

APPENDIX B3:D

Groundwater standpipe reports

Golder Associates

Document 137632097-013-R-Rev0

10 Oct 2013

APPENDIX D

APPENDIX B3:D



REPORT OF BOREHOLE: Zone 1A

CLIENT: Sunshine Coast Council
 PROJECT: Sunshine Coast Airport
 LOCATION: Sunshine Coast Airport
 JOB NO: 127683017

COORDS: 507788.0 m E 7059728.0 m N AMG84 56
 SURFACE RL: 0.00 m DATUM: AHD
 INCLINATION: -90°
 HOLE DIA: 100 mm HOLE DEPTH: 9.00 m

SHEET: 1 OF 1
 DRILL RIG: Hydrapower Scout
 CONTRACTOR: Geodrill
 LOGGED: BCT DATE: 27/9/12
 CHECKED: SAM DATE: 13/5/13

Drilling			Sampling	Field Material Description											
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY	DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS			
ADT	L	GROUNDWATER ENCOUNTERED @ 1.30m	0	-0.10		[Yellow dotted pattern]	SM	Silty SAND fine to medium grained, brown, trace organics				L	Topsoil		
				0.80			SP	SAND fine to medium grained, pale grey, trace of silt		M				Alluvium	
				-0.80										MD	
				1										M - W	
				1.50											
				-1.50											
				2											
				2.00											
				-2.00											
				2.50											
				-2.50											
RD	H	GROUNDWATER ENCOUNTERED @ 1.30m		3											
				3.60											
				-3.60											
				4											
				4.40											
				-4.40											
				5											
				6											
				6.00											
				-6.00											
				7											
	7.50														
	-7.50														
M		GROUNDWATER ENCOUNTERED @ 1.30m		8											
				8.10											
				-8.20											
	9														
	-9.00														
	10														
	11														

This report of borehole must be read in conjunction with accompanying notes and abbreviations. It has been prepared for geotechnical purposes only, without attempt to assess possible contamination. Any references to potential contamination are for information only and do not necessarily indicate the presence or absence of soil or groundwater contamination.

GAP gINT FN. F01a
RL3

APPENDIX B3:D



REPORT OF BOREHOLE: Zone 1B

CLIENT: Sunshine Coast Council
 PROJECT: Sunshine Coast Airport
 LOCATION: Sunshine Coast Airport
 JOB NO: 127683017

COORDS: 507789.0 m E 7059728.0 m N AMG84 56
 SURFACE RL: 0.00 m DATUM: AHD
 INCLINATION: -90°
 HOLE DIA: 100 mm HOLE DEPTH: 2.00 m

SHEET: 1 OF 1
 DRILL RIG: Hydrapower Scout
 CONTRACTOR: Geodrill
 LOGGED: BCT DATE: 27/9/12
 CHECKED: SAM DATE: 13/5/13

Drilling			Sampling	Field Material Description									
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY	DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS	
ADT	L	GROUNDWATER ENCOUNTERED @ 1.30 m	0	0.10		[Yellow dotted pattern]	SM SP	Silty SAND	M			L	Topsoil
			-0.10		fine to medium grained, brown, trace organics							Alluvium	
			0.80		SAND								
			-0.80		fine to medium grained, pale grey, trace of silt								
1							becoming grey				MD		
			1.50									M - W	
			-1.50									W	Perched watertable on indurated sand @ 1.30 m
												M	D
			2	-2.00				END OF BOREHOLE @ 2.00 m TARGET DEPTH STANDPIPE INSTALLED					
			3										
			4										
			5										
			6										
			7										
			8										
			9										
			10										

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GAP 8.073 LIB.GLB Log GAP NON-CORED FULL PAGE STANDPIPE GEO LOGS.GPJ <<DrawingFile>> 17/05/2013 14:05 8:30:003

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REPORT OF BOREHOLE: Zone 2B

CLIENT: Sunshine Coast Council
 PROJECT: Sunshine Coast Airport
 LOCATION: Sunshine Coast Airport
 JOB NO: 127683017

COORDS: 508399.0 m E 7058879.0 m N AMG84 56
 SURFACE RL: 0.00 m DATUM: AHD
 INCLINATION: -90°
 HOLE DIA: 100 mm HOLE DEPTH: 1.20 m

SHEET: 1 OF 1
 DRILL RIG: Hydrapower Scout
 CONTRACTOR: Geodrill
 LOGGED: BCT DATE: 28/9/12
 CHECKED: SAM DATE: 13/5/13

Drilling			Sampling	Field Material Description									
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS		
ADT	L	GROUNDWATER ENCOUNTERED @ 0.80 m	0	0.10				Silty SAND			L	Topsoil	
			-0.10					SP	fine to medium grained, dark grey and pale grey, trace organics			M	Alluvium
			0.80						SAND			MD	
			-0.80						fine to medium grained, pale grey				
			1	-1.00				becoming dark grey with trace silt		W	Perched watertable on indurated sand @ 0.80 m		
				-1.00				Silty SAND (INDURATED)		M	D		
				-1.20				fine to medium grained, dark grey, weakly cemented					
								END OF BOREHOLE @ 1.20 m TARGET DEPTH STANDPIPE INSTALLED					
			2										
			3										
			4										
			5										
			6										
			7										
			8										
			9										
			10										

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REPORT OF BOREHOLE: Zone 3A

CLIENT: Sunshine Coast Council
 PROJECT: Sunshine Coast Airport
 LOCATION: Sunshine Coast Airport
 JOB NO: 127683017

COORDS: 508906.0 m E 7058414.0 m N AMG84 56
 SURFACE RL: 0.00 m DATUM: AHD
 INCLINATION: -90°
 HOLE DIA: 100 mm HOLE DEPTH: 7.50 m

SHEET: 1 OF 1
 DRILL RIG: Hydrapower Scout
 CONTRACTOR: Geodrill
 LOGGED: BCT DATE: 27/9/12
 CHECKED: SAM DATE: 13/5/13

Drilling			Sampling	Field Material Description								
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY	DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
ADT	L	X	0	-0.05			SM	Silty SAND	M	L		Topsoil
			0.40			SP	fine to medium grained, dark grey and grey, trace organics	M	L	Alluvium		
M			0.40	-0.40			SM	SAND				Perched watertable @ 0.40 m
			1				fine to medium grained, grey, trace silt					
H			1	-1.30				SAND (INDURATED)	MD	D		
			2				fine to medium grained, dark grey, weakly cemented					
RD	M		2	-1.30				becoming strongly cemented				
			3							M		
			3	-2.90								
			4									
			4	-4.00								
			5									
			5	-5.00								
			6									
			6									
			7									
			7									
			8									
			8	-7.50								
			9									
			9									
			10									
								END OF BOREHOLE @ 7.50 m TARGET DEPTH STANDPIPE INSTALLED				

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GAP gINT FN. F01a
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APPENDIX B3:D



REPORT OF BOREHOLE: Zone 3B

CLIENT: Sunshine Coast Council
 PROJECT: Sunshine Coast Airport
 LOCATION: Sunshine Coast Airport
 JOB NO: 127683017

COORDS: 508905.0 m E 7058414.0 m N AMG84 56
 SURFACE RL: 0.00 m DATUM: AHD
 INCLINATION: -90°
 HOLE DIA: 100 mm HOLE DEPTH: 0.90 m

SHEET: 1 OF 1
 DRILL RIG: Hydrapower Scout
 CONTRACTOR: Geodrill
 LOGGED: BCT DATE: 27/9/12
 CHECKED: SAM DATE: 13/5/13

Drilling			Sampling	Field Material Description								
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY	DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
ADT	L	M	0	-0.05			SM	Silty SAND	M	L		Topsoil
			0.40				SP	fine to medium grained, dark grey and grey with some trace organics	M	L		Alluvium
			-0.40				SM	SAND	M	MD		Perched watertable @ 0.40 m
								SAND (INDURATED)				
			1	-0.90				fine to medium grained, grey with trace of silt				
								fine to medium grained, dark grey, weakly cemented				
								END OF BOREHOLE @ 0.90 m				
								TARGET DEPTH				
								STANDPIPE INSTALLED				
			2									
			3									
			4									
			5									
			6									
			7									
			8									
			9									
			10									

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REPORT OF BOREHOLE: Zone 4A

CLIENT: Sunshine Coast Council
 PROJECT: Sunshine Coast Airport
 LOCATION: Sunshine Coast Airport
 JOB NO: 127683017

COORDS: 507607.0 m E 7058376.0 m N AMG84 56
 SURFACE RL: 0.00 m DATUM: AHD
 INCLINATION: -90°
 HOLE DIA: 100 mm HOLE DEPTH: 8.50 m

SHEET: 1 OF 1
 DRILL RIG: Hydrapower Scout
 CONTRACTOR: Geodrill
 LOGGED: BCT DATE: 2/10/12
 CHECKED: SAM DATE: 13/5/13

Drilling			Sampling	Field Material Description											
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY	DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS			
ADT	L		0	0.00			SP	SAND fine to medium grained, pale grey, trace organics no organics				L	Topsoil Alluvium		
			-0.10												
			0.60												
			-0.60												
			0.80												
			-0.80												
			1												
			1.30												
			-1.30												
				M											
RD	H	GROUNDWATER LEVEL @ 2.00 m	2												
			3												
			3.90												
			-3.90												
			4.30												
			-4.30												
			4												
			5												
			6												
			6.70												
-6.70															
L-M			7												
			8												
			8.00												
			-8.00												
			8.50												
			-8.50												
			9												
			10												

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GAP gINT FN. F01a
RL3

APPENDIX B3:D



REPORT OF BOREHOLE: Zone 4B

CLIENT: Sunshine Coast Council
 PROJECT: Sunshine Coast Airport
 LOCATION: Sunshine Coast Airport
 JOB NO: 127683017

COORDS: 507608.0 m E 7058376.0 m N AMG84 56
 SURFACE RL: 0.00 m DATUM: AHD
 INCLINATION: -90°
 HOLE DIA: 100 mm HOLE DEPTH: 1.20 m

SHEET: 1 OF 1
 DRILL RIG: Hydrapower Scout
 CONTRACTOR: Geodrill
 LOGGED: BCT DATE: 2/10/12
 CHECKED: SAM DATE: 13/5/13

Drilling			Sampling		Field Material Description							
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY	DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
ADT	L	GROUNDWATER NOT ENCOUNTERED	0	0.00			SP	SAND fine to medium grained, pale grey, trace organics no organics				L Topsoil
			-0.10									M Alluvium
M			0.60	-0.60				becoming grey				
			0.80	-0.80			SM	Silty SAND (INDURATED) fine to medium grained, dark brown, trace silt, weakly cemented				
			1	-1.20				END OF BOREHOLE @ 1.20 m TARGET DEPTH STANDPIPE INSTALLED				
			2									
			3									
			4									
			5									
			6									
			7									
			8									
			9									
			10									

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GAP gINT FN. F01a
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APPENDIX B3:D



REPORT OF BOREHOLE: Zone 5A

CLIENT: Sunshine Coast Council
 PROJECT: Sunshine Coast Airport
 LOCATION: Sunshine Coast Airport
 JOB NO: 127683017

COORDS: 507415.0 m E 7058786.0 m N AMG84 56
 SURFACE RL: 0.00 m DATUM: AHD
 INCLINATION: -90°
 HOLE DIA: 100 mm HOLE DEPTH: 8.50 m

SHEET: 1 OF 1
 DRILL RIG: Hydrapower Scout
 CONTRACTOR: Geodrill
 LOGGED: BCT DATE: 28/9/12
 CHECKED: SAM DATE: 13/5/13

Drilling			Sampling	Field Material Description								
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS	
ADT	L	GROUNDWATER ENCOUNTERED @ 0.30 m	0	0.10		[Yellow dotted pattern]	SM	Silty SAND	M	L	Topsoil	
			-0.10	-0.20				fine to medium grained, dark grey and grey, trace organics			MD	Alluvium
			0.70	-0.70				SAND			D	Perched water table on indurated sand. Water level @ 0.3m BGL
			1	1.10				fine to medium grained, pale grey, trace silt				
			-1.10					becoming grey				
			1.50	-1.50				Silty SAND (INDURATED)			M-W	
			-1.50					fine to medium grained, dark grey, weakly cemented				
								becoming dark brown				
								becoming strongly cemented				VD
RD	M		3.60	-3.60				becoming brown, weakly cemented				
			4	4.00		SP	SAND					
			-4.00			fine to medium grained, brown						
			5	5.20								
			-5.20			becoming brown and grey		M				
			6	6.00								
			-6.00			becoming grey		D				
			7									
			8	8.00								
			-8.00			Silty SAND						
			fine to medium grained, grey, trace clay									
			8.50	-8.50				END OF BOREHOLE @ 8.50 m TARGET DEPTH STANDPIPE INSTALLED				
			9									
			10									

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GAP gINT FN. F01a
RL3

APPENDIX B3:D



REPORT OF BOREHOLE: Zone 5B

CLIENT: Sunshine Coast Council
 PROJECT: Sunshine Coast Airport
 LOCATION: Sunshine Coast Airport
 JOB NO: 127683017

COORDS: 507414.0 m E 7058786.0 m N AMG84 56
 SURFACE RL: 0.00 m DATUM: AHD
 INCLINATION: -90°
 HOLE DIA: 100 mm HOLE DEPTH: 1.55 m

SHEET: 1 OF 1
 DRILL RIG: Hydrapower Scout
 CONTRACTOR: Geodrill
 LOGGED: BCT DATE: 28/9/12
 CHECKED: SAM DATE: 13/5/13

Drilling			Sampling	Field Material Description								
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY	DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
ADT	L	GROUNDWATER ENCOUNTERED @ 0.30 m	0	0.10			SM	Silty SAND				Topsoil Alluvium Perched water table on indurated sand. Water level @ 0.3m BGL
			-0.20			SP	fine to medium grained, dark grey and grey, trace organics					
			0.70	-0.70				SAND				
			1.10	-1.10			SM	fine to medium grained, pale grey, with trace silt				
	M		1.50	-1.50				becoming grey				
								Silty SAND (INDURATED)				
								fine to medium grained, dark grey, weakly cemented				
								becoming dark brown				
								becoming strongly cemented				
								END OF BOREHOLE @ 1.55 m				
								TARGET DEPTH				
								STANDPIPE INSTALLED				

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APPENDIX B3:D



REPORT OF BOREHOLE: Zone 1A

CLIENT: Sunshine Coast Council
 PROJECT: Sunshine Coast Airport
 LOCATION: Sunshine Coast Airport
 JOB NO: 127683017

COORDS: 507788.0 m E 7059728.0 m N AMG84 56
 SURFACE RL: 0.00 m DATUM: AHD
 INCLINATION: -90°
 HOLE DIA: 100 mm HOLE DEPTH: 9.00 m

SHEET: 1 OF 1
 DRILL RIG: Hydrapower Scout
 CONTRACTOR: Geodrill
 LOGGED: BCT DATE: 27/9/12
 CHECKED: SAM DATE: 13/5/13

Drilling		Sampling		Field Material Description and Instrumentation					
METHOD	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	AIRLIFT YIELD (L/s)	CONSTRUCTION	
ADT	GROUNDWATER ENCOUNTERED @ 1.30m	X	-1						
			0	-0.10			Silty SAND fine to medium grained, brown, trace organics		Momument protector "Zone 1A"
			0.80	-0.80			SAND fine to medium grained, pale grey, trace of silt		PVC Stickup -0.60 m
			1				becoming grey		Grout - cement (0.00 m - 0.20 m)
			1.50	-1.50			Silty SAND (INDURATED) fine to medium grained, dark grey and dark brown, weakly cemented		Backfill (0.20 m - 1.40 m)
			2	2.00	-2.00		becoming strongly cemented		
			2.50	-2.50			becoming very strongly cemented		
			3	3.60	-3.60		becoming weakly cemented		Bentonite Plug (1.40 m - 5.45 m)
			4	4.40	-4.40		SAND fine to medium grained, brown, trace silt		
			6	6.00	-6.00		Silty SAND fine to medium grained, pale brown, trace clay		Screen below 5.55 m
7	7.50	-7.50		becoming greeny grey		Geotextile sock over screen section			
8	8.10	-8.20		Clayey SAND fine to medium grained, grey, high plasticity clay		Sand (2 mm to 3 mm grain size), (5.45 m - 8.80 m)			
				SAND fine to medium grained, brown, weakly cemented lenses throughout, trace silt		End plug			
						250 mm sand pack at bottom of borehole			
			9.00			END OF BOREHOLE @ 9.00 m TARGET DEPTH STANDPIPE INSTALLED			
			10						

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GAP gINT FN. F05
RL3

APPENDIX B3:D



REPORT OF BOREHOLE: Zone 1B

CLIENT: Sunshine Coast Council
 PROJECT: Sunshine Coast Airport
 LOCATION: Sunshine Coast Airport
 JOB NO: 127683017

COORDS: 507789.0 m E 7059728.0 m N AMG84 56
 SURFACE RL: 0.00 m DATUM: AHD
 INCLINATION: -90°
 HOLE DIA: 100 mm HOLE DEPTH: 2.00 m

SHEET: 1 OF 1
 DRILL RIG: Hydrapower Scout
 CONTRACTOR: Geodrill
 LOGGED: BCT DATE: 27/9/12
 CHECKED: SAM DATE: 13/5/13

Drilling		Sampling	Field Material Description and Instrumentation					
METHOD	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	AIRLIFT YIELD (L/s)	CONSTRUCTION
ADT	GROUNDWATER ENCOUNTERED @ 1.30m	0.70	-0.10			Silty SAND fine to medium grained, brown, trace organics		
		0.80	-0.80			SAND fine to medium grained, pale grey, trace of silt becoming grey		
		1.50	-1.50			Silty SAND (INDURATED) fine to medium grained, dark grey and dark brown, weakly cemented		
		2.00	-2.00			END OF BOREHOLE @ 2.00 m TARGET DEPTH STANDPIPE INSTALLED		

GAP 8_073 LIB.GLB Log_GAP_WELL_STANDPIPE GEO.LOGS.GPJ <<DrawingFile>> 17/05/2013 14:08 8_30.003

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GAP gINT FN. F05
RL3

APPENDIX B3:D



REPORT OF BOREHOLE: Zone 2A

CLIENT: Sunshine Coast Council
 PROJECT: Sunshine Coast Airport
 LOCATION: Sunshine Coast Airport
 JOB NO: 127683017

COORDS: 508400.0 m E 7058879.0 m N AMG84 56
 SURFACE RL: 0.00 m DATUM: AHD
 INCLINATION: -90°
 HOLE DIA: 100 mm HOLE DEPTH: 6.00 m

SHEET: 1 OF 1
 DRILL RIG: Hydrapower Scout
 CONTRACTOR: Geodrill
 LOGGED: BCT DATE: 28/9/12
 CHECKED: SAM DATE: 13/5/13

Drilling		Sampling	Field Material Description and Instrumentation					
METHOD	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	AIRLIFT YIELD (L/s)	CONSTRUCTION
		0.70	-0.10		X	Silty SAND fine to medium grained, dark grey and pale grey, trace organics		
		0.80	-0.80			SAND fine to medium grained, pale grey		
		1.00	-1.00			becoming dark grey, trace silt		
		1.40	-1.40		X	Silty SAND (INDURATED) fine to medium grained, dark grey, weakly cemented		
		1.90	-1.90			becoming strongly cemented		
		2.20	-2.20		X	SAND fine to medium grained, grey and brown, some silt		
		2.70	-2.70		X	Silty SAND fine to medium grained, brown		
		2.70	-2.70			SAND fine to medium grained, brown, trace silt		
		5.50	-5.50		X	Silty SAND fine to medium grained, brown and pale brown		
		6.00	-6.00			END OF BOREHOLE @ 6.00 m TARGET DEPTH STANDPIPE INSTALLED		

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APPENDIX B3:D



REPORT OF BOREHOLE: Zone 2B

CLIENT: Sunshine Coast Council
 PROJECT: Sunshine Coast Airport
 LOCATION: Sunshine Coast Airport
 JOB NO: 127683017

COORDS: 508399.0 m E 7058879.0 m N AMG84 56
 SURFACE RL: 0.00 m DATUM: AHD
 INCLINATION: -90°
 HOLE DIA: 100 mm HOLE DEPTH: 1.20 m

SHEET: 1 OF 1
 DRILL RIG: Hydrapower Scout
 CONTRACTOR: Geodrill
 LOGGED: BCT DATE: 28/9/12
 CHECKED: SAM DATE: 13/5/13

Drilling		Sampling	Field Material Description and Instrumentation					
METHOD	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	AIRLIFT YIELD (L/s)	CONSTRUCTION
ADT	GROUNDWATER ENCOUNTERED @ 0.80 m	-1						
		0	0.70 -0.10			Silty SAND fine to medium grained, dark grey and pale grey, trace organics SAND fine to medium grained, pale grey		
		1	0.80 -1.00 1.20			becoming dark grey with trace silt Silty SAND (INDURATED) fine to medium grained, dark grey, weakly cemented		
			-1.20			END OF BOREHOLE @ 1.20 m TARGET DEPTH STANDPIPE INSTALLED		

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APPENDIX B3:D



REPORT OF BOREHOLE: Zone 3A

CLIENT: Sunshine Coast Council
 PROJECT: Sunshine Coast Airport
 LOCATION: Sunshine Coast Airport
 JOB NO: 127683017

COORDS: 508906.0 m E 7058414.0 m N AMG84 56
 SURFACE RL: 0.00 m DATUM: AHD
 INCLINATION: -90°
 HOLE DIA: 100 mm HOLE DEPTH: 7.50 m

SHEET: 1 OF 1
 DRILL RIG: Hydrapower Scout
 CONTRACTOR: Geodrill
 LOGGED: BCT DATE: 27/9/12
 CHECKED: SAM DATE: 13/5/13

Drilling		Sampling	Field Material Description and Instrumentation					
METHOD	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	AIRLIFT YIELD (L/s)	CONSTRUCTION
ADT RD	GROUNDWATER ENCOUNTERED @ 0.40 m	-1						
		0						Moment protector "Zone 3A"
		-0.05						
		0.40						PVC Stickup -0.75 m
		-0.40						Grout - cement (0.00 m - 0.10 m)
		1						
		1.30						
		-1.30						
		2						
		2.90						
-2.90								
3								
4								
4.00								Screen below 3.80 m
-4.00								Geotextile sock over screen section
5								
5.00								Sand (2 mm to 3 mm grain size), (3.50 m - 7.20 m)
-5.00								
6								
7								
7.50								End plug
-7.50								400 mm sand pack at bottom of borehole
8								
9								

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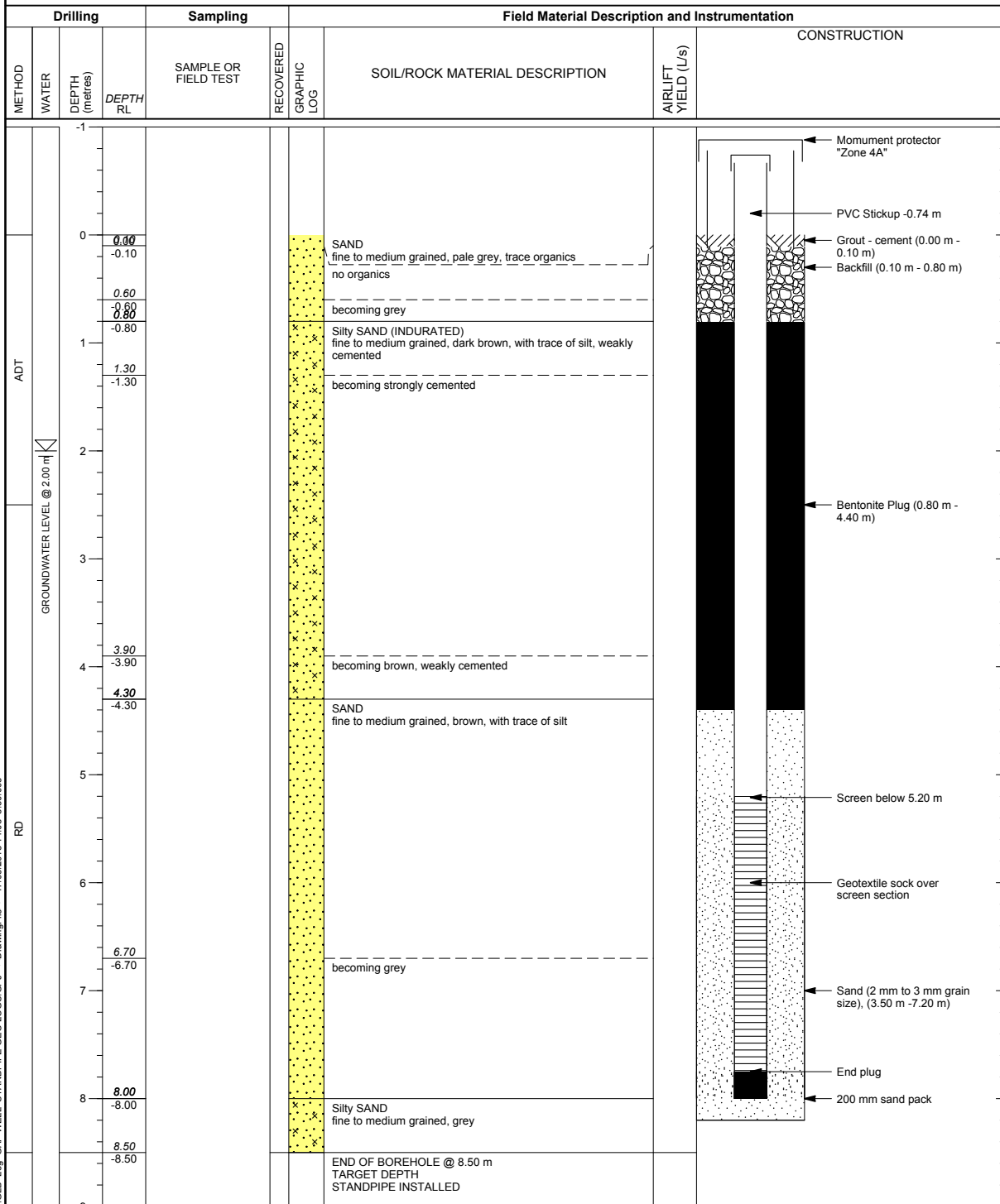


REPORT OF BOREHOLE: Zone 4A

CLIENT: Sunshine Coast Council
 PROJECT: Sunshine Coast Airport
 LOCATION: Sunshine Coast Airport
 JOB NO: 127683017

COORDS: 507607.0 m E 7058376.0 m N AMG84 56
 SURFACE RL: 0.00 m DATUM: AHD
 INCLINATION: -90°
 HOLE DIA: 100 mm HOLE DEPTH: 8.50 m

SHEET: 1 OF 1
 DRILL RIG: Hydrapower Scout
 CONTRACTOR: Geodrill
 LOGGED: BCT DATE: 2/10/12
 CHECKED: SAM DATE: 13/5/13



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APPENDIX B3:D



REPORT OF BOREHOLE: Zone 4B

CLIENT: Sunshine Coast Council
 PROJECT: Sunshine Coast Airport
 LOCATION: Sunshine Coast Airport
 JOB NO: 127683017

COORDS: 507608.0 m E 7058376.0 m N AMG84 56
 SURFACE RL: 0.00 m DATUM: AHD
 INCLINATION: -90°
 HOLE DIA: 100 mm HOLE DEPTH: 1.20 m

SHEET: 1 OF 1
 DRILL RIG: Hydrapower Scout
 CONTRACTOR: Geodrill
 LOGGED: BCT DATE: 2/10/12
 CHECKED: SAM DATE: 13/5/13

Drilling		Sampling	Field Material Description and Instrumentation					
METHOD	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	AIRLIFT YIELD (L/s)	CONSTRUCTION
ADT	GROUNDWATER NOT ENCOUNTERED	-1						
		0	0.00 -0.10			SAND fine to medium grained, pale grey, trace organics no organics		
		0.60 -0.60				becoming grey		
		0.80 -0.80				Silty SAND (INDURATED) fine to medium grained, dark brown, trace silt, weakly cemented		
		1.20 -1.20				END OF BOREHOLE @ 1.20 m TARGET DEPTH STANDPIPE INSTALLED		
		2						
		3						
		4						
		5						
		6						
		7						
		8						
		9						

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APPENDIX B3:D



REPORT OF BOREHOLE: Zone 5A

CLIENT: Sunshine Coast Council
 PROJECT: Sunshine Coast Airport
 LOCATION: Sunshine Coast Airport
 JOB NO: 127683017

COORDS: 507415.0 m E 7058786.0 m N AMG84 56
 SURFACE RL: 0.00 m DATUM: AHD
 INCLINATION: -90°
 HOLE DIA: 100 mm HOLE DEPTH: 8.50 m

SHEET: 1 OF 1
 DRILL RIG: Hydrapower Scout
 CONTRACTOR: Geodrill
 LOGGED: BCT DATE: 28/9/12
 CHECKED: SAM DATE: 13/5/13

Drilling		Sampling	Field Material Description and Instrumentation					
METHOD	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	AIRLIFT YIELD (L/s)	CONSTRUCTION
ADT GROUNDWATER ENCOUNTERED @ 0.30 m RL								Monument protector "Zone 5A" PVC Stickup -0.68 m Grout - cement (0.00 m - 0.20 m) Backfill (0.20 m - 0.70 m)
			0.70 -0.20		x	Silty SAND fine to medium grained, dark grey and grey, trace organics		
			0.70 -0.20			SAND fine to medium grained, pale grey, trace silt becoming grey		
			0.70 -0.70		x	Silty SAND (INDURATED) fine to medium grained, dark grey, weakly cemented		
			1.10 -1.10			becoming dark brown		
			1.50 -1.50			becoming strongly cemented		
			3.60 -3.60			becoming brown, weakly cemented		Bentonite Plug (0.70 m - 4.70 m)
			4.00 -4.00			SAND fine to medium grained, brown		
			5.20 -5.20			becoming brown and grey		Screen below 5.20 m
			6.00 -6.00			becoming grey		Geotextile sock over screen section
		8.00 -8.00			Silty SAND fine to medium grained, grey, trace clay		Sand (2 mm to 3 mm grain size), (4.70 m-8.50 m)	
		8.50 -8.50			END OF BOREHOLE @ 8.50 m TARGET DEPTH STANDPIPE INSTALLED		End plug 300 mm sand pack at bottom of borehole	

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APPENDIX B3:D



REPORT OF BOREHOLE: Zone 5B

CLIENT: Sunshine Coast Council
 PROJECT: Sunshine Coast Airport
 LOCATION: Sunshine Coast Airport
 JOB NO: 127683017

COORDS: 507414.0 m E 7058786.0 m N AMG84 56
 SURFACE RL: 0.00 m DATUM: AHD
 INCLINATION: -90°
 HOLE DIA: 100 mm HOLE DEPTH: 1.55 m

SHEET: 1 OF 1
 DRILL RIG: Hydrapower Scout
 CONTRACTOR: Geodrill
 LOGGED: BCT DATE: 28/9/12
 CHECKED: SAM DATE: 13/5/13

Drilling		Sampling	Field Material Description and Instrumentation					
METHOD	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED GRAPHIC LOG	SOIL/ROCK MATERIAL DESCRIPTION	AIRLIFT YIELD (L/s)	CONSTRUCTION
ADT								
		0.70 -0.20				Silty SAND fine to medium grained, dark grey and grey, trace organics SAND fine to medium grained, pale grey, with trace silt becoming grey		
		0.70 -0.70				Silty SAND (INDURATED) fine to medium grained, dark grey, weakly cemented becoming dark brown		
		1.50 -1.55				becoming strongly cemented END OF BOREHOLE @ 1.55 m TARGET DEPTH STANDPIPE INSTALLED		

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