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FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/8-2014

BOREHOLE No	<u>BH5</u>
SHEET	<u>1</u> of <u>6</u>
REFERENCE No	<u>H12012</u>

LOGGED BY

MS

PRC	JECT	<u>Mt V</u>	/hiteston	<u>e: S</u>	lope Instability Investigation - Preliminary Incli	nome	e <u>te</u> r	<u>Bo</u>	reholes						
LOC	LOCATION Above the road COORDINATES 416268.1 E; 6937770.2 N														
PRC	JECT N	o <u>FG6</u>	128		SURFACE R.L. <u>237.52m</u> PLUNGE _				DATE S	TARTED _4/	12/14	GRID	DATUM	<u>MGA94</u>	
JOB	No				HEIGHT DATUM <u>AHD</u> BEARING				DATE COM	IPLETED <u>8</u> /	12/14	_ D	RILLER	Hinterland	
0 DEPTH (m)	R.L. (m) 237.52	WASH BORING	RQD ()% CORE REC%	SAMPLE	MATERIAL DESCRIPTION Sandy CLAY (COLLUVIUM) Orange brown, moist. Wash bored to 25m.	ГІТНОLOGY	USC	WEATHERING	INTACT STRENGTH (A\$1726)	DEFECT SPACING (AS1726) UUSU∑≷Šu UUUUSU UUUUSU UUUUUSU UUUUUSU UUUUUSU UUUUUU	GRAPHIC LOG		TIONAL AND ST RESU		SAMPLES

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REMARKS



FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/8-2014

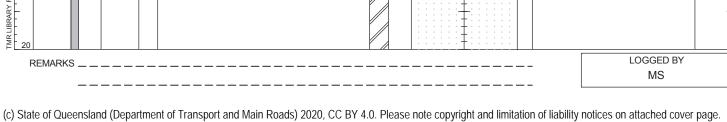
BOREHOLE No	<u>BH5</u>
SHEET	<u>2</u> of <u>6</u>
REFERENCE No	<u>H12012</u>

PRO				lope Instability Investigation - Preliminary Inclin	<u>ome</u>	ter <u>B</u>	oreholes				
LOCA	ATION <u>Abo</u>	ve the roa	ad						COC	ORDINATES 416268.1 E; 6937770.	<u>2 N</u>
PRO	JECT No <u>FG</u>	<u> </u>		SURFACE R.L237.52m PLUNGE _			DATE ST.	ARTED <u>4</u> /	<u>12/14</u>	4GRID DATUM	
JOB I	No			HEIGHT DATUM <u>AHD</u> BEARING _			DATE COMP	PLETED <u>8/</u>	<u>12/14</u>	4DRILLER <u>Hinterland</u>	
(m	R.L. (m) DRILLING	RQD ()%		MATERIAL		UN UN	INTACT STRENGTH	DEFECT SPACING	FOG	ADDITIONAL DATA	
DEPTH (m)	H BOR		Щ	DESCRIPTION	гітногоду	ATHERING	(AS1726)	(AS1726)	HICL	AND	S LES
_	227.52 227.52	CORE REC %	SAMPLE		LITHO	USC	HHTSTSJUN	00 1>0≥3>∭	GRAP	TEST RESULTS	SAMPLES TESTS
				Sandy CLAY (COLLUVIUM) as before							

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FOR GEOTECHNICAL TERMS AND
SYMBOLS REFER FORM F:GEOT 017/8-2014

BOREHOLE No	<u>BH5</u>
SHEET	<u>3</u> of <u>6</u>
REFERENCE No	<u>H12012</u>

PROJEC											
LOCATIC			e the roa							ES 416268.1 E; 6937770.2 I	N
PROJEC [®]	T No <u>F</u>	<u>G61</u>	28		SURFACE R.L237.52m PLUNGE _			DATE STARTED _4/12/1	<u>4</u> GF	RID DATUM <u>MGA94</u>	
JOB No	_				HEIGHT DATUM <u>AHD</u> BEARING _			DATE COMPLETED _8/12/1	4	DRILLER <u>Hinterland</u>	
(m (m) HLd 30 20 217		כסאב טאורבוואפ	RQD ()% CORE REC%	SAMPLE	MATERIAL DESCRIPTION	ГІТНОГОСУ	USC WEATHERING	INTACT DEFECT STRENGTH SPACING (AS1720) (AS1720) 00 コリート はいっていたいので、 ロットロート ロート ロート ロート ロート ロート ロート ロート ロート ロート		DDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
20 217 	.52>0		REC 70		Sandy CLAY (COLLUVIUM) as before		(CI)				
-										%Pass 2.360mm = 95	
25 	2.52		100		Sandy CLAY with Cobbles and Boulders (COLLUVIUM) Orange brown to brownish grey, stiff. With sandstone fragments sized up to 200mm.						
- 26									7	Highly dispersive material.	
					Becoming pale brownish grey.		(CL)		_Sample c	lamaged due to breakage in el.	
- 29			100		Becoming pale brownish grey. With angular to sub-angular, very low to low strength claystone fragments and boulders.					Highly dispersive material.	
			100								
	RKS _									LOGGED BY MS	



FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/8-2014

BOREHOLE No	<u>BH5</u>
SHEET	4 of6
REFERENCE No	<u>H12012</u>

	JECT				lope Instability Investigation - Preliminary Incli	nome	<u>er B</u> o	preholes				
	ATION		ve the ro								OORDINATES 416268.1 E; 6937770.2	<u>N</u>
					SURFACE R.L. 237.52m PLUNGE				TARTED _4			
JOB	No				HEIGHT DATUM <u>AHD</u> BEARING _			DATE COM	PLETED <u>8</u>	/ <u>12/′</u>	14DRILLER <u>Hinterland</u>	
DEPTH (m)	R.L. (m) 207.52	WASH BORING CORE DRILLING	RQD ()% CORE REC%	SAMPLE	MATERIAL	ГІТНОГОСУ	USC WEATHERING			GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES
_ 30	207.52		INEC 70		Sandy CLAY (COLLUVIUM)	60						0, 1
-					As before. Increasing sandstone boulders from 29.9m							
-						00						
						6	1					
						00						
E			97	\ge			1					
						°C			-		LL = 37; PI = 18; LS = 10.8; MC = 19.4%	
- 32						00	1	· · · · · · · · · · · ·				
						°C				•	 Sandstone boulder 	
- - - - - - - - - - - - - - - - - - -						00		· · · · · · · · · · · · · · · · · · ·		Ľ		
Ē											Claystone boulder with sightly slicken sided and polished surfaces	
						00					Highly dispersive material.	
-			96			Po						
			90	-		00						
							1	· · · · · · · · -		•		
- 34						00			-	5		
						000	(. 9	- Sandstone boulder	
						0						
- 35 - - -							(CL)	· · · · · · · · · · · · · · · · · · ·	-			
-						Po C						
						00						
- - 36									- · · · · · · · ·			
-						00						
			100				1	· · · · · · · · -	- · · · · · · ·			
-				\mathbb{N}		00	5					
- 37						000			-			
						0						
F						200					– Sandstone boulder	
- 38						6C						
						000						
E						Po C					 Sandstone boulder 	
			83						-			
- 39						6	1					
						00					Highly dispersive material.	
						200	1					
-36 -37 -38 -38 -39						°C						
	EMARK	.s					·	·			LOGGED BY	
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FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/8-2014

BOREHOLE No	<u>BH5</u>
SHEET	<u>5</u> of <u>6</u>
REFERENCE No	<u>H12012</u>

MS

PROJECT	<u>Mt W</u>	hiteston	ie: S	lope Instability Investigation - Preliminary Inclin	<u>iome</u>	<u>er Bo</u>	oreholes				
LOCATION	DN Above the road COORDINATES 416268.1 E; 6937770.2 N CT No FG6128 SURFACE R.L. 237.52m PLUNGE DATE STARTED 4/12/14 GRID DATUM MGA94								2 N		
	No_ <u>FG61</u>	128									
JOB No							DATE CON	IPLETED <u>8</u> /	12/	14DRILLER_ <u>Hinterland</u>	
(E) (E) (E) (E) (E) (H) (H) (H) (H) (H) (H) (H) (H) (H) (H	25 WASH BORING CORE DRILLING	RQD ()% CORE REC %	SAMPLE	MATERIAL	гітногоду	USC WEATHERING	INTACT STRENGTH (AS1726)		GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES
GPJ < <cr> CommingFile>> Dataset CPT Too give Add-In 11/11/2015 15:28 FP</cr>		<u>100</u> (76)		Sandy CLAY (COLLUVIUM) As before.	$ \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \end{array} \\ \end{array} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} $	(CL)				Highly dispersive material. LL = 37; PI = 19; LS = 10; DD = 1.63t/m ³ ; WD = 1.96t/m ³ ; MC = 14.7% — Core broken due to handling Dispersive material.	
LIBRARY FILE 2014. GLB LOg A ENGINEERING BOREHOLE LOG W LITHOLOGY F66128 MT WHITESTONE COMB 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		<u> 100</u> (100)		SANDSTONE MW:Orange brown, medium to coarse grained, medium to high strength. 45.78 - 46.54m subrounded to subangular pebbles comprised of quartz and altered feldspars, moderately weathered, medium strength. 48.9 - 49.8m 10-20% subrounded to subangular clasts Defects: BP: 15° (<1/m); Un/Ro, FeSt J: 70°-75° (<1/m); PI-Un/Ro, TI, FeSt		MW				Contact tight Is(50) = 0.46MPa Is(50) = 0.75MPa	xo
₩¥ 50										ls(50) = 1.80MPa	X
REMAR	NC									LOGGED BY	



FOR GEOTECHNICAL TERMS AND
SYMBOLS REFER FORM F:GEOT 017/8-2014

BOREHOLE No	<u>BH5</u>
SHEET	<u>6</u> of <u>6</u>
REFERENCE No	<u>H12012</u>

MS

PROJECT	<u>Mt W</u>	<u>hiteston</u>	e: S	<u>lope Instability Investigation - Preliminary Inclin</u>	ome	ter Bo	preholes				
LOCATION	Abov	e the roa	ad					CC	DORDINATES 41626	8.1 E; 6937770.2	<u>2 N</u>
PROJECT No	<u>FG61</u>	128		SURFACE R.L. <u>237.52m</u> PLUNGE _			DATE S	STARTED <u>4/12/</u>	GRID DATUM	<u>MGA94</u>	
JOB No				HEIGHT DATUM <u>AHD</u> BEARING _			DATE CON	/IPLETED <u>8/12/</u>	<u>'14</u> DRILLER	_Hinterland	
(E) R.L. (m) H H H H H H H H H H H H H	WASH BORING CORE DRILLING	RQD ()% CORE REC%	SAMPLE	MATERIAL DESCRIPTION	гітногоду	USC WEATHERING	INTACT STRENGTH (AS1726)	DEFECT SPACING (AS1720) UHACKAR SPACING UD HACKAR SPACING SPAC	ADDITIONAL AND TEST RESI		SAMPLES TESTS
- 107.32		1120 /		SANDSTONE MW:					ls	(50) = 2.30MPa	0
187.02		100		as before							
51 		(94) 94 (100)		Interbedded SILTSTONE and CLAYSTONE SW:Pale to dark grey, very fine grained, very low to low strength. Laminations are closely spaced mainly 10-20mm, up to 50mm apart. 50.5m: 40mm band of dark brown moist, low plasticity, firm clayey SILT with rock fragments sized up to 10mm. Defects: J: 45° (<1/m); PI/Sm, CAFL		sw			Inclinometer installed	(50) = 0.49MPa (50) = 0.23MPa (50) = 1.20MPa (50) = 1.20MPa	
5 192 57		100					· · · ·	· · · · · · · · · · · · · · · · · · ·			
182.57 55 57 57 57 57 57 57 57 57 57 58 57 57 57 57 58 57 58 59 59 59				Borehole terminated at 54.95m							-
60											<u> </u>
REMARKS	3									LOGGED BY	

DEPARTMENT OF TRANSPORT AND MAIN ROADS Geotechnical Section 35 Butterfield Street, Herston Qld 4006 Phone 07 3066 3336



Project Name	Mt Whitestone (Detailed Investigation)		
Project No.	FG6196	Start Date	4/12/14
Borehole No.	BH 5	Finish Date	8/12/14
Location		Start Depth (m)	25.0
Detail	Gatton Clifton Rd -313	Finish Depth (m)	54.05
Chainage	15.04-15.40km	Submitted By	ТН
Remarks	85mm QC Inclinometer installed to 52.0m	I	
	S	25.55	
662	Service Servic	-	A.
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C.L 31:4-31:50		272.05	
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	SCALE 1:5		

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DEPARTMENT OF TRANSPORT AND MAIN ROADS Geotechnical Section 35 Butterfield Street, Herston Qld 4006 Phone 07 3066 3336



Project Name	Mt Whitestone	(Detailed Ir	vestigation))		
Project No.	FG6196		<u> </u>	Date		4/12/14
Borehole No.	BH 5				H No.	8/12/14
Location					Depth (m)	25.0
Detail	Gatton Clifton R	d -313			h Depth (m)	54.05
Chainage	15.04-15.40km				nitted By	TH
Remarks	85mm QC Inclin	ometer inst	alled to 52.0n			1
Sterring C.	- 36.60 - 36.	95	Sau Sau			Rest Rest
					38.70	STREER STREER
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DEPARTMENT OF TRANSPORT AND MAIN ROADS Geotechnical Section 35 Butterfield Street, Herston Qld 4006 Phone 07 3066 3336



Project Name	Mt Whitestone (Detailed Investigation)		
Project No.	FG6196	Start Date	4/12/14
Borehole No.	BH 5	Finish Date	8/12/14
Location		Start Depth (m)	25.0
Detail	Gatton Clifton Rd -313	Finish Depth (m)	54.05
Chainage	15.04-15.40km	Submitted By	TH
Remarks	85mm QC Inclinometer installed to 52.0m		
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	FGÅPB	<u>k</u>	
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	SCALE 1:5		

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DEPARTMENT OF TRANSPORT AND MAIN ROADS Geotechnical Section 35 Butterfield Street, Herston Qld 4006 Phone 07 3066 3336



Project Name	Mt Whitestone (Detailed Investigation)		
Project No.	FG6196	Start Date	4/12/14
Borehole No.	BH 5	Finish Date	8/12/14
Location		Start Depth (m)	25.0
Detail	Gatton Clifton Rd -313	Finish Depth (m)	54.05
Chainage	15.04-15.40km	Submitted By	TH
Remarks	85mm QC Inclinometer installed to 52.0m		
	Edits Edits		
0 100	200 300 400 50	00 600	700
	SCALE 1:5		

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Stand Pipe Details - SP5

