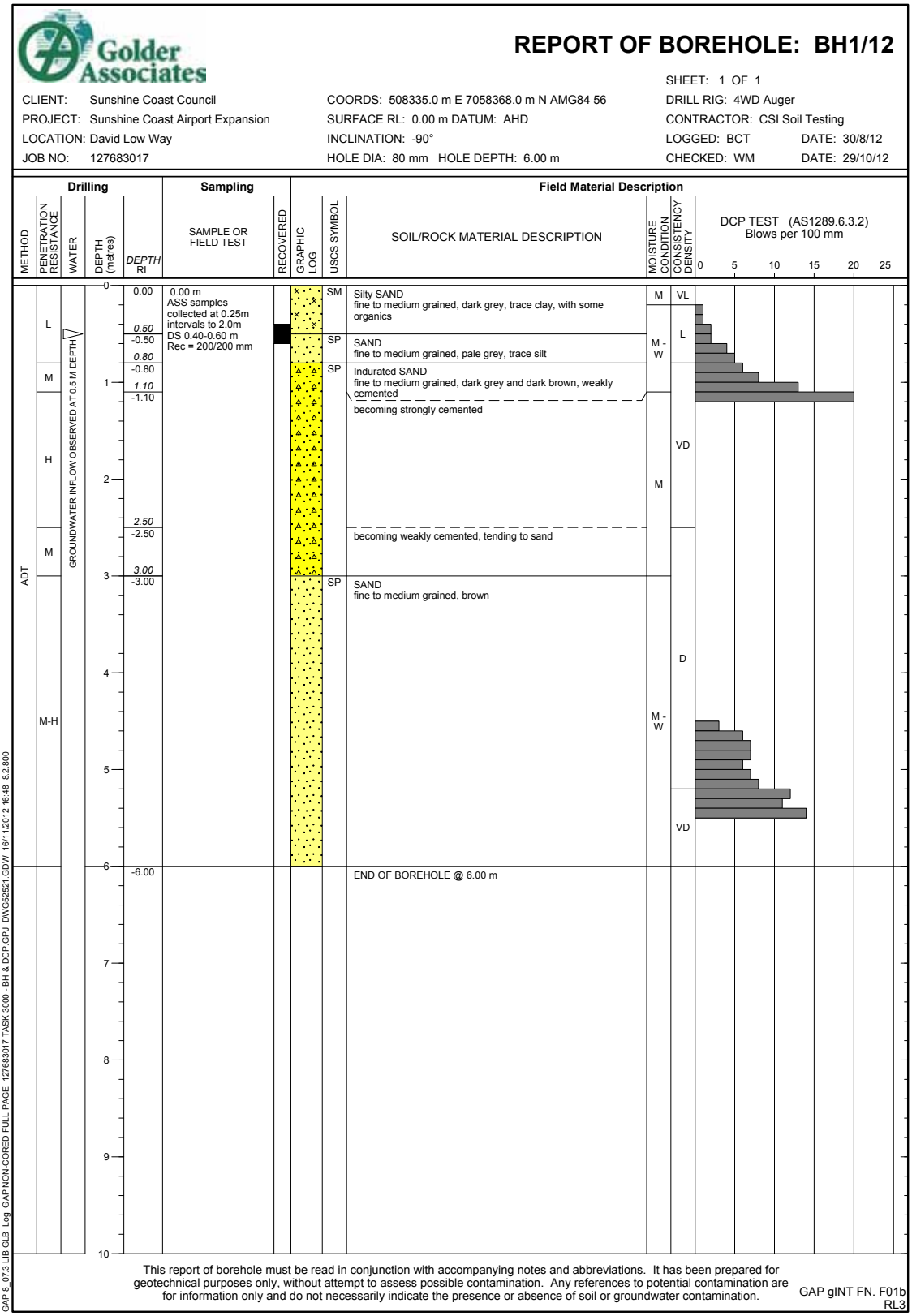
APPENDIX B3:A

Geotechnical borehole reports



APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH3/12

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: David Low Way
JOB NO: 127683017

COORDS: 507763.0 m E 7058970.0 m N AMG84 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 80 mm HOLE DEPTH: 6.00 m

DRILL RIG: 4WD Auger
CONTRACTOR: CSI Soil Testing
LOGGED: BCT DATE: 27/8/12
CHECKED: WM DATE: 29/10/12

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	DCP TEST (AS1289.6.3.2) Blows per 100 mm
ADT	L	GROUNDWATER INFLOW OBSERVED AT 0.70 M DEPTH	0	0.10	0.00 m			SM	Silty SAND	M	L	0 5 10 15 20 25
				-0.10	ASS samples				fine to medium grained, dark grey, trace of organics			
				0.30	collected at 0.25m			SP	SAND		MD	
				-0.30	intervals to 2.0m				fine to medium grained, yellow brown and grey, trace of silt			
					DS 0.30-0.40 m				becoming pale grey	W	D	
				0.80	Rec = 100/100 mm							
	M		1	-0.80				SP	Indurated SAND			
									fine to medium grained, dark grey, weakly cemented			
				1.50								
				-1.50					becoming strongly cemented			
	H		2	2.00								
				-2.00					becoming dark brown and grey			
					DS 2.20-2.40 m							
					Rec = 200/200 mm							
			3									
				3.50						M - W	VD	
				-3.50					becoming weakly cemented			
			4									
				4.50								
	M			-4.50				SM	Silty SAND			
			5						fine to medium grained, yellow brown			
			6	-6.00					END OF BOREHOLE @ 6.00 m			
			7									
			8									
			9									
			10									

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GAP gINT FN. F01b RL3

GAP 8_07.3 LIB.GLB Log GAP NON-CORED FULL PAGE 127683017 TASK 3000 - BH & DCP.GPJ DWG52521.GDW 16/11/2012 16:48 8.2.800

APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH4/12

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: David Low Way
JOB NO: 127683017

COORDS: 507811.0 m E 7059231.0 m N AMG84 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 80 mm HOLE DEPTH: 6.00 m

DRILL RIG: 4WD Auger
CONTRACTOR: CSI Soil Testing
LOGGED: BCT DATE: 27/8/12
CHECKED: WM DATE: 29/10/12

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	DCP TEST (AS1289.6.3.2) Blows per 100 mm
ADT	L	GROUNDWATER INFLOW OBSERVED AT 1.0 M DEPTH	0	0.00	0.00 m ASS samples collected at 0.25m intervals to 2.0m			CI	Sandy CLAY medium plasticity, dark grey and brown, fine to medium grained sand, trace of organics	M	F - St	0 5 10 15 20 25
				0.30								
				-0.30				SP	SAND		MD	
				0.50								
				-0.50				SP	fine to medium grained, dark grey, trace of clay	M - W		
					DS 0.70-0.80 m Rec = 100/100 mm				SAND fine to medium grained, grey and pale grey, trace of silt and clay		D	
			1	1.00					becoming dark grey and brown			
				-1.00						W		
				1.50					becoming brown		MD	
				-1.50								
	M			1.70					becoming dark grey and brown, with some silt		D	
				-1.70								
			2	2.00								
				-2.00				SP	Indurated SAND fine to medium grained, dark brown and grey, weakly cemented			
	H		3		DS 3.50-3.70 m Rec = 200/200 mm							
			4							M - W	VD	
				5.00								
			5	-5.00					Silty SAND fine to medium grained, brown			
	M-H											
			6	-6.00					END OF BOREHOLE @ 6.00 m			
			7									
			8									
			9									
			10									

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GAP gINT FN. F01b RL3

GAP 8_07.3 LIB.GLB Log GAP NON-CORED FULL PAGE 127683017 TASK 3000 - BH & DCP.GPJ DWG52521.GDW 16/11/2012 16:48 8.2.800

APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH5/12

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: David Low Way
JOB NO: 127683017

COORDS: 507678.0 m E 7059398.0 m N AMG84 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 80 mm HOLE DEPTH: 6.00 m

DRILL RIG: 4WD Auger
CONTRACTOR: CSI Soil Testing
LOGGED: BCT DATE: 28/8/12
CHECKED: WM DATE: 29/10/12

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	DCP TEST (AS1289.6.3.2) Blows per 100 mm
ADT	L	GROUNDWATER INFLOW OBSERVED AT 0.7 M DEPTH	0	0.00 0.20 -0.20 0.50 -0.50 0.70 -0.70	0.00 m ASS samples collected at 0.25m intervals to 2.0m			CI SP	Sandy CLAY medium plasticity, dark grey, fine to medium grained sand, trace of organics SAND fine to medium grained, pale grey, trace of silt becoming orange, brown and pale grey with some silt and clay	M	S L - MD	0 5 10 15 20 25
			1	1.00 -1.00				CI / CH	Sandy CLAY medium to high plasticity, grey, fine to medium grained sand, trace of organics	M - W	VS - S	
			2		DS 1.70-1.80 m Rec = 100/100 mm 2.00-2.40 m PP <5 kPa U50 U 2.00-2.40 m Rec = 400/400 mm							
			3								F	
			4	4.10 -4.10				SP	Indurated SAND fine to medium, dark grey, strongly to weakly cemented			
	M		5							W	VD	
			6	-6.00					END OF BOREHOLE @ 6.00 m			
			7									
			8									
			9									
			10									

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GAP gINT FN. F01b RL3

GAP 8_07.3 LIB.GLB Log GAP NON-CORED FULL PAGE 127683017 TASK 3000 - BH & DCP.GPJ DWG52521.GDW 16/11/2012 16:48 8.2.800

APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH6/12

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: David Low Way
JOB NO: 127683017

COORDS: 507425.0 m E 7059412.0 m N AMG84 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 80 mm HOLE DEPTH: 6.00 m

DRILL RIG: 4WD Auger
CONTRACTOR: CSI Soil Testing
LOGGED: BCT DATE: 27/8/12
CHECKED: WM DATE: 29/10/12

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	DCP TEST (AS1289.6.3.2) Blows per 100 mm
ADT	M	GROUNDWATER INFLOW OBSERVED AT 0.8 M DEPTH	0	0.00	0.00 m ASS samples collected at 0.25m intervals to 2.0m			CI	Sandy CLAY medium plasticity, dark grey, fine to medium grained sand, trace of organics, with some silt	M	F	0 5 10 15 20 25
				0.20								
				-0.20				SP	SAND fine to medium grained, brown, with some silt and clay		MD	
				0.40								
				-0.40	DS 0.60-0.80 m Rec = 200/200 mm				becoming grey			
			1	1.00					becoming pale grey, pale yellow brown		D	
				-1.00								
			2	2.50					becoming pale grey			
				-2.50						W		
			3	3.50								
	H			-3.50				SP	Indurated SAND fine to medium, dark brown, strongly cemented		VD	
				3.70								
				-3.70					becoming weakly cemented			
			4									
			5	5.50								
				-5.50	DS 5.50-5.70 m Rec = 200/200 mm			SP	SAND fine to medium grained, grey and pale grey			
			6	-6.00					END OF BOREHOLE @ 6.00 m			
			7									
			8									
			9									
			10									

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GAP gINT FN. F01b RL3

GAP 8_07.3 LIB.GLB Log GAP NON-CORED FULL PAGE 127683017 TASK 3000 - BH & DCP.GPJ DWG52521.GDW 16/11/2012 16:48 8.2.800

APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH7/12

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: David Low Way
JOB NO: 127683017

COORDS: 507223.0 m E 7059714.0 m N AMG84 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 80 mm HOLE DEPTH: 8.50 m

DRILL RIG: 4WD Auger
CONTRACTOR: CSI Soil Testing
LOGGED: BCT DATE: 28/8/12
CHECKED: WM DATE: 29/10/12

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 INFLOW OBSERVED AT 0.8 M DEPTH	0	0.00 0.20 -0.20 0.50 -0.50	0.00 m ASS samples collected at 0.25m intervals to 2.0m			CI	Sandy CLAY medium plasticity, dark grey, fine to medium grained sand, with some silt, trace of organics	M	S VL	
								SM	Silty SAND fine to medium grained, pale grey, with some clay	M - W		
								CH	CLAY high plasticity, grey, trace of organics, with some fine to medium grained sand			
			1		DS 1.10-1.30 m Rec = 200/200 mm 1.10 m PP <25 kPa							
			2		U50 U 2.00-2.20 m Rec = 200/200 mm 2.00-2.20 m PP <25 kPa							
			3									
			4		U50 U 4.00-4.30 m Rec = 300/300 mm 4.00-4.30 m PP <25 kPa					W	VS	
			5									
			6									
	L-M		7									
			8									
				-8.50					END OF BOREHOLE @ 8.50 m			
			9									
			10									

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GAP gINT FN. F01a RL3

GAP 8_07.3 LIB.GLB Log GAP NON-CORED FULL PAGE 127683017 TASK 3000 - BH & DCP.GPJ <<DrawingFile>> 16/11/2012 16:54 8.2.800

APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH9/12

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: David Low Way
JOB NO: 127683017

COORDS: 507473.0 m E 7059615.0 m N AMG84 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 80 mm HOLE DEPTH: 6.90 m

DRILL RIG: 4WD Auger
CONTRACTOR: CSI Soil Testing
LOGGED: BCT DATE: 27/8/12
CHECKED: WM DATE: 29/10/12

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	DCP TEST (AS1289.6.3.2) Blows per 100 mm
ADT	L	GROUNDWATER INFLOW OBSERVED AT 1.40 M DEPTH	0	0.00	0.00 m ASS samples collected at 0.25m intervals to 2.0m			CI	Sandy CLAY medium plasticity, dark grey, fine to medium grained sand, trace of organics		F	0 5 10 15 20 25
				0.20				SC	Clayey SAND fine to medium grained, pale grey and orange brown, medium plasticity clay		L	
				-0.20								
				0.60				CH	CLAY high plasticity, pale grey, with some fine to medium grained sand	M		
			1	-0.60							S - F	
				1.40	DS 1.20-1.30 m Rec = 100/100 mm							
	M			-1.40				SP	SAND fine to medium grained, pale grey			
			2	2.40						W	D - VD	
				-2.40					becoming dark grey and brown			
				3.00								
	H		3	-3.00				SP	Indurated SAND fine to medium grained, dark grey and brown, strongly cemented		VD	
				3.60								
				-3.60	3.80 m 3.80 m PP = 140 kPa			CI-CH	CLAY medium to high plasticity, pale brown, with some fine to medium grained sand		St	
			4	4.20								
	L			-4.20					becoming pale brown		F	
				4.70								
	H			-4.70				SM	Silty SAND fine to medium grained, pale grey and pale brown	M	D	
			5	5.50								
	L			-5.50				CI-CH	CLAY medium to high plasticity, grey, with some fine to medium grained sand		S - F	
			6	6.10								
	H			-6.10				SP	Indurated SAND fine to medium grained, dark brown, weakly cemented		VD	
				6.60								
				-6.60					becoming brown			
			7	-6.90					END OF BOREHOLE @ 6.90 m			
			8									
			9									
			10									

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GAP gINT FN. F01b RL3

GAP 8_07.3 LIB.GLB Log GAP NON-CORED FULL PAGE 127683017 TASK 3000 - BH & DCP.GPJ DWG52521.GDW 16/11/2012 16:48 8.2.800

APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH10/12

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: David Low Way
JOB NO: 127683017

COORDS: 507240.0 m E 7059461.0 m N AMG84 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 80 mm HOLE DEPTH: 6.00 m

DRILL RIG: 4WD Auger
CONTRACTOR: CSI Soil Testing
LOGGED: BCT DATE: 29/8/12
CHECKED: WM DATE: 29/10/12

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	DCP TEST (AS1289.6.3.2) Blows per 100 mm
ADT		GROUNDWATER INFLOW OBSERBVED AT 0.70 M DEPTH	0	0.00	0.00 m ASS samples collected at 0.25m intervals to 2.0m			CI	Sandy CLAY medium plasticity, dark grey, fine to medium grained sand, with some organics		S	0 5 10 15 20 25
				0.20				SP	SAND fine to medium grained, pale grey and pale brown	M	MD	
				-0.20					becoming grey, with some medium plasticity clay			
				0.50								
				-0.50	DS 0.70-0.90 m Rec = 200/200 mm							
			1									
				1.20					becoming brown and grey			
				-1.20								
				1.60					becoming dark brown and dark grey	W	MD - D	
				-1.60								
			2									
				2.10								
				2.20					becoming dark brown, slightly indurated and weakly cemented	M - W	D - VD	HB
				-2.20				SP	Indurated SAND fine to medium grained, dark brown and dark grey, strongly cemented			
				2.50								
				-2.50				SP	SAND fine to medium grained, dark brown, trace silt			
			3									
			4							M	VD	
				4.30								
				-4.30				SP	Indurated SAND fine to medium grained, dark brown and dark grey, strongly cemented			
			5									
			6									
				-6.00					END OF BOREHOLE @ 6.00 m			
			7									
			8									
			9									
			10									

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GAP gINT FN. F01b RL3

GAP 8_07.3 LIB.GLB Log GAP NON-CORED FULL PAGE 127683017 TASK 3000 - BH & DCP.GPJ DWG52521.GDW 16/11/2012 16:48 8.2.800

APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH11/12

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: David Low Way
JOB NO: 127683017

COORDS: 507367.0 m E 7059286.0 m N AMG84 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 80 mm HOLE DEPTH: 6.00 m

DRILL RIG: 4WD Auger
CONTRACTOR: CSI Soil Testing
LOGGED: BCT DATE: 27/8/12
CHECKED: WM DATE: 29/10/12

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	DCP TEST (AS1289.6.3.2) Blows per 100 mm
ADT	L	GROUNDWATER INFLOW OBSERVED AT 0.6 M DEPTH	0	0.00	0.00 m ASS samples collected at 0.25m intervals to 2.0m			CI	Sandy CLAY medium plasticity, dark grey, fine to medium grained sand, trace of organics	M	F	0 5 10 15 20 25
				0.20								
				-0.30				SP	SAND fine to medium grained, pale brown and pale grey, with some medium plasticity clay	M - W	D	
	M			0.60	DS 0.50-0.70 m Rec = 200/200 mm							
				-0.70					becoming pale grey			
			1	0.90				SP	becoming grey			
				-0.90					becoming dark grey			
				1.10					Indurated SAND fine to medium, dark grey and dark brown, weakly cemented			
				-1.10					becoming strongly cemented		VD	
	H		2									
			3							W		
				3.50								
				-3.50				SP	SAND fine to medium grained, brown orange and dark brown			
	M-H		4								D	
			5		DS 5.50-5.70 m Rec = 200/200 mm							
			6	-6.00					END OF BOREHOLE @ 6.00 m			
			7									
			8									
			9									
			10									

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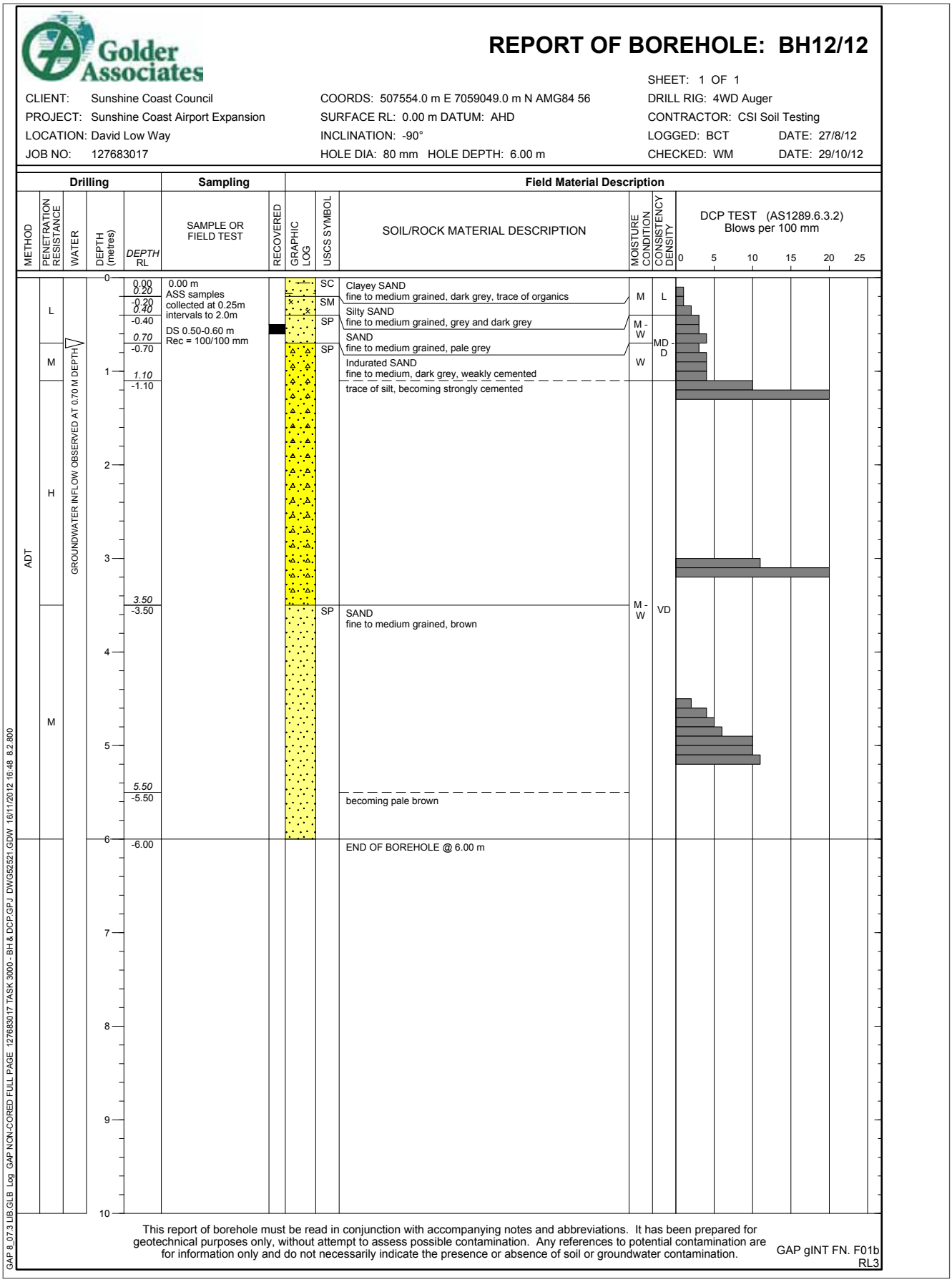
GAP gINT FN. F01b RL3

GAP 8_07.3 LIB.GLB Log GAP NON-CORED FULL PAGE 127683017 TASK 3000 - BH & DCP.GPJ DWG52521.GDW 16/11/2012 16:48 8.2.800

APPENDIX B3:A

Geotechnical borehole reports



APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH13/12

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: David Low Way
JOB NO: 127683017

COORDS: 507442.0 m E 7058907.0 m N AMG84 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 80 mm HOLE DEPTH: 6.00 m

DRILL RIG: 4WD Auger
CONTRACTOR: CSI Soil Testing
LOGGED: BCT DATE: 29/8/12
CHECKED: WM DATE: 29/10/12

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	DCP TEST (AS1289.6.3.2) Blows per 100 mm
ADT	M	GROUNDWATER INFLOW OBSERVED AT 0.60 M DEPTH	0	0.00	0.00 m ASS samples collected at 0.25m intervals to 2.0m			SM	Silty SAND fine to medium grained, dark grey, trace of organics	M	L	0 5 10 15 20 25
				0.20				SP	SAND fine to medium grained, pale brown and dark grey, trace silt		D	
				-0.20						W		
				0.80	DS 0.60-0.80 m Rec = 200/200 mm							
				-0.80				SP	Indurated SAND fine to medium, dark grey, weakly cemented			
			1									
				1.60					becoming very strongly to strongly cemented			
				-1.60								
	H		2							M - W	VD	
			3									
				4.00								
			4	-4.00				SP	SAND fine to medium grained, brown, trace silt			
			5									
			6	-6.00					END OF BOREHOLE @ 6.00 m			
			7									
			8									
			9									
			10									

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GAP gINT FN. F01b RL3

GAP 8_07.3 LIB.GLB Log GAP NON-CORED FULL PAGE 127683017 TASK 3000 - BH & DCP.GPJ DWG52521.GDW 16/11/2012 16:48 8.2.800

APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH14/12

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: David Low Way
JOB NO: 127683017

COORDS: 507287.0 m E 7058689.0 m N AMG84 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 80 mm HOLE DEPTH: 6.00 m

DRILL RIG: 4WD Auger
CONTRACTOR: CSI Soil Testing
LOGGED: BCT DATE: 29/8/12
CHECKED: WM DATE: 29/10/12

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	DCP TEST (AS1289.6.3.2) Blows per 100 mm
ADT		GROUNDWATER INFLOW OBSERVED AT 1.5 M DEPTH	0	0.00	0.00 m ASS samples collected at 0.25m intervals to 2.0m DS 0.30-0.50 m Rec = 200/200 mm			SM	Silty SAND fine to medium grained, dark grey, trace of organics		L	
				0.20				SP	SAND fine to medium grained, pale grey, with some silt	M	MD - D	
			1	1.00				SP	Indurated SAND fine to medium grained, dark grey, weakly cemented	M - W		
				1.50					becoming strongly cemented			
			2	2.70					becoming brown, weakly cemented	M	VD	
			3									
			4	4.00				SP	SAND fine to medium grained, brown and dark brown, trace silt			
			5									
			6	6.00					END OF BOREHOLE @ 6.00 m			
			7									
			8									
			9									
			10									

DCP TEST (AS1289.6.3.2) Blows per 100 mm: 0 5 10 15 20 25

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GAP gINT FN. F01b RL3

GAP 8_07.3 LIB.GLB Log GAP NON-CORED FULL PAGE 127683017 TASK 3000 - BH & DCP.GPJ DWG52521.GDW 16/11/2012 16:48 8.2.800

APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH15/12

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: David Low Way
JOB NO: 127683017

COORDS: 507988.0 m E 7058709.0 m N AMG84 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 80 mm HOLE DEPTH: 6.00 m

DRILL RIG: 4WD Auger
CONTRACTOR: CSI Soil Testing
LOGGED: BCT DATE: 29/8/12
CHECKED: WM DATE: 29/10/12

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	DCP TEST (AS1289.6.3.2) Blows per 100 mm
ADT	L	GROUNDWATER INFLOW OBSERVED AT 0.80 M DEPTH	0	0.00	0.00 m ASS samples collected at 0.25m intervals to 2.0m			SM	Silty SAND fine to medium grained, dark grey, trace of organics	M	L	0 5 10 15 20 25
				0.25								
				-0.25				SP	SAND fine to medium grained, pale grey, trace of organics		MD - D	
				0.80	DS 0.60-0.80 m Rec = 200/200 mm					M - W		
	M		1	-0.80					becoming dark grey	W		
				1.50								
	H			-1.50				SP	Indurated SAND fine to medium grained, dark brown and dark grey, strongly cemented			
				1.80								
			2	-1.80					becoming brown and dark brown			
				2.40					becoming weakly cemented			
				-2.40								
				2.60								
				-2.60				SP	SAND fine to medium grained, brown, trace silt	M	VD	
	M		3									
			4									
			5									
			6	-6.00					END OF BOREHOLE @ 6.00 m			
			7									
			8									
			9									
			10									

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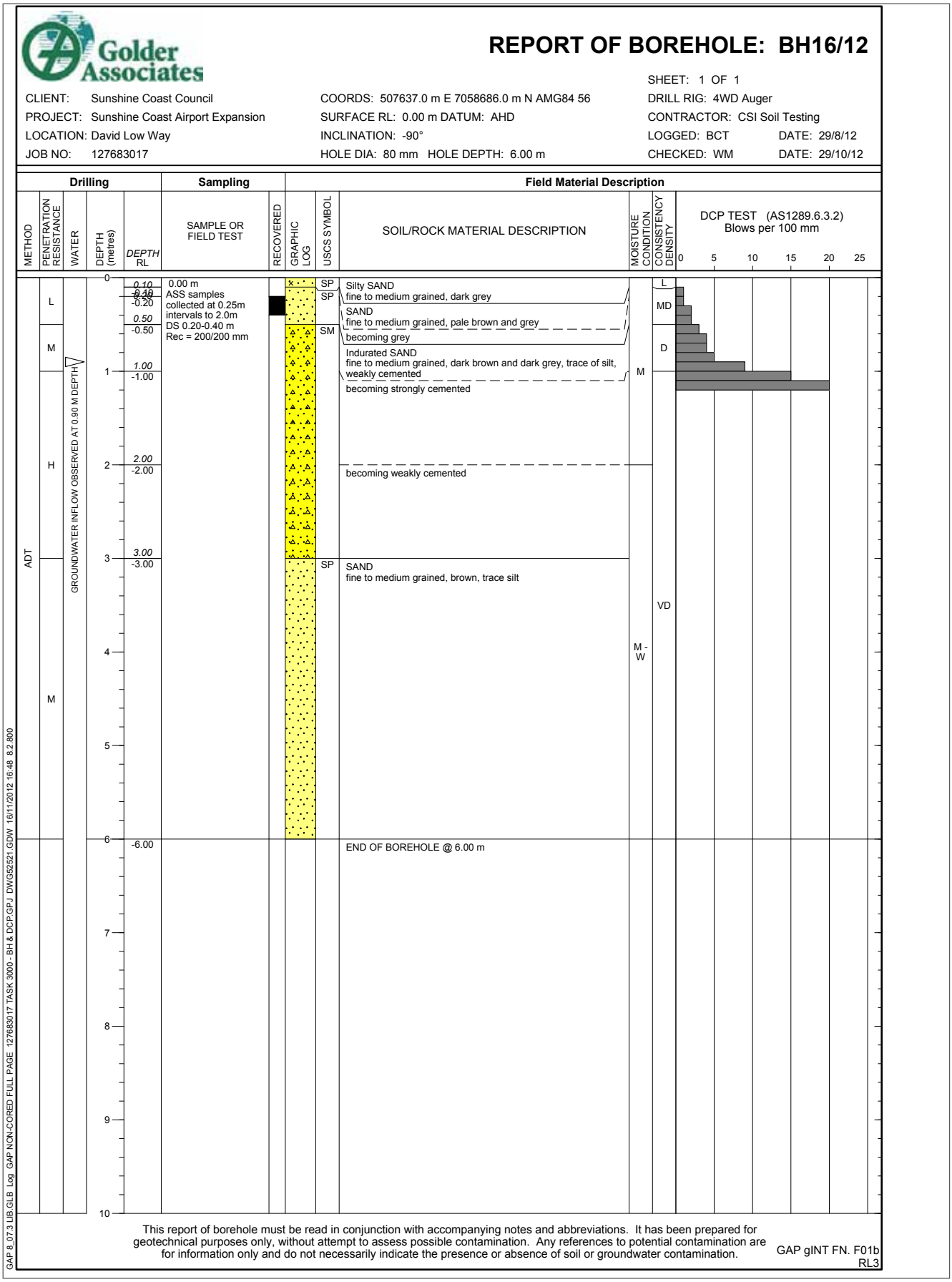
GAP gINT FN. F01b RL3

GAP 8_07.3 LIB.GLB Log GAP NON-CORED FULL PAGE 127683017 TASK 3000 - BH & DCP.GPJ DWG52521.GDW 16/11/2012 16:48 8.2.800

APPENDIX B3:A

Geotechnical borehole reports



APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH17/12

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: David Low Way
JOB NO: 127683017

COORDS: 507265.0 m E 7059110.0 m N AMG84 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 80 mm HOLE DEPTH: 6.00 m

DRILL RIG: 4WD Auger
CONTRACTOR: CSI Soil Testing
LOGGED: BCT DATE: 29/8/12
CHECKED: WM DATE: 29/10/12

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	DCP TEST (AS1289.6.3.2) Blows per 100 mm
ADT	L	GROUNDWATER INFLOW OBSERVED AT 0.90 M DEPTH	0	0.00	0.00 m ASS samples collected at 0.25m intervals to 2.0m			SM	Silty SAND fine to medium grained, dark grey, trace of organics with some clay	M	MD	0 5 10 15 20 25
				0.20								
				-0.20								
				0.50								
	M			-0.50	DS 0.50-0.70 m Rec = 200/200 mm			SP	SAND fine to medium grained, pale grey and grey, with some silt		D	
			1	1.00								
				-1.00				SP	Indurated SAND fine to medium, dark grey, weakly cemented	M - W		
				1.90								
			2	-1.90					becoming dark grey and dark brown, strongly cemented			
				2.80								
				-2.80					becoming dark brown			
	H		3								VD	
			4							M		
			5	5.20								
				-5.20				SP	SAND fine to medium grained, brown, with some silt			
			6	-6.00					END OF BOREHOLE @ 6.00 m			
			7									
			8									
			9									
			10									

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GAP gINT FN. F01b RL3

GAP 8_07.3 LIB.GLB Log GAP NON-CORED FULL PAGE 127683017 TASK 3000 - BH & DCP.GPJ DWG52521.GDW 16/11/2012 16:48 8.2.800

APPENDIX B3:A

Geotechnical borehole reports

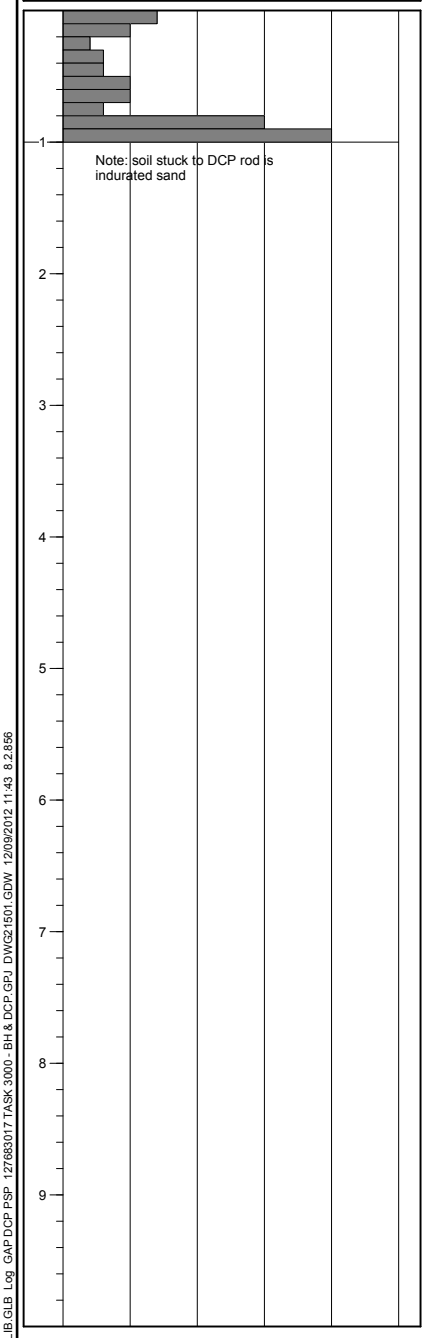
Golder Associates

REPORT OF DCP TESTS

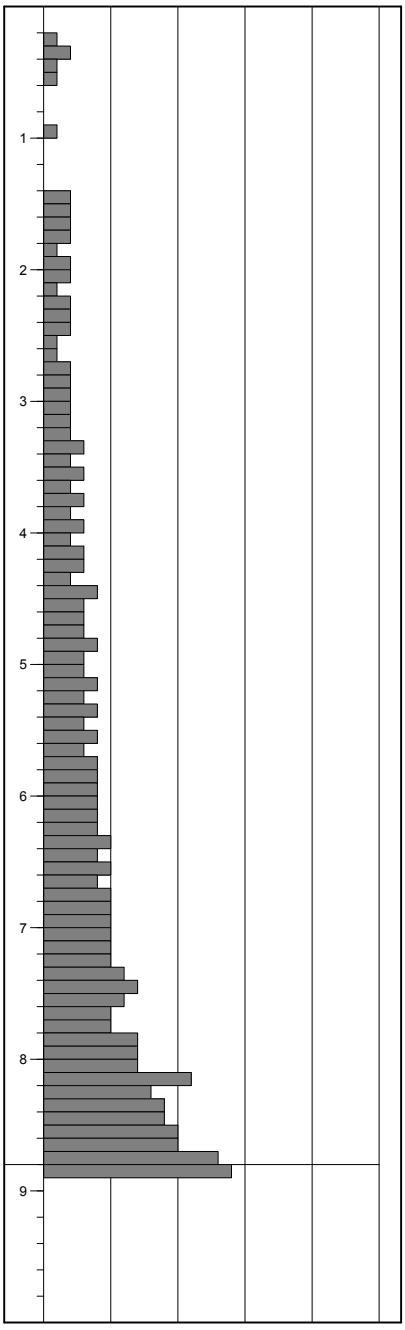
CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: David Low Way
JOB NO: 127683017

SHEET: 1 OF 3
CHECKED: WM DATE: 12/9/12

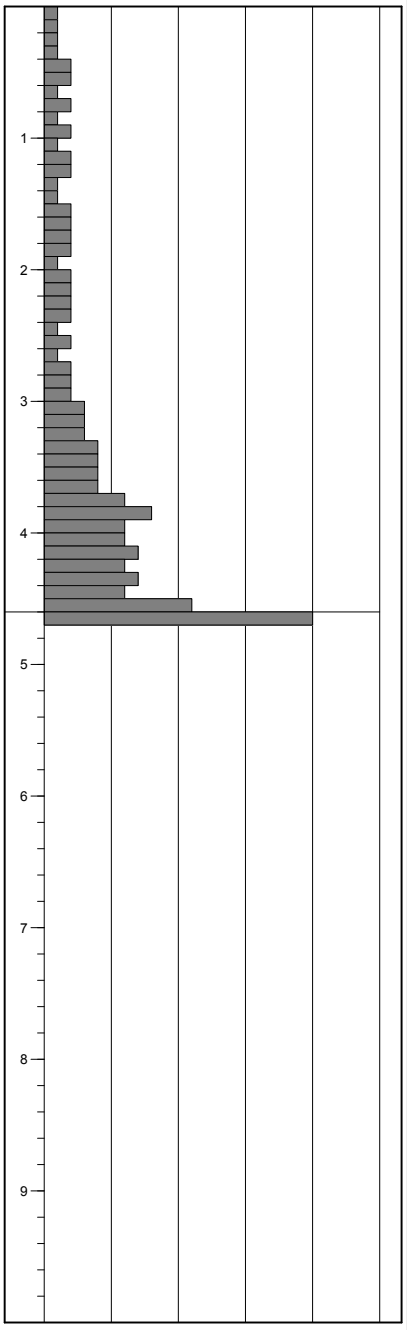
TEST: DCP1
TESTED: BCT DATE: 30/08/2012
COORDS: 507149.0 m E 7059280.0 m N MGA94 56
SURFACE RL: DATUM: AHD



TEST: DCP2
TESTED: BCT DATE: 31/08/2012
COORDS: 507325.0 m E 7059573.0 m N MGA94 56
SURFACE RL: DATUM: AHD



TEST: DCP3
TESTED: BCT DATE: 27/08/2012
COORDS: 507140.0 m E 7059606.0 m N MGA94 56
SURFACE RL: DATUM: AHD



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GAP gINT FN. F04a RL3

GAP 8_07.3.LIB.GLB Log GAP DCP PSP 127683017 TASK 3000 - BH & DCP.GPJ DWG21501.GDW 12/09/2012 11:43 8.2.856

APPENDIX B3:A

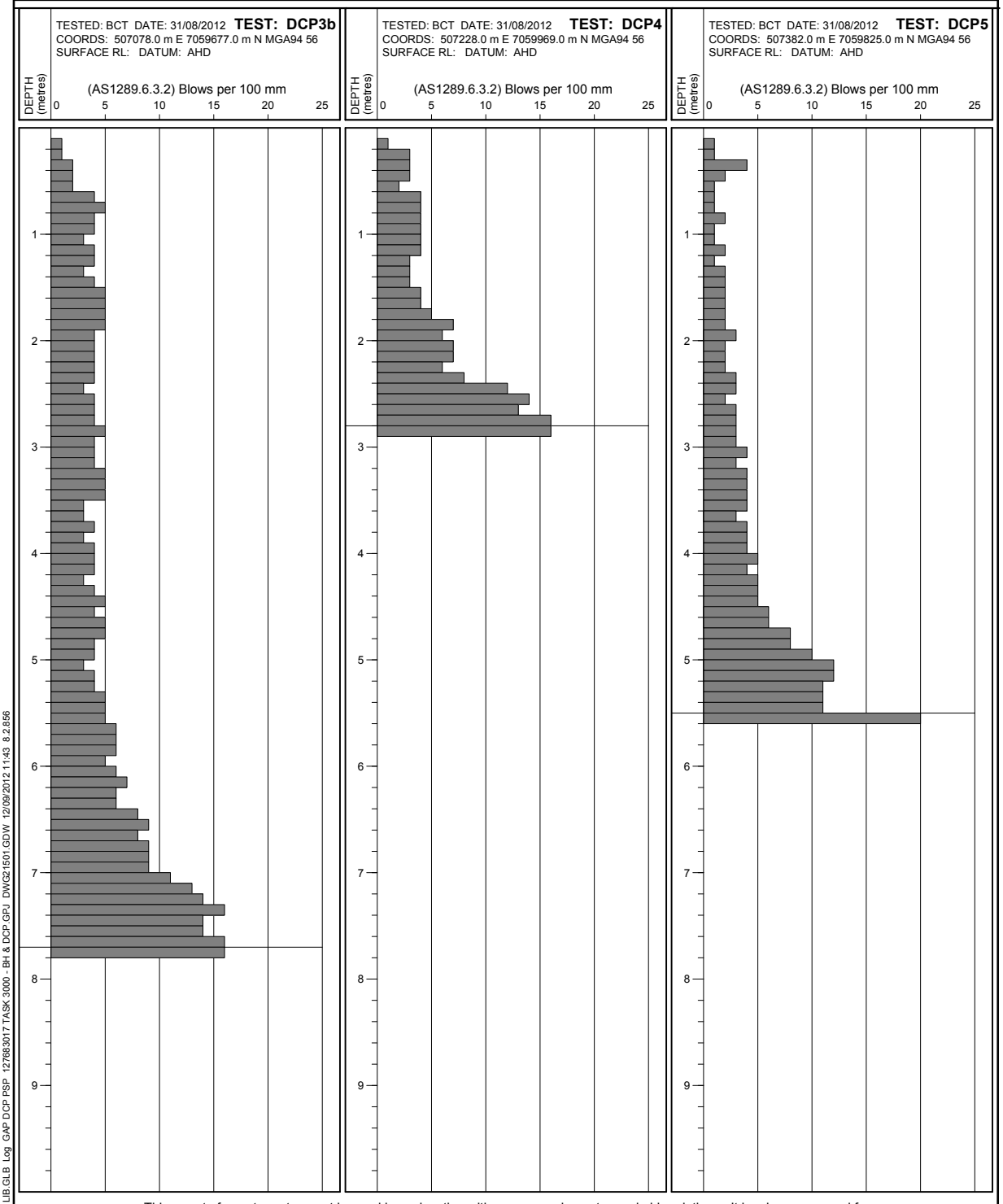
Geotechnical borehole reports

Golder Associates

REPORT OF DCP TESTS

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: David Low Way
JOB NO: 127683017

SHEET: 2 OF 3
CHECKED: WM DATE: 12/9/12



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GAP gINT FN. F04a RL3

GAP 8_07.3 LIB.GLB Log GAP DCP PSP 127683017 TASK 3000 - BH & DCP.GPJ DWG21501.GDW 12/09/2012 11:43 8.2.856

APPENDIX B3:A

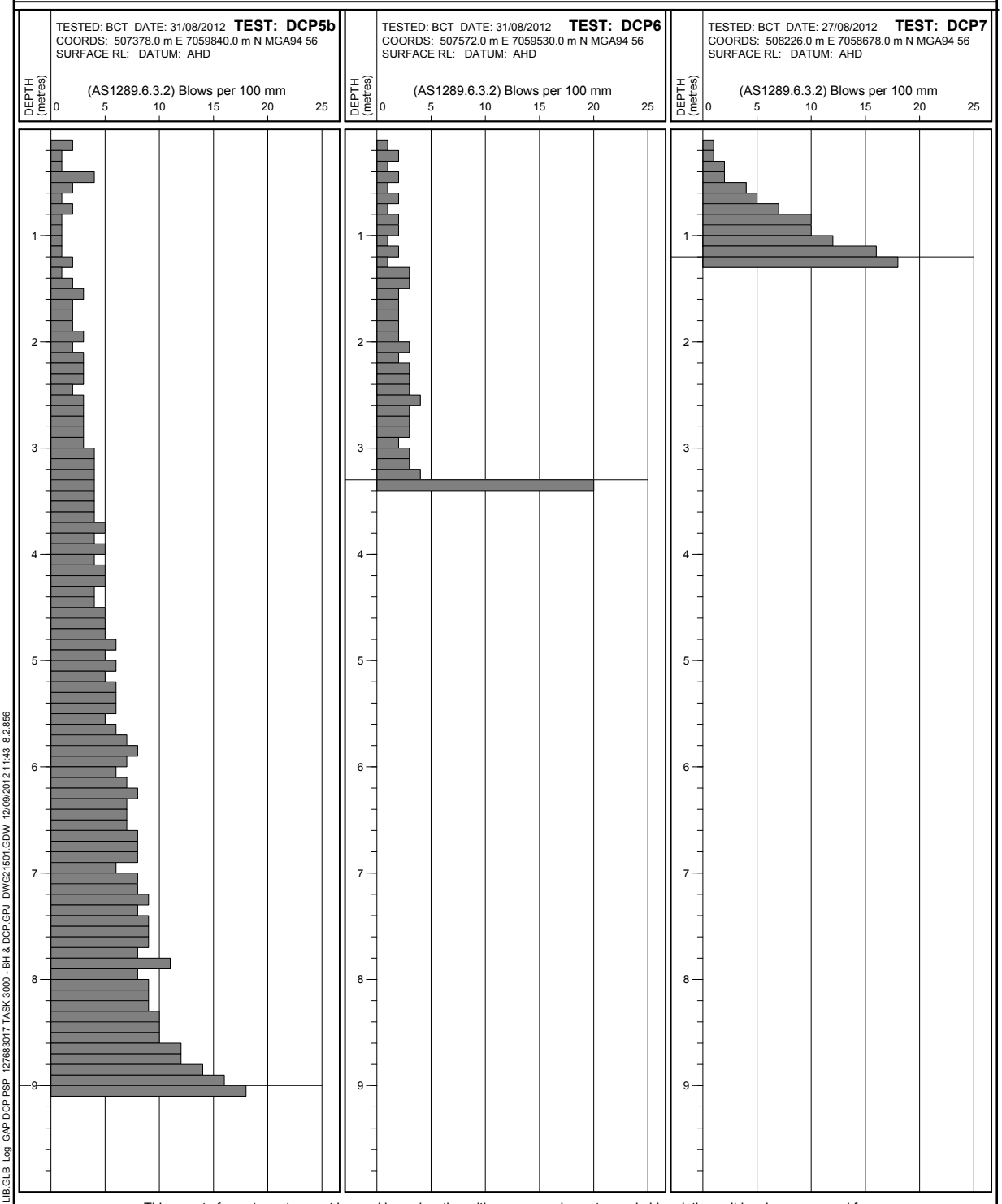
Geotechnical borehole reports

Golder Associates

REPORT OF DCP TESTS

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: David Low Way
JOB NO: 127683017

SHEET: 3 OF 3
CHECKED: WM DATE: 12/9/12



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GAP gINT FN. F04a RL3

GAP 8_07.3 LIB.GLB Log GAP DCP PSP 127683017 TASK 3000 - BH & DCP.GPJ DWG21501.GDW 12/09/2012 11:43 8.2.856

APPENDIX B3:A

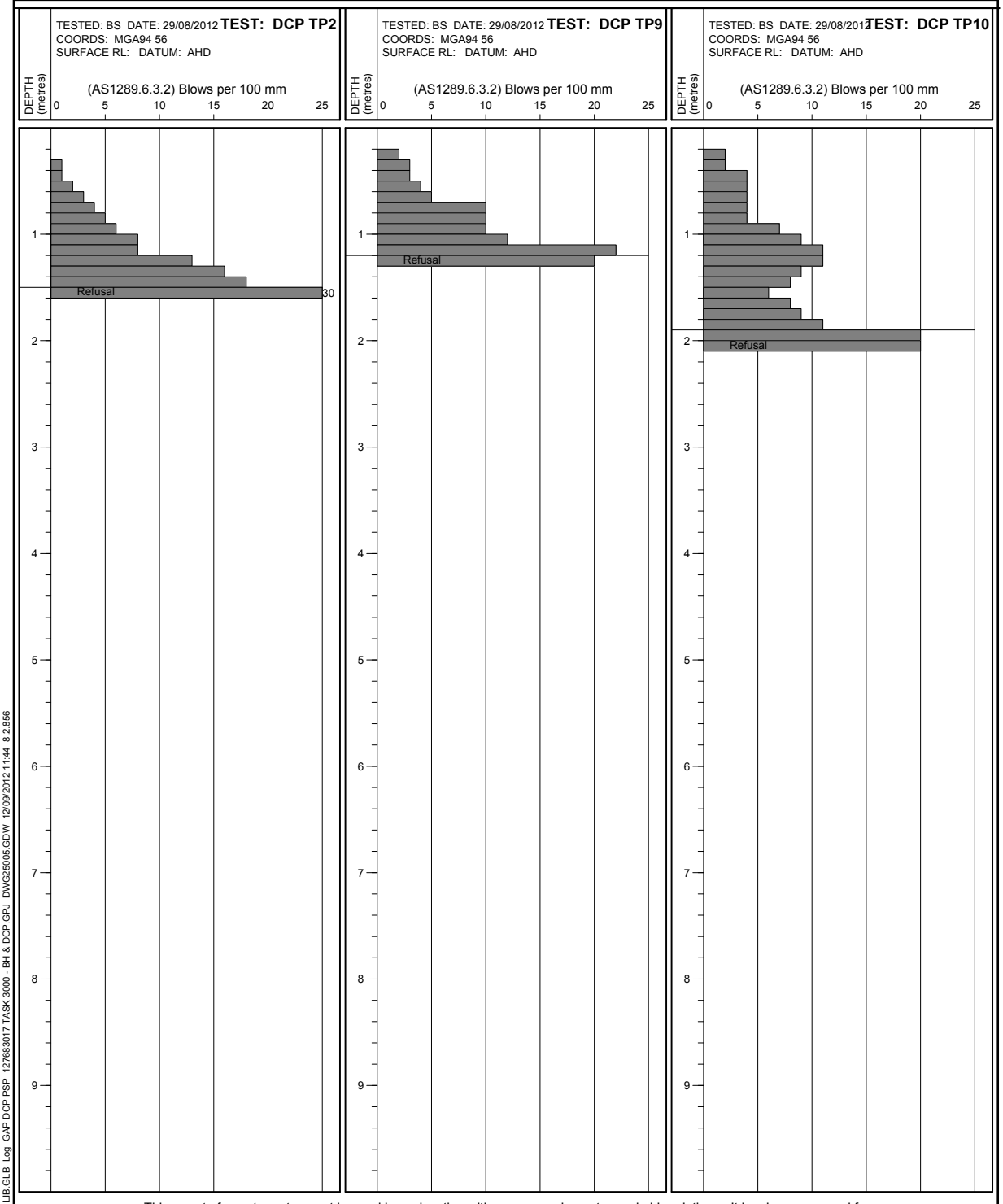
Geotechnical borehole reports

Golder Associates

REPORT OF DCP TESTS

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: David Low Way
JOB NO: 127683017

SHEET: 1 OF 3
CHECKED: WM DATE: 12/9/12



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GAP gINT FN. F04a RL3

GAP 8_07.3 LIB.GLB Log GAP DCP PSP 127683017 TASK 3000 - BH & DCP.GPJ DWG25005.GDW 12/09/2012 11:44 8.2.856

APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF DCP TESTS

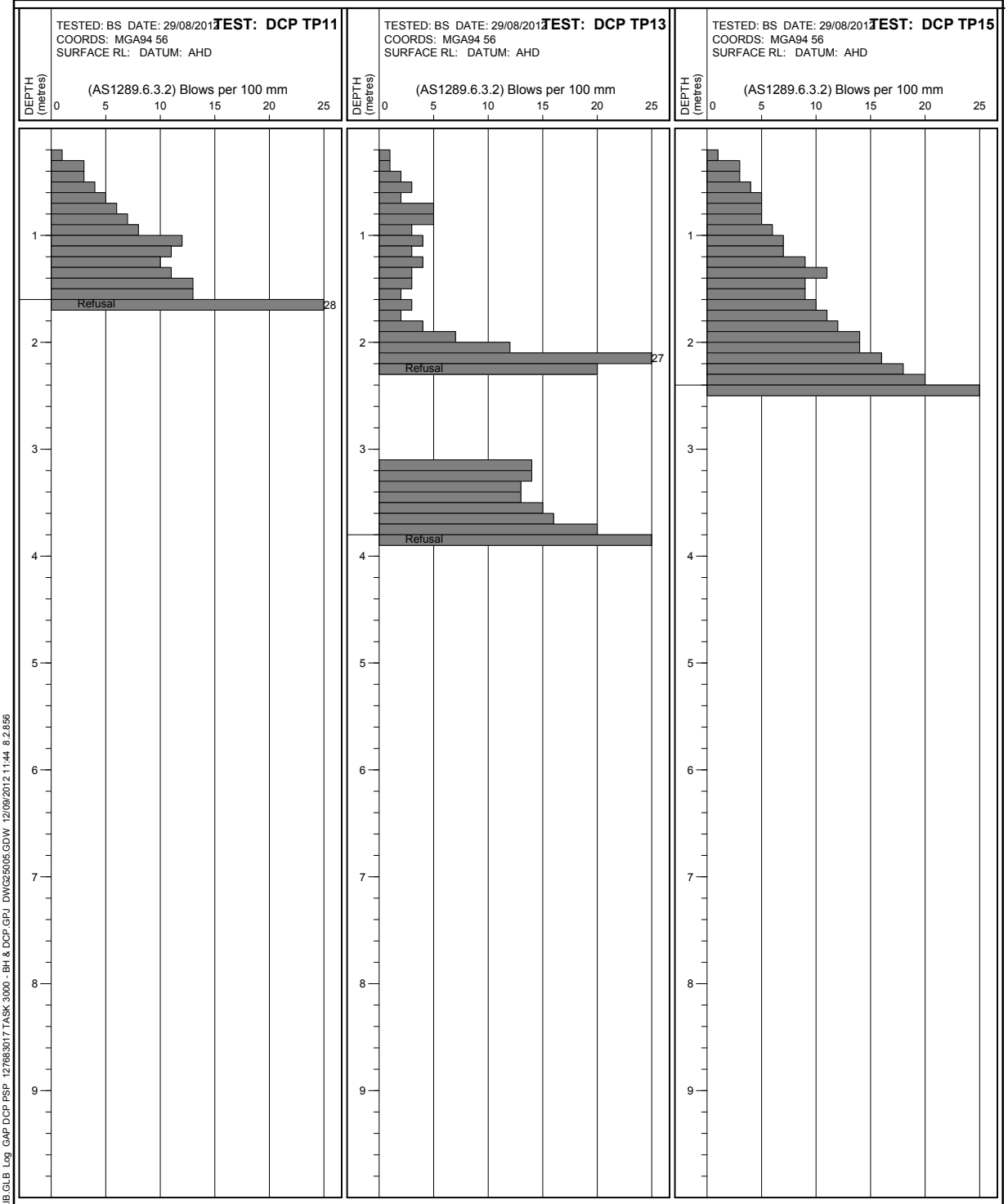
CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: David Low Way
JOB NO: 127683017

SHEET: 2 OF 3
CHECKED: WM DATE: 12/9/12

TEST: DCP TP11
TESTED: BS DATE: 29/08/2012
COORDS: MGA94 56
SURFACE RL: DATUM: AHD

TEST: DCP TP13
TESTED: BS DATE: 29/08/2012
COORDS: MGA94 56
SURFACE RL: DATUM: AHD

TEST: DCP TP15
TESTED: BS DATE: 29/08/2012
COORDS: MGA94 56
SURFACE RL: DATUM: AHD



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GAP gINT FN. F04a RL3

GAP 8_07.3 LIB.GLB Log GAP DCP PSP 127683017 TASK 3000 - BH & DCP.GPJ DWG25005.GDW 12/09/2012 11:44 8.2.856

APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF DCP TESTS

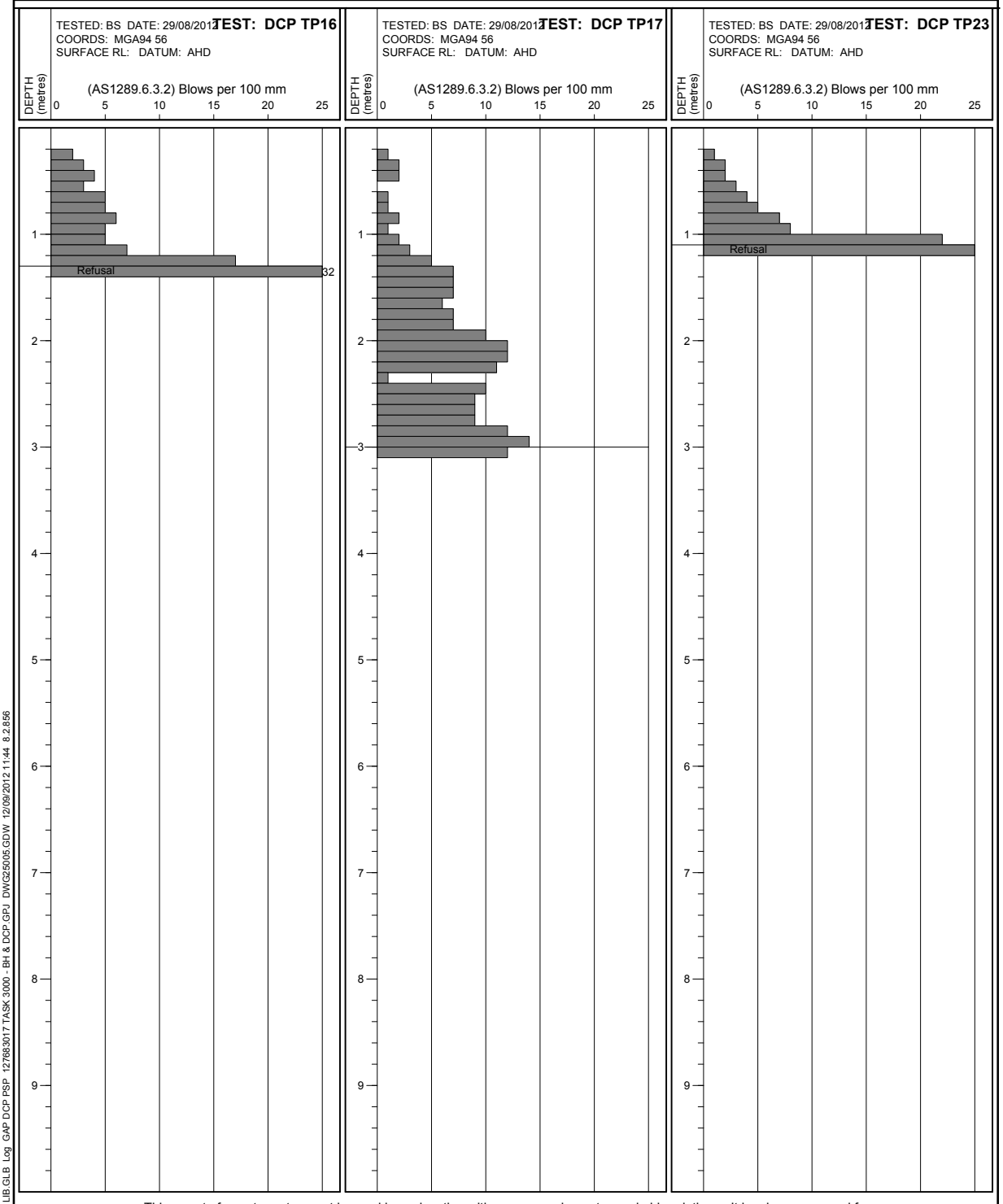
CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: David Low Way
JOB NO: 127683017

SHEET: 3 OF 3
CHECKED: WM DATE: 12/9/12

TEST: DCP TP16
TESTED: BS DATE: 29/08/2012
COORDS: MGA94 56
SURFACE RL: DATUM: AHD

TEST: DCP TP17
TESTED: BS DATE: 29/08/2012
COORDS: MGA94 56
SURFACE RL: DATUM: AHD

TEST: DCP TP23
TESTED: BS DATE: 29/08/2012
COORDS: MGA94 56
SURFACE RL: DATUM: AHD



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GAP gINT FN. F04a RL3

GAP 8_07.3 LIB.GLB Log GAP DCP PSP 127683017 TASK 3000 - BH & DCP.GPJ DWG25005.GDW 12/09/2012 11:44 8.2.856

APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH1/13

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: Finland Road
JOB NO: 137632097

COORDS: 507432.0 m E 7060225.0 m N MGA94 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 110 mm HOLE DEPTH: 9.00 m

DRILL RIG: Hydrapower Scout
CONTRACTOR: Geodrill
LOGGED: SKD DATE: 27/6/13
CHECKED: DJQ DATE: 4/7/13

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 TO 2.4 M	0	0.00				SM	Silty SAND fine to medium grained, dark grey, trace organics	M - W		
				0.40								
				-0.40				SP	SAND fine to medium grained, pale brown		VL	
			1									
				1.80								
	L-M			-1.80				SM	Silty SAND (INDURATED) fine to medium grained, dark brown, weakly cemented			
			2								VD	
		GROUNDWATER NOT OBSERVED FROM 2.4 M										
			3									
				3.80								
				-3.80				SP	SAND fine to medium grained, brown			
			4									
			5							W		
RD	L		6								L	
			7									
				7.20								
				-7.20				SC	Clayey SAND fine to medium grained, grey brown, medium plasticity clay			
			8									
			9									
				-9.00					END OF BOREHOLE @ 9.00 m TARGET DEPTH 2x STANDPIPE INSTALLED			
			10									

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GAP gINT FN. F01a RL3

GAP 8_08.04 LIB.GLB Log GAP NON-CORED FULL PAGE 137632097.GPJ <<DrawingFile>> 16/09/2014 10:37 8.30.003 Datgel Tools

APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH1/13A

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: Finland Road
JOB NO: 137632097

COORDS: 507432.0 m E 7060225.0 m N MGA94 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 110 mm HOLE DEPTH: 9.00 m

DRILL RIG: Hydrapower Scout
CONTRACTOR: Geodrill
LOGGED: SKD DATE: 27/6/13
CHECKED: DJQ DATE: 4/7/13

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 TO 2.4 M	0	0.00				SM	Silty SAND fine to medium grained, dark grey, trace organics	M - W		
				0.40								
				-0.40				SP	SAND fine to medium grained, pale brown		VL	
			1									
				1.80								
	L-M			-1.80				SM	Silty SAND (INDURATED) fine to medium grained, dark brown, weakly cemented			
			2								VD	
		GROUNDWATER NOT OBSERVED FROM 2.4 M										
			3									
				3.80								
				-3.80				SP	SAND fine to medium grained, brown			
			4									
										W		
			5									
RD	L										L	
			6									
			7									
				7.20								
				-7.20				SC	Clayey SAND fine to medium grained, grey brown, medium plasticity clay			
			8									
			9									
				-9.00					END OF BOREHOLE @ 9.00 m			
			10									

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

GAP 8_08.04 LIB.GLB Log GAP NON-CORED FULL PAGE 137632097.GPJ <<DrawingFile>> 16/09/2014 10:37 8.30.003 Datgel Tools

APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH1/13B

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: Finland Road
JOB NO: 137632097

COORDS: 507432.0 m E 7060225.0 m N MGA94 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 110 mm HOLE DEPTH: 9.00 m

DRILL RIG: Hydrapower Scout
CONTRACTOR: Geodrill
LOGGED: SKD DATE: 27/6/13
CHECKED: DJQ DATE: 4/7/13

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 TO 2.4 M	0	0.00				SM	Silty SAND fine to medium grained, dark grey, trace organics	M - W		
				0.40								
				-0.40				SP	SAND fine to medium grained, pale brown		VL	
			1									
				1.80								
	L-M			-1.80				SM	Silty SAND (INDURATED) fine to medium grained, dark brown, weakly cemented			
			2								VD	
		GROUNDWATER NOT OBSERVED FROM 2.4 M										
			3									
				3.80								
				-3.80				SP	SAND fine to medium grained, brown			
			4									
			5							W		
RD	L		6								L	
			7									
				7.20								
				-7.20				SC	Clayey SAND fine to medium grained, grey brown, medium plasticity clay			
			8									
			9									
				-9.00					END OF BOREHOLE @ 9.00 m			
			10									

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GAP gINT FN. F01a RL3

GAP 8_08.04 LIB.GLB Log GAP NON-CORED FULL PAGE 137632097.GPJ <<DrawingFile>> 16/09/2014 10:37 8.30.003 Datgel Tools

APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH2/13

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: Finland Road
JOB NO: 137632097

COORDS: 507673.0 m E 7060213.0 m N MGA94 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 110 mm HOLE DEPTH: 9.00 m

DRILL RIG: Hydrapower Scout
CONTRACTOR: Geodrill
LOGGED: SKD DATE: 27/6/13
CHECKED: DJQ DATE: 4/7/13

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				SM	Silty SAND fine to medium grained, dark grey, with some medium plasticity clay, trace organics	M - W		
				0.50								
				-0.50				SP	SAND fine to medium grained, brown and pale brown		L	
			1	*1.20*								
				-1.20				SM	Silty SAND (INDURATED) fine to medium grained, dark brown, weakly cemented			
			2									
			3									
				4.00								
			4	-4.00				SP	SAND fine to medium grained, pale brown	W		
			5								VD	
			6									
			7									
			8									
			9	-9.00					END OF BOREHOLE @ 9.00 m TARGET DEPTH BACKFILLED			
			10									

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GAP gINT FN. F01a RL3

GAP 8_08.04 LIB.GLB Log GAP NON-CORED FULL PAGE 137632097.GPJ <<DrawingFile>> 16/09/2014 10:37 8.30.003 Datgel Tools

APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH3/13

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: Finland Road
JOB NO: 137632097

COORDS: 507676.0 m E 7059894.0 m N MGA94 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 110 mm HOLE DEPTH: 9.00 m

DRILL RIG: Hydrapower Scout
CONTRACTOR: Geodrill
LOGGED: SKD DATE: 25/6/13
CHECKED: DJQ DATE: 4/7/13

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 *0.20* -0.20				SC SP	Silty Clayey SAND fine to medium grained, dark grey, medium plasticity clay, trace organics SAND fine to medium grained, pale brown grey	W	VL L	
			1									
			2	*2.90*								
	M		3	-2.90 *3.30*				SM	Silty SAND (INDURATED) fine to medium grained, dark brown, weakly cemented		D	
	L		4	-3.30				SP	SAND fine to medium grained, brown to pale brown		L	
			5	*5.00* -5.00					becoming pale brown			
			6									
			7									
			8									
	M		9	-9.00					END OF BOREHOLE @ 9.00 m TARGET DEPTH BACKFILLED		D	
			10									

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GAP gINT FN. F01a RL3

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APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH4/13

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: Finland Road
JOB NO: 137632097

COORDS: 507945.0 m E 7059832.0 m N MGA94 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 110 mm HOLE DEPTH: 9.00 m

DRILL RIG: Hydrapower Scout
CONTRACTOR: Geodrill
LOGGED: SKD DATE: 25/6/13
CHECKED: DJQ DATE: 4/7/13

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				SC	Silty Clayey SAND fine to medium grained, dark grey, medium plasticity clay, trace organics	M - W	L - MD	
				0.60								
				-0.60				SM	Silty SAND fine to medium grained, pale brown grey			
			1	1.00 -1.00				SM	Silty SAND (INDURATED) fine to medium grained, dark brown, weakly cemented		D	
	M		2	2.50								
				-2.50				SP	SAND fine to medium grained, pale grey and brown, zones with clay	W		
	L		3								L	
			4									
			5									
			6									
			7									
			8									
			9	-9.00					END OF BOREHOLE @ 9.00 m TARGET DEPTH BACKFILLED			
			10									

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APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH5/13

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: Finland Road
JOB NO: 137632097

COORDS: 508146.0 m E 7059764.0 m N MGA94 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 110 mm HOLE DEPTH: 9.00 m

DRILL RIG: Hydrapower Scout
CONTRACTOR: Geodrill
LOGGED: SKD DATE: 27/6/13
CHECKED: DJQ DATE: 4/7/13

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 TO 2.3 M	0	0.00				SM	Silty SAND fine to medium grained, dark grey, trace medium plasticity clay, trace organics		VL	
				0.40								
				-0.40				SP	SAND fine to medium grained, pale brown		L	
			1	*1.00*								
	L-M			-1.00				SM	Silty SAND (INDURATED) fine to medium grained, dark brown, weakly cemented		VD	
			2									
				3.00								
			3	-3.00				SC	Silty Clayey SAND fine to medium grained, dark brown, medium plasticity clay		VL	
				3.60								
RD	L	GROUNDWATER NOT OBSERVED FROM 2.3 M		-3.60				SP	SAND fine to medium grained, pale brown	W		
			4									
			5									
				6.00								
			6	-6.00				SC	Clayey SAND fine to medium grained, brown, medium plasticity clay		L	
				7.00								
			7	-7.00				SP	SAND fine to medium grained, brown			
				7.50								
				-7.50				SC	Clayey SAND fine to medium grained, brown, medium plasticity clay			
			8									
			9	-9.00					END OF BOREHOLE @ 9.00 m TARGET DEPTH 2x STANDPIPE INSTALLED			
			10									

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APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH5/13A

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: Finland Road
JOB NO: 137632097

COORDS: 508146.0 m E 7059764.0 m N MGA94 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 110 mm HOLE DEPTH: 9.00 m

DRILL RIG: Hydrapower Scout
CONTRACTOR: Geodrill
LOGGED: SKD DATE: 27/6/13
CHECKED: DJQ DATE: 4/7/13

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 TO 2.3 M	0	0.00				SM	Silty SAND fine to medium grained, dark grey, trace medium plasticity clay, trace organics		VL	
				0.40								
				-0.40				SP	SAND fine to medium grained, pale brown		L	
			1	*1.00*								
	L-M			-1.00				SM	Silty SAND (INDURATED) fine to medium grained, dark brown, weakly cemented		VD	
			2									
				3.00								
			3	-3.00				SC	Silty Clayey SAND fine to medium grained, dark brown, medium plasticity clay		VL	
				3.60								
RD	L	GROUNDWATER NOT OBSERVED FROM 2.3 M		-3.60				SP	SAND fine to medium grained, pale brown	W		
			4									
			5									
				6.00								
			6	-6.00				SC	Clayey SAND fine to medium grained, brown, medium plasticity clay		L	
				7.00								
			7	-7.00				SP	SAND fine to medium grained, brown			
				7.50								
				-7.50				SC	Clayey SAND fine to medium grained, brown, medium plasticity clay			
			8									
			9	-9.00					END OF BOREHOLE @ 9.00 m			
			10									

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APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH5/13B

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: Finland Road
JOB NO: 137632097

COORDS: 508146.0 m E 7059764.0 m N MGA94 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 110 mm HOLE DEPTH: 9.00 m

DRILL RIG: Hydrapower Scout
CONTRACTOR: Geodrill
LOGGED: SKD DATE: 27/6/13
CHECKED: DJQ DATE: 4/7/13

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 TO 2.3 M	0	0.00				SM	Silty SAND fine to medium grained, dark grey, trace medium plasticity clay, trace organics		VL	
				0.40								
				-0.40				SP	SAND fine to medium grained, pale brown		L	
			1	*1.00*								
	L-M			-1.00				SM	Silty SAND (INDURATED) fine to medium grained, dark brown, weakly cemented		VD	
			2									
				3.00								
			3	-3.00				SC	Silty Clayey SAND fine to medium grained, dark brown, medium plasticity clay		VL	
				3.60								
RD	L	GROUNDWATER NOT OBSERVED FROM 2.3 M		-3.60				SP	SAND fine to medium grained, pale brown	W		
			4									
			5									
			6	*6.00*							L	
				-6.00				SC	Clayey SAND fine to medium grained, brown, medium plasticity clay			
			7	*7.00*								
				-7.00				SP	SAND fine to medium grained, brown			
				7.50								
				-7.50				SC	Clayey SAND fine to medium grained, brown, medium plasticity clay			
			8									
			9	-9.00					END OF BOREHOLE @ 9.00 m			
			10									

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APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH6/13

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: Finland Road
JOB NO: 137632097

COORDS: 508005.0 m E 7060027.0 m N MGA94 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 110 mm HOLE DEPTH: 9.00 m

DRILL RIG: Hydrapower Scout
CONTRACTOR: Geodrill
LOGGED: SKD DATE: 25/6/13
CHECKED: DJQ DATE: 4/7/13

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				SC	Silty Clayey SAND fine to medium grained, dark grey, medium plasticity clay, trace organics	W	VL	
				0.30								
				-0.30				SP	SAND fine to medium grained, pale brown		L	
			1									
				2.00								
	M		2	-2.00				SM	Silty SAND (INDURATED) fine to medium grained, dark brown, weakly cemented		D	
				2.70								
	L-M			-2.70				SP	SAND fine to medium grained, brown, trace medium plasticity clay		L - MD	
			3									
			4									
				5.00								
			5	-5.00				SM	Silty SAND (INDURATED) fine to medium grained, dark brown, weakly cemented		D	
				5.80								
	L			-5.80				SP	SAND fine to medium grained, pale brown		L	
			6									
			7									
			8									
			9	-9.00					END OF BOREHOLE @ 9.00 m TARGET DEPTH BACKFILLED			
			10									

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GAP gINT FN. F01a
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APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH7/13

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: Finland Road
JOB NO: 137632097

COORDS: 508125.0 m E 7059590.0 m N MGA94 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 110 mm HOLE DEPTH: 9.00 m

DRILL RIG: Hydrapower Scout
CONTRACTOR: Geodrill
LOGGED: SKD DATE: 25/6/13
CHECKED: DJQ DATE: 4/7/13

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				SM	Silty SAND fine to medium grained, dark grey, trace medium plasticity clay, trace organics		L	
				0.30					becoming pale brown grey, no clay			
				-0.30								
				0.70								
			1	-0.70				SM	Silty SAND (INDURATED) fine to medium grained, dark brown, weakly cemented		D	
				2.00								
			2	-2.00				SM	Silty SAND fine to medium grained, brown to pale brown	W		
			3									
			4									
				5.00								
			5	-5.00					trace low plasticity clay		L	
			6									
				6.50								
				-6.50				SP	SAND fine to medium grained, pale brown			
			7									
			8									
			9	-9.00					END OF BOREHOLE @ 9.00 m TARGET DEPTH BACKFILLED			
			10									

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GAP gINT FN. F01a RL3

GAP 8_08.04 LIB.GLB Log GAP NON-CORED FULL PAGE 137632097.GPJ <<DrawingFile>> 16/09/2014 10:37 8.30.003 Datgel Tools

APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH8/13

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: Finland Road
JOB NO: 137632097

COORDS: 507817.0 m E 7059585.0 m N MGA94 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 110 mm HOLE DEPTH: 9.00 m

DRILL RIG: Hydrapower Scout
CONTRACTOR: Geodrill
LOGGED: SKD DATE: 12/6/13
CHECKED: DJQ DATE: 4/7/13

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 OBSERVED AT 1.6 M DEPTH	0	0.00				SC	Silty Clayey SAND fine to medium grained, dark brown, medium plasticity clay, trace organics		VL	
				1.00								
			1	-1.00				SP	SAND fine to medium grained, pale grey brown	W	L	
			2									
				3.00								
RD			3	-3.00				SM	Silty SAND (INDURATED) fine to medium grained, dark brown			
	M		4									
			5							M	VD	
			6									
	L			7.00								
			7	-7.00				SC	Clayey SAND fine to medium grained, orange brown, medium plasticity clay			
				7.50					becoming brown			
			8	-7.50						W	L	
			9	-9.00					END OF BOREHOLE @ 9.00 m TARGET DEPTH BACKFILLED			
			10									

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GAP gINT FN. F01a
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APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH9/13

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: Finland Road
JOB NO: 137632097

COORDS: 508036.0 m E 7059404.0 m N MGA94 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 110 mm HOLE DEPTH: 9.00 m

DRILL RIG: Hydrapower Scout
CONTRACTOR: Geodrill
LOGGED: SKD DATE: 27/6/13
CHECKED: DJQ DATE: 4/7/13

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 TO 2.4 M	0	0.00				SM	Silty SAND fine to medium grained, dark grey, trace organics	M - W		
				0.30								
				-0.30				SP	SAND fine to medium grained, pale brown		L	
			1	1.00								
	L-M			-1.00				SM	Silty SAND (INDURATED) fine to medium grained, dark brown		VD	
			2	2.00								
				-2.00				SP	SAND fine to medium grained, pale brown			
RD	L	GROUNDWATER NOT OBSERVED FROM 2.4 M	3							W		
			4									
			5								L	
			6	6.00								
				-6.00				SC	Clayey SAND fine to medium grained, pale brown, medium plasticity clay			
			7									
				7.50								
				-7.50				SP	SAND fine to medium grained, pale brown			
			8	8.10								
				-8.10				SP	SAND (INDURATED) fine to medium grained, pale brown		VD	
				8.30								
				-8.30				SP	SAND fine to medium grained, pale brown		L	
			9	-9.00					END OF BOREHOLE @ 9.00 m TARGET DEPTH 2x STANDPIPE INSTALLED			
			10									

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GAP gINT FN. F01a
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APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH9/13A

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: Finland Road
JOB NO: 137632097

COORDS: 508036.0 m E 7059404.0 m N MGA94 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 110 mm HOLE DEPTH: 9.00 m

DRILL RIG: Hydrapower Scout
CONTRACTOR: Geodrill
LOGGED: SKD DATE: 27/6/13
CHECKED: DJQ DATE: 4/7/13

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 TO 2.4 M	0	0.00				SM	Silty SAND fine to medium grained, dark grey, trace organics	M - W		
				0.30								
				-0.30				SP	SAND fine to medium grained, pale brown		L	
			1	*1.00*								
	L-M			-1.00				SM	Silty SAND (INDURATED) fine to medium grained, dark brown		VD	
			2	*2.00*								
				-2.00				SP	SAND fine to medium grained, pale brown			
RD	L	GROUNDWATER NOT OBSERVED FROM 2.4 M	3							W	L	
			4									
			5									
			6	*6.00*								
				-6.00				SC	Clayey SAND fine to medium grained, pale brown, medium plasticity clay			
			7									
				7.50								
				-7.50				SP	SAND fine to medium grained, pale brown			
			8	*8.10*								
				-8.10				SP	SAND (INDURATED) fine to medium grained, pale brown		VD	
				8.30								
				-8.30				SP	SAND fine to medium grained, pale brown		L	
			9	-9.00					END OF BOREHOLE @ 9.00 m			
			10									

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GAP gINT FN. F01a RL3

GAP 8_08.04 LIB.GLB Log GAP NON-CORED FULL PAGE 137632097.GPJ <<DrawingFile>> 16/09/2014 10:37 8.30.003 Datgel Tools

APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH9/13B

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: Finland Road
JOB NO: 137632097

COORDS: 508036.0 m E 7059404.0 m N MGA94 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 110 mm HOLE DEPTH: 9.00 m

DRILL RIG: Hydrapower Scout
CONTRACTOR: Geodrill
LOGGED: SKD DATE: 27/6/13
CHECKED: DJQ DATE: 4/7/13

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 TO 2.4 M	0	0.00				SM	Silty SAND fine to medium grained, dark grey, trace organics	M - W		
				0.30								
				-0.30				SP	SAND fine to medium grained, pale brown		L	
			1	*1.00*								
	L-M			-1.00				SM	Silty SAND (INDURATED) fine to medium grained, dark brown		VD	
			2	*2.00*								
				-2.00				SP	SAND fine to medium grained, pale brown			
RD	L	GROUNDWATER NOT OBSERVED FROM 2.4 M	3							W		
			4									
			5								L	
			6	*6.00*								
				-6.00				SC	Clayey SAND fine to medium grained, pale brown, medium plasticity clay			
			7									
				7.50								
				-7.50				SP	SAND fine to medium grained, pale brown			
			8	*8.10*								
				-8.10				SP	SAND (INDURATED) fine to medium grained, pale brown		VD	
				8.30								
				-8.30				SP	SAND fine to medium grained, pale brown		L	
			9	-9.00					END OF BOREHOLE @ 9.00 m			
			10									

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APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH12/13

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: Finland Road
JOB NO: 137632097

COORDS: 507607.0 m E 7059467.0 m N MGA94 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 110 mm HOLE DEPTH: 9.00 m

DRILL RIG: Hydrapower Scout
CONTRACTOR: Geodrill
LOGGED: SKD DATE: 11/6/13
CHECKED: DJQ DATE: 4/7/13

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
RD	L	GROUNDWATER OBSERVED AT SURFACE	0	0.00				ML	Clayey Sandy SILT dark grey, fine to medium grained sand, medium plasticity clay, with some organics	W	S	
				0.50								
				-0.50				CH	Silty Sandy CLAY high plasticity, grey, fine to medium grained sand			
			1		DS 1.0 - 1.20 m U50 1.20 - 1.60 m						VS	
			2		DS at 2.3m depth taken from mud bin U50 2.50 - 2.90 m							
				2.80								
				-2.80				SP	SAND fine to medium grained, brown			
			3									
				3.80					becoming dark grey		L	
				-3.80								
			4		SPT 4.00-4.45 m 3, 4, 3 N=7							
				4.90								
			5	-4.90				SM	Silty SAND (INDURATED) fine to medium grained, dark brown, weakly cemented		D	
				5.60	SPT 5.50-5.95 m 1, 1, 2 N=3							
				-5.60				SP	SAND fine to medium grained, brown, trace medium plasticity clay, some zones with increased clay content or fine to coarse grained sand		VL	
			6									
			7	7.00								
	M			-7.00	SPT 7.00-7.40 m 20, 23, 30/100mm N>53			SM	Silty SAND (INDURATED) fine to medium grained, dark brown, moderately cemented		VD	
			8	8.30								
	L			-8.30	SPT 8.50-8.95 m 6, 12, 13 N=25			SP	SAND fine to medium grained, orange brown, trace silt		MD	
			9	-9.00					END OF BOREHOLE @ 9.00 m TARGET DEPTH BACKFILLED			
			10									

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APPENDIX B3:A

Geotechnical borehole reports

Golder Associates

REPORT OF BOREHOLE: BH13/13

SHEET: 1 OF 1

CLIENT: Sunshine Coast Council
PROJECT: Sunshine Coast Airport Expansion
LOCATION: Finland Road
JOB NO: 137632097

COORDS: 507740.0 m E 7059285.0 m N MGA94 56
SURFACE RL: 0.00 m DATUM: AHD
INCLINATION: -90°
HOLE DIA: 110 mm HOLE DEPTH: 9.00 m

DRILL RIG: Hydrapower Scout
CONTRACTOR: Geodrill
LOGGED: SKD DATE: 11/6/13
CHECKED: DJQ DATE: 4/7/13

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 OBSERVED AT 0.6 M DEPTH	0	0.00 0.20				ML	Sandy SILT dark brown grey, fine to medium grained sand, trace organics		F	
				-0.20	DS 0.20 - 0.50 m			SP	SAND fine to medium grained, pale grey			
			1		SPT 1.00-1.45 m 4, 4, 8 N=12						MD	
			2	2.00 -2.00				SM	Silty SAND (INDURATED) fine to medium grained, dark brown, weakly cemented		D	
	M			2.50 -2.50	SPT 2.50-2.88 m 12, 25, 30/80mm N>55				becoming moderately cemented		VD	
	L		3	2.90 -2.90				SP	SAND fine to medium grained, brown		MD	
RD				3.80 -3.80				SM	Silty SAND (INDURATED) fine to medium grained, dark brown, moderately cemented	W		
	M		4		SPT 4.00-4.25 m 25, 30/100mm N>30							
			5		SPT 5.50-5.89 m 14, 24, 30/90mm N>54							
			6								VD	
				6.80 -6.80					becoming weakly cemented			
			7		SPT 7.00-7.45 m 20, 24, 30 N=54							
	L-M		8	8.40 -8.40				SP	SAND fine to medium grained, brown, trace silt		MD	
			9	-9.00	SPT 8.50-8.95 m 5, 10, 8 N=18				END OF BOREHOLE @ 9.00 m TARGET DEPTH BACKFILLED			
			10									

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APPENDIX B3:A

Geotechnical borehole reports

EXPLANATION OF NOTES, ABBREVIATIONS & TERMS USED ON BOREHOLE AND TEST PIT REPORTS

DRILLING/EXCAVATION METHOD

AS*	Auger Screwing	RD	Rotary blade or drag bit	NQ	Diamond Core - 47 mm
AD*	Auger Drilling	RT	Rotary Tricone bit	NMLC	Diamond Core - 52 mm
*V	V-Bit	RAB	Rotary Air Blast	HQ	Diamond Core - 63 mm
*T	TC-Bit, e.g. ADT	RC	Reverse Circulation	HMLC	Diamond Core – 63mm
HA	Hand Auger	PT	Push Tube	BH	Tractor Mounted Backhoe
ADH	Hollow Auger	CT	Cable Tool Rig	EX	Tracked Hydraulic Excavator
DTC	Diatube Coring	JET	Jetting	EE	Existing Excavation
WB	Washbore or Bailer	NDD	Non-destructive digging	HAND	Excavated by Hand Methods

PENETRATION/EXCAVATION RESISTANCE

L **Low resistance.** Rapid penetration possible with little effort from the equipment used.

M **Medium resistance.** Excavation/possible at an acceptable rate with moderate effort from the equipment used.

H **High resistance** to penetration/excavation. Further penetration is possible at a slow rate and requires significant effort from the equipment.

R **Refusal or Practical Refusal.** No further progress possible without the risk of damage or unacceptable wear to the digging implement or machine.

These assessments are subjective and are dependent on many factors including the equipment power, weight, condition of excavation or drilling tools, and the experience of the operator.

WATER

▽	Water level at date shown	◁	Partial water loss
▷	Water inflow	◀	Complete water loss

GROUNDWATER NOT OBSERVED	The observation of groundwater, whether present or not, was not possible due to drilling water, surface seepage or cave in of the borehole/test pit.
GROUNDWATER NOT ENCOUNTERED	The borehole/test pit was dry soon after excavation. However, groundwater could be present in less permeable strata. Inflow may have been observed had the borehole/test pit been left open for a longer period.

SAMPLING AND TESTING

SPT	Standard Penetration Test to AS1289.6.3.1-2004
4,7,11 N=18	4,7,11 = Blows per 150mm. N = Blows per 300mm penetration following 150mm seating
30/80mm	Where practical refusal occurs, the blows and penetration for that interval are reported
RW	Penetration occurred under the rod weight only
HW	Penetration occurred under the hammer and rod weight only
HB	Hammer double bouncing on anvil
DS	Disturbed sample
BDS	Bulk disturbed sample
G	Gas Sample
W	Water Sample
FP	Field permeability test over section noted
FV	Field vane shear test expressed as uncorrected shear strength (s_v = peak value, s_r = residual value)
PID	Photoionisation Detector reading in ppm
PM	Pressuremeter test over section noted
PP	Pocket penetrometer test expressed as instrument reading in kPa
U63	Thin walled tube sample - number indicates nominal sample diameter in millimetres
WPT	Water pressure tests
DCP	Dynamic cone penetration test
CPT	Static cone penetration test
CPTu	Static cone penetration test with pore pressure (u) measurement

Ranking of Visually Observable Contamination and Odour (for specific soil contamination assessment projects)

R = 0	No visible evidence of contamination	R = A	No non-natural odours identified
R = 1	Slight evidence of visible contamination	R = B	Slight non-natural odours identified
R = 2	Visible contamination	R = C	Moderate non-natural odours identified
R = 3	Significant visible contamination	R = D	Strong non-natural odours identified

ROCK CORE RECOVERY

TCR = Total Core Recovery (%)

$$= \frac{\text{Length of core recovered}}{\text{Length of core run}} \times 100$$

SCR = Solid Core Recovery (%)

$$= \frac{\sum \text{Length of cylindrical core recovered}}{\text{Length of core run}} \times 100$$

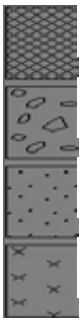
RQD = Rock Quality Designation (%)

$$= \frac{\sum \text{Axial lengths of core} > 100 \text{ mm}}{\text{Length of core run}} \times 100$$

APPENDIX B3:A

Geotechnical borehole reports / DCP reports

METHOD OF SOIL DESCRIPTION USED ON BOREHOLE AND TEST PIT REPORTS

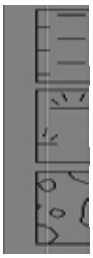


FILL

GRAVEL (GP or GW)

SAND (SP or SW)

SILT (ML or MH)



CLAY (CL, CI or CH)

ORGANIC SOILS (OL or OH or Pt)

COBBLES or BOULDERS

Combinations of these basic symbols may be used to indicate mixed materials such as sandy clay.

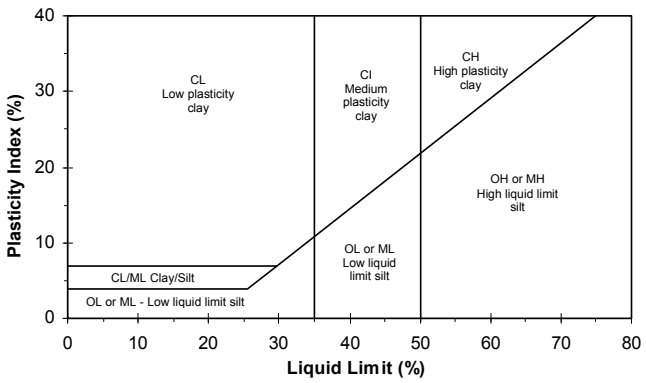
CLASSIFICATION AND INFERRED STRATIGRAPHY

Soil and Rock is classified and described in Reports of Boreholes and Test Pits using the preferred method given in AS1726 – 1993, (Amdt1 – 1994 and Amdt2 – 1994), Appendix A. The material properties are assessed in the field by visual/tactile methods.

Particle Size

Major Division	Sub Division	Particle Size
BOULDERS		> 200 mm
COBBLES		63 to 200 mm
GRAVEL	Coarse	20 to 63 mm
	Medium	6.0 to 20 mm
	Fine	2.0 to 6.0 mm
SAND	Coarse	0.6 to 2.0 mm
	Medium	0.2 to 0.6 mm
	Fine	0.075 to 0.2 mm
SILT		0.002 to 0.075 mm
CLAY		< 0.002 mm

Plasticity Properties



MOISTURE CONDITION

AS1726 - 1993

Symbol	Term	Description
D	Dry	Sands and gravels are free flowing. Clays & Silts may be brittle or friable and powdery.
M	Moist	Soils are darker than in the dry condition & may feel cool. Sands and gravels tend to cohere.
W	Wet	Soils exude free water. Sands and gravels tend to cohere.

CONSISTENCY AND DENSITY

AS1726 - 1993

Symbol	Term	Undrained Shear Strength
VS	Very Soft	0 to 12 kPa
S	Soft	12 to 25 kPa
F	Firm	25 to 50 kPa
St	Stiff	50 to 100 kPa
VSt	Very Stiff	100 to 200 kPa
H	Hard	Above 200 kPa

Symbol	Term	Density Index %	SPT "N" #
VL	Very Loose	Less than 15	0 to 4
L	Loose	15 to 35	4 to 10
MD	Medium Dense	35 to 65	10 to 30
D	Dense	65 to 85	30 to 50
VD	Very Dense	Above 85	Above 50

In the absence of test results, consistency and density may be assessed from correlations with the observed behaviour of the material.

SPT correlations are not stated in AS1726 – 1993, and may be subject to corrections for overburden pressure and equipment type.