

CALIFORNIA BEARING RATIO (REMOULDED)

TEST REPORT



Project : Ground Investigation for Northland Corridor
 Location : Alternative to Brynderwyn Hills section: A new route close to SH1
 Client : NZTA C/- Aurecon & WSP NZ Ltd
 Contractor : -
 Sampled by : NC Site Team
 Date sampled : 27/09/25
 Sampling method : Digger
 Sample source : TP2B_1101 (4.00-4.20m.)
 Sample description : Refer to TP2B_1101 log report

Project No : 1-C2466.16
 Lab Ref No : WL4709/6 CBR
 Client Ref No : -

Test Results			
Lab Ref No	WL4709/6-SCBR	WL4709/6-UCBR	
Sample depth	4.00-4.20m	4.00-4.20m	
Sample source	TP2B_1101	TP2B_1101	
Sample treatment	Plain	Plain	
Sample description	Refer to TP2B_1101 log report		
Sample condition at compaction	Natural as Excavated	Natural as Excavated	
Sample condition as tested	Soaked	Unsoaked	
Curing time	days	0	0
Soaking time	days	4	0
Passing 19mm	%	100	100
Surcharge mass	kg	4	4
Lime additive	%	0.0	0.0
Cement additive	%	0.0	0.0
Swell	%	0.0	
Water content as received	%	34.2	32.8
Water content as compacted	%	34.2	32.8
Water content after testing	%	34.7	32.0
Dry Density	t/m ³	1.38	1.42
Penetration of CBR	mm	2.5	2.5
CBR value	%	1.5	2

Test Methods	Notes
CBR NZS : 4402 : 1986 : 6.1.1	Material Used Whole Soil
Water Content NZS : 4402 : 1986 : 2.1	Rate of penetration 1mm/min
Compaction NZS : 4402 : 1986 : 4.1.1 (Standard)	

Date tested : 24-28/11/25

Date reported : 1/12/25

Sampling is not covered by IANZ Accreditation. Results apply only to sample tested.

This report may only be reproduced in full

Approved Signatory

Designation : Laboratory Manager

Date : 10/12/25



Test results indicated as not accredited are outside the scope of the laboratory's accreditation

WHG-NLC11 (10/25)

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CALIFORNIA BEARING RATIO (REMOULDED)
TEST REPORT



Project : Ground Investigation for Northland Corridor
 Location : Alternative to Brynderwyn Hills section: A new route close to SH1
 Client : NZTA C/- Aurecon & WSP NZ Ltd
 Contractor : -
 Sampled by : NC Site Team
 Date sampled : 27/09/25
 Sampling method : Digger
 Sample source : TP2B_1102 (4.50-5.00m.)
 Sample description : Refer to TP2B_1102 log report

Project No : 1-C2466.16
 Lab Ref No : WL4709/8 CBR
 Client Ref No : -

Test Results			
Lab Ref No	WL4709/8-SCBR	WL4709/8-UCBR	
Sample depth	4.50-5.00m	4.50-5.00m	
Sample source	TP2B_1102	TP2B_1102	
Sample treatment	Plain	Plain	
Sample description	Refer to TP2B_1102 log report		
Sample condition at compaction	Natural as Excavated	Natural as Excavated	
Sample condition as tested	Soaked	Unsoaked	
Curing time days	0	0	
Soaking time days	4	0	
Passing 19mm %	100	100	
Surcharge mass kg	4	4	
Lime additive %	0.0	0.0	
Cement additive %	0.0	0.0	
Swell %	-0.2		
Water content as received %	29.9	29.9	
Water content as compacted %	29.9	29.9	
Water content after testing %	30.5	29.1	
Dry Density t/m ³	1.48	1.48	
Penetration of CBR mm	2.5	2.5	
CBR value %	1	1	

Test Methods	Notes
CBR NZS : 4402 : 1986 : 6.1.1	Material Used Whole Soil
Water Content NZS : 4402 : 1986 : 2.1	Rate of penetration 1mm/min
Compaction NZS : 4402 : 1986 : 4.1.1 (Standard)	

Date tested : 04-08/12/25
 Date reported : 9/12/25

Sampling is not covered by IANZ Accreditation. Results apply only to sample tested.
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Approved Signatory

Designation : Laboratory Manager
 Date : 10/12/25



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CALIFORNIA BEARING RATIO (REMOULDED)
TEST REPORT



Project : Ground Investigation for Northland Corridor
 Location : Alternative to Brynderwyn Hills section: A new route close to SH1
 Client : NZTA C/- Aurecon & WSP NZ Ltd
 Contractor : -
 Sampled by : NC Site Team
 Date sampled : 27/09/25
 Sampling method : Digger
 Sample source : TP2B_1103 (4.80-5.00m.)
 Sample description : Refer to TP2B_1103 log report

Project No : 1-C2466.16
 Lab Ref No : WL4709/10 CBR
 Client Ref No : -

Test Results			
Lab Ref No	WL4709/10-SCBR	WL4709/10-UCBR	
Sample depth	4.80-5.00m	4.80-5.00m	
Sample source	TP2B_1103	TP2B_1103	
Sample treatment	Plain	Plain	
Sample description	Refer to TP2B_1103 log report		
Sample condition at compaction	Natural as Excavated	Natural as Excavated	
Sample condition as tested	Soaked	Unsoaked	
Curing time days	0	0	
Soaking time days	4	0	
Passing 19mm %	100	100	
Surcharge mass kg	4	4	
Lime additive %	0.0	0.0	
Cement additive %	0.0	0.0	
Swell %	0.0		
Water content as received %	32.3	33.3	
Water content as compacted %	32.3	33.3	
Water content after testing %	33.5	32.8	
Dry Density t/m ³	1.42	1.42	
Penetration of CBR mm	5.0	5.0	
CBR value %	3.5	3.5	

Test Methods	Notes
CBR NZS : 4402 : 1986 : 6.1.1	Material Used Whole Soil
Water Content NZS : 4402 : 1986 : 2.1	Rate of penetration 1mm/min
Compaction NZS : 4402 : 1986 : 4.1.1 (Standard)	

Date tested : 24-28/11/25
 Date reported : 1/12/25

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Approved Signatory

Designation : Laboratory Manager
 Date : 10/12/25



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WHG-NLC11 (10/25)

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CALIFORNIA BEARING RATIO (REMOULDED)
TEST REPORT



Project : Ground Investigation for Northland Corridor
 Location : Alternative to Brynderwyn Hills section: A new route close to SH1
 Client : NZTA C/- Aurecon & WSP NZ Ltd
 Contractor : -
 Sampled by : NC Site Team
 Date sampled : 25/09/25
 Sampling method : Digger
 Sample source : TP2B_1104 (2.00-3.00m.)
 Sample description : Refer to TP2B_1104 log report

Project No : 1-C2466.16
 Lab Ref No : WL4709/11 CBR
 Client Ref No : -

Test Results			
Lab Ref No	WL4709/11-SCBR	WL4709/11-UCBR	
Sample depth	2.00-3.00m	2.00-3.00m	
Sample source	TP2B_1104	TP2B_1104	
Sample treatment	Plain	Plain	
Sample description	Refer to TP2B_1104 log report		
Sample condition at compaction	Natural as Excavated	Natural as Excavated	
Sample condition as tested	Soaked	Unsoaked	
Curing time days	0	0	
Soaking time days	4	0	
Passing 19mm %	100	100	
Surcharge mass kg	4	4	
Lime additive %	0.0	0.0	
Cement additive %	0.0	0.0	
Swell %	0.0		
Water content as received %	49.0	47.2	
Water content as compacted %	49.0	47.2	
Water content after testing %	46.4	46.3	
Dry Density t/m ³	1.16	1.18	
Penetration of CBR mm	5.0	5.0	
CBR value %	1.5	1	

Test Methods	Notes
CBR NZS : 4402 : 1986 : 6.1.1	Material Used Whole Soil
Water Content NZS : 4402 : 1986 : 2.1	Rate of penetration 1mm/min
Compaction NZS : 4402 : 1986 : 4.1.1 (Standard)	

Date tested : 09-13/10/25

Date reported : 14/10/25

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Approved Signatory

Designation : Laboratory Manager

Date : 17/10/25



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WHG-NLC11 (10/25)

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CALIFORNIA BEARING RATIO (REMOULDED)

TEST REPORT



Project : Ground Investigation for Northland Corridor
 Location : Section 2B - Bryderwyn to Marsden Point
 Client : NZTA C/- Aurecon & WSP NZ Ltd
 Contractor : -
 Sampled by : NC Site Team
 Date sampled : 27/09/25
 Sampling method : Digger
 Sample source : TP2B_1107 (4.50-5.00m.)
 Sample description : Refer to TP2B_1107 log report

Project No : 1-C2466.16
 Lab Ref No : WL4709/12 CBR
 Client Ref No : -

Test Results			
Lab Ref No	WL4709/12-SCBR	WL4709/12-UCBR	
Sample depth	4.50-5.00m	4.50-5.00m	
Sample source	TP2B_1107	TP2B_1107	
Sample treatment	Plain	Plain	
Sample description	Refer to TP2B_1107 log report		
Sample condition at compaction	Natural as Excavated	Natural as Excavated	
Sample condition as tested	Soaked	Unsoaked	
Curing time	days	0	0
Soaking time	days	4	0
Passing 19mm	%	100	100
Surcharge mass	kg	4	4
Lime additive	%	0.0	0.0
Cement additive	%	0.0	0.0
Swell	%	3.0	
Water content as received	%	27.2	27.1
Water content as compacted	%	27.2	27.1
Water content after testing	%	33.0	27.4
Dry Density	t/m ³	1.46	1.46
Penetration of CBR	mm	2.5	2.5
CBR value	%	3.5	15

Test Methods	Notes
CBR NZS : 4402 : 1986 : 6.1.1	Material Used Whole Soil
Water Content NZS : 4402 : 1986 : 2.1	Rate of penetration 1mm/min
Compaction NZS : 4402 : 1986 : 4.1.1 (Standard)	

Date tested : 09-13/10/25

Date reported : 14/10/25

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Approved Signatory

Designation : Laboratory Manager

Date : 17/10/25



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WHG-NLC11 (10/25)

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CALIFORNIA BEARING RATIO (REMOULDED)
TEST REPORT



Project : Ground Investigation for Northland Corridor
Location : Alternative to Brynderwyn Hills section: A new route close to SH1
Client : NZTA C/- Aurecon & WSP NZ Ltd
Contractor : -
Sampled by : NC Site Team
Date sampled : 27/09/25
Sampling method : Digger
Sample source : TP2B_1108 (1.50-1.80m.)
Sample description : Refer to TP2B_1108 log report

Project No : 1-C2466.16
Lab Ref No : WL4709/14 CBR
Client Ref No : -

Test Results			
Lab Ref No	WL4709/14-SCBR	WL4709/14-UCBR	
Sample depth	1.50-1.80m	1.50-1.80m	
Sample source	TP2B_1108	TP2B_1108	
Sample treatment	Plain	Plain	
Sample description	Refer to TP2B_1108 log report		
Sample condition at compaction	Natural as Excavated	Natural as Excavated	
Sample condition as tested	Soaked	Unsoaked	
Curing time days	0	0	
Soaking time days	4	0	
Passing 19mm %	100	100	
Surcharge mass kg	4	4	
Lime additive %	0.0	0.0	
Cement additive %	0.0	0.0	
Swell %	-0.4		
Water content as received %	19.6	19.4	
Water content as compacted %	19.6	19.4	
Water content after testing %	20.0	19.1	
Dry Density t/m ³	1.66	1.66	
Penetration of CBR mm	5.0	5.0	
CBR value %	3	2	

Test Methods	Notes
CBR NZS : 4402 : 1986 : 6.1.1	Material Used Whole Soil
Water Content NZS : 4402 : 1986 : 2.1	Rate of penetration 1mm/min
Compaction NZS : 4402 : 1986 : 4.1.1 (Standard)	

Date tested : 06-10/11/25
Date reported : 11/11/25

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Approved Signatory

Designation : Laboratory Manager
Date : 14/11/25



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WHG-NLC11 (10/25)

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CALIFORNIA BEARING RATIO (REMOULDED)
TEST REPORT



Project : Ground Investigation for Northland Corridor
Location : Section 2B - Bryderwyn to Marsden Point
Client : NZTA C/- Aurecon & WSP NZ Ltd
Contractor : -
Sampled by : NC Site Team
Date sampled : 22/09/25
Sampling method : Digger
Sample source : TP2B_1109 (3.50-4.00m.)
Sample description : Refer to TP2B_1109 log report

Project No : 1-C2466.16
Lab Ref No : WL4709/15 CBR
Client Ref No : -

Test Results			
Lab Ref No	WL4709/15-SCBR	WL4709/15-UCBR	
Sample depth	3.50-4.00m	3.50-4.00m	
Sample source	TP2B_1109	TP2B_1109	
Sample treatment	Plain	Plain	
Sample description	Refer to TP2B_1109 log report		
Sample condition at compaction	Natural as Excavated	Natural as Excavated	
Sample condition as tested	Soaked	Unsoaked	
Curing time days	0	0	
Soaking time days	4	0	
Passing 19mm %	100	100	
Surcharge mass kg	4	4	
Lime additive %	0.0	0.0	
Cement additive %	0.0	0.0	
Swell %	0.0		
Water content as received %	41.0	41.3	
Water content as compacted %	41.0	41.3	
Water content after testing %	38.8	38.8	
Dry Density t/m ³	1.28	1.30	
Penetration of CBR mm	5.0	5.0	
CBR value %	1	1	

Test Methods	Notes
CBR NZS : 4402 : 1986 : 6.1.1	Material Used Whole Soil
Water Content NZS : 4402 : 1986 : 2.1	Rate of penetration 1mm/min
Compaction NZS : 4402 : 1986 : 4.1.1 (Standard)	

Date tested : 09-13/10/25
Date reported : 14/10/25

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Approved Signatory

Designation : Laboratory Manager
Date : 17/10/25



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WHG-NLC11 (10/25)

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CALIFORNIA BEARING RATIO (REMOULDED)
TEST REPORT



Project : Ground Investigation for Northland Corridor
Location : Alternative to Brynderwyn Hills section: A new route close to SH1
Client : NZTA C/- Aurecon & WSP NZ Ltd
Contractor : -
Sampled by : NC Site Team
Date sampled : 27/09/25
Sampling method : Digger
Sample source : TP2B_1110 (2.00-2.50m.)
Sample description : Refer to TP2B_1110 log report

Project No : T-C2466.16
Lab Ref No : WL4709/16 CBR
Client Ref No : -

Test Results			
Lab Ref No	WL4709/16-SCBR	WL4709/16-UCBR	
Sample depth	2.00-2.50m	2.00-2.50m	
Sample source	TP2B_1110	TP2B_1110	
Sample treatment	Plain	Plain	
Sample description	Refer to TP2B_1110 log report		
Sample condition at compaction	Natural as Excavated	Natural as Excavated	
Sample condition as tested	Soaked	Unsoaked	
Curing time days	0	0	
Soaking time days	4	0	
Passing 19mm %	100	100	
Surcharge mass kg	4	4	
Lime additive %	0.0	0.0	
Cement additive %	0.0	0.0	
Swell %	1.4		
Water content as received %	19.9	19.8	
Water content as compacted %	19.9	19.8	
Water content after testing %	24.4	22.3	
Dry Density t/m ³	1.70	1.70	
Penetration of CBR mm	2.5	2.5	
CBR value %	3.5	7	

Test Methods	Notes
CBR NZS : 4402 : 1986 : 6.1.1	Material Used Whole Soil
Water Content NZS : 4402 : 1986 : 2.1	Rate of penetration 1mm/min
Compaction NZS : 4402 : 1986 : 4.1.1 (Standard)	

Date tested : 04-08/12/25
Date reported : 9/12/25

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Approved Signatory

Designation : Laboratory Manager
Date : 10/12/25



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WHG-NLC11 (10/25)

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CALIFORNIA BEARING RATIO (REMOULDED)
TEST REPORT



Project : Ground Investigation for Northland Corridor
Location : Section 2B - Bryderwyn to Marsden Point
Client : NZTA C/- Aurecon & WSP NZ Ltd
Contractor : -
Sampled by : NC Site Team
Date sampled : 18/09/25
Sampling method : Digger
Sample source : TP2B_1113 (4.20-4.50m.)
Sample description : Refer to TP2B_1113 log report

Project No : 1-C2466.16
Lab Ref No : WL4709/18 CBR
Client Ref No : -

Test Results			
Lab Ref No	WL4709/18-SCBR	WL4709/18-UCBR	
Sample depth	4.20-4.50m	4.20-4.50m	
Sample source	TP2B_1113	TP2B_1113	
Sample treatment	Plain	Plain	
Sample description	Refer to TP2B_1113 log report		
Sample condition at compaction	Natural as Excavated	Natural as Excavated	
Sample condition as tested	Soaked	Unsoaked	
Curing time	days	0	0
Soaking time	days	4	0
Passing 19mm	%	100	100
Surcharge mass	kg	4	4
Lime additive	%	0.0	0.0
Cement additive	%	0.0	0.0
Swell	%	-1.0	
Water content as received	%	43.8	42.8
Water content as compacted	%	43.8	42.8
Water content after testing	%	41.2	42.6
Dry Density	t/m ³	1.22	1.26
Penetration of CBR	mm	2.5	5.0
CBR value	%	0.5	0.5

Test Methods	Notes
CBR NZS : 4402 : 1986 : 6.1.1	Material Used Whole Soil
Water Content NZS : 4402 : 1986 : 2.1	Rate of penetration 1mm/min
Compaction NZS : 4402 : 1986 : 4.1.1 (Standard)	

Date tested : 09-13/10/25
Date reported : 14/10/25

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Approved Signatory

Designation : Laboratory Manager
Date : 17/10/25



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WHG-NLC11 (10/25)

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CALIFORNIA BEARING RATIO (REMOULDED) TEST REPORT



Project: **Ground Investigation for Northland Corridor**
 Location: **Section 2 Te Hana to Port Marsden Highway, Section 2B GI**
 Client: **NZTA C/- Aurecon & WSP NZ Ltd.**
 Contractor: **N/A**
 Sampled by: **NC_Site team**

Date sampled: **15/09/25**
 Sampling method: **Not Stated**
 Sample condition: **As Received**
 Sample description: **Light Brown with mottled orange; Silty CLAY with trace of rootlets; Moist to wet**
 Date sample/s received: **-**

Project No: **1-C21466.16**
 Lab Ref No: **WL4709/2**
 Client Ref No **1-C21466.16**

Test Results														
	Sample condition at test	Curing time (Days)	Soaking time (Days)	Passing 19 mm (%)	Surcharge mass (kg)	Lime additive (%)	Cement additive (%)	Swell (%)	Penetration (mm)	Water content as received (%)	Water content as compacted (%)	Water content after testing (%)	Dry density (t/m³)	CBR value (%)
Lab Ref No. AL4709/2	Sample ref	TB2B_1114 (1.90 m-2.60 m)						Sample description		See above				
	Unsoaked	-	-	100	4	-	-	-	2.5	29.1	29.1	29.1	0.78	8
Lab Ref No. AL4709/2	Sample ref	TB2B_1114 (1.90 m-2.60 m)						Sample description		See above				
	Soaked	-	4	100	4	-	-	0.2	5	27.6	27.6	27.8	1.44	5

Test Methods		Notes
CBR	NZS : 4402 : 1986 : 6.1.1	Material Used: Passing 19 mm sieve
Water Content	NZS : 4402 : 1986 : 2.1	Rate of penetration : 1 mm/min
Compaction	NZS : 4402 : 1986 : 4.1.1 (Standard)	All information supplied by Client

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Approved Signatory

Richard Low
 Senior Civil Engineering Technician
 08/10/25

Date tested: 25-30/9/25
 Date reported: 7/10/25

PF-LAB-021 (20/07/22)



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CALIFORNIA BEARING RATIO (REMOULDED)
TEST REPORT



Project : Ground Investigation for Northland Corridor
Location : Alternative to Brynderwyn Hills section: A new route close to SH1
Client : NZTA C/- Aurecon & WSP NZ Ltd
Contractor : -
Sampled by : NC Site Team
Date sampled : 25/09/25
Sampling method : Digger
Sample source : TP2B_1119 (4.00-4.50m.)
Sample description : Refer to TP2B_1119 log report

Project No : 1-C2466.16
Lab Ref No : WL4709/21 CBR
Client Ref No : -

Test Results			
Lab Ref No	WL4709/21-SCBR	WL4709/21-UCBR	
Sample depth	4.00-4.50m	4.00-4.50m	
Sample source	TP2B_1119	TP2B_1119	
Sample treatment	Plain	Plain	
Sample description	Refer to TP2B_1119 log report		
Sample condition at compaction	Natural as Excavated	Natural as Excavated	
Sample condition as tested	Soaked	Unsoaked	
Curing time days	0	0	
Soaking time days	4	0	
Passing 19mm %	100	100	
Surcharge mass kg	4	4	
Lime additive %	0.0	0.0	
Cement additive %	0.0	0.0	
Swell %	0.6		
Water content as received %	45.2	44.5	
Water content as compacted %	45.2	44.5	
Water content after testing %	46.5	44.0	
Dry Density t/m ³	1.22	1.22	
Penetration of CBR mm	2.5	2.5	
CBR value %	2.5	3.5	

Test Methods	Notes
CBR NZS : 4402 : 1986 : 6.1.1	Material Used Whole Soil
Water Content NZS : 4402 : 1986 : 2.1	Rate of penetration 1mm/min
Compaction NZS : 4402 : 1986 : 4.1.1 (Standard)	

Date tested : 06-10/11/25
Date reported : 11/11/25

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Approved Signatory

Designation : Laboratory Manager
Date : 14/11/25



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CALIFORNIA BEARING RATIO (REMOULDED)
TEST REPORT



Project : Ground Investigation for Northland Corridor
Location : Alternative to Brynderwyn Hills section: A new route close to SH1
Client : NZTA C/- Aurecon & WSP NZ Ltd
Contractor : -
Sampled by : NC Site Team
Date sampled : 25/09/25
Sampling method : Digger
Sample source : TP2B_1120 (2.70-3.20m.)
Sample description : Refer to TP2B_1120 log report

Project No : 1-C2466.16
Lab Ref No : WL4709/22 CBR
Client Ref No : -

Test Results			
Lab Ref No	WL4709/22-SCBR	WL4709/22-UCBR	
Sample depth	2.70-3.20m	2.70-3.20m	
Sample source	TP2B_1120	TP2B_1120	
Sample treatment	Plain	Plain	
Sample description	Refer to TP2B_1120 log report		
Sample condition at compaction	Natural as Excavated	Natural as Excavated	
Sample condition as tested	Soaked	Unsoaked	
Curing time days	0	0	
Soaking time days	4	0	
Passing 19mm %	100	100	
Surcharge mass kg	4	4	
Lime additive %	0.0	0.0	
Cement additive %	0.0	0.0	
Swell %	0.0		
Water content as received %	46.4	46.0	
Water content as compacted %	46.4	46.0	
Water content after testing %	45.4	45.1	
Dry Density t/m ³	1.18	1.18	
Penetration of CBR mm	5.0	5.0	
CBR value %	1	1	

Test Methods	Notes
CBR NZS : 4402 : 1986 : 6.1.1	Material Used Whole Soil
Water Content NZS : 4402 : 1986 : 2.1	Rate of penetration 1mm/min
Compaction NZS : 4402 : 1986 : 4.1.1 (Standard)	

Date tested : 06-10/11/25
Date reported : 11/11/25

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Designation : Laboratory Manager
Date : 14/11/25



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CALIFORNIA BEARING RATIO (REMOULDED) TEST REPORT



Project: **Ground Investigation for Northland Corridor**
 Location: **Section 2 Te Hana to Port Marsden Highway, Section 2B GI**
 Client: **NZTA C/- Aurecon & WSP NZ Ltd.**
 Contractor: **N/A**
 Sampled by: **NC_Site team**

Date sampled: **15/09/25**
 Sampling method: **Not Stated**
 Sample condition: **As Received**
 Sample description: **Light Brown; Silty CLAY; Moist-Wet**
 Date sample/s received: **-**

Project No: **1-C21466.16**
 Lab Ref No: **WL4709/4**
 Client Ref No: **1-C21466.16**

Test Results														
	Sample condition at test	Curing time (Days)	Soaking time (Days)	Passing 19 mm (%)	Surcharge mass (kg)	Lime additive (%)	Cement additive (%)	Swell (%)	Penetration (mm)	Water content as received (%)	Water content as compacted (%)	Water content after testing (%)	Dry density (t/m³)	CBR value (%)
Lab Ref No. WL4709/4	Sample ref	TB2B_1121 (1.90 m-2.50 m)						Sample description		See above				
	Unsoaked	-	-	100	4	-	-	-	5	27.5	27.5	27.5	1.42	3
Lab Ref No. WL4709/4	Sample ref	TB2B_1121 (1.90 m-2.50 m)						Sample description		See above				
	Soaked	-	4	100	4	-	-	-0.2	5	27.7	27.7	26.8	1.46	2.5

Test Methods		Notes
CBR	NZS : 4402 : 1986 : 6.1.1	Material Used: Passing 19 mm sieve
Water Content	NZS : 4402 : 1986 : 2.1	Rate of penetration : 1 mm/min
Compaction	NZS : 4402 : 1986 : 4.1.1 (Standard)	All information supplied by Client

Sampling is not covered by IANZ Accreditation. Results apply only to sample tested.
 This report may only be reproduced in full

Approved Signatory

Date tested: 25-30/9/25
 Date reported: 7/10/25
 Designation : *Richard Low*
 Date : 08/10/25
Senior Civil Engineering Technician



Test results indicated as not accredited are outside the scope of the laboratory's accreditation

CALIFORNIA BEARING RATIO (REMOULDED)
TEST REPORT



Project : Ground Investigation for Northland Corridor
 Location : Alternative to Brynderwyn Hills section: A new route close to SH1
 Client : NZTA C/- Aurecon & WSP NZ Ltd
 Contractor : -
 Sampled by : NC Site Team
 Date sampled : 27/09/25
 Sampling method : Digger
 Sample source : TP2B_1124 (2.50-3.00m.)
 Sample description : Refer to TP2B_1124 log report

Project No : 1-C2466.16
 Lab Ref No : WL4709/25 CBR
 Client Ref No : -

Test Results			
Lab Ref No	WL4709/25-SCBR	WL4709/25-UCBR	
Sample depth	2.50-3.00m	2.50-3.00m	
Sample source	TP2B_1124	TP2B_1124	
Sample treatment	Plain	Plain	
Sample description	Refer to TP2B_1124 log report		
Sample condition at compaction	Natural as Excavated	Natural as Excavated	
Sample condition as tested	Soaked	Unsoaked	
Curing time	days	0	0
Soaking time	days	4	0
Passing 19mm	%	100	100
Surcharge mass	kg	4	4
Lime additive	%	0.0	0.0
Cement additive	%	0.0	0.0
Swell	%	1.4	
Water content as received	%	20.7	22.1
Water content as compacted	%	20.7	22.1
Water content after testing	%	23.1	21.6
Dry Density	t/m ³	1.66	1.64
Penetration of CBR	mm	2.5	2.5
CBR value	%	3	4.5

Test Methods	Notes
CBR NZS : 4402 : 1986 : 6.1.1	Material Used Whole Soil
Water Content NZS : 4402 : 1986 : 2.1	Rate of penetration 1mm/min
Compaction NZS : 4402 : 1986 : 4.1.1 (Standard)	

Date tested : 24-28/11/25

Date reported : 1/12/25

Sampling is not covered by IANZ Accreditation. Results apply only to sample tested.

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Approved Signatory

Designation : Laboratory Manager

Date : 10/12/25



Test results indicated as not accredited are outside the scope of the laboratory's accreditation

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CALIFORNIA BEARING RATIO (REMOULDED)
TEST REPORT



Project : Ground Investigation for Northland Corridor
 Location : Alternative to Brynderwyn Hills section: A new route close to SH1
 Client : NZTA C/- Aurecon & WSP NZ Ltd
 Contractor : -
 Sampled by : NC Site Team
 Date sampled : 27/09/25
 Sampling method : Digger
 Sample source : TP2B_1125 (0.70-1.00m.)
 Sample description : Refer to TP2B_1125 log report

Project No : 1-C2466.16
 Lab Ref No : WL4709/19 CBR
 Client Ref No : -

Test Results			
Lab Ref No	WL4709/19-SCBR	WL4709/19-UCBR	
Sample depth	0.70-1.00m	0.70-1.00m	
Sample source	TP2B_1125	TP2B_1125	
Sample treatment	Plain	Plain	
Sample description	Refer to TP2B_1125 log report		
Sample condition at compaction	Natural as Excavated	Natural as Excavated	
Sample condition as tested	Soaked	Unsoaked	
Curing time	days	0	0
Soaking time	days	4	0
Passing 19mm	%	100	100
Surcharge mass	kg	4	4
Lime additive	%	0.0	0.0
Cement additive	%	0.0	0.0
Swell	%	0.0	
Water content as received	%	105.0	104.4
Water content as compacted	%	105.0	104.4
Water content after testing	%	99.7	99.5
Dry Density	t/m ³	0.70	0.70
Penetration of CBR	mm	2.5	2.5
CBR value	%	0.5	0.5

Test Methods	Notes
CBR NZS : 4402 : 1986 : 6.1.1	Material Used Whole Soil
Water Content NZS : 4402 : 1986 : 2.1	Rate of penetration 1mm/min
Compaction NZS : 4402 : 1986 : 4.1.1 (Standard)	

Date tested : 04-08/12/25
 Date reported : 9/12/25

Sampling is not covered by IANZ Accreditation. Results apply only to sample tested.
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Approved Signatory

Designation : Laboratory Manager
 Date : 10/12/25



Test results indicated as not accredited are outside the scope of the laboratory's accreditation

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