

12/07/2016

Michael Boland
Executive Scientist
Water and Environmental Services
Wicklow Country Council
County Buildings
Wicklow Town
Co. Wicklow

RE: Section 55 Monitoring Data, Ballinclare Quarry – Air Monitoring 1st July 2016 and Dust Monitoring 24th June 2016

Dear Mr. Boland,

As required by the recent section 55 notice (dated 3rd June 2016), issued to Kilsaran International, I am writing to you to provide an update on the air and dust monitoring at Ballinclare Quarry.

1. Overview of air monitoring programme to date

In accordance with the previously outlined monitoring programme from the letter dated 20 June 2016, air sampling was undertaken again on the 1st July 2016 by AWN Consulting at the six identified perimeter locations (SA1 – SA6) around the quarry (see *Figure 1 – Monitoring locations*).

The methodology for the monitoring of asbestos followed *The Health and Safety Executive (HSE) Guidance Asbestos: The Analysts Guide for Sampling, Analysis and Clearance Procedures*, which recommends that sampling and analysis of materials for the presence of asbestos is undertaken to comply with CAWR 2002 ACOPs L27 and L28 when sampling airborne fibres.

The HSE procedure recommends using a known flow rate (ranging from 1-16 L/min) through a filter for a set period of time until 480 litres of air have been sampled. To satisfy the requirement for comparison to the minimum detection limit of 0.01 f/ml, each measurement must be completed on a minimum sample of 480 litres in volume. The fibres can then be enumerated by a UKAS accredited laboratory, in this case, the Institute of Occupational Medicine (IOM).

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Due to poor weather conditions only the samples at locations SA2 and SA3 satisfied the requirements of the above methodology. The samples taken from SA1, SA4, SA5 and SA6 were therefore analysed using a different methodology by About Safety Limited in accordance with Safety Health and Welfare at Work (Exposure to Asbestos) Regulations 2006 and the associated EU directives.

Table 1 provides a comprehensive overview of the sampling results from 1st July 2016 and includes an assessment of the fibre concentrations in relation to the HSA Binding Occupational Exposure Limit. As with the results from 17th June and 24th June, all samples were again in compliance with the Health and Safety Authority (HSA) Code of Practice (COP) 2011 value of 0.1 f/ml.

2. Dust sampling status

In accordance with the programme outlined in the letter dated 20th June 2016, dust monitoring was undertaken continuously from 00:00 on Friday 17th June with the first set of samples collected on Friday 24th June. Additional samples were also collected on 1st July 2016.

Monitoring for PM₁₀ is undertaken at one location (SD1) (see *Figure 1 – Monitoring locations*) using a R&P Partisol®-Plus Sequential Air Sampler (Model 2025). The sampler is a manual air sampling platform which has been designed to meet US EPA Reference Designation (RFPS-1298-127). Approximately 24 m³ of air is sampled daily through a particle size separator, which is contained within the PM₁₀ sampling head. The impactor removes particles with a diameter >10 µg and the remaining particles are collected on pre-weighed 47mm diameter filters. The Partisol® sampler is programmed to automatically replace each sampled filter by a new pre-weighed filter at midnight. This ensures that each filter represents a sampling period of exactly 24 hours. Gravimetric determination is carried out pre- and post-sampling by a UKAS accredited laboratory using a calibrated scientific balance.

Due to the lab turnaround time of 10 working days for analysis the results being presented are from the samples taken between June 17th - June 23rd. The results are presented in Table 2. All samples were in compliance with the CAFE Directive 2008/50/EC limit value for PM₁₀ which is 40 µg/ m³ per calendar year or 50 µg/m³ in any 24-hour period (not to be exceeded more than 35 times in a calendar year) (see <http://www.epa.ie/air/quality/standards/>). The results will be presented as a daily concentration and a monthly average.

Yours sincerely,



Teri Hayes
Director Awn Consulting

cc. *Michael Geaney, A/Director of Services, Water and Environmental Services, Wicklow Co. Council*
David McKeown, Director, Kilsaran International
Jim Fanning, Health and Safety Authority

encl. Table 1 – Air Quality Monitoring Programme Results, Balliclare Quarry – 01 July 2016
Table 2 - Dust Monitoring Programme Results, Balliclare Quarry – 17-23 June 2016
Figure 1 - Monitoring Locations

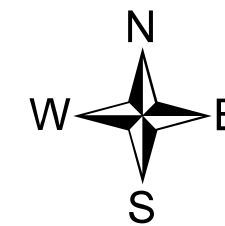
Table 1: Air Quality Monitoring Programme Results, Balliclare Quarry – 01 July 2016

Sample no.	Date	Consultant	Location Description	Total Fibre Concentration (f/ml)	Total Asbestos Fibre Concentration (f/ml)	Analysed by:	HSA Limit Value	Compliance with HSA Binding Occupational Exposure Limit	Notes
T1	01/07/2016	AC	Section 55 Monitoring SA1 Location	<0.01	Not measured	John Kelleher	0.1 f/ml	Yes	<i>Short test only - Heavy rain flooded sample and stopped flow</i>
T2	01/07/2016	AC	Section 55 Monitoring SA2 Location	0.0009	0.0002	IOM	0.1 f/ml	Yes	<i>Long test</i>
T3	01/07/2016	AC	Section 55 Monitoring SA3 Location	0.0002	0.0002	IOM	0.1 f/ml	Yes	<i>Long test</i>
T4	01/07/2016	AC	Section 55 Monitoring SA4 Location	<0.01	Not measured	John Kelleher	0.1 f/ml	Yes	<i>Short test only - Heavy rain flooded sample and stopped flow</i>
T5	01/07/2016	AC	Section 55 Monitoring SA5 Location	0 Fibres detected	0 Fibres detected	John Kelleher	0.1 f/ml	Yes	<i>Short test only - Heavy rain flooded sample and stopped flow</i>
T6	01/07/2016	AC	Section 55 Monitoring SA6 Location	0 Fibres detected	0 Fibres detected	John Kelleher	0.1 f/ml	Yes	<i>Short test only - Heavy rain flooded sample and stopped flow</i>

Table 2: Dust Monitoring Programme Results, Balliclare Quarry, 17-23 June 2016

Filter Paper ID	Date	PM10 Concentration (mg/m ³)
1	17/06/2016	8
2	18/06/2016	16
3	19/06/2016	12
4	20/06/2016	7
5	21/06/2016	14
6	22/06/2016	7
7	23/06/2016	10

1-month Average	10.5
No. Days >50	0
90.4th %ile	10
No. Days Sampling	7



Legend

Sampling locations/ Type:

- SA1 - SA6
- Asbestos Sampling Point
- SD1
- Dust Sampling Point



Do not scale; Indicative Only (NTS)
 0 50 100 Metres

AWN licence no. EN 0007513
 Note: Drawing is for illustrative purposes only
 Source: Kilsaran, flown 28/05/2016

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CLIENT: Kilsaran Ballinclare, Co. Wicklow	PROJECT: Proposed Section 55 Air Monitoring	DRAWN: P.G.	CHECKED: T.H.	APPROVED: T.H.	DATE: 05/07/2016
DRAWING TITLE: Monitoring Locations	Project Ref: TH/16/9020SR01	Figure 1		1	A3
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