

MURRAY RIX
CONSULTANCY, SITE INVESTIGATION
CONSTRUCTION MATERIALS TESTING
TEST REPORT



Client ADM Regeneration Ltd

Address Tanyard Court
88c Rushgreen Road
Lymm
WA13 9PR

Contract Wrexham

Job Number MRN 2420
Date of Issue 30 July 2014
Page 1 of 10

Approved Signatory

S J Hutchings, A W Hutchings, A Richardson

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.



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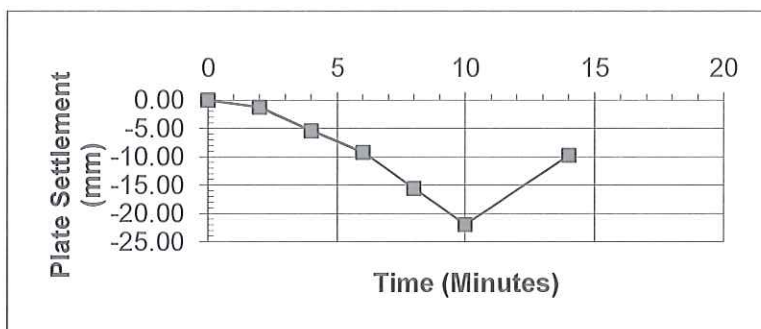
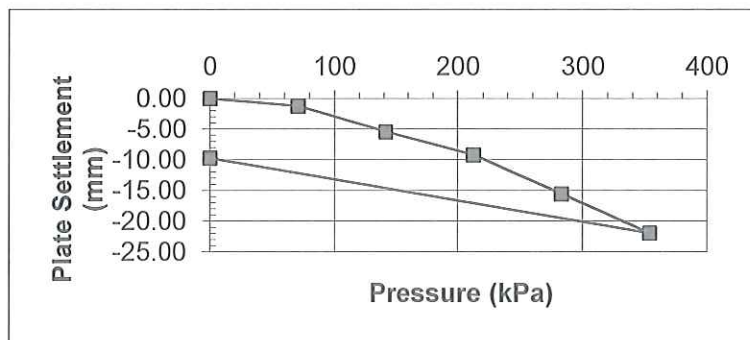
TEST CERTIFICATE

PLATE INCREMENTAL LOAD TEST

BS 1377 : PART 9 : CL 4.1 and IAN 73/06 Rev 1 (2009)

CLIENT	ADM Regeneration Ltd		
SITE	Glan Gors, Wrexham		
JOB NUMBER	MRN 2420		
TEST LOCATION	P1	LOADING DEVICE	10 Tonne Enerpac Jack
TEST DATE	25-Jul-14	PLATE SIZE (mm)	300 diameter
TEST DEPTH	Surface	REACTION LOAD USED	Site Plant
MATERIAL UNDER TEST	Stone	MOISTURE CONTENT	Not required

Dial Gauge 1 (mmx100)	Dial Gauge 2 (mmx100)	Dial Gauge 3 (mmx100)	Mean Gauge (mmx100)	Mean Deflection (mm)	Load (kN)	Pressure (kPa)
4310	4518	4520	4449	0.00	0.00	0.0
4211	4382	4382	4325	-1.24	5.00	70.7
3785	3965	3976	3909	-5.41	10.00	141.5
3404	3582	3609	3532	-9.18	15.00	212.2
2714	3008	2959	2894	-15.56	20.00	282.9
2092	2297	2376	2255	-21.94	25.00	353.7
3081	3678	3672	3477	-9.72	0.00	0.0



Pressure at 1.25 mm deflexion =	72 kPa
Modulus of subgrade reaction (k) =	58 MPa/m
Equivalent 762 mm plate reaction =	26 MPa/m
Equivalent CBR =	2.8 %

REMARKS

SIGNED

NAME A Richardson (Deputy Laboratory Manager)

DATE

30-Jul-14

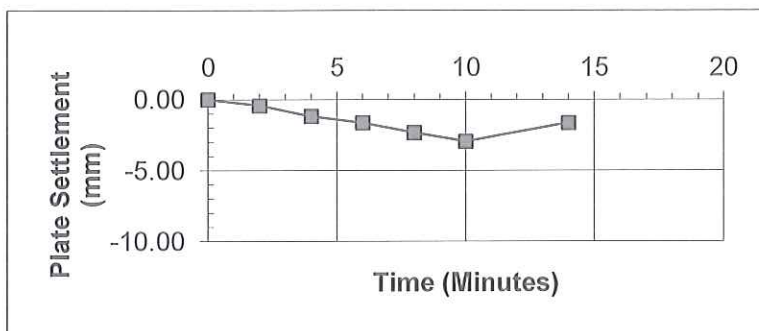
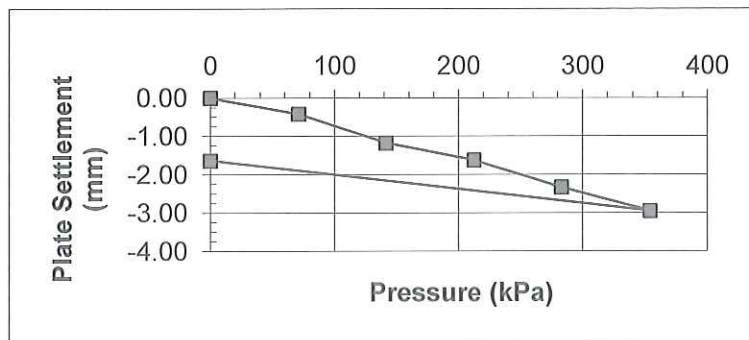
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TEST CERTIFICATE
PLATE INCREMENTAL LOAD TEST
 BS 1377 : PART 9 : CL 4.1 and IAN 73/06 Rev 1 (2009)

CLIENT	ADM Regeneration Ltd				
SITE	Glan Gors, Wrexham				
JOB NUMBER	MRN 2420				
TEST LOCATION	P2	LOADING DEVICE	10 Tonne Enerpac Jack		
TEST DATE	25-Jul-14	PLATE SIZE (mm)	300 diameter		
TEST DEPTH	Surface	REACTION LOAD USED	Site Plant		
MATERIAL UNDER TEST	Crush	MOISTURE CONTENT	Not required		

Dial Gauge 1 (mmx100)	Dial Gauge 2 (mmx100)	Dial Gauge 3 (mmx100)	Mean Gauge (mmx100)	Mean Deflection (mm)	Load (kN)	Pressure (kPa)
4600	4578	4702	4627	0.00	0.00	0.0
4561	4538	4655	4585	-0.42	5.00	70.7
4482	4462	4583	4509	-1.18	10.00	141.5
4436	4418	4539	4464	-1.62	15.00	212.2
4365	4346	4469	4393	-2.33	20.00	282.9
4303	4284	4409	4332	-2.95	25.00	353.7
4422	4410	4557	4463	-1.64	0.00	0.0



Pressure at 1.25 mm deflexion =	152 kPa
Modulus of subgrade reaction (k) =	122 MPa/m
Equivalent 762 mm plate reaction =	56 MPa/m
Equivalent CBR =	10.2 %

REMARKS

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NAME A Richardson (Deputy Laboratory Manager)

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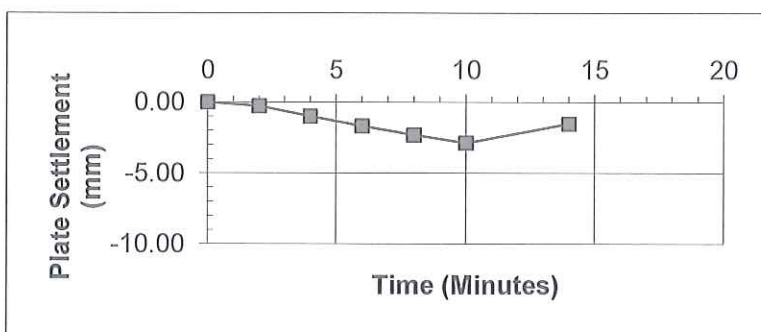
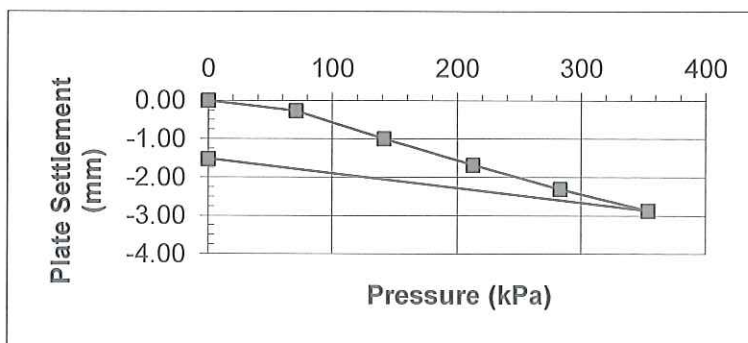
30-Jul-14



TEST CERTIFICATE
PLATE INCREMENTAL LOAD TEST
 BS 1377 : PART 9 : CL 4.1 and IAN 73/06 Rev 1 (2009)

CLIENT	ADM Regeneration Ltd		
SITE	Glan Gors, Wrexham		
JOB NUMBER	MRN 2420		
TEST LOCATION	P3	LOADING DEVICE	10 Tonne Enerpac Jack
TEST DATE	25-Jul-14	PLATE SIZE (mm)	300 diameter
TEST DEPTH	Surface	REACTION LOAD USED	Site Plant
MATERIAL UNDER TEST	Stone	MOISTURE CONTENT	Not required

Dial Gauge 1 (mmx100)	Dial Gauge 2 (mmx100)	Dial Gauge 3 (mmx100)	Mean Gauge (mmx100)	Mean Deflection (mm)	Load (kN)	Pressure (kPa)
4486	4576	4649	4570	0.00	0.00	0.0
4469	4550	4612	4544	-0.27	5.00	70.7
4392	4480	4540	4471	-1.00	10.00	141.5
4322	4414	4472	4403	-1.68	15.00	212.2
4258	4349	4412	4340	-2.31	20.00	282.9
4202	4292	4356	4283	-2.87	25.00	353.7
4303	4436	4516	4418	-1.52	0.00	0.0



Pressure at 1.25 mm deflexion =	168 kPa
Modulus of subgrade reaction (k) =	134 MPa/m
Equivalent 762 mm plate reaction =	61 MPa/m
Equivalent CBR =	12.1 %

REMARKS

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NAME A Richardson (Deputy Laboratory Manager)

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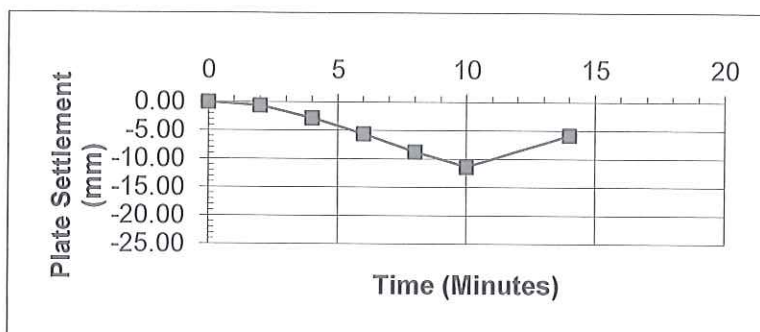
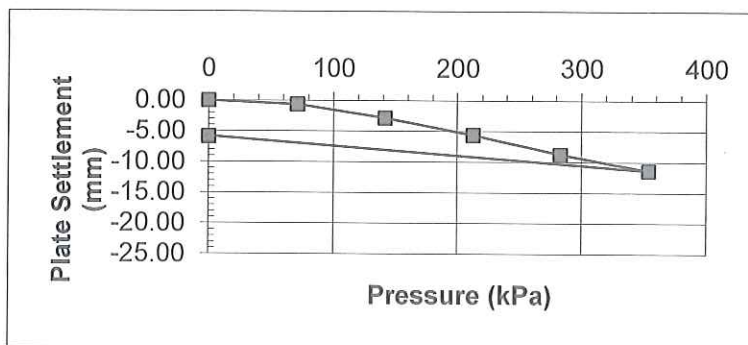
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PLATE INCREMENTAL LOAD TEST

BS 1377 : PART 9 : CL 4.1 and IAN 73/06 Rev 1 (2009)

CLIENT	ADM Regeneration Ltd		
SITE	Glan Gors, Wrexham		
JOB NUMBER	MRN 2420		
TEST LOCATION	P4	LOADING DEVICE	10 Tonne Enerpac Jack
TEST DATE	25-Jul-14	PLATE SIZE (mm)	300 diameter
TEST DEPTH	Surface	REACTION LOAD USED	Site Plant
MATERIAL UNDER TEST	Stone	MOISTURE CONTENT	Not required

Dial Gauge 1 (mmx100)	Dial Gauge 2 (mmx100)	Dial Gauge 3 (mmx100)	Mean Gauge (mmx100)	Mean Deflection (mm)	Load (kN)	Pressure (kPa)
4451	4569	4552	4524	0.00	0.00	0.0
4402	4503	4479	4461	-0.63	5.00	70.7
4184	4271	4269	4241	-2.83	10.00	141.5
3915	3980	3999	3965	-5.59	15.00	212.2
3598	3652	3692	3647	-8.77	20.00	282.9
3305	3443	3408	3385	-11.39	25.00	353.7
3846	3949	4028	3941	-5.83	0.00	0.0



Pressure at 1.25 mm deflexion =	92 kPa
Modulus of subgrade reaction (k) =	74 MPa/m
Equivalent 762 mm plate reaction =	34 MPa/m
Equivalent CBR =	4.3 %

REMARKS

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NAME A Richardson (Deputy Laboratory Manager)

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30-Jul-14

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MURRAY RIX

33C VAUXHALL INDUSTRIAL ESTATE, GREG STREET
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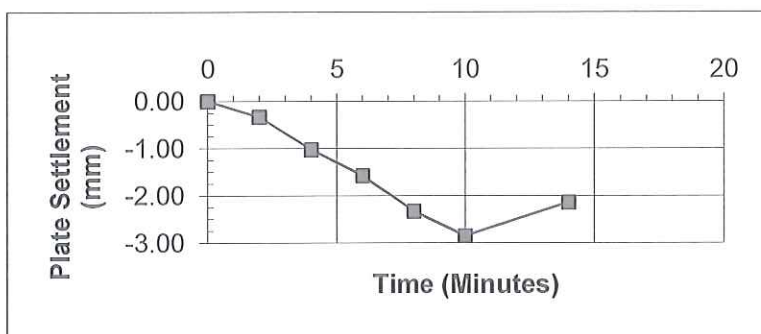
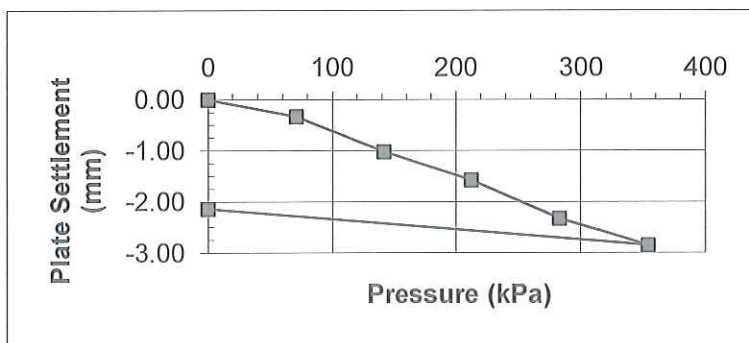
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PLATE INCREMENTAL LOAD TEST

BS 1377 : PART 9 : CL 4.1 and IAN 73/06 Rev 1 (2009)

CLIENT	ADM Regeneration Ltd		
SITE	Glan Gors, Wrexham		
JOB NUMBER	MRN 2420		
TEST LOCATION	1	LOADING DEVICE	10 Tonne Enerpac Jack
TEST DATE	25-Jul-14	PLATE SIZE (mm)	300 diameter
TEST DEPTH	Surface	REACTION LOAD USED	Site Plant
MATERIAL UNDER TEST	Stone	MOISTURE CONTENT	Not required

Dial Gauge 1 (mmx100)	Dial Gauge 2 (mmx100)	Dial Gauge 3 (mmx100)	Mean Gauge (mmx100)	Mean Deflection (mm)	Load (kN)	Pressure (kPa)
4366	4461	4685	4504	0.00	0.00	0.0
4316	4429	4667	4471	-0.33	5.00	70.7
4234	4354	4618	4402	-1.02	10.00	141.5
4172	4295	4573	4347	-1.57	15.00	212.2
4091	4215	4508	4271	-2.33	20.00	282.9
4035	4159	4463	4219	-2.85	25.00	353.7
4079	4239	4552	4290	-2.14	0.00	0.0



Pressure at 1.25 mm deflexion =	172 kPa
Modulus of subgrade reaction (k) =	138 MPa/m
Equivalent 762 mm plate reaction =	63 MPa/m
Equivalent CBR =	12.6 %

REMARKS

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NAME A Richardson (Deputy Laboratory Manager)

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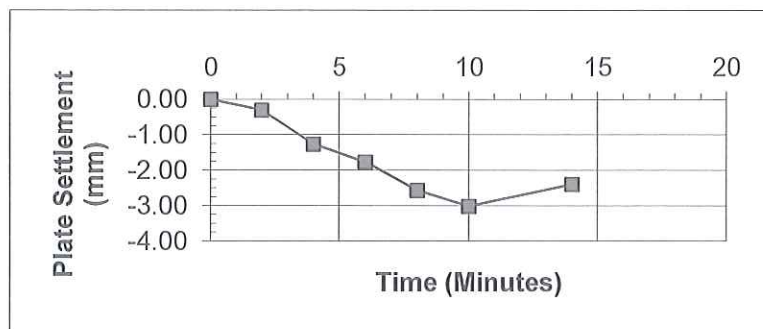
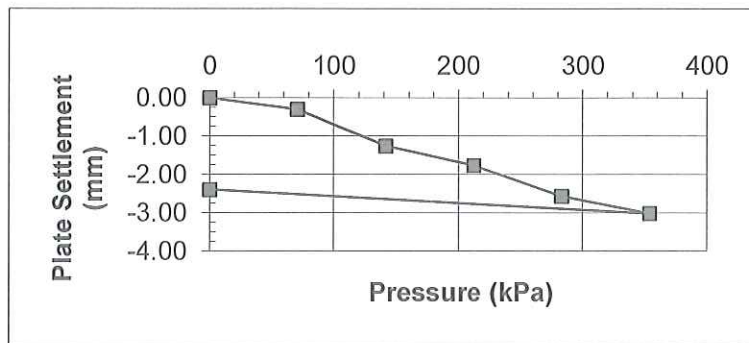
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TEST CERTIFICATE
PLATE INCREMENTAL LOAD TEST
 BS 1377 : PART 9 : CL 4.1 and IAN 73/06 Rev 1 (2009)

CLIENT	ADM Regeneration Ltd		
SITE	Glan Gors, Wrexham		
JOB NUMBER	MRN 2420		
TEST LOCATION	4	LOADING DEVICE	10 Tonne Enerpac Jack
TEST DATE	25-Jul-14	PLATE SIZE (mm)	300 diameter
TEST DEPTH	Surface	REACTION LOAD USED	Site Plant
MATERIAL UNDER TEST	Stone	MOISTURE CONTENT	Not required

Dial Gauge 1 (mmx100)	Dial Gauge 2 (mmx100)	Dial Gauge 3 (mmx100)	Mean Gauge (mmx100)	Mean Deflection (mm)	Load (kN)	Pressure (kPa)
4595	4577	4534	4569	0.00	0.00	0.0
4585	4549	4481	4538	-0.30	5.00	70.7
4503	4452	4373	4443	-1.26	10.00	141.5
4458	4398	4320	4392	-1.77	15.00	212.2
4395	4310	4231	4312	-2.57	20.00	282.9
4357	4262	4182	4267	-3.02	25.00	353.7
4409	4325	4253	4329	-2.40	0.00	0.0



Pressure at 1.25 mm deflexion =	140 kPa
Modulus of subgrade reaction (k) =	112 MPa/m
Equivalent 762 mm plate reaction =	51 MPa/m
Equivalent CBR =	8.8 %

REMARKS

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NAME A Richardson (Deputy Laboratory Manager)

DATE

30-Jul-14



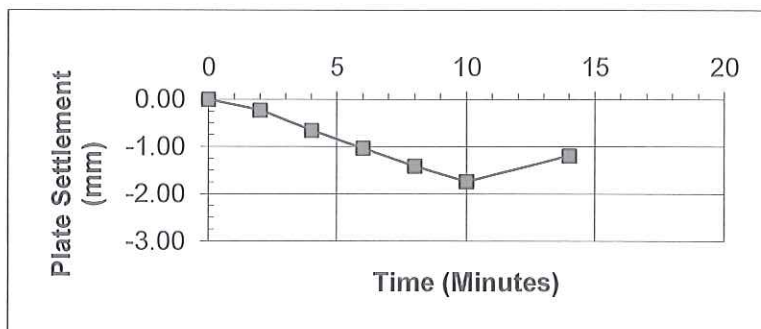
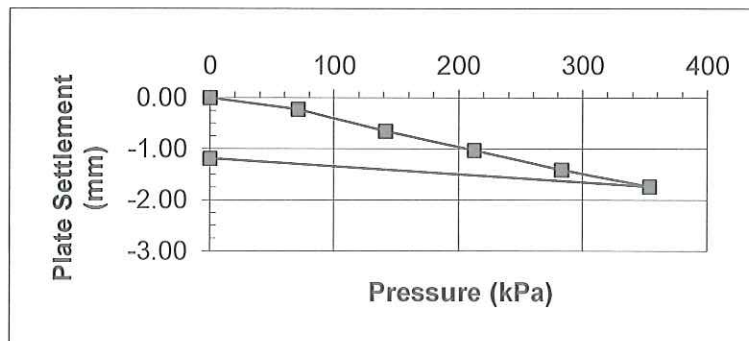
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PLATE INCREMENTAL LOAD TEST

BS 1377 : PART 9 : CL 4.1 and IAN 73/06 Rev 1 (2009)

CLIENT	ADM Regeneration Ltd		
SITE	Glan Gors, Wrexham		
JOB NUMBER	MRN 2420		
TEST LOCATION	5	LOADING DEVICE	10 Tonne Enerpac Jack
TEST DATE	25-Jul-14	PLATE SIZE (mm)	300 diameter
TEST DEPTH	Surface	REACTION LOAD USED	Site Plant
MATERIAL UNDER TEST	Stone	MOISTURE CONTENT	Not required

Dial Gauge 1 (mmx100)	Dial Gauge 2 (mmx100)	Dial Gauge 3 (mmx100)	Mean Gauge (mmx100)	Mean Deflection (mm)	Load (kN)	Pressure (kPa)
4608	4603	4659	4623	0.00	0.00	0.0
4593	4577	4632	4601	-0.23	5.00	70.7
4551	4535	4588	4558	-0.65	10.00	141.5
4514	4496	4551	4520	-1.03	15.00	212.2
4474	4459	4514	4482	-1.41	20.00	282.9
4442	4426	4481	4450	-1.74	25.00	353.7
4483	4478	4552	4504	-1.19	0.00	0.0



Pressure at 1.25 mm deflexion =	254 kPa
Modulus of subgrade reaction (k) =	203 MPa/m
Equivalent 762 mm plate reaction =	93 MPa/m
Equivalent CBR =	24.8 %

REMARKS

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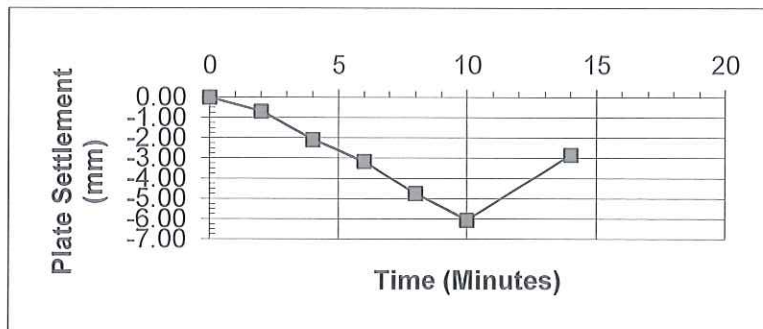
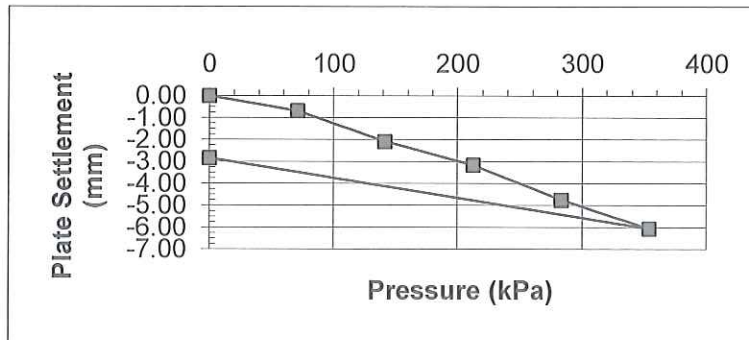


TEST CERTIFICATE
PLATE INCREMENTAL LOAD TEST

BS 1377 : PART 9 : CL 4.1 and IAN 73/06 Rev 1 (2009)

CLIENT	ADM Regeneration Ltd		
SITE	Glan Gors, Wrexham		
JOB NUMBER	MRN 2420		
TEST LOCATION	6	LOADING DEVICE	10 Tonne Enerpac Jack
TEST DATE	25-Jul-14	PLATE SIZE (mm)	300 diameter
TEST DEPTH	Surface	REACTION LOAD USED	Site Plant
MATERIAL UNDER TEST	Crush	MOISTURE CONTENT	Not required

Dial Gauge 1 (mmx100)	Dial Gauge 2 (mmx100)	Dial Gauge 3 (mmx100)	Mean Gauge (mmx100)	Mean Deflection (mm)	Load (kN)	Pressure (kPa)
4476	4548	4600	4541	0.00	0.00	0.0
4409	4466	4543	4473	-0.69	5.00	70.7
4230	4309	4460	4333	-2.08	10.00	141.5
4100	4194	4381	4225	-3.16	15.00	212.2
3930	4030	4240	4067	-4.75	20.00	282.9
3794	3894	4119	3936	-6.06	25.00	353.7
4072	4270	4430	4257	-2.84	0.00	0.0



Pressure at 1.25 mm deflexion =	100 kPa
Modulus of subgrade reaction (k) =	80 MPa/m
Equivalent 762 mm plate reaction =	37 MPa/m
Equivalent CBR =	4.9 %

REMARKS

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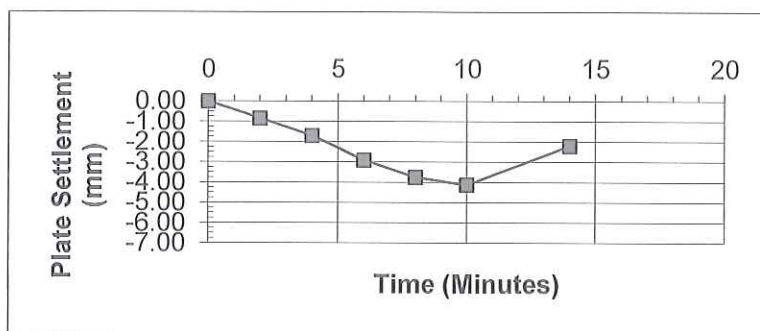
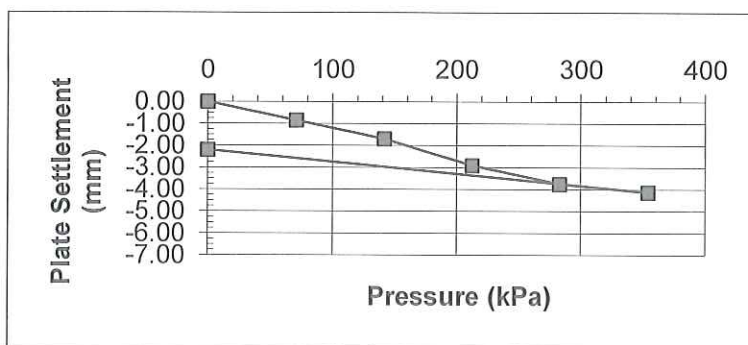
NAME A Richardson (Deputy Laboratory Manager) DATE 30-Jul-14



TEST CERTIFICATE
PLATE INCREMENTAL LOAD TEST
 BS 1377 : PART 9 : CL 4.1 and IAN 73/06 Rev 1 (2009)

CLIENT	ADM Regeneration Ltd				
SITE	Glan Gors, Wrexham				
JOB NUMBER	MRN 2420				
TEST LOCATION	,7	LOADING DEVICE	10 Tonne Enerpac Jack		
TEST DATE	25-Jul-14	PLATE SIZE (mm)	300 diameter		
TEST DEPTH	Surface	REACTION LOAD USED	Site Plant		
MATERIAL UNDER TEST	Stone	MOISTURE CONTENT	Not required		

Dial Gauge 1 (mmx100)	Dial Gauge 2 (mmx100)	Dial Gauge 3 (mmx100)	Mean Gauge (mmx100)	Mean Deflection (mm)	Load (kN)	Pressure (kPa)
4657	4526	4616	4600	0.00	0.00	0.0
4521	4472	4552	4515	-0.85	5.00	70.7
4476	4419	4394	4430	-1.70	10.00	141.5
4368	4294	4266	4309	-2.90	15.00	212.2
4221	4238	4214	4224	-3.75	20.00	282.9
4196	4197	4168	4187	-4.13	25.00	353.7
4476	4315	4348	4380	-2.20	0.00	0.0



Pressure at 1.25 mm deflexion =	104 kPa
Modulus of subgrade reaction (k) =	83 MPa/m
Equivalent 762 mm plate reaction =	38 MPa/m
Equivalent CBR =	5.3 %

REMARKS

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