

Cayuga Mine
PO Box B
191 Portland Point Road
Lansing, NY 14882
Phone: (607) 533-4221
Fax: (607) 533-4501

Mr. Joseph S. Moskiewicz, Jr. – Mineral Resources Program Manager
New York State Department of Environmental Conservation
Division of Mineral Resources, Region 7
615 Erie Boulevard West, Syracuse, New York 13204-2400
Phone: (315) 426-7461; Fax (315) 426-7459

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

Dear Mr. Moskiewicz:

Enclosed is an annual report required in accordance with the Special Conditions section (item numbers 7-13) of DEC permit number 0-9999-00075/00001. This report will address each reporting requirement separately (7a, 7b, etc.) and drawings will be attached as required.

Pursuant to Public Officers Law section 87 (2) (d) and 6 NYCRR 616.7 (a), Cargill requests that the department except the enclosed information from disclosure on the ground that the information consists of trade secrets and/or information which, if disclosed, would cause substantial injury to the competitive position of Cargill.

In accordance with 6 NYCRR 616.7 (c)(2)(vi), we note the following:

The information contained within this report is generally not known outside of Cargill. To the extent that disclosure is made to third parties, it is done pursuant to a confidentiality agreement or in the context of a privileged relationship.

Within Cargill, the information within the attached report is restricted to those who have a "need-to-know" because of their job functions. All salaried

employees are subject to signed confidentiality agreements. For safety reasons, underground workers are familiar with the general mine maps and posted escapeway maps, but they are not privy to the detailed technical design information.


To guard the security of the information, only the Operations Manager, Mine Manager and Mine Superintendent have authority to release such information. No release can be made without management approval and an appropriate confidentiality agreement. Visits to the facility are restricted. The Mine Manager and/or Mine Superintendent must approve all underground visits.

As noted, the information has significant value to Cargill. The mine design provides mine stability together with cost and production benefits. Disclosure to a competitor would allow the competitor to improve its own production capability and reduce its operating costs without incurring the costs borne by Cargill to develop the information and mining techniques. The information would also allow a competitor to estimate Cargill's mineral reserves, life of mine, mining rate, rate of production and operating costs – information which could be used to jeopardize Cargill's competitive position with respect to contract bids.

The information is the result of decades of research and development at substantial cost and could not be easily duplicated or acquired by others without access to the information contained in the attached report or by access to the facility. If disclosed, however, a competitor could apply the information to other underground mining operations.

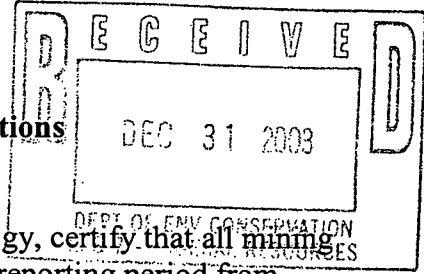
If you have any questions or require further information, please contact me at your earliest convenience.

Regards,

A handwritten signature in cursive script that reads "Steven J. Horne".

Steven J. Horne
Mine Manager – Cargill Deicing Technology

Reporting, Monitoring, and Notifications



7a. Cargill Cayuga Mine Manager Certification:

I, Steven J. Horne, Mine Manager – Cargill Deicing Technology, certify that all mining activities, to the best of my knowledge, conducted during the reporting period from January 6, 2003 to present were in conformance with the DEC Permit # 0-9999-00075/00001 and the approved plans. No variances occurred and none reported.

Signed: Steven J. Horne Date: 12-30-2003

7b. 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

7c. 3 Year Mining Plan

Attached are maps depicting the current and proposed mining for the next three years.

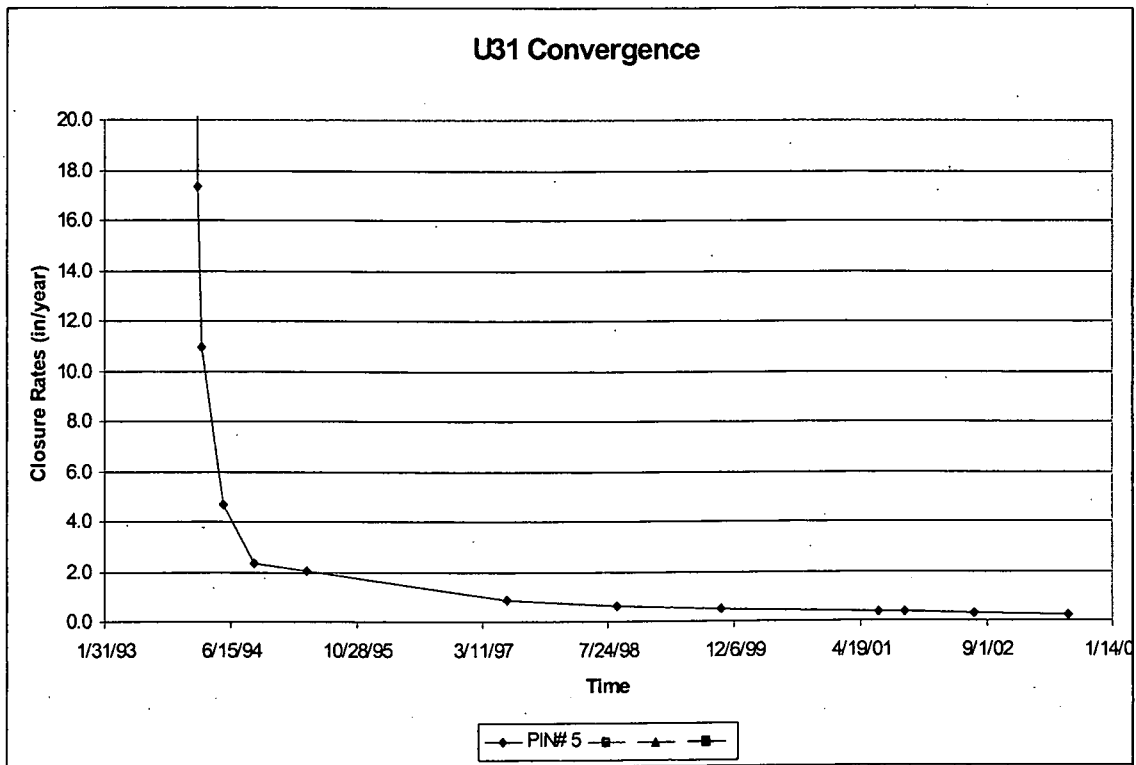
- Attachment 1A – 3 Year Mine Plan for the Northern Region
- Attachment 1B – 3 Year Mine Plan for the Southern Region
- Attachment 1C – Large Mine map showing current extent of mining and three year mining plan

The Cayuga Mine is currently operating in two different sections of the mine. There is one development crew that is mining south along the west shoreline of Cayuga Lake. The rest of the mining is located in the northern region of the mine where one development crew will continue to mine north and production crews will mine panels to the east and west. Mining in the southern region should continue until the fall of 2004. Once the southern development is finished, mining efforts will be focused in the northern portion of the mine.

7d. 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 locations 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 panel. The convergence stations are usually read daily during the first week. They are then dropped to a weekly schedule and are monitored until the next profile is installed. The initial profile will then be monitored on a quarterly schedule. Once the mining of panel has stopped the convergence stations are monitored annually. Currently, there are approximately 125 quarterly and 375 annual

convergence pins. Once all of the data from the annual convergence stations have been collected it is evaluated both internally and externally for trends to ensure that the each panel and the mine is behaving properly. The following graph represents a typical panel closure rate vs. time:



As demonstrated above, once a location is mined the closure rates are high but quickly decrease over a short period of time. After a few years the closure rate trends to a fraction of inch per year indicating that stresses have been shifted to the abutment pillars and the mine is stable.

Evaluation of weekly, quarterly, and annual convergence data indicate that no unusual trends have been identified.

7e. Summary of Subsidence Monitoring:

Surface subsidence measurements continue to be performed in accordance with the Mined Land Use Plan. Stockwin Surveying performed a survey in October along the west shoreline of Cayuga Lake to measure the influence of mining to the south. The results of the survey are listed below:

Survey of South Mining Influence on West Shore of Cayuga Lake

Bench Mark #	ELEV Oct-96	ELEV Mar-02	ELEV Oct-03	Recent Change	Overall Change
W-121	429.58	429.58	429.58	0.00	0.00
W-120	446.84	446.83	446.83	0.00	0.01
W-119	463.42	463.41	463.39	0.02	0.03
W-118	481.64	481.62	481.62	0.00	0.02
W-117	503.81	503.78	503.78	0.00	0.03
W-116	506.68	506.66	506.66	0.00	0.02
W-114	520.11	520.13	520.13	0.00	-0.02
W-113	519.27	519.25	519.24	0.01	0.03
W-112	524.81	524.78	524.77	0.01	0.04
W-111	528.22	528.17	528.17	0.00	0.05
W-110	531.28	531.25	531.24	0.01	0.04
W-109	533.52	533.49	533.48	0.01	0.04
W-107	537.64	537.59	537.59	0.00	0.05
W-106	537.34	537.34	GONE	NA	NA
W-105	539.45	539.45	539.45	0.00	0.00
W-104	545.82	545.83	545.83	0.00	-0.01
W-103	546.57	546.59	GONE	NA	NA
W-102	559.65	559.66	559.68	-0.02	-0.03

A map is attached with shows the location of the benchmarks relative to mining in southern direction. The benchmarks are on approximately 500 ft centers except where U 12 was mined under the shoreline and the benchmarks are ~250 ft apart. The survey results indicate that developing the mine to the south has had a negligible influence on shoreline elevation.

In the spring the Cayuga Mine plans to have Stockwin perform a survey along the east shoreline to monitor the influence of mining as the mine is extended north.

7f. 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) – 11 gallons per minute
- Ventilation Shaft (#2 shaft) – 6 gallons per minute
- ED Plant Concentrate discharge – 2 gallons per minute
- Storm Water Run-off – 21 gallons per minute
- Total Water Inflow = 40 gallons per minute

All of 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 on 4-level. Recent volume calculations indicated that at our current rate we have approximately 9 years of

disposal life remaining on 4-level. Alternatives are being evaluated to significantly reduce the inflow into the mine over the next 3 years.

7g. Summary of SPSES Monitoring Data:

The following is a summary of the past years outfall results (November 2002-2003) and waste water treatment plant results (October 2002-2003). All outfall exceedances are reported to the DEC in two ways. Once an exceedance event has been identified the DEC is informed via telephone of the occurrence. Each event is also captured in the monthly Report of Non-Compliance, which also lists corrective action taken. During the course of the year, all exceedances were properly reported.

Outfall Results for Nov. 2002 - Nov. 2003

Note: All Permit Exceedances were reported to the DEC

CHLORIDES	OUTFALLS								
	#001	#002	#003	#004	#005	#006	#007	#008	#012
Permit Limit	40,000 mg/l	10,000 mg/l	10,000 mg/l	5,000 mg/l	5,000 mg/l	5,000 mg/l	5,000 mg/l	5,000 mg/l	5,000 mg/l
Month/Year									
Nov 2003	7,900	13,000	970			1,500	930	NF	2,500
Dec	10,000	12,000	9,700	NF	15,000	1,300	1,100	NF	1,300
Jan 2003	8,100	5,000	2,500			2,600	1,500	NF	2,600
Feb.	8,500	6,700	2,700			3,000	NF	NF	NF
March	5,200	1,500	4,500	5,200	NF	1,700	1,500	NF	4,500
April	3,900	1,200	1,200			3,000	370	NF	790
May	12,000	1,900	1,100			1,200	420	NF	1,200
June	5,900	1,500	1,200	5,400	6,500	2,200	450	NF	930
July	5,700	4,000	1,000			450	570	NF	890
August	4,100	2,900	1,000			1,300	490	NF	1,800
Sept	2,300	1,100	1,200	3,800	6,900	1,300	340	NF	1,300
Oct	11,000	7,800	920			790	600	NF	2,400
Nov	28,000	2,300	1,100			1,300	340	NF	890

NF = NO FLOW

Outfall Results Continued:

WAD CYANIDE

OUTFALLS

	#001	#002	#003	#004	#005	#006	#007	#008	#012
Permit Limit	1.1 mg/l	0.1 mg/l	0.1 mg/l	0.1 mg/l	0.1 mg/l	0.1 mg/l	0.1 mg/l	0.1 mg/l	0.1 mg/l
Month/Year									
Nov	0.01	0.07	0.01			0.01	0.01	NF	0.01
Dec	0.01	0.01	0.01	NF	0.01	0.01	0.01	NF	0.01
Jan. 2003	0.01	0.01	0.01			0.01	0.01	NF	0.01
Feb.	0.03	0.04	0.01			0.01	NF	NF	NF
March	0.01	0.01	0.01	0.019	NF	0.01	0.01	NF	0.01
April	0.05	0.03	0.01			0.03	0.01	NF	0.01
May	0.18	0.01	0.01			0.01	0.01	NF	0.01
June	0.06	0.01	0.01	0.1	0.01	0.02	0.01	NF	0.01
July	0.12	0.01	0.01			0.01	0.01	NF	0.01
August	0.02	0.01	0.01			0.01	0.01	NF	0.01
Sept	0.01	0.01	<.01	0.03	0.011	0.01	<.01	NF	<.01
Oct	0.11	0.04	0.01			0.01	0.01	NF	0.01
Nov	0.20	<.01	<.01			<.01	<.01	NF	<.01

NF = NO FLOW

Total Dissolved

Solids

OUTFALLS

	#001	#002	#003	#004	#005	#006	#007	#008	#012
Permit Limit	80,000 mg/l	40,000 mg/l	40,000 mg/l	10,000 mg/l	10,000 mg/l	10,000 mg/l	10,000 mg/l	10,000 mg/l	10,000 mg/l
Month/Year									
Nov	15000	24000	3000			3300	2400	NF	5300
Dec	20,000	12,000	19000	NF	27000	3,200	2500	NF	3,100
Jan 2003	17,000	9,800	5,600			5,600	3,400	NF	5,500
Feb.	16,000	13,000	6,500			6,500	NF	NF	NF
March	10,000	3,800	9,400	12000	NF	4,400	3900	NF	8400
April	9,000	3,400	3,200			6,300	1,000	NF	2,000
May	23,000	4,400	3,400			2,900	1,400	NF	2,900
June	11,000	3,400	3,000	14000	9800	4,500	960	NF	2,000
July	11,000	8,200	3,300			2,800	1,500	NF	3,800
August	8,500	5,600	3,300			3,000	1,400	NF	3,700
Sept	5,300	2,900	3,000	6800	11000	3,000	1,100	NF	2,700
Oct	19,000	14,000	2,600			1,900	1,700	NF	4,100
Nov	47,000	5,400	2,800			2,700	1,200	NF	2,200

NF = NO FLOW

ZINC

Outfall #001

Permit Limit 20mg/l Permit Limit Effective in Feb.2003

Month/Year

Jan 2003	
Feb.	15
March	1
April	0.28
May	0.1
June	0.22
July	0.1
August	0.1
Sept	<.01
Oct	0.1
Nov	3

WWTP. #009

October 2002-October 2003

	Flow Rate Ave.	BOD		PH.		Tot. Susp. Solids		Settleable	Total Resid.	Fecal Coliform	
		Ave.	Max. 7	Min.	Max.	Ave.	Max. 7	Solids	Chlorine	# Per 100 ml	
		30 Day	Day Ave			30 Day	Day Ave	Daily Max.	Max. Daily Ave.	Ave. 30 Day	Max. 7 Day Ave
Permit Limit		30	45	6.0	9.0	30	45	0.3 mg/l	1.0 mg/l		
Oct. 2002	989	3.0	3.0	6.6	7.6	9.0	9.0	<0.1	0.8	0.0	0.0
Nov	900	10.0	10.0	6.8	7.2	23.0	23.0	<0.1	0.8	0.0	0.0
Dec	958	25.0	25.0	7.3	7.6	26.0	26.0	<0.1	0.8	7.0	7.0
Jan. 2003	1367	12.0	12.0	7.0	7.7	28.0	28.0	<0.1	0.9	?	?
Feb.	1261	28.0	33.0	7.4	7.6	31.0	31.0	<0.1	0.8	126.0	126.0
March	1275	5.4	5.4	7.2	7.6	25.0	25.0	<0.1	0.7	126.0	126.0
April	925	3.0	3.0	6.8	7.1	21.0	21.0	<0.1	0.7	1.0	1.0
May	960	7.2	7.2	6.8	7.1	8.0	8.0	<0.1	0.7	0.0	0.0
June	973	7.1	7.1	6.8	7.6	8.5	8.5	<0.1	0.8	130.0	130.0
July	827	9.0	9.0	6.7	7.3	0.3	0.3	<0.1	0.5	1.0	1.0
August**								<0.1			
Sept	914	4.6	4.6	6.5	7.2	8.5	8.5	<0.1	0.7	1.0	1.0
Oct	1182	<3.0	<3.0	6.5	7.7	4.0	4.0	<0.1	0.7	1.0	1.0

**Note: Data provided by Yaws Environmental. Data from August was misplaced and Yaws is trying to locate the data.

8. Notification of Non-routine Mining Incidents:

See section 7b.

9. MSHA Correspondence Involving Non-routine Mining Incidents:

The Cayuga Mine has not received any citations from MSHA regarding non-routine mining Incidents.

10. Changes in Mining Method:

There have been no changes of mining method at the Cayuga Mine.

11. Surface Subsidence

Surface subsidence surveys continue to be done in accordance with the Mined Land Use Plan. A table showing the most recent survey date is included in section 7e and a map on benchmark location has been attached to the report.

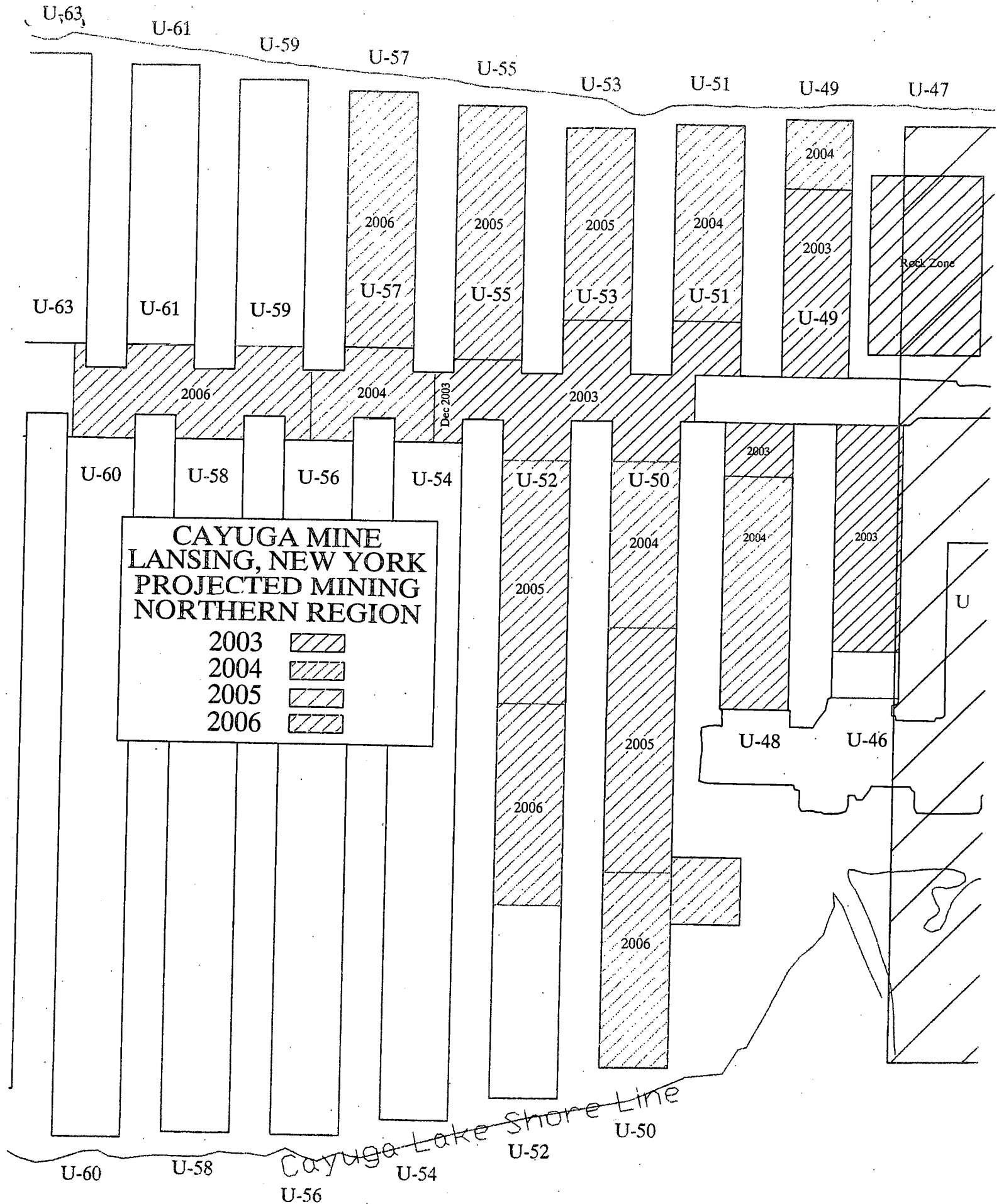
12. In-situ Rock Mechanics Measurements:

See section 7d of this report.

13. Written Citizen Complaints:





There have been no written citizen complaints received by Cargill concerning the Cayuga Mine.

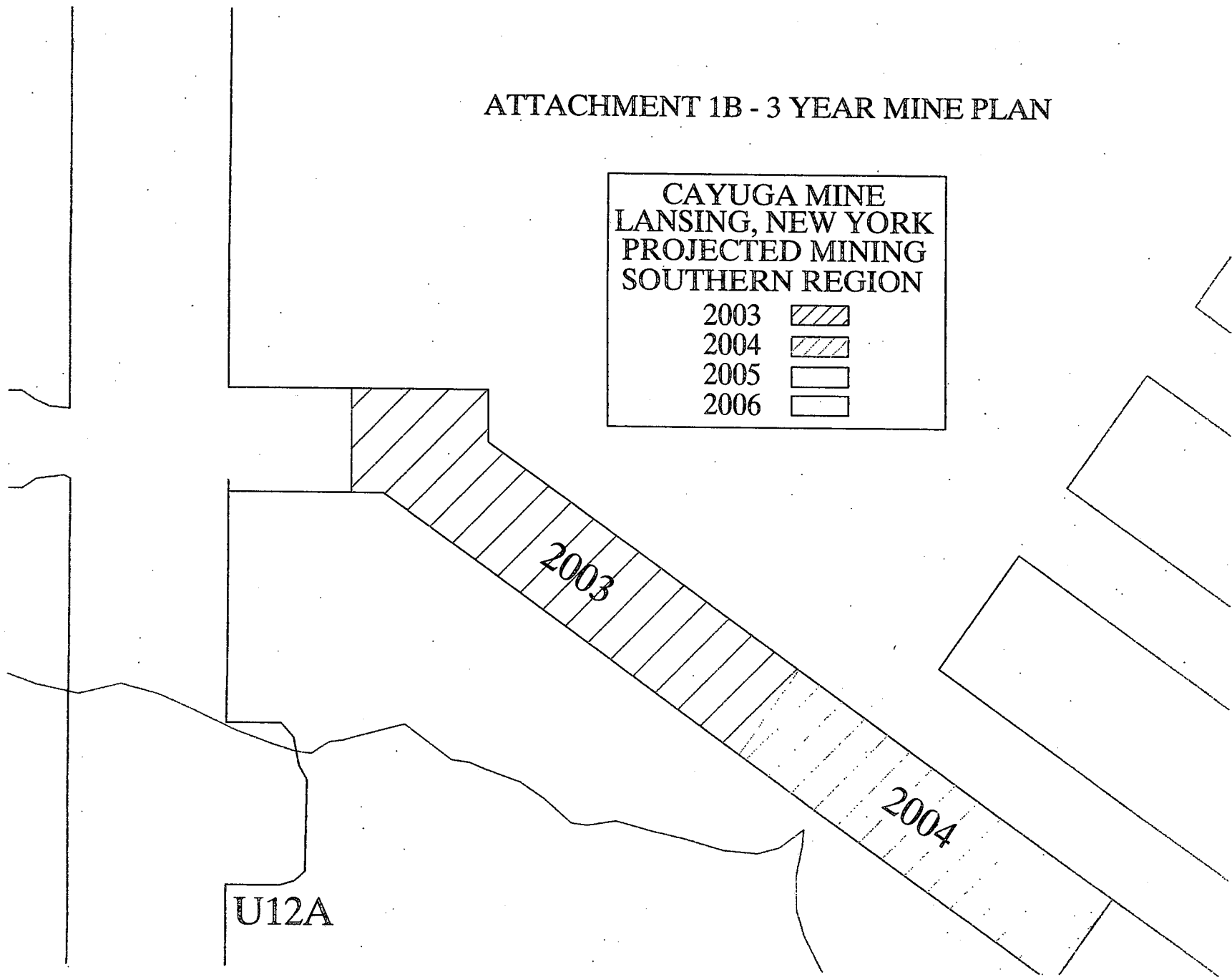
ATTACHMENT 1A - 3 YEAR MINE PLAN

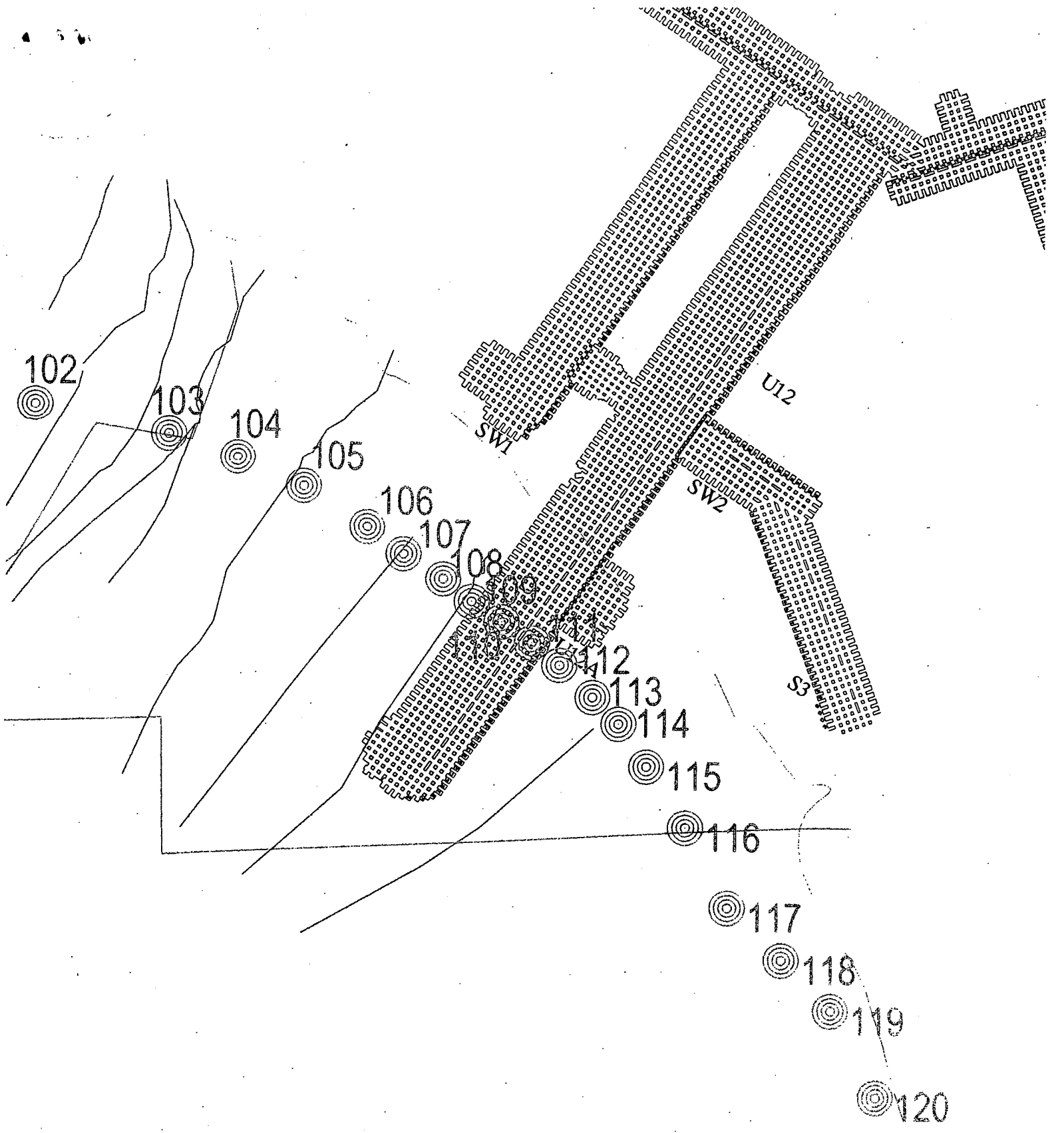


ATTACHMENT 1B - 3 YEAR MINE PLAN

CAYUGA MINE
LANSING, NEW YORK
PROJECTED MINING
SOUTHERN REGION

2003	
2004	
2005	
2006	





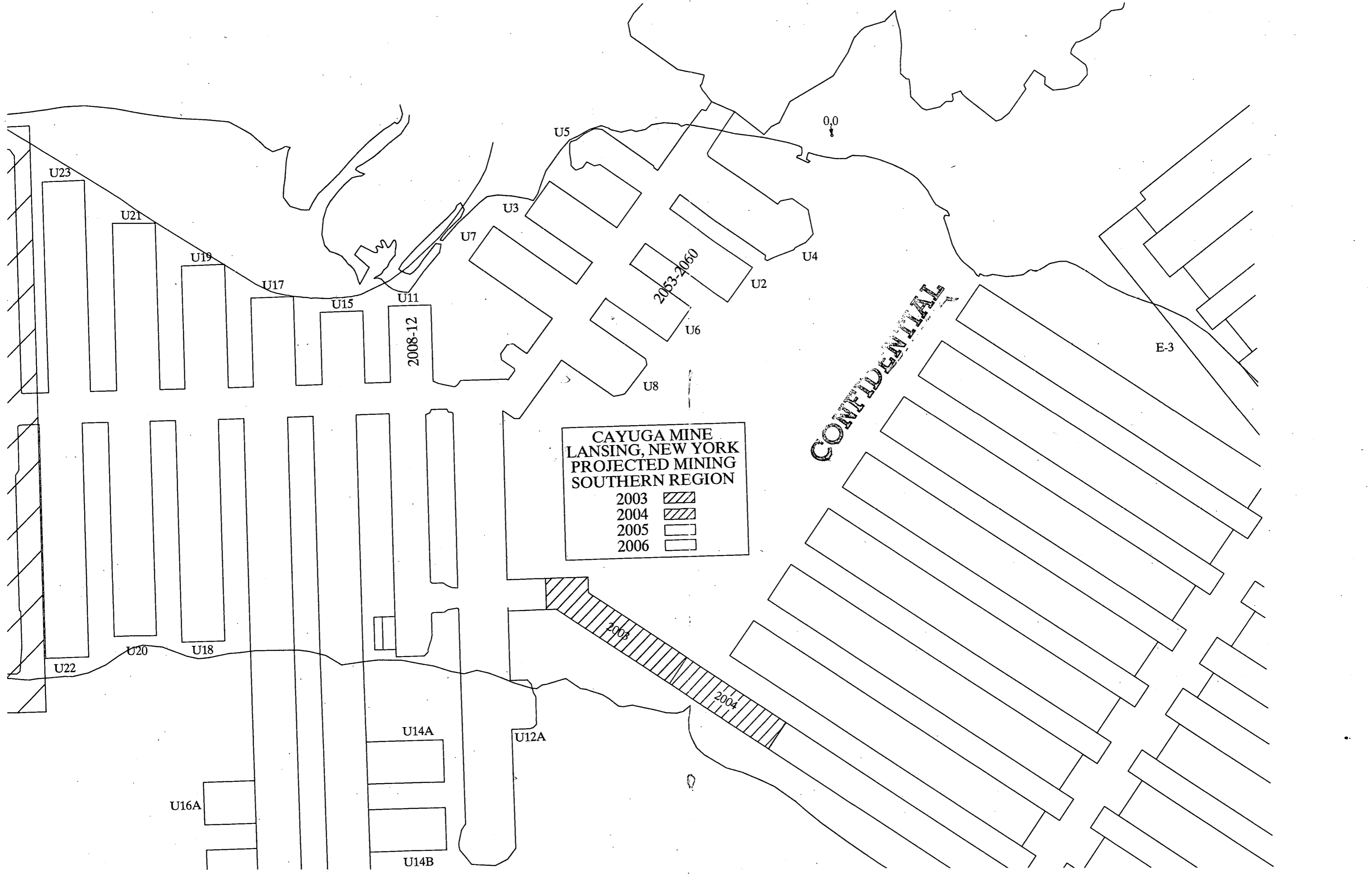
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PORTION OF
24X36" MAP,
ORIGINAL TO
VINCE

CONFIDENTIAL



CAYUGA MINE
LANSING, NEW YORK
PROJECTED MINING
SOUTHERN REGION

2003	
2004	
2005	
2006	

CONFIDENTIAL

E-3

U23

U21

U19

U17

U15

U11

2008-12

U5

U3

U7

U2

U4

U6

U8

2003

2004

U22

U20

U18

U14A

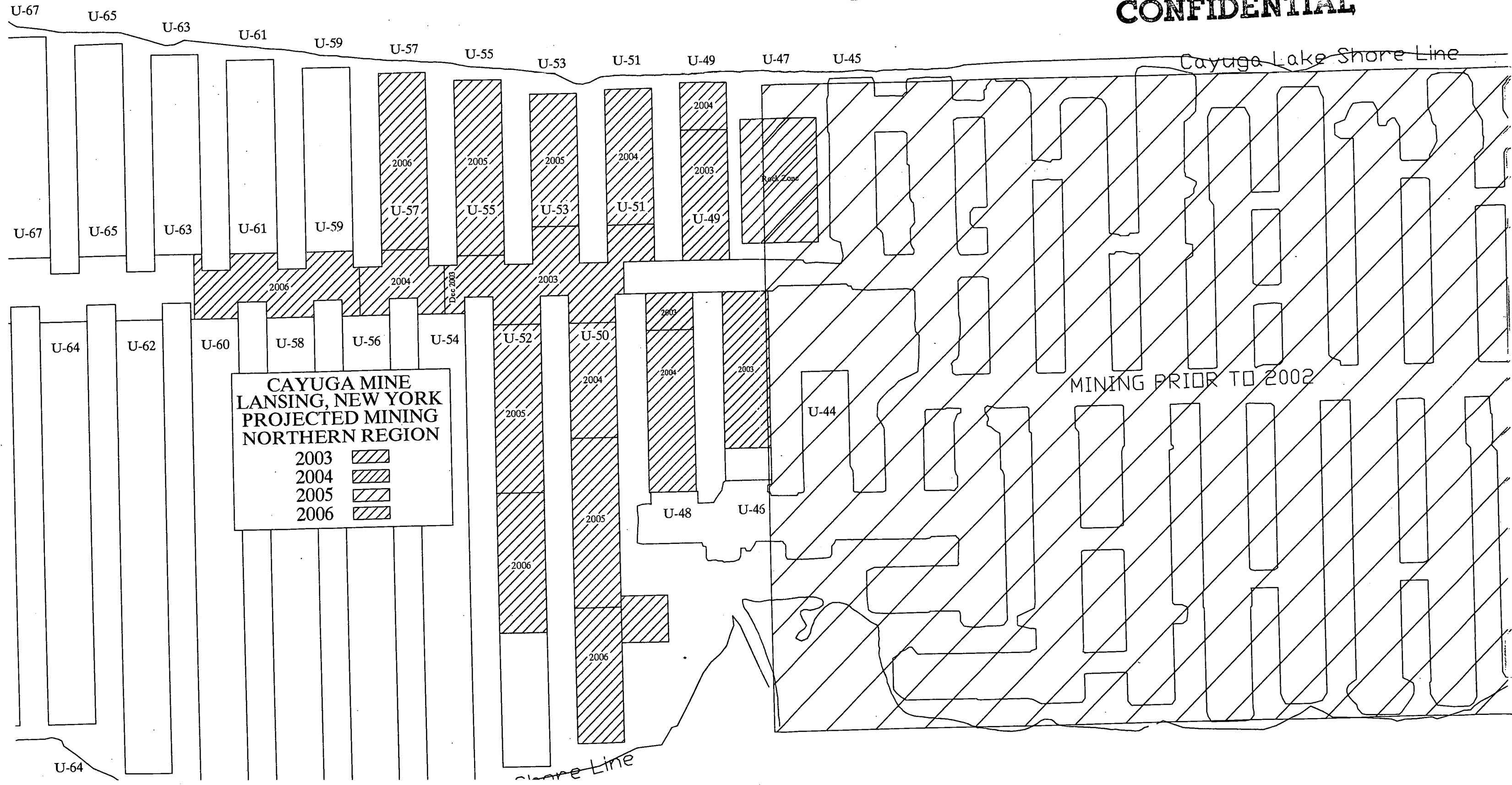
U12A

U16A

U14B

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CARGILL DEICING CAYUGA MINE 3 YEAR MINING PLAN CONFIDENTIAL



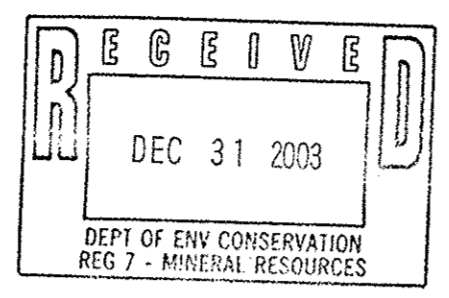
**CAYUGA MINE
LANSING, NEW YORK
PROJECTED MINING
NORTHERN REGION**

2003	
2004	
2005	
2006	

MINING PRIOR TO 2002

Cayuga Lake Shore Line

shore line



CARGILL DEICING TECHNOLOGY CAYUGA MINE 3 YEAR MINING PLAN

