



**CIVIL GEOTECHNICAL SERVICES**  
**ABN 26 474 013 724**  
**PO Box 678 Croydon Vic 3136**  
**Telephone: 9723 0744 Facsimile: 9723 0799**

28<sup>th</sup> February 2024

Our Reference: 23263:NB1801

Winslow Constructors Pty Ltd  
50 Barry Road  
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

**RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING  
EYNESBURY – STAGE 18D (EYNESBURY)**

Please find attached our Report No's 23263/R001 to 23263/R005 which relate to the field density testing that was conducted within the filled allotments at the above subdivision. The level 1 inspections and associated field density was performed in May 2023.

The inspections and testing of the earthworks was undertaken in general accordance with the Level 1 requirements of AS 3798 - Guidelines on Earthworks for Commercial and Residential Developments.

The site inspection and testing was performed by experienced geotechnicians from this office. Any areas that were deemed unsatisfactory were reworked and retested under their supervision. The testing was performed to the relevant Australian Standards and the accompanying test reports carry NATA endorsement. The attached compaction results, which were located randomly throughout the fill profile, are considered to be representative of the bulk fill materials that were placed across the reported allotments by Winslow Constructors during the aforementioned period. The approximate locations of the field density tests can be seen on the attached plan (Figure 1).

We are of the view that the bulk fill materials that have been placed across the reported allotments by Winslow Constructors during the aforementioned period can be considered as having been placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

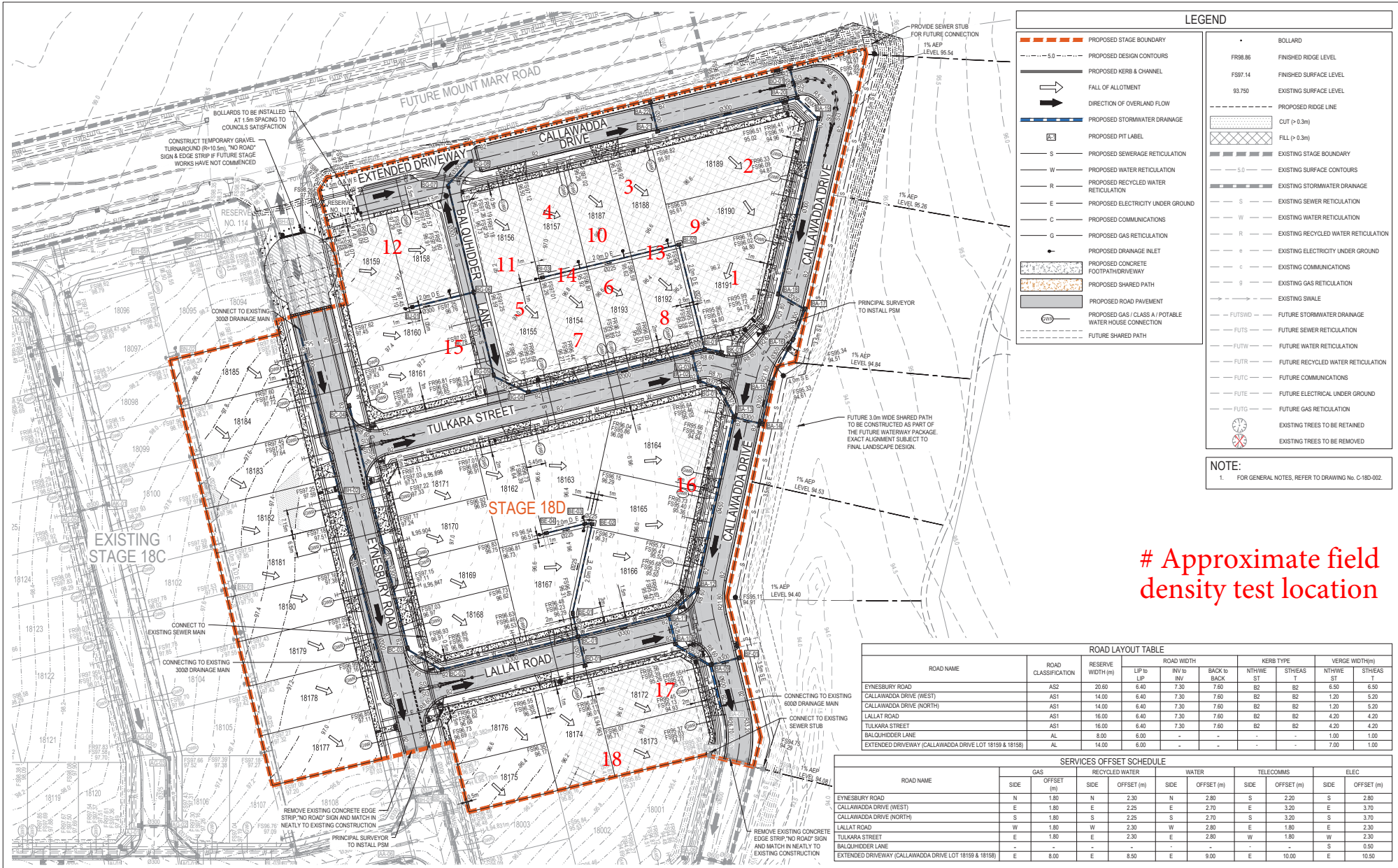
Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

A handwritten signature in blue ink, appearing to read 'Nick Brock', is written over a light blue circular stamp.

Nick Brock

# FIGURE 1



ROAD NAME	ROAD CLASSIFICATION	RESERVE WIDTH (m)	ROAD WIDTH			KERB TYPE		VERGE WIDTH(m)	
			LIP to LIP	INV to INV	BACK to BACK	NTHWE ST	STHWE ST	NTHWE ST	STHWE ST
EYNEBURY ROAD	AS2	20.60	6.40	7.30	7.60	B2	B2	1.20	5.20
CALLAWADDA DRIVE (WEST)	AS1	14.00	6.40	7.30	7.60	B2	B2	1.20	5.20
CALLAWADDA DRIVE (NORTH)	AS1	14.00	6.40	7.30	7.60	B2	B2	1.20	5.20
LALLAT ROAD	AS1	16.00	6.40	7.30	7.60	B2	B2	4.20	4.20
TULKARA STREET	AS1	16.00	6.40	7.30	7.60	B2	B2	4.20	4.20
BALQUHIDER LANE	AL	8.00	6.00	-	-	-	-	1.00	1.00
EXTENDED DRIVEWAY (CALLAWADDA DRIVE LOT 18159 & 18158)	AL	14.00	6.00	-	-	-	-	7.00	1.00

ROAD NAME	GAS		RECYCLED WATER		WATER		TELECOMMS		ELEC	
	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)
EYNEBURY ROAD	N	1.80	N	2.30	N	2.80	S	2.20	S	2.80
CALLAWADDA DRIVE (WEST)	E	1.80	E	2.25	E	2.70	E	3.20	E	3.70
CALLAWADDA DRIVE (NORTH)	S	1.80	S	2.25	S	2.70	S	3.20	S	3.70
LALLAT ROAD	W	1.80	W	2.30	W	2.80	E	1.80	E	2.30
TULKARA STREET	E	1.80	E	2.30	E	2.80	W	1.80	W	2.30
BALQUHIDER LANE	-	-	-	-	-	-	-	-	S	0.50
EXTENDED DRIVEWAY (CALLAWADDA DRIVE LOT 18159 & 18158)	E	8.00	E	8.50	E	9.00	E	10.00	E	10.50

Scale: 1:500

Issue	Description	By	Ckd	Pld	Date
A	ISSUED FOR CONSTRUCTION	WB	JR	SE	01.12.22
04	UPDATES TO ADDRESS COUNCIL COMMENTS	WB	JR	SE	10.11.22
03	UPDATES TO ADDRESS COUNCIL COMMENTS	WB	JR	SE	07.10.22
02	UPDATES TO ADDRESS COUNCIL COMMENTS	CM	JR	SE	05.08.22
01	ISSUED FOR APPROVAL	CM	ZS	SE	29.04.22

Planner: **RD** RobertsDay *planning design place*

Client: **RESIMAX GROUP**

Filename: C:\18d-220-10029435-Roadworks&DrainagePlan.dwg

Status: **FOR CONSTRUCTION**

Project: **EYNEBURY TOWNSHIP STAGE 18D**

Checker: **J.ROCK**

Scales: 1:500

Original Size: **A1**

Height Datum: **AHD**

Grid: **MGA**

Project Title: **ROADWORKS AND DRAINAGE LAYOUT PLAN**

ARCADIS  
Arcadis Australia Pacific Pty Limited  
Level 18, Queen & Collins Tower  
376-390 Collins Street  
Melbourne VIC 3000 Australia  
ABN 76 104 485 289  
Tel No: +61 3 8623 4000  
www.arcadis.com

Drawing No: **C-18D-220** | Project No: **10029435** | Issue: **A**

Last Saved: WBMN1963 Date Plotted: 1 Dec 2022 - 05:30pm File Name: C:\Users\wbm1963\Documents\Arcadis\AU-10029435-Eynesbury Estate\Project Files\01\_WORK IN PROGRESS\01\_Civil\_C\Stage18\_19\_Stage18D-18d-220-10029435-Roadworks&DrainagePlan.dwg



# COMPACTION ASSESSMENT

Job No 23263  
 Report No 23263/R001  
 Date Issued 31/05/23

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	WS
Project	EYNESBURY - STAGE 18D	Date tested	01/05/23
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 10:30
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	1	2	3	-	-	-
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL						
Measurement depth mm	175	175	175	-	-	-
Field wet density t/m <sup>3</sup>	2.09	2.10	2.12	-	-	-
Field moisture content %	24.6	20.2	23.9	-	-	-

Test procedure AS 1289.5.7.1

Test No	1	2	3	-	-	-
Compactive effort	Standard					
Oversize rock retained on sieve mm	19.0	19.0	19.0	-	-	-
Percent of oversize material wet	0	0	0	-	-	-
Peak Converted Wet Density t/m <sup>3</sup>	2.11	2.11	2.11	-	-	-
Adjusted Peak Converted Wet Density t/m <sup>3</sup>	-	-	-	-	-	-
Optimum Moisture Content %	23.5	20.5	24.0	-	-	-

Moisture Variation From Optimum Moisture Content	1.0% wet	0.5% dry	0.0%	-	-	-
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio (R <sub>HD</sub> ) %	99.5	99.5	100.0	-	-	-
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Material description

No 1 - 3 Clay Fill
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AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909  
 Accredited for compliance with  
 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 23263  
 Report No 23263/R002  
 Date Issued 31/05/23

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by WS  
 Date tested 02/05/23  
 Checked by JHF

Client WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)  
 Project EYNESBURY - STAGE 18D  
 Location EYNESBURY

Feature **EARTHWORKS** Layer thickness 200 mm Time: 10:30

### Test procedure AS 1289.2.1.1 & 5.8.1

Test No		4	5	6	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t/m <sup>3</sup>	1.95	1.88	2.02	-	-	-
Field moisture content	%	19.3	20.3	21.1	-	-	-

### Test procedure AS 1289.5.7.1

Test No		4	5	6	-	-	-
Compactive effort		Standard					
Oversize rock retained on sieve	mm	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t/m <sup>3</sup>	1.99	1.94	2.05	-	-	-
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-	-
Optimum Moisture Content	%	21.5	23.0	23.5	-	-	-

Moisture Variation From Optimum Moisture Content		2.0% dry	2.5% dry	2.0% dry	-	-	-
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	98.0	97.0	98.5	-	-	-
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### Material description

No 4 - 6 Clay Fill

AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909  
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 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 23263  
 Report No 23263/R003  
 Date Issued 31/05/23

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by WS  
 Date tested 03/05/23  
 Checked by JHF

Client WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)  
 Project EYNESBURY - STAGE 18D  
 Location EYNESBURY

<b>Feature</b>	<b>EARTHWORKS</b>	<b>Layer thickness</b>	200 mm	<b>Time:</b> 10:00
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		7	8	9	-	-	-
Location		REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL							
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t/m <sup>3</sup>	2.06	2.11	2.11	-	-	-
Field moisture content	%	23.0	21.3	21.3	-	-	-

Test procedure AS 1289.5.7.1

Test No		7	8	9	-	-	-
Compactive effort		Standard					
Oversize rock retained on sieve	mm	19.0	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	0	-	-	-
Peak Converted Wet Density	t/m <sup>3</sup>	2.08	2.14	2.11	-	-	-
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-	-
Optimum Moisture Content	%	22.0	21.5	21.5	-	-	-

Moisture Variation From Optimum Moisture Content	0.5% wet	0.0%	0.0%	-	-	-
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

<b>Density Ratio ( R<sub>HD</sub> )</b>	<b>%</b>	<b>99.0</b>	<b>98.5</b>	<b>100.0</b>	<b>-</b>	<b>-</b>	<b>-</b>
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Material description

No 7 - 9 Clay Fill

AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909  
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 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 23263  
 Report No 23263/R004  
 Date Issued 31/05/23

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Tested by WS  
 Date tested 04/05/23  
 Checked by JHF

Client WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)  
 Project EYNESBURY - STAGE 18D  
 Location EYNESBURY

Feature **EARTHWORKS** Layer thickness 200 mm Time: 10:19

### Test procedure AS 1289.2.1.1 & 5.8.1

Test No	10	11	12	13	14	15
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
Approximate depth below FSL						
Measurement depth mm	175	175	175	175	175	175
Field wet density t/m <sup>3</sup>	2.06	2.07	1.99	2.06	2.06	2.06
Field moisture content %	20.8	20.1	20.2	21.3	22.1	21.0

### Test procedure AS 1289.5.7.1

Test No	10	11	12	13	14	15
Compactive effort	Standard					
Oversize rock retained on sieve mm	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material wet	0	0	0	0	0	0
Peak Converted Wet Density t/m <sup>3</sup>	2.07	2.09	2.01	2.08	2.07	2.10
Adjusted Peak Converted Wet Density t/m <sup>3</sup>	-	-	-	-	-	-
Optimum Moisture Content %	23.0	22.5	22.5	23.0	24.5	23.5

Moisture Variation From Optimum Moisture Content	2.0% dry	2.0% dry	2.0% dry	2.0% dry	2.0% dry	2.5% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	99.5	99.0	99.0	99.5	99.5	98.0
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### Material description

No 10 - 15 Clay Fill

AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909  
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 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 23263  
 Report No 23263/R005  
 Date Issued 22/05/23

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	WS
Project	EYNESBURY - STAGE 18D	Date tested	04/05/23
Location	EYNESBURY	Checked by	JHF

<b>Feature</b>	<b>EARTHWORKS</b>	<b>Layer thickness</b>	200 mm	<b>Time:</b> 10:25
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### Test procedure AS 1289.2.1.1 & 5.8.1

Test No	16	17	18	-	-	-
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL						
Measurement depth	mm	175	175	175	-	-
Field wet density	t/m <sup>3</sup>	2.08	2.07	2.02	-	-
Field moisture content	%	19.5	23.5	20.0	-	-

### Test procedure AS 1289.5.7.1

Test No	16	17	18	-	-	-
Compactive effort	Standard					
Oversize rock retained on sieve	mm	19.0	19.0	19.0	-	-
Percent of oversize material	wet	0	0	0	-	-
Peak Converted Wet Density	t/m <sup>3</sup>	2.10	2.09	2.05	-	-
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	20.5	23.5	22.0	-	-

Moisture Variation From Optimum Moisture Content	1.0% dry	0.0%	2.0% dry	-	-	-
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

<b>Density Ratio ( R<sub>HD</sub> )</b>	%	<b>99.5</b>	<b>99.5</b>	<b>98.5</b>	-	-
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### Material description

No 16 - 18 Clay Fill
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AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909  
 Accredited for compliance with  
 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry