

30th September 2013

Auckland Council
Private Bag 92300
Auckland 1142

Attention: Richard Preece (Central Resource Consenting and Compliance)

Re: Quarterly Report for Three Kings Quarry, Air Permit 21875

With regard to the above consent, please find attached the quarterly report for the period of June 2013 to August 2013.

Should you have any queries please do not hesitate to contact me on 027 504 3624 or at elyse.laface@winstoneaggregates.co.nz.

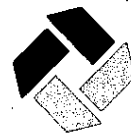
Yours faithfully



Elyse LaFace
Environmental Coordinator

Enclosed:
Quarterly Report

Cc:
Team Leader – Air Quality



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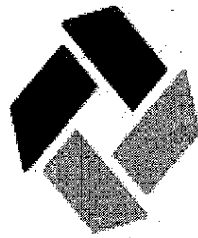
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Yours faithfully

Elyse LaFace
Environmental Coordinator

Enclosed:
Quarterly Report

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Richard Preece (Central Resource Consenting and Compliance)



WINSTONE
AGGREGATES

Three Kings Quarry

Air Quality Quarterly Report

June 2013 - August 2013

In compliance with:

Permit 21875, conditions 26 & 27

Introduction

This report details the air quality monitoring results for Winstone Aggregates Three Kings Quarry for the period June 2013 – August 2013.

This report has been prepared in accordance with Conditions 26 and 27 of Permit 21875.

Condition 26 states:

That any results of total suspended particulate in ambient air monitoring showing exceedences of the prompts given in Condition 20 or specified in the TSP Monitoring Plan, shall be reported by facsimile to the Manager as soon as practicable. 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.

Condition 27 states:

That the Consent Holder shall record in a log all such information that is required to enable compliance with the conditions of this consent. The log shall record, on a daily basis, information including, but not limited to:

- (a) Any dust control equipment malfunctions and any remedial action taken;*
- (b) Any visible emissions of dust and the source;*
- (c) All relevant details relating to the total suspended particulate monitoring or other monitoring required by the TSP Monitoring Plan, to enable compliance with Conditions 19, 20 and 21;*
- (d) When a water cart was used and, if so, the frequency of use and the volume of water used; and*
- (e) The date and time of the entry and the signature of the person entering the information.*

The log shall be made available on request, during operating hours, to an enforcement officer and shall be kept for the term of the consent. 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 attached to the report.

Summary of Monitoring Results

Summary tables of the monitoring results for each month of the reporting period are attached to this report. An overview of the quarter is provided below.

June 2013

All results for June 2013 were within the consented limits. The results on the Southern Boundary BAM from the 23rd June 2013 recorded a '9.2', which was a false reading due to a malfunction on the unit. The fault was not immediately spotted. The replacement part had to be sought in Australia as the supplier was unaware of this part ever malfunctioning before. As such, there are no results from the 23rd June 2013 until 6th August 2013 on the Southern Boundary BAM.

July 2013

All results for July 2013 were within the consented limits. Again the Southern Boundary BAM continued with '9.2' and 'Off Scan' result over the month of July. On the 8th July 2013, a 'no data' result was recorded on the Northern Boundary BAM due to a 24hr calibration on the unit.

August 2013

All results for August 2013 were within the consented limits. The Southern Boundary BAM was back online on from the 7th August 2013.

Daily Log

In accordance with Condition 27 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. A summary of the daily log is provided below.

- a. Over the last quarter all dust control equipment has functioned as required with maintenance being undertaken on both the sprinkler system and water cart as necessary.
- b. No visible dust emissions (that went over or were over the boundary) were noted in the daily log for this period with the exception of the following comments:
 - Smoke from chimney of Danske Moblier recorded on 19th June 2013 at Approximately 13:30.
- c. TSP monitoring was carried out as per TSP monitoring procedures documented in the site Air Quality Management Plan. A summary of the results is provided above and the tabled results for this reporting period are attached to this report.
- d. The water cart used 384m³ during this period. The use over this quarter was made up of:

MONTH	LOADS	VOLUME (m ³)
June 2013	1	12
July 2013	15	180
August 2013	16	192

- e. 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 regarding dust during the period of June 2013 to August 2013.

Next Reporting Period

The next quarterly report will be submitted in early December 2013. This report will cover the monitoring period of September 2013 to November 2013.

Monitoring Results for the Period June 2013

Date	Day	daily average WS m/sec	daily average WD (degrees)	Daily Rain (mm)	Site TSP Office ($\mu\text{g}/\text{m}^3$)	BAM Office ($\mu\text{g}/\text{m}^3$)	Site TSP North Boundary ($\mu\text{g}/\text{m}^3$)	BAM South Boundary ($\mu\text{g}/\text{m}^3$)
1/06/2013	Sat	1.707	238.858	0.000		7.1		8.4
2/06/2013	Sun	1.166	216.000	0.000		13.0		11.0
3/06/2013	Mon	1.233	140.747	0.000	19	12.2	19	11.3
4/06/2013	Tue	2.369	118.868	18.400		13.6		11.2
5/06/2013	Wed	2.798	147.438	0.200	17	13.4		12.3
6/06/2013	Thu	2.763	172.931	0.000		7.6		6.3
7/06/2013	Fri	0.525	146.906	0.000		17.0		15.4
8/06/2013	Sat	1.349	126.677	0.000	26	14.1	20	13.6
9/06/2013	Sun	1.501	154.451	41.200		12.0		11.6
10/06/2013	Mon	1.706	168.094	0.000		16.3		15.3
11/06/2013	Tue	1.837	187.858	0.000	28	17.2		16.8
12/06/2013	Wed	4.089	189.590	0.600		11.5		11.3
13/06/2013	Thu	3.318	210.337	0.000		11.0		12.3
14/06/2013	Fri	1.392	184.219	26.000	19	10.5	25	9.3
15/06/2013	Sat	1.453	118.024	0.200		8.3		6.8
16/06/2013	Sun	3.666	134.181	49.200		12.4		9.4
17/06/2013	Mon	3.043	187.990	1.200		17.2		12.9
18/06/2013	Tue	2.395	169.253	7.600		17.1		13.6
19/06/2013	Wed	2.088	231.316	12.400	54	19.3		8.9
20/06/2013	Thu	3.298	246.972	11.600		12.9		11.4
21/06/2013	Fri	4.309	214.083	11.000		10.4		11.1
22/06/2013	Sat	3.290	226.330	5.200	14	8.1	13	8.5
23/06/2013	Sun	2.928	213.247	6.200		6.5		9.2
24/06/2013	Mon	1.551	222.448	0.200		14.5		9.2
25/06/2013	Tue	2.055	227.462	0.000	16	9.8		9.2
26/06/2013	Wed	1.327	187.347	0.400		10.6		9.2
27/06/2013	Thu	2.814	139.542	0.000	33	6.5	16	9.2
28/06/2013	Fri	2.039	181.688	0.000		14.7		9.2
29/06/2013	Sat	0.756	165.870	0.000		20.0		9.2
30/06/2013	Sun	1.760	248.830	0.400		16.3		9.2

Monitoring Results for the Period July 2013

Date	Day	daily average WS m/sec	daily average WD (degrees)	Daily Rain (mm)	Site TSP Office ($\mu\text{g}/\text{m}^3$)	BAM Office ($\mu\text{g}/\text{m}^3$)	Site TSP North Boundary ($\mu\text{g}/\text{m}^3$)	BAM South Boundary ($\mu\text{g}/\text{m}^3$)
1/07/2013	Mon	1.997	256.170	0.800	38	14.8		9.2
2/07/2013	Tue	1.509	233.858	0.000		21.2		9.2
3/07/2013	Wed	1.573	136.972	6.400		9.6		9.2
4/07/2013	Thu	2.169	156.465	1.800	14	26.5	15	9.2
5/07/2013	Fri	1.305	152.979	0.000		13.4		9.2
6/07/2013	Sat	1.823	237.917	2.800	25	16.2		9.2
7/07/2013	Sun	2.073	244.924	0.200		22.5		9.2
8/07/2013	Mon	2.469	223.309	1.800		0.0		9.2
9/07/2013	Tue	1.623	220.007	7.000	27	21.9	23	9.2
10/07/2013	Wed	2.288	226.274	7.200		12.1		9.2
11/07/2013	Thu	1.867	170.969	0.000	16	4.6		9.2
12/07/2013	Fri	1.153	112.104	0.000		9.7		Off Scan
13/07/2013	Sat	1.250	181.330	0.400		13.4		Off Scan
14/07/2013	Sun	4.195	197.656	3.000	24	14.3	23	Off Scan
15/07/2013	Mon	4.543	184.833	0.600		11.1		Off Scan
16/07/2013	Tue	2.345	184.031	0.000		17.8		Off Scan
17/07/2013	Wed	1.924	233.920	0.000	24	18.2		Off Scan
18/07/2013	Thu	2.139	230.997	0.000		11.3		Off Scan
19/07/2013	Fri	1.736	234.844	0.000		8.5		Off Scan
20/07/2013	Sat	1.056	247.250	0.000	30	16.1	23	Off Scan
21/07/2013	Sun	1.116	187.847	0.000		12.4		Off Scan
22/07/2013	Mon	0.595	146.556	0.000		16.2		Off Scan
23/07/2013	Tue	1.247	145.476	0.000	29	16.6		Off Scan
24/07/2013	Wed	1.496	237.486	1.600		22.9		Off Scan
25/07/2013	Thu	2.309	231.215	2.000		11.7		Off Scan
26/07/2013	Fri	2.901	223.917	0.200	25	15.0	22	Off Scan
27/07/2013	Sat	1.684	224.465	0.000		17.9		Off Scan
28/07/2013	Sun	2.036	219.997	0.000		16.1		Off Scan
29/07/2013	Mon	1.754	173.453	0.000		20.0		Off Scan
30/07/2013	Tue	0.896	119.274	0.000		18.7		Off Scan
31/07/2013	Wed	1.964	110.226	0.000	27	15.0		Off Scan

Monitoring Results for the Period August 2013

Date	Day	daily average WS m/sec	daily average WD (degrees)	Daily Rain (mm)	Site TSP Office ($\mu\text{g}/\text{m}^3$)	BAM Office ($\mu\text{g}/\text{m}^3$)	Site TSP North Boundary ($\mu\text{g}/\text{m}^3$)	BAM South Boundary ($\mu\text{g}/\text{m}^3$)
1/08/2013	Thu	1.125	76	0.000		11.3		Off Scan
2/08/2013	Fri	1.208	92	0.200		6.4		Off Scan
3/08/2013	Sat	0.708	121	0.000	18	8.5	20	Off Scan
4/08/2013	Sun	1.333	12	0.000		12.7		Off Scan
5/08/2013	Mon	0.625	234	0.200		12.9		Off Scan
6/08/2013	Tue	0.708	278	0.200	41	20.5		Off Scan
7/08/2013	Wed	0.500	46	0.000		19.0		1.7
8/08/2013	Thu	0.708	34	0.000	21	12.3	19	8.6
9/08/2013	Fri	0.958	3	0.000		10.4		7.9
10/08/2013	Sat	0.667	190	0.800		7.6		5.6
11/08/2013	Sun	1.708	244	6.200	18	9.4		7.4
12/08/2013	Mon	1.958	248	6.400		13.4		11.1
13/08/2013	Tue	1.292	229	11.600	38.0	22.3	30	14.1
14/08/2013	Wed	1.250	229	3.800		22.9		0.0
15/08/2013	Thu	1.000	237	0.200		18.2		17.2
16/08/2013	Fri	1.375	6	0.000		14.8		11.4
17/08/2013	Sat	1.042	52	9.200		12.0		10.5
18/08/2013	Sun	0.750	181	16.800	15	8.7		9.6
19/08/2013	Mon	0.583	47	0.000		17.3		13.2
20/08/2013	Tue	0.750	77	15.000	18	10.5	52	8.8
21/08/2013	Wed	1.000	65	1.800		12.1		9.2
22/08/2013	Thu	0.708	45	28.000		18.6		12.4
23/08/2013	Fri	0.583	205	2.400		24.7		13.7
24/08/2013	Sat	0.750	36	2.400		10.9		6.8
25/08/2013	Sun	0.958	324	20.800		11.4		10.3
26/08/2013	Mon	1.250	237	1.400		13.8		10.5
27/08/2013	Tue	1.125	240	0.400		16.6		14.5
28/08/2013	Wed	0.667	284	0.000		29.3		14.7
29/08/2013	Thu	1.500	258	4.200		11.8		10.7
30/08/2013	Fri	0.833	173	9.400		3.1		6.9
31/08/2013	Sat	0.750	102	1.000		6.9		5.7