

Borehole Reference:

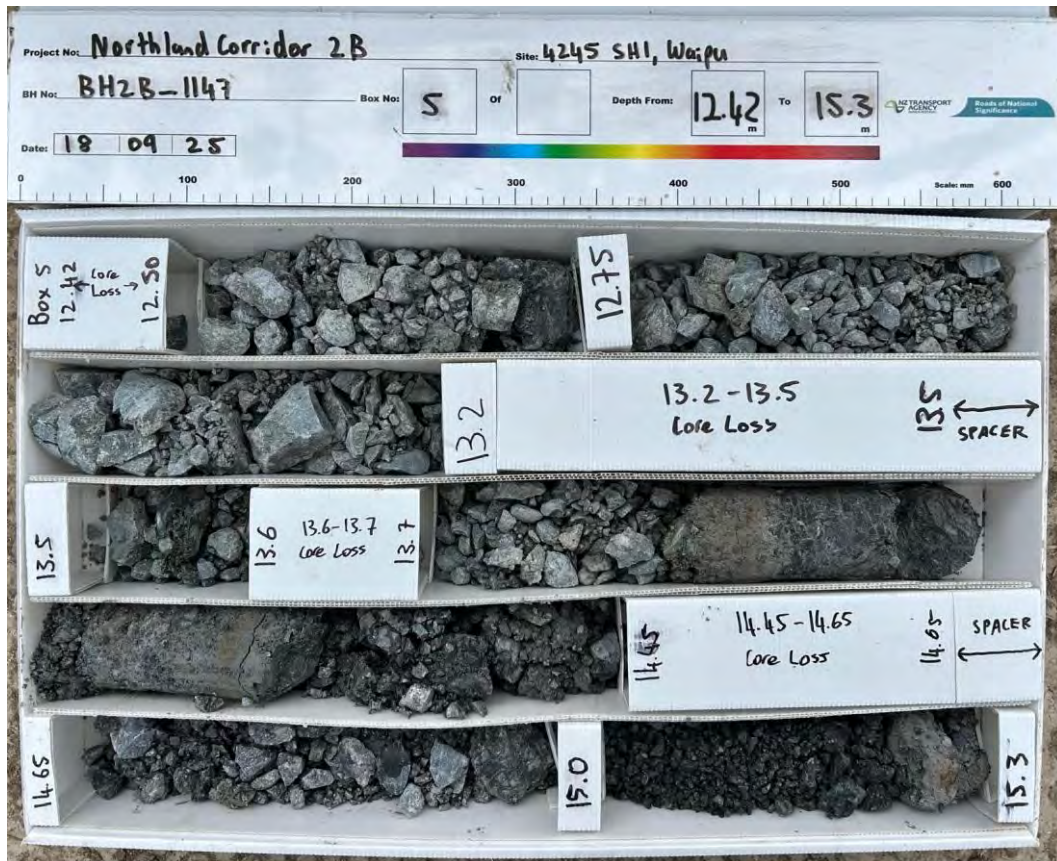
BH2B_1147

Photographed By:

BTG

Date Photographed:

17/09/2025-25/09/2025



BH2B 1147 BOX005 12.42m-15.3m



BH2B_1147_BOX006 15.3m-18.2m

Borehole Reference:

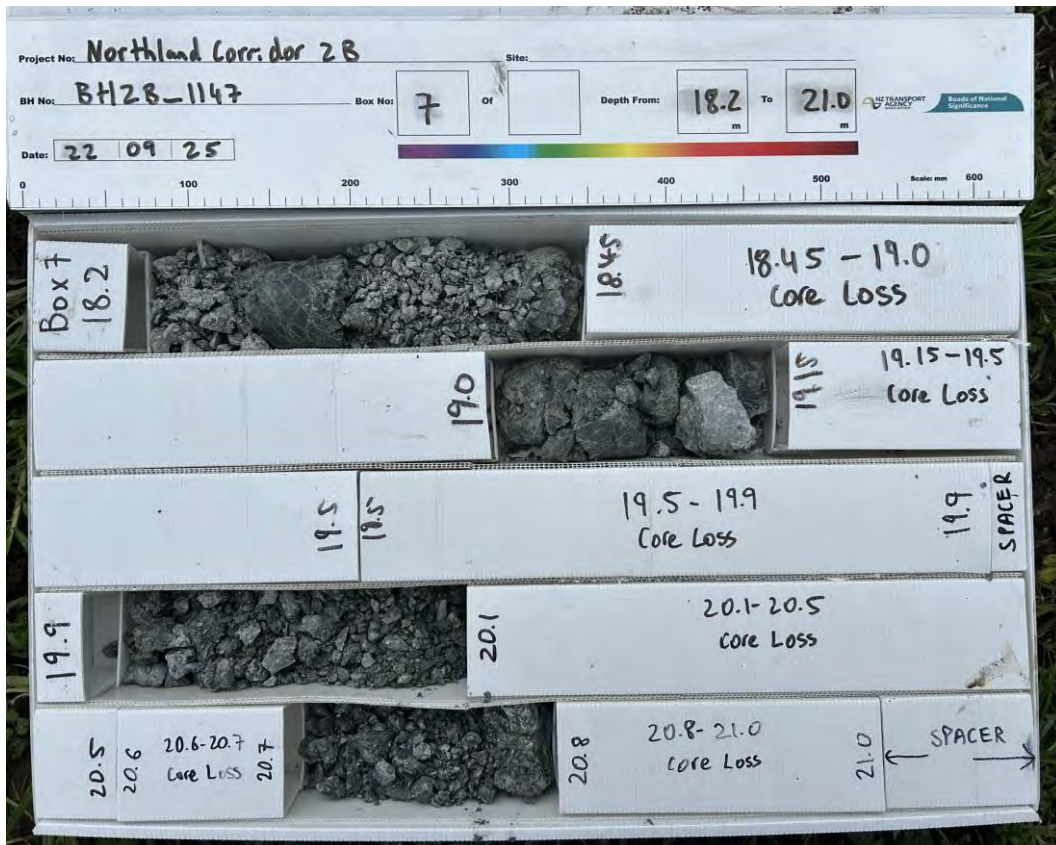
BH2B_1147

Photographed By:

BTG

Date Photographed:

17/09/2025-25/09/2025



BH2B 1147 BOX007 18.2m-21m



BH2B_1147_BOX008_21m-23.75m

Borehole Reference:

BH2B_1147

Photographed By:

BTG

Date Photographed:

17/09/2025-25/09/2025



BH2B_1147_BOX009_23.75m-26.15m



BH2B_1147_BOX010_26.15m-28.55m

Borehole Reference:

BH2B_1147

Photographed By:

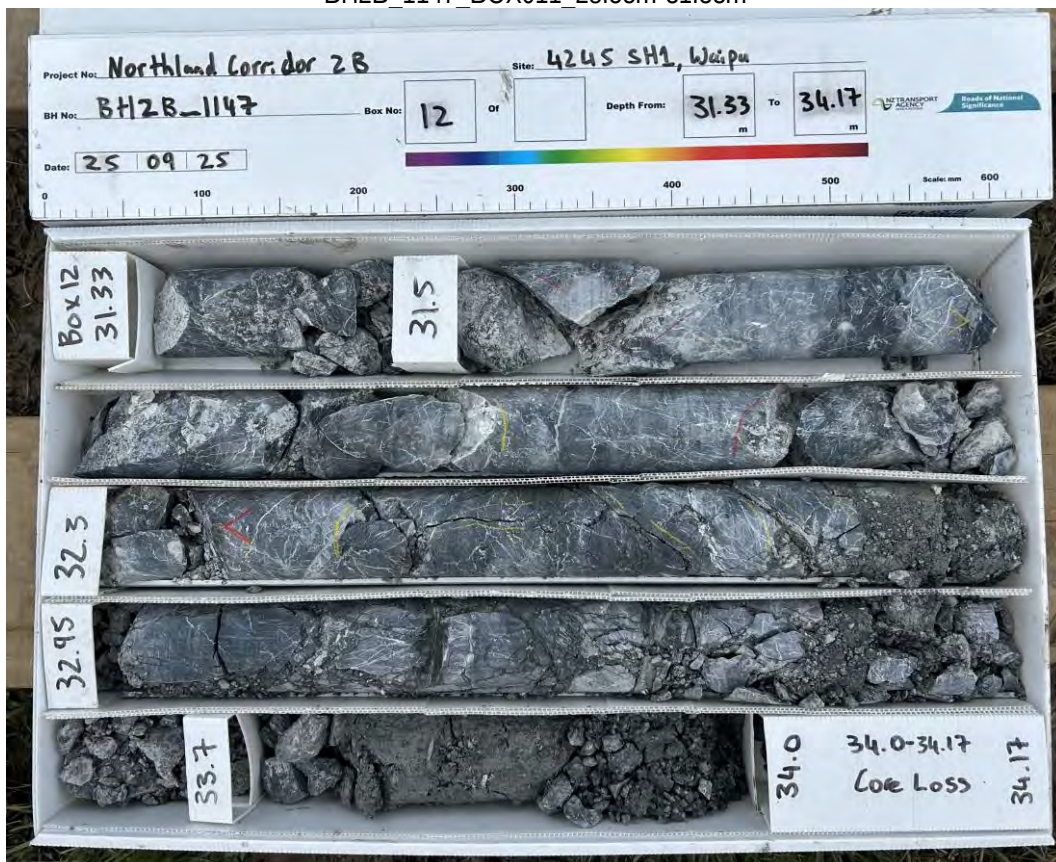
BTG

Date Photographed:

17/09/2025-25/09/2025



BH2B_1147_BOX011_28.55m-31.33m



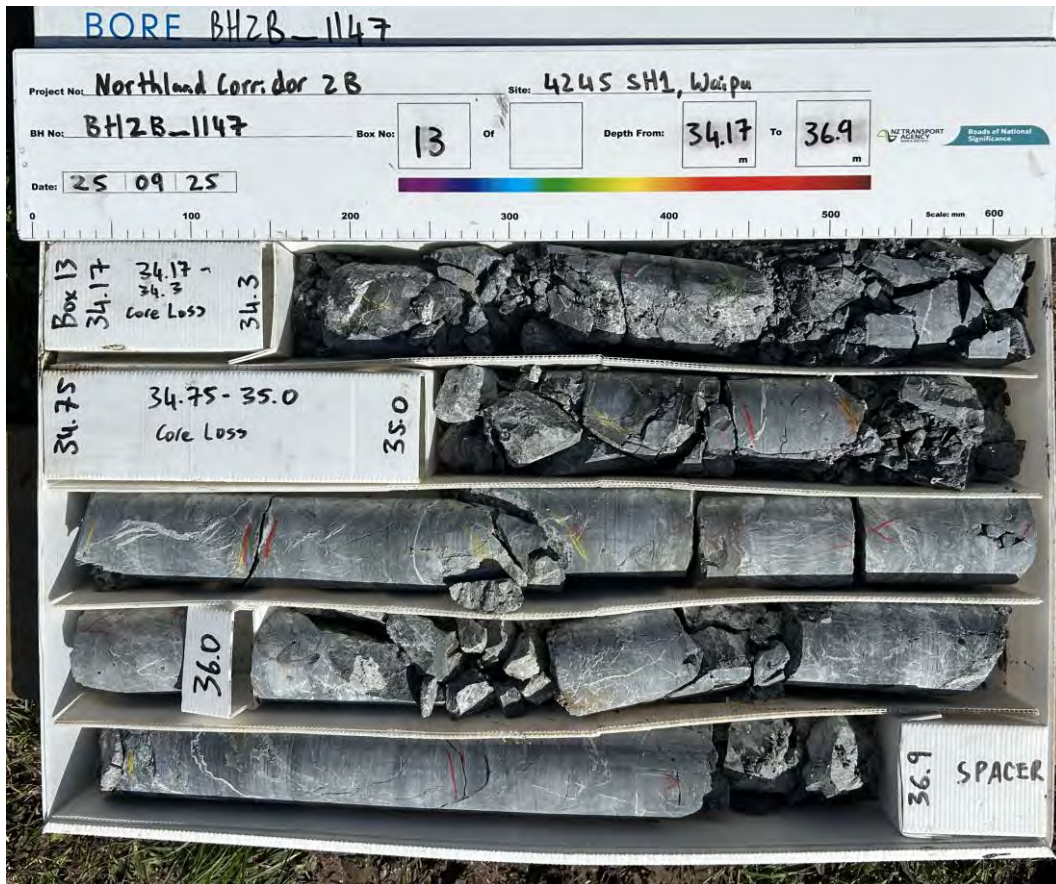
BH2B_1147_BOX012_31.33m-34.17m

Borehole Reference: BH2B_1147

Photographed By: BTG

Date Photographed:

17/09/2025-25/09/2025



BH2B_1147_BOX013_34.17m-36.9m



BH2B_1147_BOX014_36.9m-39.52m

Borehole Reference: BH2B_1147

Photographed By: BTG

Date Photographed:

17/09/2025-25/09/2025



BH2B_1147_BOX015_39.52m-40m

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000		Date started:	10/09/2025	Logged:	C. Whitten & I. Mans
Method:	Rotary Core Wireline	Easting:	1727530.30	Date completed:	17/09/2025	Input:	C. Whitten
Equipment:	TechDrill 250 HD	Northing:	6008022.46	Inclination:	90°	Reviewed:	N. Crampton & B.
Contractor:	Drill Force NZ Ltd	Ground level:	260.6025m (NZVD2016)	Azimuth:	N/A	Verified:	O'Loughlin A. George

CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
1	HA		260		WPR	0.00m: Sandy SILT with some organics; brown. Moist; soft; low plasticity; sand is fine to coarse; organics are fibrous (bark and rootlets) [TOPSOIL]. 0.05m: Silty CLAY with some sand and trace gravel; light orange speckled light yellow and grey. Moist; very stiff; low plasticity; sand is fine to coarse; gravel is fine to medium, sub-rounded, moderately weathered, very weak, Greywacke sandstone [RESIDUALLY WEATHERED GREYWACKE].	RS	0.5m: ISHSV 173/44 kPa	100				0.00-3.00m: HWT casing installed due to hole collapse.	
							1m: ISHSV 188/42 kPa							
							1.5m: ISHSV 220 kPa 1.5m: SPT 1, 2// 1, 2, 1, 2 N = 6							
	HQ3	259			1.60m: ...Light pinkish orange. 1.70m: Silty CLAY with some sand and trace gravel; light grey banded brownish orange. Moist; firm; low plasticity; sand is fine to coarse; gravel is fine to medium, sub-rounded, moderately weathered, very weak, Greywacke sandstone [COMPLETELY WEATHERED GREYWACKE]. 1.95m: ...Light pinkish orange mottled grey and brown along relic defects. 2.20m: 2.2-3.0 m: CORELOSS (800 mm), washed out at end of run.	CW	2.2m: IBHSV 24/3 kPa	78	24					
2	SPT		257			3.00m: Clayey SILT with some sand and trace gravel; light greyish orange mottled light grey and dark brownish orange. Moist; firm; low plasticity; sand is fine to coarse; gravel is fine to medium, angular, highly weathered, extremely weak, Greywacke sandstone.	CW	3m: SPT 1, 0// 1, 1, 1, 1 N = 4	100	100				
	HQ3	256			3.75m: Sandy SILT with some cobbles and minor gravel; mixed light grey and brownish orange mottled pink and orange. Moist; firm; low plasticity; sand is fine to coarse; gravel is fine to coarse; gravel and cobbles are angular to sub-angular, highly weathered, very weak, Greywacke sandstone. With very closely spaced relic joints, stained brown and black. 4.00m: ...Orange brown relic joints, 30-45°. 4.45m: ...Light pinkish orange. 4.65m: ...Light grey streaked brown.	CW	4.5m: SPT 1, 1// 1, 1, 1, 2 N = 5	100	83					
3	HQ3	255		WPR	5.00-5.25m: ...Silty fine to coarse SAND with some clay; light pinkish orange mottled light grey and brownish orange. Moist; loosely packed; well graded. 5.25m: Sandy CLAY with some silt and minor gravel; light greyish orange mottled grey and brownish orange. Moist; firm; low plasticity; sand is fine to coarse; gravel is fine to coarse, angular, very weak, Greywacke sandstone. With very closely to extremely closely spaced relic joints, stained black and brown. 5.50m: ...Light grey streaked light brownish orange; very closely spaced relic joints, commonly 65-70°. 5.80-6.00m: ...Pinkish light grey.			100	100					
	SPT	254			6.45-7.05m: ...Recovered as sandy SILT with minor clay and trace gravel; light pinkish orange mottled light grey. Moist; stiff; low plasticity; sand is fine to coarse; gravel is fine, angular, very weak. 7.05m: ...Light greyish orange mottled reddish pink, grey and black. Sandy SILT with minor clay and minor gravel. 7.75m: ...Light grey streaked dark brownish orange. 7.85m: ...Dark brownish orange mottled light grey. 7.95-8.30m: ...Core drop out during retrieval; recovered as sandy SILT with some gravel; orange mottled grey and dark brown.	CW	6m: SPT 1, 1// 1, 1, 1, 1 N = 4 7.5m: SPT 1, 1// 2, 2, 2, 1 N = 7	100	100					

Remarks:

1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 60mm and vertical accuracy +/- 120mm.
2. One vibrating wire piezometer was installed on 17/09/2025. BH2B_1148_PZ01 was installed at 37.5m bgl, Serial No. P250934.
3. Falling/rising head testing undertaken with data logger at borehole depth 34.50m on 15/09/2025.
4. Geophysical profiling was undertaken on 17/09/2025, comprising optical and acoustic televiewer.
5. ISHSV = in-situ hand shear vane, IBHSV = in barrel hand shear vane.
6. Incipient fractures ignored when assessing defecting spacing within Waijapa Formation (Grewacke Sandstone).

Shear Vane (ISHSV + IBHSV) Serial No. 3303 + 3453, calibration constant 1.569 + 1.47

Water Level Readings:

DateTime	Hole Depth	Water Level
2025-09-10 10:00	1.50m	0.00mbgl
2025-09-10 17:00	12.95m	4.78mbgl
2025-09-11 08:00	12.95m	6.37mbgl
2025-09-11 17:00	25.50m	3.13mbgl
2025-09-12 07:00	25.50m	6.68mbgl
2025-09-12 13:00	30.00m	4.03mbgl
2025-09-15 09:30	30.00m	18.25mbgl
2025-09-15 17:20	34.50m	11.33mbgl

BOREHOLE INFORMATION

Method: Rotary Core Wireline
Equipment: TechDrill 250 HD
Contractor: Drill Force NZ Ltd

CO-ORDINATES:

CO-ORDINATES:	NZTM2000
Easting:	1727530.30
Northing:	6008022.46
Ground level:	260.6025m (NZVD2016)

Date started:	10/09/2025
---------------	------------

Date completed: 17/09/2025

Inclination: 90°

Azimuth: N/A

Logged:	C. Whitten & I. Mans
---------	----------------------

Input: C. Whitten

Reviewed: N. Crampton & B. O'Loughlin

Verified: O'Loughlin
A. George

Remarks:	
1.	Coordinates captured using a Trimble R12l Receiver and TSC5 Controller, with a horizontal accuracy +/- 60mm and vertical accuracy +/- 120mm.
2.	One vibrating wire piezometer was installed on 17/09/2025. BH2B_1148_PZ01 was installed at 37.5m bgl, Serial No. P250934.
3.	Falling/rising head testing undertaken with data logger at borehole depth 34.50m on 15/09/2025.
4.	Geophysical profiling was undertaken on 17/09/2025, comprising optical and acoustic televiwer.
5.	ISHSV = in-situ hand shear vane, IBHSV = in barrel hand shear vane.
6.	Incident fractures ignored when assessing defecting spacing within Waijapa Formation (Grevwacke Sandstone).

Water Level Readings:

DateTime	Hole Depth	Water Level
2025-09-16 07:15	34.50m	15.70mbgl
2025-09-16 14:30	40.50m	12.33mbgl

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000		Date started:	10/09/2025	Logged:	C. Whitten & I. Mans
Method:	Rotary Core Wireline	Easting:	1727530.30	Date completed:	17/09/2025	Input:	C. Whitten
Equipment:	TechDrill 250 HD	Northing:	6008022.46	Inclination:	90°	Reviewed:	N. Crampton & B.
Contractor:	Drill Force NZ Ltd	Ground level:	260.6025m (NZVD2016)	Azimuth:	N/A	Verified:	O'Loughlin A. George

[illegible]

Remarks: 1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 60mm and vertical accuracy +/- 120mm. 2. One vibrating wire piezometer was installed on 17/09/2025. BH2B_1148_PZ01 was installed at 37.5m bgl, Serial No. P250934. 3. Falling/rising head testing undertaken with data logger at borehole depth 34.50m on 15/09/2025. 4. Geophysical profiling was undertaken on 17/09/2025, comprising optical and acoustic televiewer. 5. ISHSV = in-situ hand shear vane, IBHSV = in barrel hand shear vane. 6. Incipient fractures ignored when assessing defecting spacing within Waipapa Formation (Greywacke Sandstone).			
Shear Vane (ISHSV + IBHSV) Serial No. 3303 + 3453, calibration constant 1.569 + 1.47.			

BOREHOLE INFORMATION		CO-ORDINATES:		Date started:		Logged:	
Method:	Rotary Core Wireline	Easting:	NZTM2000 1727530.30	Date completed:	10/09/2025	Input:	C. Whitten
Equipment:	TechDrill 250 HD	Northing:	6008022.46	Inclination:	17/09/2025	Reviewed:	N. Crampton & B. O'Loughlin
Contractor:	Drill Force NZ Ltd	Ground level:	260.6025m (NZVD2016)	Azimuth:	90°	Verified:	A. George

CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	WVS WS MWS VCS EGS	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
11	HQ3	228	33						100	93	60			32.07m: JT, 32°, Sm, Pl 32.30m: JT, 60°, Sm, Un 32.40-32.60m: JT set x3, 75-80°, Sm, Un 32.62-32.65m: JT set x2, Sm, Un	
12	HQ3	227	34			34.10m: ...Minor banding/micro-veining of zeolite and quartz; occasional greenish grey mineralisation (chlorite?). 34.50-34.70m: ...Recovered as coarse GRAVEL; angular - likely drilling induced.			100	90	70			33.24m: JT, 50°, Sm, Pl 33.34m: JT, 65°, Slk, Pl 33.40-33.45m: JT set x2, 15°, Sm, Pl 33.72m: JT, 5°, Sm, Pl 34.00m: JT, 60°, Slk, Pl 34.11m: JT, 5°, Sm, Pl 34.25m: JT, 70°, Slk, Pl	
	HQ3	226	35			35.35m: ...Moderately spaced to closely spaced, weak to moderately strong primary joints.			100	0	0			34.80-35.10m: JT, 70-90°, Sm, Un 34.80m: JT, 45°, Sm, Pl 35.08-35.20m: JT set x2, 75°, Slk, Pl 35.30-35.90m: JT, 70-90°, Sm, Un, Cg zeolite 35.55m: VE, 30°, Rg, Pl, zeolite, <5 mm	
13	HQ3	225	36		WPU	36.00-40.50m: ...Ubiquitous quartz (white) veining. Yellow/white zeolite mineralisation localised around joints/fractured zones.	UW		100	100	69			36.10-36.20m: JT set x3, 30-35°, Sm, Pl 36.27m: JT, 70°, Rg, Pl	
	HQ3	224	37						100	90	51			36.61-36.81m: JT set x3, 45-60°, Slk, Pl 36.61m: VE, zeolite or quartz, <10 mm 36.65-36.93m: JT, 80-90°, Sm, Un 37.05-37.08m: JT set x2, 65-70°, Sm, Pl, Cg zeolite 37.10m: JT, 35°, Sm, Pl 37.23m: JT, 35°, Sm, Pl 37.40m: JT, 20°, Sm, Pl, Cg zeolite 37.45-37.70m: JT, 70-90°, Rg, Un	
14	HQ3	223	38						100	97	97			38.30m: JT, 35°, Sm, Pl 38.50m: JT, 35°, Sm, Pl 38.63m: JT, 5°, Sm, Pl 38.70m: JT, 70°, Rg, Pl 38.85m: JT, 50°, Rg, Pl 38.90m: JT, 75°, Sm, Pl	
	HQ3	222	39						100	100	93			39.74m: JT, 70°, Slk, Pl 39.90m: JT, 65°, Slk, Pl	
	HQ3	221													

Remarks: 1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 60mm and vertical accuracy +/- 120mm. 2. One vibrating wire piezometer was installed on 17/09/2025. BH2B_1148_PZ01 was installed at 37.5m bgl, Serial No. P250934. 3. Falling/rising head testing undertaken with data logger at borehole depth 34.50m on 15/09/2025. 4. Geophysical profiling was undertaken on 17/09/2025, comprising optical and acoustic televiwer. 5. ISHSV = in-situ hand shear vane, IBHSV = in barrel hand shear vane. 6. Incipient fractures ignored when assessing defecting spacing within Waipapa Formation (Greywacke Sandstone).			Water Level Readings:		
			Date/Time	Hole Depth	Water Level
Shear Vane (ISHSV + IBHSV) Serial No. 3303 + 3453, calibration constant 1.569 + 1.47.					

BOREHOLE INFORMATION		CO-ORDINATES:	NZTM2000	Date started:	10/09/2025	Logged:	C. Whitten & I. Mans
Method:	Rotary Core Wireline	Easting:	1727530.30	Date completed:	17/09/2025	Input:	C. Whitten
Equipment:	TechDrill 250 HD	Northing:	6008022.46	Inclination:	90°	Reviewed:	N. Crampton & B.
Contractor:	Drill Force NZ Ltd	Ground level:	260.6025m (NZVD2016)	Azimuth:	N/A	Verified:	O'Loughlin A. George

CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
14	HQ3				WPU	Terminated at 40.50 m. Target depth.	UW						40.06m: JT, 10°, Sik, Pl 40.20-40.30m: JT set x2, 15°, Sm, Pl, Cg quartz and zeolite	

Remarks:

- Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 60mm and vertical accuracy +/- 120mm.
- One vibrating wire piezometer was installed on 17/09/2025. BH2B_1148_PZ01 was installed at 37.5m bgl, Serial No. P250934.
- Falling/rising head testing undertaken with data logger at borehole depth 34.50m on 15/09/2025.
- Geophysical profiling was undertaken on 17/09/2025, comprising optical and acoustic televiewer.
- ISHSV = in-situ hand shear vane, IBHSV = in barrel hand shear vane.
- Incipient fractures ignored when assessing defecting spacing within Waijapa Formation (Grewacke Sandstone).

Shear Vane (ISHSV + IBHSV) Serial No. 3303 + 3453, calibration constant 1.569 + 1.47.

Water Level Readings:

[illegible]

Borehole Reference: BH2B_1148

Photographed By: SH

Date Photographed:

10/09/2025-19/09/2025



BH2B_1148_BOX001_0m-3m



BH2B_1148_BOX002_3m-6m

Borehole Reference: BH2B_1148

Photographed By: SH

Date Photographed:

10/09/2025-19/09/2025



BH2B_1148_BOX003_6m-9m



BH2B_1148_BOX004_9m-12m

Borehole Reference: BH2B_1148

Photographed By: SH

Date Photographed:

10/09/2025-19/09/2025



BH2B_1148_BOX005_12m-15m



BH2B_1148_BOX006_15m-18m

Borehole Reference: BH2B_1148

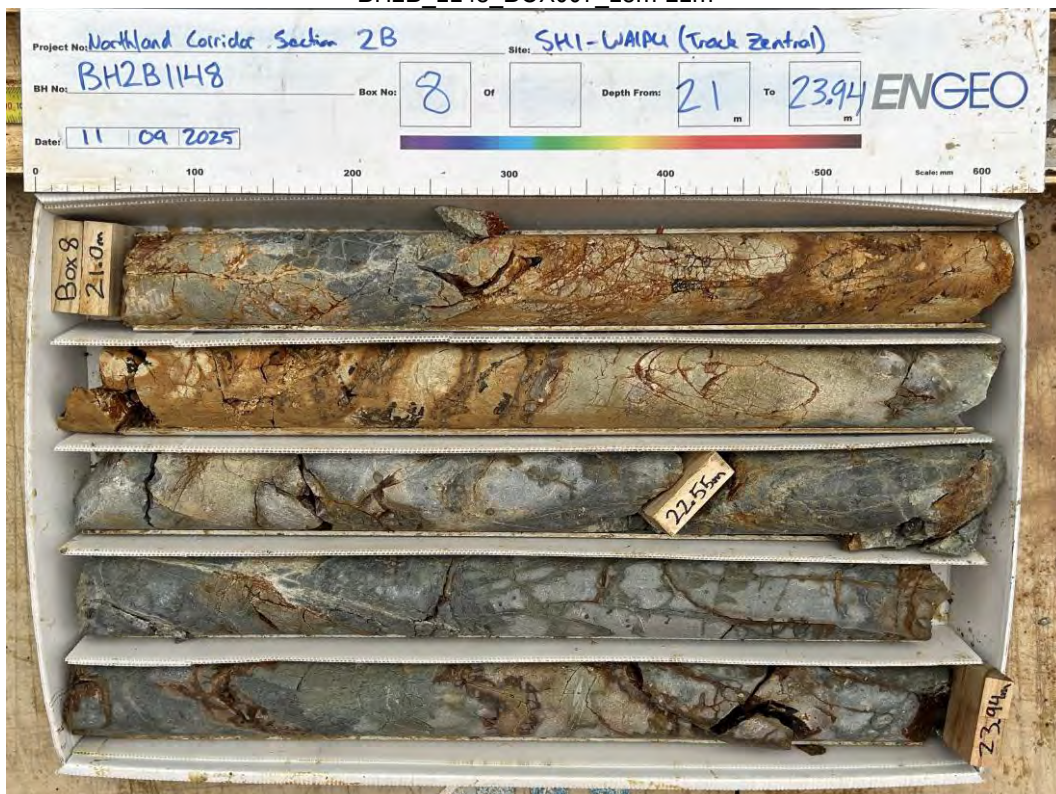
Photographed By: SH

Date Photographed:

10/09/2025-19/09/2025



BH2B_1148_BOX007_18m-21m



BH2B_1148_BOX008_21m-23.94m

Borehole Reference: BH2B_1148

Photographed By: SH

Date Photographed:

10/09/2025-19/09/2025



BH2B_1148_BOX009_23.94m-26.8m



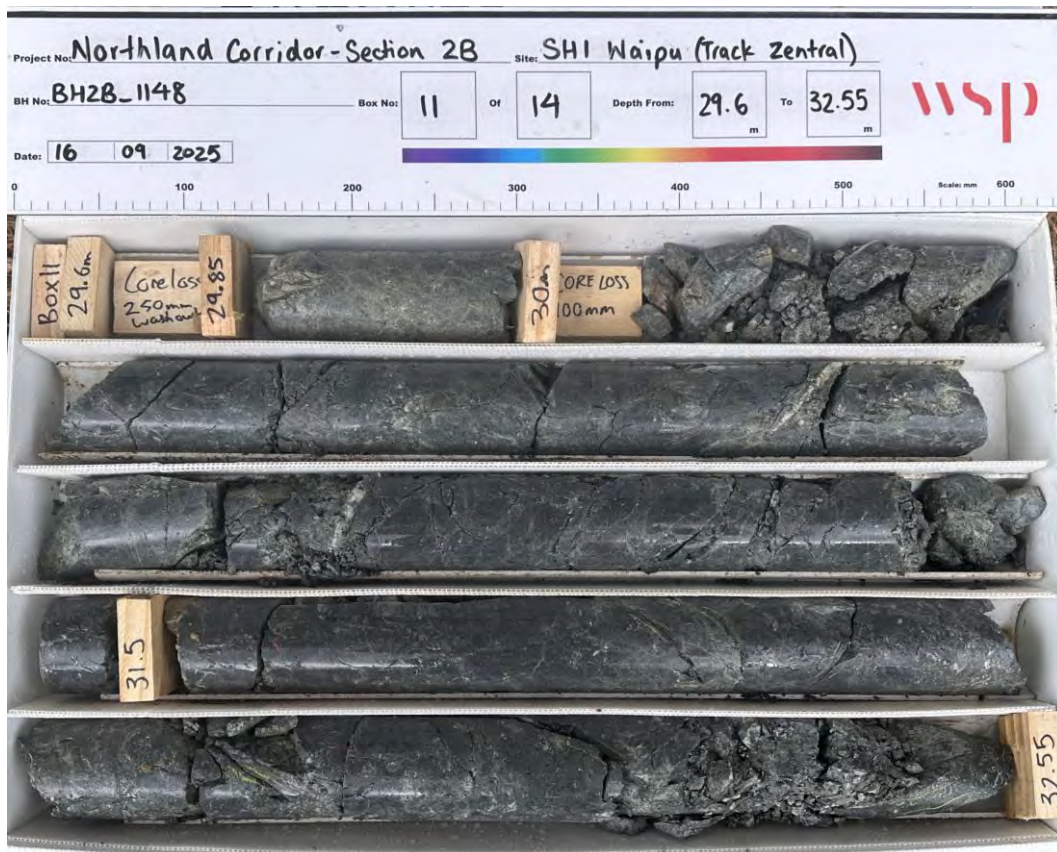
BH2B_1148_BOX010_26.8m-29.6m

Borehole Reference: BH2B_1148

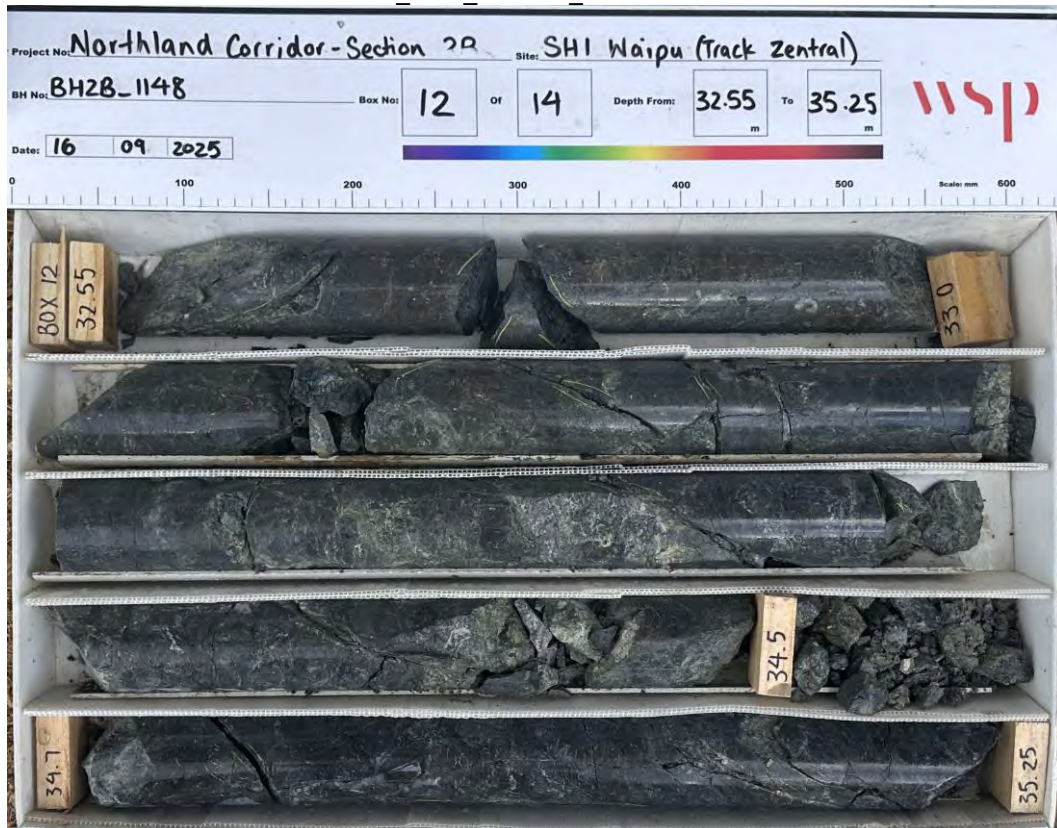
Photographed By: SH

Date Photographed:

10/09/2025-19/09/2025



BH2B_1148_BOX011_29.6m-32.55m



BH2B_1148_BOX012_32.55m-35.25m

Borehole Reference:

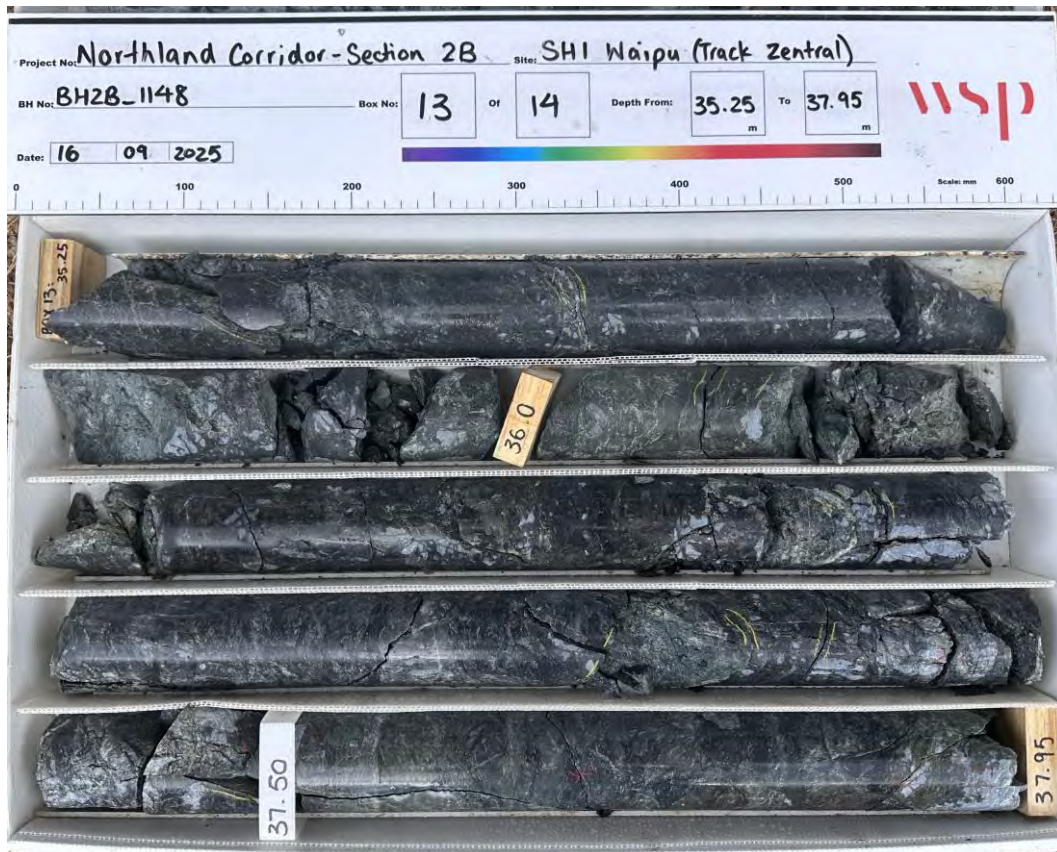
BH2B_1148

Photographed By:

SH

Date Photographed:

10/09/2025-19/09/2025



BH2B_1148_BOX013_35.25m-37.95m



BH2B_1148_BOX014_37.95m-40.5m

BOREHOLE INFORMATION		CO-ORDINATES:	NZTM	Date Started:	22/08/2025	Logged:	C. Struthers
Method:	Rotary Core Wireline	Easting:	1728028.7mE,	Date Completed:	27/08/2025	Input:	C. Struthers
Equipment:	Fraste ML2	Northing:	6004687.3mN,	Inclination:	90	Reviewed:	B. O'Loughlin
Contractor:	Pro Drill Ltd	Ground level:	75.76m (NZVD2016)	Azimuth:	N/A	Verified:	A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
1	HA		75		F	GRAVEL, with some clay and silt and sand. Medium Dense; moist; gravel, slightly weathered, greywacke and limestone; sand, fine to coarse. [FILL (UNDIFFERENTIATED)].								
			75		NAS	SILT, with minor clay, with trace rootlets; light greyish brown with mottled orange; moist; low plasticity; rootlets, <3mm. [RESIDUAL SOIL].	RS	0.5m SV 157/48kPa						
			74			1.40m: Mottled orange & limonite staining.		1m SV 87/25kPa	100	-	-			
	SPT		73					1.9m SV 174/34kPa						
	P		73			Completely weathered; light brownish grey; muddy LIMESTONE; very weak. Coarse SAND, with some gravel; light brownish grey; gravel, medium to coarse. [COMPLETELY WEATHERED LIMESTONE (IMPURE)].	CW	2m SPT 1, 1/1, 2, 2, 2 N= 7	100	-	-			
	HQ3		73			Highly weathered; light orange grey; muddy LIMESTONE; very weak; pervasively sheared; fissile. Breaks down to a SILT. [LIMESTONE (IMPURE)].	HW	2.9m SV 152/48kPa	100	-	-			
	SPT		72			2.50m - 2.60m: CORE LOSS 2.50 - 2.60m (0.10m). Failed push tube.		3m SPT 3, 5/6, 9, 12, 13 N= 40	100	-	-			
	HQ3		72			Moderately weathered; light orange grey; muddy LIMESTONE; very weak. Breaks down to a silt.	MW		100	100	-		3.50m , 3.50 - 21.00m deformed rock mass comprising multiple crush zones and shear zones	
			72			3.50m - 21.00m: Deformed rock mass comprising multiple crush zones and shear zones.							3.60-4.40m: CZ, RG , UN , recovered as fine to medium angular 1st gravel, with some silt	
	P		71			Slightly weathered; light grey with mottled orange; muddy LIMESTONE; very weak; ubiquitous incipient fractures, clay coated joints. Localised crush zones.		4.4m SPT 20, 30 for 50mm N = 50+	100	-	-		4.50-4.65m: CZ , recovered as medium angular 1st gravel	
	HQ3		71			4.90m - 5.30m: Clay coated joints.			85	-	-		4.72m: JT, 5° , RG , ST 4.78m: CZ, 5° 4.90-5.30m: CZ , recovered as fine to medium 1st gravel, with some silt	
			70			CORE LOSS 5.30m - 5.45m (150mm).							5.57-5.59m: JT, 12° , RG , ST 5.67-5.70m: JT, 30° , RG , ST 5.75m: JT, 30° , RG , UN 5.80-5.96m: CZ , recovered as medium to coarse angular 1st gravel 6.00-6.30m: CZ , recovered as medium angular 1st gravel, with some silt	
	HQ3		70			Slightly weathered; grey; muddy LIMESTONE; very weak; pervasive incipient joints, dipping 30 degrees.	SW	6m SPT 18, 32 for 45mm N = 50+	100	27	-		6.36-6.44m: CZ, 45° , RG , UN 6.47m: JT, 25° , RG , UN , 1mm 6.49m: JT, 30° , RG , UN , 2mm 6.53m: JT, 30° , RG , UN , 1mm 6.62m: JT, 40° , RG , UN , 1mm 6.68-6.72m: CZ	
	P		69			CORE LOSS 6.80 - 7.50m (700mm). Suspected washout due to suspected shear zone.			53	19	0			
	HQ3		68			Unweathered; grey; muddy LIMESTONE; very weak; pervasive incipient joints, dipping 30 degrees.	UW	7.5m SPT 3, 5/6, 7, 5, 7 N= 25	-	-	-		7.50-9.00m: CZ , recovered as fine to medium 1st gravel, with some silt	

REMARKS:

1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 25mm and vertical accuracy +/- 39mm.
2. A standpipe was installed on 27/08/2025 with a screened interval between 6.8 to 9.8m bgl. A vibrating wire piezometer was installed at 9.50m bgl, within the open standpipe on 27/08/2025, Serial No. viot01575.
3. Shear Vane Serial No. 3946, calibration constant 1.403.
4. Push tube failed at 2.5mbgl due to encountering hard material.
5. Hand clearance to 1.9mbgl was undertaken on 22/08/2025.

Water Level Readings:

DateTime

Hole Depth (m)

Water Level (m)

BOREHOLE INFORMATION		CO-ORDINATES:	Date Started:	Logged:
Method:	Rotary Core Wireline	NZTM	22/08/2025	C. Struthers
Equipment:	Fraste ML2	Easting: 1728028.7mE,	Date Completed: 27/08/2025	Input: C. Struthers
Contractor:	Pro Drill Ltd	Northing: 6004687.3mN,	Inclination: 90	Reviewed: B. O'Loughlin
		Ground level: 75.76m (NZVD2016)	Azimuth: N/A	Verified: A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
3	HQ3	67	9			Unweathered, bluish grey, Calcareous MUDSTONE, extremely weak, pervasively sheared. Recovered as a fine, angular gravel with an indistinct fabric dipping 30 degrees [CALCAREOUS MUDSTONE].			100	15	15	ECS		
	SPT					Unweathered, bluish grey, Calcareous MUDSTONE; very weak. Ubiquitous incipient fractures (moderate tensile strength). Indistinctly bedded, bedding is thin, dips 20 degrees. Widely spaced crush zones.		9m SPT 7, 12/20, 20, 10, 15 N = 65	-	-	-	WS	9.50-9.61m: CZ, 45°, RG, UN, recovered as fine to medium lst gravel, with some silt, some evidence of slickensides	
	HQ3	66	10						100	71	67	ECS	9.50-11.10m: JT, 80°, RG, UN, sub-vertical jointing	
	SPT-C	65	11			Unweathered, bluish grey, Calcareous MUDSTONE, extremely weak, pervasively sheared, with close to moderately widely spaced crush zones and shear zones. Recovered as fine, angular gravel with an indistinct fabric dipping 10-30 degrees.		10.5m SPT 5, 7/10, 9, 12, 12 N = 43	-	-	-	CS	10.05-10.20m: CZ, RG, UN	
4	HQ3	64	12		NAL		UW		95	20	20	ECS	10.50-10.80m: CZ	
	SPT	63	13					12m SPT 20, 30/30 for 35mm N = 50+	-	-	-	CS	10.96-10.99m: JT, 5°, SM, UN	
	HQ3	63	14						100	20	20	ECS	11.10-11.15m: JT, 5°, recovered as angular fine to medium mst gravel	
	SPT	62	15					13.5m SPT 20, 30/5 for 50mm N = 50+	-	-	-	CS	11.19m: JT, 2°, RG, UN	
5	HQ3	61	16						100	20	20	ECS	11.25-11.30m: JT, 10°, RG, ST	
	SPT	60	17					15m SPT 12, 13/19, 19, 11 for 45mm N = 50+	-	-	-	CS	11.43m: JT, 10°, RG, UN	
6	HQ3	60	18						100	40	33	ECS	11.56-11.70m: CZ, 5°, RG, UN, recovered as angular medium mst gravel	

REMARKS:		Water Level Readings:		
1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 25mm and vertical accuracy +/- 39mm.		Date/Time	Hole Depth (m)	Water Level (m)
2. A standpipe was installed on 27/08/2025 with a screened interval between 6.8 to 9.8m bgl. A vibrating wire piezometer was installed at 9.50m bgl, within the open standpipe on 27/08/2025, Serial No. viot01575.		25/08/2025 5:00:00 pm	10.50	0.20
3. Shear Vane Serial No. 3946, calibration constant 1.403.		26/08/2025 8:00:00 am	10.50	0.20
4. Push tube failed at 2.5mbgl due to encountering hard material.				
5. Hand clearance to 1.9mbgl was undertaken on 22/08/2025.				

BOREHOLE INFORMATION		CO-ORDINATES: NZTM	Date Started: 22/08/2025	Logged: C. Struthers
Method: Rotary Core Wireline		Easting: 1728028.7mE,	Date Completed: 27/08/2025	Input: C. Struthers
Equipment: Fraste ML2		Northings: 6004687.3mN,	Inclination: 90	Reviewed: B. O'Loughlin
Contractor: Pro Drill Ltd		Ground level: 75.76m (NZVD2016)	Azimuth: N/A	Verified: A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
6	HQ3	59	17			15.80m: Dark grey; bedded mudstone dipping 20 degrees, thinly bedded (50mm).			100	40	33			
	HQ3	58	18			Unweathered; bluish grey; Calcareous MUDSTONE; extremely weak; pervasively sheared. Recovered as a fine to medium angular gravel.			100	20	17		17.50m : Strong HCl reaction	
	HQ3	57	19			18.00m - 22.50m: Core loss 18.00 - 19.50m mostly recovered as core gains 19.50 - 22.50m.							18.00m : Strong HCl reaction	
	HQ3	56	20			18.27m: Shear fabric dipping 35-45 degrees.							18.39m JT, 2', RG, UN	
	HQ3	55	21						88	20	15		18.50m : Strong HCl reaction	
	HQ3	54	22										18.57m JT, 30', RG, UN	
	HQ3	53	23										18.72m JT, 2', RG, ST	
	HQ3	52											18.90m JT, 5', RG, UN	
	HQ3												19.23-19.32m: CZ, Recovered as medium to coarse gravel	
	HQ3												19.67-19.69m: JT, 2', RG, UN	
	HQ3												19.84-19.89m: JT, 40', SM, UN	
	HQ3								91	20	17		20.28m JT, 2', RG, UN	
	HQ3												20.59-20.85m: CZ, RG, ST, recovered as angular fine to medium mst silty gravel	
	HQ3					20.85m: Dark bluish grey; mudstone lamination, 10mm.							21.09m JT, 10', RG, ST	
	HQ3					Unweathered; bluish grey; muddy LIMESTONE; very weak; ubiquitous incipient fractures [LIMESTONE (IMPURE)].							21.24-21.25m: JT, 10', RG, UN	
	HQ3					21.00m: Rock mass pervasively sheared, extremely closely spaced.							21.36m JT, 20', SM, UN	
	HQ3												21.40m JT, RG, UN	
	HQ3					21.70m: Calcite lens.			100	100	93		21.65m : Strong HCl reaction	
	HQ3												21.71m : Strong HCl reaction	
	HQ3					21.89m - 21.32m: Dark grey; vein; vein, amorphous organics.							21.97m : Strong HCl reaction	
	HQ3					21.97m: Calcite lens.							21.99m JT, 2', RG, UN	
	HQ3					22.04m: Dark grey; clast, 30mm.							22.04m JT, 1', RG, UN	
	HQ3					22.08m: Dark grey; clast, 20mm.							22.10m : Strong HCl reaction	
	HQ3					22.10m: Calcite lens.							22.25-22.50m: VN, 5', RG, UN, calcite	
	HQ3												22.61-22.98m: CZ, UN, recovered as fine to coarse angular gravel, with some silt	
	HQ3					Unweathered; bluish grey; Calcareous MUDSTONE; extremely weak; ubiquitous incipient fractures and veining with moderate tensile strength [CALCAREOUS MUDSTONE].							23.07m JT, 35', RG, ST	
	HQ3					23.00m: Mudstone becoming dark bluish grey.			100	35	30		23.17m JT, 30', RG, ST	
	HQ3												23.38-23.42m: CZ, recovered as angular medium to coarse mst silty gravel	
	HQ3												23.59-23.70m: CZ, recovered as angular medium to coarse mst silty gravel	

REMARKS:		Water Level Readings:		
1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 25mm and vertical accuracy +/- 39mm.		DateTime	Hole Depth (m)	Water Level (m)
2. A standpipe was installed on 27/08/2025 with a screened interval between 6.8 to 9.8m bgl. A vibrating wire piezometer was installed at 9.50m bgl, within the open standpipe on 27/08/2025, Serial No. viot01575.				
3. Shear Vane Serial No. 3946, calibration constant 1.403.				
4. Push tube failed at 2.5mbgl due to encountering hard material.				
5. Hand clearance to 1.9mbgl was undertaken on 22/08/2025.				

BOREHOLE INFORMATION		CO-ORDINATES: NZTM	Date Started: 22/08/2025	Logged: C. Struthers
Method: Rotary Core Wireline		Easting: 1728028.7mE,	Date Completed: 27/08/2025	Input: C. Struthers
Equipment: Fraste ML2		Northing: 6004687.3mN,	Inclination: 90	Reviewed: B. O'Loughlin
Contractor: Pro Drill Ltd		Ground level: 75.76m (NZVD2016)	Azimuth: N/A	Verified: A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
9	HQ3	51	25			Unweathered; dark bluish grey; muddy LIMESTONE; very weak; ubiquitous incipient fractures (moderate tensile strength), frets easily; fissile; calcite veins [LIMESTONE (IMPURE)]. 24.22m: Dark bluish grey; mudstone lamination, dipping 5 degrees. 24.60m - 24.63m: Dark bluish grey; mudstone band, 30mm, dipping 20 degrees. 24.76m - 24.80m: Dark bluish grey; mudstone band, 40mm, dipping 20 degrees. 25.14m - 25.24m: Calcite infilled veins. 25.40m: Limestone becomes weak.			100	97	93	MWS CS	24.00m: Strong HCl reaction 24.09-24.12m: JT, 15°, SM, UN 24.24-24.25m: JT, 10°, RG, UN 24.60m: JT, 85°, RG, UN, sub-horizontal 24.70-24.65m: JT, 2°, RG, ST 24.86-24.88m: JT, 50°, RG, ST 24.97-24.98m: JT, 30°, RG, UN 25.14m: JT, 30°, RG, ST 25.17m: VN, 5°, RG, UN, calcite 25.17-25.30m: VN, 45°, RG, UN, calcite veins 25.24m: VN, 5°, RG, UN, calcite 25.61-25.64m: JT, 5°, RG, ST	
10	HQ3	50	26			26.70m: Mudstone clast, 50mm.			100	95	93	WS	26.56m: JT, 10°, RG, PL, 60mm 26.87m: JT, 2°, RG, ST	
10	HQ3	49	27						100	93	90	WS	28.50-28.98m: CZ, RG, UN, recovered as angular coarse 1st gravel 28.98-29.11m: CZ, RG, UN 29.11-29.36m: CZ, recovered as subangular coarse 1st gravel 29.36-29.46m: CZ, recovered as subangular coarse gravel	
11	HQ3	48	28			Unweathered; grey; Calcareous MUDSTONE; very weak; ubiquitous incipient fractures with intact rock strength. Calcite infilled veins and steep to subvertical healed joints (dark grey infill) with moderate to subtertile strength. Indistinct bedding/dark grey mudstone band dipping 40 degrees [CALCAREOUS MUDSTONE].	UW		100	93	88	WS CS	30.77-31.02m: JT, 40°, RG+ SM, UN, healed 31.18-31.50m: VN, 88°, RG, UN, calcite	
11	HQ3	46	30			Unweathered; light grey; muddy LIMESTONE; weak; with mudstone breccia; calcite veins; pervasively sheared [LIMESTONE (IMPURE)]. 31.13m - 31.40m: Limestone becoming moderately strong. 31.40m - 31.50m: Limestone becoming weak.			100	100	93	MWS		

REMARKS: 1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 25mm and vertical accuracy +/- 39mm. 2. A standpipe was installed on 27/08/2025 with a screened interval between 6.8 to 9.8m bgl. A vibrating wire piezometer was installed at 9.50m bgl, within the open standpipe on 27/08/2025, Serial No. viot01575. 3. Shear Vane Serial No. 3946, calibration constant 1.403. 4. Push tube failed at 2.5mbgl due to encountering hard material. 5. Hand clearance to 1.9mbgl was undertaken on 22/08/2025.	Water Level Readings:		
	Date/Time	Hole Depth (m)	Water Level (m)

BOREHOLE INFORMATION		CO-ORDINATES:	NZTM	Date Started:	22/08/2025	Logged:	C. Struthers
Method:	Rotary Core Wireline	Easting:	1728028.7mE,	Date Completed:	27/08/2025	Input:	C. Struthers
Equipment:	Fraste ML2	Northing:	6004687.3mN,	Inclination:	90	Reviewed:	B. O'Loughlin
Contractor:	Pro Drill Ltd	Ground level:	75.76m (NZVD2016)	Azimuth:	N/A	Verified:	A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
11	HQ3		43			31.40m - 31.50m: Limestone becoming weak.			100	100	93	WS MWS VCS ECS	32.50m, Weak HCl reaction	
12	HQ3		33			Unweathered; bluish grey; Calcareous MUDSTONE; extremely weak; ubiquitous incipient fractures with moderate to low tensile strength [CALCAREOUS MUDSTONE].							33.00m, Weak HCl reaction	
						33.00m: Core pickup 33.00 - 34.50m (0.07m) balances loss 34.50 - 36.00m.							33.09m JT, 45°, RG, ST	
						33.10m - 35.00m: Shear fabric dips 40 degrees.							33.15-33.20m: CZ, 20°, RG, UN	
12	HQ3		42						100	100	97	WS MWS VCS ECS	33.50-34.37m: CZ, recovered as angular fine to coarse gravel with some silt, shear fabric dips 40 degrees	
			34											
			41			Unweathered; light grey; muddy LIMESTONE; very weak; with healed brecciated fabric, with offset bedding contacts, ubiquitous incipient fractures and calcite filled veins. Shear fabric dips 40 degrees [LIMESTONE (IMPURE)].							34.55m JT, 10°, RG, ST	
			35			34.77m - 34.82m: Light orange brown; mudstone breccia, laminations offset.							34.64-34.70m: CZ, recovered as angular fine to coarse mst gravel with some silt	
						34.82m - 35.27m: Dark grey; siltstone breccia, laminations offset.							34.84m JT, 10°, RG, ST	
			40			35.00m: Shear fabric no longer present.			95	80	72	WS CS	35.00m, Weak HCl reaction	
			36										35.38m JT, 5°, SM, ST	
													35.56m JT, 35°, RG, ST	
13	HQ3		39						100	95	95	WS VWS		
			37			Unweathered; grey; Calcareous MUDSTONE; extremely weak; ubiquitous incipient fractures. Moderate tensile strength [CALCAREOUS MUDSTONE].							37.42m JT, 35°, RG, ST	
													37.50-37.75m: JT, 3°	
			38			Unweathered; dark bluish grey; muddy LIMESTONE; very weak; with healed brecciated fabric, with offset bedding contacts, ubiquitous incipient fractures [LIMESTONE (IMPURE)].							37.90-39.00m: VN, 85°, UN, calcite	
			38						100	99	95	WS MWS	38.24m VN, 5°, SM, UN, calcite	
			37										38.77m VN, 5°, SM, UN, calcite	
14	HQ3		39											
			36			39.42m: Dark grey; mudstone lamination, 2mm.			100	95	95	WS	39.51m JT, 10°, RG, ST, clay coated	
						39.58m - 39.69m: Dark bluish grey; mudstone breccia, microfaulted (40 degree dip), <15mm, offsets.								
						End Of Hole: 40.00m								

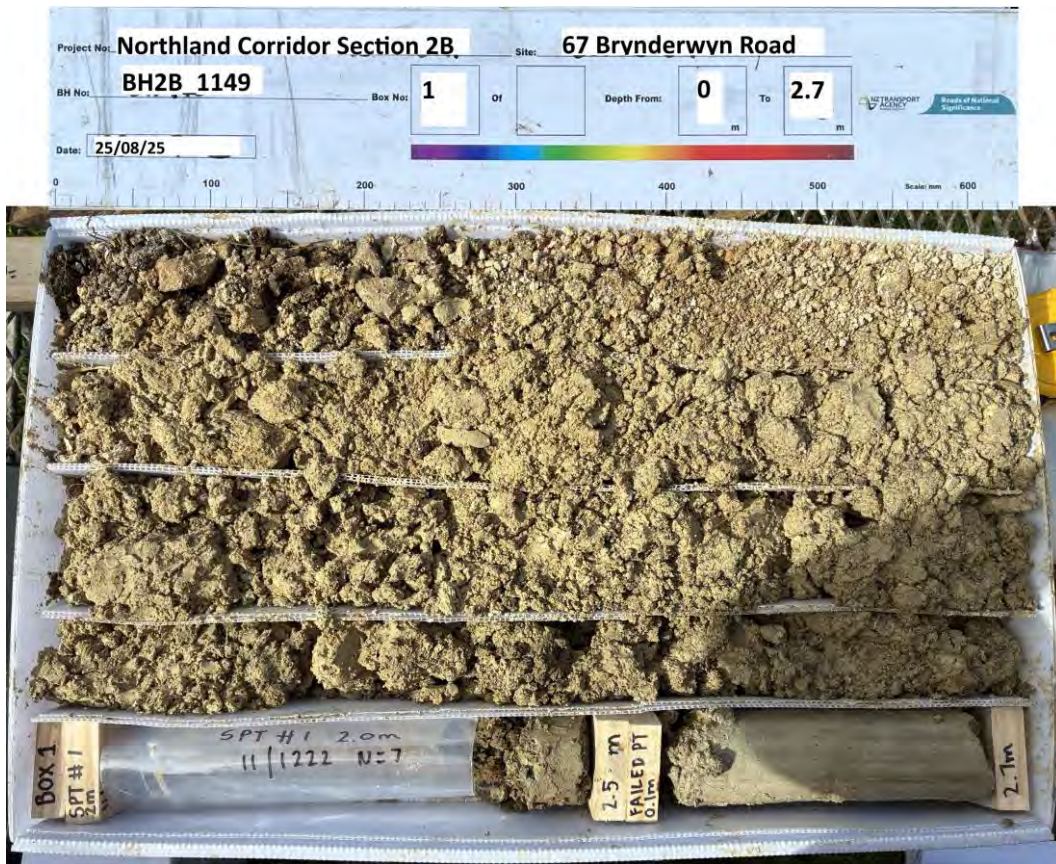
REMARKS:		Water Level Readings:		
1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 25mm and vertical accuracy +/- 39mm.		Date/Time	Hole Depth (m)	Water Level (m)
2. A standpipe was installed on 27/08/2025 with a screened interval between 6.8 to 9.8m bgl. A vibrating wire piezometer was installed at 9.50m bgl, within the open standpipe on 27/08/2025, Serial No. viot01575.		26/08/2025 5:00:00 pm	34.50	9.30
3. Shear Vane Serial No. 3946, calibration constant 1.403.		27/08/2025 8:00:00 am	34.50	9.70
4. Push tube failed at 2.5mbgl due to encountering hard material.				
5. Hand clearance to 1.9mbgl was undertaken on 22/08/2025.				

Borehole Reference: BH2B_1149

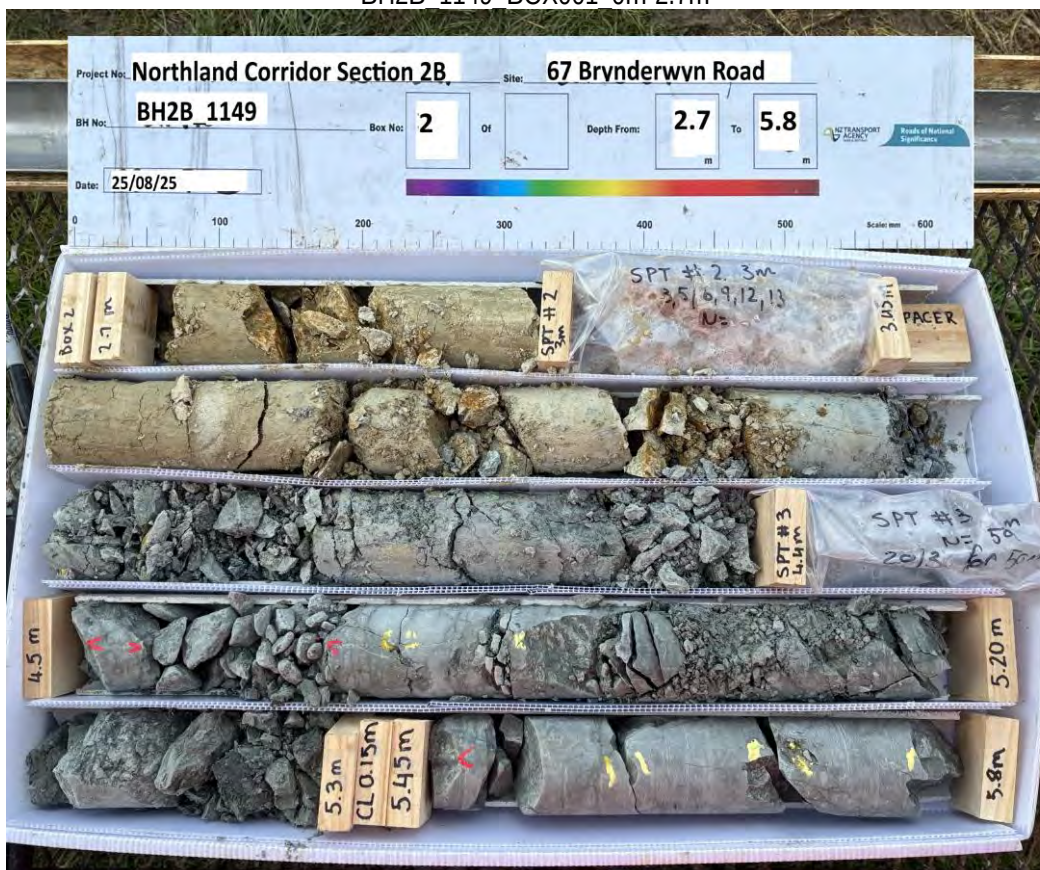
Photographed By: SH

Date Photographed:

25/08/2025-27/08/2025



BH2B_1149_BOX001_0m-2.7m



BH2B_1149_BOX002_2.7m-5.8m

Borehole Reference: BH2B_1149

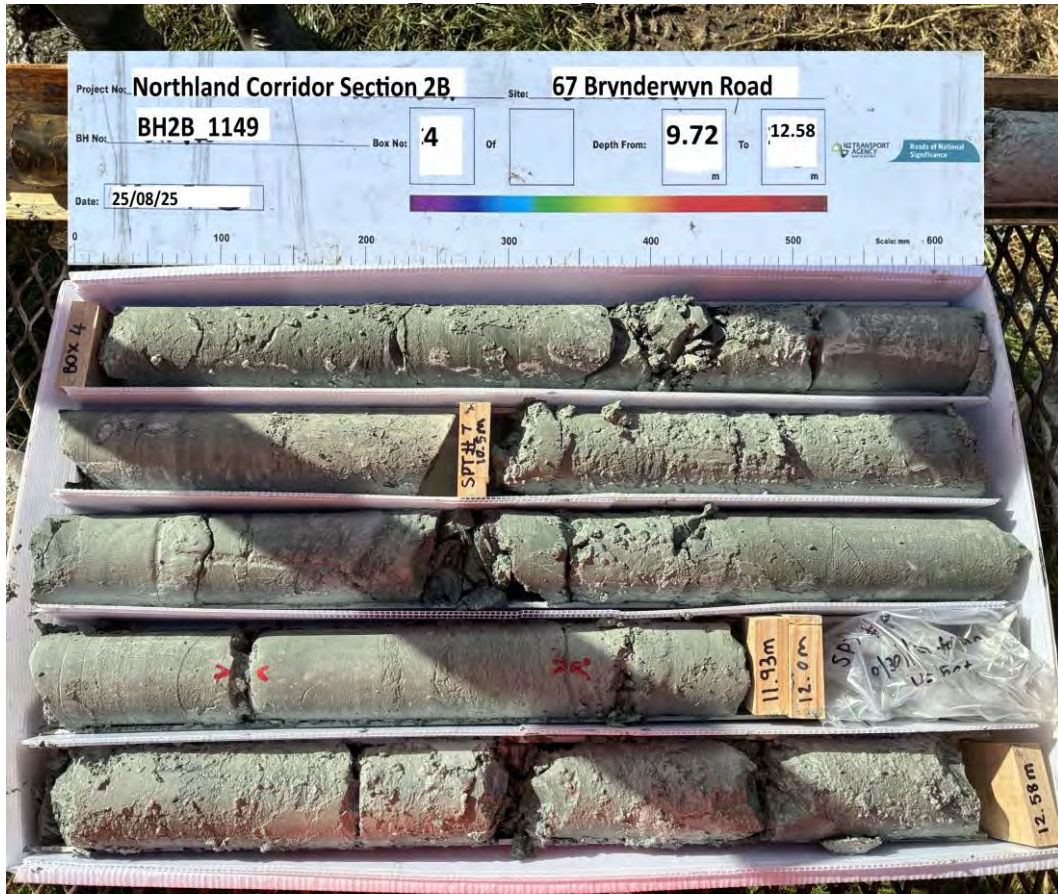
Photographed By: SH

Date Photographed:

25/08/2025-27/08/2025



BH2B 1149 BOX003 5.8m-9.72m



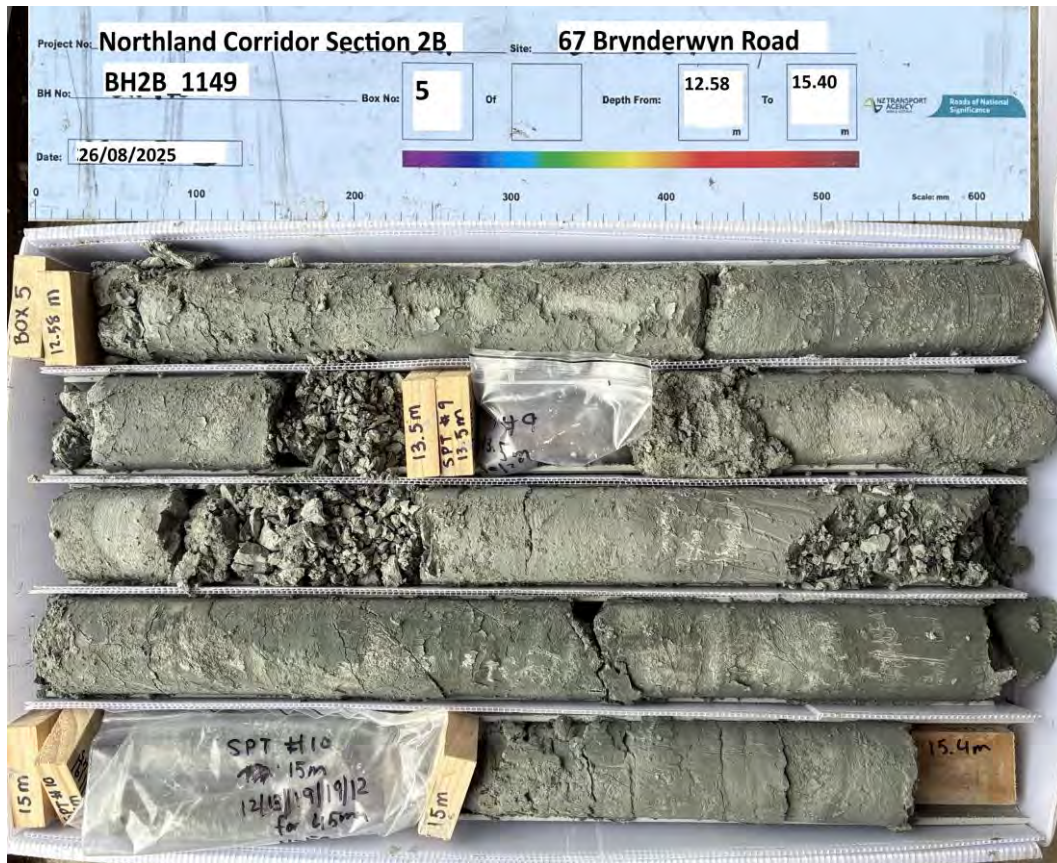
BH2B_1149_BOX004_9.72m-12.58m

Borehole Reference: BH2B_1149

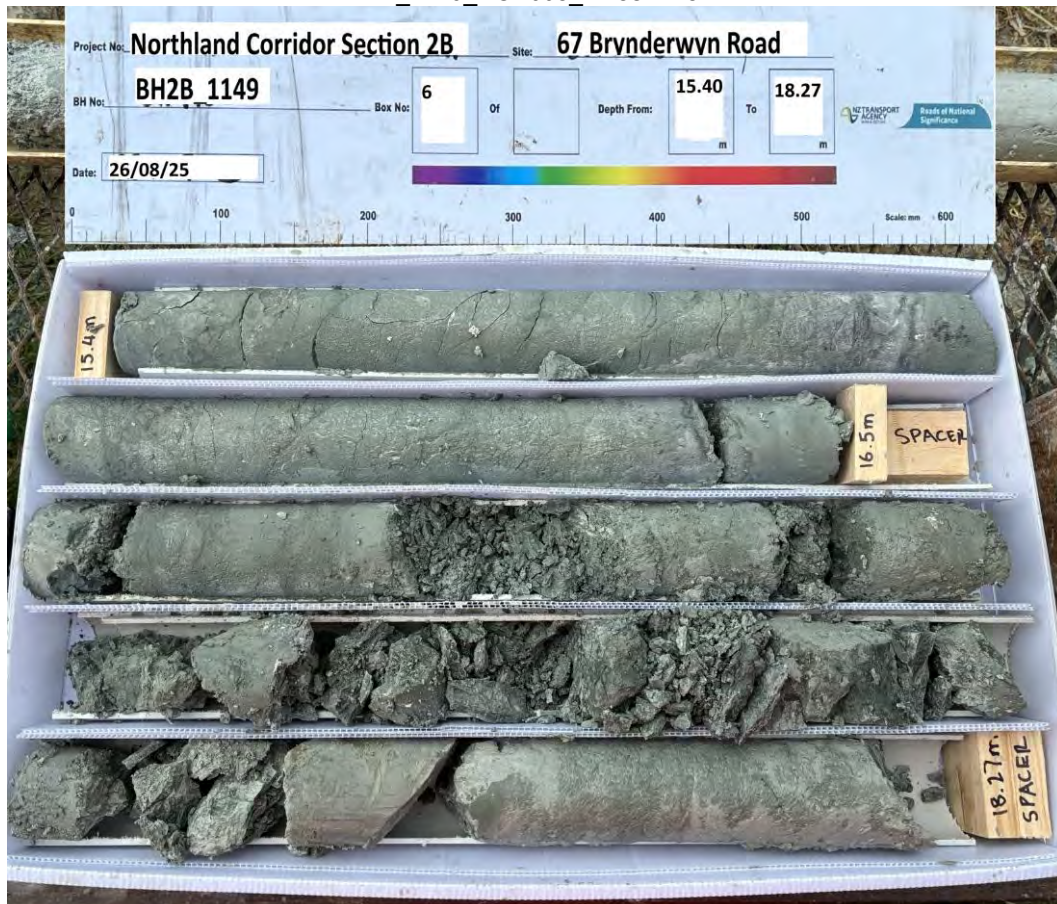
Photographed By: SH

Date Photographed:

25/08/2025-27/08/2025



BH2B_1149_BOX005_12.58m-15.4m



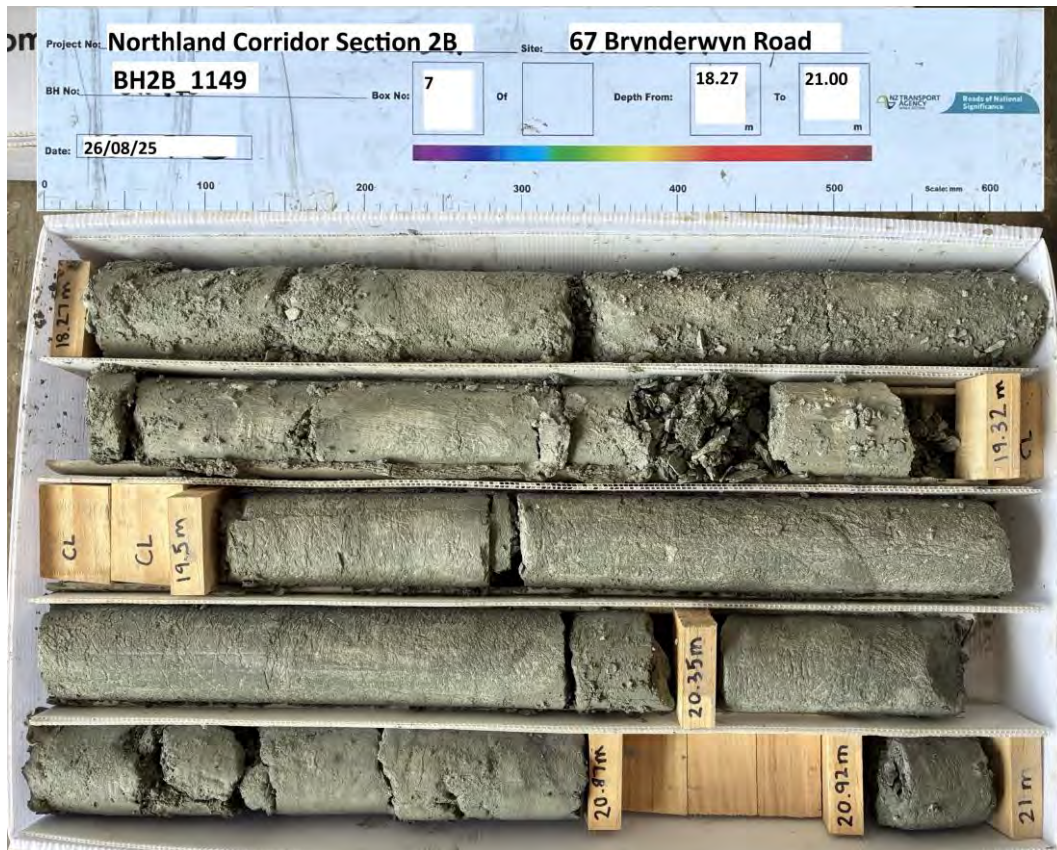
BH2B_1149_BOX006_15.4m-18.27m

Borehole Reference: BH2B_1149

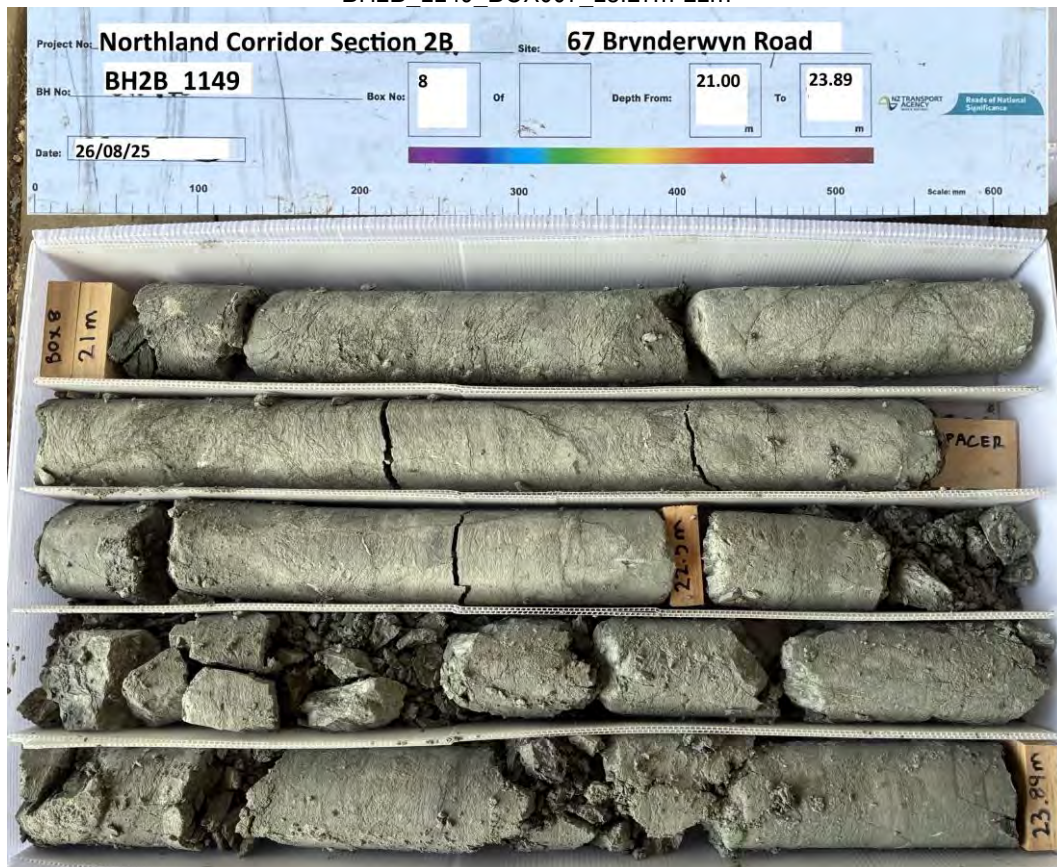
Photographed By: SH

Date Photographed:

25/08/2025-27/08/2025



BH2B_1149_BOX007_18.27m-21m



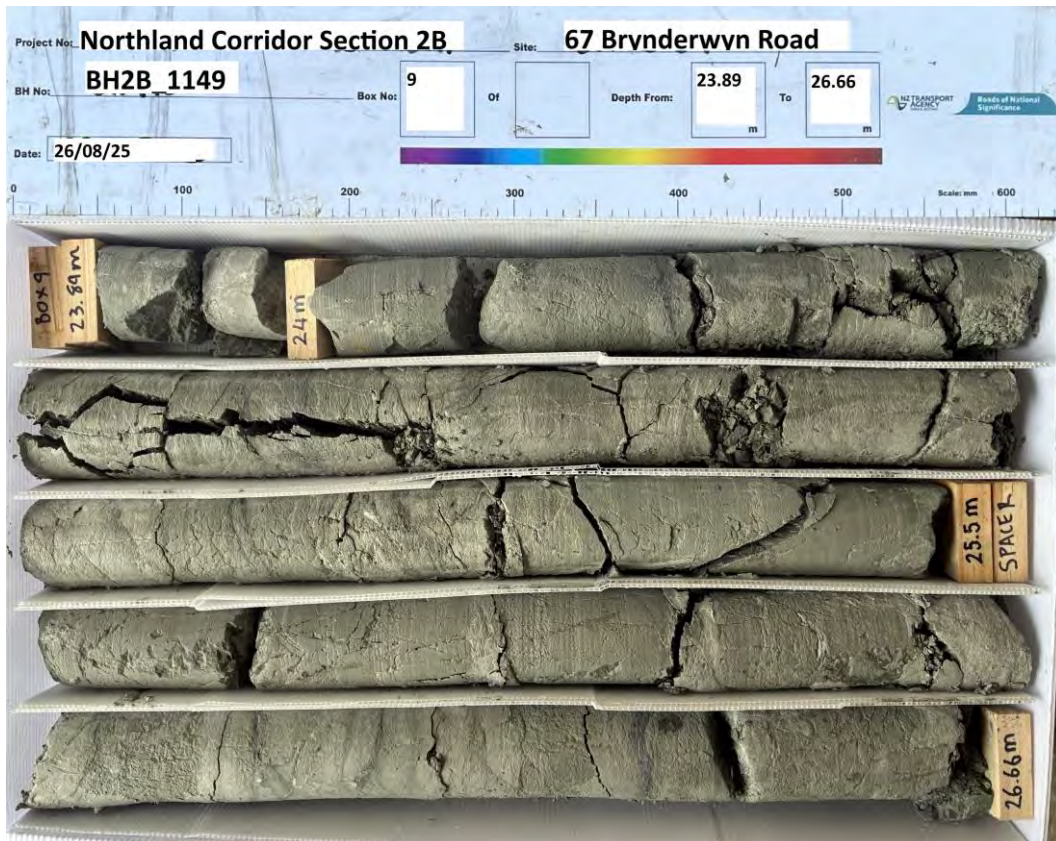
BH2B_1149_BOX008_21m-23.89m

Borehole Reference: BH2B_1149

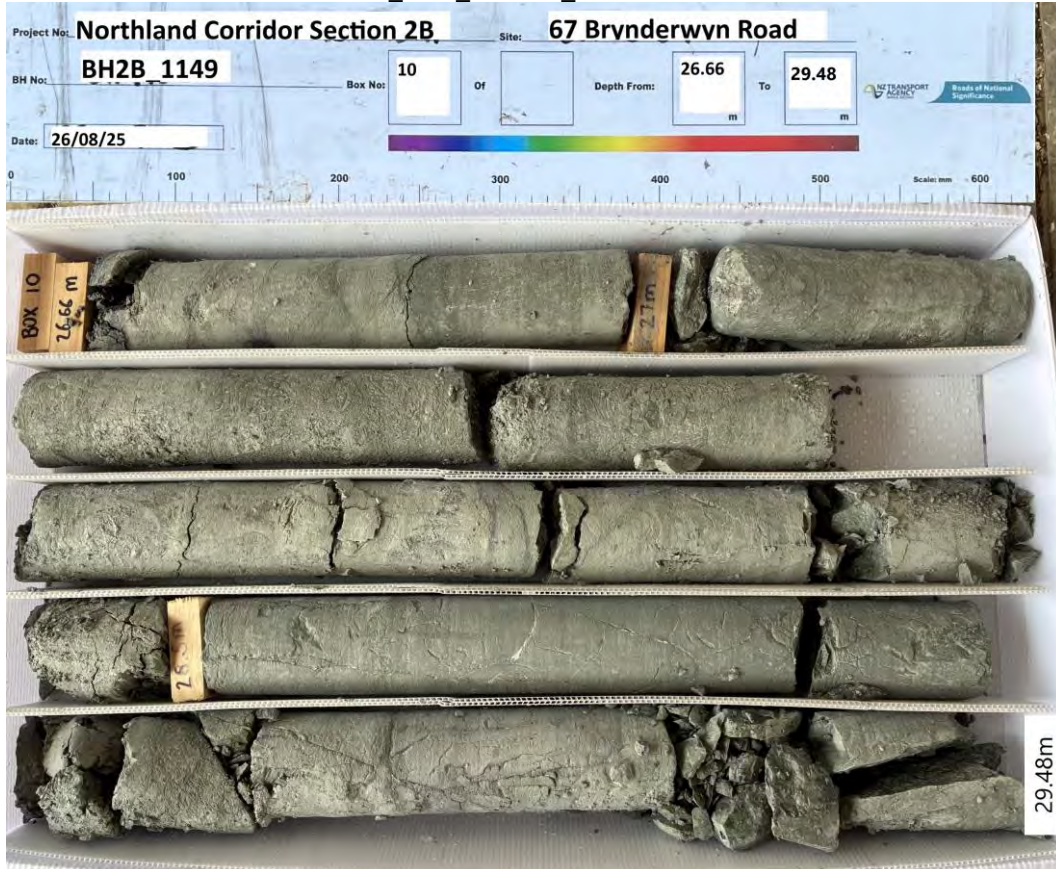
Photographed By: SH

Date Photographed:

25/08/2025-27/08/2025



BH2B_1149_BOX009_23.89m-26.66m



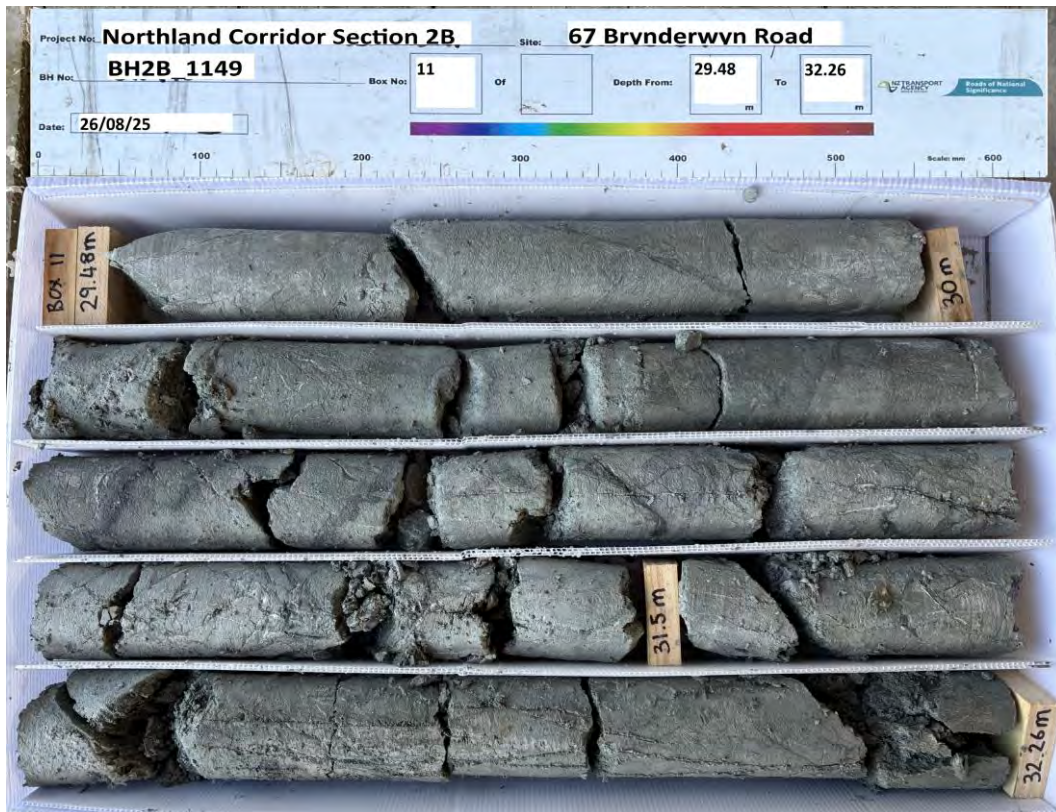
BH2B_1149_BOX010_26.66m-29.48m

Borehole Reference: BH2B_1149

Photographed By: SH

Date Photographed:

25/08/2025-27/08/2025



BH2B_1149_BOX011_29.48m-32.26m



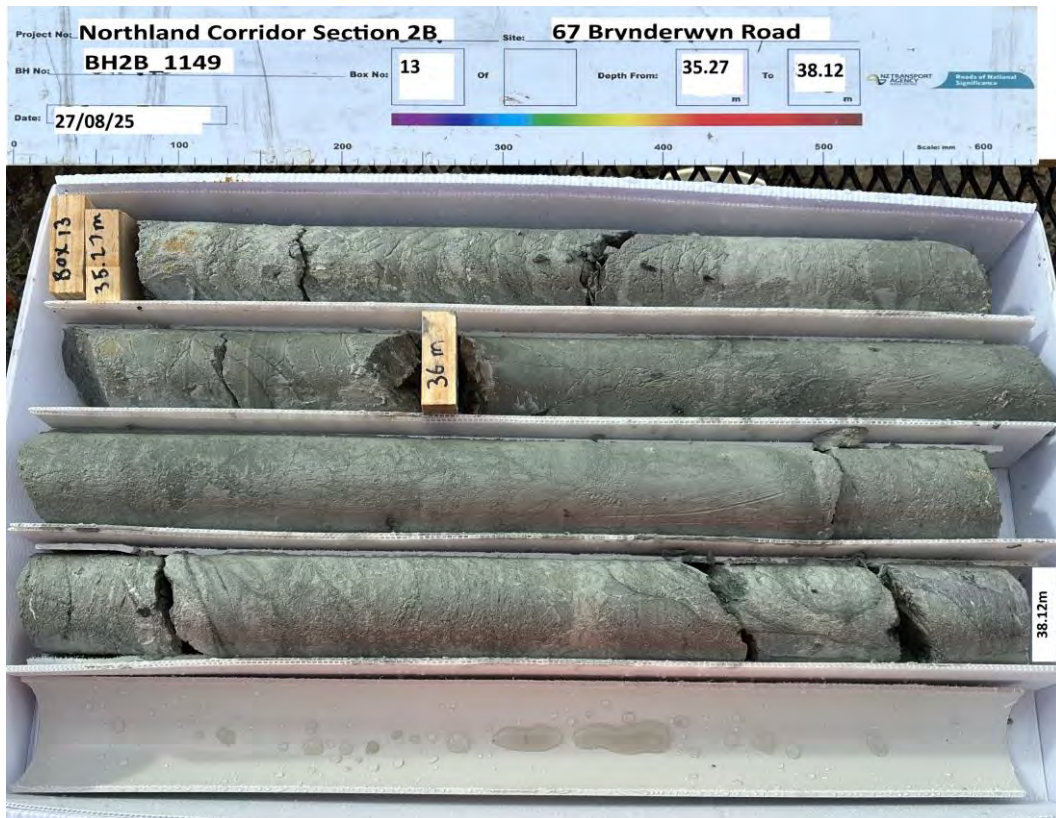
BH2B_1149_BOX012_32.26m-35.27m

Borehole Reference: BH2B_1149

Photographed By: SH

Date Photographed:

25/08/2025-27/08/2025



BH2B_1149_BOX013_35.27m-38.12m



BH2B_1149_BOX014_38.12m-40m

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000		Date Started: 19-08-2025	Logged: I. Mans
Method: Rotary Core Wireline		Easting: 1727453.50mE,		Date Completed: 22-08-2025	Input: I. Mans
Equipment: Fraste SRS		Northing: 6004285.45mN,		Inclination: 90	Reviewed: S. Nelis
Contractor: Pro-Drill (Auck) Ltd		Ground level: 30.11m		Azimuth: N/A	Verified: A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
1	HA	30		TS	TS	SILT with some clay and trace rootlets (up to 8mm); brown. Firm, moist, low plasticity [TOPSOIL].								
				TS	F	SILT with some clay, minor gravel and trace sand; brown. Firm, moist, low plasticity; gravel, fine to medium, slightly weathered, angular, limestone; sand, fine [FILL (UNDIFFERENTIATED)].		0.5m SV BH SV UTP					0.50m: Shear vane refused on gravel fill	
		29	1			SILT with trace clay; brownish grey. Firm, wet, low plasticity [RECENT (HOLOCENE) ALLUVIUM].		1m SV BH SV 44/ 17kPa	100	-	-			
								1.5m SV BH SV 30/ 22kPa						
		28	2			2.00m - 2.50m: PUSHTUBE (500mm).		1.9m SV BH SV 32/ 28kPa						
									32	-	-			
		27	3			3.00m - 3.50m: PUSHTUBE (500mm).		2.5m SPT 0, 0/0, 0, 0, 0 N= 0	76	-	-			2.50m: SPT test sunk under own weight
									46	-	-			
						Sandy SILT with trace clay; bluish grey. Soft, moist, low plasticity; sand, fine.		3.5m SPT 0, 0/0, 0, 1, 1 N= 2	69	-	-			
		26	4			Silty fine to coarse GRAVEL; light bluish grey. Loosely packed, moist, well graded; subrounded to rounded, slightly weathered sandstone, calcareous siltstone and volcanics.			78	-	-			3.95m - 4.07m: CORE LOSS (120mm), inferred washout of fines from alluvial gravels and SPT disturbance
2	HQ3					Highly weathered, light bluish grey, pervasively sheared, calcareous MUDSTONE; extremely weak. Polished surfaces. Hosts trace clasts of calcareous siltstone, subrounded to subangular, up to 10mm. (recovered as clayey silt with some fine sand; stiff, moist, high plasticity) [NORTHLAND ALLOCHTHON DEGRADED ZONE (HW/MW)].		4.5m SPT 1, 1/1, 2, 2, 2 N= 7	44	-	-			4.50m: HCI test; moderate reaction
		25	5			CORELOSS 4.95-5.31m (360mm). Inferred washout from SPT disturbance.			66	-	-			
						Highly weathered, light bluish grey, pervasively sheared, calcareous MUDSTONE; extremely weak. Polished surfaces. Hosts trace clasts of calcareous siltstone, subrounded to subangular, up to 10mm. (recovered as clayey silt with some fine sand; stiff, moist, high plasticity).		6m SPT 1, 2/3, 3, 4, 5 N= 15	62	-	-			6.00m: HCI test; moderate reaction
		24	6											
						Moderately weathered, light bluish grey, pervasively sheared LIMESTONE (PURE); very weak. Extremely closely spaced incipient fractures, low to moderate tensile strength. Infill with dark grey silt/clay, 1-3mm, stiff, high plasticity. Trace calcite mineralisation up to 13mm. Core recovered as angular limestone fragments, average 8mm [NORTHLAND ALLOCHTHON CALCAREOUS SEQUENCE (SW/UW)].			100	36	0			6.50m - 10.80m: Uncertainty around natural vs drilling induced fractures. All fractures included in RQD calculation
		23	7			CORELOSS 7.23-7.50m (270mm).		7.5m SPT 11, 22/50 for 74mm N = 50+	55	0	0			6.70m: HCI test; strong reaction
						Moderately weathered, light bluish grey, pervasively sheared LIMESTONE (PURE); very weak.			91	23	13			7.73-8.09m: DB, angular limestone fragments up to 8 mm, with some silt, SPT disturbance

REMARKS:

- Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 20mm and vertical accuracy +/- 32mm.
- One vibrating wire piezometer was installed on 22/08/2025. BH2B_1150_PZ01 was installed at 25m bgl, Serial No. 378369.
- Shear Vane Serial No. 1378, calibration constant 1.383.

Water Level Readings:

Date/Time	Hole Depth (m)	Water Level (m)
19-08-2025 12:00:00	2.00	0.80

BOREHOLE INFORMATION	CO-ORDINATES: NZTM2000	Date Started: 19-08-2025	Logged: I. Mans
Method: Rotary Core Wireline	Easting: 1727453.50mE	Date Completed: 22-08-2025	Input: I. Mans
Equipment: Fraste SRS	Northing: 6004285.45mN	Inclination: 90	Reviewed: S. Nelis
Contractor: Pro-Drill (Auck) Ltd	Ground level: 30.11m	Azimuth: N/A	Verified: A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
2	HQ3	22				Extremely closely spaced incipient fractures, low to moderate tensile strength. Infill with dark grey silt/clay, 1-3mm, stiff, high plasticity. Trace calcite mineralisation up to 13mm. Core recovered as angular limestone fragments, average 8mm.			91	23	13	ECS	8.27-8.33m: DB, angular limestone fragments up to 8 mm, with some silt, weathered seam disturbed by drilling	
	HQ3								100	0	0	CS	8.60-9.00m: DB, angular limestone fragments up to 60mm, broken along incipient fractures	
	HQ3	21							90	11	0	ECS	9.20-9.25m: DB, angular limestone fragments up to 8 mm, with some silt, weathered seam disturbed by drilling	
	HQ3								95	41	23	CS	9.55-9.90m: DB, angular limestone fragments up to 45mm, weathered seam disturbed by drilling	
	HQ3								100	20	0	ECS	10.01-10.05m: DB, sandy silt, core bound	
3	HQ3	20							93	93	93			
	HQ3					Unweathered, light bluish grey, pervasively sheared LIMESTONE (PURE); very weak. Extremely closely spaced incipient fractures, moderate tensile strength. Infill with dark grey silt/clay, 1-3mm, stiff, high plasticity. Trace calcite mineralisation up to 13mm.			100	91	33	CS	10.70-10.78m: DB, angular limestone fragments up to 20mm, broken along incipient fractures	
	HQ3	19											10.80m: JT, 30°, RG, PL, dark grey silt/clay ctg	
	HQ3												10.90m: JT, 45°, RG, PL, dark grey silt/clay ctg	
	HQ3												11.06m: JT, 48°, RG, PL, dark grey silt/clay vnr	
	HQ3												11.16m: JT, 80°, SM, UN, dark grey silt/clay ctg	
	HQ3												11.20m: JT, 20°, RG, PL, dark grey silt/clay vnr	
	HQ3												11.30-11.35m: JT, 60°-75°, RG, UN, dark grey silt/clay ctg, x2	
	HQ3	18				Unweathered, light bluish grey, speckled dark grey, CONGLOMERATIC LIMESTONE; very weak. Clasts are subrounded to subangular limestone and dark grey calcareous siltstone, up to 13mm. Matrix is fine sandy limestone.			100	100	95	MWS	11.67-11.68m: JT, 25°, SM, PL, dark grey silt/clay vnr, x2	
	HQ3												11.95m: HCl test; strong reaction	
	HQ3												12.06m: JT, 65°, SM, PL, dark grey silt/clay ctg	
	HQ3	17							100	89	89	WS		
	HQ3											VCS	13.06m: JT, 65°, SM, PL, dark grey silt/clay ctg	
	HQ3												13.12-13.13m: CZ, 35°, brecciated limestone fragments up to 5mm, dark grey silt/clay	
	HQ3												13.15m: JT, 65°-70°, SM, PL, dark grey silt/clay ctg	
	HQ3					13.48m: Clasts include dark grey siltstone, up to 30mm.						MWS	13.60-13.78m: JT, 80°-90°, SM, UN, dark grey silt/clay ctg	
	HQ3	16							91	89	56	VCS	14.10m: JT, 43°, SM, PL, dark grey silt/clay vnr	
	HQ3												14.14-14.16m: CZ, 30°, angular limestone fragments up to 6mm	
	HQ3												14.23m: JT, 60°, 60°, SM, PL, dark grey silt/clay ctg	
	HQ3												14.30m: JT, 50°, 50°, SM, PL, dark grey silt/clay ctg	
5	HQ3	15				15.55m - 15.90m: Bed of laminated, fine sandy limestone, bedding dipping 25-30°. Pervasively microfaulted, offset up to 5mm.			97	87	71	WS		
												CS	15.55m: JT, 60°, SL, PL, dark grey silt/clay ctg	
													15.71m: BP, 30°, SM, PL, clean	
													15.76m: BP, 25°, SM, PL, clean	
													15.81m: BP, 25°, SM, PL, clean	

REMARKS:	Water Level Readings:		
	Date/Time	Hole Depth (m)	Water Level (m)
	19-08-2025 16:40:00	10.05	0.00
1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 20mm and vertical accuracy +/- 32mm.	20-08-2025 07:45:00	10.05	0.10
2. One vibrating wire piezometer was installed on 22/08/2025. BH2B_1150_PZ01 was installed at 25m bgl, Serial No. 378369.			
3. Shear Vane Serial No. 1378, calibration constant 1.383.			

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000		Date Started: 19-08-2025	Logged: I. Mans
Method: Rotary Core Wireline		Easting: 1727453.50mE		Date Completed: 22-08-2025	Input: I. Mans
Equipment: Fraste SRS		Northing: 6004285.45mN		Inclination: 90	Reviewed: S. Nelis
Contractor: Pro-Drill (Auck) Ltd		Ground level: 30.11m		Azimuth: N/A	Verified: A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
5	HQ3	14				[CONT] Unweathered, light bluish grey, speckled dark grey, CONGLOMERATIC LIMESTONE; very weak. Clasts are subrounded to subangular limestone and dark grey calcareous siltstone, up to 13mm. Matrix is fine sandy limestone.			100	100	100	WS	15.98m: HCl test; strong reaction	
	HQ3	17				16.80m: Clasts up to 50mm.			100	80	60	VCS	16.78m: JT, 50°, RG, PL, dark grey silt/clay clg 16.84m: JT, 65°, SM, PL, clean	
	HQ3	13				17.20m - 17.50m: Core broken upon extrusion from splits and handling.						WS	17.20-17.50m: DB, angular fragments of conglomeratic limestone, up to 60mm	
	HQ3	12				17.88m - 17.96m: Bed of fine sandy limestone, thinly laminated to laminated, dip 40°.			91	86	69	MWS	17.40m: HCl test; strong reaction 17.65m: JT, 25°, RG, PL, clean 17.95m: JT, 20°, RG, PL, clean 18.00-18.20m: JT, 70°-80°, RG, UN, dark grey silt/clay vnr	
	HQ3	11				18.38m - 18.48m: Bed of fine sandy limestone, thinly laminated to laminated, dip 40°.						WS	18.38m: JT, 40°, RG, PL, clean	
6	HQ3	19				Unweathered, light bluish grey banded dark grey, laminated calcareous SILTSTONE; very weak. Bedding dipping 15-40°.			100	94	67	VCS	19.23m: BP, 35°, SM, PL, clean 19.26m: JT, 70°, RG, UN, dark grey silt/clay vnr	
	HQ3	20				19.65m - 19.80m: Bed of conglomeratic sandy limestone; very weak, well cemented. Clasts are subrounded, limestone (pure), up to 20mm.			97	82	82	MWS	19.31m: BP, 15°, SM, PL, clean 19.35m: JT, 70°, RG, PL, clean 19.60m: BP, 30°, SM, PL, clean	
	HQ3	10				19.95m: Trace incipient fractures have calcite infill, up to 6mm.			63	17	0	WS	20.00m: HCl test; strong reaction 20.15-20.27m: DB, crushed core due to increase in drilling speed	
	HQ3	21				CORELOSS 20.27-20.40m (130mm). Drilling induced from increasing rotational speed.						CS	20.47m: JT, 45°, SM, PL, clean	
	HQ3	9				Unweathered, light bluish grey banded dark grey, laminated calcareous SILTSTONE; very weak. Bedding dipping 15-40°.			95	81	81	VCS	20.67m: JT, 50°, SM, PL, clean 20.78-20.79m: CZ, 30°, angular limestone fragments up to 4mm 20.86-20.96m: BP, 15°, SM, PL, clean, x3	
7	HQ3	22				20.80m - 20.96m: Indistinctly bedded.						CS	21.10-21.15m: BP, 20°, RG, PL, clean, x3	
	HQ3	8				21.10m - 21.27m: Highly fractured, bedding dipping 60°.						MWS	21.27m: BP, 30°, SL, PL, dark grey mudstone infill, polished, 3mm	
	HQ3	23				21.40m - 21.76m: Bed of grey, indistinctly bedded, slightly calcareous SILTSTONE; very weak; HCl test: weak reaction.			95	88	88	ECS	21.50-21.67m: DB, calcareous siltstone fragments up to 50mm, incipient fractures disturbed by drilling 21.67-21.80m: SZ, 20°, sheared slightly calcareous siltstone, extremely weak (breaks down to clayey silt, very stiff)	
	HQ3	7				Unweathered, light bluish grey, pervasively sheared LIMESTONE (PURE); very weak. Extremely closely spaced incipient fractures, high tensile strength, recovered intact. Infill with dark grey silt/clay, 1-3mm, very stiff, high plasticity.						WS	22.00m: HCl test; strong reaction	
	HQ3								100	100	100	MWS	23.65-23.66m: CZ, 30°, dark grey silt/clay	

REMARKS:

- Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 20mm and vertical accuracy +/- 32mm.
- One vibrating wire piezometer was installed on 22/08/2025. BH2B_1150_PZ01 was installed at 25m bgl, Serial No. 378369.
- Shear Vane Serial No. 1378, calibration constant 1.383.

Water Level Readings:

Date/Time	Hole Depth (m)	Water Level (m)
20-08-2025 16:20:00	21.50	5.40
21-08-2025 07:40:00	21.50	3.50

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000		Date Started: 19-08-2025	Logged: I. Mans
Method: Rotary Core Wireline		Easting: 1727453.50mE,		Date Completed: 22-08-2025	Input: I. Mans
Equipment: Fraste SRS		Northing: 6004285.45mN,		Inclination: 90	Reviewed: S. Nelis
Contractor: Pro-Drill (Auck) Ltd		Ground level: 30.11m		Azimuth: N/A	Verified: A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
8	HQ3	6				[CONT] Unweathered, light bluish grey, pervasively sheared LIMESTONE (PURE); very weak. Extremely closely spaced incipient fractures, high tensile strength, recovered intact. Infill with dark grey silt/clay, 1-3mm, very stiff, high plasticity.	UW						24.10m: JT, 5°, SL, UN, dark grey silt/clay ctg	
													24.42m: JT, 30°, RG, UN, clean	
													24.80m: JT, 55°, SL, UN, dark grey silt/clay vnr	
													25.20m: JT, 50°, RG, UN, dark grey silt/clay vnr	
													25.66m: JT, 40°, RG, PL, dark grey silt/clay vnr	
													25.71m: JT, 30°, RG, PL, dark grey silt/clay vnr	
													25.83m: JT, 40°, RG, PL, dark grey silt/clay vnr	
													26.20m: JT, 45°, SL, PL, dark grey silt/clay up to 2mm	
													26.33m: JT, 10°, SL, PL, dark grey silt/clay up to 5mm	
													26.90-27.37m: JT, 60°-90°, SM, UN, dark grey silt/clay ctg	
9	HQ3	3			NAL	[CONT] Unweathered, light bluish grey, pervasively sheared LIMESTONE (PURE); very weak. Extremely closely spaced incipient fractures, high tensile strength, recovered intact. Infill with dark grey silt/clay, 1-3mm, very stiff, high plasticity.	UW						27.65-27.80m: DB, angular limestone fragments up to 50mm, incipient fractures disturbed by drilling	
													28.16m: JT, 35°, SM, PL, dark grey silt/clay ctg	
													28.65m: JT, 30°, SM, PL, dark grey silt/clay ctg	
													29.03m: JT, 35°, SM, PL, dark grey silt/clay ctg	
10	HQ3	1				[CONT] Unweathered, light bluish grey, pervasively sheared LIMESTONE (PURE); very weak. Extremely closely spaced incipient fractures, high tensile strength, recovered intact. Infill with dark grey silt/clay, 1-3mm, very stiff, high plasticity.	UW							
						End Of Hole: 30.00m								

REMARKS:		Water Level Readings:		
1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 20mm and vertical accuracy +/- 32mm.		Date/Time	Hole Depth (m)	Water Level (m)
2. One vibrating wire piezometer was installed on 22/08/2025. BH2B_1150_PZ01 was installed at 25m bgl, Serial No. 378369.		22-08-2025 08:00:00	30.00	0.40
3. Shear Vane Serial No. 1378, calibration constant 1.383.				

Borehole Reference:

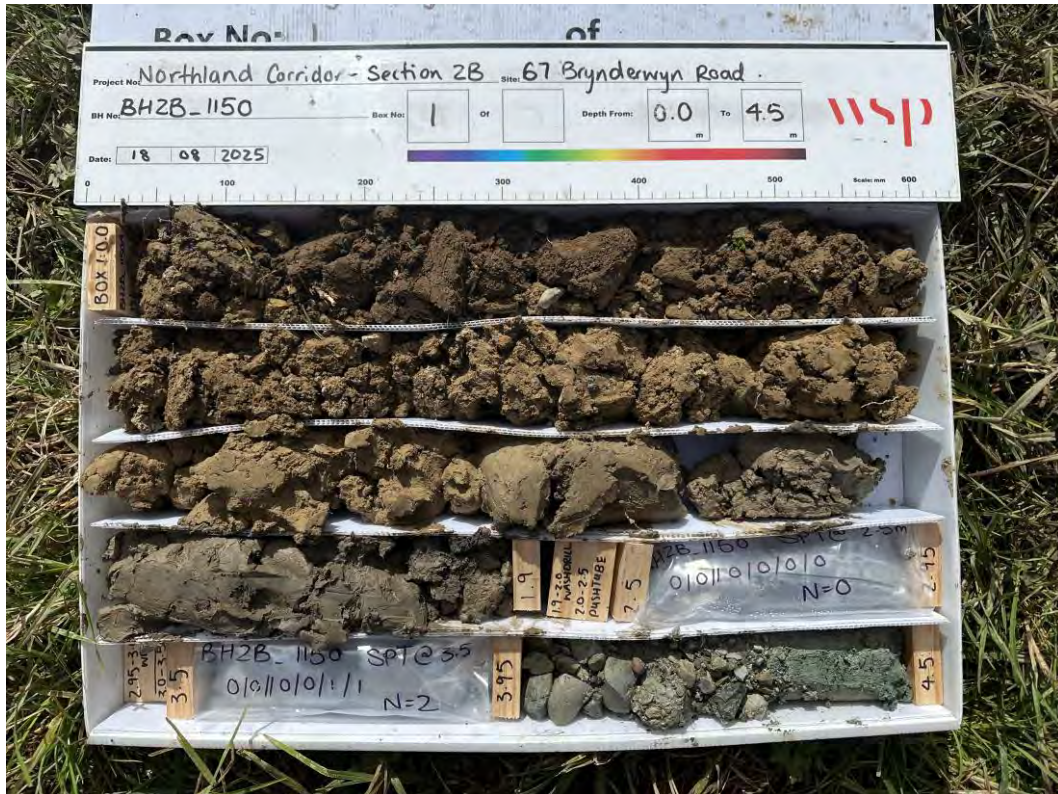
BH2B_1150

Photographed By:

IM

Date Photographed:

20/09/2024-21/08/2025



BH2B_1150_BOX001_0m-4.5m



BH2B_1150_BOX002_4.5m-8.82m

Borehole Reference: BH2B_1150

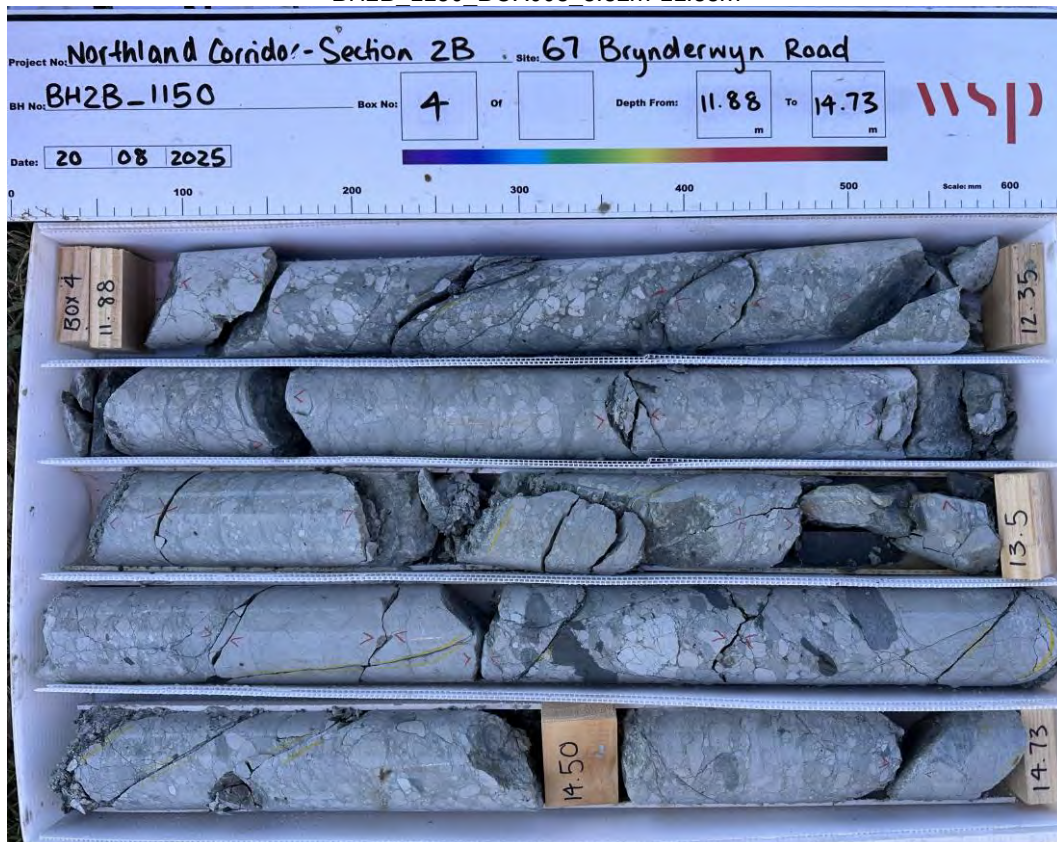
Photographed By: IM

Date Photographed:

20/09/2024-21/08/2025



BH2B 1150 BOX003 8.82m-11.88m



BH2B_1150_BOX004_11.88m-14.73m

Borehole Reference:

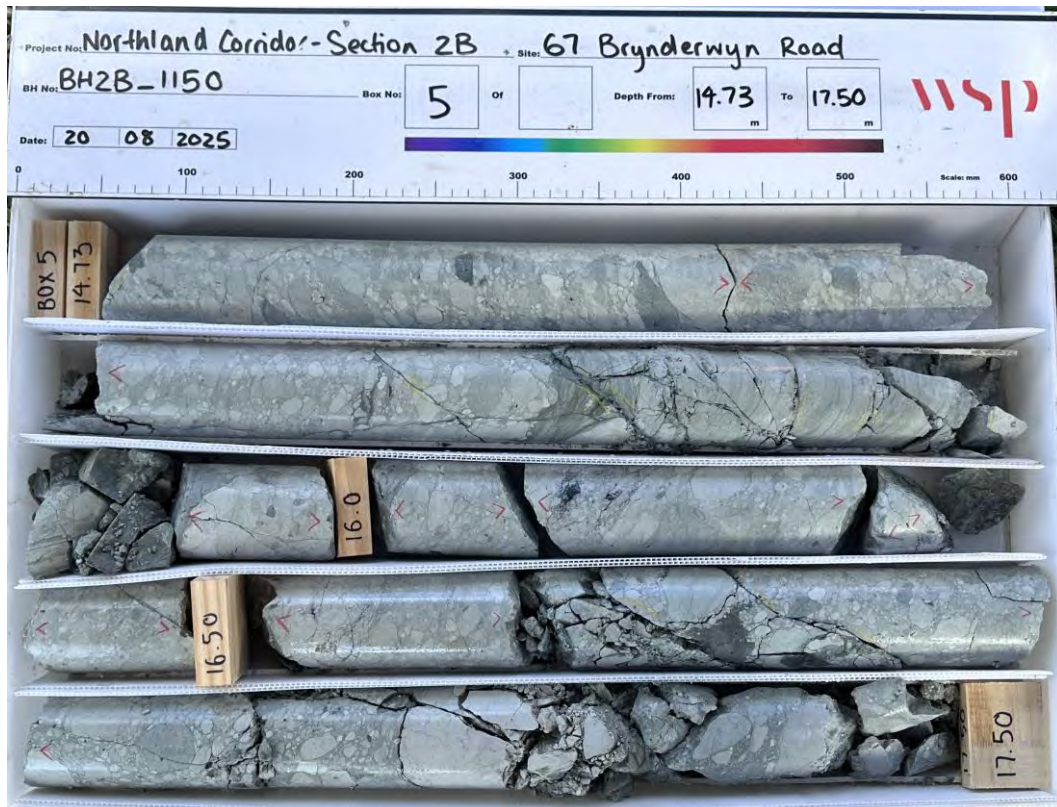
BH2B_1150

Photographed By:

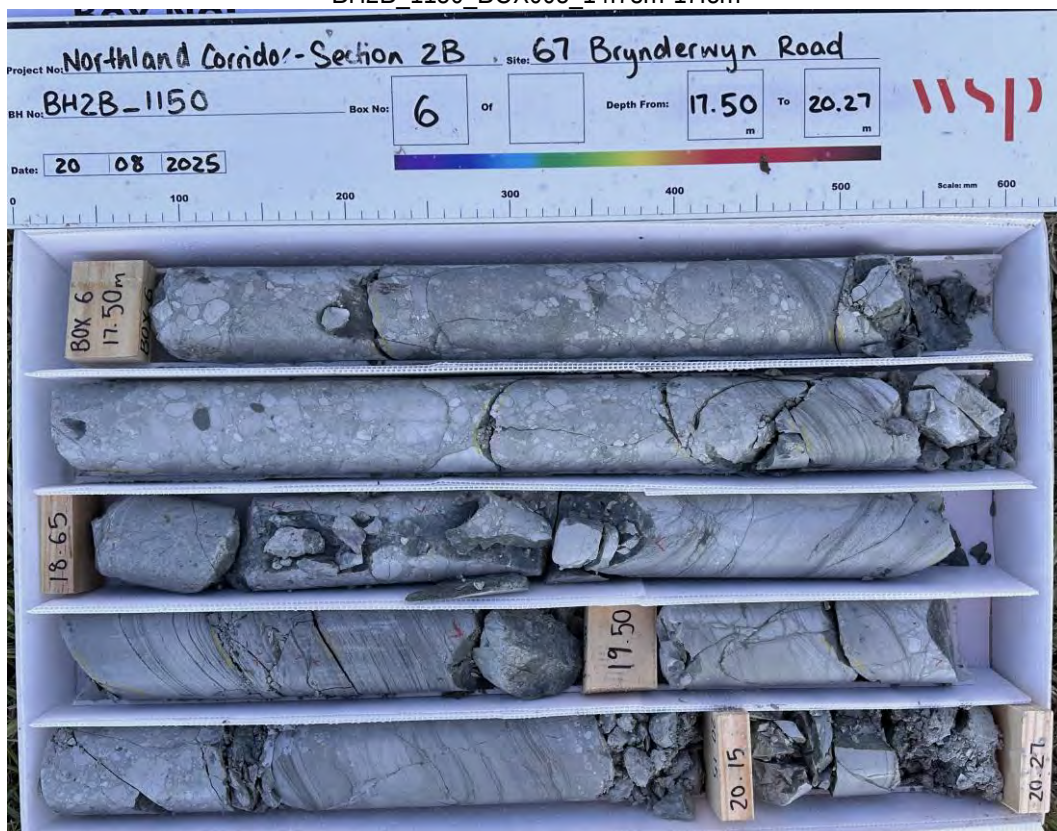
IM

Date Photographed:

20/09/2024-21/08/2025



BH2B_1150_BOX005_14.73m-17.5m



BH2B_1150_BOX006_17.5m-20.27m

Borehole Reference:

BH2B_1150

Photographed By:

IM

Date Photographed:

20/09/2024-21/08/2025



BH2B 1150 BOX007 20.27m-23.3m



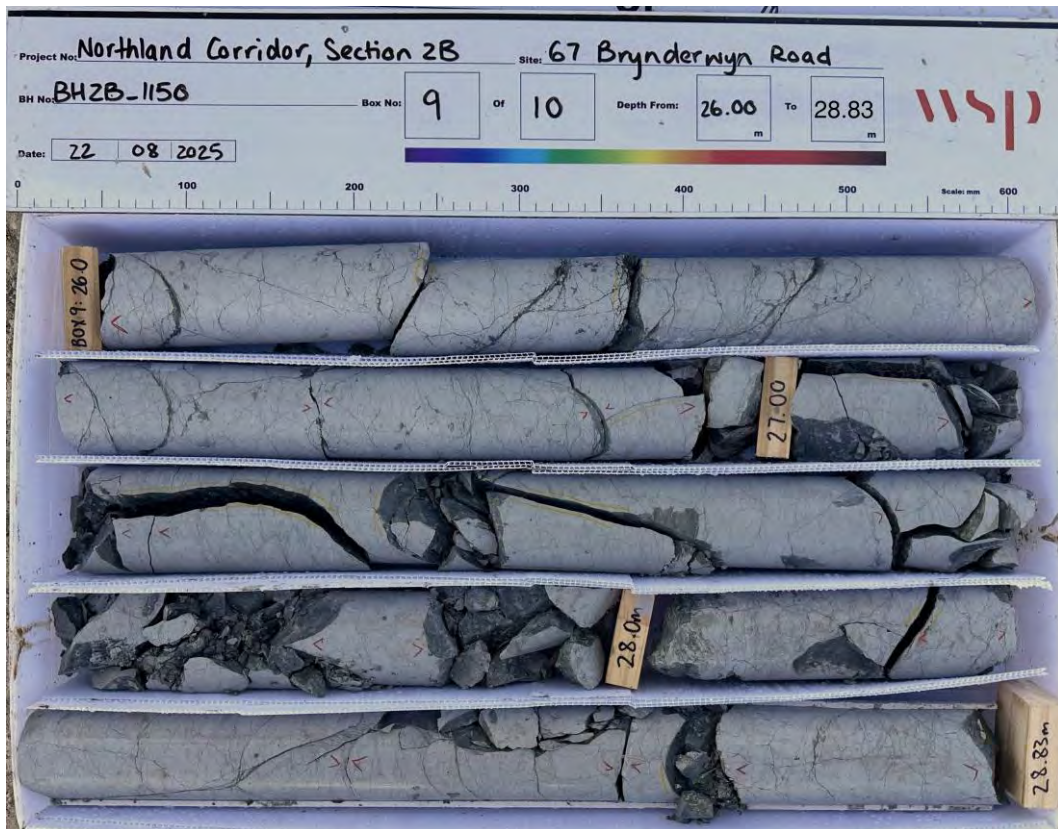
BH2B_1150_BOX008_23.3m-26m

Borehole Reference: BH2B_1150

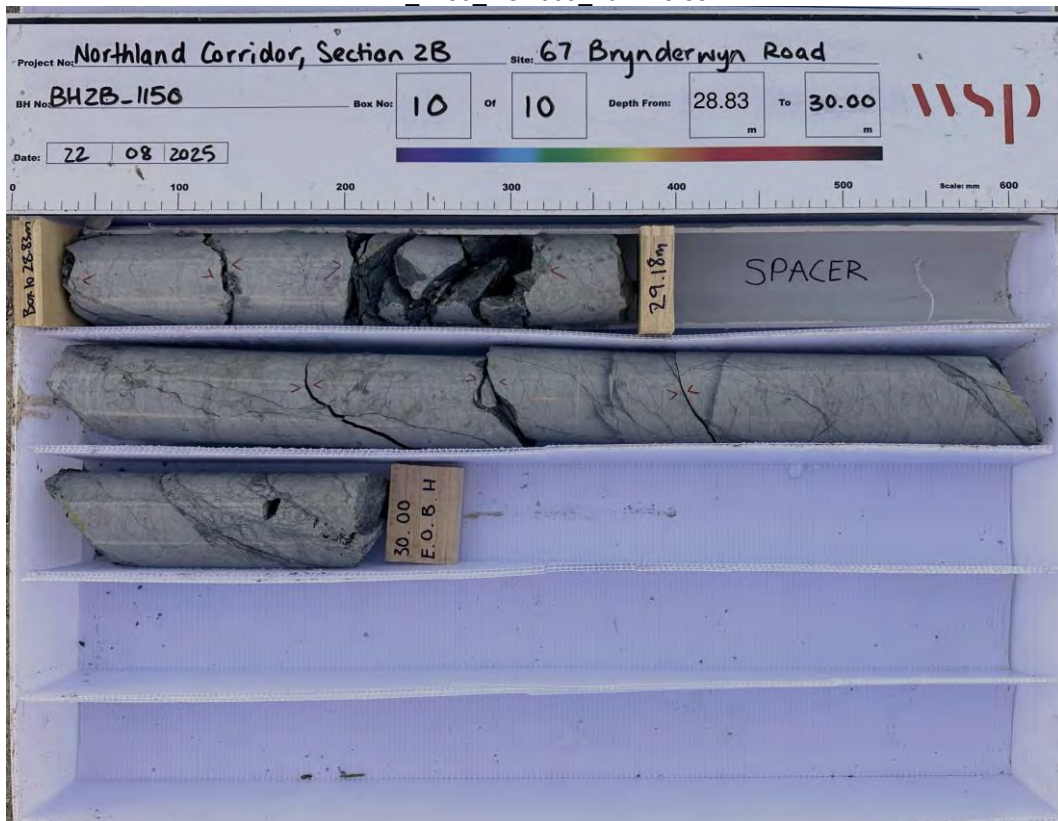
Photographed By: IM

Date Photographed:

20/09/2024-21/08/2025

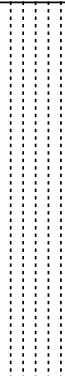
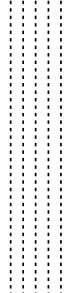
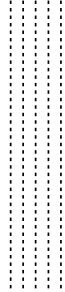
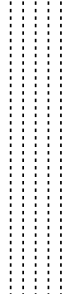
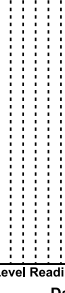


BH2B_1150_BOX009_26m-28.83m



BH2B_1150_BOX010_28.83m-30m

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000		Date Started: 09-09-2025	Logged: I. Mans
Method: Rotary Core Wireline		Easting: 1727913.36mE,		Date Completed: 12-09-2025	Input: I. Mans
Equipment: Fraste SRS		Northing: 6005429.58mN,		Inclination: 90	Reviewed: N. Crampton
Contractor: Pro-Drill (Auck) Ltd		Ground level: 132.81m		Azimuth: N/A	Verified: A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
1	HA	132	1		TS	SILT with trace clay and rootlets; dark brown, mixed black. Stiff, moist, low plasticity [TOPSOIL]. 0.20m: Mottled orange.	-	0.5m SV 122/55kPa	100	-	-			
						Silty CLAY with trace rootlets; brownish grey, mottled orange. Very stiff, moist, low plasticity [NORTHLAND ALLOCHTHON SOILS (RESIDUAL/CW)].								
						1.50m: Stiff.								
2	SPT	130	2		NAS	CLAY with some silt; light grey, mottled orange, mixed brown. Stiff, moist, high plasticity. Brown sections are SILT; firm, moist, low plasticity; up to 50mm.	RS	1.5m SV 94/42kPa	72	-	-			
						CORELOSS 2.85-3.00m (150mm).								
						3.00m - 3.50m: PUSHTUBE (500mm).								
3	SPT	129	3		NAS	SILT, minor clay; light bluish grey, mixed dark grey. Very stiff, moist, low plasticity.	CW	3.5m SPT 1, 3/2, 3, 2, 3 N= 10	71	-	-			
						CORE LOSS 4.16-4.5m (340mm).								
4	SPT	128	4		NAD	Highly weathered, light bluish grey, mixed dark grey, pervasively sheared, calcareous MUDSTONE; extremely weak. Shear fabric dip 30-45°. Hosts minor clasts of dark grey siltstone, angular, very weak, up to 10mm. Recovered as SILT, minor clay. Very stiff, moist, low plasticity [NORTHLAND ALLOCHTHON DEGRADED ZONE (HW/MW)].	HW	4.5m SPT 1, 1/2, 2, 2, 3 N= 9	62	-	-		5.00m: HCl test; weak reaction	
						CORE LOSS 5.50-5.67m (170mm).								
5	SPT	127	5		NAD	5.67m - 5.83m: Block of dark grey, SILTSTONE, very weak. Recovered as angular fragments up to 25mm.	MW	6m SPT 1, 2/2, 2, 2, 2 N= 8	73	-	-		6.60m: HCl test; no reaction	
6	SPT	126	6		NAD	6.58m - 6.72m: Intercalated zone of highly weathered, light grey, sheared fine SANDSTONE; extremely weak. Recovered as silty fine sand; medium dense.	MW	7.5m SPT 3, 3/3, 3, 6, 6 N= 18	69	-	-		7.15m: HCl test; no reaction	
						CORE LOSS 6.86-7.00m (140mm).								

REMARKS:		Water Level Readings:		
		DateTime	Hole Depth (m)	Water Level (m)
1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 41mm and vertical accuracy +/- 74mm.				
2. One vibrating wire piezometer was installed on 12/09/2025. BH2B_1151_PZ01 was installed at 44m bgl, Serial No. P250941.				
3. Shear Vane Serial No. 1378, calibration constant 1.383.				

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000		Date Started: 09-09-2025	Logged: I. Mans
Method: Rotary Core Wireline		Easting: 1727913.36mE,		Date Completed: 12-09-2025	Input: I. Mans
Equipment: Fraste SRS		Northing: 6005429.58mN,		Inclination: 90	Reviewed: N. Crampton
Contractor: Pro-Drill (Auck) Ltd		Ground level: 132.81m		Azimuth: N/A	Verified: A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
3	HQ3		124		NAD	[CONT] Moderately weathered, light bluish grey, mixed dark grey, pervasively sheared, calcareous MUDSTONE; extremely weak. Shear fabric dip 30-45°. Hosts minor clasts of dark grey siltstone, angular, very weak, up to 10mm. Recovered as SILT, minor clay. Very stiff, moist, low plasticity. 8.00m - 9.00m: Shear fabric dip 60-70°.	MW		100	100	0		7.95m - 8.00m: Core swell - 150mm extra return 8.00m: HCl test; weak reaction	
	SP		9			CORELOSS 9.15-9.33m (180mm) Washout due to SPT disturbance.		9m SPT 12, 38 for 70mm N = 50+	100	-	-			
	HQ3		123			Unweathered, grey, laminated, fine to medium SANDSTONE; weak. Bedding dip 5-10° [SLIGHTLY TO UNWEATHERED PAKIRI FORMATION]. 9.34m - 9.55m: Bedding is upturned.			87	85	85	MWS	9.86m: BP, 5°, SM, PL, clean	
4	SC		122					10.5m SPT 12, 38 for 60mm N = 50+	-	-	-		10.10-10.12m: BP, 10°, SM, PL, clean, x2 10.33m: BP, 5°, SM, PL, clean	
	HQ3		121			Unweathered, grey, massive, fine to coarse SANDSTONE; moderately strong. Trace clasts of mudstone and calcareous siltstone, subrounded, tabular, up to 5mm.			100	100	100	WCS	11.26m: BP, 5°, SM, PL, clean	
	HQ3		120		PU	12.65m - 13.15m: Interbedded with SILTSTONE; weak. Beds 20-50mm thick, 100-200mm spaced. 12.80m - 12.88m: Carbonaceous fragments, fibrous, 3mm width.	UW		100	100	100		12.20m: HCl test; weak reaction on light grey clasts	
5	HQ3		119						100	100	100	VWS	13.20m: JT, 45°, RG, PL, clean	
	HQ3		118			14.60m - 14.75m: Interbedded with SILTSTONE; weak. Beds 10-50mm thick, with some carbonaceous fragments.			97	97	97			
6	HQ3		117											

REMARKS:		Water Level Readings:		
1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 41mm and vertical accuracy +/- 74mm.		Date/Time	Hole Depth (m)	Water Level (m)
2. One vibrating wire piezometer was installed on 12/09/2025. BH2B_1151_PZ01 was installed at 44m bgl, Serial No. P250941.		09-09-2025 16:40:00	9.15	3.80
3. Shear Vane Serial No. 1378, calibration constant 1.383.		10-09-2025 07:40:00	9.15	2.80

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000	Date Started: 09-09-2025	Logged: I. Mans
Method:	Rotary Core Wireline	Easting: 1727913.36mE,	Date Completed: 12-09-2025	Input: I. Mans
Equipment:	Fraste SRS	Northing: 6005429.58mN,	Inclination: 90	Reviewed: N. Crampton
Contractor:	Pro-Drill (Auck) Ltd	Ground level: 132.81m	Azimuth: N/A	Verified: A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
6	HQ3	116	17			[CONT] Unweathered, grey, massive, fine to coarse SANDSTONE; moderately strong. Trace clasts of mudstone and calcareous siltstone, subrounded, tabular, up to 5mm.			97	97	97			
	HQ3	115	18						100	100	100			
7	HQ3	114	19						100	100	100			
	HQ3	113	20		PU		UW		100	100	100		19.90-20.20m: JT, 75°, RG, PL, calcite infill, 1-4 mm 20.00m: HCl test; strong on calcite vein	
	HQ3	112	21			21.20m: Minor clasts, up to 20mm.			100	100	100		20.40-20.60m: JT, 75°, RG, PL, calcite infill, 1-3 mm	
8	HQ3	111	22			22.30m: Trace clasts.			100	100	100			
	HQ3	110	23						97	97	91			
9	HQ3	109				23.80m - 23.90m: Bed of unweathered, dark grey,							23.80-23.90m: DB, 0°-5°, RG, PL, broken parallel to bedding, x5	

REMARKS:

- Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 41mm and vertical accuracy +/- 74mm.
- One vibrating wire piezometer was installed on 12/09/2025. BH2B_1151_PZ01 was installed at 44m bgl, Serial No. P250941.
- Shear Vane Serial No. 1378, calibration constant 1.383.

Water Level Readings:		
Date/Time	Hole Depth (m)	Water Level (m)

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000		Date Started: 09-09-2025	Logged: I. Mans
Method: Rotary Core Wireline		Easting: 1727913.36mE,		Date Completed: 12-09-2025	Input: I. Mans
Equipment: Fraste SRS		Northing: 6005429.58mN,		Inclination: 90	Reviewed: N. Crampton
Contractor: Pro-Drill (Auck) Ltd		Ground level: 132.81m		Azimuth: N/A	Verified: A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
9	HQ3	108	25			[CONT] Unweathered, grey, massive, fine to coarse SANDSTONE; moderately strong. Trace clasts of mudstone and calcareous siltstone, subrounded, tabular, up to 5mm.			100	100	100	VWS WS MWS VCS ECs		
						25.50m: Minor clasts.								
10	HQ3	107	26		PU	26.15m: Trace clasts.	UW		100	100	100		27.50m: HCl test; weak reaction on light grey clasts	
						27.42m - 27.55m: Bed of unweathered, grey, conglomeratic fine to medium SANDSTONE; moderately strong. Clasts of mudstone, calcareous siltstone, volcanics?, subrounded, low sphericity.			100	100	100			
11	HQ3	105	28			28.53m: Some clasts, up to 30mm.							28.60m: HCl test; weak reaction on light grey clasts	
						28.70m: Trace clasts, up to 5mm.								
12	HQ3	104	29						100	100	100		30.70m: HCl test; weak reaction on light grey clasts	
11	HQ3	103	30						100	100	100			
10	HQ3	102	31						100	100	100			
9	HQ3	101							100	95	95			
						Unweathered, grey, conglomeratic, fine to coarse								

REMARKS: 1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 41mm and vertical accuracy +/- 74mm. 2. One vibrating wire piezometer was installed on 12/09/2025. BH2B_1151_PZ01 was installed at 44m bgl, Serial No. P250941. 3. Shear Vane Serial No. 1378, calibration constant 1.383.	Water Level Readings:		
	Date/Time	Hole Depth (m)	Water Level (m)
	10-09-2025 16:55:00 11-09-2025 07:45:00	30.00 30.00	9.10 7.00

BOREHOLE INFORMATION	CO-ORDINATES: NZTM2000	Date Started: 09-09-2025	Logged: I. Mans
Method: Rotary Core Wireline	Easting: 1727913.36mE	Date Completed: 12-09-2025	Input: I. Mans
Equipment: Fraste SRS	Northing: 6005429.58mN	Inclination: 90	Reviewed: N. Crampton
Contractor: Pro-Drill (Auck) Ltd	Ground level: 132.81m	Azimuth: N/A	Verified: A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
12	HQ3		100			SANDSTONE; moderately strong. Clasts of mudstone, calcareous siltstone, and volcanics? up to 20mm, subrounded, low sphericity.			100	95	95	VWS VWS CS	32, 29-32,39m: JT, 50°, RG, PL, clean, x2	
	HQ3		99			34.05m - 34.20m: Recovered as fine to coarse angular gravel, drilling induced.			100	60	47	VWS MWS	33, 65-34,20m: JT, 75°-85°, RG, UN, clean, x3	
	HQ3		98			34.50m - 34.90m: Recovered as fine to coarse angular gravel, adjacent to joint. Drilling induced.							34, 40-34,88m: JT, 80°-90°, RG, UN, clean	
	HQ3		97			35.00m: Interbedded with laminated fine SANDSTONE. Beds 200-300mm thick, 150mm spaced, dip 5-15°.			100	76	76	CS	35, 00m: BP, 5°, SM, PL, clean 35, 14m: JT, 50°, SM, PL, clean 35, 20-35,25m: JT, 80°, RG, UN, clean, 5mm offset 35, 30m: BP, 10°, SM, PL, clean 35, 50m: JT, 60°, RG, PL, clean	
	HQ3		96		PU	35.60m - 36.00m: Sandstone bedding is convoluted.	UW		100	100	100		36, 86-37,30m: VN, 85°, UN, calcite, 2-3 mm	
	HQ3		95			Unweathered, grey, massive, fine to coarse SANDSTONE; moderately strong. Trace clasts of mudstone and calcareous siltstone, subrounded, up to 5mm.			100	100	100	VWS		
	HQ3		94			38.58m - 38.71m: Carbonaceous fragments up to 2mm thick, contacts dip 5°.			100	100	100		39, 50m: JT, 60°, RG, PL, calcite ctg	
15	HQ3		93											

REMARKS:

- Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 41mm and vertical accuracy +/- 74mm.
- One vibrating wire piezometer was installed on 12/09/2025. BH2B_1151_PZ01 was installed at 44m bgl, Serial No. P250941.
- Shear Vane Serial No. 1378, calibration constant 1.383.

Water Level Readings:

DateTime

Hole Depth (m)

Water Level (m)

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000		Date Started: 09-09-2025	Logged: I. Mans
Method: Rotary Core Wireline		Easting: 1727913.36mE		Date Completed: 12-09-2025	Input: I. Mans
Equipment: Fraste SRS		Northing: 6005429.58mN		Inclination: 90	Reviewed: N. Crampton
Contractor: Pro-Drill (Auck) Ltd		Ground level: 132.81m		Azimuth: N/A	Verified: A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
15	HQ3	92	41		PU	[CONT] Unweathered, grey, massive, fine to coarse SANDSTONE; moderately strong. Trace clasts of mudstone and calcareous siltstone, subrounded, up to 5mm.			100	100	100	VWS WS MWS VCS ECS		
16	HQ3	91	42		PFZ	Unweathered, grey mixed dark grey, brecciated SILTSTONE; extremely weak. Blocks of siltstone up to 50mm, angular to subangular; matrix of silty clay, stiff, high plasticity. Shear fabric dip 75-90° [PAKIRI FORMATION FAULT].	UW					ECS	42.55m: VN, 45° , PL , calcite , 1mm 42.67m: VN, 45° , PL , calcite , 1mm, broken during drilling 42.83-42.91m: VN, 45°-60° , UN , calcite , 1-3mm, anastomosing, broken during drilling, x2 43.13m: JT, 45° , RG , PL , clean	
17	HQ3	89	44		PU	Unweathered, grey banded dark grey, interbedded fine SANDSTONE (50%) and laminated SILTSTONE (50%); moderately strong. Bedding 10-90mm thick, dip 5-10° [SLIGHTLY TO UNWEATHERED PAKIRI FORMATION]. Unweathered, grey, indistinctly bedded, fine to coarse SANDSTONE; moderately strong. Trace clasts of siltstone, subrounded, up to 5mm. 46.08m - 48.10m: Interbedded with laminated SILTSTONE; moderately strong. Beds 30-80mm thick, 100-600mm spaced, 5° inclined.			96	29	0	CS VWS	44.90m: Core bound 45.02m: JT, 50° , SM , PL , clean 45.11m: JT, 45° , SM , PL , clean 45.27m: JT, 50° , SM , UN , clean 45.37m: BP, 5° , SM , PL , clean 45.86m: VN, 30° , UN , calcite , 1mm 45.95m: VN, 30° , UN , calcite , 1mm	

REMARKS:		Water Level Readings:		
1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 41mm and vertical accuracy +/- 74mm.		DateTime	Hole Depth (m)	Water Level (m)
2. One vibrating wire piezometer was installed on 12/09/2025. BH2B_1151_PZ01 was installed at 44m bgl, Serial No. P250941.				
3. Shear Vane Serial No. 1378, calibration constant 1.383.				

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000		Date Started: 09-09-2025	Logged: I. Mans
Method:	Rotary Core Wireline	Easting:	1727913.36mE,	Date Completed: 12-09-2025	Input: I. Mans
Equipment:	Fraste SRS	Northing:	6005429.58mN,	Inclination: 90	Reviewed: N. Crampton
Contractor:	Pro-Drill (Auck) Ltd	Ground level:	132.81m	Azimuth: N/A	Verified: A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
17	HQ3	84	49		PU	[CONT] Unweathered, grey, indistinctly bedded, fine to coarse SANDSTONE; moderately strong. Trace clasts of siltstone, subrounded, up to 5mm.	UW		100	100	100	VWS WS MWS VCS ECs		
18									100	100	100			
	HQ3	83	50			End Of Hole: 50.00m								
		82												
		51												
		81												
		52												
		80												
		53												
		79												
		54												
		78												
		55												
		77												

REMARKS: 1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 41mm and vertical accuracy +/- 74mm. 2. One vibrating wire piezometer was installed on 12/09/2025. BH2B_1151_PZ01 was installed at 44m bgl, Serial No. P250941. 3. Shear Vane Serial No. 1378, calibration constant 1.383.	Water Level Readings:		
	DateTime	Hole Depth (m)	Water Level (m)
	11-09-2025 17:00:00	50.00	2.70
	12-09-2025 09:00:00	50.00	27.40

Borehole Reference: BH2B_1151

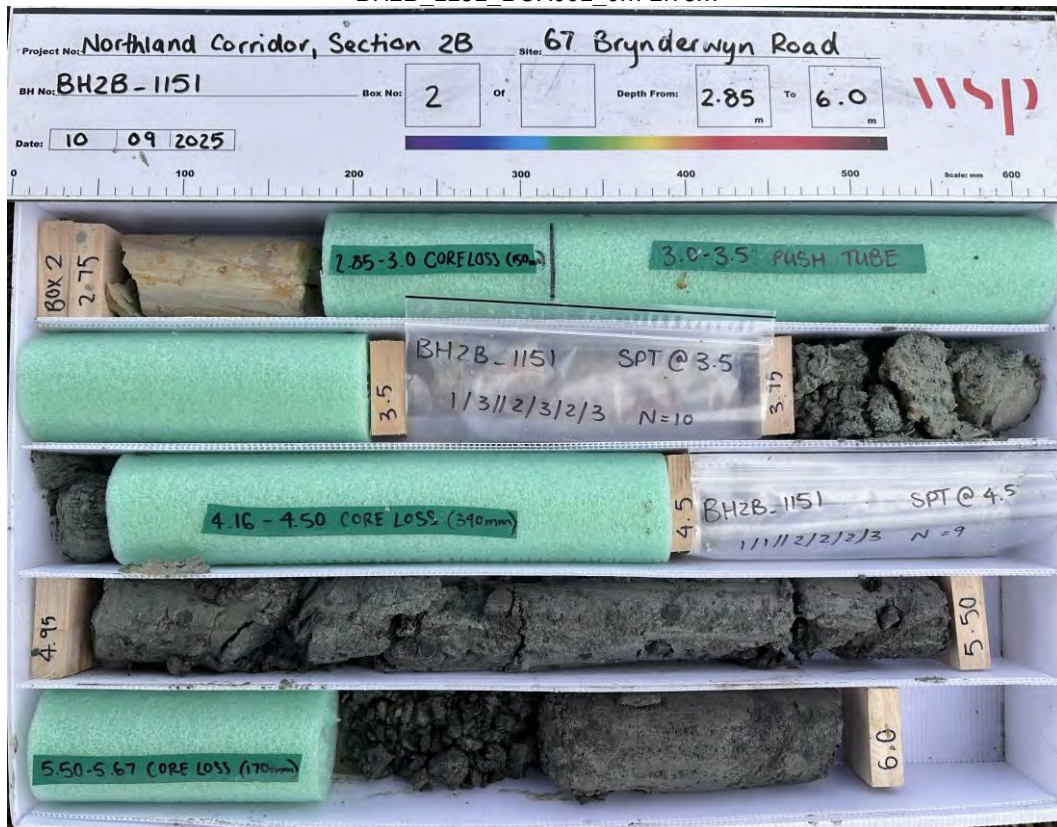
Photographed By: IM

Date Photographed:

10/09/2025-12/09/2025



BH2B_1151_BOX001_0m-2.75m



BH2B_1151_BOX002_2.75m-6m

Borehole Reference:

BH2B_1151

Photographed By:

IM

Date Photographed:

10/09/2025-12/09/2025



BH2B_1151_BOX003_6m-9.15m



BH2B_1151_BOX004_9.15m-11.7m

Borehole Reference:

BH2B_1151

Photographed By:

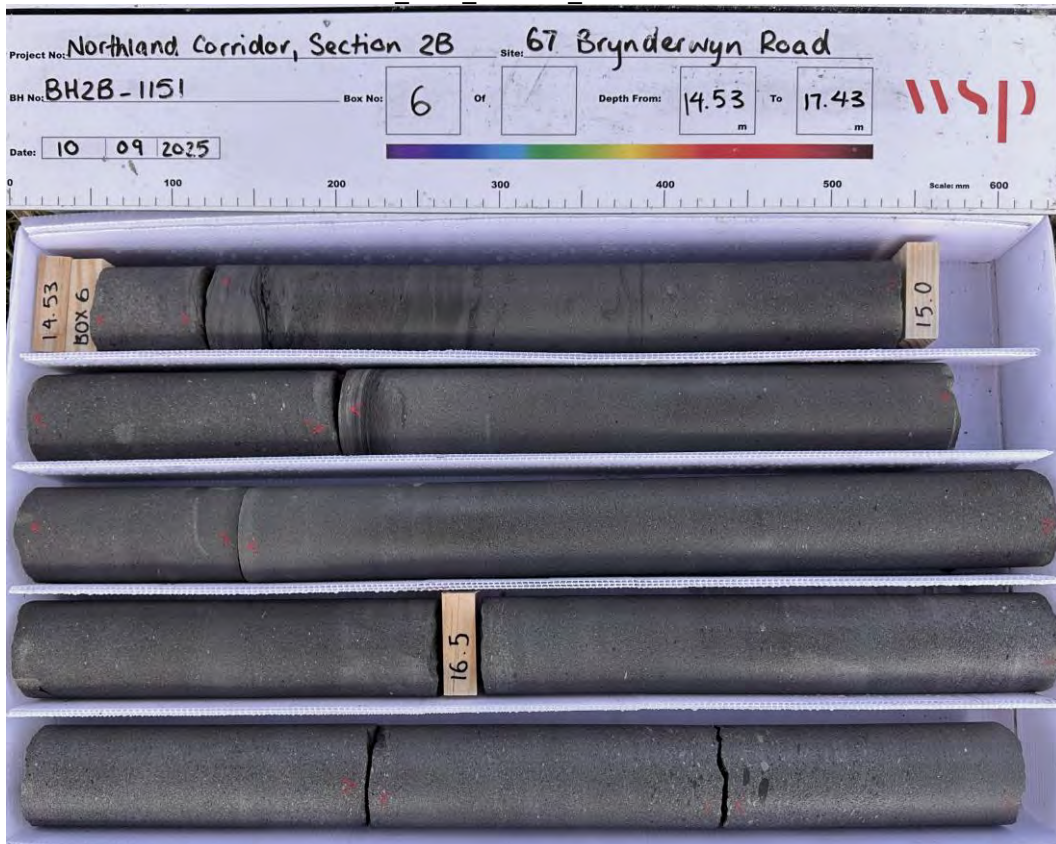
IM

Date Photographed:

10/09/2025-12/09/2025



BH2B_1151_BOX005_11.7m-14.53m



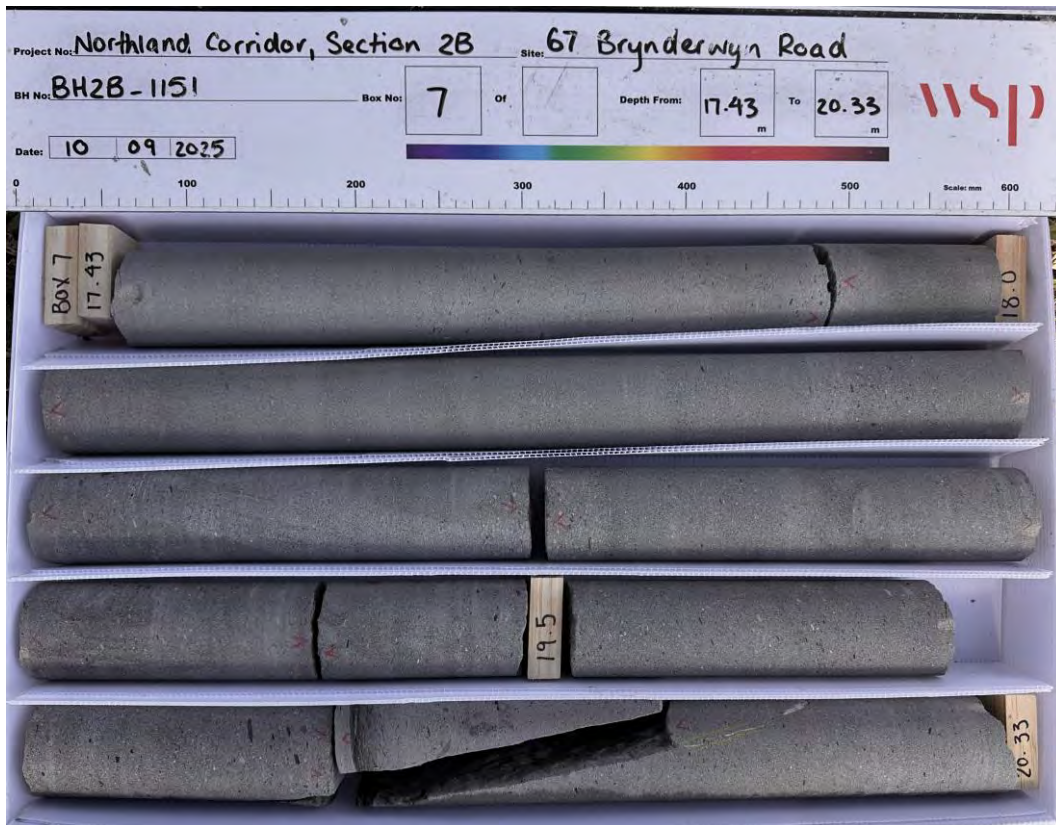
BH2B_1151_BOX006_14.53m-17.43m

Borehole Reference: BH2B_1151

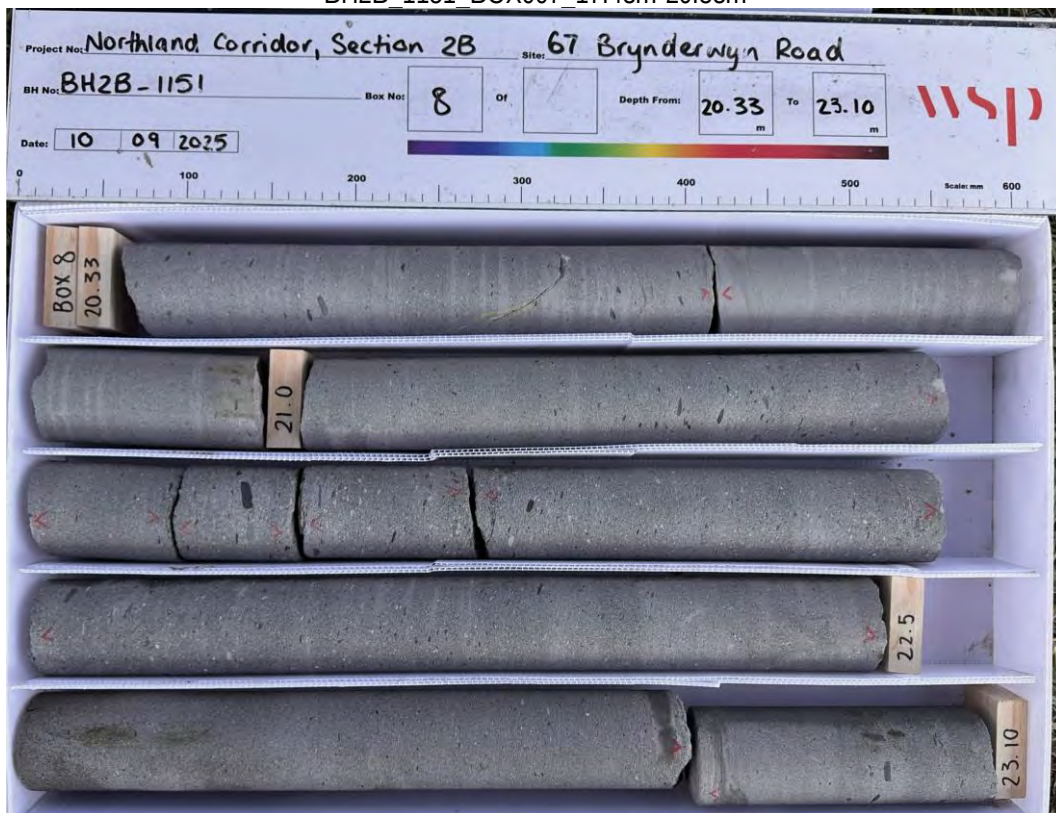
Photographed By: IM

Date Photographed:

10/09/2025-12/09/2025



BH2B 1151 BOX007 17.43m-20.33m



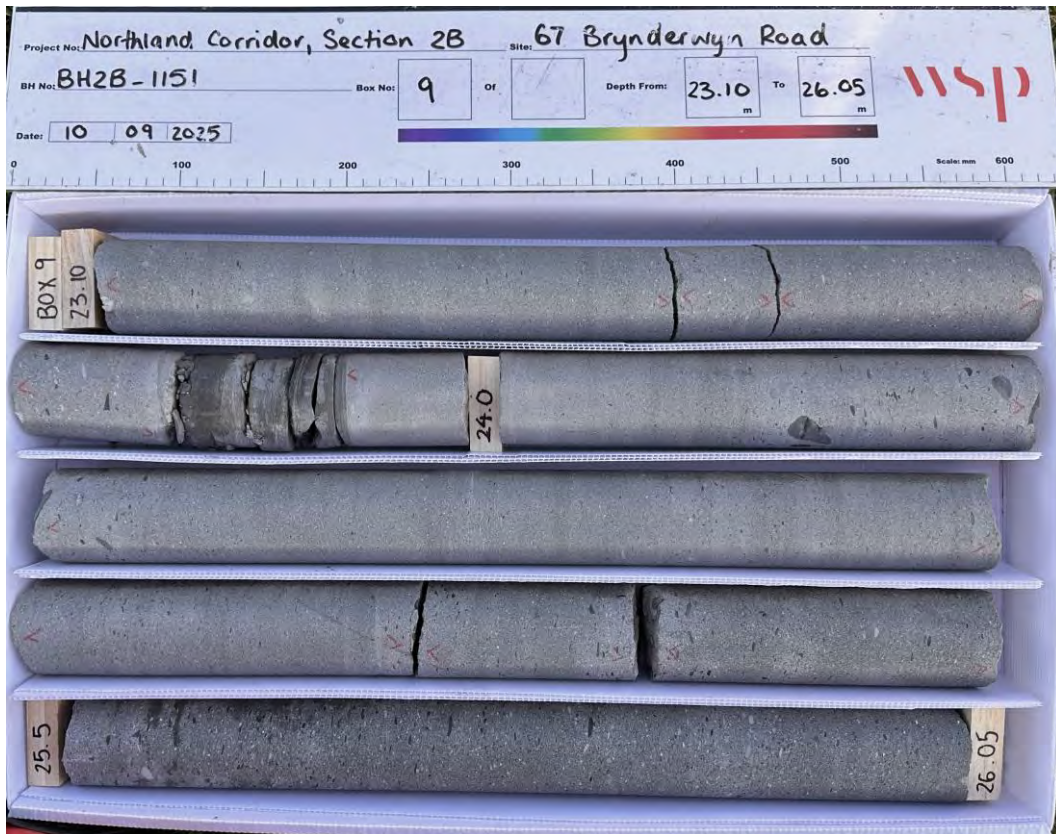
BH2B_1151_BOX008_20.33m-23.1m

Borehole Reference: BH2B_1151

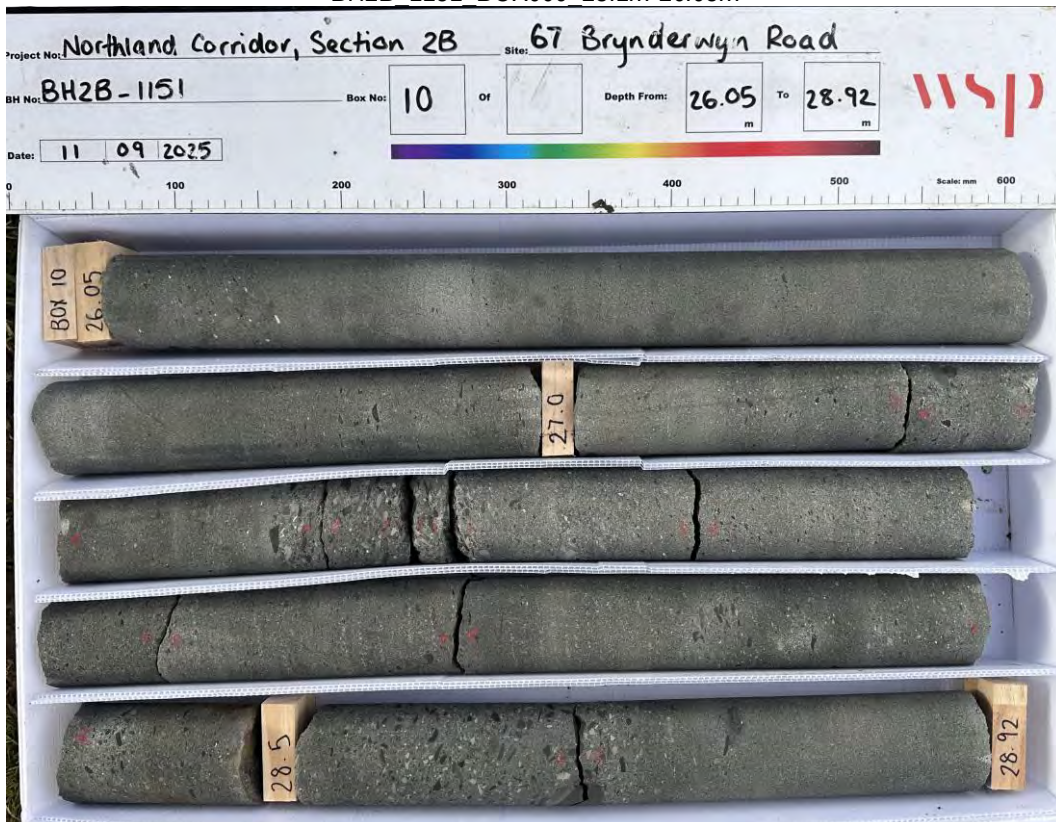
Photographed By: IM

Date Photographed:

10/09/2025-12/09/2025



BH2B 1151 BOX009 23.1m-26.05m



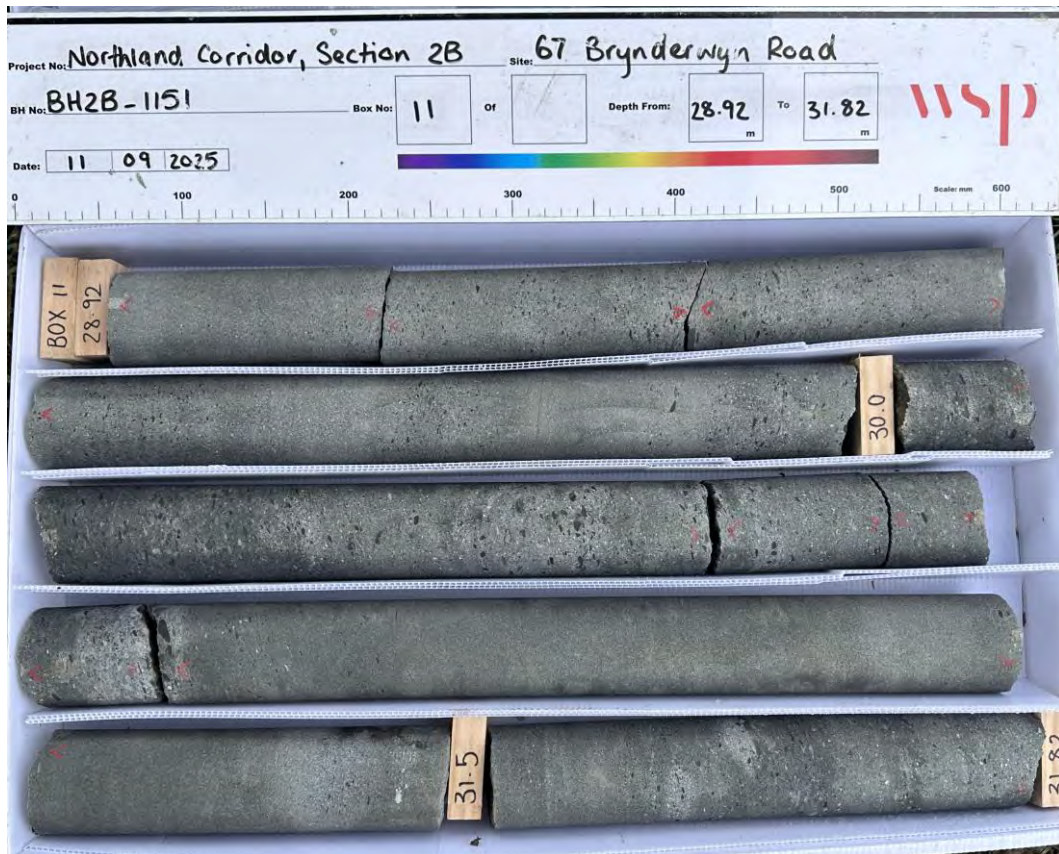
BH2B_1151_BOX010_26.05m-28.92m

Borehole Reference: BH2B_1151

Photographed By: IM

Date Photographed:

10/09/2025-12/09/2025



BH2B_1151_BOX011_28.92m-31.82m



BH2B_1151_BOX012_31.82m-34.5m

Borehole Reference: BH2B_1151

Photographed By: IM

Date Photographed:

10/09/2025-12/09/2025



BH2B_1151_BOX013_34.5m-37.13m



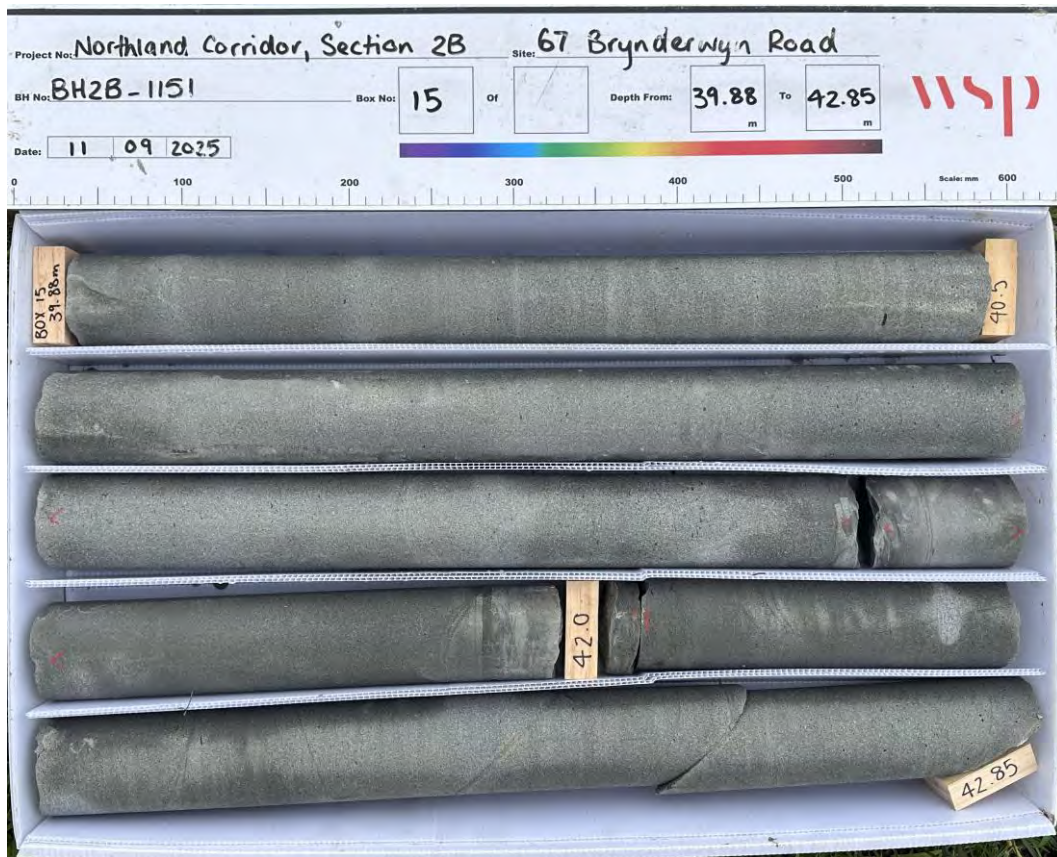
BH2B_1151_BOX014_37.13m-39.88m

Borehole Reference: BH2B_1151

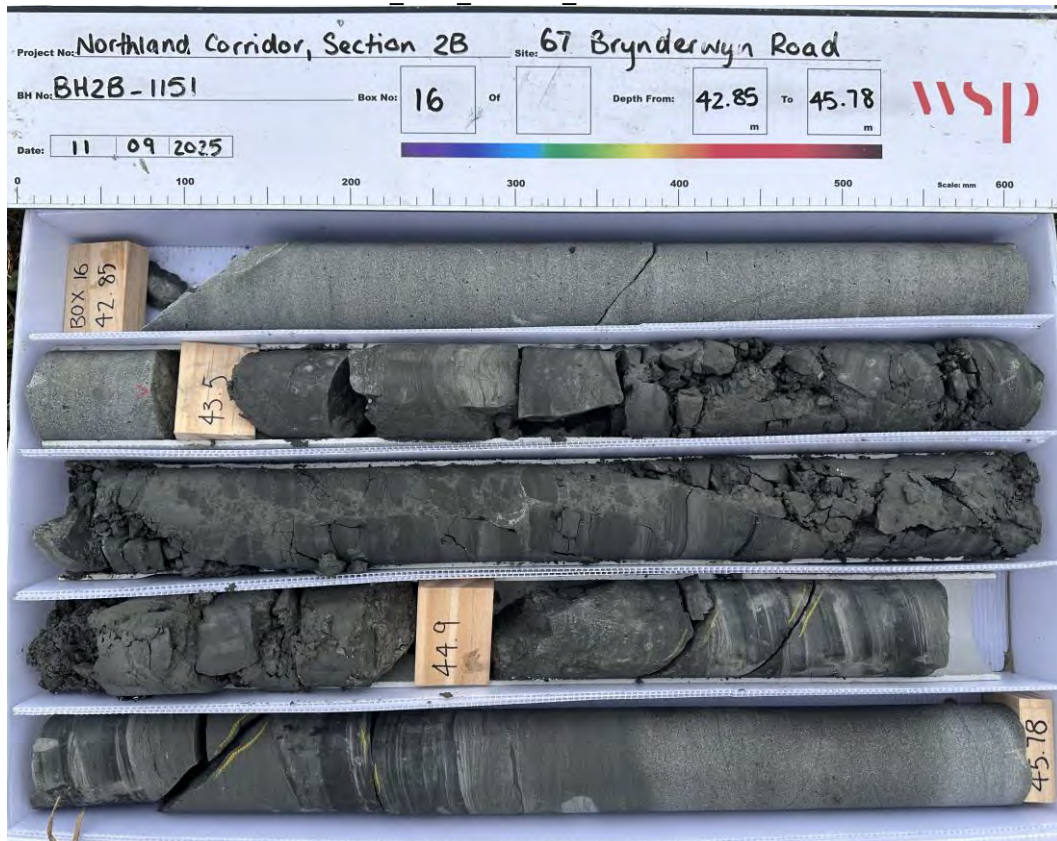
Photographed By: IM

Date Photographed:

10/09/2025-12/09/2025



BH2B_1151_BOX015_39.88m-42.85m



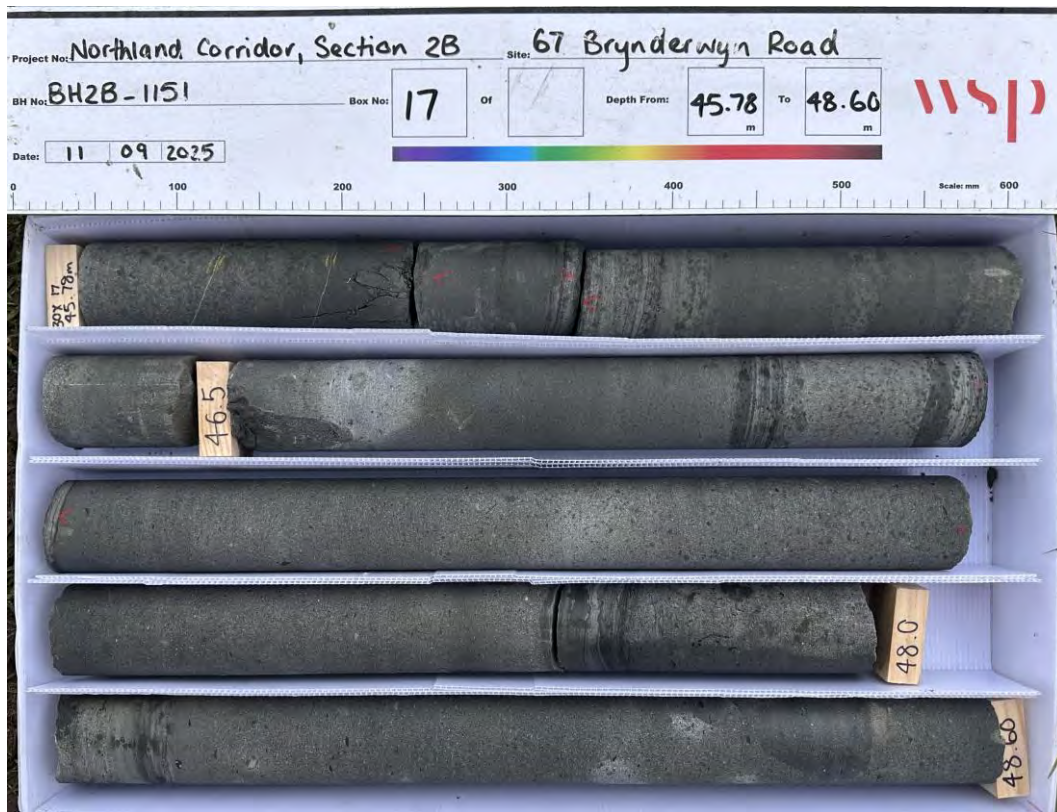
BH2B_1151_BOX016_42.85m-45.78m

Borehole Reference: BH2B_1151

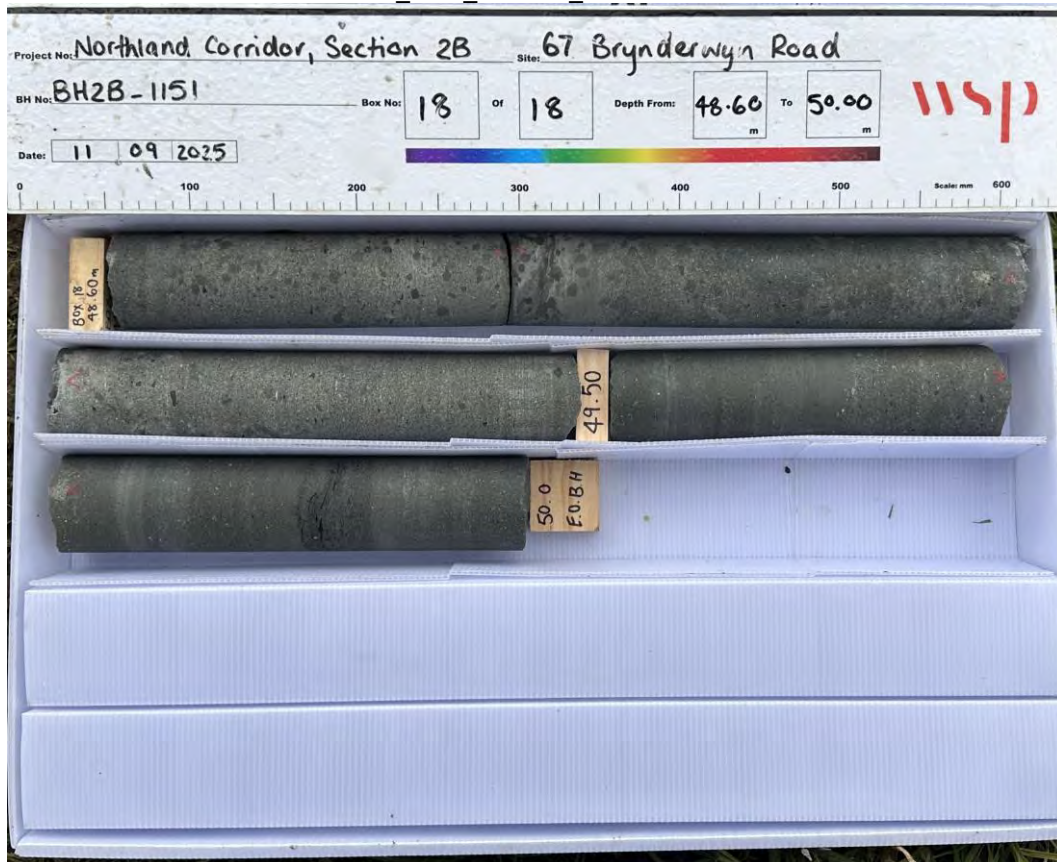
Photographed By: IM

Date Photographed:

10/09/2025-12/09/2025



BH2B_1151_BOX017_45.78m-48.6m



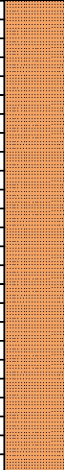
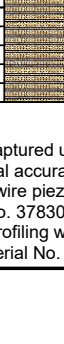
BH2B_1151_BOX018_48.6m-50m

BOREHOLE INFORMATION		CO-ORDINATES: NZTM	Date Started: 11/09/2025	Logged: C. Struthers
Method: Rotary Core Wireline		Easting: 1727485.0mE,	Date Completed: 23/09/2025	Input: C. Struthers
Equipment: CAT308 8 Ton Digger Rig		Northing: 6005085.7mN,	Inclination: 90	Reviewed: B. O'Loughlin
Contractor: Pro Drill Ltd		Ground level: 93.98m (NZVD2016)	Azimuth: N/A	Verified: A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
1	HA	93	1		Topsoil NAS	0.00m-0.15m Organic SILT with some clay; brown. Moist; low plasticity; organics, plants and plant roots. 0.15m-0.60m Silty CLAY; orange brown mottled orange. Moist; high plasticity [RESIDUAL SOIL]. 0.60m-1.50m Sandy SILT with minor organics; orange brown mottled light greyish brown. Moist; organics, plant rootlets, up to 100mm in length.	RS	0.5m SV 90/ 40kPa 1m SV 88/ 28kPa 1.5m SV UTP	100	-	-			
2	HQ3	92	2			1.50m-1.58m SILT with some sand; brownish orange. Moist; sand, fine; relict joints, iron and manganese stained [COMPLETELY WEATHERED ROCK]. CORE LOSS [1.58 - 3.0m].	CW		5	-	-			
2	SPT	91	3		NAM	3.00m-3.10m Sandy SILT; light orange. Firm; extremely closely spaced relict joints, joint surfaces iron stained [COMPLETELY WEATHERED ROCK]. 3.10m-6.00m Moderately weathered, grey and bluish grey, mottled reddish brown, pervasively sheared, MUDSTONE; extremely weak; intermixed with lenses of calcareous siltstone and fine to coarse gravel sized lenses of silty limestone.		3m SPT 1, 3/3, 4, 3, 4 N= 14	84	-	-		3.45m , 3.45m - 4.15m: Shear fabric dips at 20-30 degrees 3.60m , No HCl reaction	
2	HQ3	90	4			5.20m - 5.38m: Conglomeratic fine SANDSTONE; greyish blue and grey; 30% clasts, unweathered calcareous and non- calcareous siltstone and sandstone, 2-20mm, rounded; highly fractured; very weak.	MW	4.5m SPT 4, 5/6, 7, 7, 8 N= 28	82	-	-		4.15m , 4.15m - 6.00m: Shear fabric dips at 40-50 degrees 4.20m , No HCl reaction 4.45m , Weak HCl reaction	
2	SPT	89	5						100	-	-		5.05m , Strong HCl reaction	
2	HQ3	88	6						100	-	-		5.25m , Weak HCl reaction 5.40m , 5.40m - 5.75m: Handling induced crushing, core stuck on split 5.45m , Strong HCl reaction	
3	HQ3	87	7		PU	6.00-15.00m Unweathered, grey, indistinctly bedded, fine to coarse SANDSTONE with minor clasts; moderately strong; 5-10% clasts, unweathered siltstone, 2-30mm in size, subangular, irregular and elongated; occasional carbonaceous bands, 1-15mm thick, subhorizontal (0-5 degrees). 7.10m - 7.25m: Fine to medium SANDSTONE.	UW	6m SPT 18, 32 for 5mm N = 50+	0	-	-			
4	HQ3							7.5m SPT 50 for 25mm N = 50+	88	88	88			

REMARKS:		Water Level Readings:		
1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 85mm and vertical accuracy +/- 92mm.		Date/Time	Hole Depth (m)	Water Level (m)
2. One vibrating wire piezometer was installed on 23/09/2025. Piezometer BH2B_1152_PZ01 was installed at 27.00m, Serial No. 378309.		11/09/2025 11:00:00 am	1.50	0.30
2. Geophysical profiling was undertaken on 22/09/2025, comprising optical and acoustic televiewer.				
3. Shear Vane Serial No. 1378, calibration constant 1.383.				

BOREHOLE INFORMATION		CO-ORDINATES: NZTM		Date Started: 11/09/2025	Logged: C. Struthers
Method: Rotary Core Wireline		Easting: 1727485.0mE,		Date Completed: 23/09/2025	Input: C. Struthers
Equipment: CAT308 8 Ton Digger Rig		Northing: 6005085.7mN,		Inclination: 90	Reviewed: B. O'Loughlin
Contractor: Pro Drill Ltd		Ground level: 93.98m (NZVD2016)		Azimuth: N/A	Verified: A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
4	HQ3	85	9		PU	7.10m - 7.25m: Fine to medium SANDSTONE.	UW		88	88	88	WVS WS MVS CS VCS ECS		
						8.95m - 9.25m: Laminated to very thin bedding, inclined 10°.								
5	HQ3	84	10		PU	9.40m - 9.50m: Conglomeratic coarse SANDSTONE; 30% clasts, unweathered siltstone, 2-20mm in size, sub-rounded to rounded, irregular and elongated.			105	100	100	WVS WS MVS CS VCS ECS		
						10.40m - 10.85m: Conglomeratic, 20-30% clasts, unweathered siltstone, 2-10mm in size, sub-rounded to rounded, irregular and elongated.								
6	HQ3	83	11		PU	11.20m - 13.30m: Multiple closely spaced healed joints (intact rock strength), steeply dipping (40 - 70 degrees), 1-2mm wide.			100	100	100	WVS WS MVS CS VCS ECS		
						12.60m: Sub-rounded siltstone clasts, dark grey, 15-30mm.								
7	HQ3	82	12		PU	13.80m - 13.95m: Some mudstone & siltstone clasts, <9mm in size, subrounded to subangular.			100	100	100	WVS WS MVS CS VCS ECS		
						13.85m: Fine grained.								
8	HQ3	81	13		PU	14.18m - 14.22m: Unweathered; dark grey; laminated, MUDSTONE.			100	100	100	WVS WS MVS CS VCS ECS		
						14.26m - 14.27m: Mudstone laminations.								
9	HQ3	80	14		PU	14.90m: Coarse grained.			89	85	54	WVS WS MVS CS VCS ECS	15.02m JT, 87°, SM , UN	
						15.00m: Bedding partings, rock mass is fissile.								
10	HQ3	79	15		PU	15.00m-16.50m Unweathered, bluish grey, interbedded SANDSTONE (80%) and MUDSTONE (20%); moderately strong. Bedding is subhorizontal. Sandstone is grey, fine grained, indistinct thin to moderately thin bedding; Siltstone is dark bluish grey, finely laminated. Drilling induced and handling breaks are parallel to bedding.						WVS WS MVS CS VCS ECS		

BOREHOLE INFORMATION		CO-ORDINATES: NZTM	Date Started: 11/09/2025	Logged: C. Struthers
Method: Rotary Core Wireline		Easting: 1727485.0mE,	Date Completed: 23/09/2025	Input: C. Struthers
Equipment: CAT308 8 Ton Digger Rig		Northing: 6005085.7mN,	Inclination: 90	Reviewed: B. O'Loughlin
Contractor: Pro Drill Ltd		Ground level: 93.98m (NZVD2016)	Azimuth: N/A	Verified: A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
6	HQ3					15.00m-16.50m Unweathered, bluish grey, interbedded SANDSTONE (80%) and MUDSTONE (20%); moderately strong. Bedding is subhorizontal. Sandstone is grey, fine grained, indistinct thin to moderately thin bedding; Siltstone is dark bluish grey, finely laminated. Drilling induced and handling breaks are parallel to bedding.			89	85	54	WWS WS MWS VCS ECS	16.10m JT, 2", RG, ST 16.12m JT, 2", RG, PL 16.18m CZ, 2", RG, UN, Clay	
7	HQ3	77	17			16.50m-16.95m Unweathered, bluish grey, fine SANDSTONE; moderately strong. Indistinct subhorizontal bedding. 16.85m - 16.93m: Cross-bedding.			99	93	33	CS	17.13-17.17m: CZ, 3", RG, UN, No fill 17.25m JT, 2", RG, ST, No fill 17.40m JT, 2", RG, ST, No fill	
	HQ3	76	18			16.95m-17.43m SANDSTONE (50%) and MUDSTONE (50%). 17.43m-17.98m Unweathered, bluish grey, fine grained SANDSTONE; moderately strong. Indistinct subhorizontal bedding; with occasional carbonaceous laminations. Drilling and handling breaks are parallel to bedding. 17.80m: Conglomeratic, coarse-grained. Clasts, mudstone & siltstone, <2mm in size, subrounded. 17.93m - 18.00m: Unweathered; dark grey; laminated; MUDSTONE.			100	90	63	WS		
	HQ3	75	19			CORE LOSS [17.98m-18m]. 18.00m-18.11m Unweathered, bluish grey SANDSTONE; strong. Some carbonaceous inclusions.						CS	18.80-18.87m: SZ, 2", RG, UN, Polished surfaces 18.95m JT, 2", RG, UN 18.97m JT, 2", RG, UN	
	HQ3	74	20			18.11m-19.10m Unweathered, bluish grey to dark grey, interbedded SANDSTONE (50%) and MUDSTONE (50%); weak. Bedding is subhorizontal. Sandstone is bluish grey, fine to coarse grained, with sparse carbonaceous laminations; Mudstone is dark grey, laminated. 18.80m: Mudstone (70%) and sandstone (30%).	UW		98	98	98		20.00m, No HCl reaction	
8	HQ3	73	21			19.10m-19.20m Unweathered, grey, medium grained SANDSTONE; strong; sparse carbonaceous laminations. 19.20m-19.57m Unweathered, banded light to dark bluish grey, interbedded SANDSTONE (50%) and SILTSTONE (50%); weak. Bedding is subhorizontal, very thin to laminated. Sandstone is light bluish grey, fine to medium grained. Siltstone is dark bluish grey, laminated. Sparse carbonaceous laminations.			100	100	100	WWS		
	HQ3	72	22			19.57m-28.40m Unweathered, light grey, fine to coarse SANDSTONE; strong. Indistinct subhorizontal bedding, with minor (5%) matrix supported clasts from 19.8m; clasts, dark grey, light blue and reddish grey, siltstone and mudstone, <40mm.; drilling and handling breaks are parallel to bedding.								
9	HQ3	71	23			20.10m - 20.12m: Fine-grained sandstone bed. 20.42m: Dark grey mudstone clasts, weak, <40 mm in size, subrounded. 21.04m: Greenish grey siltstone clast, weak, <60mm in size, subrounded to rounded. 21.07m: Dark greenish grey mudstone clast, weak, <40mm in size, subrounded. 21.08m: Sandstone is medium to coarse with occasional mudstone & siltstone clasts; clasts, weak, <90mm in size, subangular to subrounded. 22.28m - 22.89m: Dark grey laminae; laminae, inferred as organic. Core breaks parallel to laminae. 22.39m: Sandstone is coarse, clastic. 22.99m - 26.79m clasts, matrix (10%) supported, bluish grey, siltstone, <10mm, subangular to subrounded, weak.			100	100	100			
--						Unweathered, bluish grey to dark grey Conglomeratic SANDSTONE; strong; indistinctly								

REMARKS:

- Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 85mm and vertical accuracy +/- 92mm.
- One vibrating wire piezometer was installed on 23/09/2025. Piezometer BH2B_1152_PZ01 was installed at 27.00m, Serial No. 378309.
- Geophysical profiling was undertaken on 22/09/2025, comprising optical and acoustic televiwer.
- Shear Vane Serial No. 1378, calibration constant 1.383.

Water Level Readings:

Date/Time	Hole Depth (m)	Water Level (m)
15/09/2025 3:30:00 pm	16.50	4.40
16/09/2025 7:30:00 am	16.50	3.65

BOREHOLE INFORMATION		CO-ORDINATES: NZTM		Date Started: 11/09/2025	Logged: C. Struthers
Method: Rotary Core Wireline		Easting: 1727485.0mE,		Date Completed: 23/09/2025	Input: C. Struthers
Equipment: CAT308 8 Ton Digger Rig		Northing: 6005085.7mN,		Inclination: 90	Reviewed: B. O'Loughlin
Contractor: Pro Drill Ltd		Ground level: 93.98m (NZVD2016)		Azimuth: N/A	Verified: A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
9	HQ3	69	25			bedded; clasts, bluish grey, siltstone, <10mm, subangular to subrounded, weak to moderately strong. 23.83m - 25.83m: Trace clasts. 24.00m - 24.83m: Conglomeratic; clasts, mudstone, <15mm in diameter, subangular to rounded, 10% of rock mass.			100	100	100			
10	HQ3	68	26			25.83m: Conglomeratic; clasts, mudstone & siltstone, <10mm in diameter, subangular to subrounded, 10% of rock mass. 26.50m - 26.78m: Conglomeratic; clasts, mudstone & siltstone, <25mm in diameter, subrounded, bedding parallel. 26.78m - 26.79m: Carbonaceous laminae, sub-horizontal. 26.87m: Conglomeratic; clasts are matrix supported; bedding is indistinct, 0-5 degrees.			99	99	99			
		67	27			27.33m - 27.45m: Fine grained sandstone grades to coarse grained sandstone, becoming coarser down hole. 27.57m - 27.67m: Sandstone is coarse grained / conglomeratic. 27.67m - 27.72m: Sandstone is fine grained, and grades to conglomeratic. 27.72m - 27.96m: Sandstone is conglomeratic; clasts, mudstone & siltstone, <8mm in diameter, angular to subrounded. 27.96m - 28.40m: Sandstone is fine grained, becoming conglomeratic from 28.29mbgl. 28.40m: Mudstone lamination exhibits a flame structure, assumed to be soft sediment deformation.	UW							
11	HQ3	65	29			28.40m-28.46m Unweathered; dark grey; interbedded SANDSTONE (40%) and MUDSTONE (60%); moderately strong. Bedding is subhorizontal. Sandstone is light grey, indistinctly bedded. Mudstone is dark grey, laminated. 28.46m-31.02m Unweathered; grey; fine to coarse; SANDSTONE; strong. Sandstone is normally graded.			103	103	103			
		64	30			28.56m: Black, organic laminae. 28.57m: Clasts of dark grey mudstone from 29.45m, <3mm in diameter, subangular to subrounded. 30.14m - 30.47m: Greenish grey; conglomeratic from 30.14m; clasts, mudstone & siltstone, <75mm, sub-rounded, matrix supported, locally deformed, soft-sediment deformation; sandstone is coarse-grained.								
12	HQ3	63	31			30.76m - 31.02m: Sandstone is grey, coarse-grained, indistinctly bedded. 31.02m-31.22m Unweathered; light to dark grey; interbedded; fine grained SANDSTONE (80%) and SILTSTONE (20%); strong. Bedding is subhorizontal. Sandstone is light grey. Mudstone is dark grey, laminated. Occasional carbonaceous laminae; flame structures. 31.22m-31.57m Unweathered; dark grey; fine grained; SANDSTONE; strong.			96	96	96			

REMARKS: 1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 85mm and vertical accuracy +/- 92mm. 2. One vibrating wire piezometer was installed on 23/09/2025. Piezometer BH2B_1152_PZ01 was installed at 27.00m, Serial No. 378309. 2. Geophysical profiling was undertaken on 22/09/2025, comprising optical and acoustic televiewer. 3. Shear Vane Serial No. 1378, calibration constant 1.383.	Water Level Readings:		
	Date/Time	Hole Depth (m)	Water Level (m)
	16/09/2025 4:00:00 pm	25.50	3.60
	17/09/2025 9:00:00 am	25.50	3.70
	17/09/2025 4:00:00 pm	32.00	2.60
	18/09/2025 7:45:00 am	32.00	1.80

BOREHOLE INFORMATION		CO-ORDINATES: NZTM	Date Started: 11/09/2025	Logged: C. Struthers
Method: Rotary Core Wireline		Easting: 1727485.0mE,	Date Completed: 23/09/2025	Input: C. Struthers
Equipment: CAT308 8 Ton Digger Rig		Northing: 6005085.7mN,	Inclination: 90	Reviewed: B. O'Loughlin
Contractor: Pro Drill Ltd		Ground level: 93.98m (NZVD2016)	Azimuth: N/A	Verified: A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
12	HQ3	61	33			31.45m: Conglomeratic from 31.45m; clasts are <5mm, mudstone & siltstone, subrounded to subangular. 31.57m-31.70m Unweathered; dark grey; MUDSTONE; moderately strong. Mudstone is laminated. 31.70m-32.97m Unweathered; light to dark grey; indistinctly bedded; fine to medium grained; SANDSTONE; strong. Contains clasts, possibly organic and aligned parallel to bedding. Trace pyrite.			100	100	100	VWS		
	HQ3	60	34			32.00m: Sandstone is coarse grained. 32.40m: Bedding is sub-horizontal. At 32.4m the sandstone becomes conglomeratic. Clasts (4%), <9mm, siltstone & mudstone, angular to subrounded, elongate. 32.97m-33.00m Unweathered; dark grey; laminated; MUDSTONE; moderately strong. 33.00m-33.27m Unweathered; grey; fine to coarse; conglomeratic SANDSTONE; strong. Sandstone is normally graded, with occasional organic laminae (<2mm). 33.27m-37.70m Unweathered; dark grey; fine to coarse; interbedded SANDSTONE (45%) and MUDSTONE (55%); moderately strong to strong. Sandstone is normally graded with occasional <1mm organic laminae, soft sediment deformation. Mudstone is dark grey, laminated. Bedding is subhorizontal (0-5 degrees).			97	95	95	WS	33.38m JT, RG, ST	
13	HQ3	59	35						97	97	97		34.96m BP, 3', SM, PL	
	HQ3	58	36											
	HQ3	57	37			36.82m - 36.85m: Trace organic laminae / inclusions; sub-bituminous. 37.40m: Conglomeratic; normally graded.			103	103	103	VWS		
14	HQ3	56	38			37.70m-39.57m Unweathered, grey, fine to coarse SANDSTONE; strong. 38.43m - 38.44m: Black carbonaceous laminae.			100	100	100			
	HQ3	55	39			39.25m - 39.28m: Black carbonaceous laminae / inclusions, <8mm in diameter. 39.57m-39.64m Unweathered; dark grey; finely laminated; SILTSTONE.			100	100	100			

REMARKS:		Water Level Readings:		
1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 85mm and vertical accuracy +/- 92mm.		Date/Time	Hole Depth (m)	Water Level (m)
2. One vibrating wire piezometer was installed on 23/09/2025. Piezometer BH2B_1152_PZ01 was installed at 27.00m, Serial No. 378309.		17/09/2025 4:00:00 pm	32.00	2.60
2. Geophysical profiling was undertaken on 22/09/2025, comprising optical and acoustic televiwer.		18/09/2025 7:45:00 am	32.00	1.80
3. Shear Vane Serial No. 1378, calibration constant 1.383.		18/09/2025 2:30:00 pm	40.00	1.20

BOREHOLE INFORMATION			CO-ORDINATES: NZTM		Date Started: 11/09/2025	Logged: C. Struthers
Method: Rotary Core Wireline			Easting: 1727485.0mE,		Date Completed: 23/09/2025	Input: C. Struthers
Equipment: CAT308 8 Ton Digger Rig			Northing: 6005085.7mN,		Inclination: 90	Reviewed: B. O'Loughlin
Contractor: Pro Drill Ltd			Ground level: 93.98m (NZVD2016)		Azimuth: N/A	Verified: A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL

39.62m: Black organic laminae / inclusions, <4mm in diameter.

39.64m-40.00m Unweathered; grey; indistinctly bedded; conglomeratic SANDSTONE; strong. Minor mudstone clasts (5%) , <3mm.

End Of Hole: 40.00m

REMARKS:	Water Level Readings:		
	DateTime	Hole Depth (m)	Water Level (m)
	18/09/2025 2:30:00 pm	40.00	1.20

1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 85mm and vertical accuracy +/- 92mm.

2. One vibrating wire piezometer was installed on 23/09/2025. Piezometer BH2B_1152_PZ01 was installed at 27.00m, Serial No. 378309.

2. Geophysical profiling was undertaken on 22/09/2025, comprising optical and acoustic televiewer.

3. Shear Vane Serial No. 1378, calibration constant 1.383.

Borehole Reference:

BH2B_1152

Photographed By:

JD

Date Photographed:

11/09/2025-16/10/2025



BH2B_1152_BOX001_0m-1.5m



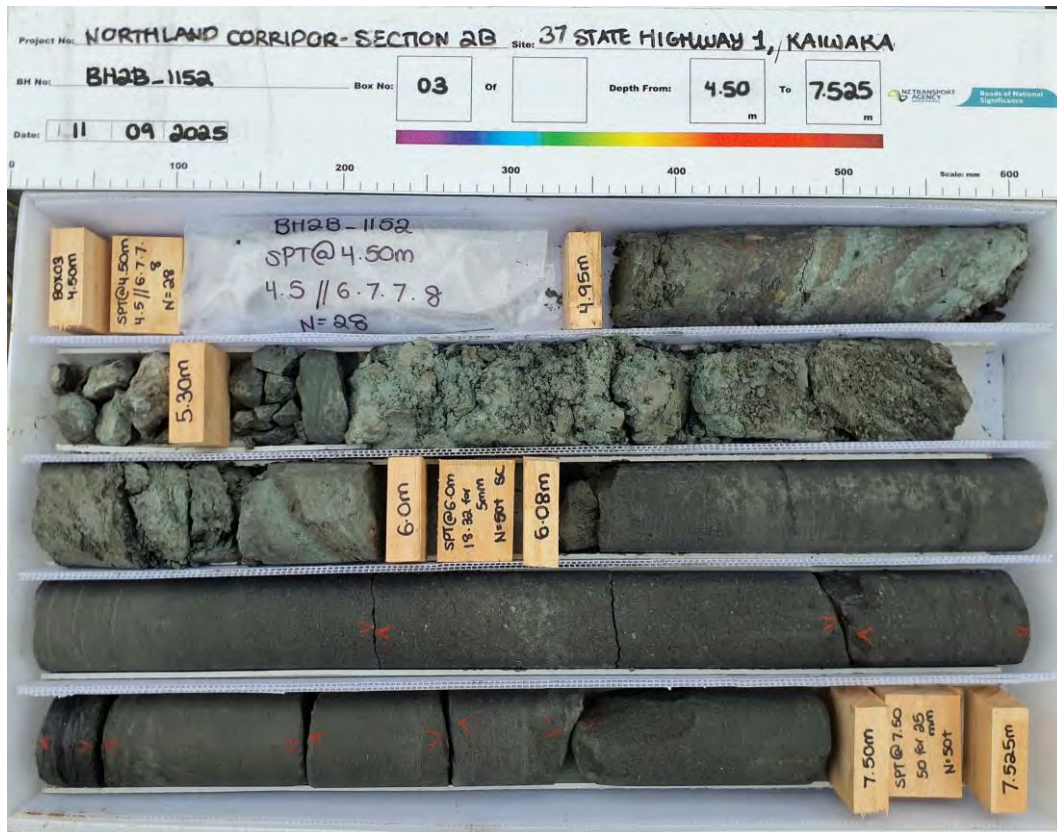
BH2B_1152_BOX002_1.5m-4.5m

Borehole Reference: BH2B_1152

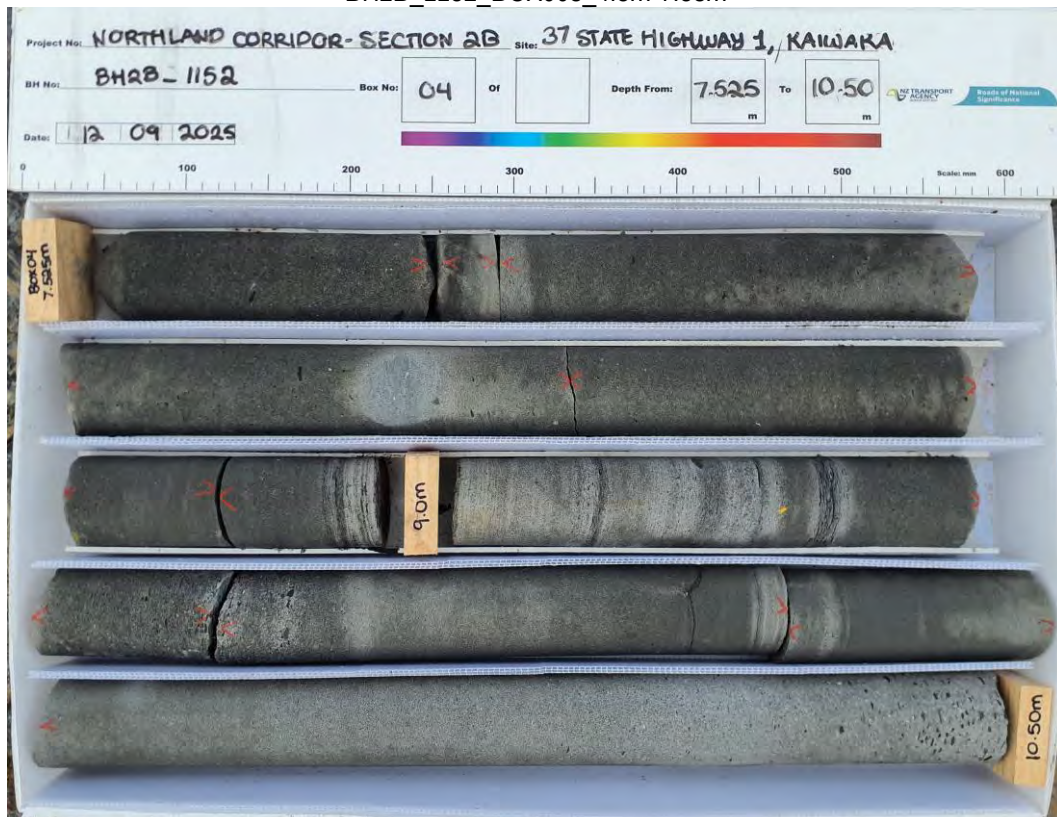
Photographed By: JD

Date Photographed:

11/09/2025-16/10/2025



BH2B_1152_BOX003_4.5m-7.53m



BH2B_1152_BOX004_7.53m-10.5m

Borehole Reference:

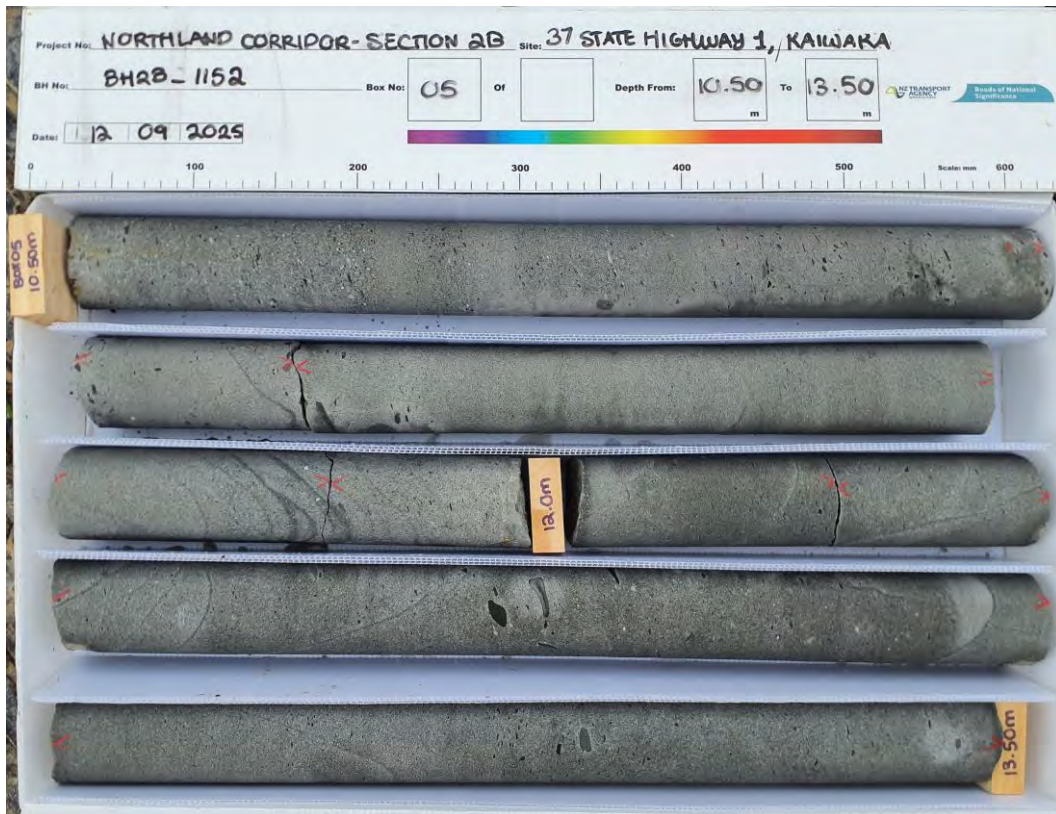
BH2B_1152

Photographed By:

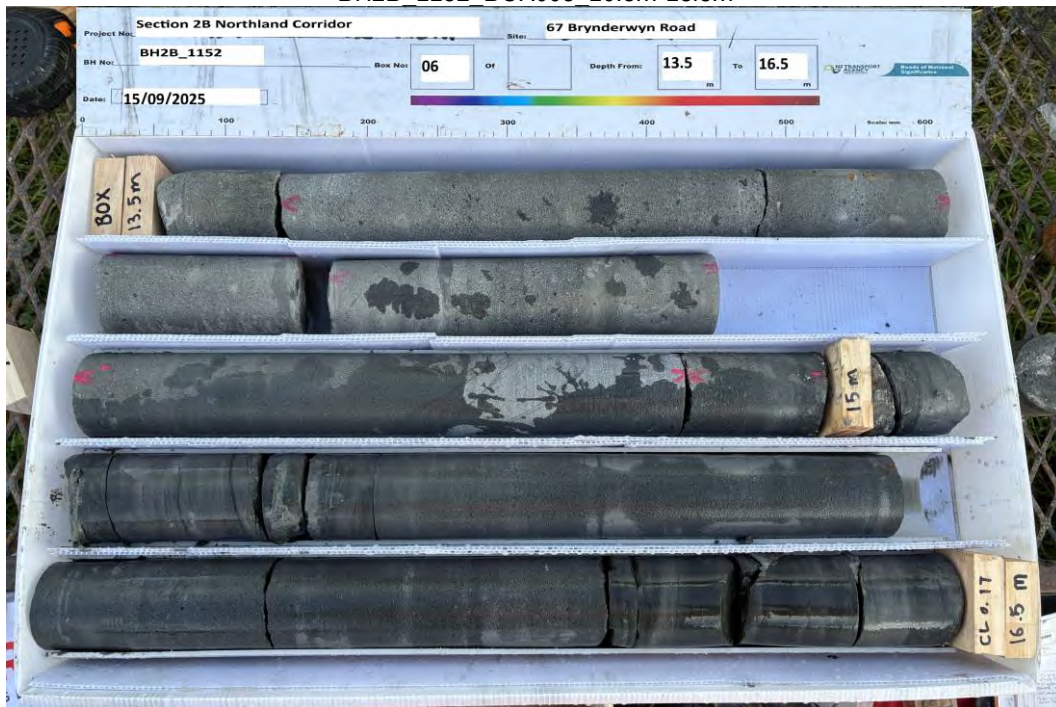
JD

Date Photographed:

11/09/2025-16/10/2025



BH2B_1152 BOX005 10.5m-13.5m



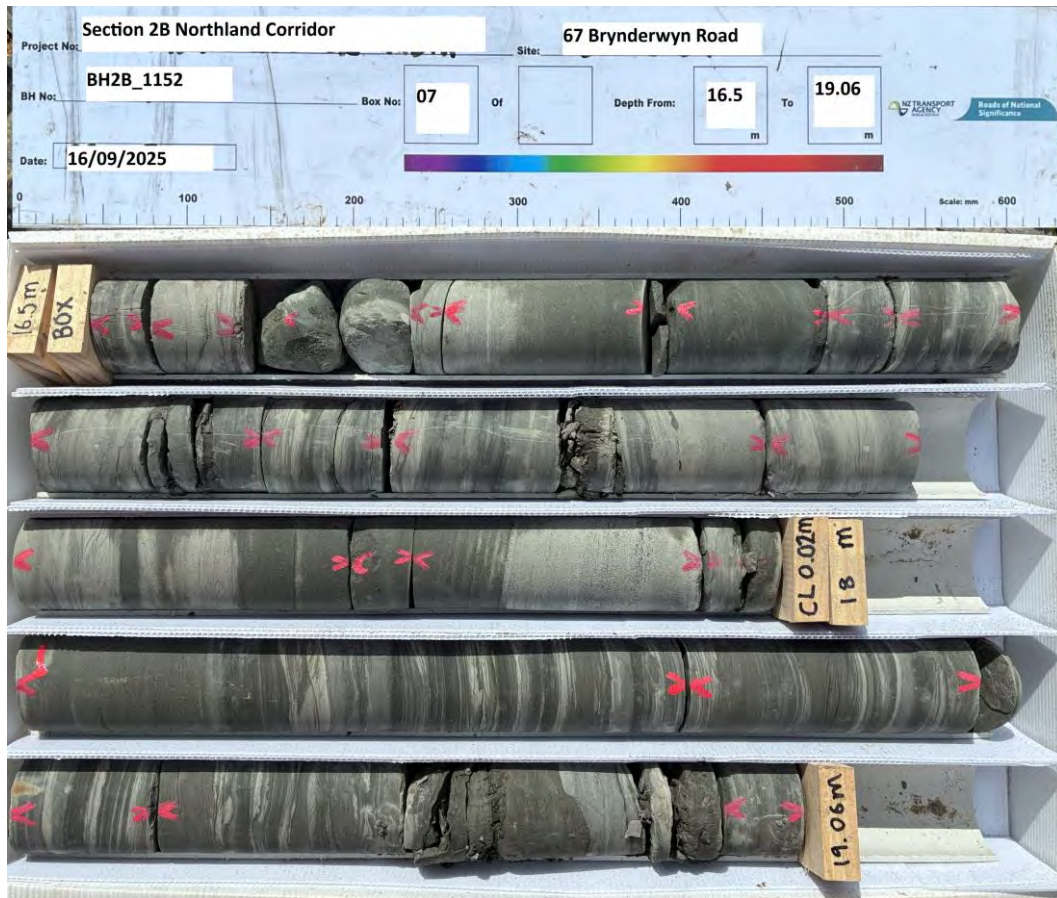
BH2B_1152_BOX006_13.5m-16.5m

Borehole Reference: BH2B_1152

Photographed By: JD

Date Photographed:

11/09/2025-16/10/2025



BH2B_1152_BOX007_16.5m-19.06m



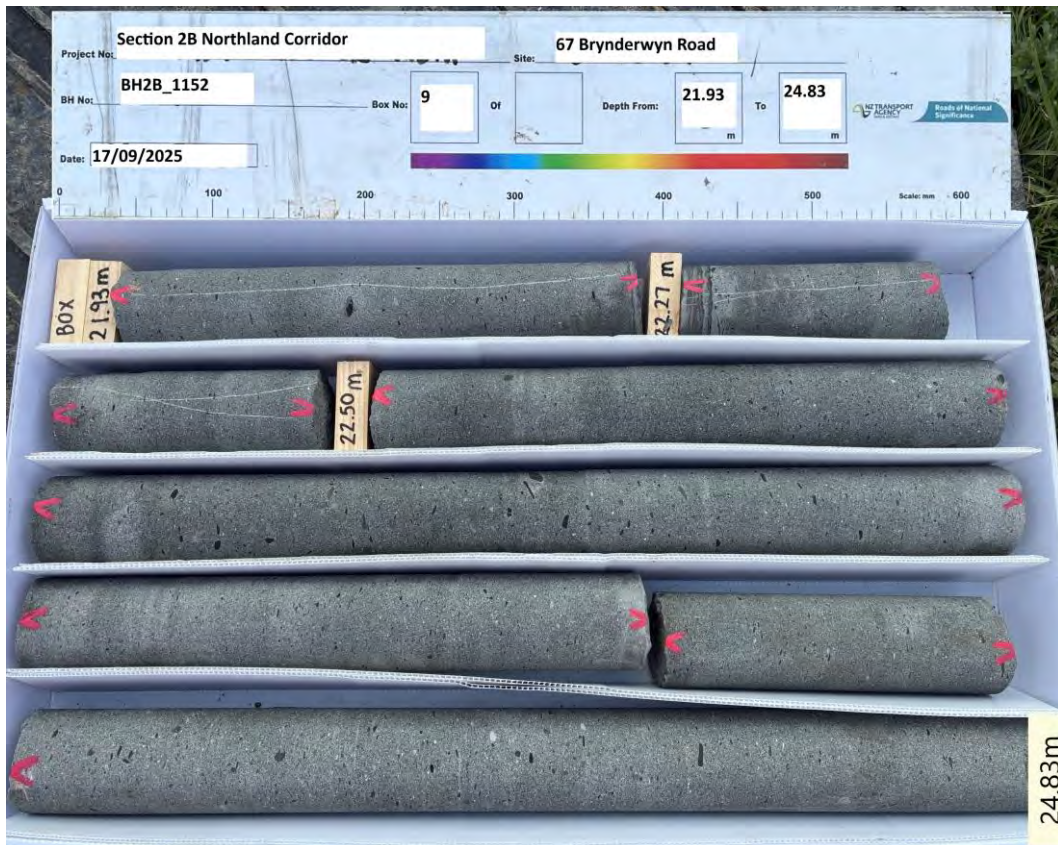
BH2B_1152_BOX008_19.06m-21.93m

Borehole Reference: BH2B_1152

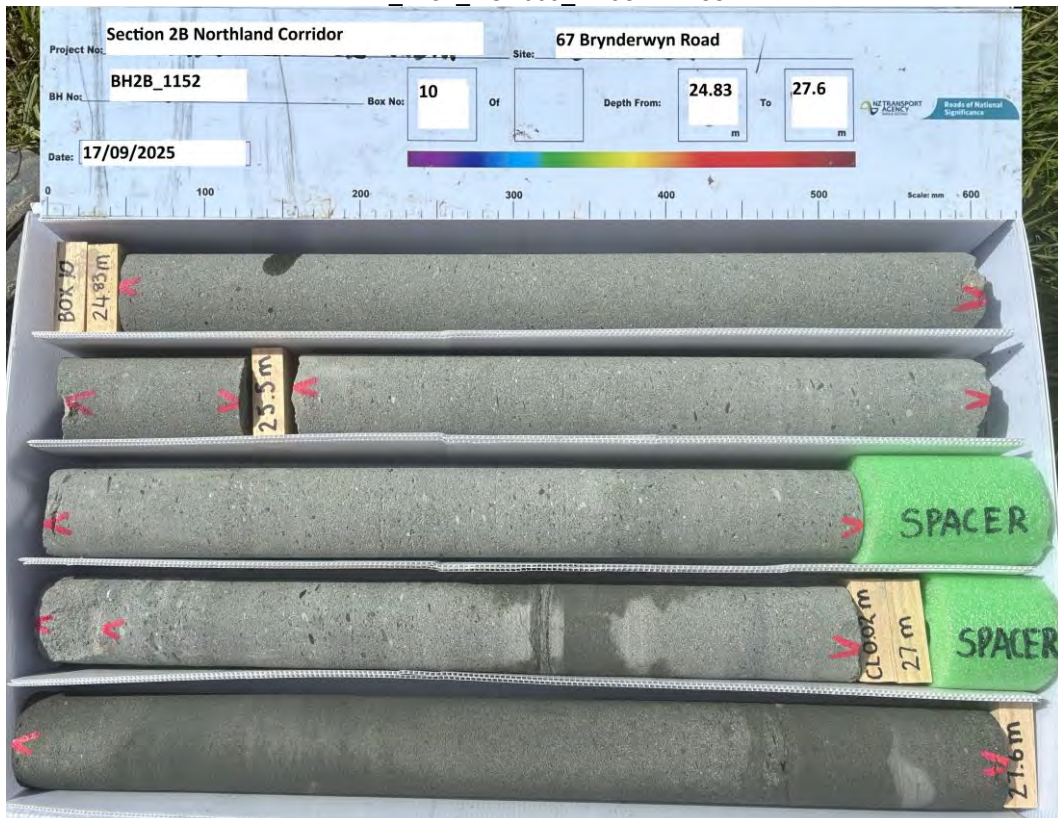
Photographed By: JD

Date Photographed:

11/09/2025-16/10/2025



BH2B_1152_BOX009_21.93m-24.83m



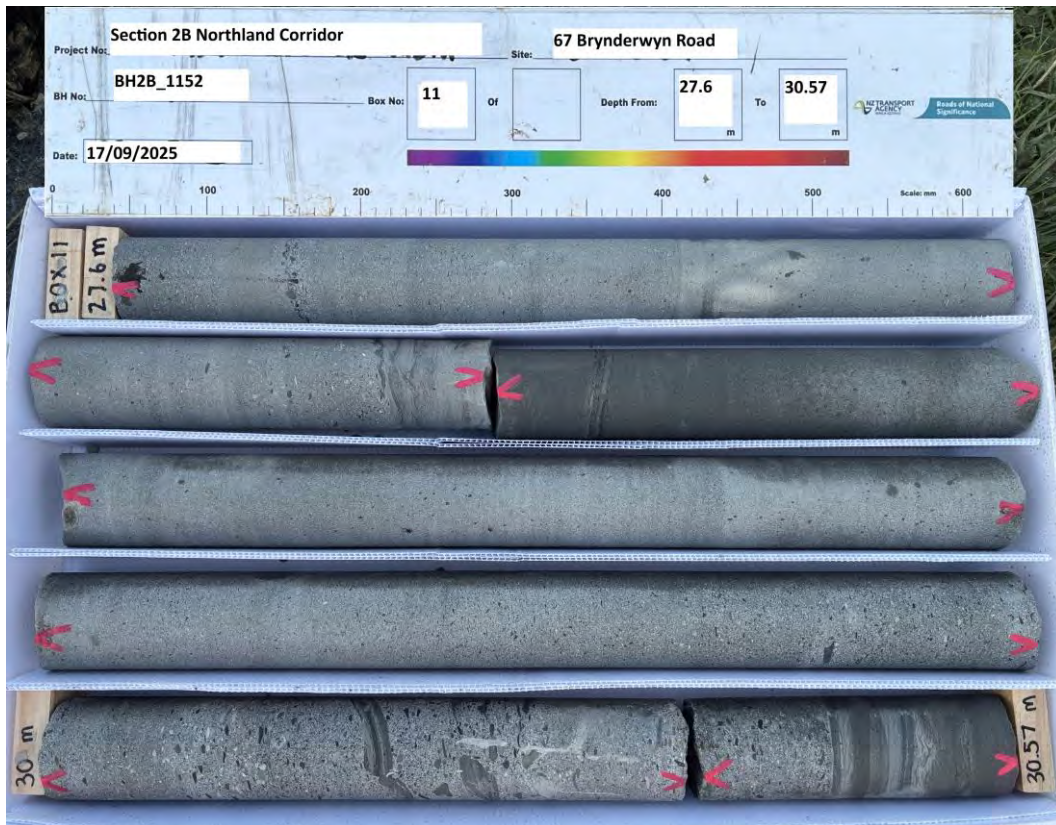
BH2B_1152_BOX010_24.83m-27.6m

Borehole Reference: BH2B_1152

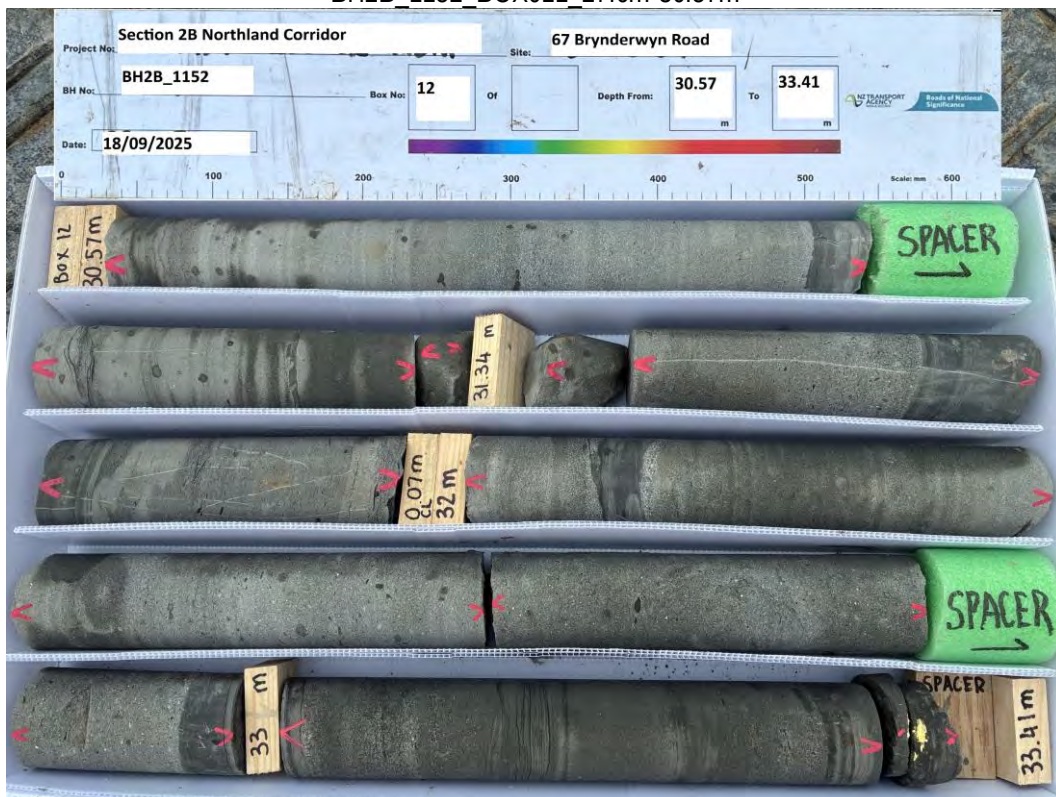
Photographed By: JD

Date Photographed:

11/09/2025-16/10/2025



BH2B_1152_BOX011_27.6m-30.57m



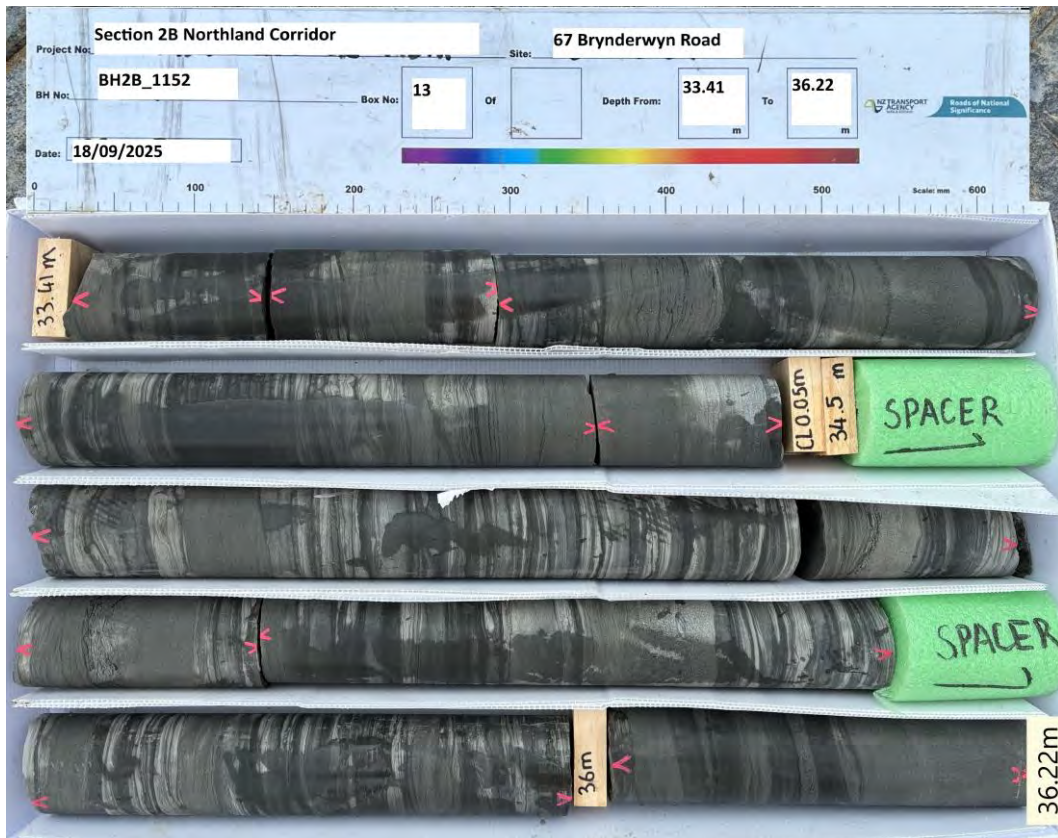
BH2B_1152_BOX012_30.57m-33.41m

Borehole Reference: BH2B_1152

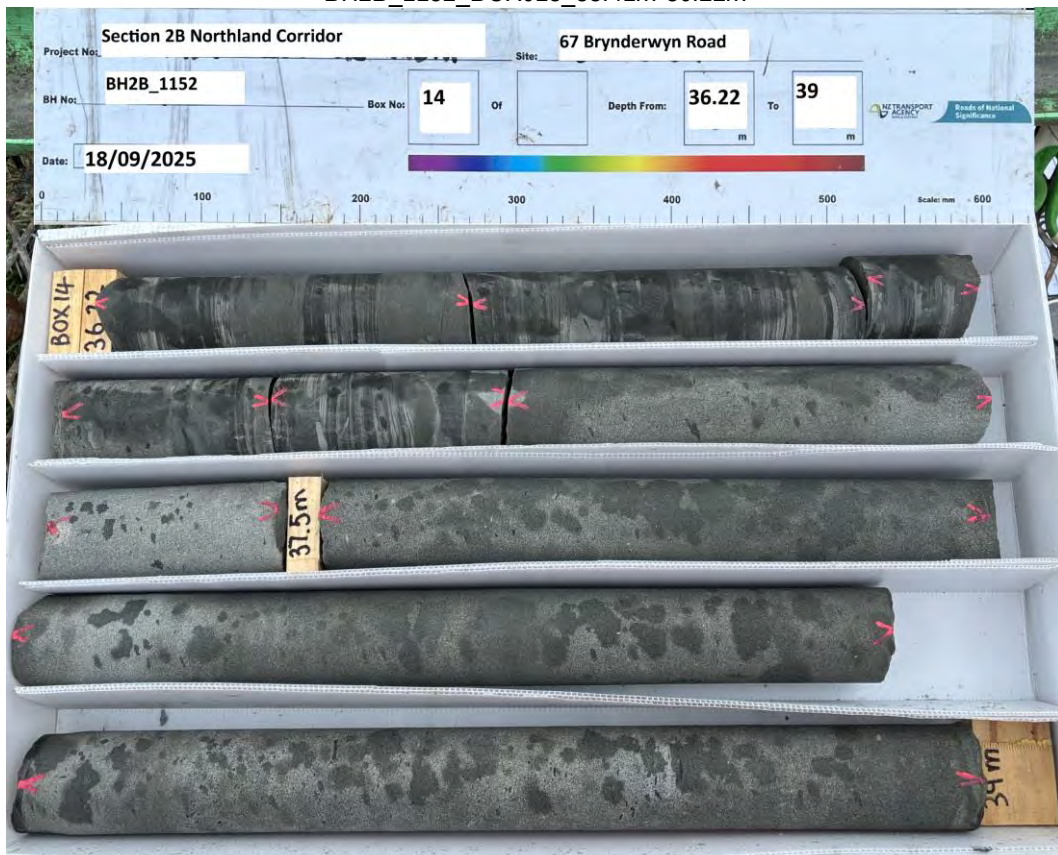
Photographed By: JD

Date Photographed:

11/09/2025-16/10/2025



BH2B_1152_BOX013_33.41m-36.22m



BH2B_1152_BOX014_36.22m-39m

Borehole Reference: BH2B_1152

Photographed By: JD

Date Photographed:

11/09/2025-16/10/2025



BH2B_1152_BOX015_39m-40m

BOREHOLE INFORMATION		CO-ORDINATES:	NZTM2000	Date started:	03/11/2025	Logged:	A. Pola
Method:	Rotary Core Wireline	Easting:	1727508.64	Date completed:	10/11/2025	Input:	A. Pola
Equipment:	Techdrill 250 HD	Northing:	6008774.76	Inclination:	90°	Reviewed:	L. Templeton
Contractor:	Drill Force NZ Ltd	Ground level:	189.02m (NZVD2016)	Azimuth:	N/A	Verified:	C. Parkes

CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	FRACTURE LOG					STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
1	HA		189		WPR	0.00m: Clayey SILT; brown grey. Hard, dry, low plasticity. Minor rootlets. [RESIDUALLY WEATHERED GREYWACKE] 0.20m: ...Moist.	RS	0m: ISHSV 220 kPa	100									
			188															
			1															
			187															
			2															
			186															
			3															
			185															
			4															
			184															
2	SPT		187		WPR	1.50m: Silty CLAY; light grey. Hard, moist, high plasticity. Relict bedding with iron oxide and minor manganese oxide staining. [COMPLETELY WEATHERED GREYWACKE] 2.25-2.30m: ...Zone of highly weathered greywacke SILTSTONE. Very weak. 2.30m: SILT with some gravel. Very soft, wet. Gravel is fine to coarse, angular, very weak greywacke siltstone.	CW	1.5m: IBHSV UTP 1.5m: SPT 2, 4// 5, 6, 7, 8 N = 26	89							2.00m: Moved to shorter runs to improve core recovery 2.80m: 100mm fell out of splits 3.50m: Casing to 3.5m bgl 4.00-4.11m: CZ, 70°, very weak angular fine to coarse gravel with silty CLAY matrix		
			186															
			3															
			185															
			4															
			184															
			5															
			183															
			6															
			182															
3	SPT		186		WPH	3.06m: Silty CLAY; light grey. Very stiff, moist, high plasticity. Relict bedding with iron oxide and minor manganese oxide staining. 3.60m: Highly weathered, light grey mottled and streaked orange, GREYWACKE SILTSTONE. Very weak. Incipient fractures with weak tensile strength, 30-60°, extremely closely spaced, iron oxide staining. Core disintegrates upon handling to angular medium to coarse gravel that resist further breakdown between fingers. [HIGHLY WEATHERED GREYWACKE] 3.60-3.80m: ...Very weak. Incipient joints heavily FeO stained. 4.90m: ...Trace white clay infill.	CW	3m: SPT 3, 5// 8, 8, 12, 13 N = 41	100							5.35-5.45m: CZ, 60°, very weak angular fine to coarse gravel with silty CLAY matrix, FeO stained		
			185															
			4															
			184															
			5															
			183															
			6															
			182															
			7															
			181															
4	SPT		185		WPH	3.60m: Highly weathered, light grey mottled and streaked orange, GREYWACKE SILTSTONE. Very weak. Incipient fractures with weak tensile strength, 30-60°, extremely closely spaced, iron oxide staining. Core disintegrates upon handling to angular medium to coarse gravel that resist further breakdown between fingers. [HIGHLY WEATHERED GREYWACKE] 3.60-3.80m: ...Very weak. Incipient joints heavily FeO stained. 4.90m: ...Trace white clay infill.	HW	4.5m: SPT 2, 4// 4, 5, 6, 6 N = 21	89									
			184															
			5															
			183															
			6															
			182															
			7															
			181															
			180															
			179															
5	SPT		184		WPH	4.90m: ...Trace white clay infill.	HW	6m: SPT 3, 4// 4, 6, 6, 6 N = 22	100									
			183															
			6															
			182															
			7															
			181															
			180															
			179															
			178															
			177															
6	SPT		183		WPH	6.85-7.50m: ...Extremely weak zone of Silty CLAY with minor sand; light brownish grey with orangish brown staining. Very stiff, moist, moderate plasticity. Sand is fine to medium. Incipient fractures, moderately inclined with iron staining.	HW	7.5m: SPT 3, 3// 5, 7, 10, 10 N = 32	67									
			182															
			7															
			181															
			180															
			179															
			178															
			177															
			176															
			175															

Remarks:

1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 60mm and vertical accuracy +/- 110mm.
2. One vibrating wire piezometer was installed on 10/11/2025. BH2B_1153_PZ01 was installed at 12m bgl, Serial No. 378321.
3. Geophysical profiling was undertaken on 10/11/2025, comprising optical and acoustic televiewer.
4. Falling/rising head testing undertaken with data logger at borehole depth 34.50m on 06/11/2025. Second falling/rising head testing undertaken with data logger at borehole depth 40.50m on 07/11/2025.
5. Low grade metamorphic minerals prevalent throughout the Waipapa Grewacke

Shear Vane (IBHSV + ISHSV) Serial No. 3303, calibration constant 1.569

Water Level Readings:

DateTime	Hole Depth	Water Level
2025-11-03 16:30	3.45m	0.67mbgl
2025-11-04 08:00	3.45m	1.55mbgl
2025-11-04 16:45	10.88m	2.66mbgl
2025-11-05 08:00	10.88m	4.45mbgl
2025-11-05 16:00	19.50m	4.14mbgl
2025-11-06 07:30	19.50m	6.37mbgl
2025-11-06 17:20	34.50m	5.55mbgl
2025-11-07 07:30	40.50m	19.06mbgl

BOREHOLE INFORMATION		CO-ORDINATES:	NZTM2000	Date started:	03/11/2025	Logged:	A. Pola
Method:	Rotary Core Wireline	Easting:	1727508.64	Date completed:	10/11/2025	Input:	A. Pola
Equipment:	Techdrill 250 HD	Northing:	6008774.76	Inclination:	90°	Reviewed:	L. Templeton
Contractor:	Drill Force NZ Ltd	Ground level:	189.02m (NZVD2016)	Azimuth:	N/A	Verified:	C. Parkes

CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	WVS WS MWS VCS EGS	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
3	HQ3	181				8.55-8.57m: ...White soft clay seam.			100						
	SPT	180	9			9.45-9.60m: ...Silty CLAY with minor sand. Stiff, moist, high plasticity. 9.60m: ...Incipient joints inclined 40-70°.		9m: SPT 4, 6// 9, 9, 11, 13 N = 42	100						
	HQ3	179	10			10.00-10.01m: ...White crystalline/clay seam.			100						
4	SPT						HW	10.5m: SPT 10, 10// 14, 17, 19 for 74mm N = 50+	100					10.88m: 100% return from 0m bgl	
	HQ3	178	11						100						
	SPTC	177	12		WPH	12.34-12.69m: ...Extremely weak zone of Silty CLAY with minor sand; light brownish grey with orangish brown and black staining. Very stiff, moist, moderate plasticity. Sand is fine to medium. 12.69m: ...Incipient joints inclined 30-70°.		12m: SPTC 8, 12// 19, 21, 10 for 35mm N = 50+	0						
	HQ3	176	13			13.14m: CORE LOSS: (360mm) Core assumed washed out			69						
5	SPTC					13.50m: Highly weathered, light grey and orange, GREYWACKE SILTSTONE. Very weak. Incipient fractures with weak tensile strength, 30-70°, extremely closely spaced, iron oxide staining. Core disintegrates upon handling to angular medium to coarse gravels that resist further breakdown between fingers. Minor seams of white crystals and/or clay. 13.80-14.10m: ...Extremely weak zone of Silty CLAY with some sand; light brownish grey. Firm, moist, moderate plasticity. Sand is fine to coarse.		13.5m: SPTC 7, 10// 16, 21, 13 for 30mm N = 50+	0					13.80-14.10m: Potentially drilling induced. Changed catcher and drill bit	
	HQ3	175	14				HW		100						
	HQ3								100						
6	HQ3	174	15			15.70m: ...Main incipient joints inclined 60-70°.			93					15.43m: 10mm seam of pink quartz 15.50-15.60m: 2x seams of pink crystalline quartz	

Remarks: 1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 60mm and vertical accuracy +/- 110mm. 2. One vibrating wire piezometer was installed on 10/11/2025. BH2B_1153_PZ01 was installed at 12m bgl, Serial No. 378321. 3. Geophysical profiling was undertaken on 10/11/2025, comprising optical and acoustic televiewer. 4. Falling/rising head testing undertaken with data logger at borehole depth 34.50m on 06/11/2025. Second falling/rising head testing undertaken with data logger at borehole depth 40.50m on 07/11/2025. 5. Low grade metamorphic minerals prevalent throughout the Waipapa Greywacke												Water Level Readings:		
Shear Vane (IBHSV + ISHSV) Serial No. 3303, calibration constant 1.569.												Date/Time 2025-11-07 11:50 2025-11-10 09:54	Hole Depth 40.50m 40.50m	Water Level 5.82mbgl 20.37mbgl

Remarks:	
1.	Coordinates captured using a Trimble R12l Receiver and TSC5 Controller, with a horizontal accuracy +/- 60mm and vertical accuracy +/- 110mm.
2.	One vibrating wire piezometer was installed on 10/11/2025. BH2B_1153_PZ01 was installed at 12m bgl, Serial No. 378321.
3.	Geophysical profiling was undertaken on 10/11/2025, comprising optical and acoustic televiewer.
4.	Falling/rising head testing undertaken with data logger at borehole depth 34.50m on 06/11/2025. Second falling/rising head testing undertaken with data logger at borehole depth 40.50m on 07/11/2025.
5.	Low grade metamorphic minerals prevalent throughout the Waipapa Grewacke

Shear Vane (IBHSV + ISHSV) Serial No. 3303, calibration constant 1.569

BOREHOLE INFORMATION

Method: Rotary Core Wireline

Equipment: Techdrill 250 HD

Contractor: Drill Force NZ Ltd

CO-ORDINATES:

Easting: NZTM2000 1727508.64

Northing: 6008774.76

Ground level: 189.02m (NZVD2016)

Date started: 03/11/2025

Date completed: 10/11/2025

Inclination: 90°

Azimuth: N/A

Logged: A. Pola

Input: A. Pola

Reviewed: L. Templeton

Verified: C. Parkes

CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	WWS WS MWS VCS EGS	FRACATURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
9	HQ3	165												24.00-40.50m: 60% water loss	
		164	25			25.60-25.85m: ...Light grey. Possible hydrothermal alteration.			100	100	100				
	HQ3	163	26		WPU		UW		100	100	100				
		162	27												
10	HQ3	161	28			27.80-29.40m: ...Increase in intensity of veining. Very close to extremely closely spaced.			100	100	82			27.80-29.40m: JT, 50°, Ro, Pl, Cg, Clay, x4, closely spaced	
		160	29												
	HQ3	159	30			29.40m: Unweathered, bluish grey, brecciated GREYWACKE SILTSTONE. Strong. Breccia comprises clast-supported angular clasts of fine greywacke siltstone (5-20mm). Clasts present no rotation, altered with light greenish grey veining (90%). Matrix is light greenish grey (<10%), weak tensile strength. [CRACKLE BRECCIA]									
		158	31		WPFZ	30.00-31.30m: ...Interbedded with greenish grey mudstone layers.									
		157													
	HQ3	156				31.70-32.05m: ...Possible hydrothermal alteration.	UW		100	100	90				

Remarks:

1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 60mm and vertical accuracy +/- 110mm.

2. One vibrating wire piezometer was installed on 10/11/2025. BH2B_1153_PZ01 was installed at 12m bgl, Serial No. 378321.

3. Geophysical profiling was undertaken on 10/11/2025, comprising optical and acoustic televiwer.

4. Falling/rising head testing undertaken with data logger at borehole depth 34.50m on 06/11/2025. Second falling/rising head testing undertaken with data logger at borehole depth 40.50m on 07/11/2025.

5. Low grade metamorphic minerals prevalent throughout the Waipapa Greywacke

Shear Vane (IBHSV + ISHSV) Serial No. 3303, calibration constant 1.569.

Water Level Readings:

DateTime

Hole Depth

Water Level

BOREHOLE INFORMATION			CO-ORDINATES:		Date started:		Logged:	
Method:	Rotary Core Wireline		Easting:	NZTM2000 1727508.64	Date completed:	03/11/2025	Input:	A. Pola
Equipment:	Techdrill 250 HD		Northing:	6008774.76	Inclination:	10/11/2025	Reviewed:	A. Pola
Contractor:	Drill Force NZ Ltd		Ground level:	189.02m (NZVD2016)	Azimuth:	90°	Verified:	L. Templeton
							Verified:	
							C. Parkes	

CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
11		157			WPFZ		UW		100	100	77		32.40m: JT, 70°, Ro, Pl, Vn, pyrite	
12	HQ3					32.40m: Unweathered, bluish grey, GREYWACKE SILTSTONE. Strong. Incipient joints with moderate tensile strength, 30°-50°, very closely to closely spaced. Open joints widely spaced. White veining extremely closely spaced. [UNWEATHERED GREYWACKE]								
	HQ3	156	33		WPU		UW		100	100	100		34.20m: JT, 60°, Ro, Pl, Vn, pyrite	
	HQ3	155	34						100	100	100			
13	HQ3	154	35						100	100	100			
	HQ3	153	36		WPFZ	36.20m: Unweathered, bluish grey, brecciated GREYWACKE SILTSTONE. Moderately strong. Breccia comprises clast-supported angular clasts of fine greywacke siltstone (5-10mm). Clasts present no rotation, altered with light greenish grey veining (90%). Matrix is light greenish grey silty clay (<10%), weak tensile strength. [CRACKLE BRECCIA]	UW		100	100	60			
14	HQ3	152	37			36.80m: Unweathered, bluish grey, GREYWACKE SILTSTONE. Strong. Incipient joints with moderate tensile strength, 40°-70°, very closely to closely spaced. Open joints widely spaced. White veining extremely closely spaced. Extremely closely spaced white veining. [UNWEATHERED GREYWACKE]							38.16m: JT, 40°, Ro, Pl, Vn, minor pyrite	
	HQ3	151	38		WPU		UW		100	100	98		38.50m: JT, 70°, Ro, Pl, Cg, clay 38.60m: JT, 40°, Ro, Pl, Cg, clay 38.63m: JT, 40°, Ro, Pl, Cg, clay	
	HQ3	150	39						100	100	67		39.56m: JT, 70°, Ro, Pl, Cg, clay	

Remarks: 1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 60mm and vertical accuracy +/- 110mm. 2. One vibrating wire piezometer was installed on 10/11/2025. BH2B_1153_PZ01 was installed at 12m bgl, Serial No. 378321. 3. Geophysical profiling was undertaken on 10/11/2025, comprising optical and acoustic televiewer. 4. Falling/rising head testing undertaken with data logger at borehole depth 34.50m on 06/11/2025. Second falling/rising head testing undertaken with data logger at borehole depth 40.50m on 07/11/2025. 5. Low grade metamorphic minerals prevalent throughout the Waipapa Greywacke							Water Level Readings:		
Shear Vane (IBHSV + ISHSV) Serial No. 3303, calibration constant 1.569.							Date/Time	Hole Depth	Water Level

BOREHOLE INFORMATION

Method: Rotary Core Wireline

Equipment: Techdrill 250 HD

Contractor: Drill Force NZ Ltd

CO-ORDINATES:

Easting: 1727508.64

Northing: 6008774.76

Ground level: 189.02m (NZVD2016)

Date started: 03/11/2025

Date completed: 10/11/2025

Inclination: 90°

Azimuth: N/A

Logged: A. Pola

Input: A. Pola

Reviewed: L. Templeton

Verified: C. Parkes

CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
14	HQ3	149			WPU	40.00-40.50m: ...weak tensile strength, possible hydrothermal alteration.	UW							
15						Terminated at 40.50 m. Target depth.								
		148	41											
		147	42											
		146	43											
		145	44											
		144	45											
		143	46											
		142	47											

Remarks:

1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 60mm and vertical accuracy +/- 110mm.

2. One vibrating wire piezometer was installed on 10/11/2025. BH2B_1153_PZ01 was installed at 12m bgl, Serial No. 378321.

3. Geophysical profiling was undertaken on 10/11/2025, comprising optical and acoustic televiewer.

4. Falling/rising head testing undertaken with data logger at borehole depth 34.50m on 06/11/2025. Second falling/rising head testing undertaken with data logger at borehole depth 40.50m on 07/11/2025.

5. Low grade metamorphic minerals prevalent throughout the Waipapa Greywacke

Shear Vane (IBHSV + ISHSV) Serial No. 3303, calibration constant 1.569.

Water Level Readings:

DateTime

Hole Depth

Water Level

Borehole Reference:

BH2B_1153

Photographed By:

AP

Date Photographed:

03/11/2025-17/11/2025



BH2B_1153_BOX001_0m-3m



BH2B_1153_BOX002_3m-6m

Borehole Reference: BH2B_1153

Photographed By: AP

Date Photographed:

03/11/2025-17/11/2025



BH2B_1153_BOX003_6m-9m



BH2B_1153_BOX004_9m-12m

Borehole Reference:

BH2B_1153

Photographed By:

AP

Date Photographed:

03/11/2025-17/11/2025



BH2B_1153_BOX005_12m-15m



BH2B_1153_BOX006_15m-18m

Borehole Reference:

BH2B_1153

Photographed By:

AP

Date Photographed:

03/11/2025-17/11/2025



BH2B_1153_BOX007_18m-21m



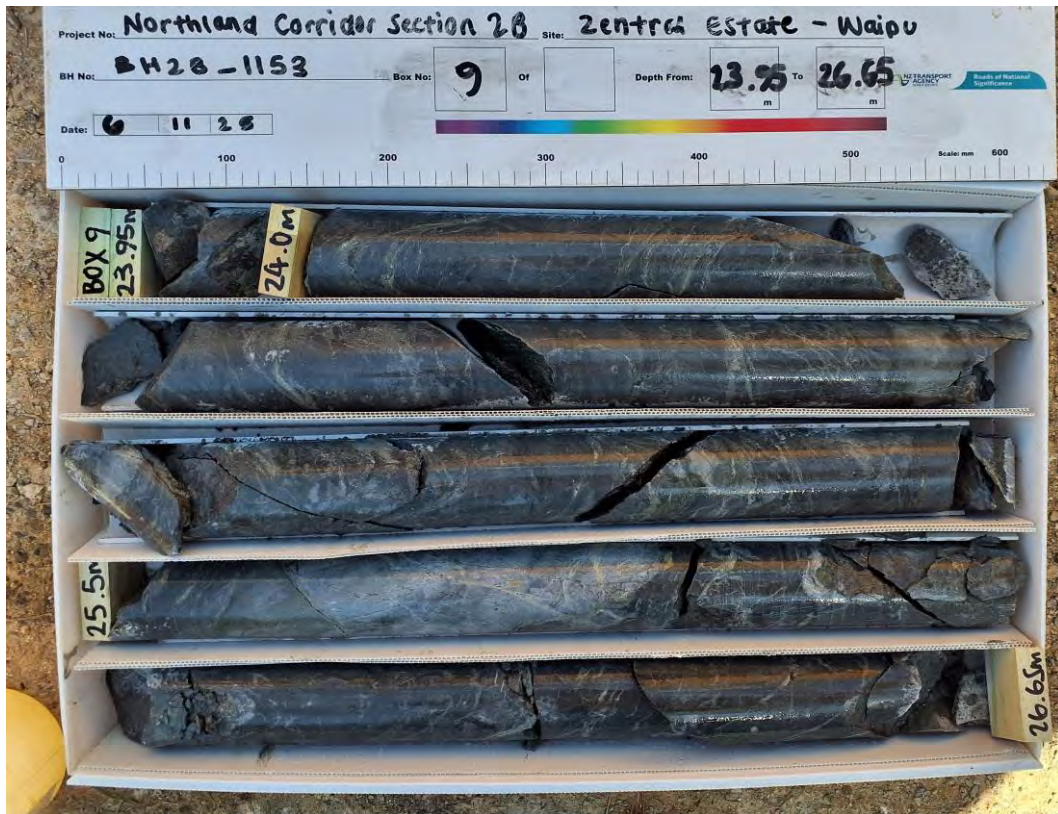
BH2B_1153_BOX008_21m-23.95m

Borehole Reference: BH2B_1153

Photographed By: AP

Date Photographed:

03/11/2025-17/11/2025



BH2B_1153_BOX009_23.95m-26.65m



BH2B_1153_BOX010_26.65m-29.25m

Borehole Reference:

BH2B_1153

Photographed By:

AP

Date Photographed:

03/11/2025-17/11/2025



BH2B_1153_BOX011_29.25m-32.07m



BH2B_1153_BOX012_32.07m-34.64m

Borehole Reference:

BH2B_1153

Photographed By:

AP

Date Photographed:

03/11/2025-17/11/2025



BH2B_1153_BOX013_34.64m-37.5m

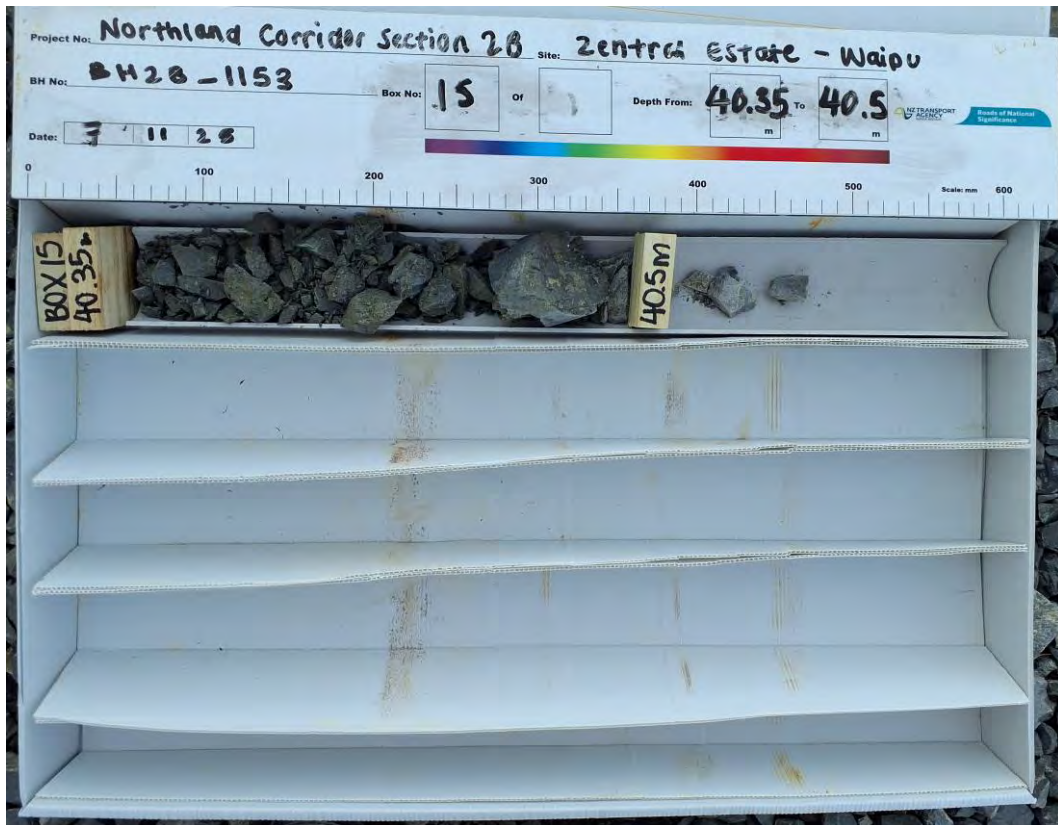


BH2B_1153_BOX014_37.5m-40.35m

Borehole Reference: BH2B_1153

Photographed By: AP

Date Photographed: 03/11/2025-17/11/2025



BH2B_1153_BOX015_40.35m-40.5m

BOREHOLE INFORMATION		CO-ORDINATES:		Date started:		Logged:	
Method:	Rotary Core Wireline	Easting:	NZTM2000 1727828.99	Date completed:	31/10/2025	Input:	D. Baker/ A. Pola
Equipment:	Tech Drill 250 HD	Northing:	6008892.45	Inclination:	90°	Reviewed:	B. O'Loughlin
Contractor:	Drill Force NZ Ltd	Ground level:	147.27m (NZVD2016)	Azimuth:	N/A	Verified:	A. George

CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	WVS WS MWS VCS EGS	FRACATURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
1	VE	147				0.00m: Sandy GRAVEL with some silt; grey and brown. Tightly packed, well graded. Gravel is fine to coarse angular slightly weathered greywacke. Sand, fine to coarse. [FILL]		0.5m: ISHSV 151/27 kPa	0					0.00-1.50m: Logged from Hydro-vac excavation side wall	
			1			0.33m: CLAY with minor sand; light grey. Very stiff, moist, high plasticity. Sand is fine to coarse.		1m: ISHSV 56/15 kPa							
	SPT	146				1.00m: ...Trace gravel, orange-brown and light grey, stiff		1.5m: ISHSV 65/33 kPa 1.55m: SPT 0, 1/ 1, 0, 1, 1 N = 3	78						
	HQ3	145				2.20m: ...mixed cream, brown grey and orange yellow clay 2.35m: ...50mm dark brown organic horizon [BURIED TOPSOIL] 2.40m: CLAY with trace sand; brownish grey. Soft, moist, high plasticity. Sand, fine to coarse. Organic layers up to 20mm. 2.60m: CORE LOSS: (400mm): Fines assumed washout.		2.6m: ISHSV 33/12 kPa	60						
2	SPT	144				3.00m: CLAY with trace sand; light bluish grey. Soft, moist, high plasticity. Sand, fine to coarse. Organic layers up to 20mm.		3m: SPT 0, 0/ 0, 0, 2, 1 N = 3	87					7.30m: JT, 25°, Ro, Un, Sn, FeO	
	HQ3	143				3.85-3.90m: ...50mm dark brown organic horizon [BURIED TOPSOIL] 3.90m: ...CLAY with trace sand and organics. Brown 4.05m: CORE LOSS: (450mm) Fines assumed washed out.			57						
	SPT	142				4.50m: CLAY with minor sand, trace gravel and organics; light bluish grey. Firm, moist, low plasticity. Gravel, fine to medium very weak siltstone. Organic material is fibrous rootlets. [RESIDUALLY WEATHERED WAIPAPA GREYWACKE] 4.95m: ...without organic material, firm	RS	4.5m: SPT 0, 0/ 0, 0, 0, 2 N = 2	100						
	HQ3	141				5.70m: ...Stiff		5.95m: IBHSV 61/18 kPa 6m: SPT 2, 2/ 3, 5, 7, 7 N = 22	96						
3	SPT	140				6.00m: Silty CLAY; orange brown. Very stiff, moist, low plasticity. Iron oxide staining. [COMPLETELY WEATHERED GREYWACKE] 6.65m: CORE LOSS: (450mm): Fines assumed to wash out.	CW		31						
	HQ3					7.10m: Highly weathered, orange-brown with grey and brown, GREYWACKE SILTSTONE. Very weak. Incipient fractures and healed joints with moderate tensile strength, dipping 20-70°, very closely spaced, 1mm iron oxide infill. Iron oxide and manganese oxide stained, dark orange and black. [HIGHLY WEATHERED GREYWACKE] 7.88m: ...Extremely weak to very weak. Low tensile strength of incipient fractures and healed joints, breaks on handling. Breaks down to a very stiff clay.	HW	7.5m: SPTC 5, 7/ 11, 17, 20, 2 for 5mm N = 50+	100	100	75				
	HQ3								100	100	50				

Remarks:			Water Level Readings:		
1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 30.5mm and vertical accuracy +/- 68mm.	2. Borehole backfilled upon completion of drilling.	3. Geophysical profiling was undertaken on 31/10/2025, comprising optical and acoustic televiewer.	DateTime	Hole Depth	Water Level
			2025-10-23 17:38	9.00m	0.89mbgl
			2025-10-24 08:10	9.00m	4.39mbgl
			2025-10-28 12:00	13.40m	2.10mbgl
			2025-10-29 07:53	16.50m	6.35mbgl
			2025-10-29 17:00	30.00m	2.77mbgl
			2025-10-30 08:20	30.00m	8.08mbgl
			2025-10-30 18:00	40.50m	4.27mbgl
			2025-10-31 09:00	40.50m	8.60mbgl

BOREHOLE INFORMATION

Method: Rotary Core Wireline
Equipment: Tech Drill 250 HD
Contractor: Drill Force NZ Ltd

CO-ORDINATES: NZTM2000
Easting: 1727828.99
Northing: 6008892.45
Ground level: 147.27m (NZVD2016)

Date started: 23/10/2025
Date completed: 31/10/2025
Inclination: 90°
Azimuth: N/A

Logged: D. Baker/ A. Pola
Input: A. Pola
Reviewed: B. O'Loughlin
Verified: A. George

CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
3	HQ3	139	9		WPH	8.00-8.15m: ...Completely weathered seam, very stiff CLAY	HW	9m: SPTC 2, 2// 2, 4, 6, 8 N = 20	94	94	0		8.16m: JT, 45°, Ro, Un, Sn, 30 mm aperture, MnO	
						8.40-8.43m: ...Completely weathered seam, very stiff CLAY								
						8.80-9.00m: ...Completely weathered seam, very stiff CLAY								
						9.45-9.72m: ...Completely weathered seam, very stiff CLAY								
						9.80-10.25m: ...Fabric/jointing dipping 50 degrees, dark orange iron oxide/manganese oxide staining.								
4	HQ3	137	10		WPR	10.40-10.50m: ...CORE LOSS (100mm)	CW	10.5m: SPT 2, 2// 1, 2, 2, 1 N = 6	90	88	0		8.60-8.80m: JT, 40-90°, Ro, Un, Sn, FeO, MnO	
						10.50m: Silty CLAY; light grey and orange-brown. Stiff, moist, low plasticity. [COMPLETELY WEATHERED GREYWACKE]								
						11.70m: CORE LOSS: (300mm): Assumed washout								
						12.00m: Highly weathered, grey and brown, GREYWACKE SILTSTONE. Very weak. Incipient fractures with low tensile strength, dipping 10-80°, very closely spaced. Open joints closely to moderately widely spaced. Core breaks during handling. [HIGHLY WEATHERED GREYWACKE]								
						12.85m: ...Incipient fractures have moderate tensile strength								
5	HQ3	135	13		WPH	12.00m: Highly weathered, grey and brown, GREYWACKE SILTSTONE. Very weak. Incipient fractures with low tensile strength, dipping 10-80°, very closely spaced. Open joints closely to moderately widely spaced. Core breaks during handling. [HIGHLY WEATHERED GREYWACKE]	HW	12m: SPT 6, 9// 13, 17, 20 for 65mm N = 50+	100	73	19		12.45m: JT, 60°, Ro, Un, Sn, FeO	
						12.85m: ...Incipient fractures have moderate tensile strength								
						14.26m: Moderately weathered, light grey and orange brown, GREYWACKE SILTSTONE. Weak, Incipient fractures with moderate tensile strength, dipping 40-70°, closely spaced. Iron oxide staining on incipient joint surfaces, penetrating up to 5mm into intact core. [MODERATELY WEATHERED GREYWACKE]								
						15.35m: Highly weathered, orange brown, GREYWACKE SILTSTONE. Extremely weak to very weak. Incipient fractures with low tensile strength, dipping 50°, very closely spaced. Breaks down to SILT with some fine sand. [HIGHLY WEATHERED GREYWACKE]								
6	HQ3	133	14		WPM	14.26m: Moderately weathered, light grey and orange brown, GREYWACKE SILTSTONE. Weak, Incipient fractures with moderate tensile strength, dipping 40-70°, closely spaced. Iron oxide staining on incipient joint surfaces, penetrating up to 5mm into intact core. [MODERATELY WEATHERED GREYWACKE]	MW	13.5m: SPTC 7, 12// 15, 26, 9 for 35mm N = 50+	100	100	100		12.72m: JT, 30°, Ro, Un, Sn, FeO	
						15.35m: Highly weathered, orange brown, GREYWACKE SILTSTONE. Extremely weak to very weak. Incipient fractures with low tensile strength, dipping 50°, very closely spaced. Breaks down to SILT with some fine sand. [HIGHLY WEATHERED GREYWACKE]								
7	HQ3	132	15		WPH	15.35m: Highly weathered, orange brown, GREYWACKE SILTSTONE. Extremely weak to very weak. Incipient fractures with low tensile strength, dipping 50°, very closely spaced. Breaks down to SILT with some fine sand. [HIGHLY WEATHERED GREYWACKE]	HW	15m: SPTC 9, 12// 15, 20, 15 for 45mm N = 50+	72	72	0		13.00m: JT, 60°, Ro, Pl, Sn, FeO 13.13m: JT, 20°, Ro, Un, Sn, FeO 13.30-13.40m: JT, 80°, Ro, Un, Sn, FeO	

Remarks:

- Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 30.5mm and vertical accuracy +/- 68mm.
- Borehole backfilled upon completion of drilling.
- Geophysical profiling was undertaken on 31/10/2025, comprising optical and acoustic televiewer.

Water Level Readings:

Date/Time	Hole Depth	Water Level
2025-10-23 17:38	9.00m	0.89mbgl
2025-10-24 08:10	9.00m	4.39mbgl
2025-10-28 12:00	13.40m	2.10mbgl
2025-10-29 07:53	16.50m	6.35mbgl
2025-10-29 17:00	30.00m	2.77mbgl
2025-10-30 08:20	30.00m	8.08mbgl
2025-10-30 18:00	40.50m	4.27mbgl
2025-10-31 09:00	40.50m	8.60mbgl

BOREHOLE INFORMATION			CO-ORDINATES: NZTM2000		Date started: 23/10/2025		Logged: D. Baker/ A. Pola	
Method:	Rotary Core Wireline		Easting:	1727828.99	Date completed:	31/10/2025	Input:	A. Pola
Equipment:	Tech Drill 250 HD		Northing:	6008892.45	Inclination:	90°	Reviewed:	B. O'Loughlin
Contractor:	Drill Force NZ Ltd		Ground level:	147.27m (NZVD2016)	Azimuth:	N/A	Verified:	A. George

CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL			
6	HQ3	131			WPH	16.18m: CORE LOSS: (320mm) Assumed washout.	HW					WWS WS NWS CS VCS EGS	16.50-30.00m: Driller noted 100% circulation				
					WPH	16.50m: Highly weathered, orange brown, GREYWACKE SILTSTONE. Very weak. Incipient fractures and healed joints with low tensile strength, dipping 40-50°, very closely spaced. Iron oxide and minor manganese oxide staining.	HW										
	HQ3	130				WPH									17.30m: ...Indistinct fabric (joints?) predominantly dipping 70°	HW	100
					HQ3		129										
7	HQ3	127				WPM		20.70m: CORE LOSS: (300mm) Wash out.	MW	80	77	77					
					HQ3		126				WPH	21.00m: Highly weathered, light orange brown, GREYWACKE SILTSTONE. Extremely weak to very weak. Minor weak moderately weathered angular siltstone gravels and slightly weathered angular sandstone gravels. [HIGHLY WEATHERED GREYWACKE]	HW				
	HQ3	125				WPM			21.30m: Moderately weathered, orange brown and light grey, GREYWACKE SILTSTONE. Weak. Pervasive anastomosing incipient fractures are extremely closely spaced with moderate to high tensile strength, dipping 20-90°. Incipient fracture surfaces are iron oxide stained. Some zones of iron oxide ingress into intact rock, 130mm. Minor slightly weathered fine greywacke sandstone clasts (healed breccia) throughout. [MODERATELY WEATHERED GREYWACKE]			MW					100
8					HQ3		124			WPM			MW	100	100	100	
	HQ3																

Remarks: 1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 30.5mm and vertical accuracy +/- 68mm. 2. Borehole backfilled upon completion of drilling. 3. Geophysical profiling was undertaken on 31/10/2025, comprising optical and acoustic televiewer.			Water Level Readings:		
	DateTime	Hole Depth		Water Level	
	2025-10-23 17:38	9.00m		0.89mbgl	
	2025-10-24 08:10	9.00m		4.39mbgl	
	2025-10-28 12:00	13.40m		2.10mbgl	
	2025-10-29 07:53	16.50m		6.35mbgl	
	2025-10-29 17:00	30.00m		2.77mbgl	
	2025-10-30 08:20	30.00m		8.08mbgl	
	2025-10-30 18:00	40.50m		4.27mbgl	
	2025-10-31 09:00	40.50m		8.60mbgl	

Shear Vane (ISHSV + IBHSV) Serial No. 2183, calibration constant 1.482.

BOREHOLE INFORMATION

Method: Rotary Core Wireline
Equipment: Tech Drill 250 HD
Contractor: Drill Force NZ Ltd

CO-ORDINATES: NZTM2000
Easting: 1727828.99
Northing: 6008892.45
Ground level: 147.27m (NZVD2016)

Date started: 23/10/2025
Date completed: 31/10/2025
Inclination: 90°
Azimuth: N/A

Logged: D. Baker/ A. Pola
Input: A. Pola
Reviewed: B. O'Loughlin
Verified: A. George

CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	WVS WS MWS VCS EGS	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
9	HQ3	123			WPFZ	24.10m: Moderately weathered, orange grey and bluish grey, GREYWACKE FAULT BRECCIA. Mosaic packbreccia with brecciated moderately weathered to slightly weathered fine SANDSTONE and silty SAND matrix. Bottom lithological contact 60°. [MODERATELY WEATHERED HEALED FAULT ZONE]	MW							24.75-24.88m: JT, 30°, Sm, Pl, Sn, FeO, 2mm, x3	
					WPM	24.55m: Moderately weathered, orange brown and light grey, GREYWACKE SILTSTONE. Weak. Incipient fractures are extremely closely spaced with moderate tensile strength, dipping 20-70°. Incipient fracture surfaces are iron oxide stained. Open joints very closely spaced. Minor brecciated fine SANDSTONE angular gravel throughout. [MODERATELY WEATHERED GREYWACKE]	MW								
	HQ3	122			WPU	24.88m: Slightly weathered, bluish grey, GREYWACKE SANDSTONE. Moderately strong. Minor dark bluish grey interbedded GREYWACKE SILTSTONE. Incipient fractures are very closely spaced with moderate tensile strength, 20-50°. Trace quartz veins. Blue grey staining on surface of incipient fractures. [SLIGHTLY WEATHERED GREYWACKE]	SW								
					WPM	24.88m: Slightly weathered, bluish grey, GREYWACKE SANDSTONE. Moderately strong. Minor dark bluish grey interbedded GREYWACKE SILTSTONE. Incipient fractures are very closely spaced with moderate tensile strength, 20-50°. Trace quartz veins. Blue grey staining on surface of incipient fractures. [SLIGHTLY WEATHERED GREYWACKE] 25.40m: Moderately weathered, light grey and orange brown, GREYWACKE SILTSTONE. Weak. Incipient fractures with moderate tensile strength, 20-70°, extremely closely spaced. Joint surfaces are iron oxide stained. Minor brecciated slightly weathered GREYWACKE SANDSTONE gravel. [MODERATELY WEATHERED GREYWACKE] 25.50-25.70m: ...Zone of slightly weathered GREYWACKE SANDSTONE interbedded with dark grey beds of GREYWACKE SILTSTONE. Moderately strong.	MW								
10	HQ3	121			WPFZ	26.80m: Moderately weathered, light grey and orange brown, GREYWACKE FAULT BRECCIA. Very weak to weak. Crackle pack breccia, with slightly weathered fine to medium angular GREYWACKE SANDSTONE gravel clasts with a yellow/orange sandy SILT matrix. [MODERATELY WEATHERED HEALED FAULT ZONE]	MW							26.30-26.33m: Quartz crystals	
						27.94m: Moderately weathered, light grey and orange brown, GREYWACKE FAULT BRECCIA. Weak. Healed crackle pack breccia, with tightly interlocked clasts of angular GREYWACKE SANDSTONE. Clast supported, Iron oxide mineralisation.									
	29.54m: Highly weathered, light grey and orange brown, GREYWACKE FAULT BRECCIA. Very weak to weak. Mosaic float breccia, with angular GREYWACKE SANDSTONE and SILTSTONE fine to medium gravel sized clasts in a yellow/orange sandy SILT matrix. Matrix supported. [HIGHLY WEATHERED HEALED FAULT ZONE]	HW													
	HQ3	120				27.45m: JT, 50°, Ro, Pl, Cg Sandy CLAY	MW								
27.94m: JT, 40°, Ro, Pl, Cg sandy CLAY															
11	HQ3	119			WPFZ	27.94m: Moderately weathered, light grey and orange brown, GREYWACKE FAULT BRECCIA. Weak. Healed crackle pack breccia, with tightly interlocked clasts of angular GREYWACKE SANDSTONE. Clast supported, Iron oxide mineralisation.	MW							27.45m: JT, 50°, Ro, Pl, Cg Sandy CLAY	
						29.54m: Highly weathered, light grey and orange brown, GREYWACKE FAULT BRECCIA. Very weak to weak. Mosaic float breccia, with angular GREYWACKE SANDSTONE and SILTSTONE fine to medium gravel sized clasts in a yellow/orange sandy SILT matrix. Matrix supported. [HIGHLY WEATHERED HEALED FAULT ZONE]									
	30.20m: Moderately weathered, light grey and orange brown, GREYWACKE FAULT BRECCIA. Weak. Healed crackle pack breccia, with tightly interlocked clasts of angular GREYWACKE SANDSTONE. Clast supported. Iron oxide mineralisation. [MODERATELY WEATHERED HEALED FAULT ZONE]	HW													
	HQ3	118				31.30m: Moderately weathered, light grey and orange brown, GREYWACKE FAULT BRECCIA. Very weak to weak. Crackle float breccia, with a matrix of very weak sandy SILTSTONE. Angular clasts of medium to coarse GREYWACKE SILTSTONE gravel. Matrix supported. Iron oxide mineralisation.	MW						27.94m: JT, 40°, Ro, Pl, Cg sandy CLAY		
31.58m: Moderately weathered, light grey and orange brown, GREYWACKE FAULT BRECCIA. Weak. Healed crackle pack breccia, with tightly interlocked clasts of angular GREYWACKE SANDSTONE. Clast supported. Iron oxide mineralisation.															

Remarks:

- Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 30.5mm and vertical accuracy +/- 68mm.
- Borehole backfilled upon completion of drilling.
- Geophysical profiling was undertaken on 31/10/2025, comprising optical and acoustic televiewer.

Water Level Readings:

Date/Time	Hole Depth	Water Level
2025-10-23 17:38	9.00m	0.89mbgl
2025-10-24 08:10	9.00m	4.39mbgl
2025-10-28 12:00	13.40m	2.10mbgl
2025-10-29 07:53	16.50m	6.35mbgl
2025-10-29 17:00	30.00m	2.77mbgl
2025-10-30 08:20	30.00m	8.08mbgl
2025-10-30 18:00	40.50m	4.27mbgl
2025-10-31 09:00	40.50m	8.60mbgl

BOREHOLE INFORMATION			CO-ORDINATES: NZTM2000		Date started: 23/10/2025	Logged: D. Baker/ A. Pola
Method:	Rotary Core Wireline		Easting:	1727828.99	Date completed: 31/10/2025	Input: A. Pola
Equipment:	Tech Drill 250 HD		Northing:	6008892.45	Inclination: 90°	Reviewed: B. O'Loughlin
Contractor:	Drill Force NZ Ltd		Ground level:	147.27m (NZVD2016)	Azimuth: N/A	Verified: A. George

CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	FRACTURE LOG					STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
14	HQ3	107			WPU	40.06m: Slightly weathered, light bluish grey, GREYWACKE SANDSTONE INTERBEDDED with dark grey GREYWACKE SILTSTONE. Moderately strong. Incipient fractures with high tensile strength, inclined 30-60°, very closely to closely spaced. Iron oxide and green staining around incipient fractures penetrating up to 5mm. [SLIGHTLY WEATHERED GREYWACKE] Terminated at 40.50 m. Target depth.	MW					VWS WS MWS VCS EGS					40.00m: JT, Set x3, 20°, Un, Ro, Feo	
15																		
			41															
			106															
			42															
			105															
			43															
			104															
			44															
			103															
			45															
			102															
			46															
			101															
			47															
			100															

Remarks: 1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 30.5mm and vertical accuracy +/- 68mm. 2. Borehole backfilled upon completion of drilling. 3. Geophysical profiling was undertaken on 31/10/2025, comprising optical and acoustic televiewer.			Water Level Readings:		
	DateTime	Hole Depth		Water Level	
	2025-10-23 17:38	9.00m		0.89mbgl	
	2025-10-24 08:10	9.00m		4.39mbgl	
	2025-10-28 12:00	13.40m		2.10mbgl	
	2025-10-29 07:53	16.50m		6.35mbgl	
	2025-10-29 17:00	30.00m		2.77mbgl	
	2025-10-30 08:20	30.00m		8.08mbgl	
	2025-10-30 18:00	40.50m		4.27mbgl	
	2025-10-31 09:00	40.50m		8.60mbgl	

Shear Vane (ISHSV + IBHSV) Serial No. 2183, calibration constant 1.482.

Borehole Reference:

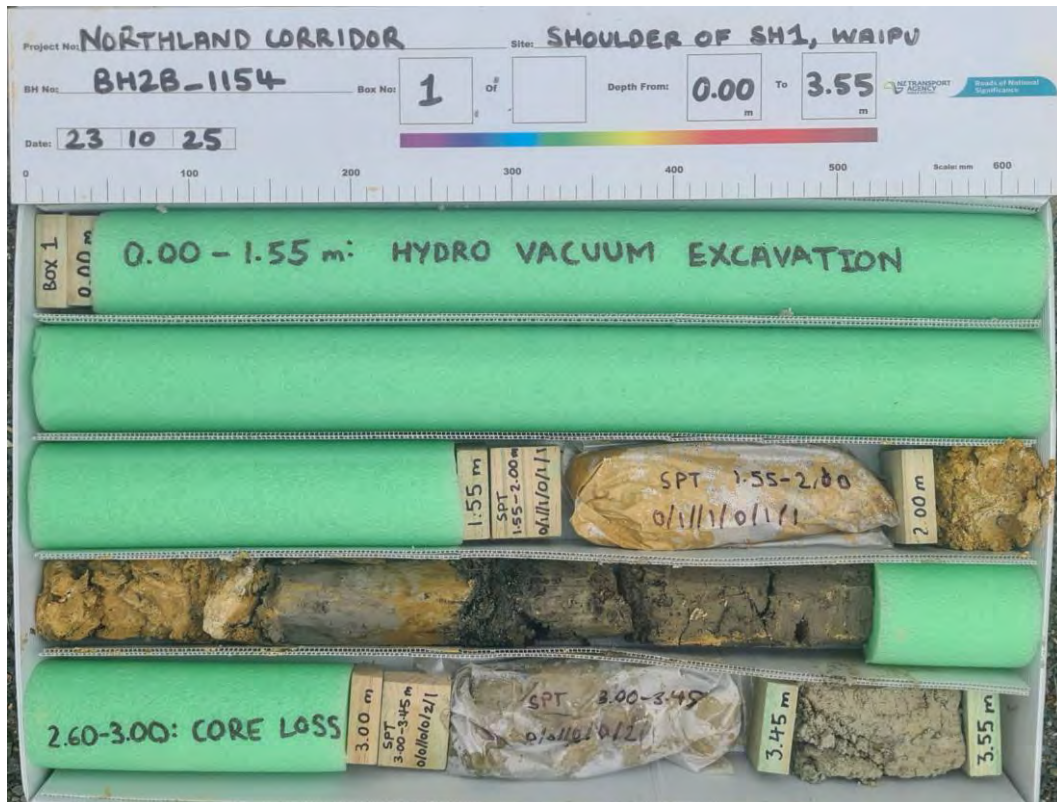
BH2B_1154

Photographed By:

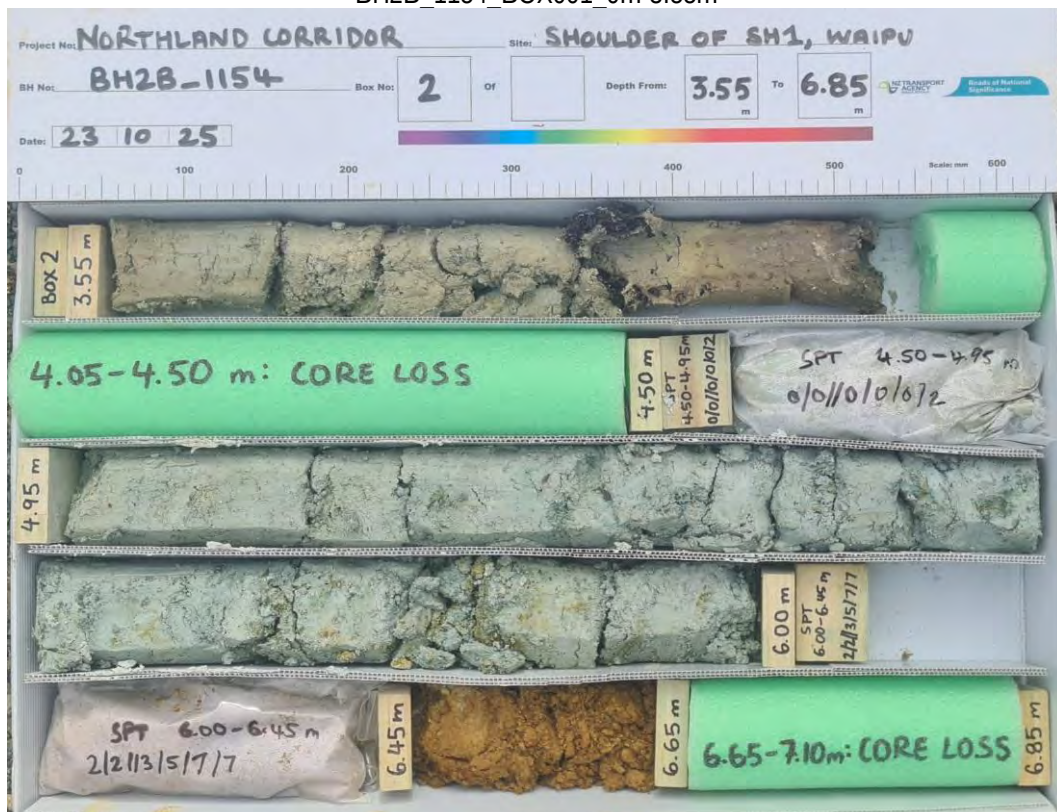
AP, DRB

Date Photographed:

22/10/2025-30/10/2025



BH2B_1154_BOX001_0m-3.55m



BH2B_1154_BOX002_3.55m-6.85m

Borehole Reference:

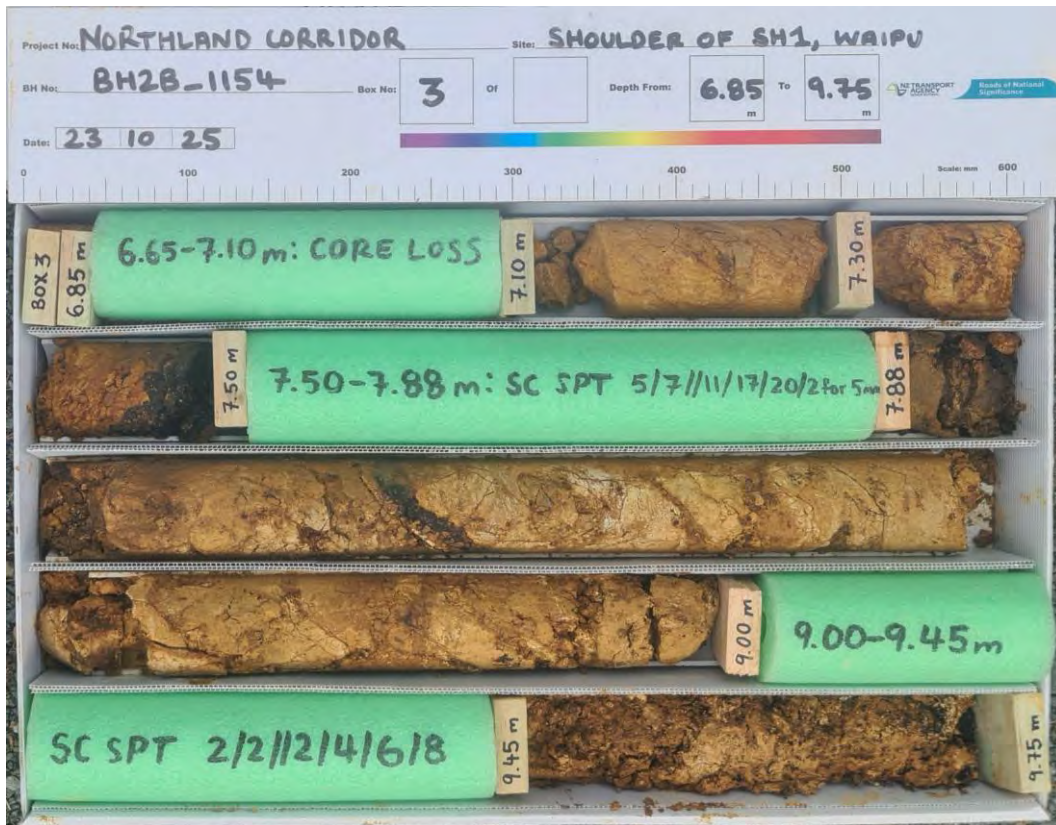
BH2B_1154

Photographed By:

AP, DRB

Date Photographed:

22/10/2025-30/10/2025



BH2B_1154_BOX003_6.85m-9.75m



BH2B_1154_BOX004_9.75m-12.95m

Borehole Reference:

BH2B_1154

Photographed By:

AP, DRB

Date Photographed:

22/10/2025-30/10/2025



BH2B_1154_BOX005_12.95m-15.95m



BH2B_1154_BOX006_15.95m-18.8m

Borehole Reference: BH2B_1154

Photographed By: AP, DRB

Date Photographed:

22/10/2025-30/10/2025



BH2B_1154_BOX007_18.8m-21.3m



BH2B_1154_BOX008_21.3m-24m

Borehole Reference:

BH2B_1154

Photographed By:

AP, DRB

Date Photographed:

22/10/2025-30/10/2025



BH2B_1154_BOX009_24m-26.7m



BH2B_1154_BOX010_26.7m-29.34m

Borehole Reference: BH2B_1154

Photographed By: AP, DRB

Date Photographed:

22/10/2025-30/10/2025



BH2B_1154_BOX011_29.34m-32.28m



BH2B_1154_BOX012_32.28m-34.94m

Borehole Reference:

BH2B_1154

Photographed By:

AP, DRB

Date Photographed:

22/10/2025-30/10/2025



BH2B_1154_BOX013_34.94m-37.5m



BH2B_1154_BOX014_37.5m-40.13m

Borehole Reference: BH2B_1154

Photographed By: AP, DRB

Date Photographed:

22/10/2025-30/10/2025



BH2B_1154_BOX015_40.13m-40.5m

Client: **New Zealand Transport Agency**

Project: **Northland Corridor, Alternative to Brynderwyn Hills**

Location: **Zone 4, SH12 Brynderwyn**

Project Reference: **Aurecon WSP JV**

BH2B 1155

Sheet 1 of 6

~~C. Nicholas / J~~

Oliviera

Logged: C. Nicholas
Oliviera

Input:	Olivera C. Nicholas
--------	------------------------

Reviewed: F. Monteith

Verified: A. George

BOREHOLE INFORMATION

Method: Rotary Core Wireline

Equipment: Hanjin/D&B 10

Contractor: McMillan (NI) Drilling

CO-ORDINATES:

CO-ORDINATES: NZTM2000

Fasting:	1727936 15
----------	------------

Northings: 6003608.36

Ground level: 61.83m (NZVD2016)

Date started:	21/10/2025
---------------	------------

Date completed: 28/10/2025

Inclination: 90°

Azimuth: N/A

Logged:

Input:

Reviews

Verified:

CORE BOX		METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	FRACTURE LOG					STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
1		HA				TS	0.00m: Clayey SILT; dark brown. Firm, moist, low plasticity. Trace rootlets. [TOPSOIL]												
						NAS	0.30m: Silty CLAY; light brown. Very stiff, moist, high plasticity. [NON-CALCAREOUS RESIDUAL SOIL]	RS	0.5m: ISHSV 123/63 kPa 1m: ISHSV 116/53 kPa	100							0.30m: No HCl Reaction		
							1.50m: ...Light greyish brown. 1.60m: Silty CLAY; grey with orange mottles. Very stiff, moist, high plasticity. Relict shear fabric. [COMPLETELY WEATHERED CALCAREOUS SILTSTONE]	CW	1.5m: ISHSV 158/53 kPa 1.5m: SPT 0, 0// 0, 1, 1, 2 N = 4	67							1.50m: Strong HCl Reaction		
							2.20m: Highly weathered, brownish grey with bluish grey mottles, calcareous SILTSTONE. Extremely weak, pervasively sheared and microfractured. (Breaks down to silty CLAY. Hard, high plasticity) [NORTHLAND ALLOCHTHAN MELANGE MATRIX]. 2.80-3.00m: ...CORE LOSS (200mm). 2.90m: Slightly weathered, bluish grey with dark bluish grey banding, calcareous SILTSTONE. Extremely weak, pervasively sheared and microfaulted. Indistinct foliated fabric (aligned clasts) dipping 10 to 20° (clayey SILT with some fine to medium angular gravel. Hard) [MELANGE MATRIX].	HW		81	0						2.20m: Strong HCl Reaction		
	2	SPT							3m: IBHSV UTP 3m: SPT 5, 4// 5, 7, 7, 7 N = 26	67									
										100	79								
									4.5m: SPT 2, 2// 3, 4, 4, 4 N = 15	56							4.95m: Core swelling		
										114	89								
	3	SPT							6m: SPT 2, 3// 4, 4, 5, 6 N = 19	60									
							6.45m: ...Breaks down to Clayey SILT, Hard.			124	83						6.45m: Core swelling		
	4	SPT							7.5m: SPT 3, 5// 5, 6, 6, 6 N = 23	67									

Remarks:

1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 71mm and vertical accuracy +/- 76mm.
2. Two vibrating wire piezometers were installed on 28/10/2025. BH2B_1155_PZ01 was installed at 16.7m bgl, Serial No. 378311. BH2B_1155_PZ02 was installed at 28.2m bgl, Serial No. 378274.
3. ISHSV = in-situ hand shear vane. IBHSV = in barrel hand shear vane.

Shear Vane (IBHSV + ISHSV) Serial No. 1288 + 3352, calibration constant 1.546 + 1.75.

Water Level Readings:

WaterTime	Hole Depth	Water Level
2025-10-21 16:37	6.00m	0.30mbgl
2025-10-22 08:00	6.00m	0.30mbgl
2025-10-22 16:35	16.50m	-2.20mbgl
2025-10-23 08:00	16.50m	-2.20mbgl
2025-10-23 16:32	29.20m	3.30mbgl
2025-10-24 08:00	29.20m	0.00mbgl
2025-10-24 11:30	35.90m	1.30mbgl
2025-10-28 08:32	37.10m	0.30mbgl

BOREHOLE INFORMATION
Method: Rotary Core Wireline
Equipment: Hanjin/D&B 10
Contractor: McMillan (NI) Drilling

CO-ORDINATES: NZTM2000
Easting: 1727936.15
Northing: 6003608.36
Ground level: 61.83m (NZVD2016)

Date started: 21/10/2025
Date completed: 28/10/2025
Inclination: 90°
Azimuth: N/A

Logged: C. Nicholas / J. Oliviera
Input: C. Nicholas
Reviewed: F. Monteith
Verified: A. George

CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
4	HQ3	53	9			8.10m: ...Light bluish grey with bluish grey and brown banding.			100	100				
	SPT					8.80m: ...Bluish grey with dark bluish grey and brown banding.		9m: SPT 3, 3// 6, 6, 6, 6 N = 24	56					
	HQ3	62	10						119	80				
	SPT							10.5m: SPT 4, 5// 5, 8, 7, 8 N = 28	67					
5	HQ3				NAM		SW		76	76				
	SPT					11.80-11.82m: ...Light bluish grey.		12m: SPT 4, 6// 5, 6, 6, 9 N = 26	71					
	HQ3	49	13						100	100				
	SPT							13.5m: SPT 4, 4// 6, 6, 5, 7 N = 24	78					
6	HQ3								76	76				
	SPTC							15m: SPTC 5, 8// 6, 6, 28 for 70mm N = 50+						
	HQ3	46			NAN	15.37m: Slightly weathered, greenish grey, sheared, non-calcareous SILTSTONE. Weak, indistinct shear fabric, extremely closely spaced incipient fractures with high tensile strength. Widely to closely spaced, steeply inclined discontinuities [MELANGE BLOCK]. 15.72-15.84m: ...Infilled trace fossil or vein, brown infill (calcite?).	SW		100	100				
													15.37m: 0.25m Pick-up 15.37m: No HCl Reaction 15.45m: JT, 45°, Un, Sm, Cn, Open 15.54m: JT, 50°, Pl, <1mm tight 15.64m: JT, 50°, Pl, Sm, Cn, 2mm 15.88m: JT, 55°, Pl, Sm, Cn, Open	

Remarks: 1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 71mm and vertical accuracy +/- 76mm. 2. Two vibrating wire piezometers were installed on 28/10/2025. BH2B_1155_PZ01 was installed at 16.7m bgl, Serial No. 378311. BH2B_1155_PZ02 was installed at 28.2m bgl, Serial No. 378274. 3. ISHSV = in-situ hand shear vane, IBHSV = in barrel hand shear vane. Shear Vane (IBHSV + ISHSV) Serial No. 1288 + 3352, calibration constant 1.546 + 1.75.	Water Level Readings:		
	DateTime	Hole Depth	Water Level
	2025-10-21 16:37	6.00m	0.30mbgl
	2025-10-22 08:00	6.00m	0.30mbgl
	2025-10-22 16:35	16.50m	-2.20mbgl
	2025-10-23 08:00	16.50m	-2.20mbgl
	2025-10-23 16:32	29.20m	3.30mbgl
	2025-10-24 08:00	29.20m	0.00mbgl
	2025-10-24 11:30	35.90m	1.30mbgl
	2025-10-28 08:32	37.10m	0.30mbgl

WaterTime	Hole Depth	Water Level
2025-10-21 16:37	6.00m	0.30mbgl
2025-10-22 08:00	6.00m	0.30mbgl
2025-10-22 16:35	16.50m	-2.20mbgl
2025-10-23 08:00	16.50m	-2.20mbgl
2025-10-23 16:32	29.20m	3.30mbgl
2025-10-24 08:00	29.20m	0.00mbgl
2025-10-24 11:30	35.90m	1.30mbgl
2025-10-28 08:32	37.10m	0.30mbgl

BOREHOLE INFORMATION
Method: Rotary Core Wireline
Equipment: Hanjin/D&B 10
Contractor: McMillan (NI) Drilling

CO-ORDINATES: NZTM2000
Easting: 1727936.15
Northing: 6003608.36
Ground level: 61.83m (NZVD2016)

Date started: 21/10/2025
Date completed: 28/10/2025
Inclination: 90°
Azimuth: N/A

Logged: C. Nicholas / J. Oliviera
Input: C. Nicholas
Reviewed: F. Monteith
Verified: A. George

CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
12	HQ3				NAL		SW						32.34m: JT, 15°, Un, Ro, dark grey clay infill, 2mm 32.44-32.58m: CZ, drilling induced? 32.60m: 0.1m Pick-up	
	HQ3	29	33		NAM	32.58m: Moderately weathered, greenish grey with dark green streaks, calcareous SILTSTONE. Extremely weak. Pervasively sheared and microfaulted with no preferred orientation. (Breaks down to silty CLAY. Very stiff, high plasticity) [MELANGE MATRIX]	MW		100	90			33.10-33.27m: JT set x2, 40°, PL, Sm, dark grey clay infill, 1mm 33.45m: JT, 40°, PL, Sm, dark grey clay infill, 1mm 33.62-33.73m: FRACTURE ZONE	
13	HQ3	28	34			33.96m: ...Dark greyish green with light greyish green streaks. Darker green siltstone is less calcareous than lighter green.			77	66			34.00-34.15m: JT, 45-90°, Un, Sm, Cn, 1mm 34.35m: No HCl Reaction 34.50m: 0.2m Pick-up	
	HQ3	27	35			34.35m: Slightly weathered, dark brown, non-calcareous SILTSTONE. Very weak. Pervasively sheared with no preferred orientation. Moderate tensile strength incipient fractures. [NORTHLAND ALLOCHTHON NON-CALCAREOUS SEQUENCE]			100	100	100		34.92m: JT, 20°, Pl, Sm, Cn, 1mm 35.50m: JT, 60°, Pl, Sm, Cn, 1mm	
14		26	36		NAN		SW		100	100	100		37.27m: JT, 45°, Pl, clay Vn, 1mm 37.35m: JT, 40°, Pl, clay Vn, 1mm 37.60m: JT, 40°, Pl, clay infill, 3mm 37.90m: JT, 20°, Pl, clay infill, 2mm 38.00m: JT, 45°, Pl, clay Vn, 1mm 38.40-38.45m: CZ, drilling induced?	
		24	38						100	100	100		39.12m: JT, 45°, clay Vn, 1mm	
15		23	39						100	100	80		39.87m: JT, 20°, Pl, clay infill, 3mm	
		22												

Remarks:

- Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 71mm and vertical accuracy +/- 76mm.
- Two vibrating wire piezometers were installed on 28/10/2025. BH2B_1155_PZ01 was installed at 16.7m bgl, Serial No. 378311. BH2B_1155_PZ02 was installed at 28.2m bgl, Serial No. 378274.
- ISHSV = in-situ hand shear vane, IBHSV = in barrel hand shear vane.

Shear Vane (IBHSV + ISHSV) Serial No. 1288 + 3352, calibration constant 1.546 + 1.75.

Water Level Readings:

Date/Time	Hole Depth	Water Level
2025-10-21 16:37	6.00m	0.30mbgl
2025-10-22 08:00	6.00m	0.30mbgl
2025-10-22 16:35	16.50m	-2.20mbgl
2025-10-23 08:00	16.50m	-2.20mbgl
2025-10-23 16:32	29.20m	3.30mbgl
2025-10-24 08:00	29.20m	0.00mbgl
2025-10-24 11:30	35.90m	1.30mbgl
2025-10-28 08:32	37.10m	0.30mbgl

Borehole Reference:

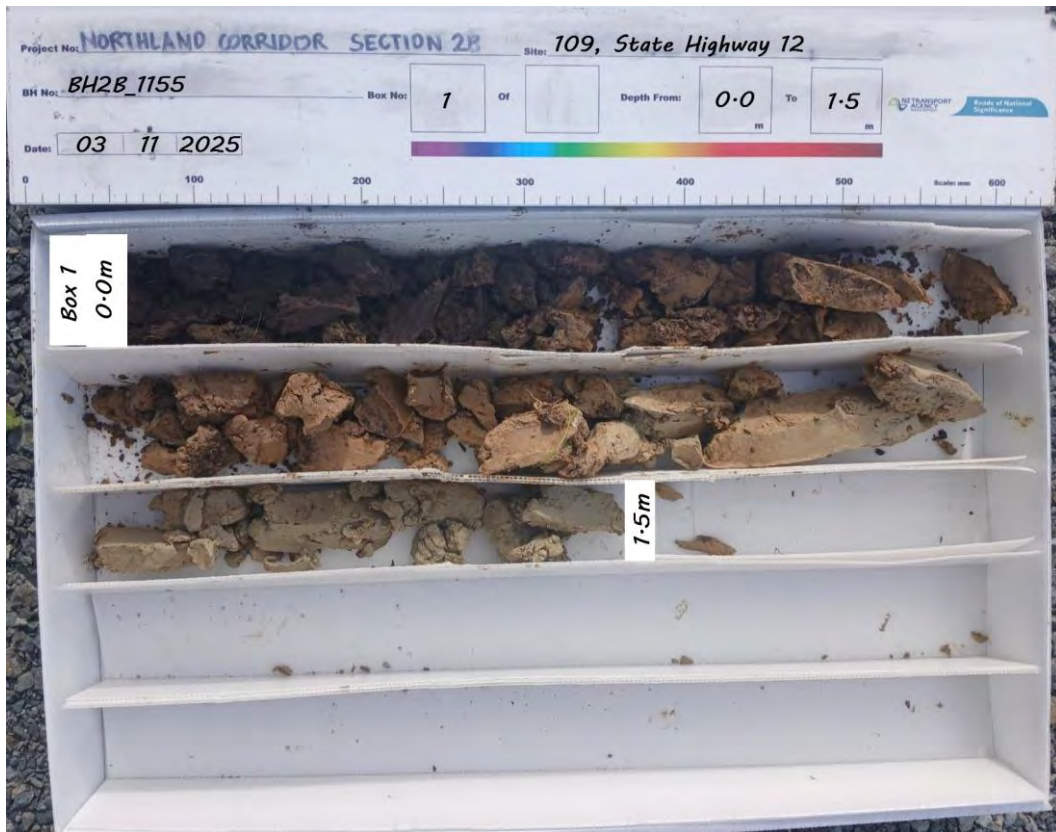
BH2B_1155

Photographed By:

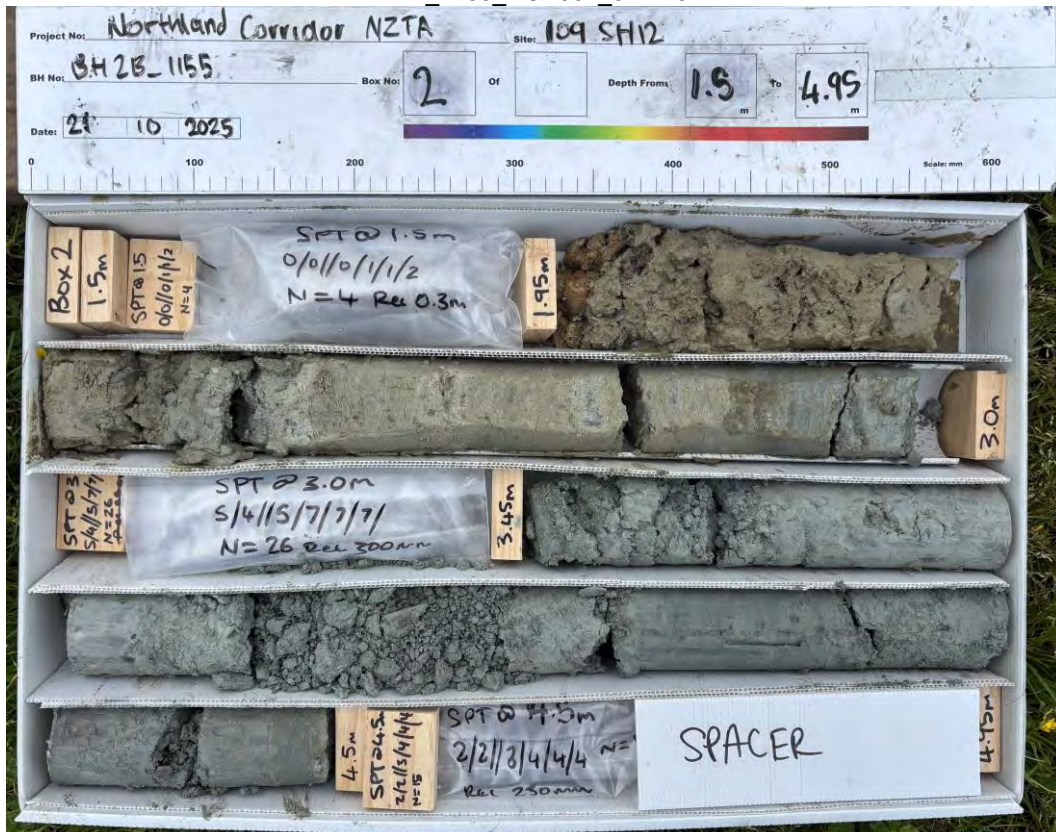
CN, MZ

Date Photographed:

21/10/2025-17/11/2025



BH2B_1155_BOX001_0m-1.5m



BH2B_1155_BOX002_1.5m-4.95m

Borehole Reference:

BH2B_1155

Photographed By:

CN, MZ

Date Photographed:

21/10/2025-17/11/2025



BH2B_1155_BOX003 4.95m-7.5m



BH2B_1155_BOX004 7.5m-10.27m

Borehole Reference:

BH2B_1155

Photographed By:

CN, MZ

Date Photographed:

21/10/2025-17/11/2025



BH2B 1155 BOX005 10.27m-13.4m



BH2B_1155_BOX006_13.4m-16.4m

Borehole Reference: BH2B_1155

Photographed By: CN, MZ

Date Photographed:

21/10/2025-17/11/2025



BH2B_1155_BOX007_16.4m-19.22m



BH2B_1155_BOX008_19.22m-22.05m

Borehole Reference: BH2B_1155

Photographed By: CN, MZ

Date Photographed:

21/10/2025-17/11/2025



BH2B_1155_BOX009_22.05m-24.77m



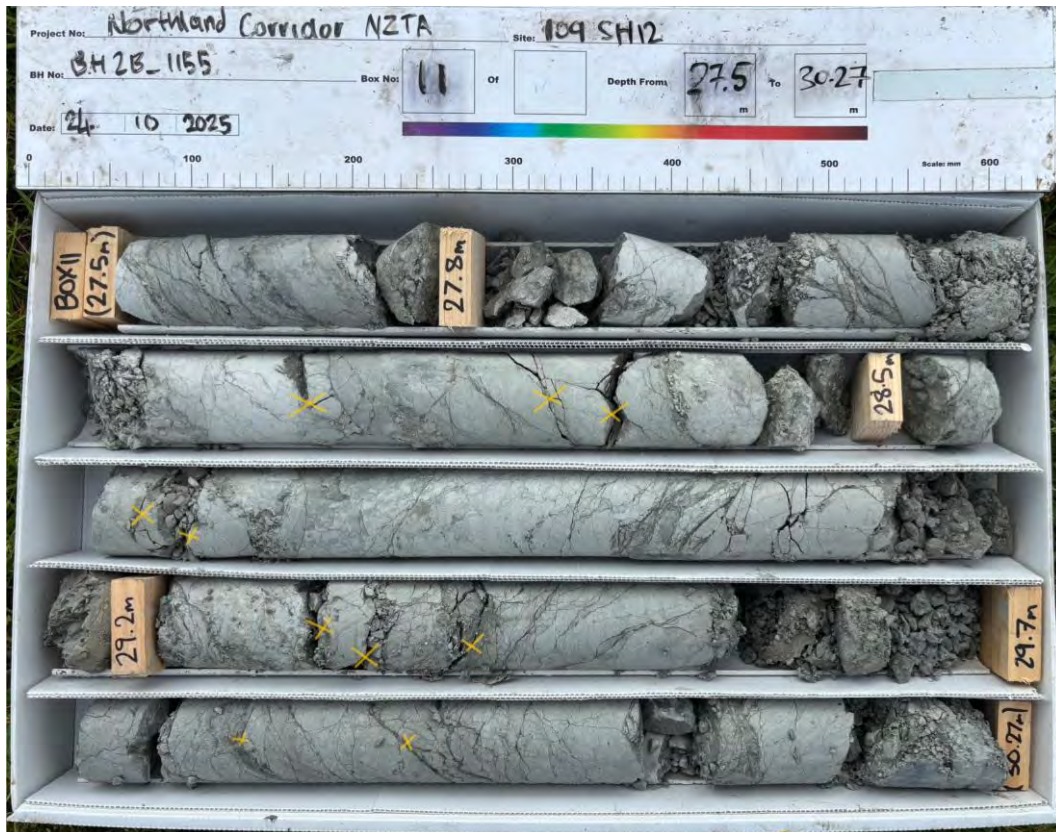
BH2B_1155_BOX010_24.77m-27.5m

Borehole Reference: BH2B_1155

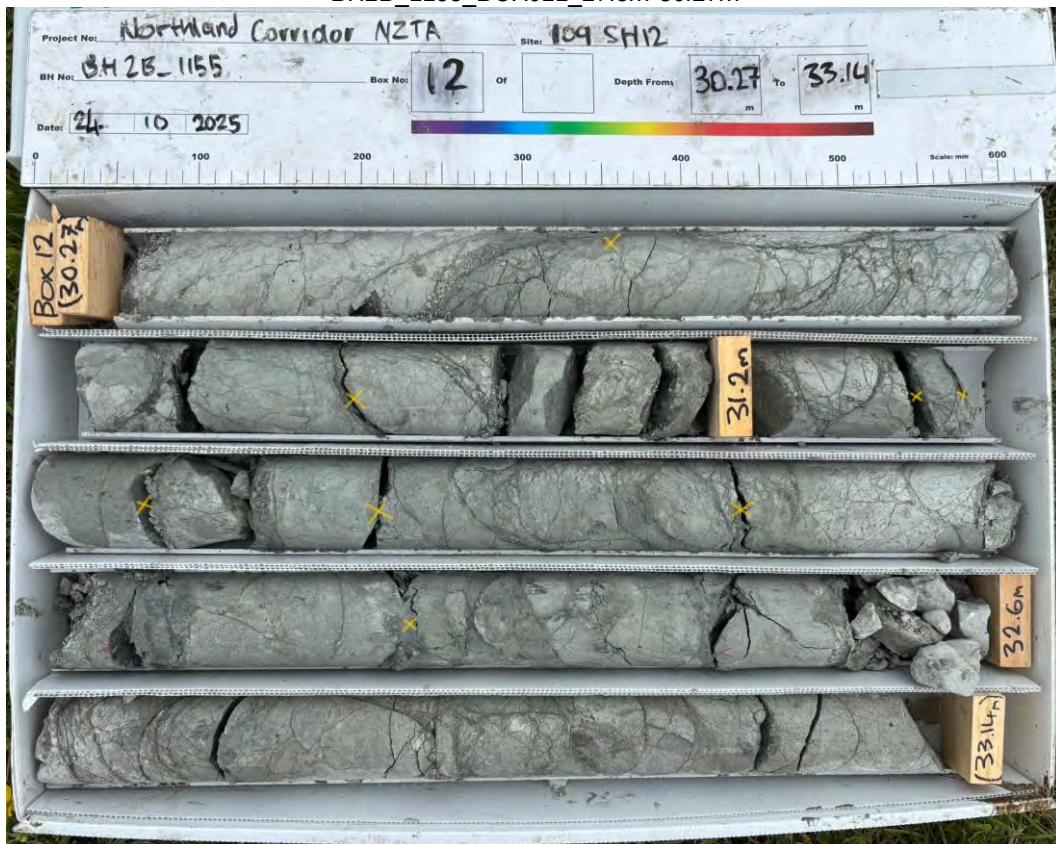
Photographed By: CN, MZ

Date Photographed:

21/10/2025-17/11/2025



BH2B_1155_BOX011_27.5m-30.27m



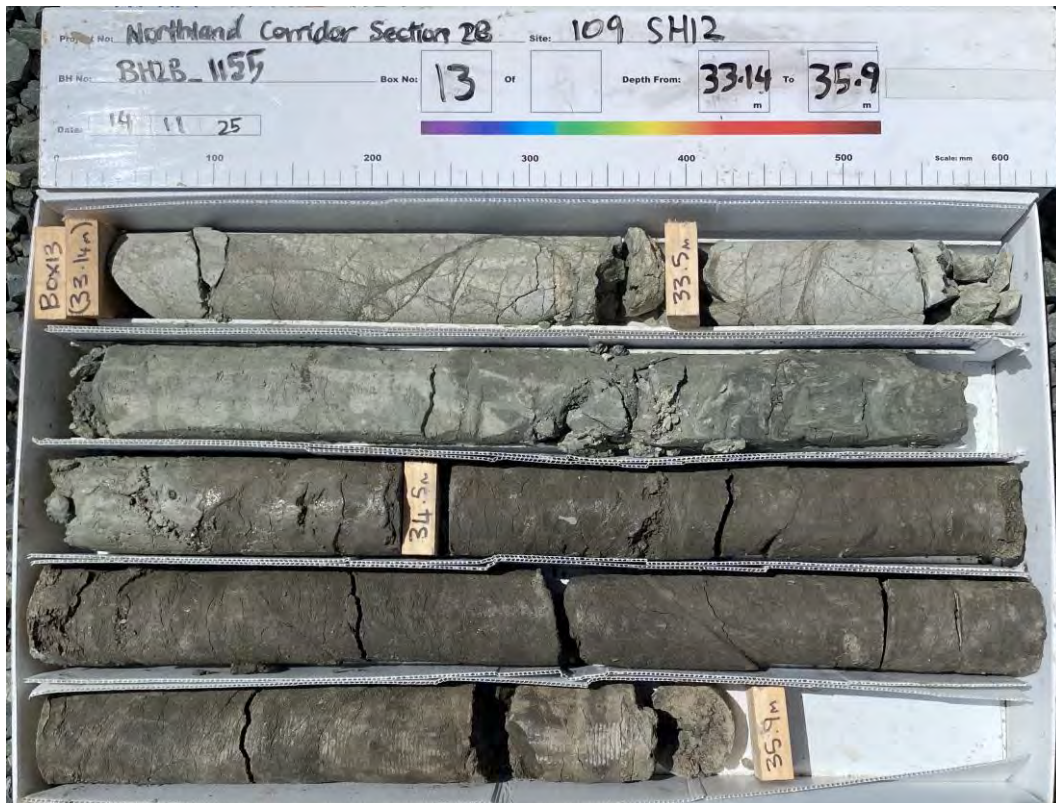
BH2B_1155_BOX012_30.27m-33.14m

Borehole Reference: BH2B_1155

Photographed By: CN, MZ

Date Photographed:

21/10/2025-17/11/2025



BH2B_1155_BOX013_33.14m-35.9m



BH2B_1155_BOX014_35.9m-38.65m

Borehole Reference: BH2B_1155

Photographed By: CN, MZ

Date Photographed:

21/10/2025-17/11/2025



BH2B_1155_BOX015_38.65m-40.1m

Remarks:		Water Level Readings:		
1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 30mm and vertical accuracy +/- 66mm.		Date/Time	Hole Depth	Water Level
2. One vibrating wire piezometer was installed on 22/10/2025. BH2B_1156_PZ01 was installed at 21m bgl, Serial No. 377911.		2025-10-17 17:00	6.00m	0.00mbgl
3. Falling/rising head testing undertaken with data logger at borehole depth 6m on 17/10/2025. Second falling/rising head testing undertaken with data logger at borehole depth 30.0m on 21/10/2025.		2025-10-20 07:30	6.00m	3.50mbgl
4. ISHSV = in-situ hand shear vane.		2025-10-20 17:00	15.00m	2.20mbgl
		2025-10-21 07:00	15.00m	4.30mbgl
		2025-10-21 16:00	30.00m	0.20mbgl
		2025-10-22 07:30	30.00m	3.50mbgl

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000		Date started:	17/10/2025	Logged:	B.Fleetwood
Method:	Rotary Core Wireline	Easting:	1728034.30	Date completed:	22/10/2025	Input:	B.Fleetwood
Equipment:	Fraste SRS	Northing:	6003332.84	Inclination:	90°	Reviewed:	B. O'Loughlin
Contractor:	ProDrill NZ	Ground level:	78.6905m (NZVD2016)	Azimuth:	N/A	Verified:	A.George

[illegible]

Remarks:

- Remarks:**
1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 30mm and vertical accuracy +/- 66mm.
 2. One vibrating wire piezometer was installed on 22/10/2025. BH2B_1156_PZ01 was installed at 21m bgl. Serial No. 377911.
 3. Falling/rising head testing undertaken with data logger at borehole depth 6m on 17/10/2025. Second falling/rising head testing undertaken with data logger at borehole depth 30.0m on 21/10/2025.
 4. JSHSV = in-situ hand shear vane

Shear Vane (ISHSV) Serial No. 3352, calibration constant 1.75.

Water Level Readings:

WaterTime	Hole Depth	Water Level
2025-10-17 17:00	6.00m	0.00mbgl
2025-10-20 07:30	6.00m	3.50mbgl
2025-10-20 17:00	15.00m	2.20mbgl
2025-10-21 07:00	15.00m	4.30mbgl
2025-10-21 16:00	30.00m	0.20mbgl
2025-10-22 07:30	30.00m	3.50mbgl

Logged:	B.Fleetwood
Input:	B.Fleetwood
Reviewed:	B. O'Loughlin
Verified:	A.George

Water Level Readings:		
DateTime	Hole Depth	Water Level
2025-10-17 17:00	6.00m	0.00mbgl
2025-10-20 07:30	6.00m	3.50mbgl
2025-10-20 17:00	15.00m	2.20mbgl
2025-10-21 07:00	15.00m	4.30mbgl
2025-10-21 16:00	30.00m	0.20mbgl
2025-10-22 07:30	30.00m	3.50mbgl

Shear Vane (ISHSV) Serial No. 3352, calibration constant 1.75.

Borehole Reference:

BH2B_1156

Photographed By:

BF

Date Photographed:

19/10/2025-26/11/2025



BH2B_1156_BOX001_0m-1.5m



BH2B_1156_BOX002_1.5m-4.5m

Borehole Reference:

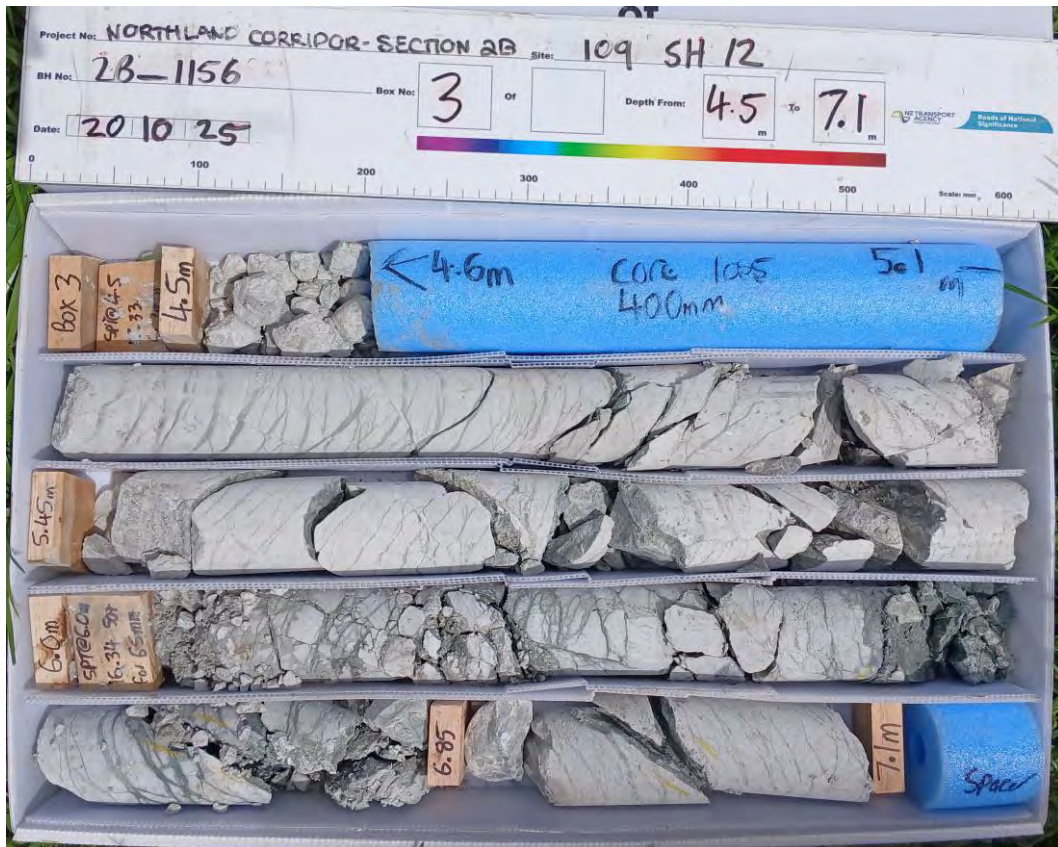
BH2B_1156

Photographed By:

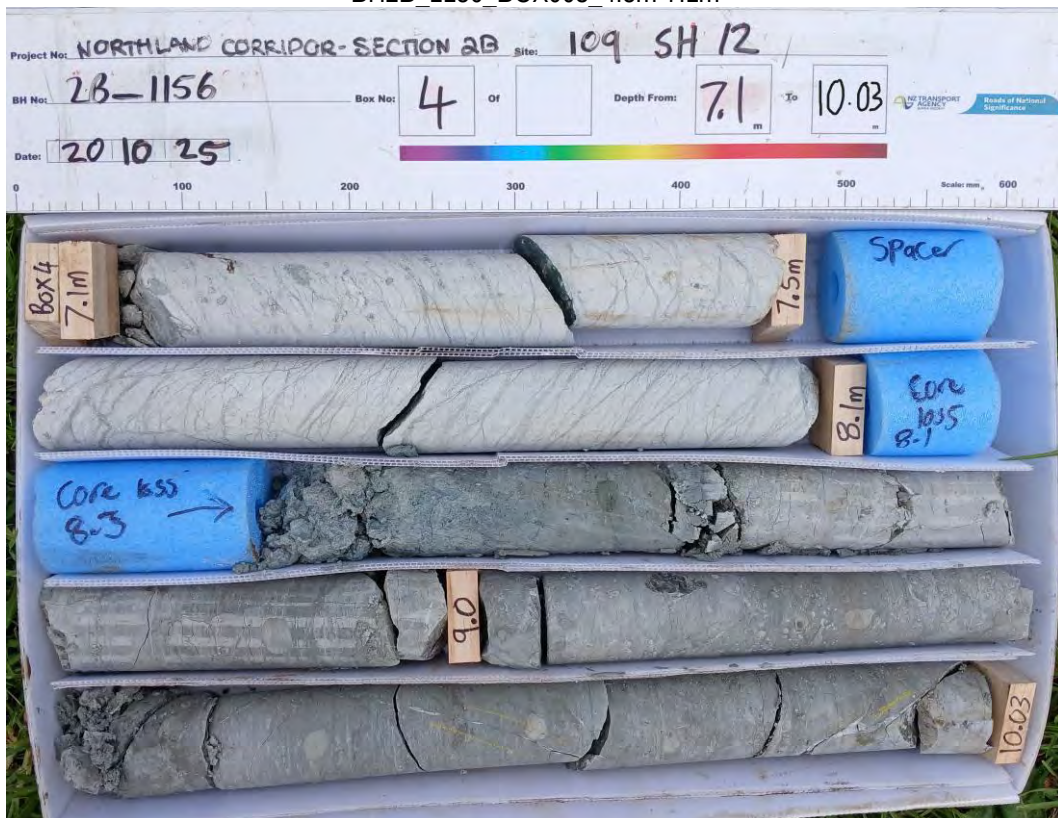
BF

Date Photographed:

19/10/2025-26/11/2025



BH2B_1156_BOX003 4.5m-7.1m



BH2B_1156_BOX004 7.1m-10.03m

Borehole Reference:

BH2B_1156

Photographed By:

BF

Date Photographed:

19/10/2025-26/11/2025



BH2B_1156_BOX005_10.03m-12.9m



BH2B_1156_BOX006_12.9m-16.03m

Borehole Reference:

BH2B_1156

Photographed By:

BF

Date Photographed:

19/10/2025-26/11/2025



BH2B_1156_BOX007_16.03m-18.9m



BH2B_1156_BOX008_18.9m-21.98m

Borehole Reference:

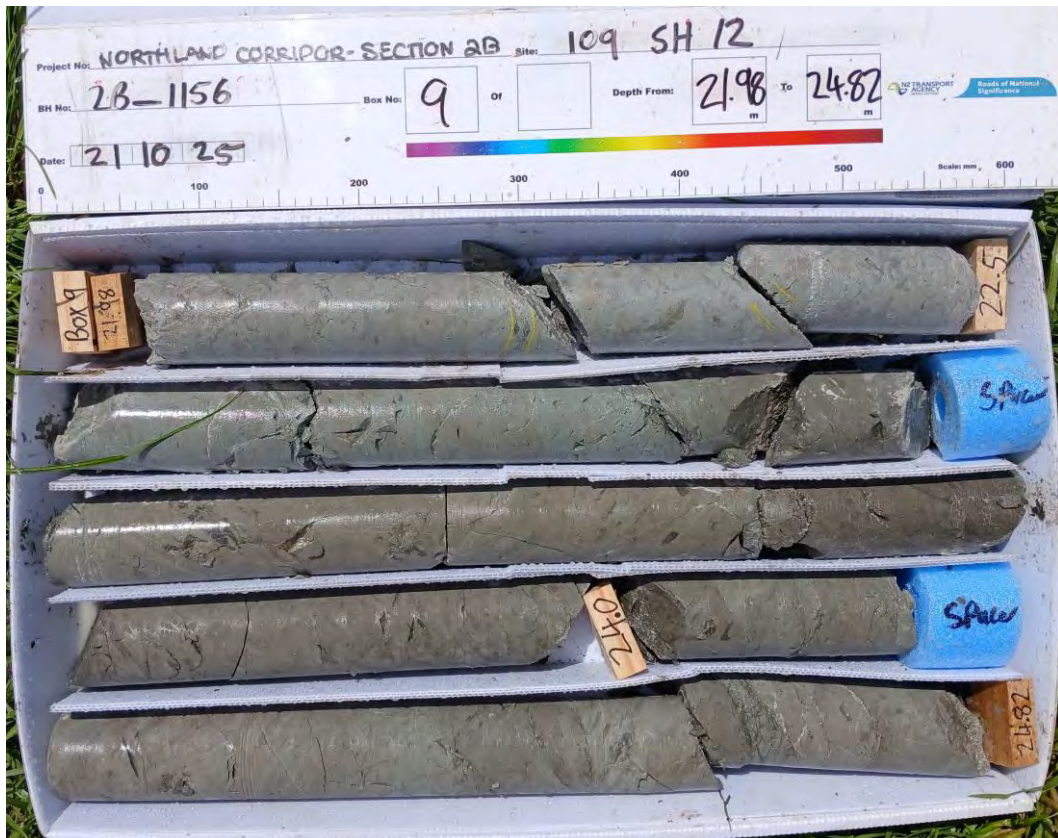
BH2B_1156

Photographed By:

BF

Date Photographed:

19/10/2025-26/11/2025



BH2B_1156_BOX009_21.98m-24.82m



BH2B_1156_BOX010_24.82m-27.6m

Borehole Reference: BH2B_1156

Photographed By: BF

Date Photographed:

19/10/2025-26/11/2025



BH2B_1156_BOX011_27.6m-30m

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000		Date started:	23/10/2025	Logged:	B.Fleetwood
Method:	Rotary Core Wireline	Easting:	1728432.37	Date completed:	06/11/2025	Input:	B.Fleetwood
Equipment:	Fraste SRS	Northing:	6002570.22	Inclination:	90°	Reviewed:	B. O'Loughlin
Contractor:	ProDrill NZ	Ground level:	171.6715m (NZVD2016)	Azimuth:	N/A	Verified:	A.George

CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
1	HA	171	1		TS	0.00m: Organic SILT; black. Firm moist, low plasticity [TOPSOIL].								
					DAR	0.30m: Clayey SILT with trace sand; dark brown. Stiff, moist, low plasticity [TAURIKURA SUBGROUP DACITE - RESIDUAL SOIL].	RS		100					
						1.30m: SILT with minor sand; light grey, orange and brown. Stiff to very stiff, moist, low plasticity. Sand is fine to medium.	RS	1.5m: ISHSV 163/54 kPa 1.5m: SPT 1, 0// 1, 1, 1, 1 N = 4	67					
						U54	2		2.00m: PUSH TUBE - inferred to be clayey SILT with trace sand; light grey and orange (throughout).	RS		55 60		
2	HQ3	169	3		DAR	2.50m: Clayey SILT with trace sand; light grey, orange and brown. Stiff to very stiff, moist, low plasticity.	RS	3m: ISHSV 122/34 kPa 3m: SPT 0, 0// 1, 1, 1, 1 N = 4	100					
						78								
	HQ3	168	4		DAR			100						
						4.5m: IBHSV 113/20 kPa 4.5m: SPT 0, 0// 1, 0, 1, 1 N = 3	78							
	HQ3	166	6		CW	4.95m: Clayey SILT with trace sand; light grey and brown with orange streaks. Firm, moist, low plasticity [TAURIKURA SUBGROUP DACITE - COMPLETELY WEATHERED].		100						
						6m: IBHSV 93/20 kPa 6m: SPT 0, 1// 0, 1, 1, 0 N = 2	71							
		165			6.45m: Core loss (400 mm).									
3	HQ3	164	7		DAR	6.85m: Clayey SILT with trace sand; light grey and brown with occasional orange and black streaks. Firm, moist, low plasticity. Occasional iron oxide relic joints throughout.	CW	7.5m: IBHSV 108/25 kPa 7.5m: SPT 1, 1// 1, 1, 1, 1 N = 4	57					
						67								

Remarks:

1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 46mm and vertical accuracy +/- 72mm.
2. One vibrating wire piezometer was installed on 6/11/2025. BH2B_1157_PZ01 was installed at 80.5m bgl, Serial No. P252879.
3. Falling/rising head testing undertaken with data logger at borehole depth 17m on 24/10/2025. Second falling/rising head testing undertaken with data logger at borehole depth 49.50m on 29/10/2025. Third falling/rising head testing undertaken with data logger at borehole depth 85.0m on 03/11/2025.
4. IHSV = In-situ hand shear vane, IBHSV = in barrel hand shear vane.

Shear Vane (IBHSV + ISHSV) Serial No. 3331, calibration constant 1.693.

Water Level Readings:

DateTime	Hole Depth	Water Level
2025-10-23 16:00	12.45m	0.20mbgl
2025-10-24 07:13	12.45m	7.00mbgl
2025-10-24 11:14	18.30m	2.20mbgl
2025-10-28 08:41	18.30m	Dry
2025-10-28 16:43	28.00m	3.20mbgl
2025-10-29 07:30	28.00m	25.30mbgl
2025-10-29 16:30	49.50m	4.70mbgl
2025-10-30 07:30	49.50m	26.10mbgl

BOREHOLE INFORMATION

Method: Rotary Core Wireline
Equipment: Fraste SRS
Contractor: ProDrill NZ

CO-ORDINATES: NZTM2000
Easting: 1728432.37
Northing: 6002570.22
Ground level: 171.6715m (NZVD2016)

Date started: 23/10/2025
Date completed: 06/11/2025
Inclination: 90°
Azimuth: N/A

Logged: B.Fleetwood
Input: B.Fleetwood
Reviewed: B. O'Loughlin
Verified: A.George

CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
3	HQ3	163	9		DAR	9.64m: ...Fewer iron stained joints	CW	9m: IBHSV 122/27 kPa 9m: SPT 0, 1// 1, 1, 1, 1 N = 4	100					
	SPT								89					
	HQ3	162	10					10.5m: IBHSV 129/8 kPa 10.5m: SPT 1, 1// 1, 2, 1, 2 N = 6	100					
	SPT	161	11			11.20m: SILT with some sand; light grey and white. Very stiff, moist, low plasticity. Sand is fine to medium. Consolidated. material becomes powdery in hand sample. 11.40m: CORELOSS - material became stuck within the core barrel and washed out material below during drilling.	CW							
	HQ3	160	12					12m: SPT 2, 2// 3, 2, 2, 3 N = 10	43					
4	SPT					12.00m: Clayey SILT with minor sand; light grey speckled pink and white. Stiff to very stiff, wet, high plasticity, sensitive. Sand is fine to coarse. White specks suspected to be weathered feldspar. Clay suspected to be Halloysite.			89					
	HQ3	159	13					13.5m: IBHSV UTP 13.5m: SPT 1, 3// 3, 4, 3, 5 N = 15	100					
	SPT	158	14		DAR				100					
	HQ3	157	15					15m: IBHSV 93/19 kPa 15m: SPT 3, 3// 4, 4, 4, 5 N = 17	100					
5	SPT					15.78m: Clayey SILT with some sand and trace gravel; light brown with orange and black streaks (manganese oxide). Very stiff, moist, low plasticity. Sand is fine to coarse. Gravel is fine, weathered and crushable.	CW							
	HQ3	156												

Remarks:

- Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 46mm and vertical accuracy +/- 72mm.
- One vibrating wire piezometer was installed on 6/11/2025. BH2B_1157_PZ01 was installed at 80.5m bgl, Serial No. P252879.
- Falling/rising head testing undertaken with data logger at borehole depth 17m on 24/10/2025. Second falling/rising head testing undertaken with data logger at borehole depth 49.50m on 29/10/2025. Third falling/rising head testing undertaken with data logger at borehole depth 85.0m on 03/11/2025.
- ISHSV = In-situ hand shear vane, IBHSV = in barrel hand shear vane.

Shear Vane (IBHSV + ISHSV) Serial No. 3331, calibration constant 1.693.

Water Level Readings:

DateTime	Hole Depth	Water Level
2025-10-30 16:30	64.40m	14.10mbgl
2025-10-31 07:30	64.40m	25.05mbgl
2025-10-31 11:30	70.08m	8.20mbgl
2025-11-03 07:30	70.08m	26.40mbgl
2025-11-03 16:30	85.00m	21.60mbgl
2025-11-04 07:30	85.00m	27.70mbgl
2025-11-04 16:00	100.00m	12.70mbgl
2025-11-06 07:30	100.00m	18.30mbgl

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000	Date started: 23/10/2025	Logged: B.Fleetwood
Method: Rotary Core Wireline	Easting: 1728432.37		Date completed: 06/11/2025	Input: B.Fleetwood
Equipment: Fraste SRS	Northing: 6002570.22		Inclination: 90°	Reviewed: B. O'Loughlin
Contractor: ProDrill NZ	Ground level: 171.6715m (NZVD2016)		Azimuth: N/A	Verified: A.George

[illegible]

Remarks:

1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 46mm and vertical accuracy +/- 72mm.
2. One vibrating wire piezometer was installed on 6/11/2025. BH2B_1157_PZ01 was installed at 80.5m bgl, Serial No. P252879.
3. Falling/rising head testing undertaken with data logger at borehole depth 17m on 24/10/2025. Second falling/rising head testing undertaken with data logger at borehole depth 49.50m on 29/10/2025. Third falling/rising head testing undertaken with data logger at borehole depth 85.0m on 03/11/2025.
4. ISHSV = In-situ hand shear vane, IBHSV = in barrel hand shear vane.

Shear Vane (IBHSV + ISHSV) Serial No. 3331, calibration constant 1.693.

Water Level Readings:

DateTime	Hole Depth	Water Level
2025-11-06 13:00	103.00m	23.90mbgl

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000		Date started: 23/10/2025	Logged: B.Fleetwood
Method: Rotary Core Wireline		Easting: 1728432.37		Date completed: 06/11/2025	Input: B.Fleetwood
Equipment: Fraste SRS		Northing: 6002570.22		Inclination: 90°	Reviewed: B. O'Loughlin
Contractor: ProDrill NZ		Ground level: 171.6715m (NZVD2016)		Azimuth: N/A	Verified: A.George

CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	WVS WS MWS VCS EGS	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
7	SPT							24m: SPT 18, 32 for 65mm// N = 50+	100						
	HQ3	147					HW		100						
		25													
	SPT	146				25.40m: Highly weathered, light grey and dark orange, aphanitic DACITE, extremely weak. Recovered as sandy SILT, fractured, weathered joints have preferred orientation 60 degrees, FeO staining along defects, easily broken. Core broken during drilling and handling.		25.5m: SPT 7, 9// 10, 16, 16, 8 for 35mm N = 50+	100						
	HQ3	145					HW		100					26.20m: JT, 50°, Ro, Pl, Sn FeO	
		27													
	HQ3	144			DAH				100						
		28													
	HQ3	143				28.28m: Highly weathered, light grey and brown, aphanitic DACITE, extremely weak. Weathered joints are closely spaced and with preferred orientation of 60 to 80 degrees. Recovered as fine sandy SILT, broken during handling.			100						
		29													
	SPT HQ3	142					HW		100						
		30						30m: SPTC 50 for 35mm// N = 50+	0						
	HQ3	141							100						
		31													
10	HQ3	140			DAM	31.10m: Moderately weathered, light grey, light brown and orange, aphanitic DACITE, weak to moderately strong. FeO staining along defects. Steeply dipping moderately closely spaced joints [TAURIKURA SUBGROUP DACITE - MODERATELY WEATHERED].	MW		100	100	100			31.62m: JT, 60°, Ro, Pl, Sn FeO, weathering halo 5 mm 31.75m: JT, 40°, Ro, Pl, Sn FeO 31.85-32.00m: JT, 80°, Ro, Pl, Sn FeO, 3 x	

Remarks:		Water Level Readings:	
1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 46mm and vertical accuracy +/- 72mm.		Date/Time	Hole Depth
2. One vibrating wire piezometer was installed on 6/11/2025. BH2B_1157_PZ01 was installed at 80.5m bgl, Serial No. P252879.			Water Level
3. Falling/rising head testing undertaken with data logger at borehole depth 17m on 24/10/2025. Second falling/rising head testing undertaken with data logger at borehole depth 49.50m on 29/10/2025. Third falling/rising head testing undertaken with data logger at borehole depth 85.0m on 03/11/2025.			
4. ISHSV = In-situ hand shear vane, IBHSV = in barrel hand shear vane.			
Shear Vane (IBHSV + ISHSV) Serial No. 3331, calibration constant 1.693.			

		Client: New Zealand Transport Agency Project: Northland Corridor, Alternative to Brynderwyn Hills Location: 2545 State Highway 1, Brynderwyn Project Reference: Aurecon WSP JV			BH2B_1157									
Project Office Level 17, Aon Centre, 21/29 Customs Street West, Auckland Central, Auckland 1010					Sheet 5 of 13									
BOREHOLE INFORMATION Method: Rotary Core Wireline Equipment: Fraste SRS Contractor: ProDrill NZ		CO-ORDINATES: NZTM2000 Easting: 1728432.37 Northing: 6002570.22 Ground level: 171.6715m (NZVD2016)		Date started: 23/10/2025 Date completed: 06/11/2025 Inclination: 90° Azimuth: N/A		Logged: B.Fleetwood Input: B.Fleetwood Reviewed: B. O'Loughlin Verified: A.George								
CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
10	HQ3		139	+	DAM		MW		100	90	90	WS WS CS VCS ECS	Joint Set, weathering halo 5 mm around each joint	
													32.45m: JT, 70°, Ro, Pl, Sn FeO, Weathering halo 5 mm.	
	HQ3		138	+		33.90m: Moderately weathered, light pinkish grey and dark grey, aphanitic DACITE, moderately strong. Very closely spaced joints, steeply dipping joints and incipient fractures with weak tensile strength, drilling breaks along defects.			100	90	85		32.87m: JT, 65°, Sm, Pl, Vn FeO 33.00-34.00m: JT, 85°, Ro, Pl, Sn FeO, 2 x Joint sets	
													33.90m: JT, 70°, Ro, Pl, Sn FeO 34.24m: JT, 20°, Ro, Pl, Cn	
11	HQ3		137	+	DAU		MW		100	85	65		34.67m: JT, 70°, Ro, Pl, Sn FeO 34.86m: JT, 70°, Ro, Pl, Vn, White mineral infill 34.90m: JT, 70°, Ro, Pl, Vn, White mineral veneer 35.08-35.22m: JT, 60°, Ro, Pl, Cn, 2 x Joint sets 35.28m: JT, 30°, Ro, Pl, Vn, While mineral 35.40m: JT, 80°, Ro, Pl, Cn 35.60m: JT, 45°, Ro, Pl, Cn 35.70-36.00m: JT, 80°, Ro, Pl, Sn FeO	
													36.10-36.55m: JT, 80°, Ro, Pl, Sn FeO	
	HQ3		136	+		36.50m: Moderately weathered, light pinkish grey, light brown and orange, aphanitic DACITE, weak to moderately strong. Highly fractured, steeply dipping joints and incipient fractures with low tensile strength, preferred orientation 60 to 90 degrees, Iron oxide staining and white mineral coating joint surfaces. 36.87-43.50m: ...Persistent sub-vertical joints, with localised iron staining and alteration - white and greenish yellow minerals (possible sulphur).			100	90	17		36.55m: JT, 40°, Ro, Pl, Sn, black mineral infill 36.80m: JT, 60°, Ro, Pl, Sn, black mineral infill 36.90-38.00m: JT, 90°, Ro, Un, Sn FeO, 2 x Joint set 37.21m: JT, 30°, Sm, Pl, Sn FeO 37.35m: JT, 40°, Pl, infilled with crushed mudstone 37.50m: JT, 60°, Sm, Pl, Sn FeO/Mg 37.70-37.74m: JT, 45°, Sm, Pl, Cn	
													37.96m: JT, 60°, Sm, Pl, Cn 38.05m: JT, 50°, Sm, Pl, Cn 38.10m: JT, 80°, Sm, Pl, Cn 38.26-38.30m: JT, 40°, Ro, Pl, Cn, 2 x Joint set 38.40-38.50m: JT, 55°, Slk, Pl, Sn FeO, 2 x Joint set 38.55-38.72m: JT, 40-50°, Ro, Pl, Cn, 4 x Joint set	
12	HQ3		135	+	DAM		MW		100	75	20		39.05m: JT, 70°, Sm, Pl, Sn FeO 39.25-39.38m: JT, 50°, Sm, Pl, Sn FeO, 4 x Joint set 39.45-39.90m: JT, 85°, Sm, Pl, Sn FeO	
													39.80m: JT, 70°, Ro, Un, Sn FeO and white mineral	
	HQ3		134	+					100	70	10			
13	HQ3		133	+					100	70	10			
14	HQ3		132	+					100	70	10			
Remarks: 1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 46mm and vertical accuracy +/- 72mm. 2. One vibrating wire piezometer was installed on 6/11/2025. BH2B_1157_PZ01 was installed at 80.5m bgl, Serial No. P252879. 3. Falling/rising head testing undertaken with data logger at borehole depth 17m on 24/10/2025. Second falling/rising head testing undertaken with data logger at borehole depth 49.50m on 29/10/2025. Third falling/rising head testing undertaken with data logger at borehole depth 85.0m on 03/11/2025. 4. ISHSV = In-situ hand shear vane, IBHSV = in barrel hand shear vane.													Water Level Readings: Date/Time Hole Depth Water Level	
Shear Vane (IBHSV + ISHSV) Serial No. 3331, calibration constant 1.693.														

		Client: New Zealand Transport Agency Project: Northland Corridor, Alternative to Brynderwyn Hills Location: 2545 State Highway 1, Brynderwyn Project Reference: Aurecon WSP JV		BH2B_1157										
Project Office Level 17, Aon Centre, 21/29 Customs Street West, Auckland Central, Auckland 1010		Sheet 6 of 13												
BOREHOLE INFORMATION Method: Rotary Core Wireline Equipment: Fraste SRS Contractor: ProDrill NZ		CO-ORDINATES: NZTM2000 Easting: 1728432.37 Northing: 6002570.22 Ground level: 171.6715m (NZVD2016)		Date started: 23/10/2025 Date completed: 06/11/2025 Inclination: 90° Azimuth: N/A										
				Logged: B.Fleetwood Input: B.Fleetwood Reviewed: B. O'Loughlin Verified: A.George										
CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
13	HQ3					41.00-43.50m: ...Persistent vertical joint	MW						40.00-40.40m: JT, 80°, Ro, Un, Sn FeO and white mineral , 3 x Joint set 40.40-43.50m: JT, 80-90°, Ro, Un, Sn FeO 40.60m: JT, 25°, Sm, Pl, Cg FeO and silt 40.85m: JT, 25°, Sm, Pl, Sn FeO 40.96m: JT, 40°, Sm, Pl, Sn FeO 41.32m: JT, 30°, Sm, Pl, Sn FeO 41.60m: JT, 30°, Sm, Pl, Sn FeO 42.20m: JT, 75°, Sm, Pl, Sn FeO	
		131							100	50	0			
	HQ3		41											
	HQ3		130											
	HQ3		42						100	89	0			
	HQ3		129											
	HQ3		43											
14					DAM								43.42m: JT, 40°, Ro, Pl, Sn FeO 43.50m: JT, 55°, Sm, Pl, Sn FeO 43.75m: JT, 50°, Sm, Pl, Sn FeO 43.95m: JT, 70°, Ro, Pl, Sn FeO/Mg 44.00m: JT, 55°, Ro, Pl, Sn White mineral 44.35-44.50m: JT, 70°, Ro, Pl, Sn FeO 44.62m: JT, 70°, Ro, Pl, Cg Silt and white mineral 44.83m: JT, 70°, Ro, Pl, Sn FeO 45.20m: JT, 70°, Ro, Pl, Sn FeO 45.28m: JT, 70°, Ro, Pl, Sn FeO 45.55m: JT, 50°, Ro, Pl, Sn FeO 45.66m: JT, 90°, Ro, Pl, Sn FeO, 2 x Joint set 46.03m: JT, 50°, Sm, Pl, Sn White mineral infill 46.15m: JT, 80°, Ro, Un, Sn FeO 46.26m: CZ, Infilled with silt and white mineral, recovered as gravel 46.64m: JT, 40°, Sm, Pl, Silt infill	
	HQ3		128						100	70	40			
	HQ3		44											
	HQ3		127											
	HQ3		45						100	48	43			
	HQ3		126											
	HQ3		46						100	50	40			
	HQ3		125											
	HQ3		47						100	64	29			
	HQ3		124						100	40	19			
													47.45m: JT, 40°, Ro, Pl, Vn Silt and sand infill 47.54m: JT, 75°, Ro, Pl, Sn FeO 47.67m: JT, 75°, Ro, Pl, Sn FeO 47.72m: JT, 70°, Ro, Pl, Sn FeO 47.85m: JT, 20°, Ro, Pl, Sn FeO	
Remarks: 1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 46mm and vertical accuracy +/- 72mm. 2. One vibrating wire piezometer was installed on 6/11/2025. BH2B_1157_PZ01 was installed at 80.5m bgl, Serial No. P252879. 3. Falling/rising head testing undertaken with data logger at borehole depth 17m on 24/10/2025. Second falling/rising head testing undertaken with data logger at borehole depth 49.50m on 29/10/2025. Third falling/rising head testing undertaken with data logger at borehole depth 85.0m on 03/11/2025. 4. ISHSV = In-situ hand shear vane, IBHSV = in barrel hand shear vane.														
Shear Vane (IBHSV + ISHSV) Serial No. 3331, calibration constant 1.693.												Water Level Readings: Date/Time Hole Depth Water Level		

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000		Date started:	23/10/2025	Logged:	B.Fleetwood
Method:	Rotary Core Wireline	Easting:	1728432.37	Date completed:	06/11/2025	Input:	B.Fleetwood
Equipment:	Fraste SRS	Northing:	6002570.22	Inclination:	90°	Reviewed:	B. O'Loughlin
Contractor:	ProDrill NZ	Ground level:	171.6715m (NZVD2016)	Azimuth:	N/A	Verified:	A.George

CORE BOX		METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
15	HQ3				+	DAM		MW		100	52	28		47.91m: JT, 60°, Ro, Pl, Sn FeO	
16	HQ3				+		48.80m: Slightly weathered, light grey and dark grey, aphanitic DACITE, moderately strong, fine to medium grained phenocrystic texture. Highly fractured, very closely jointed rockmass, preferred joint orientation 50 to 80 degrees, white and yellow/green mineral crystallisation on defect surfaces. Steeply dipping incipient fractures with high tensile strength, white mineralisation.			100	39	0		48.38m: JT, 60°, Ro, Pl, Sn FeO	
17	HQ3				+	DAU	51.30m: ...200 mm spherical iron stained joints.			100	56	0		48.48m: JT, 60°, Ro, Pl, Sn Feo	
18	HQ3				+		52.40-52.70m: ...pervasive incipient fractures with white mineralisation, high tensile strength. Incipient fractures typically steeply inclined.			100	30	0		48.57m: JT, 40°, Ro, Pl, Sn FeO	
19	HQ3				+		53.90-54.25m: ...Fracture Zone, closely spaced parallel subvertical joining cross cut by predominant 50 degree joint set. Whitish yellow/green mineralisation on joints. Spherical weathering/iron stained zone.			100	20	11		49.05m: JT, 60°, Ro, Pl, Sn FeO	
20	HQ3				+					100	56	0		49.15m: JT, 60°, Ro, Pl, Sn FeO	
21	HQ3				+					100	30	0		49.20-49.70m: JT, 80-90°, Ro, Pl, Sn FeO	
22	HQ3				+					100	20	0		49.30m: JT, 60°, Ro, Pl, Sn FeO	
23	HQ3				+					100	61	47		49.80m: JT, 30°, Ro, Pl, Sn FeO	
24	HQ3				+					100	30	0		49.86m: JT, Ro, Pl, Sn Green and white mineral	
25	HQ3				+					100	46	10		50.00-50.20m: CZ, 60 - 80°, Multiple joint surfaces,	
26	HQ3				+					100	49	22		50.18-50.30m: CZ, 70°, Material recovered as silt, grey, slickensided surfaces	
27	HQ3				+					100	0	0		50.40-50.65m: JT, 80°, Ro, Pl, Vn White mineral infill	
28	HQ3				+					100	20	11		50.66m: JT, 60°, Sm, Pl, Vn FeO, Weathering halo	
29	HQ3				+					100	0	0		50.75m: JT, 65°, Ro, Un, Vn FeO	
30	HQ3				+					100	56	0		50.88m: JT, 65°, Ro, Un, Sn FeO	
31	HQ3				+					100	30	0		51.18m: JT, 70°, Ro, Un, Sn FeO	
32	HQ3				+					100	61	47		51.38m: JT, 70°, Ro, Un, Sn FeO	
33	HQ3				+					100	46	10		51.47m: JT, 20°, Ro, Pl, Sn FeO	
34	HQ3				+					100	49	22		51.60m: JT, 50°, Ro, Un, Sn FeO	
35	HQ3				+					100	0	0		51.70m: JT, 35°, Ro, Pl, Sn FeO	
36	HQ3				+					100	20	11		51.97m: JT, 15°, Ro, Pl, Sn FeO	
37	HQ3				+					100	0	0		52.30m: JT, 75°, Ro, Pl, Sn FeO	
38	HQ3				+					100	46	10		52.36m: JT, 40°, Ro, Pl, Sn FeO	
39	HQ3				+					100	49	22		52.55m: JT, 30°, Ro, Pl, Sn FeO	
40	HQ3				+					100	0	0		52.65m: JT, 40°, Ro, Pl, Sn FeO	
41	HQ3				+					100	20	11		52.68m: CZ	
42	HQ3				+					100	0	0		53.33m: JT, 45°, Ro, Pl, Sn FeO	
43	HQ3				+					100	49	22		53.52m: JT, 50°, Ro, Pl, Sn FeO	
44	HQ3				+					100	0	0		53.71m: JT, 50°, Ro, Un, Sn FeO	
45	HQ3				+					100	0	0		53.90-54.25m: Fracture Zone	
46	HQ3				+					100	0	0		54.15m: JT, Ro, Pl, Sn FeO and white mineral	
47	HQ3				+					100	20	11		54.38m: JT, 60°, Sm, Pl, Cn	
48	HQ3				+					100	0	0		54.50m: JT, 10°, Sm, Pl, Sn FeO	
49	HQ3				+					100	20	11		54.82m: JT, 30°, Sm, Pl, Sn FeO	
50	HQ3				+					100	20	11		54.94-55.35m: JT, 80°, Sm, Pl, Sn FeO, 2 x Joint sets	
51	HQ3				+					100	20	11		55.40m: JT, 15°, Sm, Pl, Sn Mg	
52	HQ3				+					100	20	11		55.52m: JT, 70°, Sm, Pl, Cn	
53	HQ3				+					100	20	11		55.60m: JT, 20°, Sm, Pl, Cn	

Remarks:

1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 46mm and vertical accuracy +/- 72mm.
2. One vibrating wire piezometer was installed on 6/11/2025. BH2B_1157_PZ01 was installed at 80.5m bgl, Serial No. P252879.
3. Falling/rising head testing undertaken with data logger at borehole depth 17m on 24/10/2025. Second falling/rising head testing undertaken with data logger at borehole depth 49.50m on 29/10/2025. Third falling/rising head testing undertaken with data logger at borehole depth 85.0m on 03/11/2025.
4. IHSV = In-situ hand shear vane, IBHSV = in barrel hand shear vane.

Shear Vane (IBHSV + ISHSV) Serial No. 3331, calibration constant 1.693.

Water Level Readings:

[illegible]

BOREHOLE INFORMATION		CO-ORDINATES:	NZTM2000	Date started:	23/10/2025	Logged:	B. Fleetwood
Method:	Rotary Core Wireline	Easting:	1728432.37	Date completed:	06/11/2025	Input:	B. Fleetwood
Equipment:	Fraste SRS	Northing:	6002570.22	Inclination:	90°	Reviewed:	B. O'Loughlin
Contractor:	ProDrill NZ	Ground level:	171.6715m (NZVD2016)	Azimuth:	N/A	Verified:	A. George

CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
18	HQ3					56.30-57.60m: ... Fracture Zone, extremely to very closely spaced 70 degree joints cross cut by predominant 50-60 degree joints. White and black (MnO) mineralisation on joints.	SW		100	29	18		56.00-56.25m: JT, 75°, Sm, Pl, Vn White mineral, 2 x Joint sets 56.30-57.60m: Fracture Zone	
			115						100	16	0			
			57											
	HQ3					57.30m: JT, 80°, Ro, Pl, Cn Mg	SW		100	38	10			
			114											
			58											
19	HQ3					57.95m: JT, 20°, Ro, Pl, Vn Mg 58.02m: JT, 60°, Ro, Pl, Cn Mg 58.22-58.35m: JT, 60°, Ro, Pl, Vn White mineral, 3 x Joint set	SW		100	46	17			
			113											
			59											
	HQ3					58.80-59.00m: JT, 80°, Ro, Pl, Vn Mg, 4 x Joint set 59.05-59.15m: JT, 70°, Ro, Pl, Vn silt and white mineral	SW		100	28	15			
			112											
			60											
	HQ3				DAU	59.90-60.30m: JT, 80°, Ro, Pl, Cg silt and gravel infilled, 2 x Joint sets	SW		100	0	0			
			111											
			61											
20	HQ3					60.70m: Unweathered, grey speckled white and black, aphanitic and porphyritic DACITE, strong. Closely spaced incipient fractures (high tensile strength) and joints (subvertical and 30-40 degrees). Defects coated with white and black mineralisation, 1-2 mm thick.	UW		100	36	36			
			110											
			62											
	HQ3					62.35m: CZ, Recovered as fine angular gravel, in silt matrix, dipping 40 degrees 62.44m: JT, 70°, Ro, Pl, Silt and rock clasts, 50 mm aperture 62.50m: JT, 30°, Sm, Pl, Vn	UW		100	46	32			
			109											
			63											
21	HQ3					63.10m: Slightly weathered, light brown and dark orange, aphanitic and porphyritic DACITE, moderately strong. Closely fractured, preferred orientation of defects 50 to 80 degrees, iron oxide staining along defects. Incipient joints have high tensile strength [TAURIKURA GROUP DACITE - SLIGHTLY WEATHERED].	SW							
			108						100	37	25			
						63.02m: JT, 55°, Ro, Un, Sn FeO 63.07m: JT, 40°, Ro, Un, Sn FeO 63.27m: JT, 40°, Ro, Un, Sn FeO	SW							
						63.67m: JT, 20°, Ro, Pl, Vn FeO/mg 63.86m: JT, 75°, Sm, Pl, Vn FeO	SW							

Remarks:		Water Level Readings:		
1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 46mm and vertical accuracy +/- 72mm.		Date/Time	Hole Depth	Water Level
2. One vibrating wire piezometer was installed on 6/11/2025. BH2B_1157_PZ01 was installed at 80.5m bgl, Serial No. P252879.				
3. Falling/rising head testing undertaken with data logger at borehole depth 17m on 24/10/2025. Second falling/rising head testing undertaken with data logger at borehole depth 49.50m on 29/10/2025. Third falling/rising head testing undertaken with data logger at borehole depth 85.0m on 03/11/2025.				
4. ISHSV = In-situ hand shear vane, IBHSV = in barrel hand shear vane.				
Shear Vane (IBHSV + ISHSV) Serial No. 3331, calibration constant 1.693.				

BOREHOLE INFORMATION		CO-ORDINATES:	NZTM2000	Date started:	23/10/2025	Logged:	B. Fleetwood
Method:	Rotary Core Wireline	Easting:	1728432.37	Date completed:	06/11/2025	Input:	B. Fleetwood
Equipment:	Fraste SRS	Northing:	6002570.22	Inclination:	90°	Reviewed:	B. O'Loughlin
Contractor:	ProDrill NZ	Ground level:	171.6715m (NZVD2016)	Azimuth:	N/A	Verified:	A. George

CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
21	HQ3												64.22m: JT, 40°, Sm, Pl, Vn Mg 64.34m: JT, 70°, Sm, Pl, Vn MG	
	HQ3	107	65						100	72	38		65.15m: JT, 65°, Ro, Un, Vn Mg 65.35m: JT, 55°, Ro, Un, Vn Mg, 2 x Joint set	
	HQ3	106	66				SW		100	0	0		65.65-65.90m: JT, 70°, Ro, Pl, Vn Mg, 5 x Joint set	
	HQ3	105	67						105	0	0		66.30m: JT, 60°, Ro, Pl, Quartz infill	
22	HQ3	104	68		DAU				97	37	22			
	HQ3	103	69			68.40m: Unweathered, light grey, aphanitic and porphyritic DACITE, moderately strong. Highly fractured, preferred orientation 50 to 80 degrees, white waxy mineral along defects. Zones of broken core where joints intersect [TAURIKURA GROUP DACITE - UNWEATHERED].			100	28	13		67.85m: JT, 70°, Ro, Pl, Sn FeO 67.95m: JT, 60°, Ro, Pl, Sn FeO 68.18m: JT, 50°, Ro, Pl, Sn FeO	
	HQ3	102	70			69.95-71.20m: ...Fracture Zone, extremely to very closely spaced subvertical to steep (70 degree) parallel joint sets cross cut by predominant 45-60 joints. White and black (MnO) mineralisation on joints. spaced subvertical to steep (70 degree) parallel joint sets cross cut by predominant 45-60 joints. White and black (MnO) mineralisation on joints.	UW		100	0	0		68.58m: JT, 45°, Sm, Pl, Cn 68.78m: JT, 60°, Sm, Pl, Cn 68.90m: JT, 75°, Sm, Pl, Cn	
	HQ3	101	71						100	40	40		69.42m: JT, 80°, Sm, Pl, Cn 69.65m: JT, 70°, Sm, Pl, Cn	
23	HQ3	100	71						100	36	36		69.95-71.20m: Fracture Zone 69.95m: JT, 60°, Sm, Pl, Cn 70.11-70.30m: JT, 60°, Sm, Pl, Cn, 4 x Joint set, Material recovered as granular material 70.37m: JT, 80°, Ro, Pl, Vn White mineral 70.45m: JT, 80°, Sm, Pl, Vn White mineral	
	HQ3	100	71			71.20-74.00m: ...with persistent 70 degree incipient fractures/healed jointing, 1-2mm thick white mineralisation, high tensile strength incipient fractures/healed jointing, 1-2mm thick white mineralisation, high tensile strength			100	0	0		70.80-71.10m: CZ, Sm, Pl, Vn FeO stain with white mineral, Material recovered as granular material, preferred orientation is generally 60 to 80 degrees.	
24	HQ3	100	71						100	31	0		71.70m: JT, 70°, Sm, Pl, Vn White mineral	

Remarks:		Water Level Readings:		
1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 46mm and vertical accuracy +/- 72mm. 2. One vibrating wire piezometer was installed on 6/11/2025. BH2B_1157_PZ01 was installed at 80.5m bgl, Serial No. P252879. 3. Falling/rising head testing undertaken with data logger at borehole depth 17m on 24/10/2025. Second falling/rising head testing undertaken with data logger at borehole depth 49.50m on 29/10/2025. Third falling/rising head testing undertaken with data logger at borehole depth 85.0m on 03/11/2025. 4. ISHSV = In-situ hand shear vane, IBHSV = in barrel hand shear vane.		Date/Time	Hole Depth	Water Level
Shear Vane (IBHSV + ISHSV) Serial No. 3331, calibration constant 1.693.				

BOREHOLE INFORMATION

Method: Rotary Core Wireline
Equipment: Fraste SRS
Contractor: ProDrill NZ

CO-ORDINATES: NZTM2000
Easting: 1728432.37
Northing: 6002570.22
Ground level: 171.6715m (NZVD2016)

Date started: 23/10/2025
Date completed: 06/11/2025
Inclination: 90°
Azimuth: N/A

Logged: B.Fleetwood
Input: B.Fleetwood
Reviewed: B. O'Loughlin
Verified: A.George

CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	WVS	WS	MWS	VCS	EGS	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
24	HQ3	99	73			72.56m: Unweathered and slightly hydrothermally altered (chlorite alteration), light greenish grey and pale pink, aphanitic DACITE, moderately strong. Highly fractured with incipient fractures throughout (moderate to low tensile strength), closely to very closely spaced joints, preferred orientation 50 to 60 degrees, waxy white minerals along defects. 73.00m: ...Drillers encountered waterloss	UW		100	62	45							72.50m: JT, 50°, Sm, Pl, Vn White mineral	
	HQ3	98	74				UW		100	46	34							72.90m: JT, 75°, Sm, Pl, Vn silt and White mineral	
	HQ3	97	75			74.90m: ...Material becomes moderately strong			100	33	10							74.00m: JT, 60°, Sm, Pl, Cn	
25	HQ3	96	76		DAU	75.15m: Unweathered, light grey and dark grey, aphanitic DACITE, moderately strong. Highly fractured with multiple insipient fractures joints (moderate to high tensile strength), closely to very closely spaced joints, preferred orientation 50 to 80 degrees, white mineral crystalizing along defects.	UW		100	79	10							76.30m: JT, 80°, Sm, Pl, Cn	
	HQ3	95	77				UW		100	0	0							77.00m: JT, 75°, Ro, Pl, 3 x Joint set	
26	HQ3	94	78			77.40m: Slightly weathered, light brown and light grey, aphanitic and porphyritic DACITE, moderately strong. Very closely jointed, preferred orientation 50 to 80 degrees, Iron oxide staining along defects. Incipient fractures steeply dipping high tensile strength. Infilled with white mineral [TAURIKURA GROUP DACITE - SLIGHTLY WEATHERED].			100	38	29							77.60m: JT, 60°, Ro, Pl, Vn FeO 77.62m: JT, 60°, Ro, Pl, Vn FeO 77.97m: JT, 60°, Ro, Pl, Vn FeO 78.12-78.25m: JT, 65°, Ro, Pl, Vn White mineral, 3 x Joint set 78.25m: JT, 50°, Ro, Un, Cg Silt, gravel and white mineral 78.48m: JT, 20°, Slk, Pl, Vn white and pink mineral 78.65-78.82m: JT, 55°, Sm, Pl, Vn White mineral, 4 x Joint set	
	HQ3	93	79				SW		100	0	0							79.34m: JT, 65°, Sm, Pl, Cn 79.50m: JT, 50°, Ro, Un, Sn FeO 79.62m: JT, 65°, Sm, Pl, Vn White mineral 79.80m: JT, 80°, Sm, Un, Vn White mineral	
27	HQ3	92							100	0	0								

Remarks:

- Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 46mm and vertical accuracy +/- 72mm.
- One vibrating wire piezometer was installed on 6/11/2025. BH2B_1157_PZ01 was installed at 80.5m bgl, Serial No. P252879.
- Falling/rising head testing undertaken with data logger at borehole depth 17m on 24/10/2025. Second falling/rising head testing undertaken with data logger at borehole depth 49.50m on 29/10/2025. Third falling/rising head testing undertaken with data logger at borehole depth 85.0m on 03/11/2025.
- ISHSV = In-situ hand shear vane, IBHSV = in barrel hand shear vane.

Shear Vane (IBHSV + ISHSV) Serial No. 3331, calibration constant 1.693.

Water Level Readings:

DateTime Hole Depth Water Level

		Client: New Zealand Transport Agency Project: Northland Corridor, Alternative to Brynderwyn Hills Location: 2545 State Highway 1, Brynderwyn Project Reference: Aurecon WSP JV		BH2B_1157											
Project Office Level 17, Aon Centre, 21/29 Customs Street West, Auckland Central, Auckland 1010		Sheet 11 of 13													
BOREHOLE INFORMATION Method: Rotary Core Wireline Equipment: Fraste SRS Contractor: ProDrill NZ		CO-ORDINATES: NZTM2000 Easting: 1728432.37 Northing: 6002570.22 Ground level: 171.6715m (NZVD2016)		Date started: 23/10/2025 Date completed: 06/11/2025 Inclination: 90° Azimuth: N/A											
				Logged: B.Fleetwood Input: B.Fleetwood Reviewed: B. O'Loughlin Verified: A.George											
CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL	
27	HQ3	91	81			81.60m: Slightly weathered, dark grey, brown and dark orange (iron stained patches), aphanitic and porphyritic DACITE, moderately strong. Highly fractured with multiple insipient joints throughout, preferred orientation 50 to 80 degrees, Iron oxide staining along defects. Unweathered grey DACITE zones throughout.	SW		100	20	0	VWS WS MWS US VCS ECB	80.05-80.60m: JT, 60-70°, Sm, Un, Vn White mineral, 6 x Joint set		
													81.04m: JT, 70°, Ro, Pl, Sn FeO		
													81.55-81.80m: JT, 50-80°, Ro, Pl, Sn FeO, 3 x Joint set		
													81.80-82.10m: JT, 60°, Ro, Pl, Sn FeO, 3 x Joint set		
28	HQ3	90	82		DAU				100	47	14		83.13-83.16m: JT, 50°, Ro, Pl, Sn FeO, 2 x Joint set		
													83.20-83.31m: JT, 65°, Ro, Pl, Sn FeO, 2 x Joint set		
													83.41-83.48m: JT, 33°, Ro, Pl, Sn FeO		
													83.85m: JT, 60°, Ro, Pl, Sn FeO		
29	HQ3	88	83				SW		100	48	26		84.33-84.90m: JT, 30°, Sm, Pl, Vn FeO stain and white mineral, 8 x Joint set		
													85.63m: JT, 60°, Ro, Pl, Sn FeO		
													85.72-85.90m: JT, 70°, Sm, Pl, Sn FeO, 2 x Joint set		
													86.00m: JT, 60°, Ro, Pl, Vn FeO stain and white mineral		
30	HQ3	87	85						100	100	0		86.03m: JT, 72°, Ro, Un, Sn FeO		
													86.18m: JT, 70°, Ro, Pl, Cn		
													86.32m: JT, 50°, Ro, Un, Sn FeO		
													86.92m: JT, 80°, Ro, Un, Sn FeO		
31	HQ3	86	86						100	27	0		87.23m: JT, 70°, Ro, Pl, Sn FeO		
													87.53m: JT, 55°, Sm, Pl, Vn Black mineral and FeO		
													87.82m: JT, 50°, Sm, Un, Sn FeO		
Remarks: 1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 46mm and vertical accuracy +/- 72mm. 2. One vibrating wire piezometer was installed on 6/11/2025. BH2B_1157_PZ01 was installed at 80.5m bgl, Serial No. P252879. 3. Falling/rising head testing undertaken with data logger at borehole depth 17m on 24/10/2025. Second falling/rising head testing undertaken with data logger at borehole depth 49.50m on 29/10/2025. Third falling/rising head testing undertaken with data logger at borehole depth 85.0m on 03/11/2025. 4. ISHSV = In-situ hand shear vane, IBHSV = in barrel hand shear vane.													Water Level Readings: Date/Time Hole Depth Water Level		
Shear Vane (IBHSV + ISHSV) Serial No. 3331, calibration constant 1.693.															

--	--

Borehole Reference:

BH2B_1157

Photographed By:

BF

Date Photographed:

23/10/2025-14/12/2025



BH2B_1157_BOX001_0m-2.45m



BH2B_1157_BOX002_2.45m-6.85m

Borehole Reference:

BH2B_1157

Photographed By:

BF

Date Photographed:

23/10/2025-14/12/2025



BH2B_1157_BOX003_6.85m-10.5m



BH2B_1157_BOX004_10.5m-14.2m

Borehole Reference:

BH2B_1157

Photographed By:

BF

Date Photographed:

23/10/2025-14/12/2025



BH2B_1157_BOX005_14.2m-17.9m



BH2B_1157_BOX006_17.9m-21.45m

Borehole Reference:

BH2B_1157

Photographed By:

BF

Date Photographed:

23/10/2025-14/12/2025



BH2B 1157 BOX007 21.45m-24.6m



BH2B_1157_BOX008_24.6m-28m

Borehole Reference:

BH2B_1157

Photographed By:

BF

Date Photographed:

23/10/2025-14/12/2025



BH2B_1157_BOX009_28m-30.85m



BH2B_1157_BOX010_30.85m-33.85m

Borehole Reference:

BH2B_1157

Photographed By:

BF

Date Photographed:

23/10/2025-14/12/2025



BH2B_1157_BOX011_33.85m-36.97m



BH2B_1157_BOX012_36.97m-39.95m

Borehole Reference:

BH2B_1157

Photographed By:

BF

Date Photographed:

23/10/2025-14/12/2025



BH2B_1157_BOX013_39.95m-42.8m



BH2B_1157_BOX014_42.8m-45.7m

Borehole Reference:

BH2B_1157

Photographed By:

BF

Date Photographed:

23/10/2025-14/12/2025



BH2B_1157_BOX015_45.7m-48.8m



BH2B_1157_BOX016_48.8m-51.6m

Borehole Reference:

BH2B_1157

Photographed By:

BF

Date Photographed:

23/10/2025-14/12/2025



BH2B_1157_BOX017_51.6m-54.35m



BH2B_1157_BOX018_54.35m-57m

Borehole Reference:

BH2B_1157

Photographed By:

BF

Date Photographed:

23/10/2025-14/12/2025



BH2B_1157_BOX019_57m-59.8m



BH2B_1157_BOX020_59.8m-62.75m

Borehole Reference:

BH2B_1157

Photographed By:

BF

Date Photographed:

23/10/2025-14/12/2025



BH2B_1157_BOX021_62.75m-65.55m



BH2B_1157_BOX022_65.55m-68.4m

Borehole Reference:

BH2B_1157

Photographed By:

BF

Date Photographed:

23/10/2025-14/12/2025



BH2B_1157_BOX023_68.4m-71.2m



BH2B_1157_BOX024_71.2m-74.17m

Borehole Reference:

BH2B_1157

Photographed By:

BF

Date Photographed:

23/10/2025-14/12/2025



BH2B_1157_BOX025_74.17m-76.9m



BH2B_1157_BOX026_76.9m-79.57m

Borehole Reference:

BH2B_1157

Photographed By:

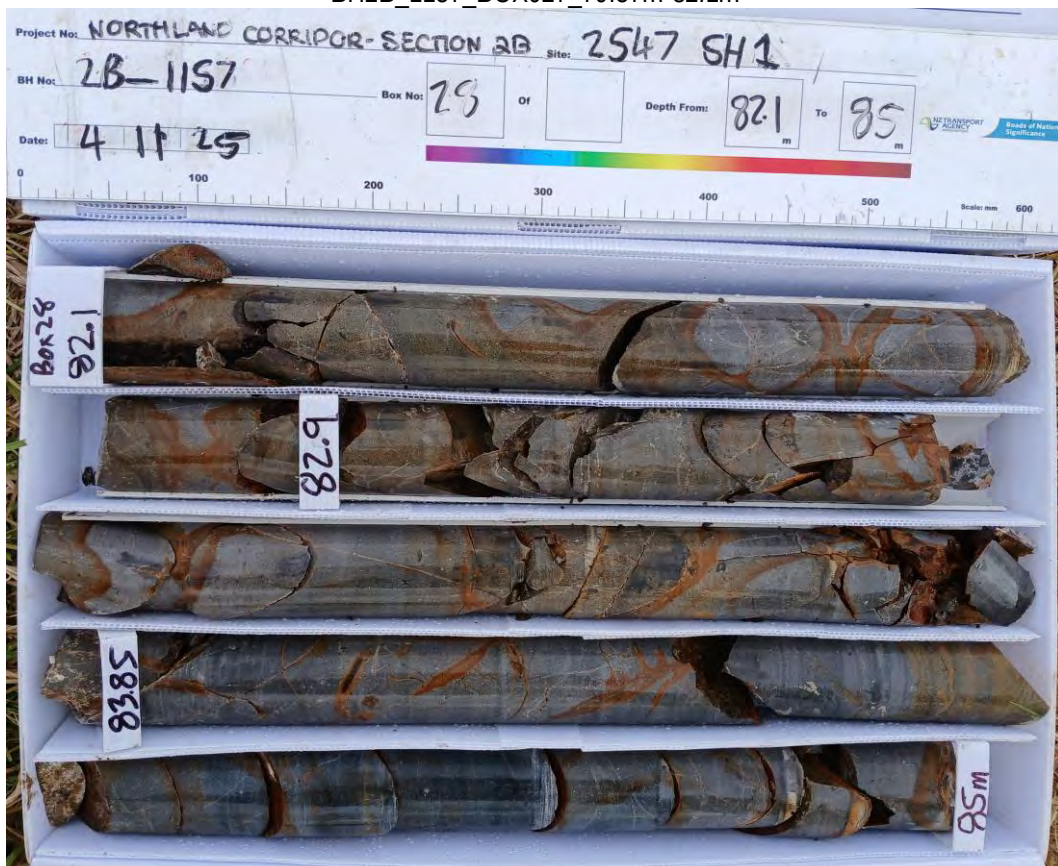
BF

Date Photographed:

23/10/2025-14/12/2025



BH2B_1157_BOX027_79.57m-82.1m



BH2B_1157_BOX028_82.1m-85m

Borehole Reference:

BH2B_1157

Photographed By:

BF

Date Photographed:

23/10/2025-14/12/2025



BH2B_1157_BOX029_85m-87.9m



BH2B_1157_BOX030_87.9m-90.65m

Borehole Reference:

BH2B_1157

Photographed By:

BF

Date Photographed:

23/10/2025-14/12/2025



BH2B_1157_BOX031_90.65m-93.32m



BH2B_1157_BOX032_93.32m-96.35m

Borehole Reference:

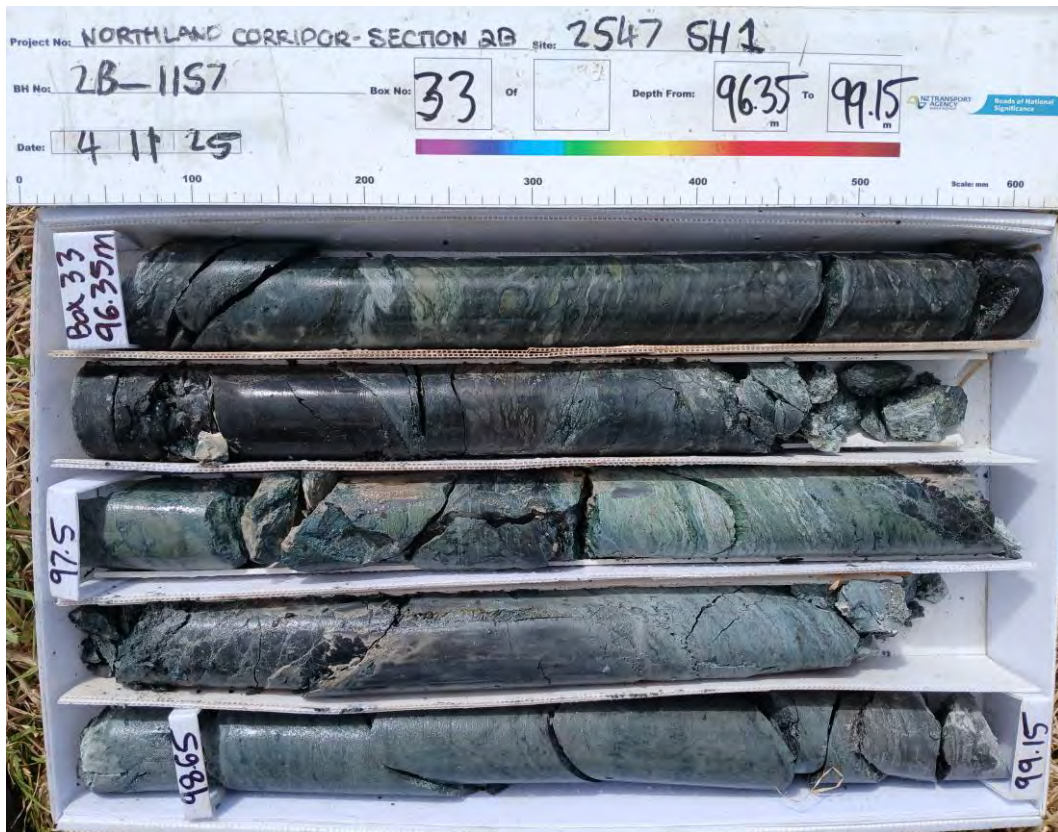
BH2B_1157

Photographed By:

BF

Date Photographed:

23/10/2025-14/12/2025



BH2B_1157_BOX033_96.35m-99.15m



BH2B_1157_BOX034_99.15m-102.12m

Borehole Reference: BH2B_1157

Photographed By: BF

Date Photographed:

23/10/2025-14/12/2025



BH2B_1157_BOX035_102.12m-103m

REMARKS:		Water Level Readings:		
		DateTime	Hole Depth (m)	Water Level (m)
1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 150mm and vertical accuracy +/- 200mm.				
2. One vibrating wire piezometer was installed on 27/11/2025. BH2B_1159_PZ01 was installed at 28m bgl, Serial No. 378263.				
3. Falling/rising head testing undertaken with data logger at borehole depth 19.5m on 11/11/2025 and 59.9m on 24/11/2025.				
4. Shear Vane Serial No. 3352, calibration constant 1.750.				
5. Drilling paused between 13/11/2025 and 24/11/2025.				

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000		Date Started: 11-11-2025	Logged: I. Mans / A. Pola
Method: Rotary Core Wireline		Easting: 1728408.71mE,		Date Completed: 27-11-2025	Input: I. Mans
Equipment: Fraste SRS		Northing: 6002119.94mN,		Inclination: 90	Reviewed: F. Monteith
Contractor: Pro-Drill (Auck) Ltd		Ground level: 88.26m		Azimuth: N/A	Verified: C. Parkes

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
3	HQ3	80				[CONT] Highly weathered, light greyish brown DACITE; extremely weak. Breaks down to silty fine SAND; dense, moist, poorly graded. 8.90m - 9.00m: CORE LOSS (100mm).			90	-	-		8.10-8.18m: VN, 45°-55°, UN, soft white mineral, 2mm, x5 8.18m: JT, 55°, MnO and soft white mineral, 2 mm	
	SPT	79	9					9m SPT 3, 4/14, 4, 5, 7 N= 20	100	-	-			
	HQ3	78	10						95	-	-			
	HQ3	77	11						85	-	-			
4	SPT	77	11		DAH	11.50m - 12.30m: Moderately weathered; very weak.	HW	10.5m SPT 6, 7/17, 9, 10, 13 N= 39	100	-	-		11.00-11.35m: JT, 60°-65°, RG, PL, soft white mineral 2mm, FeO vnr, discoloured orange, x8 11.50-11.65m: JT, 60°-65°, PL, soft white mineral 2mm, FeO/MnO vnr, x6 12.40m: JT, 65°, RG, PL, MnO ctg 12.65m: JT, 60°, RG, PL, MnO ctg	
	HQ3	76	12						72	-	-			
	HQ3	75	13						100	-	-			
	SC	74	14					12m SPT 6, 11/25, 25 for 55mm N = 50+	-	-	-			
5	HQ3	73	15			Moderately weathered, light greyish brown DACITE; very weak.	MW		94	-	-		13.91m: JT, 70°, RG, PL, MnO/FeO ctg 14.00-14.20m: VN, 60°, PL, soft whitish orange mineral, 10mm, x2 14.45m: JT, 70°, RG, PL, MnO/FeO ctg	
	HQ3	74	14		DAM			13.5m SPT 3, 6/17, 25, 8 for 25mm N = 50+	-	-	-			
	HQ3	73	15						100	62	42			
	SC	73	15						88	88	88			
6	HQ3	73	15			CORE LOSS 15.45-15.73m (280mm). SPT disturbance on inferred weaker material.		15m SPT 4, 9/12, 14, 12, 12 N= 50	-	-	-			
	HQ3	73	15		DAH	Highly weathered, light brown DACITE; extremely weak. Breaks down to silty fine SAND; very dense.			6	0	0			

REMARKS:

- Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 150mm and vertical accuracy +/- 200mm.
- One vibrating wire piezometer was installed on 27/11/2025. BH2B_1159_PZ01 was installed at 28m bgl, Serial No. 378263.
- Falling/rising head testing undertaken with data logger at borehole depth 19.5m on 11/11/2025 and 59.9m on 24/11/2025.
- Shear Vane Serial No. 3352, calibration constant 1.750.
- Drilling paused between 13/11/2025 and 24/11/2025.

Water Level Readings:

Date/Time

Hole Depth (m)

Water Level (m)

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000	Date Started: 11-11-2025	Logged: I. Mans / A. Pola
Method: Rotary Core Wireline	Easting: 1728408.71mE,	Date Completed: 27-11-2025	Input: I. Mans	
Equipment: Fraste SRS	Northing: 6002119.94mN,	Inclination: 90	Reviewed: F. Monteith	
Contractor: Pro-Drill (Auck) Ltd	Ground level: 88.26m	Azimuth: N/A	Verified: C. Parkes	

[illegible]

REMARKS:

1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 150mm and vertical accuracy +/- 200mm.
2. One vibrating wire piezometer was installed on 27/11/2025. BH2B_1159_PZ01 was installed at 28m bgl, Serial No. 378263.
3. Falling/rising head testing undertaken with data logger at borehole depth 19.5m on 11/11/2025 and 59.9m on 24/11/2025.
4. Shear Vane Serial No. 3352, calibration constant 1.750.
5. Drilling paused between 13/11/2025 and 24/11/2025.

Water Level Readings:

DateTime	Hole Depth (m)	Water Level (m)
11-11-2025 16:25:00	19.50	7.05
12-11-2025 07:50:00	19.50	7.15

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000	Date Started: 11-11-2025	Logged: I. Mans / A. Pola
Method: Rotary Core Wireline		Easting: 1728408.71mE,	Date Completed: 27-11-2025	Input: I. Mans
Equipment: Fraste SRS		Northing: 6002119.94mN,	Inclination: 90	Reviewed: F. Monteith
Contractor: Pro-Drill (Auck) Ltd		Ground level: 88.26m	Azimuth: N/A	Verified: C. Parkes

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
8	HQ3	64				[CONT] Moderately weathered, light brownish grey DACITE; very weak. Very closely spaced to closely spaced curvilinear joints, dipping 70-80°, MnO and FeO coated.			97	88	5		24.00m: JT, 65°, RG, PL, MnO/FeO ctg, discoloured orange 3-5mm 24.10-25.40m: JT, 80°-40°, RG, PL, soft white mineral, 2mm, and MnO/FeO ctg	
9	HQ3	25	63			25.60m: Streaked orange, speckled black.						CS	25.50-26.10m: JT, 80°-40°, RG, UN, soft yellowish white mineral, 1mm, and MnO/FeO ctg 25.80-25.88m: JT, 45°, RG, PL, soft yellowish white mineral, 1mm, and MnO/FeO ctg, branch off subvertical joints, x3 26.25-26.80m: JT, 75°-40°, RG, UN, soft yellowish white mineral, 3mm, and MnO/FeO ctg, x3 26.55m: JT, 20°, RG, PL, MnO ctg, discoloured orange 3mm, branch off subvertical joints	
	HQ3	26	62						100	69	0			
	HQ3	27	61						92	58	0			
	HQ3	28	60						100	100	75	MWS	27.25m: JT, 35°, RG, PL, MnO/FeO ctg 27.50-28.20m: JT, 70°, RG, PL, soft yellowish white mineral, 4mm, and MnO/FeO ctg, discoloured orange 8mm, x2	
	HQ3	29	59						100	93	0			
	HQ3	30	58										28.50-28.55m: JT, 60°, RG, PL, soft yellowish white mineral, 1mm, and MnO/FeO ctg, discoloured orange 10mm, x2 28.60-28.90m: JT, 70°-40°, RG, UN, soft yellowish white mineral, 5mm, and MnO/FeO ctg, discoloured orange 5mm, x2 29.20-29.40m: JT, 65°-75°, RG, PL, soft yellowish white mineral/MnO/FeO ctg, discoloured orange 5mm, x2	
	HQ3	31	57			30.86m - 30.95m: Highly weathered; extremely weak. Recovered as silty fine to medium SAND. Joint controlled.			100	91	36			
	HQ3											CS	29.70-29.95m: VN, 20°, RG, PL, hard white mineral 4mm, FeO ctg, recovered open, x3 29.90m: JT, 50°, RG, ST, FeO ctg 29.98-30.28m: VN, 75°, RG, PL, hard white mineral 5mm, MnO/FeO ctg, recovered open 30.30m: JT, 25°, SM, PL, FeO ctg, discoloured orange 3mm 30.43m: JT, 25°, SM, PL, FeO ctg 30.50m: VN, 65°, PL, soft yellowish white mineral, 3mm 30.67-30.80m: JT, 50°-70°, RG, PL, MnO/FeO ctg, x3, cross cut with x3 JTs, 35° 30.86-30.95m: JT, 45°, RG, PL, FeO ctg, altered, white, x3 31.09-31.30m: JT, 25°-45°, RG, PL, soft yellowish white mineral/MnO/FeO ctg, altered, white, discoloured orange 10mm 31.30-31.55m: JT, 50°-70°, RG, PL, hard white mineral, 3mm, x4 31.60m: VN, 40°, PL, hard white mineral, 12mm, altered, white and discoloured orange above and below 31.65-31.75m: JT, 45°, RG, PL, soft yellowish white mineral/MnO/FeO ctg, discoloured orange 8mm below, x2	
	HQ3				DAU	Slightly weathered, light brownish grey DACITE; moderately strong. Closely spaced joints, dipping 70-90°, MnO and FeO coated.	SW		100	90	11			

REMARKS:		Water Level Readings:		
1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 150mm and vertical accuracy +/- 200mm.		Date/Time	Hole Depth (m)	Water Level (m)
2. One vibrating wire piezometer was installed on 27/11/2025. BH2B_1159_PZ01 was installed at 28m bgl, Serial No. 378263.		12-11-2025 16:10:00	30.30	7.10
3. Falling/rising head testing undertaken with data logger at borehole depth 19.5m on 11/11/2025 and 59.9m on 24/11/2025.		13-11-2025 07:30:00	30.30	7.10
4. Shear Vane Serial No. 3352, calibration constant 1.750.				
5. Drilling paused between 13/11/2025 and 24/11/2025.				

BOREHOLE INFORMATION	CO-ORDINATES: NZTM2000	Date Started: 11-11-2025	Logged: I. Mans / A. Pola
Method: Rotary Core Wireline	Easting: 1728408.71mE,	Date Completed: 27-11-2025	Input: I. Mans
Equipment: Fraste SRS	Northing: 6002119.94mN,	Inclination: 90	Reviewed: F. Monteith
Contractor: Pro-Drill (Auck) Ltd	Ground level: 88.26m	Azimuth: N/A	Verified: C. Parkes

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
11	HQ3	56				[CONT] Slightly weathered, light brownish grey DACITE; moderately strong. Closely spaced joints, dipping 70-90°, MnO and FeO coated.			100	91	6	CS	31.89-32.08m: JT, 75°, RG, PL, FeO ctg, x4 32.03m: JT, 5°, RG, PL, soft yellowish white mineral/MnO/FeO ctg, altered, white 5 mm above 32.20m: JT, 75°, RG, UN, MnO/FeO ctg, discoloured orange 3mm 32.45m: JT, 20°, RG, PL, MnO/FeO ctg, altered, yellowish white 5 mm 32.50m: JT, 65°, RG, PL, hard yellowish white mineral 2mm, and MnO/FeO ctg 32.80-33.00m: FZ, Angular fragments up to 25mm, MnO/FeO coated. General dip is 35° cross cut with 75° 33.00-33.10m: JT, 75°-80°, RG, UN, FeO ctg 33.10m: JT, 35°, RG, PL, FeO ctg, altered, white 3 mm above and below 33.25-33.30m: JT, 70°, RG, UN, MnO/FeO ctg, discoloured orange 5mm above and below, x2 33.38m: JT, 10°, SM, PL, FeO ctg, altered, white 2 mm above and below 33.40-33.45m: JT, 45°, RG, PL, chlorite? /MnO/FeO ctg, altered, white 5mm below 33.55m: JT, 60°, RG, PL, MnO/FeO ctg 33.60-34.17m: JT, 70°-90°, RG, UN, MnO/FeO ctg 33.60m: JT, 35°, RG, PL, MnO/FeO ctg 34.17m: JT, 35°, RG, PL, MnO/FeO ctg, altered, white 2mm above and below 34.17-34.45m: JT, 75°-80°, RG, PL, MnO/FeO ctg 34.45m: JT, 65°, SM, PL, soft yellowish white mineral/MnO/FeO ctg, altered, white 5 mm below 34.50m: JT, 35°, SM, PL, MnO/FeO ctg, altered, white and discoloured orange above and below 34.60m: JT, 75°, RG, PL, FeO vnr 34.75m: JT, 20°, SM, UN, soft yellowish white mineral/FeO ctg 35.10m: JT, 70°, RG, UN, MnO/FeO ctg 35.15m: JT, 30°, SM, PL, MnO/FeO ctg, altered, white 8mm above 35.40-35.55m: JT, 45°, RG, PL, MnO/FeO ctg, x3 35.60-35.85m: JT, 80°, RG, UN, MnO/FeO ctg 36.02m: JT, 50°, RG, PL, MnO/FeO ctg 36.10-36.20m: JT, 40°, RG, PL, soft yellowish white mineral, 3mm and MnO/FeO ctg, x2 36.20-36.37m: JT, 10°-40°, soft yellowish white mineral/FeO ctg, x4 36.37-36.42m: CZ, 20°, recovered as silty fine to coarse sand, minor fine gravel, angular 36.66-36.76m: VN, 75°, PL, hard white mineral, 1-2mm, x6 36.76-37.10m: JT, 65°-75°, RG, PL, MnO/FeO ctg, cross-cutting, x6 37.25m: JT, 35°, RG, UN, white vnr 37.30-37.66m: JT, 70°, RG, PL, MnO/FeO ctg, discoloured orange 5mm, x2 37.70-38.00m: JT, 65°, RG, PL, chlorite? /FeO/MnO ctg, altered, white 3mm above and below, x2 38.05-38.38m: JT, 75°-90°, RG, ST, MnO/FeO ctg, x2 38.05m: JT, 40°, RG, PL, MnO/FeO ctg, altered, white 3mm above 38.32m: JT, 30°, RG, PL, MnO/FeO ctg 38.40-38.60m: JT, 60°, RG, PL, FeO ctg, x2, cross-cut with x3 JTs 20° 38.60-38.75m: JT, 75°-90°, RG, UN, MnO/FeO ctg, x2 38.75m: JT, 40°, SM, PL, MnO/FeO ctg 38.78-38.93m: JT, 55°, RG, PL, MnO ctg, x3 39.15m: JT, 15°, SM, PL, FeO vnr 39.30-39.60m: JT, 75°, RG, PL, MnO/FeO vnr 39.90m: JT, 30°, RG, UN, MnO ctg	
12	HQ3	33				33.20m: Vein of hydrothermal breccia, 25mm thick, dip 40°. Hard, crystalline, white, discoloured dark orange.			100	72	17	ECS		
	HQ3	55										VCS		
	HQ3	34							100	95	0			
	HQ3	54										CS		
	HQ3	35				34.75m: Weathering is joint controlled. Halos of brownish orange discoloration adjacent to joints penetrate into rock mass 20-200mm.			100	33	0			
	HQ3	53							100	82	44			
	HQ3	36												
	HQ3	52							94	71	0	ECS		
	HQ3	37							100	23	0			
	HQ3	51							100	88	60			
	HQ3	38												
	HQ3	50							100	87	47	CS		
	HQ3	39												
	HQ3	49							100	85	36			
	HQ3								100	100	41			
	HQ3											VCS		

REMARKS:

- Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 150mm and vertical accuracy +/- 200mm.
- One vibrating wire piezometer was installed on 27/11/2025. BH2B_1159_PZ01 was installed at 28m bgl, Serial No. 378263.
- Falling/rising head testing undertaken with data logger at borehole depth 19.5m on 11/11/2025 and 59.9m on 24/11/2025.
- Shear Vane Serial No. 3352, calibration constant 1.750.
- Drilling paused between 13/11/2025 and 24/11/2025.

Water Level Readings:

Date/Time

Hole Depth (m)

Water Level (m)

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000		Date Started: 11-11-2025	Logged: I. Mans / A. Pola
Method: Rotary Core Wireline		Easting: 1728408.71mE,		Date Completed: 27-11-2025	Input: I. Mans
Equipment: Fraste SRS		Northing: 6002119.94mN,		Inclination: 90	Reviewed: F. Monteith
Contractor: Pro-Drill (Auck) Ltd		Ground level: 88.26m		Azimuth: N/A	Verified: C. Parkes

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
14	HQ3	48				[CONT] Slightly weathered, light brownish grey DACITE; moderately strong. Closely spaced joints, dipping 70-90°, MnO and FeO coated.			100	100	41	VCS	39.95-40.37m: JT, 70°-80°, RG, PL, MnO/FeO vnr, x5, cross-cut with x3 JTs 35°	
	HQ3	41			DAU				100	100	25	CS	40.39-40.45m: VN, 70°, PL, hard white mineral, 2mm, x5 40.45-40.70m: JT, 70°, RG, PL, hard white mineral, 2mm, MnO/FeO ctg 40.70-41.34m: JT, 75°-90°, RG, UN, FeO ctg	
	HQ3	47											41.17-41.21m: JT, 25°, SM, PL, MnO/FeO ctg, altered, white 3mm below, x2 41.34-41.36m: JT, 45°, RG, PL, MnO ctg, x2 41.36-41.50m: VN, 40°-45°, PL, hard white mineral 2mm, x4	
15	HQ3	42				CORE LOSS 41.92-42.44m (520mm). Drill bit blocked, unsuccessful recovery due to pulling rods to clear out.			41	9	0			
	HQ3	43				Slightly weathered, light brownish grey DACITE; moderately strong. Closely spaced joints, dipping 40-60°, MnO and FeO coated. Weathering is joint controlled. 42.44m - 44.20m: Core breaking along sub-parallel incipient fractures, predominantly orientated 40° with moderate tensile strength and minor yellowish stain (limonite?).			94	85	19	CS	42.54m: JT, 50°, RG, PL, FeO stained 42.56m: JT, 40°, RG, PL, FeO stained 42.80m: JT, 70°, RG, PL, MnO/FeO ctg, discoloured orange 5mm 42.82m: JT, 40°, RG, PL, FeO vnr 42.88m: JT, 40°, RG, PL, FeO vnr 43.00-43.35m: JT, 75°, RG, UN, sulphur crystals and MnO/FeO ctg 43.27m: JT, 40°, RG, PL, FeO stained 43.40m: JT, 50°, RG, PL, FeO stained 43.50-43.90m: JT, 40°, SM, PL, FeO stained, x6	
	HQ3	44					SW		100	100	27	VCS	44.04m: JT, 40°, SM, PL, FeO stained 44.10m: JT, 50°, RG, PL, yellow fine sand 44.15m: JT, 40°, RG, PL, FeO stained 44.18m: JT, 50°, RG, PL, soft yellowish white mineral (sulphur) 3mm 44.20-44.56m: JT, 40°, SM, PL, FeO stained, x4 44.45m: JT, 60°, RG, ST, MnO/FeO vnr 44.56-44.58m: CZ, fine dacite gravel with some silt, MnO stained 44.74m: JT, 65°, RG, PL, FeO stained 44.84m: JT, 50°, RG, PL, MnO/FeO vnr 44.95m: JT, 50°, RG, PL, MnO/FeO vnr 45.05m: JT, 60°, RG, PL, MnO/FeO vnr 45.16m: JT, 20°, RG, PL, yellowish white silty sand 2mm 45.20m: JT, 50°, RG, PL, MnO/FeO vnr 45.26m: JT, 75°, RG, PL, MnO/FeO vnr 45.55m: JT, 50°, RG, PL, MnO/FeO vnr 45.60-45.65m: DB, recovered as angular medium to coarse gravel 45.81m: JT, 40°, RG, PL, yellowish green stained 45.85m: JT, 50°, RG, PL, FeO stained 45.96m: JT, 50°, RG, PL, MnO/FeO silty fine sand ctg 46.05m: JT, 60°, RG, PL, MnO/FeO silty fine sand, 3mm 46.10m: JT, 60°, RG, PL, MnO/FeO silty fine sand some fine gravel, 3mm 46.37m: JT, 60°, RG, PL, MnO/FeO silty fine sand minor fine gravel, 10mm 46.60m: JT, 60°, RG, PL, MnO/FeO ctg 46.63m: JT, 40°, RG, PL, FeO stained 46.82m: JT, 40°, RG, PL, MnO/FeO ctg 46.83m: JT, 60°, RG, PL, MnO/FeO ctg	
	HQ3	45				45.30m - 45.40m: Iron oxide penetration 100mm from joint.			100	100	90			
	HQ3	46				45.60m - 45.90m: Moderately weathered zone, very weak to weak.								
	HQ3	43			DAU	46.00m - 46.20m: Incipient fractures, 70°, iron oxide stained.			100	100	69	CS		
	HQ3	42				46.30m - 46.50m: Iron oxide penetration up to 30mm around fractures.								
	HQ3	47				46.45m: Incipient fractures, 40°, very closely spaced.								
	HQ3	41				46.70m - 46.90m: Iron oxide penetration, 20mm.			100	100	68			
												VCS	47.60-48.05m: JT, 40°, RG, PL, MnO/FeO yellowish green silty sand, 2mm, x9	

REMARKS:

- Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 150mm and vertical accuracy +/- 200mm.
- One vibrating wire piezometer was installed on 27/11/2025. BH2B_1159_PZ01 was installed at 28m bgl, Serial No. 378263.
- Falling/rising head testing undertaken with data logger at borehole depth 19.5m on 11/11/2025 and 59.9m on 24/11/2025.
- Shear Vane Serial No. 3352, calibration constant 1.750.
- Drilling paused between 13/11/2025 and 24/11/2025.

Water Level Readings:

Date/Time	Hole Depth (m)	Water Level (m)
24-11-2025 09:50:00	42.44	7.80

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000		Date Started: 11-11-2025	Logged: I. Mans / A. Pola
Method: Rotary Core Wireline		Easting: 1728408.71mE,		Date Completed: 27-11-2025	Input: I. Mans
Equipment: Fraste SRS		Northing: 6002119.94mN,		Inclination: 90	Reviewed: F. Monteith
Contractor: Pro-Drill (Auck) Ltd		Ground level: 88.26m		Azimuth: N/A	Verified: C. Parkes

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
17	HO3	40			DAU	[CONT] Slightly weathered, light brownish grey DACITE; moderately strong. Closely spaced joints, dipping 40-60°, MnO and FeO coated. Weathering is joint controlled.			100	91	73	CS	48.11-48.26m: JT, 50°, RG, PL, MnO/FeO vnr, x2 48.35m: JT, 60°, RG, UN, MnO/FeO/green vnr 48.52m: JT, 65°, RG, PL, MnO/FeO vnr 48.56m: JT, 65°, RG, PL, cemented sand, 10 mm 48.75-48.95m: FZ, 50°-60°, RG, PL, MnO/FeO/green stained 49.12m: JT, 50°, RG, ST, MnO/FeO/green vnr 49.20m: JT, 50°, RG, UN, MnO/FeO stained silty fine sand, 5mm 49.40m: JT, 70°, RG, PL, MnO stained 49.78m: JT, 60°, RG, UN, MnO/FeO vnr	
18	HO3	39			DAH	Highly weathered, brownish orange DACITE; extremely weak. Iron staining throughout. Breaks down to silty fine SAND with minor weak angular gravel. CORE LOSS 50.1-50.59m (490mm). Assumed washed out.			62	44	44	MWS		
		38			DAF Z	Slightly weathered, light brownish grey, brecciated DACITE; moderately strong. Crackle packbreccia with tightly interlocked clasts of angular dacite, matrix is heavily iron oxide stained sand [DACITE FAULT ZONE].	SW					CS	50.83m: JT, 50°, RG, PL, FeO and silty fine sand vnr 51.00-51.56m: FZ, 40°-75°, RG, UN, MnO/FeO/yellowish green ctg	
	HO3	37				Slightly weathered, light brownish grey DACITE; moderately strong. Very closely to closely spaced fractures, limonite stained.			100	100	70	VCS		
19	HO3	36			DAU							MWS	52.00m: JT, 70°, RG, PL, MnO/FeO stained 52.18-52.43m: VN, 70°, yellow mineral, 5-10mm 52.50m: JT, 20°, RG, PL, yellowish green stained 52.80-53.00m: JT, 60°, RG, PL, MnO/FeO/yellowish green ctg, x3 53.00-53.02m: JT, 40°-60°, RG, PL, FeO vnr, x2	
		53				53.01m - 53.80m: Pink and orange flow banding, 50-60°.			100	100	85	VCS		
		54										WS		
20	HO3	34			NAM	Unweathered, bluish grey banded dark grey, sheared sandy SILTSTONE. Very weak. (Baked contact) [NORTHLAND ALLOCHTHON MELANGE MATRIX].			85	50	50			
		55			NAN	54.35m - 54.50m: CORE LOSS (150mm). Assumed washout.								
	HO3	33			NAL	Unweathered, dark grey/black, non-calcareous SILTSTONE. Moderately strong. (Baked contact?).	UW		100	100	100			
						Unweathered, dark grey/black, non-calcareous SILTSTONE. Very weak [NORTHLAND ALLOCHTHON NON-CALCAREOUS SEQUENCE].								
						Unweathered, dark grey/black, calcareous SILTSTONE. Moderately strong [NORTHLAND ALLOCHTHON CALCAREOUS SEQUENCE].			100	100	93			
	HO3					Unweathered, light grey banded dark grey/black, calcareous fine SANDSTONE. Moderately strong.								

REMARKS:

- Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 150mm and vertical accuracy +/- 200mm.
- One vibrating wire piezometer was installed on 27/11/2025. BH2B_1159_PZ01 was installed at 28m bgl, Serial No. 378263.
- Falling/rising head testing undertaken with data logger at borehole depth 19.5m on 11/11/2025 and 59.9m on 24/11/2025.
- Shear Vane Serial No. 3352, calibration constant 1.750.
- Drilling paused between 13/11/2025 and 24/11/2025.

Water Level Readings:

Date/Time

Hole Depth (m)

Water Level (m)

BOREHOLE INFORMATION	CO-ORDINATES: NZTM2000	Date Started: 11-11-2025	Logged: I. Mans / A. Pola
Method: Rotary Core Wireline	Easting: 1728408.71mE,	Date Completed: 27-11-2025	Input: I. Mans
Equipment: Fraste SRS	Northing: 6002119.94mN,	Inclination: 90	Reviewed: F. Monteith
Contractor: Pro-Drill (Auck) Ltd	Ground level: 88.26m	Azimuth: N/A	Verified: C. Parkes

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
20	HQ3	32			NAL	Thinly bedded. Minor calcite veins throughout. Unweathered, light grey banded dark grey and black, calcareous SILTSTONE interbedded with non-calcareous MUDSTONE. Moderately strong. Thinly bedded, inclined 10-30°. Minor calcite veins. Core breaks along calcite veins during handling.			100	100	93			
21	HQ3	31	57		NAF	Unweathered, dark grey, FAULT BRECCIA. Extremely weak. Mosaic floatbreccia with clasts of brecciated calcareous SILTSTONE in a SILT matrix [NORTHLAND ALLOCHTHON FAULT].			67	67	0		56.80m: HCl test: strong reaction on clasts	
			58			CORE LOSS (500mm). Core washed out.								
			30		NAF	Unweathered, dark grey, FAULT BRECCIA. Very weak. Pervasively sheared calcareous SILTSTONE matrix with LIMESTONE clasts, 40mm.								
	HQ3	29	59			Unweathered, grey, sheared calcareous SILTSTONE. Very weak. Distinct pervasive incipient fractures with low tensile strength, inclined predominantly 50° and polished surfaces. Core breaks along incipient fractures during handling [NORTHLAND ALLOCHTHON CALCAREOUS SEQUENCE].			100	100	0			
22	HQ3	28	60		NAL	Unweathered, grey, LIMESTONE (IMPURE). Weak. Extremely closely spaced, distinct incipient fractures with low tensile strength, inclined predominantly 50° and polished surfaces. Infill is dark grey SILT. Minor calcite veins. Core breaks along incipient fractures during handling.	UW		100	100	25			
			61											
		27			NAM	Unweathered, dark grey with light grey, calcareous SILTSTONE with sheared LIMESTONE (IMPURE) clasts. Very weak. Fabric is pervasively sheared with preferred orientation of 30° [NORTHLAND ALLOCHTHON MELANGE MATRIX]. 61.10m - 61.17m: Block of sheared LIMESTONE (IMPURE) weak.								
	HQ3	26	62		NAL	Unweathered, light grey, sheared calcareous SILTSTONE. Very weak. Fabric is pervasively sheared, dipping 40° [NORTHLAND ALLOCHTHON CALCAREOUS SEQUENCE]. 62.16m - 62.60m: Light grey banding. 62.60m: Shear fabric dipping 40-50°, with polished surfaces.			100	100	100			
23	HQ3	25	63			Unweathered, grey, silty LIMESTONE (IMPURE). Weak. Extremely closely spaced incipient fractures,			100	100	100			

REMARKS: 1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 150mm and vertical accuracy +/- 200mm. 2. One vibrating wire piezometer was installed on 27/11/2025. BH2B_1159_PZ01 was installed at 28m bgl. Serial No. 378263. 3. Falling/rising head testing undertaken with data logger at borehole depth 19.5m on 11/11/2025 and 59.9m on 24/11/2025. 4. Shear Vane Serial No. 3352, calibration constant 1.750. 5. Drilling paused between 13/11/2025 and 24/11/2025.	Water Level Readings:		
	Date/Time	Hole Depth (m)	Water Level (m)
	24-11-2025 16:40:00	59.90	6.80
	25-11-2025 07:00:00	59.90	7.55

REMARKS:		Water Level Readings:	
		Date/Time	Hole Depth (m)
1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 150mm and vertical accuracy +/- 200mm. 2. One vibrating wire piezometer was installed on 27/11/2025. BH2B_1159_PZ01 was installed at 28m bgl. Serial No. 378263. 3. Falling/rising head testing undertaken with data logger at borehole depth 19.5m on 11/11/2025 and 59.9m on 24/11/2025. 4. Shear Vane Serial No. 3352, calibration constant 1.750. 5. Drilling paused between 13/11/2025 and 24/11/2025.			

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000		Date Started: 11-11-2025	Logged: I. Mans / A. Pola
Method: Rotary Core Wireline		Easting: 1728408.71mE,		Date Completed: 27-11-2025	Input: I. Mans
Equipment: Fraste SRS		Northing: 6002119.94mN,		Inclination: 90	Reviewed: F. Monteith
Contractor: Pro-Drill (Auck) Ltd		Ground level: 88.26m		Azimuth: N/A	Verified: C. Parkes

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
26	HQ3	16			NAM	Unweathered, dark grey banded bluish grey, calcareous SILTSTONE. Very weak. Pervasively sheared with fabric orientated 20° [NORTHLAND ALLOCHTHON MELANGE MATRIX]. 72.10m - 72.40m: Block of LIMESTONE (IMPURE) with extremely closely spaced calcite veins.			100	100	27			
		73			NAL	Unweathered, light grey, sheared LIMSTONE (PURE) . Moderately strong. Extremely closely spaced, distinct incipient fractures with preferred orientation 40-50°, high tensile strength and polished surfaces, infill dark grey silt, 2mm. [NORTHLAND ALLOCHTHON CALCAREOUS SEQUENCE].								
27	HQ3	15			NAM	Unweathered, dark grey banded bluish grey, calcareous SILTSTONE. Very weak. Pervasively sheared with fabric orientated 20°. Minor angular clasts of weak limestone and siltstone [NORTHLAND ALLOCHTHON MELANGE MATRIX]. 74.20m - 74.36m: Sheared LIMESTONE block.			100	100	0			
		14			NAF	Unweathered, dark grey banded bluish grey, FAULT BRECCIA. Very weak. Rubble floatbreccia of pervasively sheared calcareous SILTSTONE matrix with subrounded LIMESTONE, calcareous SILTSTONE and calcite clasts, 5-30mm. [NORTHLAND ALLOCHTHON FAULT].								
28	HQ3	13			NAF	Unweathered, dark grey banded bluish grey, FAULT BRECCIA. Very weak. Rubble floatbreccia of pervasively sheared calcareous SILTSTONE matrix with subrounded LIMESTONE, calcareous SILTSTONE and calcite clasts, 5-30mm. [NORTHLAND ALLOCHTHON FAULT].			100	100	33			
		12			NAL	Unweathered, dark grey, sheared calcareous SILTSTONE. Weak. Pervasively sheared, 50° [NORTHLAND ALLOCHTHON CALCAREOUS SEQUENCE].	UW							
29	HQ3	11			NAL	Unweathered, dark grey, sheared calcareous SILTSTONE. Weak. Pervasively sheared, 50° [NORTHLAND ALLOCHTHON CALCAREOUS SEQUENCE].			100	100	100			
		10			NAM	Unweathered, dark grey banded bluish grey, calcareous SILTSTONE. Very weak. Pervasively sheared with fabric orientated 20°. Minor angular clasts of weak limestone and siltstone [NORTHLAND ALLOCHTHON MELANGE MATRIX].			100	100	0			
29	HQ3	9			NAL	Unweathered, light grey, sheared LIMSTONE (PURE) . Moderately strong. Extremely closely spaced, distinct incipient fractures with preferred orientation 20-30° high tensile strength and polished surfaces, infill dark grey silt, 2mm. [NORTHLAND ALLOCHTHON CALCAREOUS SEQUENCE].			100	100	68			
		9			NAM	Unweathered, dark grey banded bluish grey, calcareous SILTSTONE. Very weak. Pervasively sheared, hosting subrounded elongated clasts of LIMESTONE and calcite, up to 50mm. [NORTHLAND ALLOCHTHON MELANGE MATRIX].								
					NAL	Unweathered, dark grey, sheared calcareous			100	100	100			

REMARKS:

- Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 150mm and vertical accuracy +/- 200mm.
- One vibrating wire piezometer was installed on 27/11/2025. BH2B_1159_PZ01 was installed at 28m bgl, Serial No. 378263.
- Falling/rising head testing undertaken with data logger at borehole depth 19.5m on 11/11/2025 and 59.9m on 24/11/2025.
- Shear Vane Serial No. 3352, calibration constant 1.750.
- Drilling paused between 13/11/2025 and 24/11/2025.

Water Level Readings:

Date/Time	Hole Depth (m)	Water Level (m)
25-11-2025 17:00:00	79.55	7.60
26-11-2025 09:00:00	79.55	7.40

BOREHOLE INFORMATION	CO-ORDINATES: NZTM2000	Date Started: 11-11-2025	Logged: I. Mans / A. Pola
Method: Rotary Core Wireline	Easting: 1728408.71mE,	Date Completed: 27-11-2025	Input: I. Mans
Equipment: Fraste SRS	Northing: 6002119.94mN,	Inclination: 90	Reviewed: F. Monteith
Contractor: Pro-Drill (Auck) Ltd	Ground level: 88.26m	Azimuth: N/A	Verified: C. Parkes

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
29	HQ3	8				SILTSTONE. Very weak. Fabric is pervasively sheared, oriented 40-50° with polished surfaces. [NORTHLAND ALLOCHTHON CALCAREOUS SEQUENCE].			100	100	100			
		81				Unweathered, black speckled light grey, SEDIMENTARY BRECCIA. Very weak to weak. Clast supported. Silty CLAY matrix with subrounded to angular clasts of fine SANDSTONE, calcareous SILTSTONE, calcite and LIMESTONE, 5-40mm. Minor polished surfaces and slickensides when core is broken open.								
	HQ3	7							100	100	100			
		82												
		6												
30	HQ3	5				Unweathered, dark grey, sheared calcareous SILTSTONE with brecciated zones. Very weak. Fabric is pervasively sheared, orientated 40-50° with polished surfaces. Core breaks along fabric during drilling and handling. 82.90m - 83.23m: Brecciated zone with extremely weak SILT matrix.			100	100	29			
		83												
		84				84.00m - 84.30m: Brecciated zone with extremely weak SILT matrix.	UW							
	HQ3	4				84.60m - 84.80m: Extremely weak (SILT).			100	100	80			
		85												
31	HQ3	3												
		86												
		2							100	100	59			
		87												
32	HQ3	1				87.12m - 87.30m: Brecciated zone with extremely weak SILT matrix.			100	100	88			
						87.75m - 88.05m: Brecciated zone with extremely weak SILT matrix.								

REMARKS:

- Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 150mm and vertical accuracy +/- 200mm.
- One vibrating wire piezometer was installed on 27/11/2025. BH2B_1159_PZ01 was installed at 28m bgl, Serial No. 378263.
- Falling/rising head testing undertaken with data logger at borehole depth 19.5m on 11/11/2025 and 59.9m on 24/11/2025.
- Shear Vane Serial No. 3352, calibration constant 1.750.
- Drilling paused between 13/11/2025 and 24/11/2025.

Water Level Readings:

DateTime

Hole Depth (m)

Water Level (m)

Project Office
Level 17, Aon Centre, 21/29 Customs Street West, Auckland
Central Auckland 1010

Project Reference: **Aurecon WSP JV**

Sheet 12 of 12

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000	Date Started: 11-11-2025	Logged: I. Mans / A. Pola
Method:	Rotary Core Wireline	Easting: 1728408.71mE,	Date Completed: 27-11-2025	Input: I. Mans
Equipment:	Fraste SRS	Northing: 6002119.94mN,	Inclination: 90	Reviewed: F. Monteith
Contractor:	Pro-Drill (Auck) Ltd	Ground level: 88.26m	Azimuth: N/A	Verified: C. Parkes

CORE BOX		METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
32	HQ3	0				NAL	[CONT] Unweathered, dark grey, sheared calcareous SILTSTONE with brecciated zones. Very weak. Fabric is pervasively sheared, orientated 40-50° with polished surfaces. Core breaks along fabric during drilling and handling. 88.10m - 88.20m: Weak block. End Of Hole: 88.50m	UW		100	100	88	TPRS WS MWS CS VCS ECS		

REMARKS:

1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 150mm and vertical accuracy +/- 200mm.
2. One vibrating wire piezometer was installed on 27/11/2025. BH2B_1159_PZ01 was installed at 28m bgl, Serial No. 378263.
3. Falling/rising head testing undertaken with data logger at borehole depth 19.5m on 11/11/2025 and 59.9m on 24/11/2025.
4. Shear Vane Serial No. 3352, calibration constant 1.750.
5. Drilling paused between 13/11/2025 and 24/11/2025.

Water Level Readings:

DateTime	Hole Depth (m)	Water Level (m)
26-11-2025 18:00:00	88.50	6.50

Borehole Reference:

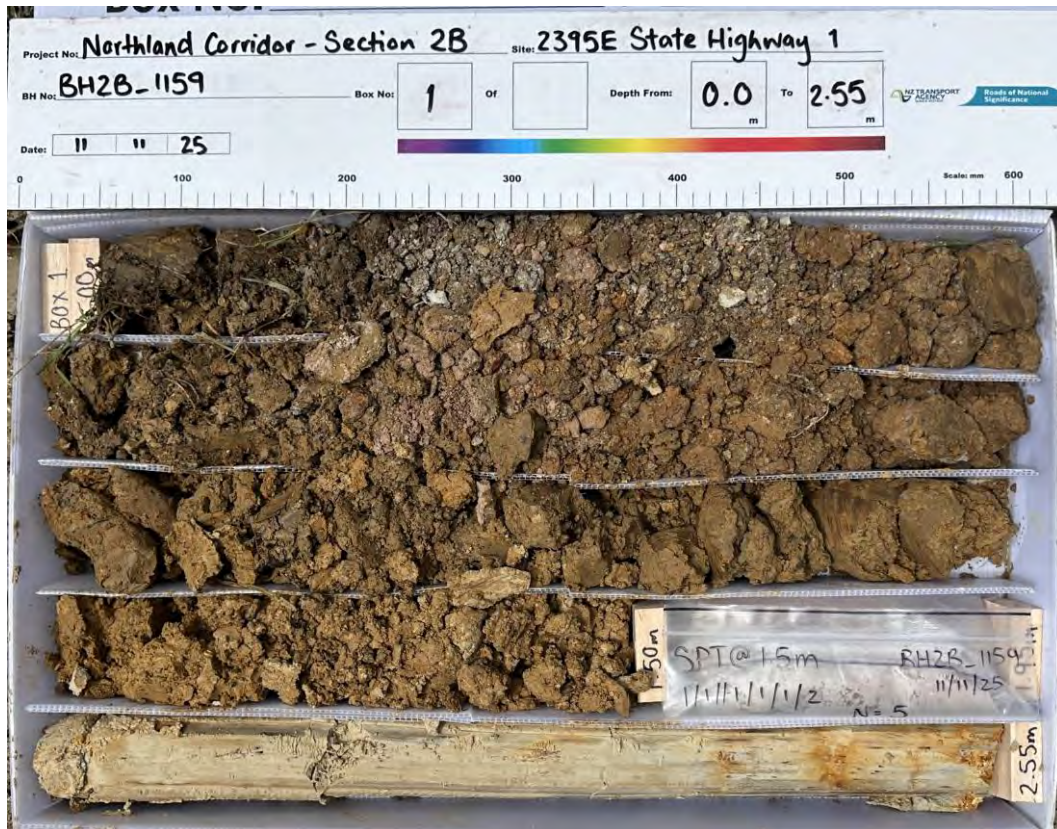
BH2B_1159

Photographed By:

AP, IM

Date Photographed:

10/11/2025-25/11/2025



BH2B_1159_BOX001_0m-2.55m



BH2B_1159_BOX002_2.55m-5.9m

Borehole Reference:

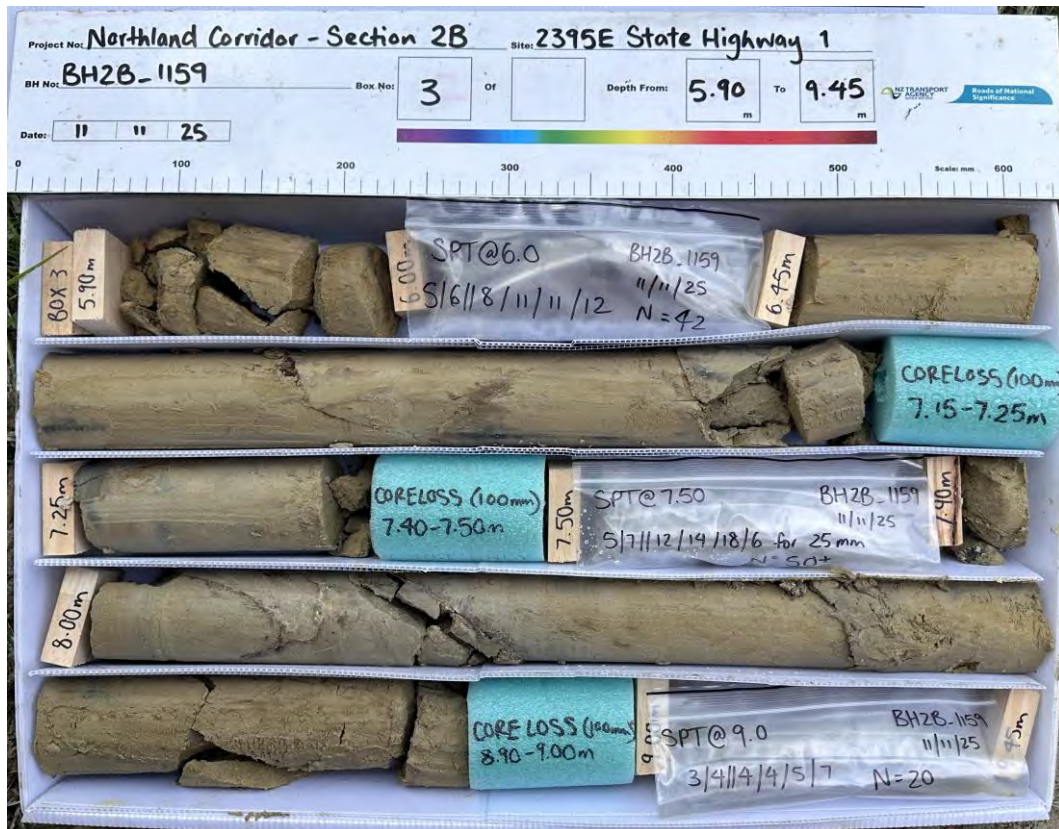
BH2B_1159

Photographed By:

AP, IM

Date Photographed:

10/11/2025-25/11/2025



BH2B_1159_BOX003_5.9m-9.45m



BH2B_1159_BOX004_9.45m-12.66m

Borehole Reference:

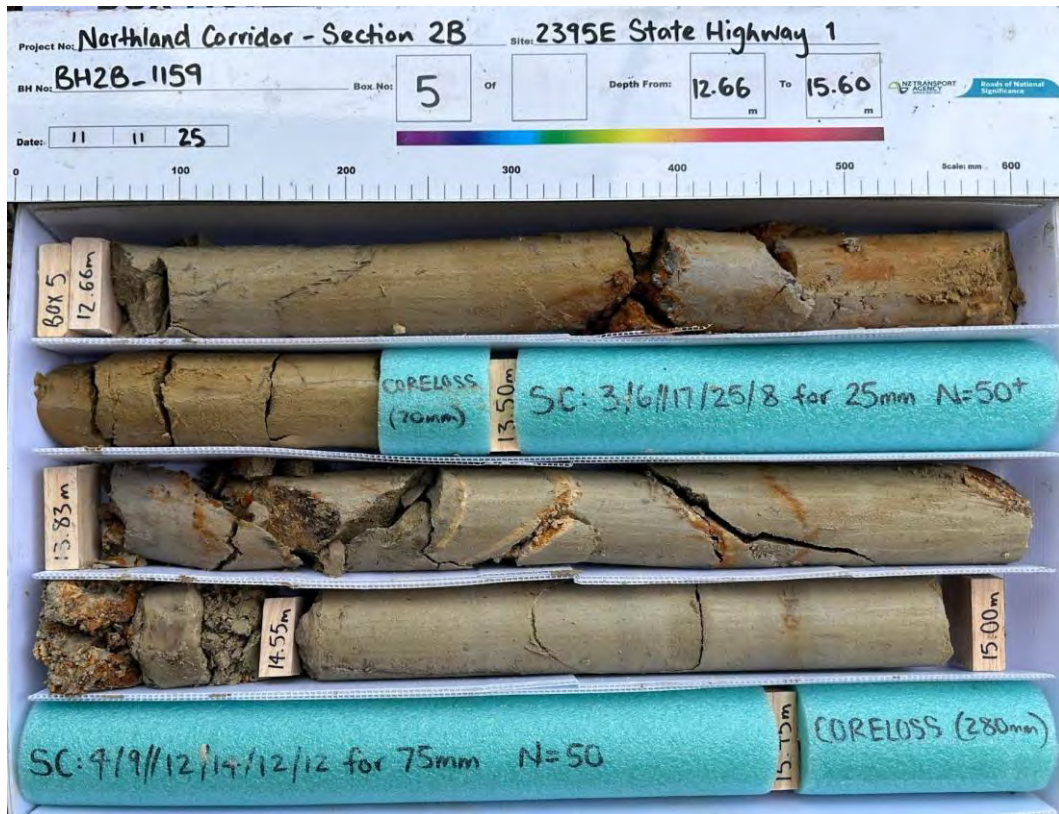
BH2B_1159

Photographed By:

AP, IM

Date Photographed:

10/11/2025-25/11/2025



BH2B_1159_BOX005_12.66m-15.6m



BH2B_1159_BOX006_15.6m-18.55m

Borehole Reference:

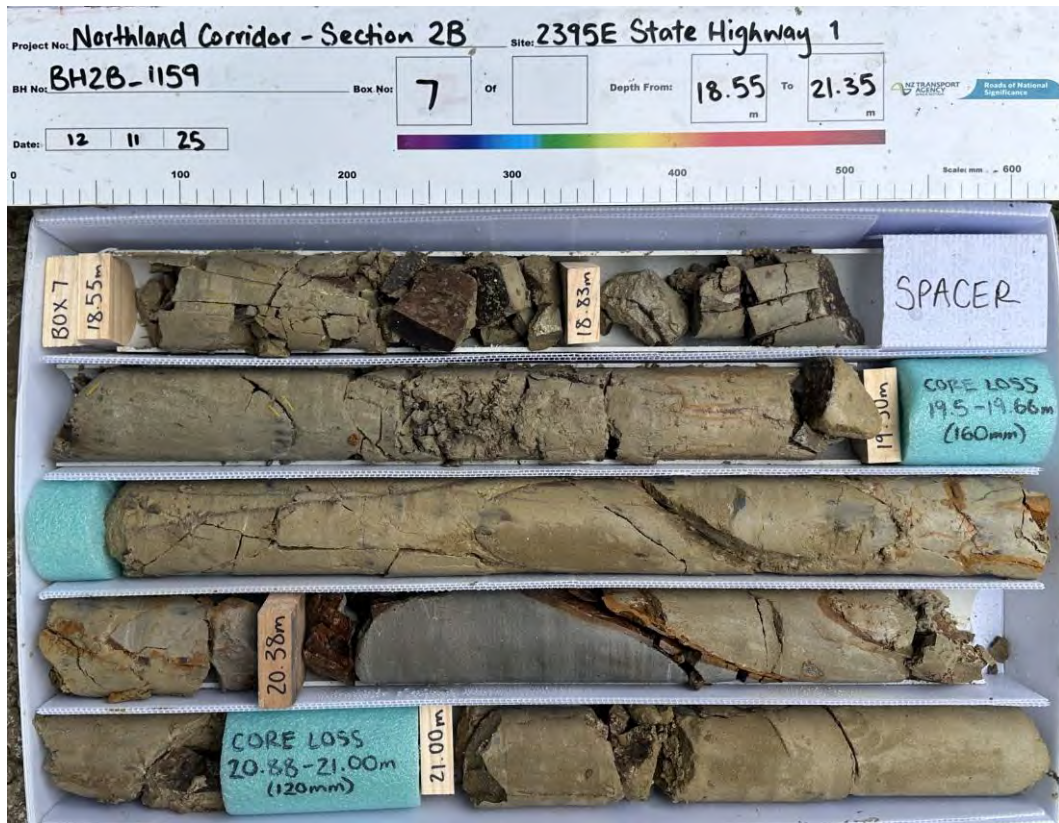
BH2B_1159

Photographed By:

AP, IM

Date Photographed:

10/11/2025-25/11/2025



BH2B_1159_BOX007_18.55m-21.35m



BH2B_1159_BOX008_21.35m-24.33m

Borehole Reference: BH2B_1159

Photographed By: AP, IM

Date Photographed:

10/11/2025-25/11/2025



BH2B_1159_BOX009_24.33m-27.25m



BH2B_1159_BOX010_27.25m-29.85m

Borehole Reference:

BH2B_1159

Photographed By:

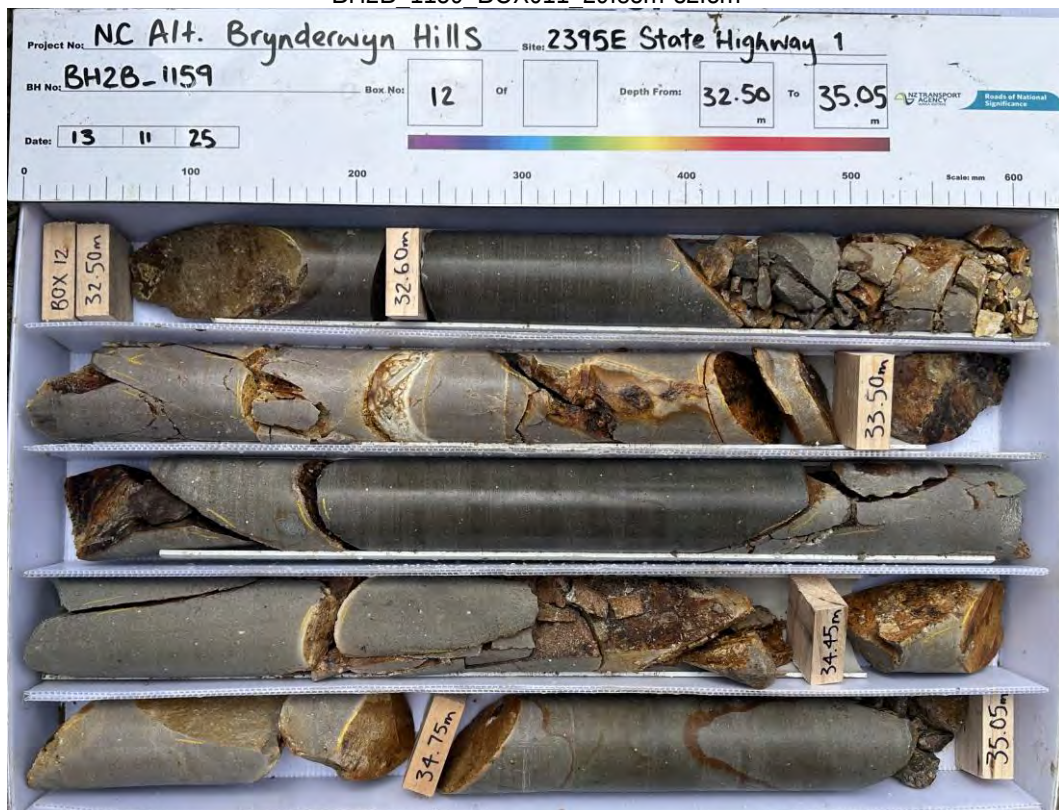
AP, IM

Date Photographed:

10/11/2025-25/11/2025



BH2B 1159 BOX011 29.85m-32.5m



BH2B_1159_BOX012_32.5m-35.05m

Borehole Reference:

BH2B_1159

Photographed By:

AP, IM

Date Photographed:

10/11/2025-25/11/2025



BH2B_1159_BOX013_35.05m-37.85m



BH2B_1159_BOX014_37.85m-40.37m

Borehole Reference:

BH2B_1159

Photographed By:

AP, IM

Date Photographed:

10/11/2025-25/11/2025



BH2B 1159 BOX015 40.37m-43.1m



BH2B_1159_BOX016_43.1m-45.65m

Borehole Reference:

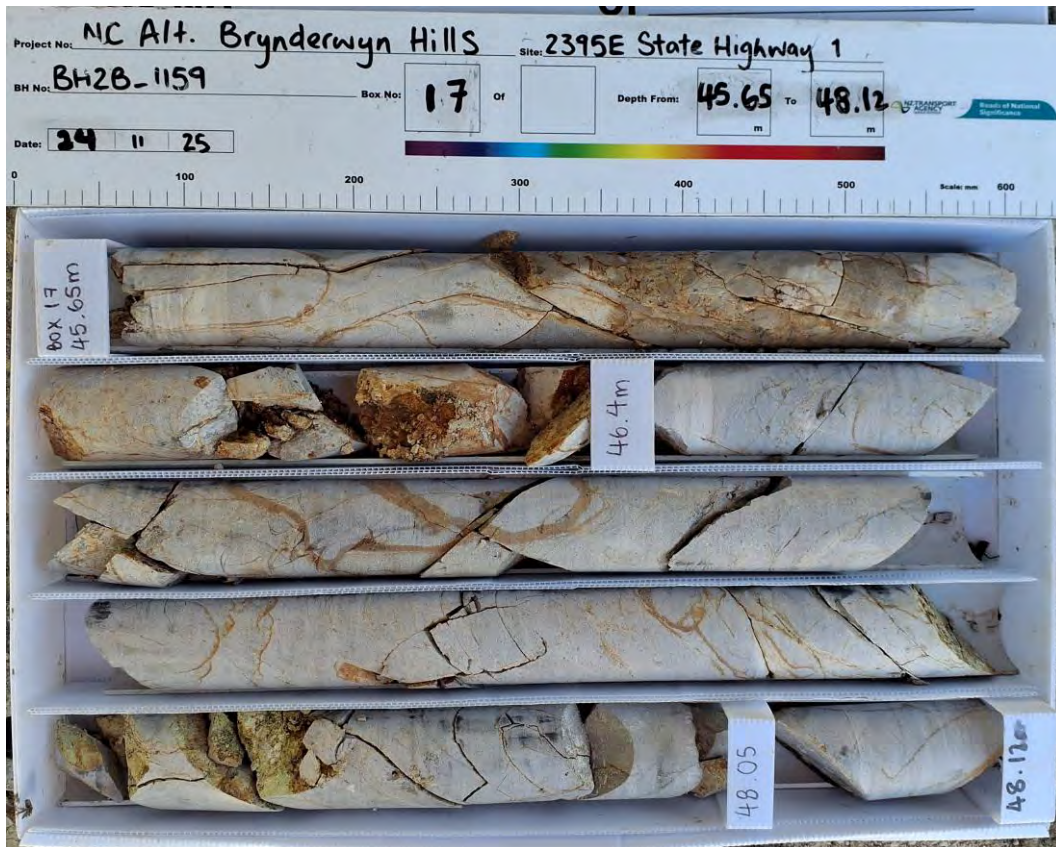
BH2B_1159

Photographed By:

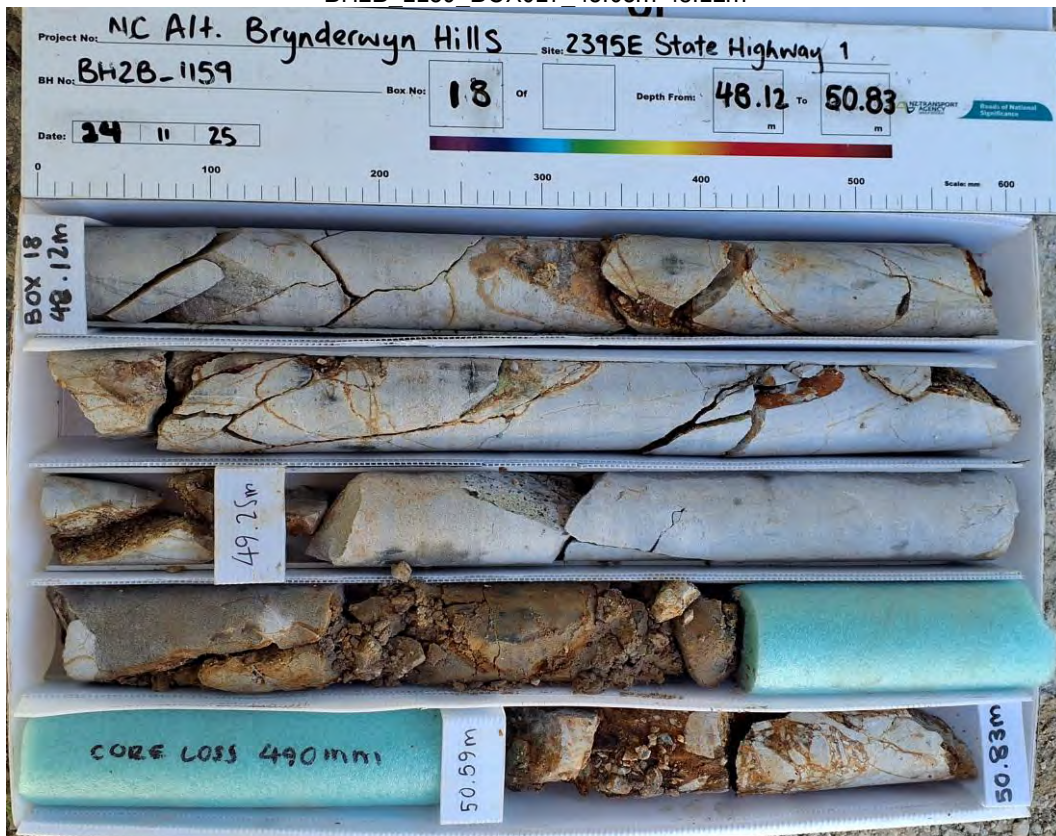
AP, IM

Date Photographed:

10/11/2025-25/11/2025



BH2B_1159_BOX017_45.65m-48.12m



BH2B_1159_BOX018_48.12m-50.83m

Borehole Reference:

BH2B_1159

Photographed By:

AP, IM

Date Photographed:

10/11/2025-25/11/2025



BH2B_1159_BOX019_50.83m-53.4m



BH2B_1159_BOX020_53.4m-56.3m

Borehole Reference:

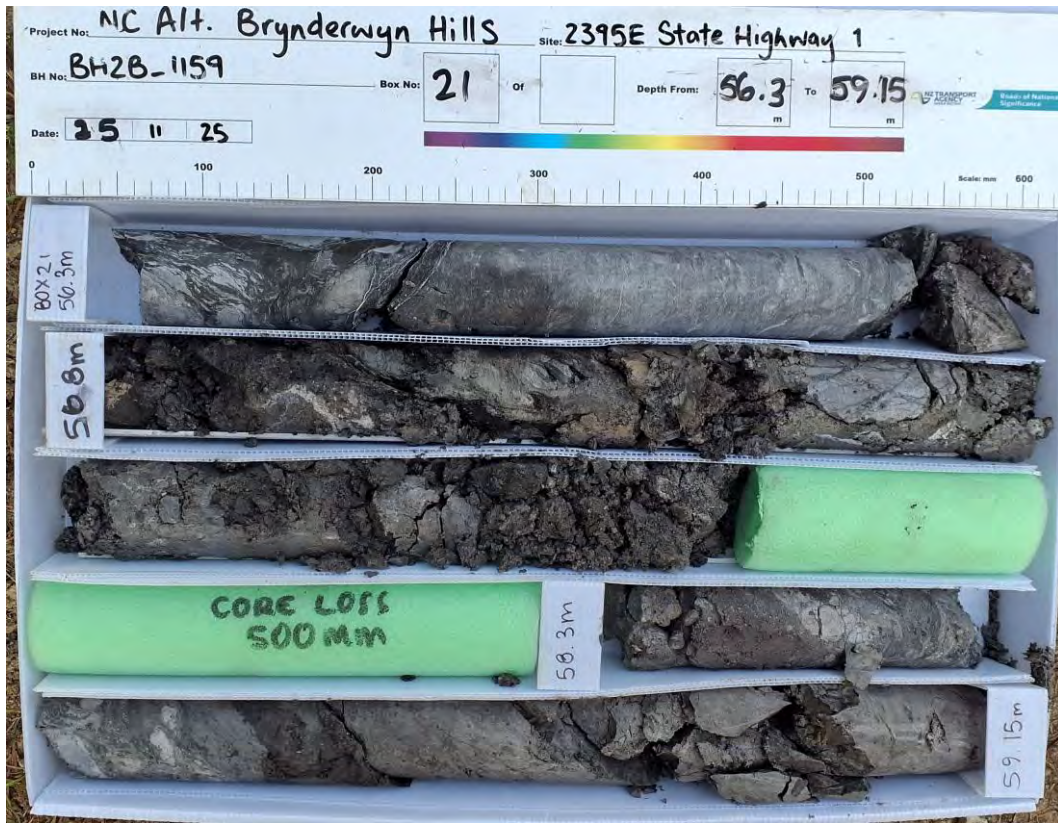
BH2B_1159

Photographed By:

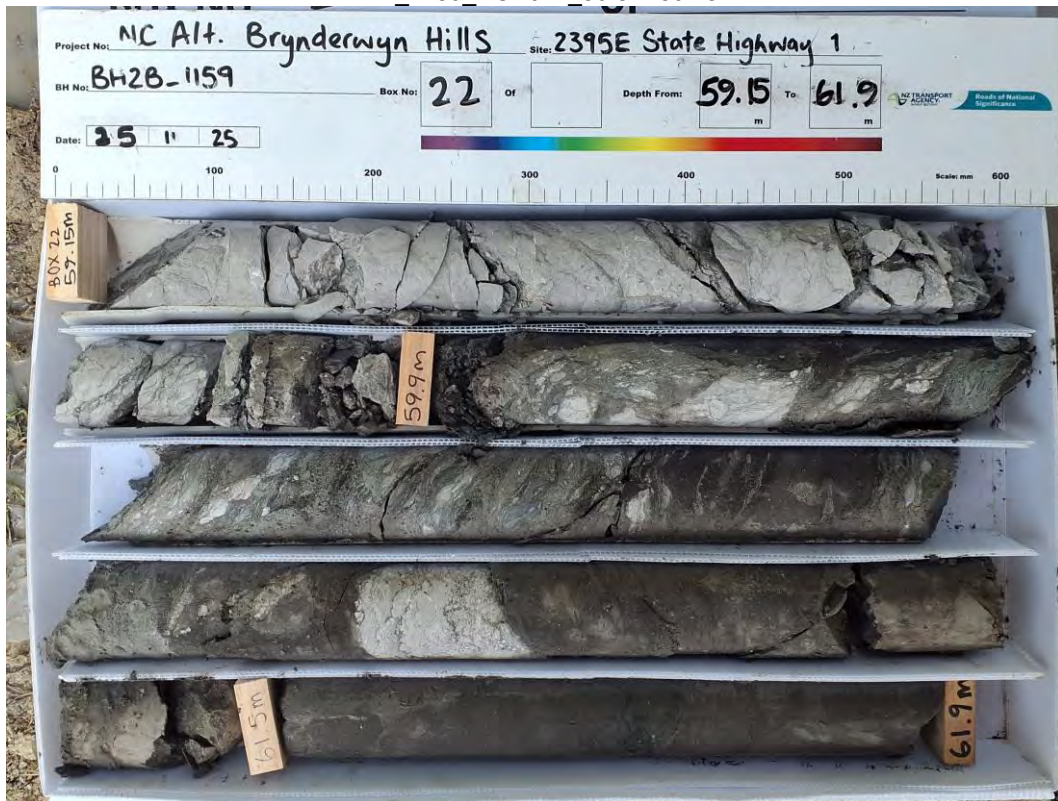
AP, IM

Date Photographed:

10/11/2025-25/11/2025



BH2B_1159_BOX021_56.3m-59.15m



BH2B_1159_BOX022_59.15m-61.9m

Borehole Reference:

BH2B_1159

Photographed By:

AP, IM

Date Photographed:

10/11/2025-25/11/2025



BH2B 1159 BOX023 61.9m-64.82m



BH2B_1159_BOX024_64.82m-67.6m

Borehole Reference:

BH2B_1159

Photographed By:

AP, IM

Date Photographed:

10/11/2025-25/11/2025



BH2B 1159 BOX025 67.6m-70.24m



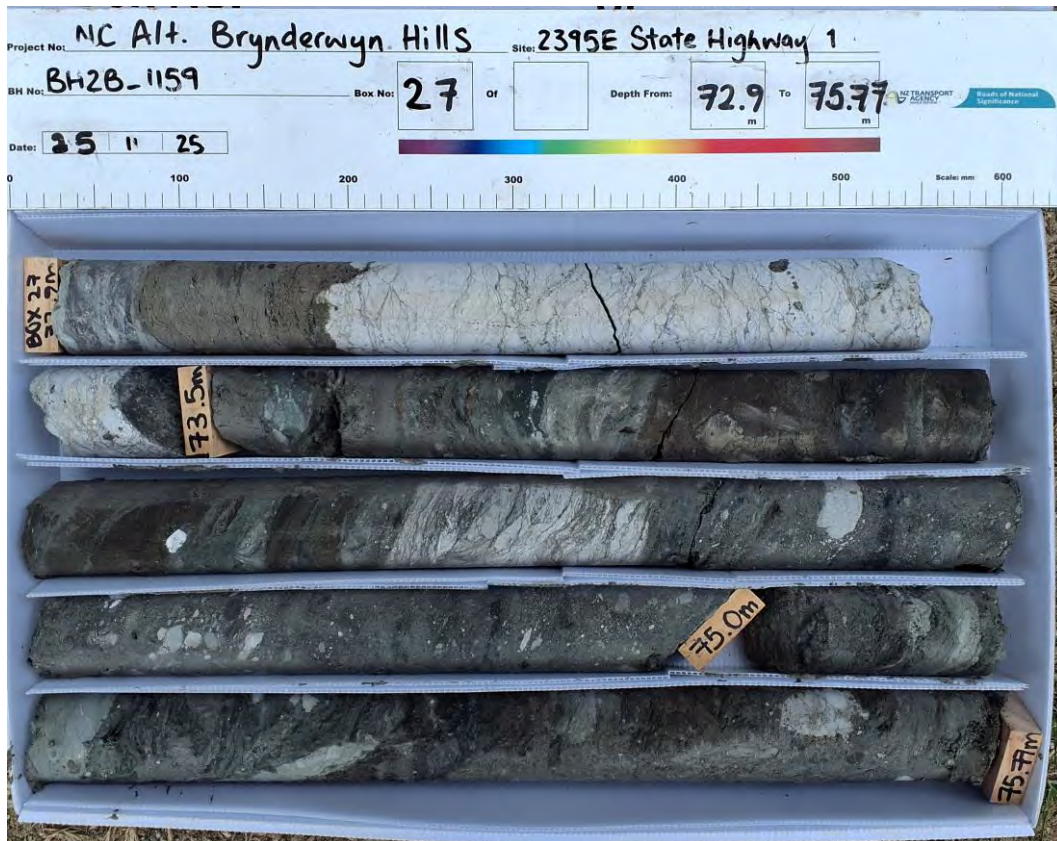
BH2B_1159_BOX026_70.24m-72.9m

Borehole Reference: BH2B_1159

Photographed By: AP, IM

Date Photographed:

10/11/2025-25/11/2025



BH2B_1159_BOX027_72.9m-75.77m



BH2B_1159_BOX028_75.77m-78.45m

Borehole Reference:

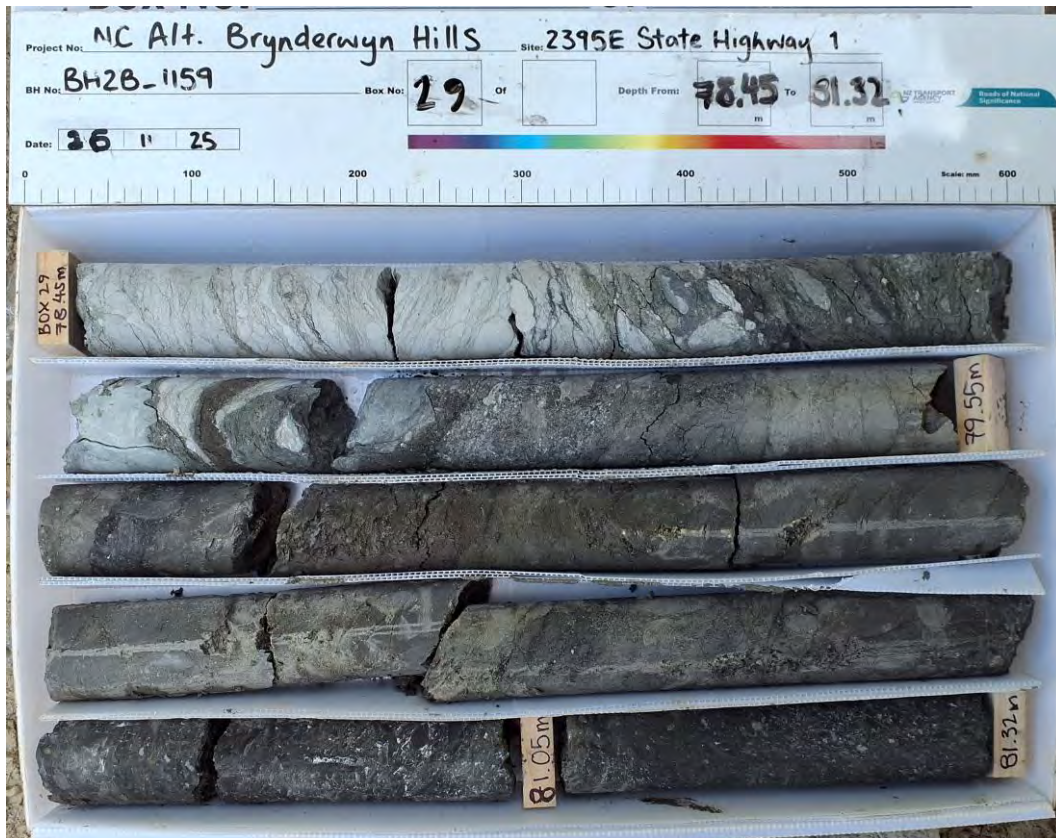
BH2B_1159

Photographed By:

AP, IM

Date Photographed:

10/11/2025-25/11/2025



BH2B_1159_BOX029_78.45m-81.32m



BH2B_1159_BOX030_81.32m-84.16m

Borehole Reference:

BH2B_1159

Photographed By:

AP, IM

Date Photographed:

10/11/2025-25/11/2025



BH2B_1159_BOX031_84.16m-86.96m



BH2B_1159_BOX032_86.96m-88.5m

BOREHOLE INFORMATION	CO-ORDINATES: NZTM2000	Date Started: 10/10/2025	Logged: K.Rozmus/B.Fleetw
Method: Rotary Core Wireline	Easting: 1729097.27mE,	Date Completed: 14/10/2025	Input: K.Rozmus/R. Hump
Equipment: Fraste SRS	Northing: 6001664.34mN,	Inclination: 90	Reviewed: F.Monteith
Contractor: Pro-Drill (Auck) Ltd	Ground level: 59.56m	Azimuth: N/A	Verified: A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
1	HA	59	1			CLAY with some silt, dark grey with mottle orange. Firm, moist, high plasticity. Contains trace wire and steel fragments [FILL (UNDIFFERENTIATED)].			100	-	-			
	SPT	58	2		F	CLAY, light brown. Firm, moist, high plasticity. Contains trace copper wires. (Poor recovery due to wire wrapping around core).		15m SPT 0, 0/1, 0, 1, 0 N= 2	53	-	-			
	HQ3	57	3			3.00m: Stiff.			100	-	-			
	SPT	56						3m SV CB SV 74/ 15kPa 3m SPT 0, 0/0, 0, 1, 0 N= 1	62	-	-			
	HQ3	55	4		NAS	CLAY with some silt, light bluish grey with some brown and green mottling. Firm, moist, high plasticity [NORTHLAND ALLOCHTHON SOILS].			100	-	-			
	HQ3	54	5					45m SPT 0, 0/0, 1, 0, 1 N= 2 45m SV CB SV 44/ 7kPa	91	-	-			
2	HQ3	53	6			CORE LOSS - 820mm.			21	-	-			
	SPT	52	7		NAS	CLAY, light blue. Stiff, moist, high plasticity.		6m SPT 0, 0/0, 0, 1, 1 N= 2 6m SV CB SV 52/ 0kPa	66	-	-			
	HQ3	51							100	-	-			
	HQ3	50			NAD	Highly weathered, dark grey to brown, sheared SILTSTONE, extremely weak. Shear fabric orientation indistinct. (Silty GRAVEL with some sand) [NORTHLAND ALLOCHTHON DEGRADED ZONE].	HW	7.5m SPT 1, 2/2, 2, 2, 4 N= 10	44	-	-			

REMARKS:	Water Level Readings:
1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 30mm and vertical accuracy +/- 62mm.	DateTime Hole Depth (m) Casing Depth (m) Water Level (m)
2. A standpipe was installed on 14/10/2025 with a screened interval between 9 to 12 m bgl. A vibrating wire piezometer was installed at 11.53m bgl, within the open standpipe on 05/02/2026, Serial No. P250885.	
3. Shear Vane Serial No. 2183, calibration constant 1.482.	
4. Technical note on the discovery of contaminated soil and groundwater- 10722-PTA-2B0-PE-MEM-001	

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000		Date Started: 10/10/2025	Logged: K.Rozmus/B.Fleetw
Method: Rotary Core Wireline		Easting: 1729097.27mE,		Date Completed: 14/10/2025	Input: K.Rozmus/R.Humpl
Equipment: Fraste SRS		Northing: 6001664.34mN,		Inclination: 90	Reviewed: F.Monteith
Contractor: Pro-Drill (Auck) Ltd		Ground level: 59.56m		Azimuth: N/A	Verified: A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
3	HQ3					[CONT] Highly weathered, dark grey to brown, sheared SILTSTONE, extremely weak. Shear fabric orientation indistinct. (Silty GRAVEL with some sand) [NORTHLAND ALLOCHTHON DEGRADED ZONE].	HW		100	-	-			
	HQ3	51							100	-	-			
	SPT		9			Moderately weathered, dark grey to brown, sheared, calcareous, SILTSTONE. Extremely weak to weak, pervasively sheared, shear fabric orientation indistinct.		9m SPT 3, 4//3, 5, 6, 7 N= 21	55	-	-			
4	HQ3		50				MW		100	-	-			
	SPT	49				10.50m: Strong hydrocarbon (diesel-like) odour noted in core.		10.5m SPT 5, 5//5, 7, 8, 9 N= 29	69	-	-		10.70m: Soil sample collected for contamination testing	
	HQ3		10						100	-	-			
5	SPT		49				MW							
	HQ3		48						100	-	-			
	SPT		12					12m SPT 6, 7//8, 8, 10, 10 N= 36	67	-	-		11.60m: Soil sample collected for contamination testing	
6	HQ3		47				MW		100	-	-			
	SPT		46					13.5m SPT 5, 7//8, 9, 9, 9 N= 35	62	-	-			
	HQ3		14						100	-	-			
7	SPT		45				MW							
	HQ3		44					15m SPT 7, 8//8, 8, 8, 11 N= 35	53	-	-			
	SPT								100	-	-			

REMARKS:

- Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 30mm and vertical accuracy +/- 62mm.
- A standpipe was installed on 14/10/2025 with a screened interval between 9 to 12 m bgl. A vibrating wire piezometer was installed at 11.53m bgl, within the open standpipe on 05/02/2026, Serial No. P250885.
- Shear Vane Serial No. 2183, calibration constant 1.482.
- Technical note on the discovery of contaminated soil and groundwater- 10722-PTA-2B0-PE-MEM-001

Water Level Readings:

DateTime	Hole Depth (m)	Casing Depth (m)	Water Level (m)
9/10/2025 4:37:00 pm	10.95	0.00	1.40
10/10/2025 7:45:00 am	10.95	0.00	1.30

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000	Date Started: 10/10/2025	Logged: K.Rozmus/B.Fleetw
Method: Rotary Core Wireline		Easting: 1729097.27mE,	Date Completed: 14/10/2025	Input: K.Rozmus/R.Humpl
Equipment: Fraste SRS		Northing: 6001664.34mN,	Inclination: 90	Reviewed: F.Monteith
Contractor: Pro-Drill (Auck) Ltd		Ground level: 59.56m	Azimuth: N/A	Verified: A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
5	HQ3					[CONT] Moderately weathered, dark grey to brown, sheared, calcareous, SILTSTONE. Extremely weak to weak, pervasively sheared, shear fabric orientation indistinct.								
	SPT	43						16.5m SPT 6, 10//12, 12, 11, 11 N= 46	100	-	-			
			17											
	HQ3	42							100	86	0			
6						17.00m: Strong hydrocarbon (diesel-like) odour noted in core.								
	SPT	41						18m SPT 8, 7//10, 10, 11, 11 N= 42	67	-	-			
			19						100	100	0			
	HQ3	40												
7						20.55m - 20.92m: Material recovered broken/disturbed.								
	SPT	39						19.5m SPT 6, 6//9, 9, 9, 9 N= 36	67	-	-			
			20						100	40	0			
	HQ3	38												
8						22.05m - 22.12m: Brecciated, clasts up to 10mm, matrix supported. [Possible fault gouge].								
	SPT	37						21m SPT 7, 8//10, 12, 12, 15 N= 49	71	-	-			
			22						100	46	0			
	HQ3	36						22.5m SPT 10, 10//13, 13, 13, 11 for 55mm N = 50+	81	-	-			
						Slightly weathered, grey and brown, sheared SILTSTONE; very weak to weak; shear fabric orientation indistinct. (Breaks down to sandy silt when on handling) [NORTHLAND ALLOCHTHON MELANGE MATRIX].								
	HQ3	36					SW		100	71	0			

REMARKS:

- Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 30mm and vertical accuracy +/- 62mm.
- A standpipe was installed on 14/10/2025 with a screened interval between 9 to 12 m bgl. A vibrating wire piezometer was installed at 11.53m bgl, within the open standpipe on 05/02/2026, Serial No. P250885.
- Shear Vane Serial No. 2183, calibration constant 1.482.
- Technical note on the discovery of contaminated soil and groundwater- 10722-PTA-2B0-PE-MEM-001

Water Level Readings:

DateTime	Hole Depth (m)	Casing Depth (m)	Water Level (m)
10/10/2025 10:47:00 am	16.45	10.50	2.90
13/10/2025 7:30:00 am	18.00	10.50	2.20

BOREHOLE INFORMATION

Method: Rotary Core Wireline
Equipment: Fraste SRS
Contractor: Pro-Drill (Auck) Ltd

CO-ORDINATES: NZTM2000

Easting: 1729097.27mE,
Northing: 6001664.34mN,
Ground level: 59.56m

Date Started: 10/10/2025

Date Completed: 14/10/2025

Inclination: 90

Azimuth: N/A

Logged: K.Rozmus/B.Fleetw

Input: K.Rozmus/R.Humpl

Reviewed: F.Monteith

Verified: A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
8	SPT	35				24.00m: Strong hydrocarbon (diesel-like) odour noted in core.	SW	24m SPT 9, 8/12, 10, 10, 10 N = 42	66	-	-			
	HQ3	25							100	100	0			
	SPT	34						25.5m SPT 9, 10/10, 12, 13, 13 N = 48	100	-	-			
	HQ3	33				Slightly weathered, grey and brown, sheared calcareous SILTSTONE, very weak, shear fabric orientation indistinct.			100	81	0			
	SPT	27			NAM			27m SPT 12, 13/18, 18, 14 for 60mm N = 50+	100	-	-			
	HQ3	28					SW		100	0	0		26.80-26.90m: CZ	
9	SPT	31						28.5m SPT 11, 12/13, 14, 16, 7 for 35mm N = 50+	100	-	-			
	HQ3	29							100	40	0		29.20m: CZ	
	SPT	30						30m SPT 12, 13/13, 17, 16, 4 for 10mm N = 50+	100	-	-		29.40m: CZ	
		30											29.70m: CZ	
		29				End Of Hole: 30.40m								
		31												
		28												

REMARKS:

- Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 30mm and vertical accuracy +/- 62mm.
- A standpipe was installed on 14/10/2025 with a screened interval between 9 to 12 m bgl. A vibrating wire piezometer was installed at 11.53m bgl, within the open standpipe on 05/02/2026, Serial No. P250885.
- Shear Vane Serial No. 2183, calibration constant 1.482.
- Technical note on the discovery of contaminated soil and groundwater- 10722-PTA-2B0-PE-MEM-001

Water Level Readings:

DateTime	Hole Depth (m)	Casing Depth (m)	Water Level (m)
13/10/2025 3:30:00 pm	30.00	16.50	0.00

Borehole Reference:

BH2B_1160

Photographed By:

BF, KR

Date Photographed:

09/10/2025-28/10/2025



BH2B 1160 BOX001 0m-3.45m



BH2B_1160_BOX002_3.45m-7.5m

Borehole Reference:

BH2B_1160

Photographed By:

BF, KR

Date Photographed:

09/10/2025-28/10/2025



BH2B_1160_BOX003_7.5m-10.95m



BH2B_1160_BOX004_10.95m-14.15m

Borehole Reference:

BH2B_1160

Photographed By:

BF, KR

Date Photographed:

09/10/2025-28/10/2025



BH2B_1160_BOX005_14.15m-17.36m



BH2B 1160 BOX006 17.36m-20.55m

Borehole Reference:

BH2B_1160

Photographed By:

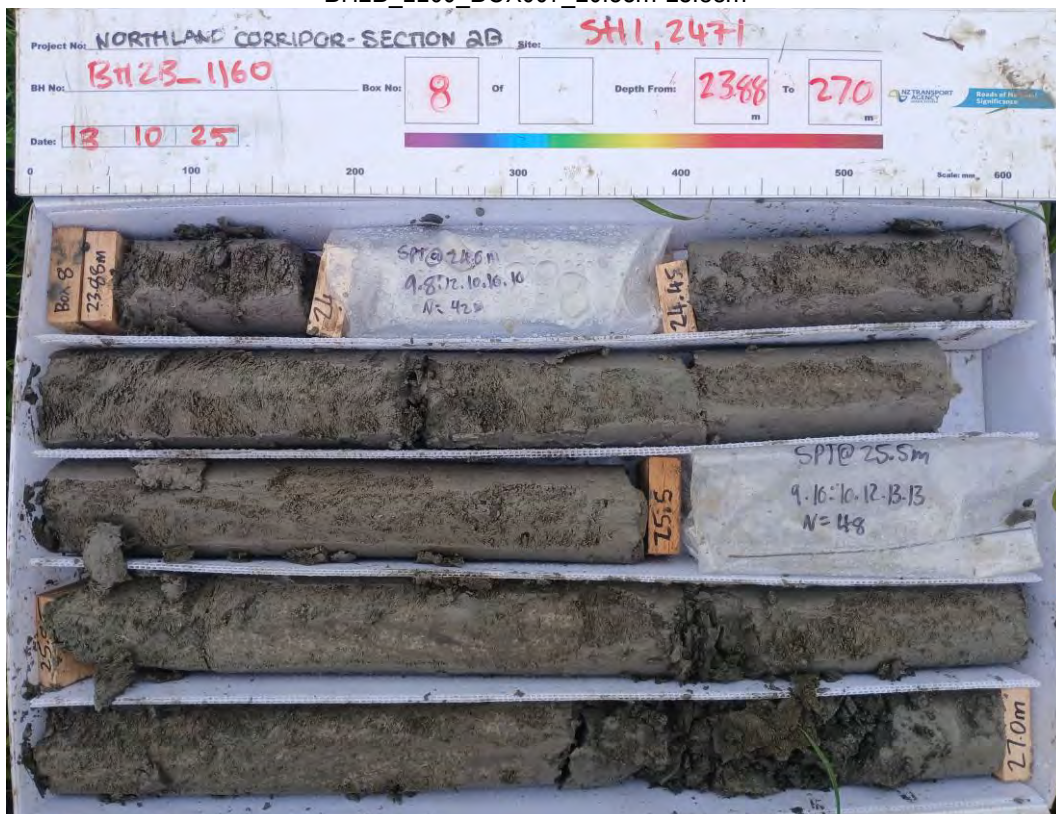
BF, KR

Date Photographed:

09/10/2025-28/10/2025



BH2B_1160_BOX007_20.55m-23.88m



BH2B_1160_BOX008_23.88m-27m

Borehole Reference: BH2B_1160

Photographed By: BF, KR

Date Photographed:

09/10/2025-28/10/2025



BH2B_1160_BOX009_27m-30.39m

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000		Date started:	11/11/2025	Logged:	L. Mackinnon
Method:	Rotary Core Wireline	Easting:	1728553.16	Date completed:	25/11/2025	Input:	L. Mackinnon
Equipment:	CAT308 8 ton Digger Rig	Northing:	6001936.11	Inclination:	90°	Reviewed:	B. O'Loughlin
Contractor:	ProDrill NZ	Ground level:	64.88m (NZVD2016)	Azimuth:	N/A	Verified:	C. Parkes

CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	VMS VSS MWS CS VCS ECs	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
1	HA		64		TS	0.00m: Organic SILT with rootlets; dark brown. Firm, dry, low plasticity. [TOPSOIL].	RS							0.00m: HWT casing advanced to 6.0m depth.	
					NAS	0.35m: Silty CLAY; yellowish brown and grey intermixed. Stiff to very stiff, moist, high plasticity. [NORTHLAND ALLOCTHON RESIDUAL SOIL].	RS	0.5m: ISHSV 143/66 kPa 1m: ISHSV 84/47 kPa 1.5m: ISHSV 76/47 kPa 1.5m: SPT 1, 2// 2, 2, 2, 1 N = 7	100						
	SPT	63		2	CW	1.77m: Clayey SILT with minor gravel; yellowish brown and grey intermixed. Stiff to very stiff, moist, low plasticity; gravel, subangular to subrounded, fine to medium, siltstone. [COMPLETELY WEATHERED NORTHLAND ALLOCTHON - MELANGE MATRIX].	CW		62				2.00m: HCI test: weak reaction.		
						CW	1.95m: Fine to medium GRAVEL; light grey. Loose, dry, subrounded to subangular, gap graded, calcareous siltstone. FeO staining. Fines assumed washed out. 2.20m: Completely weathered, light grey with orange staining, calcareous SILTSTONE (weak reaction); extremely weak. Relict rock fabric, Breaks down to fine, angular gravel and silt during handling. (Clayey SILT; hard, moist, low plasticity). 2.25-2.35m: ...Becomes black to yellowish brown. Melange block? Zone of intensified weathering due to groundwater infiltration? 2.80m: Highly weathered, light yellowish grey, calcareous SILTSTONE (weak reaction); extremely weak. Relict rock fabric. (Clayey SILT with minor gravel; hard, moist, low plasticity; gravel, fine, angular). [HIGHLY WEATHERED NORTHLAND ALLOCTHON - MELANGE MATRIX]. 3.00-3.15m: ...Core Loss: 150mm. Washout.	CW					2.50m: HCI test: weak reaction.		
	HQ3	62		3	HW	3.15m: Moderately weathered, light grey, pervasively sheared, calcareous SILTSTONE (weak reaction); extremely weak. Extremely closely spaced incipient fractures (low tensile strength). Crumbles to fine to medium, subangular gravel and silt during handling. (Clayey SILT with minor gravel; hard, moist, low plasticity; gravel, fine, subangular to angular). [MODERATELY WEATHERED NORTHLAND ALLOCTHON - MELANGE MATRIX]	HW	3m: IBHSV UTP 3m: SPT 1, 3// 3, 4, 4, 3 N = 14		67		3.00m: HCI test: strong reaction. 3.25m: HCI test: strong reaction. 3.45-4.00m: Drilling breaks along low tensile strength incipient fractures.			
						MW	4.5m: SPT 2, 3// 3, 4, 4, 2 N = 13		40			4.50m: HCI test: strong reaction.			
	SPT	60		5	X	4.95m: CORELOSS (300mm).								4.95m: HCI test: strong reaction.	
						NAD	5.25m: Moderately weathered, light grey, pervasively sheared, calcareous SILTSTONE (weak reaction); extremely weak. Extremely closely spaced incipient fractures (low tensile strength). Crumbles to fine to medium, subangular gravel and silt during handling. (Clayey SILT with minor gravel; hard, moist, low plasticity; gravel, fine, subangular to angular). [MODERATELY WEATHERED NORTHLAND ALLOCTHON - MELANGE MATRIX] 5.80-5.95m: ...Sheared clasts of greenish grey and purplish grey, calcareous mudstone. 6.00-6.15m: ...Core Loss: 150mm. Washout.	MW	6m: SPT 7, 11// 12, 12, 12, 12 N = 48	71	62		5.65-5.75m: Drilling breaks, recovered as silty gravel. 5.80m: HCI test: weak reaction.		
	HQ3	59		6	NAD	6.45m: Slightly weathered, light grey, pervasively sheared calcareous SILTSTONE (strong reaction); extremely weak. Shear fabric indistinct. Extremely closely spaced incipient fractures (low tensile strength) with no preferred orientation. (Clayey SILT; hard, moist, low plasticity). [SLIGHTLY WEATHERED NORTHLAND ALLOCTHON - MELANGE MATRIX].								6.45-6.75m: Handling breaks. 6.45m: HCI test: strong reaction.	
						NAM	7.90-8.70m: ...Intense sheared rock fabric dipping 20°-30° and more obvious incipient fractures.	SW	7.5m: SPT 5, 9// 12, 13, 13, 12 for 70mm N = 50+		80			7.90m: HCI test: strong reaction.	
SPT	57		7	NAM											

Remarks:	
----------	--

- 1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 70mm and vertical accuracy +/- 90mm.
- 2. A standpipe was installed on 25/11/2025 with a screened interval between 12 to 15m bgl. A vibrating wire piezometer was installed at 14.66m bgl, within the open standpipe on 21/01/2026, Serial No. P250868.
- 3. ISHSV = in-situ hand shear vane. IBHSV = ex-situ in barrel hand shear vane.
- 4. RQD, SCR and defects logged ignoring extremely closely spaced incipient joints within rock mass. Dominant joints and joint sets included.
- 5. Hole terminated at 35.2 m bgl due to hole collapse. Collapsed up to 29.9m bgl. Cam (ProDrill) believes it is due to the Northland Allocthon material swelling and putting pressure on the drilling rods, where material would collapse if rods were removed.

Shear Vane (IBHSV + ISHSV) Serial No. 2853 + DR1254, calibration constant 1.475 + 1.682.

Water Level Readings:		
Date/Time	Hole Depth	Water Level
2025-11-11 16:26	9.40m	2.60mbgl
2025-11-12 08:31	9.40m	1.60mbgl
2025-11-13 07:30	24.00m	0.00mbgl
2025-11-13 15:30	35.20m	2.40mbgl
2025-11-14 07:30	35.20m	1.10mbgl
2025-11-24 09:15	35.20m	1.30mbgl
2025-11-24 14:00	35.20m	4.40mbgl
2025-11-25 10:05	35.20m	4.20mbgl

CORE BOX		METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	FRACTURE LOG					STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
3	HQ3	SPT	56	9		NAM		SW	9m: SPT 5, 11// 13, 14, 15, 8 for 30mm N = 50+	100	79						8.10-8.20m: Drilling breaks, recovered as silty gravel.		
										99									
4	HQ3	SPTC	55	10			10.20m: Slightly weathered, dark green and dark grey intermixed, pervasively sheared, calcareous SILTSTONE (weak reaction); very weak. Extremely closely spaced incipient fractures (low tensile strength) with no preferred orientation. Breaks down to clayey SILT.	SW	10.5m: SPTC 3, 8// 12, 16, 22 N = 50+	100	100						9.40m: HCl test: weak reaction.		
										0									
	HQ3	SPTC	54	11			10.88m: Slightly weathered to unweathered, light greenish grey, pervasively sheared, calcareous SILTSTONE (weak reaction); very weak. Occasional calcite veins. Extremely closely spaced incipient fractures (moderate tensile strength) with no preferred orientation. Breaks down upon handling to silt.	SW	12m: SPTC 8, 15// 16, 16, 18 N = 50+	100	100						10.15m: HCl test: none. 10.40m: HCl test: weak reaction.		
										0									
	HQ3	SPTC	53	12						100	100						10.88m: HCl test: weak reaction.		
										0									
5	HQ3	SPTC	52	13		NAF	12.48m: Unweathered, light grey, pervasively sheared, calcareous SILTSTONE (weak reaction); very weak. Intermixed / sheared with: unweathered, dark green and dark grey, pervasively sheared, calcareous MUDSTONE (weak reaction); very weak. Well developed shear fabric with brecciated siltstone and mudstone clasts elongated and aligned in variable orientation (typically 0°-30°). Extremely closely spaced, incipient fractures (moderate tensile strength) with no preferred orientation. Breaks upon handling down to silt and clay. [UNWEATHERED NORTHLAND ALLOCHTHON - MELANGE FAULT BRECCIA].	UW		100	96						12.38m: HCl test: strong reaction. 12.48m: HCl test: weak reaction.		
										100	93								
	HQ3	SPTC	51	14			15.00m: ...Lighter grey with greenish grey patches. Shear fabric dipping 20°-30°. 15.10m: ...White mineral reacts strongly to HCl.			100	100						13.10m: JT; 30°, Sm, St, 50mm aperture, sheared silt (relict rock fabric) infill. 13.50m: HCl test: weak reaction.		
										100	100								
6	HQ3	SPTC	50	15			15.80-16.50m: ...Sheared fabric 0°-30°, with aligned and amalgamated subangular clasts.			100	100						13.89-14.03m: Joint set x2; 30°, Ro, St. 15.00m: HCl test: weak reaction.		
										100	100								
	HQ3	SPTC	49							100	100						15.65-16.50m: Drilling and handling breaks due to sticky core. Core swell. 15.80m: HCl test: weak reaction.		
										100	100								

Remarks:			Water Level Readings:		
1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 70mm and vertical accuracy +/- 90mm.			Date/Time	Hole Depth	Water Level
2. A standpipe was installed on 25/11/2025 with a screened interval between 12 to 15m bgl. A vibrating wire piezometer was installed at 14.66m bgl, within the open standpipe on 21/01/2026, Serial No. P250968.			2025-11-11 16:26	9.40m	2.60mbgl
3. ISHSV = in-situ hand shear vane. IBHSV = ex-situ in barrel hand shear vane.			2025-11-12 08:31	9.60m	1.60mbgl
4. ROD, SCD and defects logged ignoring extremely closely spaced incipient joints within rock mass. Dominant joints and joint sets included.			2025-11-13 07:30	24.00m	0.00mbgl
5. Hole terminated at 35.2 m bgl due to hole collapse. Collapsed up to 29.9m bgl. Cam (ProDrill) believes it is due to the Northland Allochthon material swelling and putting pressure on the drilling rods, where material would collapse if rods were removed.			2025-11-13 15:30	35.20m	2.40mbgl
			2025-11-14 07:30	35.20m	1.10mbgl
			2025-11-24 09:15	35.20m	1.30mbgl
			2025-11-24 14:00	35.20m	4.40mbgl
			2025-11-25 10:05	35.20m	4.20mbgl

Logged:	L. Mackinnon
Input:	L. Mackinnon
Reviewed:	B. O'Loughlin
Verified:	C. Parkes

CORE BOX		METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	FRACTURE LOG					STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
6	HQ3	48	17	△	△	NAF	16.60m: ...Calcareous siltstone (weak reaction) becomes more dominant within unit. 17.44-17.47m: ...Clast of moderately strong siltstone; black and dark grey with white veins, reacts to HCl (weak reaction). 17.50-18.00m: ...Concentration of green, calcareous mudstone clasts. 18.00-18.80m: ...Moderate to high tensile strength of incipient fractures. Sheared dark green, white and grey clasts. 18.59-18.63m: ...Clast of light grey, pervasively sheared, muddy limestone. Incipient fractures with dominant angles at 0° and 30°. 18.80-19.06m: ...Clast of green and dark grey, pervasively sheared, non-calcareous mudstone. 19.50-19.90m: ...Mudstone clast. Conjugate bedding. 19.50-20.60m: ...Non-calcareous mudstone clasts. 20.05-20.15m: ...Mudstone clast.	UW		100	100						16.50-18.30m: Drilling and handling breaks due to sticky core. Core swell. 16.50m: HCl test: weak reaction.		
										100	100								
										100	100								
										100	100								
										100	100								
										100	100								
										100	100								
										100	100								
										100	100								
										100	100								
										100	100								
										100	100								
7	HQ3	46	19	△	△	NAF	21.00m: Unweathered, light greenish grey with white and dark grey streaks, pervasively sheared, calcareous SILTSTONE (strong reaction); very weak. Extremely closely spaced incipient fractures (moderate tensile strength) with no preferred orientation. Breaks upon handling. [UNWEATHERED NORTHLAND ALLOCTHON - MELANGE MATRIX]. 21.75m: ...Large white clast (calcite?). 22.75m: ...Encountered black, moderately strong streaks. 23.00-23.20m: ...Clasts are weak and non-pervasively sheared with extremely closely spaced incipient joints with high tensile strength. 23.35m: ...50mm thick, dark grey, sheared mudstone clast. 23.60-23.76m: ...Clasts are weak and non-pervasively sheared with extremely closely spaced incipient joints with high tensile strength.	UW		100	100						18.00m: HCl test: weak reaction. 18.80m: HCl test: none. 19.06m: HCl test: strong reaction. 19.50-21.80m: Drilling and handling breaks. 19.50m: HCl test: none. 20.50m: HCl test: strong reaction. 21.00m: HCl test: weak reaction. 21.80m: HCl test: strong reaction. 22.30-22.40m: Drilling breaks, recovered as fine, angular gravel. 22.50-23.00m: Drilling and handling breaks. 22.50m: HCl test: strong reaction. 23.10m: VE; 45°, white mineral infill (calcite?). 23.50m: HCl test: strong reaction. 23.70-23.80m: Joint set x2; 40°, Ro, St.		
										100	100								
										100	100								
										100	100								
										100	100								
										100	100								
										100	100								
										100	100								
										100	100								
										100	100								
										100	100								
										100	100								
8	HQ3	42	23	△	△	NAM		UW		100	86								
										100	86								
										100	100								
										100	87								

DateTime	Hole Depth	Water Level
2025-11-11 16:26	9.40m	2.60mbgl
2025-11-12 08:31	9.40m	1.60mbgl
2025-11-13 07:30	24.00m	0.00mbgl
2025-11-13 15:30	35.20m	2.40mbgl
2025-11-14 07:30	35.20m	1.10mbgl
2025-11-24 09:15	35.20m	1.30mbgl
2025-11-24 14:00	35.20m	4.40mbgl
2025-11-25 10:05	35.20m	4.20mbgl

BOREHOLE INFORMATION

Method: Rotary Core Wireline
Equipment: CAT308 8 ton Digger Rig
Contractor: ProDrill NZ

CO-ORDINATES: NZTM2000
Easting: 1728553.16
Northing: 6001936.11
Ground level: 64.88m (NZVD2016)

Date started: 11/11/2025
Date completed: 25/11/2025
Inclination: 90°
Azimuth: N/A

Logged: L. Mackinnon
Input: L. Mackinnon
Reviewed: B. O'Loughlin
Verified: C. Parkes

CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	WWS	WS	MWS	VCS	VCS	EGS	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
9	HQ3	40	25			24.85-25.40m: ...Within thin, sub-horizontal, interbedded clasts of Dark grey, pervasively sheared, calcareous mudstone (weak reaction) and muddy limestone (strong reaction).			100	97								24.40m: JT; 20°, 30mm aperture, silty clay infill.	
																		25.00m: HCl test: weak reaction.	
																		25.50-27.00m: Drilling and handling breaks.	
	HQ3	39	26			26.10m: ...30mm thick, dark grey, sheared mudstone clast. 26.15-26.50m: ...Zone of dark green and white laminations.			100	100								26.00m: HCl test: strong reaction.	
	HQ3	38	27			26.90m: ...Very weak, muddy limestone clast with very closely spaced incipient fractures with high tensile strength.			100	75								27.00-27.15m: Drilling breaks, recovered as angular, fine to medium gravel. 27.00m: HCl test: strong reaction.	
	HQ3	37	28			27.35m: ...Very weak, muddy limestone clasts with very closely spaced incipient fractures with high tensile strength. 27.40-27.55m: ...Black and white laminations (shearing?).	UW											27.75m: Joint set x2; 40°, Sm, St, 15mm aperture, gravely silt infill. 27.86m: Joint set x2; 40°, Sm, St, 15mm aperture, gravely silt infill. 28.00m: HCl test: strong reaction.	
10	HQ3	36	29			28.10-28.20m: ...100mm thick clast of dark grey, lime green and white, sheared, calcareous mudstone, sub-horizontal.			100	90									
																		28.80-29.80m: Joint set; 45°, Ro, St, <1mm aperture, moderately widely spaced to closely spaced (shear zone?). 29.00m: HCl test: strong reaction.	
	HQ3	35	30			28.80-29.80m: ...Shear fabric.			100	100									
																		30.00m: HCl test: weak reaction.	
	HQ3	34	31			30.00-31.40m: ...Becomes dark grey, incipient fractures more obvious and decrease in tensile strength, indents with strong finger pressure.			100	100								31.00m: HCl test: none.	
11																			
	HQ3	33				31.00-31.05m: ...Sheared, non-calcareous mudstone clast, 45° dip. 31.40m: Unweathered, grey with light green, light grey and dark grey streaks, pervasively sheared, calcareous SILTSTONE (weak to strong reaction); very weak to weak. Extremely closely spaced incipient joints with no preferred orientation and high tensile strength. Difficult to break during handling.	UW		100	100								31.50m: HCl test: weak reaction.	

Remarks:
1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 70mm and vertical accuracy +/- 90mm.
2. A standpipe was installed on 25/11/2025 with a screened interval between 12 to 15m bgl. A vibrating wire piezometer was installed at 14.66m bgl, within the open standpipe on 21/01/2026, Serial No. P250868.
3. ISHSV = in-situ hand shear vane. IBHSV = ex-situ in barrel hand shear vane.
4. RQD, SCR and defects logged ignoring extremely closely spaced incipient joints within rock mass. Dominant joints and joint sets included.
5. Hole terminated at 35.2 m bgl due to hole collapse. Collapsed up to 29.9m bgl. Cam (ProDrill) believes it is due to the Northland Allochthon material swelling and putting pressure on the drilling rods, where material would collapse if rods were removed.

Shear Vane (IBHSV + ISHSV) Serial No. 2853 + DR1254, calibration constant 1.475 + 1.682.

Water Level Readings:		
Date/Time	Hole Depth	Water Level
2025-11-11 16:26	9.40m	2.60mbgl
2025-11-12 08:31	9.40m	1.60mbgl
2025-11-13 07:30	24.00m	0.00mbgl
2025-11-13 15:30	35.20m	2.40mbgl
2025-11-14 07:30	35.20m	1.10mbgl
2025-11-24 09:15	35.20m	1.30mbgl
2025-11-24 14:00	35.20m	4.40mbgl
2025-11-25 10:05	35.20m	4.20mbgl

BOREHOLE INFORMATION

Method: Rotary Core Wireline

Equipment: CAT308 8 ton Digger Rig

Contractor: ProDrill NZ

CO-ORDINATES:

Easting: 1728553.16

Northing: 6001936.11

Ground level: 64.88m (NZVD2016)

Date started: 11/11/2025

Date completed: 25/11/2025

Inclination: 90°

Azimuth: N/A

Logged: L. Mackinnon

Input: L. Mackinnon

Reviewed: B. O'Loughlin

Verified: C. Parkes

CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	WVS	WS	MWS	VCS	VECS	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
11	HQ3																		
	HQ3		32			32.70-32.90m: ...Dark grey and dark green, sheared mudstone laminations, 50° dip.	UW		100	100								32.50m: HCl test: strong reaction.	
12	HQ3		33		NAM	33.10m: Unweathered, grey, pervasively sheared, calcareous SILTSTONE (weak reaction); very weak. Extremely closely spaced incipient joints with no preferred orientation and moderate tensile strength. Breaks upon handling.													
	HQ3		34			33.50m: ...Dark grey laminations, 35° dip.	UW		100	100								33.50m: HCl test: weak reaction.	
	HQ3		35						100	100								35.00m: HCl test: weak reaction.	
			36			Terminated at 35.20 m. Refusal.													
			37																
			38																
			39																
			40																
			41																
			42																
			43																
			44																
			45																
			46																
			47																
			48																
			49																
			50																
			51																
			52																
			53																
			54																
			55																
			56																
			57																
			58																
			59																
			60																
			61																
			62																
			63																
			64																
			65																
			66																
			67																
			68																
			69																
			70																
			71																
			72																
			73																
			74																
			75																
			76																
			77																
			78																
			79																
			80																
			81																
			82																
			83																
			84																
			85																
			86																
			87																
			88																
			89																
			90																
			91																
			92																
			93																
			94																
			95																
			96																
			97																
			98																
			99																
			100																

Remarks:

1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 70mm and vertical accuracy +/- 90mm.

2. A standpipe was installed on 25/11/2025 with a screened interval between 12 to 15m bgl. A vibrating wire piezometer was installed at 14.66m bgl, within the open standpipe on 21/01/2026, Serial No. P250868.

3. ISHSV = in-situ hand shear vane. IBHSV = ex-situ in barrel hand shear vane.

4. RQD, SCR and defects logged ignoring extremely closely spaced incipient joints within rock mass. Dominant joints and joint sets included.

5. Hole terminated at 35.2 m bgl due to hole collapse. Collapsed up to 29.9m bgl. Cam (ProDrill) believes it is due to the Northland Allochthon material swelling and putting pressure on the drilling rods, where material would collapse if rods were removed.

Shear Vane (IBHSV + ISHSV) Serial No. 2853 + DR1254, calibration constant 1.475 + 1.682.

Water Level Readings:

DateTime	Hole Depth	Water Level
2025-11-11 16:26	9.40m	2.60mbgl
2025-11-12 08:31	9.40m	1.60mbgl
2025-11-13 07:30	24.00m	0.00mbgl
2025-11-13 15:30	35.20m	2.40mbgl
2025-11-14 07:30	35.20m	1.10mbgl
2025-11-24 09:15	35.20m	1.30mbgl
2025-11-24 14:00	35.20m	4.40mbgl
2025-11-25 10:05	35.20m	4.20mbgl

Borehole Reference: BH2B_1161

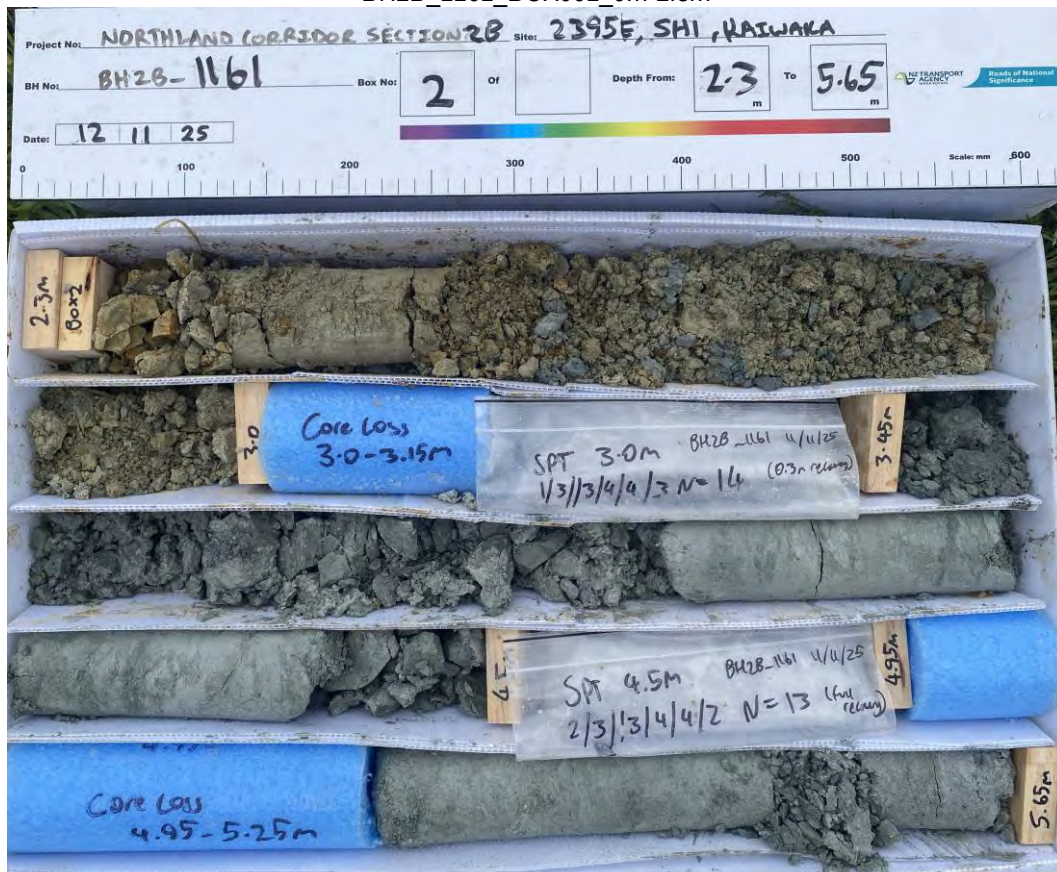
Photographed By:

Date Photographed:

10/11/2025-23/11/2025



BH2B_1161_BOX001_0m-2.3m



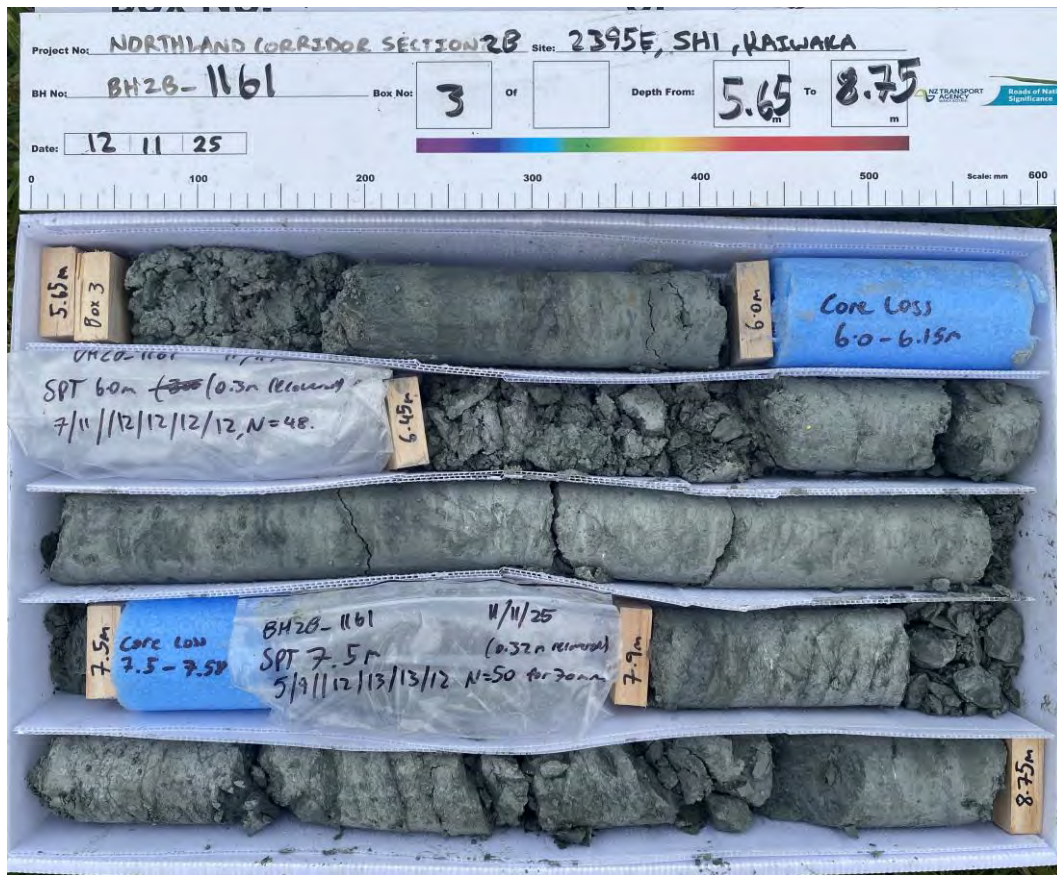
BH2B_1161_BOX002_2.3m-5.65m

Borehole Reference: BH2B_1161

Photographed By:

Date Photographed:

10/11/2025-23/11/2025



BH2B_1161_BOX003_5.65m-8.75m



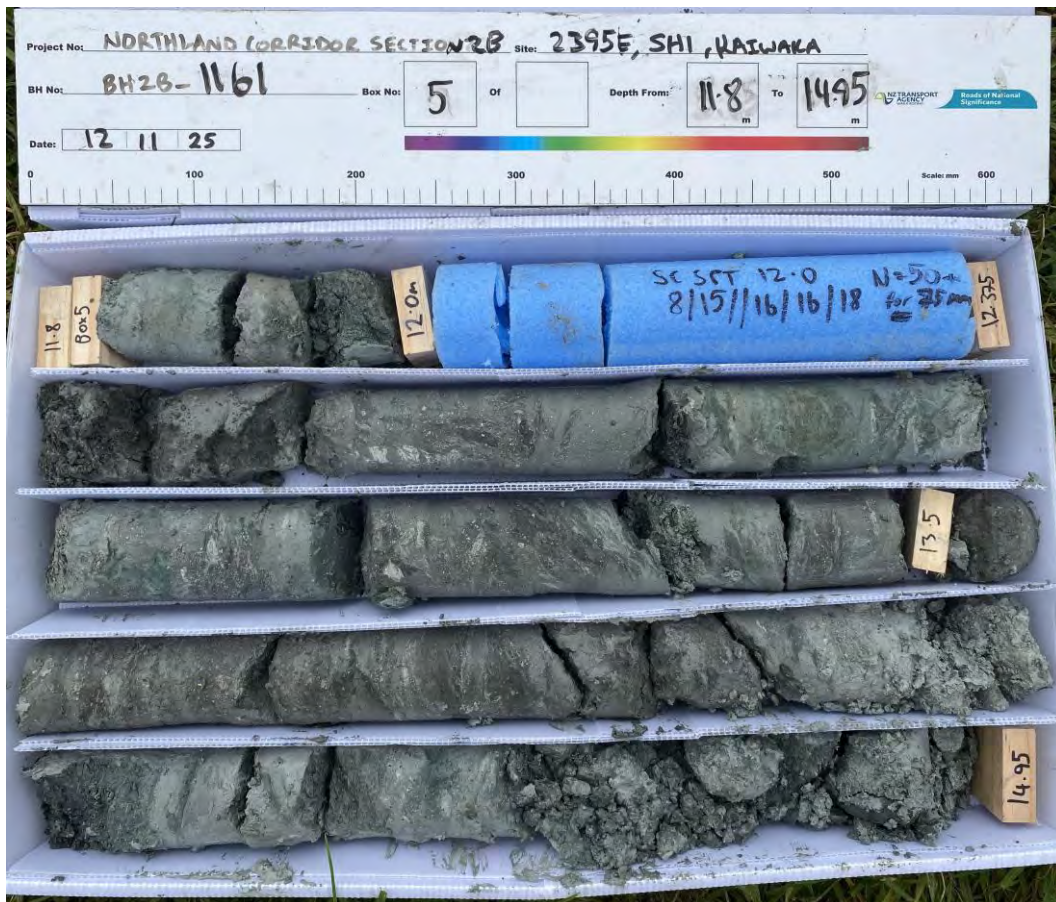
BH2B_1161_BOX004_8.75m-11.8m

Borehole Reference: BH2B_1161

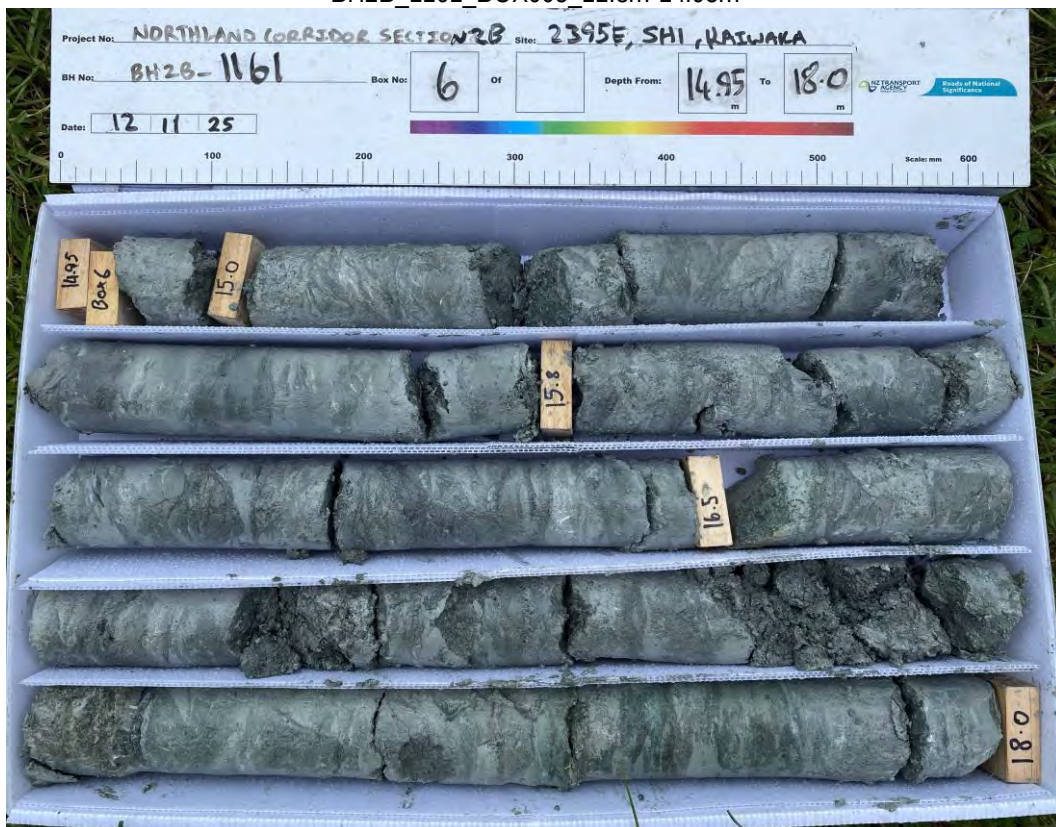
Photographed By:

Date Photographed:

10/11/2025-23/11/2025



BH2B_1161_BOX005_11.8m-14.95m



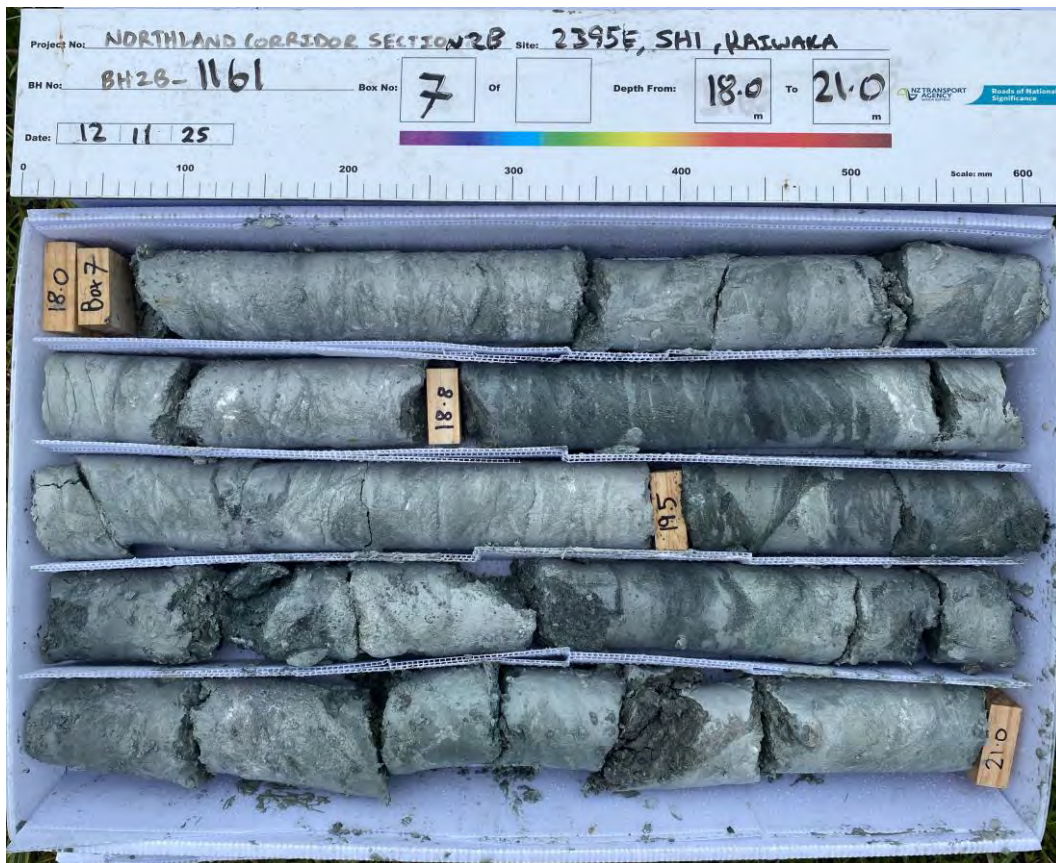
BH2B_1161_BOX006_14.95m-18m

Borehole Reference: BH2B_1161

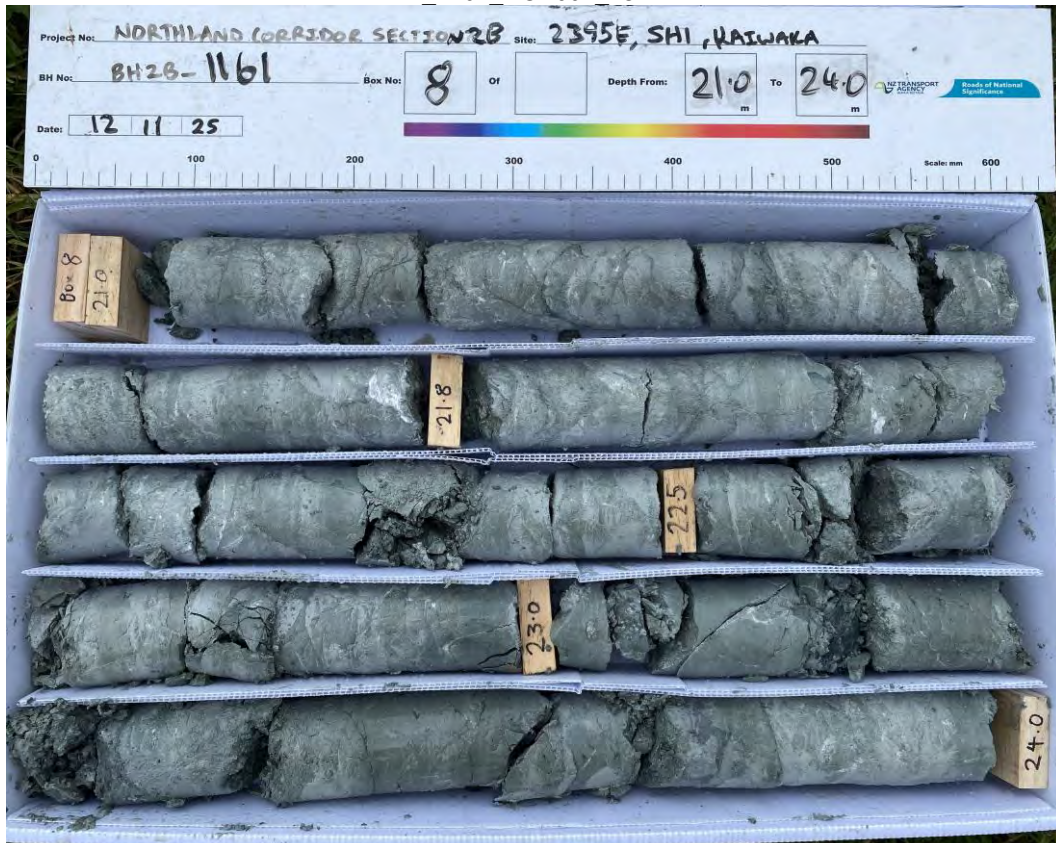
Photographed By:

Date Photographed:

10/11/2025-23/11/2025



BH2B 1161 BOX007 18m-21m



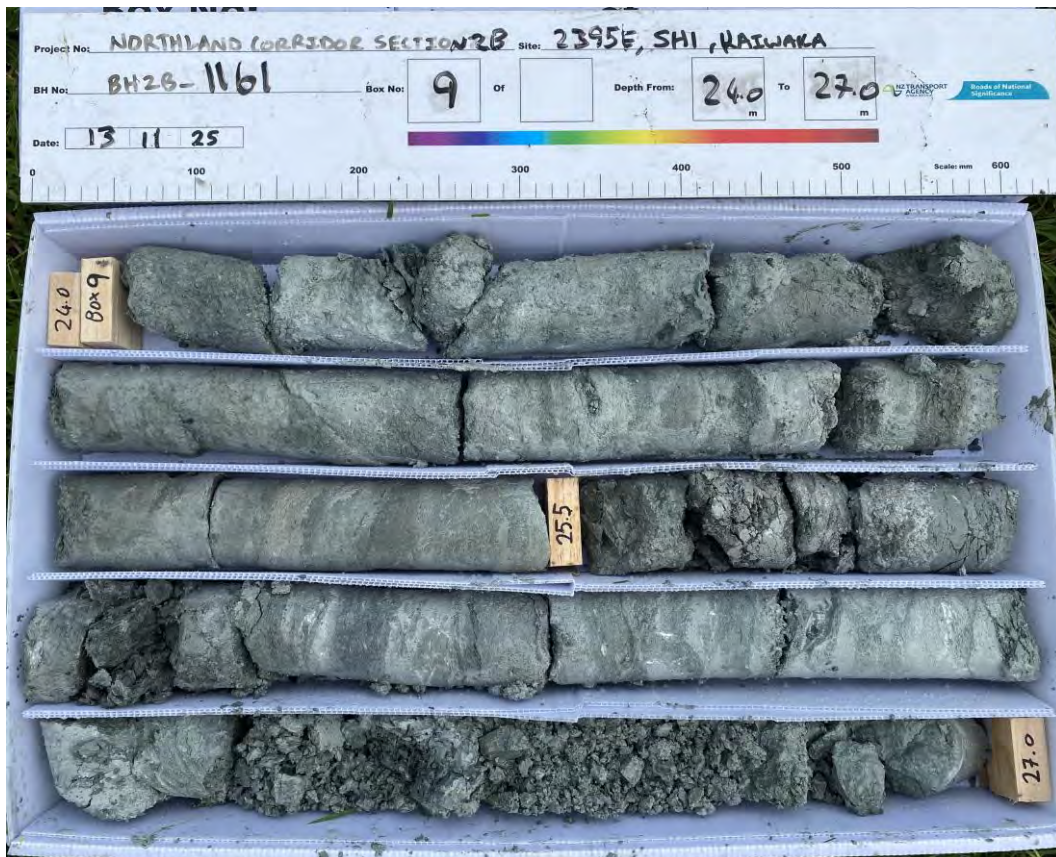
BH2B_1161_BOX008 21m-24m

Borehole Reference: BH2B_1161

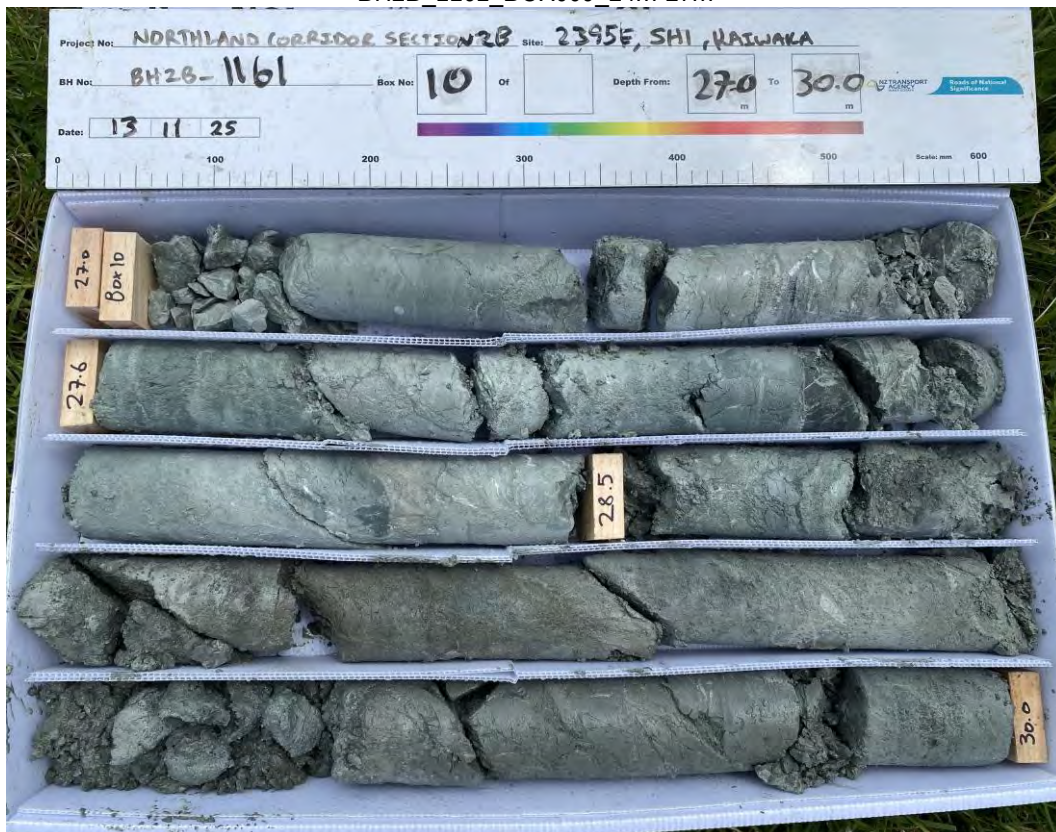
Photographed By:

Date Photographed:

10/11/2025-23/11/2025



BH2B_1161_BOX009_24m-27m



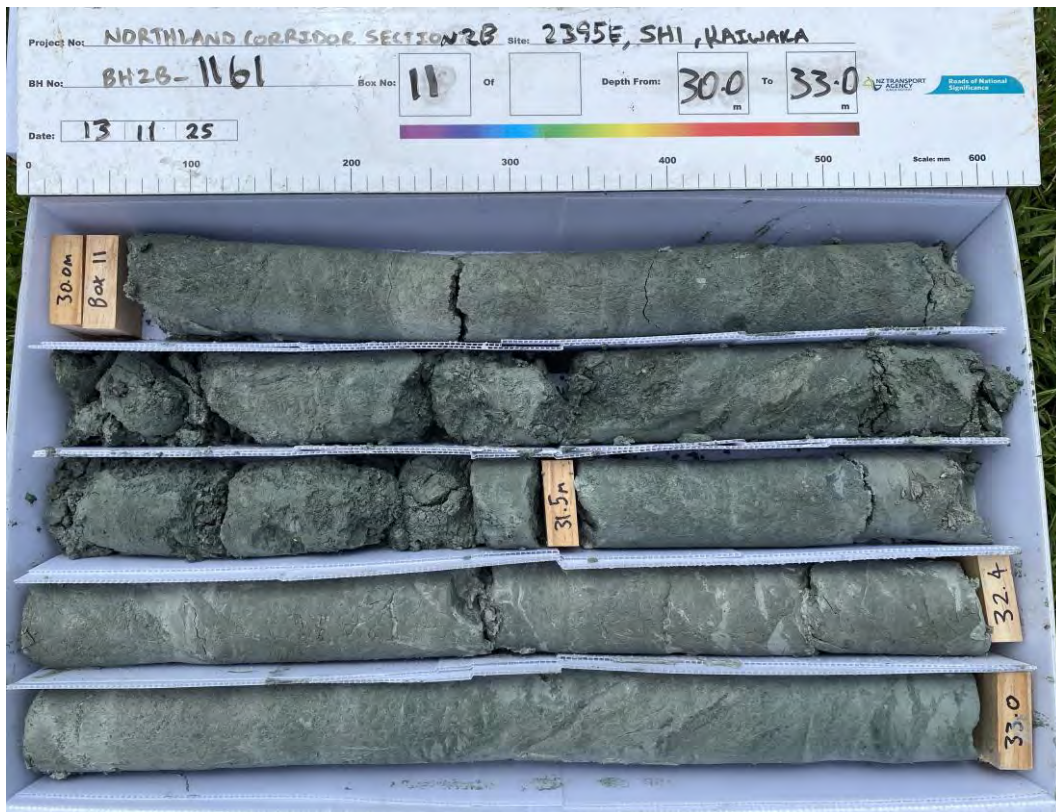
BH2B_1161_BOX010_27m-30m

Borehole Reference: BH2B_1161

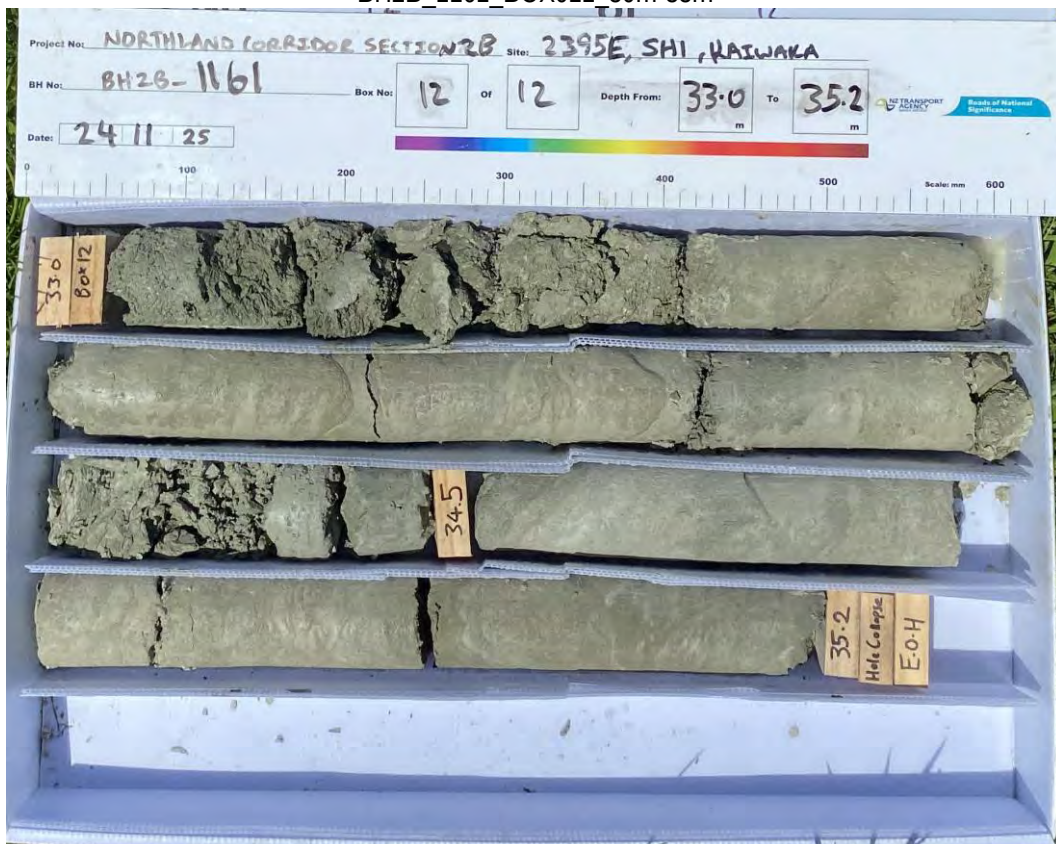
Photographed By:

Date Photographed:

10/11/2025-23/11/2025



BH2B_1161_BOX011 30m-33m



BH2B_1161_BOX012 33m-35.2m

BOREHOLE INFORMATION

Method: Rotary Core Wireline
Equipment: CAT 308 8 ton Digger Rig
Contractor: ProDrill NZ

CO-ORDINATES:

CO-ORDINATES:	NZTM2000
Easting:	1728847.25
Northing:	6001926.36
Ground level:	65.863m (NZVD2016)

Date started:	29/10/2025
---------------	------------

Date completed: 10/11/2025

Inclination: 90°

Azimuth: N/A

Logged:

Input:

Reviewed:

Verified:

CORE BOX		METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
1		HA													
						TS	0.00m: SILT with trace rootlets and clay; dark brown. Firm, moist, low plasticity; rootlets up to 2mm. [TOPSOIL].							0.00-28.50m: HWT casing installed to 28.5m bgl	
							0.25m: Clayey SILT; brown mottled orange. Firm, moist, high plasticity. [COLLUVIUM (UNDIFFERENTIATED)].								
							0.50m: SILT, some sand and minor clay; light greyish brown, mottled orange. Stiff, moist, low plasticity; sand, fine, inhibits dilatant behaviour.		0.5m: ISHSV 54/20 kPa	100					
						QC			1m: ISHSV 101/37 kPa					1.50m: SPT sunk under own weight for 300mm.	
							1.50m: ...Becomes soft to firm.		1.5m: ISHSV 91/57 kPa 1.5m: SPT 0, 0// 0, 0, 1, 1 N = 2	100					
							1.95m: CORELOSS (800mm). Fines assumed washed out.								
										24					
						QC	2.75m: SILT, minor clay and trace sand; light greyish brown, mottled orange. Firm, moist, low plasticity; sand, fine.								
							3.00m: PUSHTUBE (500mm).		3m: IBHSV 30/10 kPa	90					
									3.5m: SPT 0, 0// 0, 0, 0, 0 N = 0	89				3.50m: SPT sunk under own weight for 450mm	
						QC	3.50m: SILT, minor sand, trace gravel and organics; light greyish brown, mottled orange, speckled black and white. Soft, moist, low plasticity, dilatant; sand, fine; gravel, white subangular, 1-4mm, break under fingernail pressure; organics, carbonaceous fragments, 1-5mm.								
										78					
							4.38-4.50m: ...CORELOSS (120mm). Fines assumed washed out.								
							4.50m: PUSHTUBE (500mm).		4.5m: IBHSV 20/0 kPa	100				4.50-5.00m: Pushtube of 63mm diameter (U63) was used.	
									5m: SPT 1, 3// 3, 3, 3, 4 N = 13	89					
						NAS	5.00m: SILT, some clay and trace gravel; dark brown. Firm, moist, low plasticity; gravel; subangular, up to 10mm, break down to silt upon handling. [COMPLETELY WEATHERED NORTHLAND ALLOCHTHON - MELANGE MATRIX].	CW							
							5.45m: CORELOSS (550mm). Core slipped out of inner barrel while tripping. Recovery unsuccessful. Material washed away.			0				5.90m: 100% water loss	
						NAS	6.00m: SILT, some clay and trace gravel; dark brown. Firm, moist, low plasticity; gravel; subangular, up to 10mm, breaks down to silt upon handling.	CW	6m: SPT 2, 2// 2, 3, 6, 6 N = 17	100					
							6.20m: Highly weathered, bluish grey, pervasively sheared, calcareous SILTSTONE; extremely weak. Shear fabric indistinct. (SILT, minor clay; very stiff, low plasticity). [HIGHLY WEATHERED NORTHLAND ALLOCHTHON - MELANGE MATRIX].	HW		100					
						NAD								7.10m: HCl test: strong reaction.	
							7.10m: Moderately weathered, bluish grey, pervasively sheared, calcareous SILTSTONE; extremely weak. Shear fabric dips 30°-40°. Crumbles upon handling. Hosts trace clasts of siltstone, angular, 15-50mm. (SILT, minor clay; very stiff, low plasticity). [MODERATELY WEATHERED NORTHLAND ALLOCHTHON - MELANGE MATRIX].	MW	7.5m: SPT 7, 14// 21, 19, 10 for 50mm N = 50+	100	100		7.45-7.47m: SZ; 40°, mudstone, recovered as dark grey clay, stiff, high plasticity.		
							7.85m: ...Shear fabric dips 50°-60°.			71					

Remarks:

1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 51mm and vertical accuracy +/- 100mm.
2. A standpipe was installed on 10/11/2025 with a screened interval between 6.5 to 9.5m bgl. A vibrating wire piezometer was installed at 9.24m bgl, within the open standpipe on 11/11/2025, Serial No. 377909.
3. Falling/rising head testing undertaken with data logger at borehole depth 10.95m on 29/10/2025. Second falling/rising head testing undertaken with data logger at borehole depth 30.0m on 04/11/2025.
4. ISHSV = in-situ hand shear vane, (BHSV = in barrel hand shear vane.
5. Borehole terminated at 37.5m bgl due to hole collapse past 28.5m depth.

Shear Vane (ISHSV + IBHSV) Serial No. DR1254, calibration constant 1.682.

Water Level Readings:

WaterTime	Hole Depth	Water Level
2025-10-29 16:00	10.95m	0.65mbgl
2025-10-30 08:00	10.95m	0.00mbgl
2025-10-30 16:00	13.50m	3.10mbgl
2025-10-31 08:00	13.50m	2.80mbgl
2025-11-03 08:30	14.20m	1.25mbgl
2025-11-03 15:38	18.00m	1.75mbgl
2025-11-04 08:30	18.00m	1.60mbgl
2025-11-04 16:30	30.00m	4.90mbgl

BOREHOLE INFORMATION

Method: Rotary Core Wireline
Equipment: CAT 308 8 ton Digger Rig
Contractor: ProDrill NZ

CO-ORDINATES:

CO-ORDINATES:	NZTM2000
Easting:	1728847.25
Northing:	6001926.36
Ground level:	65.863m (NZVD2016)

Date started:	29/10/2025
---------------	------------

Date completed: 10/11/2025
Inclination: 90°
Azimuth: N/A

Logged:	
---------	--

Input: L.Mackinnon
Reviewed: B. O'Loughlin
Verified: A.George

Remarks:

1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 51mm and vertical accuracy +/- 100mm.
2. A standpipe was installed on 10/11/2025 with a screened interval between 6.5 to 9.5m bgl. A vibrating wire piezometer was installed at 9.24m bgl, within the open standpipe on 11/11/2025, Serial No. 377909.
3. Falling/rising head testing undertaken with data logger at borehole depth 10.95m on 29/10/2025. Second falling/rising head testing undertaken with data logger at borehole depth 30.0m on 04/11/2025
4. ISHSV = in-situ hand shear vane, IBHSV = in barrel hand shear vane.
5. Borehole terminated at 37.5m bol due to hole collapse past 28.5m depth.

Water Level Readings:

DateTime	Hole Depth	Water Level
----------	------------	-------------

Shear Vane (ISHSV + IBHSV) Serial No. DR1254, calibration constant 1.682.

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000		Date started:	29/10/2025	Logged:	I. Mans / L.
Method:	Rotary Core Wireline	Easting:	1728847.25	Date completed:	10/11/2025	Input:	L. Mackinnon
Equipment:	CAT 308 8 ton Digger Rig	Northing:	6001926.36	Inclination:	90°	Reviewed:	B. O'Loughlin
Contractor:	ProDrill NZ	Ground level:	65.863m (NZVD2016)	Azimuth:	N/A	Verified:	A. George

CORE BOX	METHOD	RL (m)	DEPTH (m)	GRAPHIC LOG	UNIT CODE	MATERIAL DESCRIPTION	Weathering/USC	SAMPLES & FIELD TESTS	TCR (%)	SCR (%)	RQD (%)	WVS WS MWS VCS EGS	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION / BACKFILL
9	HQ3	41	25			24.15-25.25m: ...Clasts of dark grey, sheared mudstone and occasional white streaks.			100	100				24.00m: HCl test: strong reaction.	
10	HQ3	40	26			25.45-25.70m: ...Small boulder sized clast of light grey, weak, siltstone.	UW		90	90				25.25-26.30m: Drilling induced breaks 25.25m: HCl test: weak reaction.	
	HQ3	39	27			26.90m: ...White, mineralised, calcite streaks.			100	100				27.00m: HCl test: weak reaction.	
	HQ3	38	28		NAM	27.00m: Unweathered, light greenish grey, pervasively sheared, chaotic brecciated, calcareous SILTSTONE; extremely weak to vert weak. Extremely closely spaced incipient fractures (low tensile strength) with no preferred orientation. Shear fabric dips 30°-40°. Breaks upon handling down to fine to medium, angular GRAVEL and clayey SILT; hard, moist, low plasticity. 27.15m: ...White, mineralised, calcite streaks. 27.80m: ...White, mineralised, calcite streaks.			100	85				27.36-27.55m: CZ; sub-horizontal, recovered as fine to medium, subangular to angular gravel	
11	HQ3	37	29				UW		100	93				28.50m: HCl test: weak reaction.	
	HQ3	36	30			29.90m: ...Dark grey, sheared, calcareous mudstone clast.			100	100				29.50-29.60m: CZ; sub-horizontal, recovered as fine to coarse, angular gravel 29.70-30.00m: Drilling induced breaks 29.90m: HCl test: strong reaction. 30.00m: HCl test: weak reaction.	
	HQ3	35	31			30.20m: ...Becomes light bluish grey with occasional white stains.								30.20-31.40m: Drilling and handling breaks due to sticky core barrel 30.20m: HCl test: weak reaction.	
12	HQ3	34				31.50m: ...Becomes grey. 31.50-34.50m: ...Extremely weak - breaks upon handling with ease into CLAY, SILT, coarse SAND and fine to coarse, angular GRAVEL.								31.60-33.00m: Drilling and handling breaks	

Remarks: 1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 51mm and vertical accuracy +/- 100mm. 2. A standpipe was installed on 10/11/2025 with a screened interval between 6.5 to 9.5m bgl. A vibrating wire piezometer was installed at 9.24m bgl, within the open standpipe on 11/11/2025, Serial No. 377909. 3. Falling/rising head testing undertaken with data logger at borehole depth 10.95m on 29/10/2025. Second falling/rising head testing undertaken with data logger at borehole depth 30.0m on 04/11/2025. 4. ISHSV = in-situ hand shear vane, IBHSV = in barrel hand shear vane. 5. Borehole terminated at 37.5m bgl due to hole collapse past 28.5m depth.											
Shear Vane (ISHSV + IBHSV) Serial No. DR1254, calibration constant 1.682.											
Water Level Readings:											
Date/Time		Hole Depth				Water Level					

BOREHOLE INFORMATION

Method: Rotary Core Wireline

Equipment: CAT 308 8 ton Digger Rig

Contractor: ProDrill NZ

CO-ORDINATES:

Easting: NZTM2000
1728847.25

Northing: 6001926.36

Ground level: 65.863m (NZVD2016)

Date started: 29/10/2025

Date completed: 10/11/2025

Inclination: 90°

Azimuth: N/A

Logged: I. Mans / L. Mackinnon

Input: L. Mackinnon

Reviewed: B. O'Loughlin

Verified: A. George

Remarks:

1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 51mm and vertical accuracy +/- 100mm.

2. A standpipe was installed on 10/11/2025 with a screened interval between 6.5 to 9.5m bgl. A vibrating wire piezometer was installed at 9.24m bgl, within the open standpipe on 11/11/2025, Serial No. 377909.

3. Falling/rising head testing undertaken with data logger at borehole depth 10.95m on 29/10/2025. Second falling/rising head testing undertaken with data logger at borehole depth 30.0m on 04/11/2025.

4. ISHSV = in-situ hand shear vane, IBHSV = in barrel hand shear vane.

5. Borehole terminated at 37.5m bgl due to hole collapse past 28.5m depth.

Water Level Readings:

DateTime

Hole Depth

Water Level

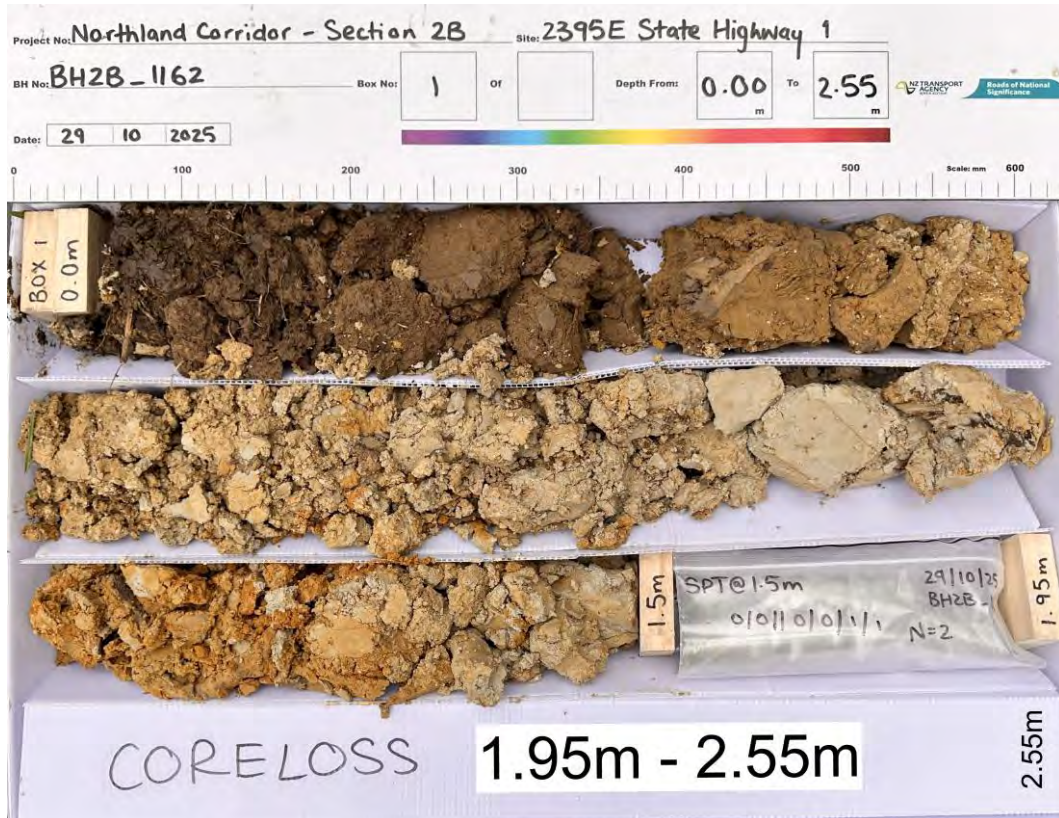
Shear Vane (ISHSV + IBHSV) Serial No. DR1254, calibration constant 1.682.

Borehole Reference: BH2B_1162

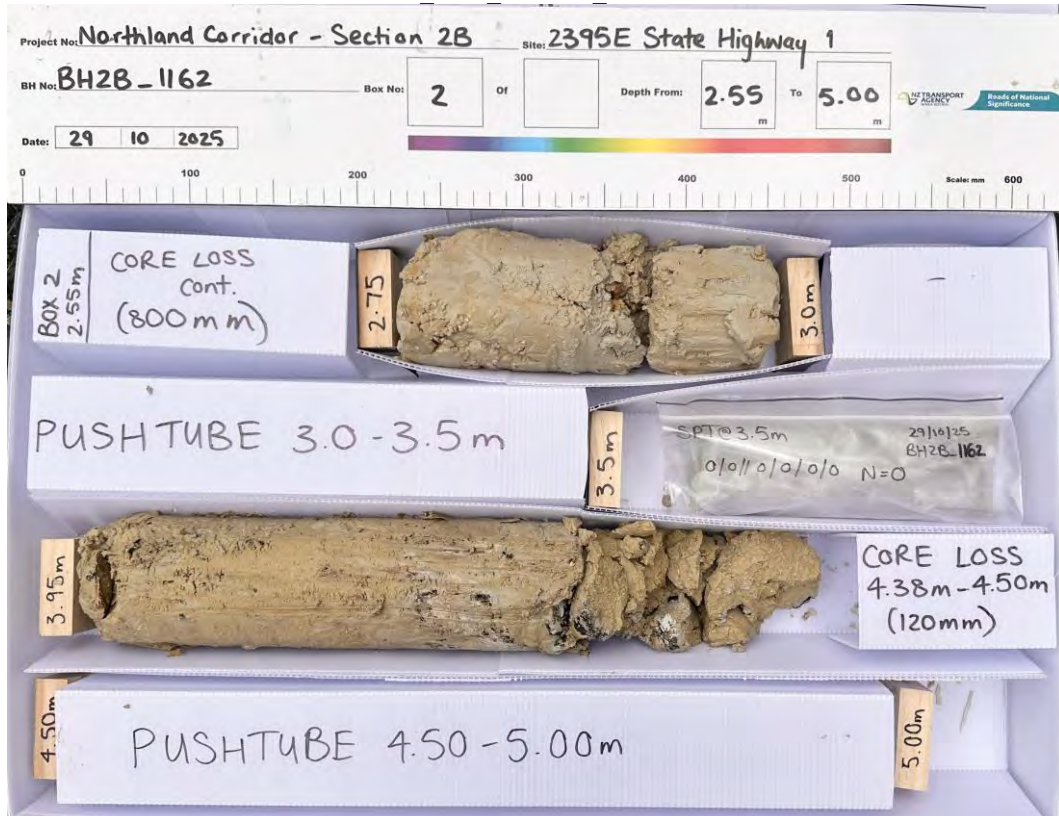
Photographed By: IM

Date Photographed:

28/10/2025-20/11/2025



BH2B_1162_BOX001_0m-2.55m



BH2B_1162_BOX002_2.55m-5m

Borehole Reference: BH2B_1162

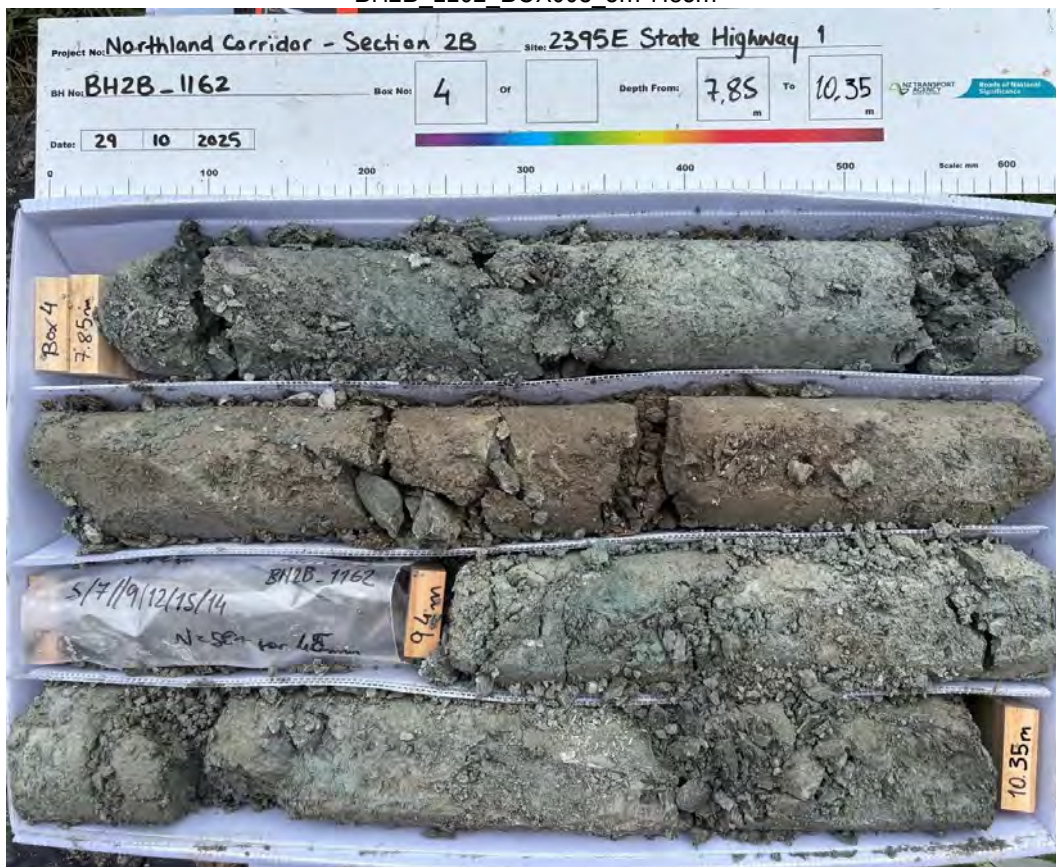
Photographed By: IM

Date Photographed:

28/10/2025-20/11/2025



BH2B 1162 BOX003 5m-7.85m



BH2B_1162_BOX004_7.85m-10.35m

Borehole Reference:

BH2B_1162

Photographed By:

IM

Date Photographed:

28/10/2025-20/11/2025



BH2B_1162_BOX005_10.35m-12.89m



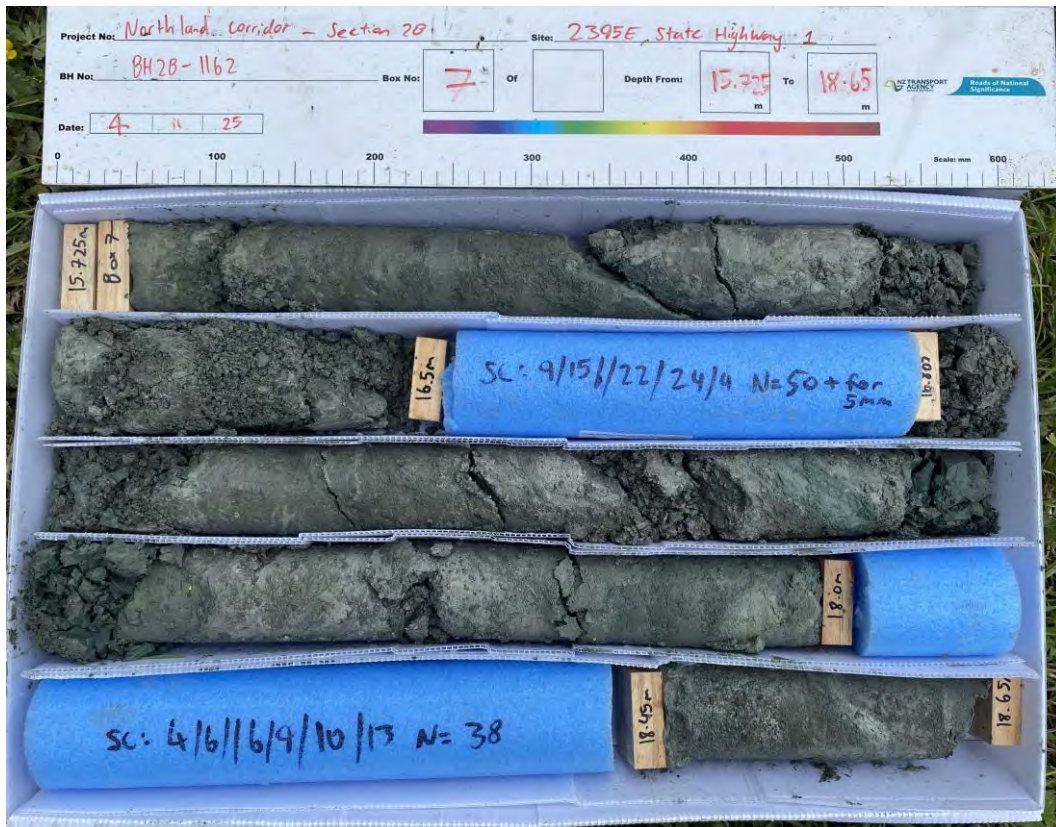
BH2B_1162_BOX006_12.89m-15.73m

Borehole Reference: BH2B_1162

Photographed By: IM

Date Photographed:

28/10/2025-20/11/2025



BH2B_1162_BOX007_15.73m-18.65m



BH2B_1162_BOX008_18.65m-21.58m

Borehole Reference:

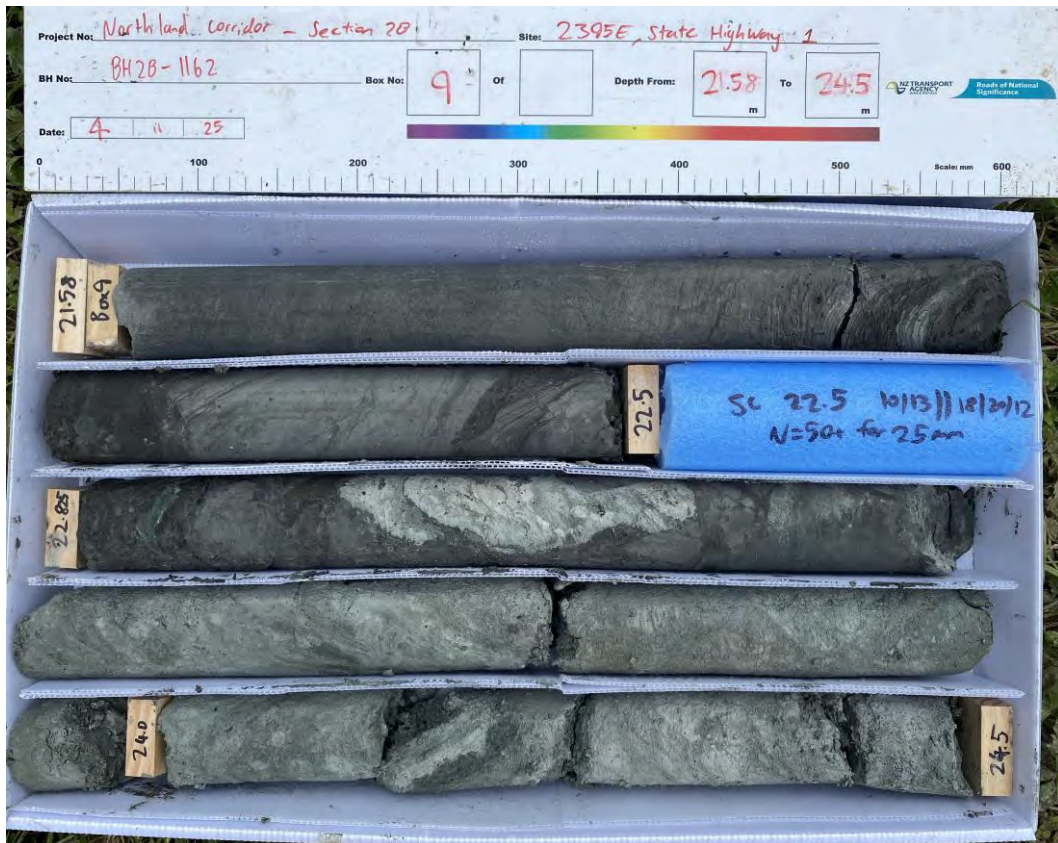
BH2B_1162

Photographed By:

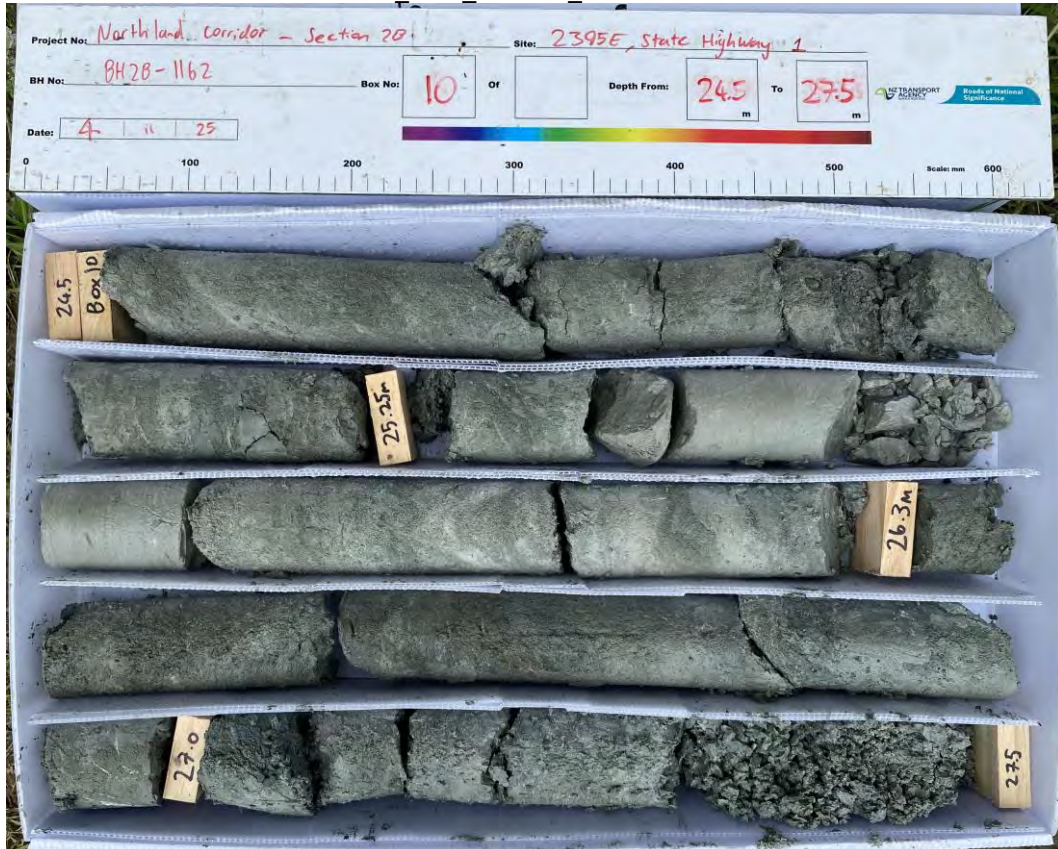
IM

Date Photographed:

28/10/2025-20/11/2025



BH2B_1162_BOX009_21.58m-24.5m



BH2B_1162_BOX010_24.5m-27.5m

Borehole Reference:

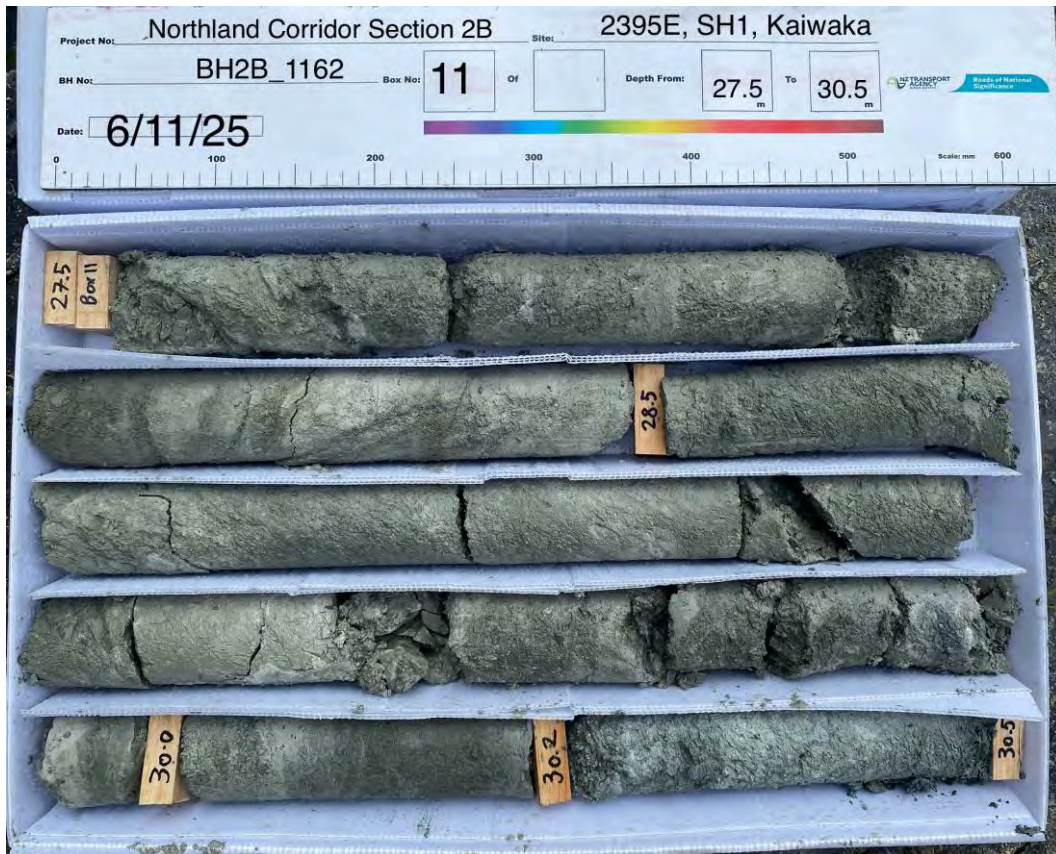
BH2B_1162

Photographed By:

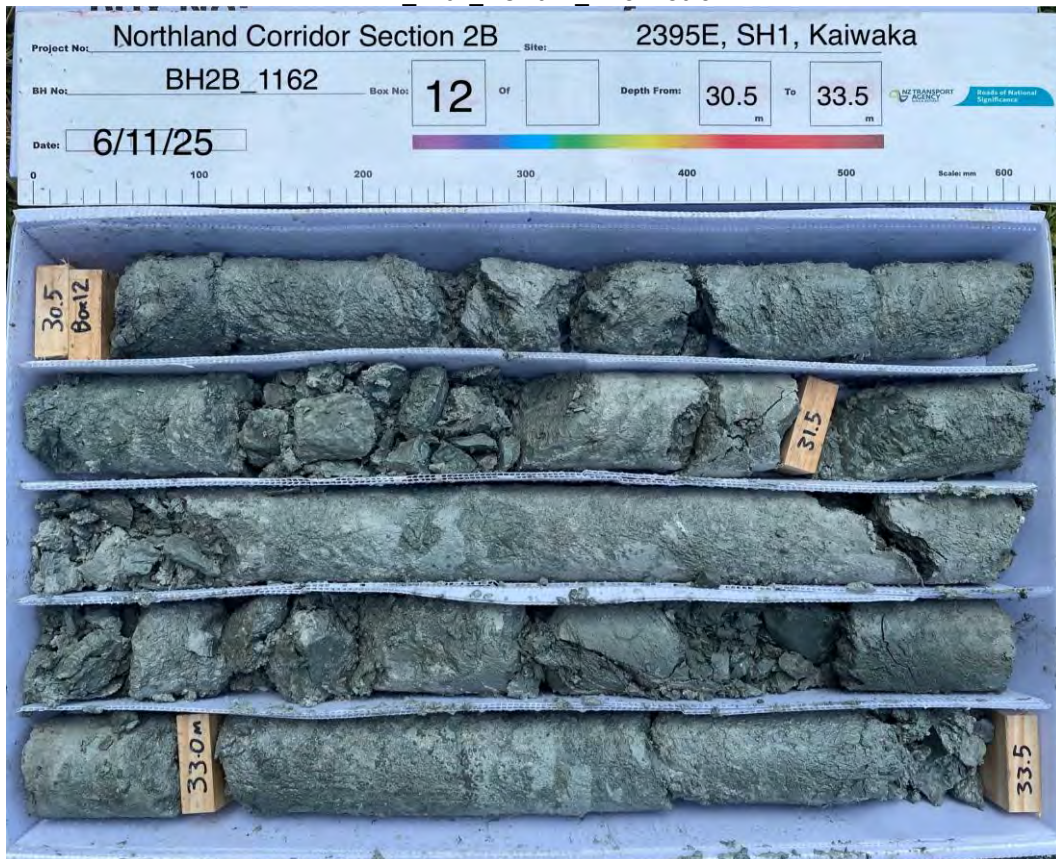
IM

Date Photographed:

28/10/2025-20/11/2025



BH2B_1162_BOX011_27.5m-30.5m



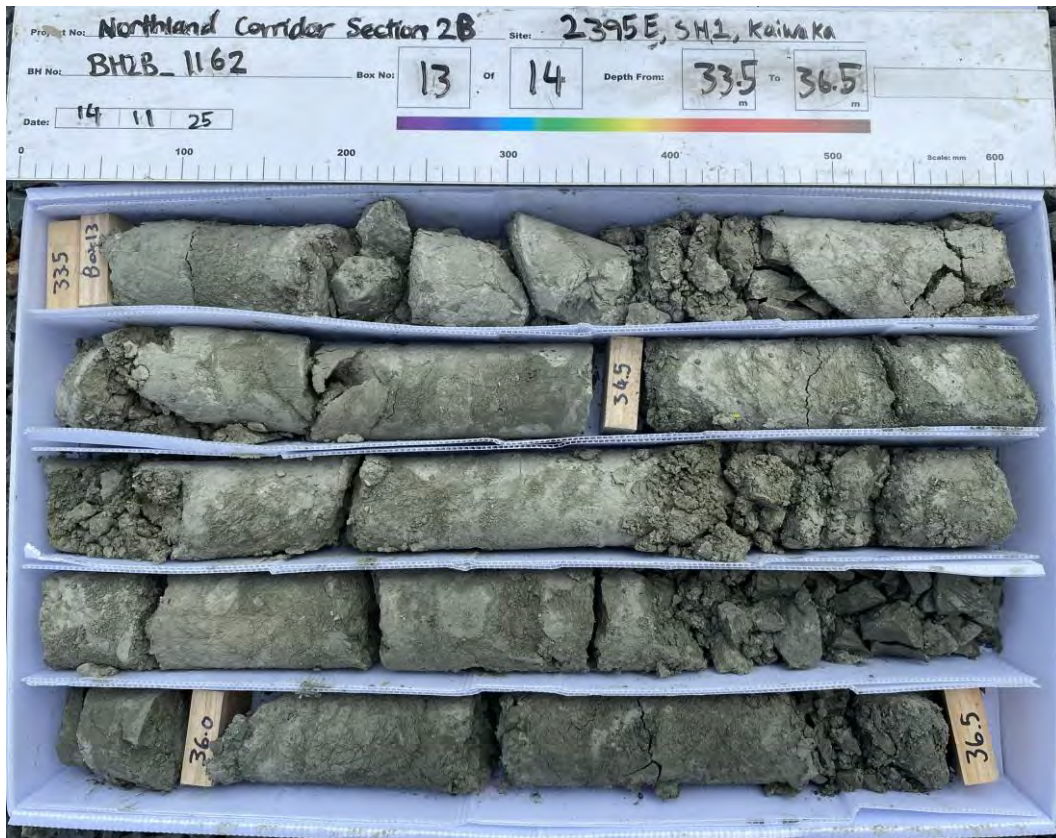
BH2B_1162_BOX012_30.5m-33.5m

Borehole Reference: BH2B_1162

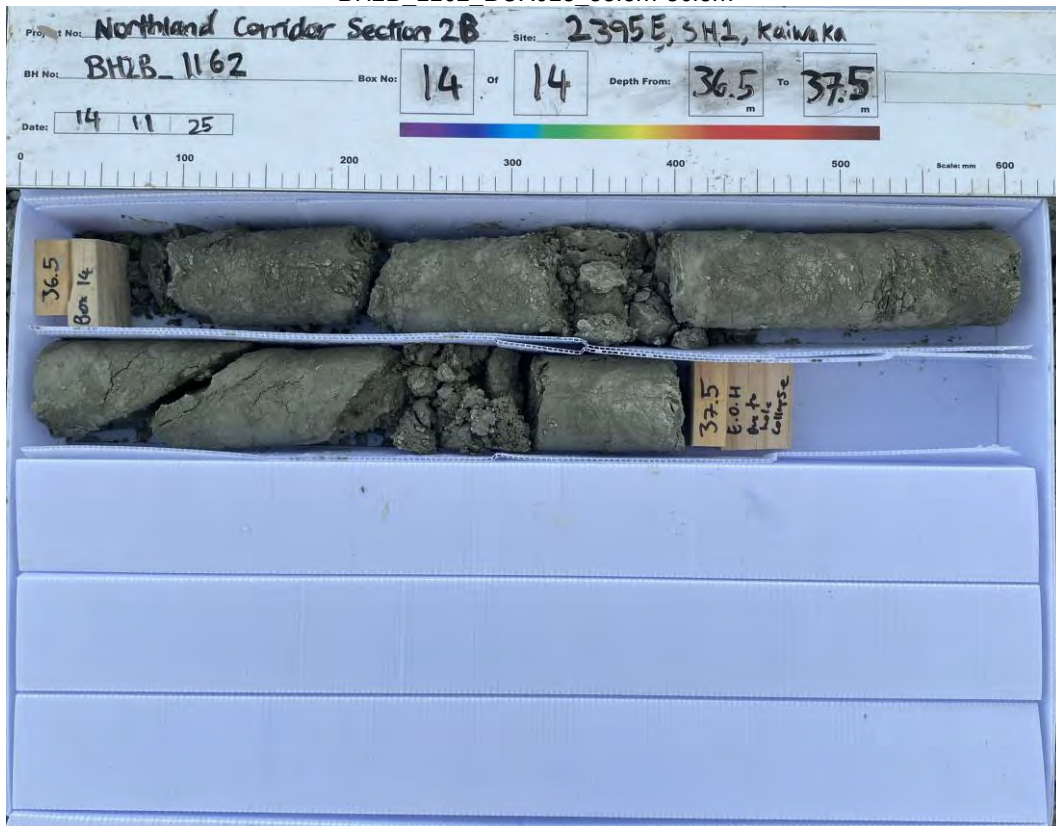
Photographed By: IM

Date Photographed:

28/10/2025-20/11/2025



BH2B_1162_BOX013_33.5m-36.5m



BH2B_1162_BOX014_36.5m-37.5m

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000		Date Started: 20-10-2025	Logged: I. Mans
Method: Rotary Core Wireline		Easting: 1729724.12mE,		Date Completed: 23-10-2025	Input: I. Mans
Equipment: CAT 308 8 ton Digger Rig		Northing: 6001505.63mN,		Inclination: 90	Reviewed: S. Nelis
Contractor: Pro-Drill (Auck) Ltd		Ground level: 81.02m		Azimuth: N/A	Verified: A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
1	HA	81	0		TS	SILT with minor rootlets; dark brown. Stiff, moist, low plasticity. Rootlets up to 3mm. [TOPSOIL].	-	0.5m SV BH SV 156/75kPa	100	-	-			
						Silty CLAY; light brown, mottled orange, streaked light grey. Very stiff, moist, high plasticity [NORTHLAND ALLOCHTHON RESIDUAL SOIL].								
2	SPT	79	2		NAD	Highly weathered, greyish brown, SILTSTONE; extremely weak. Highly fractured, recovered as fine to coarse angular gravel, iron stained surfaces. Breaks down to silty fine to coarse sand upon handling [NORTHLAND ALLOCHTHON DEGRADED ZONE].	HW	1.5m SV BH SV 109/56kPa 1.5m SPT 1, 0/1, 1, 1, 2 N= 5	88	-	-		2.45m: HCl test: nil	
3	SPT	76	5		NAD	Silty CLAY; brown. Stiff, moist, high plasticity. Relict shear fabric. [COMPLETELY WEATHERED MELANGE MATRIX]. 2.85m - 3.00m: CORELOSS (150mm). Cause of loss uncertain.	MW	4.7m SPT 2, 2/3, 3, 3, 4 N= 13	51	-	-		3.50m: HCl test: strong on light bluish grey, nil on reddish brown and dark grey	
						Highly weathered, light bluish grey mixed dark grey and reddish brown, sheared MUDSTONE; extremely weak. Shear fabric dip indistinct, polished surfaces. Breaks down to silty CLAY, trace fine sand; stiff, moist, high plasticity. [NORTHLAND ALLOCHTHON MELANGE MATRIX].								
						CORE LOSS 4.20-4.50m (300mm). Cause of loss uncertain.								
						4.50m - 4.70m: PUSHTUBE (200mm). Push tube refused at 4.70m.								
3	SPT	74	7		NAD	Moderately weathered, light bluish grey banded reddish brown and dark grey, sheared MUDSTONE; extremely weak. Shear fabric dips 15°, breaks parallel to shear fabric. Hosts trace clasts of siltstone, moderately weathered, subangular, up to 10mm. Breaks down to silty CLAY, trace fine sand; stiff, moist, high plasticity.	MW	6m SPT 2, 4/4, 5, 5, 5 N= 19	67	-	-		5.15m - 6.00m: Core swell - 80mm extra return	
						7.30m - 7.50m: CORELOSS (200mm). Cause of loss uncertain.								
3	SPT	74	7		NAD		MW	7.5m SPT 2, 3/3, 4, 3, 5 N= 15	67	-	-		6.50m: HCl test: strong on light bluish grey, nil on reddish brown and dark grey	

REMARKS:		Water Level Readings:		
1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 40mm and vertical accuracy +/- 60mm.		Date/Time	Hole Depth (m)	Water Level (m)
2. One vibrating wire piezometer was installed on 23/10/2025. BH2B_1164_PZ01 was installed at 20m bgl, Serial No. 378298.				
3. Falling/rising head testing undertaken with data logger at borehole depth 21.7m on 21/10/2025 .				
4. Shear Vane Serial No. 2853, calibration constant 1.475.				

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000	Date Started: 20-10-2025	Logged: I. Mans
Method: Rotary Core Wireline	Easting: 1729724.12mE,	Date Completed: 23-10-2025	Input: I. Mans	
Equipment: CAT 308 8 ton Digger Rig	Northing: 6001505.63mN,	Inclination: 90	Reviewed: S. Nelis	
Contractor: Pro-Drill (Auck) Ltd	Ground level: 81.02m	Azimuth: N/A	Verified: A. George	

CORE BOX		METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL	
3	HQ3	SPT	73			NAD	8.00m: Shear fabric dips 55°. Trace clasts are fine sandstone, subangular, up to 20mm. Matrix breaks down to silty CLAY with minor fine sand; very stiff, moist, high plasticity.	MW	9m SPT 3, 5//7, 6, 5, 5 N= 23	110	100	0		7.95m - 9.00m: Core swell - 110mm extra return		
			72	9			82			-	-	7.95m - 9.00m: Core swell - 110mm extra return				
			71	10			100			100	0					7.95m - 9.00m: Core swell - 110mm extra return
4	HQ3	SPT	70			NAD	Moderately weathered, grey streaked dark grey, fine SANDSTONE; very weak. Pervasive incipient fractures infilled with dark grey silt/clay, high tensile strength. [NORTHLAND ALLOCHTHON MELANGE BLOCK].	MW	10.5m SPT 2, 8//13, 14, 15, 8 for 40mm N = 50+	100	-		-		11.30m: HCl test: nil	
			69	12			100			100	0	11.30m: HCl test: nil				
			68	13			100			100	0		11.30m: HCl test: nil			
5	HQ3	SC	67			NAD	Moderately weathered, light grey banded reddish brown and dark grey, sheared MUDSTONE; extremely weak. Shear fabric dip 15°. Hosts trace clasts of fine sandstone and siltstone, subangular, up to 5mm. Breaks down to silty CLAY with some fine sand; very stiff, moist, high plasticity. [NORTHLAND ALLOCHTHON MELANGE MATRIX].	MW	12m SPT 4, 7//12, 12, 13, 13 for 60mm N = 50+	-	-			-		12.80m: HCl test: nil on dark grey and brown
			66	14			140			100	0	12.80m: HCl test: nil on dark grey and brown				
			65	15			-			-	-		12.80m: HCl test: nil on dark grey and brown			
6	HQ3	SC	64			NAD	13.40m: Clasts of sandstone up to 25mm.	MW	13.5m SPT 4, 6//6, 7, 8, 8 N= 29	78	78			0		13.30m - 13.50m: Core swell - 80mm extra return
			63	16			-			-	-	13.30m - 13.50m: Core swell - 80mm extra return				
			62	17			100			100	0		13.30m - 13.50m: Core swell - 80mm extra return			
7	HQ3	SC	61			NAD	Moderately weathered, light grey banded reddish brown and dark grey, sheared MUDSTONE; extremely weak. Shear fabric dip 15°. Hosts trace clasts of fine sandstone and siltstone, subangular, up to 5mm. Breaks down to silty CLAY with some fine sand; very stiff, moist, high plasticity.	MW	15m SPT 4, 5//5, 6, 6, 6 N= 23	-	-			-		15.85m: HCl test: nil
			60	18			100			100	0	15.85m: HCl test: nil				
			59	19			100			100	0		15.85m: HCl test: nil			

REMARKS:

1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 40mm and vertical accuracy +/- 60mm.
2. One vibrating wire piezometer was installed on 23/10/2025. BH2B_1164_PZ01 was installed at 20m bgl, Serial No. 378298.
3. Falling/rising head testing undertaken with data logger at borehole depth 21.7m on 21/10/2025 .
4. Shear Vane Serial No. 2853, calibration constant 1.475.

Water Level Readings:

DateTime	Hole Depth (m)	Water Level (m)
20-10-2025 15:30:00	13.30	1.60
21-10-2025 07:45:00	13.30	0.70

Project Office
Level 17, Aon Centre, 21/29 Customs Street West, Auckland
Central Auckland 1010

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000	Date Started: 20-10-2025	Logged: I. Mans
Method: Rotary Core Wireline	Easting: 1729724.12mE,	Date Completed: 23-10-2025	Input: I. Mans	
Equipment: CAT 308 8 ton Digger Rig	Northing: 6001505.63mN,	Inclination: 90	Reviewed: S. Nelis	
Contractor: Pro-Drill (Auck) Ltd	Ground level: 81.02m	Azimuth: N/A	Verified: A. George	

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL
6	HQ3	66			NAD	minor clasts of light grey fine SANDSTONE, subangular, up to 30mm, tabular and orientated parallel to shear fabric. Crumbles upon handling to sandy SILT; very stiff, moist, low plasticity.	MW	16.5m SPT 4, 8//10, 13, 13, 14 for 65mm N = 50+	100	100	0	DPSS VS MWS MWIS CS VCS ECS	16.94m - 18.00m: Core swell - 60mm extra return	
	SPT		63		-	-								
	HQ3	64	17		NAM	Slightly weathered, bluish grey, mixed reddish brown and dark grey, sheared MUDSTONE, extremely weak. Shear fabric dip indistinct. Hosts trace clasts of fine sandstone up to 80mm, and siltstone up to 20mm, subangular. Breaks down to silty CLAY, minor fine sand; very stiff, moist, high plasticity.	SW	18m SPT 3, 5//10, 14, 16, 10 for 35mm N = 50+	106	100	0	17.60m: HCl test: nil		
	SC	63	18			-			-	-	18.41m - 19.50m: Core swell - 40mm extra return			
	HQ3	62	19			19.00m: Shear fabric dips 15°. 19.11m - 19.31m: Block of moderately weathered, fine SANDSTONE; very weak Pervasive incipient fractures, high tensile strength.			104	100	0	20.70m: HCl test: strong on light bluish grey 20.70m - 21.00m: Core swell - 50mm extra return		
	SC	61	20			-			-	-	21.70m - 22.50m: Core swell - 100mm extra return			
7	HQ3	60	21		NAM	20.55m - 21.00m: Colour change to reddish brown. Trace inclusions of light bluish grey, sheared, calcareous siltstone up to 50mm.	SW	19.5m SPT 6, 10//12, 13, 15, 10 for 35mm N = 50+	117	100	0	22.40m: HCl test: weak on light bluish grey 22.50m - 23.80m: Core swell - 300mm extra return		
	SC	59	22			-			-	-	23.80m - 25.00m: Core swell - 200mm extra return			
	HQ3	58	23			100			100	0				
	HQ3	57	24			113			100	0				
	SC	56	25			-			-	-				
	HQ3	55	26			123			100	0				
8	HQ3	54	27		NAM	Slightly weathered, light bluish grey, sheared, calcareous MUDSTONE; extremely weak. Trace dark bluish grey clasts, recovered as clay. Intact clasts are siltstone and mudstone, subangular, up to 6 mm, breaks down to clay.	SW	21m SPT 7, 12//15, 16, 19 for 65mm N = 50+	117	100	0			
	SC	53	28			-			-	-				
9	HQ3	52	29		NAM	23.25m: Colour change to light bluish grey mixed reddish brown. Distinct contact, dip 60°.	SW		117	100	0			
	SC	51	30			-			-	-				

REMARKS:

1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 40mm and vertical accuracy +/- 60mm.
2. One vibrating wire piezometer was installed on 23/10/2025. BH2B_1164_PZ01 was installed at 20m bgl, Serial No. 378298.
3. Falling/rising head testing undertaken with data logger at borehole depth 21.7m on 21/10/2025 .
4. Shear Vane Serial No. 2853, calibration constant 1.475.

Water Level Readings:

DateTime	Hole Depth (m)	Water Level (m)
22-10-2025 08:20:00	21.70	0.80

BOREHOLE INFORMATION		CO-ORDINATES: NZTM2000		Date Started: 20-10-2025	Logged: I. Mans
Method: Rotary Core Wireline		Easting: 1729724.12mE		Date Completed: 23-10-2025	Input: I. Mans
Equipment: CAT 308 8 ton Digger Rig		Northing: 6001505.63mN		Inclination: 90	Reviewed: S. Nelis
Contractor: Pro-Drill (Auck) Ltd		Ground level: 81.02m		Azimuth: N/A	Verified: A. George

CORE BOX	METHOD	R.L. (m)	DEPTH (m)	GRAPHIC LOG	GEO CODE	MATERIAL DESCRIPTION	Weathering	SAMPLES & FIELD TESTS	TCR(%)	SCR(%)	RQD(%)	FRACTURE LOG	STRATIGRAPHY DEFECT DESCRIPTION ADDITIONAL NOTES	INSTALLATION/ BACKFILL				
9	HQ3	57			NAM	[CONT] Slightly weathered, light bluish grey, sheared, calcareous MUDSTONE; extremely weak. Trace dark bluish grey clasts, recovered as clay. Intact clasts are siltstone and mudstone, subangular, up to 6 mm, breaks down to clay.	SW		117	100	0	WVS WS MVS MS VCS CS ECs	25,00m - 26,00m: Core swell - 140mm extra return					
		56	25												114	100	0	26,00m - 27,00m: Core swell - 200mm extra return 26,20m: HCl test: weak on light bluish grey 26,50m: HCl test: weak on light bluish grey, nil on reddish brown
		55	26												120	100	0	27,00m: HCl test: nil on sandstone 27,00m - 28,00m: Core swell - 200mm extra return
10	HQ3	54	27			120		100	0	28,00m - 28,80m: Core swell - 200mm extra return								
		53	28			125		100	0	28,80m - 30,00m: Core swell - 400mm extra return								
		52	29			133		100	0									
11	HQ3	51	30						End Of Hole: 30.00m									
		50	31															

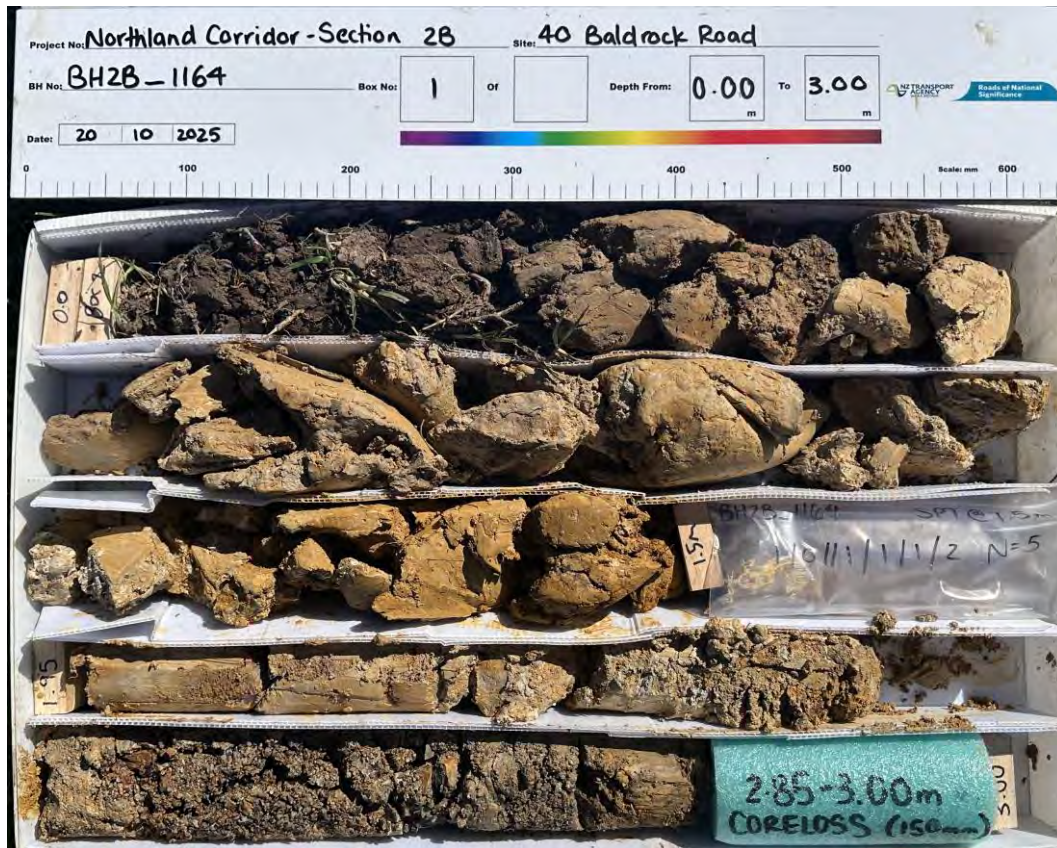
REMARKS: 1. Coordinates captured using a Trimble R12i Receiver and TSC5 Controller, with a horizontal accuracy +/- 40mm and vertical accuracy +/- 60mm. 2. One vibrating wire piezometer was installed on 23/10/2025. BH2B_1164_PZ01 was installed at 20m bgl, Serial No. 378298. 3. Falling/rising head testing undertaken with data logger at borehole depth 21.7m on 21/10/2025 . 4. Shear Vane Serial No. 2853, calibration constant 1.475.	Water Level Readings:		
	DateTime	Hole Depth (m)	Water Level (m)
	23-10-2025 08:00:00	30.00	0.50
	23-10-2025 10:30:00	30.00	3.50
	23-10-2025 11:00:00	30.00	2.10

Borehole Reference: BH2B_1164

Photographed By: IM

Date Photographed:

19/10/2025-21/10/2025



BH2B_1164_BOX001_0m-3m



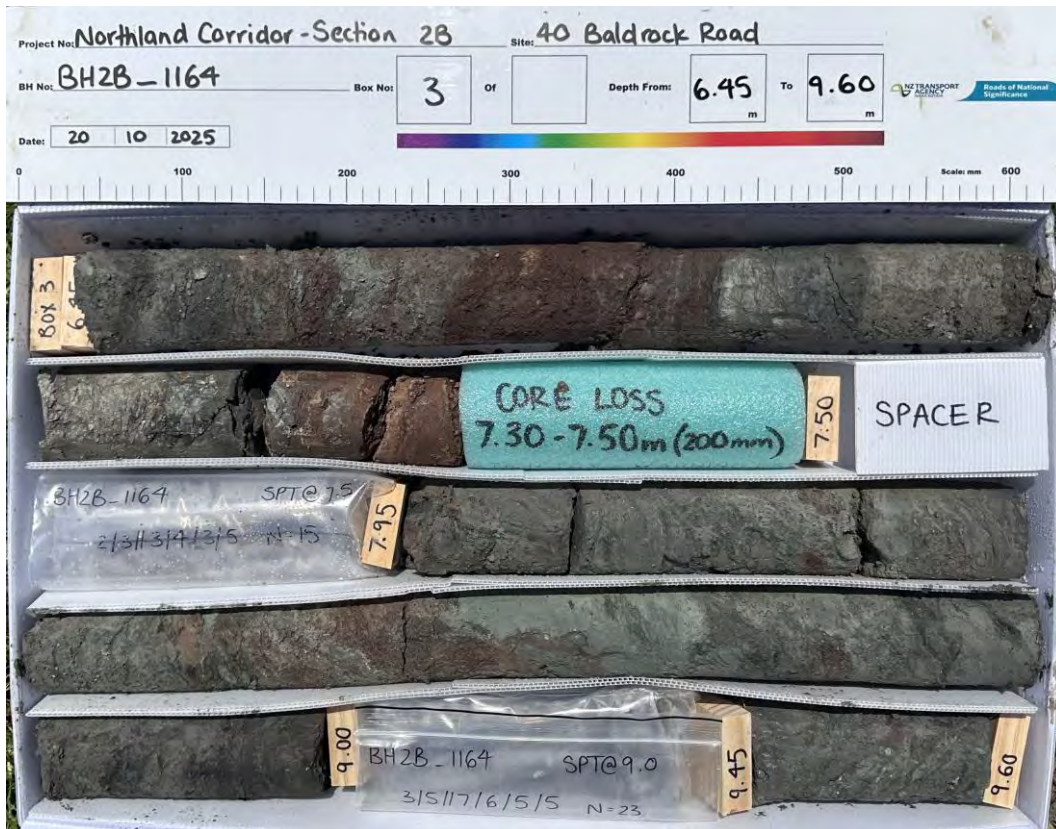
BH2B_1164_BOX002_3m-6.45m

Borehole Reference: BH2B_1164

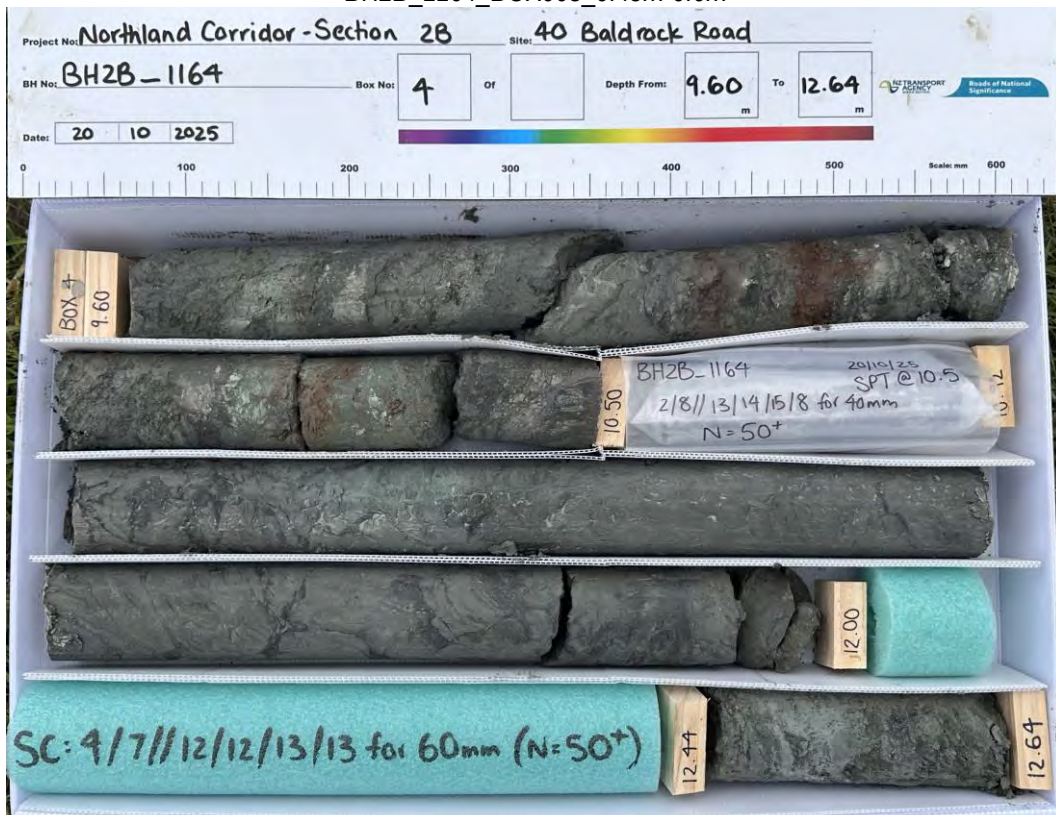
Photographed By: IM

Date Photographed:

19/10/2025-21/10/2025



BH2B_1164_BOX003_6.45m-9.6m



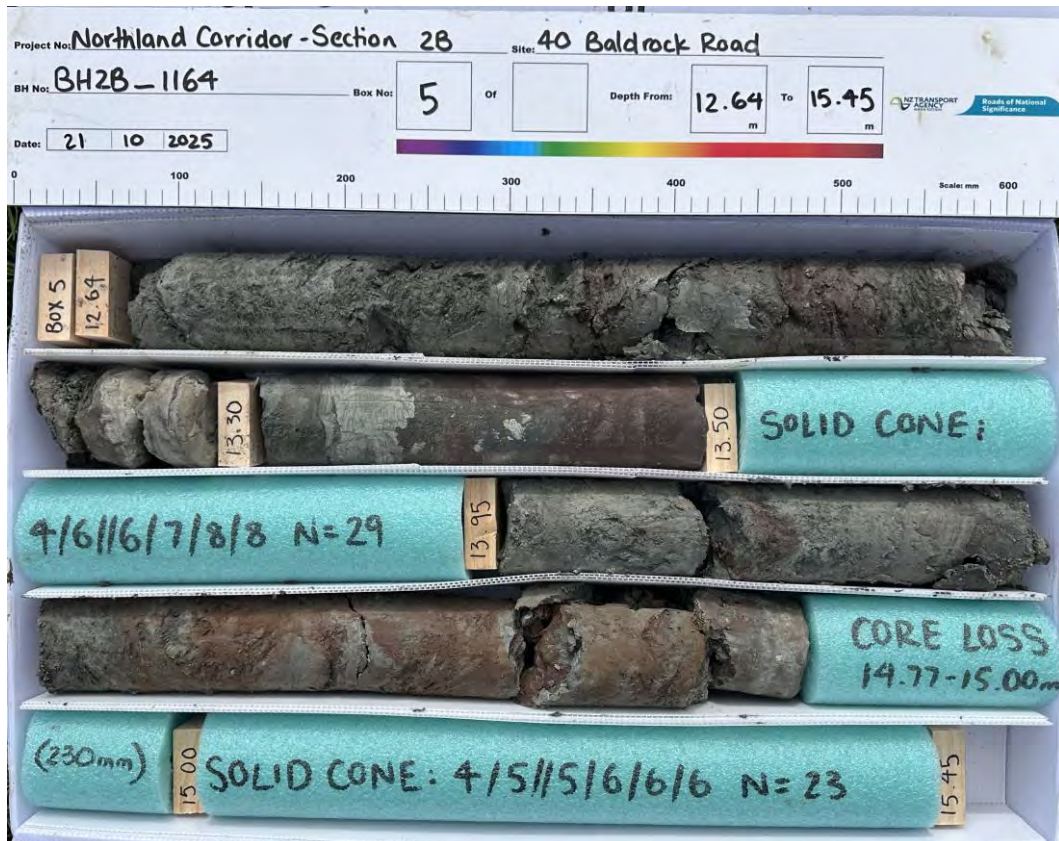
BH2B_1164_BOX004_9.6m-12.64m

Borehole Reference: BH2B_1164

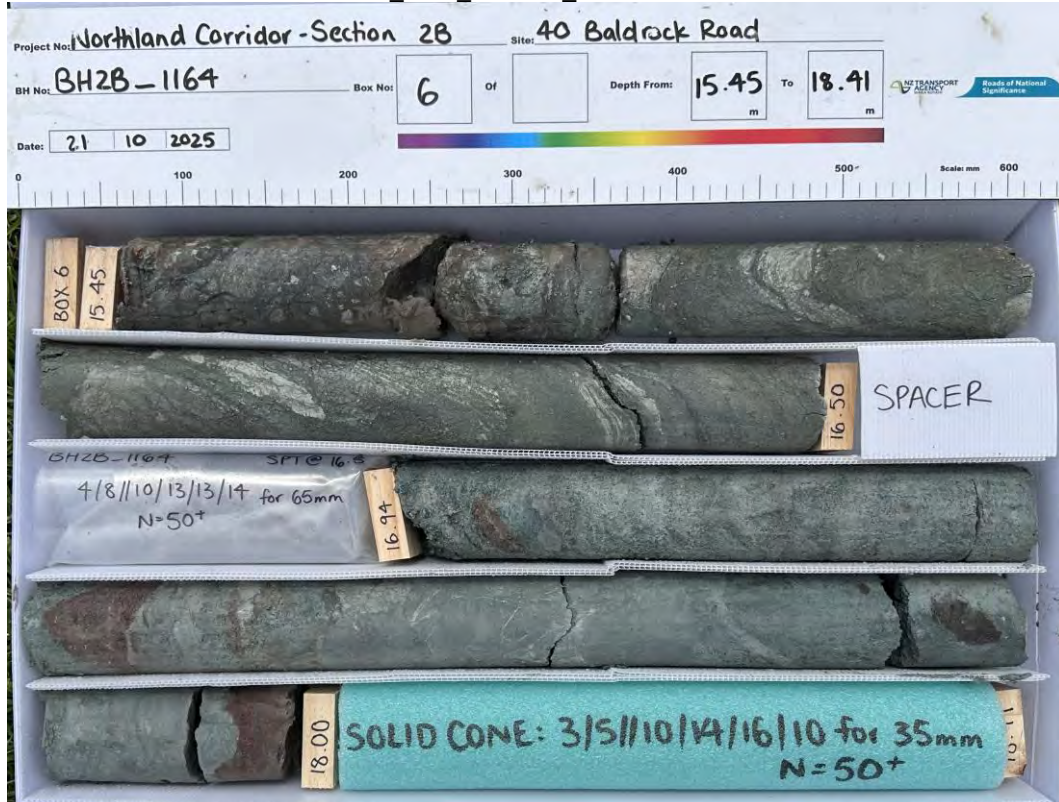
Photographed By: IM

Date Photographed:

19/10/2025-21/10/2025



BH2B_1164_BOX005_12.64m-15.45m



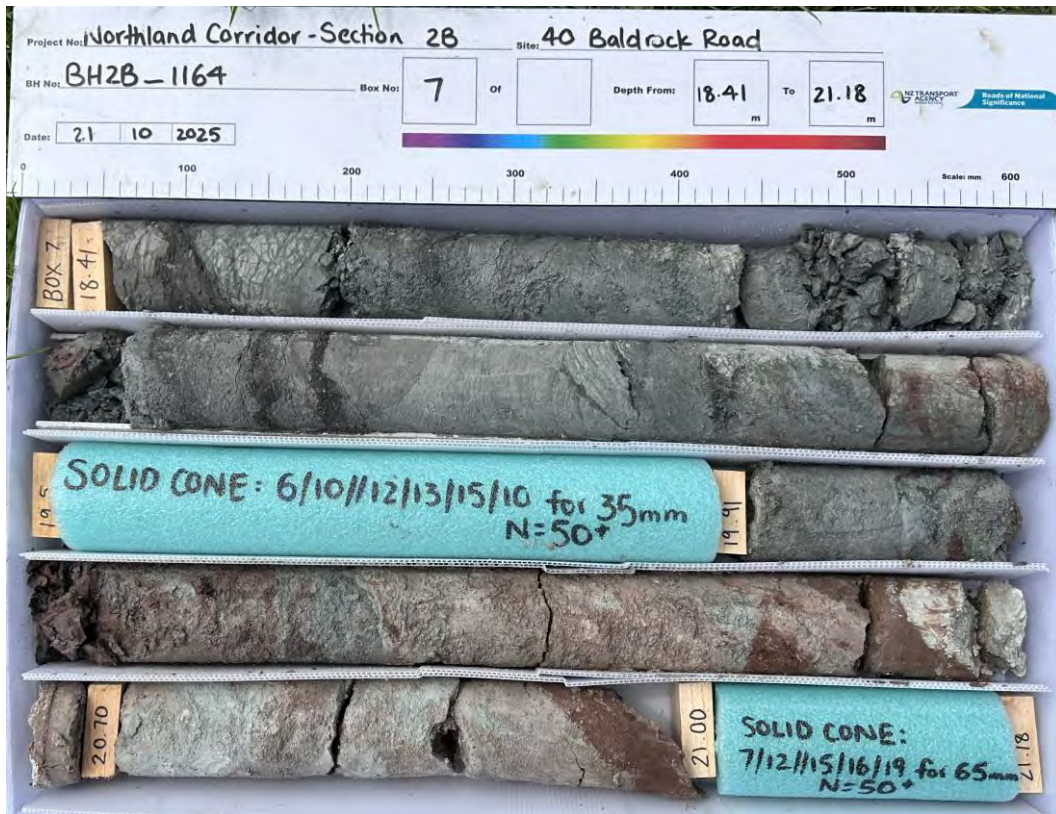
BH2B_1164_BOX006_15.45m-18.41m

Borehole Reference: BH2B_1164

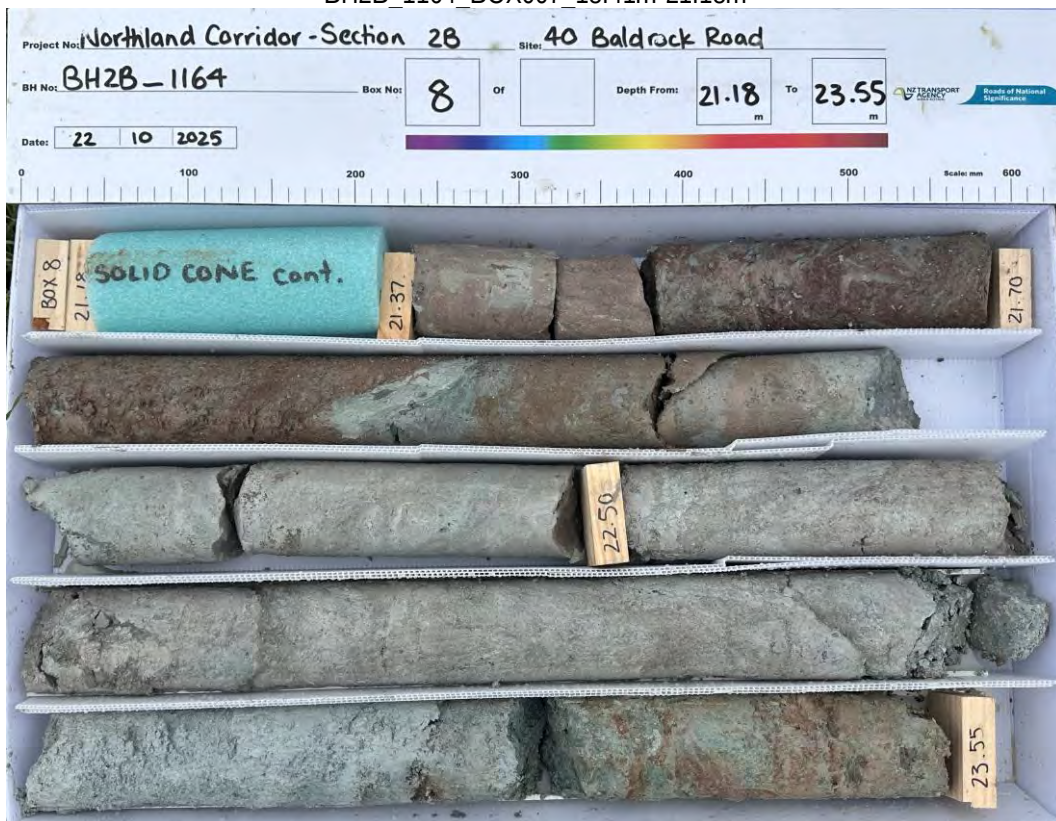
Photographed By: IM

Date Photographed:

19/10/2025-21/10/2025



BH2B_1164_BOX007_18.41m-21.18m



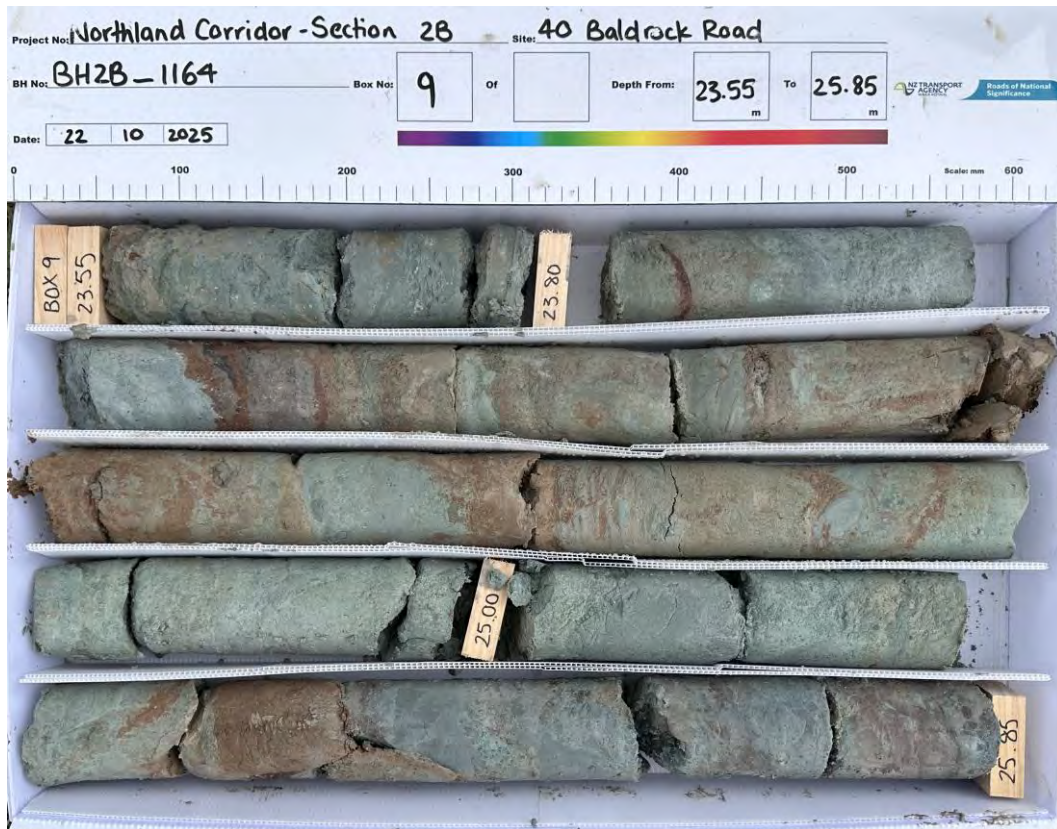
BH2B_1164_BOX008_21.18m-23.55m

Borehole Reference: BH2B_1164

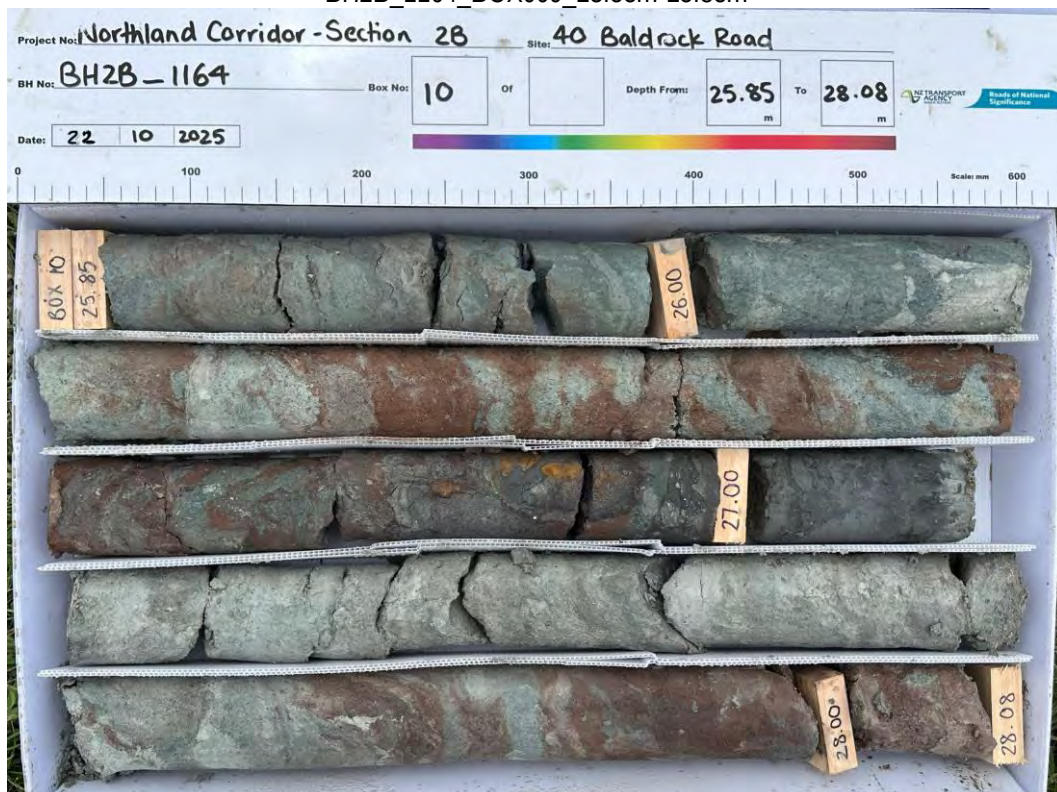
Photographed By: IM

Date Photographed:

19/10/2025-21/10/2025



BH2B_1164_BOX009_23.55m-25.85m



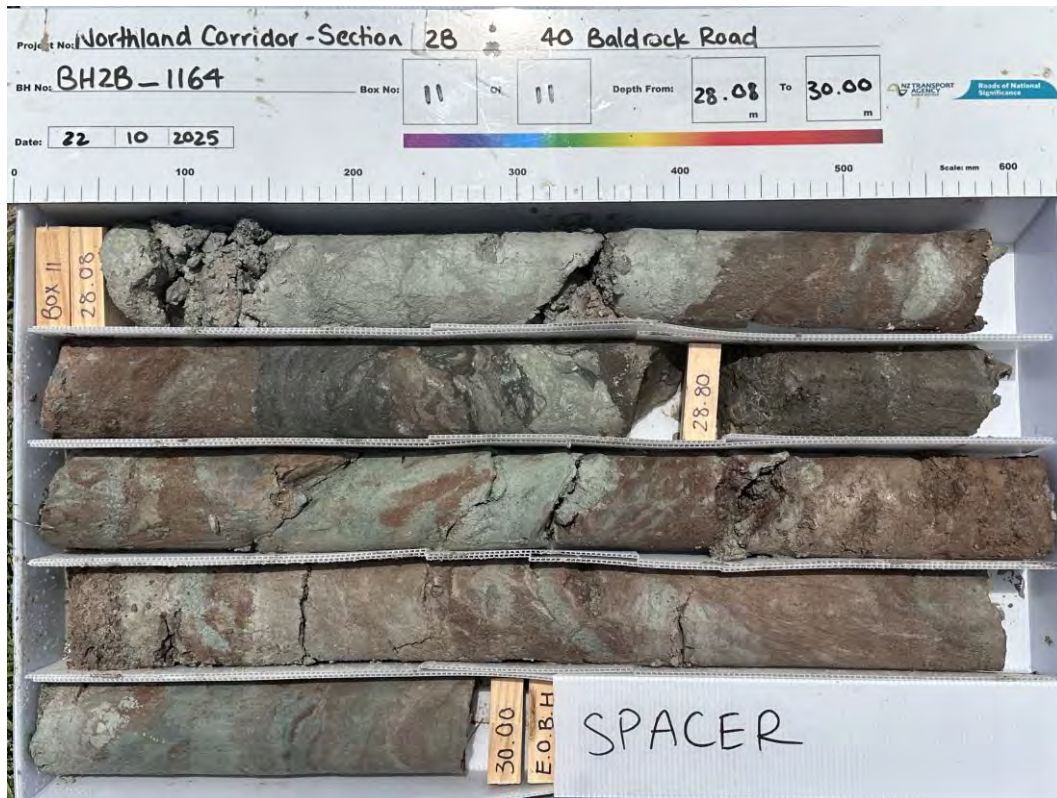
BH2B_1164_BOX010_25.85m-28.08m

Borehole Reference: BH2B_1164

Photographed By: IM

Date Photographed:

19/10/2025-21/10/2025



BH2B_1164_BOX011_28.08m-30m