

Job No: 8599/96
Our Ref: 8599/96-AA-R1
28 September 2022

Daracon Contractors Pty Ltd
184 Adderley Street
AUBURN NSW 2144
Email: Sabina.Moktan@daracon.com.au

Attention: Ms S Moktan

Dear Madam

re: **Newpark – Precinct 7 – Stage 7D**
Abell Road, Marsden Park
Site Classification Report

Please find herewith our site classification report for the proposed dwellings to be located at the above subdivision. A total of two hundred and thirteen (213) lots are covered in this report (Lots 8001 to 8213).

This report contains information on sub-surface conditions encountered at the site, together with site classification of the proposed lots in accordance with Australian Standard AS2870-2011 "Residential slabs & footings".

If you have any questions, please do not hesitate to contact the undersigned.

Yours faithfully
GEOTECH TESTING PTY LTD



JACK-SCOTT HERBEN
Geotechnical Engineer

Reviewed by



EMGED RIZKALLA
Director

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1.0 INTRODUCTION

This report provides results of a site classification investigation for the proposed dwellings to be located at Abell Road, Marsden Park (Newpark Precinct 7D). A total of two hundred and thirteen (213) lots are covered in this report (Lots 8001 to 8213).

Site classification in accordance with AS2870-2011 is only applicable for design of footing systems for a single dwelling, house, townhouse or similar structure that would be detached or separated by a party wall or common wall including buildings classified as Class 1 and Class 10a in the Building Code of Australia (BCA). AS2870 is not suitable for dwellings situated vertically above or below another dwelling. Therefore, a geotechnical investigation would be required for other dwellings to be classified in accordance with the BCA.

It is understood that the proposed dwellings are to be of brick veneer construction and wall loadings are expected to be in the range of 15kN/m to 50kN/m. The maximum working load (safe bearing pressure) would be in the order of 50kPa for ground supported floor slabs and 100kPa for strip and pad footings.

2.0 FIELD WORK

Field work for the investigation was carried out under the full time supervision of a Geotechnical Engineer on 15th to 22nd August 2022 and consisted of excavation of seventy one (71) test pits (TP1 to TP71) to depths of the order of 1.5m using a 5 tonne excavator. Test pits at shallow depths were terminated due to refusal on bedrock. The locations of the test pits are shown on the attached Drawing No 8599/96-AA1 in Appendix A. A summary of the field data obtained is presented in Appendix A.

3.0 SITE CONDITIONS

3.1 Surface Conditions

The site (Precinct 7D) is irregular in shape and located within the Newpark subdivision. The site is bound by Stage 7B to the north east; Stage 7C to the east; air services land to the south; Stage 7F to the south west; Stage 7E to the north west; open fields followed by low density residential to the north. At the time of investigation, earthworks for the lots had been completed and the construction of internal roads was complete. The topography of the site is generally flat with a mild slope in the northern direction.

3.2 Sub-Surface Conditions

Sub-surface conditions encountered in the test pits are detailed in the attached Table A and summarised below in Table 1.

Table 1: Sub-surface conditions

Test Pit	Termination Depth (m)	Topsoil (m)	Fill (m)	Natural (m)
TP1	1.5	0.0-0.3	NE	0.3-1.5
TP2	1.5	0.0-0.2	NE	0.2-1.5
TP3	1.5	0.0-0.3	NE	0.3-1.5
TP4	1.5	0.0-0.3	NE	0.3-1.5
TP5	1.5	0.0-0.3	NE	0.3-1.5
TP6	1.5	0.0-0.3	NE	0.3-1.5

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Test Pit	Termination Depth (m)	Topsoil (m)	Fill (m)	Natural (m)
TP7	1.5	0.0-0.4	NE	0.4-1.5
TP8	1.5	0.0-0.1	NE	0.1-1.5
TP9	1.5	0.0-0.1	NE	0.1-1.5
TP10	1.5	0.0-0.2	NE	0.2-1.5
TP11	1.5	0.0-0.2	NE	0.2-1.5
TP12	1.5	0.0-0.1	NE	0.1-1.5
TP13	1.5	0.0-0.3	NE	0.3-1.5
TP14	1.5	0.0-0.2	NE	0.2-1.5
TP15	1.5	0.0-0.3	NE	0.3-1.5
TP16	1.5	0.0-0.3	NE	0.3-1.5
TP17	1.5	0.0-0.3	NE	0.3-1.5
TP18	1.5	0.0-0.3	NE	0.3-1.5
TP19	1.5	0.0-0.3	NE	0.3-1.5
TP20	1.5	0.0-0.3	NE	0.3-1.5
TP21	1.5	0.0-0.3	NE	0.3-1.5
TP22	1.5	0.0-0.3	NE	0.3-1.5
TP23	1.5	0.0-0.3	NE	0.3-1.5
TP24	1.5	0.0-0.3	NE	0.3-1.5
TP25	1.5	0.0-0.3	NE	0.3-1.5
TP26	1.5	0.0-0.3	NE	0.3-1.5
TP27	1.5	0.0-0.3	NE	0.3-1.5
TP28	1.5	0.0-0.3	NE	0.3-1.5
TP29	1.5	0.0-0.3	0.3-0.8	0.8-1.5
TP30	1.5	0.0-0.3	NE	0.3-1.5
TP31	1.5	0.0-0.3	NE	0.3-1.5
TP32	1.5	0.0-0.3	NE	0.3-1.5
TP33	1.5	0.0-0.3	NE	0.3-1.5
TP34	1.5	0.0-0.3	NE	0.3-1.5
TP35	1.5	0.0-0.3	NE	0.3-1.5
TP36	1.5	0.0-0.3	NE	0.3-1.5
TP37	1.5	0.0-0.3	NE	0.3-1.5
TP38	1.5	0.0-0.3	NE	0.3-1.5
TP39	1.5	0.0-0.3	NE	0.3-1.5
TP40	1.5	0.0-0.3	NE	0.3-1.5
TP41	1.5	0.0-0.3	NE	0.3-1.5
TP42	1.5	0.0-0.3	NE	0.3-1.5
TP43	1.5	0.0-0.3	NE	0.3-1.5
TP44	1.5	0.0-0.3	NE	0.3-1.5
TP45	1.5	0.0-0.3	NE	0.3-1.5

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Test Pit	Termination Depth (m)	Topsoil (m)	Fill (m)	Natural (m)
TP46	1.5	0.0-0.3	NE	0.3-1.5
TP47	1.5	0.0-0.3	NE	0.3-1.5
TP48	1.5	0.0-0.3	NE	0.3-1.5
TP49	1.5	0.0-0.3	NE	0.3-1.5
TP50	1.5	0.0-0.3	NE	0.3-1.5
TP51	1.5	0.0-0.3	NE	0.3-1.5
TP52	1.5	0.0-0.3	NE	0.3-1.5
TP53	1.5	0.0-0.3	NE	0.3-1.5
TP54	1.5	0.0-0.3	NE	0.3-1.5
TP55	1.5	0.0-0.3	0.3-0.6	0.6-1.5
TP56	1.5	0.0-0.3	0.3-0.6	0.6-1.5
TP57	1.5	0.0-0.3	0.3-1.0	1.0-1.5
TP58	1.5	0.0-0.3	0.3-0.5	0.5-1.5
TP59	1.5	0.0-0.3	0.3-0.5	0.5-1.5
TP60	1.5	0.0-0.3	0.3-0.5	0.5-1.5
TP61	1.5	0.0-0.3	0.3-0.5	0.5-1.5
TP62	1.5	0.0-0.3	0.3-1.5	NE
TP63	1.5	0.0-0.3	0.3-1.5	NE
TP64	1.5	0.0-0.3	0.3-1.5	NE
TP65	1.5	0.0-0.3	NE	0.3-1.5
TP66	1.5	0.0-0.3	0.3-1.5	NE
TP67	1.5	0.0-0.3	0.3-1.5	NE
TP68	1.5	0.0-0.3	0.3-1.5	NE
TP69	1.5	0.0-0.3	0.3-1.5	NE
TP70	1.5	0.0-0.3	NE	0.3-1.5
TP71	1.5	0.0-0.3	NE	0.3-1.5

NE: Not encountered

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The test pit investigation revealed the following generalised sub-surface profile:

Topsoil	Silty Cobbly Clay, high plasticity, medium grain subrounded cobble, trace of medium to coarse grain subangular gravel, trace of ironstone fragments Silty Clay, high plasticity, brown, trace of medium to coarse grain subangular gravel Silty Clay, low to medium plasticity, red-brown, trace of medium to coarse grain subangular gravel Silty Clay, high plasticity, grey Silty Clay, high plasticity, yellow-orange-brown Silty Clay, high plasticity, brown-grey Silty Clay, high plasticity, orange-brown Silty Clay, high plasticity, dark brown-red Silty Clay, low to medium plasticity, orange-grey Silty Clay, high plasticity, brown-red, trace of medium grain subangular gravel Silty Clay, low plasticity, dark brown, trace of organic material Silty Clay, low plasticity, brown, trace of coarse grain subangular gravel Silty Clay, low to medium plasticity, brown Silty Clay, low to medium plasticity, grey-brown Silty Clay, medium plasticity, dark brown-red Silty Clay, high plasticity, red brown, trace of ironstone fragments Silty Clay, high plasticity, brown Silty Clay, high plasticity, dark brown Silty Clay, high plasticity, brown, trace of shale fragments
Fill	Silty Clay, high plasticity, dark brown-grey, trace of medium to coarse grain subangular gravel Silty Clay, medium to high plasticity, red-brown, trace of ironstone gravel, trace of medium grain subrounded cobble, trace of medium to coarse grain subangular gravel Silty Clay, medium plasticity, mottled dark brown and grey-red, trace of ironstone gravel, trace of medium grain subrounded cobble, trace of medium to coarse grain subangular gravel Silty Clay, low to medium plasticity, grey-brown, trace of ironstone gravel, trace of medium grain subrounded cobble Silty Clay, medium to high plasticity, mottled red-brown and orange-grey, trace of medium grain subrounded cobble, trace of ironstone gravel Silty Clay, medium to high plasticity, brown-grey, trace of medium grain subrounded cobble, trace of ironstone gravel, trace of medium to coarse grain subangular gravel Silty Clay, high plasticity, brown-grey, trace of medium grain subrounded cobble, trace of medium to coarse grain subangular gravel, trace of ironstone gravel Silty Clay, high plasticity, brown-grey-red, trace of medium grain subrounded cobble, trace of ironstone gravel, trace of medium to coarse grain subangular gravel Silty Clay, medium to high plasticity, brown, trace of medium to coarse grain subangular gravel, trace of medium grain subrounded cobble Silty Clay, high plasticity, brown, trace of medium to coarse subangular gravel, trace of medium grain subrounded cobble, trace of ironstone fragments Silty Clay, high plasticity, brown-grey, trace of medium grain subrounded cobble, trace of medium to coarse grain subangular gravel, trace of ironstone fragments Silty Clay, high plasticity, brown, trace of medium grain subrounded cobble, trace of medium to coarse grain subangular gravel

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Natural	<p>Silty CLAY, high plasticity, brown</p> <p>Silty CLAY, low plasticity, grey</p> <p>Silty CLAY, low plasticity, grey, trace of ironstone gravel</p> <p>Silty CLAY, medium plasticity, grey, with ironstone pockets</p> <p>Silty CLAY/ Clayey SILT, low to medium plasticity, red-brown</p> <p>Cobbly CLAY, low plasticity, grey, medium grain subrounded cobble</p> <p>Silty Cobbly CLAY, low plasticity, red-brown, medium grain subrounded cobble</p> <p>Silty Cobbly CLAY, high plasticity, dark brown, trace of ironstone pockets</p> <p>Sandy CLAY, low plasticity, grey, fine to medium grain sand</p> <p>Silty CLAY, low plasticity, grey-brown, trace of ironstone cobble</p> <p>Silty Cobbly CLAY, low plasticity, grey-brown, medium grain subrounded cobble</p> <p>Silty Cobbly CLAY, high plasticity, dark brown, coarse grain subrounded cobble</p> <p>Silty Cobbly CLAY, high plasticity, dark brown, trace of ironstone pockets, medium grain subrounded cobble</p> <p>Silty Cobbly CLAY, medium plasticity, grey-brown, medium grain subrounded cobble</p> <p>Silty Cobbly CLAY, medium to high plasticity, brown-red, coarse grain subrounded cobble</p> <p>Silty Cobbly CLAY, high plasticity, brown, coarse grain subrounded cobble</p> <p>Silty Cobbly CLAY, high plasticity, dark brown, coarse grain subrounded cobble, trace of ironstone pockets</p> <p>Silty Cobbly CLAY, high plasticity, red-grey, coarse grain subrounded cobble, trace of ironstone pockets</p> <p>Silty Cobbly CLAY, medium to high plasticity, dark brown, medium grain subrounded cobble, trace of ironstone pockets</p> <p>Silty Cobbly CLAY, high plasticity, orange-brown, medium grain subrounded cobble, trace of ironstone pockets</p> <p>Silty Cobbly CLAY, high plasticity, brown-grey-red, medium grain subrounded cobble</p> <p>Silty Cobbly CLAY, high plasticity, grey-orange-brown, medium grain subrounded cobble</p> <p>Silty CLAY, high plasticity, dark brown-grey, trace of medium to coarse grain subangular gravel</p> <p>Silty CLAY, high plasticity, brown-grey, trace of medium to coarse subangular gravel</p> <p>Silty CLAY, high plasticity, brown-red-grey, trace of ironstone pockets, trace of medium to coarse grain subangular gravel</p> <p>Silty CLAY, medium to high plasticity, grey-brown, trace of medium to coarse subangular gravel, trace of ironstone pockets</p> <p>Silty CLAY, medium to high plasticity, grey-brown, medium to coarse subangular gravel, trace of ironstone pockets</p> <p>Silty Cobbly CLAY, medium to high plasticity, brown-grey, medium grain subrounded cobble, trace of ironstone pockets</p> <p>Silty CLAY, high plasticity, grey, trace of medium to coarse subangular gravel</p> <p>Silty CLAY, high plasticity, dark brown-red-grey, trace of fine to medium grain subangular gravel, trace of ironstone pockets</p> <p>Silty CLAY, high plasticity, dark brown-orange-red, trace of medium to coarse grain subangular gravel</p> <p>Silty Cobbly CLAY, high plasticity, brown-red, medium grain subrounded cobble, trace of medium to coarse grain subangular gravel</p> <p>Silty CLAY, high plasticity, dark brown-orange-red-grey, trace of medium to coarse grain subangular gravel, trace of ironstone pockets, trace of medium grain subrounded cobble</p>
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	<p>Silty CLAY, high plasticity, mottled brown-red and brown-grey, trace of ironstone pockets, trace of medium to coarse grain subangular gravel, trace of medium grain subrounded cobble</p> <p>Silty CLAY, medium to high plasticity, orange-grey, trace of ironstone pockets, trace of medium to coarse grain subrounded gravel</p> <p>Silty CLAY, high plasticity, brown, trace of medium grain subrounded cobble, trace of medium to coarse grain subangular gravel</p> <p>Silty CLAY, high plasticity, orange-red-brown, trace cobble, trace of medium to coarse grain subangular gravel, trace of ironstone pockets</p> <p>Silty CLAY, high plasticity, brown-red, trace of ironstone pockets, trace of medium grain subrounded cobble, trace of medium to coarse grain subangular gravel</p> <p>Silty CLAY, medium to high plasticity, brown-grey, trace of medium grain subrounded cobble, trace of ironstone pockets, trace of medium to coarse grain subangular gravel</p> <p>Silty CLAY, low plasticity, dark brown</p> <p>Silty CLAY, high plasticity, dark brown-red, trace of medium to coarse grain subangular gravel, trace of medium grain subrounded cobble</p> <p>Silty CLAY, medium to high plasticity, red-brown, trace of ironstone pockets, trace of medium grain subrounded cobble, trace of medium to coarse grain subangular gravel</p> <p>Silty CLAY, high plasticity, brown-grey-red, trace of medium grain subrounded cobble, trace of ironstone pockets, trace of medium to coarse grain subangular gravel</p> <p>Silty CLAY, medium to high plasticity, trace of medium to coarse grain subangular gravel, trace of medium grain subrounded cobble</p> <p>Silty CLAY, low to medium plasticity, grey-brown, trace of ironstone pockets, trace of medium grain subrounded cobble</p> <p>Silty CLAY, medium to high plasticity, mottled red-brown and orange-grey, trace of medium grain subrounded cobble, trace of ironstone pockets</p> <p>Silty CLAY, medium to high plasticity, brown-grey, trace of medium grain subrounded cobble, trace of ironstone pockets</p> <p>Silty CLAY, high plasticity, brown-grey, trace of medium grain subrounded cobble, trace of medium to coarse grain subangular gravel, trace of ironstone pockets</p> <p>Silty CLAY, medium to high plasticity, brown-grey, trace of medium grain subrounded cobble, trace of medium to coarse subangular gravel</p> <p>Silty Shaley CLAY, medium to high plasticity, brown, trace of medium grain subrounded cobble, trace of medium to coarse grain subangular gravel, trace of ironstone pockets</p> <p>Silty CLAY, high plasticity, brown, trace of medium to coarse subangular gravel, trace of medium grain subrounded cobble, trace of ironstone pockets</p> <p>Silty CLAY, high plasticity, brown-grey, trace of medium grain subrounded cobble, trace of medium to coarse grain subangular gravel, trace of ironstone pockets</p> <p>Silty Cobbly CLAY, medium to high plasticity, dark brown-grey, medium grain subrounded cobble, trace of medium to coarse grain subangular gravel, trace of ironstone pockets</p>
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Groundwater was not observed in the test pits during the short time that they remained open. It must be noted that fluctuations in the level of groundwater might occur due to variations in rainfall, temperature and/or other factors.

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4.0 LABORATORY TESTING

A total of seven (7) undisturbed U₅₀ and two (2) Atterberg limit samples were recovered from the site. These samples were tested to determine shrink/swell index values. The tests were conducted as per relevant Australian Standards and the results are summarised below and detailed in the attached test certificates.

Table 2: Summary of Test Results

Test Pit	Depth (m)	Material Description	Liquid Limit (%)	Plasticity Index (%)	Linear Shrinkage (%)	Shrink/Swell Index (%/pF)
TP2	0.2-0.5	Silty CLAY, high plasticity, brown	-	-	-	1.8
TP13	0.2-0.5	Silty CLAY, low plasticity, grey	-	-	-	1.8
TP29	0.3-0.6	FILL: Silty Clay, high plasticity, dark brown-grey, trace of medium to coarse grain subangular gravel	-	-	-	2.0
TP37	0.4-0.6	Silty CLAY, high plasticity, grey, trace of medium to coarse subangular gravel	31	15	8	-
TP45	0.4-0.6	Silty CLAY, high plasticity, dark brown-grey-orange, trace of medium to coarse grain subangular gravel	-	-	-	3.4
TP55	0.4-0.6	FILL: Silty Clay, medium to high plasticity, red-brown, trace of ironstone gravel, trace of medium grain subrounded cobble, trace of medium to coarse grain subangular gravel	-	-	-	0.6
TP58	0.6-0.8	Silty CLAY, high plasticity, mottled red-brown and orange-grey, trace of medium grain subrounded cobble, trace of ironstone pockets	51	28	15.5	-
TP60	0.6-0.8	Silty CLAY, medium to high plasticity, brown-grey, trace of medium grain subrounded cobble, trace of ironstone pockets	-	-	-	2.3
TP66	0.4-0.6	FILL: Silty Clay, high plasticity, brown, trace of medium to coarse subangular gravel, trace of medium grain subrounded cobble, trace of ironstone gravel	-	-	-	2.0

5.0 DISCUSSION & RECOMMENDATIONS

5.1 Assessment of Fill

Fill was encountered in a number of test pits excavated across the site. It should be noted that a number of field density tests were conducted by Geotech Testing Pty Ltd during the fill placement and the results are provided in our summary report (Our Ref: 8599/49-AA dated 23rd September 2022). Based on our inspection of the fill during the investigation and the above field density tests results, it is our assessment that the fill is "Controlled Fill".

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5.2 Site Classification

Based on the field and laboratory results, the site classification to AS2870-2011 "Residential slabs & footings", for the proposed lots are summarised in Appendix B of this report.

It is recommended that footings for the proposed dwellings are founded on the same stratum, below any topsoil or deleterious material, to minimise the potential for differential movement.

The above recommendations are applicable to the Lots at the date of conducting the investigation, being the 15th to 22nd August 2022 and are made on the following assumptions:

1. The construction requirements of AS2870-2011 must be followed.
2. The recommendations for site maintenance set out in Appendix B of AS2870 are followed.
3. The performance expectations set out in Appendix C of AS2870 are acceptable.

It is recommended that house owners are made aware of the recommendations given by the CSIRO publication, "Guide to Home Owners on Foundation Maintenance and Footing Performance".

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APPENDIX A

TABLE A SUMMARY OF TEST PITS

**DRAWING NO 8599/96-AA1
(*Test Pit Location Plan*)**

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TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP1	0.0-0.3		TOPSOIL: Silty Clay, low plasticity, dark brown, trace of organic material
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty CLAY, high plasticity, brown, M \leq PL, stiff to very stiff
TP2	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, trace of organic material
	0.2-1.0	0.2-0.5 (U ₅₀) 0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty CLAY, high plasticity, brown, M<PL, very stiff
	1.0-1.5		(CL) Silty CLAY, low plasticity, grey, trace of ironstone gravel, M<PL, stiff
TP3	0.0-0.3		TOPSOIL: Silty Clay, low plasticity, dark brown, trace of organic material
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty CLAY, high plasticity, brown, M<PL, very stiff
TP4	0.0-0.3		TOPSOIL: Silty Clay, low plasticity, dark brown, trace of organic material
	0.3-1.3	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty CLAY, high plasticity, brown, M<PL, very stiff
	1.3-1.4		(CI) Silty CLAY, medium plasticity, grey, with ironstone pockets, M<PL, stiff
TP5	0.0-0.3		TOPSOIL: Silty Clay, low plasticity, dark brown, trace of organic material
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty CLAY, high plasticity, brown, very stiff, M<PL
TP6	0.0-0.3		TOPSOIL: Silty Clay, low plasticity, dark brown, trace of organic material
	0.3-1.3	0.4-0.5 (DS) 0.8-0.9 (DS)	(CL-CI) Silty CLAY/ Clayey SILT, low to medium plasticity, red-brown, M<PL, firm-stiff
	1.3-1.5		(CL) Cobbly CLAY, low plasticity, grey, medium grain subrounded cobble, M<PL, stiff, alluvial

TABLE A

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TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP7	0.0-0.4		TOPSOIL: Silty Clay, medium plasticity, brown
	0.4-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CL) Silty Cobbly CLAY, low plasticity, red-brown, medium grain subrounded cobble, M<PL, firm, alluvial
TP8	0.0-0.1		TOPSOIL: Silty Clay, medium plasticity, brown
	0.1-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty Cobbly CLAY, high plasticity, dark brown, trace of ironstone pockets, M<PL, firm
TP9	0.0-0.1		TOPSOIL: Silty Clay, medium plasticity, brown
	0.1-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty Cobbly CLAY, high plasticity, dark brown, trace of ironstone pockets, M<PL, firm
TP10	0.0-0.2		TOPSOIL: Silty Clay, medium plasticity, brown
	0.2-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CL) Cobbly CLAY, low plasticity, grey, medium grain subrounded cobble, alluvial, stiff, M<PL
TP11	0.0-0.2		TOPSOIL: Silty Clay, medium plasticity, brown
	0.2-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CL) Cobbly CLAY, low plasticity, grey, medium grain subrounded cobble, alluvial, stiff, M<PL
TP12	0.0-0.1		TOPSOIL: Silty Clay, medium plasticity, brown
	0.1-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CL) Sandy CLAY, low plasticity, grey, fine to medium grain sand, M<PL, stiff
TP13	0.0-0.3		TOPSOIL: Silty Clay, medium plasticity, brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS) 0.3-0.6 (U ₅₀)	(CL) Silty CLAY, low plasticity, grey, M<PL, stiff
TP14	0.0-0.2		TOPSOIL: Silty Clay, medium plasticity, brown
	0.2-1.3	0.4-0.5 (DS) 0.8-0.9 (DS)	(CL) Silty CLAY, low plasticity, grey-brown, trace of ironstone cobble, alluvial, M<PL, stiff
	1.3-1.5		(CL) Silty Cobbly CLAY, low plasticity, grey-brown, medium grain subrounded cobble, alluvial, M<PL, stiff

TABLE A

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TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP15	0.0-0.3		TOPSOIL: Silty Clay, medium plasticity, brown
	0.3-1.3	0.4-0.5 (DS) 0.8-0.9 (DS)	(CL) Silty CLAY, low plasticity, grey-brown, trace of ironstone cobble, alluvial, M<PL, stiff
	1.3-1.5		(CL) Silty Cobbly CLAY, low plasticity, grey-brown, M<PL, stiff
TP16	0.0-0.3		TOPSOIL: Silty Clay, low plasticity, dark brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty Cobbly CLAY, high plasticity, dark brown, trace of ironstone pockets, medium grain subrounded cobble, alluvial, M≤PL, very stiff
TP17	0.0-0.3		TOPSOIL: Silty Clay, low plasticity, dark brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CI) Silty Cobbly CLAY, medium plasticity, grey-brown, medium grain subrounded cobble, alluvial, M≤PL, stiff to very stiff
TP18	0.0-0.3		TOPSOIL: Silty Clay, low plasticity, dark brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CI-CH) Silty Cobbly CLAY, medium to high plasticity, coarse cobble, red-grey, medium grain subrounded cobble, alluvial, M<PL, stiff
TP119	0.0-0.3		TOPSOIL: Silty Clay, low plasticity, dark brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CI-CH) Silty Cobbly CLAY, medium to high plasticity, brown-red, coarse grain subrounded cobble, alluvial, M≤PL, stiff
TP20	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, dark brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty Cobbly CLAY, high plasticity, brown, coarse grain subrounded cobble, alluvial, M≤PL, stiff
TP21	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, dark brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty Cobbly CLAY, high plasticity, dark brown, coarse grain subrounded cobble, alluvial, M≤PL, stiff

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TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP22	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, dark brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty Cobbly CLAY, high plasticity, dark brown, coarse grain subrounded cobble, trace of ironstone pockets, alluvial, M≤PL, stiff to very stiff
TP23	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, dark brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty Cobbly CLAY, high plasticity, red-grey, coarse grain subrounded cobble, trace of ironstone pockets, alluvial, M≤PL, stiff
TP24	0.0-0.3		TOPSOIL: Silty Clay, medium to high plasticity, dark brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CI-CH) Silty Cobbly CLAY, medium to high plasticity, dark brown, medium grain subrounded cobble, trace of ironstone pockets, alluvial, M≤PL, stiff
TP25	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, yellow-orange-brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty Cobbly CLAY, high plasticity, orange-brown, medium grain subrounded cobble, trace of ironstone pockets, alluvial, M≤PL stiff
TP26	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, dark brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty Cobbly CLAY, high plasticity, brown-grey-red, medium grain subrounded cobble, alluvial, M≤PL, stiff to very stiff
TP27	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, dark brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty Cobbly CLAY, high plasticity, dark brown-red, medium grain subrounded cobble, trace of ironstone pockets, alluvial, M≤PL, stiff to very stiff
TP28	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, dark brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty Cobbly CLAY, high plasticity, grey-orange-brown, medium grain subrounded cobble, alluvial, M≤PL, stiff to very stiff

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TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP29	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, brown
	0.3-0.8	0.3-0.6 (U ₅₀) 0.4-0.5 (DS)	FILL: Silty Clay, high plasticity, dark brown-grey, trace of medium to coarse grain subangular gravel, M _s PL, well compacted
	0.8-1.5	0.8-0.9 (DS)	(CH) Silty CLAY, high plasticity, dark brown-grey, trace of medium to coarse grain subangular gravel, M _s PL, stiff
TP30	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty CLAY, high plasticity, brown-grey, trace of medium to coarse subangular gravel, alluvial, M _s PL, stiff
TP31	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, brown-grey
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty CLAY, high plasticity, brown-red-grey, trace of ironstone pockets, trace of medium to coarse grain subangular gravel, alluvial, M _s PL, stiff
TP32	0.0-0.3		TOPSOIL: Silty Clay, low to medium plasticity, grey-brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, trace of medium to coarse subangular gravel, trace of ironstone pockets, alluvial, M _s PL, stiff to very stiff
TP33	0.0-0.3		TOPSOIL: Silty Clay, low to medium plasticity, grey-brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, trace of medium to coarse subangular gravel, trace of ironstone pockets, alluvial, M _s PL, stiff to very stiff
TP34	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, brown-grey
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey-brown, medium to coarse subangular gravel, trace of ironstone pockets, alluvial, M _s PL, stiff to very stiff
TP35	0.0-0.3		TOPSOIL: Silty Clay, medium to high plasticity, brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty Cobbly CLAY, medium to high plasticity, brown-grey, medium grain subrounded cobble, trace of ironstone pockets, alluvial, M _s PL, stiff to very stiff

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TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP36	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, brown-grey
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty Cobbly CLAY, high plasticity, brown-grey, medium grain subrounded cobble, trace of ironstone pockets, alluvial, M≤PL, stiff to very stiff
TP37	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, grey
	0.3-1.5	0.4-0.5 (DS) 0.4-0.6 (Atterberg) 0.8-0.9 (DS)	(CH) Silty CLAY, high plasticity, grey, trace of medium to coarse subangular gravel, alluvial, M≤PL, stiff to very stiff
TP38	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, dark brown-red
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty CLAY, high plasticity, dark brown-red-grey, trace of fine to medium grain subangular gravel, trace of ironstone pockets, M≤PL, stiff
TP39	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty CLAY, high plasticity, dark brown-orange-red, trace of medium to coarse grain subangular gravel, M<PL, stiff
TP40	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, brown-red
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty Cobbly CLAY, high plasticity, brown-red, medium grain subrounded cobble, trace of medium to coarse grain subangular gravel, alluvial, M<PL, stiff
TP41	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, dark brown-red
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty CLAY, high plasticity, dark brown-orange-red-grey, trace of medium to coarse grain subangular gravel, trace of ironstone pockets, trace of medium grain subrounded cobble, M≤PL, stiff
TP42	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, dark brown-red
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty CLAY, high plasticity, dark brown-orange-red-grey, trace of medium to coarse grain subangular gravel, trace of ironstone pockets, trace of medium grain subrounded cobble, M≤PL, stiff

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TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP43	0.0-0.3		TOPSOIL: Silty Clay, low to medium plasticity, dark brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty CLAY, high plasticity, dark brown-red, trace of medium to coarse grain subangular gravel, M _s ≤PL, stiff
TP44	0.0-0.3		TOPSOIL: Silty Clay, low to medium plasticity, dark brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty CLAY, high plasticity, dark brown-orange-red-grey, trace of ironstone pockets, trace of medium to coarse grain subangular gravel, trace of medium grain subrounded cobble, M _s ≤PL, stiff
TP45	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, dark brown
	0.3-1.5	0.4-0.5 (DS) 0.4-0.6 (U ₅₀) 0.8-0.9 (DS)	(CH) Silty CLAY, high plasticity, dark brown-grey-orange, trace of medium to coarse grain subangular gravel, M _s ≤PL, stiff
TP46	0.0-0.3		TOPSOIL: Silty Clay, low to medium plasticity, orange-grey
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, orange-grey, trace of ironstone pockets, trace of medium to coarse grain subrounded gravel, M _s ≤PL, stiff
TP47	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, orange-brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty CLAY, high plasticity, orange-red-brown, trace cobble, trace of medium to coarse grain subangular gravel, trace of ironstone pockets, M _s ≤PL, stiff to very stiff
TP48	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, brown-red, trace of medium grain subangular gravel
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty CLAY, high plasticity, brown-red, trace of ironstone pockets, trace of medium grain subrounded cobble, trace of medium to coarse grain subangular gravel, M _s ≤PL, stiff
TP49	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, brown-red, trace of medium grain subangular gravel
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty CLAY, high plasticity, brown-red, trace of ironstone pockets, trace of medium grain subrounded cobble, trace of medium to coarse grain sub angular gravel, M _s ≤PL, stiff

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TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP50	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, brown-red, trace of medium grain subangular gravel
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty CLAY, high plasticity, brown-red, trace of ironstone pockets, trace of medium grain subrounded cobble, trace of medium to coarse grain subangular gravel, M \leq PL, stiff
TP51	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, brown-red, trace of medium grain subangular gravel
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty CLAY, high plasticity, brown-red, trace of ironstone pockets, trace of medium grain subrounded cobble, trace of medium to coarse grain subangular gravel, M \leq PL, stiff
TP52	0.0-0.3		TOPSOIL: Silty Clay, low plasticity, dark brown, trace of organic material
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CL) Silty CLAY, low plasticity, dark brown, M $<$ PL, stiff
TP53	0.0-0.3		TOPSOIL: Silty Cobbly Clay, high plasticity, medium grain subrounded cobble, trace of medium to coarse grain subangular gravel, trace of ironstone fragments, M \leq PL, stiff
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty CLAY, high plasticity, dark brown-red, trace of medium to coarse grain subangular gravel, trace of medium grain subrounded cobble, M $<$ PL, stiff
TP54	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, dark brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty CLAY, high plasticity, brown-red, trace of ironstone pockets, trace of medium grain subrounded cobble, trace of medium to coarse grain subangular gravel, M \leq PL, stiff
TP55	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, red brown, trace of ironstone fragments
	0.3-0.6	0.4-0.5 (DS) 0.4-0.6 (U ₅₀)	FILL: Silty Clay, medium to high plasticity, red-brown, trace of ironstone gravel, trace of medium grain subrounded cobble, trace of medium to coarse grain subangular gravel, M \leq PL, well compacted
	0.6-1.5	0.8-0.9 (DS)	(CI-H) Silty CLAY, medium to high plasticity, red-brown, trace of ironstone pockets, trace of medium grain subrounded cobble, trace of medium to coarse grain subangular gravel, M \leq PL, stiff

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TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP56	0.0-0.3		TOPSOIL: Silty Clay, medium plasticity, dark brown-red
	0.3-0.6	0.4-0.5 (DS)	FILL: Silty Clay, medium plasticity, mottled dark brown and grey-red, trace of ironstone gravel, trace of medium grain subrounded cobble, trace of medium to coarse grain subangular gravel, M _s PL, well compacted
	0.6-1.5	0.8-0.9 (DS)	(CI) Silty CLAY, medium plasticity, mottled dark brown and grey-red, trace of ironstone pockets, trace of medium grain subrounded cobble, trace of medium to coarse grain subangular gravel, M _s PL, stiff
TP57	0.0-0.3		TOPSOIL: Silty Clay, low to medium plasticity, grey-brown
	0.3-1.0	0.4-0.5 (DS) 0.8-0.9 (DS)	FILL: Silty Clay, low to medium plasticity, grey-brown, trace of ironstone gravel, trace of medium grain subrounded cobble, M _s PL, well compacted
	1.0-1.5		(CL-CI) Silty CLAY, low to medium plasticity, grey-brown, trace of ironstone pockets, trace of medium grain subrounded cobble, M _s PL, stiff
TP58	0.0-0.3		TOPSOIL: Silty Clay, low to medium plasticity, red-brown, trace of medium to coarse grain subangular gravel
	0.3-0.5	0.4-0.5 (DS)	FILL: Silty Clay, medium to high plasticity, mottled red-brown and orange-grey, trace of medium grain subrounded cobble, trace of ironstone gravel, M _s PL, well compacted
	0.5-1.5	0.6-0.8 (Atterberg) 0.8-0.9 (DS)	(CI) Silty CLAY, medium to high plasticity, mottled red-brown and orange-grey, trace of medium grain subrounded cobble, trace of ironstone pockets, M _s PL, stiff
TP59	0.0-0.3		TOPSOIL: Silty Clay, low plasticity, brown, trace of coarse grain subangular gravel
	0.3-0.5	0.4-0.5 (DS)	FILL: Silty Clay, medium to high plasticity, brown-grey, trace of medium grain subrounded cobble, trace of ironstone gravel, trace of medium to coarse grain subangular gravel, M _s PL, well compacted
	0.5-1.5	0.8-0.9 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, brown-grey, trace of medium grain subrounded cobble, trace of ironstone pockets, trace of medium to coarse grain subangular gravel, M _s PL, stiff

TABLE A

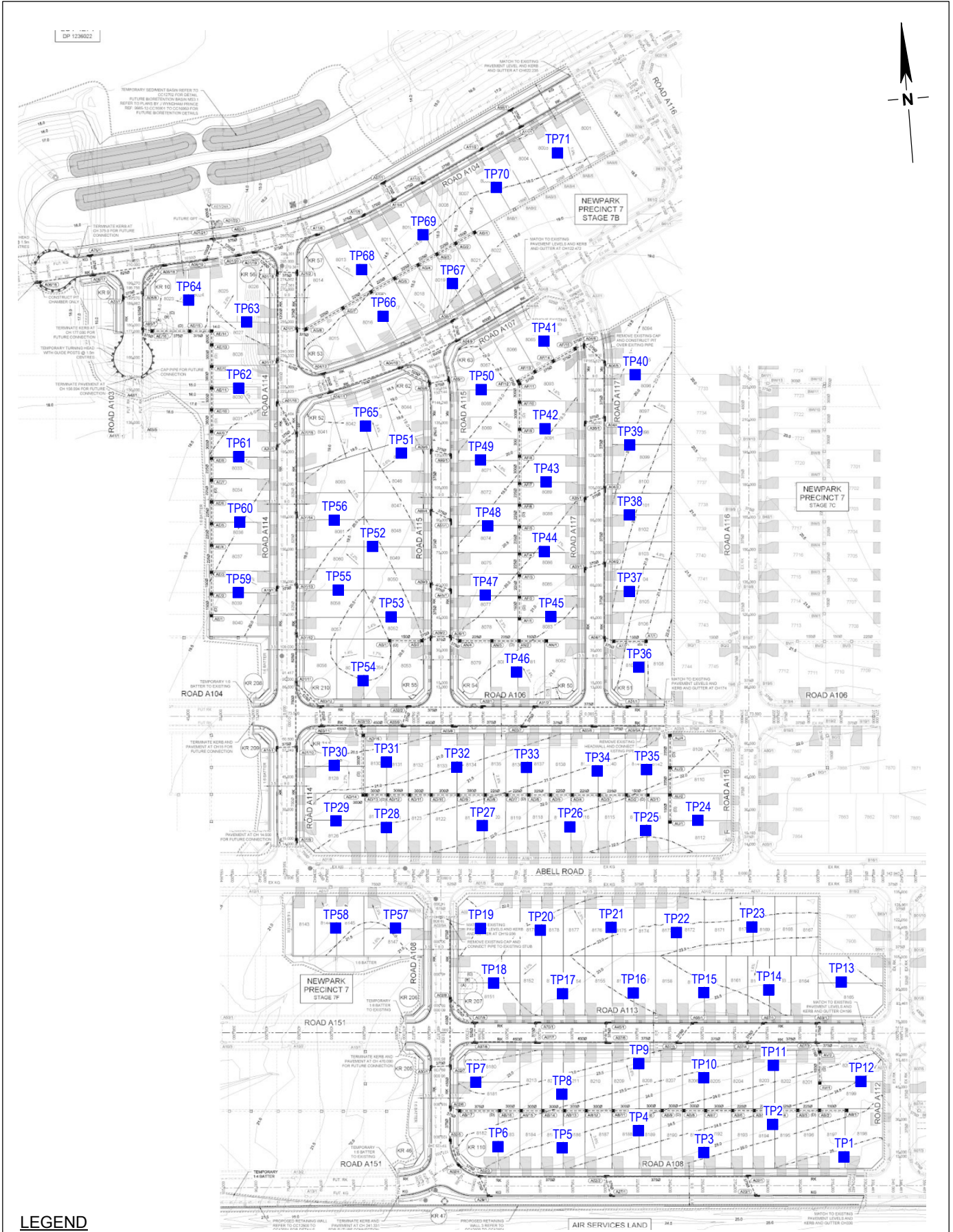
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TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP60	0.0-0.3		TOPSOIL: Silty Clay, low to medium plasticity, brown
	0.3-0.5		FILL: Silty Clay, medium to high plasticity, brown-grey, trace of medium grain subrounded cobble, trace of ironstone gravel, M _s PL, well compacted
	0.5-1.5	0.4-0.5 (DS) 0.6-0.8 (U ₅₀) 0.8-0.9 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, brown-grey, trace of medium grain subrounded cobble, trace of ironstone pockets, M _s PL, stiff
TP61	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, brown
	0.3-0.5	0.4-0.5 (DS)	FILL: Silty Clay, high plasticity, brown-grey, trace of medium grain subrounded cobble, trace of medium to coarse grain subangular gravel, trace of ironstone gravel, M _s PL, well compacted
	0.5-1.5	0.8-0.9 (DS)	(CH) Silty CLAY, high plasticity, brown-grey, trace of medium grain subrounded cobble, trace of medium to coarse grain subangular gravel, trace of ironstone pockets, M _s PL, stiff
TP62	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, brown, trace of shale fragments
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	FILL: Silty Clay, medium to high plasticity, brown-grey, trace of medium grain subrounded cobble, trace of medium to coarse subangular gravel, M _s PL, well compacted
TP63	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, trace of shale fragments, brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	FILL: Silty Clay, high plasticity, brown-grey-red, brown, trace of medium grain subrounded cobble, trace of ironstone gravel, trace of medium to coarse grain subangular gravel, M _s PL, well compacted
TP64	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	FILL: Silty Clay, medium to high plasticity, trace of medium to coarse grain subangular gravel, trace of medium grain subrounded cobble, M _s PL, well compacted
TP65	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, brown, trace of shale fragments
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CI-CH) Silty Shaley CLAY, medium to high plasticity, brown, trace of medium grain subrounded cobble, trace of medium to coarse grain subangular gravel, trace of ironstone pockets, M _s PL, stiff

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TEST PIT	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP66	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, brown, trace of medium to coarse grain subangular gravel
	0.3-1.5	0.4-0.5 (DS) 0.4-0.6 (U ₅₀) 0.8-0.9 (DS)	FILL: Silty Clay, high plasticity, brown, trace of medium to coarse subangular gravel, trace of medium grain subrounded cobble, trace of ironstone fragments, M _s PL, well compacted
TP67	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	FILL: Silty Clay, high plasticity, brown-grey, trace of medium grain subrounded cobble, trace of medium to coarse grain subangular gravel, trace of ironstone fragments, M _s PL, well compacted
TP68	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, dark brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	FILL: Silty Clay, high plasticity, brown, trace of medium grain subrounded cobble, trace of medium to coarse grain subangular gravel, M _s PL, well compacted
TP69	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, brown, trace of medium to coarse grain subangular gravel
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	FILL: Silty Clay, high plasticity, brown, trace of medium grain subrounded cobble, trace of medium to coarse grain subangular gravel, M _s PL, stiff to very stiff
TP70	0.0-0.3		TOPSOIL: Silty Clay, low to medium plasticity, brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CI-CH) Silty Cobbly CLAY, medium to high plasticity, dark brown-grey, medium grain subrounded cobble, trace of medium to coarse grain subangular gravel, trace of ironstone pockets, M _s PL, stiff to very stiff
TP71	0.0-0.3		TOPSOIL: Silty Clay, high plasticity, brown
	0.3-1.5	0.4-0.5 (DS) 0.8-0.9 (DS)	(CH) Silty CLAY, high plasticity, mottled brown-red and brown-grey, trace of ironstone pockets, trace of medium to coarse grain subangular gravel, trace of medium grain subrounded cobble, M _s PL, stiff to very stiff



LEGEND

■ Test Pit

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Woorong Park Precinct 7D
Marsden Park

Test Pit Locations

Drawing No: 8599/96-AA1
Job No: 8599/96
Drawn By: MH
Date: 16 September 2022
Checked By: KB/JSH

File No: 8599-96
Layers: 0, AA1

APPENDIX B

SUMMARY OF SITE CLASSIFICATIONS

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TABLE B

SUMMARY OF SITE CLASSIFICATIONS

Newpark Precinct 7D, Marsden Park

Lot	Site Classification	Lot	Site Classification	Lot	Site Classification
8001	M	8034	M	8067	H1
8002	M	8035	M	8068	H1
8003	M	8036	M	8069	H1
8004	M	8037	M	8070	H1
8005	M	8038	M	8071	H1
8006	M	8039	M	8072	H1
8007	M	8040	M	8073	H1
8008	M	8041	M	8074	H1
8009	M	8042	M	8075	H1
8010	M	8043	M	8076	H1
8011	M	8044	M	8077	H1
8012	M	8045	M	8078	H1
8013	M	8046	M	8079	H1
8014	M	8047	M	8080	H1
8015	M	8048	M	8081	H1
8016	M	8049	M	8082	H1
8017	M	8050	M	8083	H1
8018	M	8051	M	8084	H1
8019	M	8052	M	8085	H1
8020	M	8053	M	8086	H1
8021	M	8054	M	8087	H1
8022	M	8055	M	8088	H1
8023	M	8056	M	8089	H1
8024	M	8057	M	8090	H1
8025	M	8058	M	8091	H1
8026	M	8059	M	8092	H1
8027	M	8060	M	8093	H1
8028	M	8061	M	8094	M
8029	M	8062	M	8095	M
8030	M	8063	M	8096	M
8031	M	8064	H1	8097	M
8032	M	8065	H1	8098	M
8033	M	8066	H1	8099	M

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Newpark Precinct 7D, Marsden Park (Continued)

Lot	Site Classification	Lot	Site Classification	Lot	Site Classification
8100	M	8133	M	8166	M
8101	M	8134	M	8167	M
8102	M	8135	M	8168	M
8103	M	8136	M	8169	M
8104	M	8137	M	8170	M
8105	M	8138	M	8171	M
8106	M	8139	M	8172	M
8107	M	8140	M	8173	M
8108	M	8141	M	8174	M
8109	M	8142	M	8175	M
8110	M	8143	H1	8176	M
8111	M	8144	H1	8177	M
8112	M	8145	H1	8178	M
8113	M	8146	M	8179	M
8114	M	8147	M	8180	M
8115	M	8148	M	8181	M
8116	M	8149	M	8182	M
8117	M	8150	M	8183	M
8118	M	8151	M	8184	M
8119	M	8152	M	8185	M
8120	M	8153	M	8186	M
8121	M	8154	M	8187	M
8122	M	8155	M	8188	M
8123	M	8156	M	8189	M
8124	M	8157	M	8190	M
8125	M	8158	M	8191	M
8126	M	8159	M	8192	M
8127	M	8160	M	8193	M
8128	M	8161	M	8194	M
8129	M	8162	M	8195	M
8130	M	8163	M	8196	M
8131	M	8164	M	8197	M
8132	M	8165	M	8198	M

Job No: 8599/96
Our Ref: 8599/96-AA-R1

Newpark Precinct 7D, Marsden Park (Continued)

Lot	Site Classification
8199	M
8200	M
8201	M
8202	M
8203	M
8204	M
8205	M
8206	M
8207	M
8208	M
8209	M
8210	M
8211	M
8212	M
8213	M

M: Moderately Reactive, Free Surface Movement: 20-40mm
H1: Highly Reactive, Free Surface Movement: 40-60mm

APPENDIX C

LABORATORY TEST RESULTS

TEST RESULTS - SHRINK / SWELL INDEX

DARACON CONTRACTORS PTY LTD
186 ADDERLEY STREET WEST
AUBURN NSW 2144

Laboratory: Penrith
Job No: 8599/96

SITE CLASSIFICATION

RESIDENTIAL DEVELOPMENT WOORONG PARK MARSDEN PARK PRECINCT, NEWPARK PRECINCT 7 STAGE 7D

Page 1 of 2

Test Procedure: AS 1289 7.1.1				
Sample Identification	Test Pit 2	Test Pit 13	Test Pit 29	Test Pit 45
Depth (m)	0.2 - 0.5	0.3 - 0.6	0.3 - 0.6	0.4 - 0.6
Laboratory Number	8599/94-22	8599/94-23	8599/94-24	8599/94-26
Date Tested:	24/08/2022	24/08/2022	24/08/2022	24/08/2022
Tested By:	NP	NP	NP	NP
Checked By:	AK	AK	AK	AK
Test Description				
Moisture Content				
Initial %	17.7	13.1	16.8	18.4
Final %	20.0	18.8	19.8	24.0
Swell %	0.7	2.4	Nil	2.8
Shrinkage %	2.9	2.0	3.5	4.8
Shrink/Swell Index %/pF	1.8	1.8	2.0	3.4
Material Description				

Form No R007 Version 13 07/21

Accredited for compliance with
ISO/IEC 17025 - Testing.

A Kench

Report Date
05/09/2022



NATA Accreditation Number 2734
Corporate Site Number 2727

Approved Signatory

34 Borec Road, Penrith NSW 2750
Telephone: (02) 4722 2744

Unit 4, 18-20 Whyalla Place, Prestons NSW 2170
Telephone: (02) 9607 6111

email: info@geotech.com.au www.geotech.com.au

TEST RESULTS - SHRINK / SWELL INDEX

DARACON CONTRACTORS PTY LTD
 186 ADDERLEY STREET WEST
 AUBURN NSW 2144

Laboratory: Penrith
 Job No: 8599/96

SITE CLASSIFICATION

RESIDENTIAL DEVELOPMENT WOORONG PARK MARSDEN PARK PRECINCT, NEWPARK PRECINCT 7 STAGE 7D

Page 2 of 2

Test Procedure: AS 1289 7.1.1				
Sample Identification	Test Pit 55	Test Pit 60	Test Pit 66	
Depth (m)	0.4 - 0.6	0.6 - 0.8	0.4 - 0.6	
Laboratory Number	8599/94-27	8599/94-29	8599/94-30	
Date Tested:	24/08/2022	24/08/2022	26/08/2022	
Tested By:	NP	NP	NP	
Checked By:	AK	AK	AK	
Test Description				
Moisture Content				
Initial %	13.2	16.9	19.0	
Final %	19.0	23.0	23.4	
Swell %	0.2	2.7	0.9	
Shrinkage %	1.0	2.8	3.1	
Shrink/Swell Index %/pF	0.6	2.3	2.0	
Material Description				

Form No R007 Version 13 07/21

Accredited for compliance with
 ISO/IEC 17025 - Testing.

A Kench

Report Date
 05/09/2022



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TEST RESULTS - ATTERBERG LIMITS
Test Procedure AS1289 3.1.1, 3.1.2, 3.2.1, 3.3.1, 3.4.1

DARACON CONTRACTORS PTY LTD
 186 ADDERLEY STREET WEST
 AUBURN NSW 2144

Laboratory: Penrith
 Job No: 8599/96

PROJECT: SITE CLASSIFICATION
 RESIDENTIAL DEVELOPMENT WOORONG PARK MARSDEN PARK PRECINCT, NEWPARK PRECINCT 7 STAGE 7D

Date Tested: 26&30/08/2022		Tested By: NP
		Checked By: AK
Sample Identification	Test Pit 37	Test Pit 58
Laboratory Number	8599/96-25	8599/96-28
Depth (m)	0.4 - 0.6	0.6 - 0.8
Test Description		
Liquid Limit (W _L)	31%	51%
Plastic Limit (W _P)	16%	23%
Plastic Index (I _P)	15%	28%
Linear Shrinkage (LS)	8.0%	15.5%
Mould Length (mm)	127	125
Sample History	Oven Dried Dry Sieved	Oven Dried Dry Sieved
Material Description		

Form No R004 Version 13 - 07/21 - Issued by ER

A Kench Report Date
 01/09/2022



Accredited for compliance with ISO/IEC 17025 - Testing.

Nata Accreditation Number 2734
 Corporate Site Number 2727

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