# REPORT ON: ARATAKI ROAD SUBDIVISION STAGE 2 AND 3

PROJECT:
GEOTECHNICAL INVESTIGATION

CLIENT:

GREENSTONE LAND DEVELOPMENTS LTD



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### 1 OVERVIEW

Greenstone Land Developments Ltd engaged Resource Development Consultants Ltd. (RDCL) to carry out a geotechnical assessment for Stage 2 and 3 of a proposed subdivision at 139 Arataki Road, Havelock North (Legal Description: LOT 99 DP 527872).

#### 1.1 Purpose of this Report

The purpose of this report is to provide sufficient information at individual Lot level for Stages 2 and 3, to support subdivision and building consent.

This report should be read in conjunction with the previous RDCL geotechnical report for Stages 1A and 1B, dated 19 December 2018 (Reference R184250602-02).

This report is sufficient for building consent in accordance with NZS 3604:2011 without the requirement for specific design.

### 1.2 UNDERSTANDING THE PROJECT

We understand the client intends to subdivide and develop the site into thirty-nine (39) new residential lots ranging in size from  $400\text{m}^2$  to  $750\text{m}^2$ .

The proposed subdivision is divided into two main stages:

- Stage 1A and 1B, 9 lots affronting Arataki Road and presented in the RDCL Geotechnical Report (R\_184250602\_02), dated 19 December 2019; and
- Stage 2 and 3, remaining 30 lots (this report).

Minor earthworks comprised redistribution of near-surface materials (<2m cut in the southern corner and <0.5m fill over the northern extent) to achieve site levels, and to incorporate roading and service installation to support the development.

### 1.3 SCOPE OF WORK

The project was undertaken in general accordance with RDCL proposal 18425, dated 17 August 2018.



### 2 SITE DESCRIPTION

The site comprises a relatively flat section at 139 Arataki Road, Havelock North previously occupied by the Arataki Motor Camp Holiday Park. The Holiday Park comprised office buildings, toilet and shower block facilities, cabins and bare sections for camping. Services included water and stormwater and septic tank facilities.

The buildings and cabins had been removed for Stage 2 and 3 site investigations and new road constructed with associated services.

Stage 2 and 3 of the development comprises thirty (30) Lots, (Lots 10 to 39) to the west of Stage 1A &B and Arataki Road (Figure 1).

### 2.1 REGIONAL GEOLOGY

The regional geological map indicates the site is underlain by:

 Middle to Late Pleistocene river deposits, comprising moderately weathered undifferentiated, poorly sorted loess-covered alluvial gravel (GNS Science, 2011).

#### 3 GEOHAZARDS

### 3.1 ACTIVE FAULTS

No active faults directly impacting the proposed development are identified in the GNS Active Faults Database.

### 3.2 LIQUEFACTION SUSCEPTIBILITY

The site is mapped as having "Medium" liquefaction vulnerability, as indicated in the Hawkes Bay Emergency Management Hazard Portal.



### 4 PREVIOUS REPORTS

A previous report was completed for Stages 1A and 1B for Lots 1 to 9 at the subdivision (R184250602\_02). The site investigations comprised:

- Engineering geological logging of near-surface materials recovered from:
  - Five (5) test pits (TP) excavated to a maximum depth of 3.5 m bgl;
  - Three (3) exploratory pits (EXP), previously excavated by the contractor when removing septic tanks and large trees, to a maximum depth of 3.4 m bgl; and
- Eight (8) Cone Penetration Tests (CPT) distributed across the full development area;
  - All tests meeting refusal at depths < 2.0 m bgl due to maximum (35 MPa) cone resistance.

Our assessment of liquefaction potential based on the results of those investigations suggests:

- The subdivision is at "Low" risk of liquefaction during both SLS and ULS events;
  - Medium dense to dense silty sandy GRAVEL is not expected to liquefy;
  - Little to no surface expression of liquefaction is expected; and
  - Lateral spreading and vertical settlement is considered unlikely due to generally flat topography.



### 5 SITE INVESTIGATIONS

### 5.1 INVESTIGATION SUMMARY

Stage 2 & 3 site investigations consisted of site-specific testing at each Lot undertaken by RDCL engineering geologists and technicians. The site testing comprised (Figure 1):

- One (1) site investigation probe consisting of either hand auger (HA), test pit (TP)
  or exploratory hole (EXP) excavation with engineering geological logging of
  materials;
  - All tests meeting refusal on gravels at depths <0.8 m bgl; and
- Four (4) Dynamic Cone penetrometer (DCP) tests per lot;
  - Generally meeting refusal at depths <1.5 m bgl.

Soils are logged in general accordance with NZGS (2005) Guidelines for field description of soil and rock.

Site Investigation types and locations relevant to Lot numbers are attached in Appendix A.

All site investigation logs are attached as Appendix B.

### 5.2 Investigation Results

Near-surface materials encountered in subsurface investigations (Appendix A) suggest the house sites are generally underlain by:

- 0.1m to 0.5m bgl: TOPSOIL (or landscape fill incorporating organics); underlain by
- 0.2m to 0.6m bgl: Alluvial silty SAND, and/or sandy GRAVEL, loose to medium dense;
- >3.5m bgl: Medium dense silty sandy GRAVEL medium dense to dense (termination depth);

### 5.3 GROUND WATER

Groundwater was not encountered at the time of these investigations. We do not anticipate groundwater levels to be elevated in this region for prolonged periods of time.

Groundwater levels are likely to depend on seasonal and annual fluctuations.



### 6 GEOTECHNICAL CONSIDERATIONS

Recommendations and opinions contained in this report are based on data from site investigations as outlined in Section 3. The nature and continuity of subsoils away from these locations are inferred and actual conditions may vary from the assumed model.

### 6.1 EARTHWORKS

Earthworks at the site consisted of nominal cut (<2m at the southern end and <0.5m fill over the northern extent of the property. The earthworks were undertaken in general accordance with NZS4431:1989 Earthworks for Residential Development.

### 6.2 LIQUEFACTION ASSESSMENT

Based on the liquefaction assessment undertaken in the previous report (Ref 184250602-02), the results of that assessment indicate, for both the Serviceability Limit State (SLS) and Ultimate Limit State (ULS) design events:

- Medium dense to dense silty sandy gravel layers below the assumed water table (1.5 m) are considered to be very low potential for liquefaction risk; and
- Very low risk for vertical settlement and lateral spreading.



### 6.3 BEARING CAPACITY

Ultimate Bearing Capacity (UBC) for each individual Lot is in Table 1 and assumes to be at a level stripped of topsoil, between 0.1m and 0.5m depth (See depth achieved).

TABLE 1: INDICATIVE DEPTH TO "GOOD GROUND", LOTS 10-39

Lot Number	Available UBC (kPa)	Depth Achieved (m)	Lot Number	Available UBC (kPa)	Depth Achieved (m)
Lot 10	300	0.4	Lot 25	300	0.1
Lot 11	300	0.4	Lot 26	300	0.1
Lot 12	300	0.5	Lot 27	300	0.1
Lot 13	300	0.3	Lot 28	300	0.4
Lot 14	300	0.3	Lot 29	300	0.2
Lot 15	300	0.4	Lot 30	300	0.1
Lot 16	300	0.1	Lot 31	300	0.1
Lot 17	300	0.4	Lot 32	300	0.3
Lot 18	300	0.3	Lot 33	300	0.2
Lot 19	300	0.4	Lot 34	300	0.2
Lot 20	300	0.2	Lot 35	300	0.1
Lot 21	300	0.1	Lot 36	300	0.1
Lot 22	300	0.3	Lot 37	300	0.3
Lot 23	300	0.3	Lot 38	300	0.2
Lot 24	300	0.2	Lot 39	300	0.3

Notes:

Results achieved at tested locations only.

### 7 RECOMMENDATIONS

Based on the above site testing we consider the following:

- The site ground conditions are suitable for residential development in accordance with NZS3604:2011.
- Ultimate bearing capacity of 300 kPa "Good Ground" in accordance with NZS3604:2011 was achieved across the site at a level stripped of topsoil indicated in Table 1.
- All topsoil, tree roots and deleterious material should be removed in their entirety beneath all building footprints prior to construction.



<sup>&</sup>quot;Depth achieved" excludes topsoil material.

GNS Science. (2014). HAWKE'S BAY. Institute of Geological and Nuclear Sciences, 1:250,000 Geological Map 8. (J. Lee, K. Bland, D. Townsend, & P. Kamp, Compilers) GNS Science.

NZS3604 (2011). NZS3604:2011 Timber-framed Buildings. Australia/New Zealand Standard.

NZS4431 (1989) NZS4431:1989 - Code of Practice for Earthfill for Residential Development. Standards New Zealand

NZGS (2005) Field Description of Soil and Rock NZS1170.5. (2004, December 22).

Geoligismiki. (2014). CLiq v.1.7.6.34.



#### 9 LIMITATIONS

This report has been prepared for the particular purpose outlined in the project scope and no responsibility is accepted for the use of any part in other contexts or for any other purpose.

Ground conditions assessed in this report are inferred from published sources, site inspection and the investigation described. Variations from the interpreted conditions may occur, and special conditions relating to the site may not have been revealed by this investigation, and which are therefore not taken into account. No warranty is included either expressed or implied that the actual conditions will conform to the interpretation contained in this report.

No responsibility is accepted by Resource Development Consultants Ltd for inaccuracies in data supplied by others. Where data has been supplied by others, it has been assumed that this information is correct.

Groundwater conditions can vary with season or due to other events. Any comments on groundwater conditions are based on observation at the time.

This report is provided for sole use by the client and Hastings District Council and is confidential to the client and their professional advisors. No responsibility whatsoever for the contents of this report shall be accepted by any person other than the client.

We trust this meets your current needs. Should you wish to discuss any aspect of the contents of this document please contact the undersigned on 06 877-1652.

Sincerely,

Prepared by:

Approved by:

T Bunny

BSc Geol; PGDip Eng Geol

Snr Engineering Geologist

CA Wylie

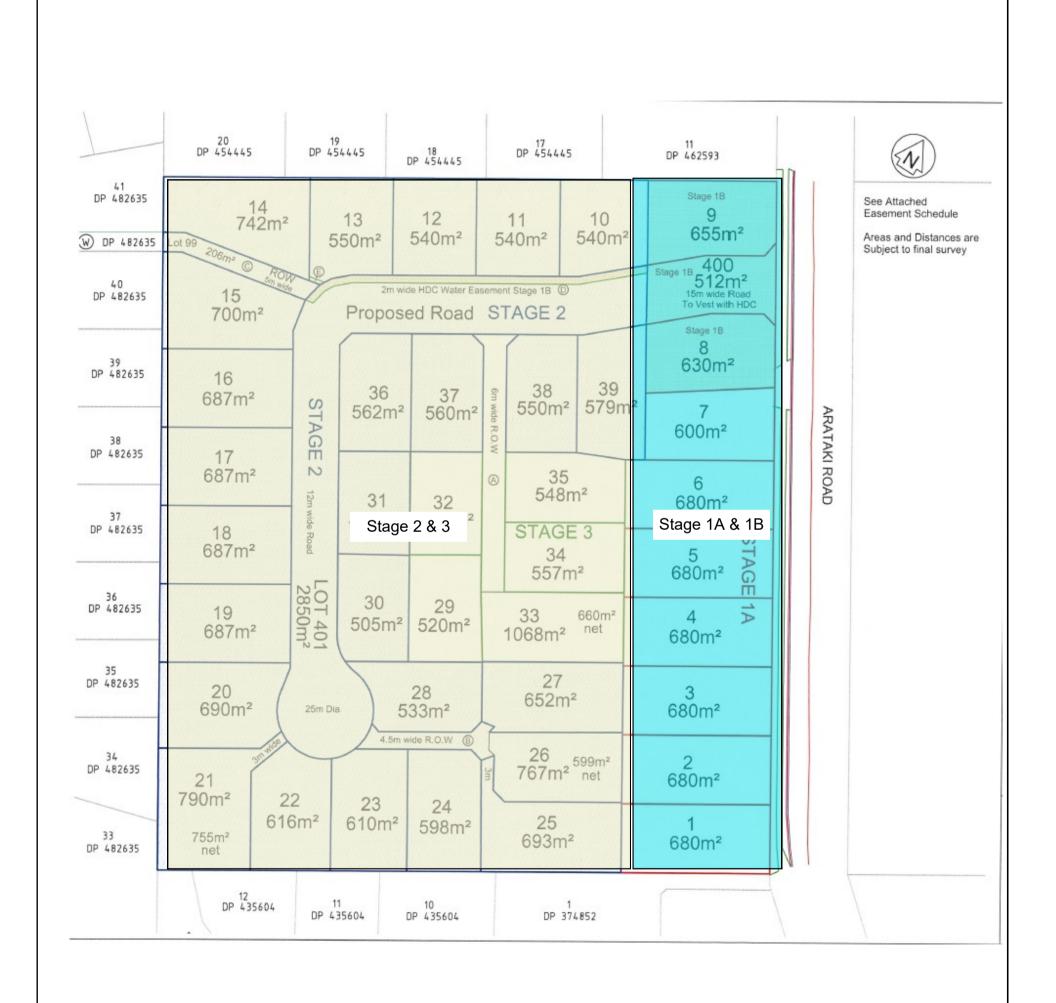
MSc, MIPENZ; CPEng

Principal



FIGURE 1 - GENERAL PLAN

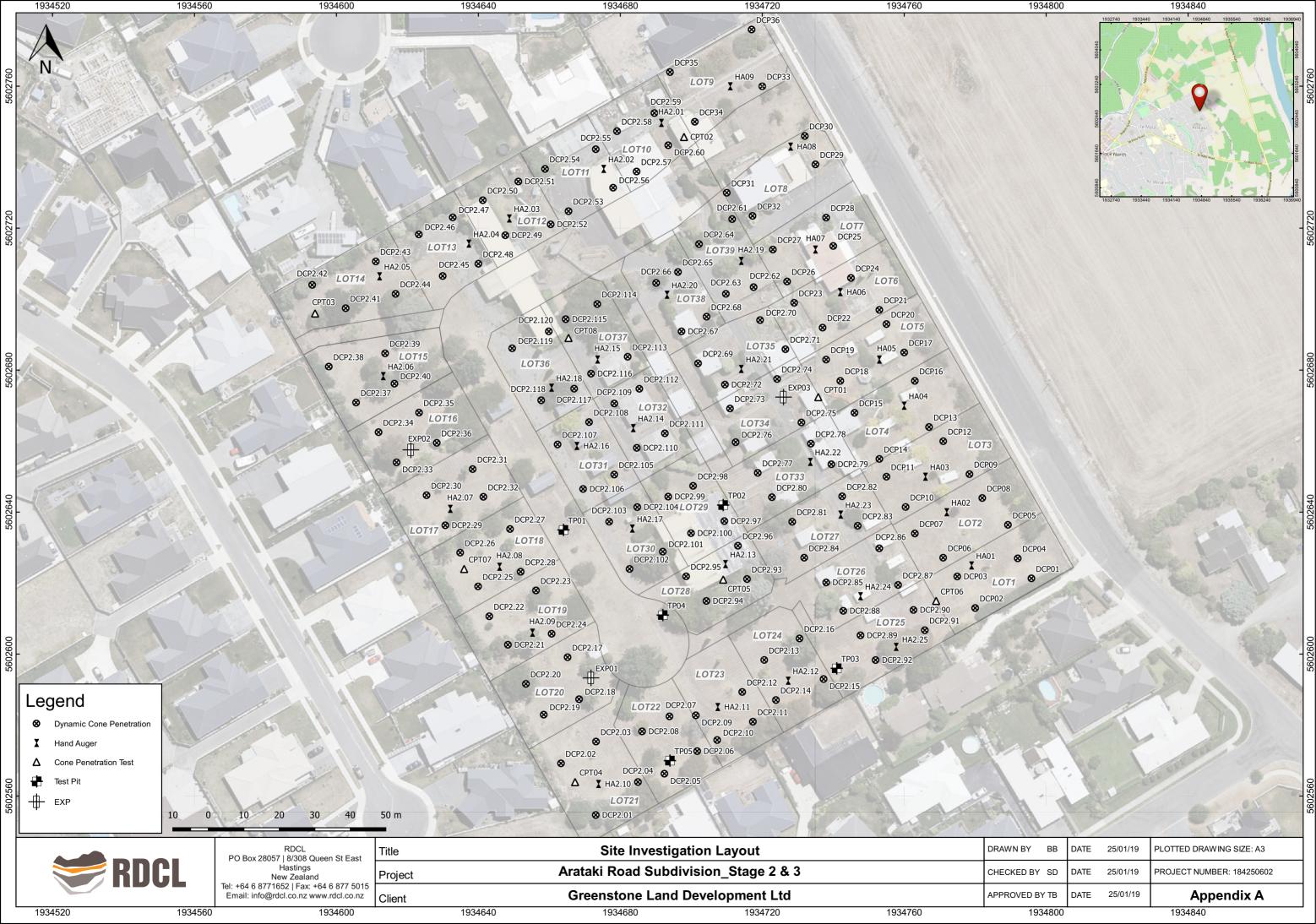




	₽ D	ne		TITLE	Arataki Subdivision General Plan		
	Π	DС	Arataki Road Subdivision				
DRAWN BY	ТВ	DATE	25/1/19	CLIENT	Greenstone Land Developments Ltd	d	
CHECKED BY	ТВ	DATE	25/1/19	PROJECT No.	184250602	FIGURE No.	1

# APPENDIX A - SITE INVESTIGATION PLAN





# APPENDIX B - SITE INVESTIGATION LOGS





**HA2.01** 

SHEET 1 OF 25

CLI	ENT:	Gre	enstor	ne Land Developments Ltd	PROJECTION: NZTM						LOCATION: Lot 10			
PR	DJEC	T:	18425	0602	EASTING:	193	34693	3.59			STARTED: 17-01-2019			
LO	CATIO	:NC	139 Ar	ataki Road	NORTHING:	560	2750	0.46			FINISHED: 20-08-2018			
					DATUM:						LOGGED BY: SD DATE: 17-01-2019			
OFI	ICE:		RDCL	- Hastings	ELEVATION:	-					CHECKED BY:	DATE: 21-01-2019		
EN	SINE	ER:	ТВ		DIAMETER:	0m	m				STATUS: Final data			
СО	NTRA	ACTO	R: RE	DCL	OPERATOR:									
							()	NO						
DEPTH (m)	RL (m)	WATER	GRAPHIC LOG	ROCK / SOIL DESCRIPTION		OISTURE CONDITION	CONSISTENCY / DENSITY	CLASSIFICATION	DCP BLOWS		SAMPLES & TESTS	ADDITIONAL REMARKS		
	-			Organic SILT (OL), with some sand, with trace of brown with brown mottling. Firm; non-plastic; m fine to medium; gravel, fine; some rootlets; [FIL	gravel; dark oist; sand,	M	FM	OL						
	-		344											
0.5	-0.5			Silty SAND (SM), with some gravel; brown. Med non-plastic; moist; gravel, fine to medium, suba subround; [FILL].			MD	SM						
				EOH: 0.45m Termination: HA grinding on gravel; no recovery. 2 atte	empts									
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									▼ Standing Water Level <- Out flow					



# **HAND AUGER LOG**

PROJECTION: NZTM

**HA2.02** 

SHEET 2 OF 25

LOCATION: Lot 11

PR	DJEC	T: '	184250	0602	EASTING:	19	34675	5.95		STARTED: 17-01-2019					
LO	CATIO	ON:	139 Ar	ataki Road	NORTHING:	56	)2740	).47			FINISHED: 20-08-2018				
					DATUM:						LOGGED BY: SD DATE: 17-01-2019				
OF	ICE:		RDCL	- Hastings	ELEVATION:	-					CHECKED BY:	DATE: 21-01-2019			
ENG	SINE	ER:		_	DIAMETER:		m				STATUS: Final data				
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DEPTH (m)	RL (m)	WATER	GRAPHIC LOG	ROCK / SOIL DESCRIPTION		MOISTURE	CONSISTENCY / DENSITY	CLASSIFICATION	DCP BLOWS		SAMPLES & TESTS	ADDITIONAL REMARKS			
			* 45.7 2	Organic SILT (OL), with some sand, with trace of brown with brown mottling. Firm; non-plastic; make to medium; gravel, fine; some rootlets; [FIL] Silty SAND (SM), with some gravel; brown . Medium; some sand, with trace of the same sand, with	gravel; dark oist; sand, .L].	М	FM MD	OL							
			32	non-plastic; moist; gravel, fine to medium, suba subround; [FILL].	ngular to										
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**HA2.03** 

SHEET 3 OF 25

CLI	ENT:	Gre	enstor	ne Land Developments Ltd	PROJECTIO	N: N	ZTM				LOCATION: Lot 12			
PR	DJEC	CT:	18425	0602	EASTING:	193	34648	3.74			STARTED: 17-01-2019			
LO	CATIO	ON:	139 Ar	ataki Road	NORTHING:	560	)2722	2.76			FINISHED: 20-08-2018			
					DATUM:						LOGGED BY: SD DATE: 17-01-201			
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DEPTH (m)	RL (m)	WATER	GRAPHIC LOG	ROCK / SOIL DESCRIPTION		MOISTURE CONDITION	CONSISTENCY / DENSITY	CLASSIFICATION	DCP BLOWS		SAMPLES & TESTS	ADDITIONAL REMARKS		
	-			Organic SILT (OL), with some sand, with trace of brown with brown mottling. Soft; non-plastic; we to medium; gravel, fine; some rootlets; [FILL].	gravel; dark	W	Ø	OL						
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**HA2.04** 

SHEET 4 OF 25

DATUM: ELEVATION: - DIAMETER: 0mm  STATUS: Final data  CONTRACTOR: RDCL  ROCK / SOIL DESCRIPTION  ROCK / SOIL DESCRIPTION	LOCATION: Lot 13			
DATUM: ELEVATION: - CHECKED BY: SD DATE: 17- CHECKED BY: DATE: 21- DIAMETER: 0mm STATUS: Final data  CONTRACTOR: RDCL  OPERATOR:  ROCK / SOIL DESCRIPTION  ROCK / SOIL DESC	STARTED: 17-01-2019			
OFFICE: RDCL - Hastings   ELEVATION: -   CHECKED BY: DATE: 21-  ENGINEER: TB   DIAMETER: Omm   STATUS: Final data    CONTRACTOR: RDCL   OPERATOR:   NO.    ROCK / SOIL DESCRIPTION   NO.	FINISHED: 20-08-2018			
ENGINEER: TB DIAMETER: Omm STATUS: Final data  CONTRACTOR: RDCL  ROCK / SOIL DESCRIPTION  ROCK /	E: 17-01-2019			
CONTRACTOR: RDCL  ROCK / SOIL DESCRIPTION  ROC	E: 21-01-2019			
ROCK / SOIL DESCRIPTION  ROCK / SOIL DESCRIPTI				
ROCK / SOIL DESCRIPTION  ROCK / SOIL DESCRIPTI				
Organic Sill.T (O.1), with some sand, with trace gravel; dark your with brown moting. Firm, non-plastic, moist; sand, fine to medium; gravel, fine; some rootlets; [FilL].  Select 0.30m Termination: HA grinding on gravel; no recovery				
Organic Sill.T (O.1), with some sand, with trace gravel; dark your with brown moting. Firm, non-plastic, moist; sand, fine to medium; gravel, fine; some rootlets; [FilL].  Select 0.30m Termination: HA grinding on gravel; no recovery	L REMARKS			
To the to medium; gravel, fine; some rootlets; [FILL].  M FM OL  Section 1.0 - 0.0 -				
EOH: 0.30m 7.0.5 - 9 7. Termination: HA grinding on gravel; no recovery  1.1.5 - 9 7				
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**HA2.05** 

SHEET 5 OF 25

CLI	ENI:	Gre	enstor	ne Land Developments Ltd			LOCATION: Lot 14							
PR	DJEC	T:	18425	0602	EASTING:	193	34612	2.18			STARTED: 17-01-2019			
LO	CATIO	ON:	139 Ar	ataki Road	NORTHING:	560	02706	3.46			FINISHED: 20-08-2018			
					DATUM:						LOGGED BY: SI	DATE: 17-01-2019		
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DEPTH (m)	RL (m)	WATER	GRAPHIC LOG	ROCK / SOIL DESCRIPTION		MOISTURE CONDITION	CONSISTENCY / DENSITY	CLASSIFICATION	DCP BLOWS		SAMPLES & TESTS	ADDITIONAL REMARKS		
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	-			Silty SAND (SM), with trace gravel; brown . Loc plastic; moist; sand, fine to medium; gravel, fine			L	SM						
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**HA2.06** 

SHEET 6 OF 25

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CLI	ENT:	Gre	enstor	ne Land Developments Ltd	PROJECTIO	N: N	IZTM			LOCATION: Lot 1	5
PR	JEC	T:	18425	0602	EASTING:	19	34613	3.21		STARTED: 17-0	1-2019
LO	ATIO	ON:	139 Ar	rataki Road	NORTHING:	56	02678	3.34		FINISHED: 20-08	3-2018
					DATUM:					LOGGED BY: S	D DATE: 17-01-2019
OFF	ICE:		RDCL	- Hastings	ELEVATION	: -				CHECKED BY:	DATE: 21-01-2019
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DEPTH (m)	RL (m)	WATER	GRAPHIC LOG	ROCK / SOIL DESCRIPTION		MOISTURE CONDITION	CONSISTENCY / DENSITY	CLASSIFICATION	DCP BLOWS	SAMPLES & TESTS	ADDITIONAL REMARKS
			(		gravel. Firm;	М	FM	OL			
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										SYMBOLS  Standing Water Level  Out flow In flow	



**HA2.07** 

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CLI	ENT:	Gre	enstor	ne Land Developments Ltd	PROJECTIO	N: N	IZTM				LOCATION: Lot 17	,	
PRO	DJEC	T:	18425	0602	EASTING:	19	34632	2.11			STARTED: 17-01	-2019	
				rataki Road	NORTHING:						FINISHED: 20-08		
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	ICE:			- Hastings	ELEVATION						CHECKED BY:		DATE: 21-01-2019
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DEPTH (m)	RL (m)	WATER	GRAPHIC LOG	ROCK / SOIL DESCRIPTION		ISTURE NDITION	CONSISTENCY / DENSITY	CLASSIFICATION	DCP BLOWS		SAMPLES & TESTS	ΑI	DDITIONAL REMARKS
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	-			Organic SILT (OL), with some sand, with trace brown with brown mottling. Firm; non-plastic; m fine to medium; gravel, fine; some rootlets; [FIL	gravel; dark oist; sand,	М	FM	OL					
	-			Sandy SILT (ML); brown with orange mottling.	Stiff; non-			ML	1				
-0.5	-0.5			plastic; moist; sand, fine to medium.  Sandy SILT; light brown. Stiff; non-plastic; dry; medium.	sand, fine to	D	SF						
				EOH: 0.60m									
	-			Termination: HA spinning; no recovery									
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├─ In flow



**HA2.08** 

SHEET 8 OF 25

CLI	ENI:	Gre	eenstor	ne Land Developments Ltd	PROJECTIO	)N: N	IZ I M			LOCATION: Lot 18					
PR	OJEC	CT:	18425	0602	EASTING:	19	3464	5.99			STARTED: 17-01-2019				
LO	CATIO	ON:	139 Ar	ataki Road	NORTHING:	56	02624	4.63			FINISHED: 20-08-2018				
					DATUM:						LOGGED BY: SI	D DATE: 17-01-2019			
OF	FICE:	:	RDCL	- Hastings	ELEVATION	: -					CHECKED BY:	DATE: 21-01-2019			
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						Г		7							
(m)		~	일	ROCK / SOIL DESCRIPTION		URE	CONSISTENCY / DENSITY	CLASSIFICATION	LOWS		SAMPLES & TESTS	ADDITIONAL REMARKS			
DEPTH (m)	RL (m)	WATER	GRAPHIC LOG			MOIST	CONSI	CLASS	DCP BLOWS						
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0.5	-0.5			Silty SAND (SM); brown . Medium dense; non-pand, fine to medium.	olastic; moist;	М	MD	SM							
	_			Sandy SILT; light brown. Stiff to very stiff; dry; medium.	D	SF - VSF		_							
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					BDC										



**HA2.09** 

SHEET 9 OF 25

CLI	ENT:	Gre	ensto	PROJECTIO	N: N	ZTM				LOCATION: Lot 19				
PRO	DJEC	T:	18425	0602	EASTING:	193	34655	5.27			STARTED: 17-01-2019			
LOC	CATIO	:NC	139 Aı	rataki Road	NORTHING:	560	2606	3.05			FINISHED: 20-08-2018			
					DATUM:						LOGGED BY: SI	DATE: 17-01-2019		
OFF	ICE:		RDCL	- Hastings	ELEVATION	: -					CHECKED BY:	DATE: 21-01-2019		
ENG	SINE	ER:	ТВ		DIAMETER:	0m	m				STATUS: Final da	ta		
COI	NTRA	ACTO	R: RI	DCL	OPERATOR									
							()	NO						
DEPTH (m)	RL (m)	WATER	GRAPHIC LOG	ROCK / SOIL DESCRIPTION	MOISTURE CONDITION CONSISTENCY / DENSITY CLASSIFICATION DCP BLOWS				DCP BLOWS		SAMPLES & TESTS	ADDITIONAL REMARKS		
		Organic SILT (OL), with some sand, with trace gravel; d brown with brown mottling. Firm; non-plastic; moist; Org rootlets; sand, fine to medium; gravel, fine; [LANDSCAF FILL].					FM	OL						
-	-			SAND (SW), with some silt; brown with dark bro Medium dense; non-plastic; moist; sand, fine to	own mottling. medium.	М	MD	SW						
0.5	-0.5			CAND (CM) with tropp silt; brown with dark bro	www.mottling									
	-		20.	SAND (SW), with trace silt; brown with dark bro Medium dense; non-plastic; wet; sand, fine to m	nedium.									
	-			GRAVEL (GW), with some sand; brownish. Den gravel, fine to medium, subangular to subround; coarse.	se; wet; sand, fine to	W	D	GW						
				EOH: 0.80m Termination: HA grinding on gravel; no recovery	/									
	-1.0													
1.0	- 7													
	-													
	-													
	-													
	-													
1.5	-1.5													
	-													
	-													
	_													
	-													
				<u> </u>						REI	MARKS			
										SYI	MBOLS			
										▼	Standing Water Level			
											Out flow			
	RDCL										In flow			



# **HAND AUGER LOG**

PROJECTION: NZTM

**HA2.10** 

SHEET 10 OF 25

LOCATION: Lot 21

PR	JEC	T:	18425	0602	EASTING: 1934673.31						STARTED: 17-01-2019				
LO	CATIO	:NC	139 Ar	rataki Road	NORTHING: 5602566.72						FINISHED: 20-08-2018				
					DATUM:						LOGGED BY: MD DATE: 17-01-2019				
OF	ICE:		RDCI	- Hastings	ELEVATION	: -					CHECKED BY:	DATE: 21-01-2019			
		ER:		Tidotingo	DIAMETER:		nm				STATUS: Final da	1			
			R: RI		OPERATOR						OTATOO. Tillarda				
CO	N I I IXA	1010	N. NI		OFERATOR	[									
DEPTH (m)	RL (m)	WATER	GRAPHIC LOG	ROCK / SOIL DESCRIPTION		MOISTURE CONDITION	CONSISTENCY / DENSITY	CLASSIFICATION	DCP BLOWS		SAMPLES & TESTS	ADDITIONAL REMARKS			
			en e ⊈TS	TOPSOIL; dark brown with brown mottling. Med moist; TOPSOIL, rootlets.	dium dense;		MD								
				Sandy GRAVEL (GW); brown. Loose; moist; gracoarse, subangular to subround, greywacke; sa coarse; [FILL].  EOH: 0.35m Termination: HA grinding on gravel; no recovery	avel, fine to nd, fine to	М	L	GW							
	-			Communication of granding on granding in controls											
0.5															
1.0	1.0														
1.0	•														
·1.5	-1.5														
	-														
							'	1		REM	IARKS				
											IBOLS				
										4	▼ Standing Water Level     Out flow     In flow				
					1.										



**HA2.11** 

**SHEET 11 OF 25** CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 23 PROJECT: 184250602 EASTING: 1934710.25 STARTED: 17-01-2019 LOCATION: 139 Arataki Road NORTHING: 5602585.40 FINISHED: 20-08-2018 DATUM: LOGGED BY: MD DATE: 17-01-2019 OFFICE: RDCL - Hastings ELEVATION: -CHECKED BY: DATE: 21-01-2019 ENGINEER: TB DIAMETER: 0mm STATUS: Final data CONTRACTOR: RDCL OPERATOR: CLASSIFICATION MOISTURE CONDITION CONSISTENCY / DENSITY DCP BLOWS SAMPLES **ROCK / SOIL DESCRIPTION** DEPTH (m) GRAPHIC LOG ADDITIONAL REMARKS & TESTS WATER RL (m) TOPSOIL; dark brown with brown mottling. Medium dense; moist; TOPSOIL, rootlets.  $\underline{\Delta D}$ MD М 34 Sandy GRAVEL (GW); brown . Loose; wet; gravel, fine to coarse, subangular to subround, greywacke; sand, medium to coarse; [FILL]. W L GW - 0.5 0.5 EOH: 0.45m Termination: HA grinding on gravel; no recovery 1.0 1.5 **REMARKS** SYMBOLS ▼ Standing Water Level <- Out flow ├─ In flow



**HA2.12** 

SHEET 12 OF 25

CLI	ENT:	Gre	enstor	ne Land Developments Ltd	PROJECTION: NZTM EASTING: 1934726.97						LOCATION: Lot 24			
PR	DJEC	CT:	18425	0602	EASTING:	19	34726	3.97			STARTED: 17-01-2019			
LO	CATIO	ON:	139 Ar	ataki Road	NORTHING:	56	02594	4.96		FINISHED: 20-08-2018				
					DATUM:					LOGGED BY: MD DATE: 17-01-2019				
OF	ICE:		RDCL	- Hastings	ELEVATION									
ENG	SINE	ER:			DIAMETER:	0m	nm				STATUS: Final da	ta		
					OPERATOR									
							CONSISTENCY / DENSITY	CLASSIFICATION						
Ē			O	ROCK / SOIL DESCRIPTION		쀭증	Ž,	S	BLOWS		SAMPLES	ADDITIONAL REMARKS		
Ħ.	Ē	H H	PHI			IDTS ITIO	SIS	SSIF	BLC		& TESTS			
DEРТН (m)	RL (m)	WATER	GRAPHIC LOG			NO NO NO	SON	CLA	DCP I					
			2/ 2 ≥ TS 2/2	TOPSOIL & GRAVEL; dark brown with brown m Medium dense; moist; TOPSOIL, rootlets, grave	ottling. el, fine to	М	MD		_					
			to 400	coarse.  Sandy GRAVEL (GW), with trace rootlets; brown	n Loose:				-					
	-		000	wet; gravel, fine to coarse, subangular to subrou	and,									
	-			greywacke; sand, medium to coarse; [FILL].		W	L	GW						
			90.2	EOH: 0.40m Termination: HA grinding on gravel; no recovery										
	5				ĺ									
-0.5	- ģ													
	-													
	_													
	-													
	-													
-1.0	0.													
-1.0	7													
-	-													
	_													
	-													
	-													
-1.5	- 2.													
1.0	,													
	-													
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	="													
-	-													
										-	MA DIKO			
										KE	MARKS			
										SYI	MBOLS			
										l	Standing Water Level			
											Out flow			
					RDC						In flow			
					KUC									



# **HAND AUGER LOG**

PROJECTION: NZTM

**HA2.13** 

SHEET 13 OF 25

LOCATION: Lot 28

PRO	JEC	T:	18425	0602	EASTING: 1934709.65						STARTED: 17-01-2019			
LOC	ATIO	ON:	139 Ar	rataki Road	NORTHING:	560	02625	5.38			FINISHED: 20-08-2018			
					DATUM:						LOGGED BY: SD DATE: 17-01-2019			
OFF	ICE:		RDCL	- Hastings	ELEVATION	-					CHECKED BY:	DATE: 21-01-2019		
		ER:		3	DIAMETER:		ım				STATUS: Final da			
			R: RI	OCL	OPERATOR:									
				- <del> </del>				z						
DEPTH (m)	RL (m)	WATER	GRAPHIC LOG	ROCK / SOIL DESCRIPTION	MOISTURE CONDITION CONSISTENCY / DENSITY CLASSIFICATION DCP BLOWS						SAMPLES & TESTS	ADDITIONAL REMARKS		
				Organic gravelly SILT (OL); dark brown. Firm; r moist; Organic, rootlets, gravel, fine to coarse, round; [FILL].  EOH: 0.40m Termination: HA grinding on gravel; no recovery. 2 atte	on-plastic; subround to	М	FM	OL						
0.5	-0-2													
1.0	-1.0													
1.5	-1.5													
										SYM  V:	BOLS Standing Water Level Dut flow			
	RDCL										n flow			



### HAND AUGER LOG

PROJECTION: NZTM

**HA2.14** 

**SHEET 14 OF 25** 

LOCATION: Lot 32

PROJECT: 184250602 EASTING: 1934685.43 STARTED: 17-01-2019 LOCATION: 139 Arataki Road NORTHING: 5602661.44 FINISHED: 20-08-2018 DATUM: LOGGED BY: SD DATE: 17-01-2019 OFFICE: RDCL - Hastings ELEVATION: -CHECKED BY: DATE: 21-01-2019 ENGINEER: TB DIAMETER: 0mm STATUS: Final data CONTRACTOR: RDCL OPERATOR: CLASSIFICATION MOISTURE CONDITION CONSISTENCY / DENSITY DCP BLOWS SAMPLES DEPTH (m) GRAPHIC LOG ROCK / SOIL DESCRIPTION ADDITIONAL REMARKS & TESTS WATER RL (m) Organic SILT (OL), with some gravel; dark brown. Soft to firm; wet; gravel, fine to coarse, subround to round; [FILL]; surface water logged. S -FM W OL 3457 EOH: 0.30m Termination: HA grinding on gravel; no recovery. 2 attempts 0.5 1.0 1.5 **REMARKS** SYMBOLS ▼ Standing Water Level <- Out flow ├─ In flow **RDCL** 



### HAND AUGER LOG

PROJECTION: NZTM

**HA2.15** 

**SHEET 15 OF 25** 

LOCATION: Lot 37

PROJECT: 184250602 EASTING: 1934675.00 STARTED: 17-01-2019 LOCATION: 139 Arataki Road NORTHING: 5602690.00 FINISHED: 20-08-2018 DATUM: LOGGED BY: SD DATE: 17-01-2019 OFFICE: RDCL - Hastings ELEVATION: -CHECKED BY: DATE: 21-01-2019 ENGINEER: TB DIAMETER: 0mm STATUS: Final data CONTRACTOR: RDCL OPERATOR: CLASSIFICATION MOISTURE CONDITION CONSISTENCY / DENSITY DCP BLOWS SAMPLES DEPTH (m) GRAPHIC LOG ROCK / SOIL DESCRIPTION ADDITIONAL REMARKS & TESTS WATER RL (m) 142 Organic gravelly SILT (OL), with some sand. Firm; nonplastic; wet; organic, rootlets, gravel, fine to coarse, subround to round; sand, fine to medium. FM OL w 300 MD SM Silty SAND (SM); brown . Medium dense; non-plastic; wet; sand, fine to medium. FOH: 0.30m Termination: HA spinning; no recovery 0.5 1.0 1.5 **REMARKS** SYMBOLS ▼ Standing Water Level <- Out flow ├─ In flow **RDCL** 



CONTRACTOR: RDCL

### HAND AUGER LOG

**HA2.16** 

**SHEET 16 OF 25** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 31 PROJECT: 184250602 EASTING: 1934672.36 STARTED: 17-01-2019 LOCATION: 139 Arataki Road NORTHING: 5602656.84 FINISHED: 20-08-2018

DATUM:

ELEVATION: -

LOGGED BY: MD CHECKED BY:

DATE: 17-01-2019 DATE: 21-01-2019

OFFICE: RDCL - Hastings ENGINEER: TB DIAMETER: 0mm STATUS: Final data

OPERATOR:

00	CONTRACTOR. RDCL OF ERATOR.									
DEPTH (m)	RL (m)	WATER	GRAPHIC LOG	ROCK / SOIL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY / DENSITY	CLASSIFICATION	DCP BLOWS	SAMPLES & TESTS	ADDITIONAL REMARKS
			24 TS	TOPSOIL; dark brown. Firm; wet; TOPSOIL, minor rootlets.	w	FM				
_	-			Silty SAND (SM); light brown with brown and orange mottling. Medium dense; low plasticity; moist; sand, fine to medium.		MD	SM			
_	-0.5			Sandy SILT (ML); brown with light brown and orange mottling. Firm; low plasticity; moist; sand, fine to medium.	М	FM	ML			
-0.5	-			Sandy SILT; brown . Loose; non-plastic; moist; sand, fine to medium.		L				
-1.0				EOH: 0.55m Termination: HA spinning; no recovery						
-1.5 -	- 1.5									
	REMARKS									

SYMBOLS

▼ Standing Water Level

<- Out flow ├─ In flow



PROJECTION: NZTM

**HA2.17** 

**SHEET 17 OF 25** 

LOCATION: Lot 30

CLIENT: Greenstone Land Developments Ltd PROJECT: 184250602 EASTING: 1934684.22 STARTED: 17-01-2019 LOCATION: 139 Arataki Road NORTHING: 5602633.49 FINISHED: 20-08-2018 DATUM: LOGGED BY: MD DATE: 17-01-2019 OFFICE: RDCL - Hastings ELEVATION: -CHECKED BY: DATE: 21-01-2019 ENGINEER: TB DIAMETER: 0mm STATUS: Final data CONTRACTOR: RDCL OPERATOR: CLASSIFICATION MOISTURE CONDITION CONSISTENCY / DENSITY DCP BLOWS SAMPLES DEPTH (m) GRAPHIC LOG ROCK / SOIL DESCRIPTION ADDITIONAL REMARKS & TESTS WATER RL (m) TOPSOIL; dark brown. Firm; wet; TOPSOIL, trace rootlets. FM Sandy GRAVEL (GW); brown . Loose; wet; well graded; gravel, fine to coarse, subangular to subround, greywacke; W sand, medium to coarse; [FILL]. L GW d EOH: 0.40m Termination: HA grinding on gravel; no recovery 0.5 1.0 1.5 **REMARKS** SYMBOLS ▼ Standing Water Level <- Out flow ├─ In flow **RDCL** 



**HA2.18** 

SHEET 18 OF 25

CLI	ENT:	Gre	ensto	ne Land Developments Ltd	PROJECTION: NZTM						LOCATION: Lot 36			
PR	OJEC	T:	18425	0602	EASTING:	19	34658	3.41		STARTED: 17-01-2019				
LO	CATIO	ON:	139 Aı	rataki Road	NORTHING:	56	0268	1.09		FINISHED: 20-08-2018				
					DATUM:						LOGGED BY: MI	DATE: 17-01-2019		
OFI	FICE:		RDCL	- Hastings	ELEVATION:	-				(	CHECKED BY:	DATE: 21-01-2019		
EN	GINE	ER:	ТВ		DIAMETER:	0m	ım				STATUS: Final dat	ta		
СО	NTRA	СТО	R: RI	DCL	OPERATOR:									
DEPTH (m)	RL (m)	WATER	GRAPHIC LOG	ROCK / SOIL DESCRIPTION		MOISTURE CONDITION	CONSISTENCY / DENSITY	CLASSIFICATION	DCP BLOWS		SAMPLES & TESTS	ADDITIONAL REMARKS		
			⊴4 3 ⊵ TS	TOPSOIL; dark brown. Stiff; moist; TOPSOIL, t			SF							
	-			Sandy GRAVEL (GW); brown . Loose; moist; w gravel, fine to coarse, subangular to subround, sand, medium to coarse; [FILL].	ell graded; greywacke;	М	L	GW						
	-		100 × 16_	EOH: 0.25m Termination: HA grinding on gravel; no recovery										
0.5	-0.5													
	-													
	-													
	0													
1.0	1-													
	-													
	_													
	2													
1.5	- 4													
	-													
	-													
		1					-	I		REMA	ARKS			
										SYME	BOLS			
										▼ St	anding Water Level			
										< OI				
							├─ In flow							



### HAND AUGER LOG

PROJECTION: NZTM

**HA2.19** 

SHEET 19 OF 25

LOCATION: Lot 39

PROJECT: 184250602 EASTING: 1934711.73 STARTED: 21-01-2019 LOCATION: 139 Arataki Road NORTHING: 5602709.34 FINISHED: 20-08-2018 DATUM: LOGGED BY: MD DATE: 21-01-2019 OFFICE: RDCL - Hastings ELEVATION: -CHECKED BY: DATE: 21-01-2019 ENGINEER: TB DIAMETER: 0mm STATUS: Final data CONTRACTOR: RDCL OPERATOR: CLASSIFICATION MOISTURE CONDITION CONSISTENCY / DENSITY DCP BLOWS SAMPLES DEPTH (m) GRAPHIC LOG ROCK / SOIL DESCRIPTION ADDITIONAL REMARKS & TESTS WATER RL (m) TOPSOIL; dark brown. Medium dense; moist; TOPSOIL, some rootlets.  $\underline{\Delta D}$ MD М 34 Sandy SILT, with minor rootlets; brown with orange and dark brown mottling. Medium dense; non-plastic; moist; sand, fine L - GW Sandy GRAVEL (GW), with trace silt; brown . Loose to medium dense; non-plastic; moist; well graded; gravel, fine - 0.5 0.5 to coarse, subangular to subround; sand, fine to medium; [FILL]. EOH: 0.45m Termination: HA grinding on gravel; no recovery 1.0 1.5 **REMARKS** SYMBOLS ▼ Standing Water Level  $\triangleleft$  Out flow ├─ In flow **RDCL** 



**HA2.20** 

**SHEET 20 OF 25** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 38 PROJECT: 184250602 EASTING: 1934696.08 STARTED: 21-01-2019 LOCATION: 139 Arataki Road NORTHING: 5602703.48 FINISHED: 20-08-2018 DATUM: LOGGED BY: MD DATE: 21-01-2019 OFFICE: RDCL - Hastings ELEVATION: -CHECKED BY: DATE: 21-01-2019 ENGINEER: TB DIAMETER: 0mm STATUS: Final data CONTRACTOR: RDCL OPERATOR: CLASSIFICATION MOISTURE CONDITION CONSISTENCY / DENSITY DCP BLOWS SAMPLES DEPTH (m) GRAPHIC LOG ROCK / SOIL DESCRIPTION ADDITIONAL REMARKS & TESTS RL (m) TOPSOIL; dark brown. Medium dense; moist; TOPSOIL, minor rootlets.  $\underline{\Delta dz}$  $\underline{dds}$ MD М Sandy SILT, with minor rootlets; brown with orange and dark brown mottling. Medium dense; non-plastic; moist; sand, fine to medium. GW Sandy GRAVEL (GW), with trace silt; brown . Loose to medium dense; non-plastic; moist; gravel, fine to coarse, subangular to subround; sand, fine to medium; [FILL]. 0.5 EOH: 0.35m Termination: HA grinding on gravel; no recovery 1.0 1.5 **REMARKS** SYMBOLS ▼ Standing Water Level <- Out flow ├─ In flow **RDCL** 



### HAND AUGER LOG

PROJECTION: NZTM

**HA2.21** 

**SHEET 21 OF 25** 

LOCATION: Lot 35

PROJECT: 184250602 EASTING: 1934710.00 STARTED: 21-01-2019 LOCATION: 139 Arataki Road NORTHING: 5602682.79 FINISHED: 20-08-2018 DATUM: LOGGED BY: MD DATE: 21-01-2019 OFFICE: RDCL - Hastings ELEVATION: -CHECKED BY: DATE: 21-01-2019 ENGINEER: TB DIAMETER: 0mm STATUS: Final data CONTRACTOR: RDCL OPERATOR: CLASSIFICATION CONSISTENCY / DENSITY DCP BLOWS MOISTURE CONDITION SAMPLES DEPTH (m) GRAPHIC LOG ROCK / SOIL DESCRIPTION ADDITIONAL REMARKS & TESTS WATER RL (m) TOPSOIL; dark brown. Medium dense; dry becoming moist; TOPSOIL, trace rootlets. ming MD Sandy SILT; brown with dark brown and orange mottling. М MD GW Medium dense; non-plastic; moist; sand, medium. Sandy GRAVEL (GW), with trace silt; brown . Loose to medium dense; non-plastic; moist; well graded; gravel, fine to coarse, subangular to subround; sand, fine to coarse; [FILL]. EOH: 0.20m Termination: HA grinding on gravel; no recovery 0.5 1.0 1.5 **REMARKS** SYMBOLS ▼ Standing Water Level <- Out flow ├─ In flow **RDCL** 



#### HAND AUGER LOG

**HA2.22** 

**SHEET 22 OF 25** 

PROJECTION: NZTM LOCATION: Lot 33 CLIENT: Greenstone Land Developments Ltd PROJECT: 184250602 EASTING: 1934733.57 STARTED: 21-01-2019 LOCATION: 139 Arataki Road NORTHING: 5602654.17 FINISHED: 20-08-2018 DATUM: LOGGED BY: MD DATE: 21-01-2019 OFFICE: RDCL - Hastings ELEVATION: -CHECKED BY: DATE: 21-01-2019 ENGINEER: TB DIAMETER: 0mm STATUS: Final data CONTRACTOR: RDCL OPERATOR: CLASSIFICATION MOISTURE CONDITION CONSISTENCY / DENSITY DCP BLOWS SAMPLES DEPTH (m) GRAPHIC LOG ROCK / SOIL DESCRIPTION ADDITIONAL REMARKS & TESTS WATER RL (m) TOPSOIL; dark brown. Medium dense; moist; TOPSOIL, trace rootlets. MD Sandy SILT, with minor [select a composition]; brown with dark brown mottling. Medium dense; non-plastic; moist becoming wet; sand, fine to medium. beco ming GW М Sandy GRAVEL (GW), with trace silt; brown . Loose to medium dense; non-plastic; moist; well graded; gravel, fine to coarse, subangular to subround; sand, fine to coarse; [FILL]. 0.5 EOH: 0.30m Termination: HA grinding on gravel; no recovery 1.0 1.5 **REMARKS** SYMBOLS ▼ Standing Water Level  $\triangleleft$  Out flow ├─ In flow **RDCL** 



CLIENT: Greenstone Land Developments Ltd

## **HAND AUGER LOG**

PROJECTION: NZTM

**HA2.23** 

SHEET 23 OF 25

LOCATION: Lot 27

PRO	DJEC	T:	18425	0602	EASTING:	19	34742	2.13			STARTED: 21-01	-2019
LOC	CATIO	ON:	139 Ar	rataki Road	NORTHING:	56	02639	9.32			FINISHED: 20-08	3-2018
					DATUM:						LOGGED BY: M	D DATE: 21-01-2019
OFF	ICE:		RDCL	- Hastings	ELEVATION	: -					CHECKED BY:	DATE: 21-01-2019
		ER:		3	DIAMETER:		ım				STATUS: Final da	
			R: RI	OCI	OPERATOR							
								7				
DEPTH (m)	RL (m)	WATER	GRAPHIC LOG	ROCK / SOIL DESCRIPTION		MOISTURE CONDITION	CONSISTENCY / DENSITY	CLASSIFICATION	DCP BLOWS		SAMPLES & TESTS	ADDITIONAL REMARKS
			20 ± 3 2 TS	TOPSOIL; dark brown. Medium dense; dry become TOPSOIL, trace rootlets.		beco ming						
				Sandy SILT, with minor rootlets; brown with ora brown mottling. Medium dense; non-plastic; mo to medium.	ist; sand, fine	м	MD	014	_			
			6.9a	Silty SAND (SM); brown with dark brown mottlind dense; non-plastic; moist; sand, fine to medium	na. Medium		L & MD	SM				
0.5	-0.5			Sandy GRAVEL (GW), with trace silt; brown . L medium dense; non-plastic; moist; well graded; to coarse, subangular to subround; sand, fine to [FILL].	gravel, fine							
	-			EOH: 0.35m Termination: HA grinding on gravel; no recovery								
1.0	-1.0											
	-											
	-											
1.5	-1.5											
	-											
	-											
										-	AAA DIKO	
										RE	MARKS	
										SYI	MBOLS	
										l	Standing Water Level Out flow	
										$\triangleright$	- In flow	
					RDC	L				-		



CLIENT: Greenstone Land Developments Ltd

## **HAND AUGER LOG**

PROJECTION: NZTM

**HA2.24** 

SHEET 24 OF 25

LOCATION: Lot 26

21-01-2019
21-01-2019
REMARKS



CLIENT: Greenstone Land Developments Ltd

# **HAND AUGER LOG**

PROJECTION: NZTM

**HA2.25** 

SHEET 25 OF 25

LOCATION: Lot 25

PR	OJEC	:T:	18425	0602	EASTING:	19	3475	3.04		STARTED: 21-01	-2019	
LO	CATIO	ON:	139 Ar	rataki Road	NORTHING:	56	0260	5.34		FINISHED: 20-08-	-2018	
					DATUM:					LOGGED BY: ME	DATE: 21-01-2019	
OFI	FICE:		RDCL	- Hastings	ELEVATION	: -				CHECKED BY:	DATE: 21-01-2019	
EN	GINE	ER:	ТВ		DIAMETER:	0m	m			STATUS: Final data		
			)R: R[	DCL	OPERATOR	:						
								7				
DEPTH (m)	RL (m)	WATER	GRAPHIC LOG	ROCK / SOIL DESCRIPTION		MOISTURE CONDITION	CONSISTENCY / DENSITY	CLASSIFICATION	DCP BLOWS	SAMPLES & TESTS	ADDITIONAL REMARKS	
			20 ± 5 ≤ TS	TOPSOIL; dark brown. Medium dense; moist; T trace rootlets.		м	MD					
	-		<del>ి.</del> కి.ం.	Sandy GRAVEL (GW), with trace silt; brown . Le medium dense; non-plastic; moist; well graded; to coarse, subangular to subround; sand, fine to [FILL].	gravel, fine	IMI	L - MD	GW				
	_			EOH: 0.15m Termination: HA grinding on gravel; no recovery								
0.5	-0.5											
	_											
	-											
	_											
1.0	-1.0											
	_											
	_											
	_											
-1.5	-1.5											
1.5	`` -											
	_											
	_											
	_											
										REMARKS		
										SYMBOLS		
										▼ Standing Water Level		
										< Out flow		
										├─ In flow		
					RDC	L		_				



EXP01

SHEET 1 OF 3

DATE: 15-08-2018

LOGGED BY: SD

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM2000 STARTED: 15-08-2018
PROJECT: 184250602 EASTING: 1934668.06 FINISHED: 15-08-2018

LOCATION: 139 Arataki Road NORTHING: 5602593.21

Lot 20 DATUM:

OFFICE: RDCL - Hastings ELEVATION: - CHECKED BY: TB DATE: 21-01-2019

ENGINEER: TB DIMENSIONS: m x m STATUS: Final data

CONTRACTOR: RDCL MACHINE TYPE & MODEL:

DEРТН (m)	RL (m)	WATER	GRAPHIC LOG	ROCK / SOIL DESCRIPTION	MOISTURE	CONSISTENCY / DENSITY	CLASSIFICATION	DCP BLOWS	SAMPLES & TESTS	ADDITIONAL REMARKS
-	-	ountered	90 9 2 TS × × × × × × × × × × × × × × × × × × ×	TOPSOIL; dark brown. Firm; moist; non plastic.  SILT, with some sand; brown. Firm; low plasticity; moist; sand, fine to medium.		FM				
-0.5	-0.5	Groundwater Not Encountered		GRAVEL, with some silt; brown.  Medium dense; non-plastic; moist; well graded; gravel, fine to coarse, subround to round.	М					
-1.0	-1.0	Ground		EOH: 1.20 m		MD				
- - -1.5 -	-1.5									
- - -2.0 -	-2.0									
-2.5	-2.5									
- - -3.0 -	-3.0									
- - -3.5 -	-3.5									
-	-								REMARKS	

SYMBOLS

▼ Standing Water Level

← Out flow

├─ In flow



EXP02

SHEET 2 OF 3

DATE: 15-08-2018

LOGGED BY: SD

 CLIENT:
 Greenstone Land Developments Ltd
 PROJECTION: NZTM2000
 STARTED: 15-08-2018

 PROJECT:
 184250602
 EASTING: 1934620.99
 FINISHED: 15-08-2018

LOCATION: 139 Arataki Road NORTHING: 5602657.55

Lot 16 DATUM:

OFFICE: RDCL - Hastings ELEVATION: - CHECKED BY: TB DATE: 21-01-2019

ENGINEER: TB DIMENSIONS: m x m STATUS: Final data

CONTRACTOR: RDCL MACHINE TYPE & MODEL:

DEPTH (m)	RL (m)	WATER	GRAPHIC LOG	ROCK / SOIL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY /	CLASSIFICATION	DCP BLOWS	SAMPLES & TESTS	ADDITIONAL REMARKS
-	- -		30 3 × × / × × / × × /	TOPSOIL; dark brown. Firm; moist; some roots and rootlets; non plastic. SILT, with some sand, with trace rootlets; brown. Firm; low plasticity; moist; sand, fine to medium.	20	FM	0			
-0.5 -	-0.5	Groundwater Not Encountered		GRAVEL, with trace silt; brown.  Medium dense; non-plastic; moist; gravel, fine to medium, subround.  GRAVEL, with some silt; brown.	М	MD				
-1.0	-1.0	Gro		Medium dense; non-plastic; moist; gravel, fine to coarse, subround.  EOH: 1.10m						
- - - -1.5	-1.5			`						
- -2.0 -	-2.0									
- - -2.5 -	-2.5									
- - -3.0 -	-3.0									
- -3.5 -	-3.5									
-	-								REMARKS	

SYMBOLS

▼ Standing Water Level

← Out flow

├─ In flow



EXP03

SHEET 3 OF 3

Greenstone Land Developments Ltd STARTED: 15-08-2018 CLIENT: PROJECTION: NZTM2000 PROJECT: 184250602 EASTING: 1934726.47 FINISHED: 15-08-2018

NORTHING: 5602670.76 LOCATION: 139 Arataki Road

> DATUM: Lot 34

LOGGED BY: SD DATE: 15-08-2018 RDCL - Hastings OFFICE: ELEVATION: -CHECKED BY: TB DATE: 21-01-2019

STATUS: Final data ENGINEER: TB DIMENSIONS:  $m \times m$ 

CONTRACTOR: RDCL MACHINE TYPE & MODEL:

DEPTH (m)	RL (m)	WATER	GRAPHIC LOG	ROCK / SOIL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY / DENSITY	CLASSIFICATION	DCP BLOWS	SAMPLES & TESTS	ADDITIONAL REMARKS
-	_		ar a ⊾TS ××/	TOPSOIL; dark brown. Firm; moist; trace rootlets, non plastic.  SILT, with trace rootlets and sand; brown.		FM				
- -0.5	-0.5		)	Firm; low plasticity; moist; sand, fine.  GRAVEL, with some sand; brown.						
- - - -1.0 -	-1.0	Encountered	7 *0*0 *0*0 *0* 0 *0*0 *0*0 *0 0 *0 * 0 *	Medium dense; moist; well graded; gravel, fine to coarse, subround; non plastic.						
- - - 1.5 -	-1.5	Groundwater Not Encountered	7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		М	MD				
- -2.0 - -	-2.0		$P \cap I$							
- 2.5 -	-2.5		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	EOH: 2.70m						
- - -3.0 -	-3.0									
-3.5 -	-3.5									
-	-								REMARKS	

SYMBOLS

▼ Standing Water Level

<- Out flow ├─ In flow



**TP01** 

SHEET 1 OF 5

LOGGED BY: SD

Greenstone Land Developments Ltd STARTED: 21-08-2018 CLIENT: PROJECTION: NZTM2000 PROJECT: 184250602 EASTING: 1934664.00 FINISHED: 21-08-2018

NORTHING: 5602635.00 LOCATION: 139 Arataki Road

> DATUM: ROW

DATE: 21-08-2018 OFFICE: ELEVATION: -CHECKED BY: TB RDCL - Hastings DATE: 21-01-2019

STATUS: Final data ENGINEER: TB DIMENSIONS:  $m \times m$ 

CONTRACTOR: RDCL MACHINE TYPE & MODEL:

DEPTH (m)	RL (m)	WATER	GRAPHIC LOG	ROCK / SOIL DESCRIPTION	MOISTURE	CONSISTENCY / DENSITY	CLASSIFICATION	DCP BLOWS		SAMPLES & TESTS	ADDITIONAL REMARKS
-	-		24 3 2 TS 34 34 4 34	TOPSOIL; dark brown. Firm; moist; non plastic; some rootlets.		FM					
- 0.5	- 0.5			Sandy SILT; brown. Medium dense; non-plastic; moist; sand, fine to medium.					В		
-	-			SAND, with trace gravel; brown.  Medium dense; moist; sand, medium; gravel, fine to medium, subround to round; non plastic.		MD					
-1.0 -	-1.0		0.0	Silty sandy GRAVEL; brown.  Medium dense; non-plastic; moist; gravel, fine to coarse, subround to round; sand, medium.					В		
-	- rč		٥٥٥	SAND, with some silt; light brown.  Medium dense; non-plastic; moist; sand, fine to medium.  SAND, with some silt; greyish brown.	м						
1.5 - -	- - - +			Medium dense; low plasticity; moist; sand, fine.  Silty sandy GRAVEL, with trace cobbles; brown.							
- - -2.0	-2.0			Dense; non-plastic; moist; gravel, fine to coarse, subround to round; sand, fine to medium; cobbles, subround to round.							
- -2.5 -	-2.5		0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Silty sandy GRAVEL, with some cobbles; brown.  Dense; non-plastic; moist; gravel, subround to round; sand, medium to coarse; cobbles, subround to round.		D					
- -3.0 - -	- 3.0			Silty sandy GRAVEL, with some cobbles.  Dense; non-plastic; wet; gravel, fine to coarse, subround to round; sand, medium to coarse; cobbles, subround to round.	W						
- -3.5	-3.5	_	323	Silty sandy GRAVEL, with some cobbles; brown.  Dense; non-plastic; saturated; gravel, fine to coarse,	S			1			
-	-			subround to round; sand, medium to coarse; cobbles, subround to round.							
-	-			EOH: 3.50m Termination: HA grinding on gravel; no recovery							
									RE	MARKS	

SYMBOLS

▼ Standing Water Level

 $\triangleleft$  Out flow ├─ In flow



**TP02** 

SHEET 2 OF 5 CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM2000 STARTED: 21-08-2018 PROJECT: 184250602 **EASTING:** 1934709.00 FINISHED: 21-08-2018 NORTHING: 5602642.00 LOCATION: 139 Arataki Road LOGGED BY: SD DATUM: Lot 29 DATE: 21-08-2018 RDCL - Hastings OFFICE: ELEVATION: -CHECKED BY: TB DATE: 21-01-2019 ENGINEER: TB STATUS: Final data DIMENSIONS: m x m CONTRACTOR: RDCL MACHINE TYPE & MODEL: CLASSIFICATION CONSISTENCY / DENSITY DCP BLOWS MOISTURE CONDITION SAMPLES  $\Xi$ ROCK / SOIL DESCRIPTION ADDITIONAL REMARKS GRAPHIC LOG & TESTS WATER DEPTH RL (m) TOPSOIL; dark brown. Firm; moist; non plastic; trace rootles. Sandy SILT, with trace rootlets; brown. В Medium dense; non-plastic; moist; sand, fine to medium. 0.5 ö SAND; greyish brown. Medium dense; moist; sand, medium; non plastic. Silty sandy GRAVEL, with trace cobbles; brown. В 1.0 Medium dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round. Groundwater Not Encountered MD -1.5 1.5 М -2.0 2.0 GRAVEL, with some clay and silt, with trace cobbles; -2.5 2.5 greyish brown. Medium dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round. Silty sandy GRAVEL, with trace cobbles; brown. D Dense; non-plastic; moist; gravel, fine to coarse, subround -3.0 3.0 to round; sand, medium to coarse; cobbles, subround to round Silty sandy GRAVEL, with some cobbles; brown. Dense; non-plastic; moist; gravel, fine to coarse, subround to round; sand, medium to coarse; cobbles, subround to round. 3.5 EOH: 3.10m Termination: HA grinding on gravel; no recovery **REMARKS SYMBOLS** Standing Water Level

← Out flow

├─ In flow



**TP03** 

SHEET 3 OF 5

DATE: 21-08-2018

LOGGED BY: SD

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM2000 STARTED: 21-08-2018
PROJECT: 184250602 EASTING: 1934741.00 FINISHED: 21-08-2018

LOCATION: 139 Arataki Road NORTHING: 5602596.00

Lot 25 DATUM:

OFFICE: RDCL - Hastings ELEVATION: - CHECKED BY: TB DATE: 21-01-2019

ENGINEER: TB DIMENSIONS: m x m STATUS: Final data

CONTRACTOR: RDCL MACHINE TYPE & MODEL:

					7	NCY /	ATION	S		SAMPLES	
DEPTH (m)	RL (m)	WATER	GRAPHIC LOG	ROCK / SOIL DESCRIPTION	MOISTURE	CONSISTENCY / DENSITY	CLASSIFICATION	DCP BLOWS		& TESTS	ADDITIONAL REMARKS
	-		20 2 2 TS 20 20	TOPSOIL; dark brown. Firm; moist; some rootlets; non plastic.		FM					
0.5	-0.5			Silty SAND; brown. Medium dense; non-plastic; moist; sand, fine to medium.					В		
	-			Silty sandy GRAVEL; brown.  Medium dense; non-plastic; moist; gravel, fine to coarse, subround to round; sand, medium to coarse.					В		
1.0	-1.0	intered				MD					
1.5	-1.5	lot Encou		SAND, with some rootlets, with trace silt; brown. Medium dense; non-plastic; moist.	) <sub>M</sub>						
	-	Groundwater Not Encountered		Silty sandy GRAVEL; brown.  Medium dense; non-plastic; moist; gravel, fine to coarse, subround to round; sand, medium to coarse.							
2.0	-2.0	8	3.0	SAND, with trace silt; brown. Medium dense; non-plastic; moist; sand, medium.							
2.5	-2.5			Silty sandy GRAVEL, with trace cobbles; brown.  Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.		D					
				GRAVEL, with trace clay and sand; light grey. Medium dense; non-plastic; moist; gravel, fine to coarse,		MD					
3.0	-3.0			Silty sandy GRAVEL, with some cobbles; brown.	1_	D					
3.5	-3.5			Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.  EOH: 3.10m Termination: HA grinding on gravel; no recovery							
	-								RE	MARKS	

SYMBOLS

▼ Standing Water Level

← Out flow

├─ In flow



**TP04** 

SHEET 4 OF 5

LOGGED BY: SD

Greenstone Land Developments Ltd STARTED: 21-08-2018 CLIENT: PROJECTION: NZTM2000 PROJECT: 184250602 EASTING: 1934692.00 FINISHED: 21-08-2018

NORTHING: 5602611.00 LOCATION: 139 Arataki Road

> DATUM: ROW

DATE: 21-08-2018 OFFICE: ELEVATION: -CHECKED BY: TB RDCL - Hastings DATE: 21-01-2019

STATUS: Final data ENGINEER: TB DIMENSIONS:  $m \times m$ 

CONTRACTOR: RDCL MACHINE TYPE & MODEL:

TOPSOIL; dark brown. Firm; moist; some roots; non plastic.  Sandy SILT, with trace gravel; brown. Firm; non-plastic; moist; sand, medium to coarse; gravel, fine, subround to round.  TOPSOIL; dark brown. Firm; non-plastic; moist; sand, medium to coarse; gravel, fine, subround to round.  SILT, with some sand; brownish grey. Firm; low plasticity; moist; sand, fine.  SILT, with some sand; brownish grey. Firm; low plasticity; moist; gravel, fine to coarse, subround to round.  MMD  ADDITIONAL STANDARD STANDA	(in the second			0	ROCK / SOIL DESCRIPTION	# S	TENCY /	CLASSIFICATION	SWC	SAMPLES	ADDITIONAL REMARKS
Sandy SILT, with trace gravel, fine, subround to round.  Sandy SILT, with trace gravel, fine, subround to round.  TOPSOIL; dark brown. Firm; non-plastic; moist; sand, medium to coarse; gravel, fine, subround to round.  SILT, with some sand; brownish grey. Firm; low plasticity; moist; sand, fine.  Silty sandy GRAVEL; brown. Medium dense; non-plastic; moist; gravel, fine to coarse, subround to round.  MM  MD  GRAVEL, with trace clay and cobbles; greyish brown. Dense; non-plastic; moist gravel, fine to coarse, subround to round; cobbles, subround to round.  Silty sandy GRAVEL, with trace clay and cobbles; greyish brown. Dense; non-plastic; moist gravel, fine to coarse, subround to round; cobbles, subround to round.  Silty sandy GRAVEL, with some cobbles; brown. Dense; non-plastic; moist gravel, fine to coarse, subround to round; cobbles, subround to round.  Dense; non-plastic; moist gravel, fine to coarse, subround to round; cobbles, subround to round.  EOH: 3.10m	DEPTH (		WAIEK	GRAPHIC		MOISTUI	CONSIS- DENSITY	CLASSIF	DCP BLC	& IESIS	
Firm; non-plastic; moist; sand, medium to coarse; gravel, fine, subround to round.  TO POSOIL; dark brown. Firm; moist, non plastic; some roots.  SILT, with some sand; brownish grey. Firm; low plasticity; moist; sand, fine.  Sitty sandy GRAVEL; brown. Medium dense; non-plastic; moist; gravel, fine to coarse, subround to round.  MD  GRAVEL, with trace clay and cobbles; greyish brown. Dense; non-plastic; moist; gravel, fine to coarse, subround to round.  GRAVEL, with trace clay and cobbles; greyish brown. Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.  Sitty sandy GRAVEL, with some cobbles; brown. Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.  Sitty sandy GRAVEL, with some cobbles; brown. Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.  Sitty sandy GRAVEL, with some cobbles; brown. Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.  EMBA  FM  FM  FM  AD  Sitty sandy GRAVEL, with some cobbles; brown. Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.  EMBA  FIRM  FM  FM  FM  FM  AD  FM  FM  FM  FM  FM  FM  FM  FM  FM  F	.		ŀ	545							
Firm; moist; non plastic; some roots.  SILT, with some sand; brownish grey. Firm; low plasticity; moist; gravel, fine to coarse, subround to round.  MMD  GRAVEL, with trace clay and cobbles; greyish brown. Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.  Sitty sandy GRAVEL, with trace clay and cobbles; greyish brown. Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.  Sitty sandy GRAVEL, with trace clay and cobbles; greyish brown. Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.  Sitty sandy GRAVEL, with some cobbles; brown. Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.  EOH: 3.10m					Firm; non-plastic; moist; sand, medium to coarse; gravel,		FM				
Firm; low plasticity: moist; sand, fine.  Silty sandy GRAVEL; brown. Medium dense; non-plastic; moist; gravel, fine to coarse, subround to round.  GRAVEL, with trace clay and cobbles; greyish brown. Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.  Silty sandy GRAVEL, with trace clay and cobbles; greyish brown. Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.  Silty sandy GRAVEL, with some cobbles; brown. Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.  Silty sandy GRAVEL, with some cobbles; brown. Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.				26 3 2 TS 36							
Silty sandy GRAVEL; brown. Medium dense; non-plastic; moist; gravel, fine to coarse, subround to round.  M MD  GRAVEL, with trace clay and cobbles; greyish brown. Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.  Silty sandy GRAVEL, with trace clay and cobbles; greyish brown. Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.  Silty sandy GRAVEL, with some cobbles; brown. Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round; cobbles, subround to round.  Silty sandy GRAVEL, with some cobbles; brown. Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round; cobbles, subround to round.	-10 - 6		Ì	× × ×							
The second secon				* O. T	Medium dense; non-plastic; moist; gravel, fine to coarse,						
GRAVEL, with trace clay and cobbles; greyish brown. Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.  Silty sandy GRAVEL, with some cobbles; brown. Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round; cobbles, subround to round; cobbles, subround to round; cobbles, subround to round.	-1.5	L	ater Not Enc	유하] 이슈터		М					
GRAVEL, with trace clay and cobbles; greyish brown. Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.  Silty sandy GRAVEL, with some cobbles; brown. Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.  EOH: 3.10m			· 1				MD				
GRAVEL, with trace clay and cobbles; greyish brown. Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.  Silty sandy GRAVEL, with some cobbles; brown. Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.  EOH: 3.10m			í	' 이 김 9 이 김 오승위							
GRAVEL, with trace clay and cobbles; greyish brown.  Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.  Silty sandy GRAVEL, with some cobbles; brown.  Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.  EDH: 3.10m	-2.5 - ?i										
To round; cobbles, subround to round.  Silty sandy GRAVEL, with some cobbles; brown.  Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.  EOH: 3.10m	.		(								
Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.	-3.0 - e			0.70	Dense; non-plastic; moist; gravel, fine to coarse, subround	_	D				
-3.5 - 여   EOH: 3.10m					Dense; non-plastic; moist; gravel, fine to coarse, subround						
	.										

REMARKS

SYMBOLS

▼ Standing Water Level

 $\triangleleft$  Out flow ├─ In flow



**TP05** 

SHEET 5 OF 5

LOGGED BY: SD

Greenstone Land Developments Ltd STARTED: 21-08-2018 CLIENT: PROJECTION: NZTM2000 PROJECT: 184250602 EASTING: 1934694.00 FINISHED: 21-08-2018

NORTHING: 5602570.00 LOCATION: 139 Arataki Road

> DATUM: Lot 22

DATE: 21-08-2018 OFFICE: RDCL - Hastings ELEVATION: -CHECKED BY: TB DATE: 21-01-2019

STATUS: Final data ENGINEER: TB DIMENSIONS:  $m \times m$ 

CONTRACTOR: RDCL MACHINE TYPE & MODEL:

00	N I I V	1010	/IX. IXL	OCL WACHINE I		G IVIC				
DEPTH (m)	RL (m)	WATER	GRAPHIC LOG	ROCK / SOIL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY / DENSITY	CLASSIFICATION	DCP BLOWS	SAMPLES & TESTS	ADDITIONAL REMARKS
-	-		20 2 ETS 20 20 2 30 2 30	TOPSOIL; dark brown. Firm; moist; some rootlets; non plastic.  Sandy SILT, with trace gravel; brown. Firm; non-plastic; moist; gravel, fine, subround to round.		FM				
-0.5 -	0.5			Silty sandy GRAVEL; brown.						
-1.0 -	-1.0	ountered	96000000000000000000000000000000000000	Medium dense; non-plastic; moist; gravel, fine to medium, subround; sand, medium to coarse.						
- 1.5 -	-1.5	Groundwater Not Encountered		SAND, with some silt; brown. Medium dense; non-plastic; moist; sand, medium to coarse.	M					
- -2.0 -	-2.0	Ground	0.	Silty sandy GRAVEL; brown.  Medium dense; non-plastic; moist; gravel, fine to coarse, subround to round.		MD				
- -2.5 - -	-2.5									
-3.0	-3.0		8.9.2 8.9.2 8.9.2	GRAVEL, with trace clay and cobbles; grey. Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.		D				
- - -3.5 -	-3.5			Silty sandy GRAVEL, with some cobbles; brown.  Dense; non-plastic; moist; gravel, fine to coarse, subround to round; cobbles, subround to round.  EOH: 3.10m  Termination: HA grinding on gravel; no recovery						

**REMARKS** 

SYMBOLS

▼ Standing Water Level

 $\triangleleft$  Out flow ├─ In flow



#### **DCP LOG**

**DCP2.001** 

SHEET 1 OF 98

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 21
PROJECT: 184250602 EASTING: 1934675.19 STARTED: 14-12-2018

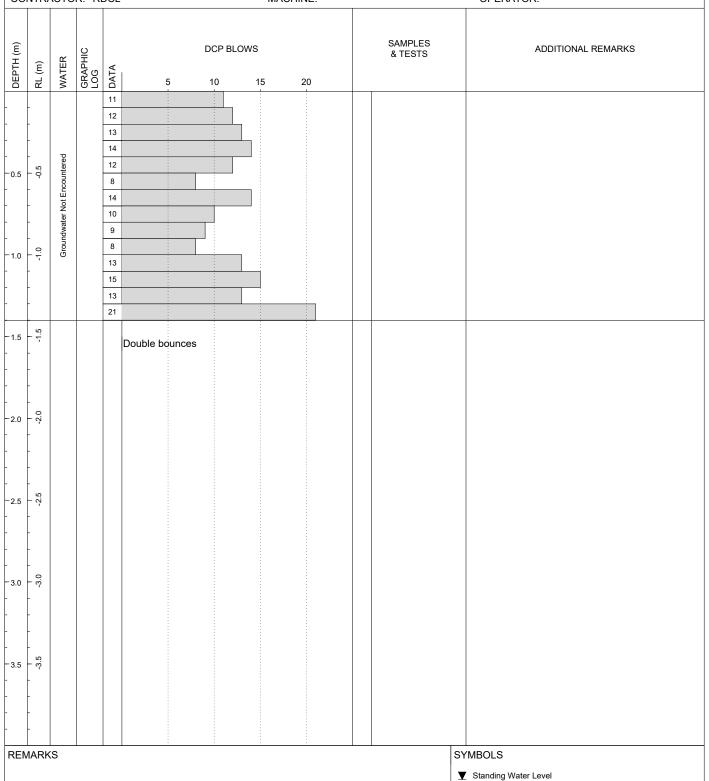
LOCATION: 139 Arataki Road NORTHING: 5602553.23 FINISHED: 14-12-2018

DATUM:

LOGGED BY: LM/KK DATE: 15-12-2018

ON: - CHECKED BY: SD DATE: 21-01-2019

CONTRACTOR: RDCL MACHINE: OPERATOR:



<- Out flow ├─ In flow

RDCL



LOCATION: 139 Arataki Road

ENGINEER: TB

#### **DCP LOG**

**DCP2.002** 

SHEET 2 OF 98

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM PROJECT: 184250602

EASTING: 1934665.93

NORTHING: 5602567.17

FINISHED: 14-12-2018

DATUM:

LOGGED BY: LM/KK

STARTED: 07-12-2018

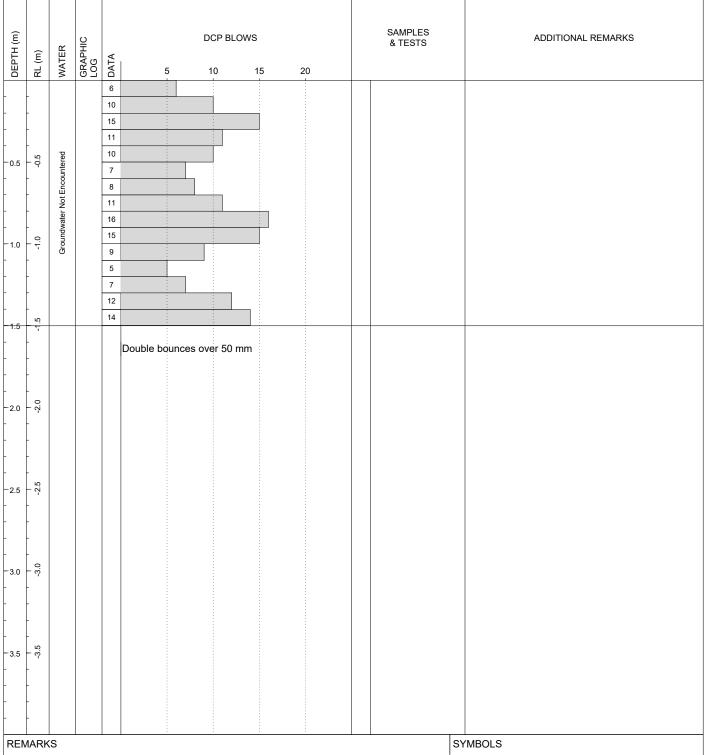
LOCATION: Lot 21

DATE: 15-12-2018 DATE: 21-01-2019

OFFICE: RDCL - Hastings ELEVATION: -

CHECKED BY: SD AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



OFFICE:

#### **DCP LOG**

**DCP2.003** 

SHEET 3 OF 98

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 21 PROJECT: 184250602 EASTING: 1934673.16 STARTED: 14-12-2018

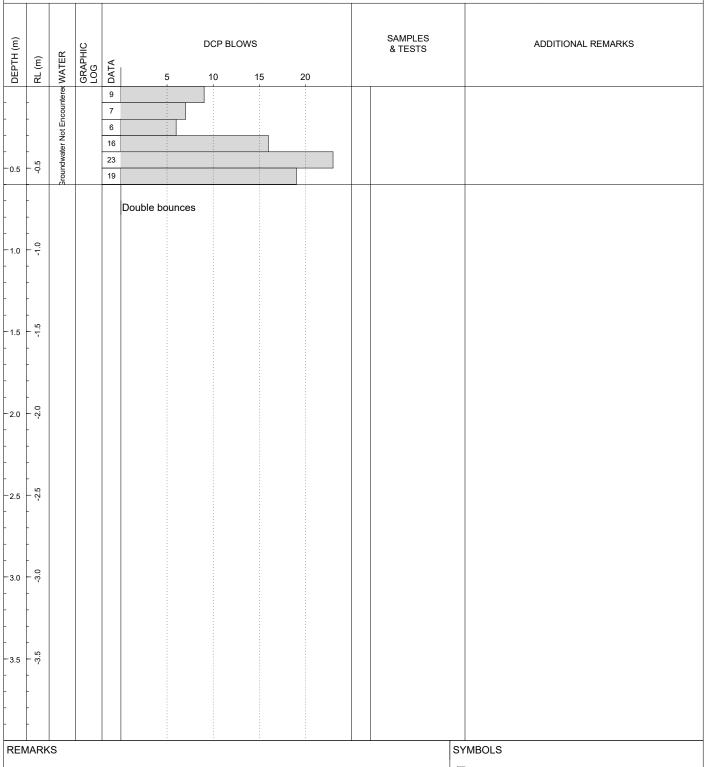
LOCATION: 139 Arataki Road NORTHING: 5602575.37 FINISHED: 14-12-2018

DATUM:

LOGGED BY: LM/KK DATE: 15-12-2018 ELEVATION: -CHECKED BY: SD DATE: 21-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



OFFICE:

### **DCP LOG**

**DCP2.004** 

SHEET 4 OF 98

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 21 PROJECT: 184250602 EASTING: 1934684.98 STARTED: 14-12-2018

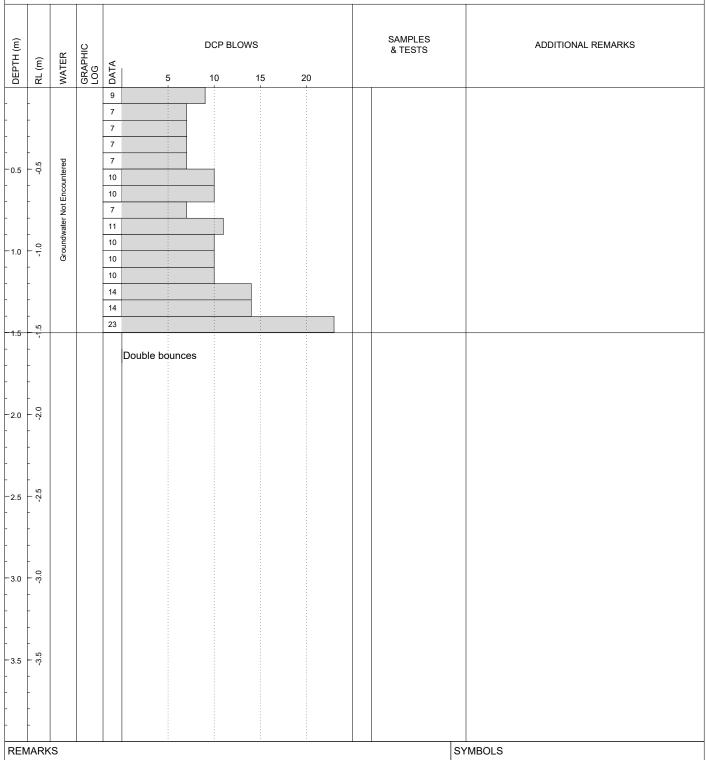
LOCATION: 139 Arataki Road NORTHING: 5602563.98 FINISHED: 14-12-2018

DATUM:

LOGGED BY: LM/KK DATE: 15-12-2018 ELEVATION: -CHECKED BY: SD DATE: 21-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



#### **DCP LOG**

**DCP2.005** 

SHEET 5 OF 98

DATE: 21-01-2019

CLIENT: Greenstone Land Developments Ltd

PROJECT: 184250602 LOCATION: 139 Arataki Road PROJECTION: NZTM LOCATION: Lot 22 EASTING: 1934692.43 STARTED: 14-12-2018

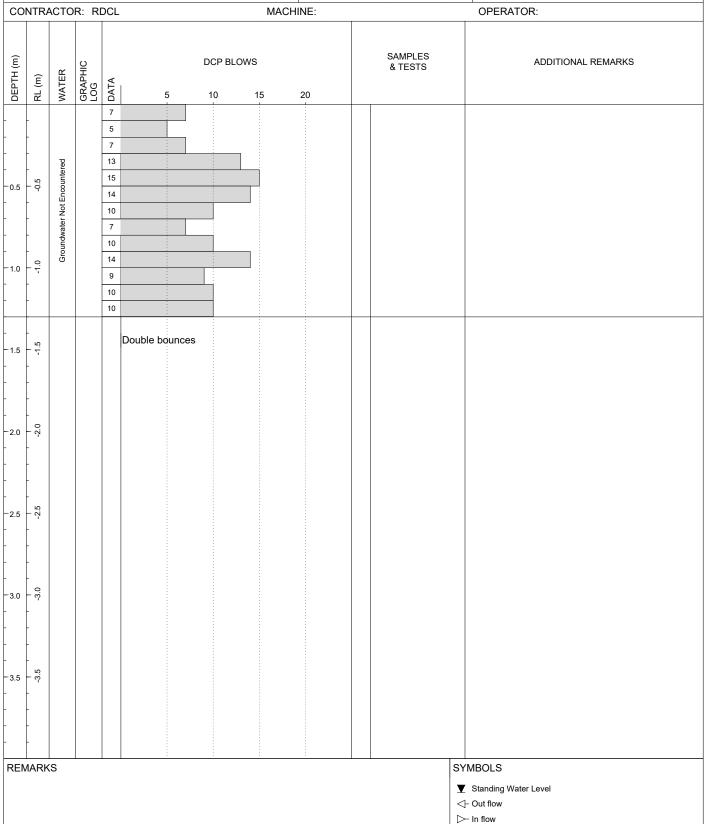
FINISHED: 14-12-2018 NORTHING: 5602566.32

DATUM:

LOGGED BY: LM/KK DATE: 15-12-2018

OFFICE: RDCL - Hastings ELEVATION: -CHECKED BY: SD ENGINEER: TB

AZUMITH: 0° PLUNGE: 90° STATUS: Final data





OFFICE:

#### **DCP LOG**

**DCP2.006** 

SHEET 6 OF 98

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 22 PROJECT: 184250602 EASTING: 1934698.93 STARTED: 14-12-2018

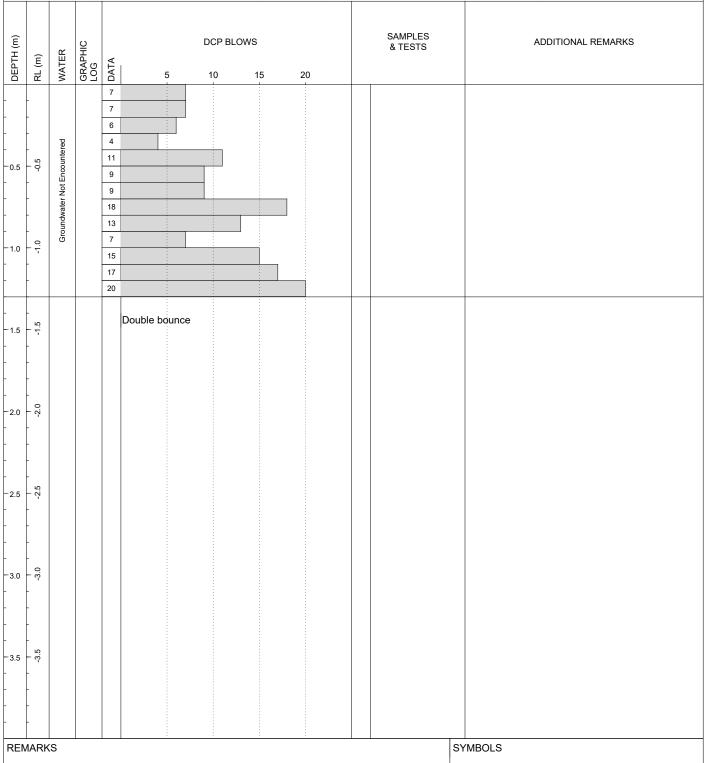
LOCATION: 139 Arataki Road NORTHING: 5602574.84 FINISHED: 14-12-2018

DATUM:

LOGGED BY: LM/KK DATE: 15-12-2018 ELEVATION: -CHECKED BY: SD DATE: 21-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



#### **DCP LOG**

**DCP2.007** 

SHEET 7 OF 98

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 22
PROJECT: 184250602 EASTING: 1934693.85 STARTED: 14-12-2018

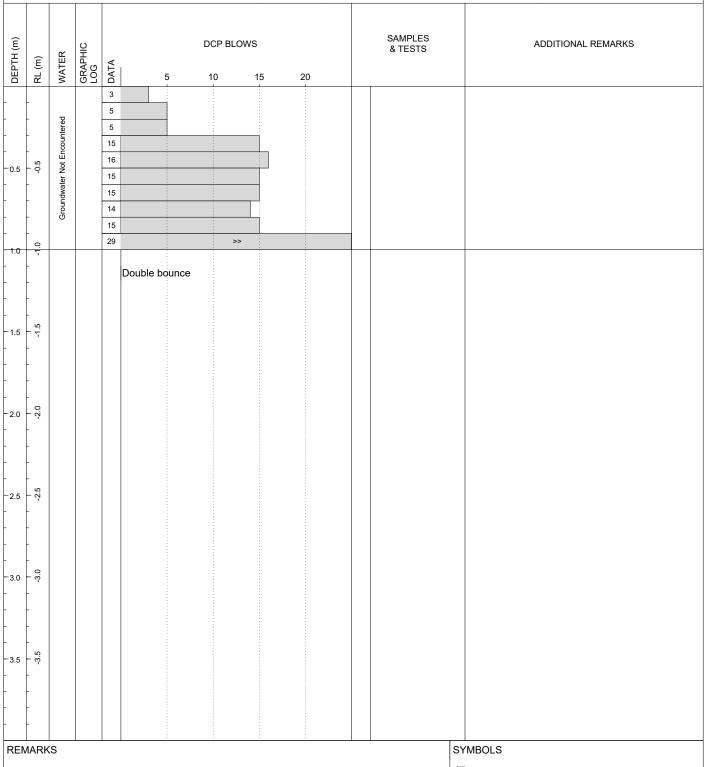
LOCATION: 139 Arataki Road NORTHING: 5602582.47 FINISHED: 14-12-2018

DATUM:

LOGGED BY: LM/KK DATE: 15-12-2018

CHECKED BY: SD DATE: 21-01-2019

CONTRACTOR: RDCL MACHINE: OPERATOR:



▼ Standing Water Level

← Out flow

├─ In flow

RDCL



#### **DCP LOG**

**DCP2.008** 

SHEET 8 OF 98

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 22 PROJECT: 184250602 EASTING: STARTED: 14-12-2018 1934686.14

LOCATION: 139 Arataki Road NORTHING: 5602578.24 FINISHED: 14-12-2018

DATUM:

LOGGED BY: LM/KK DATE: 09-01-2019 DATE: 21-01-2019 ELEVATION: -CHECKED BY: SD

OFFICE: RDCL - Hastings ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL MACHINE: OPERATOR:

				DCL				CHINE:		OPERATOR:
DEPTH (m)	RL (m)	water Not Encd WATER	GRAPHIC LOG	ТА		DCP BLO	ows		SAMPLES & TESTS	ADDITIONAL REMARKS
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▼ Standing Water Level

<- Out flow ├─ In flow

RDCL



OFFICE:

#### **DCP LOG**

**DCP2.009** 

SHEET 9 OF 98

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 23 PROJECT: 184250602 EASTING: 1934701.28 STARTED: 14-12-2018

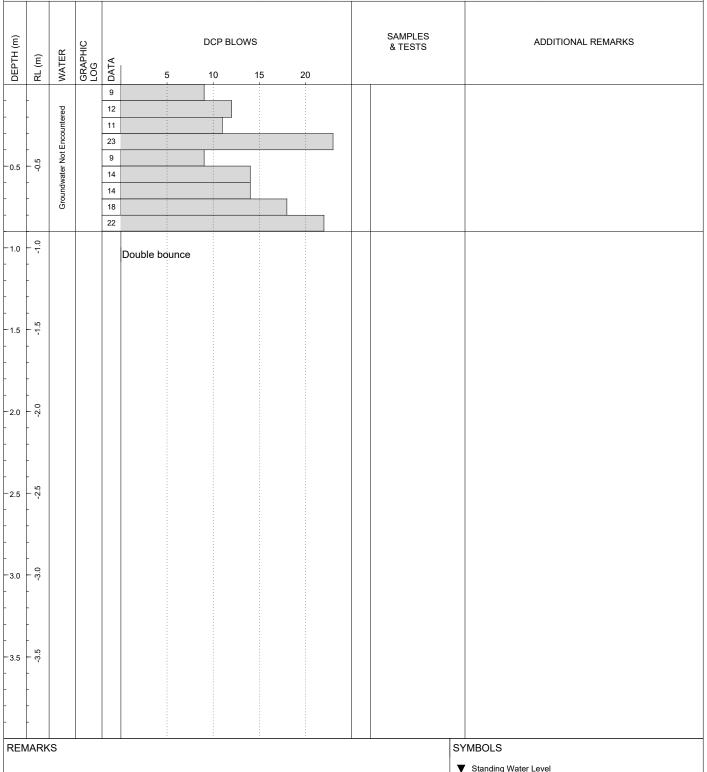
LOCATION: 139 Arataki Road NORTHING: 5602582.76 FINISHED: 14-12-2018

DATUM:

LOGGED BY: LM/KK DATE: 14-12-2018 ELEVATION: -CHECKED BY: SD DATE: 21-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



OFFICE:

CONTRACTOR: RDCL

#### **DCP LOG**

**DCP2.010** 

**SHEET 10 OF 98** 

DATE: 14-12-2018

DATE: 21-01-2019

LOCATION: Lot 23

LOGGED BY: LM/KK

CHECKED BY: SD

OPERATOR:

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM

PROJECT: 184250602 EASTING: 1934707.30 STARTED: 14-12-2018 LOCATION: 139 Arataki Road NORTHING: 5602575.80 FINISHED: 14-12-2018

DATUM:

ELEVATION: -

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data MACHINE:

SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS WATER RL (m) DATA 5 20 10 15 10 Groundwater Not Encountered 6 7 13 -0.5 0.5 16 19 14 26 >> 1.0 Double bounce -1.5 1.5 -2.0 -2.0 -2.5 2.5 3.0 -3.5 3.5

**REMARKS** 

SYMBOLS

▼ Standing Water Level

<- Out flow

├─ In flow

**RDCL** 



OFFICE:

#### **DCP LOG**

**DCP2.011** 

**SHEET 11 OF 98** 

DATE: 14-12-2018

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 23
PROJECT: 184250602 EASTING: 1934717.36 STARTED: 14-12-2018

LOCATION: 139 Arataki Road NORTHING: 5602580.97 FINISHED: 14-12-2018

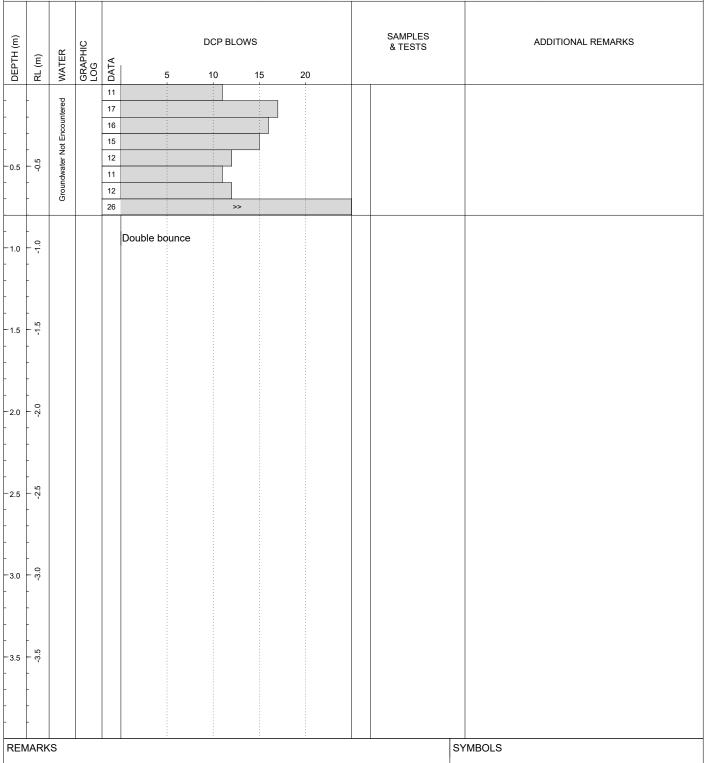
DATUM:

ELEVATION: - CHECKED BY: SD DATE: 21-01-2019

LOGGED BY: LM/KK

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL MACHINE: OPERATOR:



▼ Standing Water Level

<⊢ Out flow ├─ In flow

RDCL



OFFICE:

#### **DCP LOG**

**DCP2.012** 

**SHEET 12 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 23 PROJECT: 184250602 EASTING: 1934712.28 STARTED: 14-12-2018

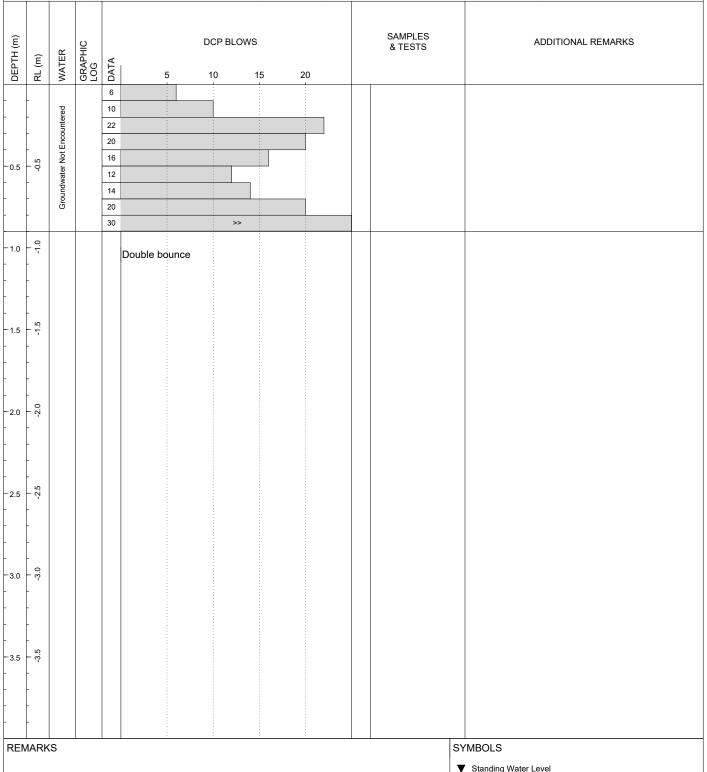
LOCATION: 139 Arataki Road NORTHING: 5602587.36 FINISHED: 14-12-2018

DATUM:

LOGGED BY: LM/KK DATE: 14-12-2018 ELEVATION: -CHECKED BY: SD DATE: 21-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



OFFICE:

#### **DCP LOG**

**DCP2.013** 

**SHEET 13 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 24 PROJECT: 184250602 EASTING: 1934720.56 STARTED: 14-12-2018

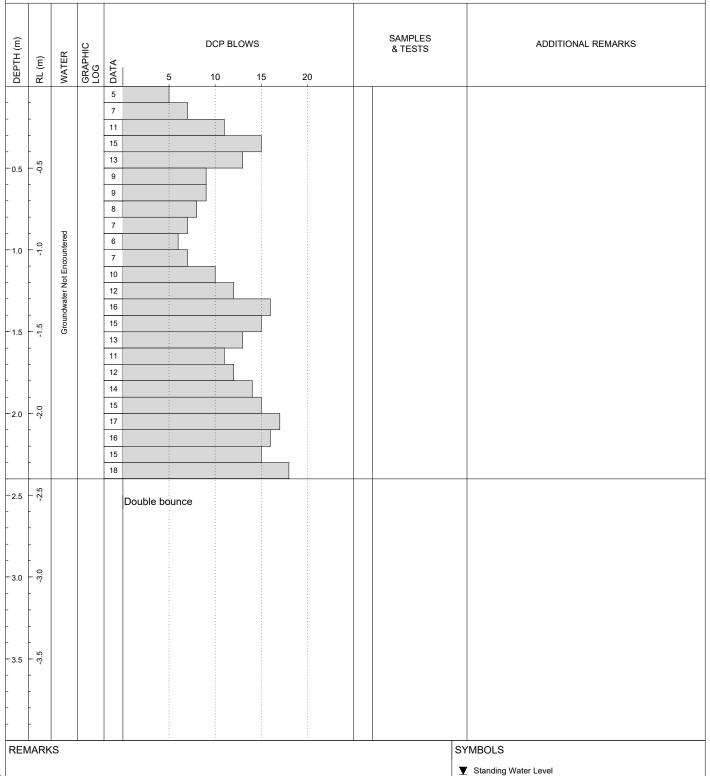
LOCATION: 139 Arataki Road FINISHED: 14-12-2018 NORTHING: 5602598.36

DATUM:

LOGGED BY: LM/KK DATE: 14-12-2018 ELEVATION: -CHECKED BY: SD DATE: 21-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



<- Out flow ├─ In flow

**RDCL** 



LOCATION: 139 Arataki Road

ENGINEER: TB

#### **DCP LOG**

**DCP2.014** 

**SHEET 14 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM PROJECT: 184250602

EASTING: 1934723.85 STARTED: 14-12-2018

FINISHED: 14-12-2018 NORTHING: 5602587.08

DATUM:

AZUMITH: 0°

LOGGED BY: LM/KK

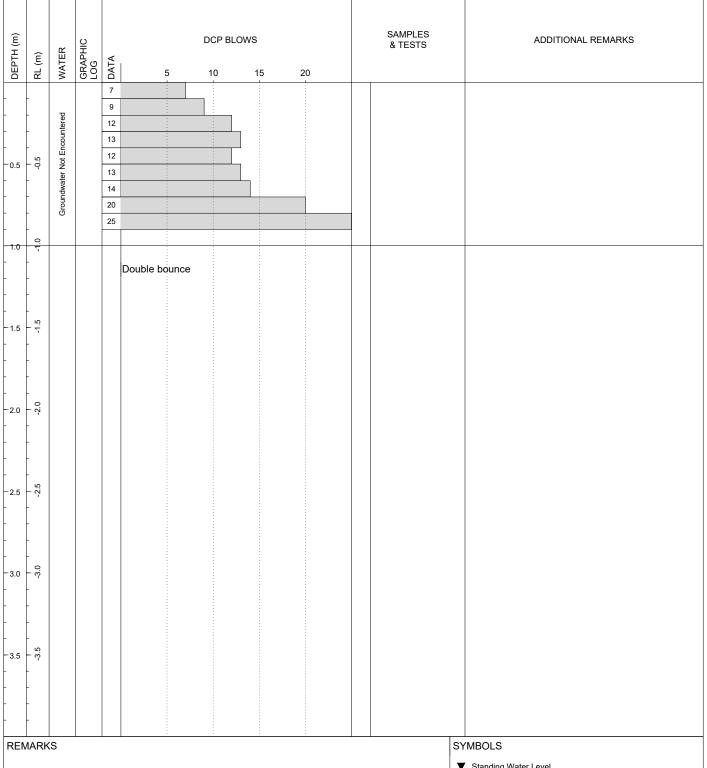
DATE: 14-12-2018 DATE: 21-01-2019

OFFICE: RDCL - Hastings ELEVATION: -

CHECKED BY: SD PLUNGE: 90° STATUS: Final data

LOCATION: Lot 24

CONTRACTOR: RDCL OPERATOR: MACHINE:



Produced with Core-GS by Geroc

▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



#### **DCP LOG**

**DCP2.015** 

**SHEET 15 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 24 PROJECT: 184250602 EASTING: 1934737.29 STARTED: 14-12-2018

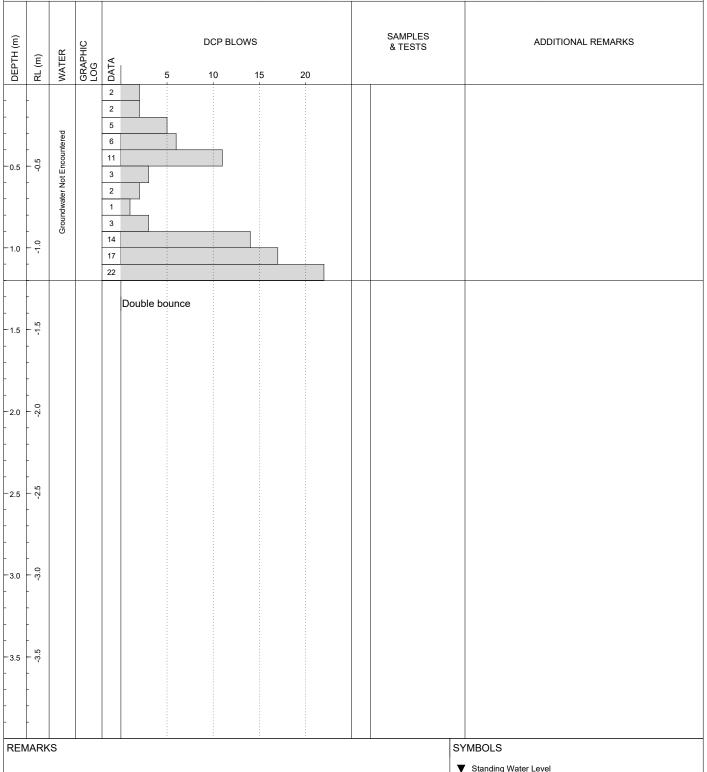
LOCATION: 139 Arataki Road NORTHING: 5602593.00 FINISHED: 14-12-2018

DATUM:

LOGGED BY: LM/KK DATE: 14-12-2018 ELEVATION: -CHECKED BY: SD DATE: 21-01-2019

OFFICE: RDCL - Hastings ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



OFFICE:

#### **DCP LOG**

**DCP2.016** 

**SHEET 16 OF 98** 

DATE: 14-12-2018

DATE: 21-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 24
PROJECT: 184250602 EASTING: 1934728.70 STARTED: 14-12-2018

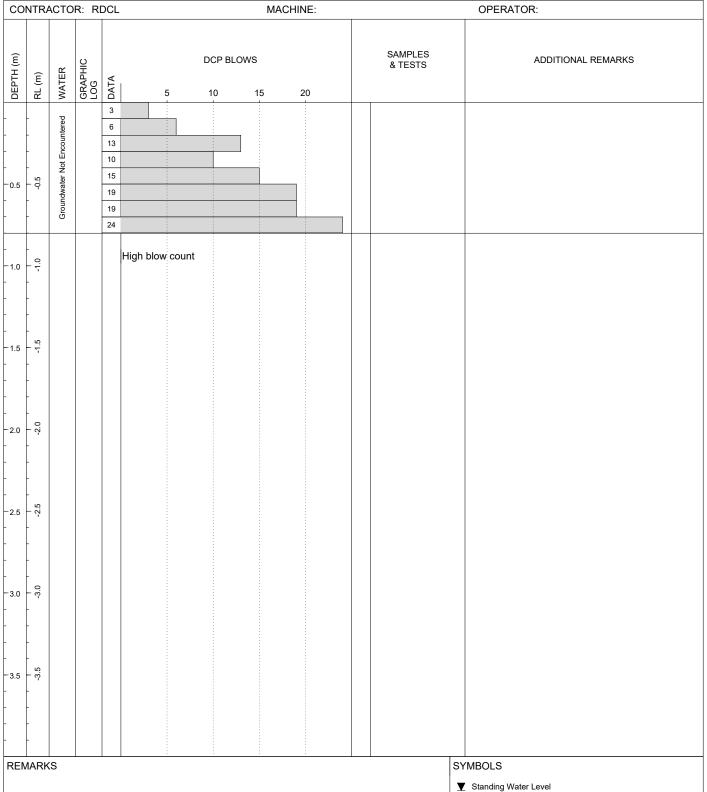
LOCATION: 139 Arataki Road NORTHING: 5602600.69 FINISHED: 14-12-2018

DATUM:

ELEVATION: - CHECKED BY: SD

LOGGED BY: LM/KK

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data



Produced with Core-GS by Geroc

RDCL

← Out flow

├─ In flow



#### **DCP LOG**

**DCP2.017** 

**SHEET 17 OF 98** 

DATE: 18-12-2018

DATE: 21-01-2019

LOGGED BY: LM

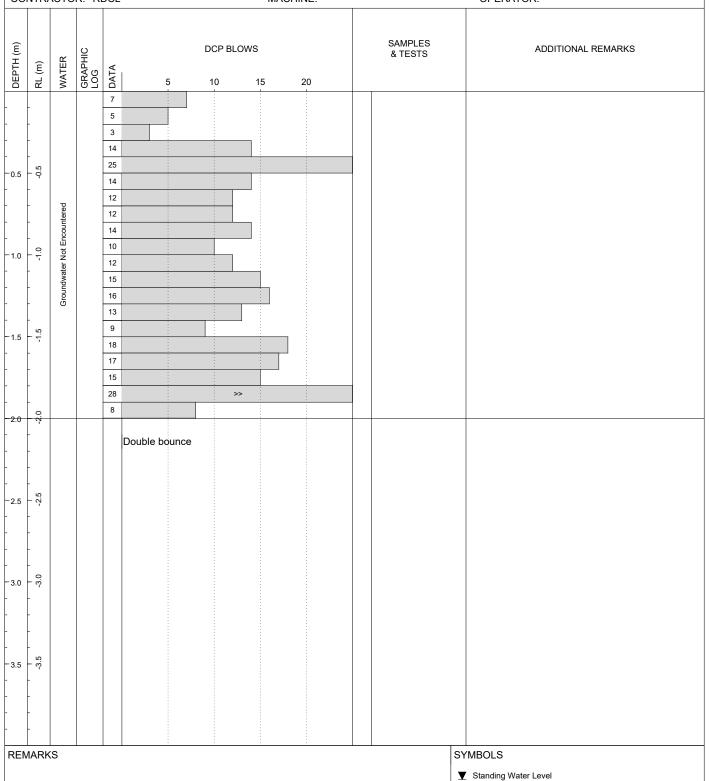
CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 20 PROJECT: 184250602 EASTING: 1934664.51 STARTED: 18-12-2018

LOCATION: 139 Arataki Road NORTHING: 5602597.33 FINISHED: 18-12-2018

> DATUM: ELEVATION: -

OFFICE: RDCL - Hastings CHECKED BY: SD ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



<- Out flow ├─ In flow

**RDCL** 



OFFICE:

#### **DCP LOG**

**DCP2.018** 

**SHEET 18 OF 98** 

DATE: 18-12-2018

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 20
PROJECT: 184250602 EASTING: 1934668.38 STARTED: 18-12-2018

LOCATION: 139 Arataki Road NORTHING: 5602587.31 FINISHED: 18-12-2018

DATUM:

ELEVATION: - CHECKED BY: SD DATE: 21-01-2019

LOGGED BY: LM

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS WATER RL (m) DATA 5 10 15 20 22 25 15 Groundwater Not Encountered 10 -0.5 0.5 9 13 9 11 10 1.0 10 12 17 24 - 1.5 1.5 Double bounce -2.0 -2.0 -2.5 2.5 3.0 -3.5 -3.5 **REMARKS** SYMBOLS ▼ Standing Water Level <- Out flow

Produced with Core-GS by Geroc

RDCL

├─ In flow



OFFICE:

#### **DCP LOG**

**DCP2.019** 

**SHEET 19 OF 98** 

DATE: 18-12-2018

DATE: 21-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 20 PROJECT: 184250602 EASTING: 1934658.43 STARTED: 18-12-2018

LOCATION: 139 Arataki Road FINISHED: 18-12-2018 NORTHING: 5602582.95

DATUM:

LOGGED BY: LM ELEVATION: -CHECKED BY: SD

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS WATER RL (m) DATA 5 20 10 15 6 5 5 5 -0.5 0.5 10 Groundwater Not Encountered 7 11 18 15 1.0 21 14 15 15 22 -1.5 1.5 16 18 26 Double bounce -2.0 -2.0 -2.5 2.5 3.0 -3.5 3.5 **REMARKS** SYMBOLS ▼ Standing Water Level <- Out flow

Produced with Core-GS by Geroc

**RDCL** 

├─ In flow



OFFICE:

#### **DCP LOG**

**DCP2.020** 

**SHEET 20 OF 98** 

DATE: 18-12-2018

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 20
PROJECT: 184250602 EASTING: 1934653.40 STARTED: 18-12-2018

LOCATION: 139 Arataki Road NORTHING: 5602591.63 FINISHED: 18-12-2018

DATUM:

ELEVATION: - CHECKED BY: SD DATE: 21-01-2019

LOGGED BY: LM

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS WATER RL (m) DATA 5 20 10 15 14 12 17 30 -0.5 Groundwater Not Encountered 0.5 17 15 20 15 17 1.0 12 17 21 21 28 High blow count -2.0 -2.0 -2.5 2.5 3.0 -3.5 3.5 **REMARKS** SYMBOLS ▼ Standing Water Level

← Out flow

├─ In flow



OFFICE:

#### **DCP LOG**

**DCP2.021** 

**SHEET 21 OF 98** 

DATE: 18-12-2018

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 19 PROJECT: 184250602 EASTING: 1934648.33 STARTED: 18-12-2018

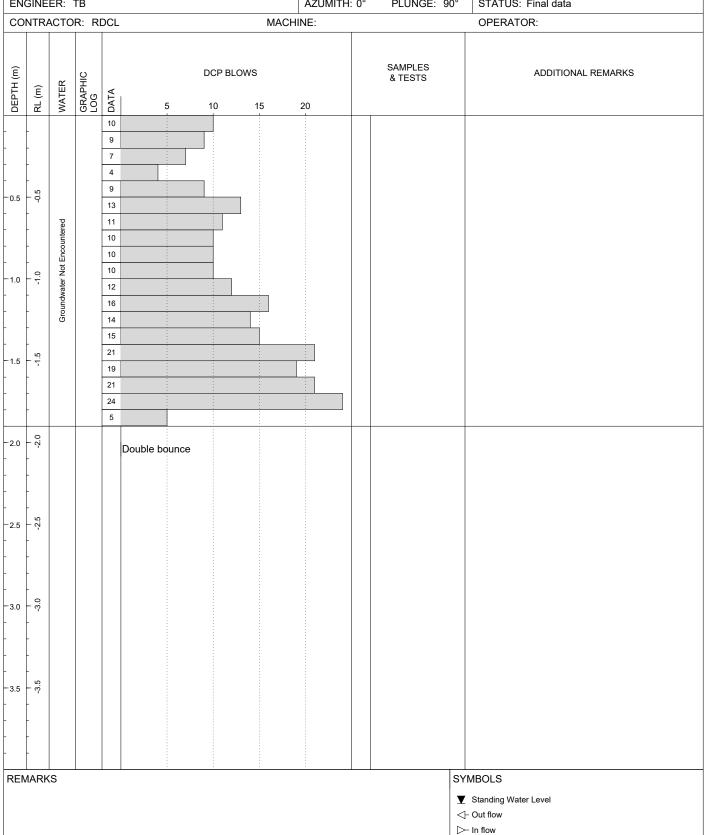
LOCATION: 139 Arataki Road NORTHING: 5602602.65 FINISHED: 18-12-2018

DATUM:

ELEVATION: -CHECKED BY: SD DATE: 21-01-2019

LOGGED BY: LM

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data





OFFICE:

#### **DCP LOG**

**DCP2.022** 

**SHEET 22 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 19 PROJECT: 184250602 EASTING: 1934643.08 STARTED: 18-12-2018

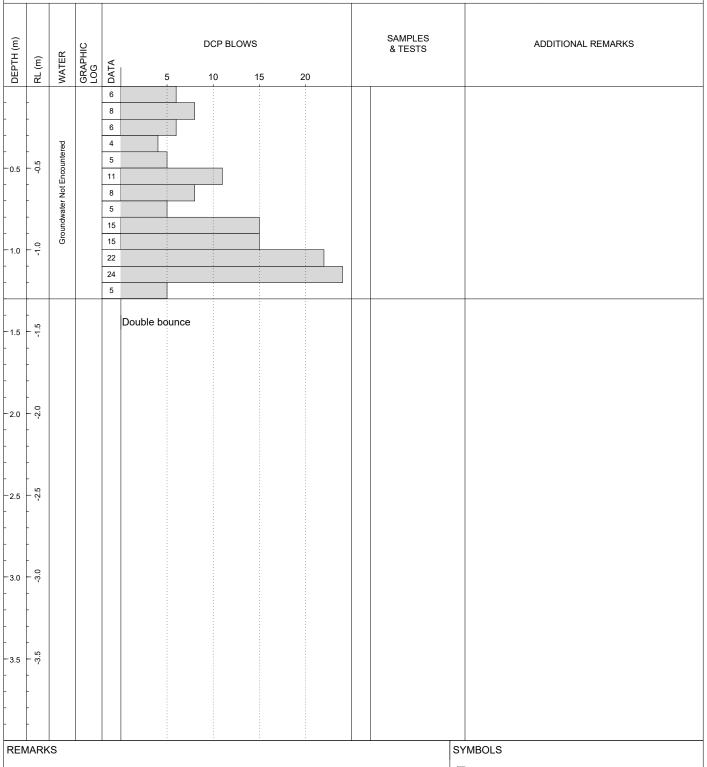
LOCATION: 139 Arataki Road NORTHING: 5602610.67 FINISHED: 18-12-2018

DATUM:

LOGGED BY: LM DATE: 18-12-2018 ELEVATION: -CHECKED BY: SD DATE: 21-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



OFFICE:

#### **DCP LOG**

**DCP2.023** 

**SHEET 23 OF 98** 

DATE: 18-12-2018

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 19
PROJECT: 184250602 EASTING: 1934656.24 STARTED: 18-12-2018

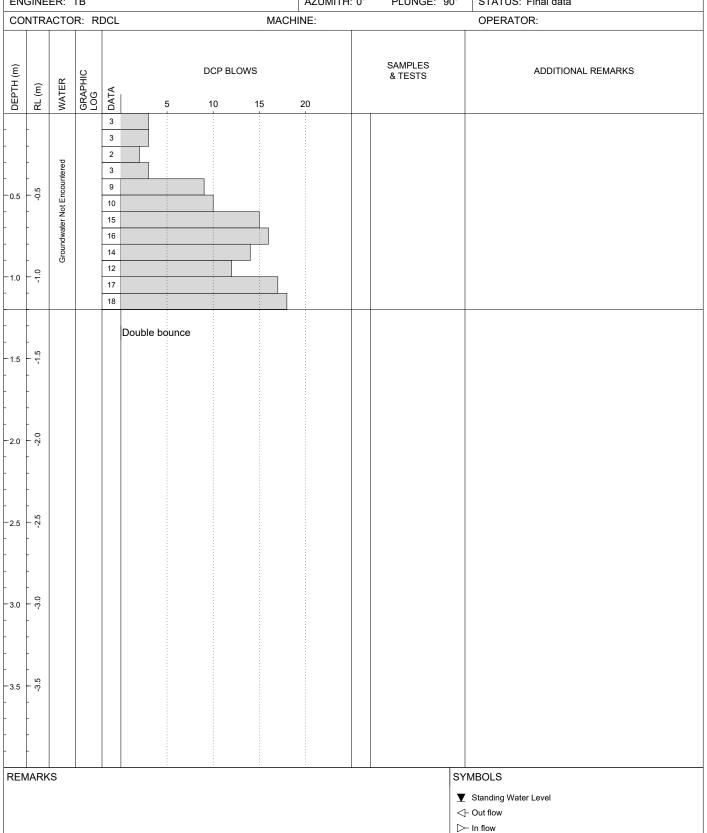
LOCATION: 139 Arataki Road NORTHING: 5602617.95 FINISHED: 18-12-2018

DATUM:

ELEVATION: - CHECKED BY: SD DATE: 21-01-2019

LOGGED BY: LM

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data





#### **DCP LOG**

**DCP2.024** 

**SHEET 24 OF 98** 

DATE: 21-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 19 PROJECT: 184250602 EASTING: 1934661.34 STARTED: 18-12-2018 LOCATION: 139 Arataki Road

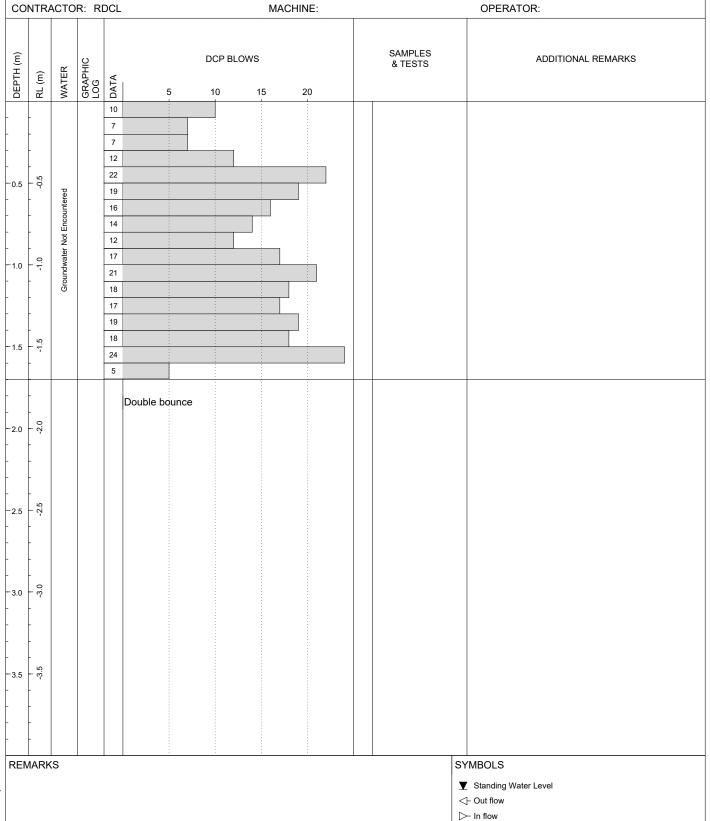
NORTHING: 5602607.74 FINISHED: 18-12-2018

DATUM:

LOGGED BY: LM DATE: 18-12-2018

OFFICE: RDCL - Hastings ELEVATION: -CHECKED BY: SD

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data





**DCP2.025** 

**SHEET 25 OF 98** 

DATE: 18-12-2018

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 18 PROJECT: 184250602 EASTING: 1934639.92 STARTED: 18-12-2018

LOCATION: 139 Arataki Road NORTHING: 5602619.08 FINISHED: 18-12-2018

DATUM:

ELEVATION: -CHECKED BY: SD DATE: 21-01-2019

LOGGED BY: LM

OFFICE: RDCL - Hastings ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS WATER RL (m) DATA 5 20 10 15 2 3 2 3 -0.5 0.5 2 7 10 Groundwater Not Encountered 14 10 1.0 15 16 16 14 21 -1.5 1.5 21 12 16 16 17 -2.0 -2.0 28 Double bounce -2.5 2.5 3.0 -3.5 3.5 **REMARKS** SYMBOLS ▼ Standing Water Level <- Out flow ├─ In flow

Produced with Core-GS by Geroc

**RDCL** 



OFFICE:

# **DCP LOG**

**DCP2.026** 

**SHEET 26 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 18 PROJECT: 184250602 EASTING: 1934634.88 STARTED: 18-12-2018

LOCATION: 139 Arataki Road NORTHING: 5602628.60 FINISHED: 18-12-2018

DATUM:

LOGGED BY: LM DATE: 18-12-2018 ELEVATION: -CHECKED BY: SD DATE: 21-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS WATER RL (m) DATA 5 20 10 15 Groundwater Not Encountered 9 7 9 10 -0.5 0.5 12 15 10 Double bounce 1.0 -1.5 1.5 -2.0 -2.0 -2.5 2.5 3.0 -3.5 -3.5 **REMARKS** SYMBOLS ▼ Standing Water Level

Produced with Core-GS by Geroc

**RDCL** 

<- Out flow ├─ In flow



**DCP2.027** 

**SHEET 27 OF 98** 

DATE: 21-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 18 PROJECT: 184250602 EASTING: 1934648.93 STARTED: 18-01-2019

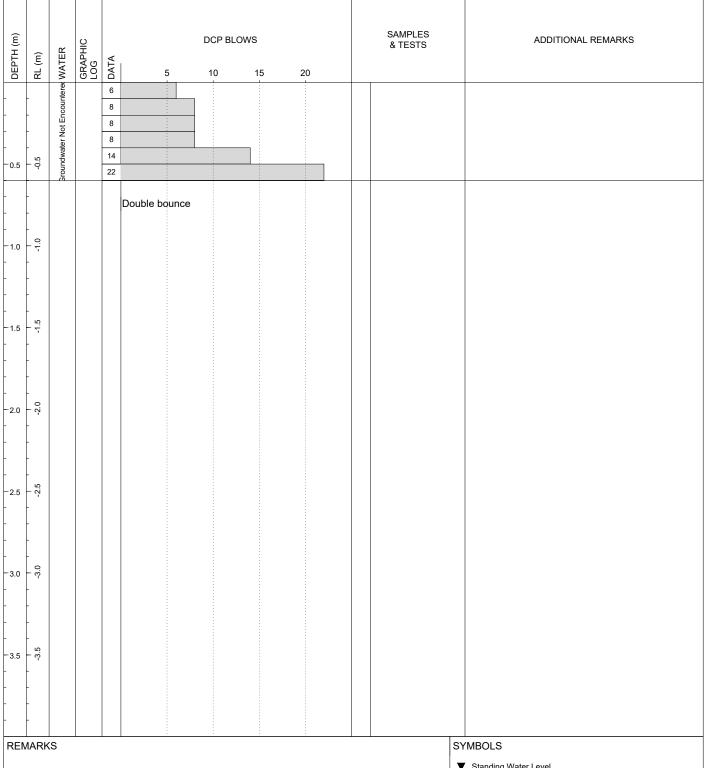
LOCATION: 139 Arataki Road NORTHING: 5602635.26 FINISHED: 18-12-2018

DATUM:

LOGGED BY: LM DATE: 18-12-2018

OFFICE: RDCL - Hastings ELEVATION: -CHECKED BY: SD ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



**DCP2.028** 

**SHEET 28 OF 98** 

DATE: 21-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 18 PROJECT: 184250602 EASTING: 1934651.84 STARTED: 18-12-2018

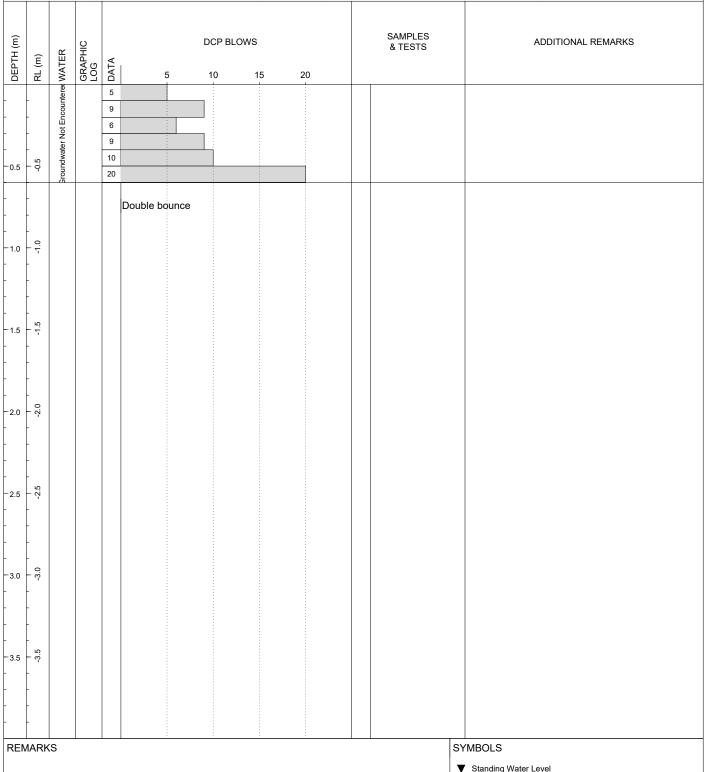
LOCATION: 139 Arataki Road NORTHING: 5602626.03 FINISHED: 18-12-2018

DATUM:

LOGGED BY: LM DATE: 18-12-2018

OFFICE: RDCL - Hastings ELEVATION: -CHECKED BY: SD ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



OFFICE:

CONTRACTOR: RDCL

# **DCP LOG**

**DCP2.029** 

**SHEET 29 OF 98** 

DATE: 18-12-2018

DATE: 21-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 17

DATUM:

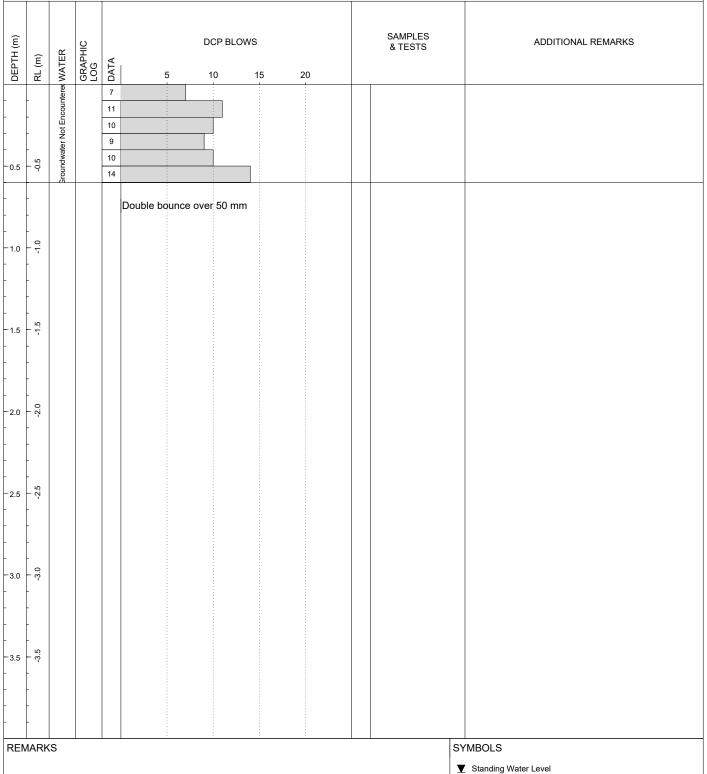
ELEVATION: -

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

MACHINE: OPERATOR:

LOGGED BY: LM

CHECKED BY: SD



Produced with Core-GS by Geroc

← Out flow

├─ In flow



OFFICE:

# **DCP LOG**

**DCP2.030** 

**SHEET 30 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 17 PROJECT: 184250602 EASTING: 1934625.40 STARTED: 18-12-2018

LOCATION: 139 Arataki Road NORTHING: 5602644.78 FINISHED: 18-12-2018

DATUM:

LOGGED BY: LM DATE: 18-12-2018 ELEVATION: -CHECKED BY: SD DATE: 21-01-2019

RDCL - Hastings ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



OFFICE:

# **DCP LOG**

**DCP2.031** 

**SHEET 31 OF 98** 

DATE: 18-12-2018

DATE: 21-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 17

PROJECT: 184250602 EASTING: 1934638.40 STARTED: 18-12-2018
LOCATION: 139 Arataki Road NORTHING: 5602652.14 FINISHED: 18-12-2018

DATUM:

ELEVATION: - CHECKED BY: SD

LOGGED BY: LM

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS WATER RL (m) DATA 5 20 10 15 Groundwater Not Encountered 9 9 9 8 -0.5 0.5 16 6 Double bounce 1.0 -1.5 1.5 -2.0 -2.0 -2.5 2.5 3.0 -3.5 -3.5 **REMARKS** SYMBOLS ▼ Standing Water Level

Produced with Core-GS by Geroc

RDCL

← Out flow

├─ In flow



OFFICE:

# **DCP LOG**

**DCP2.032** 

**SHEET 32 OF 98** 

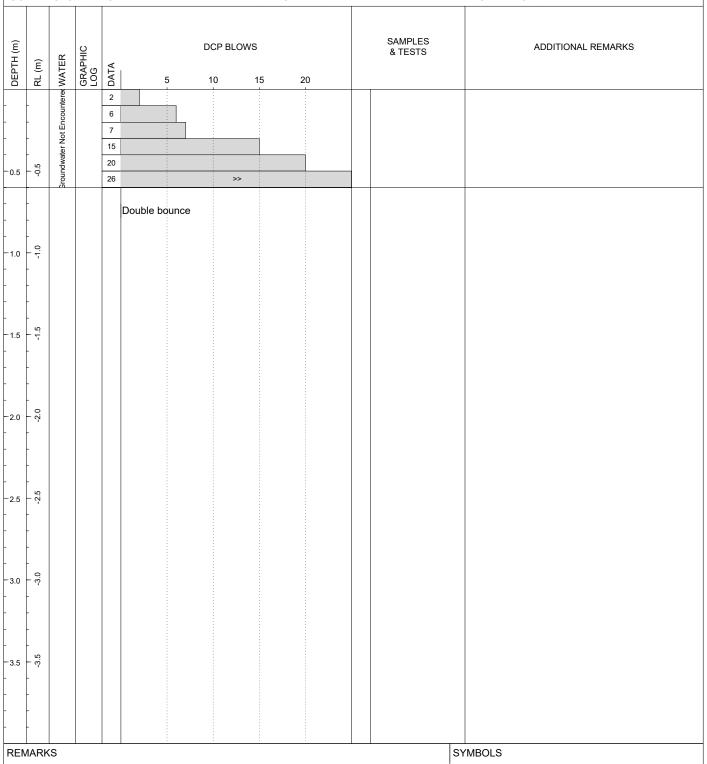
CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 17

PROJECT: 184250602 EASTING: 1934641.42 STARTED: 18-12-2018 LOCATION: 139 Arataki Road NORTHING: 5602644.33 FINISHED: 18-12-2018

DATUM: LOGGED BY: LM DATE: 18-12-2018 ELEVATION: -CHECKED BY: SD DATE: 21-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



OFFICE:

# **DCP LOG**

**DCP2.033** 

**SHEET 33 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 16 PROJECT: 184250602 EASTING: 1934616.95 STARTED: 18-12-2018

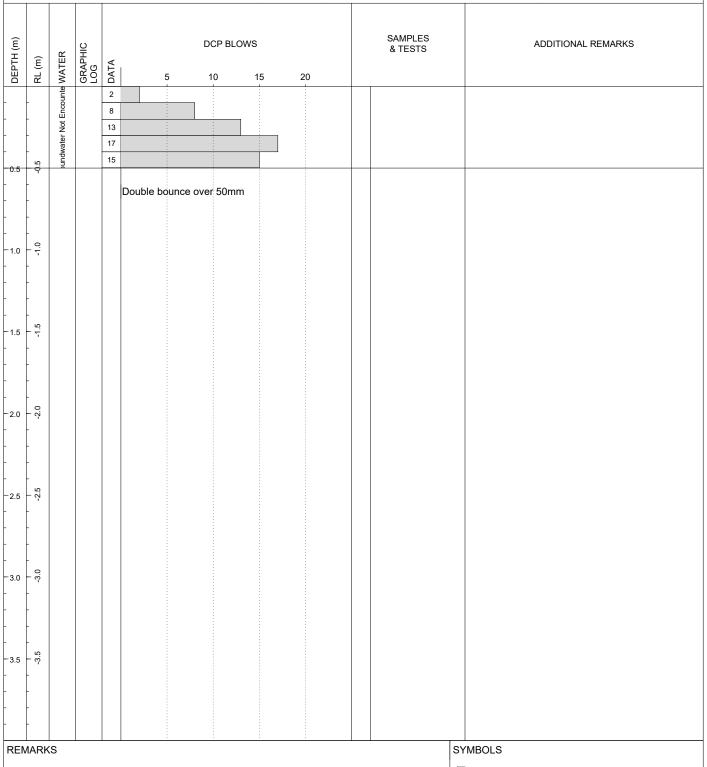
LOCATION: 139 Arataki Road NORTHING: 5602654.04 FINISHED: 18-12-2018

DATUM:

LOGGED BY: LM DATE: 18-12-2018 ELEVATION: -CHECKED BY: SD DATE: 21-01-2019

RDCL - Hastings ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



OFFICE:

# **DCP LOG**

**DCP2.034** 

**SHEET 34 OF 98** 

DATE: 18-12-2018

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 16
PROJECT: 184250602 EASTING: 1934611.88 STARTED: 18-12-2018

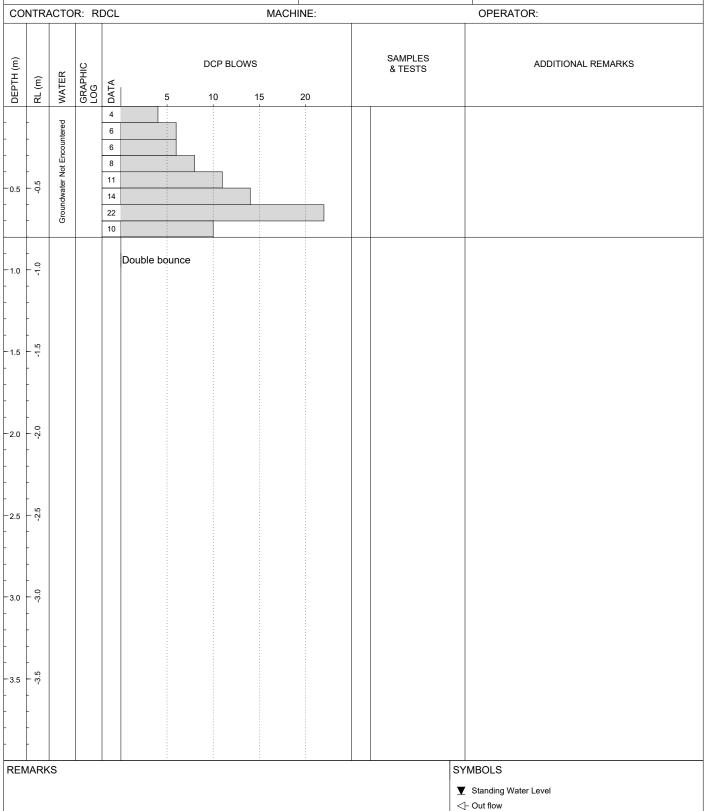
LOCATION: 139 Arataki Road NORTHING: 5602662.54 FINISHED: 18-12-2018

DATUM:

ELEVATION: - CHECKED BY: SD DATE: 21-01-2019

LOGGED BY: LM

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data



├─ In flow



OFFICE:

# **DCP LOG**

**DCP2.035** 

**SHEET 35 OF 98** 

DATE: 18-12-2018

DATE: 21-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 16
PROJECT: 184250602 EASTING: 1934623.29 STARTED: 18-12-2018

LOCATION: 139 Arataki Road NORTHING: 5602668.06 FINISHED: 18-12-2018

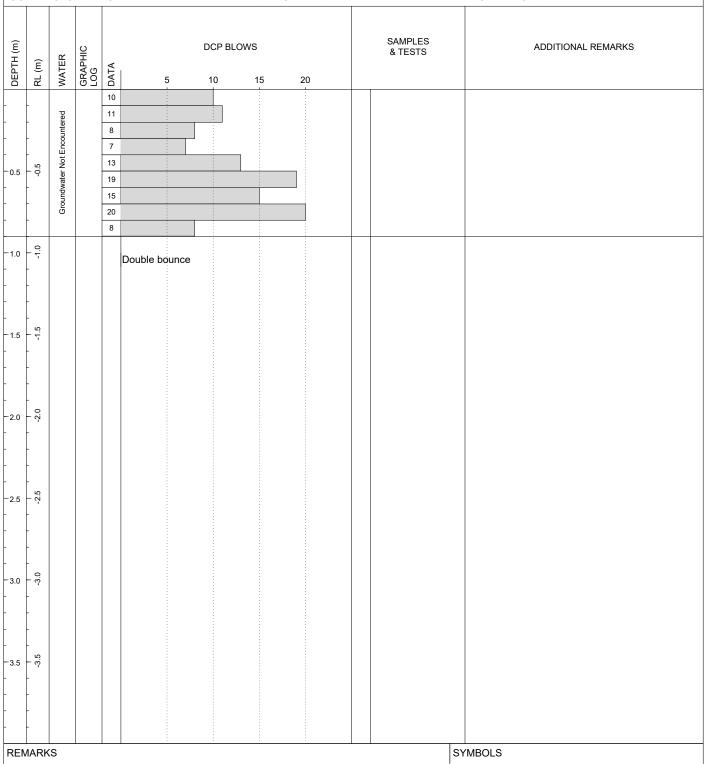
DATUM:

ELEVATION: - CHECKED BY: SD

LOGGED BY: LM

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL MACHINE: OPERATOR:



▼ Standing Water Level

<- Out flow ├─ In flow

RDCL



OFFICE:

# **DCP LOG**

**DCP2.036** 

**SHEET 36 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 16 PROJECT: 184250602 EASTING: 1934628.28 STARTED: 18-12-2018

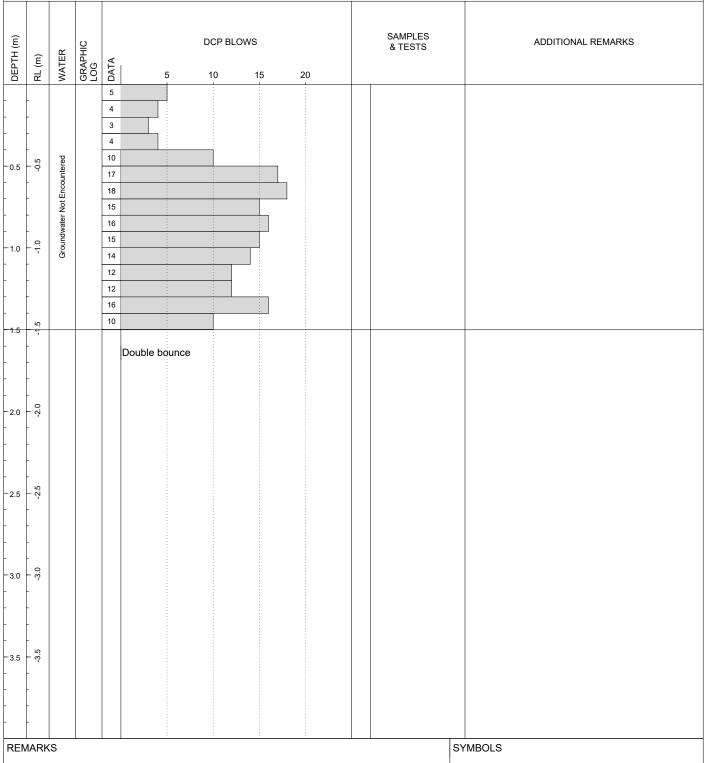
LOCATION: 139 Arataki Road NORTHING: 5602659.54 FINISHED: 18-12-2018

DATUM:

LOGGED BY: LM DATE: 18-12-2018 ELEVATION: -CHECKED BY: SD DATE: 21-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



OFFICE:

# **DCP LOG**

**DCP2.037** 

**SHEET 37 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 15 PROJECT: 184250602 EASTING: 1934605.54 STARTED: 18-12-2018

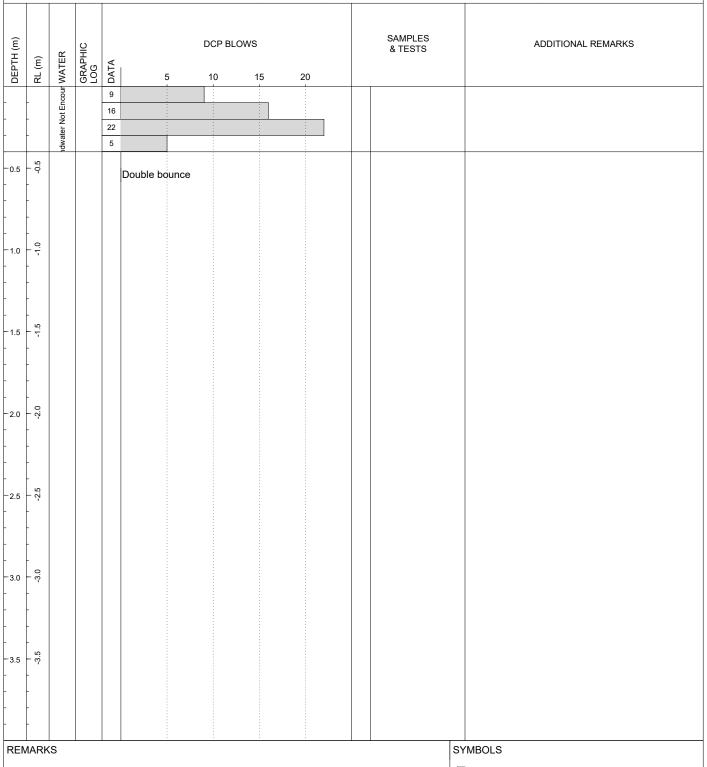
LOCATION: 139 Arataki Road NORTHING: 5602670.90 FINISHED: 18-12-2018

DATUM:

LOGGED BY: LM DATE: 18-12-2018 ELEVATION: -CHECKED BY: SD DATE: 21-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



OFFICE:

# **DCP LOG**

**DCP2.038** 

**SHEET 38 OF 98** 

DATE: 18-12-2018

DATE: 21-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM

DATUM:

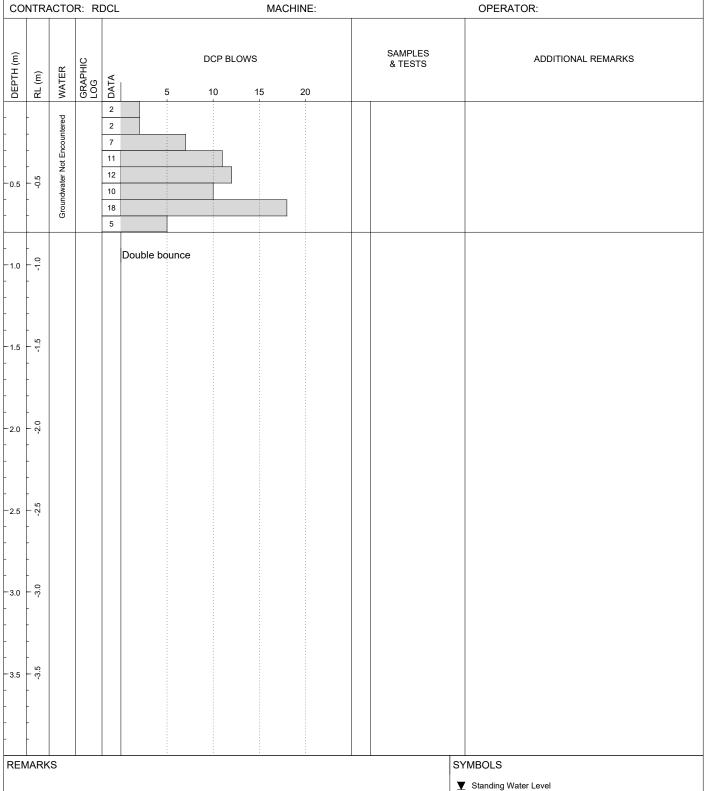
ELEVATION: -

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

LOCATION: Lot 15

LOGGED BY: LM

CHECKED BY: SD



← Out flow

├─ In flow

RDCL



**DCP2.039** 

**SHEET 39 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 15 PROJECT: 184250602 EASTING: 1934613.73 STARTED: 18-12-2018

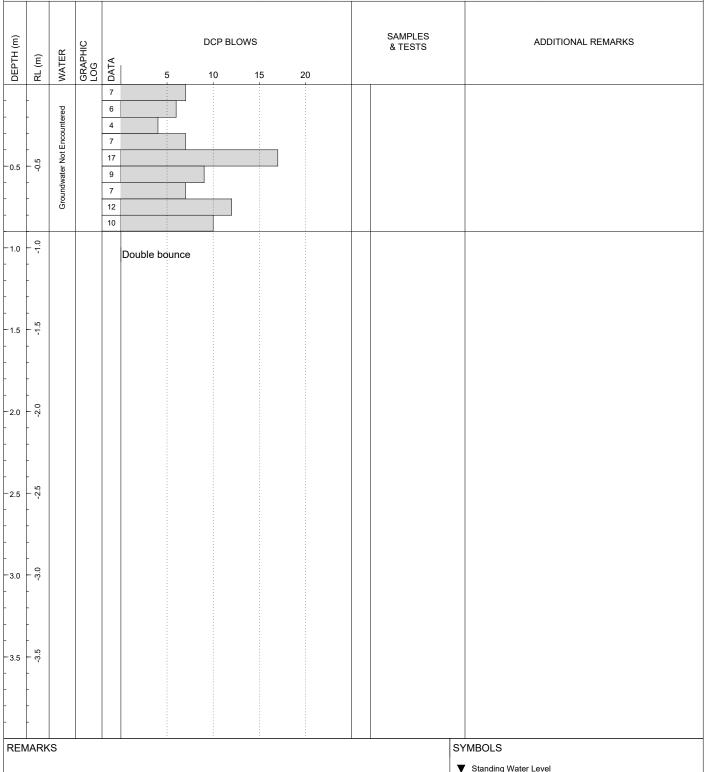
LOCATION: 139 Arataki Road NORTHING: 5602684.76 FINISHED: 18-12-2018

DATUM:

LOGGED BY: LM DATE: 18-12-2018 CHECKED BY: SD DATE: 21-01-2019

OFFICE: RDCL - Hastings ELEVATION: -ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



OFFICE:

# **DCP LOG**

**DCP2.040** 

SHEET 40 OF 98

DATE: 18-12-2018

LOGGED BY: LM

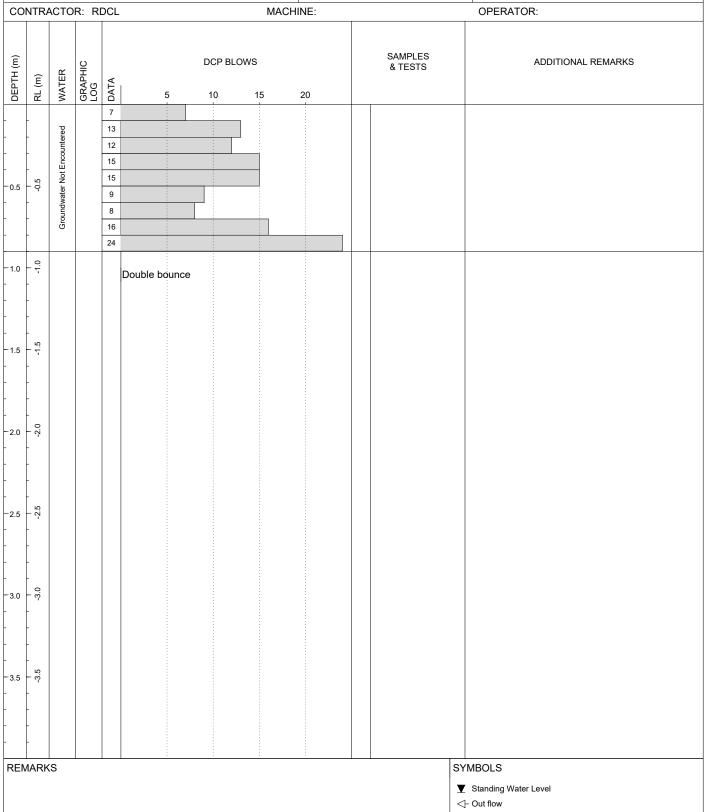
CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 15
PROJECT: 184250602 EASTING: 1934616.35 STARTED: 18-12-2018

LOCATION: 139 Arataki Road NORTHING: 5602676.21 FINISHED: 18-12-2018

DATUM:

RDCL - Hastings ELEVATION: - CHECKED BY: SD DATE: 21-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data



├─ In flow



**DCP2.041** 

**SHEET 41 OF 98** 

DATE: 19-12-2018

DATE: 21-01-2019

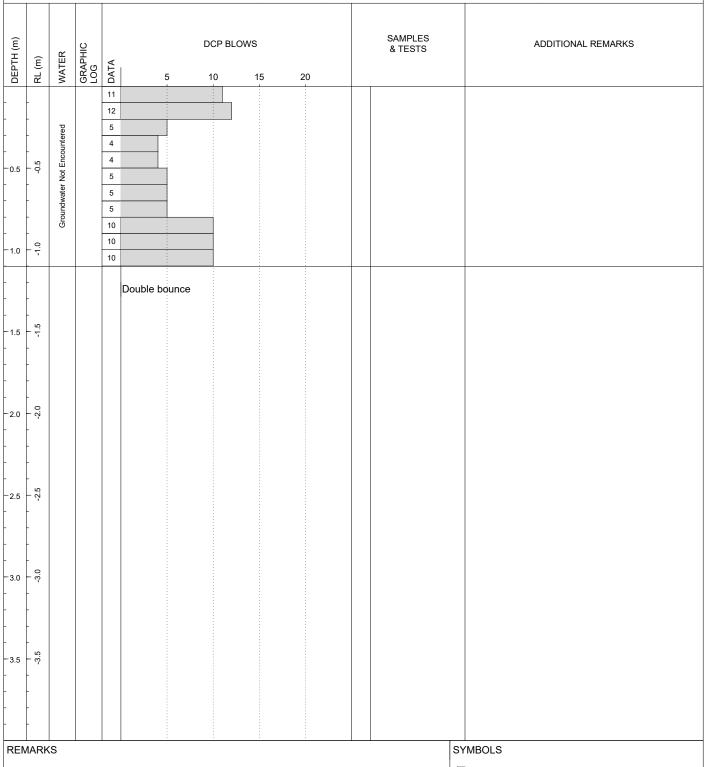
LOGGED BY: LM

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 14
PROJECT: 184250602 EASTING: 1934602.61 STARTED: 19-12-2018

LOCATION: 139 Arataki Road NORTHING: 5602697.48 FINISHED: 19-12-2018

DATUM:

CONTRACTOR: RDCL MACHINE: OPERATOR:



▼ Standing Water Level

← Out flow

├─ In flow

RDCL



OFFICE:

# **DCP LOG**

**DCP2.042** 

**SHEET 42 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 14 PROJECT: 184250602 EASTING: 1934595.23 STARTED: 19-12-2018

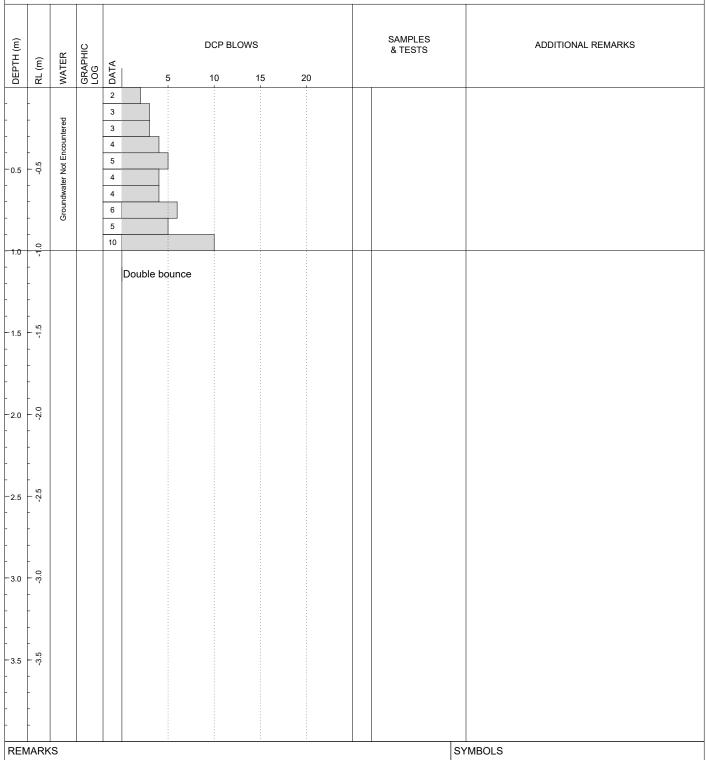
LOCATION: 139 Arataki Road FINISHED: 19-12-2018 NORTHING: 5602703.23

DATUM:

LOGGED BY: LM DATE: 19-12-2018 ELEVATION: -CHECKED BY: SD DATE: 21-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



OFFICE:

# **DCP LOG**

**DCP2.043** 

**SHEET 43 OF 98** 

DATE: 19-12-2018

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 14
PROJECT: 184250602 EASTING: 1934611.10 STARTED: 19-12-2018

LOCATION: 139 Arataki Road NORTHING: 5602710.65 FINISHED: 19-12-2018

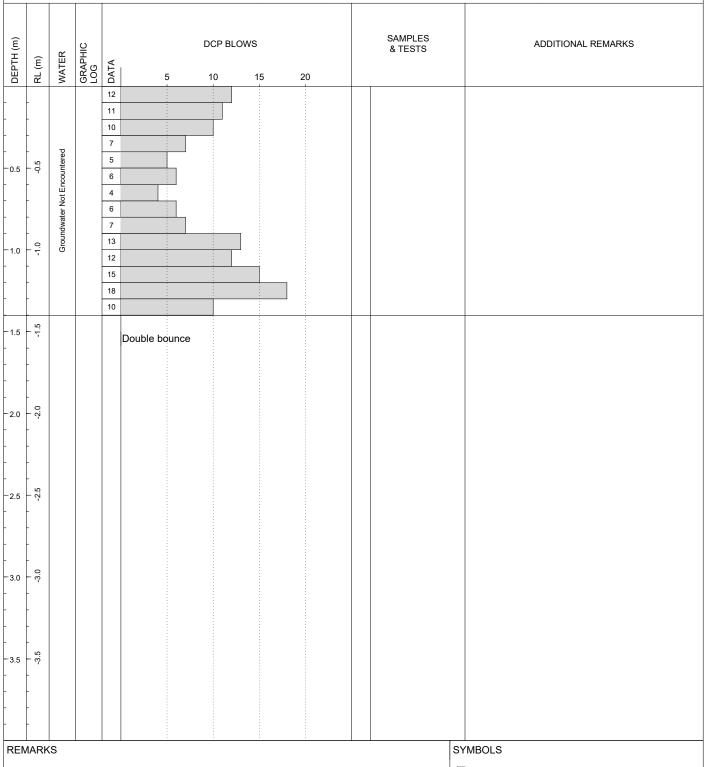
DATUM:

ELEVATION: - CHECKED BY: SD DATE: 21-01-2019

LOGGED BY: LM

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL MACHINE: OPERATOR:



▼ Standing Water Level

← Out flow

├─ In flow

RDCL



OFFICE:

# **DCP LOG**

**DCP2.044** 

**SHEET 44 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 14 PROJECT: 184250602 EASTING: 1934616.68 STARTED: 19-12-2018

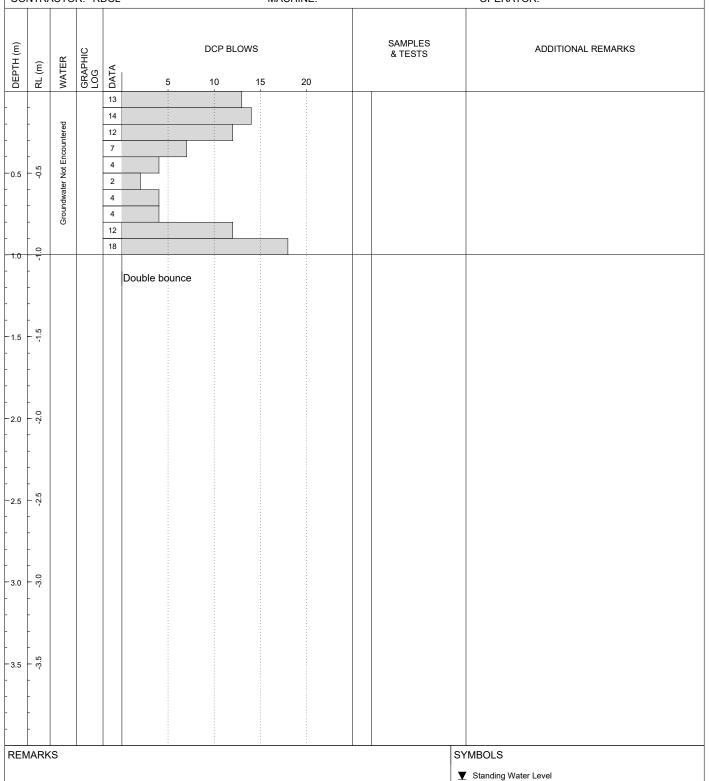
LOCATION: 139 Arataki Road NORTHING: 5602701.51 FINISHED: 19-12-2018

DATUM:

LOGGED BY: LM DATE: 19-12-2018 ELEVATION: -CHECKED BY: SD DATE: 21-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



<- Out flow ├─ In flow

**RDCL** 



**DCP2.045** 

**SHEET 45 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 13 PROJECT: 184250602 EASTING: 1934629.35 STARTED: 19-12-2018

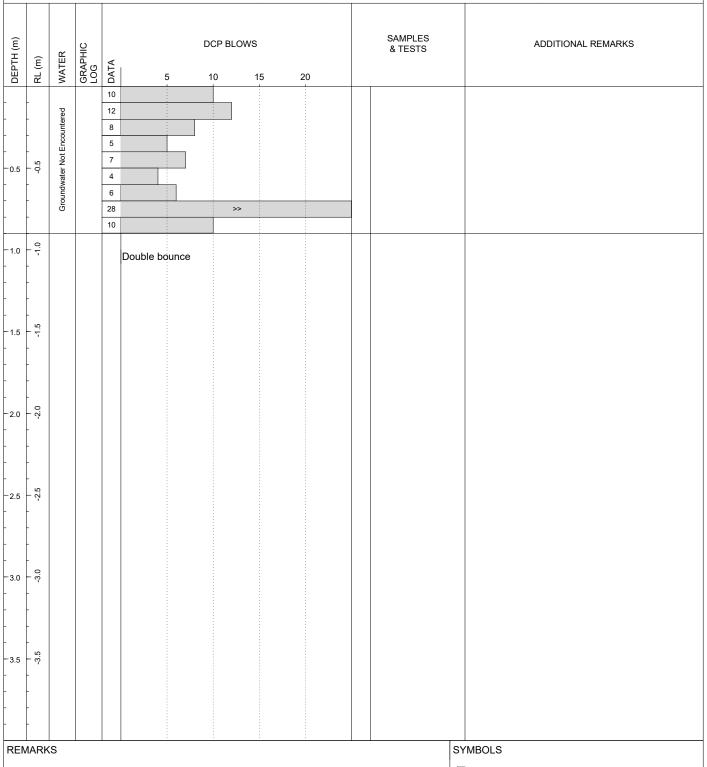
LOCATION: 139 Arataki Road NORTHING: 5602708.29 FINISHED: 19-12-2018

DATUM:

LOGGED BY: LM DATE: 19-12-2018 ELEVATION: -CHECKED BY: SD DATE: 21-01-2019

OFFICE: RDCL - Hastings ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



OFFICE:

# **DCP LOG**

**DCP2.046** 

SHEET 46 OF 98

DATE: 19-12-2018

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 13
PROJECT: 184250602 EASTING: 1934623.23 STARTED: 19-12-2018

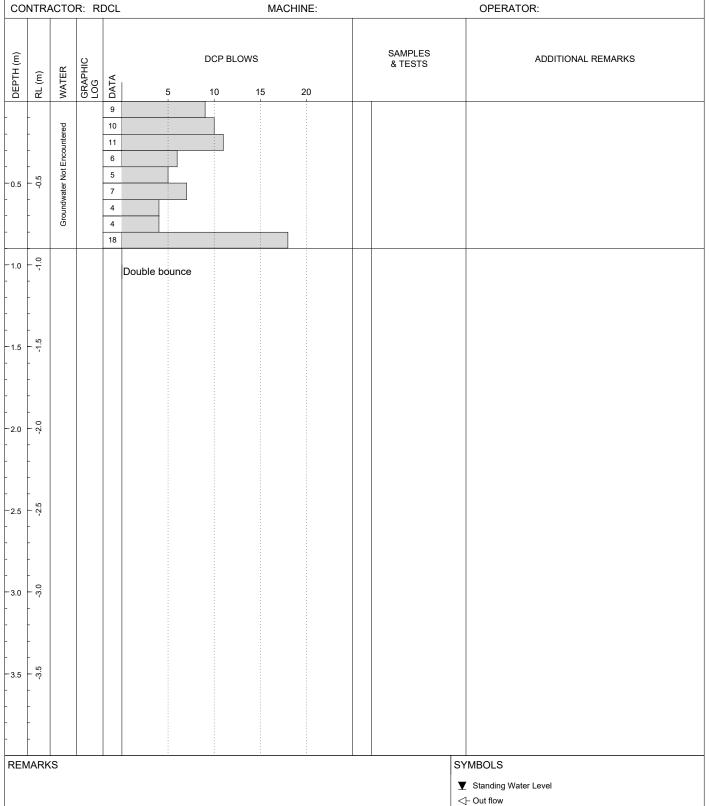
LOCATION: 139 Arataki Road NORTHING: 5602718.26 FINISHED: 19-12-2018

DATUM:

ELEVATION: - CHECKED BY: SD DATE: 21-01-2019

LOGGED BY: LM

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data



├─ In flow



LOCATION: 139 Arataki Road

PROJECT: 184250602

# **DCP LOG**

**DCP2.047** 

**SHEET 47 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM

EASTING: 1934632.78

NORTHING: 5602723.07

STARTED: 19-12-2018 FINISHED: 19-12-2018

DATE: 19-12-2018

OFFICE: RDCL - Hastings

ELEVATION: -

DATUM:

LOGGED BY: LM CHECKED BY: SD

LOCATION: Lot 13

DATE 04 04 0040

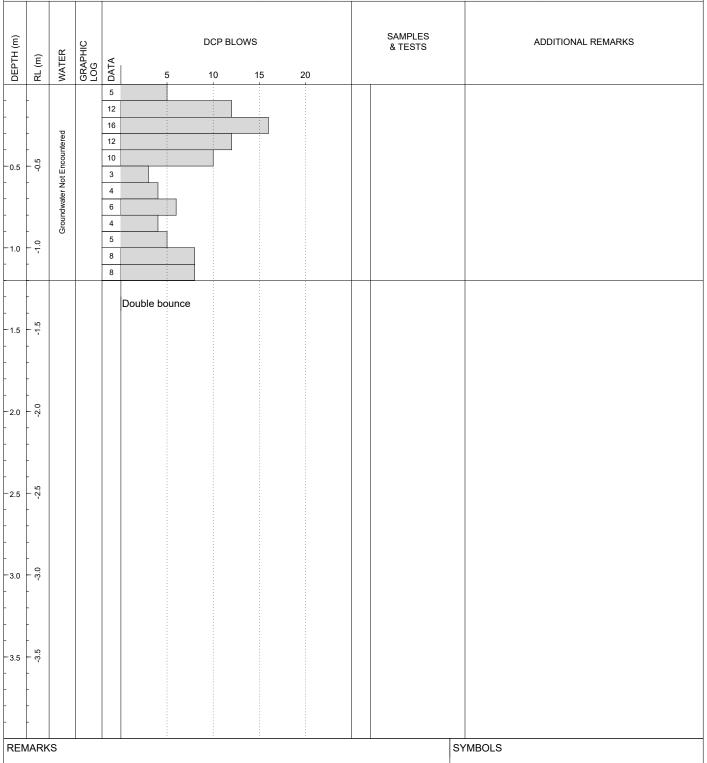
ENGINEER: TB

AZUMITH: 0°

PLUNGE: 90° | STATUS: Final data

DATE: 21-01-2019

CONTRACTOR: RDCL MACHINE: OPERATOR:



▼ Standing Water Level

<-- Out flow

├─ In flow

RDCL



OFFICE:

# **DCP LOG**

**DCP2.048** 

**SHEET 48 OF 98** 

DATE: 19-12-2018

DATE: 21-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 13 PROJECT: 184250602 EASTING:

1934636.74 STARTED: 19-12-2018 LOCATION: 139 Arataki Road NORTHING: 5602710.69 FINISHED: 19-12-2018

DATUM:

ELEVATION: -CHECKED BY: SD

LOGGED BY: LM

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS WATER RL (m) DATA 5 20 10 15 14 Groundwater Not Encountered 12 12 14 -0.5 0.5 11 8 9 10 1.0 Double bounce -1.5 1.5 -2.0 -2.0 -2.5 2.5 3.0 -3.5 -3.5 **REMARKS** SYMBOLS ▼ Standing Water Level

<- Out flow

├─ In flow

**RDCL** 



OFFICE:

# **DCP LOG**

**DCP2.049** 

**SHEET 49 OF 98** 

DATE: 19-12-2018

DATE: 21-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 12
PROJECT: 184250602 EASTING: 1934647.59 STARTED: 19-12-2018

LOCATION: 139 Arataki Road NORTHING: 5602718.03 FINISHED: 19-12-2018

DATUM:

ELEVATION: - CHECKED BY: SD

LOGGED BY: LM

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS WATER RL (m) DATA 5 20 10 15 Groundwater Not Encountered 12 5 3 8 -0.5 0.5 8 Double bounce 1.0 -1.5 1.5 -2.0 -2.0 -2.5 2.5 3.0 -3.5 -3.5 **REMARKS** SYMBOLS ▼ Standing Water Level

Produced with Core-GS by Geroc

RDCL

← Out flow

├─ In flow



OFFICE:

# **DCP LOG**

**DCP2.050** 

**SHEET 50 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 12 PROJECT: 184250602 EASTING: 1934641.25 STARTED: 19-12-2018

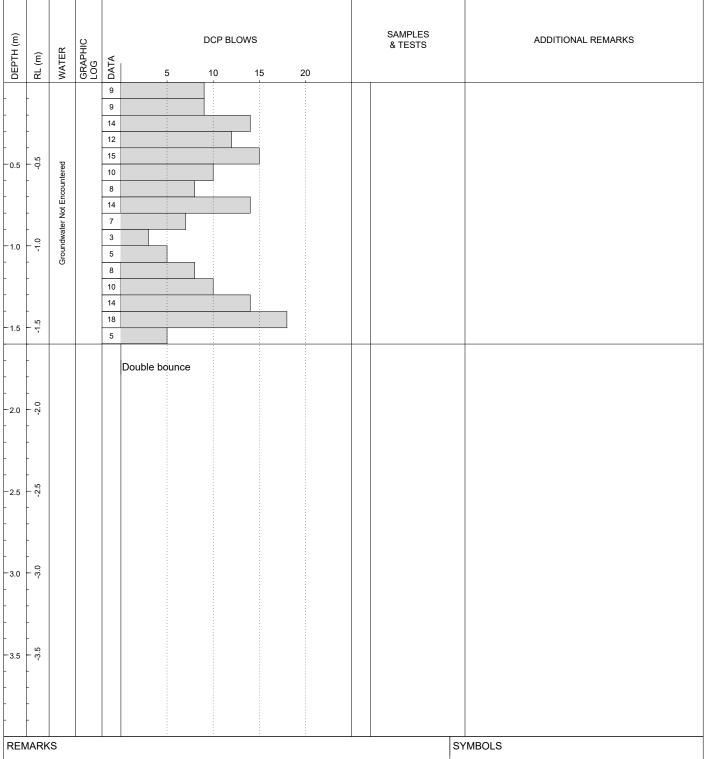
LOCATION: 139 Arataki Road NORTHING: 5602727.90 FINISHED: 19-12-2018

DATUM:

LOGGED BY: LM DATE: 19-12-2018 ELEVATION: -CHECKED BY: SD DATE: 21-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



OFFICE:

# **DCP LOG**

DCP2.051

**SHEET 51 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 12 PROJECT: 184250602 EASTING: 1934651.27 STARTED: 19-12-2018 LOCATION: 139 Arataki Road

DATUM:

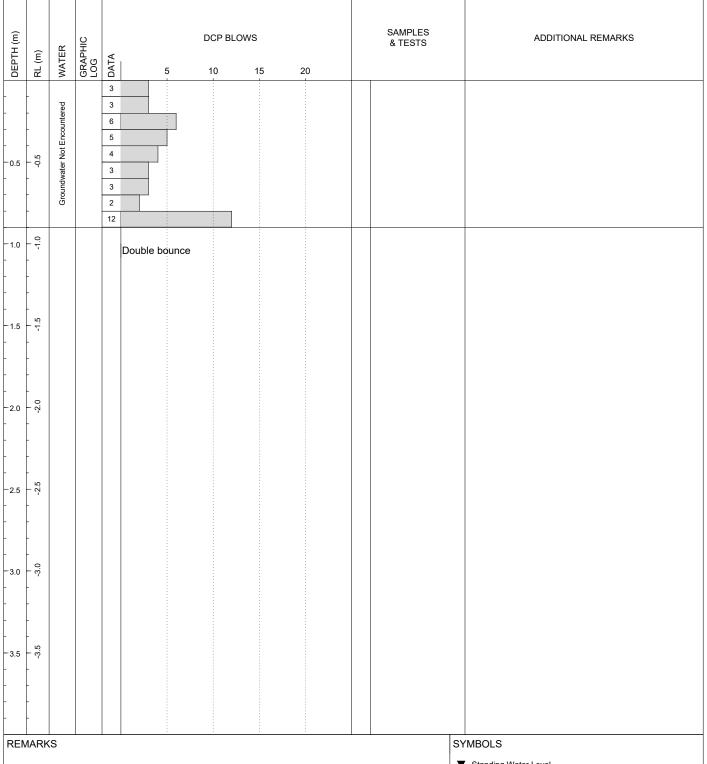
NORTHING: 5602733.17 FINISHED: 19-12-2018

ELEVATION: -

LOGGED BY: LM DATE: 19-12-2018 CHECKED BY: SD DATE: 21-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



OFFICE:

# **DCP LOG**

**DCP2.052** 

**SHEET 52 OF 98** 

DATE: 19-12-2018

DATE: 21-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 12 PROJECT: 184250602 EASTING: 1934656.85 STARTED: 19-12-2018 LOCATION: 139 Arataki Road

NORTHING: 5602724.47 FINISHED: 19-12-2018

DATUM:

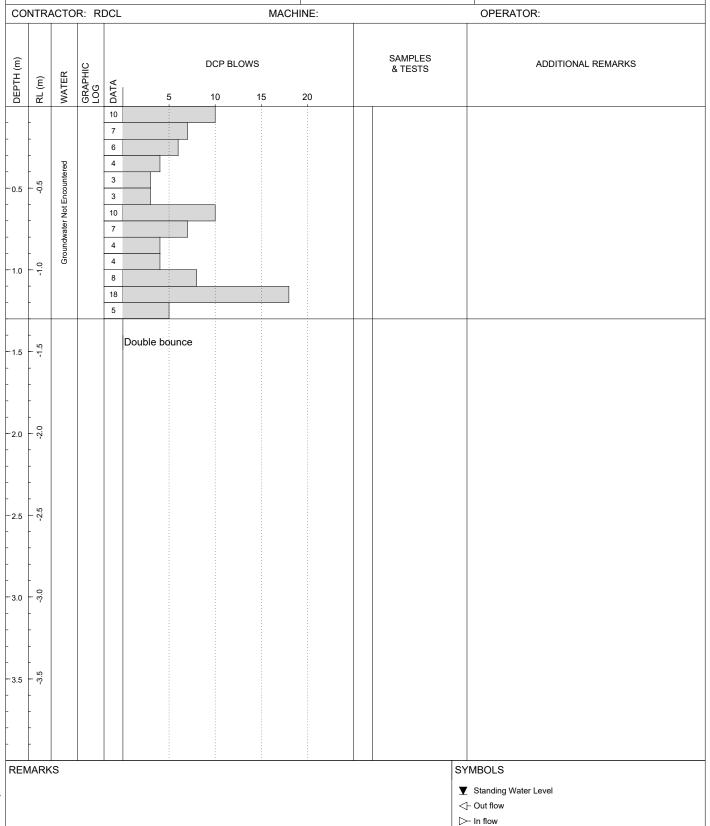
ELEVATION: -

LOGGED BY: LM

CHECKED BY: SD

ENGINEER: TB

AZUMITH: 0° PLUNGE: 90° STATUS: Final data





**DCP2.053** 

**SHEET 53 OF 98** 

DATE: 17-01-2019

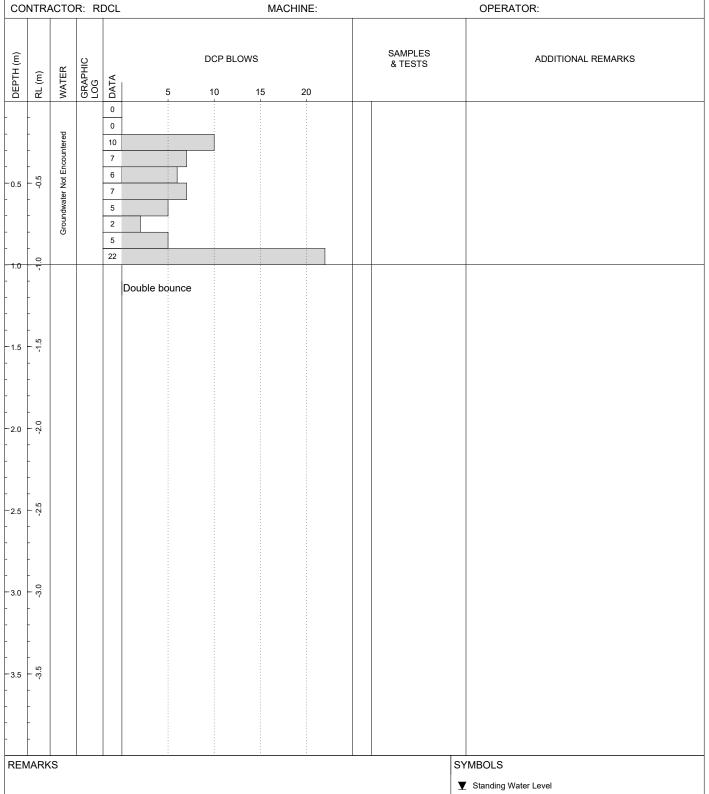
DATE: 18-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 11

DATUM: LOGGED BY: MD/BR

OFFICE: RDCL - Hastings ELEVATION: - CHECKED BY: SD

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data



← Out flow

├─ In flow

RDCL



OFFICE:

# **DCP LOG**

**DCP2.054** 

**SHEET 54 OF 98** 

DATE: 17-01-2019

DATE: 18-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 11
PROJECT: 184250602 EASTING: 1934662.14 STARTED: 17-01-2019

LOCATION: 139 Arataki Road NORTHING: 5602733.63 FINISHED: 17-01-2019

DATUM:

ELEVATION: - CHECKED BY: SD

LOGGED BY: MD/BR

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS WATER RL (m) DATA 10 15 20 1 1 11 4 -0.5 Groundwater Not Encountered 0.5 5 3 5 7 8 1.0 9 12 13 13 14 Double bounce -2.0 -2.0 -2.5 2.5 3.0 -3.5 3.5 **REMARKS** SYMBOLS ▼ Standing Water Level <- Out flow

Produced with Core-GS by Geroc

├─ In flow



OFFICE:

# **DCP LOG**

**DCP2.055** 

SHEET 55 OF 98

DATE: 17-01-2019

DATE: 18-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 11

DATUM:

ELEVATION: - CHECKED BY: SD

LOGGED BY: MD/BR

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS Idwater Not Encour WATER RL (m) DATA 5 20 10 15 8 16 -0.5 0.5 Double bounce over 50 mm 1.0 -1.5 1.5 -2.0 -2.0 -2.5 2.5 3.0 -3.5 3.5 **REMARKS** SYMBOLS ▼ Standing Water Level

Produced with Core-GS by Geroc

RDCL

← Out flow

├─ In flow



**DCP2.056** 

**SHEET 56 OF 98** 

DATE: 17-01-2019

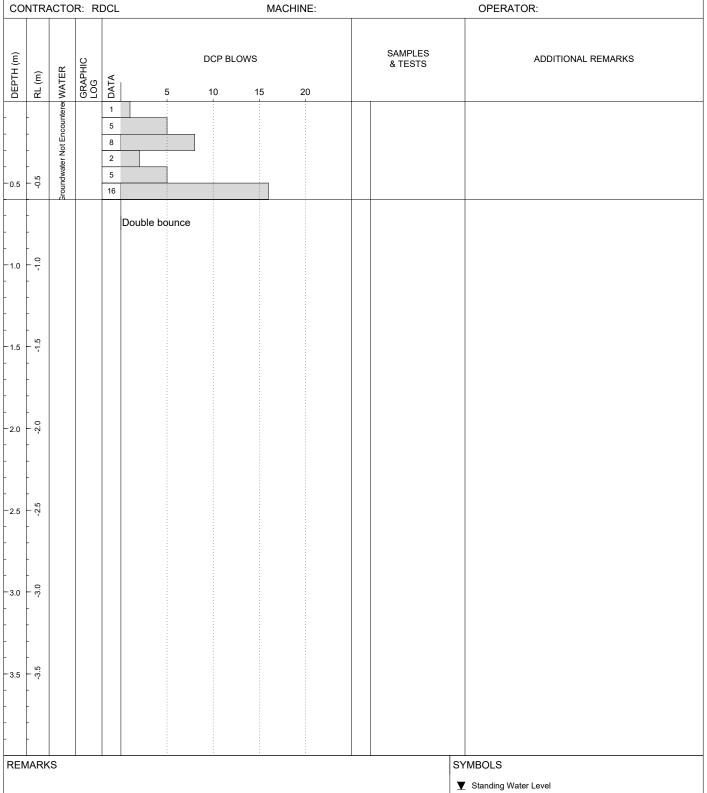
CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 11

PROJECT: 184250602 EASTING: 1934677.58 STARTED: 17-01-2019
LOCATION: 139 Arataki Road NORTHING: 5602732.96 FINISHED: 17-01-2019

DATUM: LOGGED BY: MD/BR

OFFICE: RDCL - Hastings ELEVATION: - CHECKED BY: SD DATE: 18-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data



← Out flow

├─ In flow



LOCATION: 139 Arataki Road

# **DCP LOG**

**DCP2.057** 

**SHEET 57 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM PROJECT: 184250602

EASTING: 1934684.59

NORTHING: 5602735.99

STARTED: 17-01-2019 FINISHED: 17-01-2019

LOGGED BY: MD/BR DATE: 17-01-2019

ELEVATION: -

DATUM:

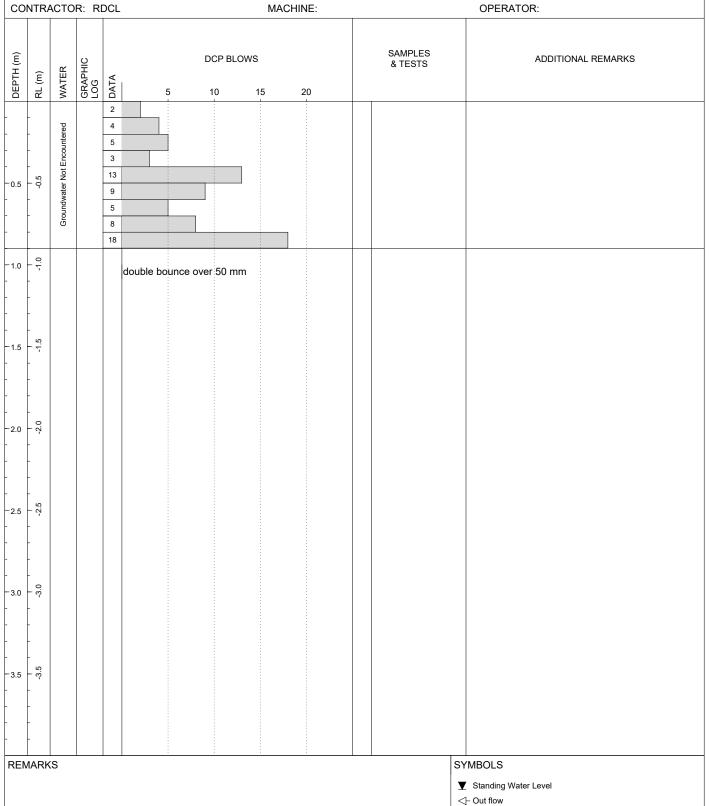
CHECKED BY: SD

LOCATION: Lot 10

DATE: 18-01-2019

OFFICE: RDCL - Hastings ENGINEER: TB

AZUMITH: 0° PLUNGE: 90° STATUS: Final data



├─ In flow



OFFICE:

# **DCP LOG**

**DCP2.058** 

**SHEET 58 OF 98** 

DATE: 17-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 10
PROJECT: 184250602 EASTING: 1934679.07 STARTED: 17-01-2019

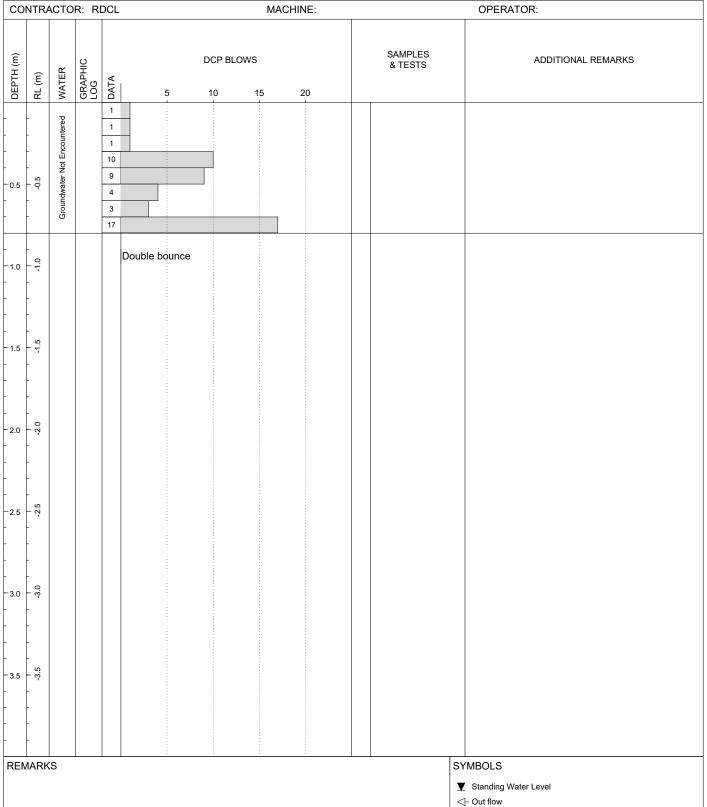
LOCATION: 139 Arataki Road NORTHING: 5602747.35 FINISHED: 17-01-2019

DATUM:

ELEVATION: - CHECKED BY: SD DATE: 18-01-2019

LOGGED BY: MD/BR

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data



Produced with Core-GS by Geroc

├─ In flow



OFFICE:

# **DCP LOG**

**DCP2.059** 

**SHEET 59 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 10 PROJECT: 184250602 EASTING: 1934689.61 STARTED: 17-01-2019

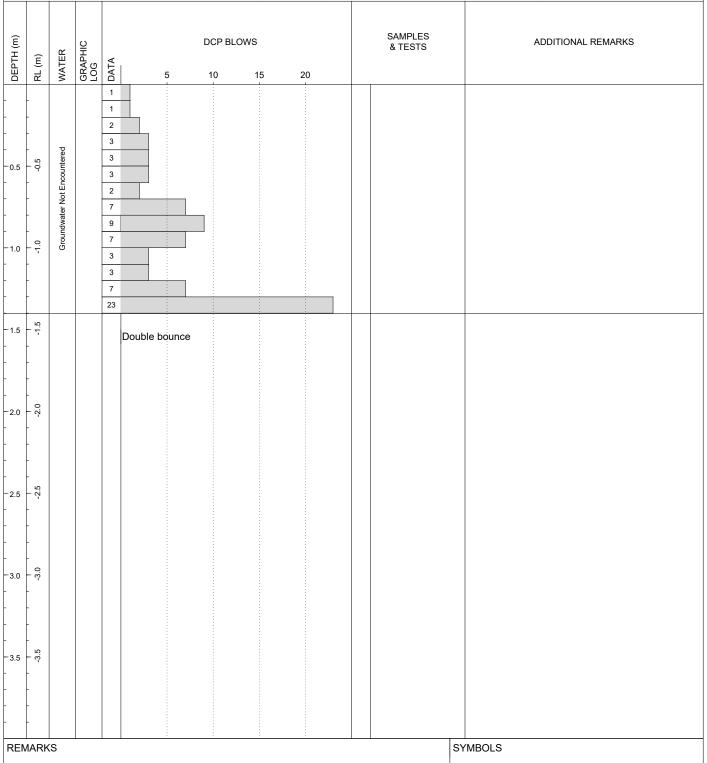
LOCATION: 139 Arataki Road NORTHING: 5602752.46 FINISHED: 17-01-2019

DATUM:

LOGGED BY: MD/BR DATE: 17-01-2019 ELEVATION: -CHECKED BY: SD DATE: 18-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



**DCP2.060** 

SHEET 60 OF 98

DATE: 17-01-2019

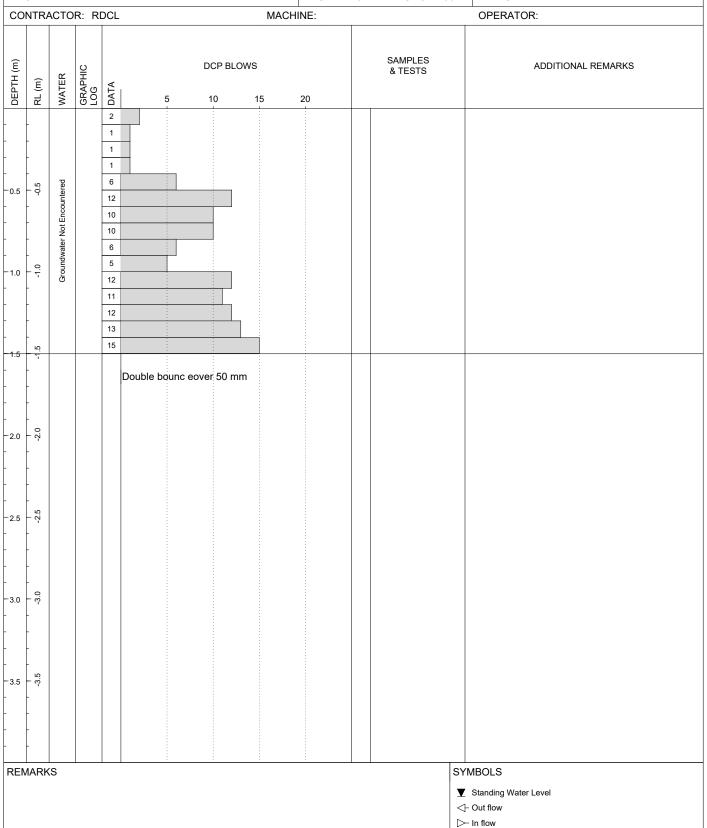
CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 10
PROJECT: 184250602 EASTING: 1934693.51 STARTED: 17-01-2019

LOCATION: 139 Arataki Road NORTHING: 5602743.39 FINISHED: 17-01-2019

DATUM: LOGGED BY: MD/BR

OFFICE: RDCL - Hastings ELEVATION: - CHECKED BY: SD DATE: 18-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data





OFFICE:

CONTRACTOR: RDCL

# **DCP LOG**

**DCP2.061** 

**SHEET 61 OF 98** 

DATE: 09-01-2019

DATE: 18-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM

PROJECT: 184250602 EASTING: 1934711.52 STARTED: 09-01-2019 LOCATION: 139 Arataki Road NORTHING: 5602722.58 FINISHED: 09-01-2019

DATUM:

ELEVATION: -

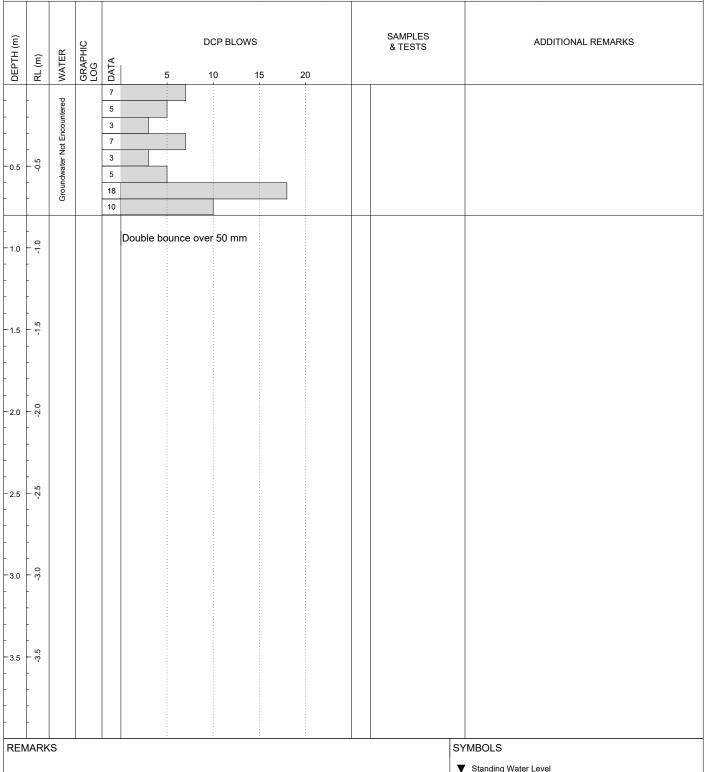
ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

OPERATOR: MACHINE:

LOCATION: Lot 39

LOGGED BY: BR/DJ

CHECKED BY: SD



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



**DCP2.062** 

**SHEET 62 OF 98** 

DATE: 09-01-2019

DATE: 18-01-2019

LOGGED BY: BR/DJ

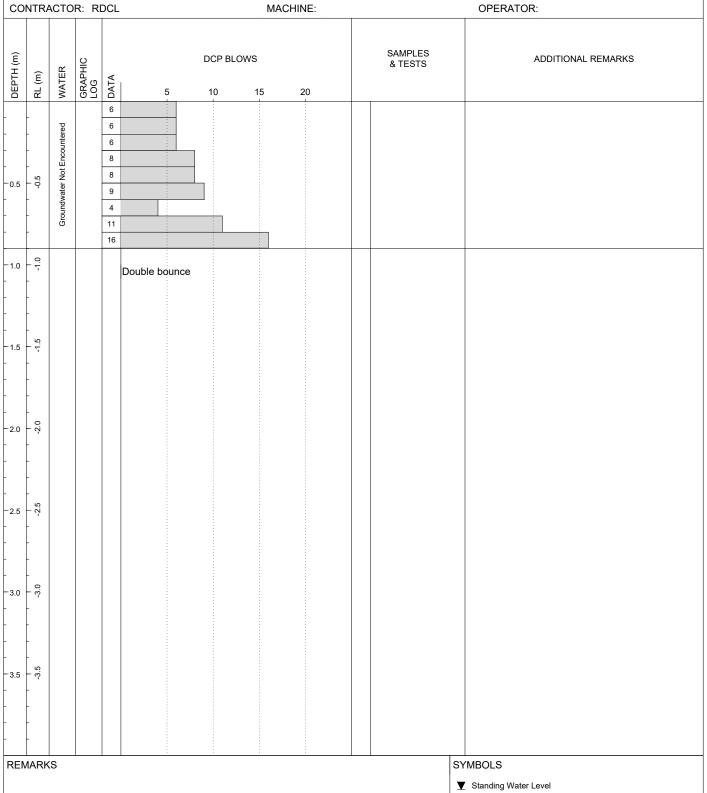
CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 39
PROJECT: 184250602 EASTING: 1934717.57 STARTED: 09-01-2019

LOCATION: 139 Arataki Road NORTHING: 5602703.41 FINISHED: 09-01-2019

DATUM:

OFFICE: RDCL - Hastings ELEVATION: - CHECKED BY: SD

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data



Produced with Core-GS by Geroc

RDCL

← Out flow

├─ In flow



OFFICE:

# **DCP LOG**

**DCP2.063** 

**SHEET 63 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 39 PROJECT: 184250602 EASTING: 1934709.75 STARTED: 09-01-2019

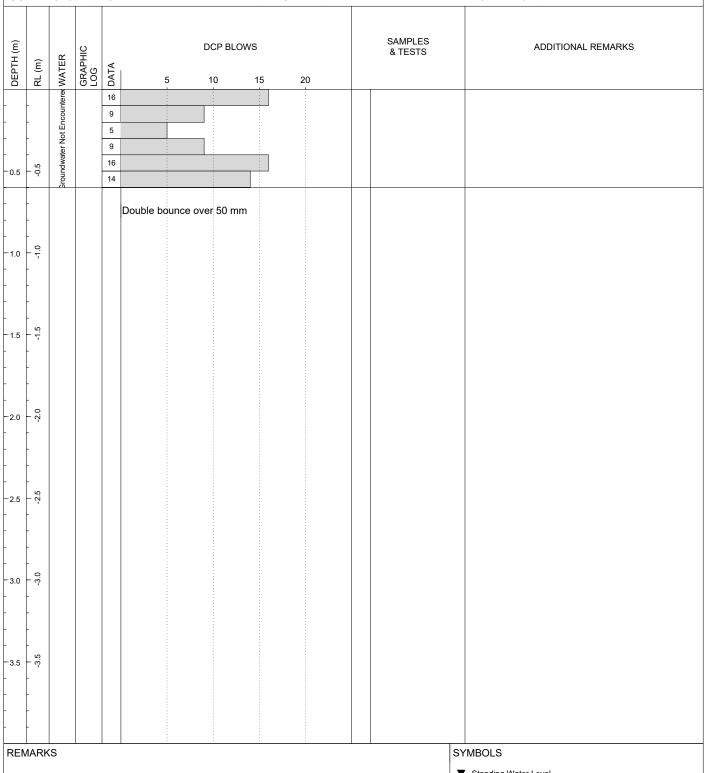
LOCATION: 139 Arataki Road NORTHING: 5602701.52 FINISHED: 09-01-2019

DATUM:

LOGGED BY: BR/DJ DATE: 09-01-2019 ELEVATION: -CHECKED BY: SD DATE: 18-01-2019

RDCL - Hastings ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



OFFICE:

# **DCP LOG**

**DCP2.064** 

SHEET 64 OF 98

DATE: 09-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 39
PROJECT: 184250602 EASTING: 1934705.13 STARTED: 09-01-2019

LOCATION: 139 Arataki Road NORTHING: 5602713.96 FINISHED: 09-01-2019

DATUM:

ELEVATION: - CHECKED BY: SD DATE: 18-01-2019

LOGGED BY: BR/DJ

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL MACHINE: OPERATOR:

					•							
DEPTH (m)	RL (m)	ter Not Er WATER	GRAPHIC LOG	TA	ı		BLOWS		SAMPLES & TESTS	ADDITIONAL REMARKS		
DE	귙	<b>\$</b>	R 3	M	5	10	15	20				
		μ Ē		10								
	Ī	N N		19								
		<u> </u>					:					
	-				Double bounce							
	-											
0.5	-0.5											
	-											
	ŀ											
	-											
	-											
0	- 1.0											
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	L <sub>C</sub>											
1.5	- 1.5											
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	ŀ											
2.0	-2.0											
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	-2.5						:					
2.5	- 27						:					
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3.0	-3.0											
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3.5	-3.5						:	:				
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	L											
ΕN	//ARK	(S	-					·		SYMBOLS		
	••									Totaling Water Level		

▼ Standing Water Level

← Out flow

├─ In flow

RDCL



CONTRACTOR: RDCL

# **DCP LOG**

**DCP2.065** 

**SHEET 65 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM

PROJECT: 184250602 EASTING: 1934696.26 LOCATION: 139 Arataki Road

NORTHING: 5602707.67

STARTED: 09-01-2019 FINISHED: 09-01-2019

DATE: 09-01-2019

OFFICE: RDCL - Hastings ELEVATION: -

CHECKED BY: SD

OPERATOR:

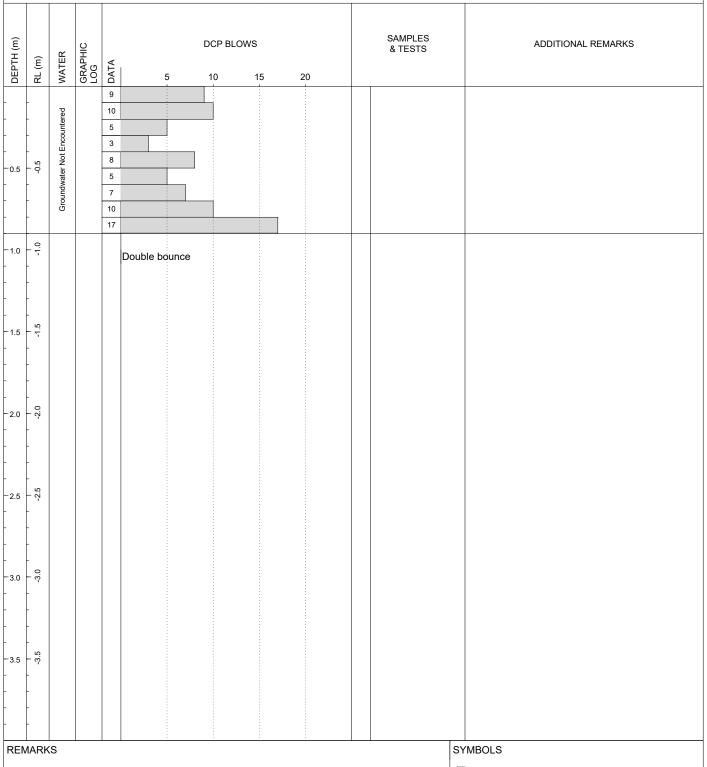
LOGGED BY: BR/DJ

LOCATION: Lot 38

DATE: 18-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data MACHINE:

DATUM:



Produced with Core-GS by Geroc

▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



OFFICE:

# **DCP LOG**

**DCP2.066** 

SHEET 66 OF 98

DATE: 09-01-2019

DATE: 18-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 38
PROJECT: 184250602 EASTING: 1934690.11 STARTED: 09-01-

DATUM:

ELEVATION: - CHECKED BY: SD

LOGGED BY: BR/DJ

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS WATER RL (m) DATA 5 10 15 20 7 Groundwater Not Encountered 7 7 10 -0.5 0.5 14 11 10 16 1.0 High blow count -1.5 1.5 -2.0 -2.0 -2.5 2.5 3.0 -3.5 3.5 **REMARKS** SYMBOLS ▼ Standing Water Level <- Out flow

Produced with Core-GS by Geroc

RDCL

├─ In flow



OFFICE:

# **DCP LOG**

**DCP2.067** 

**SHEET 67 OF 98** 

DATE: 09-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 38 PROJECT: 184250602 EASTING: 1934697.25

STARTED: 09-01-2019 LOCATION: 139 Arataki Road NORTHING: 5602690.94 FINISHED: 09-01-2019

DATUM:

ELEVATION: -CHECKED BY: SD DATE: 18-01-2019

LOGGED BY: BR/DJ

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS Idwater Not Encour WATER RL (m) DATA 20 5 10 15 5 10 13 -0.5 0.5 Double bounce 1.0 -1.5 1.5 -2.0 -2.0 -2.5 2.5 3.0 -3.5 3.5 **REMARKS** SYMBOLS

Produced with Core-GS by Geroc

▼ Standing Water Level

<- Out flow

├─ In flow

**RDCL** 



**DCP2.068** 

**SHEET 68 OF 98** 

DATE: 09-01-2019

DATE: 18-01-2019

LOGGED BY: BR/DJ

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 38

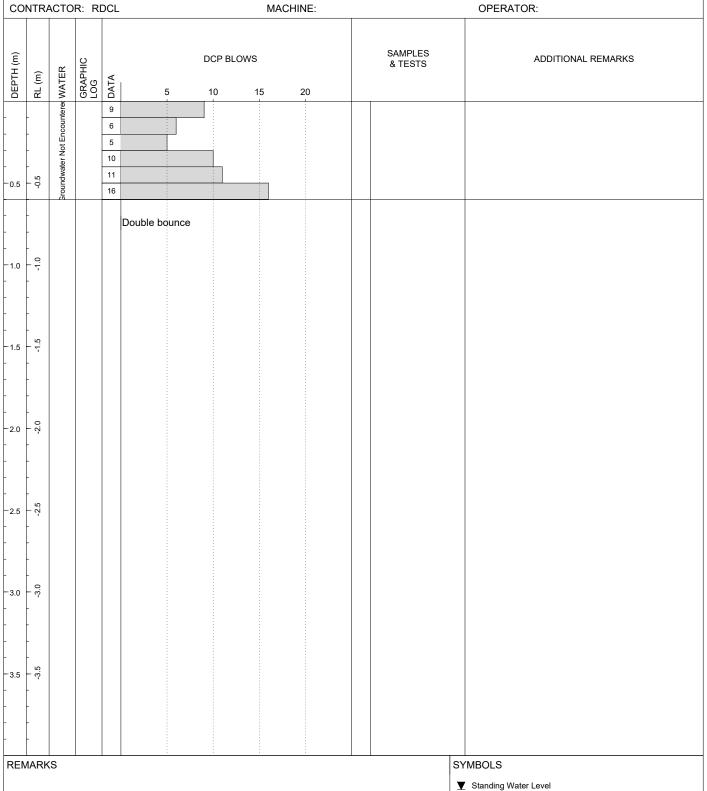
PROJECT: 184250602 EASTING: 1934704.31 STARTED: 09-01-2019

LOCATION: 139 Arataki Road NORTHING: 5602695.08 FINISHED: 09-01-2019

DATUM:

OFFICE: RDCL - Hastings ELEVATION: - CHECKED BY: SD

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data



Produced with Core-GS by Geroc

RDCL

← Out flow

├─ In flow



OFFICE:

# **DCP LOG**

**DCP2.069** 

**SHEET 69 OF 98** 

DATE: 09-01-2019

DATE: 18-01-2019

LOCATION: Lot 35

LOGGED BY: BR/DJ

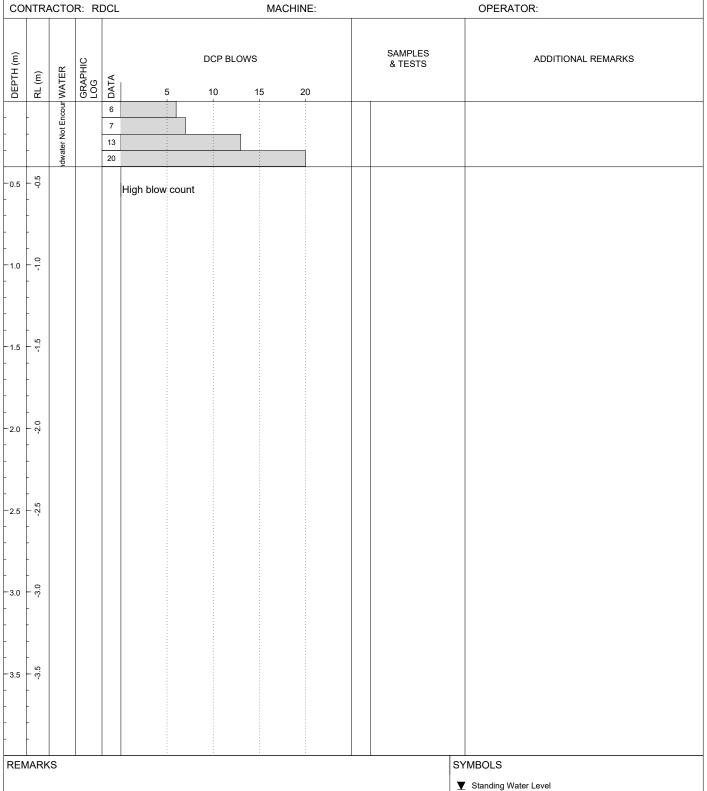
CHECKED BY: SD

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM

DATUM:

ELEVATION: -

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data



Produced with Core-GS by Geroc

RDCL

← Out flow

├─ In flow



OFFICE:

# **DCP LOG**

**DCP2.070** 

**SHEET 70 OF 98** 

DATE: 09-01-2019 DATE: 18-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 35
PROJECT: 184250602 EASTING: 1934715.22 STARTED: 09-01-

DATUM:

ELEVATION: - CHECKED BY: SD

LOGGED BY: BR/DJ

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL MACHIN							MA	CHINE:	OPERATOR:				
DEPTH (m)	RL (m)	/ATER	GRAPHIC LOG	ATA	5	DCP BL	OWS 15	20		SAMPLES & TESTS		ADDITIONAL REMARKS	
О	- -	dwater Not Encour WATER	0 3	14 14 11 14	7			20					
-0.5	-0.5	Ē			Double bounce								
1.0	-1.0												
1.5	-1.5												
2.0	-2.0												
2.5	-2.5												
3.0	-3.0												
3.5	-3.5												
REM	- IARK	(S										/MBOLS	

Produced with Core-GS by Geroc

RDCL

← Out flow

├─ In flow



LOCATION: 139 Arataki Road

PROJECT: 184250602

# **DCP LOG**

DCP2.071

SHEET 71 OF 98

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM

EASTING: 1934720.08

NORTHING: 5602682.16 FINISHED: 09-01-2019

DATUM:

LOGGED BY: BR/DJ CHECKED BY: SD

LOCATION: Lot 35

STARTED: 09-01-2019

DATE: 09-01-2019 DATE: 18-01-2019

OFFICE: RDCL - Hastings ELEVATION: -

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS Idwater Not Encour WATER RL (m) DATA 20 5 10 15 5 9 17 -0.5 0.5 Double bounce 1.0 -1.5 1.5 -2.0 -2.0 -2.5 2.5 3.0 -3.5 3.5 **REMARKS** SYMBOLS ▼ Standing Water Level <- Out flow

├─ In flow



**DCP2.072** 

**SHEET 72 OF 98** 

CLIENT: Greenstone Land Developments Ltd

PROJECT: 184250602 LOCATION: 139 Arataki Road PROJECTION: NZTM EASTING: 1934709.49

STARTED: 09-01-2019

LOCATION: Lot 35

NORTHING: 5602675.95 DATUM:

FINISHED: 09-01-2019 LOGGED BY: BR/DJ

DATE: 09-01-2019

OFFICE: RDCL - Hastings

ELEVATION: -

PLUNGE: 90°

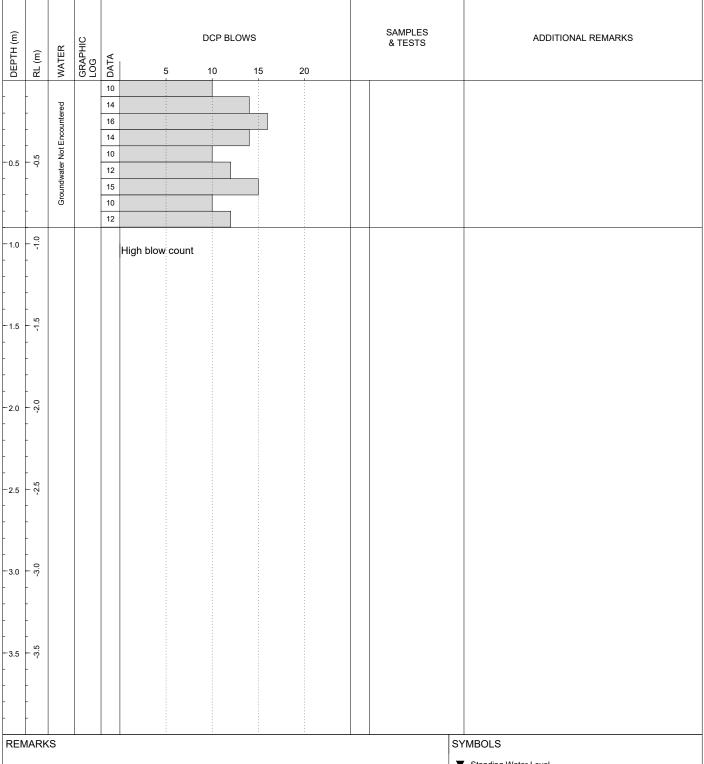
DATE: 18-01-2019

ENGINEER: TB

AZUMITH: 0°

CHECKED BY: SD STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow

├─ In flow

**RDCL** 



OFFICE:

# **DCP LOG**

**DCP2.073** 

**SHEET 73 OF 98** 

DATE: 09-01-2019 DATE: 18-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 34
PROJECT: 184250602 EASTING: 1934710.92 STARTED: 09-01-2019

LOCATION: 139 Arataki Road NORTHING: 5602669.21 FINISHED: 09-01-2019

DATUM:

ELEVATION: - CHECKED BY: SD

LOGGED BY: BR/DJ

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL MACHINE:										//////////////////////////////////////	PLUNGE: 90	OPERATOR:		
DЕРТН (m)	RL (m)	WATER	GRAPHIC LOG	DATA	5	5	DCP BL	OWS	20		SAMPLES & TESTS	ADDITIONAL REMARKS		
	-	water Not Ence WATER		6 14 21										
0.5	-0.5	~			High blow	count								
1.0	-1.0													
1.5	-1.5													
2.0	-2.0													
.5	2.5													
.0	-3.0													
3.5	-3.5													
REM	IARK	S									1	SYMBOLS  The standing Water Level		

Produced with Core-GS by Geroc

RDCL

< Out flow ├─ In flow



**DCP2.074** 

**SHEET 74 OF 98** 

DATE: 18-01-2019

CLIENT: Greenstone Land Developments Ltd

PROJECT: 184250602 LOCATION: 139 Arataki Road PROJECTION: NZTM LOCATION: Lot 34 EASTING: 1934724.18 STARTED: 09-01-2019

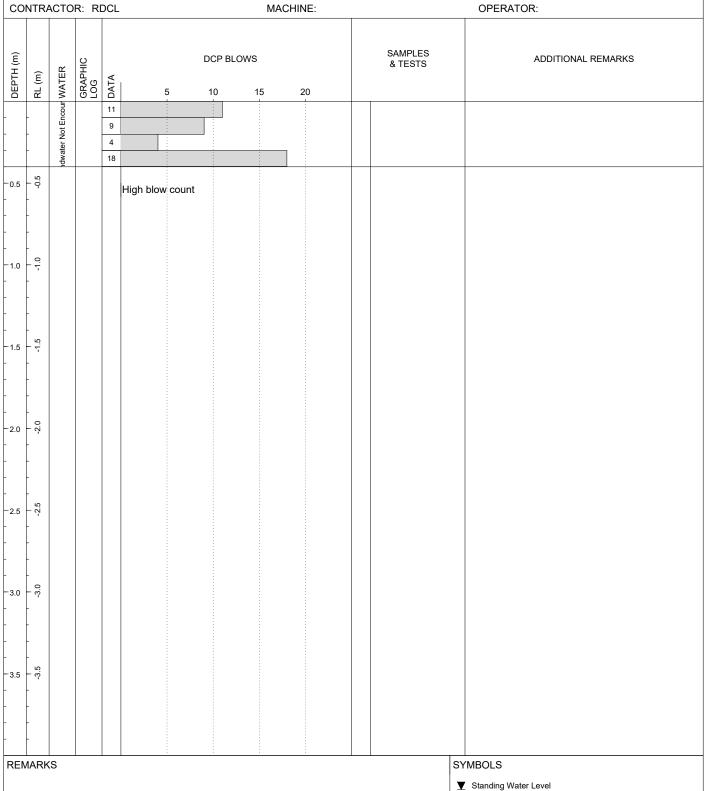
NORTHING: 5602677.53 FINISHED: 09-01-2019

DATUM:

LOGGED BY: BR/DJ DATE: 09-01-2019

OFFICE: RDCL - Hastings ELEVATION: -CHECKED BY: SD ENGINEER: TB

AZUMITH: 0° PLUNGE: 90° STATUS: Final data



<- Out flow ├─ In flow



OFFICE:

# **DCP LOG**

**DCP2.075** 

**SHEET 75 OF 98** 

DATE: 09-01-2019

DATE: 18-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 34
PROJECT: 184250602 EASTING: 1934728.08 STARTED: 09-01-2019

LOCATION: 139 Arataki Road NORTHING: 5602668.46 FINISHED: 09-01-2019

DATUM:

ELEVATION: - CHECKED BY: SD

LOGGED BY: BR/DJ

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS Idwater Not Encour WATER RL (m) DATA 5 20 10 15 2 5 17 -0.5 0.5 + DB 1.0 -1.5 1.5 -2.0 -2.0 -2.5 2.5 3.0 -3.5 3.5 **REMARKS** SYMBOLS ▼ Standing Water Level

Produced with Core-GS by Geroc

RDCL

← Out flow

├─ In flow



OFFICE:

# **DCP LOG**

**DCP2.076** 

**SHEET 76 OF 98** 

DATE: 09-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 34
PROJECT: 184250602 EASTING: 1934714.83 STARTED: 09-01-2019

LOCATION: 139 Arataki Road NORTHING: 5602660.14 FINISHED: 09-01-2019

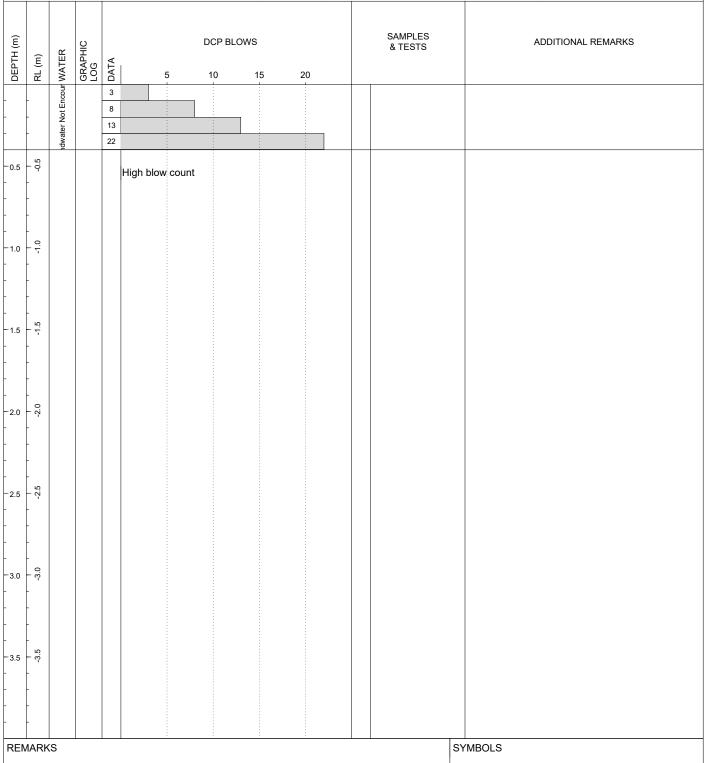
DATUM:

ELEVATION: - CHECKED BY: SD DATE: 18-01-2019

LOGGED BY: BR/DJ

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL MACHINE: OPERATOR:



▼ Standing Water Level

<- Out flow ├─ In flow

RDCL



**DCP2.077** 

**SHEET 77 OF 98** 

CLIENT: Greenstone Land Developments Ltd

PROJECT: 184250602 LOCATION: 139 Arataki Road PROJECTION: NZTM LOCATION: Lot 33
EASTING: 1934718.73 STARTED: 09-01-

EASTING: 1934718.73 STARTED: 09-01-2019 NORTHING: 5602651.07 FINISHED: 09-01-2019

DATUM:

LOGGED BY: BR/DJ

DATE: 09-01-2019

OFFICE: RDCL - Hastings ELEVATION: -

CHECKED BY: SD

DATE: 18-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS WATER RL (m) DATA 5 20 10 15 Groundwater Not Encountered 6 13 10 11 -0.5 0.5 15 10 Double bounce 1.0 -1.5 1.5 -2.0 -2.0 -2.5 2.5 3.0 -3.5 3.5 **REMARKS** SYMBOLS ▼ Standing Water Level

Produced with Core-GS by Geroc

RDCL

← Out flow

├─ In flow



**DCP2.078** 

**SHEET 78 OF 98** 

CLIENT: Greenstone Land Developments Ltd

PROJECT: 184250602 LOCATION: 139 Arataki Road PROJECTION: NZTM EASTING: 1934733.71

STARTED: 09-01-2019

LOCATION: Lot 33

NORTHING: 5602659.32

FINISHED: 09-01-2019

DATE: 09-01-2019

OFFICE: RDCL - Hastings

ELEVATION: -

DATUM:

LOGGED BY: BR/DJ CHECKED BY: SD

DATE: 18-01-2019

ENGINEER: TB

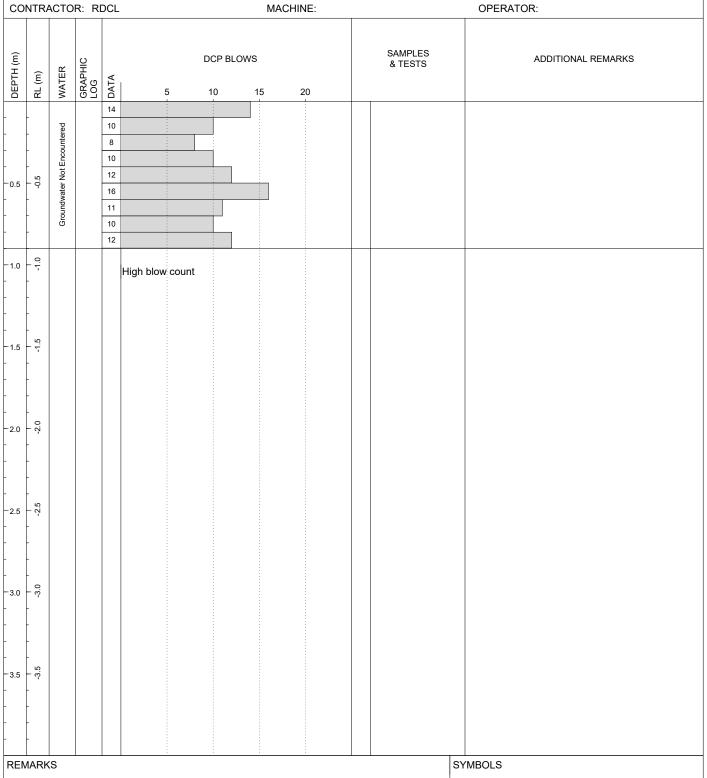
AZUMITH: 0°

PLUNGE: 90° STATUS: Final data

OPERATOR:

▼ Standing Water Level

<- Out flow ├─ In flow





OFFICE:

# **DCP LOG**

**DCP2.079** 

SHEET 79 OF 98

DATE: 09-01-2019

DATE: 18-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM

DATUM:

ELEVATION: - CHECKED BY: SD

LOCATION: Lot 33

LOGGED BY: BR/DJ

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS Idwater Not Encour WATER RL (m) DATA 5 20 10 15 6 13 16 -0.5 0.5 Double bounce 1.0 -1.5 1.5 -2.0 -2.0 -2.5 2.5 3.0 -3.5 3.5 **REMARKS** SYMBOLS ▼ Standing Water Level

Produced with Core-GS by Geroc

RDCL

← Out flow

├─ In flow



OFFICE:

# **DCP LOG**

**DCP2.080** 

**SHEET 80 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 33 PROJECT: 184250602 EASTING: 1934722.73 STARTED: 09-01-2019

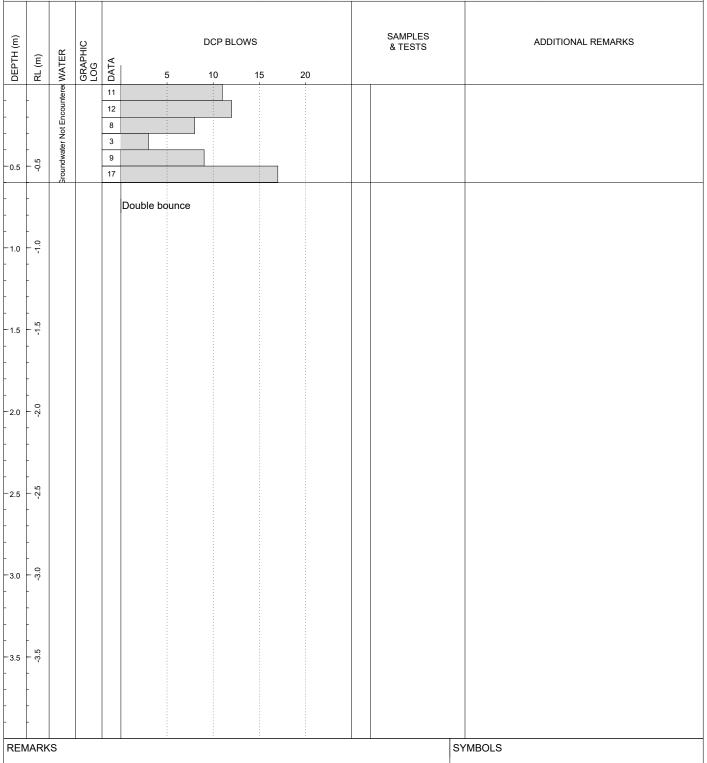
LOCATION: 139 Arataki Road NORTHING: 5602644.22 FINISHED: 09-01-2019

DATUM:

LOGGED BY: BR/DJ DATE: 09-01-2019 ELEVATION: -CHECKED BY: SD DATE: 18-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



**DCP2.081** 

**SHEET 81 OF 98** 

CLIENT: Greenstone Land Developments Ltd

PROJECT: 184250602

LOCATION: 139 Arataki Road

PROJECTION: NZTM EASTING:

1934728.45 NORTHING: 5602637.30

STARTED: 09-01-2019 FINISHED: 09-01-2019 LOGGED BY: BR/MD

LOCATION: Lot 27

DATE: 15-01-2019

OFFICE: RDCL - Hastings

ELEVATION: -

DATUM:

CHECKED BY: SD

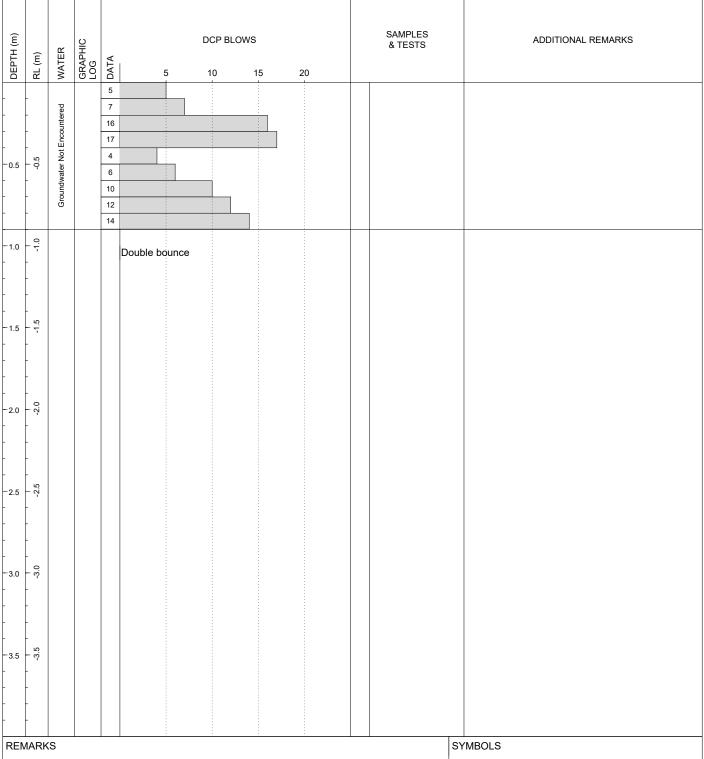
OPERATOR:

ENGINEER: TB

AZUMITH: 0°

PLUNGE: 90° STATUS: Final data DATE: 18-01-2019

CONTRACTOR: RDCL MACHINE:



▼ Standing Water Level

<- Out flow

├─ In flow

**RDCL** 



OFFICE:

# **DCP LOG**

**DCP2.082** 

**SHEET 82 OF 98** 

DATE: 15-01-2019

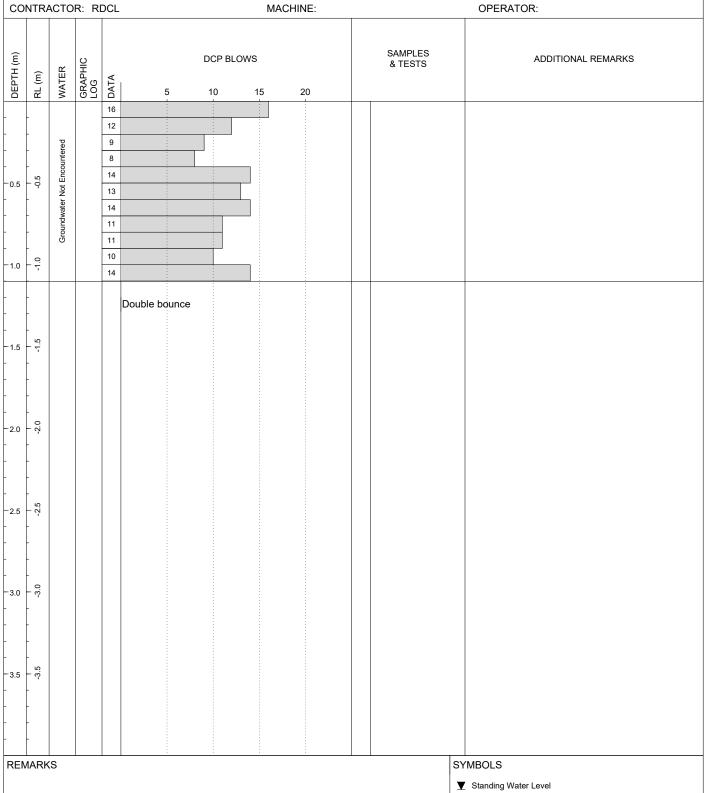
CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 27

DATUM:

ELEVATION: - CHECKED BY: SD DATE: 18-01-2019

LOGGED BY: BR/MD

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data



← Out flow

├─ In flow



**DCP2.083** 

**SHEET 83 OF 98** 

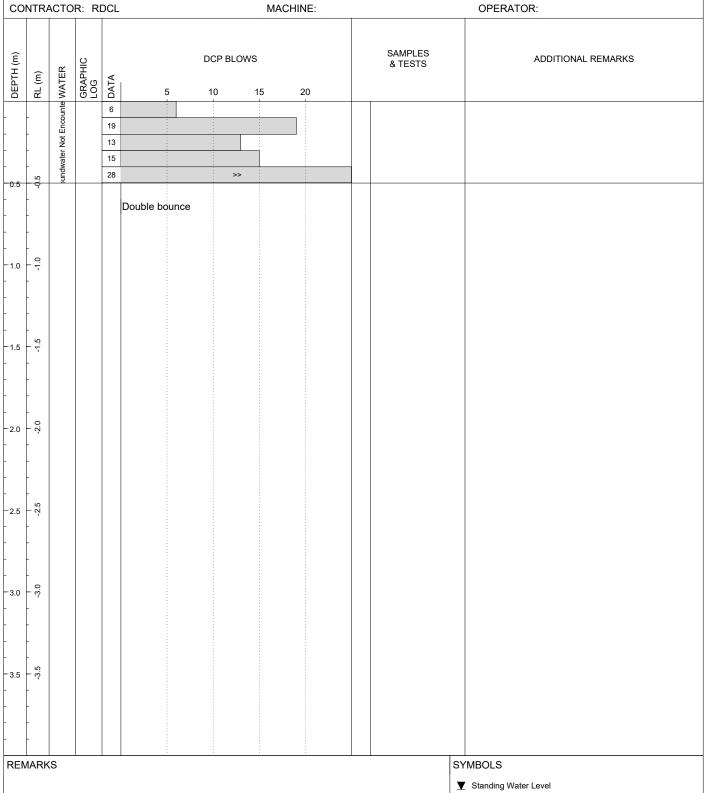
DATE: 15-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 27

DATUM: LOGGED BY: BR/MD

OFFICE: RDCL - Hastings ELEVATION: - CHECKED BY: SD DATE: 18-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data



Produced with Core-GS by Geroc

RDCL

← Out flow

├─ In flow



**DCP2.084** 

**SHEET 84 OF 98** 

DATE: 15-01-2019

DATE: 18-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 27 PROJECT: 184250602 EASTING: 1934731.49

STARTED: 09-01-2019 LOCATION: 139 Arataki Road NORTHING: 5602628.27 FINISHED: 09-01-2019

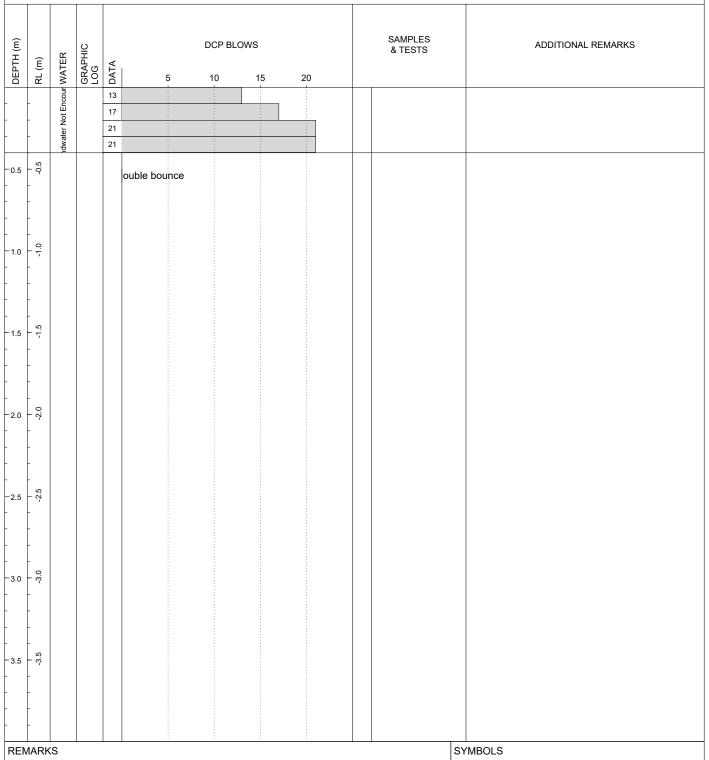
DATUM:

ELEVATION: -CHECKED BY: SD

LOGGED BY: BR/MD

OFFICE: RDCL - Hastings ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



OFFICE:

# **DCP LOG**

**DCP2.085** 

**SHEET 85 OF 98** 

DATE: 15-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 26
PROJECT: 184250602 EASTING: 1934738.02 STARTED: 09-01-2019

LOCATION: 139 Arataki Road NORTHING: 5602620.20 FINISHED: 09-01-2019

DATUM:

ELEVATION: - CHECKED BY: SD DATE: 18-01-2019

LOGGED BY: BR/MD

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS undwater Not Encounte WATER RL (m) DATA 5 20 10 15 13 9 12 23 0.5 Double bounce 1.0 -1.5 1.5 -2.0 -2.0 -2.5 2.5 3.0 -3.5 3.5 **REMARKS** SYMBOLS ▼ Standing Water Level

Produced with Core-GS by Geroc

RDCL

← Out flow

├─ In flow



OFFICE:

# **DCP LOG**

**DCP2.086** 

**SHEET 86 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 26 PROJECT: 184250602 EASTING: 1934752.04 STARTED: 09-01-2019

LOCATION: 139 Arataki Road FINISHED: 09-01-2019 NORTHING: 5602626.26

DATUM:

LOGGED BY: BR/MD DATE: 15-01-2019 ELEVATION: -CHECKED BY: SD DATE: 18-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS WATER RL (m) DATA 5 20 10 15 10 12 9 Groundwater Not Encountered 12 -0.5 0.5 8 10 10 13 14 1.0 12 13 17 Double bounce -1.5 1.5 -2.0 -2.0 -2.5 2.5 3.0 -3.5 3.5 **REMARKS** SYMBOLS ▼ Standing Water Level <- Out flow ├─ In flow



OFFICE:

# **DCP LOG**

**DCP2.087** 

**SHEET 87 OF 98** 

DATE: 15-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 26
PROJECT: 184250602 EASTING: 1934757.00 STARTED: 09-01-

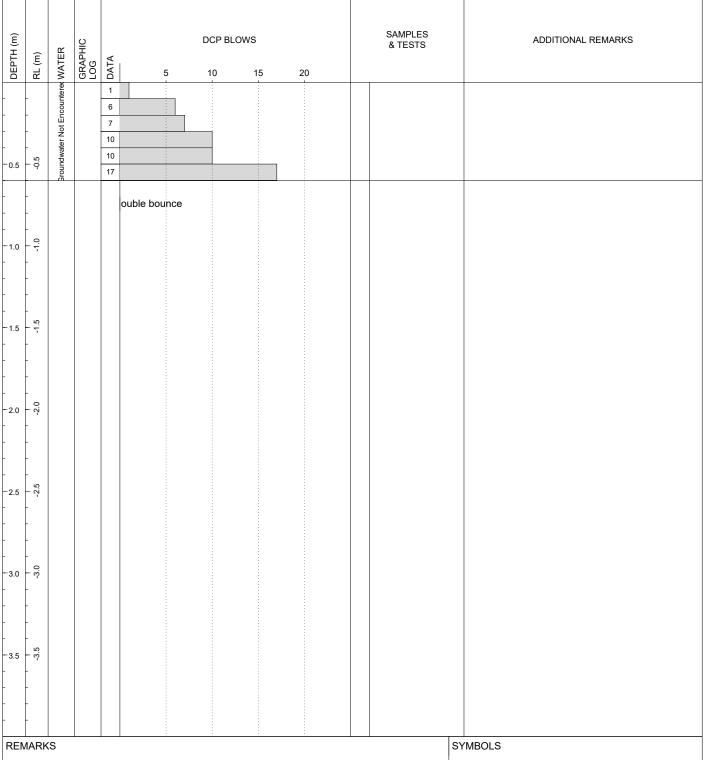
DATUM:

ELEVATION: - CHECKED BY: SD DATE: 18-01-2019

LOGGED BY: BR/MD

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL MACHINE: OPERATOR:



▼ Standing Water Level

← Out flow

├─ In flow

RDCL



PROJECTION: NZTM

**DCP2.088** 

**SHEET 88 OF 98** 

CLIENT: Greenstone Land Developments Ltd

PROJECT: 184250602 LOCATION: 139 Arataki Road EASTING: 1934742.83

NORTHING: 5602612.20

STARTED: 09-01-2019 FINISHED: 09-01-2019

DATE: 15-01-2019

OFFICE: RDCL - Hastings

ELEVATION: -

DATUM:

LOGGED BY: BR/MD CHECKED BY: SD

LOCATION: Lot 26

DATE: 18-01-2019

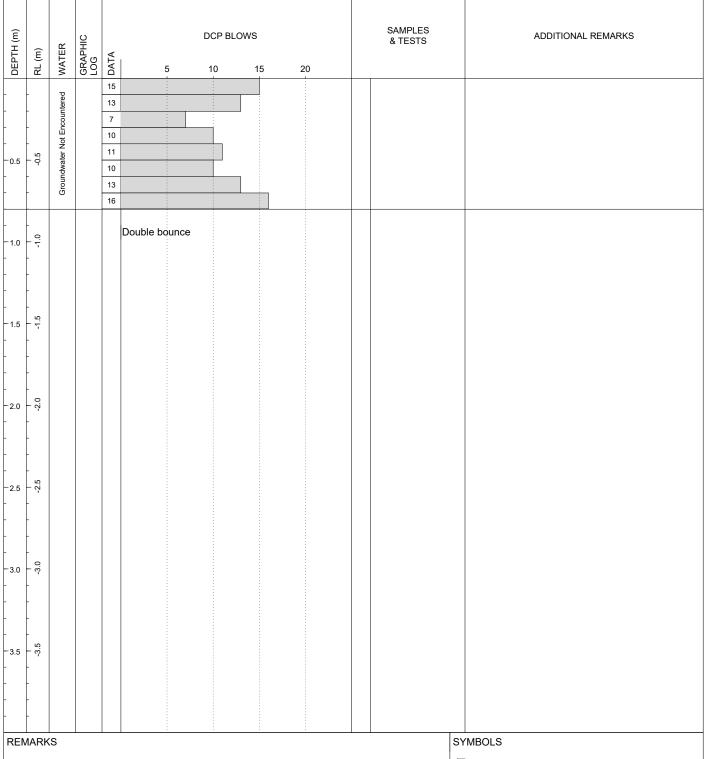
ENGINEER: TB

AZUMITH: 0°

PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL MACHINE:

OPERATOR:



▼ Standing Water Level

<- Out flow

├─ In flow

RDCL



OFFICE:

# **DCP LOG**

**DCP2.089** 

**SHEET 89 OF 98** 

DATE: 15-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 25
PROJECT: 184250602 EASTING: 1934747.69 STARTED: 09-01-

DATUM:

ELEVATION: - CHECKED BY: SD DATE: 18-01-2019

LOGGED BY: BR/MD

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS WATER RL (m) DATA 5 20 10 15 8 4 Groundwater Not Encountered 7 11 -0.5 0.5 16 14 13 12 10 1.0 17 Double bounce -1.5 1.5 -2.0 -2.0 -2.5 2.5 3.0 -3.5 -3.5 **REMARKS** SYMBOLS ▼ Standing Water Level <- Out flow

Produced with Core-GS by Geroc

RDCL

├─ In flow



OFFICE:

# **DCP LOG**

**DCP2.090** 

**SHEET 90 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 25 PROJECT: 184250602 EASTING: 1934762.62 STARTED: 09-01-2019

LOCATION: 139 Arataki Road NORTHING: 5602612.45 FINISHED: 09-01-2019

DATUM:

LOGGED BY: BR/MD DATE: 15-01-2019 ELEVATION: -CHECKED BY: SD DATE: 18-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS WATER RL (m) DATA 5 20 10 15 4 9 Groundwater Not Encountered 11 12 -0.5 0.5 12 12 12 11 9 1.0 17 Double bounce -1.5 1.5 -2.0 -2.0 -2.5 2.5 3.0 -3.5 -3.5

**REMARKS** 

SYMBOLS

▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



OFFICE:

# **DCP LOG**

DCP2.091

**SHEET 91 OF 98** 

DATE: 15-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 25 PROJECT: 184250602 EASTING: 1934765.81 STARTED: 09-01-2019

LOCATION: 139 Arataki Road FINISHED: 09-01-2019 NORTHING: 5602606.75

DATUM:

ELEVATION: -CHECKED BY: SD DATE: 18-01-2019

LOGGED BY: BR/MD

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS WATER RL (m) DATA 5 20 10 15 Groundwater Not Encountered 6 8 10 10 -0.5 0.5 13 20 Double bounce 1.0 -1.5 1.5 -2.0 -2.0 -2.5 2.5 3.0 -3.5 3.5 **REMARKS** SYMBOLS ▼ Standing Water Level

Produced with Core-GS by Geroc

**RDCL** 

<- Out flow ├─ In flow



OFFICE:

# **DCP LOG**

**DCP2.092** 

**SHEET 92 OF 98** 

DATE: 15-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 25
PROJECT: 184250602 EASTING: 1934752.65 STARTED: 09-01-2019

LOCATION: 139 Arataki Road NORTHING: 5602600.65 FINISHED: 09-01-2019

DATUM:

ELEVATION: - CHECKED BY: SD DATE: 18-01-2019

LOGGED BY: BR/MD

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS WATER RL (m) DATA 5 20 10 15 9 9 Groundwater Not Encountered 8 8 -0.5 0.5 8 8 8 9 8 1.0 14 17 Double bounce -1.5 1.5 -2.0 -2.0 -2.5 2.5 3.0 -3.5 3.5 **REMARKS** SYMBOLS ▼ Standing Water Level

Produced with Core-GS by Geroc

RDCL

← Out flow

├─ In flow



OFFICE:

# **DCP LOG**

**DCP2.093** 

**SHEET 93 OF 98** 

DATE: 15-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 28
PROJECT: 184250602 EASTING: 1934715.71 STARTED: 09-01-2019

LOCATION: 139 Arataki Road NORTHING: 5602621.17 FINISHED: 09-01-2019

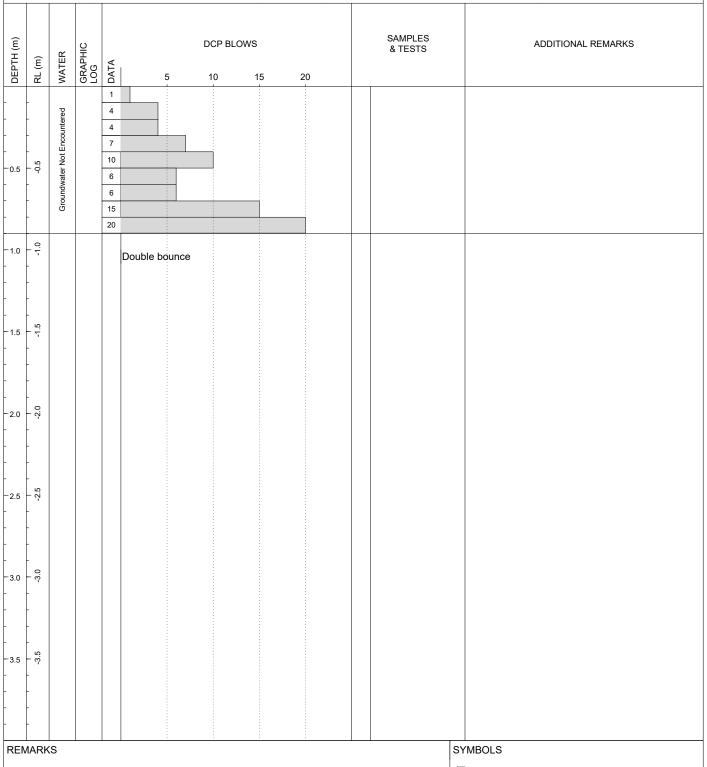
DATUM:

ELEVATION: - CHECKED BY: SD DATE: 18-01-2019

LOGGED BY: BR/MD

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL MACHINE: OPERATOR:



▼ Standing Water Level

← Out flow

├─ In flow

RDCL



OFFICE:

# **DCP LOG**

**DCP2.094** 

**SHEET 94 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 28 PROJECT: 184250602 EASTING: 1934704.26 STARTED: 09-01-2019

LOCATION: 139 Arataki Road NORTHING: 5602614.99 FINISHED: 09-01-2019

DATUM:

LOGGED BY: BR/MD DATE: 15-01-2019 ELEVATION: -CHECKED BY: SD DATE: 18-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS WATER RL (m) DATA 5 20 10 15 Groundwater Not Encountered 5 5 6 6 -0.5 0.5 7 14 21 Double bounce 1.0 -1.5 1.5 -2.0 -2.0 -2.5 2.5 3.0 -3.5 -3.5 **REMARKS** SYMBOLS ▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



OFFICE:

# **DCP LOG**

**DCP2.095** 

**SHEET 95 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 28 PROJECT: 184250602 EASTING: 1934698.55 STARTED: 09-01-2019

LOCATION: 139 Arataki Road NORTHING: 5602621.92 FINISHED: 09-01-2019

DATUM:

LOGGED BY: BR/MD DATE: 15-01-2019 ELEVATION: -CHECKED BY: SD DATE: 18-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS WATER RL (m) DATA 5 20 10 15 Groundwater Not Encountered 9 13 10 7 -0.5 0.5 10 15 26 >> Double bounce 1.0 -1.5 1.5 -2.0 -2.0 -2.5 2.5 3.0 -3.5 3.5 **REMARKS** SYMBOLS ▼ Standing Water Level <- Out flow

Produced with Core-GS by Geroc

**RDCL** 

├─ In flow



**DCP2.096** 

**SHEET 96 OF 98** 

CLIENT: Greenstone Land Developments Ltd

PROJECT: 184250602

LOCATION: 139 Arataki Road

PROJECTION: NZTM EASTING: 1934713.15

NORTHING: 5602630.55

STARTED: 09-01-2019 FINISHED: 09-01-2019 LOGGED BY: BR/MD

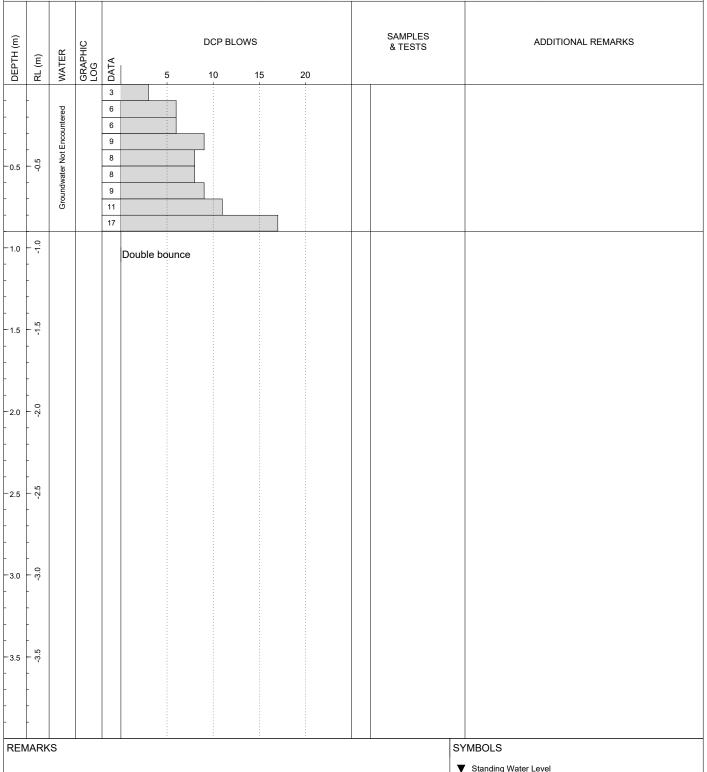
LOCATION: Lot 28

DATE: 15-01-2019 DATE: 18-01-2019

DATUM: OFFICE: RDCL - Hastings

ELEVATION: -CHECKED BY: SD

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data CONTRACTOR: RDCL OPERATOR: MACHINE:



Produced with Core-GS by Geroc

▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



**DCP2.097** 

**SHEET 97 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 29 PROJECT: 184250602 EASTING: 1934706.18 STARTED: 09-01-2019

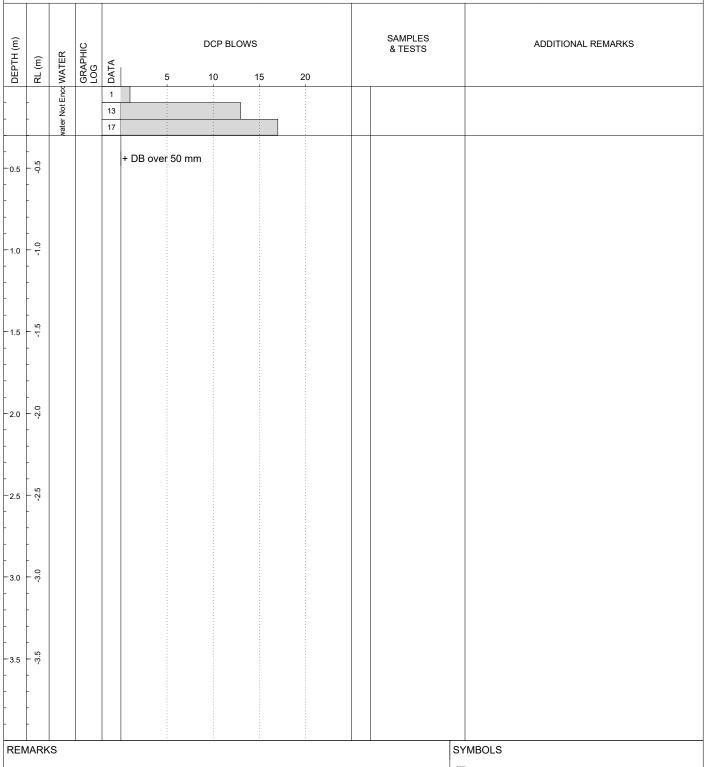
LOCATION: 139 Arataki Road NORTHING: 5602639.38 FINISHED: 09-01-2019

DATUM:

LOGGED BY: BR/MD DATE: 15-01-2019 ELEVATION: -CHECKED BY: SD DATE: 18-01-2019

OFFICE: RDCL - Hastings ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



**DCP2.098** 

**SHEET 98 OF 98** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 29 PROJECT: 184250602 EASTING: 1934700.51 STARTED: 09-01-2019

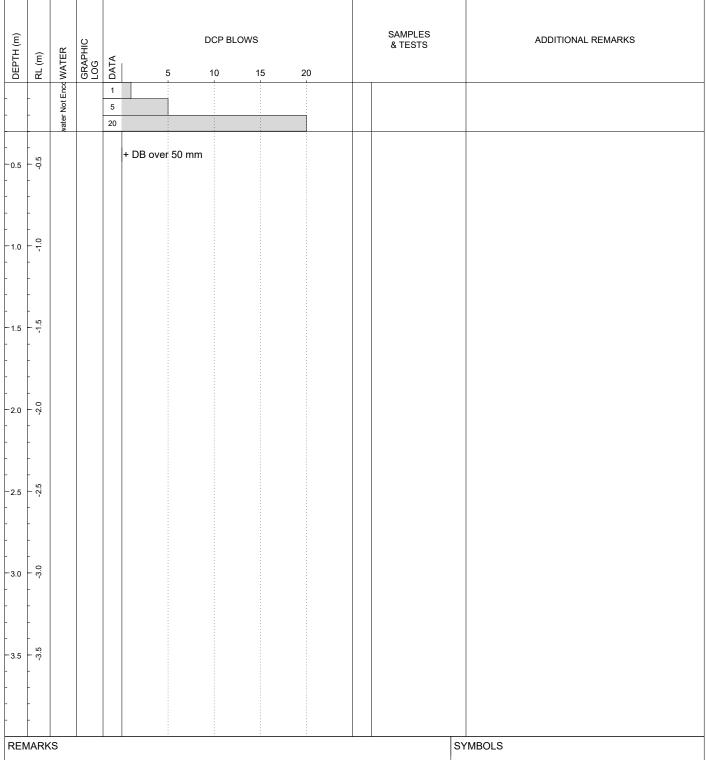
LOCATION: 139 Arataki Road NORTHING: 5602647.42 FINISHED: 09-01-2019

DATUM:

LOGGED BY: BR/MD DATE: 15-01-2019 ELEVATION: -CHECKED BY: SD DATE: 18-01-2019

OFFICE: RDCL - Hastings ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



**DCP2.099** 

SHEET 1 OF 22

DATE: 18-01-2019

CLIENT: Greenstone Land Developments Ltd

PROJECT: 184250602 LOCATION: 139 Arataki Road PROJECTION: NZTM LOCATION: Lot 29

EASTING: 1934693.50 STARTED: 09-01-2019

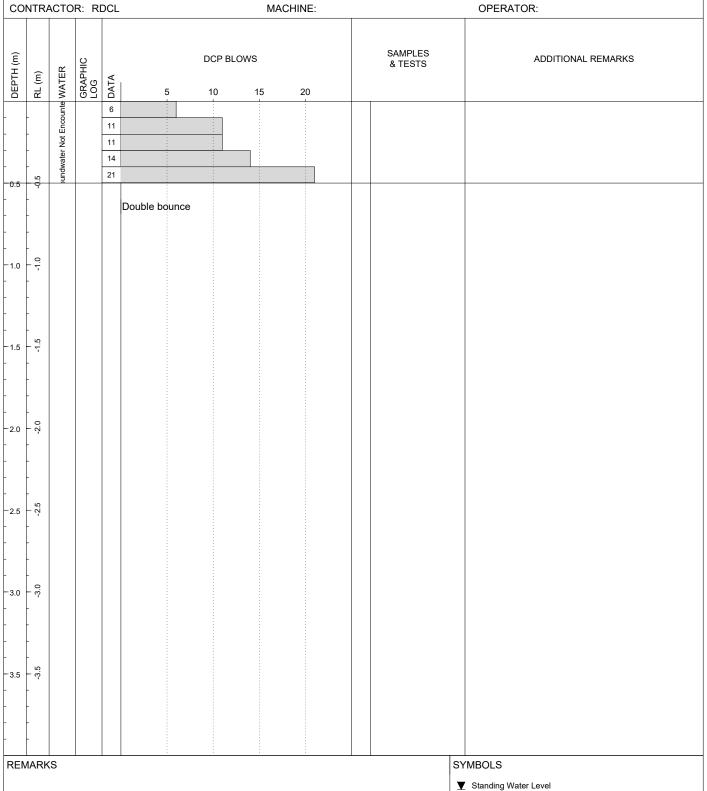
NORTHING: 5602644.38 FINISHED: 09-01-2019

DATUM:

LOGGED BY: BR/MD

BY: BR/MD DATE: 15-01-2019

AZUMITH: 0° PLUNGE: 90° STATUS: Final of the state of the



Produced with Core-GS by Geroc

RDCL

← Out flow

├─ In flow



**DCP2.100** 

SHEET 2 OF 22

DATE: 18-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 29 PROJECT: 184250602 EASTING: 1934699.93 STARTED: 15-01-2019 LOCATION: 139 Arataki Road

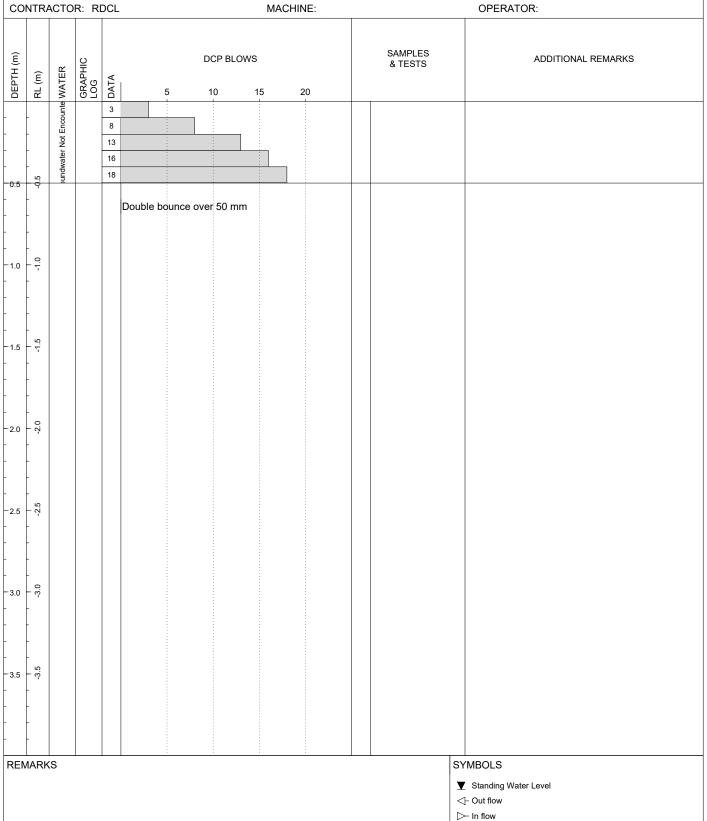
NORTHING: 5602634.09 FINISHED: 15-01-2019

DATUM:

LOGGED BY: MD/BR DATE: 15-01-2019

OFFICE: RDCL - Hastings ELEVATION: -CHECKED BY: SD ENGINEER: TB

AZUMITH: 0° PLUNGE: 90° STATUS: Final data





**DCP2.101** 

SHEET 3 OF 22

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 30 PROJECT: 184250602 EASTING: 1934691.97 STARTED: 15-01-2019

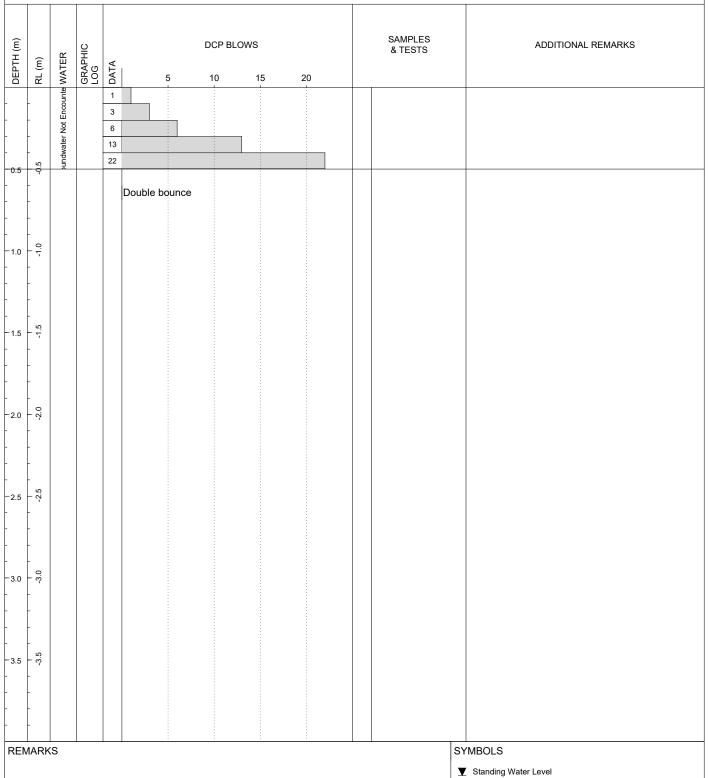
LOCATION: 139 Arataki Road NORTHING: 5602628.88 FINISHED: 15-01-2019

DATUM:

LOGGED BY: MD/BR DATE: 15-01-2019 DATE: 18-01-2019

OFFICE: RDCL - Hastings ELEVATION: -CHECKED BY: SD ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



<- Out flow ├─ In flow

**RDCL** 



OFFICE:

#### **DCP LOG**

**DCP2.102** 

SHEET 4 OF 22

DATE: 15-01-2019

DATE: 18-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 30

PROJECT: 184250602 EASTING: 1934682.38 STARTED: 15-01-2019 LOCATION: 139 Arataki Road NORTHING: 5602625.96 FINISHED: 15-01-2019

DATUM:

ELEVATION: -CHECKED BY: SD

LOGGED BY: MD/BR

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS WATER RL (m) DATA 5 20 10 15 Groundwater Not Encountered 4 5 8 7 -0.5 0.5 8 15 18 Double bounce 1.0 -1.5 1.5 -2.0 -2.0 -2.5 2.5 3.0 -3.5 -3.5 **REMARKS** SYMBOLS ▼ Standing Water Level

> <- Out flow ├─ In flow

**RDCL** 



PROJECTION: NZTM

**DCP2.103** 

SHEET 5 OF 22

CLIENT: Greenstone Land Developments Ltd

PROJECT: 184250602 LOCATION: 139 Arataki Road EASTING: 1934676.86 NORTHING: 5602637.32

STARTED: 15-01-2019

LOCATION: Lot 30

FINISHED: 15-01-2019

DATE: 15-01-2019

OFFICE: RDCL - Hastings DATUM:

LOGGED BY: MD/BR CHECKED BY: SD

ENGINEER: TB

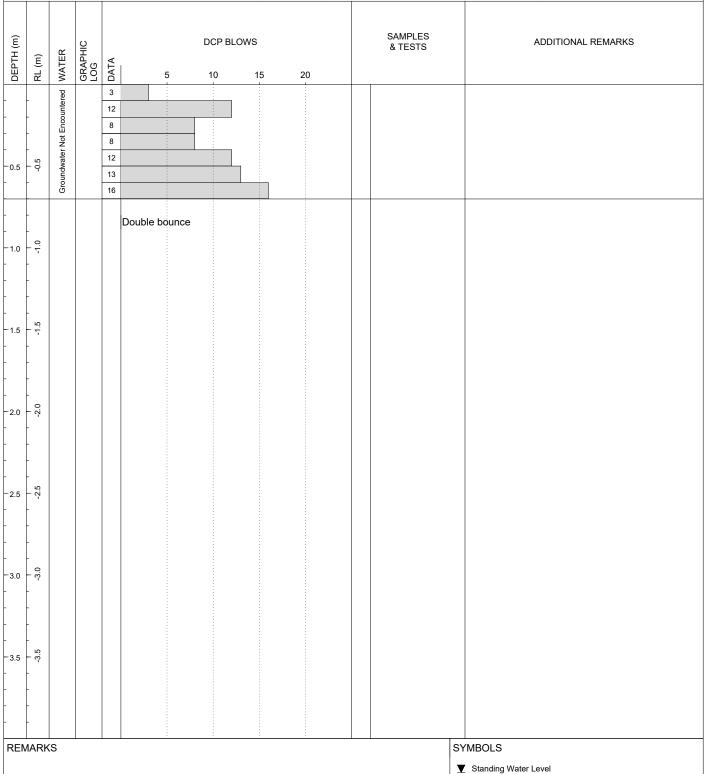
ELEVATION: -AZUMITH: 0°

PLUNGE: 90°

STATUS: Final data

DATE: 18-01-2019

CONTRACTOR: RDCL MACHINE: OPERATOR:



**RDCL** 

<- Out flow ├─ In flow



**DCP2.104** 

SHEET 6 OF 22

DATE: 18-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 30 1934684.78 PROJECT: 184250602 EASTING: STARTED: 15-01-2019 LOCATION: 139 Arataki Road

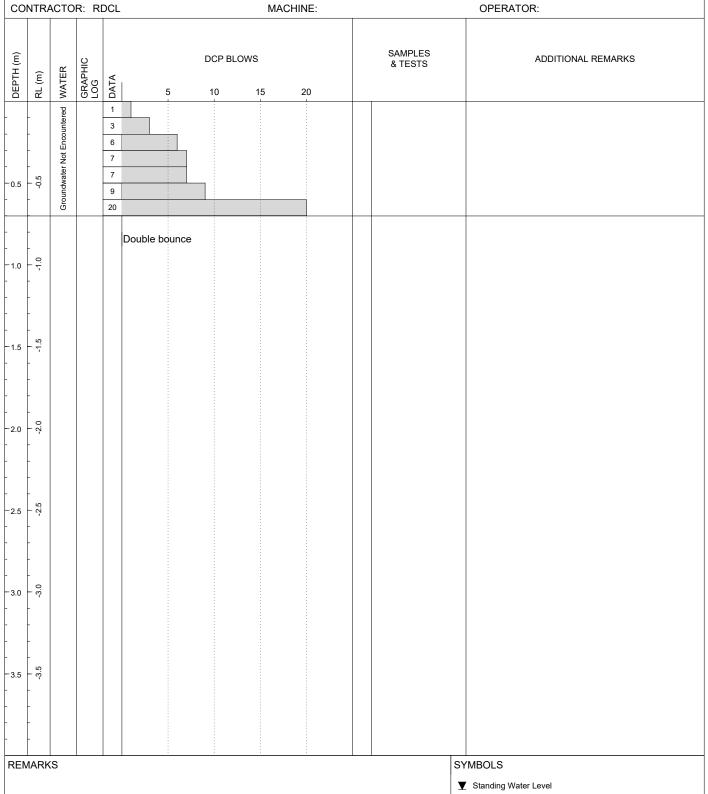
NORTHING: 5602641.43 FINISHED: 15-01-2019

DATUM:

LOGGED BY: MD/BR DATE: 15-01-2019

OFFICE: RDCL - Hastings ELEVATION: -CHECKED BY: SD ENGINEER: TB

AZUMITH: 0° PLUNGE: 90° STATUS: Final data



Produced with Core-GS by Geroc

**RDCL** 

<- Out flow ├─ In flow



**DCP2.105** 

SHEET 7 OF 22

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 31 PROJECT: 184250602 EASTING: 1934678.30 STARTED: 15-01-2019 LOCATION: 139 Arataki Road

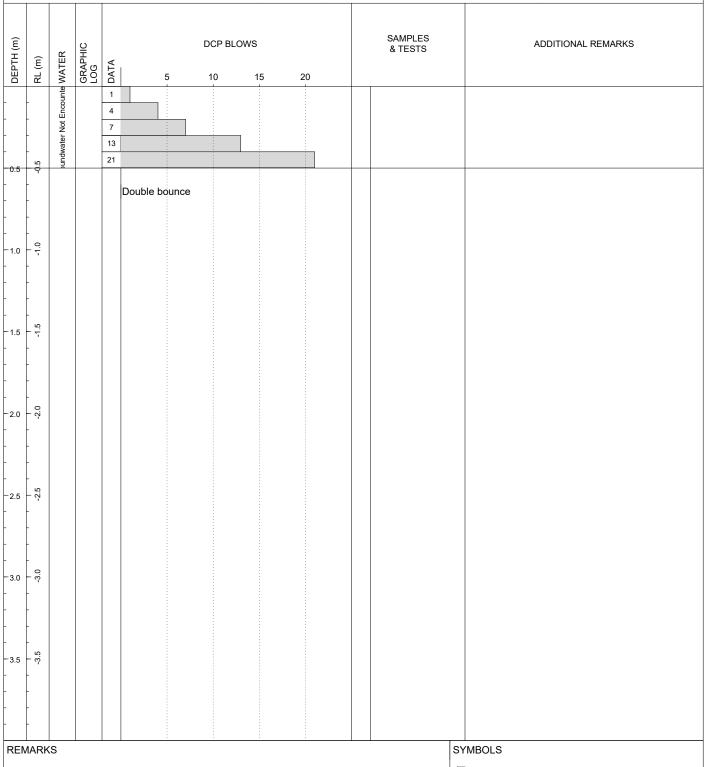
NORTHING: 5602650.61 FINISHED: 15-01-2019

DATUM:

LOGGED BY: MD/BR DATE: 15-01-2019 DATE: 18-01-2019

OFFICE: RDCL - Hastings ELEVATION: -CHECKED BY: SD ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



OFFICE:

#### **DCP LOG**

**DCP2.106** 

SHEET 8 OF 22

DATE: 15-01-2019

DATE: 18-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 31

DATUM:

ELEVATION: - CHECKED BY: SD

LOGGED BY: MD/BR

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS oundwater Not Encountered WATER RL (m) DATA 5 20 10 15 11 11 12 9 -0.5 0.5 20 Double bounce 1.0 -1.5 1.5 -2.0 -2.0 -2.5 2.5 3.0 -3.5 3.5 **REMARKS** SYMBOLS ▼ Standing Water Level

Produced with Core-GS by Geroc

RDCL

← Out flow

├─ In flow



**DCP2.107** 

SHEET 9 OF 22

DATE: 15-01-2019

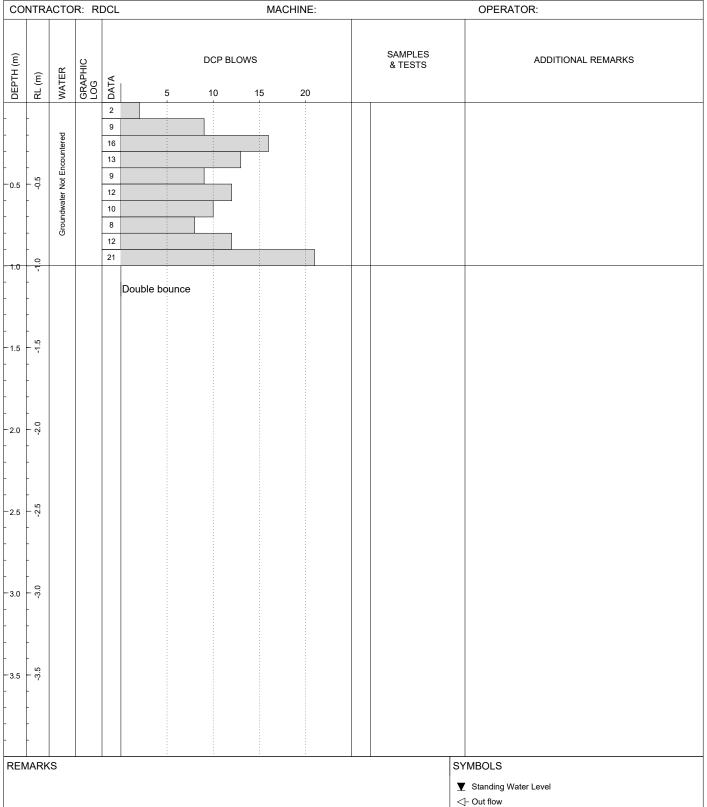
CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 31
PROJECT: 184250602 EASTING: 1934662.33 STARTED: 15-01-2019

LOCATION: 139 Arataki Road NORTHING: 5602659.09 FINISHED: 15-01-2019

DATUM: LOGGED BY: MD/BR

OFFICE: RDCL - Hastings ELEVATION: - CHECKED BY: SD DATE: 18-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data



├─ In flow



OFFICE:

#### **DCP LOG**

**DCP2.108** 

**SHEET 10 OF 22** 

DATE: 15-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 31
PROJECT: 184250602 EASTING: 1934671.20 STARTED: 15-01-

DATUM:

ELEVATION: - CHECKED BY: SD DATE: 18-01-2019

LOGGED BY: MD/BR

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS WATER RL (m) DATA 5 20 10 15 6 Groundwater Not Encountered 10 10 11 -0.5 0.5 10 8 10 15 1.0 Double bounce -1.5 1.5 -2.0 -2.0 -2.5 2.5 3.0 -3.5 3.5 **REMARKS** SYMBOLS ▼ Standing Water Level <- Out flow

Produced with Core-GS by Geroc

RDCL

├─ In flow



OFFICE:

#### **DCP LOG**

**DCP2.109** 

**SHEET 11 OF 22** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 32 PROJECT: 184250602 EASTING: 1934678.31 STARTED: 15-01-2019 LOCATION: 139 Arataki Road NORTHING: 5602670.63 FINISHED: 15-01-2019

DATUM:

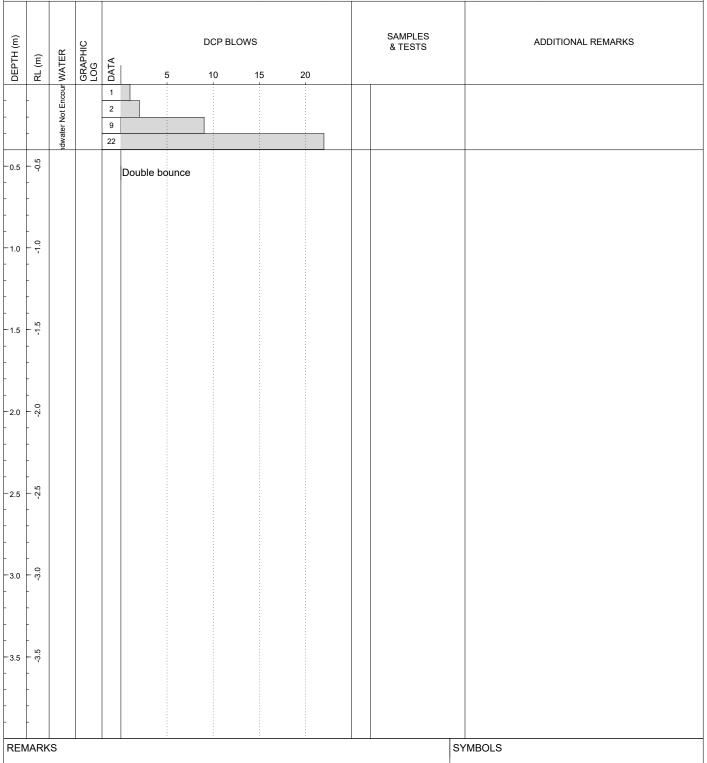
ELEVATION: -

CHECKED BY: SD

LOGGED BY: MD/BR DATE: 15-01-2019 DATE: 18-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



OFFICE:

#### **DCP LOG**

**DCP2.110** 

**SHEET 12 OF 22** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 32 PROJECT: 184250602 EASTING: 1934684.64 STARTED: 15-01-2019

LOCATION: 139 Arataki Road NORTHING: 5602658.12 FINISHED: 15-01-2019

DATUM:

LOGGED BY: MD/BR DATE: 15-01-2019 ELEVATION: -CHECKED BY: SD DATE: 18-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS Idwater Not Encour WATER RL (m) DATA 5 10 15 20 5 13 19 -0.5 0.5 Double bounce 1.0 -1.5 1.5 -2.0 -2.0 -2.5 2.5 3.0 -3.5 3.5 **REMARKS** SYMBOLS ▼ Standing Water Level

Produced with Core-GS by Geroc

<- Out flow ├─ In flow



OFFICE:

#### **DCP LOG**

**DCP2.111** 

**SHEET 13 OF 22** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 32 PROJECT: 184250602 EASTING: 1934692.56 STARTED: 15-01-2019

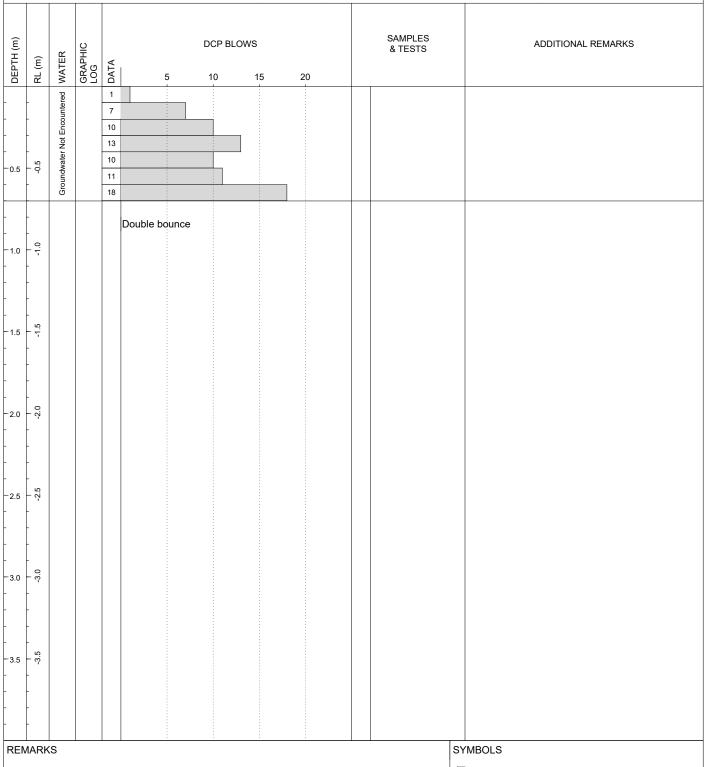
LOCATION: 139 Arataki Road FINISHED: 15-01-2019 NORTHING: 5602662.22

DATUM:

LOGGED BY: MD/BR DATE: 15-01-2019 ELEVATION: -CHECKED BY: SD DATE: 18-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow

├─ In flow

**RDCL** 



OFFICE:

ENGINEER: TB

#### **DCP LOG**

**DCP2.112** 

**SHEET 14 OF 22** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM

DATUM:

AZUMITH: 0°

ELEVATION:

ELEVATION: - CHECKED BY: SD

PLUNGE: 90°

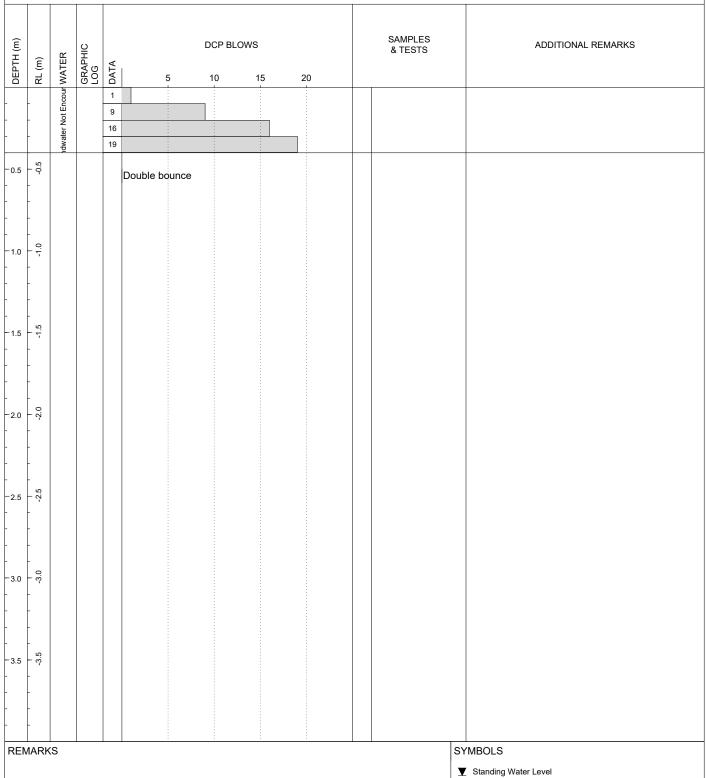
LOGGED BY: MD/BR DATE: 15-01-2019

DATE: 18-01-2019

STATUS: Final data

LOCATION: Lot 32

CONTRACTOR: RDCL MACHINE: OPERATOR:



Produced with Core-GS by Geroc

RDCL

← Out flow

├─ In flow



OFFICE:

#### **DCP LOG**

**DCP2.113** 

**SHEET 15 OF 22** 

DATE: 17-01-2019

DATE: 18-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 37

PROJECT: 184250602 EASTING: 1934679.85 STARTED: 17-01-2019 LOCATION: 139 Arataki Road NORTHING: 5602686.14 FINISHED: 15-01-2019

DATUM:

ELEVATION: -CHECKED BY: SD

LOGGED BY: MD/BR

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS undwater Not Encounte WATER RL (m) DATA 5 20 10 15 9 14 16 17 0.5 Double bounce 1.0 -1.5 1.5 -2.0 -2.0 -2.5 2.5 3.0 -3.5 3.5 **REMARKS** SYMBOLS

Produced with Core-GS by Geroc

▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



**DCP2.114** 

**SHEET 16 OF 22** 

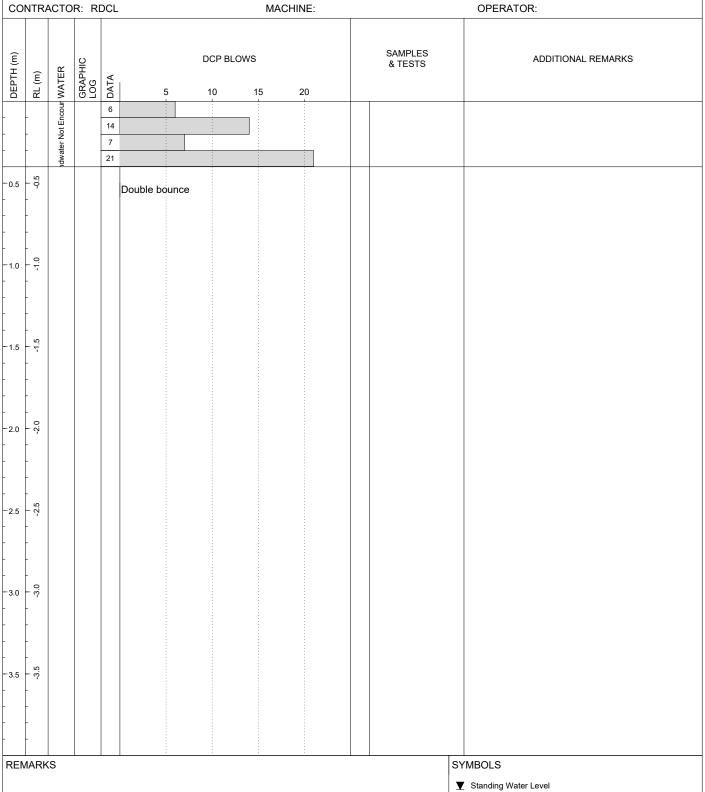
DATE: 17-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 37

DATUM: LOGGED BY: MD/BR

OFFICE: RDCL - Hastings ELEVATION: - CHECKED BY: SD DATE: 18-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data



← Out flow

├─ In flow



OFFICE:

#### **DCP LOG**

**DCP2.115** 

**SHEET 17 OF 22** 

DATE: 17-01-2019

DATE: 18-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 37

PROJECT: 184250602 EASTING: 1934666.45 STARTED: 17-01-2019
LOCATION: 139 Arataki Road NORTHING: 5602694.51 FINISHED: 15-01-2019

DATUM:

ELEVATION: - CHECKED BY: SD

LOGGED BY: MD/BR

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE: SAMPLES DEPTH (m) DCP BLOWS ADDITIONAL REMARKS GRAPHIC LOG & TESTS Idwater Not Encour WATER RL (m) DATA 5 20 10 15 15 18 -0.5 0.5 Double bounce 1.0 -1.5 1.5 -2.0 -2.0 -2.5 2.5 3.0 -3.5 3.5 **REMARKS** SYMBOLS ▼ Standing Water Level

Produced with Core-GS by Geroc

RDCL

← Out flow

├─ In flow



OFFICE:

#### **DCP LOG**

**DCP2.116** 

**SHEET 18 OF 22** 

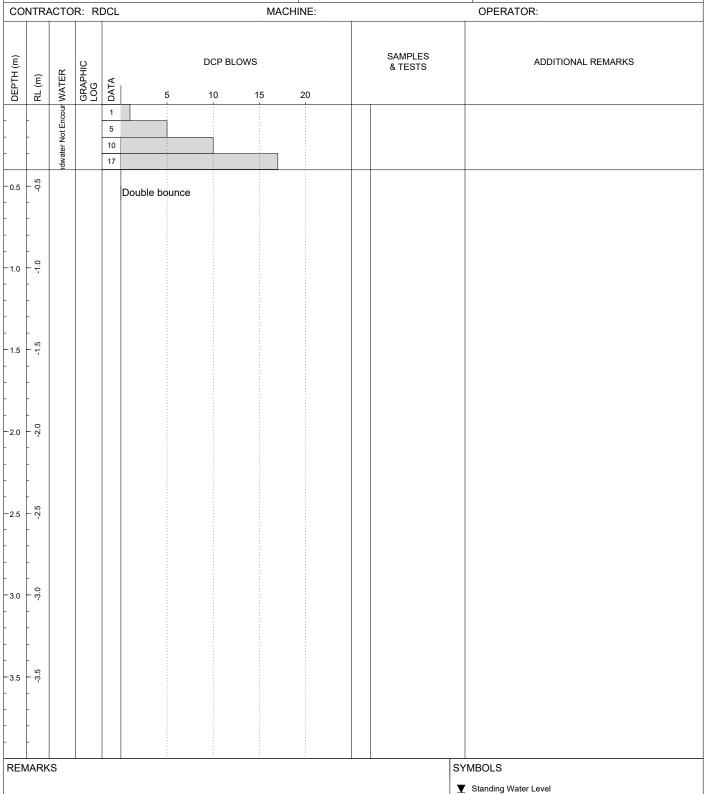
DATE: 17-01-2019

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 37

DATUM: LOGGED BY: MD/BR

ELEVATION: - CHECKED BY: SD DATE: 18-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data



Produced with Core-GS by Geroc

RDCL

← Out flow

├─ In flow



**DCP2.117** 

**SHEET 19 OF 22** 

DATE: 18-01-2019

CLIENT: Greenstone Land Developments Ltd

PROJECT: 184250602 LOCATION: 139 Arataki Road PROJECTION: NZTM LOCATION: Lot 36 EASTING:

1934665.63 STARTED: 17-01-2019 NORTHING: 5602675.63 FINISHED: 15-01-2019

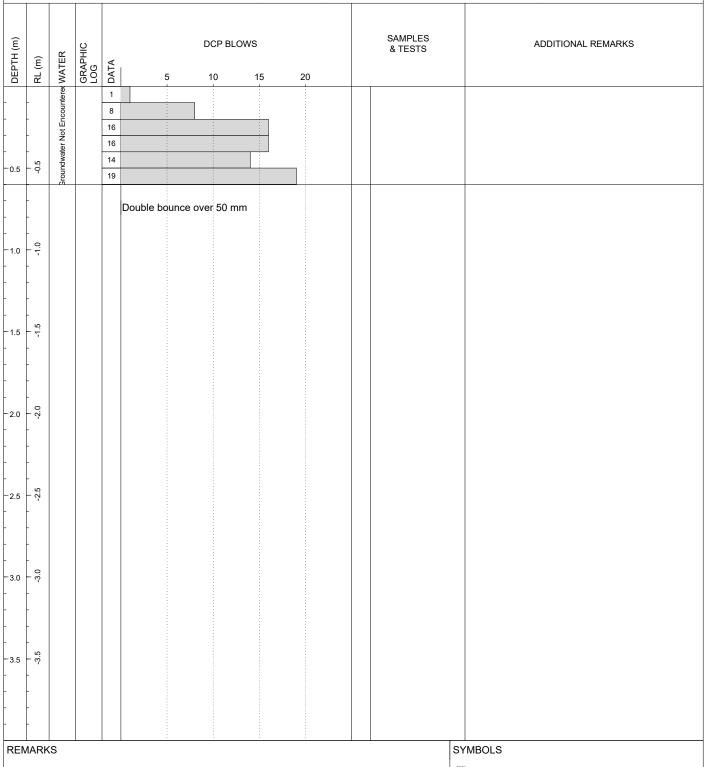
DATUM:

LOGGED BY: MD/BR

DATE: 17-01-2019

OFFICE: RDCL - Hastings ELEVATION: -CHECKED BY: SD ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



OFFICE:

#### **DCP LOG**

**DCP2.118** 

**SHEET 20 OF 22** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 36 PROJECT: 184250602 EASTING: 1934657.71 STARTED: 17-01-2019

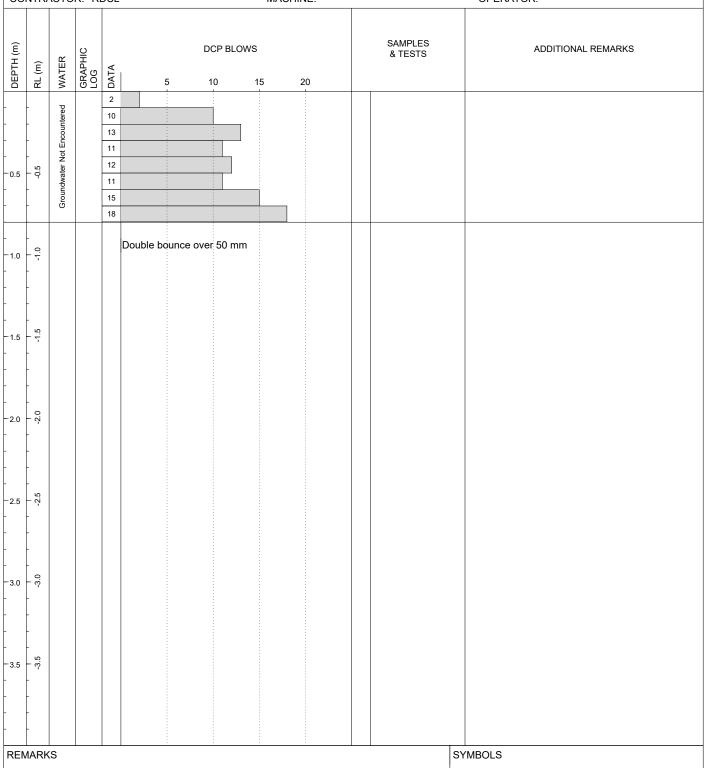
LOCATION: 139 Arataki Road FINISHED: 15-01-2019 NORTHING: 5602671.53

DATUM:

LOGGED BY: MD/BR DATE: 17-01-2019 ELEVATION: -CHECKED BY: SD DATE: 18-01-2019

ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 



**DCP2.119** 

**SHEET 21 OF 22** 

CLIENT: Greenstone Land Developments Ltd

PROJECT: 184250602 LOCATION: 139 Arataki Road

ENGINEER: TB

PROJECTION: NZTM LOCATION: Lot 36 1934651.43 EASTING: STARTED: 17-01-2019

PLUNGE: 90°

NORTHING: 5602685.15 FINISHED: 15-01-2019

DATUM:

AZUMITH: 0°

LOGGED BY: MD/BR

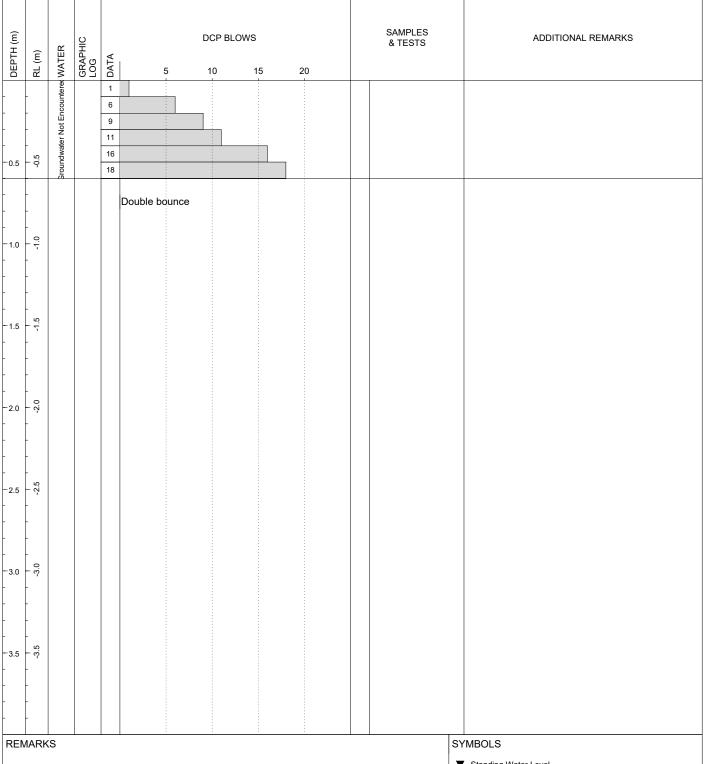
DATE: 17-01-2019

OFFICE: RDCL - Hastings ELEVATION: -

CHECKED BY: SD STATUS: Final data

DATE: 18-01-2019

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow

├─ In flow

**RDCL** 



OFFICE:

#### **DCP LOG**

**DCP2.120** 

**SHEET 22 OF 22** 

CLIENT: Greenstone Land Developments Ltd PROJECTION: NZTM LOCATION: Lot 36 1934658.49 PROJECT: 184250602 EASTING: STARTED: 17-01-2019

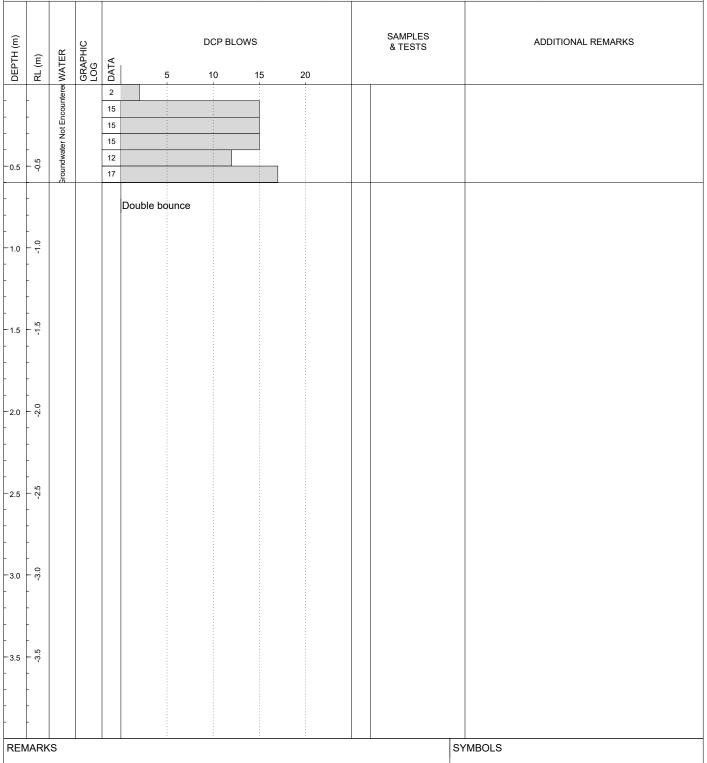
LOCATION: 139 Arataki Road NORTHING: 5602689.29 FINISHED: 15-01-2019

DATUM:

LOGGED BY: MD/BR DATE: 17-01-2019 ELEVATION: -CHECKED BY: SD DATE: 18-01-2019

RDCL - Hastings ENGINEER: TB AZUMITH: 0° PLUNGE: 90° STATUS: Final data

CONTRACTOR: RDCL OPERATOR: MACHINE:



▼ Standing Water Level

<- Out flow ├─ In flow

**RDCL** 

## **Important Information about This**

# Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

The Geoprofessional Business Association (GBA) has prepared this advisory to help you – assumedly a client representative - interpret and apply this geotechnical-engineering report as effectively as possible. In that way, clients can benefit from a lowered exposure to the subsurface problems that, for decades, have been a principal cause of construction delays, cost overruns, claims, and disputes. If you have questions or want more information about any of the issues discussed below, contact your GBA-member geotechnical engineer. **Active involvement in the Geoprofessional Business** Association exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project.

## Geotechnical-Engineering Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical-engineering study conducted for a given civil engineer will not likely meet the needs of a civilworks constructor or even a different civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared solely for the client. Those who rely on a geotechnical-engineering report prepared for a different client can be seriously misled. No one except authorized client representatives should rely on this geotechnical-engineering report without first conferring with the geotechnical engineer who prepared it. And no one – not even you – should apply this report for any purpose or project except the one originally contemplated.

#### Read this Report in Full

Costly problems have occurred because those relying on a geotechnical-engineering report did not read it *in its entirety*. Do not rely on an executive summary. Do not read selected elements only. *Read this report in full*.

## You Need to Inform Your Geotechnical Engineer about Change

Your geotechnical engineer considered unique, project-specific factors when designing the study behind this report and developing the confirmation-dependent recommendations the report conveys. A few typical factors include:

- the client's goals, objectives, budget, schedule, and risk-management preferences;
- the general nature of the structure involved, its size, configuration, and performance criteria;
- the structure's location and orientation on the site; and
- other planned or existing site improvements, such as retaining walls, access roads, parking lots, and underground utilities.

Typical changes that could erode the reliability of this report include those that affect:

- the site's size or shape;
- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light-industrial plant to a refrigerated warehouse;
- the elevation, configuration, location, orientation, or weight of the proposed structure;
- the composition of the design team; or
- · project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes – even minor ones – and request an assessment of their impact. The geotechnical engineer who prepared this report cannot accept responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.

#### This Report May Not Be Reliable

Do not rely on this report if your geotechnical engineer prepared it:

- for a different client;
- for a different project;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it; e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, that it could be unwise to rely on a geotechnical-engineering report whose reliability may have been affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. *If your geotechnical engineer has not indicated an "apply-by" date on the report, ask what it should be,* and, in general, *if you are the least bit uncertain* about the continued reliability of this report, contact your geotechnical engineer before applying it. A minor amount of additional testing or analysis – if any is required at all – could prevent major problems.

## Most of the "Findings" Related in This Report Are Professional Opinions

Before construction begins, geotechnical engineers explore a site's subsurface through various sampling and testing procedures. Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing were performed. The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgment to form opinions about subsurface conditions throughout the site. Actual sitewide-subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team from project start to project finish, so the individual can provide informed guidance quickly, whenever needed.

## This Report's Recommendations Are Confirmation-Dependent

The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, they are not final, because the geotechnical engineer who developed them relied heavily on judgment and opinion to do so. Your geotechnical engineer can finalize the recommendations only after observing actual subsurface conditions revealed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to retain that engineer to perform construction observation.

#### This Report Could Be Misinterpreted

Other design professionals' misinterpretation of geotechnicalengineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a full-time member of the design team, to:

- confer with other design-team members,
- help develop specifications,
- review pertinent elements of other design professionals' plans and specifications, and
- be on hand quickly whenever geotechnical-engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction observation.

#### **Give Constructors a Complete Report and Guidance**

Some owners and design professionals mistakenly believe they can shift unanticipated-subsurface-conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical-engineering report, along with any attachments or appendices, with your contract documents, but be certain to note conspicuously that you've included the material for informational purposes only. To avoid misunderstanding, you may also want to note that "informational purposes" means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report, but they may rely on the factual data relative to the specific times, locations, and depths/elevations referenced. Be certain that constructors know they may learn about specific project requirements, including options selected from the report, only from the design drawings and specifications. Remind constructors that they may

perform their own studies if they want to, and *be sure to allow enough time* to permit them to do so. Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

#### **Read Responsibility Provisions Closely**

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely*. Ask questions. Your geotechnical engineer should respond fully and frankly.

#### **Geoenvironmental Concerns Are Not Covered**

The personnel, equipment, and techniques used to perform an environmental study – e.g., a "phase-one" or "phase-two" environmental site assessment – differ significantly from those used to perform a geotechnical-engineering study. For that reason, a geotechnical-engineering report does not usually relate any environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Unanticipated subsurface environmental problems have led to project failures. If you have not yet obtained your own environmental information, ask your geotechnical consultant for risk-management guidance. As a general rule, do not rely on an environmental report prepared for a different client, site, or project, or that is more than six months old.

## Obtain Professional Assistance to Deal with Moisture Infiltration and Mold

While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, none of the engineer's services were designed, conducted, or intended to prevent uncontrolled migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, proper implementation of the geotechnical engineer's recommendations will not of itself be sufficient to prevent moisture infiltration. Confront the risk of moisture infiltration by including building-envelope or mold specialists on the design team. Geotechnical engineers are not building-envelope or mold specialists.



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