



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

February 15, 2024

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

Subject: 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 contemplated in the Special Conditions Section (Items 17.a through 17.g) of DEC Permit # 0-9999-00075/00001. The report addresses each reporting requirement separately (17.a.(1), 17.a.(2), etc.); pertinent drawings are attached as required. All technical data associated with monitoring of mine stability will be made available to Dr. Keith Heasley of the John T. Boyd Company. A copy of this report is in the mail to Thomas Rigley, Region 7 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 that reads "Shawn Wilczynski". The signature is written in a cursive, flowing style.

Shawn G. Wilczynski  
Mine Manager – Cargill Salt

## Annual Reporting, Monitoring, and Notifications

### 17.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 1<sup>st</sup> of 2023 through December 31<sup>st</sup> of 2023 were in conformance with the DEC Permit # 0-9999-00075/00001 and the approved plans. No variances occurred and none were reported.



Signed:

Date: 02/15/2024

### 17.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

### 17.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-84, U-86, and U-88.

### 17.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. Currently, there are over 300 convergence stations being monitored. Data is collected from each location on at least a semi-annual basis. Once the data from the convergence stations has been collected it is evaluated both internally and externally.

Evaluations of the convergence data indicate that overall, no unusual trends have been identified and the mine is behaving as expected and there are no local or global stability concerns. Cargill continues to work with other mining industry resources to benchmark mine closure data. Closure rates at the Cayuga Mine continue to be significantly lower than levels observed industry wide. There continues to be a few areas of the mine that have closure rates slightly higher than median levels but have not changed in the last year. These areas are being monitored closely with electronic instrumentation to 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. Microseismic monitoring is continuous and the data from this system is reviewed internally by the engineering department and externally by Engineering

Seismology Group (ESG) and RESPEC. This data indicates the mine is behaving as expected and global stability continues to be maintained.

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

Surface subsidence measurements continue to be performed in accordance with the Mined Land Use Plan. A baseline LiDAR survey of was completed in November 2021 and a repeat survey was completed in December 2023. A final report from this survey has not yet been received but will be made available to Boyd upon receipt. Previous surveys indicate that mine subsidence is within expected ranges.

17.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. All inflows are sodium chloride dominant salt brine.

- Production Shaft (#1 shaft) – 29 gallons per minute (gpm)
- Ventilation Shaft (#2 shaft) – Less than 1 gpm
- Service Shaft (#3 shaft) – 1 gpm
- ED Plant Concentrate discharge – Less than 1 gpm
- Other inflows –2 gpm
- Total Water Inflow = 33 gpm

These inflows are 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 of the mine as well as active areas of the mine for dust control. A Mining Permit Modification Application was submitted to the DEC on June 30<sup>th</sup>, 2023 for the purpose of transitioning the water storage to the abandoned S3 mains and adjacent panels.

17.a.(7) – Monitoring Data Required Under Terms of this Permit or Department SPDES Permit

During Calendar year 2023 Cargill experienced one exceedance. For the month of November outfall 001 chloride results from a sample were 41,000 mg/l vs a permit limit of 40,000 mg/l. NYSDEC was verbally notified of the exceedance on 11/28/23. A Non-compliance event form was submitted with the discharge monitoring reports to the NYSDEC via NetDMR in December. Follow-up sampling on 11/22/23 showed chlorides were well-under the SPDES permit limit as of 11/22/23 (21,000 mg/L).

17.b. - 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 19.

17.c. - Changes in Mining Method:

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

17.d. - Written Citizen Complaints:

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

18. - Monitoring

All monitoring of subsidence and in situ measurements of rock mechanics have continued as outlined in 17.a.(4) and 17.a.(5).

