



TEST REPORT

Client Earth Environmental & Geotechnical Ltd

Address Houldsworth Mills Business & Arts Centre
Houldsworth Street
Reddish
Stockport
SK5 6DA

Contract A2406 -
Knowsley Street, Cheetham Hill

Job Number MRN 3507/25A
Date of Issue 03 May 2019
Page 1 of 9

Approved Signatories

S J Hutchings, O P Davies

Notes

- 1 All remaining samples and remnants from this contract will be disposed 28 days from the date of this report unless you notify us to the contrary.
- 2 Result certificates, in this report, not bearing a UKAS mark, are not included in our UKAS accreditation schedule.
- 3 Opinions and interpretations expressed herein are outside the scope of our UKAS accreditation
- 4 Certified that the samples have been examined and tested in accordance with the terms of the contract/order and unless otherwise stated conform to the standards/specifications quoted. This does not, however, guarantee the balance of the materials from which the tested samples have been taken to be of equal quality.



33C, Vauxhall Industrial Estate, Greg Street, Reddish, Stockport SK5 7BR Tel: 0161 475 0870 Fax: 0161 475 0871

Email: steve@mtt-uk.com Website: www.murrayrix.com

Also at: London: 020 8523 1999

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MURRAY RIX

33C VAUXHALL INDUSTRIAL ESTATE
GREG STREET, REDDISH, STOCKPORT SK5 7BR
TEL 0161 475 0870 FAX 0161 475 0871

TEST CERTIFICATE

PARTICLE SIZE DISTRIBUTION

BS 1377: PART 2: Clause 9.5: 1990

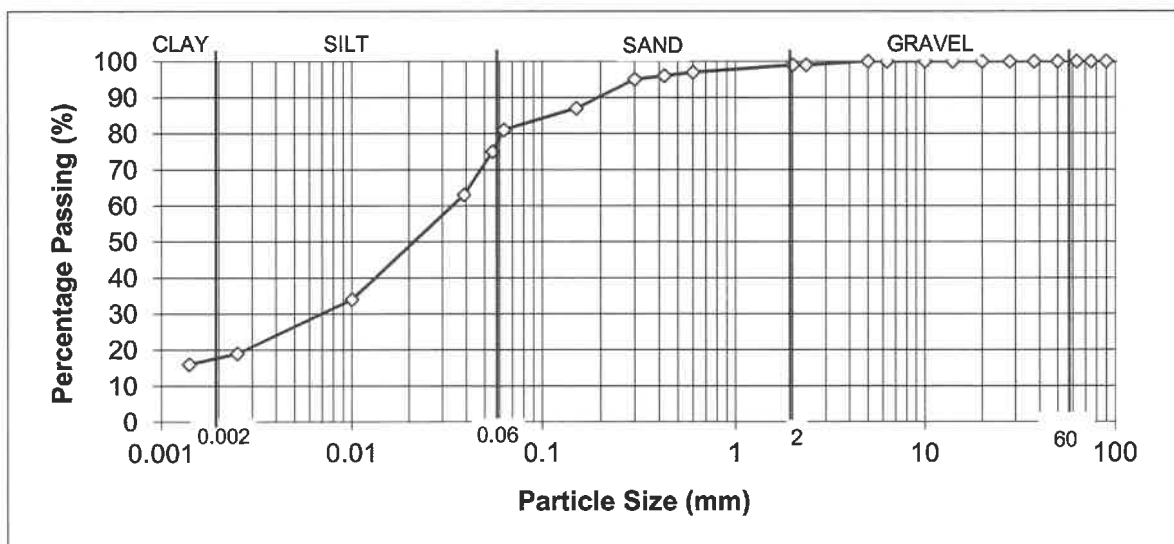
Determination of Moisture Content in accordance with BS 1377: PART 2: Clause 3: 1990 (Oven Dry)

CLIENT	Earth Environmental & Geotechnical Ltd
SITE	A2406 - Knowsley Street, Cheetham Hill
JOB NUMBER	MRN 3507/25A

SAMPLE LABEL	WS01 1.70-2.00m	DATE SAMPLED	12-Apr-19
LAB SAMPLE No	82942	DATE RECEIVED	17-Apr-19
DATE TESTED	18-Apr-19	SAMPLED BY	Client

MATERIAL	Stiff brown silty sandy CLAY
ADVISED SOURCE	Site Investigation Sample

Sieve Size (mm)	% Passing (%)	Specification (%)	Sieve Size (mm)	% Passing (%)	Specification (%)
125	100		2.36	99	
90	100		2	99	
75	100		0.6	97	
63	100		0.425	96	
50	100		0.3	95	
37.5	100		0.15	87	
28	100		0.063	81	
20	100		0.055	75	
14	100		0.039	63	
10	100		0.01	34	
6.3	100		0.0025	19	
5	100		0.0014	16	



REMARKS

As received moisture content = 17%

SIGNED

NAME O.P. Davies BA (Hons)
(Laboratory Manager)

DATE 03-May-19

MURRAY RIX

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TEST CERTIFICATE

LIQUID AND PLASTIC LIMIT

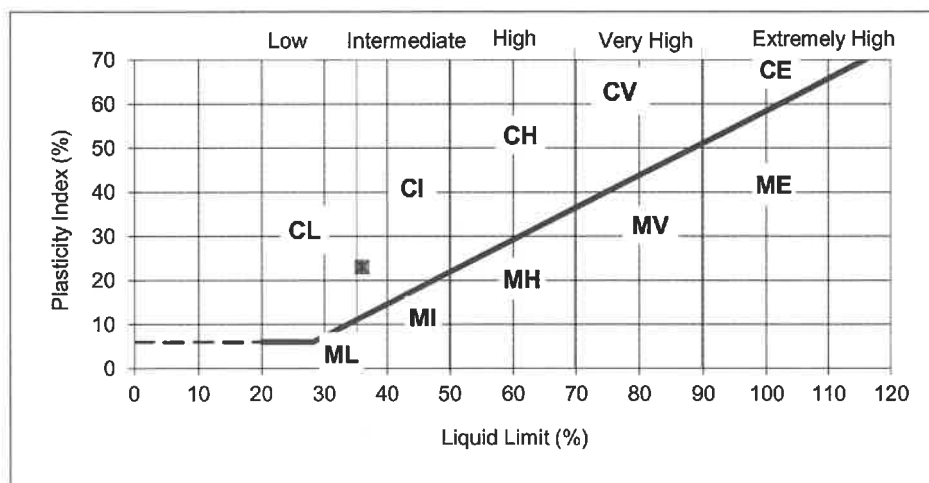
BS 1377: PART 2: 1990 Clause 4.4 ONE POINT METHOD & Clause 5.3
MOISTURE CONTENT METHOD BS 1377: PART 2: 1990 Clause 3.2

CLIENT	Earth Environmental & Geotechnical Ltd
SITE	A2406 - Knowsley Street, Cheetham Hill
JOB NUMBER	MRN 3507/25A

SAMPLE LABEL	WS01 1.70-2.00m	DATE SAMPLED	12-Apr-19
SAMPLE No.	82942	DATE RECEIVED	17-Apr-19
DATE TESTED	18-Apr-19	SAMPLED BY	Client

MATERIAL	Stiff brown silty sandy CLAY
ADVISED SOURCE	Site Investigation Sample

Moisture Content (Natural) (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Passing 425 micron (%)
17	36	13	23	96



REMARKS

Sample tested in natural condition

SIGNED

NAME

Page 3 of 9

O.P. Davies BA (Hons)
(Laboratory Manager)

DATE

03-May-19

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TEST CERTIFICATE

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION BS 1377: PART 7: 1990:CLAUSE 8 SINGLE STAGE

CLIENT	Earth Environmental & Geotechnical Ltd
SITE	A2406 – Knowsley Street, Cheetham Hill
JOB NUMBER	MRN 3507/25A

SAMPLE LABEL	WS01 1.70-2.00m	DATE SAMPLED	12 April 2019
LAB SAMPLE No	82942	DATE RECEIVED	17 April 2019
DATE TESTED	18 April 2019	SAMPLED BY	Client

MATERIAL	Stiff brown silty sandy CLAY
ADVISED SOURCE	Site Investigation sample

SPECIMEN LENGTH	168	mm
SPECIMEN DIAMETER	84	mm
MOISTURE CONTENT OF SAMPLE	16	%
BULK DENSITY	2.16	Mg/m ³
DRY DENSITY	1.86	Mg/m ³
DEPTH OF TOP OF SPECIMEN	1.75	m
RATE OF STRAIN	2	%/min
RUBBER MEMBRANE THICKNESS	0.6	mm

SPECIMEN AT FAILURE



Measured Cell Pressure (kPa)	Strain at Failure (%)	Membrane Correction (kPa)	Corrected Max Deviator Stress (kPa)	Shear Stress Cu (kPa)
40	19	2.0	260.4	130

REMARKS

SIGNED

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(Laboratory Manager)

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TEST CERTIFICATE

pH and Sulphate as SO₄
BS 1377: PART 3: 1990

CLIENT	Earth Environmental & Geotechnical Ltd
SITE	A2406 – Knowsley Street, Cheetham Hill
JOB NUMBER	MRN 3507/25A

SAMPLE LABEL	WS01 1.70-2.00m	DATE SAMPLED	12 April 2019
LAB SAMPLE No	82942	DATE RECEIVED	17 April 2019
DATE TESTED	18 April 2019	SAMPLED BY	Client

ADVISED SOURCE	Site Investigation Sample
PRE TREATMENT	Air Dried

PH Value	7.0	g/l
Sulphate as SO ₄ (2:1 Water Extract)	0.29	

REMARKS

SIGNED



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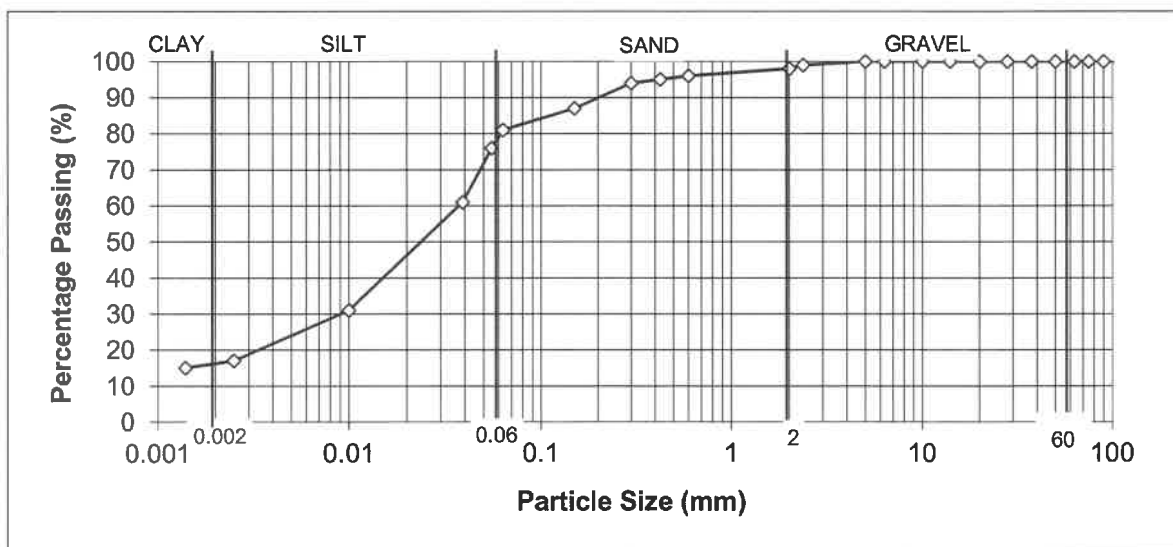
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CLIENT	Earth Environmental & Geotechnical Ltd		
SITE	A2406 - Knowsley Street, Cheetham Hill		
JOB NUMBER	MRN 3507/25A		

SAMPLE LABEL	WS04 2.70-3.00m	DATE SAMPLED	12-Apr-19
LAB SAMPLE No	82945	DATE RECEIVED	17-Apr-19
DATE TESTED	18-Apr-19	SAMPLED BY	Client

MATERIAL	Stiff brown silty sandy CLAY
ADVISED SOURCE	Site Investigation Sample

Sieve Size (mm)	% Passing (%)	Specification (%)	Sieve Size (mm)	% Passing (%)	Specification (%)
125	100		2.36	99	
90	100		2	98	
75	100		0.6	96	
63	100		0.425	95	
50	100		0.3	94	
37.5	100		0.15	87	
28	100		0.063	81	
20	100		0.055	76	
14	100		0.039	61	
10	100		0.01	31	
6.3	100		0.0025	17	
5	100		0.0014	15	



REMARKS

As received moisture content = 16%

SIGNED

NAME

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(Laboratory Manager)

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LIQUID AND PLASTIC LIMIT

BS 1377: PART 2: 1990 Clause 4.4 ONE POINT METHOD & Clause 5.3

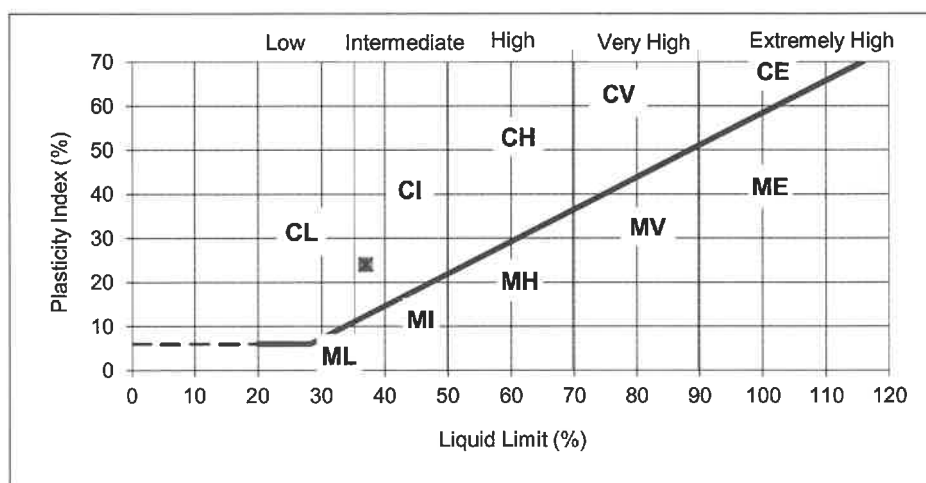
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ADVISED SOURCE	Site Investigation Sample

Moisture Content (Natural) (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Passing 425 micron (%)
16	37	13	24	95



REMARKS

Sample tested in natural condition

SIGNED

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DATE TESTED	18 April 2019	SAMPLED BY	Client

MATERIAL	Stiff brown silty sandy CLAY
ADVISED SOURCE	Site Investigation sample

SPECIMEN LENGTH	150	mm
SPECIMEN DIAMETER	74	mm
MOISTURE CONTENT OF SAMPLE	17	%
BULK DENSITY	2.18	Mg/m ³
DRY DENSITY	1.86	Mg/m ³
DEPTH OF TOP OF SPECIMEN	2.80	m
RATE OF STRAIN	2	%/min
RUBBER MEMBRANE THICKNESS	0.6	mm

SPECIMEN AT
FAILURE



Measured Cell Pressure (kPa)	Strain at Failure (%)	Membrane Correction (kPa)	Corrected Max Deviator Stress (kPa)	Shear Stress Cu (kPa)
60	17	2.0	251.8	126

REMARKS

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ADVISED SOURCE	Site Investigation Sample
PRE TREATMENT	Air Dried

PH Value	6.9	g/l
Sulphate as SO ₄ (2:1 Water Extract)	0.34	

REMARKS

SIGNED



NAME O.P. Davies BA (Hons)
(Laboratory Manager)

DATE 03 May 2019