



July 20, 2022

Richard E. Tallman, PE
Environmental Engineer, Bureau of District Mining Operations
Pennsylvania Department of Environmental Protection
5 West Laurel Boulevard
Pottsville, PA 17901

Re: Rock Hill Quarry, East Rockhill Township, Bucks County, PA

Dear Mr. Tallman:

Attached please find a Technical Memorandum of July 13, 2022 wherein Erskine Environmental Consulting, Inc. (EEC) provides its comments on Hanson's Vehicular Activity-Based Sampling Event, Hanson letter dated June 24, 2022 and Limited Activity-Based Sampling at the Rock Hill Quarry Site: Combined Second and Fifth Events, DEP letter dated July 13, 2022.

Erskine Environmental Consulting, Inc. (EEC) provides its comments on the response to the Activity-Based Sampling (ABS) of vehicles at the Rock Hill quarry site, collected on June 1, 2022 (Sampling Event 1). This review also comments on one passage in DEP's notice to proceed regarding Sampling Event 2.

Once again, it appears that Hanson is applying procedures that effectively reduce reported asbestos concentrations. REPA requests that this sampling be repeated complying with Dr. Erskine's recommendations.

REPA remains committed to working with PA DEP to permanently cease operations at the Rockhill Quarry, as any Pennsylvania citizen concerned with protecting the health of their family would.

Respectfully yours,

Rockhill Environmental Preservation Alliance, Inc.

cc: The Honorable Thomas Wolf, Governor of Pennsylvania
The Honorable Patrick McDonnell, Secretary, PA-DEP
The Honorable Brian Fitzpatrick, U.S. Representative PA-01
The Honorable Steven Santarsiero, 10th Senatorial District
The Honorable Craig Staats, PA's 145th Legislative District
The Honorable Diane Ellis-Marseglia, Chair, Bucks County
Board of Commissioners

The Honorable Robert Harvie, Jr., Vice Chair, Bucks County
Board of Commissioners
The Honorable Gene DiGirolamo, Bucks County Board of
Commissioners
Steven Baluh, P.E
Marianne Morano, East Rockhill Township Manager
Megan Banis-Clemens, Pennridge School District, School
Board Member
Amiee Bollinger PADEP
Virginia Cain, PADEP
Robert Fogel, PADEP
Erika Furlong, PADEP
Craig Lambeth, PADEP
Shawn Mountain, PADEP
Patrick Patterson, PADEP
James Rebarchak, PADEP
Daniel Sammarco, PADEP
Sachin Shankar, PADEP
Gary Latsha, PADEP
Doug White, PADEP
Michael Kutney, PADEP
John Stefanko, PADEP
Daniel Koury, PADEP

Erskine Environmental Consulting

Geologic Investigations Hazardous Materials Naturally Occurring Asbestos

Technical Memorandum

July 13, 2022

- Subject:** Comments on:
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 - Limited Activity-Based Sampling at the Rock Hill Quarry Site: Combined Second and Fifth Events, DEP letter dated July 13, 2022.

Erskine Environmental Consulting, Inc. (EEC) provides its comments on the response to the Activity-Based Sampling (ABS) of vehicles at the Rock Hill quarry site, collected on June 1, 2022 (Sampling Event 1). This review also comments on one passage in DEP's notice to proceed regarding Sampling Event 2.

Comments on Sampling Event 1.

Comment no. 1

The cover letter states that the sampling constitutes ABS of three vehicles driving across the site. The purpose of ABS sampling is to provide airborne asbestos concentration data that is specific to a particular activity, in this case, road dust from vehicular activity on unpaved access roads.

The monitoring program did not meet this objective. Rather than sampling the targeted activity, Hanson sampled for nine hours that included the pre-activity, activity, and post-activity period. The significant period of time where clean air was drawn effectively diluted the sample of asbestos, and therefore, significantly diluted the measured concentration. This methodology invalidates the samples as ABS samples, and should be disregarded. The basis for this conclusion is described below.

According to Attachment 2 of Hanson's report (see the footnotes), all eight samples were collected continuously between 7:30 AM and continued until 4:30 PM. This represents nine hours (540 minutes) of sampling time. However, the activity that was targeted to be monitored occurred between 10:30 AM and 1:00 PM, representing only 2.5 hours (150 minutes) within the overall sampling period. Thus, each sample included 390 minutes (72%) of clean air, and only 150 minutes (28%) of vehicle-generated dust. This approach effectively reduced the activity-generated concentration by a factor of 3.6. This approach also effectively increased the effective analytical sensitivity (for the activity-generated component) by the same value. It is not surprising that asbestos was not detected in these samples.

The approach that Hanson employed did not provide an accurate estimate of the asbestos that may be included in the activity-generated dust plume. In fact, the measured concentration is more a measure of background conditions (sampling when no activities are occurring). Therefore, the measurements are invalid and should be disregarded. DEP should direct Hanson to conduct ABS sampling correctly, and provide meaningful and defensible data (see comment regarding DEP's conditions for Sampling Event 2).

Comment no. 2

Hanson produced a table in Appendix 2 that provides the period of sampling. Hanson describes the time periods of sampling to be "approximate". How can all eight samples begin and end at the same time, unless all air pumps were controlled by a timer? If one person were to begin and end the sampling in succession, then all samples would have different start times, different stop times, and different sample volumes. Note that the RJLG report shows a variety of sample volumes, but whether these are due to different times or different flow rates cannot be determined by the report only.

This information, and more, is included on the chain-of-custody (COC) form that accompanies the samples to the laboratory, and it is customary that the laboratory provides a copy of these forms with the sample results. Hanson apparently chose to omit this from the submittal. DEP should request that the COC's be included with the sample results, as well as the analyst bench sheets, so that they and others can properly review the test data. Also, DEP and others will have sufficient information to calculate and verify concentrations. Otherwise, it is not possible to conduct a meaningful review, and DEP will be in a position where they must simply accept the data on face value. In the case of Sampling Event 1, the data is not meaningful.

Comments on Sampling Event 2.

DEP required several conditions that must be met before approval. The conditions are generally sound. For example, the wind speed and direction combined with the GPS data allows DEP and others to ascertain which samples are located downwind of the activities and are measuring activity-generated dust, and which are crosswind or upwind and are measuring background. Also, the requirement for a period of three days following precipitation helps reduce the effects of soil moisture.

However, the last sentence of item 6 appears to condone the practice that Hanson applied during sample event 1, which is contrary to ABS sampling, does not measure asbestos generated from an activity, and produces diluted concentrations that are lower than the intended target. The more non-activity air is included in the sample, the more the sample is diluted, and the more the result deviates from the intended measurement. The sentence, as written, states:

Please schedule the "activity" portion of the activity-based sampling during the middle portion of the sampling period timeframe. Make every effort to balance pre-activity air sampling with post- activity air sampling.

If DEP is interested in the asbestos concentrations that may be generated from an activity, then sampling should begin shortly after the activity begins, and end shortly before the activity ends. The samples should be analyzed by scanning sufficient grid openings needed to achieve the desired analytical sensitivity of 0.001 s/cc. DEP will then provide Hanson with directives that will lead to meaningful and defensible test data.

If DEP is interested in obtaining data from pre-activity or post-activity periods, then these should be sampled outside of the activity period, and each analyzed to an analytical sensitivity of 0.001 s/cc. However, this may not be needed: asbestos concentrations that are not linked to activities can be assumed from stations that are upwind of the activities.

Please contact me if you have any questions.

A handwritten signature in blue ink that reads "Bradley G. Erskine". The signature is written in a cursive style with a horizontal line underneath the name.

Bradley G. Erskine, Ph.D., PG, CEG, CHG, CAC
Erskine Environmental Consulting