



Three Kings Quarry

Air Quality Quarterly Report

June - August
2009

In compliance with: Permit 21875, conditions 26 & 27

Compiled By: Andrea Sprosen, Environmental Coordinator

Date: 7th September 2009

Introduction

This report details the air quality monitoring results for Winstone Aggregates Three Kings Quarry for the period June - August 09

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.

June 09

Three Kings Quarry Summary monitoring results for the period June 09

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
1/06/2009	Mon	3.980	191.740	0.000	25.8	8.6	24.3
2/06/2009	Tue	1.454	175.955	0.000		14.1	
3/06/2009	Wed	0.851	162.368	0.800	38.5	19	
4/06/2009	Thu	0.711	142.059	0.000		24.7	
5/06/2009	Fri	1.042	215.601	0.000		23.2	
6/06/2009	Sat	2.593	251.344	0.800	28.7	11.9	33.6
7/06/2009	Sun	1.072	146.837	0.000		12.6	
8/06/2009	Mon	2.622	109.771	0.000		11.1	
9/06/2009	Tue	3.265	86.840	18.400	19.5	5.8	
10/06/2009	Wed	2.325	145.944	19.400		8.3	
11/06/2009	Thu	1.698	131.017	0.200	13.8	11.6	19.3
12/06/2009	Fri	1.728	116.535	11.200		8.2	
13/06/2009	Sat	2.228	200.368	1.000		14.5	
14/06/2009	Sun	4.426	250.389	14.200	16.6	11.2	
15/06/2009	Mon	3.484	253.438	5.600		13.3	
16/06/2009	Tue	3.367	244.174	0.200		12.5	
17/06/2009	Wed	1.549	193.503	0.000	42.4	18.8	Invalid
18/06/2009	Thu	2.043	182.292	1.200		15.3	
19/06/2009	Fri	1.774	229.295	0.000		11.8	
20/06/2009	Sat	3.373	194.125	0.000	43.4	12.4	
21/06/2009	Sun	2.167	179.806	0.000		9.6	
22/06/2009	Mon	2.043	177.212	0.000		13.6	
23/06/2009	Tue	1.769	178.087	0.000	34.9	-6.3	22.8
24/06/2009	Wed	1.063	225.701	0.000		23.5	
25/06/2009	Thu	1.281	179.799	0.000		18.1	
26/06/2009	Fri	2.110	218.184	8.000	28.6	14.1	
27/06/2009	Sat	0.861	140.715	0.000		15.7	
28/06/2009	Sun	2.883	100.024	36.000		8.6	
29/06/2009	Mon	3.860	129.444	11.000		4.4	
30/06/2009	Tue	3.612	209.302	0.000	24.1	8.4	22.4
1/07/2009	Wed						

Notes:

- 17th June – Sampled for a full 5 days by mistake
- 23rd June – Monitor calibrated and serviced
- 26th June – Raindrops on the TSP
- 30th June – Ran over time by 1.5 hours

July 09

Three Kings Quarry Summary monitoring results for the period July 09

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
1/07/2009	Wed	4.219	218.542	0.000		10.9	
2/07/2009	Thu	1.878	172.653	2.400	23.5	11.4	
3/07/2009	Fri	1.603	270.281	0.000		24.4	
4/07/2009	Sat	1.659	127.851	8.200		18.8	
5/07/2009	Sun	2.801	248.705	10.000		15.7	
6/07/2009	Mon	2.588	250.455	7.800	20.1	8.8	21.2
7/07/2009	Tue	2.113	242.503	0.800		20.3	
8/07/2009	Wed	1.515	231.819	4.400		18.1	
9/07/2009	Thu	1.063	171.927	0.000	29.2	14.7	
10/07/2009	Fri	0.964	141.274	0.000		19.9	
11/07/2009	Sat	2.552	130.694	17.400		8.6	
12/07/2009	Sun	4.676	173.889	1.600	15.8	3.5	11.4
13/07/2009	Mon	2.988	216.122	0.000		13.4	
14/07/2009	Tue	2.588	245.358	7.400			
15/07/2009	Wed	1.373	244.819	1.200	47.6		
16/07/2009	Thu	1.797	192.653	1.400			
17/07/2009	Fri	1.366	119.288	11.200	27.8		28.6
18/07/2009	Sat	6.407	227.441	7.000			
19/07/2009	Sun	4.741	258.455	0.000			
20/07/2009	Mon	2.683	255.174	0.600			
21/07/2009	Tue	2.566	288.451	0.200			
22/07/2009	Wed	3.203	264.899	6.000	41.7		
23/07/2009	Thu	4.673	278.865	0.800			
24/07/2009	Fri	2.930	260.455	4.400			
25/07/2009	Sat	1.586	172.198	0.000	23.8		14.0
26/07/2009	Sun	1.278	163.219	0.000			
27/07/2009	Mon	0.812	181.594	0.000			
28/07/2009	Tue	1.909	130.115	0.800	27.3		
29/07/2009	Wed	3.682	195.344	1.000			
30/07/2009	Thu	2.747	265.872	0.400	27.5		18.3
31/07/2009	Fri	2.098	275.7	0.000		25.2	

Notes

Power cut on the 14th July 2009

August 2009

Three Kings Quarry Summary monitoring results for the period August 09

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
1/08/2009	Sat	2.620	264.278	8.800		19.3	
2/08/2009	Sun	2.508	263.108	3.400		15.9	
3/08/2009	Mon	3.224	257.038	0.000	47.7	29.8	
4/08/2009	Tue	2.266	277.559	0.000		36.6	
5/08/2009	Wed	1.648	235.528	0.000	36.4	24.6	31.7
6/08/2009	Thu	1.661	217.385	0.000		29.2	
7/08/2009	Fri	0.927	122.844	0.000		21.1	
8/08/2009	Sat	1.650	109.955	0.000	27.5	17.7	
9/08/2009	Sun	2.874	104.656	0.000		16.1	
10/08/2009	Mon	3.370	91.889	0.000		16.6	
11/08/2009	Tue	2.463	94.965	0.000		10.1	
12/08/2009	Wed	1.580	117.292	0.200	14.3	13.6	26.9
13/08/2009	Thu	1.888	105.538	0.000		15.7	
14/08/2009	Fri	3.168	98.285	24.400	19	13.2	
15/08/2009	Sat	2.947	162.222	2.000		10.8	
16/08/2009	Sun	3.215	245.934	4.200		8.6	
17/08/2009	Mon	4.994	225.250	2.000		13.1	
18/08/2009	Tue	2.623	241.149	0.400		17.0	
19/08/2009	Wed	2.674	197.740	0.000	4.8	7.6	7.4
20/08/2009	Thu	2.445	154.729	0.800		6.9	
21/08/2009	Fri	1.497	169.264	0.000		13.2	
22/08/2009	Sat	1.031	132.028	0.000		11.5	
23/08/2009	Sun	1.744	113.167	0.000		7.3	
24/08/2009	Mon	2.684	90.153	0.000		9.8	
25/08/2009	Tue	3.130	127.844	7.200		10.3	
26/08/2009	Wed	2.981	215.208	12.000		31.9	
27/08/2009	Thu	4.614	261.910	0.200		32.3	
28/08/2009	Fri	2.402	276.233	0.000		33.9	
29/08/2009	Sat	1.783	183.257	0.000		26.7	
30/08/2009	Sun	3.359	154.000	18.600		9.8	
31/08/2009	Mon	4.547	269.760	4.800		28.2	

Daily Log Summary for Three Kings Quarry Site for the period June - August 09

(Condition 27, Air Permit 21875)

- a. On the 2nd and 4th June it was noted that there were visible dust emissions from the Three Kings pit, as the bulldozer was working. No significant dust emissions over the boundary were recorded. On the 24th July 2009 there was a visible dust emission within the quarry due to the pump adjusted sprinklers not operating correctly. On the 4th and 12th August black smoky dust was coming from Danske Mobler's chimneys. It was also noted that people were water blasting on Danske Mobler's roof on these dates.
- b. TSP monitoring was carried as per TSP monitoring procedures documented in the site Air Quality Management Plan. No exceedences were recorded.
- c. The water cart used 144m³ during this period, made up of:

MONTH	LOADS	VOLUME (m ³)
June	0	0
July	0	0
August	12	144

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

Complaints:

There have been no complaints received for this period.