



REPORT

Level 1 Geotechnical Testing and Inspection Authority Services

**Riverfield Estate Stage 8, Lots 801 to 856
Clyde**

Prepared for:
Grosvenor Lodge Pty Ltd

23 February 2023
Our Ref: 1016363.008.v1

Table of contents

1	Introduction	4
2	Project details	4
2.2	Fill Specifications	4
2.3	Roles	5
2.4	Source of material	5
2.5	General	5
2.6	Subgrade inspection	5
2.7	Earthwork supervision	5
2.8	Earthwork equipment	6
2.9	Fill material	6
2.10	Geotechnical sampling and testing	7
3	Conclusion	8
4	Applicability	8

Appendix A : **Density Test Location Plan**

Appendix B : **Table of field density results**

Appendix C : **NATA endorsed laboratory reports**

Appendix D : **Controlled Fill Certificate**

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1 Introduction

As part of the construction of the Riverfield Estate development in Clyde, Chadwick Geotechnics Pty Ltd (Chadwick Geotechnics), was engaged by Grosvenor Lodge Pty Ltd, to provide Level 1 Geotechnical Inspection and Testing Authority (GITA) services for the earthworks conducted within Stage 8 of the Estate during construction.

Level 1 GITA services as defined in AS3798-2007 “Guidelines on Earthworks for Commercial and Residential Development,” requires full time inspection and field and laboratory testing of earthworks in accordance with AS1289 “Methods of Testing Soils for Engineering Purposes.”

2 Project details

The Riverfield Estate is located in Clyde, Stage 8 is located to the East of Stage 9 and South of the Stage 10 area. The Stage 8 site is being developed as a residential development.

The included works are shown on the Site Plans in **Appendices A**.

2.2 Fill Specifications

A summary of the specification is shown below:

- All filling in excess of 300mm depth shall be constructed to specifications satisfying the requirements of AS 3798-2007 “Guidelines on Earthworks for Commercial and Residential Developments”.
- All filling works shall be undertaken with supervision to the standard detailed as “Level 1 Inspection and Testing” in AS 3798-2007, such that the supervisor will issue a notice detailing that the works comply with the specifications and drawings.
- The fill soils to comply with the ‘Suitable Material’ in accordance with Section 4.4 of the AS3798-2007, and the following:
 - Maximum particle size of 150mm.
 - Particles over 37.5mm diameter not to exceed 20% of the material.
 - Organic soils, topsoil, silts, or soils containing organic matter, wood, plastics, metal or other deleterious materials are not acceptable.
- Subgrade to be proof rolled in presence of the Level 1 Inspector prior to the placement of engineered fill.
- Fill to be compacted in near horizontal layers.
- Residential areas compaction to achieve a ratio of at least 95% Standard maximum dry density (SMDD).
- Frequency of testing to be in accordance with Table 8.1 of AS3798-2007.

2.3 Roles

The organisations and their roles are presented in Table 2.1 below.

Table 2.1 Project roles

Role	Organisation
Developer	Grosvenor Lodge Pty Ltd
Geotechnical Inspection and Testing Authority (GITA)	Chadwick Geotechnics Pty Ltd
Civil Designer	Charlton Degg Consultants Pty Ltd
Earthworks Contractor	Brown Property Group Pty Ltd

2.4 Source of material

The material used on site was imported from local sources.

2.5 General

The inspection and testing of earthworks have been carried out in accordance with AS3798-2007, 'Guidelines on earthworks for commercial and residential developments', with a frequency of field density tests as per a Type 1 project (large scale operation). Compaction control laboratory testing was undertaken within Chadwick Geotechnics NATA accredited laboratories in accordance with AS1289 'Methods of Testing Soils for Engineering Purposes'.

2.6 Subgrade inspection

Prior to fill being placed the subgrade was inspected. The inspections were performed in accordance with the Level 1 guidelines presented in AS 3798–2007 Section 5.5. The stripped surface was stripped to natural clay, and the area was found to be firm and free of vegetation and other deleterious material. All pre-existing uncontrolled fill was removed prior to the placement of engineered fill to achieve the design levels.

2.7 Earthwork supervision

Full time Level 1 inspection and testing of the Stage 8 filling operations commenced on 30 November 2022 and was completed on 14 February 2023. During this period Chadwick Geotechnics was on site at all times, (except when there were no earthworks) and observed the earthworks, the placing of fill including the supply of material, conditioning of material (moisture conditioning and oversize removal), placement and compaction of the fill material.

All fill material was placed in lift sequences and Chadwick Geotechnics verified that the surface of the stripped subgrade and additional lifts were thoroughly scarified, and moisture conditioned prior to placement of additional layers to prevent delamination at the layer interface.

Below are two photographs of typical earthwork operations completed during earthworks, See Photographs 2.7.1 and 2.7.2 below.

Figure 1. Photograph of the machinery and material used on site



Photograph 2.7.1:

Compaction of clay

Photograph 2.7.2:

Water Cart

2.8 Earthwork equipment

The fill was placed and compacted using vibrating Pad Foot rollers. Water trucks with water cannons attached were used to moisture condition the soil materials. The layer thicknesses were controlled using earthwork machinery with built-in GPS systems.

2.9 Fill material

Material used for the construction of the fill pad comprised of local gravelly and silty sandy clays won from the road boxing and excavations on this site and surrounding sites.

Sample taken from the site stockpiles comprising local material used for fill was taken for geotechnical compliance testing during the works. The material compliance test results are summarised in Table 3. The laboratory test certificates are attached in **Appendix C**.

Table 1: Compliance test result summary

Date	Sample #	Particle Size Distribution (PSD)							Liquid Limit	Plastic Limit	PI
		37.5mm	13.2mm	4.75mm	1.18mm	425 µm	0.75 µm				
20/12/22	S22DS-09967	100	100	99	97	91	71	57	15	42	

The laboratory test results indicated material is clay of medium to high plasticity.

Below are two photographs of typical materials used during construction.

Figure 1: Photograph of the material used on site and plant used

Photo 1: Brown Silty Clay	Photo 1: Clay Compaction with pad foot

Photograph 2.9.3:

Fill Material

The material was deemed as being derived from natural soils. The soil is considered as ‘Suitable Material’ in accordance with Section 4.4 of the AS3798-2007.

The fill material was not tested for classification of ‘Fill Material’ as defined in EPA Publication IWRG621.

Any observed organic or deleterious matter including any oversize cobbles or boulders were removed from the tested areas during the fill placement.

Photograph 2.9.4:

Vibrating Pad foot roller

2.10 Geotechnical sampling and testing

Field density and moisture content testing was carried out using a calibrated portable density and moisture gauge in accordance with AS 1289.5.8.1. The Hilt rapid compaction test was used for peak converted wet density determination in accordance with AS 1289.5.7.1. Test locations were recorded using hand-held GPS units. A site plan showing the field density test locations is provided in Appendix A. A summary of Hilt density testing is presented in Appendix B and the Hilt density test reports are presented in Appendix C.

A total of 170 tests were performed across the Stage 8 site and surrounding area during the filling process.

The results show that 4 tests failed to meet the specification requirements for the area. The earthworks contractor was advised of the tests that failed and the fill relevant to the areas were reworked, reconditioned, re-compacted and subsequently retested. The results showed that the re-tests achieved the specification requirements for the project.

A summary of the Hilt density test reports is provided within Appendix B and all the test reports are provided within Appendix C, a controlled fill certificate is provided within Appendix D.

3 Conclusion

On the basis of our inspections and after considering all test results relating to the project, it is our opinion, so far as it is able to be determined, that:

- The materials used by the earthworks contractor met the geotechnical property requirements of the specification.
- The fill material placed was tested at a suitable frequency in accordance with AS 3798-2007-Table 8.1 and the results indicate the compacted material achieved the minimum density requirement of the specification.
- Given the consistent construction practices followed by the earthworks contractor, and as witnessed by Chadwick Geotechnics, combined with the satisfactory verification of test results achieved, it is inferred that areas of the site between test locations were performed to the same standard as those areas that have been tested.

It is our opinion that the earthworks undertaken have been performed in accordance with the requirements of Section 8.2 of AS3798-2007 - Level 1 Inspection and Testing.

4 Applicability

This report has been prepared for the exclusive use of our client Grosvenor Lodge Pty Ltd , with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

Recommendations and opinions in this report are based on data from discrete investigation locations. The nature and continuity of subsoil away from these locations are inferred but it must be appreciated that actual conditions could vary from the assumed model.

Should you require any further information regarding this report, please do not hesitate to contact the undersigned on (03) 8796 7900.

Chadwick Geotechnics Pty Ltd

Report prepared by:



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Robert Barden
Project Manager

Authorised for Chadwick Geotechnics Pty Ltd by:



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Project Director

Appendix A : Location Plan



Appendix B : Hilf Density Test Summary



1016363.8000 - Riverfield Estate Stage 8 - HILF Summary

Tel : (03) 8796 7900
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Report No	Sample No	Date	Test Number	Lot Number	Location [E]	Location [N]	RL	Density Ratio HILF test (≥95%)	Moisture Variation	Pass / Fail	Remarks
HDR:W21DS03542	S21DS-13020	30/11/2021	4	1039	356998	5777789	8.085	98.5	1.5 wet	Pass	
HDR:W21DS03542	S21DS-13021	30/11/2021	5	1037	357016	5777796	8.141	96	1.5 wet	Pass	
HDR:W21DS03542	S21DS-13022	30/11/2021	6	1027	356970	5777762	8.163	100	0 dry	Pass	
HDR:W21DS03542	S21DS-13023	30/11/2021	7	1026	356956	5777748	8.428	94.5	2 wet	Fail	See Retest 13128, within Stage 9 report
HDR:W21DS03558	S21DS-13113	1/12/2021	1	1034	357024	5777791	8.176	98.5	0.5 wet	Pass	
HDR:W21DS03558	S21DS-13114	1/12/2021	2	1029	357015	5777763	8.25	97.5	0.5 wet	Pass	
HDR:W21DS03558	S21DS-13115	1/12/2021	3	1041	356973	5777799	8.75	98	1.5 dry	Pass	
HDR:W21DS03558	S21DS-13116	1/12/2021	4	1039	356990	5777787	8.55	98	0.5 wet	Pass	
HDR:W21DS03609	S21DS-13291	7/12/2021	1		357042	5777688		97	3 wet	Pass	
HDR:W21DS03609	S21DS-13292	7/12/2021	2		357041	5777711		98.5	0.5 wet	Pass	
HDR:W21DS03788	S21DS-13890	22/12/2021	1	1038	357007	5777787	8.79	102	0.5 wet	Pass	
HDR:W21DS03788	S21DS-13891	22/12/2021	2	1027	356959	5777720	9.283	96	2 wet	Pass	
HDR:W21DS03788	S21DS-13892	22/12/2021	3	1024	356959	5777720	9.283	96.5	0 wet	Pass	
HDR:W21DS03790	S21DS-13896	22/12/2021	1		357029	5777710	8.764	98.5	OMC	Pass	
HDR:W21DS03790	S21DS-13897	22/12/2021	2		357026	5777721	8.502	98	1 wet	Pass	
HDR:W22DS00004	S22DS-00017	6/01/2021	1	-	357000	5777695	9.15	103	1 dry	Pass	
HDR:W22DS00004	S22DS-00018	6/01/2021	2	-	357019	5777675	9.23	98	2.5 dry	Pass	
HDR:W22DS00009	S22DS-00026	7/01/2022	1		357036	5777724	8.96	100	1.5 dry	Pass	
HDR:W22DS00010	S22DS-00027	7/01/2022	1		357070	5777685		95.5	1 dry	Pass	
HDR:W22DS00031	S22DS-00099	11/01/2022	1		357048	5777790	7.63	96.5	0 dry	Pass	
HDR:W22DS00030	S22DS-00100	11/01/2022	1	1022	357080	5777824	7.63	98	0 dry	Pass	Retest of S22DS-00071
HDR:W22DS00030	S22DS-00101	11/01/2022	2	1001	357021	5778027	9.504	99	0 dry	Pass	



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HDR:W22DS00030	S22DS-00102	11/01/2022	3	1003	357027	5777996	9.574	97.5	0.5 wet	Pass	
HDR:W22DS00030	S22DS-00103	11/01/2022	1		357052	5777809	EL. 7.80	98	0 wet	Pass	
HDR:W22DS00030	S22DS-00103	11/01/2022	4	1021	357052	5777809	7.8	98	0 wet	Pass	
HDR:W22DS00037	S22DS-00111	12/01/2022	1	1023	357108	5777807	7.75	98	0 wet	Pass	
HDR:W22DS00038	S22DS-00112	12/01/2022	1	850	357050	5777787	7.85	100.0	0	Pass	
HDR:W22DS00038	S22DS-00113	12/01/2022	2	844	357077	5777789	7.82	96.0	1.5 Dry	Pass	
HDR:W22DS00038	S22DS-00114	12/01/2022	3	845	357081	5777772	7.80	98.0	0.0	Pass	
HDR:W22DS00041	S22DS-00124	13/01/2022	1	846	357080	5777766	8.05	97.5	0.5 wet	Pass	
HDR:W22DS00041	S22DS-00125	13/01/2022	2	850	357050	5777787	8.37	101.0	0.5 wet	Pass	
HDR:W22DS00050	S22DS-00155	14/01/2022	1	846	357073	5777766	8.56	95.0	2.5 wet	Pass	
HDR:W22DS00050	S22DS-00156	14/01/2022	2	848	357071	5777743	7.63	100.5	0.0	Pass	
HDR:W22DS00060	S22DS-00201	17/01/2022	1	839	357096	5777737	8.52	96.0	0.0	Pass	
HDR:W22DS00060	S22DS-00202	17/01/2022	2	838	357109	5777725	7.58	100.5	0.0	Pass	
HDR:W22DS00070	S22DS-00240	18/01/2022	1	1026	357156	5777788	6.967	98.5	0.5 dry	Pass	
HDR:W22DS00071	S22DS-00241	18/01/2022	1	837	357133	5777710	7.18	100.0	2.5 dry	Pass	
HDR:W22DS00071	S22DS-00242	18/01/2022	2	804	357108	5777694	7.41	98.0	2.5 dry	Pass	
HDR:W22DS00071	S22DS-00243	18/01/2022	3	833	357134	5777771	7.04	95.0	2.5 dry	Pass	
HDR:W22DS00071	S22DS-00244	18/01/2022	4	804	357108	5777695	7.48	99.5	0.5 dry	Pass	
HDR:W22DS00097	S22DS-00345	19/01/2022	1	838	357095	5777724	8.03	88.0	2.5 dry	Fail	See Retest 0415
HDR:W22DS00097	S22DS-00346	19/01/2022	2	839	357106	5777727	8.13	97.0	0.5 dry	Pass	
HDR:W22DS00098	S22DS-00349	20/01/2022	1		357116	5777689		99.5	0 dry	Pass	
HDR:W22DS00098	S22DS-00350	20/01/2022	1		357012	5777803	9.103	97	2 dry	Pass	
HDR:W22DS00098	S22DS-00351	20/01/2022	2		357034	5777751	8.779	95	2.5 dry	Pass	
HDR:W22DS00114	S22DS-00415	21/01/2022	1	858	357094	5777721	7.99	98	0 dry	Pass	Retest of S22DS-00345
HDR:W22DS00114	S22DS-00416	21/01/2022	2	859	357089	5777731	8.13	101.5	0 dry	Pass	

1016363.8000 - Riverfield Estate Stage 8 - HILF Summary

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Report No	Sample No	Date	Test Number	Lot Number	Location [E]	Location [N]	RL	Density Ratio HILF test (≥95%)	Moisture Variation	Pass / Fail	Remarks
HDR:W22DS00114	S22DS-00417	21/01/2022	3		356663	5778267		100	0.5 wet	Pass	
HDR:W22DS00114	S22DS-00418	21/01/2022	4		356634	5778273		105.5	0.5 wet	Pass	
HDR:W22DS00115	S22DS-00419	22/01/2022	1	828	357165	5777740	6.910	102.0	0.5 dry	Pass	
HDR:W22DS00115	S22DS-00420	22/01/2022	2	830	357174	5777767	7.230	104.5	0.0	Pass	
HDR:W22DS00117	S22DS-00425	22/01/2022	1	1027	357180	5777811	7.5	99	0.5 wet	Pass	
HDR:W22DS00128	S22DS-00450	24/01/2022	1	836	357144	5777734	7.690	104.0	2.0 dry	Pass	
HDR:W22DS00128	S22DS-00451	24/01/2022	2	806	357136	5777687	7.610	103.0	2.5 dry	Pass	
HDR:W22DS00128	S22DS-00452	24/01/2022	3	830	357159	5777767	8.100	99.0	2.5 dry	Pass	
HDR:W22DS00129	S22DS-00453	24/01/2022	1	1025	357148	5777802	8.43	107	2 dry	Pass	
HDR:W22DS00133	S22DS-00461	25/01/2022	1		356915	5778243		99.0	2.5 wet	Pass	
HDR:W22DS00133	S22DS-00462	25/01/2022	2		356930	5778280		100.5	0.5 wet	Pass	
HDR:W22DS00133	S22DS-00463	25/01/2022	3		356921	5778302		98.0	3.0 wet	Pass	
HDR:W22DS00133	S22DS-00464	25/01/2022	4		357137	5777749	8.280	99.0	2.0 wet	Pass	
HDR:W22DS00133	S22DS-00465	25/01/2022	5		357102	5777737	8.600	103.0	2.5 dry	Pass	
HDR:W22DS00179	S22DS-00606	1/02/2022	1	847	357080	5777752	8.719	103	0	Pass	
HDR:W22DS00179	S22DS-00607	1/02/2022	2	844	357089	5777785	8.6	99	0	Pass	
HDR:W22DS00179	S22DS-00608	1/02/2022	3	823	357101	5777806	9.001	97.5	0.5 dry	Pass	
HDR:W22DS00179	S22DS-00609	1/02/2022	4	832	357145	5777784	8.569	105.5	2.0 dry	Pass	
HDR:W22DS00179	S22DS-00610	1/02/2022	5	835	357135	5777745	8.309	100	0 wet	Pass	
HDR:W22DS00179	S22DS-00611	1/02/2022	6	851	357035	5777789	7.87	100	0	Pass	
HDR:W22DS00204	S22DS-00709	3/02/2022	1	848	357069	5777735	7.975	101	0.5 wet	Pass	
HDR:W22DS00204	S22DS-00710	3/02/2022	2	Roadway	357052	5777645	8.185	98.5	0.5 wet	Pass	
HDR:W22DS00204	S22DS-00711	3/02/2022	3	849	357079	5777720	8.064	102.5	1.5 wet	Pass	
HDR:W22DS00204	S22DS-00712	3/02/2022	4	850	357045	5777782	8.591	96.5	0.5 wet	Pass	
HDR:W22DS00204	S22DS-00713	3/02/2022	5	Roadway	357051	5777652	8.430	97	0 wet	Pass	

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HDR:W22DS00206	S22DS-00717	3/02/2022	1	1017	357002	5777833	8.691	102	2.5 wet	Pass	
HDR:W22DS00208	S22DS-00719	2/02/2022	1	852	357050	5777744	7.902	98	0.5 wet	Pass	
HDR:W22DS00208	S22DS-00720	2/02/2022	2	801	357095	5777685	7.463	103.5	2.0 dry	Pass	
HDR:W22DS00208	S22DS-00721	2/02/2022	3	803	357082	5777698	7.369	101.5	0.2 dry	Pass	
HDR:W22DS00209	S22DS-00722	2/02/2022	1	1018	357011	5777827	8.266	102.5	0 dry	Pass	
HDR:W22DS00209	S22DS-00723	2/02/2022	2	1019	357030	5777832	8.58	101	0 dry	Pass	
HDR:W22DS00222	S22DS-00771	4/02/2022	1	Road Way	357058	5777755	8.397	101.5	0.5 dry	Pass	
HDR:W22DS00224	S22DS-00776	4/02/2022	1		357023	5777635		101	1 wet	Pass	
HDR:W22DS00224	S22DS-00777	4/02/2022	2		357080	5777665		98	0 dry	Pass	
HDR:W22DS00244	S22DS-00829	8/02/2022	1	803	357094	5777693	8.322	99	1.5 wet	Pass	
HDR:W22DS00244	S22DS-00830	8/02/2022	2	847	357072	5777748	8.752	102	0	Pass	
HDR:W22DS00260	S22DS-00871	9/02/2022	1	831	357164	5777778	8.339	100	0.5 dry	Pass	
HDR:W22DS00260	S22DS-00872	9/02/2022	2	826	357152	5777707	7.692	98	0 dry	Pass	
HDR:W22DS00260	S22DS-00873	9/02/2022	3	Roadway	357190	5777695	6.539	98.5	0.5 wet	Pass	
HDR:W22DS00261	S22DS-00874	9/02/2022	1	1027	357176	5777799	8.265	99	0.5 dry	Pass	
HDR:W22DS00290	S22DS-00920	10/02/2022	1	821	357211	5777761	7.215	100	0 dry	Pass	
HDR:W22DS00290	S22DS-00922	10/02/2022	2	823	357202	5777730	6.965	101	0 wet	Pass	
HDR:W22DS00309	S22DS-00988	11/02/2022	1	816	357229	5777716	6.479	97	0 wet	Pass	
HDR:W22DS00309	S22DS-00989	11/02/2022	2	818	357249	5777754	6.640	99	0.5 wet	Pass	
HDR:W22DS00313	S22DS-00995	12/02/2022	1	824	357189	5777721	7.380	101	0.5 dry	Pass	
HDR:W22DS00313	S22DS-00996	12/02/2022	2	822	357193	5777742	7.441	100.5	0.5 wet	Pass	
HDR:W22DS00313	S22DS-00997	12/02/2022	3	820	357198	5777766	7.991	101	0.5 dry	Pass	
HDR:W22DS00325	S22DS-01025	14/02/2022	1	820	357213	5777777	7.549	97	0.5 dry	Pass	
HDR:W22DS00325	S22DS-01026	14/02/2022	2	819	357252	5777760	7.07	94	0.3 dry	Fail	See Retest 1159
HDR:W22DS00325	S22DS-01027	14/02/2022	3	817	357243	5777739	-	102.5	0.5 dry	Pass	
HDR:W22DS00326	S22DS-01028	14/02/2022	1	1030	357230	5777780	7.266	99	0.5 dry	Pass	
HDR:W22DS00326	S22DS-01029	14/02/2022	2	1031	357253	5777801	6.944	97	1 dry	Pass	



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HDR:W22DS00326	S22DS-01030	14/02/2022	3	1031	357259	5777785	7.019	100.5	0.5 dry	Pass	
HDR:W22DS00335	S22DS-01060	11/02/2022	1	1031	357250	5777796	6.761	94.5	0.5 dry	Fail	See Retest 01175
HDR:W22DS00339	S22DS-01079	15/02/2022	1		357230	5777631		98.5	2 dry	Pass	
HDR:W22DS00339	S22DS-01080	15/02/2022	2		357201	5777652		99.5	1 dry	Pass	
HDR:W22DS00343	S22DS-01094	15/02/2022	1	811	357202	5777680	6.51	95.5	0 dry	Pass	
HDR:W22DS00343	S22DS-01095	15/02/2022	2	813	357234	5777670	6.34	100	1.0 dry	Pass	
HDR:W22DS00363	S22DS-01159	16/02/2022	1	819	357255	5777761	7.08	99.5	0.5 dry	Pass	Retest of 1026
HDR:W22DS00366	S22DS-01169	16/02/2022	1	1025	357156	5777816	8.8888	100.5	1.5 dry	Pass	
HDR:W22DS00366	S22DS-01170	16/02/2022	2		357167	5777829	8.861	98.5	0.5 dry	Pass	
HDR:W22DS00366	S22DS-01171	16/02/2022	3		357184	5777831	8.545	99.5	0 dry	Pass	
HDR:W22DS00366	S22DS-01172	16/02/2022	4	1028	357215	5777807	7.825	100.5	0.5 dry	Pass	
HDR:W22DS00366	S22DS-01173	16/02/2022	5	Road Way	357224	5777824	7.691	101.5	1.5 dry	Pass	
HDR:W22DS00366	S22DS-01174	16/02/2022	6	Road Way	357251	5777812	7.49	99.5	2 dry	Pass	
HDR:W22DS00366	S22DS-01175	16/02/2022	7	1031	357250	5777799	6.744	100	0 wet	Pass	Retest of S22DS-01060
HDR:W22DS00398	S22DS-01255	21/02/2022	1	1024	357118	5777820	8.797	104	2.5 dry	Pass	
HDR:W22DS00398	S22DS-01256	21/02/2022	2	1026	357166	5777804	8.609	106	3 dry	Pass	
HDR:W22DS00398	S22DS-01257	21/02/2022	3	1028	357206	5777803	7.931	103.5	1 dry	Pass	
HDR:W22DS00415	S22DS-01349	22/02/2022	1	819	357250	5777769	7.51	95.5	0 wet	Pass	
HDR:W22DS00415	S22DS-01350	22/02/2022	2	818	357249	5777755	7.62	96	0 wet	Pass	
HDR:W22DS00415	S22DS-01351	22/02/2022	3	817	357247	5777734	7.52	97.5	0 wet	Pass	
HDR:W22DS00415	S22DS-01352	22/02/2022	4	816	357246	5777719	7.46	98.5	0	Pass	
HDR:W22DS00415	S22DS-01353	22/02/2022	5	815	357245	5777709	7.42	103.5	1.8 dry	Pass	
HDR:W22DS00415	S22DS-01354	22/02/2022	6	813	357236	5777666	8.44	102.5	0.1 wet	Pass	
HDR:W22DS00416	S22DS-01355	22/02/2022	1	1031	357252	5777790	7.437	97.5	0.5 wet	Pass	
HDR:W22DS00425	S22DS-01397	23/02/2022	1	818	357227	5777752	5.90	100.5	0.1 dry	Pass	
HDR:W22DS00425	S22DS-01398	23/02/2022	2	815	357233	5777717	7.74	97	0	Pass	
HDR:W22DS00425	S22DS-01399	23/02/2022	3	812	357221	5777653	6.79	95.5	0.5 dry	Pass	
HDR:W22DS00440	S22DS-01441	24/02/2022	1	805	357125	5777686	8.52	102	0 dry	Pass	

1016363.8000 - Riverfield Estate Stage 8 - HILF Summary

 Tel : (03) 8796 7900
 Fax: (03) 8796 7944

Report No	Sample No	Date	Test Number	Lot Number	Location [E]	Location [N]	RL	Density Ratio HILF test (≥95%)	Moisture Variation	Pass / Fail	Remarks
HDR:W22DS00440	S22DS-01442	24/02/2022	2	804	357106	5777680	8.7.30	100.5	0 dry	Pass	
HDR:W22DS00440	S22DS-01443	24/02/2022	3	802	357088	5777673	8.89	102.5	0.5 wet	Pass	
HDR:W22DS00458	S22DS-01487	25/02/2022	1	808	357165	5777670	7.96	102.5	0.5 wet	Pass	
HDR:W22DS00458	S22DS-01488	25/02/2022	2	810	357181	5777667	7.39	99	0 dry	Pass	
HDR:W22DS00458	S22DS-01489	25/02/2022	3	811	357200	5777662	7.05	108	0.5 dry	Pass	
HDR:W22DS00477	S22DS-01559	28/02/2022	1	817	357235	5777737	8.04	102	1.0 dry	Pass	
HDR:W22DS00477	S22DS-01560	28/02/2022	2	816	357241	5777720	7.81	99.5	0.5 dry	Pass	
HDR:W22DS00477	S22DS-01561	28/02/2022	3	814	357230	5777705	7.64	104	0.5 dry	Pass	
HDR:W22DS00488	S22DS-01599	1/03/2022	1	838	357094	5777718	8.72	96.5	0.5 dry	Pass	
HDR:W22DS00488	S22DS-01600	1/03/2022	2	837	357128	5777713	8.55	102.5	2.5 dry	Pass	
HDR:W22DS00488	S22DS-01601	1/03/2022	3	826	357152	5777707	8.36	102	2.0 dry	Pass	
HDR:W22DS00502	S22DS-01636	2/03/2022	1	811	357201	5777670	7.54	101	0.5 wet	Pass	
HDR:W22DS00512	S22DS-01661	3/03/2022	1	822	357221	5777746	8.25	103	2.5 dry	Pass	
HDR:W22DS00512	S22DS-01662	3/03/2022	2	818	357245	5777750	7.86	99.5	0.5 dry	Pass	
HDR:W22DS00512	S22DS-01663	3/03/2022	3	815	357228	5777719	8.09	100	2.5 dry	Pass	
HDR:W22DS00512	S22DS-01664	3/03/2022	4	814	357234	5777700	7.57	105	2.5 dry	Pass	
HDR:W22DS00512	S22DS-01665	3/03/2022	5	825	357215	5777700	7.79	101.5	2.0 dry	Pass	
HDR:W22DS00528	S22DS-01697	4/03/2022	1	830	357168	5777764	8.551	107.5	4.5 dry	Pass	
HDR:W22DS00528	S22DS-01698	4/03/2022	2	834	357147	5777753	8.588	101.5	2.0 dry	Pass	
HDR:W22DS00528	S22DS-01699	4/03/2022	3	827	357171	5777723	8.345	101	2.0 dry	Pass	
HDR:W22DS00528	S22DS-01700	4/03/2022	4	823	357193	5777730	8.205	104	2.0 dry	Pass	
HDR:W22DS00562	S22DS-01813	9/03/2022	1	809	357170	5777679	8.325	102.5	1.5 wet	Pass	
HDR:W22DS00574	S22DS-01854	10/03/2022	1	815	357237	5777711	7.945	99	0.5 dry	Pass	
HDR:W22DS00574	S22DS-01855	10/03/2022	2	825	357214	5777704	8.122	100.5	1.0 dry	Pass	
HDR:W22DS00587	S22DS-01905	11/03/2022	1		357053	5777804	9.055	102.5	0.5 dry	Pass	



1016363.8000 - Riverfield Estate Stage 8 - HILF Summary

Tel : (03) 8796 7900
Fax: (03) 8796 7944

Report No	Sample No	Date	Test Number	Lot Number	Location [E]	Location [N]	RL	Density Ratio HILF test (≥95%)	Moisture Variation	Pass / Fail	Remarks
HDR:W22DS00587	S22DS-01905	11/03/2022	1	-	357053	5777804	9.055	102.5	0.5 dry	Pass	
HDR:W22DS00587	S22DS-01906	11/03/2022	2		357053	5777804	9.055	100	0.5 dry	Pass	
HDR:W22DS00587	S22DS-01906	11/03/2022	2	-	357253	5777802	7.621	100	1.5 dry	Pass	
HDR:W22DS00588	S22DS-01907	11/03/2022	1	848	357078	5777739	8.955	101	1.5 dry	Pass	
HDR:W22DS00588	S22DS-01908	11/03/2022	2	818	357238	5777750	8.111	98	0.5 dry	Pass	
HDR:W22DS00658	S22DS-02160	21/03/2022	1	1020	357048	5777831	8.854	100.5	0 wet	Pass	
HDR:W22DS00658	S22DS-02161	21/03/2022	2	1022	357090	5777824	8.888	102.5	1.5 dry	Pass	
HDR:W22DS00658	S22DS-02162	21/03/2022	3	1026	357158	5777810	8.645	106	1.5 dry	Pass	
HDR:W22DS00671	S22DS-02230	22/03/2022	1		357223	5777647		103.5	0.5 dry	Pass	
HDR:W22DS00671	S22DS-02231	22/03/2022	2		357147	5777651		112	3 dry	Pass	
HDR:W22DS00671	S22DS-02232	22/03/2022	3		357122	5777665		106	0 dry	Pass	
HDR:W22DS00671	S22DS-02233	22/03/2022	4		357192	5777655		100	2.5 dry	Pass	
HDR:W22DS00688	S22DS-02304	23/03/2022	1	813	357229	5777665	8.183	106.5	3.0 dry	Pass	
HDR:W22DS00688	S22DS-02305	23/03/2022	2	812	357230	5777647	8.288	104.5	1.5 dry	Pass	
HDR:W23DS00300	S23DS-00943	8/02/2023	1	843	357115	5777793		96.5	1.0 dry	Pass	
HDR:W23DS00369	S23DS-01261	13/02/2023	1	841	357115	5777767		108	5.0 dry	Fail	See Retest S23DS-01319
HDR:W23DS00386	S23DS-01319	14/02/2023	1	840/841	357110	5777765		101.5	2.5 dry	Pass	Retest of S23DS-01261
HDR:W23DS00386	S23DS-01320	14/02/2023	2	843	357114	5777790		98.5	2.5 dry	Pass	

Appendix C: NATA endorsed laboratory reports



Dandenong South
ACN 143 009 330
25 Metcalf Street
DANDELONG SOUTH, VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 9706 9431

Report No: MAT:S22DS-09967/1

Issue No: 1

Material Test Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield - Stage 7
Project No.: 1016363.007
Order No.: CG Request No.:
TRN: Lot No.:

Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719 Approved Signatory: M. Longfield
(Senior Technician)
Site Number: 12712 Date of Issue: 9/01/2023
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

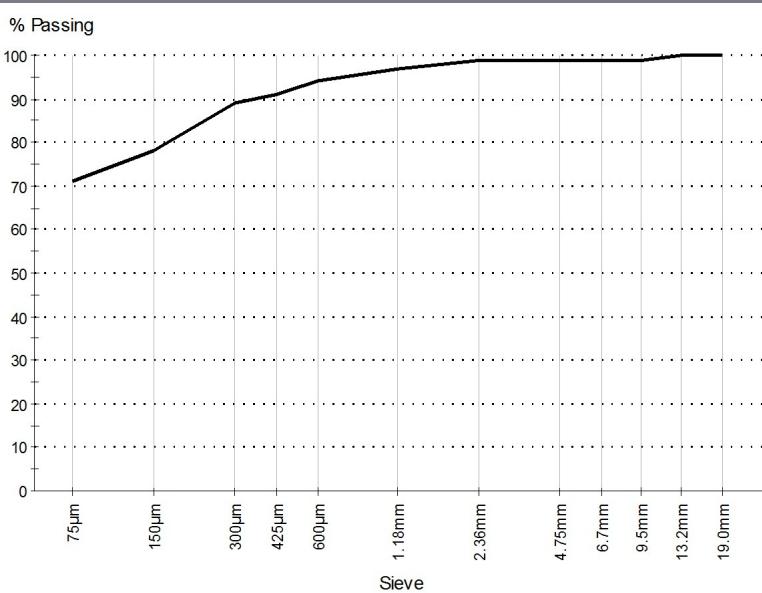
Location Dam
Sample Location E: 357201, N: 5777533, RL: 5.114
Field Sample ID 1
Date Sampled 15/12/2022
Time Sampled 09:45
Source Onsite
Material Clay
Specification AS Grading
Sampling Method AS1289.1.2.1 Clause 6.4 (b)
Sample ID S22DS-09967

Other Test Results

Description	Method	Result	Limits
Moisture Content (%)	AS 1289.2.1.1	24.9	
Sample History	AS 1289.1.1	Oven-dried	
Preparation	AS 1289.1.1	Dry Sieved	
Linear Shrinkage (%)	AS 1289.3.4.1	17.5	
Mould Length (mm)		250	
Crumbling		No	

Particle Size Distribution

AS 1289.3.6.1



Drying By: Oven

Date Tested: 20/12/2022

Note: Sample Washed		
Sieve Size	% Passing	Limits
19.0mm	100	
13.2mm	100	
9.5mm	99	
6.7mm	99	
4.75mm	99	
2.36mm	99	
1.18mm	97	
600µm	94	
425µm	91	
300µm	89	
150µm	78	
75µm	71	

Comments

N/A



Dandenong South
ACN 143 009 330
25 Metcalf Street
DANDELONG SOUTH, VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 9706 9431

Report No: MAT:S22DS-09967/1

Issue No: 1

Material Test Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield - Stage 7
Project No.: 1016363.007
Order No.: CG Request No.:
TRN: Lot No.:

Accredited for compliance with ISO/IEC 17025
– Testing
 
Signature
Accreditation Number: 12719 Approved Signatory: M. Longfield
(Senior Technician)
Site Number: 12712 Date of Issue: 9/01/2023
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Other Test Results

Description	Method	Result	Limits
Curling		Yes	
Cracking		No	
Liquid Limit (%)	AS 1289.3.1.2	57	
Plastic Limit (%)	AS 1289.3.2.1	15	
Plasticity Index (%)	AS 1289.3.3.1	42	
Date Tested		21/12/2022	

Comments

N/A



Dandenong South
ACN 143 009 330
25 Metcalf Street
DANDELONG SOUTH, VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 9706 9431

Report No: HDR:W21DS03542

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 10
Project No.: 1016363.010

Order No.: CG Request No.:
TRN: Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 3/12/2021
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum HILF Density Ratio of 95% (+/- 3% of OMC)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Silty/Sandy Clay

Sample Data

Sample ID	S21DS-13017	S21DS-13018	S21DS-13019	S21DS-13020	S21DS-13021	S21DS-13022
Field Sample ID	1	2	3	4	5	6
Date Tested	30/11/2021	30/11/2021	30/11/2021	30/11/2021	30/11/2021	30/11/2021
E:	356952	356969	356960	356998	357016	356970
N:	5777792	5777793	5777767	5777789	5777796	5777762
RL:	8.417	8.160	8.431	8.085	8.141	8.163
Lot:	1041	1043	1026	1039	1037	1027

Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0	0
Field Wet Density (t/m³)	2.11	2.11	2.08	2.13	2.08	2.18
Peak Converted Wet Density (t/m³)	2.18	2.17	2.17	2.16	2.16	2.18
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Variation (%)	1.5 wet	1.5 wet	2.0 wet	1.5 wet	1.5 wet	0.0
HILF Density Ratio (%)	97.0	97.5	95.5	98.5	96.0	100.0

Comments



Dandenong South
ACN 143 009 330
25 Metcalf Street
DANDELONG SOUTH, VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 9706 9431

Report No: HDR:W21DS03542

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 10
Project No.: 1016363.010

Order No.: CG Request No.:
TRN: Lot No.:



Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95% (+/- 3% of OMC)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Silty/Sandy Clay

Sample Data

Sample ID	S21DS-13023					
Field Sample ID	7					
Date Tested	30/11/2021					
E:	356956					
N:	5777748					
RL:	8.428					
Lot:	1026					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Wet Density (t/m³)	2.04					
Peak Converted Wet Density (t/m³)	2.16					
Compactive Effort	Standard					
Moisture Variation (%)	2.0 wet					
Hilf Density Ratio (%)	94.5					

Comments

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
 AUBURN VIC 3123
Project: Riverfield Estate - Stage 10
Project No.: 1016363.010

Order No.: CG Request No.:
TRN: Lot No.:



Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum HILF Density Ratio of 95% (+/- 3% of OMC)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Sandy Clay

Sample Data

Sample ID	S21DS-13113	S21DS-13114	S21DS-13115	S21DS-13116	
Field Sample ID	1	2	3	4	
Date Tested	1/12/2021	1/12/2021	1/12/2021	1/12/2021	
E:	357024	357015	356973	35686	
N:	5777791	5777763	5777799	5777787	
RL / Layer:	8.176 / FSL-0.93m	8.250 / FSL-0.665m	8.750 / FSL-0.5m	8.550 / FSL-0.6m	
Lot:	1034	1029	1041	1039	

Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	
Depth of Layer (mm)	200	200	200	200	
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	
Oversize Wet (%)	0	0	0	0	
Field Wet Density (t/m³)	2.14	2.12	2.10	2.13	
Peak Converted Wet Density (t/m³)	2.18	2.17	2.15	2.16	
Compactive Effort	Standard	Standard	Standard	Standard	
Moisture Variation (%)	0.5 wet	0.5 wet	1.5 dry	0.5 wet	
Hilf Density Ratio (%)	98.5	97.5	98.0	98.0	

Comments



Dandenong South
ACN 143 009 330
25 Metcalf Street
DANDELONG SOUTH, VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 9706 9431

Report No: HDR:W21DS03609

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd

Address: PO Box 3131
AUBURN VIC 3123

Project: Riverfield - Stage 7

Project No.: 1016363.007

Order No.: CG Request No.:

TRN: Lot No.:



Accredited for compliance with ISO/IEC 17025
- Testing

M R

Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 14/12/2021
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Sample Details

Location: Clyde North

Client Request ID:

Specification Requirements: Minimum HILF Density Ratio of 95% (+/- 3% of OMC)

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Imported

Material: Sandy Clay

Sample Data

Sample ID	S21DS-13291	S21DS-13292				
Field Sample ID	1	2				
Date Tested	7/12/2021	7/12/2021				
E:	357042	357041				
N:	5777688	5777711				
RL / Layer:	8.131 / FSL-0.850m	8.199 / FSL-760m				
Other:	Sample 2	Sample 3				

Field and Laboratory Data

Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Wet Density (t/m³)	2.10	2.11				
Peak Converted Wet Density (t/m³)	2.17	2.14				
Compactive Effort	Standard	Standard				
Moisture Variation (%)	3.0 wet	0.5 wet				
Hilf Density Ratio (%)	97.0	98.5				

Comments



Dandenong South
ACN 143 009 330
25 Metcalf Street
DANDELONG SOUTH, VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 9706 9431

Report No: HDR:W21DS03788

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd

Address: PO Box 3131

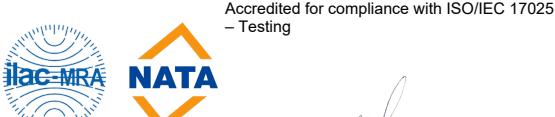
AUBURN VIC 3123

Project: Riverfield Estate - Stage 10

Project No.: 1016363.010

Order No.: CG Request No.:

TRN: Lot No.:



Accreditation Number: 12719 Approved Signatory: M. Longfield (Senior Technician)
Site Number: 12712 Date of Issue: 11/01/2022
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Sample Details

Location:

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Imported

Material: Sandy Clay

Sample Data

Sample ID	S21DS-13890	S21DS-13891	S21DS-13892			
Field Sample ID	1	2	3			
Date Tested	22/12/2021	22/12/2021	22/12/2021			
E:	357007	356959	356959			
N:	5777787	5777720	5777720			
RL / Layer:	8.790 / -	9.283 / -	9.283 / -			
Lot:	1038	1027	1024			
Other:	Sample 37	Sample 38	Sample 39			

Field and Laboratory Data

Depth of Test (mm)	175	175	175			
Depth of Layer (mm)	200	200	200			
AS Sieve Size (mm)	19.0	37.5	19.0			
Oversize Wet (%)	0	4	0			
Field Wet Density (t/m³)	2.21	2.11	2.10			
Peak Converted Wet Density (t/m³)	2.17	2.20	2.17			
Compactive Effort	Standard	Standard	Standard			
Moisture Variation (%)	0.5 wet	2.0 wet	0.0			
Hilf Density Ratio (%)	102.0	96.0	96.5			

Comments



Dandenong South
ACN 143 009 330
25 Metcalf Street
DANDELONG SOUTH, VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 9706 9431

Report No: HDR:W21DS03790

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd

Address: PO Box 3131

AUBURN VIC 3123

Project: Riverfield Estate - Stage 9

Project No.: 1016363.009

Order No.:

CG Request No.:

TRN:

Lot No.:



Accreditation Number: 12719 Approved Signatory: M. Longfield
(Senior Technician)
Site Number: 12712 Date of Issue: 19/01/2023
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location:

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Imported

Material: Sandy Clay

Sample Data

Sample ID	S21DS-13896	S21DS-13897				
Field Sample ID	1	2				
Date Tested	22/12/2021	22/12/2021				
E:	357029	356897				
N:	5777710	5777762				
RL / Layer:	8.764 / -	8.502 / -				
Lot:	908	909				
Other:	Sample 1	Sample 2				

Field and Laboratory Data

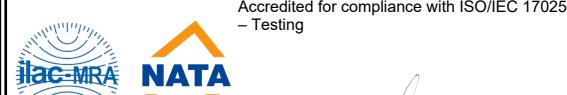
Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Wet Density (t/m³)	2.12	2.11				
Peak Converted Wet Density (t/m³)	2.15	2.16				
Compactive Effort	Standard	Standard				
Moisture Variation (%)	0.0	1.0 wet				
Hilf Density Ratio (%)	98.5	98.0				

Comments

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
 AUBURN VIC 3123
Project: Riverfield Estate - Stage 10
Project No.: 1016363.010

Order No.: CG Request No.:
TRN: Lot No.:



Accreditation Number: 12719 Approved Signatory: M. Longfield
 Site Number: 12712 (Senior Technician)
 Date of Issue: 11/01/2022
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Sample Details

Location:

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Imported

Material: Sandy Clay

Sample Data

Sample ID	S22DS-00017	S22DS-00018			
Field Sample ID	1	2			
Date Tested	6/01/2021	6/01/2021			
E:	357000.37	357018.90			
N:	5777694.96	5777675.20			
RL / Layer:	9.15 / -	9.23 / -			
Lot:	-	-			
Other:	Sample 40	Sample 41			

Field and Laboratory Data

Depth of Test (mm)	175	175			
Depth of Layer (mm)	200	200			
AS Sieve Size (mm)	19.0	19.0			
Oversize Wet (%)	0	0			
Field Wet Density (t/m³)	2.14	2.01			
Peak Converted Wet Density (t/m³)	2.08	2.06			
Compactive Effort	Standard	Standard			
Moisture Variation (%)	1.0 dry	2.5 dry			
Hilf Density Ratio (%)	103.0	98.0			

Comments



Dandenong South
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Report No: HDR:W22DS00009

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 10
Project No.: 1016363.010

Order No.: CG Request No.:
TRN: Lot No.:



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– Testing

Approved Signatory: J. A. Smith
(Senior Technician)

Site Number: 12712 Date of Issue: 11/01/2022

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Sample Details

Location:

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95%

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: imported

Material: Silty CLAY

Sample Data

Sample ID	S22DS-00026					
Field Sample ID	42					
Date Tested	7/01/2022					
Location	E 357036					
	N 5777724					
	EL. 8.96					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Wet Density (t/m³)	2.04					
Peak Converted Wet Density (t/m³)	2.04					
Compactive Effort	Standard					
Moisture Variation (%)	1.5 dry					
Hilf Density Ratio (%)	100.0					

Comments



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Report No: HDR:W22DS00010

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd

Address: PO Box 3131
AUBURN VIC 3123

Project: Riverfield - Stage 7

Project No.: 1016363.007

Order No.: CG Request No.:

TRN: Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Approved Signatory: J. A. Smith
(Senior Technician)

Site Number: 12712 Date of Issue: 11/01/2022

THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location:

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95%

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Imported

Material: Silty CLAY

Sample Data

Sample ID	S22DS-00027					
Field Sample ID	36					
Date Tested	7/01/2022					
Location	E 357070					
	N 5777685					
	EL. 8.63					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
Field Wet Density (t/m³)	2.00					
Peak Converted Wet Density (t/m³)	2.09					
Compactive Effort	Standard					
Moisture Variation (%)	1.0 dry					
Hilf Density Ratio (%)	95.5					

Comments



Dandenong South
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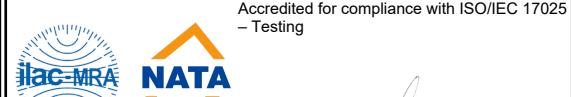
Report No: HDR:W22DS00031

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 8
Project No.: 1016363.008

Order No.: CG Request No.:
TRN: Lot No.:



Accreditation Number: 12719 Approved Signatory: M. Longfield
(Senior Technician)
Site Number: 12712 Date of Issue: 7/10/2022
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location:
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Imported
Material: Sandy CLAY

Sample Data

Sample ID	S22DS-00099					
Field Sample ID	1					
Date Tested	11/01/2022					
Location	E 357047.55					
	N 5777789.77					
	EL. 7.63					
	Lot 850					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
Field Wet Density (t/m³)	2.08					
Peak Converted Wet Density (t/m³)	2.16					
Compactive Effort	Standard					
Moisture Variation (%)	0.0					
Hilf Density Ratio (%)	96.5					

Comments



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Report No: HDR:W22DS00030

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd

Address: PO Box 3131

AUBURN VIC 3123

Project: Riverfield Estate - Stage 10

Project No.: 1016363.010

Order No.: CG Request No.:

TRN: Lot No.:

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– Testing



Accreditation Number: 12719 Approved Signatory: M. Longfield
(Senior Technician)
Site Number: 12712 Date of Issue: 14/01/2022
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Sample Details

Location:

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95%

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Imported

Material: Sandy CLAY

Sample Data

Sample ID	S22DS-00100	S22DS-00101	S22DS-00102	S22DS-00103	
Field Sample ID	1	2	3	4	
Date Tested	11/01/2022	11/01/2022	11/01/2022	11/01/2022	
Location	E 357080	E 357021	E 357027	E 357052	
	N 5777824	N 5778027	N 577796	N 5777809	
	EL. 7.63	EL. 9.504	EL. 9.574	EL. 7.80	
	Lot 1022	Lot 1001	Lot 1003	Lot 1021	
	Retest of S22DS-00071				

Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	
Depth of Layer (mm)	200	200	200	200	
Field Wet Density (t/m³)	2.05	2.06	2.03	2.09	
Peak Converted Wet Density (t/m³)	2.10	2.07	2.08	2.14	
Compactive Effort	Standard	Standard	Standard	Standard	
Moisture Variation (%)	0.0	0.0	0.5 wet	0.0	
Hilf Density Ratio (%)	98.0	99.0	97.5	98.0	

Comments



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Report No: HDR:W22DS00037

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 10
Project No.: 1016363.010

Order No.: CG Request No.:
TRN: Lot No.:



Sample Details

Location:
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Imported
Material: Sandy CLAY

Sample Data

Sample ID	S22DS-00111					
Field Sample ID	1					
Date Tested	12/01/2022					
Location	E 357107.54					
	N 5777806.94					
	EL. 7.75					
	Lot 1023					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
Field Wet Density (t/m³)	2.06					
Peak Converted Wet Density (t/m³)	2.10					
Compactive Effort	Standard					
Moisture Variation (%)	0.0					
Hilf Density Ratio (%)	98.0					

Comments



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Report No: HDR:W22DS00038

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd

Address: PO Box 3131

AUBURN VIC 3123

Project: Riverfield Estate - Stage 8

Project No.: 1016363.008

Order No.:

CG Request No.:

TRN:

Lot No.:

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– Testing



Accreditation Number: 12719 Approved Signatory: M. Longfield
(Senior Technician)
Site Number: 12712 Date of Issue: 14/01/2022
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Sample Details

Location:

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95%

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Imported

Material: Sandy CLAY

Sample Data

Sample ID	S22DS-00112	S22DS-00113	S22DS-00114			
Field Sample ID	1	2	3			
Date Tested	12/01/2022	12/01/2022	12/01/2022			
Location	E 357050.10	E 357077.94	E 357081.37			
	N 5777787.82	N 5777789.83	N 5777772.35			
	EL. 7.85	EL. 7.82	EL. 7.80			
	Lot 850	Lot 844	Lot 845			

Field and Laboratory Data

Depth of Test (mm)	175	175	175			
Depth of Layer (mm)	200	200	200			
Field Wet Density (t/m³)	2.11	1.99	2.08			
Peak Converted Wet Density (t/m³)	2.11	2.08	2.13			
Compactive Effort	Standard	Standard	Standard			
Moisture Variation (%)	0.0	1.5 dry	0.0			
Hilf Density Ratio (%)	100.0	96.0	98.0			

Comments



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Report No: HDR:W22DS00041

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd

Address: PO Box 3131

AUBURN VIC 3123

Project: Riverfield Estate - Stage 8

Project No.: 1016363.008

Order No.:

CG Request No.:

TRN:

Lot No.:



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M R

Accreditation Number:
12719

Site Number: 12712

Approved Signatory: M. Robinson
(Team Leader)

Date of Issue: 19/01/2022

THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde North

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95%

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Imported

Material: Sandy CLAY

Sample Data

Sample ID	S22DS-00124	S22DS-00125				
Field Sample ID	1	2				
Date Tested	13/01/2022	13/01/2022				
Location	E 357080.22	E 357050.54				
	N 5777766.30	N 5777787.66				
	EL. 8.05	EL. 8.37				
	Lot 846	Lot 850				

Field and Laboratory Data

Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
Field Wet Density (t/m³)	2.06	2.11				
Peak Converted Wet Density (t/m³)	2.11	2.09				
Compactive Effort	Standard	Standard				
Moisture Variation (%)	0.5 wet	0.5 wet				
Hilf Density Ratio (%)	97.5	101.0				

Comments



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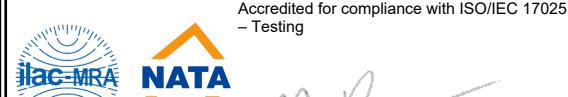
Report No: HDR:W22DS00050

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 8
Project No.: 1016363.008

Order No.: CG Request No.:
TRN: Lot No.:



Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 20/01/2022
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Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Silty Clay

Sample Data

Sample ID	S22DS-00155	S22DS-00156				
Field Sample ID	1	2				
Date Tested	14/01/2022	14/01/2022				
Lot No:	846	848				
E:	357073.84	357071.72				
N:	5777766.42	5777743.26				
Elv:	8.56	7.63				

Field and Laboratory Data

Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Wet Density (t/m³)	2.15	2.15				
Peak Converted Wet Density (t/m³)	2.26	2.13				
Compactive Effort	Standard	Standard				
Moisture Variation (%)	2.5 wet	0.0				
Hilf Density Ratio (%)	95.0	100.5				

Comments



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Report No: HDR:W22DS00060

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd

Address: PO Box 3131

AUBURN VIC 3123

Project: Riverfield Estate - Stage 8

Project No.: 1016363.008

Order No.:

CG Request No.:

TRN:

Lot No.:



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M R

Accreditation Number:
12719

Site Number: 12712

Approved Signatory: M. Robinson
(Team Leader)

Date of Issue: 18/01/2022

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Sample Details

Location: Clyde North

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95%

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: CLAY

Sample Data

Sample ID	S22DS-00201	S22DS-00202				
Field Sample ID	1	2				
Date Tested	17/01/2022	17/01/2022				
Lot No:	839	838				
E:	357096	357109				
N:	5777737	5777725				
RL:	8.521	7.575				

Field and Laboratory Data

Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
Field Wet Density (t/m³)	2.06	2.13				
Peak Converted Wet Density (t/m³)	2.15	2.12				
Compactive Effort	Standard	Standard				
Moisture Variation (%)	0.0	0.0				
Hilf Density Ratio (%)	96.0	100.5				

Comments



Dandenong South
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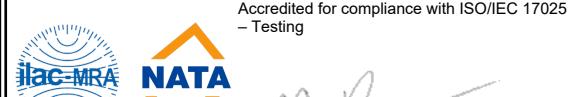
Report No: HDR:W22DS00070

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 10
Project No.: 1016363.010

Order No.: CG Request No.:
TRN: Lot No.:



Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 20/01/2022
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Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum HILF Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: CLAY

Sample Data

Sample ID	S22DS-00240					
Field Sample ID	1					
Date Tested	18/01/2022					
Lot No:	1026					
E:	357156					
N:	5777788					
RL:	6.967					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
Field Wet Density (t/m³)	2.06					
Peak Converted Wet Density (t/m³)	2.09					
Compactive Effort	Standard					
Moisture Variation (%)	0.5 dry					
Hilf Density Ratio (%)	98.5					

Comments



Dandenong South
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Report No: HDR:W22DS00071

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd

Address: PO Box 3131

AUBURN VIC 3123

Project: Riverfield Estate - Stage 8

Project No.: 1016363.008

Order No.:

CG Request No.:

TRN:

Lot No.:



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- Testing

M R

Accreditation Number:

12719

Approved Signatory: M. Robinson
(Team Leader)

Site Number: 12712

Date of Issue: 20/01/2022

THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde North

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95%

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: CLAY

Sample Data

Sample ID	S22DS-00241	S22DS-00242	S22DS-00243	S22DS-00244	
Field Sample ID	1	2	3	4	
Date Tested	18/01/2022	18/01/2022	18/01/2022	18/01/2022	
Lot No:	837	804	833	804	
E:	357133	357108	357134	357108	
N:	5777710	5777694	5777771	5777695	
RL:	7.179	7.405	7.043	7.482	

Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	
Depth of Layer (mm)	200	200	200	200	
Field Wet Density (t/m³)	2.11	2.07	1.88	2.08	
Peak Converted Wet Density (t/m³)	2.11	2.12	1.98	2.09	
Compactive Effort	Standard	Standard	Standard	Standard	
Moisture Variation (%)	2.5 dry	2.5 dry	2.5 dry	0.5 dry	
Hilf Density Ratio (%)	100.0	98.0	95.0	99.5	

Comments



Dandenong South
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Report No: HDR:W22DS00097

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd

Address: PO Box 3131

AUBURN VIC 3123

Project: Riverfield Estate - Stage 8

Project No.: 1016363.008

Order No.:

CG Request No.:

TRN:

Lot No.:



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– Testing

M R

Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 21/01/2022
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde North

Client Request ID:

Specification Requirements: Minimum HILF Density Ratio of 95%

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: CLAY

Sample Data

Sample ID	S22DS-00345	S22DS-00346				
Field Sample ID	1	2				
Date Tested	19/01/2022	19/01/2022				
Lot No:	838	839				
E:	357095	357106				
N:	5777724	5777727				
Elv:	8.029	8.130				

Field and Laboratory Data

Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
Field Wet Density (t/m³)	1.82	2.04				
Peak Converted Wet Density (t/m³)	2.07	2.10				
Compactive Effort	Standard	Standard				
Moisture Variation (%)	2.5 dry	0.5 dry				
HILF Density Ratio (%)	88.0	97.0				

Comments



Dandenong South
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Report No: HDR:W22DS00098

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Retirement Village
Project No.: 1016363.RV
Order No.: CG Request No.:
TRN: Lot No.:

Accredited for compliance with ISO/IEC 17025
– Testing
 
Signature: 
Accreditation Number: 12719 Approved Signatory: J. Lamont
(Dandenong Laboratory Manager)
Site Number: 12712 Date of Issue: 29/07/2022
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: CLAY

Sample Data

Sample ID	S22DS-00347	S22DS-00348	S22DS-00349	S22DS-00350	S22DS-00351	S22DS-00352
Field Sample ID	1	2	3	4	5	6
Date Tested	20/01/2022	20/01/2022	20/01/2022	20/01/2022	20/01/2022	20/01/2022
E:	357093	357107	357116	357012	357034	356551
N:	5777718	5777730	5777689	5777803	5777751	5778184
Elv:	7.845	8.277	7.612	9.103	8.779	

Field and Laboratory Data

Depth of Test (mm)	125	125	125	125	125	175
Depth of Layer (mm)	150	150	150	150	150	200
Field Wet Density (t/m³)	2.05	2.08	2.11	2.09	2.00	2.05
Peak Converted Wet Density (t/m³)	2.13	2.09	2.12	2.15	2.11	2.04
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Variation (%)	0.5 dry	0.5 dry	0.0	2.0 dry	2.5 dry	0.0
Hilf Density Ratio (%)	96.0	99.5	99.5	97.0	95.0	100.5

Comments



Dandenong South
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Report No: HDR:W22DS00098

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Retirement Village
Project No.: 1016363.RV
Order No.: CG Request No.:
TRN: Lot No.:



Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum HILF Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: CLAY

Sample Data

Sample ID	S22DS-00353	S22DS-00354	S22DS-00355			
Field Sample ID	7	8	9			
Date Tested	20/01/2022	20/01/2022	20/01/2022			
E:	356559	356583	356633			
N:	5778197	5778268	5778260			

Field and Laboratory Data

Depth of Test (mm)	175	175	175			
Depth of Layer (mm)	200	200	200			
Field Wet Density (t/m³)	2.03	1.98	2.04			
Peak Converted Wet Density (t/m³)	2.04	2.01	1.97			
Compactive Effort	Standard	Standard	Standard			
Moisture Variation (%)	2.0 wet	0.5 wet	0.5 wet			
Hilf Density Ratio (%)	99.5	98.5	103.5			

Comments



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Report No: HDR:W22DS00114

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd

Address: PO Box 3131

AUBURN VIC 3123

Project: Riverfield Estate - Stage 8

Project No.: 1016363.008

Order No.:

CG Request No.:

TRN:

Lot No.:



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– Testing

M R

Accreditation Number:
12719

Approved Signatory: M. Robinson
(Team Leader)

Site Number: 12712 Date of Issue: 24/01/2022

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Sample Details

Location: Clyde North

Client Request ID:

Specification Requirements: Minimum HILF Density Ratio of 95%

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: CLAY

Sample Data

Sample ID	S22DS-00415	S22DS-00416	S22DS-00417	S22DS-00418	
Field Sample ID	1	2	3	4	
Date Tested	21/01/2022	21/01/2022	21/01/2022	21/01/2022	
Lot No:	858	859	-	-	
E:	357094	357089	356663	356634	
N:	5777721	5777731	5778267	5778273	
Elv:	7.990	8.134			

Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	
Depth of Layer (mm)	200	200	200	200	
Field Wet Density (t/m³)	2.12	2.15	1.99	2.03	
Peak Converted Wet Density (t/m³)	2.16	2.11	1.99	1.93	
Compactive Effort	Standard	Standard	Standard	Standard	
Moisture Variation (%)	0.0	0.0	0.5 wet	0.5 wet	
HILF Density Ratio (%)	98.0	101.5	100.0	105.5	

Comments



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Report No: HDR:W22DS00115

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd

Address: PO Box 3131

AUBURN VIC 3123

Project: Riverfield Estate - Stage 8

Project No.: 1016363.008

Order No.:

CG Request No.:

TRN:

Lot No.:



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M R

Accreditation Number:
12719

Site Number: 12712

Approved Signatory: M. Robinson
(Team Leader)

Date of Issue: 24/01/2022

THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde North

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95%

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: CLAY

Sample Data

Sample ID	S22DS-00419	S22DS-00420				
Field Sample ID	1	2				
Date Tested	22/01/2022	22/01/2022				
Lot No:	828	830				
E:	357165.62	357174.19				
N:	5777740.25	5777767.29				
Elv:	6.91	7.23				

Field and Laboratory Data

Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
Field Wet Density (t/m³)	2.18	2.14				
Peak Converted Wet Density (t/m³)	2.14	2.05				
Compactive Effort	Standard	Standard				
Moisture Variation (%)	0.5 dry	0.0				
Hilf Density Ratio (%)	102.0	104.5				

Comments



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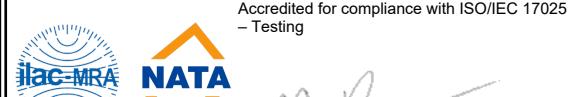
Report No: HDR:W22DS00117

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 10
Project No.: 1016363.010

Order No.: CG Request No.:
TRN: Lot No.:



Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 24/01/2022
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Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum HILF Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: CLAY

Sample Data

Sample ID	S22DS-00425					
Field Sample ID	1					
Date Tested	22/01/2022					
Lot No:	1027					
E:	35180.37					
N:	5777810.94					
Elv:	7.50					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
Field Wet Density (t/m³)	2.13					
Peak Converted Wet Density (t/m³)	2.16					
Compactive Effort	Standard					
Moisture Variation (%)	0.5 wet					
Hilf Density Ratio (%)	99.0					

Comments



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Report No: HDR:W22DS00128

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd

Address: PO Box 3131

AUBURN VIC 3123

Project: Riverfield Estate - Stage 8

Project No.: 1016363.008

Order No.:

CG Request No.:

TRN:

Lot No.:



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M R

Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 25/01/2022
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde North

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95%

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: CLAY

Sample Data

Sample ID	S22DS-00450	S22DS-00451	S22DS-00452			
Field Sample ID	1	2	3			
Date Tested	24/01/2022	24/01/2022	24/01/2022			
Lot No:	836	806	830			
E:	357143.70	357136.10	357158.79			
N:	5777733.62	5777687.27	5777767.34			
Elv:	7.69	7.61	8.10			

Field and Laboratory Data

Depth of Test (mm)	175	175	175			
Depth of Layer (mm)	200	200	200			
Field Wet Density (t/m³)	2.16	2.13	2.01			
Peak Converted Wet Density (t/m³)	2.08	2.07	2.03			
Compactive Effort	Standard	Standard	Standard			
Moisture Variation (%)	2.0 dry	2.5 dry	2.5 dry			
Hilf Density Ratio (%)	104.0	103.0	99.0			

Comments



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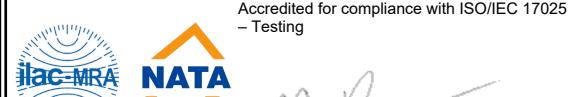
Report No: HDR:W22DS00129

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 10
Project No.: 1016363.010

Order No.: CG Request No.:
TRN: Lot No.:



Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 25/01/2022
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Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: CLAY

Sample Data

Sample ID	S22DS-00453					
Field Sample ID	1					
Date Tested	24/01/2022					
Lot No:	1025					
E:	357148.39					
N:	5777802.49					
Elv:	8.43					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
Field Wet Density (t/m³)	2.15					
Peak Converted Wet Density (t/m³)	2.02					
Compactive Effort	Standard					
Moisture Variation (%)	2.0 dry					
Hilf Density Ratio (%)	107.0					

Comments



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Report No: HDR:W22DS00133

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd

Address: PO Box 3131

AUBURN VIC 3123

Project: Riverfield Estate - Stage 8

Project No.: 1016363.008

Order No.:

CG Request No.:

TRN:

Lot No.:

Accredited for compliance with ISO/IEC 17025
– Testing



Accreditation Number: 12719 Approved Signatory: J. Lamont
(Dandenong Laboratory Manager)
Site Number: 12712 Date of Issue: 27/01/2022
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location:

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95%

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Site Won

Material: CLAY

Sample Data

Sample ID	S22DS-00461	S22DS-00462	S22DS-00463	S22DS-00464	S22DS-00465
Field Sample ID	1	2	3	4	5
Date Tested	25/01/2022	25/01/2022	25/01/2022	25/01/2022	25/01/2022
Location	E 356915	E 356930	E 356921	E 357137	E 357102
	N 5778243	N 5778280	N 5778302	N 5777749	N 5777737
				EL. 8.28	EL. 8.60

Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200
Field Wet Density (t/m³)	2.04	1.97	1.98	2.10	2.15
Peak Converted Wet Density (t/m³)	2.06	1.95	2.02	2.13	2.09
Compactive Effort	Standard	Standard	Standard	Standard	Standard
Moisture Variation (%)	2.5 wet	0.5 wet	3.0 wet	2.0 wet	2.5 dry
Hilf Density Ratio (%)	99.0	100.5	98.0	99.0	103.0

Comments



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Report No: HDR:W22DS00179

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 8
Project No.: 1016363.008

Order No.: CG Request No.:
TRN: Lot No.:



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– Testing

Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 3/02/2022
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Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95% (+/- 3% of OMC)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S22DS-00606	S22DS-00607	S22DS-00608	S22DS-00609	S22DS-00610	S22DS-00611
Field Sample ID	1	2	3	4	5	6
Date Tested	1/02/2022	1/02/2022	1/02/2022	1/02/2022	1/02/2022	1/02/2022
E:	357080	357089	357101	357145	357135	357035
N:	5777752	5777785	5777806	5777784	5777745	5777789
RL / Layer:	8.719	8.60	9.001	8.569	8.309	7.870
Lot:	847	844	1023	832	835	851

Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0	0
Field Wet Density (t/m³)	2.18	2.11	2.08	2.17	2.11	2.09
Peak Converted Wet Density (t/m³)	2.11	2.13	2.13	2.06	2.11	2.09
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Variation (%)	0.0	0.0	0.5 dry	2.0 dry	0.0	0.0
Hilf Density Ratio (%)	103.0	99.0	97.5	105.5	100.0	100.0

Comments



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Report No: HDR:W22DS00204

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131

AUBURN VIC 3123

Project: Riverfield Estate - Stage 8

Project No.: 1016363.008

Order No.: CG Request No.:

TRN: Lot No.:



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- Testing

M R

Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 8/02/2022
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Sample Details

Location: Clyde North

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95%

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: CLAY

Sample Data

Sample ID	S22DS-00709	S22DS-00710	S22DS-00711	S22DS-00712	S22DS-00713
Field Sample ID	1	2	3	4	5
Date Tested	3/02/2022	3/02/2022	3/02/2022	3/02/2022	3/02/2022
Lot No:	848	Roadway	849	850	Roadway
E:	357069	357052	357079	357045	357051
N:	5777735	5777645	5777720	5777782	5777652
Elv:	7.975	8.185	8.064	8.591	8.430

Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0
Field Wet Density (t/m³)	2.09	2.05	2.09	2.01	2.02
Peak Converted Wet Density (t/m³)	2.06	2.08	2.04	2.08	2.07
Compactive Effort	Standard	Standard	Standard	Standard	Standard
Moisture Variation (%)	0.5 wet	0.5 wet	1.5 wet	0.5 wet	0.0
Hilf Density Ratio (%)	101.0	98.5	102.5	96.5	97.0

Comments



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Report No: HDR:W22DS00206

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 10
Project No.: 1016363.010

Order No.: CG Request No.:
TRN: Lot No.:



Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum HILF Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: CLAY

Sample Data

Sample ID	S22DS-00717					
Field Sample ID	1					
Date Tested	3/02/2022					
Lot No:	1017					
E:	357002					
N:	5777833					
Elv:	8.691					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Wet Density (t/m³)	2.09					
Peak Converted Wet Density (t/m³)	2.05					
Compactive Effort	Standard					
Moisture Variation (%)	2.5 wet					
Hilf Density Ratio (%)	102.0					

Comments



Dandenong South
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Report No: HDR:W22DS00208

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd

Address: PO Box 3131

AUBURN VIC 3123

Project: Riverfield Estate - Stage 8

Project No.: 1016363.008

Order No.:

CG Request No.:

TRN:

Lot No.:

Accredited for compliance with ISO/IEC 17025
– Testing



M R

Accreditation Number:

12719

Approved Signatory: M. Robinson
(Team Leader)

Site Number: 12712

Date of Issue: 4/02/2022

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Sample Details

Location: Clyde North

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95%

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: CLAY

Sample Data

Sample ID	S22DS-00719	S22DS-00720	S22DS-00721			
Field Sample ID	1	2	3			
Date Tested	2/02/2022	2/02/2022	2/02/2022			
Lot No:	852	801	803			
E:	357050	357094.576	357081.762			
N:	5777744	5777685.305	5777698.086			
Elv:	7.902	7.463	7.369			

Field and Laboratory Data

Depth of Test (mm)	175	175	175			
Depth of Layer (mm)	200	200	200			
Field Wet Density (t/m³)	2.01	2.16	2.08			
Peak Converted Wet Density (t/m³)	2.04	2.09	2.05			
Compactive Effort	Standard	Standard	Standard			
Moisture Variation (%)	0.5 wet	2.0 dry	0.0			
Hilf Density Ratio (%)	98.0	103.5	101.5			

Comments



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Report No: HDR:W22DS00209

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd

Address: PO Box 3131

AUBURN VIC 3123

Project: Riverfield Estate - Stage 10

Project No.: 1016363.010

Order No.: CG Request No.:

TRN: Lot No.:



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- Testing

M R

Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 4/02/2022
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Sample Details

Location: Clyde North

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95%

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: CLAY

Sample Data

Sample ID	S22DS-00722	S22DS-00723				
Field Sample ID	1	2				
Date Tested	2/02/2022	2/02/2022				
Lot No:	1018	1019				
E:	357011	357030				
N:	5777827	5777832				
Elv:	8.266	8.580				

Field and Laboratory Data

Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
Field Wet Density (t/m³)	2.17	2.07				
Peak Converted Wet Density (t/m³)	2.12	2.05				
Compactive Effort	Standard	Standard				
Moisture Variation (%)	0.0	0.0				
Hilf Density Ratio (%)	102.5	101.0				

Comments



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Fax: +61 3 9706 9431

Report No: HDR:W22DS00222

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 8
Project No.: 1016363.008

Order No.: CG Request No.:
TRN: Lot No.:



Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S22DS-00771					
Field Sample ID	1					
Date Tested	4/02/2022					
Lot No:	Road Way					
E:	357058					
N:	5777755					
Elv:	8.397					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Wet Density (t/m³)	2.13					
Peak Converted Wet Density (t/m³)	2.10					
Compactive Effort	Standard					
Moisture Variation (%)	0.5 dry					
Hilf Density Ratio (%)	101.5					

Comments



Dandenong South
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Report No: HDR:W22DS00224

Issue No: 2

This report replaces all previous issues of report no 'HDR:W22DS00224'.

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield - Stage 7
Project No.: 1016363.007

Order No.: CG Request No.:
TRN: Lot No.:



Accredited for compliance with ISO/IEC 17025
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Accreditation Number: 12719
Approved Signatory: M. Longfield
(Senior Technician)
Site Number: 12712 Date of Issue: 14/09/2022
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Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S22DS-00776	S22DS-00777				
Field Sample ID	1	2				
Date Tested	4/02/2022	4/02/2022				
Lot No:	729	734				
E:	357023	357080				
N:	5777635	5777665				
Elv:	8.96	-				

Field and Laboratory Data

Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Wet Density (t/m³)	2.06	2.05				
Peak Converted Wet Density (t/m³)	2.04	2.09				
Compactive Effort	Standard	Standard				
Moisture Variation (%)	1.0 wet	0.0				
Hilf Density Ratio (%)	101.0	98.0				

Comments



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Report No: HDR:W22DS00244

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd

Address: PO Box 3131

AUBURN VIC 3123

Project: Riverfield Estate - Stage 8

Project No.: 1016363.008

Order No.:

CG Request No.:

TRN:

Lot No.:



Accredited for compliance with ISO/IEC 17025
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M R

Accreditation Number:
12719

Site Number: 12712

Approved Signatory: M. Robinson
(Team Leader)

Date of Issue: 11/02/2022

THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde North

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95% (+/- 3% of OMC)

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: Clay

Sample Data

Sample ID	S22DS-00829	S22DS-00830				
Field Sample ID	1	2				
Date Tested	8/02/2022	8/02/2022				
Lot No:	803	847				
E:	357094	357072				
N:	5777693	5777748				
Elv:	8.322	8.752				

Field and Laboratory Data

Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Wet Density (t/m³)	2.01	2.07				
Peak Converted Wet Density (t/m³)	2.02	2.03				
Compactive Effort	Standard	Standard				
Moisture Variation (%)	1.5 wet	0.0				
Hilf Density Ratio (%)	99.0	102.0				

Comments



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Report No: HDR:W22DS00260

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 8
Project No.: 1016363.008

Order No.: CG Request No.:
TRN: Lot No.:



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Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 11/02/2022
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S22DS-00871	S22DS-00872	S22DS-00873			
Field Sample ID	1	2	3			
Date Tested	9/02/2022	9/02/2022	9/02/2022			
Lot No:	831	826	Roadway			
E:	357164	357152	357190			
N:	5777778	5777707	57777695			
Elv:	8.339	7.692	6.539			

Field and Laboratory Data

Depth of Test (mm)	175	175	175			
Depth of Layer (mm)	200	200	200			
AS Sieve Size (mm)	19.0	19.0	19.0			
Oversize Wet (%)	0	0	0			
Field Wet Density (t/m³)	2.09	2.07	2.07			
Peak Converted Wet Density (t/m³)	2.09	2.11	2.10			
Compactive Effort	Standard	Standard	Standard			
Moisture Variation (%)	0.5 dry	0.0	0.5 wet			
Hilf Density Ratio (%)	100.0	98.0	98.5			

Comments



Dandenong South
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Report No: HDR:W22DS00261

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 10
Project No.: 1016363.010

Order No.: CG Request No.:
TRN: Lot No.:

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M R

Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 11/02/2022
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S22DS-00874					
Field Sample ID	1					
Date Tested	9/02/2022					
Lot No:	1027					
E:	357176					
N:	5777799					
Elv:	8.265					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Wet Density (t/m³)	2.08					
Peak Converted Wet Density (t/m³)	2.11					
Compactive Effort	Standard					
Moisture Variation (%)	0.5 dry					
Hilf Density Ratio (%)	99.0					

Comments



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Report No: HDR:W22DS00290

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd

Address: PO Box 3131

AUBURN VIC 3123

Project: Riverfield Estate - Stage 8

Project No.: 1016363.008

Order No.:

CG Request No.:

TRN:

Lot No.:



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- Testing

M R

Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 11/02/2022
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde North

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: Clay

Sample Data

Sample ID	S22DS-00920	S22DS-00922				
Field Sample ID	1	3				
Date Tested	10/02/2022	10/02/2022				
Lot No:	821	823				
E:	357211	357202				
N:	57777761	5777730				
Elv:	7.215	6.965				

Field and Laboratory Data

Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Wet Density (t/m³)	2.09	2.09				
Peak Converted Wet Density (t/m³)	2.09	2.08				
Compactive Effort	Standard	Standard				
Moisture Variation (%)	0.0	0.0				
Hilf Density Ratio (%)	100.0	101.0				

Comments



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Report No: HDR:W22DS00309

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 8
Project No.: 1016363.008

Order No.: CG Request No.:
TRN: Lot No.:



Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95% (+/- 3% of OMC)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S22DS-00988	S22DS-00989				
Field Sample ID	2	3				
Date Tested	11/02/2022	11/02/2022				
Lot No:	816	818				
E:	357229	357249				
N:	5777716	5777754				
Elv:	6.479	6.640				

Field and Laboratory Data

Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Wet Density (t/m³)	2.07	2.09				
Peak Converted Wet Density (t/m³)	2.14	2.11				
Compactive Effort	Standard	Standard				
Moisture Variation (%)	0.0	0.5 wet				
Hilf Density Ratio (%)	97.0	99.0				

Comments



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Report No: HDR:W22DS00313

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd

Address: PO Box 3131

AUBURN VIC 3123

Project: Riverfield Estate - Stage 8

Project No.: 1016363.008

Order No.:

CG Request No.:

TRN:

Lot No.:



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- Testing

M R

Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 15/02/2022
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Sample Details

Location: Clyde North

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: Clay

Sample Data

Sample ID	S22DS-00995	S22DS-00996	S22DS-00997			
Field Sample ID	1	2	3			
Date Tested	12/02/2022	12/02/2022	12/02/2022			
Lot No:	824	822	820			
E:	357189	357193	357198			
N:	5777721	5777742	5777766			
Elv:	7.380	7.441	7.991			

Field and Laboratory Data

Depth of Test (mm)	175	175	175			
Depth of Layer (mm)	200	200	200			
AS Sieve Size (mm)	19.0	19.0	19.0			
Oversize Wet (%)	0	0	0			
Field Wet Density (t/m³)	2.13	2.06	2.13			
Peak Converted Wet Density (t/m³)	2.10	2.05	2.11			
Compactive Effort	Standard	Standard	Standard			
Moisture Variation (%)	0.5 dry	0.5 wet	0.5 dry			
Hilf Density Ratio (%)	101.0	100.5	101.0			

Comments



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Report No: HDR:W22DS00325

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 8
Project No.: 1016363.008

Order No.: CG Request No.:
TRN: Lot No.:



Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95% (+/- 3% of OMC)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S22DS-01025	S22DS-01026	S22DS-01027			
Field Sample ID	1	2	3			
Date Tested	14/02/2022	14/02/2022	14/02/2022			
Lot No:	820	819	817			
E:	357213	357252	357243			
N:	5777777	5777760	5777739			
Elv:	7.549	7.070	-			

Field and Laboratory Data

Depth of Test (mm)	175	175	175			
Depth of Layer (mm)	200	200	200			
AS Sieve Size (mm)	19.0	19.0	19.0			
Oversize Wet (%)	0	0	0			
Field Wet Density (t/m³)	2.06	1.96	2.09			
Peak Converted Wet Density (t/m³)	2.12	2.09	2.04			
Compactive Effort	Standard	Standard	Standard			
Moisture Variation (%)	0.5 dry	0.5 dry	0.5 dry			
Hilf Density Ratio (%)	97.0	94.0	102.5			

Comments



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Report No: HDR:W22DS00326

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 10
Project No.: 1016363.010

Order No.: CG Request No.:
TRN: Lot No.:



Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95% (+/- 3% of OMC)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S22DS-01028	S22DS-01029	S22DS-01030			
Field Sample ID	1	2	3			
Date Tested	14/02/2022	14/02/2022	14/02/2022			
Lot No:	1030	1031	1031			
E:	357230	357253	357259			
N:	5777780	5777801	5777785			
Elv:	7.266	6.944	7.019			

Field and Laboratory Data

Depth of Test (mm)	175	175	175			
Depth of Layer (mm)	200	200	200			
AS Sieve Size (mm)	19.0	19.0	19.0			
Oversize Wet (%)	0	0	0			
Field Wet Density (t/m³)	2.10	2.00	2.05			
Peak Converted Wet Density (t/m³)	2.11	2.06	2.03			
Compactive Effort	Standard	Standard	Standard			
Moisture Variation (%)	0.5 dry	1.0 dry	0.5 dry			
Hilf Density Ratio (%)	99.0	97.0	100.5			

Comments



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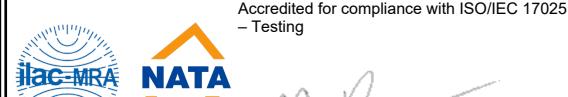
Report No: HDR:W22DS00335

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 10
Project No.: 1016363.010

Order No.: CG Request No.:
TRN: Lot No.:



Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 15/02/2022
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum HILF Density Ratio of 95% (+/- 3% of OMC)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: CLAY

Sample Data

Sample ID	S22DS-01060					
Field Sample ID	1					
Date Tested	11/02/2022					
Lot No:	1031					
E:	357250					
N:	5777796					
Elv:	6.761					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
Field Wet Density (t/m³)	1.99					
Peak Converted Wet Density (t/m³)	2.11					
Compactive Effort	Standard					
Moisture Variation (%)	0.5 dry					
Hilf Density Ratio (%)	94.5					

Comments



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Report No: HDR:W22DS00339

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131

AUBURN VIC 3123

Project: Riverfield - Stage 7

Project No.: 1016363.007

Order No.: CG Request No.:

TRN: Lot No.:



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M R

Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 17/02/2022
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde North

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: Clay

Sample Data

Sample ID	S22DS-01079	S22DS-01080				
Field Sample ID	1	2				
Date Tested	15/02/2022	15/02/2022				
Lot No:	745	743				
E:	357230	357201				
N:	5777631	5777652				
Elv:	6.271	6.296				

Field and Laboratory Data

Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Wet Density (t/m³)	2.00	2.01				
Peak Converted Wet Density (t/m³)	2.03	2.02				
Compactive Effort	Standard	Standard				
Moisture Variation (%)	2.0 dry	1.0 dry				
Hilf Density Ratio (%)	98.5	99.5				

Comments



Dandenong South
ACN 143 009 330
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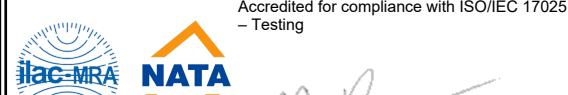
Report No: HDR:W22DS00343

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 8
Project No.: 1016363.008

Order No.: CG Request No.:
TRN: Lot No.:



Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 17/02/2022
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S22DS-01094	S22DS-01095				
Field Sample ID	1	2				
Date Tested	15/02/2022	15/02/2022				
Lot No:	811	813				
E:	357202	357234				
N:	5777680	5777670				
Elv:	6.505	6.336				

Field and Laboratory Data

Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Wet Density (t/m³)	2.03	2.11				
Peak Converted Wet Density (t/m³)	2.12	2.11				
Compactive Effort	Standard	Standard				
Moisture Variation (%)	0.0	1.0 dry				
Hilf Density Ratio (%)	95.5	100.0				

Comments



Dandenong South
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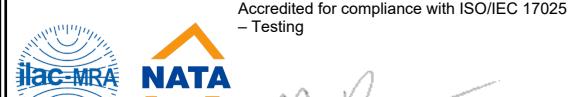
Report No: HDR:W22DS00363

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 8
Project No.: 1016363.008

Order No.: CG Request No.:
TRN: Lot No.:



Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 17/02/2022
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S22DS-01159					
Field Sample ID	1					
Date Tested	16/02/2022					
Lot No:	819					
E:	357255					
N:	5777761					
Elv:	7.081					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Wet Density (t/m³)	2.13					
Peak Converted Wet Density (t/m³)	2.14					
Compactive Effort	Standard					
Moisture Variation (%)	0.5 dry					
Hilf Density Ratio (%)	99.5					

Comments



Dandenong South
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Report No: HDR:W22DS00366

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd

Address: PO Box 3131

AUBURN VIC 3123

Project: Riverfield Estate - Stage 10

Project No.: 1016363.010

Order No.: CG Request No.:

TRN: Lot No.:



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M R

Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 18/02/2022
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde North

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: Clay

Sample Data

Sample ID	S22DS-01169	S22DS-01170	S22DS-01171	S22DS-01172	S22DS-01173	S22DS-01174
Field Sample ID	1	2	3	4	5	6
Date Tested	16/02/2022	16/02/2022	16/02/2022	16/02/2022	16/02/2022	16/02/2022
Lot No:	1025	Road Way	Road Way	1028	Road Way	Road Way
E:	357156	357167	357184	357215	357724	357251
N:	5777816	5777829	5777831	5777807	5777824	5777812
Elv:	8.8888	8.861	8.545	7.825	7.691	7.490

Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0	0
Field Wet Density (t/m³)	2.03	2.06	2.10	2.08	2.05	2.02
Peak Converted Wet Density (t/m³)	2.02	2.09	2.11	2.07	2.02	2.03
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Variation (%)	1.5 dry	0.5 dry	0.0	0.5 dry	1.5 dry	2.0 dry
Hilf Density Ratio (%)	100.5	98.5	99.5	100.5	101.5	99.5

Comments



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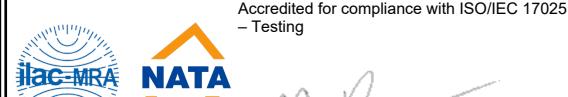
Report No: HDR:W22DS00366

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 10
Project No.: 1016363.010

Order No.: CG Request No.:
TRN: Lot No.:



Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 18/02/2022
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Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S22DS-01175					
Field Sample ID	7					
Date Tested	16/02/2022					
Lot No:	1031					
E:	352750					
N:	5777799					
Elv:	6.744					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Wet Density (t/m³)	2.13					
Peak Converted Wet Density (t/m³)	2.13					
Compactive Effort	Standard					
Moisture Variation (%)	0.0					
Hilf Density Ratio (%)	100.0					

Comments



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Report No: HDR:W22DS00398

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd

Address: PO Box 3131

AUBURN VIC 3123

Project: Riverfield Estate - Stage 10

Project No.: 1016363.010

Order No.:

CG Request No.:

TRN:

Lot No.:



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M R

Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 22/02/2022
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde North

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: CLAY

Sample Data

Sample ID	S22DS-01255	S22DS-01256	S22DS-01257			
Field Sample ID	1	2	3			
Date Tested	21/02/2022	21/02/2022	21/02/2022			
Lot No:	1024	1026	1028			
E:	357118	357166	357206			
N:	5777820	5777804	5777803			
Elv:	8.797	8.609	7.931			

Field and Laboratory Data

Depth of Test (mm)	175	175	175			
Depth of Layer (mm)	200	200	200			
AS Sieve Size (mm)	19.0	19.0	19.0			
Oversize Wet (%)	0	0	0			
Field Wet Density (t/m³)	2.15	2.15	2.10			
Peak Converted Wet Density (t/m³)	2.06	2.03	2.03			
Compactive Effort	Standard	Standard	Standard			
Moisture Variation (%)	2.5 dry	3.0 dry	1.0 dry			
Hilf Density Ratio (%)	104.0	106.0	103.5			

Comments



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Report No: HDR:W22DS00415

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd

Address: PO Box 3131

AUBURN VIC 3123

Project: Riverfield Estate - Stage 8

Project No.: 1016363.008

Order No.:

CG Request No.:

TRN:

Lot No.:



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M R

Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 24/02/2022
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde North

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: CLAY

Sample Data

Sample ID	S22DS-01349	S22DS-01350	S22DS-01351	S22DS-01352	S22DS-01353	S22DS-01354
Field Sample ID	1	2	3	4	5	6
Date Tested	22/02/2022	22/02/2022	22/02/2022	22/02/2022	22/02/2022	22/02/2022
Lot No:	819	818	817	816	815	813
E:	357250	357249	357247	357246	357245	357236
N:	5777769	5777755	5777734	5777719	5777709	5777666
Elv:	7.509	7.615	7.515	7.457	7.422	8.435

Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0	0
Field Wet Density (t/m³)	2.04	2.06	2.10	2.09	2.17	2.18
Peak Converted Wet Density (t/m³)	2.14	2.14	2.15	2.12	2.09	2.12
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Variation (%)	0.0	0.0	0.0	0.0	2.0 dry	0.0
Hilf Density Ratio (%)	95.5	96.0	97.5	98.5	103.5	102.5

Comments



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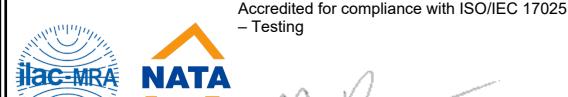
Report No: HDR:W22DS00416

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 10
Project No.: 1016363.010

Order No.: CG Request No.:
TRN: Lot No.:



Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 24/02/2022
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Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: CLAY

Sample Data

Sample ID	S22DS-01355					
Field Sample ID	1					
Date Tested	22/02/2022					
Lot No:	1031					
E:	357252					
N:	5777790					
Elv:	7.437					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Wet Density (t/m³)	2.11					
Peak Converted Wet Density (t/m³)	2.16					
Compactive Effort	Standard					
Moisture Variation (%)	0.5 wet					
Hilf Density Ratio (%)	97.5					

Comments



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Report No: HDR:W22DS00425

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 8
Project No.: 1016363.008

Order No.: CG Request No.:
TRN: Lot No.:



Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95% (+/- 3% of OMC)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: CLAY

Sample Data

Sample ID	S22DS-01397	S22DS-01398	S22DS-01399			
Field Sample ID	1	2	3			
Date Tested	23/02/2022	23/02/2022	23/02/2022			
Lot No:	818	815	812			
E:	357227	357233	357221			
N:	5777752	5777717	5777653			
Elv:	5.895	7.737	6.785			

Field and Laboratory Data

Depth of Test (mm)	175	175	175			
Depth of Layer (mm)	200	200	200			
AS Sieve Size (mm)	19.0	19.0	19.0			
Oversize Wet (%)	0	0	0			
Field Wet Density (t/m³)	2.15	2.10	2.06			
Peak Converted Wet Density (t/m³)	2.14	2.16	2.16			
Compactive Effort	Standard	Standard	Standard			
Moisture Variation (%)	0.0	0.0	0.5 dry			
Hilf Density Ratio (%)	100.5	97.0	95.5			

Comments



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Report No: HDR:W22DS00440

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 8
Project No.: 1016363.008

Order No.: CG Request No.:
TRN: Lot No.:



Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: CLAY

Sample Data

Sample ID	S22DS-01441	S22DS-01442	S22DS-01443			
Field Sample ID	1	2	3			
Date Tested	24/02/2022	24/02/2022	24/02/2022			
Lot No:	805	804	802			
E:	357125	357106	357088			
N:	5777686	5777680	5777673			
Elv:	8.515	8.7.30	8.888			

Field and Laboratory Data

Depth of Test (mm)	175	175	175			
Depth of Layer (mm)	200	200	200			
AS Sieve Size (mm)	19.0	19.0	19.0			
Oversize Wet (%)	0	0	0			
Field Wet Density (t/m³)	2.03	2.13	2.07			
Peak Converted Wet Density (t/m³)	1.99	2.12	2.03			
Compactive Effort	Standard	Standard	Standard			
Moisture Variation (%)	0.0	0.0	0.5 wet			
Hilf Density Ratio (%)	102.0	100.5	102.5			

Comments



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Report No: HDR:W22DS00458

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 8
Project No.: 1016363.008

Order No.: CG Request No.:
TRN: Lot No.:



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M R

Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 28/02/2022
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Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: CLAY

Sample Data

Sample ID	S22DS-01487	S22DS-01488	S22DS-01489			
Field Sample ID	1	2	3			
Date Tested	25/02/2022	25/02/2022	25/02/2022			
Lot No:	808	810	811			
E:	357165	357181	357200			
N:	5777670	5777667	5777662			
Elv:	7.955	7.392	7.047			

Field and Laboratory Data

Depth of Test (mm)	175	175	175			
Depth of Layer (mm)	200	200	200			
AS Sieve Size (mm)	19.0	19.0	19.0			
Oversize Wet (%)	0	0	0			
Field Wet Density (t/m³)	2.17	2.12	2.26			
Peak Converted Wet Density (t/m³)	2.11	2.14	2.09			
Compactive Effort	Standard	Standard	Standard			
Moisture Variation (%)	0.5 wet	0.0	0.5 dry			
Hilf Density Ratio (%)	102.5	99.0	108.0			

Comments



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Report No: HDR:W22DS00477

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 8
Project No.: 1016363.008

Order No.: CG Request No.:
TRN: Lot No.:



Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95% (+/- 3% of OMC)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: CLAY

Sample Data

Sample ID	S22DS-01559	S22DS-01560	S22DS-01561			
Field Sample ID	1	2	3			
Date Tested	28/02/2022	28/02/2022	28/02/2022			
Lot No:	817	816	814			
E:	357335	357241	357230			
N:	5777737	5777720	5777705			
Elv:	8.040	7.811	7.640			

Field and Laboratory Data

Depth of Test (mm)	175	175	175			
Depth of Layer (mm)	200	200	200			
AS Sieve Size (mm)	19.0	19.0	19.0			
Oversize Wet (%)	0	0	0			
Field Wet Density (t/m³)	2.14	2.09	2.14			
Peak Converted Wet Density (t/m³)	2.10	2.10	2.06			
Compactive Effort	Standard	Standard	Standard			
Moisture Variation (%)	1.0 dry	0.5 dry	0.5 dry			
Hilf Density Ratio (%)	102.0	99.5	104.0			

Comments



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Report No: HDR:W22DS00488

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd

Address: PO Box 3131

AUBURN VIC 3123

Project: Riverfield Estate - Stage 8

Project No.: 1016363.008

Order No.:

CG Request No.:

TRN:

Lot No.:



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M R

Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 3/03/2022
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Sample Details

Location: Clyde North

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: CLAY

Sample Data

Sample ID	S22DS-01599	S22DS-01600	S22DS-01601			
Field Sample ID	1	2	3			
Date Tested	1/03/2022	1/03/2022	1/03/2022			
Lot No:	838	837	826			
E:	357094	357128	357152			
N:	5777718	5777713	5777707			
Elv:	8.715	8.546	8.364			

Field and Laboratory Data

Depth of Test (mm)	175	175	175			
Depth of Layer (mm)	200	200	200			
AS Sieve Size (mm)	19.0	19.0	19.0			
Oversize Wet (%)	0	0	0			
Field Wet Density (t/m³)	1.95	2.12	2.07			
Peak Converted Wet Density (t/m³)	2.02	2.06	2.03			
Compactive Effort	Standard	Standard	Standard			
Moisture Variation (%)	0.5 dry	2.5 dry	2.0 dry			
Hilf Density Ratio (%)	96.5	102.5	102.0			

Comments



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Report No: HDR:W22DS00502

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 8
Project No.: 1016363.008

Order No.: CG Request No.:
TRN: Lot No.:



Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 3/03/2022
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Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S22DS-01636					
Field Sample ID	1					
Date Tested	2/03/2022					
Lot No:	811					
E:	357201					
N:	5777670					
Elv:	7.537					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Wet Density (t/m³)	2.06					
Peak Converted Wet Density (t/m³)	2.04					
Compactive Effort	Standard					
Moisture Variation (%)	0.5 wet					
Hilf Density Ratio (%)	101.0					

Comments



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Report No: HDR:W22DS00512

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd

Address: PO Box 3131

AUBURN VIC 3123

Project: Riverfield Estate - Stage 8

Project No.: 1016363.008

Order No.:

CG Request No.:

TRN:

Lot No.:



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M R

Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 4/03/2022
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Sample Details

Location: Clyde North

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: CLAY

Sample Data

Sample ID	S22DS-01661	S22DS-01662	S22DS-01663	S22DS-01664	S22DS-01665
Field Sample ID	1	2	3	4	5
Date Tested	3/03/2022	3/03/2022	3/03/2022	3/03/2022	3/03/2022
Lot No:	822	818	815	814	825
E:	357221	357245	357228	357234	357215
N:	5777746	5777750	5777719	5777700	5777700
Elv:	8.246	7.863	8.091	7.571	7.789

Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0
Field Wet Density (t/m³)	2.17	2.17	2.07	2.06	2.09
Peak Converted Wet Density (t/m³)	2.10	2.18	2.07	1.96	2.06
Compactive Effort	Standard	Standard	Standard	Standard	Standard
Moisture Variation (%)	2.5 dry	0.5 dry	2.5 dry	2.5 dry	2.0 dry
Hilf Density Ratio (%)	103.0	99.5	100.0	105.0	101.5

Comments



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Report No: HDR:W22DS00528

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd

Address: PO Box 3131

AUBURN VIC 3123

Project: Riverfield Estate - Stage 8

Project No.: 1016363.008

Order No.:

CG Request No.:

TRN:

Lot No.:



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M R

Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 21/03/2022
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location:

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: Clay

Sample Data

Sample ID	S22DS-01697	S22DS-01698	S22DS-01699	S22DS-01700	
Field Sample ID	1	2	3	4	
Date Tested	4/03/2022	4/03/2022	4/03/2022	4/03/2022	
E:	357168	357147	357171	357193	
N:	5777764	5777753	5777723	5777730	
EL:	8.551	8.588	8.345	8.205	
Lot:	830	834	827	823	

Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	
Depth of Layer (mm)	200	200	200	200	
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	
Oversize Wet (%)	0	0	0	0	
Field Wet Density (t/m³)	2.12	2.09	2.05	2.19	
Peak Converted Wet Density (t/m³)	1.97	2.06	2.03	2.10	
Compactive Effort	Standard	Standard	Standard	Standard	
Moisture Variation (%)	4.5 dry	2.0 dry	2.0 dry	2.0 dry	
Hilf Density Ratio (%)	107.5	101.5	101.0	104.0	

Comments



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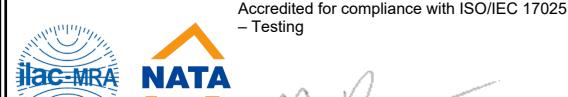
Report No: HDR:W22DS00562

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 8
Project No.: 1016363.008

Order No.: CG Request No.:
TRN: Lot No.:



Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 21/03/2022
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location:

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Imported

Material: Sandy Clay

Sample Data

Sample ID	S22DS-01813					
Field Sample ID	1					
Date Tested	9/03/2022					
E:	357170					
N:	5777679					
EL:	8.325					
Lot / Layer:	809 / -					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Wet Density (t/m³)	2.09					
Peak Converted Wet Density (t/m³)	2.05					
Compactive Effort	Standard					
Moisture Variation (%)	1.5 wet					
Hilf Density Ratio (%)	102.5					

Comments



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Report No: HDR:W22DS00574

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 8
Project No.: 1016363.008

Order No.: CG Request No.:
TRN: Lot No.:



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– Testing

M R

Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 21/03/2022
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location:

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95% (+/- 3% of OMC)

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Imported

Material: Mudstone + Clay

Sample Data

Sample ID	S22DS-01854	S22DS-01855				
Field Sample ID	1	2				
Date Tested	10/03/2022	10/03/2022				
E:	357237	357214				
N:	5777711	5777704				
EL:	7.945	8.122				
Lot / Layer:	815	825				

Field and Laboratory Data

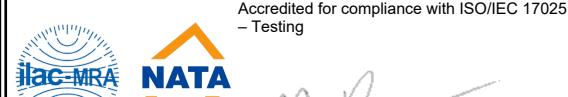
Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Wet Density (t/m³)	2.14	2.08				
Peak Converted Wet Density (t/m³)	2.16	2.06				
Compactive Effort	Standard	Standard				
Moisture Variation (%)	0.5 dry	1.0 dry				
Hilf Density Ratio (%)	99.0	100.5				

Comments

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
 AUBURN VIC 3123
Project: Riverfield Estate - Stage 10
Project No.: 1016363.010

Order No.: CG Request No.:
TRN: Lot No.:




Accreditation Number: 12719 Approved Signatory: M. Robinson
 Site Number: 12712 (Team Leader) Date of Issue: 21/03/2022
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location:

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Imported

Material: Mudstone + Clay

Sample Data

Sample ID	S22DS-01905	S22DS-01906			
Field Sample ID	1	2			
Date Tested	11/03/2022	11/03/2022			
E:	357053	3573253			
N:	5777804	5777802			
RL:	9.055	7.621			
Lot:	-	-			
Other:	-	-			

Field and Laboratory Data

Depth of Test (mm)	175	175			
Depth of Layer (mm)	200	200			
AS Sieve Size (mm)	19.0	19.0			
Oversize Wet (%)	0	0			
Field Wet Density (t/m³)	2.15	2.07			
Peak Converted Wet Density (t/m³)	2.10	2.07			
Compactive Effort	Standard	Standard			
Moisture Variation (%)	0.5 dry	1.5 dry			
Hilf Density Ratio (%)	102.5	100.0			

Comments



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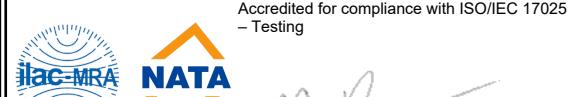
Report No: HDR:W22DS00588

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 8
Project No.: 1016363.008

Order No.: CG Request No.:
TRN: Lot No.:



Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 21/03/2022
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location:

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Imported

Material: Mudstone + Clay

Sample Data

Sample ID	S22DS-01907	S22DS-01908				
Field Sample ID	1	2				
Date Tested	11/03/2022	11/03/2022				
E:	357078	357238				
N:	5777739	5777750				
EL:	8.955	8.111				
Lot / Layer:	848	818				
Other:	-	-				

Field and Laboratory Data

Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Wet Density (t/m³)	2.04	2.04				
Peak Converted Wet Density (t/m³)	2.02	2.09				
Compactive Effort	Standard	Standard				
Moisture Variation (%)	2.0 wet	0.5 dry				
Hilf Density Ratio (%)	101.0	98.0				

Comments



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Report No: HDR:W22DS00658

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd

Address: PO Box 3131

AUBURN VIC 3123

Project: Riverfield Estate - Stage 10

Project No.: 1016363.010

Order No.:

CG Request No.:

TRN:

Lot No.:



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M R

Accreditation Number:
12719

Site Number: 12712

Approved Signatory: M. Robinson
(Team Leader)

Date of Issue: 22/03/2022

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Sample Details

Location: Clyde North

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 3% of OMC)

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: CLAY

Sample Data

Sample ID	S22DS-02160	S22DS-02161	S22DS-02162			
Field Sample ID	1	2	3			
Date Tested	21/03/2022	21/03/2022	21/03/2022			
Lot No:	1020	1022	1026			
E:	357048	357090	357158			
N:	5777831	5777824	5777810			
RL	8.854	8.888	8.645			

Field and Laboratory Data

Depth of Test (mm)	175	175	175			
Depth of Layer (mm)	200	200	200			
Field Wet Density (t/m³)	2.08	2.09	2.20			
Peak Converted Wet Density (t/m³)	2.07	2.05	2.07			
Compactive Effort	Standard	Standard	Standard			
Moisture Variation (%)	0.0	1.5 dry	1.5 dry			
Hilf Density Ratio (%)	100.5	102.5	106.0			

Comments



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Report No: HDR:W22DS00671

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield - Stage 7
Project No.: 1016363.007
Order No.: CG Request No.:
TRN: Lot No.:

Accredited for compliance with ISO/IEC 17025
– Testing

Signature
Accreditation Number: 12719 Approved Signatory: M. Longfield
(Senior Technician)
Site Number: 12712 Date of Issue: 19/01/2023
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95% (+/- 3% of OMC)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: CLAY

Sample Data

Sample ID	S22DS-02230	S22DS-02231	S22DS-02232	S22DS-02233	
Field Sample ID	1	2	3	4	
Date Tested	22/03/2022	22/03/2022	22/03/2022	22/03/2022	
Time Tested	08:30	08:40	08:50	10:22	
Lot No:	745	740	737	743	
E:	357223	357147	357122	357192	
N:	5777647	5777651	5777665	5777655	
RL:	7.853	8.533	8.750	8.229	

Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	
Depth of Layer (mm)	200	200	200	200	
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	
Oversize Wet (%)	0	0	0	0	
Field Wet Density (t/m³)	2.19	2.24	2.15	2.03	
Peak Converted Wet Density (t/m³)	2.11	2.00	2.03	2.03	
Compactive Effort	Standard	Standard	Standard	Standard	
Moisture Variation (%)	0.5 dry	3.0 dry	0.0	2.5 dry	
Hilf Density Ratio (%)	103.5	112.0	106.0	100.0	

Comments



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Report No: HDR:W22DS00688

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 8
Project No.: 1016363.008

Order No.: CG Request No.:
TRN: Lot No.:



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– Testing

M. Robinson
[Signature]

Accreditation Number: 12719 Approved Signatory: M. Robinson
(Team Leader)
Site Number: 12712 Date of Issue: 19/04/2022
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum HILF Density Ratio of 95% (+- 3% of OMC)
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Imported
Material: Sandy Clay

Sample Data

Sample ID	S22DS-02304	S22DS-02305				
Field Sample ID	1	2				
Date Tested	23/03/2022	23/03/2022				
Time Tested	14:10	14:20				
E:	357229	357230				
N:	5777665	5777647				
RL:	8.183	8.288				
Lot	813	812				

Field and Laboratory Data

Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
AS Sieve Size (mm)	19.0	37.5				
Oversize Wet (%)	0	11				
Field Wet Density (t/m³)	2.16	2.22				
Peak Converted Wet Density (t/m³)	2.03	2.12				
Compactive Effort	Standard	Standard				
Moisture Variation (%)	3.0 dry	1.5 dry				
HILF Density Ratio (%)	106.5	104.5				

Comments



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Report No: HDR:W23DS00300

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 8
Project No.: 1016363.008

Order No.: CG Request No.:
TRN: Lot No.:

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– Testing



Approved Signatory: J. Lamont
(Dandenong Laboratory Manager)
Accreditation Number: 12719
Site Number: 12712 Date of Issue: 23/02/2023

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Sample Details

Location:

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95% (+/- 3% of OMC)

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: Silty Clay

Sample Data

Sample ID	S23DS-00943					
Field Sample ID	1					
Date Tested	8/02/2023					
Time Tested	13:15					
E:	357115					
N:	5777793					
Lot:	843					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Moisture Content (%)	11.0					
Field Moisture Content Method	AS 1289.2.1.1					
Field Wet Density (t/m³)	2.06					
Field Dry Density (t/m³)	1.86					
Peak Converted Wet Density (t/m³)	2.13					
Optimum Moisture Content (%)	12.0					
Compactive Effort	Standard					
Moisture Ratio (%)	93.5					
Moisture Variation (%)	1.0 dry					
Hilf Density Ratio (%)	96.5					

Comments



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Report No: HDR:W23DS00369

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 8
Project No.: 1016363.008

Order No.: CG Request No.:
TRN: Lot No.:

Accredited for compliance with ISO/IEC 17025
– Testing



Approved Signatory: J. Lamont
(Dandenong Laboratory Manager)
Accreditation Number: 12719
Site Number: 12712 Date of Issue: 23/02/2023

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Sample Details

Location:

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 95% (+/- 3% of OMC)

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: Silty Clay

Sample Data

Sample ID	S23DS-01261					
Field Sample ID	1					
Date Tested	13/02/2023					
Time Tested	14:50					
E:	357115					
N:	5777767					
Lot:	841					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Moisture Content (%)	10.0					
Field Moisture Content Method	AS 1289.2.1.1					
Field Wet Density (t/m³)	2.15					
Field Dry Density (t/m³)	1.95					
Peak Converted Wet Density (t/m³)	1.98					
Optimum Moisture Content (%)	15.0					
Compactive Effort	Standard					
Moisture Ratio (%)	67.0					
Moisture Variation (%)	5.0 dry					
Hilf Density Ratio (%)	108.0					

Comments



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Report No: HDR:W23DS00386

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Estate - Stage 8
Project No.: 1016363.008

Order No.: CG Request No.:
TRN: Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719 Approved Signatory: J. Lamont
(Dandenong Laboratory Manager)
Site Number: 12712 Date of Issue: 23/02/2023
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Sample Details

Location:

Client Request ID:

Specification Requirements: Minimum Hilf Density Ratio of 98%

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: Clay

Sample Data

Sample ID	S23DS-01319	S23DS-01320				
Field Sample ID	1	2				
Date Tested	14/02/2023	14/02/2023				
Time Tested	12:00	12:30				
Lot:	840/841	843				

Field and Laboratory Data

Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Moisture Content (%)	13.7	44.0				
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1				
Field Wet Density (t/m³)	2.12	2.04				
Field Dry Density (t/m³)	1.86	1.42				
Peak Converted Wet Density (t/m³)	2.09	2.08				
Optimum Moisture Content (%)	16.0	47.0				
Compactive Effort	Standard	Standard				
Moisture Ratio (%)	84.5	93.5				
Moisture Variation (%)	2.5 dry	2.5 dry				
Hilf Density Ratio (%)	101.5	98.5				

Comments

Appendix D: Controlled Fill certificate



CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT : Lot No's: 801 to Lot 856

Chadwick Geotechnics REF: 1016363.008v1

CLIENT : Grosvenor Lodge Pty Ltd
PO Box 4136
DANDENONG SOUTH VIC 3164

DATE: 23 February 2023

SUMMARY

Chadwick Geotechnics Pty Ltd conducted level 1 inspection and testing, in accordance with Section 8.2 level 1 inspection and Testing AS3798-2007, *Guidelines on earthworks for commercial and residential developments*, during the filling of the site.

So far as it is able to be determined, the fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1) to be achieved.

LIMITATIONS

This Certificate has been commissioned for the filling of the area mentioned above. No responsibility or liability will be accepted for the use of this report for any purpose other than that for which Chadwick Geotechnics Pty Ltd was engaged, specifically for Level 1 Inspection and Testing of the structural fill (excluding topsoil).

This report is based on the conditions present and factors affecting the soil at the time of inspection (30 November 2022 and was completed on 14 February 2023). No responsibility or liability will be accepted and Chadwick Geotechnics Pty Ltd is indemnified to the full extent permitted by law in respect of the use of this Certificate where there has been a change in the nature of the project, or in the site conditions since the site testing.

CHADWICK GEOTECHNICS PTY LTD

A handwritten signature in black ink that reads "Robert Barden".

Robert Barden
Project Manager

A handwritten signature in blue ink that reads "Timothy Chadwick".

Timothy Chadwick
Project Director

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