US SILICA

August 4, 2017

Mr. Gerald J. Krawiec
Senior Environmental Engineer
Air Quality Division
Michigan Department of Environmental Quality (DEQ)
Cadillac Place, 3058 West Grand Boulevard, Suite 2-300
Detroit, Michigan 48202

Dear Mr. Krawiec:

This letter is in response to a Violation Notice (VN) received from DEQ dated July 17, 2017, in reference to conditions observed on April 15 and 16, 2017. The VN states that an R336.1901(b), PTI No. 150-08E, General Condition 6 violation was observed and that this violation is based on the analysis of the fallout samples, the proximity of our facility to the complainants' homes, and prevailing wind direction. The VN indicates the presence of the "detection of fallout beyond the facility's property line, attributable to the facility, of sufficient magnitude as to constitute an unreasonable interference with the comfortable enjoyment of life and property." This claim is supported by a lab report attached to the Violation Notice. The lab report describes the mailing envelope as damaged and that the contents of a sample were loose in the bag. In our view, this invalidates the results of the analysis – damaged samples should not be used as supporting evidence. Furthermore, the results of the analysis appear to be consistent with environmental dust – with numerous potential sources including the dirt road between our property and the complainants' homes, normal truck traffic, etc. The analysis of samples collected in the neighborhood by U.S. Silica personnel (and analyzed by Bureau Veritas) are attached. The Bureau Veritas sample results, which are similar to the results obtained by DEQ samples, are consistent with environmental dust. Without a valid sample analysis finding something other than environmental dust by DEQ, the Violation Notice appears to be solely based on proximity to complainants' homes and prevailing wind direction.

On page 2 of your letter, you state that AQD staff is also requesting that U.S. Silica provide an updated Fugitive Dust Plan, and that the current plan found in PTI number 150-08E, Appendix B is found to be inadequate. The existing Fugitive Dust Plan had previously been reviewed by DEQ personnel and no inadequacies have been previously identified. The VN does not indicate what the identified inadequacies are.

That said, we strive to continually improve our environmental performance. The list below includes some of our recent actions taken to reduce fugitive dust at our site:

- Paved parking lot in high truck traffic area
- Installed concrete in truck loading area
- Increased street sweeping service on site to include road to truck parking area
- Reduced speed limit on access road to truck parking area to 10 MPH
- Created 4 way stop near truck scale to reduce truck and plant vehicle speed in plant
- Purchased electronic speed limit sign to raise awareness of speed
- Applied calcium chloride to plant roads

As we believe the Violation Notice was unwarranted, U.S. Silica respectfully requests that it be rescinded. In any case, U.S. Silica will continue to operate in a manner consistent with its permit obligations and to be a good steward of the environment. We will review the Fugitive Dust Plan with you for deficiencies and remedy them in a timely fashion. And as always, we continue to improve our environmental performance, which includes fugitive dust reduction.

Thank you for your prompt response to our request to rescind this Violation Notice. We look forward to hearing from you soon.

Sincerely,

Chris Coppens
Plant Manager
U.S. Silica
Rockwood Plant

Enclosure
cc/via email: Mr. Joe Ebens, Director of Operations, U.S. Silica
Mr. Dave Clauson, Sr. Manager, Environmental Programs, U.S. Silica
Mr. John Robinson, CIH, EHS Coordinator, U.S. Silica

July 21, 2017

John Robinson, CIH
EHS Coordinator
U.S. SILICA
20837 North Huron River Drive
Rockwood, MI 48173

Subject: Particle Characterization
Bureau Veritas Work Order No: 17070570

Dear Mr. Robinson:

We are pleased to present our report of the analysis of two samples submitted to us on June 27, 2017. The objective was to characterize the various components present in the samples.

Our approach was consistent with that of the report provided by Jerry Krawiec, MDEQ-AQD, dated May 19, 2017. The samples were examined by steromicroscopy and polarized light microscopy (PLM).

Sample 0142617USS — the white material on the grass was composed 90% of algae. There were also small particles of soil (calcite and quartz) and a trace amount of starch.

Sample 0242617USS — (dust at the porch) is approximately 85% quartz with other minerals such as clay, calcite and opaque granular minerals with a particle size range of 100 microns to 20 mm in size, consistent with iron oxide. The quartz particles were in the range of 20 - 300 microns with the majority in the range of 125 microns. They were round to semi-round with a semi-translucent appearance.

If you have any questions, please contact me at 248.344.2643 or bob.lieckfield@us.bureauveritas.com.

Sincerely,

Robert Lieckfield, Jr., CIH
Division Director, Laboratory Services
Bureau Veritas North America, Inc.

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Photographs
for
U.S. SILICA

Bureau Veritas Work Order No: 17070570

Stereomicroscopic image of sample 0142617USS at 10X showing grass blades with white material.

Photographs
for
U.S. SILICA

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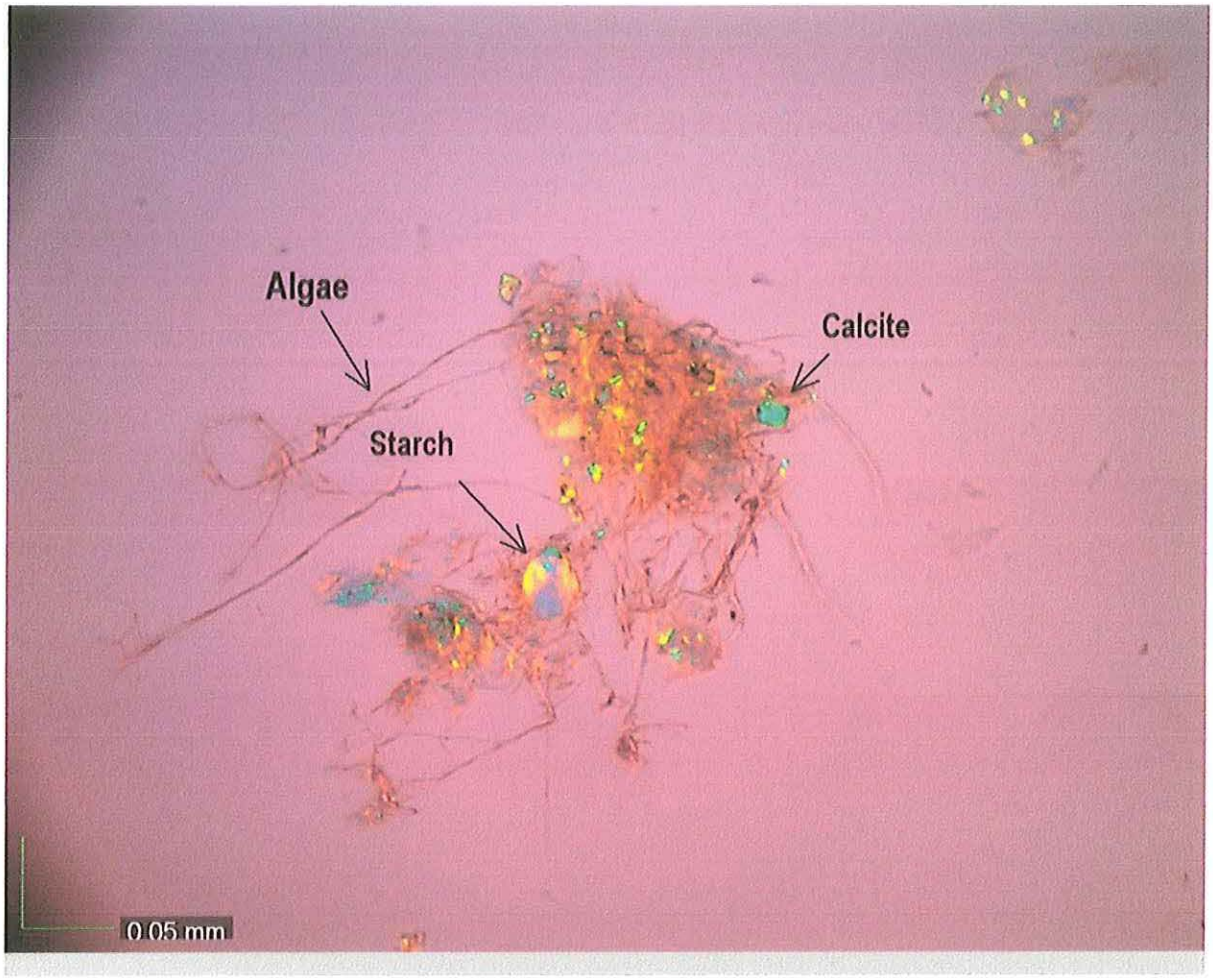

Sample 0142617USS at 100X (PLM) showing algae, calcite, and starch.

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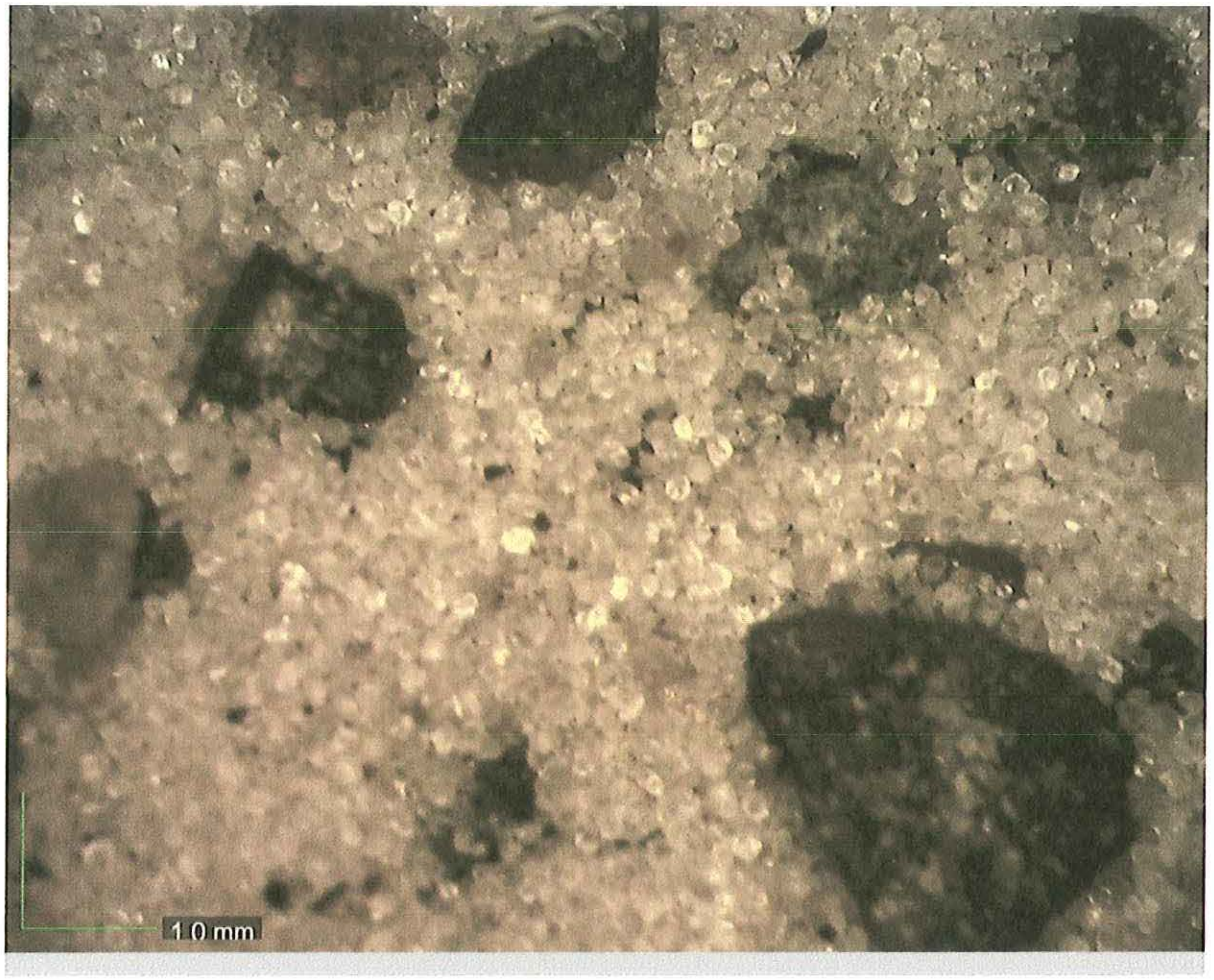
U.S. SILICA

Bureau Veritas Work Order No: 17070570



Stereomicroscopic image of sample 0242617USS at 10X showing quartz and granular materials.

Photographs
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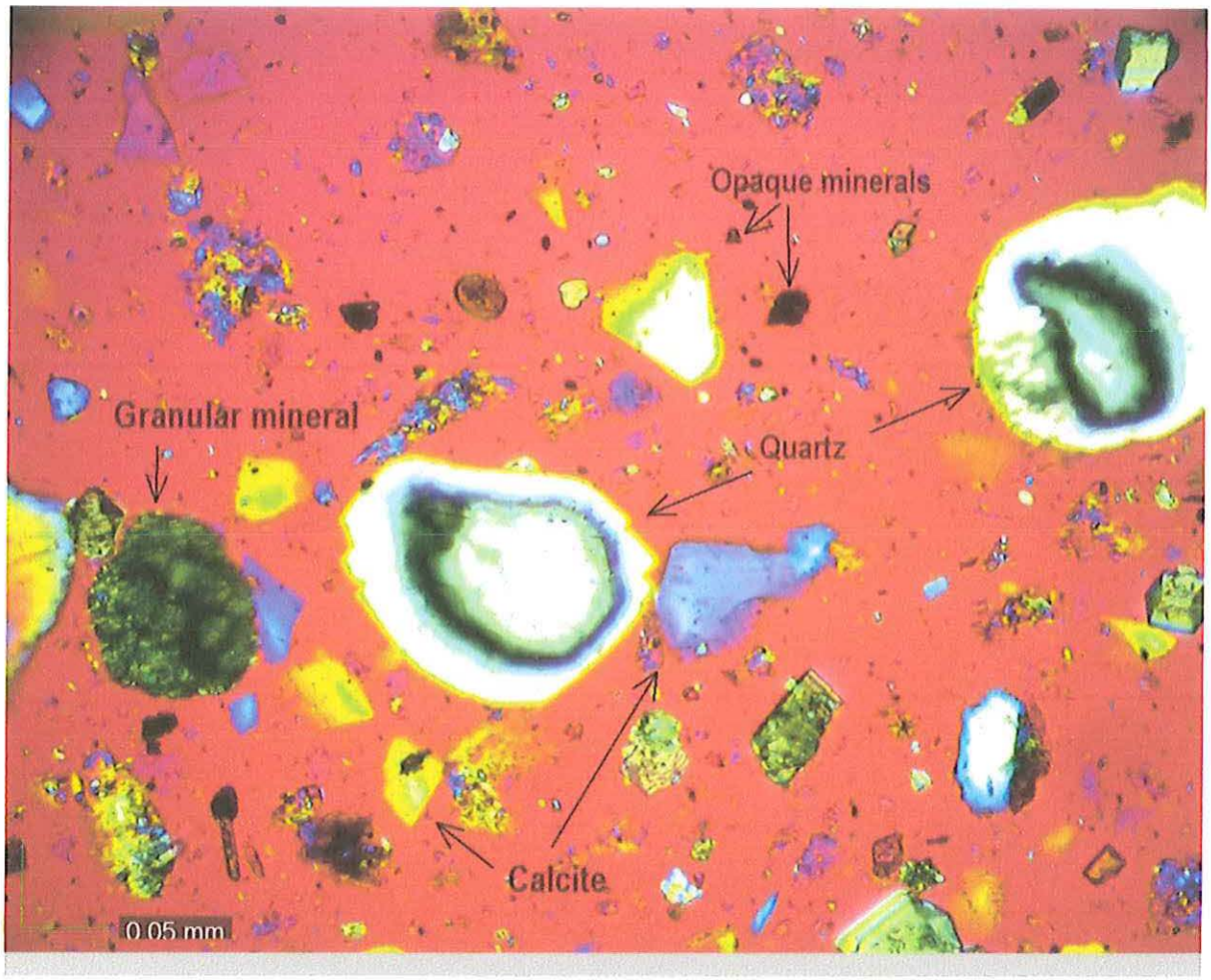
U.S. SILICA

Bureau Veritas Work Order No: 17070570



Polarized Light Microscopy image in cross polars of sample 0242617USS at 100X (PLM) showing quartz, calcite, and opaque minerals consistent with iron oxide.