



WINSTONE
AGGREGATES

Three Kings Quarry – Permit No 12977

Groundwater Take To Dewater Three Kings Quarry

Quarterly Report

September 2011

QUARTERLY REPORT

Three Kings Quarry – Permit No 12977

The following report is made with regard to Condition 7 of Permit No 12977.

This report contains the groundwater levels within boreholes surrounding the take point.

A plan showing the location of boreholes in which groundwater levels were measured is attached.

This report contains records for the period of 1 June to 31 August 2011.

THREE KINGS GROUNDWATER LEVEL RECORD SHEET

Date	BH 1B	BH 2B	BH 5B	BH 6A	BH 6B	BH 6C	BH 7	BH 10a								
15-Jun-11	11.39	34.83	1.06	34.19	44.11	34.15	32.57	46.22	38.58	40.21	43.48	35.31	27.90	40.71	29.37	51.39
20-Jul-11	11.37	34.85	1.05	34.20	44.08	34.18	32.01	46.78	38.48	40.31	43.34	35.45	27.88	40.73	29.25	51.51
17-Aug-11	11.59	34.63	1.12	34.13	44.18	34.08	31.98	46.81	38.54	40.25	43.65	35.13	28.21	40.40	29.32	51.44

Date	BH 10b	BH 11b	BH 12a	BH 12b	BH 13a	BH 13c	BH 16	BH 17								
15-Jun-11	8.07	72.69	7.53	72.46	20.80	51.43	4.95	67.18	13.12	59.05	7.08	66.33	48.25	51.89	43.73	34.15
20-Jul-11	8.07	72.69	7.55	72.44	20.70	51.53	4.95	67.18	12.94	59.23	7.07	66.34	48.12	52.02	43.62	34.26
17-Aug-11	8.07	72.69	7.55	72.44	20.77	51.46	4.99	67.14	12.92	59.25	7.08	66.33	48.16	51.98	43.80	34.08

Date	BH 18A	BH 18B	BH 19A	BH 19B	BH 20	BH 20a	BH 21	BH 22								
15-Jun-11	48.61	35.89	38.28	46.22	45.84	34.21	41.48	38.57	1.19	55.47	4.51	52.23	37.01	35.30	34.04	41.20
20-Jul-11	48.52	35.98	37.48	47.02	45.81	34.24	41.44	38.61	1.02	55.64	4.31	52.43	36.95	35.36	34.04	41.20
17-Aug-11	48.73	35.77	37.57	46.93	45.03	34.02	41.41	38.64	0.99	55.67	4.54	52.20	37.12	35.19	34.04	41.20

Date	BH 22a	BH 23	BH 23a	BH 24	BH 24a	BH 25	BH 25a	BH 25b1								
15-Jun-11	9.93	65.21	5.43	51.77	5.91	51.43	6.35	56.45	2.05	60.71	22.23	37.22	9.86	49.58	10.52	49.41
20-Jul-11	9.94	65.20	5.36	51.84	5.74	51.60	6.25	56.55	2.05	60.71	22.23	37.22	9.71	49.73	10.57	49.46
17-Aug-11	9.94	65.20	5.29	51.91	5.71	51.63	6.20	56.60	2.06	60.70	22.32	37.13	9.80	49.64	10.57	49.46

Date	BH25b2	BH 26	BH 26a	BH 27	BH 28a	BH 28b	BH 29	BH 30								
15-Jun-11	9.28	52.67	0.00	59.44	5.00	54.41	0.01	49.59	7.07	51.72	4.54	53.59	8.00	58.60	17.47	55.70
20-Jul-11	9.40	52.79	0.00	59.44	4.97	54.44	0.01	49.59	7.10	51.75	4.58	53.63	7.88	58.72	17.47	55.70
17-Aug-11	9.15	52.54	0.01	59.43	5.01	54.40	0.01	49.59	7.09	51.74	4.27	53.32	7.88	58.72	17.46	55.69

Date	BH31a	BH31b	BH32	BH33	BH34	BH35a	BH35b	BH36a							
15-Jun-11	15.64	49.23	13.28	50.57		0.68	59.59	8.70	50.05	17.23	49.03	10.74	55.52	7.32	59.21
20-Jul-11	15.65	49.24	13.36	50.65		0.63	59.64	8.60	50.15	17.21	49.05	10.69	55.57	7.24	59.29
17-Aug-11	15.64	49.23	13.37	50.66		0.65	59.62	8.72	50.03	16.65	49.61	10.69	55.57	7.30	59.23

Date	BH36b	BH37a	BH37b	BH38a	BH38b	BH39a	BH39b	BH40a								
15-Jun-11	7.26	59.27	3.54	54.00	3.58	54.02	4.09	54.39	4.75	53.72	7.16	54.83	4.79	57.34	10.62	60.70
20-Jul-11	7.20	59.33	3.49	54.05	3.60	54.00	4.02	54.46	4.66	53.81	7.13	54.86	4.77	57.36	10.52	60.80
17-Aug-11	7.26	59.27	3.51	54.03	3.66	53.94	4.04	54.44	4.72	53.75	7.01	54.98	4.76	57.37	10.47	60.85

Date	BH40b							
15-Jun-11	8.57	62.79						
20-Jul-11	8.45	62.91						
17-Aug-11	8.42	62.94						

Locations of boreholes are marked on the attached plan

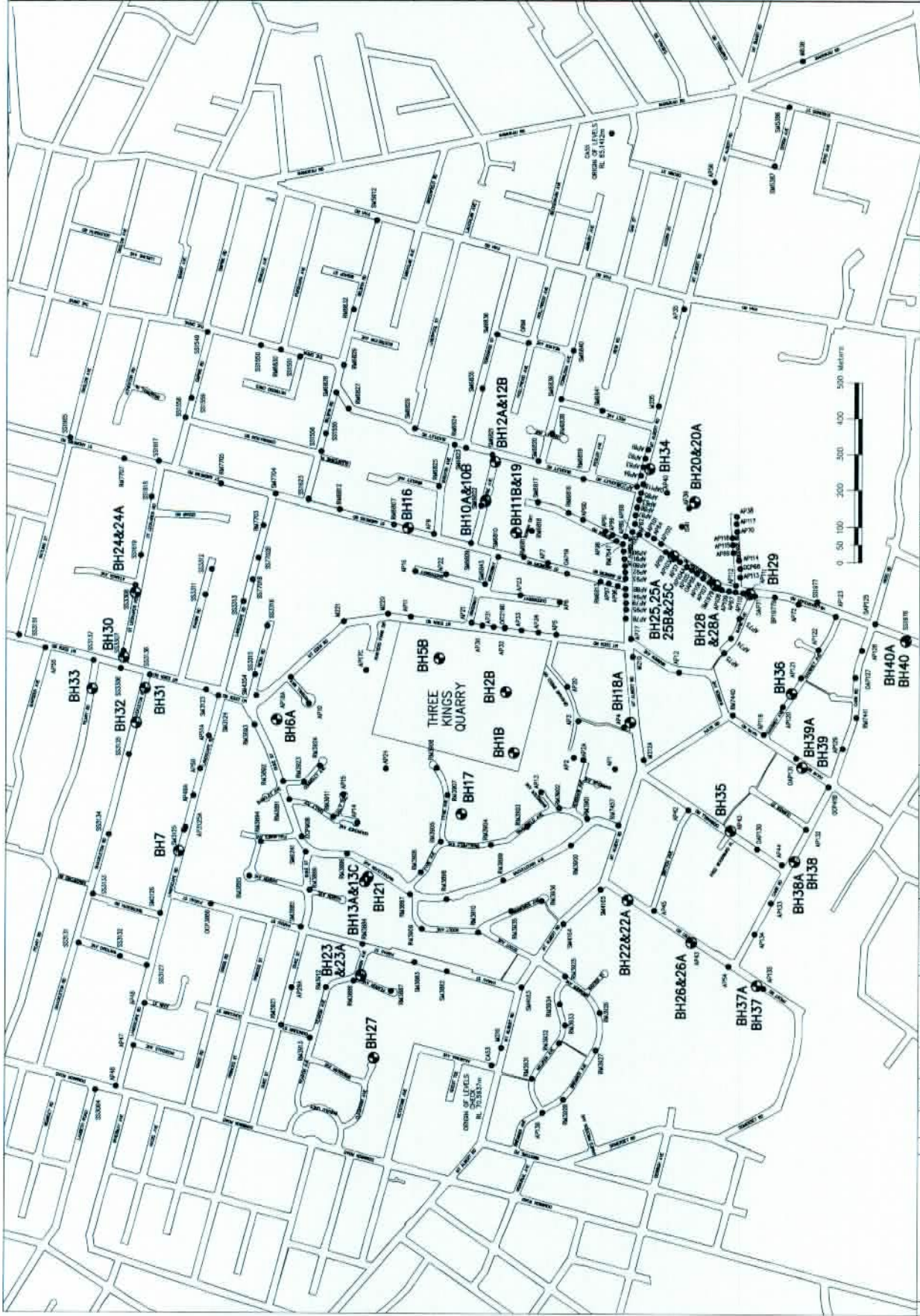
Waterlevels within standpipe piezometers are expressed as depth below surface levels (first column) and as elevations above seallevel (second column).

Waterlevels within pneumatic piezometers are expressed as head of water above piezometer tip (first column) and as elevations above seallevel (second column).

BH32 destroyed by Reading Contractors in June 2011.



Note
 Origin of Levels
 CH35 5049930
 RL 103.147m
 in M205 S054417
 RL 105.305m
 ● SSS316 = Precise
 Level Survey
 Benchmarks
 ● BH16 = Borehole
 Location



PROJECT NO: 6451-100
 DRAWING NO: 10-3-05
 DATE: 11/10/05
 SCALE: AS SHOWN

CLIENT: WITSTONE AGGREGATES LTD
 PROJECT: THREE KINGS QUARRY
 TITLE: BOREHOLE LOCATION PLAN
 AS AT 10-3-05

CONSULTING ENGINEERS SURVEYORS PLANNERS
 HARRISON
 GRIFFIN
 CONSULTING ENGINEERS SURVEYORS PLANNERS
 Level 5, Copthorne 23, Anderson Way, Newton, Dr. Ph 19 261 3300 Fax 19 261 3308

NO.	DATE	BY	DESCRIPTION
1	10/03/05	AS	ISSUED FOR TENDERS
2	11/10/05	AS	REVISED TO SHOW BOREHOLE LOCATIONS
3	11/10/05	AS	REVISED TO SHOW BOREHOLE LOCATIONS
4	11/10/05	AS	REVISED TO SHOW BOREHOLE LOCATIONS
5	11/10/05	AS	REVISED TO SHOW BOREHOLE LOCATIONS
6	11/10/05	AS	REVISED TO SHOW BOREHOLE LOCATIONS
7	11/10/05	AS	REVISED TO SHOW BOREHOLE LOCATIONS
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