



Three Kings Quarry
Air Quality Quarterly Report
March 2010 – May 2010

In compliance with: Permit 21875, conditions 26 & 27
Compiled By: Andrea Sprosen, Environmental Coordinator
Date: 10th June 2010

Introduction

This report details the air quality monitoring results for Winstone Aggregates Three Kings Quarry for the period March – May 2010.

This report is being prepared in accordance with Conditions 26 and 27 of Permit 21875. The conditions state:

“A summary of all monitoring results, including references where applicable to wind and rainfall data, and any remedial actions taken shall be submitted to the Manager at the end of each quarter”.

“A summary of the information recorded shall be submitted to the Manager at the end of each quarter.”

Details of the monitoring undertaken as part of the air permit are described below and actual monitoring results are presented in tables within the report or in the Appendices.

Daily Log

In accordance with Condition 26 (a) – (e) of the air permit a daily log of monitoring results is maintained on site. The log includes information about equipment malfunctions; visible dust emissions, water cart use and all relevant details relating to particulate monitoring.

March 2010

Three Kings Quarry Summary monitoring results for the period March 2010

Date	Day	daily average WS m/sec	daily average WD (degrees)	Daily Rain (mm)	Site TSP mg/m3 office	BAM FH62 mg/m-3 office	Site TSP mg/m3 North Boundary
1/03/2010	Mon	2.076	130.333	0.200		15.8	
2/03/2010	Tue	1.672	202.156	0.200		12.5	
3/03/2010	Wed	2.823	237.306	0.400		13	
4/03/2010	Thu	4.484	215.226	0.200	64	25.9	50
5/03/2010	Fri	2.942	199.764	0.000		26.1	
6/03/2010	Sat	2.137	170.892	0.400	29.8	16.7	24.1
7/03/2010	Sun	2.662	172.649	0.000		10.3	
8/03/2010	Mon	1.286	159.132	0.000		17.8	
9/03/2010	Tue	1.545	166.642	0.000	39	23.8	57.5
10/03/2010	Wed	1.838	231.465	0.000		20.0	
11/03/2010	Thu	3.684	243.417	0.000		14.0	
12/03/2010	Fri	5.077	232.257	0.600		1.2	
13/03/2010	Sat	4.163	213.056	0.000	79.6	0.0	46.6
14/03/2010	Sun	3.897	222.306	0.000		No data. Recording error.	
15/03/2010	Mon	4.296	220.333	0.000			
16/03/2010	Tue	2.797	227.257	0.200	35		-
17/03/2010	Wed	3.563	215.132	0.000		23.2	
18/03/2010	Thu	2.678	200.736	0.000	49.3	18.1	40
19/03/2010	Fri	2.995	244.684	0.000		20.8	
20/03/2010	Sat	2.444	247.753	0.000		15.9	
21/03/2010	Sun	2.072	257.385	0.000	21.2	12.8	11.9
22/03/2010	Mon	2.352	289.174	0.000		24.0	
23/03/2010	Tue	2.629	258.979	0.200	33.7	19.0	21.4
24/03/2010	Wed	3.132	270.483	10.400		16.8	
25/03/2010	Thu	3.935	252.552	2.200		16.6	
26/03/2010	Fri	3.953	232.076	0.200		15.0	
27/03/2010	Sat	3.785	217.101	0.000	15.6	13.0	16.5
28/03/2010	Sun	2.692	178.132	0.000		16.4	
29/03/2010	Mon	2.922	97.366	0.000		11.3	
30/03/2010	Tue	2.437	113.035	0.000	25.9	16.6	34.8
31/03/2010	Wed	1.745	113.097	0.000		15.4	

April 2010

Three Kings Quarry Summary monitoring results for the period April 2010

Date	Day	daily average WS m/sec	daily average WD (degrees)	Daily Rain (mm)	Site TSP mg/m3 office	BAM FH62 mg/m-3 office	Site TSP mg/m3 North Boundary
1/04/2010	Thu	1.278	137.351	0.000	28.6	16.0	21.4
2/04/2010	Fri	0.910	119.059	0.000		8.6	
3/04/2010	Sat	1.322	120.712	0.000		8.1	
4/04/2010	Sun	1.278	160.750	0.000		6.8	
5/04/2010	Mon	1.808	128.538	11.600	13.3	8.2	12.5
6/04/2010	Tue	1.703	190.729	1.800		12.6	
7/04/2010	Wed	2.357	171.976	0.000		7.0	
8/04/2010	Thu	1.695	138.344	0.000	14.3	7.4	13.7
9/04/2010	Fri	1.057	128.476	0.000		10.8	
10/04/2010	Sat	1.267	123.438	0.000		8.0	
11/04/2010	Sun	1.420	113.740	0.000	13	7.7	13.2
12/04/2010	Mon	1.549	120.264	0.000		7.6	
13/04/2010	Tue	3.290	113.743	0.000		10.5	
14/04/2010	Wed	2.809	232.309	6.400		17.4	
15/04/2010	Thu	2.610	257.944	0.000	22.2	13.2	20.2
16/04/2010	Fri	4.322	229.118	0.200		20.1	
17/04/2010	Sat	2.500	201.632	0.000		17.6	
18/04/2010	Sun	3.984	215.142	0.000	31.4	12.8	16.9
19/04/2010	Mon	3.649	234.743	1.000		12.4	
20/04/2010	Tue	3.703	225.257	1.200	23.3	17.1	23
21/04/2010	Wed	1.830	211.743	0.000		10.8	
22/04/2010	Thu	2.025	245.986	0.000		6.1	
23/04/2010	Fri	2.477	270.267	0.400		9.8	
24/04/2010	Sat	2.415	258.660	0.000	16.9	11.9	16.4
25/04/2010	Sun	1.398	164.892	0.000		10.5	
26/04/2010	Mon	3.410	111.493	0.000		13.5	
27/04/2010	Tue	4.168	131.865	21.400	37.5	22.1	24.2
28/04/2010	Wed	1.167	238.503	0.000		18.7	
29/04/2010	Thu	1.112	212.609	0.000	28.8	21.3	33.8
30/04/2010	Fri	1.925	275.226	0.000		22.6	
1/05/2010	Sat	1.745	113.097	0.000			

May 2010

Three Kings Quarry Summary monitoring results for the period May 2010

Date	Day	daily average WS m/sec	daily average WD (degrees)	Daily Rain (mm)	Site TSP mg/m3 office	BAM FH62 mg/m-3 office	Site TSP mg/m3 North Boundary
1/05/2010	Sat	3.290	251.083	6.000		11.2	
2/05/2010	Sun	2.399	190.767	0.000	20.5	12.9	
3/05/2010	Mon	1.803	248.295	0.000		16.6	
4/05/2010	Tue	3.438	236.243	0.600		21.6	
5/05/2010	Wed	1.153	132.813	0.000		17.0	
6/05/2010	Thu	1.642	108.903	0.000	16.6	9.2	30.4
7/05/2010	Fri	2.052	114.295	0.000		11.6	
8/05/2010	Sat	1.723	112.486	0.000	17.6	10.4	
9/05/2010	Sun	2.390	108.913	0.000		10.0	
10/05/2010	Mon	2.206	115.500	0.000		14.5	
11/05/2010	Tue	3.699	98.840	0.000	25.1	13.9	43.3
12/05/2010	Wed	4.355	96.913	6.200		15.4	
13/05/2010	Thu	2.228	97.580	0.400		19.8	
14/05/2010	Fri	2.992	165.042	0.000		15.0	
15/05/2010	Sat	3.877	96.559	12.600	29.8	14.2	
16/05/2010	Sun	2.764	202.580	0.000		13.0	
17/05/2010	Mon	1.273	210.451	0.000		18.9	
18/05/2010	Tue	1.084	145.292	0.400	32.7	15.2	28.1
19/05/2010	Wed	0.698	171.576	0.200		24.6	
20/05/2010	Thu	1.259	137.135	7.200	28	15.3	
21/05/2010	Fri	4.302	203.385	62.600		7.3	
22/05/2010	Sat	1.659	196.073	0.000		11.0	
23/05/2010	Sun	1.780	123.552	2.200		13.9	
24/05/2010	Mon	2.781	168.882	19.400		16.0	
25/05/2010	Tue	3.097	290.573	15.200		22.8	
26/05/2010	Wed	2.626	279.420	16.600		19.1	
27/05/2010	Thu	1.590	195.177	1.200		16.0	
28/05/2010	Fri	1.533	204.083	7.000		9.3	
29/05/2010	Sat	3.134	244.572	1.600		8.3	
30/05/2010	Sun	2.009	172.892	0.000		11.6	
31/05/2010	Mon	1.963	93.219	2.400		13.6	

Daily Log Summary for Three Kings Quarry Site for the period March – May 2010

(Condition 27, Air Permit 21875)

- a. No visible dust emissions (that went over or were over the boundary) were noted in the Daily Air Log for this period.
- b. TSP monitoring was carried as per TSP monitoring procedures documented in the site Air Quality Management Plan.
- c. The water cart used 1872m³ during this period, made up of:

MONTH	LOADS	VOLUME (m ³)
March	91	1092
April	40	480
May	25	300

- d. The daily log sheet is dated and signed by the person entering the information.

Complaints:

There have been no complaints made directly to Three Kings Quarry during this period.

However, one complaint was made to the Auckland Regional Council.

Winstone Aggregates is currently working with the Auckland Regional Council to alleviate the complainants concerns.