Project Eastern Busway

Location 29 Dulwich Place, Pakuranga

HOLE IDENTIFICATION DH328_P



Box: 9 of 10 - Depth: P\DH328_P 24.0m to 26.46m of 28.50m Date Drilled 13/10/2022 to 14/10/2022 - Date Photographed: 14/10/2022



Box: 10 of 10 - Depth: P\DH328_P 26.46m to 28.5m of 28.50m Date Drilled 13/10/2022 to 14/10/2022 - Date Photographed: 14/10/2022



HOLE IDENTIFICATION

Location

DH-CPT328-D

Client Auckland Transport

Project Eastern Busway

Project number 60644113

Co-ordinates 411893.10mE 794990.00mN

29 Dulwich Place

Orientation -90° Elevation 11.84m

Feature Burswood Station

DI w si	EOLOGICAL ESCRIPTION Veathering, Colour, Fabric, ROCK NAME. trength, Discontinuities, Lithological Features pedding, foliation, mineralogy, cement, etc).	Test Records Shear SPT Vane/ N Values SPT 0-50	Drilling Method Casing remarks	00%	s Relative W Strength	SW Rock	Depth	Graphic Log	TCR [RQD] (%)	500 Spacing of Natural Defects	SOIL PROPERTIES Subordinate MAJOR minor; colour, structure. Stre grading, bedding, plasticity, sensitivity, major fract fraction description, minor fraction description, ad information, etc DEFECT DESCRIPTION (Joints, Bedding Seams, Shatter, Shear a Schistosity, Attitude, Spacing, continuity, I	tion description, subordinate ditional structures, additional structures, additional structures.	Instrumentation
Vacuum extraction	0.0m: Vacuum excavated	ss 1,2,1,	VAC				1 2				0.0m: Vacuum excavated, not logged.		
AUCKLAND VOLCANIC FIELD	3.0m: Slightly weathered, dark grey, BASALT. Moderately strong; highly vesicular.		HQ3				- 3 - 3 4		100 [67]		3.35m: J, 10°, PI, Ro 3.45m: J, 30°, PI, Ro 4.05m to 4.70m: J, 85°, Un, Ro 4.87m: J, 30°, PI, Ro		
AUCKLAND	4.7m: Slightly weathered, dark grey, BASALT. Strong; slightly vesicular. 6.0 to 6.1m: Moderately weathered, weak. 6.1m: ALLUVIUM comprised		HQ3				- - - - - - - - - - - - - - - - - - -		100 [87]		6.1m: Silty CLAY; light grey. Soft, mo	oist, high	
	of silty clay.						-				DH-CPT328-D terminated at 6.7m Depth Criteria Achieved		0 0 0
FL	ior explanation of symbols and obs LUID DEPTHS AND DRILLIN ate Time Drilled Depth	IG PROGRES	y sheet S (m)		VS-V S-S MS-M W-W VW-V EW-E	ery strong trong loderatel /eak ery weak xtremely	ng ly strong k v weak	UW - I SW - S MW - I HW - I	Highly we Complete	red eathered y weather athered y weather	Chackad MC	Driller McMillan Started 26/01/2023 Finished 26/01/2023	1
	land Held Shear Vane ane shear strength per NZGS guid	deline			Hori	zonta	ıl / Ve		urvey l	Datum	s: NZGD2000 - Mount Eden n 2016	Drill Rig N119 Core Boxes Page 1 of	2



Project Eastern Busway

Location 29 Dulwich Place

HOLE IDENTIFICATION DH-CPT328-D



Box: 1 of 2 - Depth: 00.00m to 04.50m of 6.70m

Date Drilled 26/01/2023 to 26/01/2023 - Date Photographed: 26/01/2023



Box: 2 of 2 - Depth: 04.50m to 06.70m of 6.70m

Date Drilled 26/01/2023 to 26/01/2023 - Date Photographed: 26/01/2023



HOLE IDENTIFICATION

Client **Auckland Transport**

Eastern Busway Project

Project number 60644113

Co-ordinates 412311.74mE 794652.50mN

Orientation -90° Elevation 8.38m Reserve: 23R Kenwick Place Location

Feature Retaining wall/slope design

DE	EOLOGICAL ESCRIPTION (eathering, Colour, Fabric, ROCK NAME. trength, Discontinuities, Lithological Features edding, foliation, mineralogy, cement, etc).	Test Shear Vane/ SPT	Records SPT N Values 0 - 50	Drilling Method Casing remarks	Core Loss/Lift	S Relative Ms Strength	>	Depth	Graphic Log	TCR [RQD] (%)	500 Spacing of	m)	SOIL PROPERTIES Subordinate MAJOR minor; colour, structure. Sti grading, bedding, plasticity, sensitivity, major fra fraction description, minor fraction description, a information, etc DEFECT DESCRIPTION (Joints, Bedding Seams, Shatter, Shear Schistosity, Attitude, Spacing, continuity,	ction description, subord dditional structures, add	inate itional ion,
	0.0m: FILL comprising silty clay with some gravel.		0 - 50 	НА				- - - - - - - 1		0			0.0m: Silty CLAY with some fine to (greywacke and basalt) and minor f sand; orange. Stiff, moist, high plast	ne to coarse	
		ss 1,2,3, 2,3,3 N=11		SPT				_ - - - - 2	/ 	100	11		1.9m: Becomes bluish grey with light g orange mottles/swirls.	rey, dark grey and	
				HQ3	 			- - - - - -		100			orange modes/swins.		
		ss 0,2,2, 3,3,3 N=11		SPT	 			- 3 - - - -		100	 		3.0m: 114mm diameter HWT casing	to 3.0m.	
				HQ3				- - - 4		100	i i i i i i i i i i				4.1 \(\superstand \sumset \sumset \)
		ss 0,0,0, 2,2,2 N=6		SPT	 			- - - - - 5		100					^{4.8} 4.8 <u>V</u> <u>V</u>
	5.4m: ALLUVIUM comprising silt, sand, clay and peat.			HQ3	 			E E E	****	100			5.4m: Fine to medium sandy SILT v brownish grey. Soft, moist, low plast	ticity.	5.24 \(\sum_{\text{\text{\$\subset\$}}}\)
		0/0 ss 1,1,1, 2,2,2		SPT				- - 6	x . x x x x x x . x x . x . x . x . x . x . x . x . x . x . x x . x	100			5.8m: Silty fine to medium SAND; b Loose, wet, uniformly graded.	rownish grey.	6.3 ∑
		N=7		HQ3		 		_ _ _ _	x . x x . x x x x . x x . x x x . x . x x . x . x . x x . x . x . x . x . x . x . x . x . x . x . x . x . x . x .	100	 	Ш	6.45m: Becomes with some organics a gravel.	and fine to coarse	-
GROUP				PT	 			- - - 7 - -	* - * - * * - * * - * - * - * - * - * -	100	 		6.8m: Silty CLAY with trace organic with black specks. Firm, moist, high	s; brownish grey plasticity.	
⋖Ⅰ		ss 0,1,0, 0,0,0 N=0		SPT				<u> </u>	3r 3r 3r r 3r 3r 3r <u>3r 3r 3r</u>			11	7.55m: Spongy PEAT; black. Firm, plasticity.	moist, high	
TAURANG				HQ3	111			- 8 - - - -	* - × - × - × - × - × - × - × - × - × -	100			7.85m: Silty CLAY with trace organi Firm, moist, high plasticity.	cs; bluish grey.	
		ss		PT	111			- - - - 9	- x - x	100	11	 			
		1,1,1, 1,2,3 N=7		SPT	 			- - - -	* - * - × * - * - × * - * - ×	100	 				
Fo	or explanation of symbols and ob	l servatio	لنننا	y sheet	ننيا	ш	ш	- FRENGTI	H	H WEATHI	ш	ш	Date logged 9/02/2022	Driller	
Da 03/	LUID DEPTHS AND DRILLING TIME	Casino			epth	S- MS- W- VW-	Very str Strong Moderal Weak Very we Extreme	tely strong	SW - MW - HW -	Unweathe Slightly w Moderatel Highly we Complete	eathe ly we ather	athere ed	Logged SK	McMillan Started 3/02/2022	
04/ 08/	02/2022 13:30 28.50 02/2022 08:30 28.50 02/2022 13:30 36.00		3.0 3.0 3.0	4.1 4.82 5.24		Re Ho	mark le ba	s ckfilled					npletion. s: NZGD2000 - Mount Eden	Finished 9/02/2022 Drill Rig N119	
	land Held Shear Vane R1980: 19mm (A). Calibrated 28/06/21	CE's. A	= 1 781 R -	: -11 99		200	00 / N	lew Ze	aland \	/ertical	l Da	atun	n 2016	Core Boxes	12
	R1980: 19mm (A). Calibrated 28/06/21 ane shear strength per NZGS gui		- 1.701, B=	-11.22										Page 1	of 1



HOLE IDENTIFICATION

DH329

Client Auckland Transport

Project Eastern Busway

Project number 60644113

2021 EB DRILLHOLE LOG 2022-04-11 SBS MASTER.GPJ BASE.GDT 10/04/22

Co-ordinates 412311.74mE 794652.50mN

Orientation -90° Elevation 8.38m Location Reserve: 23R Kenwick Place

Feature Retaining wall/slope design

D	SEOLOGICAL ESCRIPTION Veathering, Colour, Fabric, ROCK NAME. Strength, Discontinuities, Lithological Features bedding, foliation, mineralogy, cement, etc).	Shear	Records SPT N Values 0 - 50	Drilling Method	Core Loss/Lift	s Relative	>	Depth	Graphic Log	TCR [RQD] (%)	500 Spacing of 100 Matural Defects	SOIL PROPERTIES Subordinate MAJOR minor, colour, structure. Strength, moisture condition, grading, bedding, plasticity, sensitivity, major fraction description, subordinate fraction description, minor fraction description, additional structures, additional information, etc DEFECT DESCRIPTION (Joints, Bedding Seams, Shatter, Shear and Crush Zones, Foliation, Schistosity, Attitude, Spacing, continuity, roughness, infilling, etc.)	Instrumentation
		53/7 ss		HQ3				- - - - -	× × ×	100		7.85m: Silty CLAY with trace organics; bluish grey. Firm, moist, high plasticity. (continued)	
		0,0,1, 0,0,0 N=1		SPT	 -			- - - - 11		100		10.6 to 11.0m: Grey, soft.	
				HQ3		 			77 - 7.7 - 7.7 - 7.7 - 7.7	100		11.0m: Organic CLAY; dark brown. Soft, moist, high plasticity.	
		ss 0,0,0, 0,0,0 N=0		PT				- 12 - - -	<u>~~~~</u>	100	 		
		SUOW		SPT	+ 	 			<u>~</u>	100		12.8m: Silty CLAY; bluish grey with brown specks.	
				HQ3	111	 		13 		100	 	Firm, moist, high plasticity.	
		ss 0,0,1, 1,1,1 N=4		SPT] 			- - - - - - 14		100			
TAURANGA GROUP		44/8		HQ3			!!!!	-		100	 		
URANG/		ss 1,3,2, 3,3,2 N=10		SPT		 		_ 15 - - -		100		15.1 to 15.6m: Stiff.	
TA				HQ3				- - - - - 16		100			
		ss 0,0,0, 0,1,1 N=2		SPT			1111	-		100	 		
		ss 0,0,0, 0,0,0		HQ3 SPT				- 17	× × × × × × × × × × × × × × × × × × ×	100		17.25m: Fine to coarse SAND, grey. Medium dense. 17.55m: Clayey SILT with trace fine sand; grey. Firm. 17.55 to 17.6m: Trace black organics.	
		N=0 SUOW		HQ3	- 	 		- - - - - - - 19	× × × × × × × × × × × × × × × × × × ×	100			
		ss 0,0,0, 0,1,1 N=2		SPT	111			- <u>*</u> <u>*</u> - <u>*</u> <u>*</u> - <u>*</u> <u>*</u> - <u>*</u> <u>*</u> - <u>*</u> <u>*</u> - <u>*</u> <u>*</u> - <u>*</u> - <u>*</u> - <u>*</u> - <u>*</u>	×××× ×××× ××××× ×××××	100			
F	Tor explanation of symbols and obs LUID DEPTHS AND DRILLIN ate Time Drilled Depth	NG PRO	OGRESS	S (m)	epth	VS- S- MS- W- VW-	Very strong Strong Moderate Weak Very weal Extremely	ly strong	UW - I SW - S MW - I HW - I	Highly wea	red eathered y weather	ed Checked GP 3/02/2022	
						Re Ho	marks le bacl	kfilled v	tical Sı	ırvey [Datum	Finished 9/02/2022	
	Hand Held Shear Vane DR1980: 19mm (A). Calibrated 28/06/21. Vane shear strength per NZGS guid		= 1.781, B =	-11.22		200	00 / Ne	ew Zea	land V	ertićal	Datur	n 2016	12



HOLE IDENTIFICATION

DH329

Client Auckland Transport

Project Eastern Busway

Project number 60644113

Co-ordinates 412311.74mE 794652.50mN

Orientation -90° Elevation 8.38m Location Reserve: 23R Kenwick Place

Feature Retaining wall/slope design

D	EOLOGICAL ESCRIPTION feathering, Colour, Fabric, ROCK NAME. trength, Discontinuities, Lithological Features eedding, foliation, mineralogy, cement, etc).	Test Records Shear SPT Vanel N Values SPT 0-50	Drilling Method Casing remarks	Core Loss/Lift	s Relative W Strength	>	Depth	Graphic Log	TCR [RQD] (%)	Spacing of Natural Natural Defects	SOIL PROPERTIES Subordinate MAJOR minor; colour, structure. Str grading, bedding, plasticity, sensitivity, major frac fraction description, minor fraction description, ac information, etc DEFECT DESCRIPTION (Joints, Bedding Seams, Shatter, Shear a Schistosity, Attitude, Spacing, continuity,	tion description, subordinate Iditional structures, additional	Instrumentation
	20.5m: Highly weathered, grey, SILTSTONE. Extremely weak.	SS 4,4,4, 4,4,8 N=20	HQ3	 					100		17.55m: Clayey SILT with trace fine Firm. (continued) 20.5m: Silty CLAY; grey. Very stiff.	sand; grey.	
	22.1m: Highly weathered, grey, fine to coarse SANDSTONE. Extremely weak. 22.5 to 23.0m: Siltstone.	ss 4,6,7, 7,6,8 N=28	HQ3	 			- - 22 - - - - - - - - - - - - - - - - -		100		22.1m: Fine to coarse SAND. Mediu	m dense.	
Z	23.0m: Moderately weathered, grey, SILTSTONE. Very weak.	ss 5,6,8,	HQ3				- 24	X X X X X X X X X X X X X X X X X X X	100		23.35m: DB, 25° 23.4m: Gently inclined, black carbonace	eous lamination.	
T BAYS FORMATION	24.45 to 25.15m: Speckled with black organics. 25.15m: Moderately weathered, grey, fine	N=39	HQ3					**************************************	100		24.45m: HJ, 60°		
EAST COAST	SANDSTONE. Very weak.	ss 10,13,20, 27,3 for 5mm N>50	SPT HQ3	 - 			- - - 26 - - - - -		100 100 [92]				
		SS 7,10,9, 10,12,14 N=45	SPT	- 			- 27 - - - - - - - - - - - - - - - - - - -		100 100 [100]				
	28.55m: Moderately weathered, grey, SILTSTONE. Extremely weak.	ss 3,10,13, 13,14,10 for 50mm N>50	SPT HQ3] 			 _ _ _ 29 _ _ _ _ _	X X X X X X X X X X X X X X X X X X X	100		28.55m: Clayey SILT with trace fine	sand; grey.	
FI	or explanation of symbols and obs LUID DEPTHS AND DRILLIN ate Time Drilled Depth	servations, see ke	S (m)		VS-N S-S MS-N W-N VW-N EW-E	Very stro Strong Moderat Weak Very we Extreme	ely strong ak ely weak	UW - SW - MW - HW - CW -	Highly we Complete	red eathered y weathered athered ly weather	Chacked GP	Driller McMillan Started 3/02/2022 Finished 9/02/2022 Drill Rig	
D	land Held Shear Vane R1980: 19mm (A). Calibrated 28/06/21. ane shear strength per NZGS guid		= -11.22					rtical Si aland V			s: NZGD2000 - Mount Eden n 2016	N119 Core Boxes Page 3 of	12 10



HOLE IDENTIFICATION

DH329

Client Auckland Transport

Project Eastern Busway

Project number 60644113

Co-ordinates 412311.74mE 794652.50mN

Orientation -90° Elevation 8.38m Location Reserve: 23R Kenwick Place

Feature Retaining wall/slope design

	BEOLOGICAL DESCRIPTION Weathering, Colour, Fabric, ROCK NAME. Strength, Discontinuities, Lithological Features bedding, foliation, mineralogy, cement, etc).	Test Shear Vane/ SPT	Records SPT N Values 0 - 50	Drilling Method Casing remarks	Core Loss/Lift		SW Rock	Depth	Graphic Log	TCR [RQD] (%)	500 Spacing of Natural Defects	SOIL PROPERTIES Subordinate MAJOR minor; colour, structure. Str grading, bedding, plasticity, sensitivity, major frac fraction description, minor fraction description, ai information, etc DEFECT DESCRIPTION (Joints, Bedding Seams, Shatter, Shear a Schistosity, Attitude, Spacing, continuity,	ction description, subordinate dditional structures, additional	Instrumentation
	28.55m: Moderately weathered, grey, SILTSTONE. Extremely weak. (continued)	ss 6,6,9, 12,14,15 for		SPT	111				* * * * * * * * * * * * * * * * * * *	100		28.55m: Clayey SILT with trace fine (continued)	sand; grey.	
	30.5 to 31.9m: Moderately thinly bedded.	70mm N>50		HQ3	 		 		X X X X X X X X X X X X X X X X X X X	100 [100]	 			
	31.6 to 31.75m: Fine to coarse SANDSTONE.	ss 8,13,19, 25,6		SPT				_	* * * * * * * * * * * * * * * * * * *	100				
BAYS FORMATION		for 25mm N>50		HQ3			11:	- 32 - 32 	X X X X X X X X X X X X X X X X X X X	100 [94]				
	33.13m: Possible shell fossils.	18,32 for 50mm N>50		SPT				- ** - -	X X X X X X X X X X X X X X X X X X X	0				
EAST COAST	34.2 to 36.0m: Moderately thinly bedded.	N250		HQ3				 - - - - - - - 34	X X X X X X X X X X X X X X X X X X X	95 [95]				
	bedded.			HQ3				 	**************************************	92 [92]				
					 			37				DH329 terminated at 36.0m Depth Criteria Achieved		
					 	1111	 	- - - - - - - - - - - - - - -						
F	For explanation of symbols and obs EUID DEPTHS AND DRILLIN ate Time Drilled Depth	NG PR	OGRESS	G (m)	epth	VS - V S - S MS - M W - W VW - V	ery stroi trong loderate	ng ly strong k	UW - I SW - I MW - I HW - I	WEATHE Unweather Slightly we Moderately Highly wea Completel	red eathered y weather athered	Chacked GP	Driller McMillan Started 3/02/2022 Finished	
[Hand Held Shear Vane DR1980: 19mm (A). Calibrated 28/06/21 vane shear strength per NZGS guid		= 1.781, B =	-11.22		Hole Hori	zonta	kfilled al / Ve		ırvev [Datum	npletion. s: NZGD2000 - Mount Eden n 2016	9/02/2022 Drill Rig N119	12

Project Eastern Busway

Location Reserve: 23R Kenwick Place

HOLE IDENTIFICATION DH329



Box: 1 of 12 - Depth: 01.50m to 04.80m of 36.00m

Date Drilled 3/02/2022 to 9/02/2022 - Date Photographed: 3/02/2022



Box: 2 of 12 - Depth: 04.80m to 07.95m of 36.00m

Date Drilled 3/02/2022 to 9/02/2022 - Date Photographed: 3/02/2022

Project Eastern Busway

Reserve: 23R Kenwick Place

HOLE IDENTIFICATION **DH329**



Box: 3 of 12 - Depth: 07.95m to 11.20m of 36.00m Date Drilled 3/02/2022 to 9/02/2022 - Date Photographed: 3/02/2022



Box: 4 of 12 - Depth: 11.20m to 14.50m of 36.00m

Date Drilled 3/02/2022 to 9/02/2022 - Date Photographed: 3/02/2022

Project Eastern Busway

Location Reserve: 23R Kenwick Place

HOLE IDENTIFICATION DH329



Box: 5 of 12 - Depth: 14.50m to 17.25m of 36.00m

Date Drilled 3/02/2022 to 9/02/2022 - Date Photographed: 4/02/2022



Box: 6 of 12 - Depth: 17.25m to 19.95m of 36.00m

Date Drilled 3/02/2022 to 9/02/2022 - Date Photographed: 4/02/2022



Project Eastern Busway

Location Reserve: 23R Kenwick Place

HOLE IDENTIFICATION DH329



Box: 7 of 12 - Depth: 19.95m to 22.70m of 36.00m

Date Drilled 3/02/2022 to 9/02/2022 - Date Photographed: 4/02/2022



Box: 8 of 12 - Depth: 22.70m to 25.35m of 36.00m

Date Drilled 3/02/2022 to 9/02/2022 - Date Photographed: 4/02/2022

Project Eastern Busway

Reserve: 23R Kenwick Place

HOLE IDENTIFICATION **DH329**



Box: 9 of 12 - Depth: 25.35m to 28.20m of 36.00m Date Drilled 3/02/2022 to 9/02/2022 - Date Photographed: 4/02/2022



Box: 10 of 12 - Depth: 28.20m to 30.70m of 36.00m

Date Drilled 3/02/2022 to 9/02/2022 - Date Photographed: 8/02/2022

Project Eastern Busway

Location Reserve: 23R Kenwick Place

HOLE IDENTIFICATION DH329



Box: 11 of 12 - Depth: 30.70m to 33.75m of 36.00m



Box: 12 of 12 - Depth: 33.75m to 36.00m of 36.00m Date Drilled 3/02/2022 to 9/02/2022 - Date Photographed: 8/02/2022



HOLE IDENTIFICATION

DH330

Client Auckland Transport

Project Eastern Busway

Project number 60644113

Co-ordinates 412454.56mE 794583.17mN

Orientation -90° Elevation 9.66m Location 380 Ti Rakau Drive

Feature Road realignment

D	SEOLOGICAL SESCRIPTION Weathering, Colour, Fabric, ROCK NAME. Strength, Discontinuities, Lithological Features bedding, foliation, mineralogy, cement, etc).	Test I Shear Vane/ SPT	Records SPT N Values 0 - 50	Drilling Method Casing remarks	Core Loss/Lift	ο≅≥≷	sw Rock Hw Weathering	Depth	Graphic Log	TCR [RQD] (%)	Spacing of Natural Natural Defects	SOIL PROPERTIES Subordinate MAJOR minor; colour, structure. Str grading, bedding, plasticity, sensitivity, major fra fraction description, minor fraction description, a information, etc DEFECT DESCRIPTION (Joints, Bedding Seams, Shatter, Shear Schistosity, Attitude, Spacing, continuity,	ction description, subordir dditional structures, additi	aste land
FILL	0.0m: FILL comprising asphalt surface over sandy gravel.							- - - -				\0.0m: Asphalt. 0.05m: Sandy fine to coarse GRAVI silt; dark brownish black. Tightly pac	ked, moist.	0.5 Ÿ
	0.6m: ALLUVIUM comprising clay, silt and organic clay.	207* 207*		VAC EX				- - - - 1	× × × × × × × × × × × × × × × × × × ×	0	1111	Sand is fine to coarse. Gravel is sub 0.6m: Clayey SILT with some fine to light brownish grey. Hard, moist, low	coarse sand;	^{0.9}
		133/30 ss 0,0,0,						- - -				1.2m: Silty CLAY with minor fine sar Stiff, moist, high plasticity.	nd; bluish grey.	1.5 <u>V</u>
		0,1,0 N=1		SPT			i i i i i i	- - - 2	* * * * * * * * * * * * * * * * * * * *	100		1.7m: Organic silty CLAY; black. So plasticity.		
				HQ3		 		- - - - -	k - x - x - x - x - x - x - x - x - x -	100		1.95m: Silty CLAY with trace organic Firm, moist, high plasticity.	cs; bluish grey.	
				HWT				- - - 3	* × × × × × × × × × × × × × × × × × × ×	100	1111	3.0m: 114mm diameter HWT casing	to 3.0m.	
		ss 0,1,0, 1,1,1		SPT				-		100		3.6m: Trace organics cease.		
		N=3		HQ3	 	 		- - 4 -	* _ × _ ×	100	1111			
鱼		ss 1,0,0, 0,1,1		SPT				<u>-</u> -		100				
GROU		N=2						- - - 5 -	* * *		1111	4.8m: Organic silty CLAY; blackish is soft, moist, high plasticity.		
TAURANGA GROUP				HQ3				- - - -	- x - x - x - x - x - x	100		5.15m: Silty CLAY with trace organic Firm, moist, high plasticity.	cs; bluish grey.	
Τ		ss 0,1,0, 1,1,1 N=3		SPT				6	* x * - x - x * - x - x	100		5.9 to 8.0m: Some fine micaceous san	d.	
			4 	HQ3	 	 		- - - - - - 7	F - X - X - X - X - X - X - X - X - X -	100				
		ss 0,0,1, 0,0,0 N=1		SPT				- - - - -	- X - X - X - X - X - X - X - X - X - X	100				
		72/13		HQ3				- 8 - - - -	*x *x *xx *xx	100		8.0 to 13.3m: Trace fine micaceous sa	nd.	
		12113		HQ3		1111		- - - - - 9	* * * * * *	100				
		44/5		HQ3				- 3 - - - -		100	1111			
				PT				- - -	- x - x - x - x - x - x - x - x - x - x	100				
F D 28 28	explanation of symbols and observations, see key sheet ID DEPTHS AND DRILLING PROGRESS (m) Time Drilled Depth Casing Depth Fluid De 1/2021 08:45 06.45 3.0 0.5 1/2021 15:45 19.95 3.0 0.9 1/2021 08:30 19.95 3.0 1.5				epth	S - S MS - M W - V VW - V EW - E	/ery stror Strong Moderate Veak /ery weal Extremely	ng ly strong k / weak	UW - 1 SW - 3 MW - 1 HW - 1	WEATHI Unweathe Slightly w Moderatel Highly we Complete	ERING red eathered y weathe athered	Checked GP	Driller McMillan Started 27/10/2021 Finished	
29	//10/2021 11:00 24.00	1021 15:45 19.95 3.0 0.9 1021 08:30 19.95 3.0 1.5 1021 11:00 24.00 3.0 1.5 1 Held Shear Vane					kPa i izonta	kfilled s the al / Ve	shear v	ane lii urvey l	nit Datum	mpletion. ns: NZGD2000 / Mount Eden	29/10/2021 Drill Rig N118	
	Hand Held Shear Vane DR2272: 19mm blade: Correction Factor	= 1.572				∠00	υ / IN6	ew ∠e	aiand V	ertical	⊔atu	m 2016	Core Boxes	8
ν	rane shear strength per NZGS guid	1.021 11:00 24.00 3.0 1.0 Held Shear Vane 2: 19mm blade: Correction Factor = 1.572											Page 1 c	f 7



HOLE IDENTIFICATION

DH330

Client Auckland Transport

Project Eastern Busway

Project number 60644113

Co-ordinates 412454.56mE 794583.17mN

Orientation -90° Elevation 9.66m Location 380 Ti Rakau Drive

Feature Road realignment

DE W St	EOLOGICAL ESCRIPTION reathering, Coolour, Fabric, ROCK NAME. rength, Discontinuities, Lithological Features edding, foliation, mineralogy, cement, etc).	Test Shear Vane/ SPT	Records SPT N Values 0 - 50	Drilling Method Casing remarks	Core Loss/Lift	S Relative	>		Graphic Log	TCR [RQD] (%)	Spacing of Natural Natural Defects	SOIL PROPERTIES Subordinate MAJOR minor; colour, structure. Str grading, bedding, plasticity, sensitivity, major frac fraction description, minor fraction description, ac information, etc DEFECT DESCRIPTION (Joints, Bedding Seams, Shatter, Shear a Schistosity, Attitude, Spacing, continuity,	tion description, subordinate iditional structures, additional md Crush Zones, Foliation,	Instrumentation
UP		44/9 ss 0,0,1, 1,2,3 N=7		HQ3 SPT	111			-	- x - x - x - x - x - x - x - x - x - x	100		5.15m: Silty CLAY with trace organics; blu moist, high plasticity. (continued)	ish grey. Firm,	
TAURANGA GROUP		N-7		HQ3	 		 	- - - - - - - - - - - -	8 - X - X - X - X - X - X - X - X - X -	100		11.0 to 15.45m: Stiff.		
		ss 1,2,2, 3,3,5 N=13		SPT	111			- 12 - - - -	* - x - x - x - x - x - x - x - x - x -	100				
	12.6m: Highly weathered, grey, fine SANDSTONE. Extremely weak.			HQ3	 		1	- - - - - 13	x	100		12.6m: Silty fine SAND with trace clamoist. 13.3 to 15.45m: Some fine micaceous s		
		ss 4,5,7, 9,10,11 N=37		SPT	 			- - - -	x x	100		13.3 to 13.45ml. Come line interaccousts	sairu.	
				HQ3	 			14 		100				
NO		ss 1,3,7, 9,10,9 N=35		SPT	 			- - - - - - -	× ×	100				
BAYS FORMATION	15.45m: Moderately weathered, grey, SILTSTONE. Extremely weak.			HQ3	 			 16 	\$ - X - X - X - X - X - X - X - X - X -	100 [0]		15.45m: Silty CLAY; grey. Very stiff. 15.45 to 15.65m: Recovered as grav 15.65 to 15.75m: J, 70°, Ud, Sm 15.82 to 15.88m: J, 65°, Ud, Sm 15.88 to 15.98m: J, 60°, Ud, Sm	el.	
COAST BAYS		ss 4,6,6, 6,8,9 N=29		SPT				- - - - -	* - x - x - x - x - x - x - x - x - x -	100				
EAST				HQ3	 			- 17 - - - - - - - - - - - - 18	F - X - X - X - X - X - X - X - X - X -	100 [0]				
		ss 3,6,11, 12,12,15 N=50	WAY A WAY	SPT	111			- 10 - - - -	* - * - * - * - * - * - * - * - * - * -	100	 			
	19.0m: Moderately weathered, grey, fine to medium SANDSTONE. Extremely weak.	ss		HQ3	 			- - - - - 19 - - -		100 [0]	 	19.0m: Fine to medium SAND; grey.	Very dense.	
	Zatomory would.	8,10,18, 16,14,2 for 5mm		SPT				=	××××× ××××××	100				
FL	UID DEPTHS AND DRILLIN	NG PR	OGRESS	(m)	epth	VS- S- MS- W- VW- EW-	Very strong Modera Weak Very we Extrem	ately strong eak ely weak	UW - 1 SW - 3 I MW - 1 HW - 1	Highly wea	red eathered y weather	Chacked GP	Driller McMillan Started 27/10/2021 Finished	
Н	and Held Shear Vane					Hol 207 Hoi	7 kPa rizon	ckfilled a is the tal / Ve	shear v	ane lir ırvey [nit Datum	mpletion. s: NZGD2000 / Mount Eden n 2016	29/10/2021 Drill Rig N118 Core Boxes	8
	R2272: 19mm blade: Correction Factor	m SANDSTONE. mely weak. SS. 8,10,18, 16,14,2											Page 2 of	7



HOLE IDENTIFICATION

DH330

Client Auckland Transport

Project Eastern Busway

Project number 60644113

Co-ordinates 412454.56mE 794583.17mN

Orientation -90° Elevation 9.66m Location 380 Ti Rakau Drive

Feature Road realignment

	SEOLOGICAL DESCRIPTION Weathering, Colour, Fabric, ROCK NAME. Strength, Discontinuities, Lithological Features (bedding, foliation, mineralogy, cement, etc.)	Shear Vane/ SPT	Records SPT N Values 0 - 50	Drilling Method Casing remarks	Core Loss/Lift	S Relative W Strength	>	Depth	Graphic Log	TCR [RQD] (%)	Spacing of Natural Natural Defects	SOIL PROPERTIES Subordinate MAJOR minor; colour, structure. Str grading, bedding, plasticity, sensitivity, major frac fraction description, minor fraction description, ac information, etc DEFECT DESCRIPTION (Joints, Bedding Seams, Shatter, Shear a Schistosity, Attitude, Spacing, continuity,	tion description, subordinate iditional structures, additional and Crush Zones, Foliation,	Instrumentation
	19.8m: Slightly weathered, grey, SILTSTONE. Very weak. Very thickly bedded. (continued)	N>50		HQ3	111				* * * * * * * * * * * * * * * * * * *	100 [100]				
MATION		sc 11,21,26, 24 for		SPT			 	 21 	X X X X X X X X X X X X X X X X X X X	0	1111			
EAST COAST BAYS FORMATION		65mm N>50		HQ3	 			 - - - - 22 - -	* * * * * * * * * * * * * * * * * * *	100 [100]	 			
ST CO		sc 14,36 for 45mm		SPT					X X X X X X X X X X X X X X X X X X X	0				
EA		N>50		HQ3	111		11	23 24	X X X X X X X X X X X X X X X X X X X	100 [100]	 			
								25 25 26 26 27				DH330 terminated at 24.0m Depth Criteria Achieved		
F	FLUID DEPTHS AND DRILLIN	explanation of symbols and observations, see key sheet ID DEPTHS AND DRILLING PROGRESS (m) Time Drilled Depth Casing Depth Fluid E						RENGTI ng ely strong ak y weak	UW - I SW - S MW - I HW - I	Highly we	red eathered y weather	Chacked GP	Driller McMillan Started 27/10/2021 Finished	
	Hand Held Shear Vane	2: 19mm blade: Correction Factor = 1.572					' kPa izonta	kfilled is the al / Ve	shear v	ane lir ırvey l	mit Datum	npletion. s: NZGD2000 / Mount Eden n 2016	29/10/2021 Drill Rig N118 Core Boxes	8
	DR2272: 19mm blade: Correction Factor vane shear strength per NZGS guid												Page 3 of	7

Project Eastern Busway

Location 380 Ti Rakau Drive

HOLE IDENTIFICATION DH330



Box: 1 of 8 - Depth: 01.50m to 04.85m of 24.00m

Date Drilled 27/10/2021 to 29/10/2021 - Date Photographed: 27/10/2021



Box: 2 of 8 - Depth: 04.85m to 07.95m of 24.00m

Date Drilled 27/10/2021 to 29/10/2021 - Date Photographed: 28/10/2021

Project Eastern Busway
Location 380 Ti Rakau Drive

HOLE IDENTIFICATION DH330



Box: 3 of 8 - Depth: 07.95m to 11.05m of 24.00m

Date Drilled 27/10/2021 to 29/10/2021 - Date Photographed: 28/10/2021



Box: 4 of 8 - Depth: 11.05m to 13.95m of 24.00m

Date Drilled 27/10/2021 to 29/10/2021 - Date Photographed: 28/10/2021

Project Eastern Busway

Location 380 Ti Rakau Drive

HOLE IDENTIFICATION DH330



Box: 5 of 8 - Depth: 13.95m to 16.75m of 24.00m

Date Drilled 27/10/2021 to 29/10/2021 - Date Photographed: 28/10/2021



Box: 6 of 8 - Depth: 16.75m to 19.75m of 24.00m

Date Drilled 27/10/2021 to 29/10/2021 - Date Photographed: 28/10/2021

Project Eastern Busway

HOLE IDENTIFICATION DH330



Box: 7 of 8 - Depth: 19.75m to 22.50m of 24.00m

Date Drilled 27/10/2021 to 29/10/2021 - Date Photographed: 29/10/2021



Box: 8 of 8 - Depth: 22.50m to 24.00m of 24.00m

Date Drilled 27/10/2021 to 29/10/2021 - Date Photographed: 29/10/2021



HOLE IDENTIFICATION

DH332

Client Auckland Transport

Project Eastern Busway
Project number 60644113

Co-ordinates 411399.55mE 795077.19mN

Orientation -90° Elevation 6.75m Location 35 Davington Way

GEOLOGICAL DESCRIPTION Weathering, Colour, Fabric, ROCK NAME. Strength, Discontinuities, Lithological Features (bedding, foliation, mineralogy, cement, etc).	Test Records Open Shear SPT Vane/ N Values SPT SPT A FO	Casing remarks Core Loss/Lift	Ms Relative Ww Strength Sw Rock Hw Weathering	Depth	Graphic Log	TCR [RQD] (%)	Spacing of Natural Natural Defects	SOIL PROPERTIES Subordinate MAJOR minor; colour, structure. Stre grading, bedding, plasticity, sensitivity, major fract fraction description, minor fraction description, ad information, etc DEFECT DESCRIPTION (Joints, Bedding Seams, Shatter, Shear a Schistosity, Attitude, Spacing, continuity, r	tion description, subording the control of the cont	nate Instrument
0.0m: Hand auger clearance	0-50 84/36 154/45 128/71 159/75 154/71 154/71	111						0.0m: Hand auger clearance to 1.5m Natural ground noted.	n. Not logged.	
1.5m: Alluvium comprising Clay, silt, sand and organic soil.	ss 0.1.1.			2		100		1.5m: Silty CLAY with trace fine sand Brownish grey with bluish grey mottli high plasticity.		4. ▽G. ▽
	ss 0,0,0, 0,0,0			3	* * * * * * * * * * * * * * * * * * *	100		3.5m: Organic fine to medium sandy some bands of wood fragments; bro moist, high plasticity.		
TAURANGA GROUP	ss 0,0,0, 1 1 1 1 0,0,0 N=0 SUOW 1 1 1 1 HQ	- iii !!!		5		100		4.55m: Silty CLAY with some fine sar Soft, moist, high plasticity.	nd; bluish grey.	⁴ ♥5♥
TA.	8/3 ss 0,1,0, 0,1,1 N=2					100		5.7 to 7.85m: Becomes sandy CLAY; ve fine to medium.	ery soft. Sand,	
	18/5	—		- 5		100		7.85 to 8.2m: Sand ceases. Contains tra 8.2m: Spongy PEAT; black. Firm, months plasticity. 8.5m: Organic CLAY; dark brown. Find plasticity. 8.9m: Silty CLAY with minor fine sand	oist, high rm, moist, high	
	ss 0.1.1. 1,2.2 N=6	T			* * * * * * * * * * * * * * * * * * *	100		grey.Stiff, moist, high plasticity. 9.7 to 9.9m: Becomes sandy clay. Sand	d, fine to medium	
For explanation of symbols and obs FLUID DEPTHS AND DRILLIN Date Time Drilled Depth (07/02/2023 16:00 25.50 08/02/2023 08:00 25.50	· · ·) Depth	VS - Very stro S - Strong MS - Moderate W - Weak VW - Very wea EW - Extremel	ng ely strong ak y weak	UW - U SW - S MW - N HW - H	lighly we	red eathered y weather	Chackad GP	Driller McMillan Started 7/02/2023 Finished	
Hand Held Shear Vane DR1980: 19mm (A). Calibrated Jun 2022 vane shear strength per NZGS guid			Hole bac downhole Shear va shear va	k filled versismine read nes wer	ic testi lings a e perf ical Su	ing. are dov ormed arvev [wnhole I in the Datum:	e in top 1.5m. Below 1.5m e end of the barrel.	8/02/2023 Drill Rig N119 Core Boxes Page 1 0	11 of 10



HOLE IDENTIFICATION

DH332

Client Auckland Transport

Project Eastern Busway

Project number 60644113

Co-ordinates 411399.55mE 795077.19mN

Orientation -90° Elevation 6.75m

Location 35 Davington Way

GEOLOGICAL DESCRIPTION Weathering, Colour, Fabric, ROCK NAME. Strength, Discontinuities, Lithological Features (bedding, foliation, mineralogy, cement, etc).	Shear SPT Vane/ N Values SPT 0 - 50	Drilling Method Casing remarks Core Loss/Lift	Sw Strength Sw Rock www.Weathering	Depth	e [R	CR QD] %)	500 Spacing of 100 Matural 50 Defects	SOIL PROPERTIES Subordinate MAJOR minor; colour, structure. Stri grading, bedding, plasticity, sensitivity, major frac fraction description, minor fraction description, ac information, etc DEFECT DESCRIPTION (Joints, Bedding Seams, Shatter, Shear a Schistosity, Attitude, Spacing, continuity,	tion description, subordinat diltional structures, addition	nstrume
10.25m: Highly weathered, grey, fine SANDSTONE; extremely weak.		HQ3				00		10.1 to 10.2m: Organic banding. 10.25m: Recovered as Silty, fine to orgrey. Dense, moist, well graded.	coarse SAND;	
11.65m: Highly weathered, bluish grey, indistinctly		HQ3 		— 11	1 ***** *****	00		11.5 to 11.65m: Recovered as sandsto 11.65m: Recovered as Silty CLAY; k		
bedded SILTSTONE; extremely weak.	ss 2,2,3, 4,6,6 N=19	SPT		- 12 * * * * * * * * * * * * * * * * * *	***** ***** 1	00	 	Very stiff, moist, high plasticity.		
12.5m: Moderately weathered, grey, massive SANDSTONE; extremely weak.		HQ3			1	00	 	12.5m: Recovered as Silty fine to co grey. Very dense, moist, well graded 12.6 to 12.85m: J, 60°, Ud, Sm 13.02 to 13.3m: J, 60°, Ud, Sm		
	ss 5.8.9.	SPT			1	00				
14.55m: Slightly weathered, grey, fine SANDSTONE;		HQ3		14 	1	00				
14.55m: Slightly weathered, grey, fine SANDSTONE; weak. Concretion.	ss 8,13,21,		11	_ _ _ 15	1	00	 			
grey, fine to coarse, SANDSTONE; very weak, weakly cemented. 15.2m: Slightly weathered, grey, indistinctly bedded SILTSTONE; extremely	19,10 for 45mm N>50	HQ3		- - - - - - - 16	* * * * * * * * * * * * * * * * * * *	00 23]	 	15.85 to 16.15m: Non-intact, recovered to cobble size irregular fragments	l as coarse gravel	
weak. 15.55m: Slightly weathered,	sc 9,29,37,	SPT	11			0	 			
grey, fine to coarse, massive SANDSTONE; very weak, weakly cemented. Trace carbonaceous material. 17.12 to 17.38m: SILTSTONE band.	13			17	1	00 00]		17.12 to 17.38m: Thin Siltstone bed; ve	ery weak	
17.9m: Slightly weathered, grey, indistinctly bedded	THE STATE OF THE S	SPT		- - - - 18 *** - **	×××× ×××× ××××× ×××××	0	 	17.8 to 17.9m: J, 45°, Ud, Ro		
SILTSTONE; extremely weak.	70mm N>50	HQ3		- - - - - - - - - - - - - - - - - - -		00		18.57 to 18.62m: , 30°, Ud, Sm 18.63 to 18.69m: , 45°, Ud, Sm		
				- (x x x x x x x x x x x x x x x x x x	***** ***** ***** *****		 	19.55 to 19.7m: J, 60°, Ud, Sm		
For explanation of symbols and obs FLUID DEPTHS AND DRILLIN Date Time Drilled Depth	<u> </u>	(m)	RELATIVE STI VS - Very stroi S - Strong MS - Moderate W - Weak VW - Very wea EW - Extremel	ng ely strong ık	WE UW - Unw SW - Sligi MW - Mod HW - High CW - Com	eather htly we lerately nly wea	athered weathere thered	Chacked GP	Driller McMillan Started 7/02/2023 Finished	<u> </u>
Hand Held Shear Vane			downhole Shear va	k filled w e seismic ne readii	testing	j. dov	vnhole	PVC grouted in hole for in top 1.5m. Below 1.5m end of the barrel.	8/02/2023 Drill Rig N119	
DR1980: 19mm (A). Calibrated Jun 2022 vane shear strength per NZGS guid		76		al / Vertic	· al Surv	ey D	atums	s: NZGD2000 - Mount Eden	Core Boxes Page 2 of	11



HOLE IDENTIFICATION

DH332

Client Auckland Transport

Project Eastern Busway

Project number 60644113

Co-ordinates 411399.55mE 795077.19mN

Orientation -90° Elevation 6.75m

Location 35 Davington Way

GEOLOGICAL DESCRIPTION Weathering, Colour, Fabric, ROC Strength, Discontinuities, Litholog (bedding, foliation, mineralogy, or	ical Features	Test Records Shear SPT Vane/ N Value SPT 0-50	Ö Drilling N Casing re	Core Loss/Lift	s Relative	sw Rock	Depth	Graphic Log	(%)	Spacing of Natural Defects	SOIL PROPERTIES Subordinate MAJOR minor; colour, structure. Str grading, bedding, plasticity, sensitivity, major frac fraction description, minor fraction description, ac information, etc DEFECT DESCRIPTION (Joints, Bedding Seams, Shatter, Shear a Schistosity, Attitude, Spacing, continuity,	tion description, subordinal iditional structures, addition and Crush Zones, Foliation,	ıstrum
20.65m: Slightly wea grey, fine to coarse SANDSTONE; very v	weak,		HQ3	 			- - - - - - - - - - - - - - - - - - -	X X X X X X X X X X X X X X X X X X X	100 [77]		20.4 to 20.46m: J, 60°, Ud, Sm 20.65 to 21m: , Returned as gravels		
weakly cemented. Ocarbonaceous lamina 21.3 to 21.5m: SILTST band.	ations		HQ3	 			- - - - - - - - - - 22		100 [53]	 	21.3 to 21.5m: Thin Siltstone bed; very 21.82 to 22.07m: J, 65°, Ud, Sm	weak	
			HQ3						100 [93]		22.15 to 22.34m: J, 70°, Ud, Sm		
23.8m: Slightly weath grey, indistinctly bedd SILTSTONE, extrem weak. 24.4m: Slightly weath grey, fine to coarse, i SANDSTONE; weak	ded ely nered, massive		HQ3	 			- 24 - 24 	**************************************	100 [100]		24.25 to 24.28m: J, 25°, Ud, Sm		
EAST CC			HQ3				- - - - - - - - - - - - - - - - - - -		100 [100]				
			 HQ3 	 			- - - - - - - - 28		100 [100]				[65003] [65003
29.21 to 29.33m: SILT band.	STONE		 HQ3 	 			- - - 29 - - - - - -	****	100 [100]		28.65 to 28.7m: Indistinct laminations 28.77 to 28.88m: J, 60°, Ud, Sm 29.21 to 29.33m: Very thin Siltstone ba	nd; very weak.	
For explanation of symb FLUID DEPTHS ANI Date Time Drille	D DRILLIN		key sheet SS (m)	epth	VS - V S - S MS - N W - V	/ery stror Strong Moderatel	ly strong	UW - SW - MW - HW -	Highly wea	red eathered y weathere	Chacked GP	Driller McMillan Started 7/02/2023 Finished	
Hand Held Shear Va		: Correction Facto	r: 1.876		Hole dow She she	nhole ar var ar var	k filled seisr ne rea nes we	nic test idings a ere per	ing. are dov ormed	wnhole I in the	VC grouted in hole for in top 1.5m. Below 1.5m end of the barrel.	8/02/2023 Drill Rig N119 Core Boxes	11
vane shear strength per	NZGS guio	deline			200	0 / Ne	w Zea	aland V	ertical	Datum	s: NZGD2000 - Mount Eden n 2016	Page 3 of	10



HOLE IDENTIFICATION

DH332

Client Auckland Transport

Project Eastern Busway

Project number 60644113

Co-ordinates 411399.55mE 795077.19mN

Orientation -90° Elevation 6.75m

Location 35 Davington Way

D	EOLOGICAL ESCRIPTION Weathering, Coolour, Fabric, ROCK NAME. trength, Discontinuities, Lithological Features pedding, foliation, mineralogy, cement, etc).	Test Records Shear SPT Vane/ N Values SPT 0-50	Drilling Method Casing remarks	Core Loss/Lift		sw Rock Hw Weathering	Depth	Graphic Log	TCR [RQD] (%)	Spacing of Natural Defects	SOIL PROPERTIES Subordinate MAJOR minor; colour, structure. Str grading, bedding, plasticity, sensitivity, major frac fraction description, minor fraction description, ai information, etc DEFECT DESCRIPTION (Joints, Bedding Seams, Shatter, Shear a Schistosity, Attitude, Spacing, continuity,	ction description, subordinat dditional structures, addition	istrume
'S FORMATION	29.7m: Slightly weathered, grey indistinctly bedded SILTSTONE; extremely weak. (continued) 30.42m: Slightly weathered, grey, fine to coarse, SANDSTONE; weak. 31.1m: Slightly weathered, grey, indistinctly bedded		HQ3		-		- - - - - - - - - 31	X X X X X X X X X X X X X X X X X X X	100 [93]		30.6 to 30.8m: J, 60°, Ud, Sm 30.68 to 30.71m: J, 25°, Ud, Sm		
EAST COAST BAYS	SILTSTONE; extremely weak. Contains very thin carbonaceous beds. 31.85m: Slightly weathered, dark grey, coarse, massive VOLCANICLASTIC SANDSTONE; weak.		HQ3				 32 	X X X X X X X X X X X X X X X X X X X	100 [37]		31.57 to 31.67m: J, 60°, Ud, Sm 31.7 to 31.74m: J, 30°, Ud, Sm 31.96 to 32.9m: J, 90°, Ud, Sm, Cl, degrees at ends, 90 degrees down r zone on one side of joint.	Curved, 60 niddle, fracture	
							33 - 33 - 34 - 35 - 35 - 36 - 37 - 37 - 38 - 39 - 39				32.88 to 33m: J, 85°, Ud, Sm DH332 terminated at 33m Depth Criteria Achieved		
F	or explanation of symbols and obs LUID DEPTHS AND DRILLIN ate Time Drilled Depth		S (m)	epth	VS - V S - S MS - M W - W	ery stro trong loderate	ely strong ak	UW - I SW - I MW - I HW - I	lighly wea	red eathered y weathere	Chackad GP	Driller McMillan Started 7/02/2023 Finished	
	Hand Held Shear Vane IR1980: 19mm (A). Calibrated Jun 2022 ane shear strength per NZGS guid		1.876		Hole dow She shea	nhole ar va ar va zonta	k filled e seisr ne rea nes we	nic test adings a ere perf	ing. are dov ormed urvev [wnhole I in the Datums	PVC grouted in hole for a in top 1.5m. Below 1.5m end of the barrel. s: NZGD2000 - Mount Eden in 2016	8/02/2023 Drill Rig N119 Core Boxes Page 4 of	11 10 18/05/2023



Project Eastern Busway

Location 35 Davington Wa

HOLE IDENTIFICATION

DH332



Box: 1 of 11 - Depth: 00.00m to 04.50m of 33.00m

Date Drilled 7/02/2023 to 8/02/2023



Box: 2 of 11 - Depth: 04.50m to 07.40m of 33.00m



Project Eastern Busway

HOLE IDENTIFICATION DH332



Box: 3 of 11 - Depth: 07.40m to 10.20m of 33.00m

Date Drilled 7/02/2023 to 8/02/2023



Box: 4 of 11 - Depth: 10.20m to 12.90m of 33.00m



Project Eastern Busway

HOLE IDENTIFICATION

DH332

Location 35 Davington Way

Project No. Eastern Busway

Biller Davington Way

Davi

Box: 5 of 11 - Depth: 12.90m to 15.75m of 33.00m

Date Drilled 7/02/2023 to 8/02/2023



Box: 6 of 11 - Depth: 15.75m to 19.10m of 33.00m



Project Eastern Busway
Location 35 Davington Way

HOLE IDENTIFICATION

DH332



Box: 7 of 11 - Depth: 19.10m to 22.15m of 33.00m

Date Drilled 7/02/2023 to 8/02/2023



Box: 8 of 11 - Depth: 22.15m to 24.90m of 33.00m



Project Eastern Busway

Location 35 Davington Way

HOLE IDENTIFICATION DH332



Box: 9 of 11 - Depth: 24.90m to 27.95m of 33.00m

Date Drilled 7/02/2023 to 8/02/2023



Box: 10 of 11 - Depth: 27.95m to 31.00m of 33.00m

Project Eastern Busway

Location 35 Davington Way

HOLE IDENTIFICATION DH332



Box: 11 of 11 - Depth: 31.00m to 33.00m of 33.00m