ADDITIONS/CHANG	ES TO REGISTRY: SUMMAR	TTO1
SITE NAME: VANDEMARK CHER	MICAL DEC	I.D. NUMBER <u>932039</u>
Current Classification		
Add as Class Rec	classify to <u>4</u>	Category Nodify
pprovals:		
egional Hazardous Waste Engineer	Yes	No
TY SDOR	Yes 7	No
DEE	Yes	No
Oustruction Services o & m. SECTION		N
OUSTIVITION SERVICES OF MASSICILO	Yes	No
ESC: a. Investigation Section	Yes L	No
b. Site Control Section	RALIM	Janni) Date 11/21/94
c. Director	SAR	Date 11/21/94
	5?5 6 1 10	1 11 1 state
HWR Assistant Director		<u>byld:1</u> Date <u>DJ> /4/</u>
ompletion Checklist		Completed By: <u>Initials</u> <u>Date</u>
WNER NOTIFICATION LETTER?		<u> </u>
DJACENT PROPERTY OWNER NOTIFICATION	LETTER?	
NB/LEGAL NOTICE SENT?		
(For Deletion Only) OMMENTS SUMMARIZED/PLACE IN REPOSITO	RY	
INAL NOTIFICATION SENT TO OWNER?		
(For Deletion Only)		
For proposed Class 2a sites only) Pl	anned investigative act	tivities & dates:
• •		•



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION DIVISION OF HAZARDOUS WASTE REMEDIATION

REGISTRY SITE CLASSIFICATION DECISION

Original-BHSC Copy-REGION Copy-DEE

Copy-DOH Copy-PREPARER

1. SITE NAME: Vandemark Chemical		2. SITE NUMBER: 932039	3. TOWN/C	ITY/VILLAGE: Lock	port	4. COUNTY: Niagara			
5. REGION: 9	6. CLASSIFICATION:	CURRENT: 2A		PROPOSED: 4	MOD				
7. LOCATION OF SITE (Attach U.S.G.S. Topographic Map showing site location):									
a. Quadrangle: Lockport b. Site Latitude: 43° 11' 11" Site Longitude: 78° 42' 08"									
c. Tax Map Number: 095.017 - 1 - 056,011									
8. BRIEFLY DESCRIBE THE	SITE (Attach site plan shov	ving disposal/sampling locations):						
This site was used from 1953 to 1975 for the storage of an estimated 2000 drums containing waste from the production of silicon tetrachloride. During this period the drums deteriorated resulting in the release of HCL fumes. The drums were then buried on site. Starting in 1975 all drums brought on site were placed in lime lined trenches. The drum filled trenches were covered with clay and graded. An estimated 4800 to 5800 drums were disposed in this manner. The total number of drums disposed on site is estimated to range from 6800 to 7800.									
a. Area 5 acres b. EPA	ID Number NYD0021161	92							
c. Completed (X)Phase I			(X)Other: RCRA	Closure					
9. Hazardous Waste Dispos									
	Waste from the production of silicon tetrachloride were disposed of on site. The reaction of the silicon tetrachloride and chlorodisiloxane with water in the landfill produced hydrochloric acid which was neutralized by the lime placed in the trenches. Approximately 2000 drums were placed in unlined trenches.								
10. ANALYTICAL DATA AV				<u> </u>					
a. ()Air (X)Groundwat b. Contravention of Stan		(X)Sediment (X)Soil ()Wa	iste ()Leach	ate (X)EPTox	()TCLP				
		presence of low ph,and high le	vels of chlorofo	rm, carbon tetrachi	oride, phenois and se	veral inorganic compounds.			
	11. JUSTIFICATION FOR CLASSIFICATION DECISION: This site has been closed under the DHSR RCRA program. The landfill has been capped and the facility has received a Part 373 Post Closure Permit for ground water monitoring.								
12. SITE IMPACT DATA:									
a. Nearest Surface Water: D	istance 1000 ft.	Direction: SW		Classification: D					
b. Nearest Groundwater: De		Flow Direction: SW			Primary ()Principal (X) Perched			
c. Nearest Water Supply: Di		Direction: N/A		Active: () Yes (
d. Nearest Building: Distance		Direction: East		Use: Industrial					
e. In State Economic Develo		()Y (X)N		i. Controlled Site	Access? (X)Y	′ ()N			
f. Crops or livestock on site	?	()Y (X)N		j. Exposed hazaro	lous waste? ()Y	(X)N			
g. Documented fish or wildli	fe mortality?	()Y (X)N		k. HRS Score:	27.22				
h. Impact on special status		()Y (X)N		I. For Class 2: Pri	ority Category N/A				
13. SITE OWNER'S NAME:	Vandemark Chemical	14. ADDRESS: North Transit	Rd. Lockport N	.Y. 14094	15. TELEPHONE N	JMBER: (716) 433-6764			
16. PREPARER:	tenten Date	5/9/9-/	17. APPROVED	L. fod h	1 ++/5/9) Date	/			
	on P.E. Enviromental Engin		Ă	Xie	Date				
			1/2	5 7 1/1					
<u> </u>	Name, Title, Organization				Title, Organization				

DEPARTMENT OF HEALTH Center for Environmental Health

STATE OF NEW YORK

2 University Place

Albany, New York 12203-3399

OFFICE OF PUBLIC HEALTH

Lloyd F. Novick, M.D., M.P.H. Director

Diana Jones Ritter Executive Deputy Director William N. Stasiuk, P.E., Ph.D.

Center Director

January 20, 1995

Mr. Earl Barcomb, P.E., Director Bureau of Hazardous Site Control NYS Dept. of Environmental Conservation 50 Wolf Road, Room 218 Albany, New York 12233

> RE: **Registry Site Classification Decision** VandeMark Chemical Lockport, Nigara County Site ID #93203#4

Dear Mr. Barcomb:

4-2

My staff reviewed the Registry Site Classification Package for the VanDeMark Chemical site in Lockport, Niagara County. This landfill was capped and closed under the RCRA program. Groundwater quality is monitored under a Part 373 Post Closure Permit. Continued monitoring of on-site wells and reassessment provisions within the Closure Activities Document allow for additional remedial activities in the future if they are warranted. With this information and the remote location of the site, I concur with the proposal to reclassify the site to a class 4.

If you have any questions, please contact me or Mr. Allison C. Wakeman at (518) 458-6310.

Sincerely,

J. lundus Carl

G. Anders Carlson, Ph.D. Director Bureau of Environmental Exposure Investigation

sms/95020PRO0348

Attachment

cc: Dr. N. Kim Mr. A. Wakeman Dr. O'Smith-Blackwell, WRO Mr. C. O'Connor/Mr. M. Forcucci, WRO Ms. M. Hinton Mr. J. Devald, NCHD

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION DIVISION OF HAZARDOUS WASTE REMEDIATION

Original-BHSC Copy-REGION Copy-DEE Copy-DOH Copy-PREPARER

REGISTRY SITE CLASSIFICATION DECISION

1. SITE NAME: Vandemark Chemical 2. SITE NUMBER: 932039 3. TOWN/CITY/VILLAGE: Lockport 4. COUNTY: Niagara 5. REGION: 9 6. CLASSIFICATION: CURRENT: 2A PROPOSED: 4 MODIFY: 7. LOCATION OF SITE (Attach U.S.G.S. Topographic Map showing site location): a. Quadrangle: Lockport b. Site Latitude: 43° 11' 11" Site Longitude: 78° 42' 08" c. Tax Map Number: 8. BRIEFLY DESCRIBE THE SITE (Attach site plan showing disposal/sampling locations): This site was used from 1953 to 1975 for the storage of an estimated 2000 drums containing waste from the production of silicon tetrachloride. During this period the drums deteriorated resulting in the release of HCL fumes. The drums were then buried on site. Starting in 1975 all drums brought on site were placed in lime lined trenches. The drum filled trenches were covered with clay and graded. An estimated 4800 to 5800 drums were disposed in this manner. The total number of drums disposed on site is estimated to range from 6800 to 7800. a. Area 5 acres b. EPA ID Number NYD002116192 c. Completed (X)Phase I ()Phase II () PSA ()RI/FS ()PA/SI (X)Other: RCRA Closure 9. Hazardous Waste Disposed (Include EPA Hazardous Waste Numbers): Waste from the production of silicon tetrachloride were disposed of on site. The reaction of the silicon tetrachloride and chlorodisiloxane with water in the landfill produced hydrochloric acid which was neutralized by the lime placed in the trenches. Approximately 2000 drums were placed in unlined trenches. **10. ANALYTICAL DATA AVAILA8LE:** a. ()Air (X)Groundwater (X)Surface Water (X)Sediment (X)Soil ()Waste ()Leachate (X)EPTox ()TCLP b. Contravention of Standards or Guidance Values Groudwater standards have been exceeded due to the presence of low ph, and high levels of chloroform, carbon tetrachloride, phenols and several inorganic compounds. 11. JUSTIFICATION FOR CLASSIFICATION DECISION: This site has been closed under the DHSR RCRA program. The landfill has been capped and the facility has received a Part 373 Post Closure Permit for ground water monitorina. 12. SITE IMPACT DATA: Direction: SW a. Nearest Surface Water: Distance 1000 ft. Classification: D ()Sole Source ()Primary ()Principal (X) Perched b. Nearest Groundwater: Depth 25 ft. Flow Direction: SW c. Nearest Water Supply: Distance > 5000 ft. Direction: N/A Active: () Yes () No d. Nearest Building: Distance 1000 ft. Direction: East Use: Industrial e. In State Economic Development Zone? ()Y (X)N i. Controlled Site Access? (X)Y()N (X)N (X)N f. Crops or livestock on site? ()Y j. Exposed hazardous waste? ()Y g. Documented fish or wildlife mortality? ()Y (X)N k. HRS Score: 27.22 h. Impact on special status fish or wildlife resource? ()Y (X)N1. For Class 2: Priority Category N/A 13. SITE OWNER'S NAME: Vandemark Chemical 14. ADDRESS: North Transit Rd. Lockport N.Y. 14094 15. TELEPHONE NUMBER: (716) 433-6764 16. PREPARER: leta hature Date Michael J. Hinton P.E. Enviromental Engineer II NYSDEC arec Name, Title, Organization Name, Title, Organization

New York State Department of Environmental Conservation 50 Wolf Road, Albany, New York 12233-7010



Langdon Marsh Acting Commissioner

MEMORANDUM

TO: Tom Reamon

FROM: Carl Hoffman /



SUBJECT: Van de Mark Chemical Co. Inc. #932039

DATE: MAY 2 6 1994

The classification package prepared by Region 9 for the above referenced site has been reviewed.

Mike Hinton informed me back in March that this reclass was on the way. This site has undergone a RCRA closure, and a Part 373 Post Closure RCRA permit has been issued for groundwater monitoring.

This site has been carried in our program as a "2A", but it has been a "2A bean" we have not been in control of due to its RCRA status. It is positive and entirely appropriate that the RCRA progress at this site now allows the opportunity to reclass to a "4", recognizing the site is properly closed but requiring continued management.

I recommend that you sign off on this decision. Let me know if you would like to discuss it further. New York State Department of Environmental Conservation 270 Michigan Avenue, Buffalo, New York 14203-2999



MEMORANDUM

MAY 1 3 1994

Langdon Marsh Acting Commissioner

TO:Robert Marino - BHSC, DHWRFROM:Peter Buechi, Regional Engineer DHWR Region 9SUBJECT:Vandemark Chemical Site #932039

DATE: May 9, 1994

Region 9 staff have prepared a reclassification package for the Vandemark Chemical Site in the City of Lockport, Niagara County.

The site is current a Class 2A and we are proposing a reclassification to a Class 4.

We are basing our proposal on the fact that the RCRA permit program has supervised the closure of the landfill by capping and have instituted a 30 year monitoring program. Under the long term monitoring program the company is required to submit, by October 1994, an evaluation of the closure performed. This evaluation will provide a basis for additional work that may be required when the permit is renewed in October 1995.

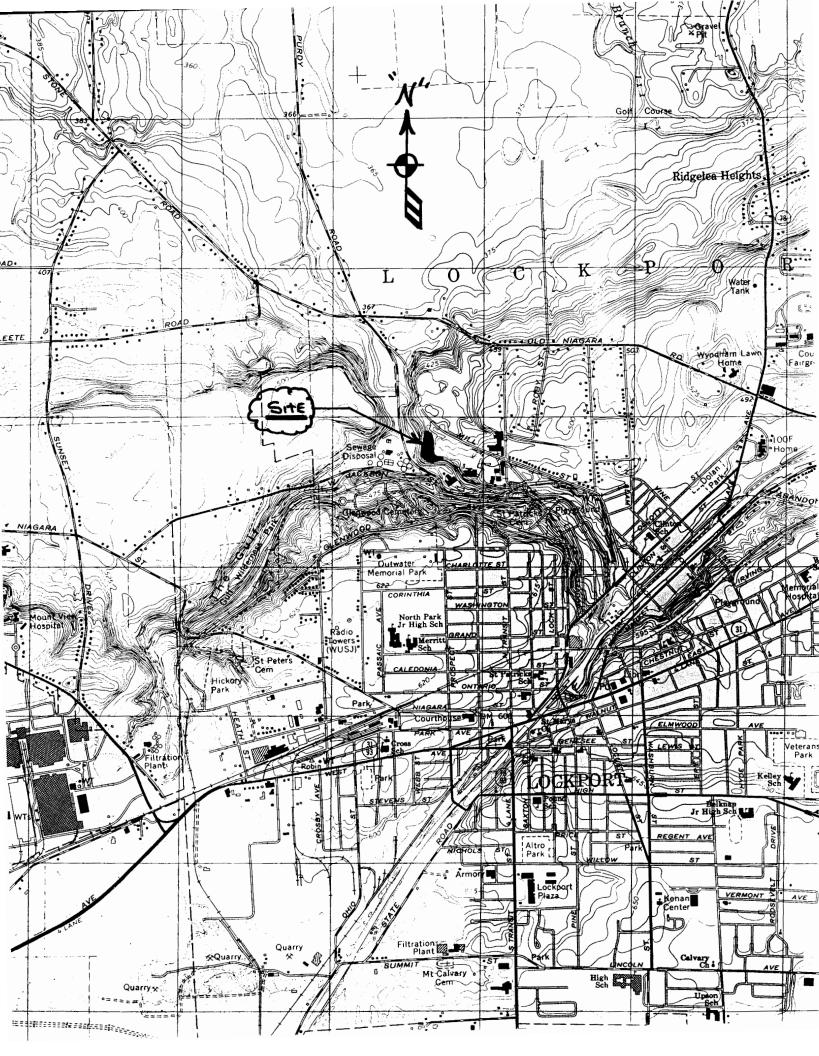
The sampling of the monitoring wells on site has confirmed the presence of volatile organic compounds. However, the migration of contaminants from the site is negligible.

We will be requesting that the RCRA program add sediment and surface water sampling of Eighteen Mile Creek as a condition of the permit renewal in 10/95.

For your convenience we have included copies of this package for NYS DOH and DEE.

ad

cc: Mr. Abul Barkat/Mr. Michael Hinton Mr. Frank Shattuck



DIVISION OF HAZARDOUS WASTE REMEDIATION INACTIVE HAZARDOUS WASTE DISPOSAL REPORT

CLASSIFICATION CODE:	4 REGION: 9	SITE CODE: 932039 EPA ID: NYD002116192
NAME OF SITE : Van de M STREET ADDRESS: Mill St	ark Chemical Company, Inc.	
TOWN/CITY:	COUNTY:	ZIP:
Lockport	Niagara	
SITE TYPE: Open Dump- ESTIMATED SIZE: 5+	Structure- Lagoon- Landfi Acres	11- Treatment Pond-
SITE OWNER/OPERATOR INFOR	MATION:	
CURRENT OWNER NAME:	Van de Mark Chemicals Co.	Inc.
CURRENT OWNER ADDRESS.:	1 North Transit St., Lockp	ort, NY
OWNER(S) DURING USE:	Van de Mark Chemicals	
OPERATOR DURING USE:	Van de Mark Chemicals	

SITE DESCRIPTION:

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Located North and East of 18 Mile Creek, and 100 ft. above the creek bed. Drums of silicon tetrachloride and chlorodisiloxane were buried in the limestone. The limestone reacts with the decomposition products from the drums. Construction of a railroad east of the site has delayed commencement of the monitoring program. Van de Mark installed new wells in 1983 and submitted a closure plan in the spring of 1984. A Phase I Investigation was completed in 1987.

OPERATOR ADDRESS...... 1 North Transit Road, Lockport, NY

PERIOD ASSOCIATED WITH HAZARDOUS WASTE: From 1968 To 1982

Van de Mark has closed the landfill with DEC approval and has received a Part 373 Post Closure Permit for groundwater monitoring.

HAZARDOUS WASTE DISPOSED: Confirmed-X TYPE -----

Suspected-QUANTITY (units)

Silicon Tetrachloride Chlorodisiloxane

ANALYTICAL DATA AVAILABLE: Air- Surface Water- Groundwater-X Soil- Sediment-

CONTRAVENTION OF STANDARDS: Groundwater-X Drinking Water- Surface Water-

Air-

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LEGAL ACTION:

State-Federal-TYPE..: Consent Order STATUS: Negotiation in Progress- Order Signed-

REMEDIAL ACTION:

In Progress- Completed- X Proposed- Under design-NATURE OF ACTION: Gw mon wells & mon pro.Corr act. to follow.

GEOTECHNICAL INFORMATION: SOIL TYPE: Grimsby form - shale & siltstone GROUNDWATER DEPTH: 25'

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

Possible leachate of decomposition products into 18 Mile Creek & groundwaters. A remedial program will be submitted to the DEC, if warranted.

ASSESSMENT OF HEALTH PROBLEMS:

Page 9 - 346

New York State Department of Environmental Conservation 50 Wolf Road, Albany, New York 12233



1 1 1988

Thomas C. Jorling Commissioner

Mr. Matthew Barmassee Safety/Environmental Manager Van De Mark Chemical Co., Inc. 1 North Transit Road Lockport, NY 14094

> ke: Closure Certification; Release of financial assurance for closure; Establishment of financial assurance for post-closure

Dear Mr. Barmassee:

The Department has reviewed your submission of the Record of Closure Activities Report dated November 1987 and subsequent correspondence by Conestoga-Rovers and Associates regarding the closure of the Van De Mark Landfill. Staff have also observed and inspected the cover both during construction and after completion.

Based upon the above, the Department accepts the Certification of Closure for the Van De Mark Landfill and that closure has been accomplished in accordance with applicable regulations and the approved Closure Plan.

Under Part 373-3.8(d)(8), the Department hereby notifies that Van De Mark is no longer required to maintain financial assurance for closure of the landfill. However, under Part 373-3.8(f), Van De Mark is required to establish financial assurance for post-closure care of the facility.

At this time, Van De Mark <u>has not</u> supplied the Department with any financial assurance for post-closure care of the landfill.

Upon examination of Van De Mark's approved Closure Plan, the cost estimate for monitoring and maintenance was determined to be \$177,100 for a thirty-year post closure care period. Van De Mark presently has a letter of credit for \$44,730 which the Department will apply toward the partial post-closure financial assurance required. It is the owners responsibility to establish financial assurance for the entire post-closure amount using one or a combination of the mechanisms specified in Part 373-3.8(f).

Van De Mark must supply the appropriate financial assurance to the Department no later than March 31, 1989. In addition, the Post-Closure Permit Application that Van De Mark will be submitting, should in detail break down and verify the maintenance and monitoring costs that have previously been submitted in your Closure Plan. Please be aware that all costs must reflect third party costs. Should you have any questions concerning the above matters, do not hesitate to contact Mr. Timothy DiGiulio at (518) 457-9253.

Sincerely,

R. Counternan Paul

Paul R. Counterman, P.E. Director Bureau of Hazardous Waste Facility Permitting Division of Hazardous Substances Regulation

- cc: P. Ingrisano, EPA, Region II
 - F. Langone, EPA, Region II
 - L. Thomas, NYSDEC Albany
 - J. Moran, NYSDEC Albany
 - T. DiGiulio, NYSDEC Albany



CONESTOGA-ROVERS & ASSOCIATES LIMITED 651 Colby Drive, Waterioo, Ontario, Canada N2V 1C2 (519) 884-0510

April 11, 1988

Reference No. 1277

Mr. Tim Digiulio NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION 50 Wolf Road Albany, NY 12233

Dear Mr. Digiulio:

Re: Van deMark Chemical Corporation - Lockport, NY I.D. No.: NYD991290529

I hereby certify that the above referenced Landfill was closed as per the approved Closure Plan as amended in the "Record of Closure Activities" by Conestoga-Rovers & Associates (CRA) in November 1987.

No further investigations by the engineer are planned at this time.

Yours very truly,

CONESTOGA-ROVERS & ASSOCIATES

Donald J. Miller, P.E. NYS #051886

de

Matthew Barmasse Safety/Environmental Director Van deMark Chemical Company



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Van De Mark Chemical Co., Inc.

RECORD OF CLOSURE ACTIVITIES Former Landfill Site

November 1987

Ref. No. 1277

CONESTOGA-ROVERS & ASSOCIATES

Carl State

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This report describes the construction activities involved with the closure of a former landfill owned by VanDeMark Chemical Co., Inc. (VDM) of Lockport, New York. The proposed closure plan, as presented in the report entitled "Closure Plan - Former Landfill Site" was approved by the New York State Department of Environmental Conservation (NYSDEC) prior to initiation of closure activities. The cover sheet of the plans enclosed with this report illustrates the location of the former VDM Landfill Site.

On June 19, 1987 the contract to complete the closure activities at the landfill was awarded to Secure Landfill Consultants-Constructors (SLC) of Lockport, New York. Construction activities commenced on June 29, 1987 and were completed during the week of August 10, 1987. The work involved the following:

- a. Site preparation including clearing and grubbing of area, pre-grading and proof-rolling.
- b. Addition of crushed limestone in surface depressions on-site and surface treatment through the application of powdered lime.

- c. Construction of a limestone interceptor trench.
- d. Installation of a monitoring well within the interceptor trench.
- e. Installation of a pan lysimeter and monitor standpipe.
- f. Installation of layers of low permeable clay, a drainage blanket, sandy loam and topsoil over the existing waste and cover material.
- g. Hydraulic seeding.
- h. Post closure activities including hydrogeologic monitoring and maintenance programs.

As designed by Conestoga-Rovers & Associates (CRA), the construction activities address the site specific conditions of the former landfill area with respect to the local and regional geology, soil and groundwater conditions, topography, and surface drainage patterns.

2.0 CLOSURE ACTIVITIES

122

(Pre)

- 20

The VanDeMark landfill area has been covered with a low permeability cap to reduce precipitation infiltration. The final cover consists of:

- vegetative cover (grass)
- 6-inch thick topsoil layer
- 15-inch thick loam layer
- 3-inch thick drainage layer
- 24-inch thick clay layer
- only imported soils were used for cover construction

The areal extent and final surface elevations of the cover are presented on Plan 7. A typical cross section of the cap is presented on Plan 8. The following sections detail the closure activities:

2.1 PRE-GRADING

The initial step of the closure plan construction involved the clearing and grubbing of the site. Excess vegetation cleared from the site which could not be pulverized and combined with the pre-graded soils was removed from the site. Following clearing and grubbing, the site was pre-graded such that all areas of the site sloped

3

3.0 MAINTENANCE PROGRAM

Following site closure, the site will be inspected semi-annually. The site will be inspected with regards to:

a. cover integrity;

b. ditch lining integrity and presence of iron staining;

c. condition of vegetation over the cover;

d. drainage conditions

e. condition of the fence surrounding the site;

f. pan lysimeter and

19

g. monitoring wells and water quality monitoring locations

A log will be maintained of the inspections for a minimum of six years from the date of inspection. The log will indicate the name of the inspector, item of inspection, date and time of inspection, observations and date and nature of remedial action(s).

Any deficiencies noted during inspection will be addressed immediately. Any damage or inaccessibility to the monitoring wells will be rectified within 14 days and the NYSDEC will be notified within 20 days of the inspection. The notification to the NYSDEC will include the following:

- i) description of the problem associated with the well;
- ii) a description of the repairs made; or
- iii) a schedule for the rehabilitation or replacement of the
 well.

If a problem with a well prevents collection of a scheduled sample, a sample will be obtained within 14 days after rehabilitation or replacement of the well. It is to be noted that should the off-site upgradient well D-55 be damaged or otherwise become inaccessible thereby preventing collection of a sample from that well, an alternate upgradient well will be selected and sampled upon approval by the NYSDEC.

Any settlement of the cover, should it occur, in excess of 12 inches will be remedied by removal of the topsoil, loam and drainage layer and subsequent backfilling with additional clay to the top of clay grade. The drainage layer, loam and topsoil layers will then be replaced. Any erosion of the cover will be repaired by reconstruction of the cover in the eroded area. If necessary sod will be used to re-establish vegetative cover.

The purpose of the post-closure monitoring program is to monitor the effectiveness of the closure construction for containing the migration of the contaminants within the landfilled area. The program consists of the collection and analysis of a series of groundwater and stream samples at regular intervals. The samples will be analyzed for the site specific parameters which include the following:

- pH (measured in the field)
- purgeable halocarbons (method 601)
- chlorides (method 407B)
- total recoverable phenolics (method 430)
- soluble metals:
 - arsenic (method 206.2)
 - chromium (method 218.2)
 - copper (method 220.1)
 - * iron (method 236.1)
 - ° lead (method 239.2)
 - * mercury (method 245.1)
 - * zinc (method 289.1)

The sampling locations will include:

- monitoring wells VDM9, VDM10, VDM11, VDM12 and D-55;
- ditch interceptor trench monitor VDM14;
- the seep in the area of the southwest corner of the landfill (if flowing); and
- upstream and downstream locations of Eighteen Mile
 Creek.

Protocols are outlined in Appendix D.

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Samples will be collected according to the following schedule:

Initial 18 months following closure	-	quarterly
18 months to end of year 3 following closure	-	semi-annually
Years 4 and 5 following closure	-	annually
Years 5 to 30 following closure	-	every 5 years

Prior to each sampling round, one complete set of groundwater elevation measurements will be made using all of the wells that have been installed on the landfill site proper. The results of each sampling event will be submitted to the NYSDEC within one week of receipt of the analytical data.

In order to evaluate the performance of the clay cap, a lysimeter has been installed on the site. During the regular sampling events outlined for the post-closure program, the water level in the lysimeter will be measured. The water accumulated in the lysimeter and lysimeter monitor will then be pumped out (i.e. using a peristaltic pump) and the total volume of water will be measured. This measurement will be converted into an estimated infiltration rate of the clay cap, compared to the required cap permeability of 1×10^{-7} cm/sec and reported along with the analytical results to the NYSDEC. A volume change of 40 gallons is approximately equal to an infiltration rate of 1×10^{-7} cm/sec over a six month period.

At the end of 18 months, VDM will submit to the NYSDEC a report which evaluates the performance of the cover system. The following data will be included in the Performance Evaluation Report:

1. All available historic water quality data from each monitoring point and all data collected during the performance period. Supporting QA/QC results will be submitted for data collected during the performance monitoring period.

- All available groundwater level data presented in a spreadsheet showing monitoring point and water level for each sampling event.
- Lysimeter data and calculations used to determine permeability/performance of the cap.

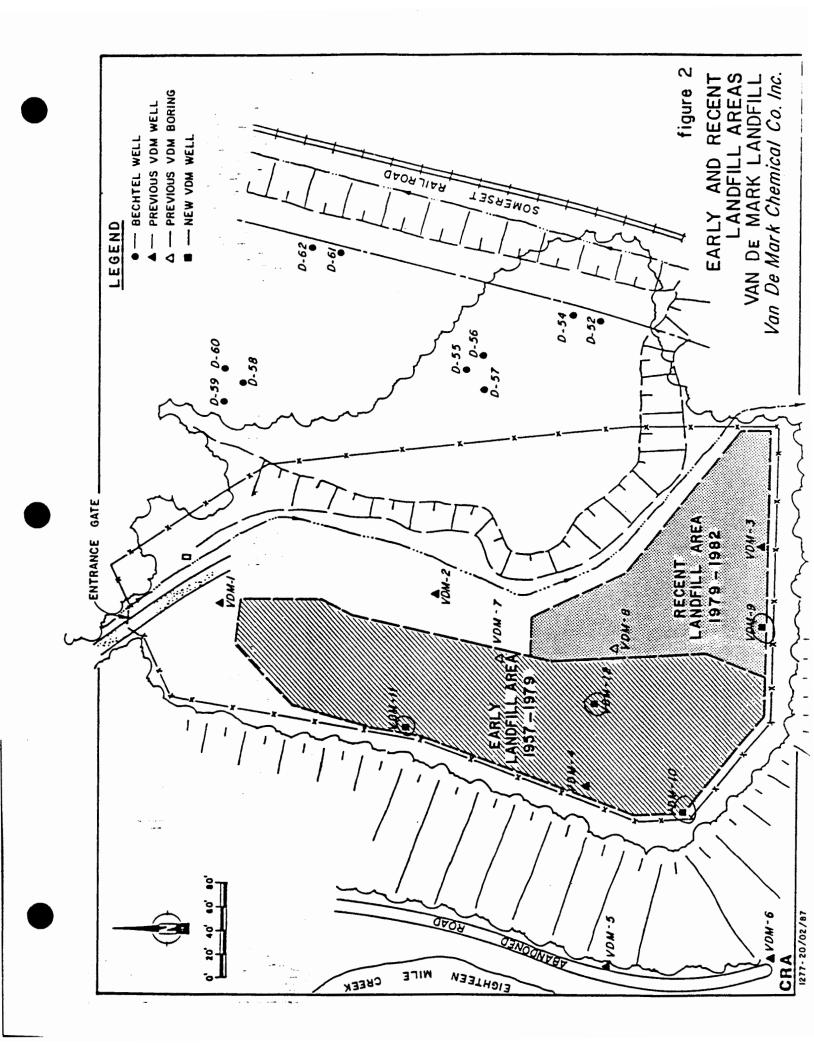
The report will discuss this data, evaluate the effectiveness of the cover system and include a proposal for future monitoring or additional remedial measures at the landfill. Until that proposal is approved by the Department and implemented, VanDeMark will continue monitoring as specified in the Post-Closure Monitoring Program. Following each post-closure monitoring event, the analytical data will be reviewed for accuracy and evaluated to determine whether there have been any significant changes in the landfill conditions. The purpose of the contingency program is to outline the required remedial actions to be taken, where appropriate, based on observations made during post-closure monitoring program activities.

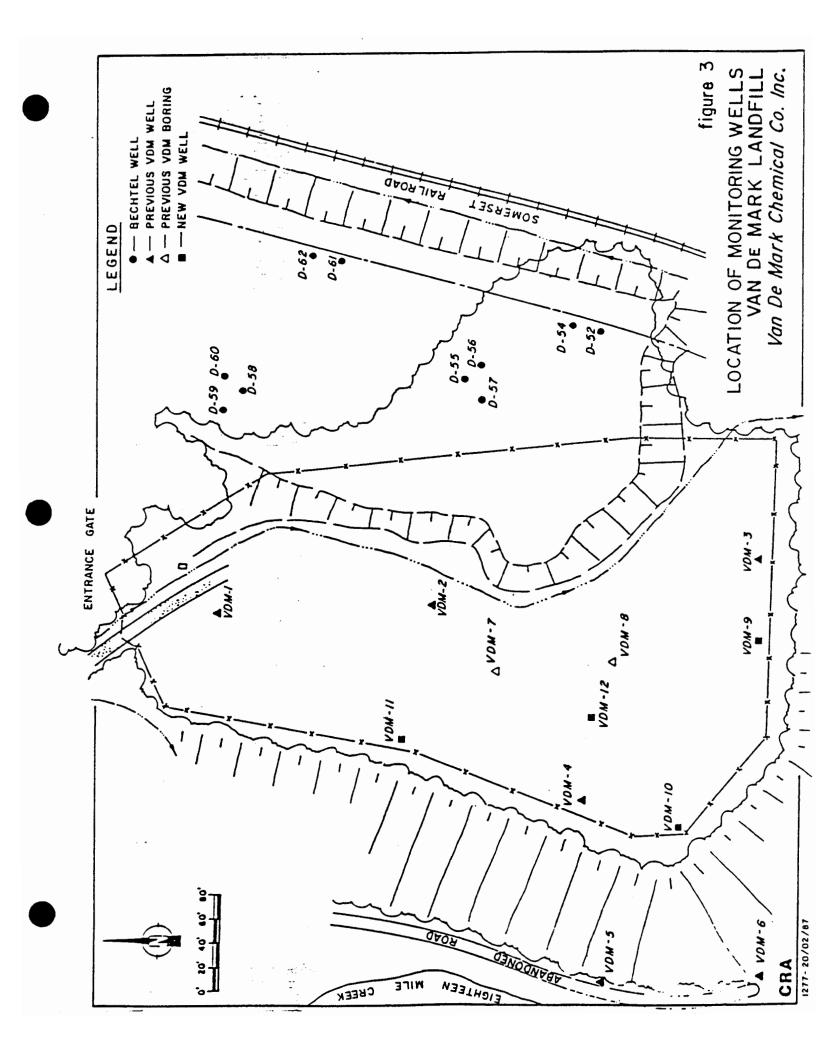
The mechanism which will trigger the implementation of the contingency program will be a significant impact measured in the stream. This will be done by monitoring water quality trends in the stream. Should this monitoring identify a significant increase in chemical parameter resulting from the former landfill, a reassessment of the remedial action will be undertaken. The indication that cap permeability exceeds 1×10^{-7} cm/sec shall also trigger the implementation of the contingency program.

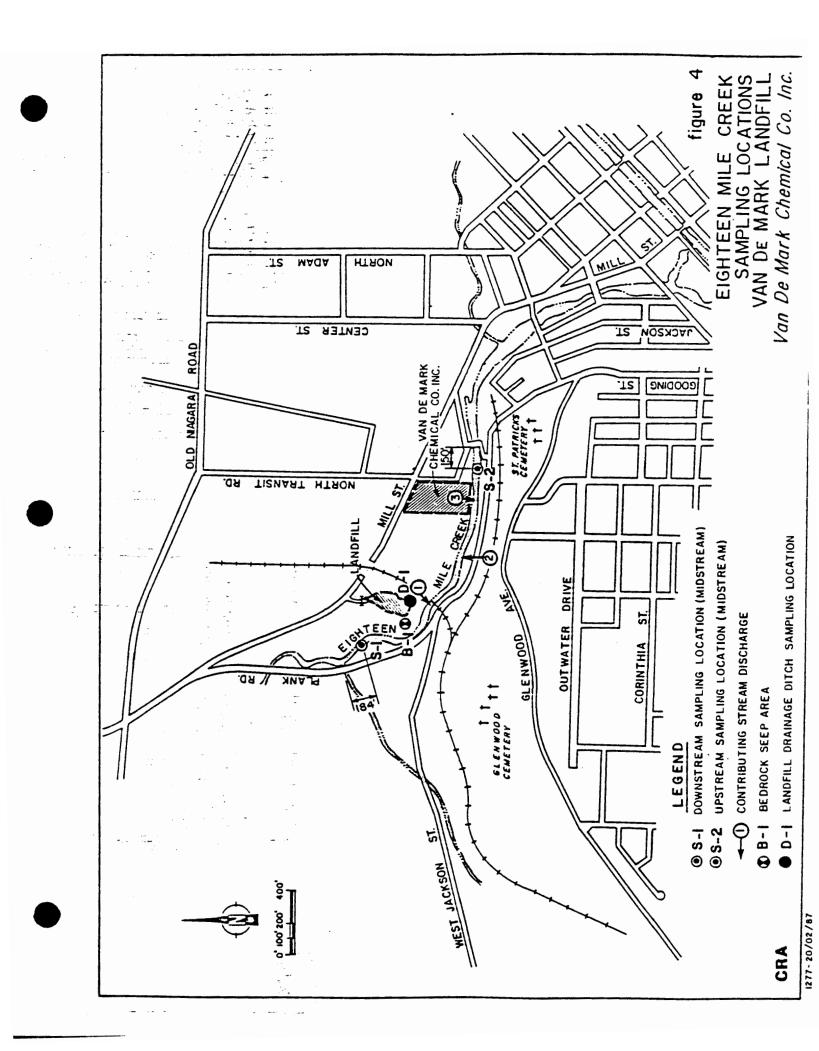
The initial step of the contingency plan is to immediately notify the NYSDEC representative assigned to the site. The second step is to verify the increase by taking two additional samples at the sample location(s) in question, and analyzing for the particular parameter(s). This must be done within two weeks of receipt of the suspect

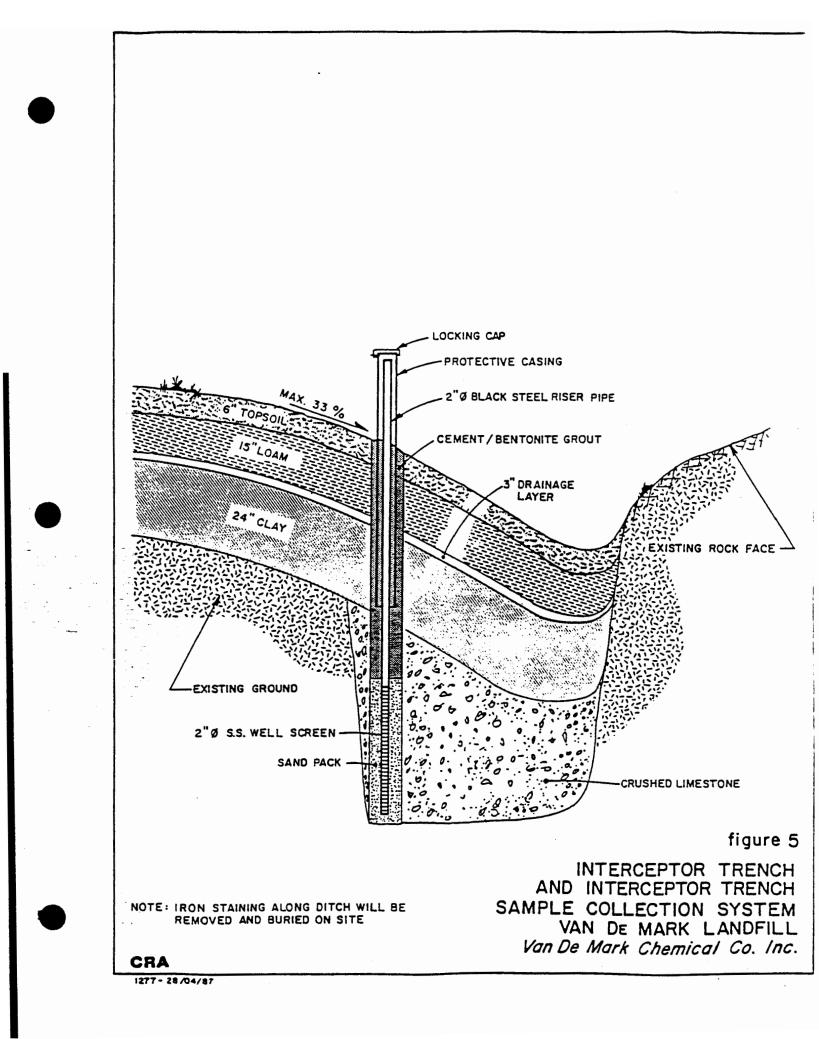
analytical data. If the increase is verified, a study will be initiated to determine the cause of the increase and the potential consequences. Within eight weeks of the initial receipt of analytical data which triggered the contingency program, a report must be submitted to the NYSDEC which details these causes and consequences as well as the recommended remedial action and proposed schedule. Likewise, should an indication that the cap permeability exceeds 1×10^{-7} cm/sec then this must be confirmed within two weeks and an evaluation, complete with proposed remedial action and schedule, will be submitted to the NYSDEC within eight weeks.

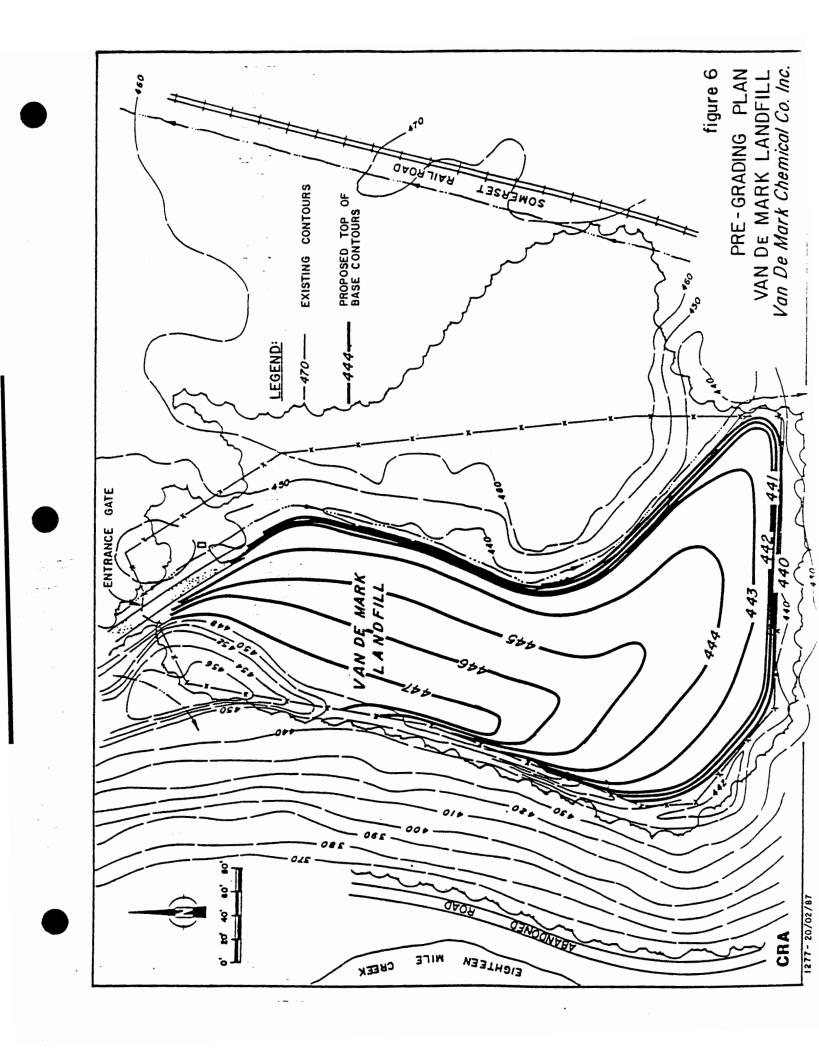
6/4

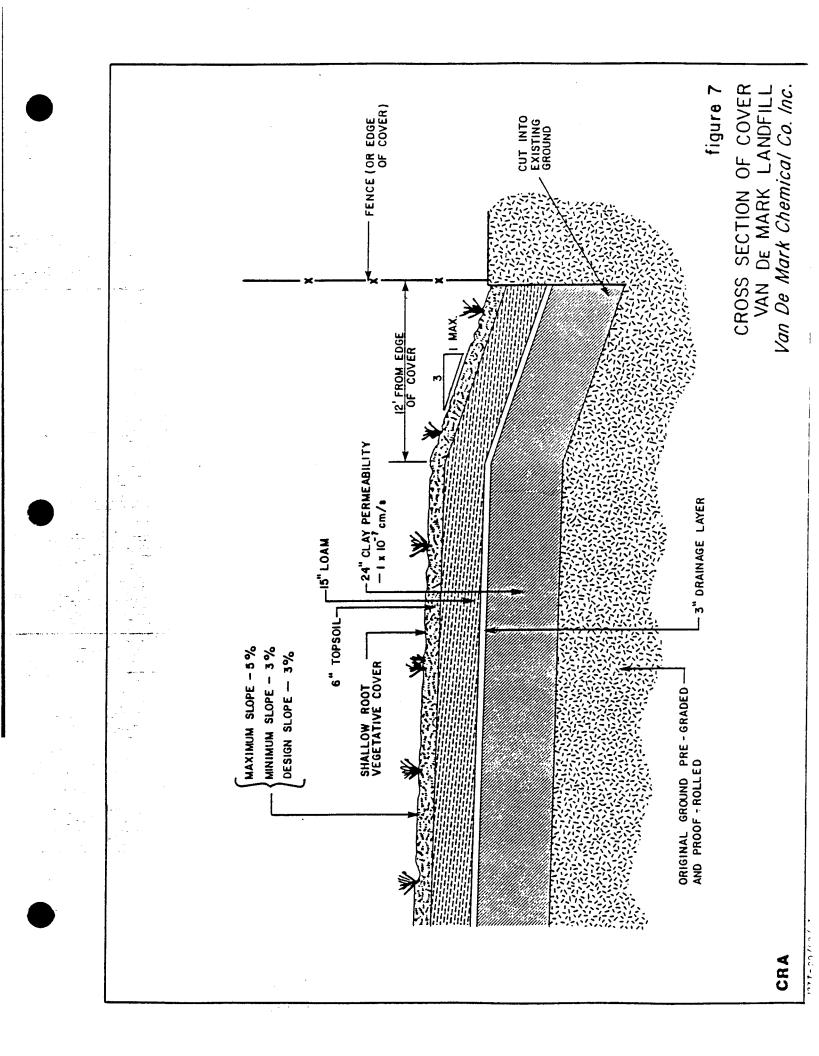


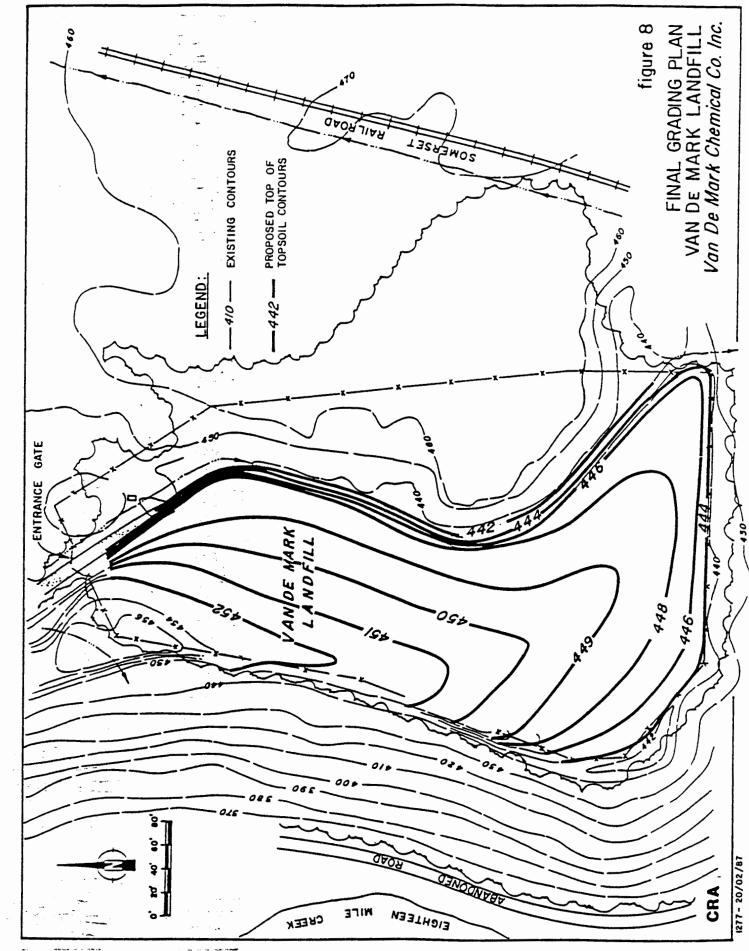












VanDeMark Chemical Co., Inc.

January 19, 1994

Mr. Paul R. Counterman Director, Bureau of Hazardous Waste Facilities Management Division of Hazardous Substances Regulation New York State Department of Environmental Conservation 50 Wolf Road Albany, NY 12233-7251

RE: Quarterly Landfill Monitoring Results Permit # 9-2909-00048/00011-0

Dear Mr. Counterman:

Enclosed are the results of the post closure monitoring program for the first quarter of 1994. An additional constituent, Acetone, was added to the list for all wells due to the appendix 33 test for the last quarter of 1992.

The results of the sampling showed that two of the parameters, trans-1,2-Dichloroethene and Tetrachloroethene were above the exceedance limits for well VDM 9. Acetone was present at 44 ppb.

These two parameters, trans-1,2-Dichloroethene and Tetrachloroethene, have been out of compliance for ten consecutive quarters.

The results from well VDM 10 showed none of the parameters were above the exceedance limits. Acetone was not present.

The results from well VDM 11 showed none of the parameters were above the exceedance limits. Acetone was not present.

The results from well VDM 14 showed none of the parameters were above the exceedance limits. An appendix 33 test regimen is included for VDM 14. Acetone was not present.

Although two parameters have surpassed the exceedance limits for ten consecutive quarters for VDM 9, it is believed there is no significant deterioration of ground water quality at the site.

Since there is no significant deterioration of ground water quality, there is no reason to implement a remedial action plan.

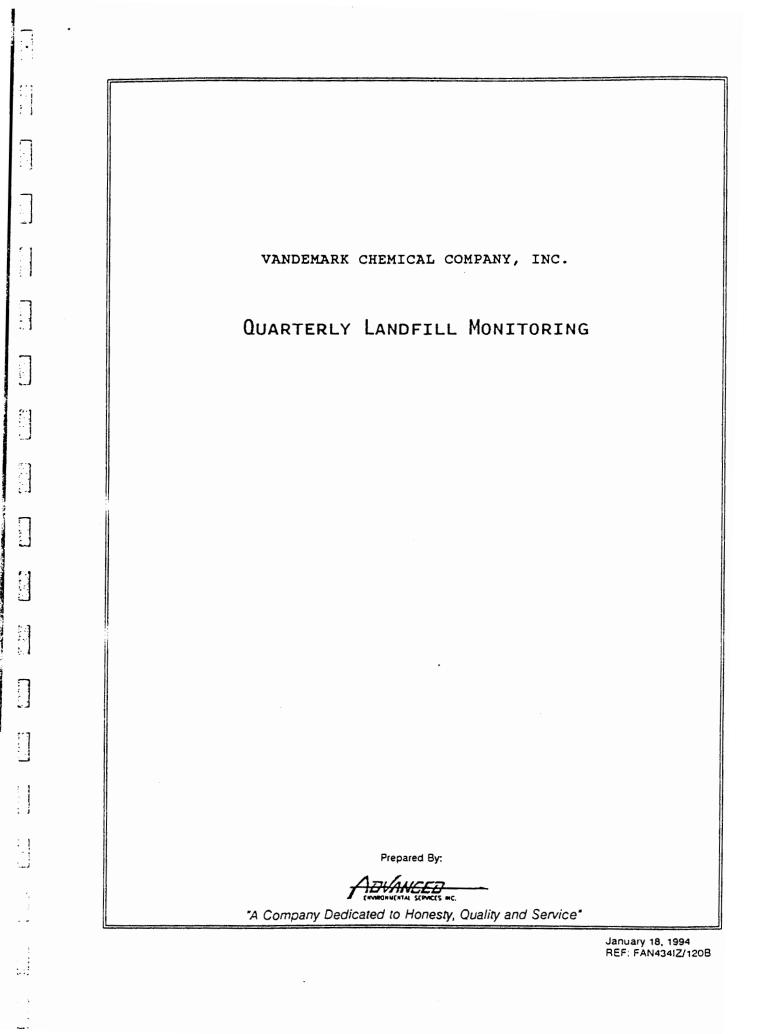
The Pan Lysimeter plan and the installation of a new peizometer is being managed by Joseph Venturo and will not be included in this letter, but in a separate mailing.

Please feel free to contact (716)433-6746, if you have any questions, and ask for myself or Joseph Venturo.

Sincerely,

Matthew Barmasse Environmental Director

cc: Larry Thomas, Regional Hazardous Substance Engineer, Stanley Radon, Senior Engineering Geologist Region 9.



QA/QC VERIFICATION FOR PROJECT ID 341Z

The following report, as well as the supporting data, have been carefully reviewed for accuracy, adherance to the cited methods, and completeness. All data contained in this report was generated in accordance with the AES Laboratory Quality Assurance/Quality Control Program.

Linda A. Ratka Inorganic Senior Technician 1 1 Joseph P. Masaracchia Laboratory Manager Dennis J. Hoyt AES Field Engineer Paul T. McMahon Quality Control Officer Curtlis seph J Project Manager -. 1

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All 'Total' results on soil matrices are calculated on a dry weight basis, unless otherwise noted. Analyses noted as 'Performed in the laboratory' require immediate testing and should be performed in the field.

The following are standard abbreviations:

BOL - Below Quantifiable Limits ND - None Detected

- NG No Growth of Colonies
- WR Not Requested

Advanced Environmental Services, Inc. 2186 Liberty Drive Niagara Falls, New York 14304 (716) 283-3120

QUARTERLY GROUNDWATER MONITORING - WELL INFORMATION December 16, 1993

VAN DEMARK CHEMICAL COMPANY, INC.

One North Transit Road Lokport, New York

AES Code: FAN

Project I.D. # 34IZ

Ę	Monitoring	Evacuation	Top of	Monitoring	Water	Water	Bottom	Volume of	Volume of	Recharge
1	Well	Date	Inner	Weil	Level	Elevation	of Well	Standing	Evacuated	Rate
: 1	LD.		Casing	Diameter	(fi.)	(ń.)	(ft.)	Water	Water	
			Elevation					(gallons)	(gallons)	
2			(ů.)							
L.	D-55	12/16/93	469.45	2	36.21	433.24	46.96	1.75	3.75 (Dry)	S/R
T_	VDM-9	12/16/93	447.37	2	24.84	422.53	30.97	1.00	1.00 (Dry)	S
نے ل	VDM-10	12/16/93	444.89	2	31.79	413.10	46.19	2.35	3.00 (Dry)	S
1	VDM-11	12/16/93	450.74	2	18.84	431.90	23.04	0.69	1.00 (Dry)	vs
ن	VDM-14	12/16/93	446.31	2	10.14	436.17	12.38	0.37	1.25	с

Abbreviations:

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VS = Very Slow ----- Recharge Rate longer than 24 hr period.

S = Slow ------ Recharge Rate within 24 hr period.

R = Rapid ------ Recharge Rate within 1 hr period.

C = Continuous ---- Recharge Rate immediate.

12 23 93. Field Technician

Advanced Environmental Services, Inc. 2186 Liberty Drive Niagara Falis, New York 14304 (716) 283-3120

QUARTERLY GROUNDWATER MONITORING - FIELD PARAMETER INFORMATION December 16, 1993

VAN DeMARK CHEMICAL COMPANY, INC.

One North Transit Road Lockport, New York

AES Code: FAN

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Project I.D. #341Z

 Monitoring Welt I.D.	Sampling Date	Sampling Time	Waicr Level (ft.)	Well Volume (gallons)	pH (Standard Units)	Field Comments/Observations
 D-55	12/16/93	2:30 PM	37.62	1.52	7.26	Clear to cloudy. no odor.
VDM-9	12/16/93	3:05 PM	25.89	0.82	4.26	Clear to cloudy, no odor.
VDM-10	12/16/93	3:30 PM	31.89	2.33	5.88	Clear with a sweet odor.
VDM-11	12/16/93	3:40 PM	18.93	0.67	5.38	Clear, no odor.
VDM-14	12/16/93	2:53 PM	10.15	0.36	6.27	Very clear with white flakes, no odor.
Blind Dup	12/16/93	2:53 PM	N/A	N/A	6.32	Very clear with white flakes, no odor.
Trip Blank	12/16/93	9:45 AM	N/A	N/A	5.39	Deionized water from AES. Inc.

The Blind Duplicate site is VDM-14.

12 23 93 Date Field Technician

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REPORT NARRATIVE

CLIENT: VANDEMARK CHEMICAL PROJECT: QUARTERLY LANDFILL MONITORING AES PROJECT CODE: FAN 34IZ AES SAMPLE #: 34IZ 1-7 REPORT DATE: JANUARY 17, 1994

This quarterly landfill analysis was performed for VanDeMark Chemical as a NYSDEC required component for post-closure monitoring of their Lockport, New York site.

Sampling was performed by Advanced Environmental Services, with all sample bottles and necessary preservatives provided by the laboratory. Sampling of the five sites and a blind duplicate for pH, chlorides, selected metals, selected volatile organics, and selected semivolatiles was performed on December 16, 1993. Trip blanks for all routine parameters accompanied sampling personnel during the entire sampling process. Extra sample was collected for the blind duplicate site for quality control purposes.

All methodologies are referenced from the EPA SW-846, third edition, 1986. All preservation, sampling, and analyses were performed in accordance with the stated methodologies. All holding times for organic and inorganic analyses were observed by the laboratory, and are documented in the NYSDEC analyses sheets submitted with this report. Due to instrument problems, the mercury analysis had to be subcontracted.

All units are reported in parts per billion with the exception of pH, which is in standard pH units.

For the ease of reporting, the priority pollutant phenols analyzed by SW-846 Method 8270 are combined on one line. This can be done because these compounds are usually not detected in these sites. The detection and quantitation limits for the less sensitive phenol compounds are used in reporting.

Data validation included evaluation of holding times, methodologies, method specified quality assurance, project specific quality control, and instrumental calibration. Surrogate recoveries for the organic compound analyses are included in the report. All surrogate recoveries were within laboratory established limits.

All project specific quality control was performed on the blind duplicate of site VDM-14 (AES sample #34IZ-6). All quality control data for this site are included in the report, and were found to be acceptable. Independent calibration check standards and EPA reference standard results for the parameters are also included in the report.

Instrument blanks, preparatory blanks, and the sampling field blanks were analyzed for each parameter. All results were below detectable limits.

The blind duplicate site for this round of sampling is VDM-14. The reproducibility of the sampled site was acceptable.

Paul T. McMahon Quality Control Director

CLIENT: VanDeMark Chemical Company, Inc. SAMPLE ID: VDM-9 COLLECTION METHOD: Grab COLLECTION DATE(S): 12/16/93 SAMPLE TYPE: Groundwater

All units are in ppb unless otherwise specified.

Analytical Parameters	Analytīcal Results	D.E.C. Exceedance Values	Method Detection Limits	Practical Quantifiable Limit	Method
Carbon tetrachloride	ND	30	3.0	10	SW 846 8240
Chloroform	59	200	4.0	10	SW 846 8240
Chloromethane	ND	20	3.0	10	SW 846 8240
1,2-Dichloroethane	13	30	1.0	10	SW 846 8240
trans-1,2-Dichloroethene		40	2.5	10	SW 846 8240
Methylene chloride	21	70	1.5	10	SW 846 8240
1,1,2,2-Tetrachloroethane	100	200	1.0	10	SW 846 8240
Tetrachloroethene	140 🖗	65	2.5	10	SW 846 8240
Trichloroethene	28	50	2.5	10	SW 846 8240
Vinyl chloride	ND	15	3.0	10	SW 846 8240
Toluene	2.9 *	20	2.0	10	SW 846 8240
Acetone	- 44	•••	5.0	10	SW 846 8240
Priority Pollutant Phenols(total)	ND	60	2.5	10	SW 846 8270
Total Arsenic	ND	60	2.0	10	SW 846 7060
Total Chromium	38	60	2.0	10	SW 846 7191
Total Copper	1050	4000	10	40	SW 846 6010
Total Iron	560000	300	50	200	SW 846 6010
Total Lead	ND	25	2.0	10	SW 846 7421
Total Mercury** .	ND	5	0.50	1.0	SW 846 7470
Total Zinc	720	5000	20	80	SW 846 6010
Chloride	8500000 نړ	250000	1000	4000	SW 846 9252
рн ***	4.26	6.5-8.5	0.1	0.4	SW 846 9040

* Estimated result, above detection limit but not quantifiable.

** Analysis subcontracted due to instrument problems.

*** Analysis performed in the laboratory.

PAGE 1

AES CLIENT ID: VANDEMAR AES SAMPLE ID: 3412-1

PROJECT ID: 341Z

CLIENT: VanDeMark Chemical Company, Inc. SAMPLE ID: VDM-10 COLLECTION METHOD: Grab COLLECTION DATE(S): 12/16/93 SAMPLE TYPE: Groundwater

PROJECT ID: 341Z

All units are in ppb unless otherwise specified.

Analytical Parameters	Analytical Results	D.E.C. Exceedance Values	Method Detection Limits	Practical Quantifiable Limit	Method
Carbon tetrachloride	ND	10	3.0	10	SW 846 8240
Chloroform	32	200	4.0	10	SW 846 8240
Chloromethane	ND	20	3.0	10	SW 846 8240
1,2-Dichloroethane	ND	30	1.0	10	SW 846 8240
trans-1,2-Dichloroethene	ND	10	2.5	10	SW 846 8240
Methylene chloride	ND	30	1.5	10	SW 846 8240
1,1,2,2-Tetrachloroethane	ND	20	1.0	10	SW 846 8240
Tetrachloroethene	ND	20	2.5	10	SW 846 8240
Trichloroethene	ND	20	2.5	10	SW 846 8240
Vinyl chloride	ND	15	3.0	10	SW 846 8240
Toluene	2.9 *	60	2.0	10	SW 846 8240
Acetone	ND		5.0	10	SW 846 8240
Priority Pollutant Phenols(total)	ND	60	2.5	10	SW 846 8270
Total Arsenic	8.4*	60	2.0	10	SW 846 7060
Total Chromium	71	80	2.0	10	SW 846 7191
Total Copper	1220	4000	10	40	SW 846 6010
Total Iron	5210 F	300	50	200	SW 846 6010
Total Lead	20 [·]	25	2.0	10	SW 846 7421
Total Mercury**	ND	5	0.50	1.0	SW 846 7470
Total Zinc	1260 🌔	4000	20	80	SW 846 6010
Chloride	4000000 £	250000	1000	4000	SW 846 9252
рН ***	5.88 🤇	6.5-8.5	0.1	0.4	SW 846 9040

* Estimated result, above detection limit but not quantifiable. ** Analysis subcontracted due to instrument problems.

*** Analysis performed in the laboratory.

PAGE 2

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CLIENT: VanDeMark Chemical Company, Inc. SAMPLE ID: VDM-11 COLLECTION METHOD: Grab COLLECTION DATE(S): 12/16/93 SAMPLE TYPE: Groundwater

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All units are in ppb unless otherwise specified.

Analytical Parameters	Analytical Results	D.E.C. Exceedance Values	Method Detection Limits	Practical Quantifiable Limit	Method
Carbon tetrachloride	ND	30	3.0	10	SW 846 8240
Chloroform	8.4 *	200	4.0	10	SW 846 8240
Chloromethane	ND	20	3.0	10	SW 846 8240
1,2-Dichloroethane	ND	30	1.0	10	SW 846 8240
trans-1,2-Dichloroethene	ND	10	2.5	10	SW 846 8240
Methylene chloride	ND	30	1.5	10	SW 846 8240
1,1,2,2-Tetrachloroethane	8.5 *	120	1.0	10	SW 846 8240
Tetrachloroethene	22	100	-2.5	10	SW 846 8240
Trichloroethene	ND	30	2.5	10	SW 846 8240
Vinyl chloride	ND	15	3.0	10	SW 846 8240
Toluene	ND	20	2.0	10	SW 846 8240
Acetone	ND		5.0	10	SW 846 8240
Priority Pollutant Phenols(total)	ND	60	2.5	10	SW 846 8270
Total Arsenic	ND	70	2.0	10	SW 846 7060
Total Chromium	12	60	2.0	10	SW 846 7191
Total Copper	31 *	4000	10	40	SW 846 6010
Tosti liter.	517 1	3:0	-		S- 2-6 2010
Total Lead	ND	25	2.0	10	SW 846 7421
Total Mercury**	ND	5	0.50	1.0	SW 846 7470
Total Zinc	120	4000	20	80	SW 846 6010
Chloride	210000	250000	1000	4000	SW 846 9252
рН ***	5.38	6.5-8.5	0.1	0.4	SW 846 9040

PAGE 3

AES CLIENT ID: VANDEMAR AES SAMPLE ID: 3412-3

PROJECT ID: 341Z

CLIENT: VanDeMark Chemical Company, Inc. SAMPLE ID: VDM-14 COLLECTION METHOD: Grab COLLECTION DATE(S): 12/16/93 SAMPLE TYPE: Groundwater

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AES CLIENT ID: VANDEMAR AES SAMPLE ID: 3412-4

PROJECT ID: 341Z

All units are in ppb unless otherwise specified.

Analytical Parameters	Analytical Results	D.E.C. Exceedance Values	Method Detection Limits	Practical Quantifiable Limit	e Method
Carbon tetrachloride	7.1 *	30	3.0	10	SW 846 8240
Chloroform	19	100	4.0	10	SW 846 8240
Chloromethane	ND	20	3.0	10	SW 846 8240
1,2-Dichloroethane	ND	30	1.0	10	SW 846 8240
trans-1,2-Dichloroethene	3.5 *	10	2.5	10	SW 846 8240
Methylene chloride	ND	30	1.5	10	SW 846 8240
1,1,2,2-Tetrachloroethane	9.3 *	100	1.0	10	SW 846 8240
Tetrachloroethene	57	65	2.5	10	SW 846 8240
Trichloroethene	5.6 *	30	2.5	10	SW 846 8240
Vinyl chloride	ND	15	3.0	10	SW 846 8240
Toluene	ND	20	2.0	10	SW 846 8240
Acetone	ND		5.0	10	SW 846 8240
Priority Pollutant Phenols(total)	ND	60	2.5	10	SW 846 8270
Total Arsenic	ND	60	2.0	10	SW 846 7060
Total Chromium	400	8500	2.0	10	SW 846 7191
Total Copper	ND	4000	10	40	SW 846 6010
Total Iron	11600 ,	300	50	200	SW 846 6010
Total Lead	ND	25	2.0	10	SW 846 7421
Total Mercury**	ND	5	0.50	1.0	SW 846 7470
Total Zinc	31 *	1000	20	80	SW 846 6010
Chloride	340000	2 500 00	1000	4000	SW 846 9252
рн ***	6.27	6.6-8.5	0.1	0.4	SW 846 9040

* Estimated result, above detection limit but not quantifiable. ** Analysis subcontracted due to instrument problems.

*** Analysis performed in the laboratory.

CLIENT: VanDeMark Chemical Company, Inc. SAMPLE ID: D-55 COLLECTION METHOD: Grab COLLECTION DATE(S): 12/16/93 SAMPLE TYPE: Groundwater

All units are in ppb unless otherwise specified.

Analytical Parameters	Analytical Results	D.E.C. Exceedance Values	Method Detection Limits	Practical Quantifiable Limit	e Method
Carbon tetrachloride	ND	5	3.0	10	SW 846 8240
Chloroform	ND	8	4.0	10	SW 846 8240
Chloromethane	ND	5	3.0	10	SW 846 8240
1,2-Dichloroethane	ND	5	1.0	10	SW 846 8240
trans-1,2-Dichloroethene	ND	5	2.5	10	SW 846 8240
Methylene chloride	ND	5	1.5	10	SW 846 8240
1,1,2,2-Tetrachloroethane	ND	5	1.0	10	SW 846 8240
Tetrachloroethene	ND	5	2.5	10	SW 846 8240
Trichloroethene	ND	5	2.5	10	SW 846 8240
Vinyl chloride	ND	5	3.0	10	SW 846 8240
Toluene	ND	5	2.0	10	SW 846 8240
Acetone	ND		5.0	10	SW 846 8240
Priority Pollutant Phenols(total)	ND	60	2.5	10	SW 846 8270
Total Arsenic	ND	25	2.0	10	SW 846 7060
Total Chromium	35	50	2.0	10	SW 846 7191
Total Copper	ND	4000	10	40	SW 846 6010
Total Iron	1300 - 2	300	50	200	SW 846 6010
Total Lead	ND	25	2.0	10	SW 846 7421
Total Mercury**	ND	5	0.50	1.0	SW 846 7470
Total Zinc	ND	300	20	80	SW 846 6010
Chloride	19000	250000	1000	4000	SW 846 9252
рн ***	7.26	6.5-8.5	0.1	0.4	SW 846 9040

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** Analysis subcontracted due to instrument problems.
*** Analysis performed in the laboratory.

PAGE 5

AES CLIENT ID: VANDEMAR AES SAMPLE ID: 3412-5

PROJECT ID: 341Z

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New York State Department of Environmental Conservation 50 Wolf Road, Albany, New York 12233 - 7010



JAN 12 1995

Langdon Marsh Commissioner

Van de Mark Chemical Company, Inc. 1 North Transit Road Lockport, New York 14094

Dear Sir:

As mandated by Section 27-1305 of the Environmental Conservation Law (ECL), the New York State Department of Environmental Conservation (NYSDEC) must maintain a registry of all inactive disposal sites suspected or known to contain hazardous waste. The ECL also mandates that this Department notify the owner of all or any part of each site or area included in the Registry of Inactive Hazardous Waste Disposal Sites as to changes in site classification.

Our records indicate that you are the owner or part owner of the site listed below. Therefore, this letter constitutes notification of change in the classification of such site in the Registry of Inactive Hazardous Waste Disposal Sites in New York State.

DEC Site No.: 932039 Site Name: Van de Mark Chemical Company, Inc. Site Address: Mill Street, Lockport, New York 14094

Classification Change from 2a to 4

The reason for the change is as follows:

- This site has been closed under the Division of Hazardous Substances Regulation Resource Conservation and Recovery Act program. The landfill has been capped and the facility has received under State Regulation, a Post Closure Permit for groundwater monitoring.

Enclosed is a copy of the New York State Department of Environmental Conservation, Division of Hazardous Waste Remediation, Inactive Hazardous Waste Disposal Site Report form as it appears in the Registry and Annual Report, and an explanation of the site classifications. The Law allows the owner and/or operator of a site listed in the Registry to petition the Commissioner of the New York State Department of Environmental Conservation for deletion of such site, modification of site classification, or modification of any information regarding such site, by submitting a written statement setting forth the grounds of the petition. Such petition may be addressed to:

> Langdon Marsh Commissioner New York State Department of Environmental Conservation 50 Wolf Road Albany, New York 12233-0001

Van de Mark Chemical Co., Inc. Site #932039

For additional information, please contact me at (518) 457-0747.

Sincerely,

arino Robert L. Marino

Chief Site Control Section Bureau of Hazardous Site Control Division of Hazardous Waste Remediation

Enclosures

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bcc: w/o Enc.

- E. Barcomb
- R. Marino
- T. Reamon
- A. Sylvester

w/Enc. (copy of Site Report form only)

- R. Dana
- G. Anders Carlson, NYSDOH
- L. Concra
- A. Snyder, R/9
- P. Buechi, R/9
- E. Belmore
- J. Rider

AS/srh