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ENGINEERING BOREHOLE LOG

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

BOREHOLE No **BH5**
SHEET 1 of 6
REFERENCE No **H12012**

PROJECT Mt Whitestone: Slope Instability Investigation - Preliminary Inclinometer Boreholes
LOCATION Above the road COORDINATES 416268.1 E; 6937770.2 N
PROJECT No FG6128 SURFACE R.L. 237.52m PLUNGE DATE STARTED 4/12/14 GRID DATUM MGA94
JOB No HEIGHT DATUM AHD BEARING DATE COMPLETED 8/12/14 DRILLER Hinterland

DEPTH (m)	R.L. (m)	WASH BORING / CORE DRILLING	RQD ( )% CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING	INTACT STRENGTH (AS1726) EH VH H M L VL EL	DEFECT SPACING (AS1726) EC VC C M W VW EW	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES	TESTS
0	237.52				**Sandy CLAY (COLLUVIUM)** Orange brown, moist. Wash bored to 25m.		(CI)							

REMARKS

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ENGINEERING BOREHOLE LOG

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

BOREHOLE No BH5
SHEET 2 of 6
REFERENCE No H12012

PROJECT Mt Whitestone: Slope Instability Investigation - Preliminary Inclinometer Boreholes
LOCATION Above the road COORDINATES 416268.1 E; 6937770.2 N
PROJECT No FG6128 SURFACE R.L. 237.52m PLUNGE DATE STARTED 4/12/14 GRID DATUM MGA94
JOB No HEIGHT DATUM AHD BEARING DATE COMPLETED 8/12/14 DRILLER Hinterland

DEPTH (m)	R.L. (m)	WASH BORING / CORE DRILLING	RQD ( )% CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING	INTACT STRENGTH (AS1726) EH VH H M L VL EL	DEFECT SPACING (AS1726) EC VC C M W VW EW	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES	TESTS
10	227.52				**Sandy CLAY (COLLUVIUM)** as before		(CI)							

REMARKS

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ENGINEERING BOREHOLE LOG

Queensland Government

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

BOREHOLE No BH5
SHEET 3 of 6
REFERENCE No H12012

PROJECT Mt Whitestone: Slope Instability Investigation - Preliminary Inclinometer Boreholes
LOCATION Above the road COORDINATES 416268.1 E; 6937770.2 N
PROJECT No FG6128 SURFACE R.L. 237.52m PLUNGE DATE STARTED 4/12/14 GRID DATUM MGA94
JOB No HEIGHT DATUM AHD BEARING DATE COMPLETED 8/12/14 DRILLER Hinterland

DEPTH (m)	R.L. (m)	WASH BORING / CORE DRILLING	RQD ( )% CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING	INTACT STRENGTH (AS1726) EH VH H M L VL EL	DEFECT SPACING (AS1726) EC VC C M W VW EW	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES	TESTS
20	217.52				**Sandy CLAY (COLLUVIUM)** as before									
21														
22								(CI)						
23														
24														
25	212.52											%Pass 2.360mm = 95 ~~%Pass 0.075mm = 57~~ %Pass 0.002mm = 23		
			100		**Sandy CLAY with Cobbles and Boulders (COLLUVIUM)** Orange brown to brownish grey, stiff. With sandstone fragments sized up to 200mm.							Highly dispersive material.		
26														
27								(CL)				Sample damaged due to breakage in core barrel.		
28					Becoming pale brownish grey. With angular to sub-angular, very low to low strength claystone fragments and boulders.									
			100									Highly dispersive material.		
29														
30			100											

REMARKS

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ENGINEERING BOREHOLE LOG

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

BOREHOLE No BH5
SHEET 4 of 6
REFERENCE No H12012

PROJECT Mt Whitestone: Slope Instability Investigation - Preliminary Inclinometer Boreholes
LOCATION Above the road
COORDINATES 416268.1 E; 6937770.2 N
PROJECT No FG6128 SURFACE R.L. 237.52m PLUNGE DATE STARTED 4/12/14 GRID DATUM MGA94
JOB No HEIGHT DATUM AHD BEARING DATE COMPLETED 8/12/14 DRILLER Hinterland

DEPTH (m)	R.L. (m)	WASH BORING / CORE DRILLING	RQD ( )% CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING	INTACT STRENGTH (AS1726) EH VH H M L VL EL	DEFECT SPACING (AS1726) EC VC C M W VW EW	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES	TESTS
30	207.52				**Sandy CLAY (COLLUVIUM)** As before. Increasing sandstone boulders from 29.9m									
31			97									LL = 37; PI = 18; LS = 10.8; MC = 19.4%		
32												Sandstone boulder		
33			96									Claystone boulder with sightly slicken sided and polished surfaces Highly dispersive material.		
34												Sandstone boulder		
35							(CL)							
36			100											
37												Sandstone boulder		
38												Sandstone boulder		
39			83									Highly dispersive material.		
40														

REMARKS

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ENGINEERING BOREHOLE LOG

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

BOREHOLE No BH5
SHEET 5 of 6
REFERENCE No H12012

PROJECT Mt Whitestone: Slope Instability Investigation - Preliminary Inclinometer Boreholes
LOCATION Above the road COORDINATES 416268.1 E; 6937770.2 N
PROJECT No FG6128 SURFACE R.L. 237.52m PLUNGE DATE STARTED 4/12/14 GRID DATUM MGA94
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DEPTH (m)	R.L. (m)	WASH BORING / CORE DRILLING	RQD ( )% CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING	INTACT STRENGTH (AS1726) EH VH H M L VL EL	DEFECT SPACING (AS1726) EC VC C M W VW EW	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES	TESTS
40	197.52				**Sandy CLAY (COLLUVIUM)** As before.									
41			100									Highly dispersive material.		
42							(CL)					LL = 37; PI = 19; LS = 10; DD = 1.63t/m^3; WD = 1.96t/m^3; MC = 14.7%		
43														
44			100									Core broken due to handling		
45	192.45		(76)									Dispersive material.		
					SANDSTONE **MW:**Orange brown, medium to coarse grained, medium to high strength.							~~Contact tight~~ Is(50) = 0.46MPa Is(50) = 0.75MPa	x o	
46					45.78 - 46.54m subrounded to subangular pebbles comprised of quartz and altered feldspars, moderately weathered, medium strength.									
47					48.9 - 49.8m 10-20% subrounded to subangular clasts Defects: BP: 15° (<1/m); Un/Ro, FeSt J: 70°-75° (<1/m); Pl-Un/Ro, Tl, FeSt							HW band		
48			100				MW							
49			(100)											
50												Is(50) = 1.80MPa	x	

REMARKS

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ENGINEERING BOREHOLE LOG

Queensland Government

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

BOREHOLE No BH5
SHEET 6 of 6
REFERENCE No H12012

PROJECT Mt Whitestone: Slope Instability Investigation - Preliminary Inclinometer Boreholes
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PROJECT No FG6128 SURFACE R.L. 237.52m PLUNGE DATE STARTED 4/12/14 GRID DATUM MGA94
JOB No HEIGHT DATUM AHD BEARING DATE COMPLETED 8/12/14 DRILLER Hinterland

DEPTH (m)	R.L. (m)	WASH BORING / CORE DRILLING	RQD ( )% / CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING	INTACT STRENGTH (AS1726) EH VH H M L VL EL	DEFECT SPACING (AS1726) EC VC C M W VW EW	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES	TESTS
50	187.52				**SANDSTONE MW:** as before		MW					Is(50) = 2.30MPa		o
	187.02		100 (94)		**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); Pl/Sm, CAFL		SW					Cave in material? Possible slip plane??		
51														
52			94 (100)									Is(50) = 0.49MPa Is(50) = 0.23MPa Inclinometer installed		o x
53														
54												Is(50) = 1.20MPa Is(50) = 1.20MPa		x o
	182.57		100											
55					Borehole terminated at 54.95m									
56														
57														
58														
59														
60														

REMARKS

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CORE PHOTO LOG

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

Queensland Government

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		

0 100 200 300 400 500 600 700

SCALE 1:5

GEOT043/2

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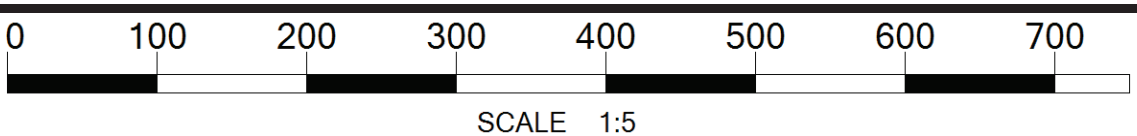
Project Name	**Mt Whitestone (Detailed Investigation)**		
Project No.	FG6196	Date	4/12/14
Borehole No.	BH 5	TMR H No.	8/12/14
Location		Start Depth (m)	25.0
Detail	Gatton Clifton Rd -313	Finish Depth (m)	54.05
Chainage	15.04-15.40km	Submitted By	TH
Remarks	85mm QC Inclinometer installed to 52.0m		



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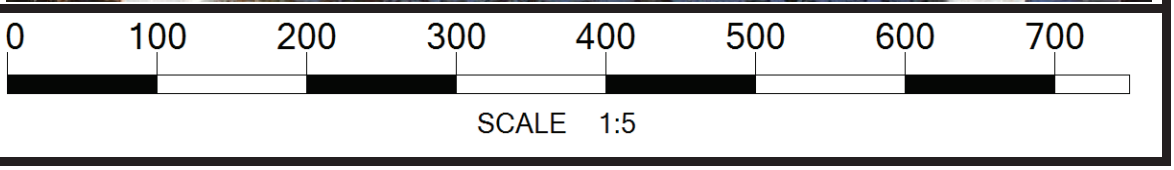

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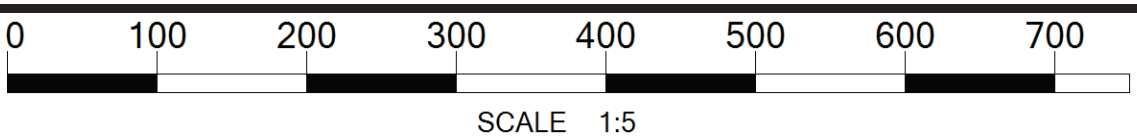

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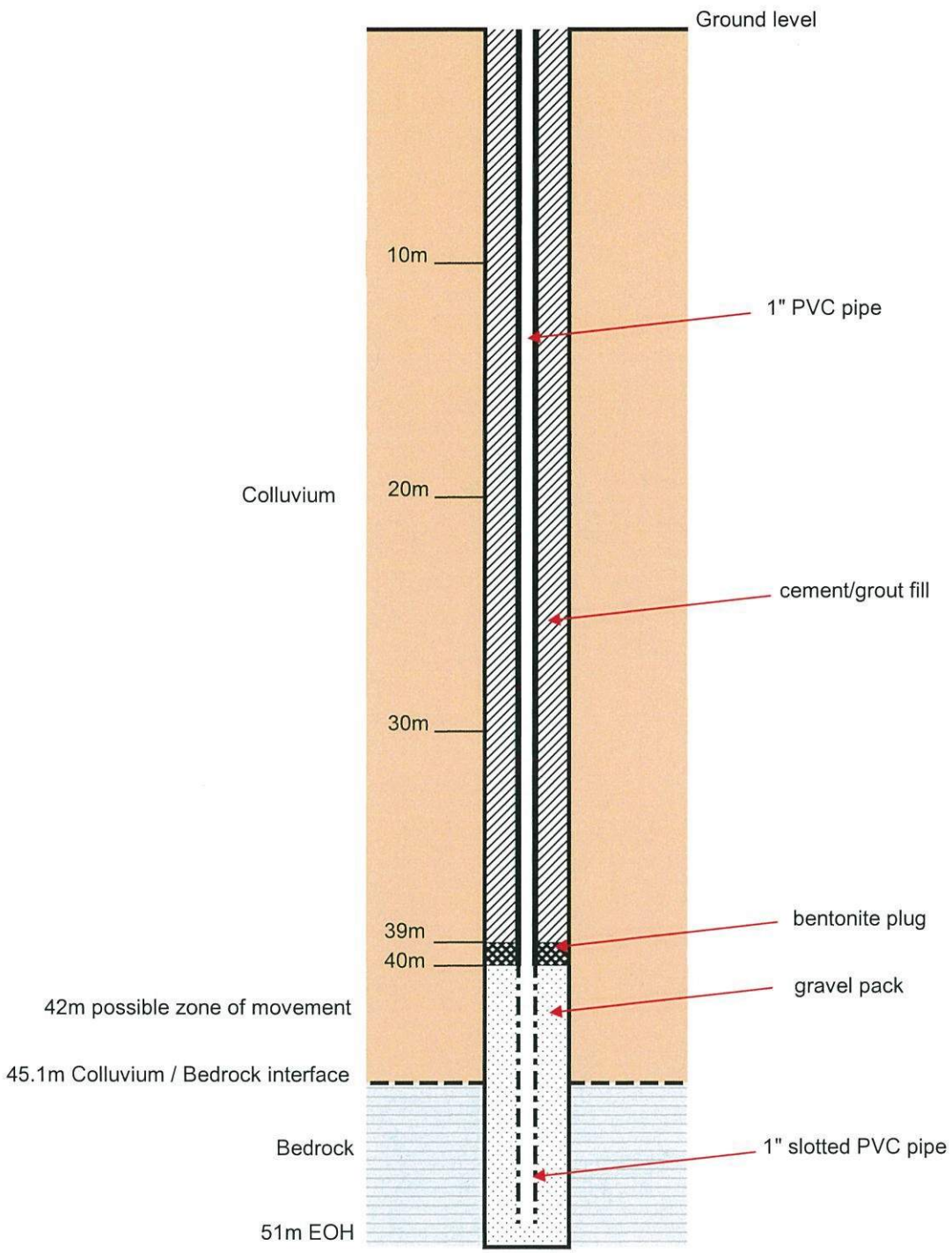
Stand Pipe Details - SP5



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