

New York State Department of Environmental Conservation  
 Division of Environmental Remediation  
 Bureau of Hazardous Site Control

**633046**

ADDITIONS/CHANGES TO REGISTRY: SUMMARY OF APPROVALS

SITE NAME: VERONA RESEARCH FACILITY

DEC I.D. NUMBER 633046

Current Classification \_\_\_\_\_

Volunteer Yes \_\_\_\_\_ No X  
 Sign (7) below

Activity:  Add as Class 4  Reclassify to \_\_\_\_\_  Delist Category \_\_\_\_\_  Modify \_\_\_\_\_

Approvals:

- |                                                       |     |                                     |    |                          |                                              |
|-------------------------------------------------------|-----|-------------------------------------|----|--------------------------|----------------------------------------------|
| 1. Regional Hazardous Waste Engineer                  | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> | <u>2/9/01</u>                                |
| 2. BEEI of NYSDOH                                     | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> | <u>4/6/01</u>                                |
| 3. DEE                                                | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> | <u>2/6/01</u>                                |
| 4. _____ Remediation Action Bureau Director [Class 2] | Yes | <input type="checkbox"/>            | No | <input type="checkbox"/> | <u>N/A</u>                                   |
| 5. BHSC - Investigation Section                       | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> | <u>2/1/01</u>                                |
| 6. BHSC - O&M Section [Class 4]                       | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> | <u>2/26/02</u>                               |
| 7. BPM - Brownfield & Voluntary Cleanup Section       |     |                                     |    |                          | <u>G. C. [Signature]</u> Date <u>3/29/02</u> |
| 8. Site Control Section                               |     |                                     |    |                          | <u>[Signature]</u> Date <u>4/9/02</u>        |
| 9. Director                                           |     |                                     |    |                          | <u>Robert [Signature]</u> Date <u>4/8/02</u> |

Completion Checklist for Registry Sites

Completed By:  
Initials Date

OWNER NOTIFICATION LETTER?

\_\_\_\_\_ 5-30-02

ADJACENT PROPERTY OWNER NOTIFICATION LETTER?

\_\_\_\_\_ 6-17-02

ENB/LEGAL NOTICE SENT?  
 (For Deletion Only)

\_\_\_\_\_

COMMENTS SUMMARIZED/PLACE IN REPOSITORY

\_\_\_\_\_

FINAL NOTIFICATION SENT TO OWNER?  
 (For Deletion Only)

\_\_\_\_\_



**SITE INVESTIGATION INFORMATION**

<b>1. SITE NAME</b> Verona Research Facility		<b>2. SITE NUMBER</b> 6-33-046	<b>3. TOWN/CITY/VILLAGE</b> Verona	<b>4. COUNTY</b> Oneida
<b>5. REGION</b> 6	<b>6. CLASSIFICATION</b>			
<b>CURRENT [P]      PROPOSED [4]      MODIFICATION</b>				
<b>7. LOCATION OF SITE (Attach U.S.G.S. Topographic Map showing site location)</b>				
a. Quadrangle: Verona		b. Site Latitude: 43 ° 07 ' 00" N		Site Longitude: 75 ° 37 ' 00" W
c. Tax Map Number(s): Section 285, Block 1, Lot 1		d. Site Street Address: Germany Road, Verona, NY 13478		
<b>8. BRIEFLY DESCRIBE THE SITE (Attach site map showing disposal/sampling locations)</b>				
<p>The site was founded in 1952 by the Air Force as a testing annex in association with the former Griffiss Air Force Base. The facility was used for a wide variety of electronic research and development activities during its 48 year existence. As of October 27, 2000 the facility was inactivated, and the Air Force will divest ownership in the near future.</p> <p>A Preliminary Site Assessment (PSA) was completed in February 1997. An area of PCB-contaminated soil was identified adjacent to Building 1233, and low level groundwater contamination with chlorinated solvents was identified beneath Buildings 1231 and 1253. Subsequent investigations were unable to identify a significant source area of VOCs.</p>				
a. Area: ~1 acres      b. Completed: ( ) Env. Property Assessment (X) PSA ( ) SI ( ) ESI (X) IRM ( ) RI/FS ( ) Construction ( ) O&M ( ) Other _____				
<b>9. HAZARDOUS WASTE DISPOSED (Include EPA Hazardous Waste Numbers)</b>				
-> PCBs: B007 (NYS Hazardous Waste ID #)				
<b>10. ANALYTICAL DATA AVAILABLE</b>				
a. ( ) Air (X) Groundwater ( ) Surface Water ( ) Sediment (X) Soil ( ) Waste ( ) Leachate ( ) EPTox ( ) TCLP				
b. Contravention of Standards or Guidance Values				
Tetrachloroethene: 70 ppb; 5 ppb class GA standard (Part 703.5)				
Trichloroethene: 10 ppb; 5 ppb class GA standard (Part 703.5)				
cis-1,2-dichloroethene: 5 ppb; 5 ppb class GA standard (Part 703.5)				
1,1-dichloroethane: 8 ppb; 5 ppb class GA standard (Part 703.5)				
<b>11. CONCLUSION</b>				
Excavation of PCB-contaminated soils adjacent to Building 1233 was completed in July 1998. Natural attenuation of VOC-contaminated groundwater beneath Buildings 1231 and 1253 is occurring. Continued monitoring of the groundwater in wells MW-1231C, MW-002, and MW-004, as well as the surface water in Brandy Brook is required. Therefore, the site (Buildings 1231 and 1253, and the lands immediately adjacent to them where the aforementioned monitoring wells are located) should be classified as a class 4 site in the New York State Registry of Inactive Hazardous Waste Disposal Sites.				
a. Institutional Controls (IC) Required? ( ) Y (X) N      b. If yes, identify _____      c. Are these ICs in place and verified? ( ) Y ( ) N				
<b>12. SITE IMPACT DATA</b>				
a. Nearest Surface Water: Distance: 0 ft.		Direction: on-site		Class: unknown (Brandy Brook)
b. Groundwater: Depth: 0.5 ft.		Flow Direction: south		( ) Sole Source ( ) Primary (X) Other High-Yield Aquifer
c. Water Supply: Distance: 2.5 mi.		Direction: south		Active: (X) Yes ( ) No
d. Nearest Building: Distance: 0 ft.		Direction: on-site		Use: abandoned
e. Documented fish or wildlife mortality?		( ) Y (X) N		h. Exposed hazardous waste? ( ) Y (X) N
f. Impact on special status fish or wildlife resource?		( ) Y (X) N		i. If proposed Classification is 2, Priority? ( ) 1 ( ) 2 ( ) 3
g. Controlled Site Access?		( ) Y (X) N		j. EPA ID# NY4570012506      HRS Score _____
<b>13. SITE OWNER'S NAME</b>		<b>14. ADDRESS</b>		<b>15. TELEPHONE NUMBER</b>
Mr. Bruce H. Mero, REM Chief, Environmental, Safety, and Occupational Health Office Rome Research Site		Air Force Research Laboratory 150 Electronic Parkway Rome, NY 13441-4105		(315) 330-4284
<b>16. PREPARER</b>		<b>17. APPROVED</b>		
<i>David K. Harrington</i>		<i>Robert L. Marino</i>		
2/1/2001		4/8/02		
Signature		Signature		
Date		Date		
David K. Harrington, P.E., Environmental Engineer 2, EIS, BHSC, DER, NYSDEC		ROBERT L. MARINO Director BHSC		
Name, Title, Organization		Name, Title, Organization		



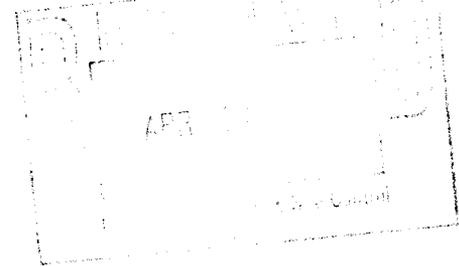
STATE OF NEW YORK  
DEPARTMENT OF HEALTH

Flanigan Square, 547 River Street, Troy, New York 12180-2216

Antonia C. Novello, M.D., M.P.H., Dr.P.H.  
Commissioner

Dennis P. Whalen  
Executive Deputy Commissioner

April 10, 2001



Mr. Robert Marino  
NYS Dept. of Environmental Conservation  
Division of Environmental Remediation  
50 Wolf Road, Room 252  
Albany, New York 12233

Re: Site Investigation Information  
Verona Research Facility  
Site #633046  
(T) Verona, Oneida County

Dear Mr. Marino:

Staff have reviewed the Site Investigation Information package for the Verona Research Facility in the Town of Verona in Oneida County. Based on that review, I understand that source removal activities performed during the course of the Preliminary Site Assessment have been successful and no further action is proposed beyond a monitoring program. A groundwater and surface water monitoring plan is expected shortly. With this information, I concur with the listing of this site on the State Registry of Inactive Hazardous Waste Disposal Sites as a Class 4. The signed decision form is enclosed.

If you have any questions please call Michael Rivara or me at 402-7890.

Sincerely,

Gary Litwin, Director  
Bureau of Environmental Exposure Investigation

Enclosure

cc: G. A. Carlson, Ph.D.  
Mr. M. Rivara/FILE  
Ms. H. Hamel  
Mr. N. DeRosa, Oneida Co. HD  
Mr. D. Sweredoski, Region 6

**New York State Department of Environmental Conservation**

**Division of Environmental Quality, Region 6**

Dulles State Office Building, 317 Washington Street, Watertown, New York 13601-3787

Phone: (315) 785-2513 • FAX: (315) 785-2422

Website: [www.dec.state.ny.us](http://www.dec.state.ny.us)



John P. Cahill  
Commissioner

**MEMORANDUM**

TO: DENNIS FARRAR, DER, BHSC  
FROM: DARRELL SWEREDOSKI, REGION 6  
SUBJ: VERONA RESEARCH FACILITY, ONEIDA COUNTY

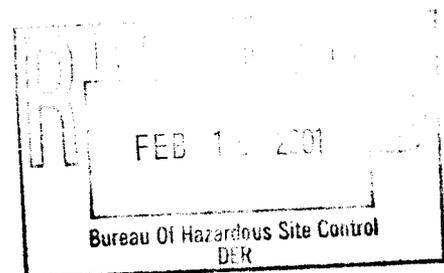
DATE: FEBRUARY 12, 2001

I have reviewed and signed the reclassification form (attached) as you requested. However, I have previously voiced my concern over the need for the site owner to be under consent order for long term O&M. I suggest holding this reclassification until they sign an order.

Darrell M. Sweredoski, P.E.  
Regional Env. Remediation Engineer  
Region 6

DMS:kw  
Attachment

cc: Gerald Rider, DER



**Inactive Hazardous Waste Disposal Report**

**April 1, 2002**

<b>Site Name:</b> Verona Research Facility	<b>Site Code:</b> 633046
<b>Class Code:</b> 4 <b>Region:</b> 6 <b>County:</b> Oneida	<b>EPA Id:</b> NY4570012506
<b>Address:</b> Germany Road / Verona, NY 13478	
<b>Latitude:</b> 43° 7' 0" <b>Longitude:</b> 75° 37' 0"	
<b>Site Type:</b> Structure	<b>Estimated Size:</b> 1 Acres

**Site Owner / Operator Information:**

**Current Owner(s) Name:** Air Force Research Laboratory  
**Current Owner(s) Address:** 150 Electronic Parkway / Rome, NY 13441  
**Owner(s) during disposal:** U. S. Air Force  
**Operator(s) during disposal:** U. S. Air Force  
**Stated Operator(s) Address:** 153 Brooks Road / Griffiss AFB, NY 13441  
**Hazardous Waste Disposal Period:** From: 1952 To: unknown

**Site Description:**

The site was founded in 1952 by the Air Force as a testing annex in association with the former Griffiss Air Force Base. The facility was used for a wide variety of electronic research and development activities during its 48 year existence. As of October 27, 2000 the facility was deactivated, and the Air Force will divest ownership of the property in the near future. A Preliminary Site Assessment (PSA) was completed in 1997. An area of PCB-contaminated soil was identified adjacent to building 1233, and low level groundwater contamination with chlorinated solvents was identified beneath buildings 1231 and 1253. Subsequent investigations were unable to identify a significant source area of volatile organic compounds (VOCs). Excavation of PCB-contaminated soils adjacent to building 1233 was completed in July 1998. Natural attenuation of VOC -contaminated groundwater beneath buildings 1231 and 1253 is occurring. Continued groundwater monitoring as well as surface water monitoring of Brandy Brook is required.

**Confirmed Hazardous Waste Disposal:**

PCBs (B007 Waste)

**Quantity:**

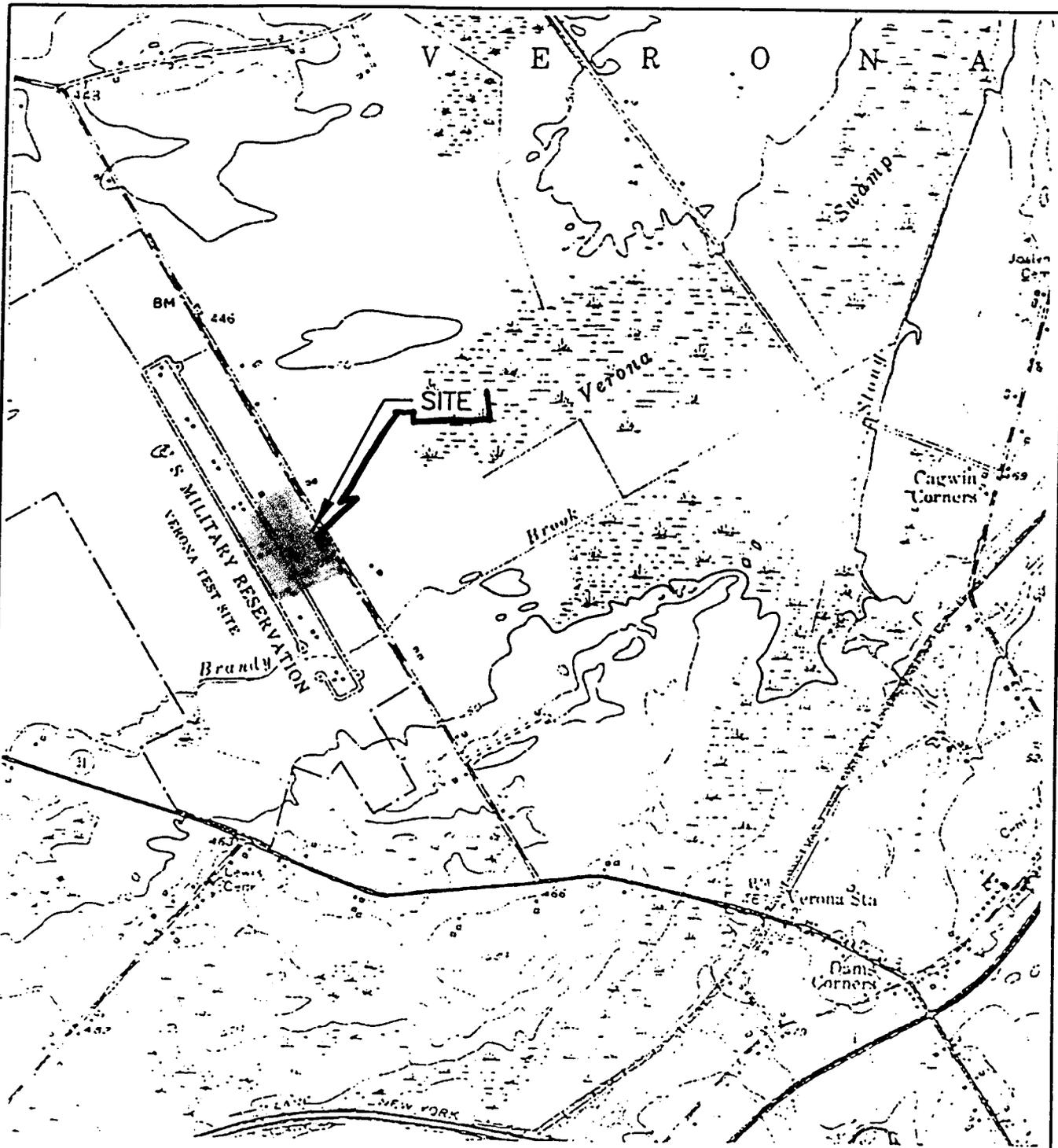
unknown

<b>Analytical Data Available for:</b>	<b>Groundwater</b>	<b>Surface Water</b>	<b>Soil</b>
<b>Applicable Standards Exceeded in:</b>	<b>Groundwater</b>		
<b>Geotechnical Information:</b>			<b>Depth to</b>
<b>Soil/Rock Type:</b> Sandy Silt overlying Glacial Till		<b>Groundwater:</b>	<b>Range: 0 to 1 Foot</b>
<b>Legal Action: Type:</b>		<b>Status:</b>	
<b>Remedial Action:</b> Complete	<b>Nature of action:</b>	<b>Soil Removal</b>	

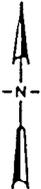
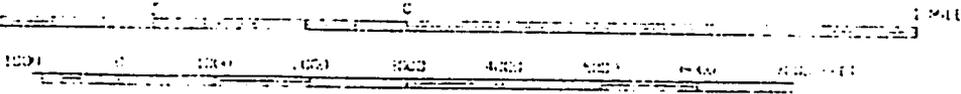
**Assessment of Environmental Problems:**

Excavation of PCB-contaminated soils has been completed. Natural attenuation of VOC contaminated groundwater is occurring. Monitoring of groundwater and surface water will continue.

**Assessment of Health Problems:**



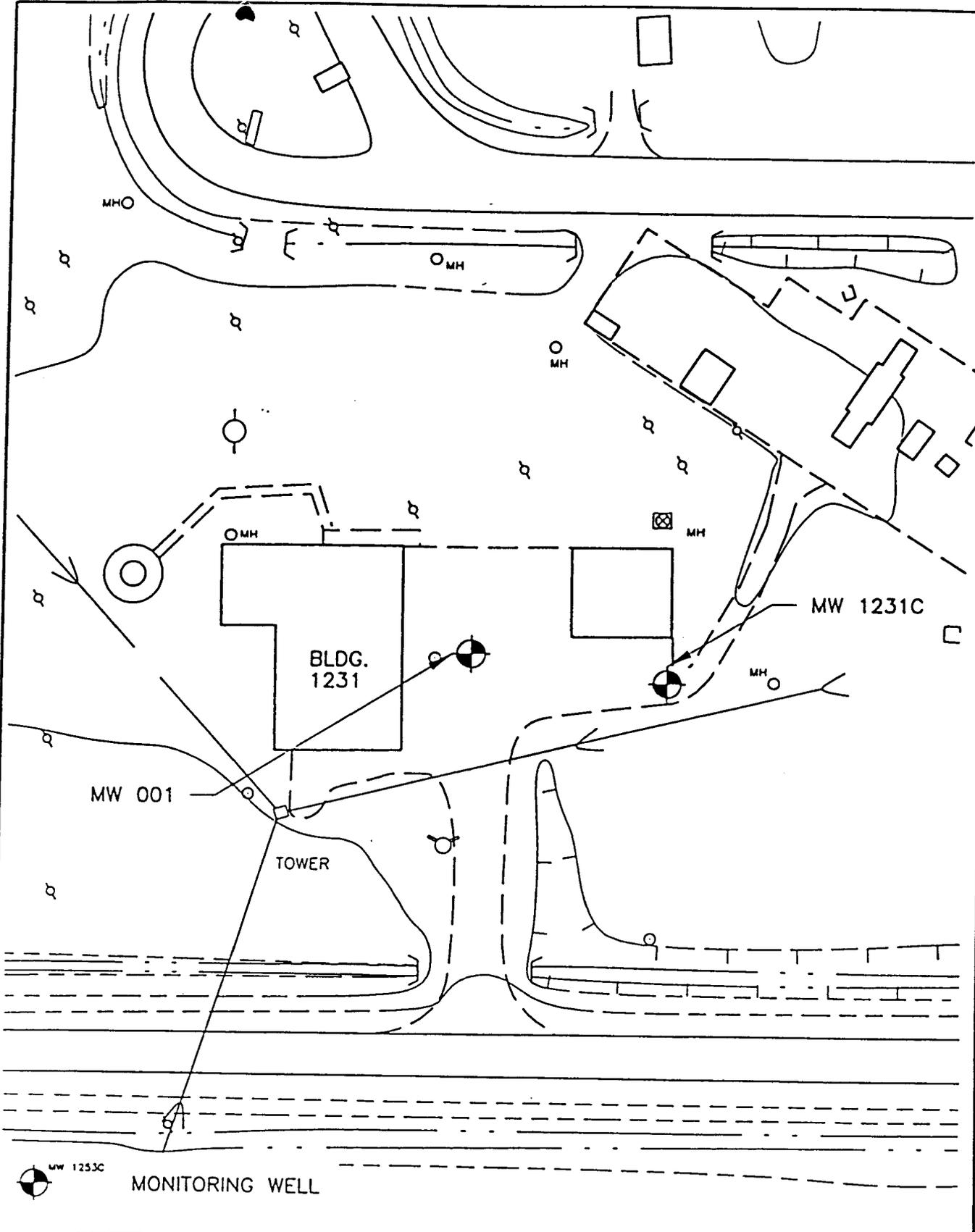
SCALE : 24000




**Stearns & Wheeler, LLC**  
 ENVIRONMENTAL ENGINEERS & SCIENTISTS  
 CAZENOVIA, NEW YORK  
 DATE: 1/01      JOB No.: 90060

VERONA RESEARCH FACILITY  
 TOWN OF VERONA, NEW YORK  
  
**FIGURE 1**  
**SITE LOCATION MAP**

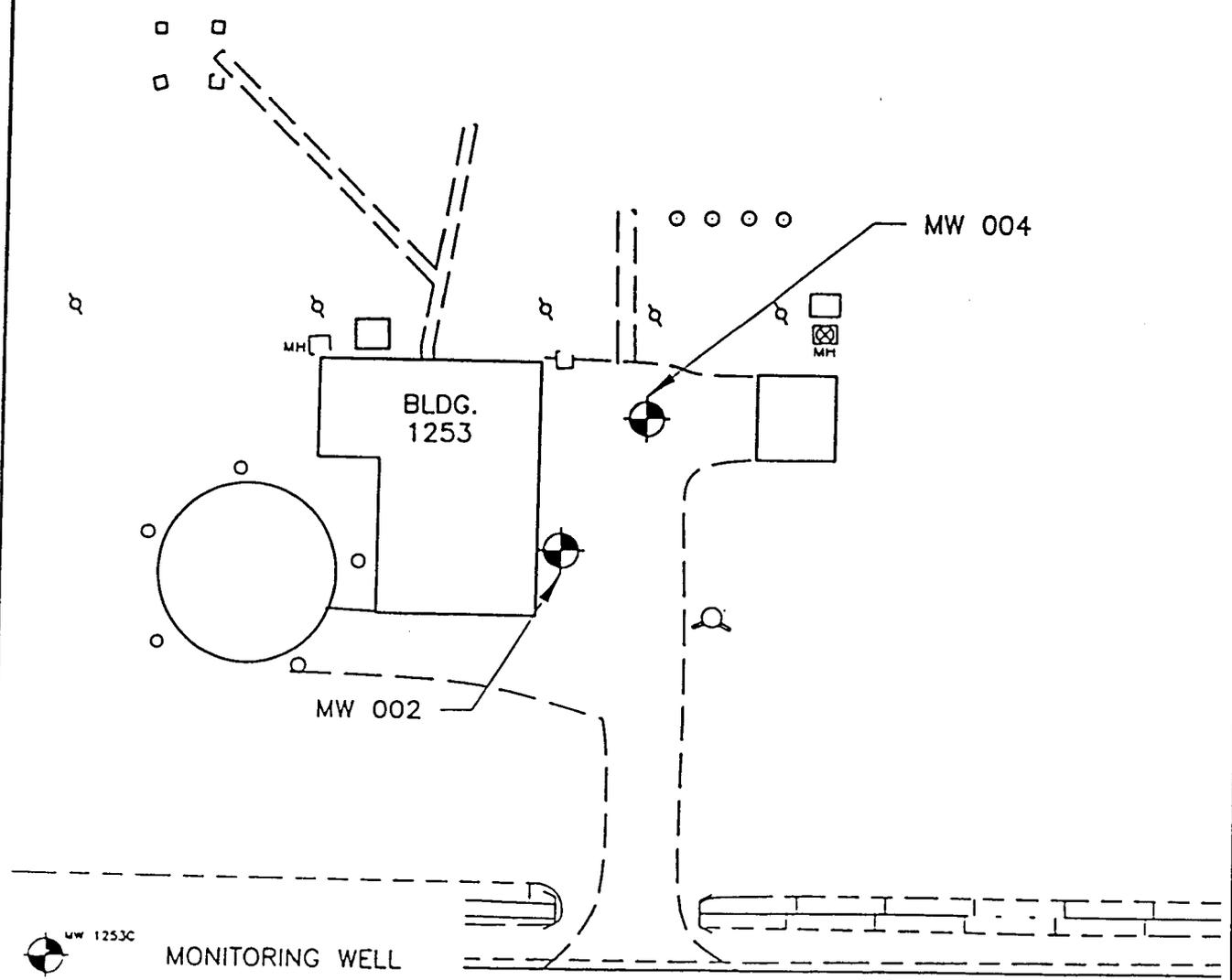
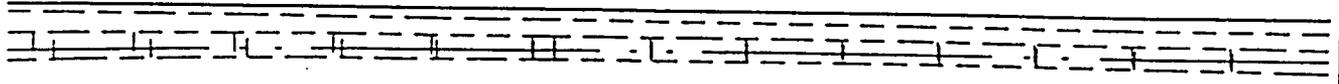
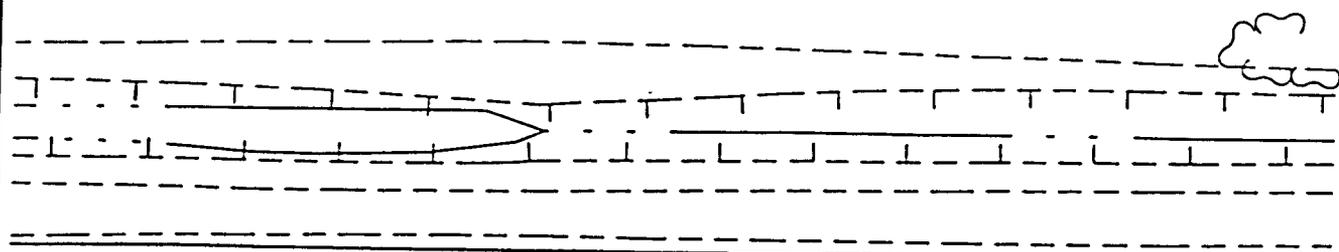
10/20/01 10:54 AM  
 10/20/01 10:54 AM  
 10/20/01 10:54 AM




**Stearns & Wheeler, LLC**  
 ENVIRONMENTAL ENGINEERS & SCIENTISTS  
 CAZENOVIA, NEW YORK

DRAWN BY: DRF
DATE: 01/01
JOB NO.: 9006010

VERONA TEST ANNEX BUILDING 1231 MONITORING WELL LOCATIONS
<b>FIGURE 2</b> <b>SITE PLAN</b>



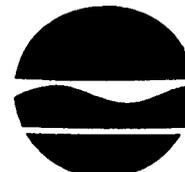

**Stearns & Wheeler, LLC**  
 ENVIRONMENTAL ENGINEERS & SCIENTISTS  
 CAZENOVIA, NEW YORK

DRAWN BY:  
 DRF  
 DATE:  
 1/01  
 JOB NO.:  
 9006010

VERONA TEST ANNEX  
 BUILDING 1253  
 MONITORING WELL LOCATIONS

FIGURE 3  
 SITE PLAN

**New York State Department of Environmental Conservation**  
**Division of Environmental Remediation**  
**Bureau of Hazardous Site Control, Room 252**  
60 Wolf Road, Albany, New York 12233-7010  
Phone: (518) 457-0639 FAX: (518) 457-8989



John P. Cahill  
Commissioner

January 30, 2001

Mr. Bruce H. Mero, REM  
Chief, Environmental, Safety, and Occupational Health Office  
Rome Research Site  
Air Force Research Laboratory  
150 Electronic Parkway  
Rome, NY 13441-4105

Re: **Groundwater Monitoring Data**  
**Verona Research Facility**  
**NYSDEC Site ID #6-33-046**

Dear Mr. Mero:

I have received and reviewed your January 19, 2001 letter (along with the January 10, 2001 summary report prepared by Stearns & Wheeler, LLC) in regard to the above-referenced site.

Based on this review, it appears as though natural attenuation is occurring in the groundwater beneath Buildings 1231 and 1253. However, this process requires continued monitoring by the Department. Therefore, this site will be listed in the New York State Registry of Inactive Hazardous Waste Disposal Sites (Registry) as a class 4 site (the site is properly closed, but requires continued management).

As part of this continued management, an Operations and Maintenance (O & M) plan must be submitted to Mr. Gerald J. Rider, Jr. (Chief, O & M Section) of this office for review and approval prior to implementation of subsequent monitoring activities. Information on the site's history, previous investigations, previous monitoring results, and proposed monitoring activities (i.e. locations to be sampled, frequency of sampling, parameters to be analyzed, etc.) should be included in this plan. I have attached guidance for your use in establishing the long term monitoring plan for natural attenuation. Once this plan is received and approved, the Department will notify you in writing of the site's inclusion in the Registry as a class 4.

Please contact me at the address or telephone number listed above if you have any questions on the site's proposed classification. Questions related to the O & M plan should be referred to Ms. Sue Lasdin at (518) 457-0927, or at the address listed above.

Sincerely,

David K. Harrington, P.E.  
Environmental Engineer 2  
Eastern Investigation Section  
Bureau of Hazardous Site Control

Attachment

cc: J. Swartwout  
G. Rider  
D. Sweredoski, Region 6  
H. Hamel, DOH - Syracuse  
E. Zuk  
S. Lasdin



Stearns & Wheeler, LLC  
ENVIRONMENTAL ENGINEERS & SCIENTISTS

*Report*

Remedial Construction  
Documentation Report  
Verona Research Facility  
Rome Laboratory

August 1998

Round 2 soil samples were collected near Building 1233 in April 1998. Eight shallow (0 to 2-inch composite) and eight deep (0 to 2-foot composite) samples were collected from locations northwest and southwest of the building (Figure 2) and submitted for laboratory analysis of PCBs.<sup>3</sup> Analytical results for the samples indicated PCB concentrations ranging from 18 to 130,000  $\mu\text{g}/\text{kg}$ , with four of the surface samples exceeding the TAGM-94-4046 objective of 1,000  $\mu\text{g}/\text{kg}$  for surface soils and one subsurface sample exceeding the objective of 10,000  $\mu\text{g}/\text{kg}$  for subsurface soils. These analytical results are shown in Table 2. As the table shows, the laboratory results indicated that a majority of the impacted soil was located northwest of Building 1233.

## **SECTION 2 - REMEDIATION OBJECTIVES**

As shown in Table 2, the second round of soil sampling indicated that a total of five of the reported PCB concentrations in the collected soil (near Building 1233) exceeded TAGM HR-94-4046 recommended cleanup objectives by one order of magnitude (at 2 inches, SS-11A, SS-11E, SS-11F, and SS-11G; and at 2 feet, SS-11F). Given these exceedences, the decision was made to excavate and dispose of the impacted soil adjacent to Building 1233.

## **SECTION 3 - REMEDIAL ACTIVITIES**

Contractor procurement was conducted in late May 1998. Following the receipt of bids, the project was awarded to MARCOR Remediation, Inc. of Rochester, NY. Mobilization to the site occurred on July 16, 1998, and the excavation process was completed on the same day. The area was backfilled and restored on July 17, 1998.

### **3.1 EXCAVATION OF IMPACTED SOIL**

Remedial activities began with the excavation of soil southwest of Building 1233 (see Figure 3 and Appendix B, Photographs 1 and 2). The analytical results from the second round of sampling were used to define the initial volume of excavated soil. A Komatsu tracked excavator with a 1.05 cubic yard bucket was used for all excavation work. The soil was immediately deposited into 20 cubic yard dump trucks for transport and disposal (Appendix B, Photograph 3).

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<sup>3</sup> USEPA Method 8082.

Once the excavation southwest of Building 1233 was complete, three immunoassay samples were collected and analyzed for PCBs to determine if additional soil remained with concentrations exceeding TAGM HR-94-4046 recommended cleanup objectives. Refer to Table 3 for the immunoassay results. Because the immunoassay analysis for the three samples indicated non-detectable concentrations of PCBs (less than 1,000 mg/kg), no additional soil was excavated on the southwest side of the building.

The second excavation occurred on the northwest side of Building 1233 (refer to Figure 3 and Appendix B, Photographs 4 and 5). Again, analytical results from the second round of sampling were used to define the initial volume of soil excavated. Twelve immunoassay samples were collected and analyzed for PCBs after the initial excavation was complete. Analysis of 3 of the 12 samples (TP2B1, TP2B6, TP2SW3) indicated the presence of PCBs above the analysis 1,000 mg/kg detection limit. The excavation was extended in the two locations where these samples were collected (Figure 3).

### 3.2 CONFIRMATORY SAMPLING

At the conclusion of the excavation process, approximately 20 cubic yards were excavated from the southwest of Building 1233, and approximately 80 cubic yards were excavated from northwest of the building. Once both excavations were complete, eight final confirmatory soil samples (SS-01 to SS-08) were collected and submitted for laboratory analysis of PCBs. Laboratory analysis of the confirmatory samples was performed at Paradigm Laboratories of Rochester, NY (ELAP No. 10958).<sup>4</sup> Refer to Table 4 and Appendix C for the analytical results. Of the eight confirmatory samples, two were collected from the walls and one from the bottom of the excavation southwest of Building 1233. Three samples were collected from the walls and two from the bottom of the excavation northwest of Building 1233 (Figure 3). As Table 4 shows, the recommended cleanup objectives established in TAGM HR-94-4046 were met for all samples.

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<sup>4</sup> The Environmental Analysis Approval Program (ELAP) is administered by the New York State Department of Health.

### 3.3 HEALTH AND SAFETY

To ensure that PCB-impacted dust was not a threat to human health during the excavation process, a MIE PDM-3 Miniram dust, aerosol, fume, and mist detector was used to monitor the air while work was in progress. In the project Health and Safety Plan (Appendix D) a threshold of 0.10 milligrams per cubic meter was established as the threshold above which personal protective equipment would be required. The Miniram was used to monitor the air at three times during the excavation process, and at no time was this threshold exceeded.

### 3.4 BACKFILL AND RESTORATION

On July 17, 1998, the excavation was backfilled, with fill removed from the northwest corner of the site. The fill was excavated with a 0.4 cubic yard wheeled backhoe and transported to Building 1233 with a 6 cubic yard dump truck. At that point, the fill was spread to grade and compacted using the tracked excavator and then reseeded (Appendix B, Photograph 6).

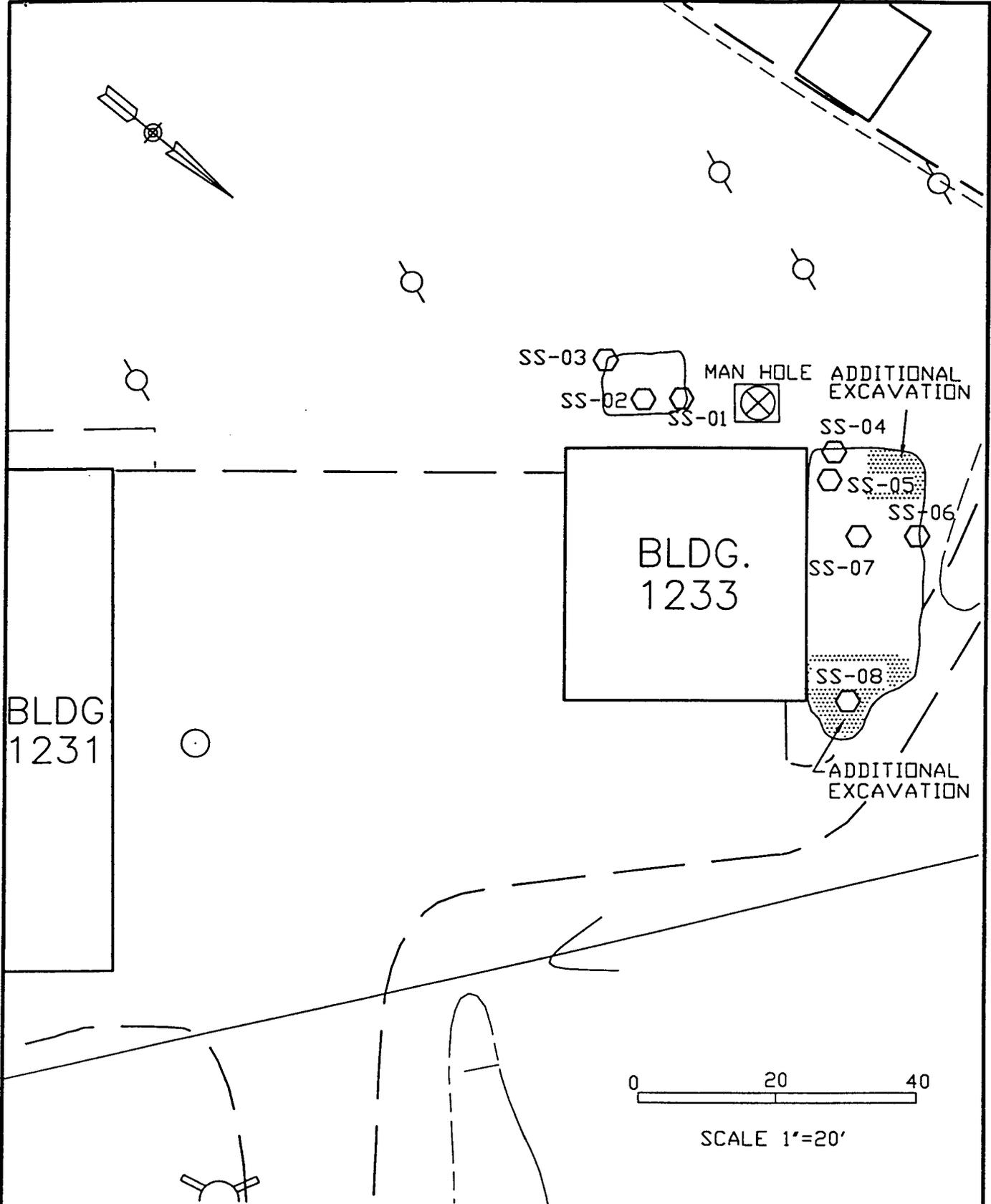
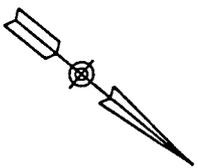
## SECTION 4 - WASTE DISPOSAL

The second round of soil samples collected in the PSA were used to make the hazardous waste determination for the excavated soil. Because the reported PCB concentration in two of the samples (collected near Building 1233) exceeded 50,000  $\mu\text{g}/\text{kg}$  (50 ppb), the soil was designated a hazardous waste and assigned a hazardous waste designation of B007.<sup>5</sup> Accordingly, soil excavated from the area adjacent to Building 1233 was handled as a hazardous waste and disposed of as such.

The contaminated soil (149.87 tons) was transported for disposal at Chemical Waste Management (USEPA ID No. NYD049836679) in Model City, NY by Frank's Vacuum Truck Service (USEPA ID No. NYD982792814). Copies of the fully executed manifests are included in Appendix E.

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<sup>5</sup> Title 6 of New York State Rules and Regulations, Section 371.4(e)(1) stipulates that any material with a PCB concentration in excess of 50 ppm by weight is a hazardous waste.



M:\3189\2-97\VERONA98

 <b>Stearns &amp; Wheeler, LLC</b> ENVIRONMENTAL ENGINEERS & SCIENTISTS CAZENOVA, NEW YORK	
DATE:7/98	JOB No.:3189

VERONA RESEARCH FACILITY BUILDING 1233
<b>FIGURE 3</b> <b>EXCAVATION AND CONFIRMATORY SAMPLES</b>



NYG0316845

HAZARDOUS WASTE MANIFEST  
P.O. Box 12820, Albany, New York 12212

Please type or print. Do not staple.

(Rev. 3/97)

In case of emergency or spill immediately call the National Response Center (800) 424-8802 and the NYS Department of Environmental Conservation (518) 457-7362

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA No. <b>NY 4570012506166845</b>		Manifest Doc. No. <b>166845</b>		2. Page 1 of <b>1</b>		Information within heavy bold line is not required by Federal Law.											
3. Generator's Name and Mailing Address <b>Rome Research Site 153 Brooks Road Rome, NY 13441-4015</b>						A. <b>NYG0316845</b>													
4. Generator's Telephone Number ( <b>315</b> ) <b>330-2099</b> contact <b>Fred Conway</b>						B. Generator's ID: <b>Verona Research Facility</b>													
5. Transporter 1 (Company Name) <b>FRANK'S VACUUM TRUCK SERVICE</b>			6. US EPA ID Number <b>NYDA82792814</b>			C. State Transporter's ID													
7. Transporter 2 (Company Name)			8. US EPA ID Number			D. Transporter's Telephone <b>716 284-2132</b>													
9. Designated Facility Name and Site Address <b>City Chemical Services LLC 1550 Balmar Rd. Model City, NY 14107</b>						E. State Transporter's ID <b>80360VNY</b>													
10. US EPA ID Number <b>NYD049836679</b>						F. Transporter's Telephone ( )													
11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) <b>SA 7117 a. 20 Waste polychlorinated biphenyls mixture 9 UN2915 PGII SA 7117</b>						12. Containers Number Type		13. Total Quantity		14. Unit Wt/Vol		I. Waste No.							
						001 DR		27000		K1		EPA STATE <b>8007</b>							
b.												EPA STATE							
c.												EPA STATE							
d.												EPA STATE							
J. Additional Descriptions for Materials listed Above						K. Handling Codes for Wastes Listed Above													
a.						L <input type="checkbox"/>													
b.						d <input type="checkbox"/>													
15. Special Handling Instructions and Additional Information <b>ER Guide No: 171</b> <b>In case of emergency call MARCOR at 1-800-368-5933</b>										<b>81157803</b> <b>448276</b> <b>CT3204</b>									
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR if I am a small generator, I have made a good faith effort to minimize my waste and select the best waste management method that is available to me and that I can afford.																			
Printed/Typed Name				Signature				Mo.		Day		Year							
17. Transporter 1 Acknowledgement of Receipt of Materials				Printed/Typed Name <b>Bill Hakeem</b>				Signature <i>Bill Hakeem</i>				Mo. Day Year <b>07/16/98</b>							
18. Transporter 2 Acknowledgement of Receipt of Materials				Printed/Typed Name				Signature				Mo. Day Year							
19. Discrepancy Indication Space <b>Actual bid 1762K Qtn 4-K</b>																			
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.										Printed/Typed Name <b>Michele Fouke</b>				Signature <i>Michele Fouke</i>				Mo. Day Year <b>10/17/1998</b>	

DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
DIVISION OF SOLID & HAZARDOUS MATERIALS

NYG 0316854

HAZARDOUS WASTE MANIFEST  
P.O. Box 12820, Albany, New York 12212

(Rev. 3/97)

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In case of emergency or spill immediately call the National Response Center (800) 424-8802 and the NYS Department of Environmental Conservation (518) 457-7362

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA No. <b>NY 157001290616854</b>	Manifest Doc. No. <b>NY 157001290616854</b>	2. Page 1 of 2	Information within heavy bold line is not required by Federal Law.
3. Generator's Name and Mailing Address <b>Verona Research site 153 Brooks Rd. Roseton, NY 13441-4015</b>			A. <b>NYG 0316854</b>		
4. Generator's telephone Number (315) 330-2098			B. Generator's ID <b>Verona Research Facility</b>		
5. Transporter 1 (Company Name)			C. State Transporter's ID <b>424735 NY</b>		
6. US EPA ID Number			D. Transporter's Telephone (315) 232-2222		
7. Transporter 2 (Company Name)			E. State Transporter's ID		
8. US EPA ID Number			F. Transporter's Telephone ( )		
9. Designated Facility Name and Site Address <b>CHM Chemical Services 1550 Bahner Road Model City, NY 14107</b>			G. State Facility ID		
10. US EPA ID Number <b>NY D 0 4 5 8 3 6 8 7 9</b>			H. Facility Telephone (716) 734-8231		
11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)		12. Containers Number	13. Total Quantity	14. Unit Wt/Vol	1. Waste No.
a. <b>22. Waste polychlorinated biphenyls mixture 9 UN2315 7011</b>		0 0 1 0 T	EST. 27000		EPA STATE 8007
b.					EPA STATE
c.					EPA STATE
d.					EPA STATE
J. Additional Descriptions for Materials listed Above			K. Handling Codes for Wastes Listed Above		
a.			L <input type="checkbox"/>		
b.			M <input type="checkbox"/>		
15. Special Handling Instructions and Additional Information <b>ER Guide No 171</b> <b>In case of Emergency call MARCOR at 1-800-368-5933</b>					
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations. if I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR if I am a small generator, I have made a good faith effort to minimize my waste and select the best waste management method that is available to me and that I can afford.					
Printed/Typed Name		Signature		Mo.	Day
17. Transporter 1 Acknowledgement of Receipt of Materials		Signature		Mo.	Day
Printed/Typed Name		Signature		Mo.	Day
18. Transporter 2 Acknowledgement of Receipt of Materials		Signature		Mo.	Day
Printed/Typed Name		Signature		Mo.	Day
19. Discrepancy Indication Space <b>Actual Recvd 22961K</b>					
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.					
Printed/Typed Name		Signature		Mo.	Day
Printed/Typed Name		Signature		Mo.	Day

NYG0316863

DIVISION OF SOLID & HAZARDOUS MATERIALS

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212



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(Rev. 3/97)

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<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA No. <b>NY4570012508</b>		Manifest Doc. No. <b>I6863</b>		2. Page 1 of <b>1</b>		Information within heavy bold line is not required by Federal Law.					
3. Generator's Name and Mailing Address <b>Rome Research site 153 Brooks Rd. Rome, NY 13441-4015</b>						A. <b>NYG0316863</b>							
4. Generator's Telephone Number ( <b>315-330-2098</b> ) <b>Fred Conover</b>						B. Generator's ID <b>Verona Research Facility Cocancy Rd./Verona NY 13478</b>							
5. Transporter 1 (Company Name) <b>61</b>			6. US EPA ID Number <b>1314954-1721771</b>			C. State Transporter's ID <b>3149A1 (04)</b>							
7. Transporter 2 (Company Name)			8. US EPA ID Number			D. Transporter's Telephone ( )							
9. Designated Facility Name and Site Address <b>Chemical Services I-C 1550 Balmer Road Model City, NY SA 7/17</b>						E. State Transporter's ID							
10. US EPA ID Number <b>NYID049836879</b>						F. Transporter's Telephone ( )							
11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)						12. Containers		13. Total		14. Unit		I. Waste No.	
a. <b>EQ. Waste polychlorinated biphenyls mixture 9 UN2315 PGLI SA 7/17</b>						Number Type <b>001 DT</b>		Quantity <b>EST. 7000</b>		Wt/Vol <b>1</b>		EPA <b>B007</b>	
b.												EPA STATE	
c.												EPA STATE	
d.												EPA STATE	
J. Additional Descriptions for Materials listed Above						K. Handling Codes for Wastes Listed Above							
a.						c. <input checked="" type="checkbox"/> L <input type="checkbox"/>							
b.						d. <input type="checkbox"/> <input type="checkbox"/>							
15. Special Handling Instructions and Additional Information <b>ER Guide No: 171 In case of emergency call MARCOE @ 1-800-388-5933</b>													
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR if I am a small generator, I have made a good faith effort to minimize my waste and select the best waste management method that is available to me and that I can afford.													
Printed/Typed Name				Signature				Mo.		Day		Year	
17. Transporter 1 Acknowledgement of Receipt of Materials													
Printed/Typed Name				Signature				Mo.		Day		Year	
18. Transporter 2 Acknowledgement of Receipt of Materials													
Printed/Typed Name				Signature				Mo.		Day		Year	
19. Discrepancy Indication Space <b>Actual Rec'd 24413K Dec 14-8</b>													
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.													
Printed/Typed Name <b>Lynn Piechowski</b>				Signature <b>Lynn Piechowski</b>				Mo.		Day		Year <b>07/17/98</b>	

NYG 0316872

HAZARDOUS WASTE MANIFEST  
P.O. Box 12820, Albany, New York 12212

DIVISION OF SOLID & HAZARDOUS MATERIALS

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In case of emergency or spill, immediately call the National Response Center (800) 424-8802 and the NYS Department of Environmental Conservation (518) 457-7362

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA No. NY 457001230616872	Manifest Doc. No. 1	2. Page 1 of 1	Information within heavy bold line is not required by Federal Law.
3. Generator's Name and Mailing Address <b>Rome Research site</b> 153 Brooks Rd. Rome NY 13441-4015 contact Fred Conover			A. NYG 0316872		
4. Generator's Telephone Number 615 133-2098		6. US EPA ID Number NY D9182792814		B. Generator's ID: <b>Verona Research Facility</b> <b>Germany NE/Verona NY 13478</b>	
5. Transporter 1 (Company Name) <b>FRANK'S VACUUM TRUCK SERVICE</b>		8. US EPA ID Number		C. State Transporter's ID 90362 V NY	
7. Transporter 2 (Company Name)		8. US EPA ID Number		D. Transporter's Telephone (716) 284 2132	
9. Designated Facility Name and Site Address <b>Chemical Services LLC</b> 1550 Balmer Road Model City, NY 14107 SA 7/17			10. US EPA ID Number NY D0498366679		E. State Transporter's ID
			F. Transporter's Telephone ( )		G. State Facility ID
			H. Facility Telephone (716) /754-8231		
11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)		12. Containers Number	13. Total Quantity	14. Unit WI/Vol	I. Waste No.
a. <b>RO, Waste polychlorinated biphenyls mixture</b> 9 UN2915 POLYI SA 7/17		00107	27000	EST.	EPA STATE <b>8007</b>
b.					EPA STATE
c.					EPA STATE
d.					EPA STATE
J. Additional Descriptions for Materials listed Above			K. Handling Codes for Wastes Listed Above		
a.			a. <input checked="" type="checkbox"/> c. <input type="checkbox"/>		
b.			b. <input type="checkbox"/> d. <input type="checkbox"/>		
15. Special Handling Instructions and Additional Information <b>ER Guide No: 171</b> <b>In case of emergency call NRCOR @ 1-800-388-5933</b>					
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Printed/Typed Name <b>B.H. MERO</b>		Signature		Mo. Day Year	
17. Transporter 1 Acknowledgement of Receipt of Materials					
Printed/Typed Name <b>FRANK J. HUBBARD</b>		Signature		Mo. Day Year 10/7/16/18	
18. Transporter 2 Acknowledgement of Receipt of Materials					
Printed/Typed Name		Signature		Mo. Day Year	
19. Discrepancy Indication Space Actual Rec'd 2128K Slaw 14-K					
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.					
Printed/Typed Name <b>Jennifer Price</b>		Signature		Mo. Day Year 10/7/17/18	

NYG0316881

DIVISION OF SOLID & HAZARDOUS MATERIALS  
**HAZARDOUS WASTE MANIFEST**  
 P.O. Box 12820, Albany, New York 12212

(Rev. 3/97)

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In case of emergency or spill immediately call the National Response Center (800) 424-8802 and the NYS Department of Environmental Conservation (518) 457-7362

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA No. <b>NY 457001250616881</b>		Manifest Doc. No.		2. Page 1 of <b>1</b>		Information within heavy bold line is not required by Federal Law.	
		3. Generator's Name and Mailing Address <b>Verona Research site 153 Brooks Ed. Rosa, NY 13441-4015</b>		6. US EPA ID Number		A. Generator's ID <b>NYG0316881</b>		B. Generator's ID <b>Verona Research Facility</b>	
4. Generator's Telephone Number <b>(315) 330-2098</b>		5. Transporter 1 (Company Name)		8. US EPA ID Number		C. State Transporter's ID		D. Transporter's Telephone	
7. Transporter 2 (Company Name)		9. Designated Facility Name and Site Address <b>CMI Chemical Services 1550 Balmer Road Model City, NY 14107</b>		10. US EPA ID Number <b>NY D049836679</b>		E. State Transporter's ID		F. Transporter's Telephone	
11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) <b>9 UN 2315 POLYESTER SA 7117</b>		12. Containers Number Type <b>001 DT</b>		13. Total Quantity <b>EST. 27000</b>		14. Unit Wt/Vol		I. Waste No. EPA <b>BC07</b> STATE	
J. Additional Descriptions for Materials listed Above		K. Handling Codes for Wastes Listed Above		L					
15. Special Handling Instructions and Additional Information <b>ER Guide No: 171 In case of emergency call MARCOR @ 1-800-388-5933</b>									
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR if I am a small generator, I have made a good faith effort to minimize my waste and select the best waste management method that is available to me and that I can afford.									
Printed/Typed Name		Signature		Mo.		Day		Year	
17. Transporter 1 Acknowledgement of Receipt of Materials									
Printed/Typed Name		Signature		Mo.		Day		Year	
18. Transporter 2 Acknowledgement of Receipt of Materials									
Printed/Typed Name		Signature		Mo.		Day		Year	
19. Discrepancy Indication Space <b>Actual Recd 18978K      Stan 11-K</b>									
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.									
Printed/Typed Name <b>Michele Fouke</b>		Signature <i>Michele Fouke</i>		Mo.		Day		Year <b>10/7/17 9/8</b>	

January 10, 2001

Mr. Bruce H. Mero, REM  
Air Force Research Laboratories  
Rome Research Site  
150 Electronics Parkway  
Rome, NY 13441-4516

Re: Semiannual Monitoring Analytical Summary Report  
Verona Research Facility  
S&W No. 90060.0

Dear Mr. Mero:

This letter report provides a comprehensive summary of the groundwater analytical results for samples collected from the Verona Research Facility from October 1996 to September 2000 (see Figure 1 for site location map). Stearns & Wheeler has compiled and reviewed the groundwater analytical data from eight sampling events that occurred during that period. Groundwater sampling was implemented based on the detection of volatile organic compounds, as reported in a February 1997 Preliminary Site Assessment (PSA) report completed by Stearns & Wheeler. Groundwater samples were collected from Well MW-001 and MW-1231C at Building 1231, and Wells MW-002 and MW-004 at Building 1253 (see Figures 2 and 3 for monitoring well locations). In addition, one sample was collected from Brandy Brook during each sampling event. Analytical results were presented in summary reports prepared by Stearns & Wheeler following each of the sampling events. Consistent with those summary reports, this comprehensive summary focuses on four contaminants of concern: tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2 dichloroethene (DCE), and chlorobenzene (CB).

## RESULTS

A summary of the eight rounds of analytical data is presented in Table 1. Instances when water samples could not be obtained due to dry conditions are indicated with "NS." Figure 4 presents the results for the contaminants of concern.

### *Brandy Brook*

The sampling point for the Brandy Brook sampling location is located approximately 200 feet south (down gradient) of Building 1231. No VOCs were detected in Brandy Brook during the sampling period.

### BUILDING 1231

#### *MW-001*

Samples could not be collected in 1999 (well was dry) and September of 2000 (well not found). However, other data indicate that concentrations of VOCs have decreased below NYSDEC groundwater standards since the October 1996 sampling event, and no VOCs were present above detection limits in February 2000.

#### *MW-1231C*

Concentrations of PCE and TCE are highly variable through the sample period. However, concentrations of DCE have steadily decreased below NYSDEC groundwater standards since October 1997 from 14 ppb to 3 ppb in September 2000. CB has not been present above detection limits since April of 1998.

### BUILDING 1253

#### *MW-002*

Contaminants of concern have remained below NYSDEC standards during the period. Otherwise, concentrations of 1,1,1 trichloroethane (TCA) have decreased below detection limits. Although, 1,1-dichloroethane (DCA) was recently detected at 8 ppb, it has decreased from 16 ppb compared to the March 1999 sampling event.

#### *MW-004*

As seen in Figure 2, concentrations of contaminants of concern have generally declined. An exception occurs during the September 1999 sampling event, when anomalous high concentrations of TCE and DCE were detected. These anomalous levels are likely related to dry conditions during this period and the resultant low water table.

### DISCUSSION OF RESULTS

Factors impacting migration, degradation, and potential remediation of chlorinated compounds at this site include the water table gradient, local groundwater discharge points, the nature of the overburden, and the geochemical state of the groundwater.

As reported in the February 1997 PSA report, Brandy Brook is the local groundwater discharge point for the site and the greatest distance over which migration could occur. The data indicates that contaminated groundwater has not significantly impacted the brook during this period.

The variability in the PCE and TCE data reported from MW-1231C and MW-004 tends to obscure chemical evidence of attenuation. It appears that variation may be caused in part by water table fluctuations. For example, in September of 1999 high levels of VOCs in the wells is likely the result of dry conditions and low water table levels. Despite this variability, there is chemical evidence of natural degradation of contaminants of concern. For example, chlorinated compounds are not as easily degraded under aerobic (oxygen rich) conditions as compared to anaerobic (low oxygen) conditions. Figure 5 shows a graphical representation of the ratio of TCE/DCE plotted versus dissolved oxygen. If compounds are being attenuated at the site, one would expect that as dissolved oxygen decreases the ratio of TCE/DCE would decrease also, reflecting the degradation of TCE into DCE. This is observed in Figure 5.

### RECOMENDATIONS

The concentration of compounds detected at the site during the eight sampling events has shown either a decreasing trend or significant variation. There is chemical evidence to support that some degree of natural attenuation is occurring, and site impacts have not been observed in the brook. Given the sites rural setting, limited migration potential, and lack of impact to its groundwater discharge point (Brandy Brook) exposure pathways to contaminants are incomplete. Therefore, Stearns & Wheler recommends that actions at the site be limited to continued monitoring, with a focus on Wells MW-001, MW-1231C (Building 1231), and MW-002 (Building 1253). It is suggested that the above three wells and Brandy Brook undergo continued monitoring, semi-annually for two years. Following two more years of sampling, data can be reevaluated to assess whether there is continued improvement.

If you have any questions regarding the results of this sampling event, please do not hesitate to contact us.

Very truly yours,



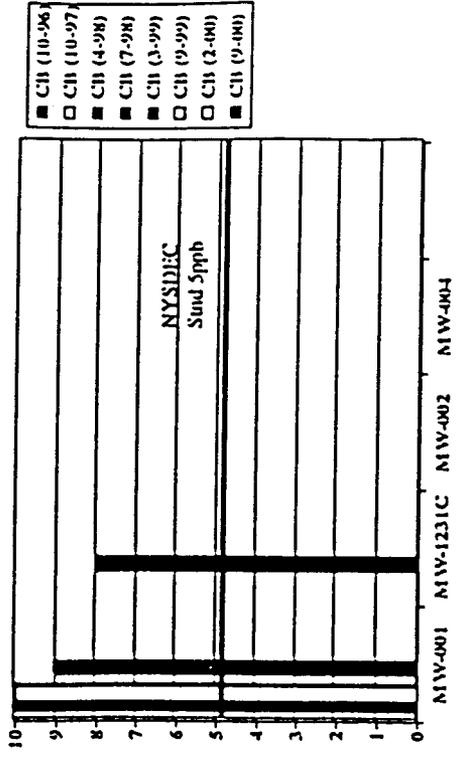
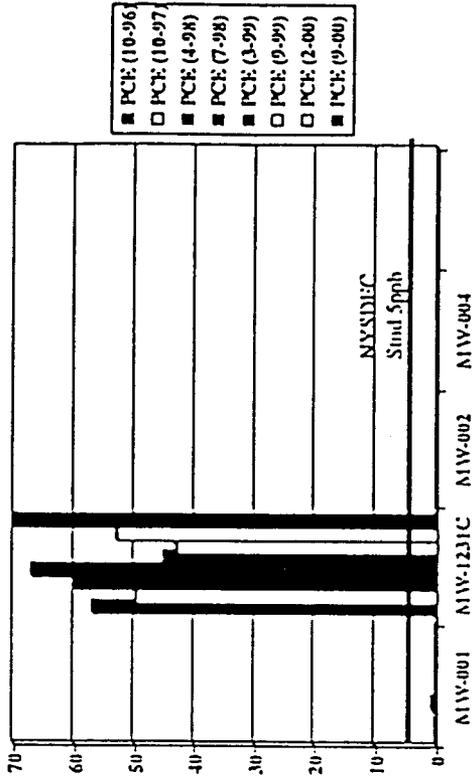
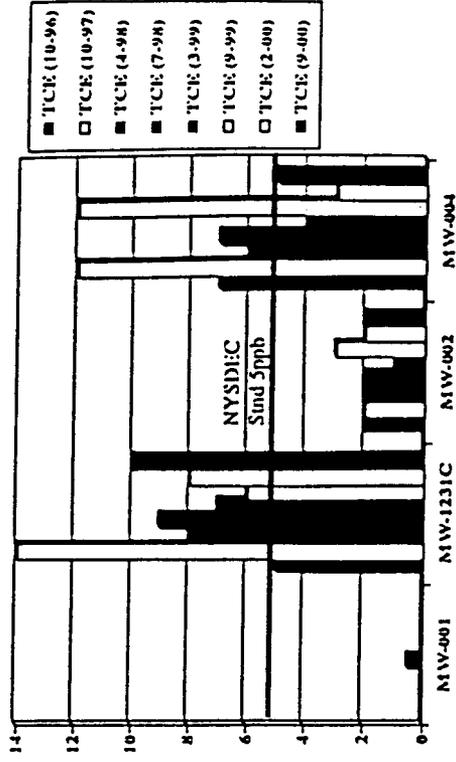
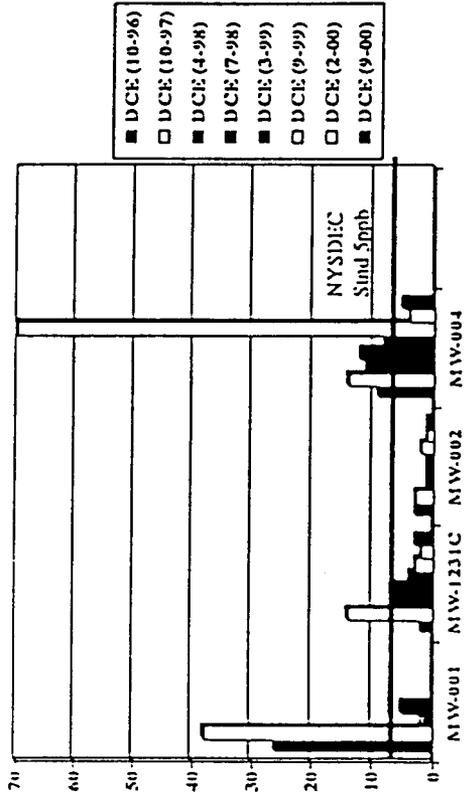
David R. Frostelapp  
Engineer

DRF/jlb

Enclosures

cc: Don Sorbello, S&W Redevelopment (w/ enc.)

CONCENTRATION (ug/l)



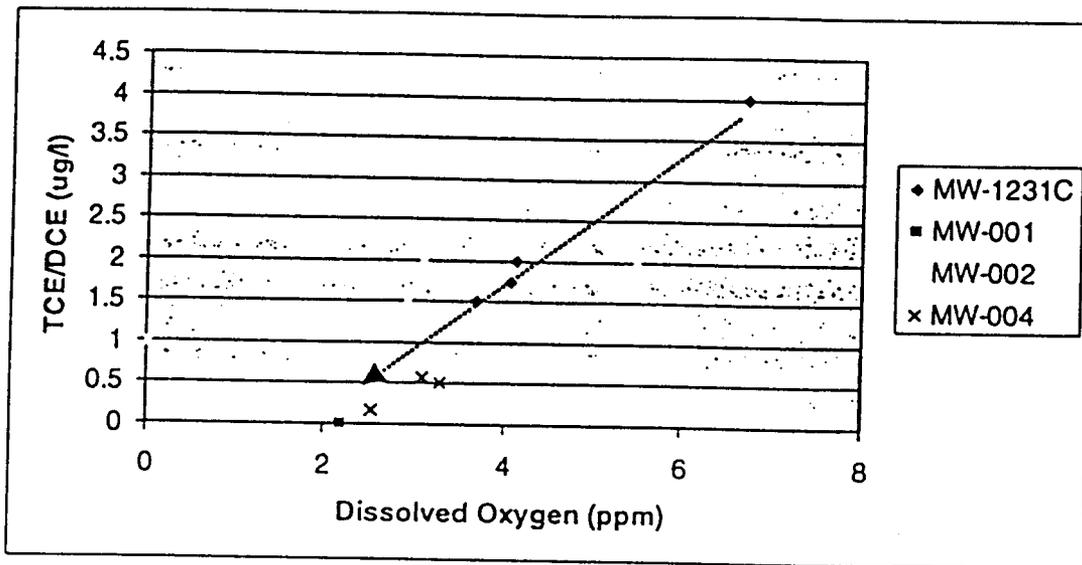
**Stearns & Wheeler, LLC**  
 ENVIRONMENTAL ENGINEERS & SCIENTISTS  
 Cayanovia, NY

Date: 1/01 JOB No. 90060.10

Verona Research Facility  
 Town of Verona, New York

**FIGURE 4**  
 HISTORICAL TRENDS

## TCE/DCE VS. DISSOLVED OXYGEN



Lower levels of dissolved oxygen in groundwater provides favorable conditions for anaerobic degradation of chlorinated organic compounds. The figure above indicates that a decline in oxygen levels causes TCE to degrade to DCE as evidenced by the decrease in the TCE/DCE ratio.

 **Stearns & Wheeler, LLC**  
ENVIRONMENTAL ENGINEERS & SCIENTISTS

CAZENOVIA, NEW YORK

JOB No: 90060.10

Verona Research Facility  
Verona, NY

**FIGURE 5**  
Verona Groundwater Sampling Summary  
Report

Table 1  
 Historical Groundwater Analytical Results  
 Volatile Organic Compounds  
 Verona Research Facility  
 Verona, NY  
 Jan-01

Compound (µg/l)	BUILDING 1331										CIV					
	Oct-96	Oct-97	Apr-98	Jul-98	Mar-99	Sep-99	Feb-00	Apr-00	Oct-97	Apr-98		Jul-98	Mar-99	Sep-99	Feb-00	Sep-00
Chloroethane	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
Bromomethane	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
Vinyl Chloride	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
Chloroethane	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
Methylene Chloride	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
Acetone	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
Carbon Disulfide	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
Vinyl Acetate	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethene	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
cis-1,2-Dichloroethene	26	38	2	3	NS	NS	U	U	U	U	U	U	U	U	U	U
trans-1,2-Dichloroethene	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
Chloroform	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
1,2-Dichloroethane	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
2-Butanone	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
Carbon Tetrachloride	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
Bromodichloromethane	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
1,2-Dichloropropane	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
cis-1,2-Dichloropropene	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
Trichloroethene	5	8	7	U	NS	NS	U	U	U	U	U	U	U	U	U	U
Dibromochloromethane	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
Benzene	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
trans-1,2-Dichloropropene	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
Bromoform	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
4-Allyl-1,2-Pentadiene	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
2-Hexanone	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
Toluene	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
Chlorobenzene	390	910	7	U	NS	NS	U	U	U	U	U	U	U	U	U	U
Ethylbenzene	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
Styrene	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
Styrene (total)	U	U	U	U	NS	NS	U	U	U	U	U	U	U	U	U	U
Total VOCs	321	976	27	14.5	-	-	0	64	78	82	82	56.8	52	63	90	
Depth to Groundwater (ft)	6.25	2.48	3.24	DRY	DRY	DRY	1.14	NA	9.1	6.01	6.89	4.89	12.89	4.84	NA	

NS: Not Sampled (1999 well was dry, September 2000 well was not located)  
 U: Treated as UKK  
 G: NYSDEC guidance value  
 ND: No Detectable amount allowed  
 All values in this table are based upon NYSDEC TOGS (October 1993) Revised June 1998.  
 Shaded areas indicate exceedances of standards  
 U - not present above detection limits  
 J - reported value is an estimate  
 NA - information not available

Table 1 (cont'd)  
 Historical Groundwater Analytical Results  
 Volatile Organic Compounds  
 Verona Research Facility  
 Verona, NY  
 Jan-01

Compound (log/1)	BUILDING 1133										G/W						
	Oct-96	Apr-97	Jul-98	Mar-99	Sep-99	Feb-00	Sep-00	Oct-96	Oct-97	Apr-98		Jul-98	Mar-99	Sep-99	Feb-00	Sep-00	Std.
Chloroacethane		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Bromoacethane		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Vinyl Chloride		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroethane		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Methylene Chloride	1 J	U	0.7 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Aceone		U	16 B	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Carbon Disulfide		U	0.5 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Vinyl Acetate		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	9 J	3 J	2 J	16	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	3 J	3 J	1 J	1 J	1 J	2 J	1 J	1 J	1 J	1 J	1 J	1 J	1 J	1 J	1 J	1 J	1 J
cis-1,2-Dichloroethane	2 J	1 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
trans-1,2-Dichloroethane		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloroethane		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Butanone		U	100	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	22	U	10	U	2 J	1 J	U	U	U	U	U	U	U	U	U	U	U
Carbon Tetrachloride		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Bromochloroacethane		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloropropane		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
cis-1,2-Dichloropropene		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Trichloroethene	2 J	2 J	2 J	1 J	1 J	2 J	2 J	2 J	2 J	2 J	2 J	2 J	2 J	2 J	2 J	2 J	2 J
Dibromochloroacethane		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Heptene		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
trans-1,2-Dichloropropene		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Bromoform		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Methyl-2-Pentanone		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Hexanone		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chlorobenzene		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Ethylbenzene		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Styrene		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Styrene (total)		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Total VOCs	16	49	215.5	60	20	22	11.8	11.5	45	19	21	14.8	98	7.7	11		
Depth to Groundwater (ft)	4.74	5.55	2.43	2.99	1.55	8.9	151	NA	5.64	2.64	3.56	NA	8.81	1.28	NA		

NS: Not Sampled (1999 well was dry; September 2000 well was not located)  
 \* Treated as UOC  
 G: NYSDEC guidance value  
 ND: No Detectable amounts allowed  
 All values in this table are based upon NYSDEC TOGS (October 1993) Revised June 1998.  
 Shaded areas indicate exceedances of standards  
 U - not present above detection limits

**Historical Field Parameters  
Building 1231  
Verona Research Facility  
Verona, NY**

**MW-001**

Sampling Event	DTW (ft)	Time	Purge Rate (L/min)	Temp. (C)	Cond. (ms/cm)	pH	Eh (mV)	Turbidity (NTU)	DO (ppm)	Salinity %
Oct-96	2.83									
Oct-97	6.25									
Apr-98	2.48									
Jul-98	3.24	9:30	BAILED	20	0.720	7.50	-80	690	2.20	0.00
Mar-99	-	-	-	-	-	-	-	-	-	-
Sep-99	-	-	-	-	-	-	-	-	-	-
Feb-00	1.34	11:40	BAILED	7.4	0.391	7.21	180	287	18.04	0.01
Sep-00	-	-	-	-	-	-	-	-	-	-

\* Mar-99 - Well was damaged and frozen, unable to thaw.

\* Sep-99 - Well was damaged and dry.

\* Sep-00 - Well destroyed, possibly dug up during excavation. Large area appears disturbed, possibly from excavation and refill.

**MW-1231C**

Sampling Event	DTW (ft)	Time	Purge Rate (L/min)	Temp. (C)	Cond. (ms/cm)	pH	Eh (mV)	Turbidity (NTU)	DO (ppm)	Salinity %
Oct-96	3.68									
Oct-97	9.80									
Apr-98	6.01									
Jul-98	6.89	9:30	BAILED	15.0	0.730	7.60	175	728	3.70	0.00
Mar-99	4.89	10:00	BAILED	5.0	0.769	6.42	195	OR	4.06	0.03
Sep-99	12.89	-	BAILED	14.1	0.721	6.51	125	282	4.12	0.03
Feb-00	4.84	12:50	BAILED	7.7	0.726	6.96	205	OR	6.71	0.03
Sep-00	-	-	-	-	-	-	-	-	-	-

\* Sep-00 - Field equipment not functioning properly. Unable to obtain field parameters.

OR - Over Range (>999 NTU).

Historical Field Parameters  
 Building 1253  
 Verona Research Facility  
 Verona, NY

**MW-002**

Sampling Event	DTW (ft)	Time	Purge Rate (L/min)	Temp. (C)	Cond. (ms/cm)	pH	Eh (mV)	Turbidity (NTU)	DO (ppm)	Salinity %
Oct-96	1.58									
Oct-97	5.52									
Apr-98	2.43									
Jul-98	2.99	8:00	BAILED	19	0.860	7.40	80	328	3.10	0.00
Mar-99	1.55	9:30	BAILED	4.3	0.664	6.75	-	986	3.23	0.02
Sep-99	8.90	10:15	BAILED	17.8	-	6.54	195	OR	2.93	0.03
Feb-00	1.51	10:40	BAILED	7.1	0.749	7.08	145	OR	5.48	0.03
Sep-00	-	-	-	-	-	-	-	-	-	-

\* Sep-00 - Field equipment not functioning properly. Unable to obtain field parameters.  
 OR - Over Range (>999 NTU).

**MW-004**

Sampling Event	DTW (ft)	Time	Purge Rate (L/min)	Temp. (C)	Cond. (ms/cm)	pH	Eh (mV)	Turbidity (NTU)	DO (ppm)	Salinity %
Oct-96	1.31									
Oct-97	5.64									
Apr-98	2.64									
Jul-98	3.56	8:30	BAILED	20.0	1.200	7.40	240	68	3.10	0.00
Mar-99	-	9:15	BAILED	3.9	0.902	7.29	195	OR	3.30	0.03
Sep-99	8.83	10:30	BAILED	18.0	1.010	6.54	210	311	2.53	0.04
Feb-00	1.28	11:00	BAILED	6.3	0.980	6.90	170	117	19.44	0.04
Sep-00	-	-	-	-	-	-	-	-	-	-

\* Sep-00 - Field equipment not functioning properly. Unable to obtain field parameters.  
 OR - Over Range (>999 NTU).

**From:** Anthony Quartararo  
**To:** Evans, Robert  
**Date:** 3/22/02 3:43PM  
**Subject:** Re: Proposed Class 4 listing: Verona Research Facility ID # 633046

Bob, No info

>>> Robert Evans 03/22/02 03:34PM >>>

Verona Research Facility, located on Germany Road, Verona, NY 13478, Oneida County is proposed to be listed on the Registry of IHWDS as a Class 4 site. As you know, the Brownfields/Voluntary Cleanup Section must sign off on all listing packages indicating whether there are any voluntary cleanup agreements, Brownfields agreements, MGP agreements, or any VC or BF negotiations under way.

We have no information in our files on this site. Please notify me within 3 days if you are aware of any information indicating the site associated with any of the above-referenced programs. Thanks - Bob

**From:** Dale Desnoyers  
**To:** reevans@gw.dec.state.ny.us  
**Date:** 3/22/02 6:07PM  
**Subject:** Re: Proposed Class 4 listing: Verona Research Facility ID # 633046

I don't have any info on this.

>>> Robert Evans 03/22/02 15:34 PM >>>

Verona Research Facility, located on Germany Road, Verona, NY 13478, Oneida County is proposed to be listed on the Registry of IHWDS as a Class 4 site. As you know, the Brownfields/Voluntary Cleanup Section must sign off on all listing packages indicating whether there are any voluntary cleanup agreements, Brownfields agreements, MGP agreements, or any VC or BF negotiations under way.

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**From:** Robert Schick  
**To:** Evans, Robert  
**Date:** 3/22/02 3:54PM  
**Subject:** Re: Proposed Class 4 listing: Verona Research Facility ID # 633046

mo mgp

My address, phone and fax numbers are:

Robert W. Schick, P.E.  
New York State Department of Environmental Conservation  
625 Broadway  
Albany, NY 12233-7017  
Phone: (518) 402-9662  
Fax: (518) 402-9679

>>> Robert Evans 03/22/02 03:34PM >>>

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**From:** Robert Evans  
**To:** Desnoyers, Dale; McCullouch, Gary; Quartararo, Anthony; Schick, Robert; Sweredoski, Darrell  
**Date:** 3/22/02 3:34PM  
**Subject:** Proposed Class 4 listing: Verona Research Facility ID # 633046

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A. Sylvester

**New York State Department of Environmental Conservation**  
**Division of Environmental Remediation**  
Bureau of Hazardous Site Control, 11<sup>th</sup> Floor  
625 Broadway, Albany, New York 12233-7014  
Phone: (518) 402-9551 • FAX: (518) 402-9020  
Website: www.dec.state.ny.us



JUN 17 2002

Town Clerk  
Town of Verona  
6600 Germany Road  
Darhamville, NY 13054

Dear Sir/Madam:

The New York State Department of Environmental Conservation (Department) maintains a Registry of sites where hazardous waste disposal has occurred. Property located at Germany Road in the Town of Verona within Oneida County, and designated as Tax Map Number 285-1-1, was recently added as a Class 4 in the Registry. The name and site I.D. number of this property as listed in the Registry is Verona Research Facility, Site #633046.

The Classification Code 4 indicates that the site is properly closed -- requires continued management.

We are sending this letter to you and others who own property near the site listed above, as well as the county and town clerks. We are notifying you about these activities at this site because we believe it is important to keep you informed.

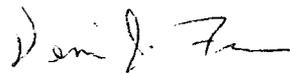
**If you currently are renting or leasing your property to someone else, please share this information with them. If you no longer own the property to which this letter was sent, please provide this information to the new owner and provide this office with the name and address of the new owner so that we can correct our records.**

The reason for this recent classification decision is as follows:

- Excavation of polychlorinated biphenyl (PCB) contaminated soils adjacent to Building 1233 was completed in July 1998. Natural attenuation of volatile organic compound (VOC) contaminated groundwater beneath Building 1231 and 1253 is occurring. Continued monitoring of the groundwater in monitoring wells MW-1231C, MW-002, and MW-004, as well as the surface water in Brandy Brook is required. Therefore, the site (Buildings 1231 and 1253, and the lands immediately adjacent to them where the aforementioned monitoring wells are located) should be classified as a Class 4 site in the New York State Registry of Inactive Hazardous Waste Disposal Sites.

If you have questions, need additional information, or have information which you believe would be useful to us, please call the Department of Environmental Conservation's toll-free number: **1(800)342-9296**. The Department of Health maintains a Health Liaison Program (HeLP) toll-free number: **1(800)458-1158 Ext. 2-7530**.

Sincerely,



Dennis J. Farrar  
Chief  
Site Control Section

bcc: M. O'Toole  
D. Weigel  
D. Farrar  
J. Swartwout  
D. Sweredoski, R/6  
B. Fenlon, R/6  
S. Litwhiler, R/6  
A. Sylvester  
G. Litwin  
L. Ennist

AS/srh

**New York State Department of Environmental Conservation**  
**Division of Environmental Remediation**  
**Bureau of Hazardous Site Control, 11<sup>th</sup> Floor**  
625 Broadway, Albany, New York 12233-7014  
**Phone:** (518) 402-9551 • **FAX:** (518) 402-9020  
**Website:** www.dec.state.ny.us



JUN 17 2002

Oneida County  
County Clerk  
County Office Building  
800 Park Avenue  
Utica, NY 13501

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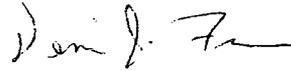
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Sincerely,



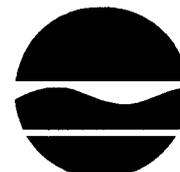
Dennis J. Farrar  
Chief  
Site Control Section

bcc: M. O'Toole  
D. Weigel  
D. Farrar  
J. Swartwout  
D. Sweredoski, R/6  
B. Fenlon, R/6  
S. Litwhiler, R/6  
A. Sylvester  
G. Litwin  
L. Ennist

AS/srh

A. Sylvester

**New York State Department of Environmental Conservation**  
**Division of Environmental Remediation**  
**Bureau of Hazardous Site Control, 11<sup>th</sup> Floor**  
625 Broadway, Albany, New York 12233-7014  
**Phone:** (518) 402-9551 • **FAX:** (518) 402-9020  
**Website:** www.dec.state.ny.us



Erin M. Crotty  
Commissioner

**MAY 30 2002**

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Mr. Bruce H. Mero, REM  
Chief Environmental Safety  
and Occupational Health Office  
Air Force Research Laboratory  
150 Electronic Parkway  
Rome, NY 13441-4105

Dear Mr. Mero:

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

Our records indicate that you are the owner or part owner of the site listed below. Therefore, this letter constitutes notification of the inclusion of such site in the Registry of Inactive Hazardous Waste Disposal Sites in New York State. Once listed in the Registry, the site becomes subject to certain restrictions prescribed by provisions of 6NYCRR Part 375 (see enclosure).

DEC Site No.: 633046  
Site Name: Verona Research Facility  
Site Address: Germany Road, Verona, NY 13478  
Site Classification: 4

Enclosed is a copy of the Department's Inactive Hazardous Waste Disposal Site Report form as it appears in the Registry and Annual Report together with 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:

Ms. Erin M. Crotty  
Commissioner  
New York State Department of Environmental Conservation  
625 Broadway  
Albany, New York 12233-1010

For additional information, please contact me at (518) 402-9553.

Sincerely,



Dennis J. Farrar  
Chief  
Site Control Section  
Bureau of Hazardous Site Control  
Division of Environmental Remediation

Enclosures

bcc: w/o Enc.  
M. O'Toole  
D. Weigel  
R. Marino  
D. Farrar  
J. Swartwout  
A. Sylvester

w/Enc. (Copy of Site Report form only)  
A. Grant  
G. Litwin, NYSDOH  
C. Vasudevan  
S. Nortz, R/6  
D. Sweredoski, R/6  
B. Fenlon, R/6

AS/srh