

John V.

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Dennis <johnvdennis@gmail.com>

to Dereth Glance, Regional Director, DEC Region 7

Dear Ms. Glance, (copying our consulting earth scientist, Raymond Vaughan, P.G.,PhD)

I am writing to ask for an urgent meeting with you and your permitting team to discuss Cayuga Salt Mine issues and to urge you not to allow Cargill's as-yet-unpermitted flooding of the S3 portion of the Cayuga Salt Mine to be neg dec'ed. I see that a [draft neg dec appears to be queued up at your web site.](#)

The attached Table 1 is a listing of 18 opportunities when DEC Region 7 could have required Cargill to carry out an EIS on Cayuga Salt Mine. (Some dates could be subject to change after vetting by our technical team.)

[Our just revised mine comparison table](#) helps to demonstrate how a small NYS-based mining company that has been required to carry out two EISes in the past 25 years has exceeded both the safety record and the productivity of Cayuga Salt Mine. Steve Army, who worked for decades at DEC Region 8, now works at Hampton Corners Salt Mine as their second geologist whereas Cargill in the 54 years they have managed Cayuga Salt Mine has never had a geologist on staff. This is a company that abhors being regulated, prefers secrecy, and which often takes a least cost approach to managing this mine.

Beginning in 2021, Cargill has "managed" your third party mining consultant. We are distressed to see that Boyd has replaced Dr. Vincent Scovazzo [with a mining consultant pulled out of retirement](#) who has no prior experience in salt mining. If Boyd now "approves" of the flooding of S3, this is in no way a substitute for an EIS.

Storing shaft leakage waters in a salt mine is the risky, el cheapo approach to running a salt mine and should never be allowed to occur in a salt mine under an invaluable freshwater lake.

Please note in the comparison table that the volume of water inflow at Cayuga Salt Mine is almost an order of magnitude greater than that at Hampton Corners Salt Mine. Cargill describes a significant portion of annual water inflow at Cayuga Salt Mine as "other inflow" which raises the possibility that Cargill may have the mine for sale due to a relatively new leakage problem whereby pressurized brine decompression boreholes may have tapped into hydraulic connections to either the 400M gallons of brine stored in the 4-level mine or

the artesian aquifer that lies between the bottom of Cayuga Lake and the Cayuga Salt Mine.

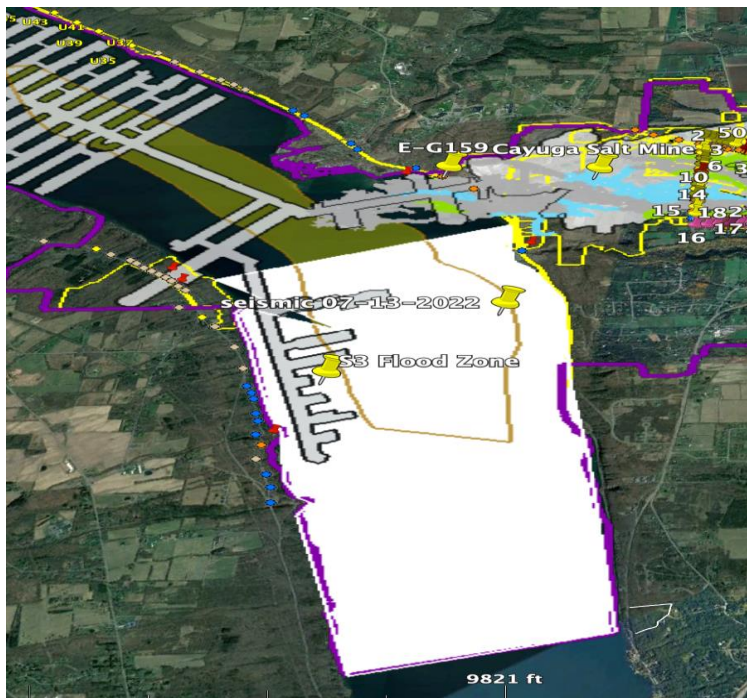
Cargill has had the mine for sale for more than a year and there have been no takers. Cargill wants out and last month closed out their third shift reducing employees to about 165, i.e., about 0.3% of employment in Tompkins County.

The only instance of a freshwater lake draining into a salt mine has resulted in that lake's water becoming too saline to drink for the past 44 years. In 2018, the DEC estimated that about 100,000 people rely on Cayuga Lake for their daily drinking water. In our view, it would be negligent of the DEC to allow the flooding of the S3 zone without an EIS.

Please keep in mind that experts have attributed the collapse of the Retsof Salt Mine to three factors: a change in pillar technology, a pressurized brine pocket above the mine, and the presence of a graben. Please see [this paper](#) by our expert evaporite geologist John K. Warren which discusses the mine failures at Retsof and Himrod (on Seneca Lake) in comparison to the similar geology at Cayuga Salt Mine.

As you can see in the attached table, Cargill has engaged in two pillar technology changes without an EIS being required for either one.

A graben located east of S3 explains why only one of the E panels going east from S3 got more than a few hundred yards east of S3 before being abandoned.



n.b. White shading shows the extent of mineral rights abandoned in 2014.

And, as you can see in the attached table, for the first time ever reported, Cargill had borehole decompression fluids draining into the mine starting we think in 2022. The presence of **any** of the three factors thought to have caused the collapse of the Retsof Salt Mine should motivate the DEC to require an EIS at the Cayuga Salt Mine.

Respectfully,

John V Dennis, PhD

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Table 1. Opportunities when DEC could have required an EIS of the Cayuga Salt Mine but didn't

No.	Material change in life of mine, mining technology, or mining conditions	Approx. year(s) of change	Neg DEC issued
1	OGS transfers Cayuga Rock Salt rights to Cargill and adds 1600 acres to the Life of Mine	April 5, 1974	
2	First NYSDEC Mine Permit issued	April 1, 1975	
3	Sinking Shaft 3 down to the 6-level salt; cutting ramps from the 4-salt to the 6-salt	1975-76	
4	Change in East Mine from large pillar to small yielding pillar technology	1976	
5	Mineral Rights extended to 1385 acres	April 1, 1984	
6	Commencement of mining under Cayuga Lake in the 6-level mine	1984	
7	Mineral Rights extended to 3485 acres	Jan 12, 1994	
8	NYSDEC and Cargill enter an agreement that stipulates that Cargill will provide some information on mine operations and fund an independent mining consultant for DEC	Jan 14, 2000	
9	In lieu of an EIS, Expanded Environmental Assessment by Spectra Environmental	Dec 22, 2000	
10	Commencement of storage of shaft leakage waters in CSM 4-level	??	
11	Mining under Anomaly C and then the entire northern mining face using large pillar technology	2016 & ff	
12	Cargill abandons the S3 portion of the mine following 26 seismic "pops"	2014	
13	Expansion of Life of Mine by 150 acres to enable panel U63 East to be mined to Shaft 4	June 2, 2015	
14	Construction of Shaft 4 receives Neg Dec	June 30, 2016	yes
15	Cargill drill decompression boreholes in the ceiling of panel U12	2022	
16	Cargill begins flooding S3 portion of the 6-level mine	June 30 23	Nov 2024?
17	Lack of a closure plan for the mine despite Cargill having the mine for sale Cargill ending the third shift in October 2024	2023-2024	
18	Expiration of Cargill's mining permit	April 2024	

Sources: various, including documents released under FOIL by DEC