

FILL TEST RESULTS FROM 2007 / 2008 EARTHWORKS PERIOD						
Summary of earthfill test data						
Test Number	Date	Test RL (m)	Result			Pass/Fail
			Air Voids (%)	Shear Vane (kPa)	Scala (blows per 100mm)	
151	19/11/2007	20.7	9.3	204	-	Pass
152		53.0	2.6	177	-	Pass
153		48.8	0.1	217+	-	Pass
154		53.8	4.8	217+	-	Pass
155		53.6	1.5	217+	-	Pass
156		51.6	2.1	217+	-	Pass
157		48.8	4.5	208	-	Pass
158		46.4	0.0	217+	-	Pass
159		40.5	0.0	197	-	Pass
160		43.2	0.0	216	-	Pass
161		44.1	0.8	217+	-	Pass
162		48.5	0.7	231+	-	Pass
163		51.3	1.5	217+	-	Pass
164		46.2	0.3	225	-	Pass
165		43.1	0.0	231+	-	Pass
204		28/11/2007	41.4	1.4	231+	-
205	43.5		2.1	217+	-	Pass
206	45.6		0.1	231+	-	Pass
207	47.9		8.8	217+	-	Pass
208	48.0		0.0	231+	-	Pass
209	51.1		2.1	217+	-	Pass
210	51.0		3.4	228+	-	Pass
211	53.8		7.3	217+	-	Pass
212	52.6		6	231+	-	Pass
213	53.9		2.5	217+	-	Pass
214	55.4		4.6	231+	-	Pass
215	54.2		2	217+	-	Pass
216	48.2		6.6	231+	-	Pass
217	52.1		4.1	217+	-	Pass
218	44.8		3.4	231+	-	Pass
219	50.8		5.8	217+	-	Pass
295	27/12/2007	40.3	2.0	232+	-	Pass
296		38.0	0.0	243+	-	Pass
297		38.1	0.0	243+	-	Pass
298	28/12/2007	36.5	0.0	222+	-	Pass
299		36.6	4.1	243+	-	Pass
300		35.8	0.0	218+	-	Pass
301		37.3	0.0	243+	-	Pass
302		40.1	0.0	235+	-	Pass
303		36.8	0.7	243+	-	Pass
304		35.7	0.0	223+	-	Pass
305		36.3	0.0	243+	-	Pass
306		41.1	0.0	243+	-	Pass
307		41.2	0.0	243+	-	Pass
308		43.4	0.0	221+	-	Pass
309		43.2	0.0	221+	-	Pass
310		43.6	1.5	243+	-	Pass
311		45.8	0.0	243+	-	Pass
312		47.0	4.0	243+	-	Pass
313		47.4	0.0	239+	-	Pass
314	44.9	2.0	205+	-	Pass	
315	43.5	3.5	233+	-	Pass	
316	43.1	6.2	243+	-	Pass	

Test Number	Date	Test RL (m)	Result			Pass/Fail	
			Air Voids (%)	Shear Vane (kPa)	Scala (blows per 100mm)		
317	7/01/2008	42.7	12.0	237+	-	Pass	
318		41.4	1.1	243+	-	Pass	
319		40.3	2.9	243+	-	Pass	
320		40.1	3.2	219+	-	Pass	
321		40.7	4.8	207	-	Pass	
322		40.3	0.0	222+	-	Pass	
323		40.5	4.3	243+	-	Pass	
324		41.9	5.2	243+	-	Pass	
325		33.4	4.8	214+	-	Pass	
373		8/01/2008	54.3	5.1	220+	-	Pass
374	55.9		3.1	243+	-	Pass	
375	55.6		0.4	194	-	Pass	
376	56.9		0.0	222+	-	Pass	
377	55.7		0.0	243+	-	Pass	
378	58.6		5.7	243+	-	Pass	
379	55.4		0.0	202+	-	Pass	
380	56.1		2.4	243+	-	Pass	
381	52.3		3.3	243+	-	Pass	
382	53.1		1.9	243+	-	Pass	
383	52.2		0.0	243+	-	Pass	
384	53.1		1.5	243+	-	Pass	
385	53.4		0.6	180	-	Pass	
386	50.6		12.0	243+	-	Pass	
387	51.5		4.9	170	-	Pass	
388	49.4		6.6	243+	-	Pass	
389	50.4		1.1	243+	-	Pass	
390	48.4		5.2	243+	-	Pass	
391	49.3		8.2	243+	-	Pass	
392	50.3		5.7	243+	-	Pass	
393	51.1		0.0	206+	-	Pass	
394	46.9		0.1	243+	-	Pass	
395	46.7		0.0	243+	-	Pass	
396	46.0		2.3	243+	-	Pass	
397	46.4		0.0	243+	-	Pass	
398	48.2		2.2	243+	-	Pass	
399	46.7		2.2	243+	-	Pass	
400	47.4		8.9	243+	-	Pass	
401	47.8		4.5	243+	-	Pass	
402	48.2		0.0	243+	-	Pass	
403	47.9		13.0	243+	-	Fail on air voids	
404	43.6		0.0	243+	-	Pass	
405	44.0		0.7	243+	-	Pass	
406	39.8		1.7	243+	-	Pass	
407	40.4		0.0	207+	-	Pass	
408	42.1		4.9	243+	-	Pass	
409	42.7		0.0	243+	-	Pass	
808	20/02/2008		51.5	5.4	231+	-	Pass
809			50.6	0.0	231+	-	Pass
810			49.8	11.0	231+	-	Pass
811		49.9	0.0	224+	-	Pass	
812		48.8	5.9	231+	-	Pass	
813		45.4	9.3	231+	-	Pass	
814		44.8	1.3	231+	-	Pass	
815		44.3	7.4	231+	-	Pass	
818		42.0	3.2	197	-	Pass	
825		29/2/09	35.4	9.5	180	-	Pass
826	34.8		15.0	219	-	Fail - to be retested	
827	35.5		16.0	183	-	Fail - to be retested	
843	11/03/2008	39.6	0.0	200	-	Pass	
844		40.8	0.0	250+	-	Pass	
845		41.0	3.2	250+	-	Pass	
846		37.9	5.2	175	-	Pass	
847		38.3	0.0	195	-	Pass	
848		37.4	1.3	250+	-	Pass	
849		56.9	0.0	250+	-	Pass	
850		56.6	0.0	250+	-	Pass	
851		54.6	8.3	250+	-	Pass	

Test Number	Date	Test RL (m)	Result			Pass/Fail	
			Air Voids (%)	Shear Vane (kPa)	Scala (blows per 100mm)		
852	12/03/2008	54.2	0.0	250+	-	Pass	
853		50.5	0.0	250+	-	Pass	
854		55.7	2.7	250+	-	Pass	
855		55.4	6.7	218+	-	Pass	
856		55.4	0.3	250+	-	Pass	
857		53.2	1.1	250+	-	Pass	
858		52.7	0.2	207	-	Pass	
859		52.1	0.0	207+	-	Pass	
860		48.5	3.8	250+	-	Pass	
861		46.5	0.0	216	-	Pass	
862		45.8	0.2	227+	-	Pass	
863		48.2	0.0	243+	-	Pass	
864		49.2	5.5	231+	-	Pass	
865		47.2	0.0	250+	-	Pass	
866		49.9	7.2	222	-	Pass	
867		42.5	0.0	250+	-	Pass	
868		42.2	3.8	250+	-	Pass	
869		42.7	2.6	250+	-	Pass	
870		52.7	4.8	250+	-	Pass	
871		52.9	0.0	250+	-	Pass	
872		52.3	0.0	250+	-	Pass	
873		52.3	4.4	250+	-	Pass	
943		20/03/2008	39.5	2.6	214+	-	Pass
944			42.3	2.4	214+	-	Pass
945			44.2	0.0	214+	-	Pass
946			49.9	0.0	214+	-	Pass
947			48.1	0.0	214+	-	Pass
956		4/04/2008	17.6	0.2	203+	-	Pass
957			18.4	5.8	214+	-	Pass
958			18.9	4.5	214+	-	Pass
959			19.4	4.7	187+	-	Pass
960			19.9	1.4	214+	-	Pass
961			20.4	1.8	207+	-	Pass
962	20.2		5.5	167	-	Pass	
963	20.5		8.7	201+	-	Pass	
964	14.1		2.1	214+	-	Pass	
965	14.6		1.7	214+	-	Pass	
966	14.1		1.2	214+	-	Pass	
967	14.6		1.7	214+	-	Pass	
968	14.5		4.9	214+	-	Pass	
969	14.0		8.9	214+	-	Pass	
970	13.9		3.5	214	-	Pass	
971	13.4	6.5	190+	-	Pass		
1086	10/04/2008	15.9	2.2	218+	-	Pass	
1087		16.6	2.5	218+	-	Pass	
1088		17.3	2.3	218+	-	Pass	
1089		16.2	4.5	196+	-	Pass	
1090		16.6	3.4	191+	-	Pass	
1091		17.0	4.9	183+	-	Pass	
1092		13.7	4.1	188	-	Pass	
1093		13.8	2.3	179	-	Pass	
1094		13.0	1.6	218+	-	Pass	
1095		12.8	0	175	-	Pass	
1096		13.1	6.5	218+	-	Pass	
1097		14.9	10	218+	-	Pass	
1098		20.6	8.2	173	-	Pass	
1099		21.9	1.7	180	-	Pass	
1100		39.2	0.5	218+	-	Pass	
1101		37.7	3.4	218+	-	Pass	
1102		38.5	0	170	-	Pass	
1103		38.5	1.4	206+	-	Pass	
1104		43.3	0	196+	-	Pass	
1105		42.7	7	200+	-	Pass	
1106	42.3	4.1	218+	-	Pass		
1107	41.4	8.9	203+	-	Pass		
1108	43.7	3.9	211+	-	Pass		
1109	41.2	0	218+	-	Pass		

Test Number	Date	Test RL (m)	Result			Pass/Fail
			Air Voids (%)	Shear Vane (kPa)	Scala (blows per 100mm)	

Notes

- 1 Shear strength for NDM tests calculated from average of 4 vane tests at each test location.
- 2 A target Solids Density of 2.4 t/m³ was assumed for pumice sand fill, 2.6 t/m³ for sil/wash fill and 2.5 t/m³ for blended fills.
- 3 UTP = Unable to Penetrate
- 4 Test 403 marginal fall on air voids %. Result considered to be outlier or possible localised pocket of insufficient compaction 3m below finished ground level.
- 5 Tests 826 and 827 within lots excluded from this GCR. To be retested with hand-auger and Scala penetrometer before GCR for these lots issued.
- 6 All test locations and elevations surveyed by Harrison Grierson Consultants Ltd.

FILL TEST RESULTS FROM 2013 / 2014 EARTHWORKS PERIOD						
Summary of earthfill test data provided by Geotechnics Ltd						
Test Number	Date	Test RL (m)	Result			Pass/Fail
			Air Voids (%)	Shear Vane (kPa)	Scala (blows per 100mm)	
FT49	30/10/2013	31.39	3.2	236+	-	Pass
FT50		31.77	6.2	164	-	Pass
FT61		32.42	2.7	159	-	Pass
FT52		31.71	0.0	175	-	Pass
FT53		32.27	0.8	189	-	Pass
FT64	22/11/2013	51.83	0.0	UTP	-	Pass
FT65		50.93	6.0	111	-	Fail
FT66		52.63	1.7	186	-	Pass
FT67		55.64	0.0	UTP	-	Pass
FT68		56.21	0.8	UTP	-	Pass
FT69		54.38	0.7	184	-	Pass
FT70		52.72	7.2	UTP	-	Pass
FT71		32.63	2.9	184	-	Pass
FT72		33.34	1.6	215	-	Pass
FT73		33.25	0.6	UTP	-	Pass
FT96	10/01/2014	51.37	0.0	UTP	-	Pass
FT97		52.24	0.0	UTP	-	Pass
FT115	15/01/2014	39.42	1.7	UTP	-	Pass
FT116		40.22	6.4	UTP	-	Pass
FT117		34.04	2.6	219	-	Pass
FT118		34.58	0	159	-	Pass
FT119		35.27	3.4	236+	-	Pass
FT127	17/02/2014	53.83	16	197	-	Pass
FT128		54.42	3.5	UTP	-	Pass
FT129		54.88	1.8	199	-	Pass
FT131		53.10	6.5	UTP	-	Pass
FT132		53.56	3.6	UTP	-	Pass
FT133	10/03/2014	54.22	3.4	UTP	-	Pass
FT159		42.73	6	UTP	-	Pass
FT160		41.94	2.2	UTP	-	Pass
FT161		41.21	5.6	UTP	-	Pass
FT162		42.51	3.5	UTP	-	Pass
FT163		38.95	5.2	UTP	-	Pass
FT164		38.93	6.4	UTP	-	Pass
FT165	38.64	4	UTP	-	Pass	

Notes

- 1 Shear strength for NDM tests calculated from average of 4 vane tests at each test location.
- 2 A target Solids Density of 2.44 t/m³ was assumed for silt/ash fill.
- 3 UTP = Unable to Penetrate
- 5 FT65 failed on shear strength. Cofley testing on adjacent lots indicates FT65 is isolated result possibly due to localised pocket of insufficient compaction or high sand content in fill material.
- 6 All test locations and elevations surveyed by JMC Ltd.

