Stress (kPa)	Cohesion (kPa)	Failure Strain (%)	Mode of Failure	Remarks
A	16	2.20	1.90	50	594	297	14.2	Brittle	See summary of soil descriptions.
B									
C									

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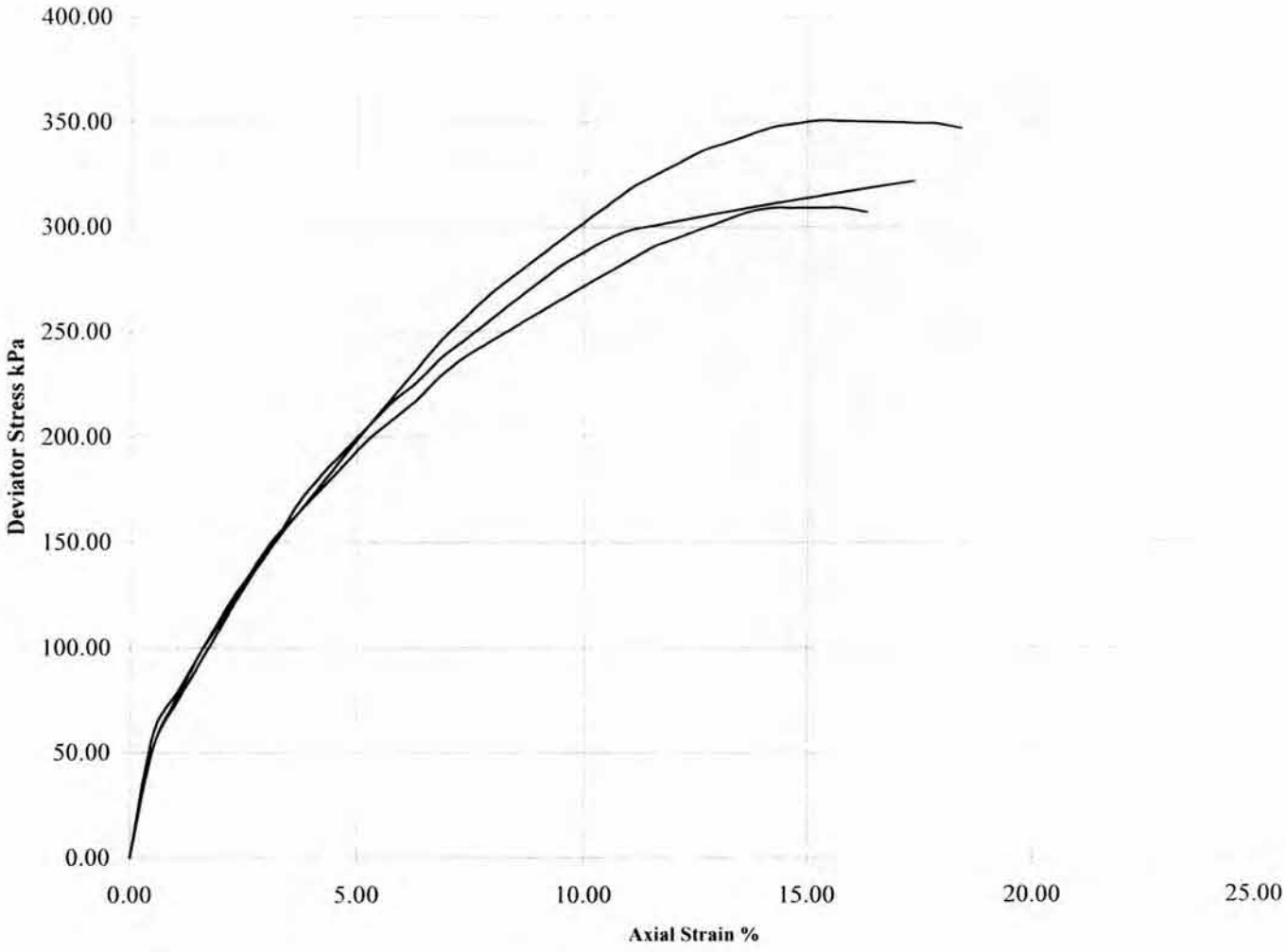
Undrained Shear Strength in Triaxial Compression

without measurement of Pore Pressure

B.S. 1377 : Part7 : Clause 8 : 1990

Borehole / Sample Number: WS105 Depth (m): 1.70-2.00



Diameter (mm):		38	Height (mm):		76	Test:	Set of Three, 38 mm Samples		
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Deviator Stress (kPa)	Cohesion (kPa)	Failure Strain (%)	Mode of Failure	Remarks
A	18.5	2.13	1.80	50	309	155	14.7	Plastic	See summary of soil descriptions.
B	18.3	2.13	1.81	100	322	161	17.4	Plastic	
C	18.4	2.13	1.80	200	351	175	15.3	Plastic	

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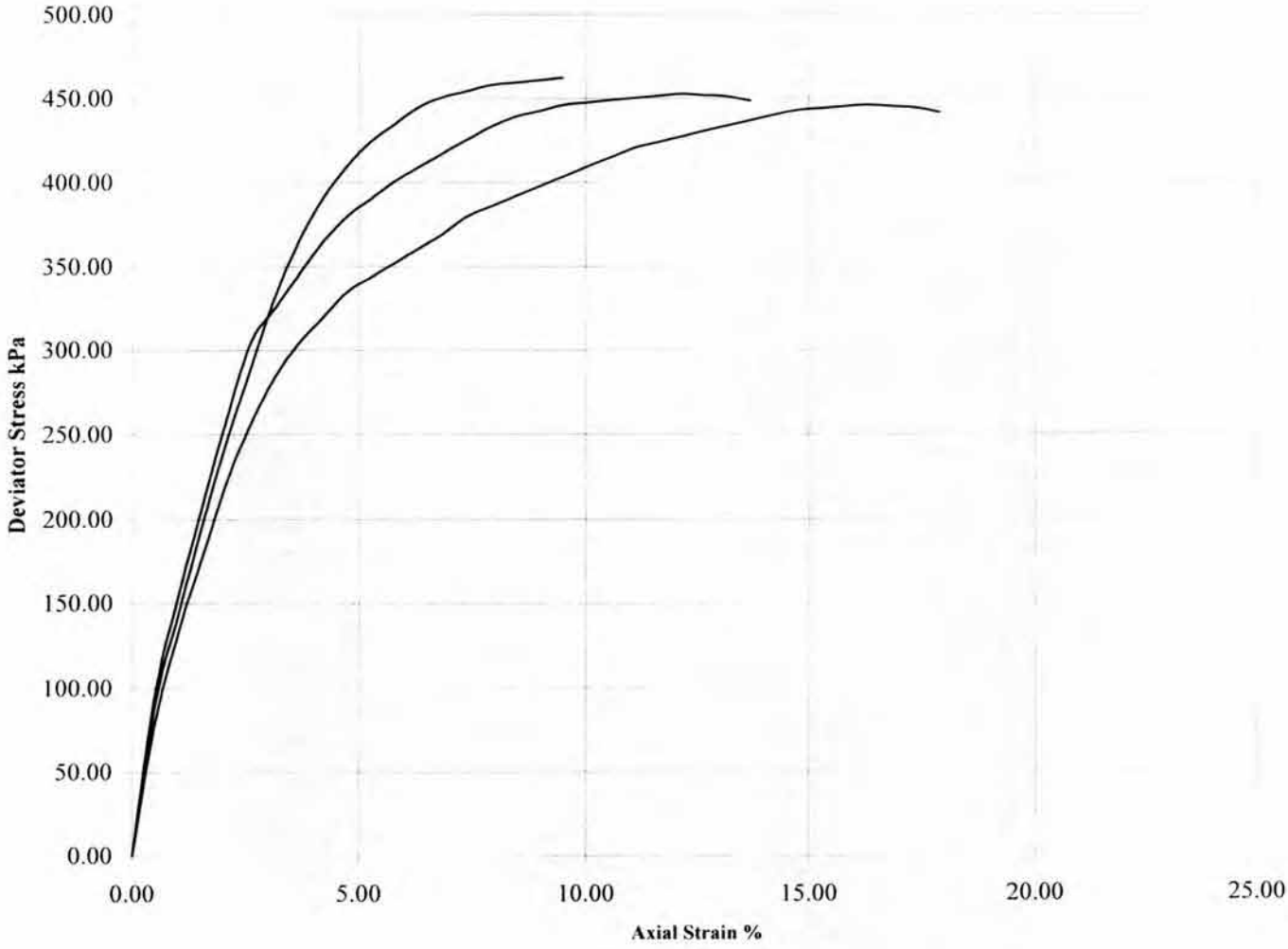
Undrained Shear Strength in Triaxial Compression

without measurement of Pore Pressure

B.S. 1377 : Part7 : Clause 8 : 1990

Borehole / Sample Number: WS106 Depth (m): 2.70-3.00



Diameter (mm):		38	Height (mm):		76	Test:	Set of Three, 38 mm Samples		
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Deviator Stress (kPa)	Cohesion (kPa)	Failure Strain (%)	Mode of Failure	Remarks
A	15.1	2.18	1.89	50	462	231	9.5	Plastic	See summary of soil descriptions.
B	16.6	2.21	1.89	100	453	226	12.1	Plastic	
C	15.7	2.20	1.90	200	446	223	16.3	Plastic	

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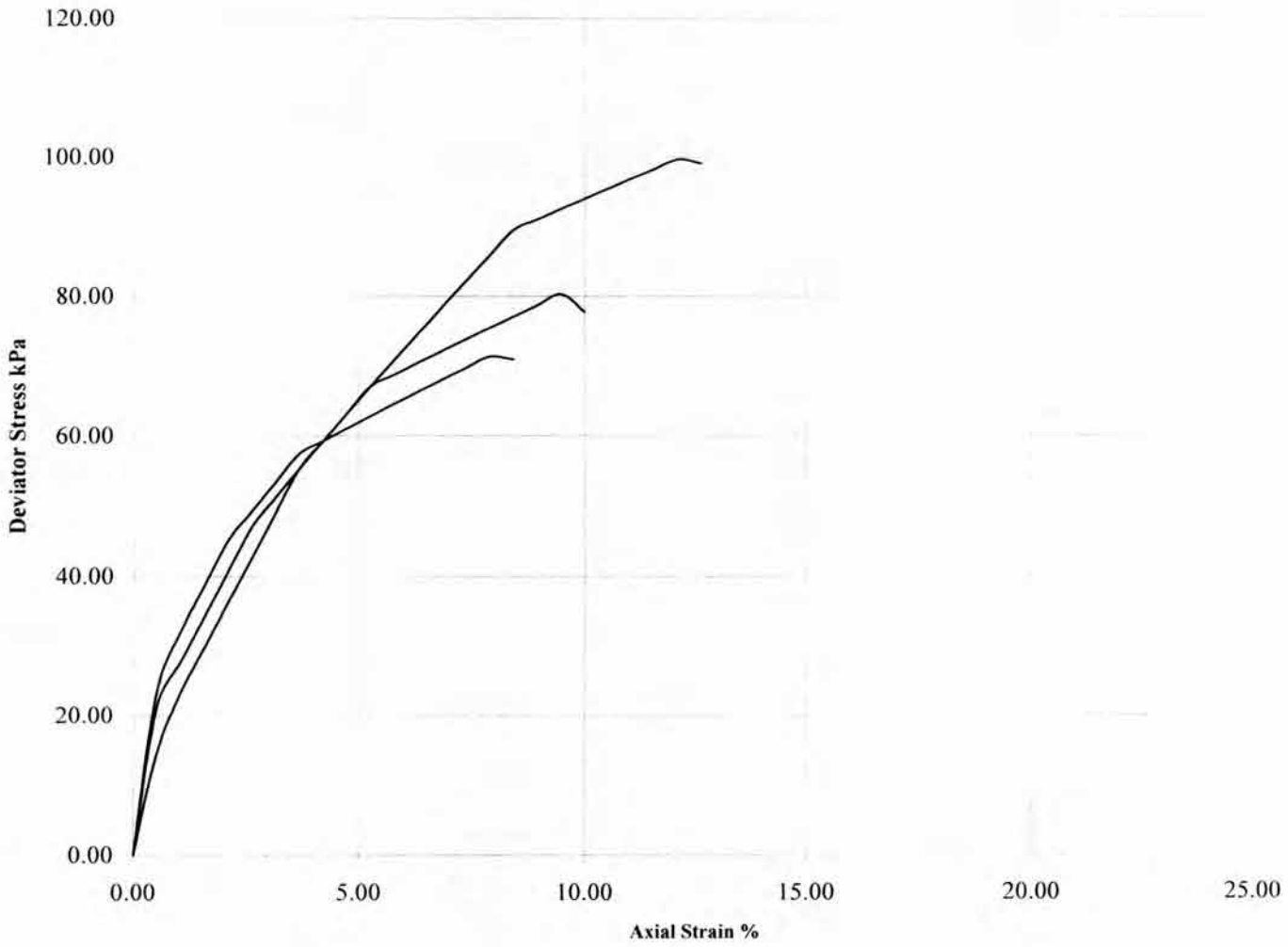
Undrained Shear Strength in Triaxial Compression

without measurement of Pore Pressure

B.S. 1377 : Part7 : Clause 8 : 1990

Borehole / Sample Number: WS107 Depth (m): 2.70-3.00



Diameter (mm):		38	Height (mm):		76	Test:	Set of Three, 38 mm Samples		
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Deviator Stress (kPa)	Cohesion (kPa)	Failure Strain (%)	Mode of Failure	Remarks
A	124.6	1.27	0.57	50	71	36	7.9	Plastic	See summary of soil descriptions.
B	142.2	1.26	0.52	100	80	40	9.5	Plastic	
C	113.3	1.27	0.60	200	100	50	12.1	Plastic	

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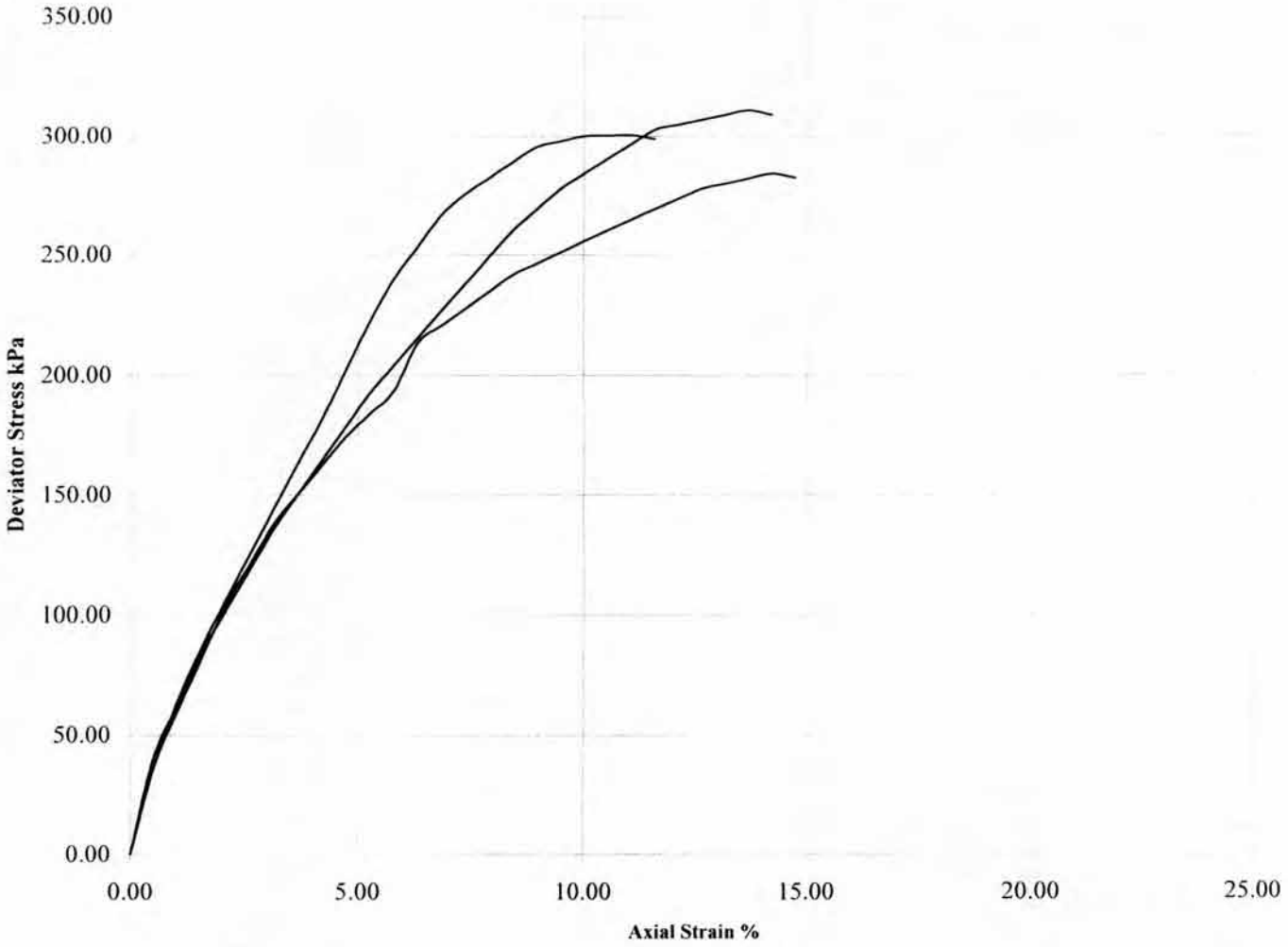
Undrained Shear Strength in Triaxial Compression

without measurement of Pore Pressure

B.S. 1377 : Part7 : Clause 8 : 1990

Borehole / Sample Number: WS107 Depth (m): 3.70-4.00



Diameter (mm):		38	Height (mm):		76	Test:	Set of Three, 38 mm Samples		
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Deviator Stress (kPa)	Cohesion (kPa)	Failure Strain (%)	Mode of Failure	Remarks
A	16.4	2.21	1.90	100	284	142	14.2	Plastic	See summary of soil descriptions.
B	17.2	2.16	1.84	200	300	150	11.1	Plastic	
C	18.4	2.16	1.83	400	311	155	13.7	Plastic	

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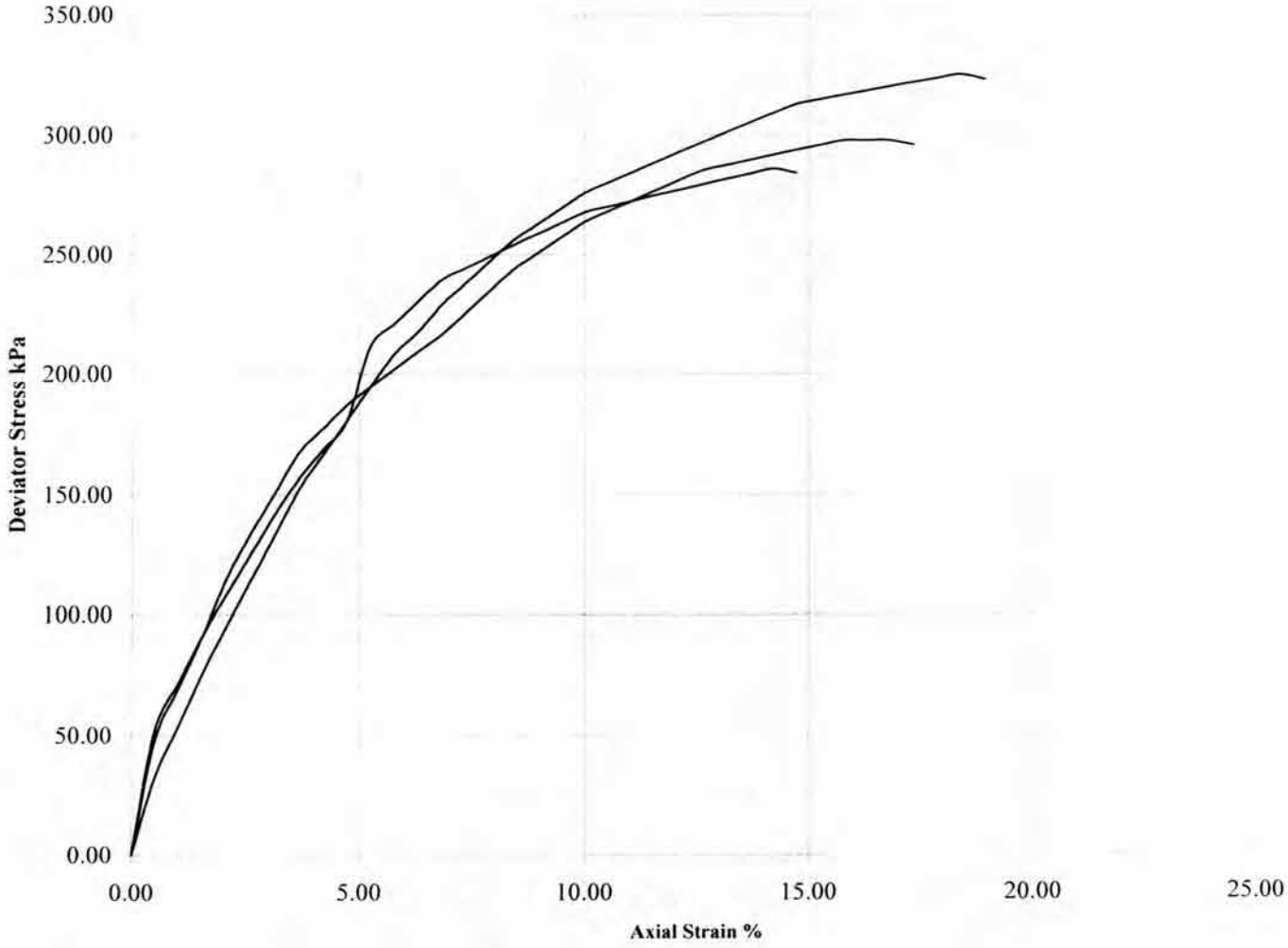
Undrained Shear Strength in Triaxial Compression

without measurement of Pore Pressure

B.S. 1377 : Part7 : Clause 8 : 1990

Borehole / Sample Number: WS108 Depth (m): 1.70-2.00



Diameter (mm):		38	Height (mm):		76	Test:	Set of Three, 38 mm Samples		
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Deviator Stress (kPa)	Cohesion (kPa)	Failure Strain (%)	Mode of Failure	Remarks
A	17.0	2.14	1.83	50	286	143	14.2	Plastic	See summary of soil descriptions.
B	19.9	2.13	1.78	100	298	149	16.3	Plastic	
C	19.0	2.15	1.81	200	325	162	18.4	Plastic	

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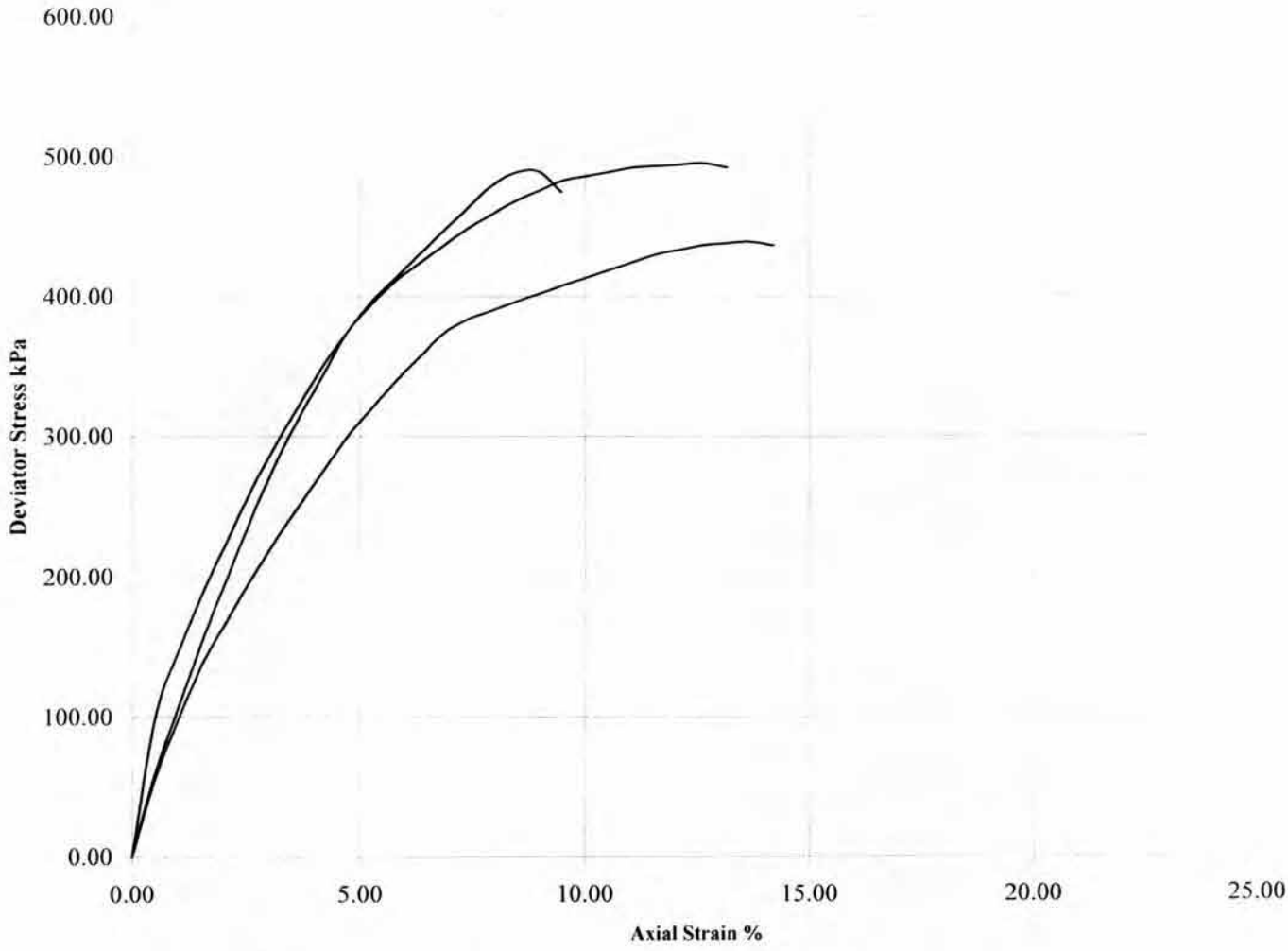
Undrained Shear Strength in Triaxial Compression

without measurement of Pore Pressure

B.S. 1377 : Part7 : Clause 8 : 1990

Borehole / Sample Number: WS109 Depth (m): 2.70-3.00



Diameter (mm):		38	Height (mm):		76	Test:	Set of Three, 38 mm Samples		
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Deviator Stress (kPa)	Cohesion (kPa)	Failure Strain (%)	Mode of Failure	Remarks
A	16.1	2.16	1.86	50	439	219	13.7	Brittle	See summary of soil descriptions.
B	15.6	2.18	1.88	100	489	245	8.9	Brittle	
C	15.6	2.13	1.84	200	495	248	12.6	Brittle	

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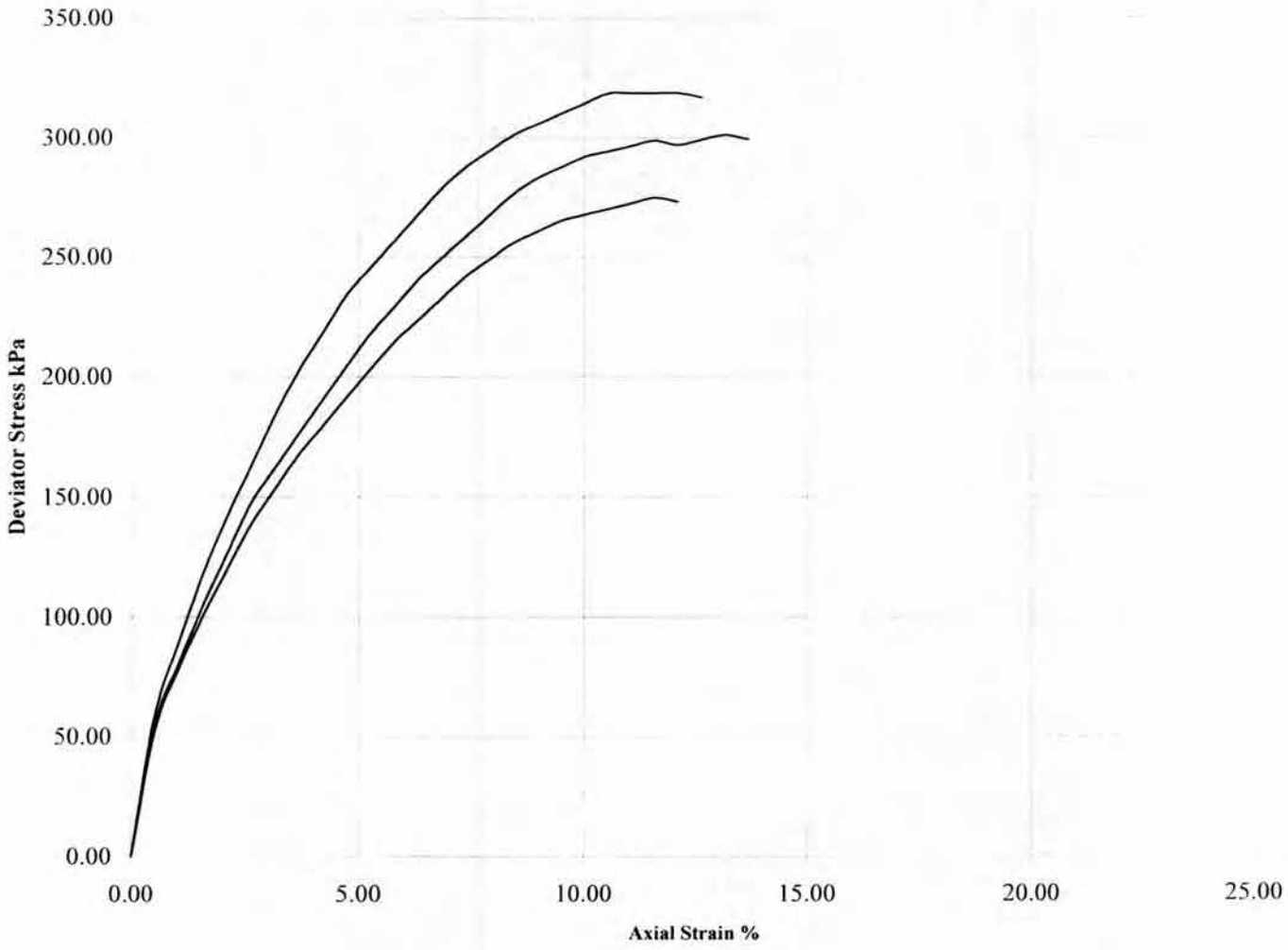
Undrained Shear Strength in Triaxial Compression

without measurement of Pore Pressure

B.S. 1377 : Part7 : Clause 8 : 1990

Borehole / Sample Number: WS110 Depth (m): 1.70-2.00



Diameter (mm):		38	Height (mm):		76	Test:	Set of Three, 38 mm Samples		
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Deviator Stress (kPa)	Cohesion (kPa)	Failure Strain (%)	Mode of Failure	Remarks
A	21.3	2.07	1.71	50	301	151	13.2	Plastic	See summary of soil descriptions.
B	17.6	2.11	1.80	100	275	137	11.6	Plastic	
C	19.2	2.08	1.75	200	319	159	12.1	Plastic	

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AF Rogers 02/05/08

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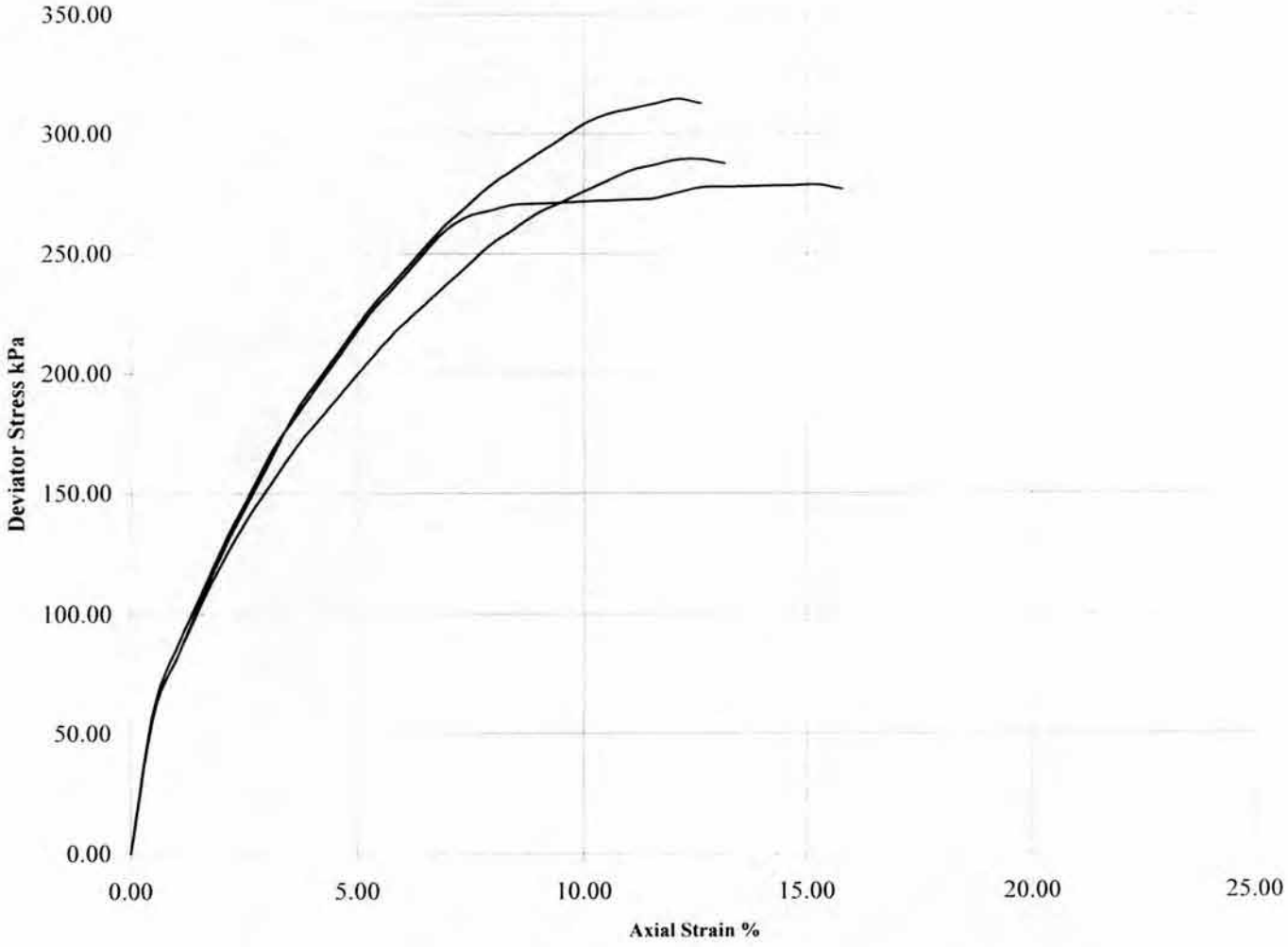
Undrained Shear Strength in Triaxial Compression

without measurement of Pore Pressure

B.S. 1377 : Part7 : Clause 8 : 1990

Borehole / Sample Number: WS110 Depth (m): 3.70-4.00



Diameter (mm):		38	Height (mm):		76	Test:	Set of Three, 38 mm Samples		
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Deviator Stress (kPa)	Cohesion (kPa)	Failure Strain (%)	Mode of Failure	Remarks
A	15.2	2.17	1.89	100	289	145	12.6	Plastic	See summary of soil descriptions.
B	15.1	2.18	1.89	200	279	139	15.3	Plastic	
C	15.1	2.18	1.89	400	315	157	12.1	Plastic	

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AFS Rogers 04/06/08

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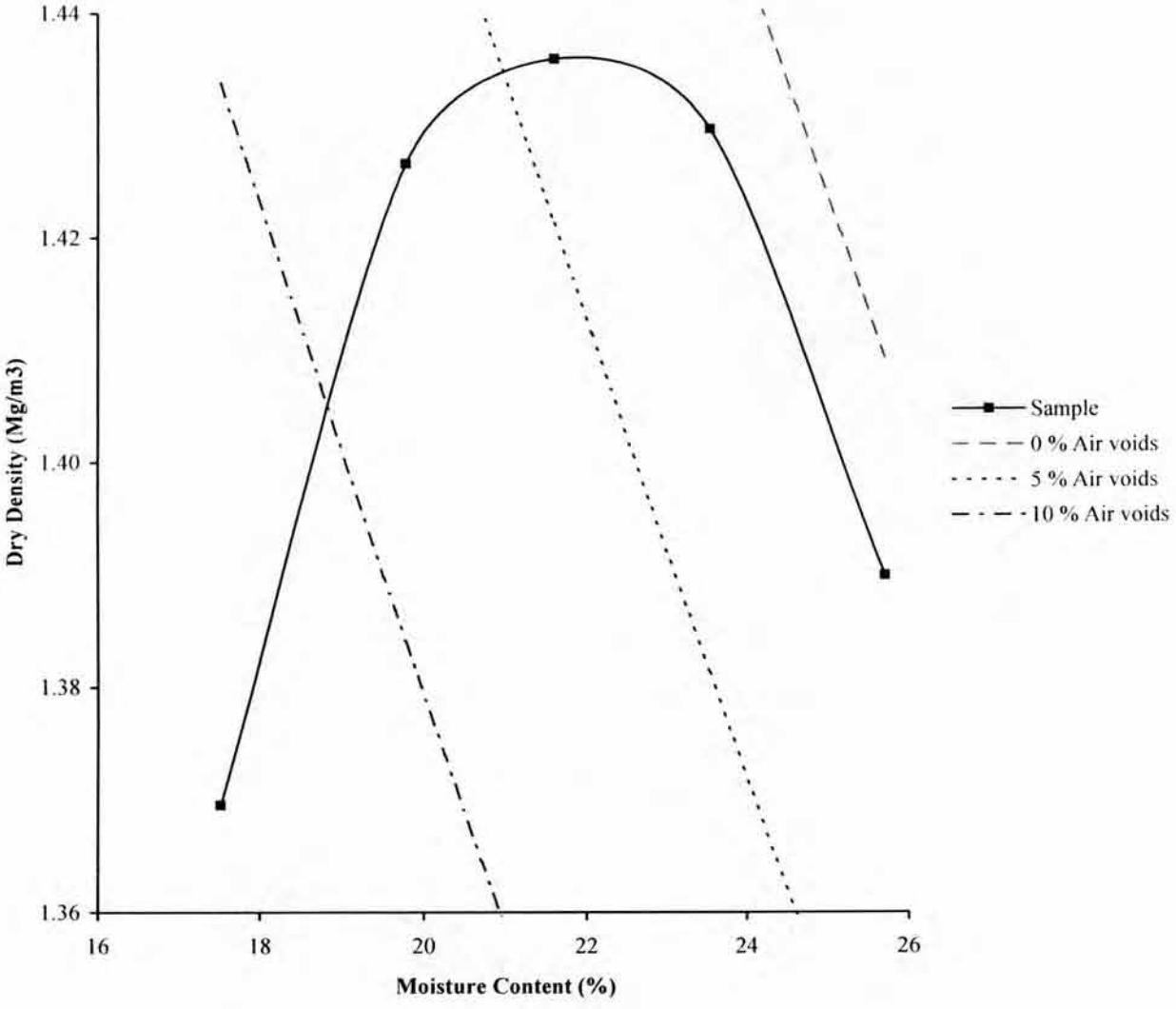
Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Borehole /Sample Number : WS107 **Depth (m) : 0.20-1.00**



Initial Moisture Content:	22	Method of Compaction	2.5Kg / Separate	Sample
Particle Density (Mg/m3):	2.21	Assumed	Material Retained on 37.5 mm Test Sieve (%):	6
Maximum Dry Density (mg/m3):		1.44	Material Retained on 20.0 mm Test Sieve (%):	6
Optimum Moisture Content (%):		21		
Remarks	See Summary of Soil Descriptions.			

Checked By	Date	Approved By	Date
AS Agarwal	2/5/18	AS Agarwal	2/5/18

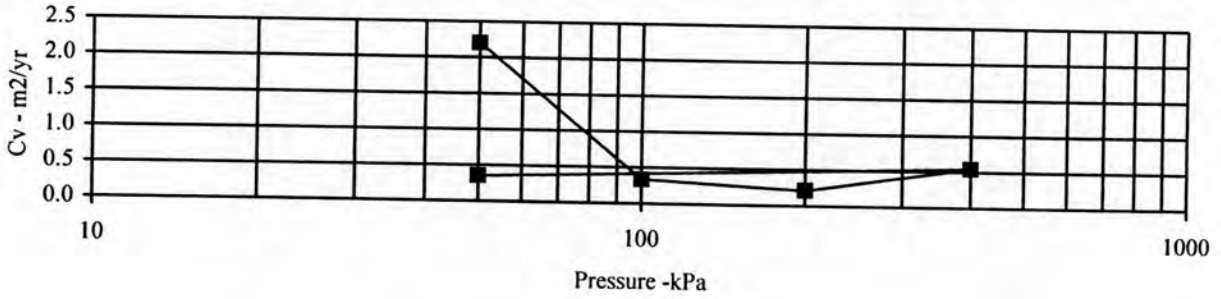
PSL Professional Soils Laboratory	POTTERY LANE, LONGSIGHT.	Contract No. PSL08/0798

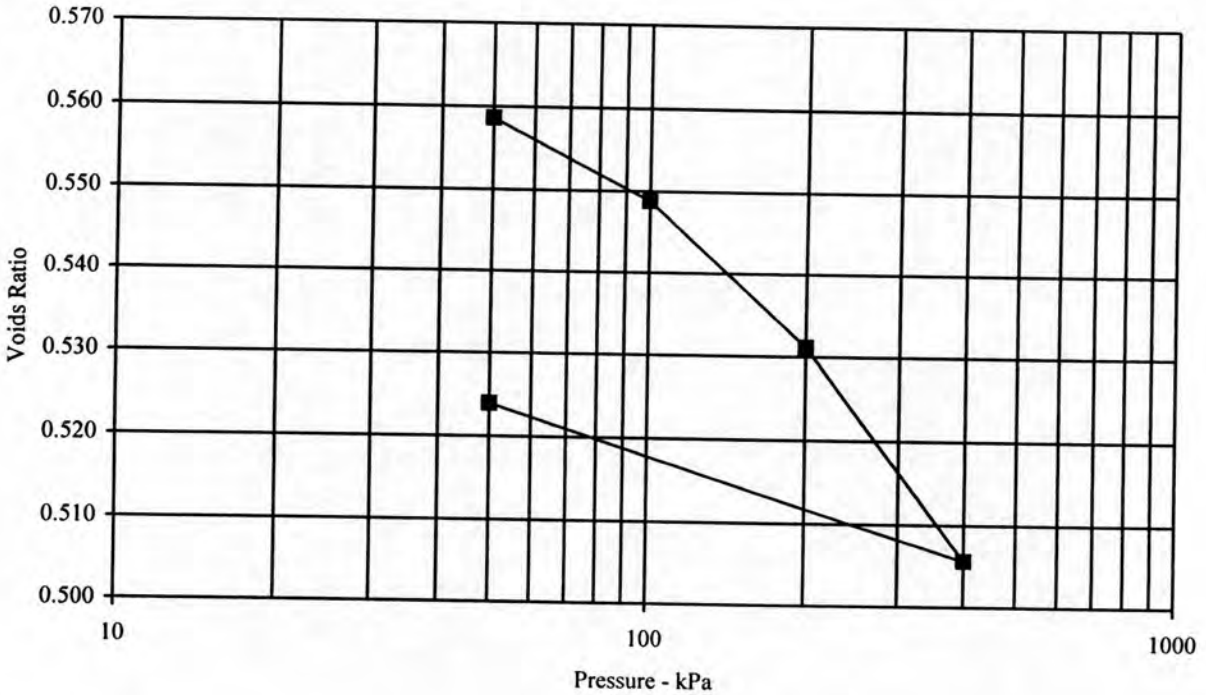
ONE DIMENSIONAL CONSOLIDATION

BS1377: Part 5: 1990

Borehole Number: WS109 Depth (m): 1.70

Initial Conditions		Pressure Range kPa			Mv m2/MN	Cv m2/yr	Specimen location within tube:	Top
Moisture Content (%):	22							
Bulk Density (Mg/m3):	2.07	0	-	50	0.002	2.202	Method used to determine CV:	t90
Dry Density (Mg/m3):	1.70	50	-	100	0.126	0.336		
Voids Ratio:	0.5588	100	-	200	0.114	0.215	Nominal temperature during test ' C:	20
Degree of saturation:	104.3	200	-	400	0.083	0.546		
Height (mm):	19.78	400	-	50	0.035	0.352	Remarks: See summary of soils description.	
Diameter (mm)	75.04							
Particle Density (Mg/m3): Assumed	2.65							





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AFS Rogers 2/5/18

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POTTERY LANE, LONGSIGHT.

Contract No. PSL07/0798

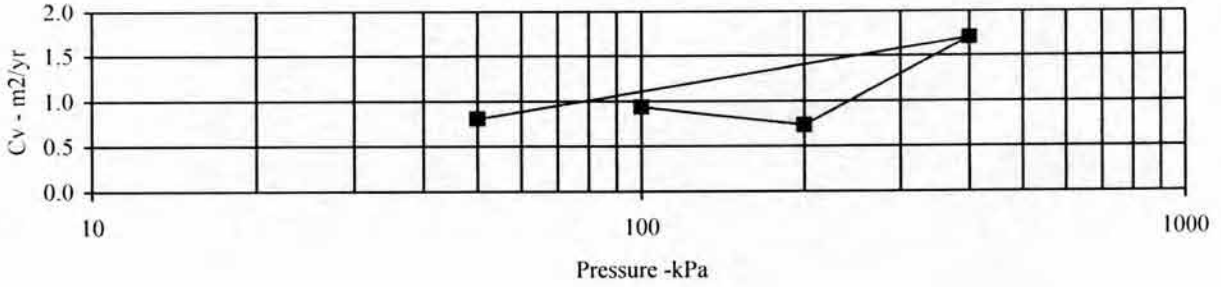
Page of

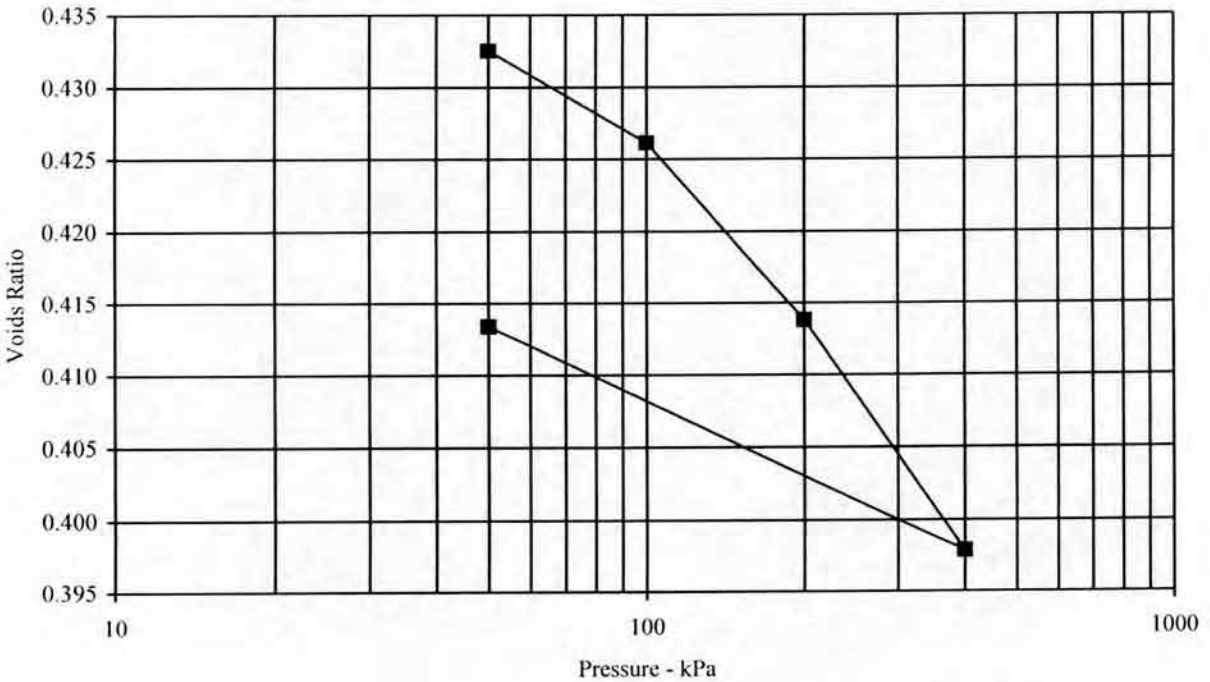
ONE DIMENSIONAL CONSOLIDATION

BS1377: Part 5: 1990

Borehole Number: WS104 Depth (m): 2.70

Initial Conditions		Pressure Range kPa			Mv m2/MN	Cv m2/yr	Specimen location within tube:	Top
Moisture Content (%):	16							
Bulk Density (Mg/m3):	2.15	0	-	50	Swelling	Swelling	Method used to	
Dry Density (Mg/m3):	1.85	50	-	100	0.089	0.935	determine CV:	t90
Voids Ratio:	0.4330	100	-	200	0.087	0.730	Nominal temperature	
Degree of saturation:	99.7	200	-	400	0.056	1.705	during test ' C:	20
Height (mm):	19.96	400	-	50	0.032	0.806	Remarks:	
Diameter (mm)	75.06						See summary of soils description.	
Particle Density (Mg/m3):	2.65							
Assumed								





Checked and Approved By AFS Rogers Date 2/5/18

PSL
Professional Soils Laboratory

POTTERY LANE, LONGSIGHT.

Contract No. PSL07/0798

Page of

Certificate of Analysis

2139

Date: 18/04/2008

Certificate Number: 08-18716

Client: Professional Soils Laboratory Ltd
5/7 Hexthorpe Road
Hexthorpe
DN4 0AR

Our Reference: 08-18716

Client Reference: PSL08/0798

Contract Title: Pottery Lane, Longsight

Description: 6 soil samples

Date Received: 11/04/2008

Date Started: 11/04/2008

Date Completed: 18/04/2008

Test Procedures: Identified by prefix DETSn, details available upon request.

Notes: Observations and interpretations are outside the scope of UKAS accreditation
* denotes test not included in laboratory scope of accreditation
# denotes test that holds MCERT accreditation
$ denotes tests completed by approved subcontractors
I/S denotes insufficient sample to carry out test
N/S denotes that the sample is not suitable for testing
DETSM denotes tests carried out by DETS Midlands laboratory
Solid samples will be disposed 1 month and liquids 2 weeks
after the date of issue of this test certificate

Approved By:



Authorised Signatories: Rob Brown
Business Manager

This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

PSL
Professional Soils Laboratory

LABORATORY REPORT

UKAS TESTING
4043

Contract Number: PSL08/0804

Client's Reference: Report Date: 08 April 2008

Client Name: REC Manchester
Osprey House
Pacific Quay
Broadway
Manchester
M50 2UE

For the attention of: Stuart Roberts

Contract Title: Pottery Lane, Longsight

Date Received: 8-Apr-08
Date Commenced: 8-Apr-08
Date Completed: 8-Apr-08

Notes: **Observations and Interpretations are outside the UKAS Accreditation**

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

Approved Signatories:

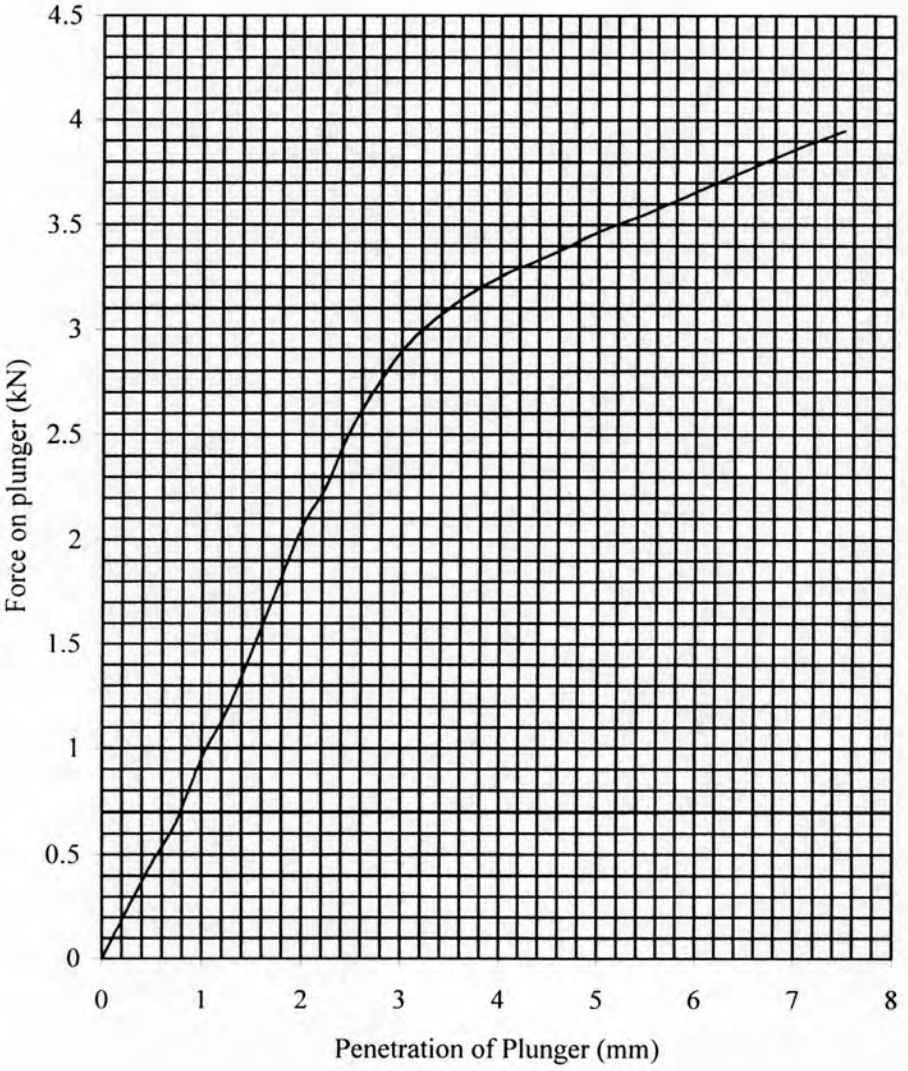
R Gunson (Director)
A Watkins (Director)
D Lambe (Senior Technician)

5 – 7 Hexthorpe Road, Hexthorpe,
Doncaster DN4 0AG
tel: +44 (0)870 240 1964
fax: +44 (0)870 240 1965
e-mail: rgunson@prosoils.co.uk
awatkins@prosoils.co.uk

Insitu California Bearing Ratio Test.

BS 1377 : Part 9 : 1990

Position Number: 1 Depth (m) : 0.20



Initial Sample Conditions		Method of compaction		Insitu Test	C.B.R. Value %	19.2
Test Date	07-Apr-08	Estimated Percentage above 20mm:		Insitu	Moisture Content:	14.2
Remarks:	Grey sandy clayey GRAVEL.					
Required CBR Value:		N/A	Passed /Failed		N/A	

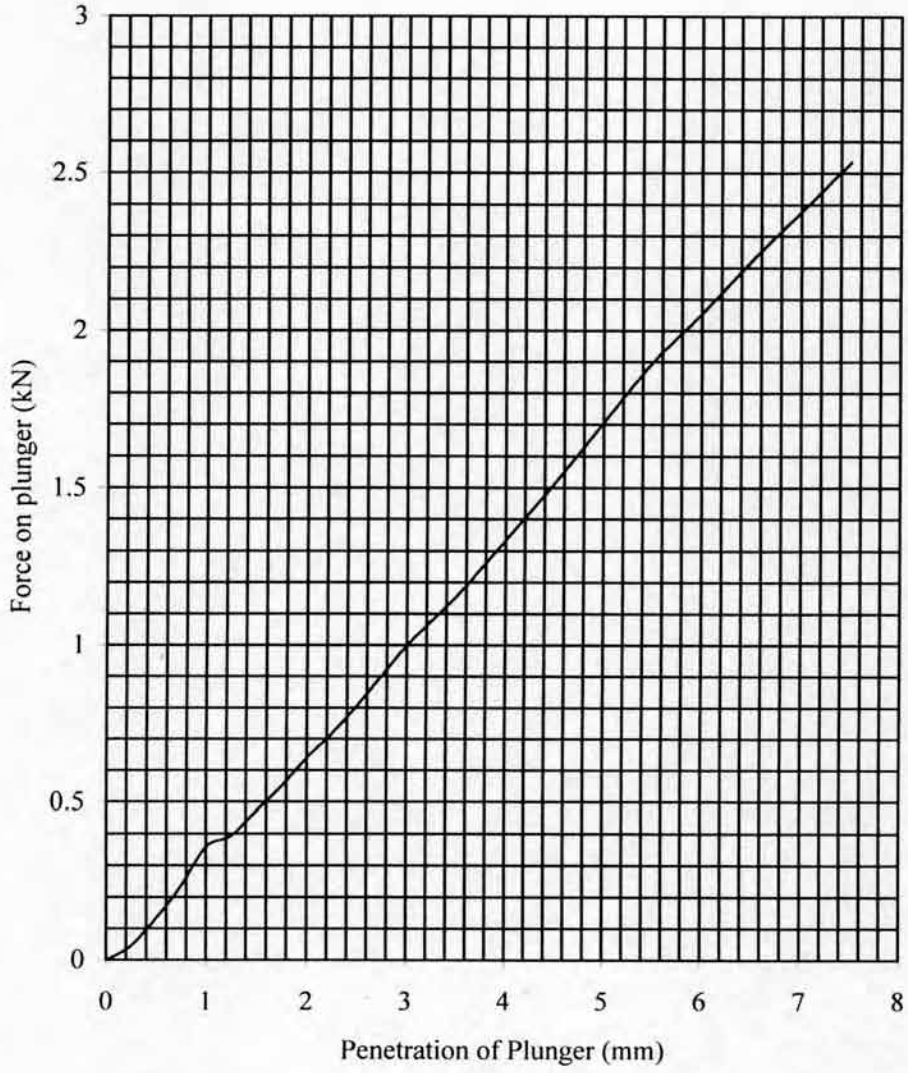
Checked By	Date	Approved By	Date
	8/4/08		8/4/08

PSL Professional Soils Laboratory	POTTERY LANE, LONGSIGHT.	Contract No. PSL08/0804

Insitu California Bearing Ratio Test.

BS 1377 : Part 9 : 1990

Position Number: 2 Depth (m) : 0.20



Initial Sample Conditions		Method of compaction		Insitu Test	C.B.R. Value %	8.5
Test Date	07-Apr-08	Estimated Percentage above 20mm:		Insitu	Moisture Content:	13.5
Remarks:	Grey sandy clayey GRAVEL.					
Required CBR Value:		N/A	Passed /Failed		N/A	

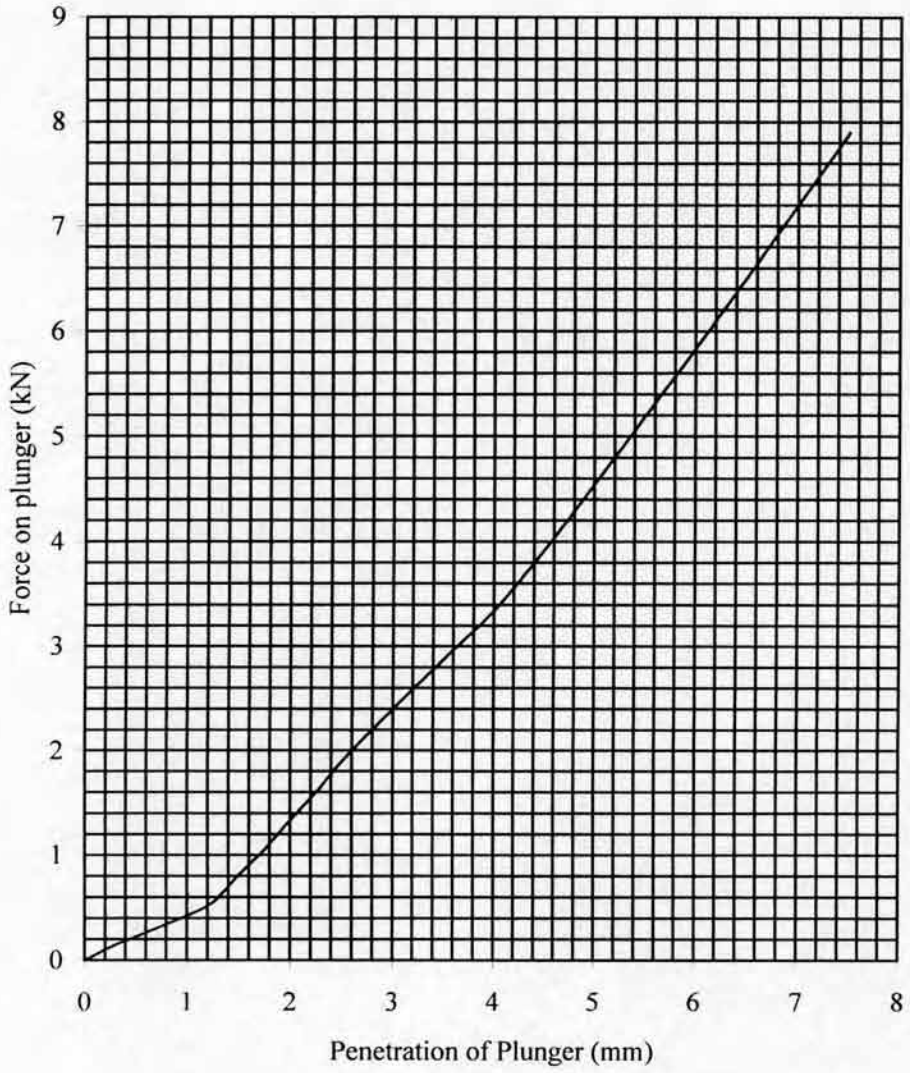
Checked By	Date	Approved By	Date
	8/4/08		8/4/08

PSL Professional Soils Laboratory	POTTERY LANE, LONGSIGHT.	Contract No. PSL08/0804

Insitu California Bearing Ratio Test.

BS 1377 : Part 9 : 1990

Position Number: 3 Depth (m) : 0.20



Initial Sample Conditions		Method of compaction		Insitu Test	C.B.R. Value %	22.7
Test Date	07-Apr-08	Estimated Percentage above 20mm:		Insitu	Moisture Content:	24.4
Remarks:	MADE GROUND brown sandy gravel.					
Required CBR Value:		N/A	Passed /Failed		N/A	

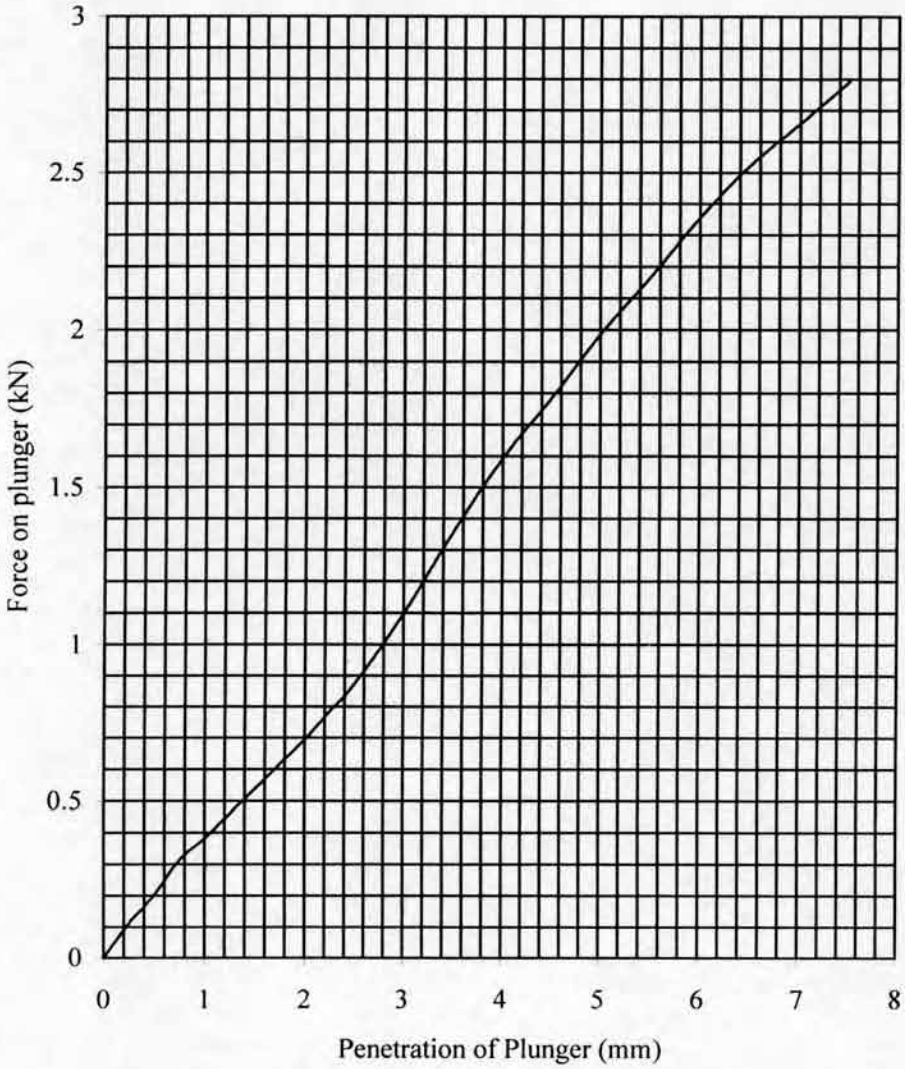
Checked By	Date	Approved By	Date
	8/4/09		8/4/09

PSL Professional Soils Laboratory	POTTERY LANE, LONGSIGHT.	Contract No. PSL08/0804

Insitu California Bearing Ratio Test.

BS 1377 : Part 9 : 1990

Position Number: 4 Depth (m) : 0.20



Initial Sample Conditions		Method of compaction		Insitu Test	C.B.R. Value %	9.9
Test Date	07-Apr-08	Estimated Percentage above 20mm:		Insitu	Moisture Content:	10.4
Remarks:	Grey sandy clayey GRAVEL.					
Required CBR Value:		N/A	Passed /Failed		N/A	

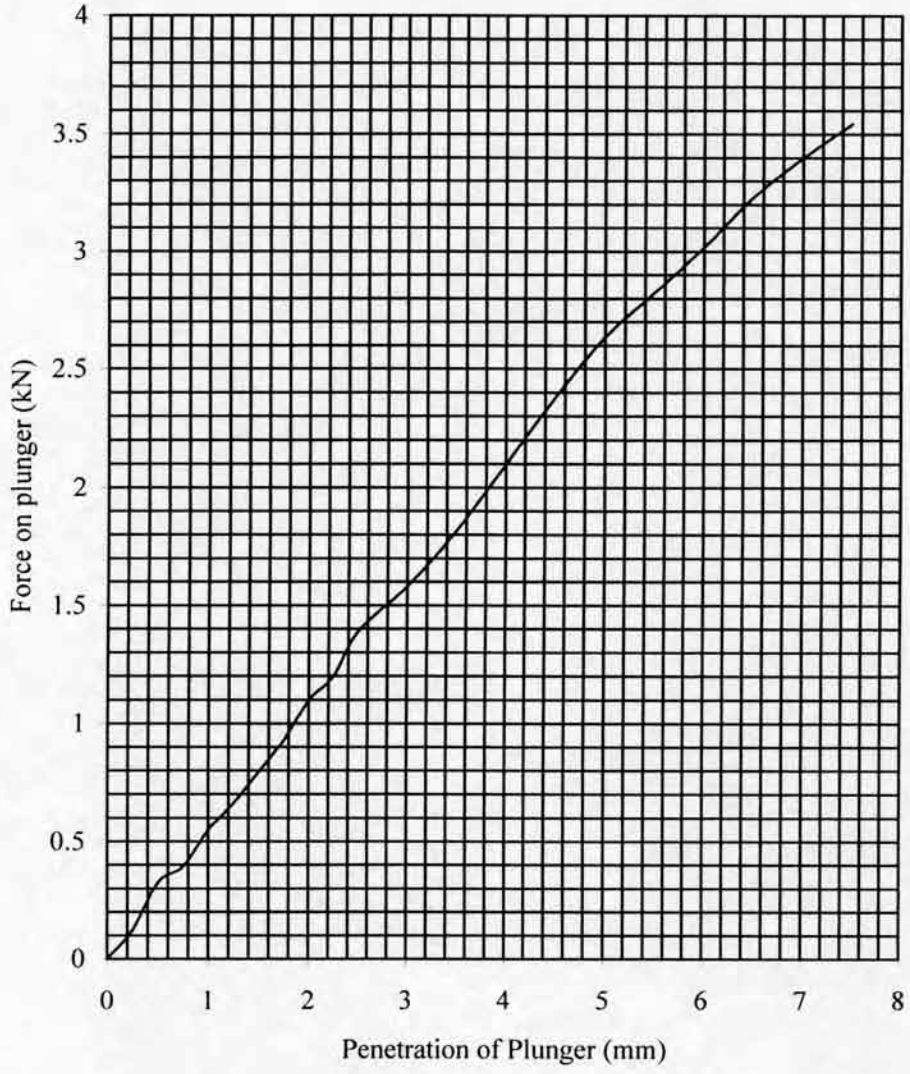
Checked By	Date	Approved By	Date
	8/4/08		8/4/08

PSL Professional Soils Laboratory	POTTERY LANE, LONGSIGHT.	Contract No. PSL08/0804

Insitu California Bearing Ratio Test.

BS 1377 : Part 9 : 1990

Position Number: 5 Depth (m) : 0.20



Initial Sample Conditions		Method of compaction		Insitu Test	C.B.R. Value %	13.2
Test Date	07-Apr-08	Estimated Percentage above 20mm:		Insitu	Moisture Content:	17.6
Remarks:	Brown gravelly slightly clayey SAND.					
Required CBR Value:		N/A	Passed /Failed		N/A	

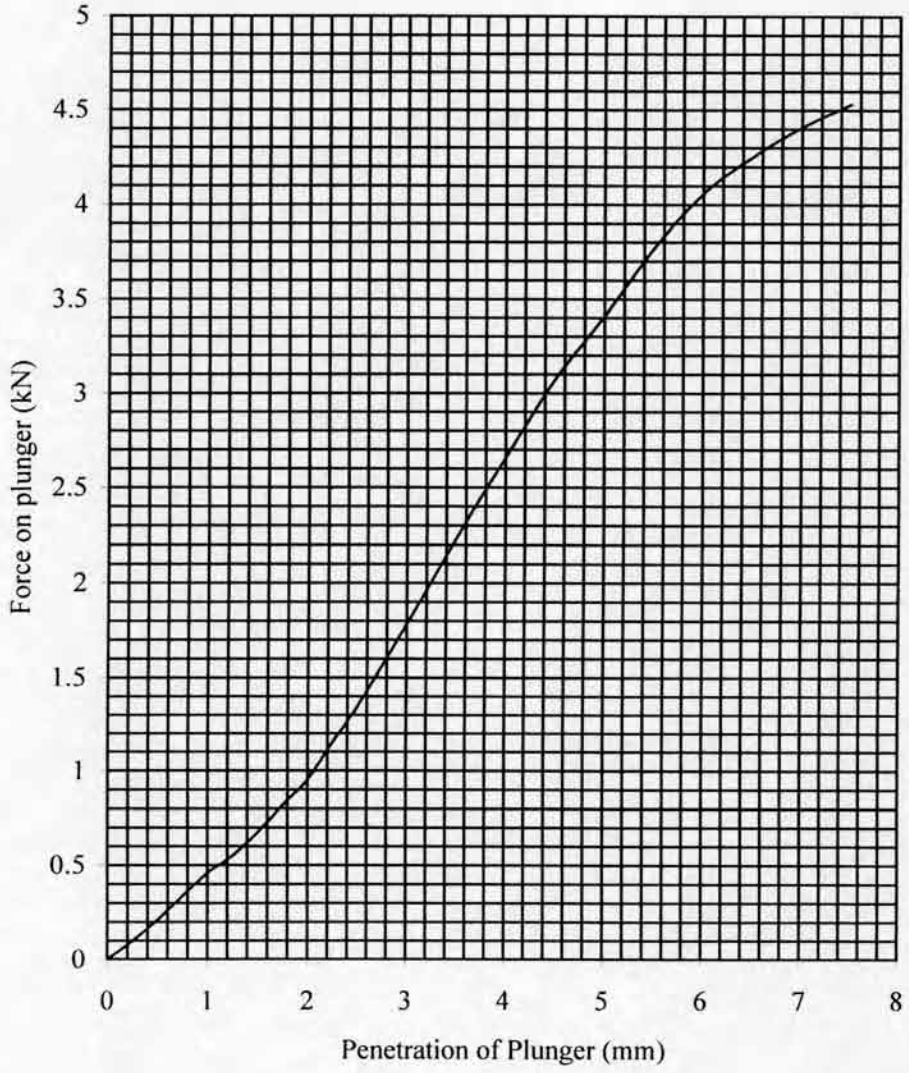
Checked By	Date	Approved By	Date
	8/4/08		8/4/08

PSL Professional Soils Laboratory	POTTERY LANE, LONGSIGHT.	Contract No. PSL08/0804

Insitu California Bearing Ratio Test.

BS 1377 : Part 9 : 1990

Position Number: 6 Depth (m) : 0.20



Initial Sample Conditions		Method of compaction	Insitu Test	C.B.R. Value %	17.1
Test Date	07-Apr-08	Estimated Percentage above 20mm:	Insitu	Moisture Content:	20.0
Remarks:	Brown very sandy slightly clayey GRAVEL.				
Required CBR Value:		N/A	Passed /Failed	N/A	

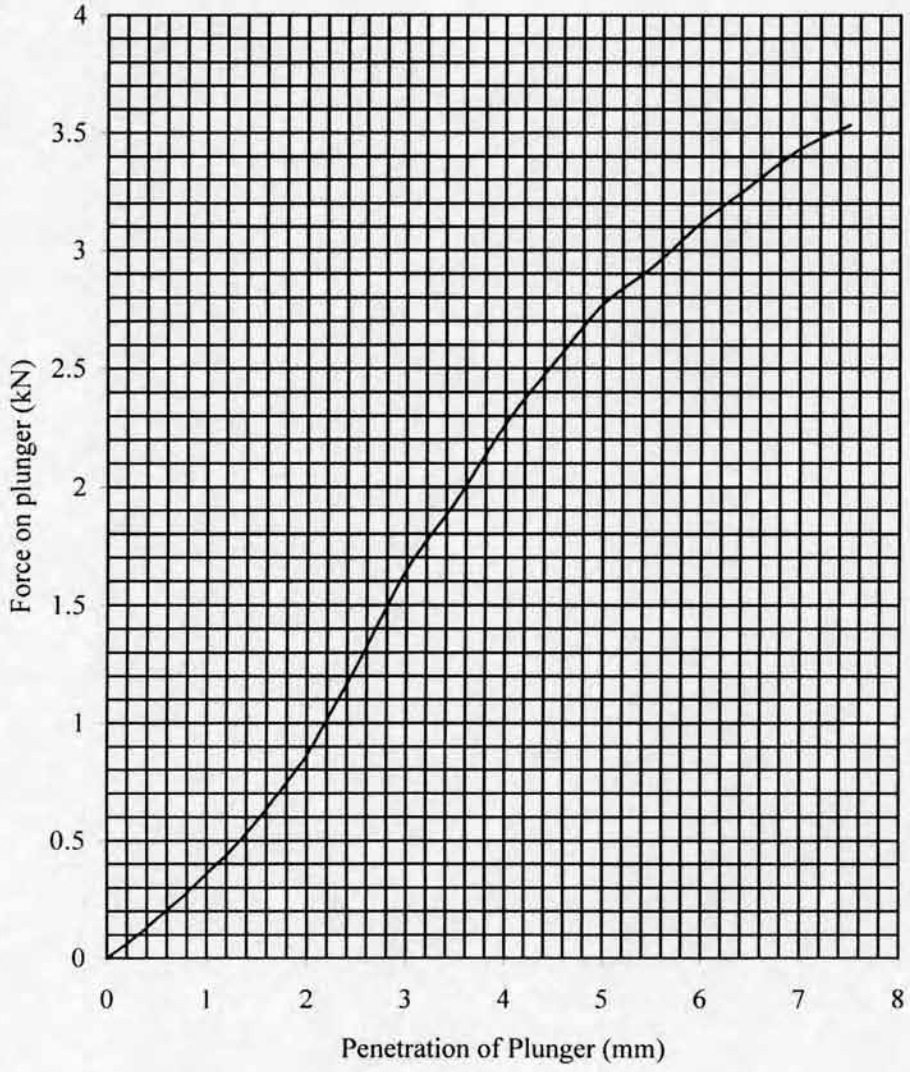
Checked By	Date	Approved By	Date
	8/4/08		8/4/08

PSL Professional Soils Laboratory	**POTTERY LANE, LONGSIGHT.**	**Contract No. PSL08/0804**

Insitu California Bearing Ratio Test.

BS 1377 : Part 9 : 1990

Position Number: 7 Depth (m) : 0.20



Initial Sample Conditions		Method of compaction		Insitu Test	C.B.R. Value %	13.9
Test Date	07-Apr-08	Estimated Percentage above 20mm:		Insitu	Moisture Content:	20.1
Remarks:	Brown very sandy slightly clayey GRAVEL.					
Required CBR Value:		N/A	Passed /Failed		N/A	

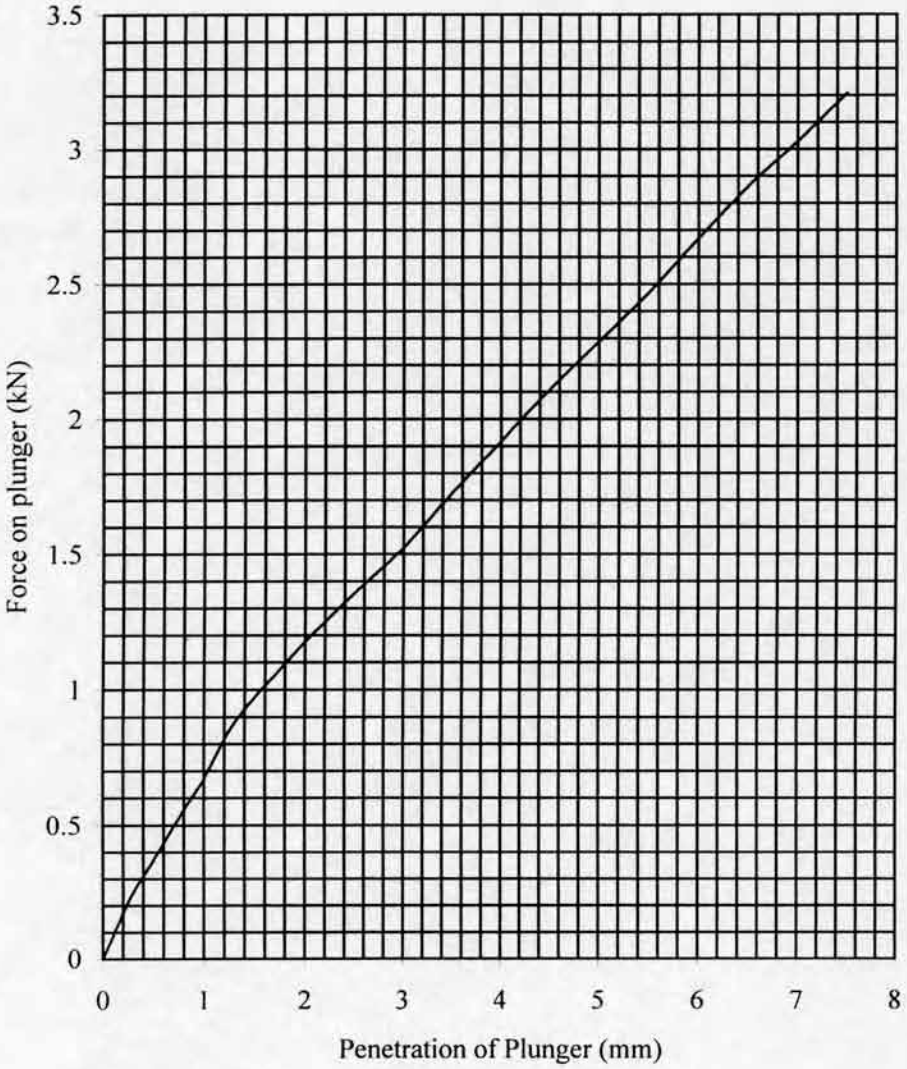
Checked By	Date	Approved By	Date
	8/14/08		8/14/08

PSL Professional Soils Laboratory	POTTERY LANE, LONGSIGHT.	Contract No. PSL08/0804

Insitu California Bearing Ratio Test.

BS 1377 : Part 9 : 1990

Position Number: 8 Depth (m) : 0.20



Initial Sample Conditions		Method of compaction		Insitu Test	C.B.R. Value %	11.4
Test Date	07-Apr-08	Estimated Percentage above 20mm:		Insitu	Moisture Content:	20.8
Remarks:	Brown slightly sandy clayey GRAVEL.				
Required CBR Value:		N/A	Passed /Failed		N/A	

Checked By	Date	Approved By	Date
	8/4/08		8/4/08

PSL Professional Soils Laboratory	**POTTERY LANE, LONGSIGHT.**	**Contract No. PSL08/0804**

APPENDIX V

DERIVATION OF TIER I VALUES

Tier 1 Values for Commercial Development

Arsenic	mg/kg	500	Soil guideline value, DEFRA/Environment Agency
Cadmium	mg/kg	1,400	Soil guideline value, DEFRA/Environment Agency
Chromium	mg/kg	5,000	Soil guideline value, DEFRA/Environment Agency
Lead	mg/kg	750	Soil guideline value, DEFRA/Environment Agency
Mercury	mg/kg	480	Soil guideline value, DEFRA/Environment Agency
Selenium	mg/kg	8,000	Soil guideline value, DEFRA/Environment Agency
Nickel	mg/kg	5,000	Soil guideline value, DEFRA/Environment Agency
Copper	mg/kg	45,700	CIEH Generic Assessment Criteria (GAC) (assuming 5% SOM)
Zinc	mg/kg	188,000	CIEH Generic Assessment Criteria (GAC) (assuming 5% SOM)
Cyanide - Total	mg/kg	250	Lower threshold concentration, Environment Agency Guidance On Disposal Of Contaminated Soil,
Phenols	mg/kg	21,900	Soil guideline value, DEFRA/Environment Agency (assuming 1% SOM)
Total PAHs	mg/kg	40	Dutch Ecotox value RIVM Report 711701 020
Naphthalene	mg/kg	290	Soil guideline value, DEFRA/Environment Agency (assuming 1% SOM)
Benzo(a)Pyrene	mg/kg	29.7	CIEH Generic Assessment Criteria (GAC) (assuming 1% SOM)
Flourene	mg/kg	59,000	CIEH Generic Assessment Criteria (GAC) (assuming 1% SOM)
Dibenzo(a,h) Anthracene	mg/kg	29.7	CIEH Generic Assessment Criteria (GAC) (assuming 1% SOM)
TPH aliphatic C5-C6	mg/kg	95	CIEH Generic Assessment Criteria (GAC) (assuming 1% SOM)
TPH aliphatic C6-C8	mg/kg	242	CIEH Generic Assessment Criteria (GAC) (assuming 1% SOM)
TPH aliphatic C8-C10	mg/kg	66	CIEH Generic Assessment Criteria (GAC) (assuming 1% SOM)
TPH aliphatic C10-C12	mg/kg	29,900	CIEH Generic Assessment Criteria (GAC) (assuming 1% SOM)
TPH aliphatic C12-C16	mg/kg	29,900	CIEH Generic Assessment Criteria (GAC) (assuming 1% SOM)
TPH aliphatic C16-C35	mg/kg	617,000	CIEH Generic Assessment Criteria (GAC) (assuming 1% SOM)
TPH aromatic C6-C7	mg/kg	26.9	CIEH Generic Assessment Criteria (GAC) (assuming 1% SOM)
TPH aromatic C7-C8	mg/kg	30.4	CIEH Generic Assessment Criteria (GAC) (assuming 1% SOM)
TPH aromatic C8-C10	mg/kg	107	CIEH Generic Assessment Criteria (GAC) (assuming 1% SOM)
TPH aromatic C10-C12	mg/kg	625	CIEH Generic Assessment Criteria (GAC) (assuming 1% SOM)
TPH aromatic C12-C16	mg/kg	12,200	CIEH Generic Assessment Criteria (GAC) (assuming 1% SOM)
TPH aromatic	mg/kg	9190	CIEH Generic Assessment Criteria (GAC) (assuming 1% SOM)

C16-C21			
TPH aromatic C21-C35	mg/kg	9250	CIEH Generic Assessment Criteria (GAC) (assuming 1% SOM)
TPH - (C_{10}-C_{35}) Total	mg/kg	1000	It is the professional opinion of REC Ltd that a Tier 1 TPH (C8-C40) standard of 1000mg/kg is a conservative screening level for both human health and controlled waters for all exposure pathways (dermal, inhalation, oral) and a residential end use with plant uptake (most sensitive land use). Any concentrations above this (in soils) would be speciated to allow for the assessment of the risk posed by individual carbon fractions in accordance with the TPHCWG methodology.