

5th March 2009

Auckland Regional Council
Private Bag 92 012
Auckland.

Attention: Naveen Kumar, Water Resources Section

Re: Three Kings Quarry De-watering Consent 12977

Dear Naveen

As required by Condition 7 of the above resource consent, please find enclosed records of groundwater level measurements for the period of 1 December 2008 to 28 February 2009.

Please note that the groundwater level within bores 40a and 40b are still below their respective trigger levels of RL61.03m and 63.11m.

I trust all is in order. Please contact the undersigned if any further information or clarification is required.

Yours faithfully
for **Winstone Aggregates**

Michael Harris
Engineering Geologist.



Three Kings Quarry – Permit No 12977

Groundwater Take To Dewater Three Kings Quarry

Quarterly Report

March 2009

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 the 1st December 2008 to 18th February 2009.

THREE KINGS GROUNDWATER LEVEL RECORD SHEET

Date	BH 1B		BH 2B		BH 5B		BH 6A		BH6B		BH 6C		BH 7		BH 10a	
17-Dec-08	11.29	34.93	0.97	34.28	44.00	34.26	33.09	45.70	38.70	40.09	43.41	35.38	28.76	39.85	29.75	51.01
21-Jan-09	10.91	35.31	0.79	34.46	43.62	34.64	33.25	45.54	38.58	40.21	42.98	35.81	28.61	40.00	29.83	50.93
18-Feb-09	11.11	35.11	0.78	34.47	43.81	34.45	33.43	45.36	38.72	40.07	43.19	35.60	28.80	39.81	29.83	50.93

Date	BH 10b		BH 11b		BH 12a		BH 12b		BH 13a		BH13c		BH 16		BH 17	
17-Dec-08	8.08	72.68	7.61	72.38	21.40	50.83	5.24	66.89	15.90	56.27	7.08	66.33	48.89	51.25	43.65	34.23
21-Jan-09	8.08	72.68	7.58	72.41	21.38	50.85	5.01	67.12	16.15	56.02	7.08	66.33	48.96	51.18	43.39	34.49
18-Feb-09	8.08	72.68	7.58	72.41	21.51	50.72	5.20	66.93	16.31	55.86	7.08	66.33	49.03	51.11	43.46	34.42

Date	BH 18A		BH 18B		BH 19A		BH 19B		BH 20		BH 20a		BH 21		BH 22	
17-Dec-08	48.62	35.88	38.37	46.13	45.73	34.32	41.43	38.62	1.56	55.10	5.86	50.88	35.43	36.88	33.96	41.28
21-Jan-09	48.47	36.03	38.7	45.80	45.36	34.69	41.45	38.60	1.71	54.95	5.80	50.94	35.06	37.25	33.95	41.29
18-Feb-09	48.89	35.61	38.56	45.94	45.55	34.50	41.47	38.58	1.95	54.71	6.09	50.65	35.24	37.07	33.95	41.29

Date	BH 22a		BH 23		BH 23a		BH 24		BH 24a		BH 25		BH 25a		BH25b1	
17-Dec-08	10.50	64.64	5.5	51.70	6.19	51.15	6.58	56.22	1.31	61.45	22.19	37.26	11.13	48.31	9.63	48.52
21-Jan-09	10.52	64.62	5.57	51.63	6.18	51.16	6.70	56.10	1.35	61.41	22.18	37.27	11.93	47.51	9.76	48.65
18-Feb-09	10.73	64.41	5.63	51.57	6.19	51.15	6.78	56.02	1.39	61.37	22.22	37.23	12.31	47.13	9.58	48.47

Date	BH25b2		BH 26		BH 26a		BH 27		BH28a		BH28b		BH29		BH30	
17-Dec-08	8.49	51.88	0.33	59.11	5.19	54.22	0.01	49.59	6.63	51.28	3.78	52.83	8.50	58.10	16.92	55.15
21-Jan-09	8.53	51.92	0.30	59.14	5.18	54.23	0.01	49.59	6.68	51.33	3.79	52.84	8.52	58.08	16.98	55.21
18-Feb-09	8.38	51.77	0.29	59.15	5.24	54.17	0.03	49.57	6.57	51.22	3.70	52.75	8.57	58.03	16.95	55.18

Date	BH31a		BH31b		BH32		BH33		BH34		BH35a		BH35b		BH36a	
17-Dec-08	15.47	49.06	13.11	50.40	4.05	54.61	1.28	58.99	9.84	48.91	17.04	49.22	10.88	55.38	7.69	58.84
21-Jan-09	15.52	49.11	13.13	50.42	4.09	54.57	1.41	58.86	9.96	48.79	17.18	49.08	10.99	55.27	7.67	58.86
18-Feb-09	15.36	48.95	12.98	50.27	4.28	54.38	1.56	58.71	10.20	48.55	17.29	48.97	11.05	55.21	7.83	58.70

Date	BH36b		BH37a		BH37b		BH38a		BH38b		BH39a		BH39b		BH40a	
17-Dec-08	7.57	58.96	3.62	53.92	3.81	53.79	4.23	54.25	4.93	53.54	7.14	54.85	4.95	57.18	10.77	60.55
21-Jan-09	7.59	58.94	3.58	53.96	3.78	53.82	4.14	54.34	4.85	53.62	7.06	54.93	4.93	57.20	10.72	60.60
18-Feb-09	7.65	58.88	3.63	53.91	3.83	53.77	4.31	54.17	4.91	53.56	7.11	54.88	5.00	57.13	10.84	60.48

Date	BH40b															
17-Dec-08	8.65	62.71														
21-Jan-09	8.60	62.76														
18-Feb-09	8.67	62.69														

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 sealevel (second column).

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

