

12th February 2013

Norman Jones
Torfaen County Borough Council
Planning & Public Protection
Tŷ Blaen Torfaen,
Panteg Way
New Inn
Pontypool NP4 0LS

Our Ref: 404.0542.00002

Dear Mr Jones,

RE: APPLICATION REF: 03/P/09336: PROPOSED RECOVERY OF SECONDARY AGGREGATES AND LAND RECLAMATION FOR ITS LANDHOLDING AT TIR PENTWYS, HAFODYRYNYS.

Further to the submission of the Second Supplementary Environmental Statement submitted last week, please find further additional information that considers the load-bearing capacity of the route of the proposed access road.

The plate bearing tests have been carried out (by Living Stone Testing Limited; October 2012) in order to determine equivalent California Bearing Ratio (CBR) values of the first one metre below the existing cut levels. The conclusion is reached that the foundation of the road is likely to be of adequate strength to support the proposed construction.

Also enclosed are ten copies of the SSES on CD, which also includes this letter and the information attached hereto.

Yours sincerely
SLR Consulting Limited

Will Ryan
Principal

LIVING STONE TESTING

LABORATORY REPORT

Tir Shon Shenkin
Plate Bearing (CBR) Testing: October 2012

Customer:

Mr A. Morgan
Director,
United Recycled Aggregates Ltd,
Waterways House,
Llanfoist
Abergavenny

Report reference: LR/00509/001

Report date: 07.11.2012

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1. Executive summary

Living Stone Testing was instructed by United Recycled Aggregates to carry out a series of plate bearing tests along the route of a proposed access road in Tir Shon Shenkin Farm during October 2012.

The tests were carried out at intervals of approximately 50m along the track, from a gate towards the top of the wood, down to the lower end of the track, with a final test being located back at the top of the track, just outside the gate.

Full details of the test results are to be found within the test report, which is included in the appendix to this laboratory report. A summary of the results is given in section 4 of this report.

Although the result of test location 1 was considerably higher than at the other locations, it can be seen that all locations gave equivalent CBR values in excess of 5%.

It is considered that the CBR results indicate that the foundation of the road is likely to be of adequate strength to support the proposed construction.

2. Introduction

Living Stone Testing was instructed by United Recycled Aggregates to carry out a series of plate bearing tests in order to determine equivalent CBR values along the route of a proposed access road in Tir Shon Shenkin Farm during October 2012.

This report briefly considers the relevance of the results that were obtained from the testing with respect to the proposed use of the access road.

3. Site visits and operations carried out

Site visits were carried out on the 24th and 26th of October 2012, when the testing was carried out. The tests were carried out on a previously cut section of access track, which ran diagonally down through the wooded part of the site above the A472 highway.

Plate bearing tests were carried out at intervals of approximately 50m along the track, from a gate towards the top of the wood, down to the lower end of the track, with a final test being located back at the top of the track, just outside the gate.

Testing was carried out in accordance with BS 1377: Pt 9: 2000 and the Highways Agency Document IAN 73/06 Rev 1. This was considered to give equivalent CBR values of the first 1m depth below the existing cut levels.

4. Test results and observations

Full details of the test results are to be found within the test report, which is included in the appendix to this laboratory report. However the following list summarises the results of the tests:

Test Results Summary

Sub test ref	Material	Location	Equivalent CBR Value (%)
1	Orange silty sand with cobbles.	Access Road (top)	25
2	Orange silty sand with some cobbles.	Access Road	5.7
3	Orange silty sand with some cobbles.	Access Road	7.8
4	Orange silty sand with some cobbles.	Access Road	6.8
5	Orange silty sand with occasional cobbles.	Access Road	5.3
6	Orange silty sand with occasional cobbles.	Access Road	6.0
7	Orange silty sand with occasional cobbles.	Access Road	5.1
8	Orange silty sand with occasional cobbles.	Access Road	5.4
9	Orange silty sand with occasional cobbles.	Access Road	5.1
10	Orange silty sand with occasional cobbles.	Access Road	5.6
11	Orange silty sand with occasional cobbles.	Access Road	5.2
12	Orange silty sand with occasional cobbles.	Out Side Top Gate	5.6

It can be seen from the results displayed above, that the CBR values tended to correlate well to the amount of cobble (large) sized particles that were present in the soil. At the location of test 1, the soil was observed to contain many more of these cobbles, than at the other locations, which tended to be sandier in composition.

5. Conclusions and comments

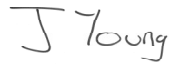
Although the result of test location 1 was considerably higher than at the other locations, it can be seen that all locations gave equivalent CBR values in excess of 5%.

It is understood that the proposed construction of the access road is to include the following points:

- The road is to be cut further into the existing side slope, utilising a gabion basket retaining wall to retain the material behind the road.
- Drainage to be installed will include an interceptor drain behind the gabion wall, which will divert surface water, which could otherwise run off the upper slope onto the access road. There will also be surface water drainage to the road itself.
- After the road is cut to formation level, it will receive a geo-membrane and then a sub base layer and subsequent bituminous layers. A barrier of some description will be installed on the outer side of the road, to prevent vehicles from straying too close to the edge of the construction

With this in mind, it is considered that the CBR results indicate that the foundation of the road is likely to be of adequate strength to support the proposed construction.

Signed:



(Authorised signatory)
John Young
Operations Manager
Living Stone Testing

App. A Copy of relevant test report

TR/06313-1; 06339-1/1

LIVING STONE CONSTRUCTION MATERIALS TESTING LTD

Materials Laboratories & Consultancy

Unit D, Alltwen Industrial Estate,
Lon Hir, Alltwen, Pontardawe,
Swansea. SA8 3DE

TEST REPORT

Type of Test: Plate Bearing Test with Equivalent CBR Values

Method: BS 1337: Part 9:1990 and HMSO IAN 73/06 Rev 1

Test Report

Reference: TR/06313-1; 06339-1/1

Report date: 07.11.2012

Sheet: 1 of 25

Lab Ref: 06313-1; 06339-1

Site Ref: 00509/24.10.12/100-1; 00509/26.10.12/100-1

Project Name: Access Road in Tir Shon Shenkin Farm near Pantygasseg

Project No.: 00509

Client: United Recycled Aggregate

F.a.o.: A.Morgan

Material: Orange silty sand with varying amounts of cobbles.

Specification: Contract requirements

Site: Pantygasseg

Location: Access Road

Date Tested: 24.10.12 & 26.10.2012

Detailed

Location: See customer's contract layout drawings

Test Results: Summary

Sub test ref	Material	Location	Equivalent CBR Value (%)
1	Orange silty sand with cobbles.	Access Road (top)	25
2	Orange silty sand with some cobbles.	Access Road	5.7
3	Orange silty sand with some cobbles.	Access Road	7.8
4	Orange silty sand with some cobbles.	Access Road	6.8
5	Orange silty sand with occasional cobbles.	Access Road	5.3
6	Orange silty sand with occasional cobbles.	Access Road	6.0
7	Orange silty sand with occasional cobbles.	Access Road	5.1
8	Orange silty sand with occasional cobbles.	Access Road	5.4
9	Orange silty sand with occasional cobbles.	Access Road	5.1
10	Orange silty sand with occasional cobbles.	Access Road	5.6
11	Orange silty sand with occasional cobbles.	Access Road (Bottom)	5.2
12	Orange silty sand with occasional cobbles.	Out Side Top Gate	5.6

See following sheets for more details

Signed:



John Young
Operations Manager
Living Stone Testing

LIVING STONE TESTING
Insitu Plate-Bearing Test

Test Report Ref: TR/06313-1; 06339-1/1

Sheet: 2 of 25

Test Data / Results

Sub test Ref: 1

Location: Access Road (top)

Plate diameter (mm): 530

Material description: Orange silty sand with cobbles.

Plate area (mm²): 0.2206

Material condition: Damp

Weather conditions: Cloudy, dry

Jack/pump ref: PBJ 57047

Kentledge used: Roller

Calibration factor : 0.33148

	Elapsed time (s)	Pressure [Pump] (Bar)	Force (Kn)	Gauge Reading (mm)				Settlement (mm)	Plate pressure (Kn/m ²)	time (s)	Settlement (mm)
				1	2	3	Avg.				
Pre-Loading	0	0	0.00	0.00	0.02	0.03	0.02	0.00	0.0	0	0.00
Loading	15	30	9.94	0.21	0.42	0.37	0.33	0.32	45.1	15	0.32
	30	30	9.94	0.23	0.43	0.38	0.35	0.33	45.1	30	0.33
	45	30	9.94	0.23	0.43	0.38	0.35	0.33	45.1	45	0.33
	60	30	9.94	0.23	0.43	0.38	0.35	0.33	45.1	60	0.33
	75	30	9.94	0.23	0.43	0.38	0.35	0.33	45.1	75	0.33
	90	30	9.94	0.23	0.43	0.38	0.35	0.33	45.1	90	0.33
	105	30	9.94	0.23	0.43	0.38	0.35	0.33	45.1	105	0.33
	120	30	9.94	0.23	0.43	0.38	0.35	0.33	45.1	120	0.33
	135	50	16.57	0.42	0.74	0.66	0.61	0.59	75.1	135	0.59
	150	50	16.57	0.45	0.76	0.68	0.63	0.61	75.1	150	0.61
	165	50	16.57	0.46	0.76	0.68	0.63	0.62	75.1	165	0.62
	180	50	16.57	0.47	0.76	0.69	0.64	0.62	75.1	180	0.62
	195	50	16.57	0.47	0.76	0.69	0.64	0.62	75.1	195	0.62
	210	50	16.57	0.47	0.76	0.69	0.64	0.62	75.1	210	0.62
	225	50	16.57	0.47	0.76	0.69	0.64	0.62	75.1	225	0.62
	240	50	16.57	0.47	0.76	0.69	0.64	0.62	75.1	240	0.62
	255	75	24.86	0.64	1.06	1.05	0.92	0.90	112.7	255	0.90
	270	75	24.86	0.65	1.07	1.08	0.93	0.92	112.7	270	0.92
	285	75	24.86	0.66	1.08	1.08	0.94	0.92	112.7	285	0.92
	300	75	24.86	0.67	1.08	1.09	0.95	0.93	112.7	300	0.93
315	75	24.86	0.67	1.08	1.09	0.95	0.93	112.7	315	0.93	
330	75	24.86	0.67	1.08	1.09	0.95	0.93	112.7	330	0.93	
345	75	24.86	0.67	1.08	1.09	0.95	0.93	112.7	345	0.93	
360	75	24.86	0.67	1.08	1.09	0.95	0.93	112.7	360	0.93	
375	100	33.15	0.70	1.23	1.53	1.15	1.14	150.2	375	1.14	
390	100	33.15	0.70	1.24	1.55	1.16	1.15	150.2	390	1.15	
405	100	33.15	0.70	1.24	1.56	1.17	1.15	150.2	405	1.15	
420	100	33.15	0.70	1.25	1.57	1.17	1.16	150.2	420	1.16	
435	100	33.15	0.70	1.25	1.57	1.17	1.16	150.2	435	1.16	
450	100	33.15	0.70	1.25	1.57	1.17	1.16	150.2	450	1.16	
465	100	33.15	0.70	1.25	1.57	1.17	1.16	150.2	465	1.16	
480	100	33.15	0.70	1.25	1.57	1.17	1.16	150.2	480	1.16	
495	125	41.44	0.69	1.49	2.10	1.43	1.41	187.8	495	1.41	
510	125	41.44	0.72	1.54	2.17	1.48	1.46	187.8	510	1.46	
525	125	41.44	0.72	1.56	2.20	1.49	1.48	187.8	525	1.48	
540	125	41.44	0.73	1.57	2.21	1.50	1.49	187.8	540	1.49	
555	125	41.44	0.73	1.58	2.22	1.51	1.49	187.8	555	1.49	
570	125	41.44	0.73	1.58	2.22	1.51	1.49	187.8	570	1.49	
585	125	41.44	0.73	1.58	2.22	1.51	1.49	187.8	585	1.49	
600	125	41.44	0.73	1.58	2.22	1.51	1.49	187.8	600	1.49	
Release	615	20	6.63	0.81	1.53	2.06	1.47	1.45	30.0	615	1.45
	630	20	6.63	0.81	1.52	2.05	1.46	1.44	30.0	630	1.44
	645	20	6.63	0.81	1.52	2.05	1.46	1.44	30.0	645	1.44
	660	20	6.63	0.81	1.52	2.05	1.46	1.44	30.0	660	1.44
	675	20	6.63	0.81	1.52	2.05	1.46	1.44	30.0	675	1.44
	690	20	6.63	0.81	1.52	2.05	1.46	1.44	30.0	690	1.44
	705	20	6.63	0.81	1.52	2.05	1.46	1.44	30.0	705	1.44
	720	20	6.63	0.81	1.52	2.05	1.46	1.44	30.0	720	1.44
	735	0	0.00	0.54	0.95	1.23	0.91	0.89	0.0	735	0.89
	750	0	0.00	0.49	0.88	1.15	0.84	0.82	0.0	750	0.82
	765	0	0.00	0.48	0.86	1.13	0.82	0.81	0.0	765	0.81
	780	0	0.00	0.47	0.84	1.11	0.81	0.79	0.0	780	0.79
	795	0	0.00	0.46	0.83	1.10	0.80	0.78	0.0	795	0.78
	810	0	0.00	0.46	0.83	1.10	0.80	0.78	0.0	810	0.78
825	0	0.00	0.46	0.83	1.10	0.80	0.78	0.0	825	0.78	
840	0	0.00	0.46	0.83	1.10	0.80	0.78	0.0	840	0.78	

Graphs Continued over page

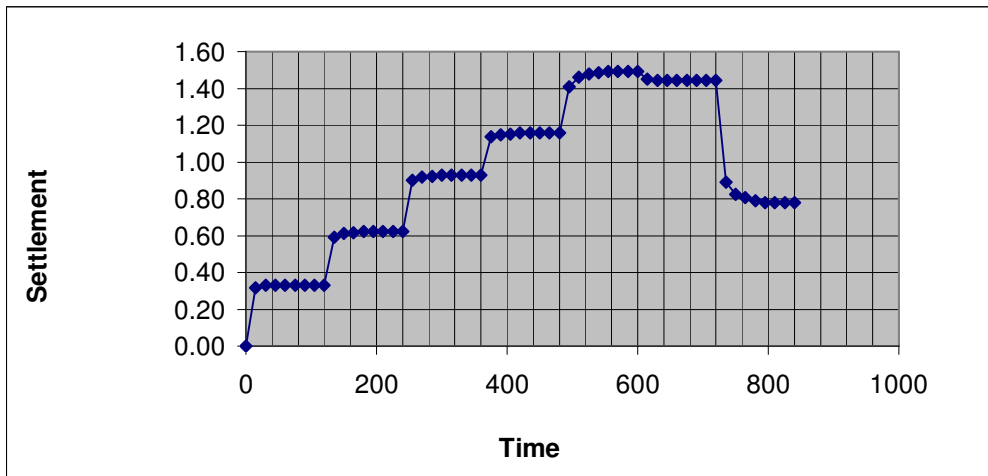
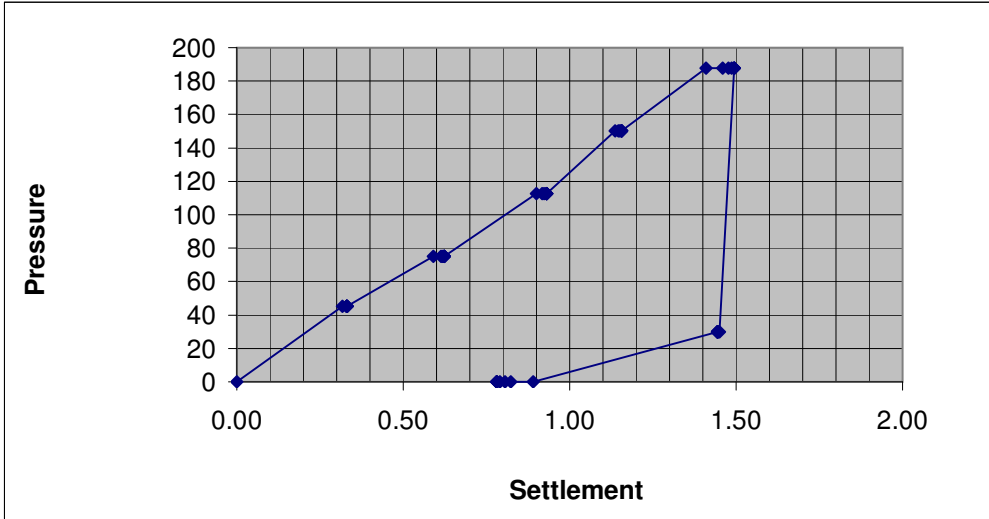
LIVING STONE TESTING
Insitu Plate-Bearing Test

Test Report Ref: TR/06313-1; 06339-1/1

Sheet: 3 of 25

Test Data / Results

Sub test Ref: 1



Equivalent CBR (%): 25

LIVING STONE TESTING
Insitu Plate-Bearing Test

Test Report Ref: TR/06313-1; 06339-1/1

Sheet: 4 of 25

Test Data / Results

Sub test Ref: 2

Location: Access Road

Plate diameter (mm): 530

Material description: Orange silty sand with some cobbles.

Plate area (mm²): 0.2206

Material condition: Damp

Weather conditions: Cloudy, dry

Jack/pump ref: PBJ 57047

Kentledge used: Roller

Calibration factor : 0.33148

	Elapsed time (s)	Pressure [Pump] (Bar)	Force (Kn)	Gauge Reading (mm)				Settlement (mm)	Plate pressure (Kn/m ²)	time (s)	Settlement (mm)
				1	2	3	Avg.				
Pre-Loading	0	0	0.00	0.58	0.48	0.09	0.38	0.00	0.0	0	0.00
Loading	15	15	4.97	1.42	1.04	0.40	0.95	0.57	22.5	15	0.57
	30	15	4.97	1.43	1.04	0.40	0.96	0.57	22.5	30	0.57
	45	15	4.97	1.44	1.04	0.40	0.96	0.58	22.5	45	0.58
	60	15	4.97	1.44	1.04	0.40	0.96	0.58	22.5	60	0.58
	75	15	4.97	1.44	1.04	0.40	0.96	0.58	22.5	75	0.58
	90	15	4.97	1.44	1.04	0.40	0.96	0.58	22.5	90	0.58
	105	15	4.97	1.44	1.04	0.40	0.96	0.58	22.5	105	0.58
	120	15	4.97	1.44	1.04	0.40	0.96	0.58	22.5	120	0.58
	135	25	8.29	1.85	1.28	0.53	1.22	0.84	37.6	135	0.84
	150	25	8.29	1.88	1.28	0.54	1.23	0.85	37.6	150	0.85
	165	25	8.29	1.89	1.28	0.54	1.24	0.85	37.6	165	0.85
	180	25	8.29	1.89	1.28	0.54	1.24	0.85	37.6	180	0.85
	195	25	8.29	1.89	1.28	0.54	1.24	0.85	37.6	195	0.85
	210	25	8.29	1.89	1.28	0.54	1.24	0.85	37.6	210	0.85
	225	25	8.29	1.89	1.28	0.54	1.24	0.85	37.6	225	0.85
	240	25	8.29	1.89	1.28	0.54	1.24	0.85	37.6	240	0.85
	255	40	13.26	2.26	1.51	0.73	1.50	1.12	60.1	255	1.12
	270	40	13.26	2.30	1.52	0.73	1.52	1.13	60.1	270	1.13
	285	40	13.26	2.31	1.52	0.73	1.52	1.14	60.1	285	1.14
	300	40	13.26	2.31	1.52	0.74	1.52	1.14	60.1	300	1.14
315	40	13.26	2.31	1.52	0.74	1.52	1.14	60.1	315	1.14	
330	40	13.26	2.31	1.52	0.74	1.52	1.14	60.1	330	1.14	
345	40	13.26	2.31	1.52	0.74	1.52	1.14	60.1	345	1.14	
360	40	13.26	2.31	1.52	0.74	1.52	1.14	60.1	360	1.14	
375	60	19.89	2.82	1.79	0.93	1.85	1.46	90.1	375	1.46	
390	60	19.89	2.87	1.79	0.94	1.87	1.48	90.1	390	1.48	
405	60	19.89	2.89	1.80	0.94	1.88	1.49	90.1	405	1.49	
420	60	19.89	2.90	1.80	0.94	1.88	1.50	90.1	420	1.50	
435	60	19.89	2.91	1.80	0.94	1.88	1.50	90.1	435	1.50	
450	60	19.89	2.91	1.80	0.94	1.88	1.50	90.1	450	1.50	
465	60	19.89	2.91	1.80	0.94	1.88	1.50	90.1	465	1.50	
480	60	19.89	2.91	1.80	0.94	1.88	1.50	90.1	480	1.50	
495	75	24.86	3.52	1.94	1.05	2.17	1.79	112.7	495	1.79	
510	75	24.86	3.64	1.97	1.05	2.22	1.84	112.7	510	1.84	
525	75	24.86	3.68	1.98	1.06	2.24	1.86	112.7	525	1.86	
540	75	24.86	3.71	1.98	1.06	2.25	1.87	112.7	540	1.87	
555	75	24.86	3.72	1.98	1.06	2.25	1.87	112.7	555	1.87	
570	75	24.86	3.73	1.98	1.06	2.26	1.87	112.7	570	1.87	
585	75	24.86	3.73	1.98	1.06	2.26	1.87	112.7	585	1.87	
600	75	24.86	3.73	1.98	1.06	2.26	1.87	112.7	600	1.87	
Release	615	20	6.63	3.68	1.89	1.02	2.20	1.81	30.0	615	1.81
	630	20	6.63	3.68	1.89	1.02	2.20	1.81	30.0	630	1.81
	645	20	6.63	3.68	1.89	1.02	2.20	1.81	30.0	645	1.81
	660	20	6.63	3.68	1.89	1.02	2.20	1.81	30.0	660	1.81
	675	20	6.63	3.68	1.89	1.02	2.20	1.81	30.0	675	1.81
	690	20	6.63	3.68	1.89	1.02	2.20	1.81	30.0	690	1.81
	705	20	6.63	3.68	1.89	1.02	2.20	1.81	30.0	705	1.81
	720	20	6.63	3.68	1.89	1.02	2.20	1.81	30.0	720	1.81
	735	0	0.00	2.70	1.30	0.54	1.51	1.13	0.0	735	1.13
	750	0	0.00	2.52	1.22	0.49	1.41	1.03	0.0	750	1.03
	765	0	0.00	2.50	1.21	0.48	1.40	1.01	0.0	765	1.01
	780	0	0.00	2.45	1.19	0.47	1.37	0.99	0.0	780	0.99
	795	0	0.00	2.42	1.18	0.47	1.36	0.97	0.0	795	0.97
	810	0	0.00	2.41	1.17	0.46	1.35	0.96	0.0	810	0.96
825	0	0.00	2.37	1.16	0.45	1.33	0.94	0.0	825	0.94	
840	0	0.00	2.37	1.16	0.44	1.32	0.94	0.0	840	0.94	

Graphs Continued over page

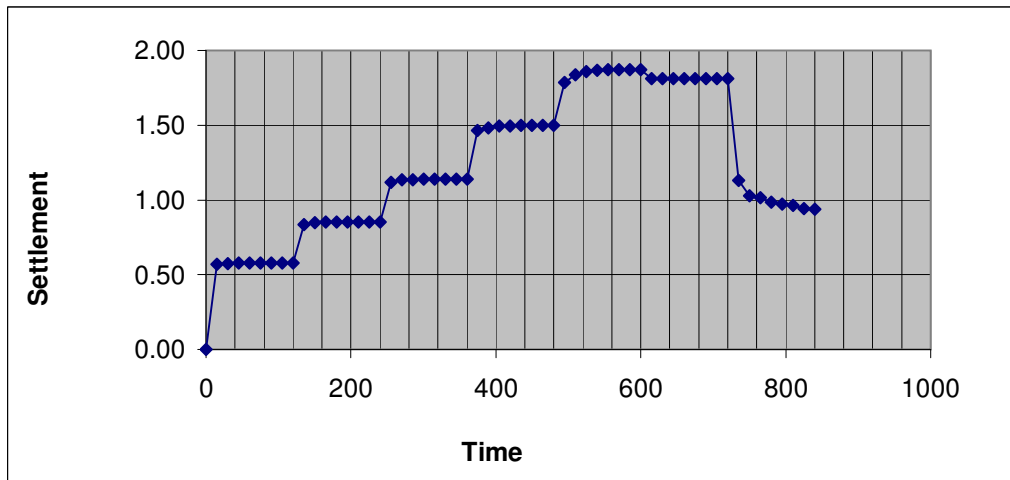
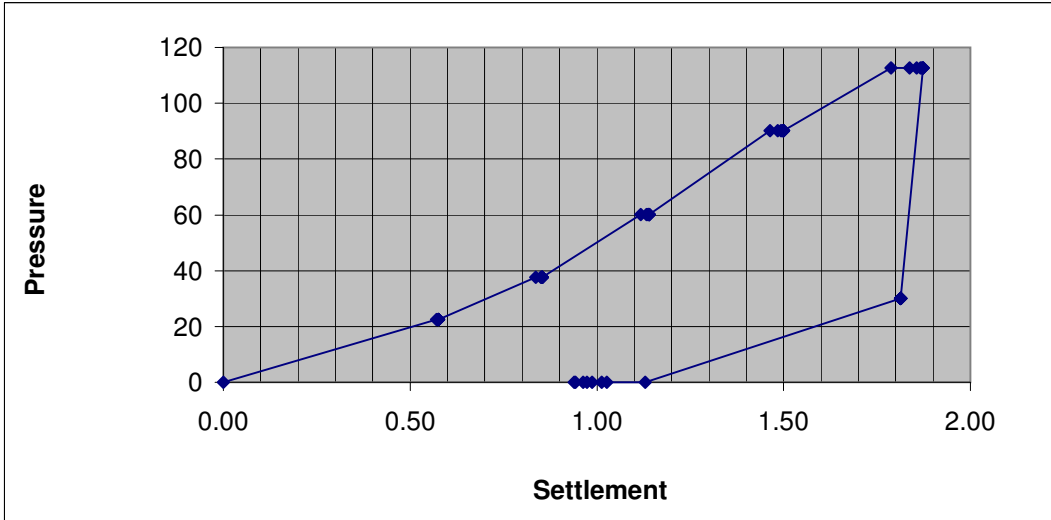
LIVING STONE TESTING
Insitu Plate-Bearing Test

Test Report Ref: TR/06313-1; 06339-1/1

Sheet: 5 of 25

Test Data / Results

Sub test Ref: 2



Equivalent CBR (%): 5.7

LIVING STONE TESTING
Insitu Plate-Bearing Test

Test Report Ref: TR/06313-1; 06339-1/1

Sheet: 6 of 25

Test Data / Results

Sub test Ref: 3
 Location: Access Road
 Material description: Orange silty sand with some cobbles.
 Material condition: Damp
 Weather conditions: Cloudy, dry
 Kentledge used: Roller
 Plate diameter (mm): 530
 Plate area (mm²): 0.2206
 Jack/pump ref: PBJ 57047
 Calibration factor : 0.33148

	Elapsed time (s)	Pressure [Pump] (Bar)	Force (Kn)	Gauge Reading (mm)				Settlement (mm)	Plate pressure (Kn/m ²)	time (s)	Settlement (mm)
				1	2	3	Avg.				
Pre-Loading	0	0	0.00	0.01	0.02	0.01	0.01	0.00	0.0	0	0.00
Loading	15	20	6.63	0.50	0.15	0.34	0.33	0.32	30.0	15	0.32
	30	20	6.63	0.55	0.17	0.35	0.36	0.34	30.0	30	0.34
	45	20	6.63	0.56	0.18	0.35	0.36	0.35	30.0	45	0.35
	60	20	6.63	0.58	0.19	0.36	0.38	0.36	30.0	60	0.36
	75	20	6.63	0.58	0.19	0.36	0.38	0.36	30.0	75	0.36
	90	20	6.63	0.58	0.19	0.36	0.38	0.36	30.0	90	0.36
	105	20	6.63	0.58	0.19	0.36	0.38	0.36	30.0	105	0.36
	120	20	6.63	0.58	0.19	0.36	0.38	0.36	30.0	120	0.36
	135	40	13.26	1.11	0.30	0.61	0.67	0.66	60.1	135	0.66
	150	40	13.26	1.15	0.32	0.62	0.70	0.68	60.1	150	0.68
	165	40	13.26	1.18	0.33	0.62	0.71	0.70	60.1	165	0.70
	180	40	13.26	1.20	0.34	0.63	0.72	0.71	60.1	180	0.71
	195	40	13.26	1.21	0.35	0.63	0.73	0.72	60.1	195	0.72
	210	40	13.26	1.22	0.35	0.63	0.73	0.72	60.1	210	0.72
	225	40	13.26	1.23	0.35	0.64	0.74	0.73	60.1	225	0.73
240	40	13.26	1.24	0.35	0.64	0.74	0.73	60.1	240	0.73	
255	55	18.23	2.04	0.50	0.97	1.17	1.16	82.6	255	1.16	
270	55	18.23	2.11	0.53	0.99	1.21	1.20	82.6	270	1.20	
285	55	18.23	2.14	0.55	1.00	1.23	1.22	82.6	285	1.22	
300	55	18.23	2.16	0.55	1.01	1.24	1.23	82.6	300	1.23	
315	55	18.23	2.17	0.56	1.01	1.25	1.23	82.6	315	1.23	
330	55	18.23	2.19	0.57	1.02	1.26	1.25	82.6	330	1.25	
345	55	18.23	2.20	0.57	1.02	1.26	1.25	82.6	345	1.25	
360	55	18.23	2.21	0.57	1.02	1.27	1.25	82.6	360	1.25	
375	75	24.86	3.29	0.77	1.42	1.83	1.81	112.7	375	1.81	
390	75	24.86	3.44	0.82	1.45	1.90	1.89	112.7	390	1.89	
405	75	24.86	3.49	0.84	1.47	1.93	1.92	112.7	405	1.92	
420	75	24.86	3.52	0.85	1.48	1.95	1.94	112.7	420	1.94	
435	75	24.86	3.54	0.86	1.49	1.96	1.95	112.7	435	1.95	
450	75	24.86	3.57	0.87	1.48	1.97	1.96	112.7	450	1.96	
465	75	24.86	3.58	0.87	1.50	1.98	1.97	112.7	465	1.97	
480	75	24.86	3.60	0.88	1.50	1.99	1.98	112.7	480	1.98	
Release	495	20	6.63	3.06	0.95	1.26	1.76	1.74	30.0	495	1.74
	510	20	6.63	3.05	0.95	1.26	1.75	1.74	30.0	510	1.74
	525	20	6.63	3.05	0.95	1.26	1.75	1.74	30.0	525	1.74
	540	20	6.63	3.05	0.95	1.26	1.75	1.74	30.0	540	1.74
	555	20	6.63	3.05	0.95	1.26	1.75	1.74	30.0	555	1.74
	570	20	6.63	3.05	0.95	1.26	1.75	1.74	30.0	570	1.74
	585	20	6.63	3.05	0.95	1.26	1.75	1.74	30.0	585	1.74
	600	20	6.63	3.05	0.95	1.26	1.75	1.74	30.0	600	1.74
	615	0	0.00	1.05	0.43	0.17	0.55	0.54	0.0	615	0.54
	630	0	0.00	0.95	0.40	0.14	0.50	0.48	0.0	630	0.48
	645	0	0.00	0.87	0.37	0.11	0.45	0.44	0.0	645	0.44
	660	0	0.00	0.83	0.35	0.09	0.42	0.41	0.0	660	0.41
	675	0	0.00	0.76	0.32	0.06	0.38	0.37	0.0	675	0.37
	690	0	0.00	0.70	0.31	0.04	0.35	0.34	0.0	690	0.34
	705	0	0.00	0.67	0.29	0.03	0.33	0.32	0.0	705	0.32
720	0	0.00	0.64	0.28	0.02	0.31	0.30	0.0	720	0.30	

Graphs Continued over page

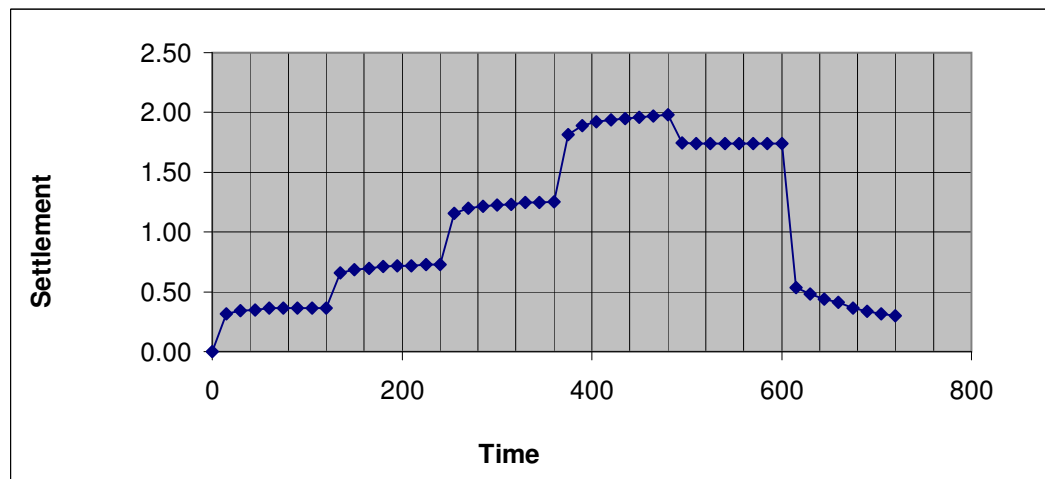
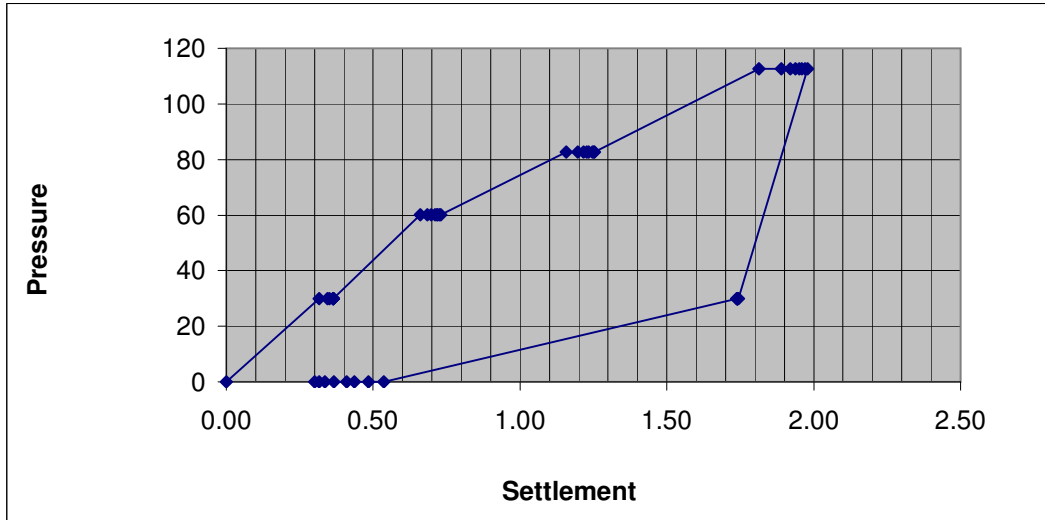
LIVING STONE TESTING
Insitu Plate-Bearing Test

Test Report Ref: TR/06313-1; 06339-1/1

Sheet: 7 of 25

Test Data / Results

Sub test Ref: 3



Equivalent CBR (%): 7.8

LIVING STONE TESTING
Insitu Plate-Bearing Test

Test Report Ref: TR/06313-1; 06339-1/1

Sheet: 8 of 25

Test Data / Results

Sub test Ref: 4
Location: Access Road **Plate diameter (mm):** 530
Material description: Orange silty sand with some cobbles. **Plate area (mm²):** 0.2206
Material condition: N.a
Weather conditions: N.a **Jack/pump ref:** PBJ 57047
Kentledge used: Roller **Calibration factor :** 0.33148

	Elapsed time (s)	Pressure [Pump] (Bar)	Force (Kn)	Gauge Reading (mm)				Settlement (mm)	Plate pressure (Kn/m ²)	time (s)	Settlement (mm)
				1	2	3	Avg.				
Pre-Loading	0	0	0.00	0.00	0.01	0.03	0.01	0.00	0.0	0	0.00
Loading	15	20	6.63	0.30	0.28	0.39	0.32	0.31	30.0	15	0.31
	30	20	6.63	0.31	0.28	0.39	0.33	0.31	30.0	30	0.31
	45	20	6.63	0.32	0.28	0.40	0.33	0.32	30.0	45	0.32
	60	20	6.63	0.32	0.29	0.40	0.34	0.32	30.0	60	0.32
	75	20	6.63	0.32	0.29	0.40	0.34	0.32	30.0	75	0.32
	90	20	6.63	0.32	0.29	0.40	0.34	0.32	30.0	90	0.32
	105	20	6.63	0.32	0.29	0.40	0.34	0.32	30.0	105	0.32
	120	20	6.63	0.32	0.29	0.40	0.34	0.32	30.0	120	0.32
	135	40	13.26	0.62	0.61	0.80	0.68	0.66	60.1	135	0.66
	150	40	13.26	0.65	0.63	0.82	0.70	0.69	60.1	150	0.69
	165	40	13.26	0.66	0.64	0.83	0.71	0.70	60.1	165	0.70
	180	40	13.26	0.66	0.64	0.83	0.71	0.70	60.1	180	0.70
	195	40	13.26	0.66	0.64	0.83	0.71	0.70	60.1	195	0.70
	210	40	13.26	0.66	0.64	0.83	0.71	0.70	60.1	210	0.70
	225	40	13.26	0.66	0.64	0.83	0.71	0.70	60.1	225	0.70
240	40	13.26	0.66	0.64	0.83	0.71	0.70	60.1	240	0.70	
255	48	15.91	0.81	0.87	1.13	0.94	0.92	72.1	255	0.92	
270	48	15.91	0.95	0.88	1.15	0.99	0.98	72.1	270	0.98	
285	48	15.91	0.96	0.89	1.15	1.00	0.99	72.1	285	0.99	
300	48	15.91	0.97	0.89	1.15	1.00	0.99	72.1	300	0.99	
315	48	15.91	0.97	0.89	1.15	1.00	0.99	72.1	315	0.99	
330	48	15.91	0.97	0.89	1.15	1.00	0.99	72.1	330	0.99	
345	48	15.91	0.97	0.89	1.15	1.00	0.99	72.1	345	0.99	
360	48	15.91	0.97	0.89	1.15	1.00	0.99	72.1	360	0.99	
375	52	17.24	1.13	1.26	1.60	1.33	1.32	78.1	375	1.32	
390	52	17.24	1.17	1.28	1.63	1.36	1.35	78.1	390	1.35	
405	52	17.24	1.18	1.29	1.64	1.37	1.36	78.1	405	1.36	
420	52	17.24	1.19	1.29	1.65	1.38	1.36	78.1	420	1.36	
435	52	17.24	1.20	1.29	1.65	1.38	1.37	78.1	435	1.37	
450	52	17.24	1.20	1.29	1.65	1.38	1.37	78.1	450	1.37	
465	52	17.24	1.20	1.29	1.65	1.38	1.37	78.1	465	1.37	
480	52	17.24	1.20	1.29	1.65	1.38	1.37	78.1	480	1.37	
495	55	18.23	1.41	1.48	2.00	1.63	1.62	82.6	495	1.62	
510	55	18.23	1.43	1.48	2.01	1.64	1.63	82.6	510	1.63	
525	55	18.23	1.44	1.48	2.02	1.65	1.63	82.6	525	1.63	
540	55	18.23	1.45	1.48	2.03	1.65	1.64	82.6	540	1.64	
555	55	18.23	1.45	1.48	2.03	1.65	1.64	82.6	555	1.64	
570	55	18.23	1.45	1.48	2.03	1.65	1.64	82.6	570	1.64	
585	55	18.23	1.45	1.48	2.03	1.65	1.64	82.6	585	1.64	
600	55	18.23	1.45	1.48	2.03	1.65	1.64	82.6	600	1.64	
Release	615	20	6.63	1.42	1.42	1.89	1.58	1.56	30.0	615	1.56
	630	20	6.63	1.42	1.42	1.89	1.58	1.56	30.0	630	1.56
	645	20	6.63	1.42	1.42	1.89	1.58	1.56	30.0	645	1.56
	660	20	6.63	1.42	1.42	1.89	1.58	1.56	30.0	660	1.56
	675	20	6.63	1.42	1.42	1.89	1.58	1.56	30.0	675	1.56
	690	20	6.63	1.42	1.42	1.89	1.58	1.56	30.0	690	1.56
	705	20	6.63	1.42	1.42	1.89	1.58	1.56	30.0	705	1.56
	720	20	6.63	1.42	1.42	1.89	1.58	1.56	30.0	720	1.56
	735	0	0.00	0.68	0.74	1.05	0.82	0.81	0.0	735	0.81
	750	0	0.00	0.61	0.70	1.00	0.77	0.76	0.0	750	0.76
	765	0	0.00	0.50	0.67	0.96	0.71	0.70	0.0	765	0.70
	780	0	0.00	0.54	0.66	0.94	0.71	0.70	0.0	780	0.70
	795	0	0.00	0.53	0.65	0.93	0.70	0.69	0.0	795	0.69
	810	0	0.00	0.52	0.64	0.92	0.69	0.68	0.0	810	0.68
	825	0	0.00	0.50	0.63	0.90	0.68	0.66	0.0	825	0.66
	840	0	0.00	0.50	0.63	0.90	0.68	0.66	0.0	840	0.66

Graphs Continued over page

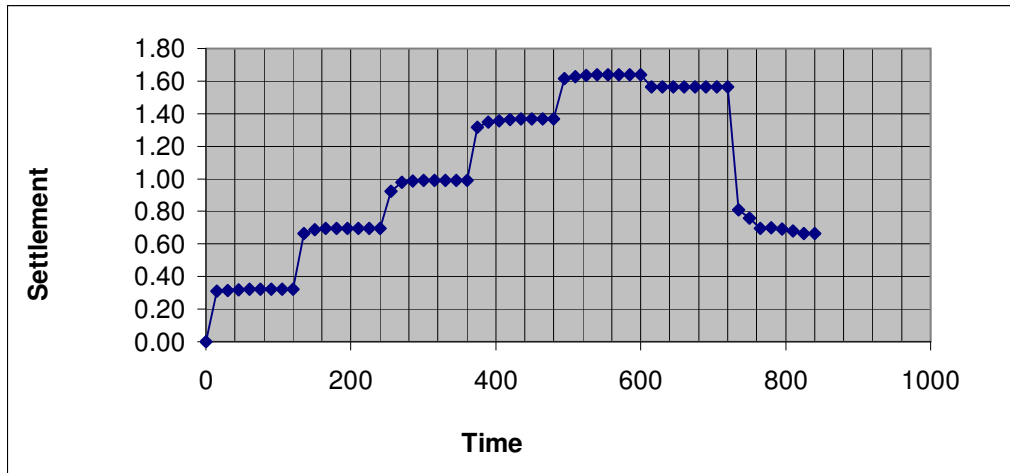
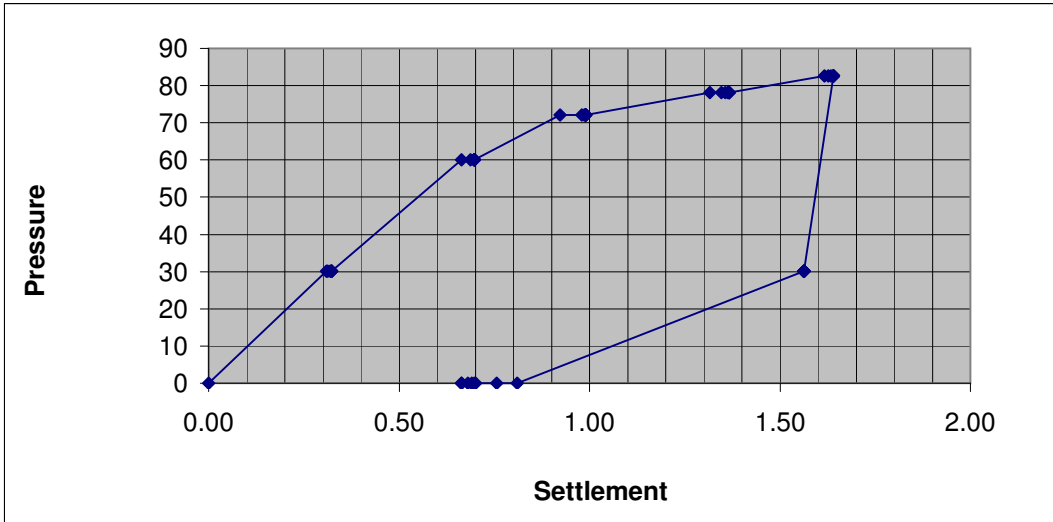
LIVING STONE TESTING
Insitu Plate-Bearing Test

Test Report Ref: TR/06313-1; 06339-1/1

Sheet: 9 of 25

Test Data / Results

Sub test Ref: 4



Equivalent CBR (%): 6.8

LIVING STONE TESTING
Insitu Plate-Bearing Test

Test Report Ref: TR/06313-1; 06339-1/1

Sheet: 10 of 25

Test Data / Results

Sub test Ref: 5
Location: Access Road
Material description: Orange silty sand with occasional cobbles.
Material condition: N.a
Weather conditions: N.a
Kentledge used: Roller

Plate diameter (mm): 530
Plate area (mm²): 0.2206
Jack/pump ref: PBJ 57047
Calibration factor : 0.33148

	Elapsed time (s)	Pressure [Pump] (Bar)	Force (Kn)	Gauge Reading (mm)				Settlement (mm)	Plate pressure (Kn/m ²)	time (s)	Settlement (mm)
				1	2	3	Avg.				
Pre-Loading	0	0	0.00	0.00	0.03	0.00	0.01	0.00	0.0	0	0.00
Loading	15	20	6.63	0.30	0.46	0.39	0.38	0.37	30.0	15	0.37
	30	20	6.63	0.33	0.48	0.40	0.40	0.39	30.0	30	0.39
	45	20	6.63	0.33	0.48	0.40	0.40	0.39	30.0	45	0.39
	60	20	6.63	0.33	0.49	0.40	0.41	0.40	30.0	60	0.40
	75	20	6.63	0.34	0.49	0.40	0.41	0.40	30.0	75	0.40
	90	20	6.63	0.34	0.49	0.40	0.41	0.40	30.0	90	0.40
	105	20	6.63	0.34	0.49	0.40	0.41	0.40	30.0	105	0.40
	120	20	6.63	0.34	0.49	0.40	0.41	0.40	30.0	120	0.40
	135	35	11.60	0.82	0.80	0.73	0.78	0.77	52.6	135	0.77
	150	35	11.60	0.85	0.82	0.74	0.80	0.79	52.6	150	0.79
	165	35	11.60	0.86	0.83	0.74	0.81	0.80	52.6	165	0.80
	180	35	11.60	0.87	0.83	0.74	0.81	0.80	52.6	180	0.80
	195	35	11.60	0.87	0.83	0.74	0.81	0.80	52.6	195	0.80
	210	35	11.60	0.87	0.83	0.74	0.81	0.80	52.6	210	0.80
	225	35	11.60	0.87	0.83	0.74	0.81	0.80	52.6	225	0.80
	240	35	11.60	0.87	0.83	0.74	0.81	0.80	52.6	240	0.80
	255	40	13.26	1.01	0.90	0.83	0.91	0.90	60.1	255	0.90
	270	40	13.26	1.05	0.93	0.85	0.94	0.93	60.1	270	0.93
	285	40	13.26	1.06	0.93	0.85	0.95	0.94	60.1	285	0.94
	300	40	13.26	1.07	0.93	0.86	0.95	0.94	60.1	300	0.94
315	40	13.26	1.07	0.93	0.86	0.95	0.94	60.1	315	0.94	
330	40	13.26	1.07	0.93	0.86	0.95	0.94	60.1	330	0.94	
345	40	13.26	1.07	0.93	0.86	0.95	0.94	60.1	345	0.94	
360	40	13.26	1.07	0.93	0.86	0.95	0.94	60.1	360	0.94	
375	45	14.92	1.48	1.22	1.17	1.29	1.28	67.6	375	1.28	
390	45	14.92	1.50	1.24	1.18	1.31	1.30	67.6	390	1.30	
405	45	14.92	1.56	1.26	1.21	1.34	1.33	67.6	405	1.33	
420	45	14.92	1.56	1.26	1.21	1.34	1.33	67.6	420	1.33	
435	45	14.92	1.56	1.26	1.21	1.34	1.33	67.6	435	1.33	
450	45	14.92	1.56	1.26	1.21	1.34	1.33	67.6	450	1.33	
465	45	14.92	1.56	1.26	1.21	1.34	1.33	67.6	465	1.33	
480	45	14.92	1.56	1.26	1.21	1.34	1.33	67.6	480	1.33	
495	55	18.23	1.89	1.50	1.48	1.62	1.61	82.6	495	1.61	
510	55	18.23	1.94	1.54	1.52	1.67	1.66	82.6	510	1.66	
525	55	18.23	1.96	1.56	1.54	1.69	1.68	82.6	525	1.68	
540	55	18.23	1.97	1.57	1.54	1.69	1.68	82.6	540	1.68	
555	55	18.23	1.99	1.57	1.55	1.70	1.69	82.6	555	1.69	
570	55	18.23	1.99	1.58	1.55	1.71	1.70	82.6	570	1.70	
585	55	18.23	1.98	1.58	1.55	1.70	1.69	82.6	585	1.69	
600	55	18.23	1.98	1.58	1.55	1.70	1.69	82.6	600	1.69	
Release	615	20	6.63	1.72	1.45	1.42	1.53	1.52	30.0	615	1.52
	630	20	6.63	1.70	1.45	1.42	1.52	1.51	30.0	630	1.51
	645	20	6.63	1.70	1.45	1.42	1.52	1.51	30.0	645	1.51
	660	20	6.63	1.70	1.45	1.42	1.52	1.51	30.0	660	1.51
	675	20	6.63	1.70	1.45	1.42	1.52	1.51	30.0	675	1.51
	690	20	6.63	1.70	1.45	1.42	1.52	1.51	30.0	690	1.51
	705	20	6.63	1.70	1.45	1.42	1.52	1.51	30.0	705	1.51
	720	20	6.63	1.70	1.45	1.42	1.52	1.51	30.0	720	1.51
	735	0	0.00	-0.02	0.25	0.22	0.15	0.14	0.0	735	0.14
	750	0	0.00	-0.18	0.19	0.16	0.06	0.05	0.0	750	0.05
	765	0	0.00	-0.25	0.16	0.12	0.01	0.00	0.0	765	0.00
	780	0	0.00	-0.25	0.16	0.12	0.01	0.00	0.0	780	0.00
	795	0	0.00	-0.25	0.16	0.12	0.01	0.00	0.0	795	0.00
	810	0	0.00	-0.25	0.16	0.12	0.01	0.00	0.0	810	0.00
825	0	0.00	-0.25	0.16	0.12	0.01	0.00	0.0	825	0.00	
840	0	0.00	-0.25	0.16	0.12	0.01	0.00	0.0	840	0.00	

Graphs Continued over page

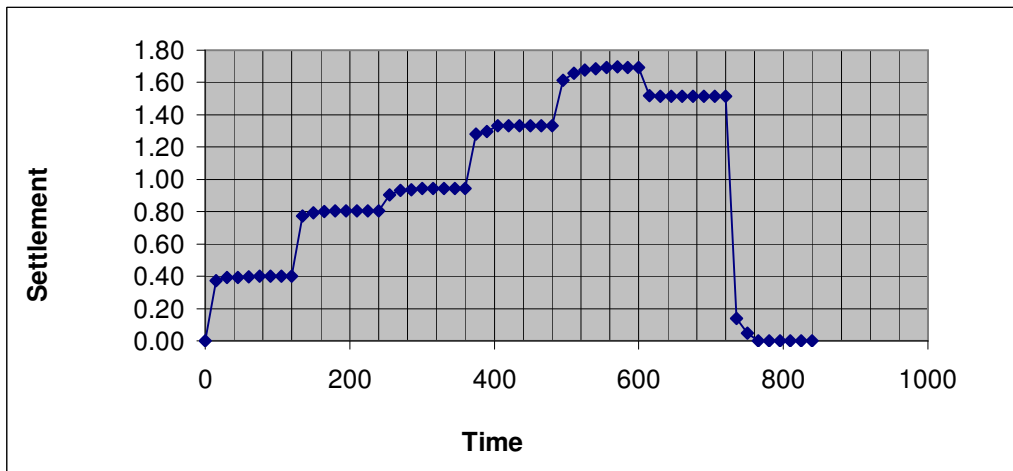
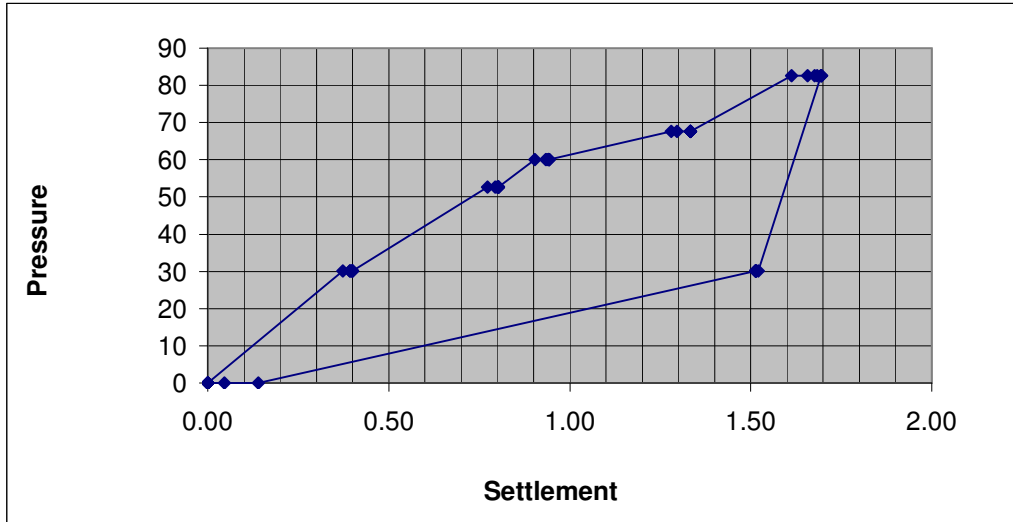
LIVING STONE TESTING
Insitu Plate-Bearing Test

Test Report Ref: TR/06313-1; 06339-1/1

Sheet: 11 of 25

Test Data / Results

Sub test Ref: 5



Equivalent CBR (%): 5.3

LIVING STONE TESTING
Insitu Plate-Bearing Test

Test Report Ref: TR/06313-1; 06339-1/1

Sheet: 12 of 25

Test Data / Results

Sub test Ref: 6

Location: Access Road

Plate diameter (mm): 530

Material description: Orange silty sand with occasional cobbles.

Plate area (mm²): 0.2206

Material condition: N.a

Weather conditions: N.a

Jack/pump ref: PBJ 57047

Kentledge used: Roller

Calibration factor : 0.33148

	Elapsed time (s)	Pressure [Pump] (Bar)	Force (Kn)	Gauge Reading (mm)			Avg.	Settlement (mm)	Plate pressure (Kn/m ²)	time (s)	Settlement (mm)
				1	2	3					
Pre-Loading	0	0	0.00	0.00	0.01	0.00	0.00	0.00	0.0	0	0.00
Loading	15	20	6.63	0.72	0.23	0.24	0.40	0.39	30.0	15	0.39
	30	20	6.63	0.80	0.25	0.24	0.43	0.43	30.0	30	0.43
	45	20	6.63	0.81	0.25	0.24	0.43	0.43	30.0	45	0.43
	60	20	6.63	0.82	0.25	0.24	0.44	0.43	30.0	60	0.43
	75	20	6.63	0.83	0.25	0.24	0.44	0.44	30.0	75	0.44
	90	20	6.63	0.83	0.25	0.24	0.44	0.44	30.0	90	0.44
	105	20	6.63	0.83	0.25	0.24	0.44	0.44	30.0	105	0.44
	120	20	6.63	0.83	0.25	0.24	0.44	0.44	30.0	120	0.44
	135	30	9.94	1.54	0.45	0.46	0.82	0.81	45.1	135	0.81
	150	30	9.94	1.61	0.47	0.46	0.85	0.84	45.1	150	0.84
	165	30	9.94	1.62	0.47	0.46	0.85	0.85	45.1	165	0.85
	180	30	9.94	1.62	0.47	0.46	0.85	0.85	45.1	180	0.85
	195	30	9.94	1.62	0.47	0.46	0.85	0.85	45.1	195	0.85
	210	30	9.94	1.62	0.47	0.46	0.85	0.85	45.1	210	0.85
	225	30	9.94	1.62	0.47	0.46	0.85	0.85	45.1	225	0.85
	240	30	9.94	1.62	0.47	0.46	0.85	0.85	45.1	240	0.85
	255	45	14.92	2.00	0.59	0.59	1.06	1.06	67.6	255	1.06
	270	45	14.92	2.00	0.61	0.59	1.07	1.06	67.6	270	1.06
	285	45	14.92	2.00	0.61	0.59	1.07	1.06	67.6	285	1.06
	300	45	14.92	2.00	0.61	0.59	1.07	1.06	67.6	300	1.06
	315	45	14.92	2.00	0.61	0.59	1.07	1.06	67.6	315	1.06
	330	45	14.92	2.00	0.61	0.59	1.07	1.06	67.6	330	1.06
	345	45	14.92	2.00	0.61	0.59	1.07	1.06	67.6	345	1.06
	360	45	14.92	2.00	0.61	0.59	1.07	1.06	67.6	360	1.06
375	50	16.57	2.75	0.86	0.81	1.47	1.47	75.1	375	1.47	
390	50	16.57	2.85	0.87	0.81	1.51	1.51	75.1	390	1.51	
405	50	16.57	2.86	0.87	0.81	1.51	1.51	75.1	405	1.51	
420	50	16.57	2.86	0.87	0.81	1.51	1.51	75.1	420	1.51	
435	50	16.57	2.86	0.87	0.81	1.51	1.51	75.1	435	1.51	
450	50	16.57	2.86	0.87	0.81	1.51	1.51	75.1	450	1.51	
465	50	16.57	2.86	0.87	0.81	1.51	1.51	75.1	465	1.51	
480	50	16.57	2.86	0.87	0.81	1.51	1.51	75.1	480	1.51	
495	55	18.23	3.68	1.27	1.12	2.02	2.02	82.6	495	2.02	
510	55	18.23	3.84	1.30	1.12	2.09	2.08	82.6	510	2.08	
525	55	18.23	3.87	1.31	1.12	2.10	2.10	82.6	525	2.10	
540	55	18.23	3.88	1.31	1.12	2.10	2.10	82.6	540	2.10	
555	55	18.23	3.88	1.31	1.12	2.10	2.10	82.6	555	2.10	
570	55	18.23	3.88	1.31	1.12	2.10	2.10	82.6	570	2.10	
585	55	18.23	3.88	1.31	1.12	2.10	2.10	82.6	585	2.10	
600	60	19.89	4.58	1.59	1.31	2.49	2.49	90.1	600	2.49	
615	60	19.89	4.58	1.59	1.31	2.49	2.49	90.1	615	2.49	
630	60	19.89	4.58	1.59	1.31	2.49	2.49	90.1	630	2.49	
645	60	19.89	4.58	1.59	1.31	2.49	2.49	90.1	645	2.49	
660	60	19.89	4.58	1.59	1.31	2.49	2.49	90.1	660	2.49	
675	60	19.89	4.58	1.59	1.31	2.49	2.49	90.1	675	2.49	
690	60	19.89	4.58	1.59	1.31	2.49	2.49	90.1	690	2.49	
705	60	19.89	4.58	1.59	1.31	2.49	2.49	90.1	705	2.49	
720	60	19.89	4.58	1.59	1.31	2.49	2.49	90.1	720	2.49	
Release	735	20	6.63	4.37	1.49	1.14	2.33	2.33	30.0	735	2.33
	750	20	6.63	4.36	1.49	1.13	2.33	2.32	30.0	750	2.32
	765	20	6.63	4.35	1.49	1.13	2.32	2.32	30.0	765	2.32
	780	20	6.63	4.35	1.49	1.13	2.32	2.32	30.0	780	2.32
	795	20	6.63	4.35	1.49	1.13	2.32	2.32	30.0	795	2.32
	810	20	6.63	4.35	1.49	1.13	2.32	2.32	30.0	810	2.32
	825	20	6.63	4.35	1.49	1.13	2.32	2.32	30.0	825	2.32
	840	20	6.63	4.35	1.49	1.13	2.32	2.32	30.0	840	2.32
	855	0	0.00	3.10	0.90	0.54	1.51	1.51	0.0	855	1.51
	870	0	0.00	3.02	0.87	0.53	1.47	1.47	0.0	870	1.47
	885	0	0.00	2.96	0.85	0.51	1.44	1.44	0.0	885	1.44
	900	0	0.00	2.94	0.84	0.50	1.43	1.42	0.0	900	1.42
	915	0	0.00	2.91	0.83	0.50	1.41	1.41	0.0	915	1.41
	930	0	0.00	2.89	0.82	0.49	1.40	1.40	0.0	930	1.40
	945	0	0.00	2.87	0.81	0.49	1.39	1.39	0.0	945	1.39
	960	0	0.00	2.86	0.81	0.49	1.39	1.38	0.0	960	1.38

Graphs Continued over page

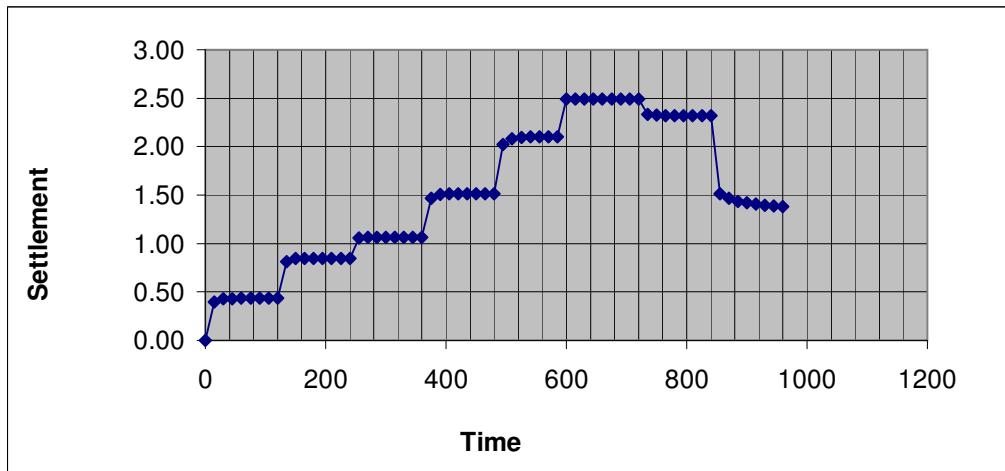
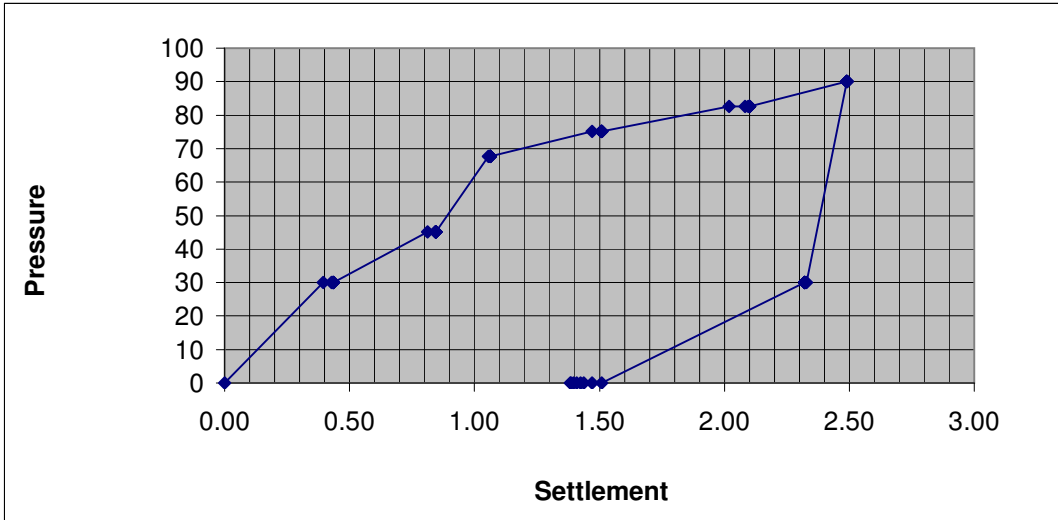
LIVING STONE TESTING
Insitu Plate-Bearing Test

Test Report Ref: TR/06313-1; 06339-1/1

Sheet: 13 of 25

Test Data / Results

Sub test Ref: 6



Equivalent CBR (%): 6.0

LIVING STONE TESTING
Insitu Plate-Bearing Test

Test Report Ref: TR/06313-1; 06339-1/1

Sheet: 14 of 25

Test Data / Results

Sub test Ref: 7
 Location: Access Road
 Material description: Orange silty sand with occasional cobbles.
 Material condition: N.a
 Weather conditions: N.a
 Kentledge used: Roller
 Plate diameter (mm): 530
 Plate area (mm²): 0.2206
 Jack/pump ref: PBJ 57047
 Calibration factor : 0.33148

	Elapsed time (s)	Pressure [Pump] (Bar)	Force (Kn)	Gauge Reading (mm)				Settlement (mm)	Plate pressure (Kn/m ²)	time (s)	Settlement (mm)	
				1	2	3	Avg.					
Pre-Loading	0	0	0.00	0.04	0.04	0.00	0.03	0.00	0.0	0	0.00	
Loading	15	20	6.63	0.93	0.28	0.28	0.50	0.47	30.0	15	0.47	
	30	20	6.63	0.97	0.28	0.28	0.51	0.48	30.0	30	0.48	
	45	20	6.63	0.99	0.29	0.29	0.52	0.50	30.0	45	0.50	
	60	20	6.63	1.02	0.29	0.29	0.53	0.51	30.0	60	0.51	
	75	20	6.63	1.05	0.30	0.29	0.55	0.52	30.0	75	0.52	
	90	20	6.63	1.05	0.30	0.29	0.55	0.52	30.0	90	0.52	
	105	20	6.63	1.05	0.30	0.29	0.55	0.52	30.0	105	0.52	
	120	20	6.63	1.05	0.30	0.29	0.55	0.52	30.0	120	0.52	
	135	35	11.60	2.10	0.46	0.54	1.03	1.01	52.6	135	1.01	
	150	35	11.60	2.15	0.47	0.54	1.05	1.03	52.6	150	1.03	
	165	35	11.60	2.17	0.47	0.54	1.06	1.03	52.6	165	1.03	
	180	35	11.60	2.18	0.47	0.55	1.07	1.04	52.6	180	1.04	
	195	35	11.60	2.19	0.47	0.55	1.07	1.04	52.6	195	1.04	
	210	35	11.60	2.19	0.47	0.55	1.07	1.04	52.6	210	1.04	
	225	35	11.60	2.19	0.47	0.55	1.07	1.04	52.6	225	1.04	
	240	35	11.60	2.19	0.47	0.55	1.07	1.04	52.6	240	1.04	
	255	55	18.23	2.98	0.62	0.78	1.46	1.43	82.6	255	1.43	
	270	55	18.23	3.07	0.65	0.80	1.51	1.48	82.6	270	1.48	
	285	55	18.23	3.11	0.66	0.81	1.53	1.50	82.6	285	1.50	
	300	55	18.23	3.18	0.71	0.83	1.57	1.55	82.6	300	1.55	
	315	55	18.23	3.21	0.71	0.84	1.59	1.56	82.6	315	1.56	
	330	55	18.23	3.23	0.71	0.84	1.59	1.57	82.6	330	1.57	
	345	55	18.23	3.23	0.71	0.84	1.59	1.57	82.6	345	1.57	
	360	55	18.23	3.23	0.71	0.84	1.59	1.57	82.6	360	1.57	
	375	65	21.55	4.25	0.94	1.16	2.12	2.09	97.7	375	2.09	
	390	65	21.55	4.42	1.03	1.22	2.22	2.20	97.7	390	2.20	
	405	65	21.55	4.51	1.06	1.26	2.28	2.25	97.7	405	2.25	
	420	65	21.55	4.55	1.08	1.27	2.30	2.27	97.7	420	2.27	
	435	65	21.55	4.59	1.09	1.28	2.32	2.29	97.7	435	2.29	
	450	65	21.55	4.61	1.10	1.29	2.33	2.31	97.7	450	2.31	
	465	65	21.55	4.63	1.11	1.29	2.34	2.32	97.7	465	2.32	
	480	65	21.55	4.65	1.11	1.30	2.35	2.33	97.7	480	2.33	
Release	495	20	6.63	4.27	1.07	1.20	2.18	2.15	30.0	495	2.15	
	510	20	6.63	4.25	1.07	1.20	2.17	2.15	30.0	510	2.15	
	525	20	6.63	4.25	1.07	1.20	2.17	2.15	30.0	525	2.15	
	540	20	6.63	4.25	1.07	1.20	2.17	2.15	30.0	540	2.15	
	555	20	6.63	4.25	1.07	1.20	2.17	2.15	30.0	555	2.15	
	570	20	6.63	4.25	1.07	1.20	2.17	2.15	30.0	570	2.15	
	585	20	6.63	4.25	1.07	1.20	2.17	2.15	30.0	585	2.15	
	600	20	6.63	4.25	1.07	1.20	2.17	2.15	30.0	600	2.15	
	615	0	0.00	2.63	0.19	0.30	1.04	1.01	0.0	0.0	615	1.01
	630	0	0.00	2.40	0.10	0.23	0.91	0.88	0.0	0.0	630	0.88
	645	0	0.00	2.31	0.08	0.21	0.87	0.84	0.0	0.0	645	0.84
	660	0	0.00	2.30	0.07	0.20	0.86	0.83	0.0	0.0	660	0.83
	675	0	0.00	2.30	0.07	0.20	0.86	0.83	0.0	675	0.83	
	690	0	0.00	2.30	0.07	0.20	0.86	0.83	0.0	690	0.83	
	705	0	0.00	2.30	0.07	0.20	0.86	0.83	0.0	705	0.83	
	720	0	0.00	2.30	0.07	0.20	0.86	0.83	0.0	720	0.83	

Graphs Continued over page

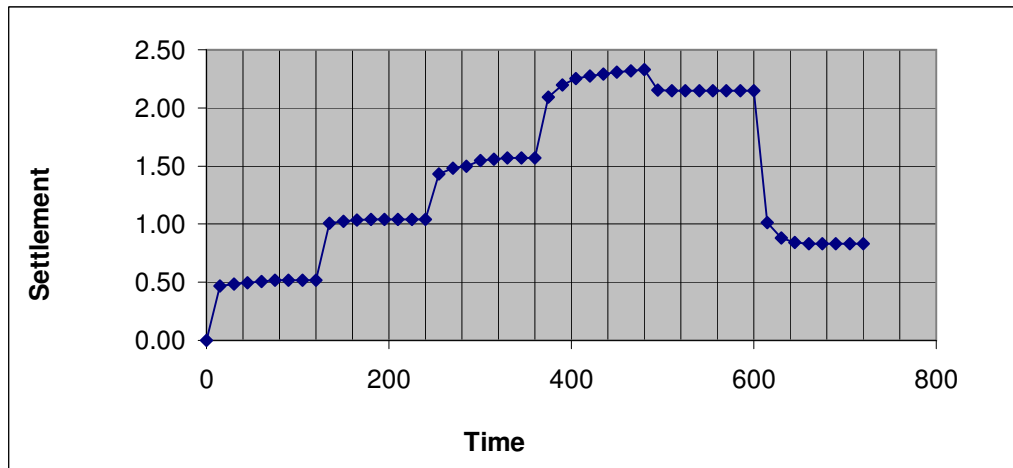
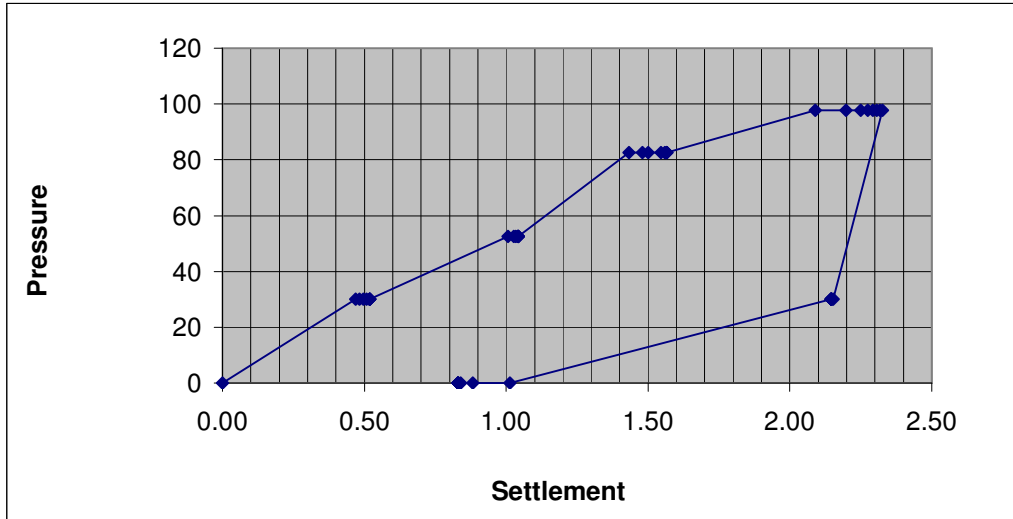
LIVING STONE TESTING
Insitu Plate-Bearing Test

Test Report Ref: TR/06313-1; 06339-1/1

Sheet: 15 of 25

Test Data / Results

Sub test Ref: 7



Equivalent CBR (%): 5.1

LIVING STONE TESTING
Insitu Plate-Bearing Test

Test Report Ref: TR/06339-1/1

Sheet: 16 of 25

Test Data / Results

Sub test Ref: 8
Location: Access Road
Material description: Orange silty sand with occasional cobbles.
Material condition: N.a
Weather conditions: N.a
Kentledge used: Roller

Plate diameter (mm): 530
Plate area (mm²): 0.2206
Jack/pump ref: PBJ 57047
Calibration factor : 0.33148

	Elapsed time (s)	Pressure [Pump] (Bar)	Force (Kn)	Gauge Reading (mm)				Settlement (mm)	Plate pressure (Kn/m ²)	time (s)	Settlement (mm)
				1	2	3	Avg.				
Pre-Loading	0	0	0.00	0.00	0.01	0.03	0.01	0.00	0.0	0	0.00
Loading	15	20	6.63	0.55	0.27	0.29	0.37	0.36	30.0	15	0.36
	30	20	6.63	0.62	0.31	0.30	0.41	0.40	30.0	30	0.40
	45	20	6.63	0.63	0.31	0.30	0.41	0.40	30.0	45	0.40
	60	20	6.63	0.64	0.32	0.30	0.42	0.41	30.0	60	0.41
	75	20	6.63	0.64	0.32	0.30	0.42	0.41	30.0	75	0.41
	90	20	6.63	0.64	0.32	0.30	0.42	0.41	30.0	90	0.41
	105	20	6.63	0.64	0.32	0.30	0.42	0.41	30.0	105	0.41
	120	20	6.63	0.64	0.32	0.30	0.42	0.41	30.0	120	0.41
	135	30	9.94	1.01	0.51	0.56	0.69	0.68	45.1	135	0.68
	150	30	9.94	1.05	0.52	0.57	0.71	0.70	45.1	150	0.70
	165	30	9.94	1.06	0.54	0.59	0.73	0.72	45.1	165	0.72
	180	30	9.94	1.07	0.54	0.60	0.74	0.72	45.1	180	0.72
	195	30	9.94	1.09	0.55	0.60	0.75	0.73	45.1	195	0.73
	210	30	9.94	1.09	0.55	0.60	0.75	0.73	45.1	210	0.73
	225	30	9.94	1.09	0.55	0.60	0.75	0.73	45.1	225	0.73
	240	30	9.94	1.09	0.55	0.60	0.75	0.73	45.1	240	0.73
	255	40	13.26	1.41	0.72	0.82	0.98	0.97	60.1	255	0.97
	270	40	13.26	1.45	0.74	0.84	1.01	1.00	60.1	270	1.00
	285	40	13.26	1.47	0.75	0.85	1.02	1.01	60.1	285	1.01
	300	40	13.26	1.48	0.76	0.85	1.03	1.02	60.1	300	1.02
	315	40	13.26	1.49	0.77	0.85	1.04	1.02	60.1	315	1.02
	330	40	13.26	1.51	0.78	0.86	1.05	1.04	60.1	330	1.04
	345	40	13.26	1.51	0.78	0.86	1.05	1.04	60.1	345	1.04
	360	40	13.26	1.51	0.78	0.86	1.05	1.04	60.1	360	1.04
375	45	14.92	1.76	0.89	1.00	1.22	1.20	67.6	375	1.20	
390	45	14.92	1.81	0.94	1.03	1.26	1.25	67.6	390	1.25	
405	45	14.92	1.82	0.95	1.04	1.27	1.26	67.6	405	1.26	
420	45	14.92	1.85	0.96	1.04	1.28	1.27	67.6	420	1.27	
435	45	14.92	1.85	0.96	1.04	1.28	1.27	67.6	435	1.27	
450	45	14.92	1.86	0.98	1.04	1.29	1.28	67.6	450	1.28	
465	45	14.92	1.86	0.98	1.04	1.29	1.28	67.6	465	1.28	
480	45	14.92	1.86	0.98	1.04	1.29	1.28	67.6	480	1.28	
495	50	16.57	2.59	1.33	1.30	1.74	1.73	75.1	495	1.73	
510	50	16.57	2.64	1.35	1.30	1.76	1.75	75.1	510	1.75	
525	50	16.57	2.66	1.36	1.32	1.78	1.77	75.1	525	1.77	
540	50	16.57	2.68	1.37	1.33	1.79	1.78	75.1	540	1.78	
555	50	16.57	2.69	1.38	1.34	1.80	1.79	75.1	555	1.79	
570	50	16.57	2.71	1.39	1.34	1.81	1.80	75.1	570	1.80	
585	50	16.57	2.71	1.39	1.34	1.81	1.80	75.1	585	1.80	
600	50	16.57	2.71	1.39	1.34	1.81	1.80	75.1	600	1.80	
Release	615	20	6.63	2.42	1.34	1.32	1.69	1.68	30.0	615	1.68
	630	20	6.63	2.37	1.33	1.30	1.67	1.65	30.0	630	1.65
	645	20	6.63	2.37	1.33	1.30	1.67	1.65	30.0	645	1.65
	660	20	6.63	2.37	1.33	1.30	1.67	1.65	30.0	660	1.65
	675	20	6.63	2.37	1.33	1.30	1.67	1.65	30.0	675	1.65
	690	20	6.63	2.37	1.33	1.30	1.67	1.65	30.0	690	1.65
	705	20	6.63	2.37	1.33	1.30	1.67	1.65	30.0	705	1.65
	720	20	6.63	2.37	1.33	1.30	1.67	1.65	30.0	720	1.65
	735	0	0.00	1.32	0.92	0.44	0.89	0.88	0.0	735	0.88
	750	0	0.00	1.21	0.90	0.39	0.83	0.82	0.0	750	0.82
	765	0	0.00	1.20	0.89	0.39	0.83	0.81	0.0	765	0.81
	780	0	0.00	1.19	0.87	0.38	0.81	0.80	0.0	780	0.80
	795	0	0.00	1.19	0.87	0.38	0.81	0.80	0.0	795	0.80
	810	0	0.00	1.19	0.87	0.38	0.81	0.80	0.0	810	0.80
825	0	0.00	1.19	0.87	0.38	0.81	0.80	0.0	825	0.80	
840	0	0.00	1.19	0.87	0.38	0.81	0.80	0.0	840	0.80	

Graphs Continued over page

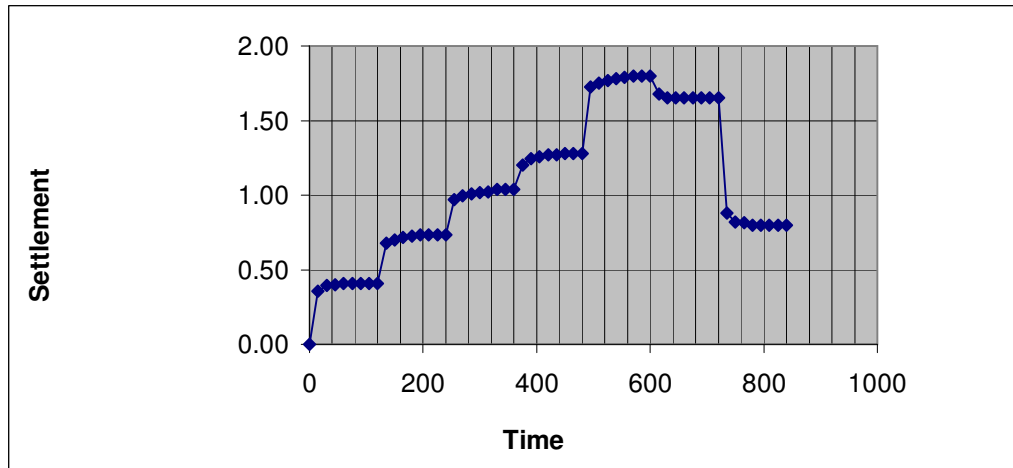
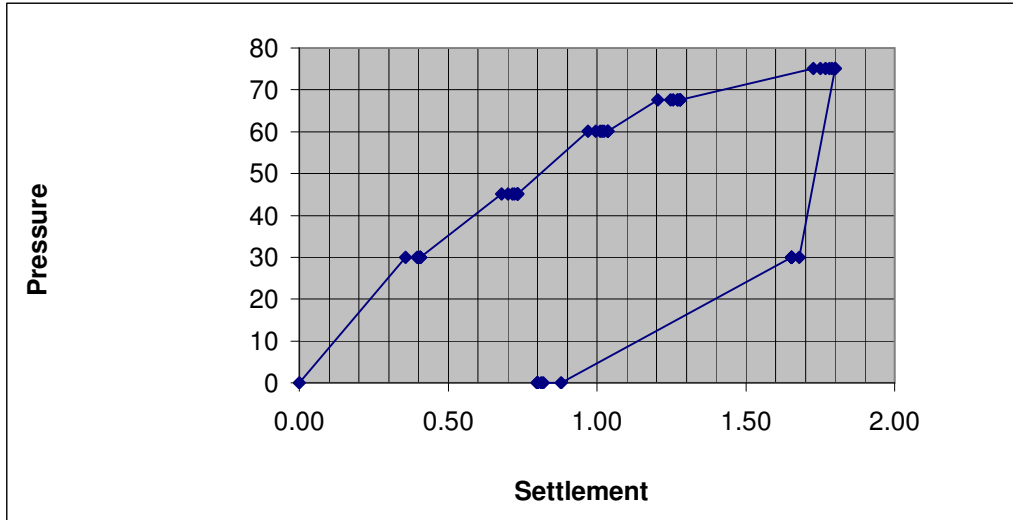
LIVING STONE TESTING
Insitu Plate-Bearing Test

Test Report Ref: TR/06339-1/1

Sheet: 17 of 25

Test Data / Results

Sub test Ref: 8



Equivalent CBR (%): 5.4

LIVING STONE TESTING
Insitu Plate-Bearing Test

Test Report Ref: TR/06339-1/1

Sheet: 18 of 25

Test Data / Results

Sub test Ref: 9
Location: Access Road
Material description: Orange silty sand with occasional cobbles.
Material condition: N.a
Weather conditions: N.a
Kentledge used: Roller

Plate diameter (mm): 530
Plate area (mm²): 0.2206
Jack/pump ref: PBJ 57047
Calibration factor : 0.33148

	Elapsed time (s)	Pressure [Pump] (Bar)	Force (Kn)	Gauge Reading (mm)				Settlement (mm)	Plate pressure (Kn/m ²)	time (s)	Settlement (mm)
				1	2	3	Avg.				
Pre-Loading	0	0	0.00	0.00	0.02	0.00	0.01	0.00	0.0	0	0.00
Loading	15	20	6.63	0.66	0.42	0.10	0.39	0.39	30.0	15	0.39
	30	20	6.63	0.73	0.45	0.11	0.43	0.42	30.0	30	0.42
	45	20	6.63	0.76	0.47	0.11	0.45	0.44	30.0	45	0.44
	60	20	6.63	0.79	0.49	0.12	0.47	0.46	30.0	60	0.46
	75	20	6.63	0.81	0.50	0.12	0.48	0.47	30.0	75	0.47
	90	20	6.63	0.82	0.51	0.12	0.48	0.48	30.0	90	0.48
	105	20	6.63	0.82	0.51	0.12	0.48	0.48	30.0	105	0.48
	120	20	6.63	0.82	0.51	0.12	0.48	0.48	30.0	120	0.48
	135	25	8.29	1.06	0.64	0.14	0.61	0.61	37.6	135	0.61
	150	25	8.29	1.11	0.67	0.14	0.64	0.63	37.6	150	0.63
	165	25	8.29	1.12	0.68	0.15	0.65	0.64	37.6	165	0.64
	180	25	8.29	1.14	0.69	0.16	0.66	0.66	37.6	180	0.66
	195	25	8.29	1.15	0.70	0.16	0.67	0.66	37.6	195	0.66
	210	25	8.29	1.15	0.70	0.16	0.67	0.66	37.6	210	0.66
	225	25	8.29	1.15	0.70	0.16	0.67	0.66	37.6	225	0.66
	240	25	8.29	1.15	0.70	0.16	0.67	0.66	37.6	240	0.66
	255	35	11.60	1.47	0.90	0.19	0.85	0.85	52.6	255	0.85
	270	35	11.60	1.58	0.98	0.19	0.92	0.91	52.6	270	0.91
	285	35	11.60	1.60	1.00	0.19	0.93	0.92	52.6	285	0.92
	300	35	11.60	1.61	1.01	0.19	0.94	0.93	52.6	300	0.93
	315	35	11.60	1.66	1.02	0.19	0.96	0.95	52.6	315	0.95
	330	35	11.60	1.66	1.02	0.19	0.96	0.95	52.6	330	0.95
	345	35	11.60	1.66	1.02	0.19	0.96	0.95	52.6	345	0.95
	360	35	11.60	1.66	1.02	0.19	0.96	0.95	52.6	360	0.95
375	45	14.92	2.15	1.36	0.21	1.24	1.23	67.6	375	1.23	
390	45	14.92	2.22	1.42	0.22	1.29	1.28	67.6	390	1.28	
405	45	14.92	2.27	1.45	0.19	1.30	1.30	67.6	405	1.30	
420	45	14.92	2.29	1.47	0.19	1.32	1.31	67.6	420	1.31	
435	45	14.92	2.31	1.48	0.19	1.33	1.32	67.6	435	1.32	
450	45	14.92	2.31	1.48	0.19	1.33	1.32	67.6	450	1.32	
465	45	14.92	2.31	1.48	0.19	1.33	1.32	67.6	465	1.32	
480	45	14.92	2.31	1.48	0.19	1.33	1.32	67.6	480	1.32	
495	55	18.23	3.41	2.10	0.56	2.02	2.02	82.6	495	2.02	
510	55	18.23	3.47	2.15	0.56	2.06	2.05	82.6	510	2.05	
525	55	18.23	3.50	2.17	0.56	2.08	2.07	82.6	525	2.07	
540	55	18.23	3.52	2.19	0.56	2.09	2.08	82.6	540	2.08	
555	55	18.23	3.53	2.20	0.56	2.10	2.09	82.6	555	2.09	
570	55	18.23	3.55	2.20	0.56	2.10	2.10	82.6	570	2.10	
585	55	18.23	3.56	2.22	0.56	2.11	2.11	82.6	585	2.11	
600	55	18.23	3.57	2.24	0.56	2.12	2.12	82.6	600	2.12	
Release	615	20	6.63	3.43	2.15	0.56	2.05	2.04	30.0	615	2.04
	630	20	6.63	3.42	2.15	0.54	2.04	2.03	30.0	630	2.03
	645	20	6.63	3.42	2.15	0.54	2.04	2.03	30.0	645	2.03
	660	20	6.63	3.42	2.15	0.54	2.04	2.03	30.0	660	2.03
	675	20	6.63	3.42	2.15	0.54	2.04	2.03	30.0	675	2.03
	690	20	6.63	3.42	2.15	0.54	2.04	2.03	30.0	690	2.03
	705	20	6.63	3.42	2.15	0.54	2.04	2.03	30.0	705	2.03
	720	20	6.63	3.42	2.15	0.54	2.04	2.03	30.0	720	2.03
	735	0	0.00	2.84	1.67	0.12	1.54	1.54	0.0	735	1.54
	750	0	0.00	2.79	1.63	0.10	1.51	1.50	0.0	750	1.50
	765	0	0.00	2.77	1.66	0.10	1.51	1.50	0.0	765	1.50
	780	0	0.00	2.77	1.66	0.10	1.51	1.50	0.0	780	1.50
	795	0	0.00	2.77	1.66	0.10	1.51	1.50	0.0	795	1.50
	810	0	0.00	2.77	1.66	0.10	1.51	1.50	0.0	810	1.50
	825	0	0.00	2.77	1.66	0.10	1.51	1.50	0.0	825	1.50
	840	0	0.00	2.77	1.66	0.10	1.51	1.50	0.0	840	1.50

Graphs Continued over page

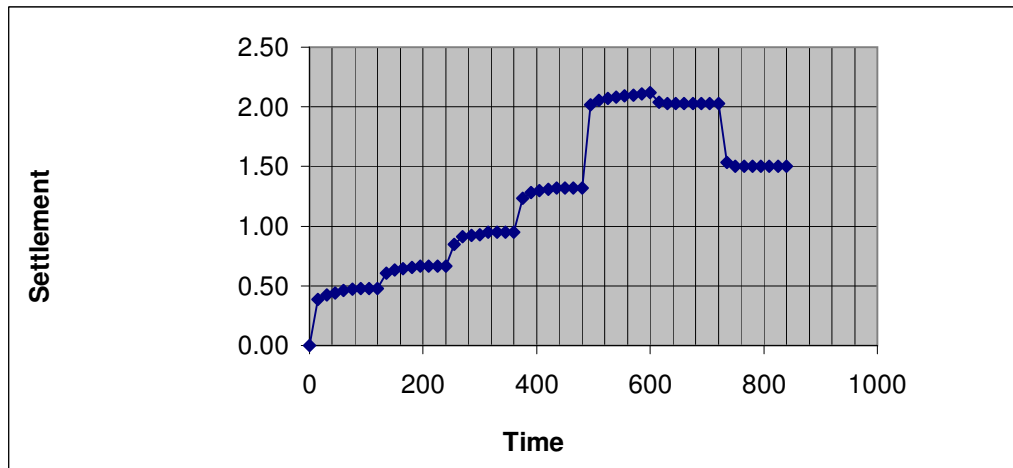
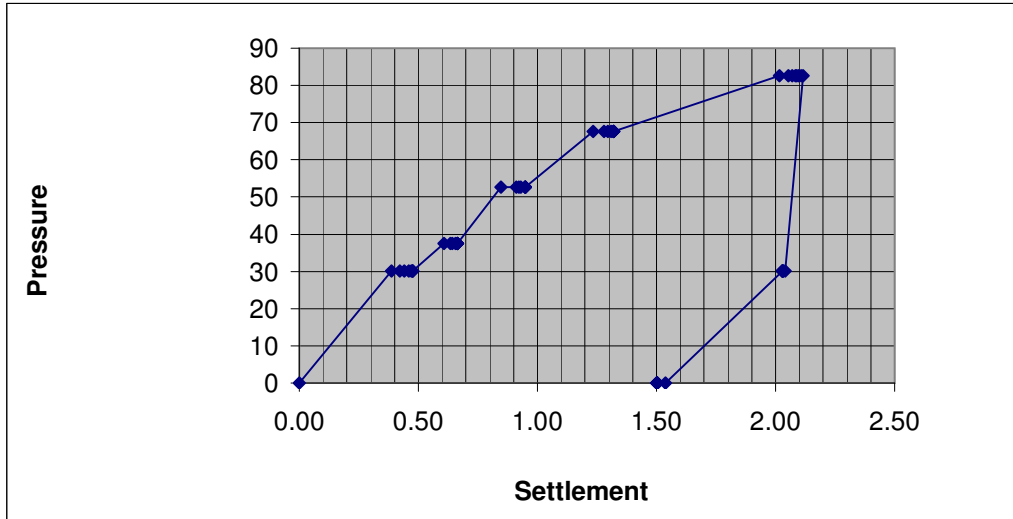
LIVING STONE TESTING
Insitu Plate-Bearing Test

Test Report Ref: TR/06339-1/1

Sheet: 19 of 25

Test Data / Results

Sub test Ref: 9



Equivalent CBR (%): 5.1

LIVING STONE TESTING
Insitu Plate-Bearing Test

Test Report Ref: TR/06339-1/1

Sheet: 20 of 25

Test Data / Results

Sub test Ref: 10
 Location: Access Road
 Material description: Orange silty sand with occasional cobbles.
 Material condition: N.a
 Weather conditions: N.a
 Kentledge used: Roller
 Plate diameter (mm): 530
 Plate area (mm²): 0.2206
 Jack/pump ref: PBJ 57047
 Calibration factor : 0.33148

	Elapsed time (s)	Pressure [Pump] (Bar)	Force (Kn)	Gauge Reading (mm)				Settlement (mm)	Plate pressure (Kn/m ²)	time (s)	Settlement (mm)
				1	2	3	Avg.				
Pre-Loading	0	0	0.00	0.01	0.02	0.00	0.01	0.00	0.0	0	0.00
Loading	15	20	6.63	0.30	0.41	0.22	0.31	0.30	30.0	15	0.30
	30	20	6.63	0.32	0.44	0.23	0.33	0.32	30.0	30	0.32
	45	20	6.63	0.32	0.45	0.24	0.34	0.33	30.0	45	0.33
	60	20	6.63	0.33	0.46	0.24	0.34	0.33	30.0	60	0.33
	75	20	6.63	0.33	0.48	0.25	0.35	0.34	30.0	75	0.34
	90	20	6.63	0.33	0.48	0.25	0.35	0.34	30.0	90	0.34
	105	20	6.63	0.33	0.48	0.25	0.35	0.34	30.0	105	0.34
	120	20	6.63	0.33	0.48	0.25	0.35	0.34	30.0	120	0.34
	135	30	9.94	0.64	0.92	0.54	0.70	0.69	45.1	135	0.69
	150	30	9.94	0.68	0.96	0.56	0.73	0.72	45.1	150	0.72
	165	30	9.94	0.72	1.02	0.58	0.77	0.76	45.1	165	0.76
	180	30	9.94	0.72	1.03	0.59	0.78	0.77	45.1	180	0.77
	195	30	9.94	0.72	1.04	0.60	0.79	0.78	45.1	195	0.78
	210	30	9.94	0.73	1.05	0.60	0.79	0.78	45.1	210	0.78
	225	30	9.94	0.73	1.05	0.60	0.79	0.78	45.1	225	0.78
	240	30	9.94	0.73	1.05	0.60	0.79	0.78	45.1	240	0.78
	255	40	13.26	0.89	1.25	0.74	0.96	0.95	60.1	255	0.95
	270	40	13.26	0.91	1.27	0.76	0.98	0.97	60.1	270	0.97
	285	40	13.26	0.91	1.29	0.76	0.99	0.98	60.1	285	0.98
	300	40	13.26	0.92	1.30	0.77	1.00	0.99	60.1	300	0.99
	315	40	13.26	0.93	1.32	0.78	1.01	1.00	60.1	315	1.00
	330	40	13.26	0.95	1.36	0.80	1.04	1.03	60.1	330	1.03
	345	40	13.26	0.99	1.40	0.82	1.07	1.06	60.1	345	1.06
	360	40	13.26	0.99	1.40	0.82	1.07	1.06	60.1	360	1.06
375	50	16.57	1.19	1.65	0.98	1.27	1.26	75.1	375	1.26	
390	50	16.57	1.26	1.72	1.01	1.33	1.32	75.1	390	1.32	
405	50	16.57	1.28	1.76	1.03	1.36	1.35	75.1	405	1.35	
420	50	16.57	1.31	1.79	1.05	1.38	1.37	75.1	420	1.37	
435	50	16.57	1.34	1.84	1.07	1.42	1.41	75.1	435	1.41	
450	50	16.57	1.34	1.84	1.07	1.42	1.41	75.1	450	1.41	
465	50	16.57	1.34	1.84	1.07	1.42	1.41	75.1	465	1.41	
480	50	16.57	1.34	1.84	1.07	1.42	1.41	75.1	480	1.41	
495	55	18.23	1.50	2.06	1.20	1.59	1.58	82.6	495	1.58	
510	55	18.23	1.54	2.14	1.27	1.65	1.64	82.6	510	1.64	
525	55	18.23	1.59	2.19	1.30	1.69	1.68	82.6	525	1.68	
540	55	18.23	1.60	2.21	1.31	1.71	1.70	82.6	540	1.70	
555	55	18.23	1.62	2.23	1.32	1.72	1.71	82.6	555	1.71	
570	55	18.23	1.62	2.23	1.32	1.72	1.71	82.6	570	1.71	
585	55	18.23	1.62	2.23	1.32	1.72	1.71	82.6	585	1.71	
600	55	18.23	1.62	2.23	1.32	1.72	1.71	82.6	600	1.71	
Release	615	20	6.63	1.60	2.15	1.13	1.63	1.62	30.0	615	1.62
	630	20	6.63	1.59	2.13	1.12	1.61	1.60	30.0	630	1.60
	645	20	6.63	1.59	2.13	1.12	1.61	1.60	30.0	645	1.60
	660	20	6.63	1.59	2.13	1.12	1.61	1.60	30.0	660	1.60
	675	20	6.63	1.59	2.13	1.12	1.61	1.60	30.0	675	1.60
	690	20	6.63	1.59	2.13	1.12	1.61	1.60	30.0	690	1.60
	705	20	6.63	1.59	2.13	1.12	1.61	1.60	30.0	705	1.60
	720	20	6.63	1.59	2.13	1.12	1.61	1.60	30.0	720	1.60
	735	0	0.00	0.82	1.88	0.94	1.21	1.20	0.0	735	1.20
	750	0	0.00	0.78	1.86	0.93	1.19	1.18	0.0	750	1.18
	765	0	0.00	0.76	1.85	0.91	1.17	1.16	0.0	765	1.16
	780	0	0.00	0.74	1.85	0.91	1.17	1.16	0.0	780	1.16
	795	0	0.00	0.74	1.85	0.91	1.17	1.16	0.0	795	1.16
	810	0	0.00	0.74	1.85	0.91	1.17	1.16	0.0	810	1.16
	825	0	0.00	0.74	1.85	0.91	1.17	1.16	0.0	825	1.16
	840	0	0.00	0.74	1.85	0.91	1.17	1.16	0.0	840	1.16

Graphs Continued over page

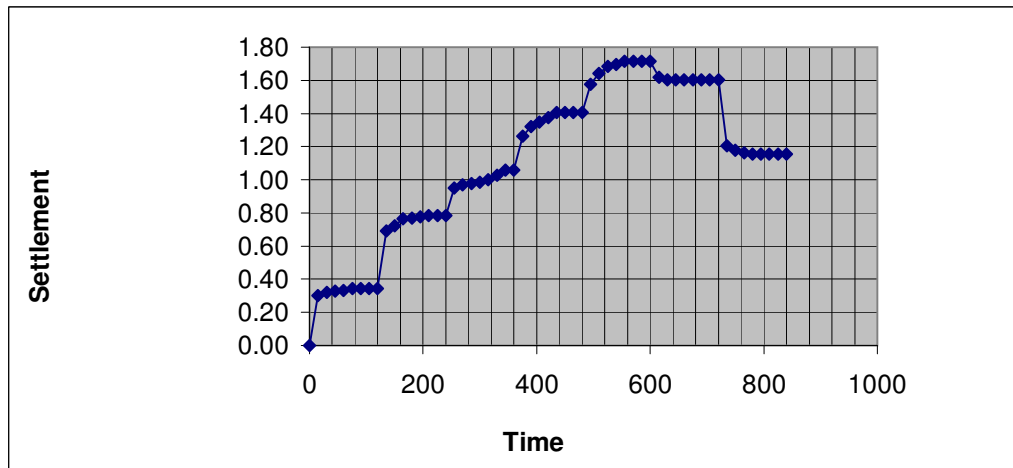
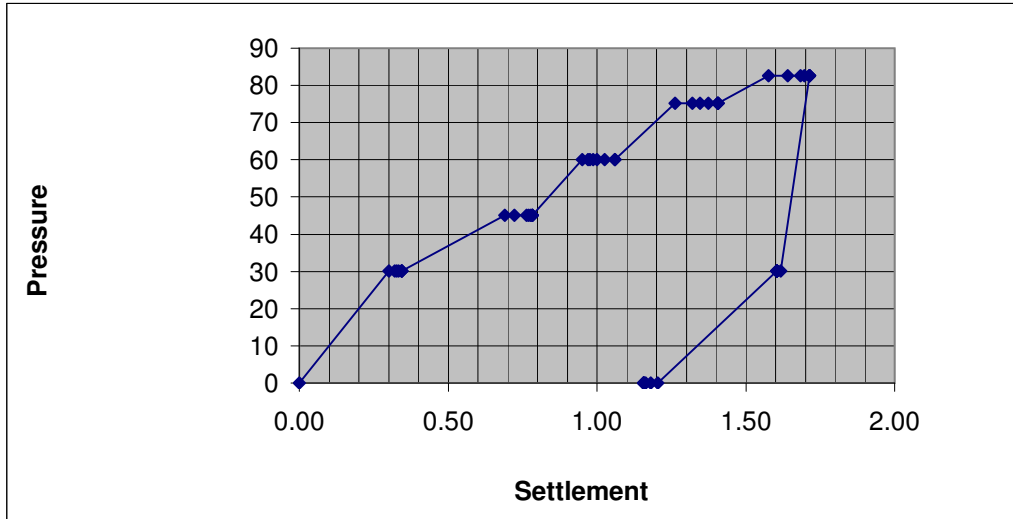
LIVING STONE TESTING
Insitu Plate-Bearing Test

Test Report Ref: TR/06339-1/1

Sheet: 21 of 25

Test Data / Results

Sub test Ref: 10



Equivalent CBR (%): 5.6

LIVING STONE TESTING
Insitu Plate-Bearing Test

Test Report Ref: TR/06339-1/1

Sheet: 22 of 25

Test Data / Results

Sub test Ref: 11
 Location: Access Road
 Material description: Orange silty sand with occasional cobbles.
 Material condition: N.a
 Weather conditions: N.a
 Kentledge used: Roller

Plate diameter (mm): 530
 Plate area (mm²): 0.2206
 Jack/pump ref: PBJ 57047
 Calibration factor : 0.33148

	Elapsed time (s)	Pressure [Pump] (Bar)	Force (Kn)	Gauge Reading (mm)				Settlement (mm)	Plate pressure (Kn/m ²)	time (s)	Settlement (mm)
				1	2	3	Avg.				
Pre-Loading	0	0	0.00	0.00	0.05	0.00	0.02	0.00	0.0	0	0.00
Loading	15	15	4.97	0.21	0.60	0.28	0.36	0.35	22.5	15	0.35
	30	15	4.97	0.21	0.63	0.29	0.38	0.36	22.5	30	0.36
	45	15	4.97	0.21	0.64	0.29	0.38	0.36	22.5	45	0.36
	60	15	4.97	0.22	0.65	0.29	0.39	0.37	22.5	60	0.37
	75	15	4.97	0.22	0.65	0.29	0.39	0.37	22.5	75	0.37
	90	15	4.97	0.22	0.65	0.29	0.39	0.37	22.5	90	0.37
	105	15	4.97	0.22	0.65	0.29	0.39	0.37	22.5	105	0.37
	120	15	4.97	0.22	0.65	0.29	0.39	0.37	22.5	120	0.37
	135	25	8.29	0.33	1.05	0.53	0.64	0.62	37.6	135	0.62
	150	25	8.29	0.36	1.09	0.56	0.67	0.65	37.6	150	0.65
	165	25	8.29	0.36	1.10	0.57	0.68	0.66	37.6	165	0.66
	180	25	8.29	0.36	1.10	0.58	0.68	0.66	37.6	180	0.66
	195	25	8.29	0.37	1.11	0.59	0.69	0.67	37.6	195	0.67
	210	25	8.29	0.37	1.12	0.59	0.69	0.68	37.6	210	0.68
	225	25	8.29	0.37	1.12	0.59	0.69	0.68	37.6	225	0.68
	240	25	8.29	0.37	1.12	0.59	0.69	0.68	37.6	240	0.68
	255	35	11.60	0.51	1.38	0.76	0.88	0.87	52.6	255	0.87
	270	35	11.60	0.54	1.42	0.80	0.92	0.90	52.6	270	0.90
	285	35	11.60	0.55	1.43	0.81	0.93	0.91	52.6	285	0.91
	300	35	11.60	0.55	1.44	0.81	0.93	0.92	52.6	300	0.92
	315	35	11.60	0.55	1.45	0.82	0.94	0.92	52.6	315	0.92
	330	35	11.60	0.56	1.46	0.82	0.95	0.93	52.6	330	0.93
	345	35	11.60	0.56	1.46	0.83	0.95	0.93	52.6	345	0.93
	360	35	11.60	0.56	1.46	0.83	0.95	0.93	52.6	360	0.93
375	45	14.92	0.78	1.84	1.13	1.25	1.23	67.6	375	1.23	
390	45	14.92	0.81	1.87	1.14	1.27	1.26	67.6	390	1.26	
405	45	14.92	0.82	1.88	1.15	1.28	1.27	67.6	405	1.27	
420	45	14.92	0.83	1.89	1.16	1.29	1.28	67.6	420	1.28	
435	45	14.92	0.84	1.90	1.17	1.30	1.29	67.6	435	1.29	
450	45	14.92	0.84	1.90	1.21	1.32	1.30	67.6	450	1.30	
465	45	14.92	0.85	1.91	1.21	1.32	1.31	67.6	465	1.31	
480	45	14.92	0.85	1.91	1.21	1.32	1.31	67.6	480	1.31	
495	50	16.57	1.03	2.11	1.36	1.50	1.48	75.1	495	1.48	
510	50	16.57	1.08	2.15	1.42	1.55	1.53	75.1	510	1.53	
525	50	16.57	1.09	2.16	1.44	1.56	1.55	75.1	525	1.55	
540	50	16.57	1.11	2.18	1.47	1.59	1.57	75.1	540	1.57	
555	50	16.57	1.11	2.19	1.47	1.59	1.57	75.1	555	1.57	
570	50	16.57	1.12	2.20	1.48	1.60	1.58	75.1	570	1.58	
585	50	16.57	1.12	2.20	1.48	1.60	1.58	75.1	585	1.58	
600	50	16.57	1.12	2.20	1.48	1.60	1.58	75.1	600	1.58	
Release	615	20	6.63	1.12	2.14	1.50	1.59	1.57	30.0	615	1.57
	630	20	6.63	1.12	2.14	1.49	1.58	1.57	30.0	630	1.57
	645	20	6.63	1.12	2.14	1.47	1.58	1.56	30.0	645	1.56
	660	20	6.63	1.12	2.14	1.47	1.58	1.56	30.0	660	1.56
	675	20	6.63	1.12	2.14	1.47	1.58	1.56	30.0	675	1.56
	690	20	6.63	1.12	2.14	1.47	1.58	1.56	30.0	690	1.56
	705	20	6.63	1.12	2.14	1.47	1.58	1.56	30.0	705	1.56
	720	20	6.63	1.12	2.14	1.47	1.58	1.56	30.0	720	1.56
	735	0	0.00	0.64	1.12	0.88	0.88	0.86	0.0	735	0.86
	750	0	0.00	0.60	1.05	0.82	0.82	0.81	0.0	750	0.81
	765	0	0.00	0.56	1.01	0.79	0.79	0.77	0.0	765	0.77
	780	0	0.00	0.55	0.98	0.77	0.77	0.75	0.0	780	0.75
	795	0	0.00	0.55	0.95	0.74	0.75	0.73	0.0	795	0.73
	810	0	0.00	0.54	0.94	0.73	0.74	0.72	0.0	810	0.72
825	0	0.00	0.54	0.93	0.72	0.73	0.71	0.0	825	0.71	
840	0	0.00	0.54	0.93	0.72	0.73	0.71	0.0	840	0.71	

Graphs Continued over page

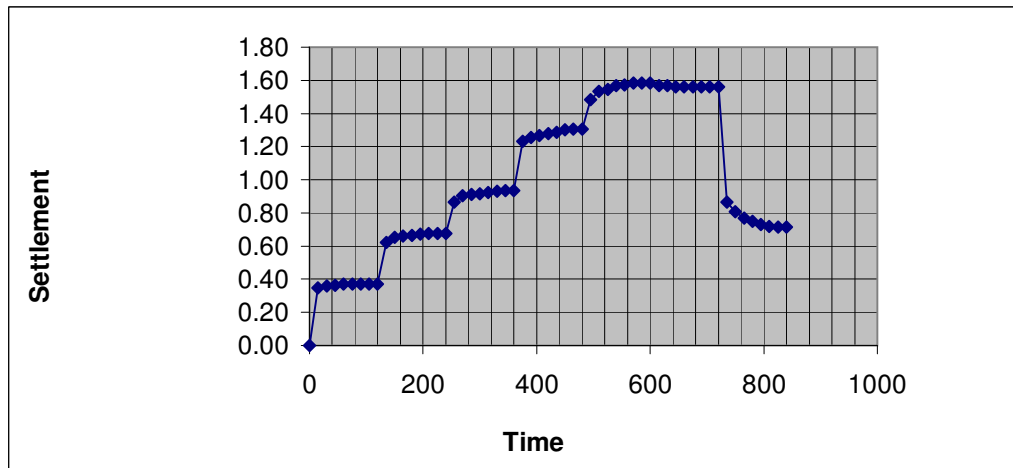
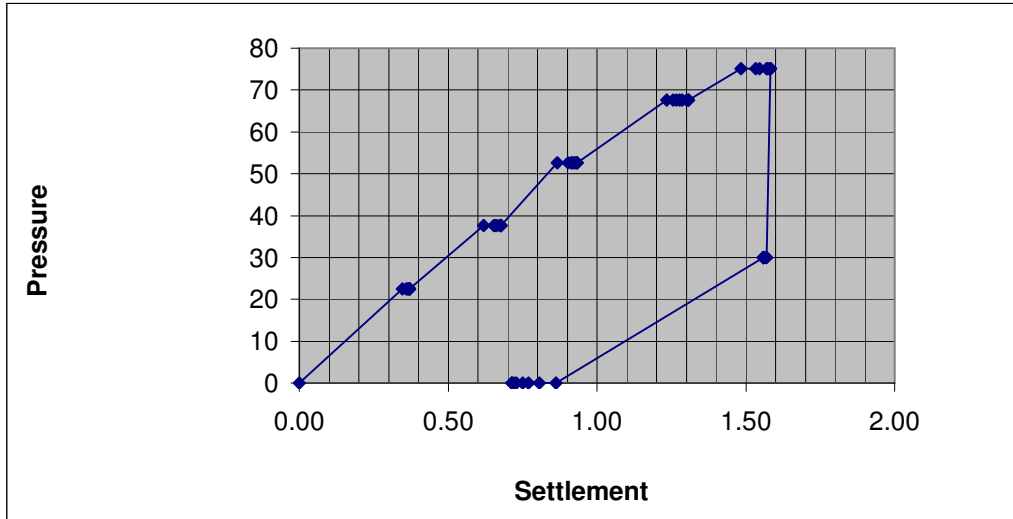
LIVING STONE TESTING
Insitu Plate-Bearing Test

Test Report Ref: TR/06339-1/1

Sheet: 23 of 25

Test Data / Results

Sub test Ref: 11



Equivalent CBR (%): 5.2

LIVING STONE TESTING
Insitu Plate-Bearing Test

Test Report Ref: TR/06339-1/1

Sheet: 24 of 25

Test Data / Results

Sub test Ref: 12
 Location: Outside Top Gate
 Material description: Orange silty sand with occasional cobbles.
 Material condition: N.a
 Weather conditions: N.a
 Kentledge used: Roller
 Plate diameter (mm): 530
 Plate area (mm²): 0.2206
 Jack/pump ref: PBJ 57047
 Calibration factor : 0.33148

	Elapsed time (s)	Pressure [Pump] (Bar)	Force (Kn)	Gauge Reading (mm)				Settlement (mm)	Plate pressure (Kn/m ²)	time (s)	Settlement (mm)
				1	2	3	Avg.				
Pre-Loading	0	0	0.00	0.04	0.03	0.04	0.04	0.00	0.0	0	0.00
Loading	15	20	6.63	0.40	0.23	0.21	0.28	0.24	30.0	15	0.24
	30	20	6.63	0.49	0.23	0.22	0.31	0.28	30.0	30	0.28
	45	20	6.63	0.50	0.24	0.22	0.32	0.28	30.0	45	0.28
	60	20	6.63	0.51	0.25	0.23	0.33	0.29	30.0	60	0.29
	75	20	6.63	0.51	0.25	0.23	0.33	0.29	30.0	75	0.29
	90	20	6.63	0.51	0.25	0.23	0.33	0.29	30.0	90	0.29
	105	20	6.63	0.51	0.25	0.23	0.33	0.29	30.0	105	0.29
	120	20	6.63	0.51	0.25	0.23	0.33	0.29	30.0	120	0.29
	135	25	8.29	0.92	0.45	0.44	0.60	0.57	37.6	135	0.57
	150	25	8.29	0.98	0.49	0.47	0.65	0.61	37.6	150	0.61
	165	25	8.29	0.99	0.50	0.47	0.65	0.62	37.6	165	0.62
	180	25	8.29	1.00	0.51	0.48	0.66	0.63	37.6	180	0.63
	195	25	8.29	1.00	0.51	0.48	0.66	0.63	37.6	195	0.63
	210	25	8.29	1.00	0.51	0.48	0.66	0.63	37.6	210	0.63
	225	25	8.29	1.00	0.51	0.48	0.66	0.63	37.6	225	0.63
	240	25	8.29	1.00	0.51	0.48	0.66	0.63	37.6	240	0.63
	255	35	11.60	1.35	0.68	0.66	0.90	0.86	52.6	255	0.86
	270	35	11.60	1.38	0.70	0.67	0.92	0.88	52.6	270	0.88
	285	35	11.60	1.38	0.71	0.68	0.92	0.89	52.6	285	0.89
	300	35	11.60	1.39	0.72	0.69	0.93	0.90	52.6	300	0.90
	315	35	11.60	1.41	0.72	0.69	0.94	0.90	52.6	315	0.90
	330	35	11.60	1.42	0.73	0.69	0.95	0.91	52.6	330	0.91
	345	35	11.60	1.42	0.73	0.70	0.95	0.91	52.6	345	0.91
	360	35	11.60	1.43	0.74	0.70	0.96	0.92	52.6	360	0.92
375	45	14.92	1.80	0.91	0.91	1.21	1.17	67.6	375	1.17	
390	45	14.92	1.84	0.94	0.93	1.24	1.20	67.6	390	1.20	
405	45	14.92	1.84	0.95	0.93	1.24	1.20	67.6	405	1.20	
420	45	14.92	1.86	0.95	0.94	1.25	1.21	67.6	420	1.21	
435	45	14.92	1.86	0.96	0.94	1.25	1.22	67.6	435	1.22	
450	45	14.92	1.87	0.96	0.95	1.26	1.22	67.6	450	1.22	
465	45	14.92	1.87	0.96	0.95	1.26	1.22	67.6	465	1.22	
480	45	14.92	1.87	0.96	0.95	1.26	1.22	67.6	480	1.22	
495	50	16.57	2.20	1.12	1.12	1.48	1.44	75.1	495	1.44	
510	50	16.57	2.22	1.13	1.13	1.49	1.46	75.1	510	1.46	
525	50	16.57	2.22	1.14	1.14	1.50	1.46	75.1	525	1.46	
540	50	16.57	2.22	1.15	1.15	1.51	1.47	75.1	540	1.47	
555	50	16.57	2.26	1.15	1.16	1.52	1.49	75.1	555	1.49	
570	50	16.57	2.26	1.16	1.16	1.53	1.49	75.1	570	1.49	
585	50	16.57	2.26	1.16	1.16	1.53	1.49	75.1	585	1.49	
600	50	16.57	2.26	1.16	1.16	1.53	1.49	75.1	600	1.49	
Release	495	20	6.63	2.21	1.16	1.13	1.50	1.46	30.0	495	1.46
	510	20	6.63	2.21	1.16	1.13	1.50	1.46	30.0	510	1.46
	525	20	6.63	2.21	1.16	1.13	1.50	1.46	30.0	525	1.46
	540	20	6.63	2.21	1.16	1.13	1.50	1.46	30.0	540	1.46
	555	20	6.63	2.21	1.16	1.13	1.50	1.46	30.0	555	1.46
	570	20	6.63	2.21	1.16	1.13	1.50	1.46	30.0	570	1.46
	585	20	6.63	2.21	1.16	1.13	1.50	1.46	30.0	585	1.46
	600	20	6.63	2.21	1.16	1.13	1.50	1.46	30.0	600	1.46
	615	0	0.00	1.09	0.37	0.90	0.79	0.75	0.0	615	0.75
	630	0	0.00	1.02	0.29	0.83	0.71	0.68	0.0	630	0.68
	645	0	0.00	1.01	0.26	0.80	0.69	0.65	0.0	645	0.65
	660	0	0.00	1.00	0.24	0.76	0.67	0.63	0.0	660	0.63
675	0	0.00	0.99	0.23	0.76	0.66	0.62	0.0	675	0.62	
690	0	0.00	0.99	0.23	0.76	0.66	0.62	0.0	690	0.62	
705	0	0.00	0.99	0.23	0.76	0.66	0.62	0.0	705	0.62	
720	0	0.00	0.99	0.23	0.76	0.66	0.62	0.0	720	0.62	

Graphs Continued over page

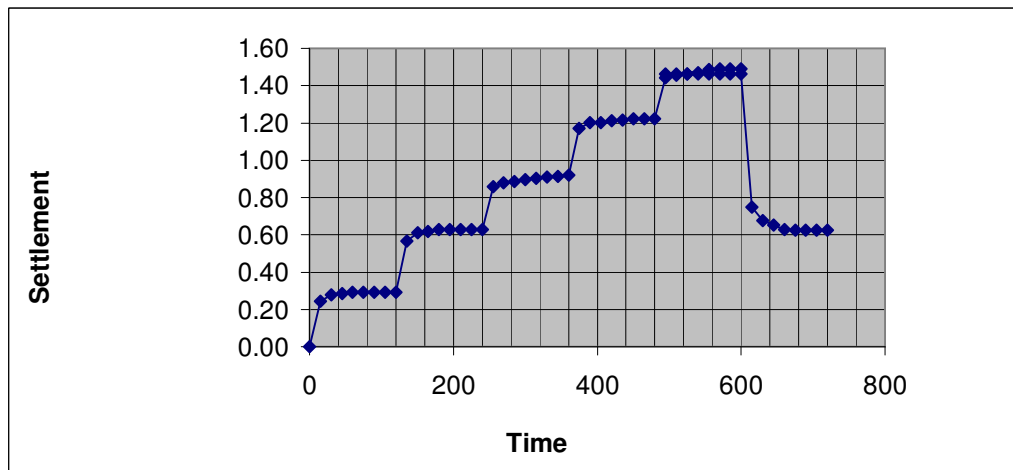
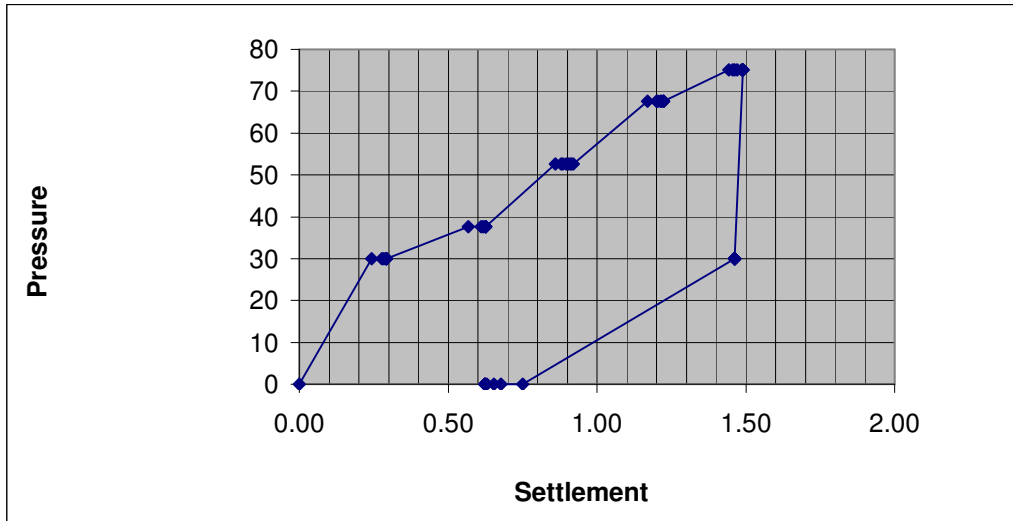
LIVING STONE TESTING
Insitu Plate-Bearing Test

Test Report Ref: TR/06339-1/1

Sheet: 25 of 25

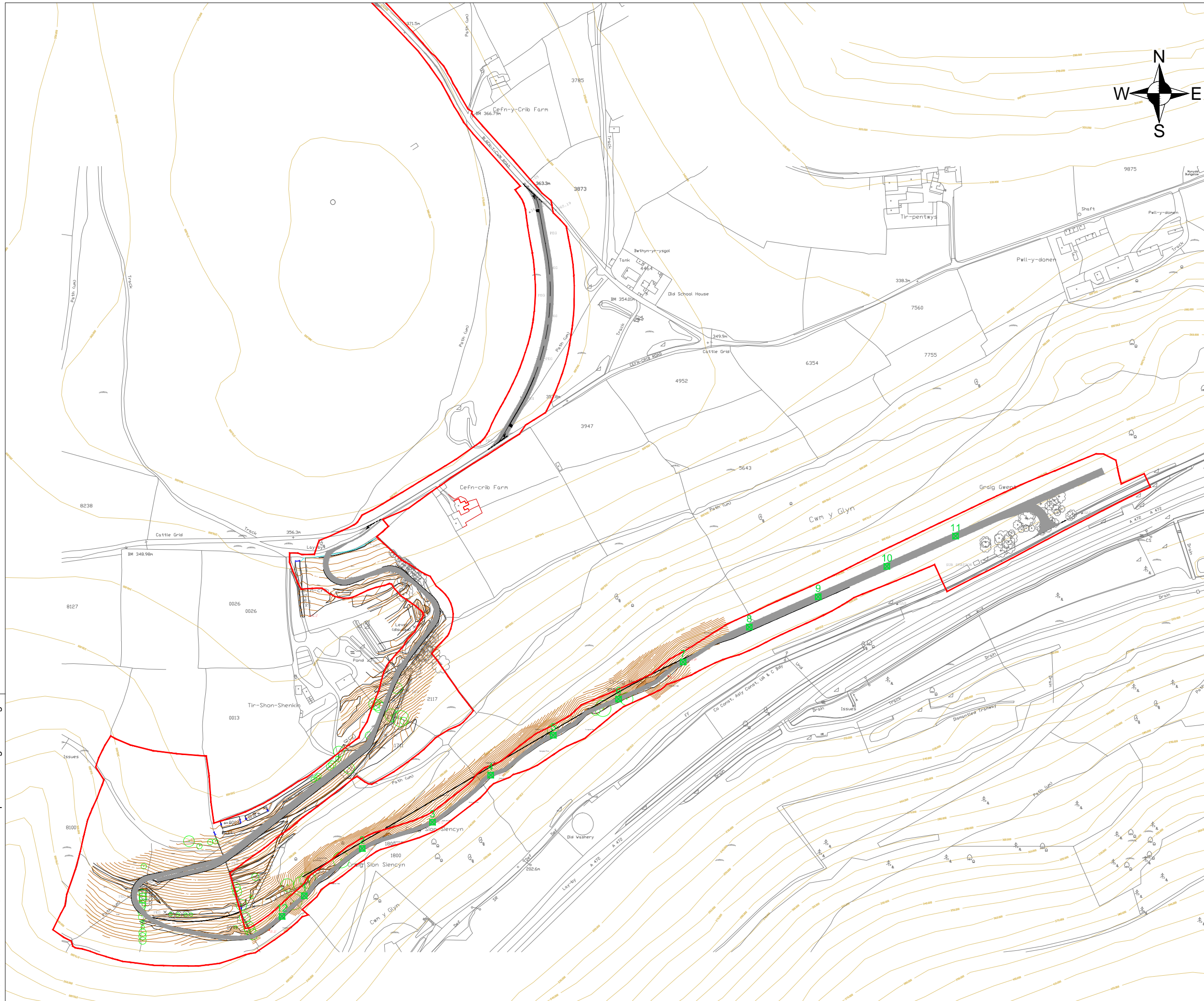
Test Data / Results

Sub test Ref: 12

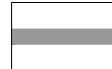



Equivalent CBR (%): 5.6

00542.00002.18.SSES-LR01.0 Location of plate bearing tests.dwg



LEGEND

-  PROPOSED ROUTE
-  APPROXIMATE LOCATIONS OF PLATE BEARING TESTS



**TIR PENTWYS CUT
SECOND SUPPLEMENTARY ES
LOCATION OF PLATE BEARING TESTS**

LR/00509/001

Scale	NTS	Date	NOVEMEBR 2012
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