coffey geotechnics

Engineering Log - Piezometer

Borehole No. **BH6**

Sheet 3 of 4

Project No: **CH1613/1**

Client: ***RIDER HUNT TEROTECH***

Date started: ***31.5.2006***

Principal:

Date completed: ***31.5.2006***

Project: ***PROPOSED DEVELOPMENT - BLUE DOLPHIN RESORT***

Logged by: ***ELC***

Borehole Location: ***REFER TO FIGURE 1***

Checked by:

drill model & mounting:P120 TRUCK | Easting: 533262.034 | slope: -90° | R.L. Surface: 1.75

hole diameter: | Northing: 6744033.133 | bearing: | datum: AHD

drilling information | **material substance**

method	penetration 1 2 3	support	water	notes samples, tests, etc	well details	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	structure and additional observations
WB		M		SPT 23,R,- N*=R		-15	17			**SAND:** fine to medium grained, brown *(continued)*	W	VD	SPT 30 blows for 125mm penetration.
				SPT 21,R,- N*=R		-16	18						SPT 30 blows for 125mm penetration.
				SPT 18,32,R N*=R		-17	19						SPT 32 blows for 150mm penetration.
				SPT 18,34,R N*=R		-18	20						SPT 34 blows for 150mm penetration.
						-19	21						
						-20	22					MD	
				SPT 6,10,13 N*=23		-21	23						
				SPT 6,9,11 N*=20		-22	24						

PIEZOMETER CH1613-1 DEEP LOGS.GPJ COFFEY.GDT 19.10.06

Form GEO 5.10 Issue 3 Rev.0

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
DT	diatube
B	blank bit
V	V bit
T	TC bit
TBX	Tubex

*bit shown by suffix e.g. ADT

support

C casing N nil

penetration

1 2 3 4 no resistance ranging to refusal

water

10/1/98 water level on date shown

water inflow

water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
P	pressure meter
Bs	bulk sample
R	refusal
E	environmental sample
PID	PID measurement
WS	water sample
PZ	piezometer
ALT	air lift test

classification symbols and soil description

based on unified classification system

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

coffey geotechnics

Engineering Log - Piezometer

Borehole No. **BH6**

Sheet 4 of 4

Project No: **CH1613/1**

Client: ***RIDER HUNT TEROTECH***

Date started: ***31.5.2006***

Principal:

Date completed: ***31.5.2006***

Project: ***PROPOSED DEVELOPMENT - BLUE DOLPHIN RESORT***

Logged by: ***ELC***

Borehole Location: ***REFER TO FIGURE 1***

Checked by:

drill model & mounting: P120 TRUCK | Easting: 533262.034 | slope: -90° | R.L. Surface: 1.75

hole diameter: | Northing: 6744033.133 | bearing: | datum: AHD

drilling information | **material substance**

method	penetration 1 2 3	support	water	notes samples, tests, etc	well details	RL	depth metres	graphic log	classification symbol	material (soil type: plasticity or particle characteristics, colour, secondary and minor components.)	moisture condition	consistency/ density index	structure and additional observations
WB		M		SPT 5,8,9 N*=17		-23	25			**SAND:** fine to medium grained, brown *(continued)*	W	MD	
						-24	26			End BH6 at 25.45m due to limit of required investigation. Borehole terminated at 25.45m			
						-25	27						
						-26	28						
						-27	29						
						-28	30						
						-29	31						
						-30	32						

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
DT	diatube
B	blank bit
V	V bit
T	TC bit
TBX	Tubex
*bit shown by suffix e.g.	ADT

support

C casing N nil

penetration

1 2 3 4 — no resistance ranging to refusal

water

10/1/98 water level on date shown

water inflow

water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
P	pressure meter
Bs	bulk sample
R	refusal
E	environmental sample
PID	PID measurement
WS	water sample
PZ	piezometer
ALT	air lift test

classification symbols and soil description

based on unified classification system

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

coffey geotechnics

Engineering Log - Piezometer

Borehole No. **BH7**

Sheet 1 of 6

Project No: **CH1613/1**

Client: ***RIDER HUNT TEROTECH***

Date started: ***29.5.2006***

Principal:

Date completed: ***30.5.2006***

Project: ***PROPOSED DEVELOPMENT - BLUE DOLPHIN RESORT***

Logged by: ***ELC***

Borehole Location: ***REFER TO FIGURE 1***

Checked by:

drill model & mounting:P120 TRUCK | Easting: 533049.973 | slope: -90° | R.L. Surface: 1.56

hole diameter: | Northing: 6744153.418 | bearing: | datum: AHD

drilling information | **material substance**

method	penetration 1 2 3	support	water	notes samples, tests, etc	well details	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	structure and additional observations
ADV		N		D D		1	1		SP	**SAND:** fine to coarse grained, dark brown	M	L/MD?	ALLUVIAL SOIL
										Colour change to pale grey/pale brown at 0.8m.			
			▶	D							W	MD/D	
				SPT 3,4,7 N*=11		0	2						
				D		-1						D/VD	
				D SPT 8,14,16 N*=30		-2	3			Colour change to dark brown, becomes indurated sand.		VD	
WB		M		D			4						
				D SPT 9,14,25 N*=39		-3	5						
				SPT 25,R,- N*=R		-4	6						SPT 24 blows fro 60mm penetration.
						-5	7						
				SPT 15,R,- N*=R		-6	8						SPT 30 blows for 120mm penetration.

PIEZOMETER CH1613-1 DEEP LOGS.GPJ COFFEY.GDT 19.10.06

Form GEO 5.10 Issue 3 Rev.0

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
DT	diatube
B	blank bit
V	V bit
T	TC bit
TBX	Tubex

*bit shown by suffix e.g. ADT

support

C casing N nil

penetration

1 2 3 4 — no resistance ranging to refusal

water

10/1/98 water level on date shown

water inflow

water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
P	pressure meter
Bs	bulk sample
R	refusal
E	environmental sample
PID	PID measurement
WS	water sample
PZ	piezometer
ALT	air lift test

classification symbols and soil description

based on unified classification system

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

coffey geotechnics

Engineering Log - Piezometer

Borehole No. **BH7**

Sheet 2 of 6

Project No: **CH1613/1**

Client: ***RIDER HUNT TEROTECH***

Date started: ***29.5.2006***

Principal:

Date completed: ***30.5.2006***

Project: ***PROPOSED DEVELOPMENT - BLUE DOLPHIN RESORT***

Logged by: ***ELC***

Borehole Location: ***REFER TO FIGURE 1***

Checked by:

drill model & mounting: P120 TRUCK | Easting: 533049.973 | slope: -90° | R.L. Surface: 1.56

hole diameter: | Northing: 6744153.418 | bearing: | datum: AHD

drilling information | **material substance**

method	penetration 1 2 3	support	water	notes samples, tests, etc	well details	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	structure and additional observations
WB		M		SPT 16,R,- N*=R		-7	9		SP	**SAND:** fine to coarse grained, dark brown *(continued)* Thin layer of fine grained gravel at approximately 8.5m.	W	VD	SPT 30 blows for 130mm penetration.
				SPT R,-,- N*=R		-8	10						SPT 30 blows for 110mm penetration.
				SPT R,-,- N*=R		-9	11						SPT 30 blows for 115mm penetration.
				SPT R,-,- N*=R		-10	12						SPT 30 blows for 120mm penetration.
				SPT 30,R,- N*=R		-11	13						SPT 30 blows for 150mm penetration
						-12	14						
						-13	15						
						-14	16						

PIEZOMETER CH1613-1 DEEP LOGS.GPJ COFFEY.GDT 19.10.06

Form GEO 5.10 Issue 3 Rev.0

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
DT	diatube
B	blank bit
V	V bit
T	TC bit
TBX	Tubex

*bit shown by suffix e.g. ADT

support

C casing N nil

penetration

1 2 3 4 no resistance ranging to refusal

water

10/1/98 water level on date shown

water inflow

water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
P	pressure meter
Bs	bulk sample
R	refusal
E	environmental sample
PID	PID measurement
WS	water sample
PZ	piezometer
ALT	air lift test

classification symbols and soil description

based on unified classification system

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

coffey geotechnics

Engineering Log - Piezometer

Borehole No. **BH7**

Sheet 3 of 6

Project No: **CH1613/1**

Client: ***RIDER HUNT TEROTECH***

Date started: ***29.5.2006***

Principal:

Date completed: ***30.5.2006***

Project: ***PROPOSED DEVELOPMENT - BLUE DOLPHIN RESORT***

Logged by: ***ELC***

Borehole Location: ***REFER TO FIGURE 1***

Checked by:

drill model & mounting: P120 TRUCK | Easting: 533049.973 | slope: -90° | R.L. Surface: 1.56

hole diameter: | Northing: 6744153.418 | bearing: | datum: AHD

drilling information | **material substance**

method	penetration 1 2 3	support	water	notes samples, tests, etc	well details	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	structure and additional observations
WB		M		SPT 17,R,- N*=R		-15	17		SP	**SAND:** fine to coarse grained, dark brown *(continued)*	W	VD	SPT 30 blows for 125mm penetration.
				SPT 17,28,R N*=R		-16	18						SPT 28 blows for 150mm penetration
						-17	19			Colour change to brown, no longer indurated at approximately 18.8m.			
				SPT 12,26,R N*=R		-18	20						SPT 26 blows for 150mm penetration.
				SPT 13,30,R N*=R		-19	21						SPT 30 blows for 150mm penetration.
						-20	22					D	
				SPT 12,23,30 N*=53		-21	23						SPT 30 blows for 140mm penetration.
				SPT 11,21,29 N*=50		-22	24						SPT 29 blows for 150mm penetration.

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
DT	diatube
B	blank bit
V	V bit
T	TC bit
TBX	Tubex

*bit shown by suffix e.g. ADT

support: C casing; N nil

penetration: 1 2 3 4 — no resistance ranging to refusal

water: 10/1/98 water level on date shown; water inflow; water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
P	pressure meter
Bs	bulk sample
R	refusal
E	environmental sample
PID	PID measurement
WS	water sample
PZ	piezometer
ALT	air lift test

classification symbols and soil description based on unified classification system

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

coffey geotechnics

Borehole No. **BH7**

Sheet 4 of 6

Engineering Log - Piezometer

Project No: **CH1613/1**

Client: ***RIDER HUNT TEROTECH***

Date started: ***29.5.2006***

Principal:

Date completed: ***30.5.2006***

Project: ***PROPOSED DEVELOPMENT - BLUE DOLPHIN RESORT***

Logged by: ***ELC***

Borehole Location: ***REFER TO FIGURE 1***

Checked by:

drill model & mounting: P120 TRUCK | Easting: 533049.973 | slope: -90° | R.L. Surface: 1.56

hole diameter: | Northing: 6744153.418 | bearing: | datum: AHD

drilling information | **material substance**

method	penetration 1 2 3	support	water	notes samples, tests, etc	well details	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	structure and additional observations
WB		M				-23	25		SP	**SAND:** fine to coarse grained, dark brown *(continued)* Colour change to pale brown at 24.5m.	W	D	
				SPT 10,17,19 N*=36		-24	26		SP	**SAND:** fine to medium grained, grey, trace of fines		MD	
				SPT 3,5,11 N*=16		-25	27						
				SPT 7,12,13 N*=25		-26	28						
				SPT 11,23,26 N*=49		-27	29					D	
				SPT 14,24,26 N*=50		-28	30						
						-29	31						
						-30	32						

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
DT	diatube
B	blank bit
V	V bit
T	TC bit
TBX	Tubex
*bit shown by suffix e.g.	ADT

support

C casing N nil

penetration

1 2 3 4 — no resistance ranging to refusal

water

10/1/98 water level on date shown

water inflow

water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
P	pressure meter
Bs	bulk sample
R	refusal
E	environmental sample
PID	PID measurement
WS	water sample
PZ	piezometer
ALT	air lift test

classification symbols and soil description

based on unified classification system

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

coffey geotechnics

Engineering Log - Piezometer

Borehole No. **BH7**

Sheet 5 of 6

Project No: **CH1613/1**

Client: ***RIDER HUNT TEROTECH***

Date started: ***29.5.2006***

Principal:

Date completed: ***30.5.2006***

Project: ***PROPOSED DEVELOPMENT - BLUE DOLPHIN RESORT***

Logged by: ***ELC***

Borehole Location: ***REFER TO FIGURE 1***

Checked by:

drill model & mounting: P120 TRUCK | Easting: 533049.973 | slope: -90° | R.L. Surface: 1.56

hole diameter: | Northing: 6744153.418 | bearing: | datum: AHD

drilling information | **material substance**

method	penetration 1 2 3	support	water	notes samples, tests, etc	well details	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	structure and additional observations
WB		M		SPT 16,R,- N*=R		-31	33		SP	**SAND:** fine to medium grained, grey, trace of fines *(continued)*	W	MD	SPT 30 blows for 130mm penetration.
						-32	34					MD	
				SPT 8,10,6 N*=16		-33	35		SP	**SAND:** fine to medium grained, grey, some medium plasticity fines		D	
				SPT 11,16,32 N*=48		-34	36						SPT 32 blows for 150mm penetration.
				SPT 7,5,9 N*=14		-35	37					MD	
						-36	38						
				SPT 0,1,5 N*=6		-37	39		SC	**Sandy CLAY/Clayey SAND:** sand is fine to medium grained, clay is medium plasticity, grey		L/F	
						-38	40						

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
DT	diatube
B	blank bit
V	V bit
T	TC bit
TBX	Tubex

*bit shown by suffix e.g. ADT

support

C casing N nil

penetration

1 2 3 4 no resistance ranging to refusal

water

10/1/98 water level on date shown

water inflow

water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
P	pressure meter
Bs	bulk sample
R	refusal
E	environmental sample
PID	PID measurement
WS	water sample
PZ	piezometer
ALT	air lift test

classification symbols and soil description

based on unified classification system

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

coffey geotechnics

Engineering Log - Piezometer

Borehole No. **BH7**

Sheet 6 of 6

Project No: **CH1613/1**

Client: ***RIDER HUNT TEROTECH***

Date started: ***29.5.2006***

Principal:

Date completed: ***30.5.2006***

Project: ***PROPOSED DEVELOPMENT - BLUE DOLPHIN RESORT***

Logged by: ***ELC***

Borehole Location: ***REFER TO FIGURE 1***

Checked by:

drill model & mounting: P120 TRUCK | Easting: 533049.973 | slope: -90° | R.L. Surface: 1.56

hole diameter: | Northing: 6744153.418 | bearing: | datum: AHD

drilling information | **material substance**

method	penetration 1 2 3	support	water	notes samples, tests, etc	well details	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	structure and additional observations
WB		M				-39	41		SC	**Sandy CLAY/Clayey SAND:** sand is fine to medium grained, clay is medium plasticity, grey *(continued)*	W	L/F	
				SPT 4,6,10 N*=16		-40	42		CH	**CLAY:** high plasticity, grey, some fine grained sand Shell fragments observed.	M	St	
				SPT 5,9,9 N*=18		-41 -42 -43	43 44 45					VSt	
						-44 -45 -46	46 47 48			End BH7 at 44.95m due to limit of required investigation. Borehole terminated at 44.95m			

PIEZOMETER CH1613-1 DEEP LOGS.GPJ COFFEY.GDT 19.10.06

Form GEO 5.10 Issue 3 Rev.0

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
DT	diatube
B	blank bit
V	V bit
T	TC bit
TBX	Tubex
*bit shown by suffix e.g.	ADT

support

C casing N nil

penetration

1 2 3 4 no resistance ranging to refusal

water

10/1/98 water level on date shown

water inflow

water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
P	pressure meter
Bs	bulk sample
R	refusal
E	environmental sample
PID	PID measurement
WS	water sample
PZ	piezometer
ALT	air lift test

classification symbols and soil description

based on unified classification system

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

coffey geotechnics

Engineering Log - Piezometer

Borehole No. **BH8**

Sheet 1 of 4

Project No: **CH1613/1**

Client: ***RIDER HUNT TEROTECH***

Date started: ***1.6.2006***

Principal:

Date completed: ***1.6.2006***

Project: ***PROPOSED DEVELOPMENT - BLUE DOLPHIN RESORT***

Logged by: ***ELC***

Borehole Location: ***REFER TO FIGURE 1***

Checked by:

drill model & mounting:P120 TRUCK | Easting: 533143.425 | slope: -90° | R.L. Surface: 1.61

hole diameter: | Northing: 6744273.849 | bearing: | datum: AHD

drilling information | **material substance**

method	penetration 1 2 3	support	water	notes samples, tests, etc	well details	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	structure and additional observations
ADV		N		D		1			SP	**SAND:** fine to medium grained, brown	M	MD?	ALLUVIAL SOIL
				D			1		SC	**Clayey SAND/Sandy CLAY:** fine to medium grained, brown, clay is medium plasticity			
			▶	SPT 7,9,9 N*=18		0	2		SP	**SAND:** fine to medium grained, grey	W	D	
				D		-1						MD	
				D SPT 1,3,6 N*=9		-2	3						
		M		D			4					D	
WB				D SPT 5,9,10 N*=19		-3	5			Colour change to dark brown at 4.8m.		VD	
				SPT 22,R,- N*=R		-4	6						SPT 30 blows fro 40mm penetration.
						-5	7						
				SPT 18,30,R N*=R		-6	8						SPT 30 blows for 150mm penetration.

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
DT	diatube
B	blank bit
V	V bit
T	TC bit
TBX	Tubex

*bit shown by suffix e.g. ADT

support

C casing N nil

penetration

1 2 3 4 — no resistance ranging to refusal

water

10/1/98 water level on date shown

water inflow

water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
P	pressure meter
Bs	bulk sample
R	refusal
E	environmental sample
PID	PID measurement
WS	water sample
PZ	piezometer
ALT	air lift test

classification symbols and soil description

based on unified classification system

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

coffey geotechnics

Borehole No. **BH8**

Sheet 2 of 4

Project No: **CH1613/1**

Engineering Log - Piezometer

Client: ***RIDER HUNT TEROTECH***

Date started: ***1.6.2006***

Principal:

Date completed: ***1.6.2006***

Project: ***PROPOSED DEVELOPMENT - BLUE DOLPHIN RESORT***

Logged by: ***ELC***

Borehole Location: ***REFER TO FIGURE 1***

Checked by:

drill model & mounting: P120 TRUCK | Easting: 533143.425 | slope: -90° | R.L. Surface: 1.61

hole diameter: | Northing: 6744273.849 | bearing: | datum: AHD

drilling information | **material substance**

method	penetration 1 2 3	support	water	notes samples, tests, etc	well details	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	structure and additional observations
WB		M		SPT R,-,- N*=R		-7	9		SP	**SAND:** fine to medium grained, grey *(continued)*	W	VD	SPT 25 blows for 80mm penetration.
						-8							
				SPT 18,26,R N*=R			10						SPT 26 blows for 150mm penetration.
						-9				Thin band of fine grained gravel at approximately 10.5m.			
							11						
				SPT R,-,- N*=R		-10							SPT 30 blows for 110mm penetration.
							12						
						-11							
				SPT R,-,- N*=R			13						SPT 30 blows for 130mm penetraation.
						-12							
							14						
				SPT R,-,- N*=R		-13							SPT 30 blows for 90mm penetration.
							15						
						-14							
							16						

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
DT	diatube
B	blank bit
V	V bit
T	TC bit
TBX	Tubex
*bit shown by suffix	
e.g.	ADT

support

C casing N nil

penetration

1 2 3 4 — no resistance ranging to refusal

water

10/1/98 water level on date shown

water inflow

water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
P	pressure meter
Bs	bulk sample
R	refusal
E	environmental sample
PID	PID measurement
WS	water sample
PZ	piezometer
ALT	air lift test

classification symbols and soil description

based on unified classification system

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

coffey geotechnics

Engineering Log - Piezometer

Borehole No. **BH8**

Sheet 3 of 4

Project No: **CH1613/1**

Client: ***RIDER HUNT TEROTECH***

Date started: ***1.6.2006***

Principal:

Date completed: ***1.6.2006***

Project: ***PROPOSED DEVELOPMENT - BLUE DOLPHIN RESORT***

Logged by: ***ELC***

Borehole Location: ***REFER TO FIGURE 1***

Checked by:

drill model & mounting:P120 TRUCK | Easting: 533143.425 | slope: -90° | R.L. Surface: 1.61

hole diameter: | Northing: 6744273.849 | bearing: | datum: AHD

drilling information | **material substance**

method	penetration 1 2 3	support	water	notes samples, tests, etc	well details	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	structure and additional observations
WB		M		SPT 23,R,- N*=R		-15	17		SP	**SAND:** fine to medium grained, grey *(continued)*	W	VD	SPT 30 blows for 120mm penetration.
				SPT 15,30,R N*=R		-16	18						SPT 30 blows for 1501mm penetration.
						-17	19						
				SPT 12,25,R N*=R		-18	20						SPT 26 blows for 105mm penetration.
				SPT 14,24,R N*=R		-19	21						SPT 26 blows for 130mm penetration.
						-20	22						
				SPT 15,R,- N*=R		-21	23						SPT 30 blows for 140mm penetration.
				SPT R,-,- N*=R		-22	24						SPT 30 blows for 115mm penetration.

PIEZOMETER CH1613-1 DEEP LOGS.GPJ COFFEY.GDT 19.10.06

Form GEO 5.10 Issue 3 Rev.0

method

AS	auger screwing*
AD	auger drilling*
RR	roller/tricone
W	washbore
CT	cable tool
DT	diatube
B	blank bit
V	V bit
T	TC bit
TBX	Tubex

*bit shown by suffix e.g. ADT

support

C casing N nil

penetration

1 2 3 4 no resistance ranging to refusal

water

10/1/98 water level on date shown

water inflow

water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
D	disturbed sample
N	standard penetration test (SPT)
N*	SPT - sample recovered
Nc	SPT with solid cone
P	pressure meter
Bs	bulk sample
R	refusal
E	environmental sample
PID	PID measurement
WS	water sample
PZ	piezometer
ALT	air lift test

classification symbols and soil description

based on unified classification system

moisture

D	dry
M	moist
W	wet
Wp	plastic limit
W_L	liquid limit

consistency/density index

VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

coffey geotechnics

Engineering Log - Piezometer

Borehole No. **BH8**

Sheet 4 of 4

Project No: **CH1613/1**

Client: ***RIDER HUNT TEROTECH***

Date started: ***1.6.2006***

Principal:

Date completed: ***1.6.2006***

Project: ***PROPOSED DEVELOPMENT - BLUE DOLPHIN RESORT***

Logged by: ***ELC***

Borehole Location: ***REFER TO FIGURE 1***

Checked by:

drill model & mounting: P120 TRUCK | Easting: 533143.425 | slope: -90° | R.L. Surface: 1.61

hole diameter: | Northing: 6744273.849 | bearing: | datum: AHD

drilling information | **material substance**

method	penetration 1 2 3	support	water	notes samples, tests, etc	well details	RL	depth metres	graphic log	classification symbol	material: soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	structure and additional observations
WB		M				-23	25		SP	**SAND:** fine to medium grained, grey *(continued)*	W	VD	
				SPT 10,21,27 N*=48								D/VD	
						-24	26			End BH8 at 25.45m due to limit of required investigation. Borehole terminated at 25.45m			
						-25	27						
						-26	28						
						-27	29						
						-28	30						
						-29	31						
						-30	32						

method

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AD	auger drilling*
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TBX	Tubex
*bit shown by suffix e.g.	ADT

support

C casing N nil

penetration

1 2 3 4 — no resistance ranging to refusal

water

10/1/98 water level on date shown

water inflow

water outflow

notes, samples, tests

U_{50}	undisturbed sample 50mm diameter
D	disturbed sample
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