



*Cargill Salt – Road Safety
P.O. Box B
Lansing, NY 14882*

March 28, 2022

Mr. Matthew Podniesinski
Chief, Resource Development Section
Bureau of Resource Management & Development
Division of Mineral Resources
New York State Department of Environmental Conservation
625 Broadway, Third Floor
Albany, New York 12233-6500

RE: Annual Report for Mine File #709-3-29-0052; Cayuga Salt Mine
Permit ID#0-9999-00075-00001
Towns of Lansing and Ulysses, County of Tompkins
Town of Covert, County of Seneca

Dear Mr. Podniesinski:

Enclosed is an annual report required in accordance with the Special Conditions section (item numbers 15.a through 15.g) of DEC permit number 0-9999-00075/00001. This report will address each reporting requirement separately (15.a.(1), 15.a.(2), etc.) and drawings are attached as required. As requested, all technical data associated with monitoring of mine stability will be sent to Dr. Vincent Scovazzo of the John T. Boyd Company. A copy of this report is in the mail to Christopher Lucidi, the Region 7 Mined Land Reclamation Specialist, Thomas Rigley the Region 7 Mining Program Supervisor, and to Steven Army, the Region 8 Mining Program Supervisor.

If any questions arise please bring them to my attention at your earliest convenience.

With Best Regards,

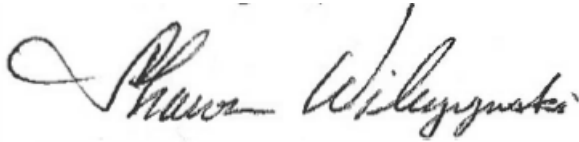
A handwritten signature in black ink, appearing to read "Shawn Wilczynski". The signature is fluid and cursive, written over a light blue horizontal line.

Shawn G. Wilczynski
Mine Manager – Cargill Salt

Annual Reporting, Monitoring, and Notifications

15.a.(1) - Cargill Cayuga Mine Manager Certification:

I, Shawn G. Wilczynski, Mine Manager – Cargill Salt, certify that all mining activities, to the best of my knowledge, conducted during the reporting period from January 1st of 2021 through December 31st of 2021 were in conformance with the DEC Permit # 0-9999-00075/00001 and the approved plans. No variances occurred and none were reported.



Signed:

Date: 3/28/22

15.a.(2) - Summary of all non-routine mining incidents:

The Cayuga Mine is not aware of any non-routine incidents associated with the mining, processing, or other mine related activities that would have adversely affected any of the following:

- Mine stability
- Ground and surface water
- Natural resources
- Health, safety, welfare or property of the general public

15.a.(3) - 3 Year Mining Plan

A map is attached depicting the current and proposed mining for the next three years.

The Cayuga Mine is currently operating in the northern region of the mine. Active mining is located in panels U-78, U-82, U-84, and U-86.

15.a.(4) - Summary of In-situ Measurements of Rock Mechanics:

The Cayuga Mine continues to collect mine convergence data in accordance with the guidelines previously established in the Mined Land Use Plan. Convergence stations are typically installed at the “face” of active tunnels in mining panels with a profile of three stations located in the center and edges of the yield pillar panels. The convergence stations are usually read daily during the first week and then shifted to a weekly schedule until the next profile is installed. The initial profile will then be monitored on a monthly or quarterly schedule for the duration of mining of the panel. After abandonment of the panel, specific convergence stations are monitored quarterly. Currently, there are over 300 convergence stations being monitored. Once the data from the convergence stations has been collected it is evaluated both internally and externally for trends to ensure that each panel and the mine are behaving properly.

Evaluations of the convergence data indicate that overall no unusual trends have been identified and the mine is behaving as expected. There continues to be a few slight anomalies, which while showing elevated closure rates, are still well below industry norms and not elevated enough to be of a concern to global stability. These areas are being monitored more closely and have been outfitted with additional electronic instrumentation to help gather more data.

Roof sag and wall expansion, measured with extensometers, is also monitored as conditions warrant, and is reviewed internally and externally as well. This data indicates the mine is behaving as expected. The Cayuga Mine operates a micro-seismic monitoring network which now has over 120 geophones and covers over 6 square miles of mine workings. The data from this system is reviewed daily in-house, by Engineering Seismology Group (ESG), and is reviewed weekly by RESPEC. This data indicates the mine is behaving as expected and is stable.

15.a.(5) - Summary of Subsidence Monitoring:

Surface subsidence measurements continue to be performed in accordance with the Mined Land Use Plan. A traditional survey was completed in 2020 for the west shoreline, east shoreline, Town of Lansing, and #4 Shaft area. All results were well within expected ranges. In November of 2021, Cargill facilitated completion of a subsidence survey using LIDAR technology to establish a baseline for future comparisons.

15.a.(6) Source and Volume of Water Inflow Into the Mine and Disposition of Such Water:

The following is a list of sources and associated flow rates of water into the Cayuga Mine:

- Production Shaft (#1 shaft) – 23 gallons per minute (gpm)
- Ventilation Shaft (#2 shaft) – Less than 1 gpm
- Service Shaft (#3 shaft) - 1 gpm
- ED Plant Concentrate discharge – 1 gpm
- Other inflows – 4 gpm
- Total Water Inflow = 30 gpm

Most the water is directed to a settling pond located on the 4-level of the mine. The water is then pumped from the settling pond to abandoned areas at the far west end of 4-level as well as to various areas of the active mine for dust control. Water labeled as Other Inflows is fully saturated and is stored in various abandoned areas on the 6 Level of the mine.

15.a.(7) - Summary of SPDES Monitoring Data:

For the 2021 calendar year there were no exceedance events of the SPDES limits for the storm water outfalls. All outfall sample data was uploaded into the EPA NetDMR website.

15.b - Notification of Non-routine Mining Incidents:

There were no incidents meeting the guidelines for notification as identified in section 15.a.(2).

15.c - MSHA Correspondence Involving Non-routine Mining Incidents:

The Cayuga Mine has not received any citations or correspondence from MSHA regarding non-routine mining incidents as identified in section 15.a.(2).

15.d. - Changes in Mining Method:

The mining methods used at the Cayuga Mine have not been changed in the last year.

15.e. - Surface Subsidence:

Surface subsidence surveys continue to be done in accordance with the Mined Land Use Plan. See section 15.a.(5) of this report.

15.f. - In-situ Rock Mechanics Measurements:

See section 15.a.(4) of this report.

15.g. - Written Citizen Complaints:

Cargill maintains a written record of citizen complaints that is available to the Department upon request.