902014

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ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

PRELIMINARY SITE ASSESSMENT

PATTON'S BUSY BEE DISPOSAL
ALFRED STATION (T)

SITE NO. 902014
ALLEGANY (C)

Prepared for:

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
50 Wolf Road, Albany, New York

Thomas C. Jorling, Commissioner

DIVISION OF HAZARDOUS WASTE REMEDIATION

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URS Consultants, Inc.
570 Delaware Avenue
Buffalo, New York 14202

DECEMBER 1990

1094

PRELIMINARY SITE ASSESSMENT

TASK 1: DATA RECORDS SEARCH AND ASSESSMENT

PATTON'S BUSY BEE DISPOSAL SITE

SITE NO. 902014

ALFRED STATION (T)/ALLEGANY (C)

DECEMBER 1990

Performed Under

NYSDEC CONTRACT NO. D002340

NYSDEC WORK ASSIGNMENT NO. D002340-3

By

URS CONSULTANTS, INC.

For

DIVISION OF HAZARDOUS WASTE REMEDIATION

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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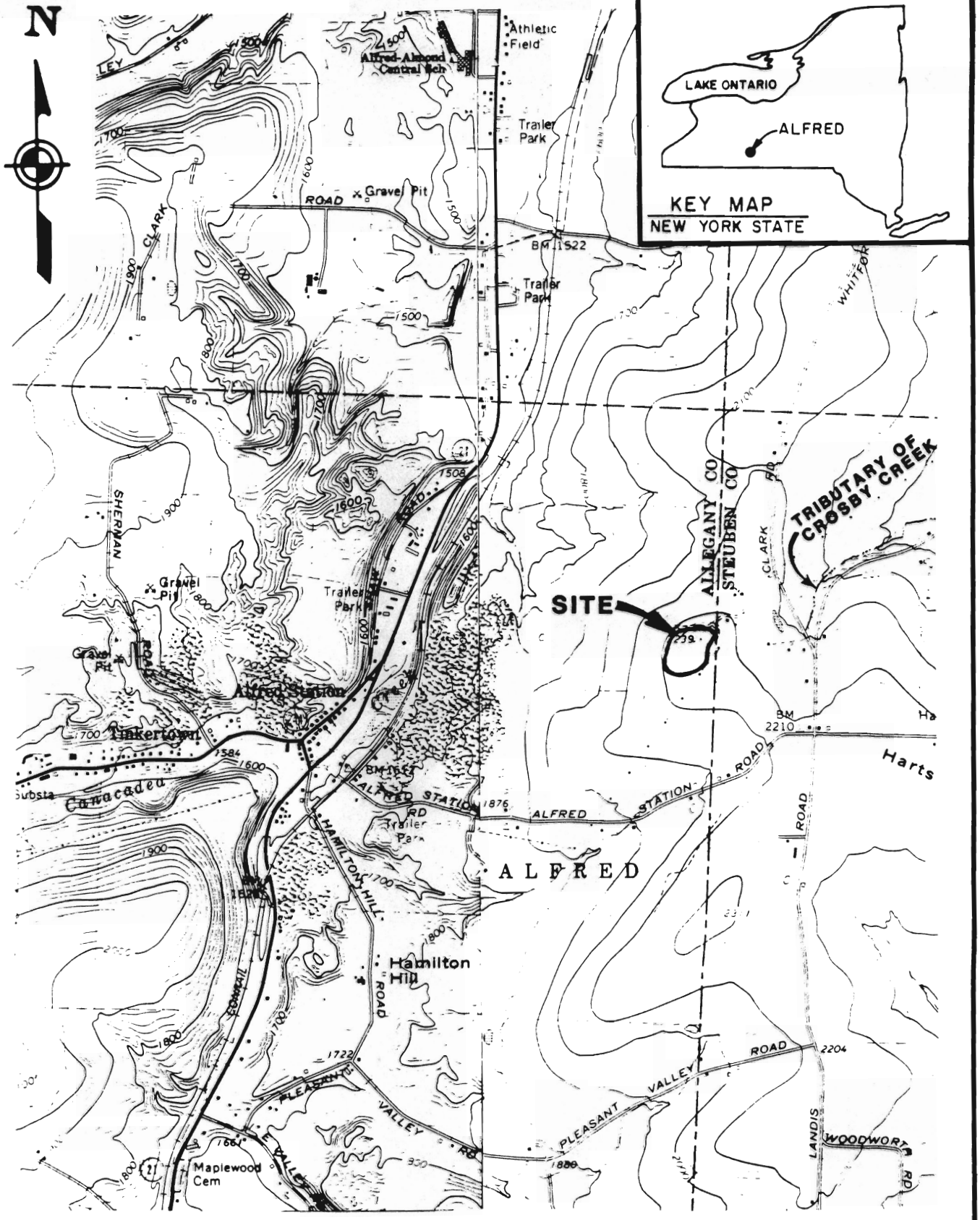
1. EXECUTIVE SUMMARY

The Patton's Busy Bee Disposal Site (No. 902014) is a 23.25 acre landfill located approximately one mile northeast of Alfred Station, Allegany County, New York (Figs. 1, 2,3) (Ref. 1). The portion of the landfill under investigation is an 8-10 acre trench area which was permitted by the NYSDEC in 1980 to operate as a sanitary landfill . Prior to 1986 the area consisted of three unlined trenches. In 1986 a lined remedial trench with a leachate collection system was constructed along the southern and eastern borders of the unlined trenches (Fig. 4). The purpose of the remedial trench is to intercept leachate produced by fill in the unlined trenches. The remedial trench was filled with C&D debris to create additional landfill space. A two-foot thick clay cap covers all the trenches.

The site accepted municipal waste from Allegany County along with industrial waste from industries in Pennsylvania, Steuben County, and Allegany County (Ref. 1). Additionally, the landfill accepted dewatered sewage sludge from wastewater treatment plants (Ref. 1). SKF Industries, formerly of Hornell, New York, completed a NYSDEC Hazardous Waste Questionnaire in 1981 stating that they disposed of 77 tons of a corrosive liquid through Pattons' Disposal Service. The corrosive liquid was reported as an alkaline metal cleaning solution with a pH of 12.5 (Refs. 2, 3).

Eleven monitoring wells exist at the site. The wells were installed at the expense of the landfill owner between 1983 and 1988, and periodic monitoring of them has occurred since 1986 under the supervision of the NYSDEC Division of Solid Waste. Groundwater contamination has been detected in both the shallow and deep monitoring wells located along the western and southwestern borders of the site (Ref. 4). Major contaminants include: trichloroethylene and trans-1,2-dichloroethylene at maximum



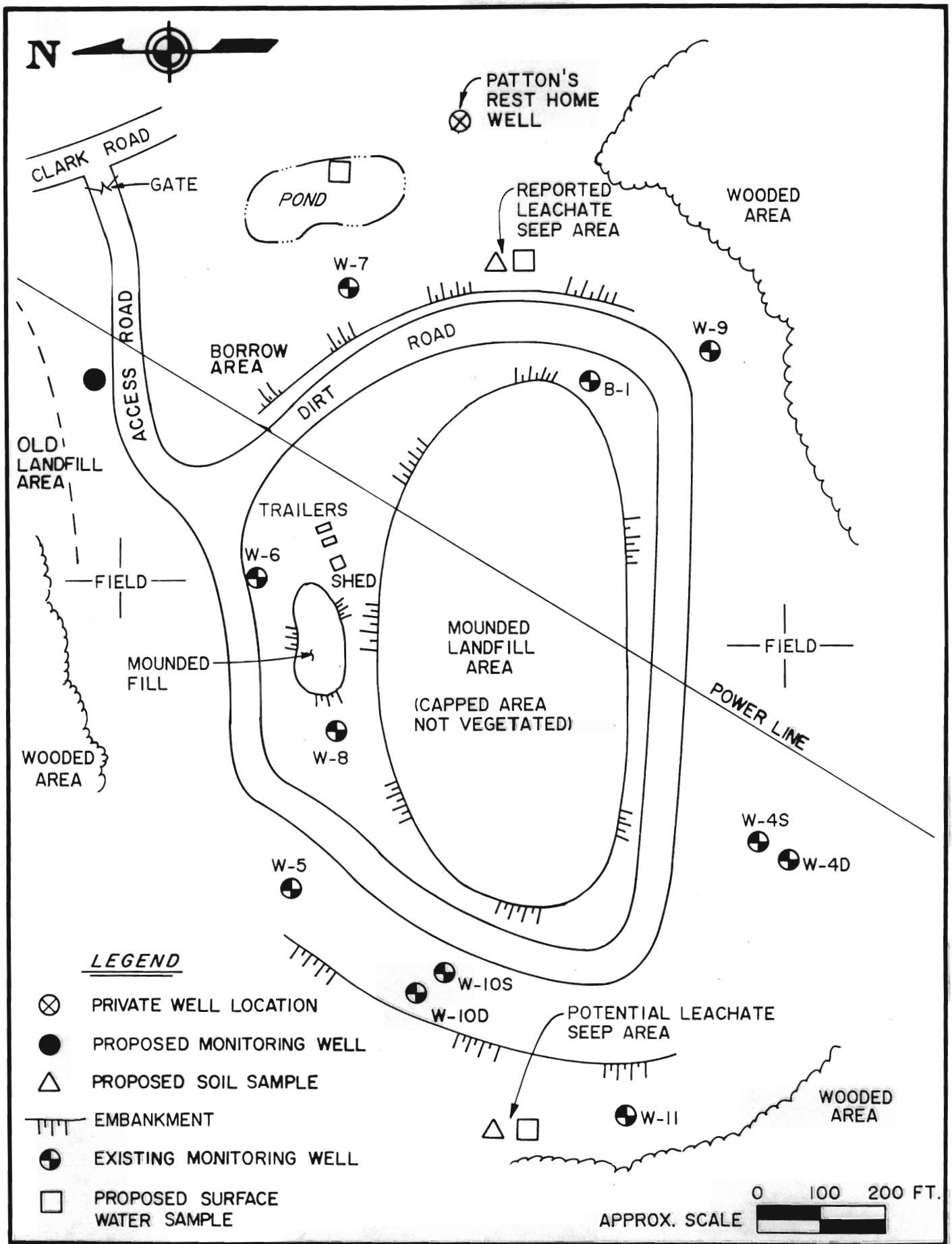
SOURCE:

ALFRED, N.Y. QUADRANGLE (1978)
HORNELL, N.Y. QUADRANGLE (1978)
USGS 7.5 MINUTE SERIES

SCALE: 1" = 2000'

URS CONSULTANTS, INC.	SITE LOCATION MAP PATTON'S BUSY BEE DISPOSAL	FIGURE 1

A-3324



URS CONSULTANTS, INC.

PATTON'S BUSY BEE DISPOSAL SITE SKETCH

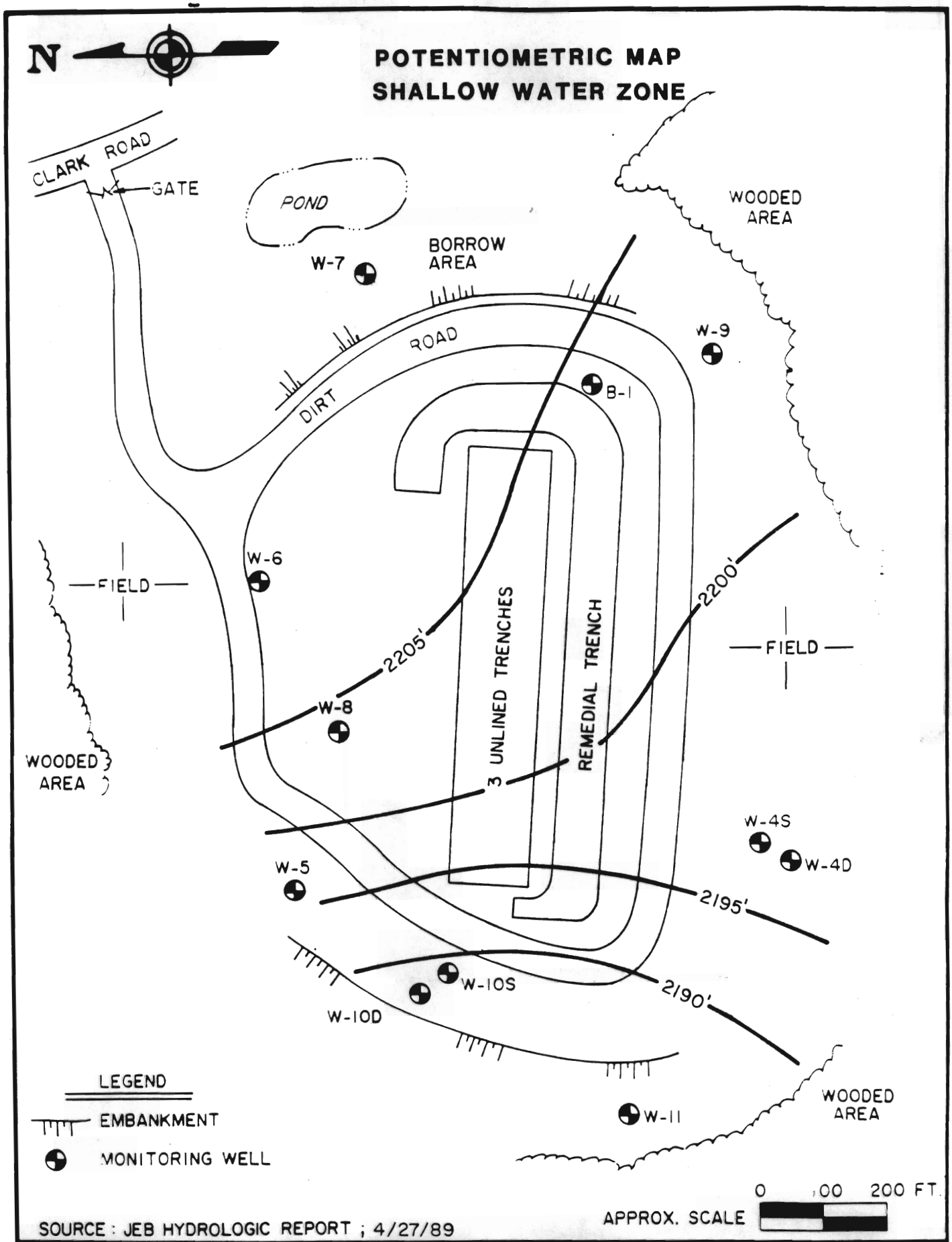
FIGURE 2

A-3325

Looking from the northeastern side of the landfill towards the unvegetated mounded fill area to the southwest.

Looking from the southern side of the landfill southeast towards the field area along the southern edge of the site.

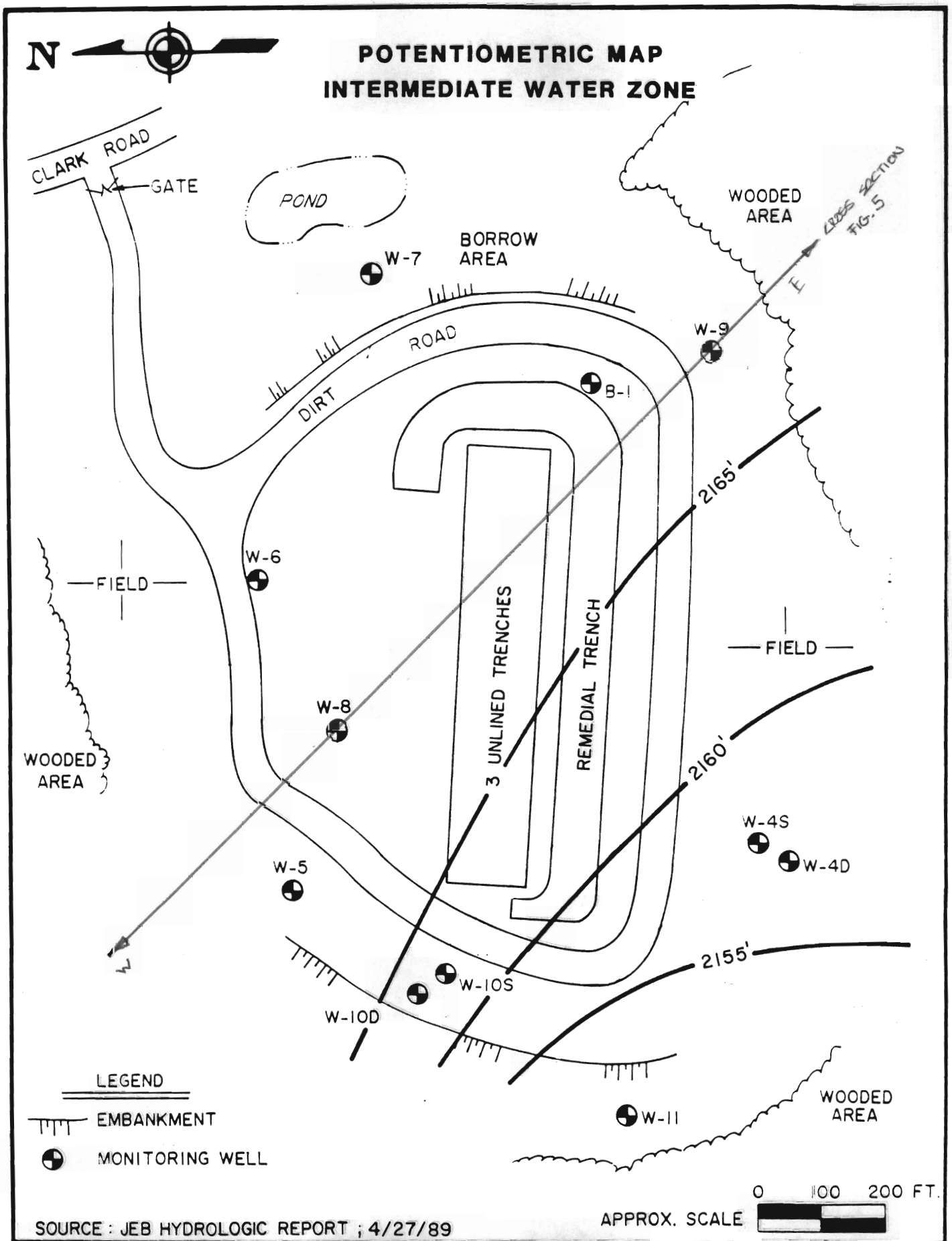
FIGURE 3-SITE PHOTOGRAPHS
PATTON'S BUSY BEE DISPOSAL



SOURCE : JEB HYDROLOGIC REPORT ; 4/27/89

URS CONSULTANTS INC	PATTON'S BUSY BEE DISPOSAL POTENTIOMETRIC MAP	FIGURE 4

A 3340



SOURCE : JEB HYDROLOGIC REPORT ; 4/27/89

URS CONSULTANTS INC

PATTON'S BUSY BEE DISPOSAL
POTENTIOMETRIC MAP

FIGURE 4A

A-3366

concentrations of 110,000 and 59,000 ug/l, respectively (Ref. 4)(Tables 1.1 through 1.9).

Although recent engineering reports prepared for Patton's Disposal Service indicate vertical and horizontal hydraulic conductivities of the overburden and weathered bedrock are low (10^{-4} cm/sec or less), the detection of organic compounds in several shallow and deep wells beyond the trenches confirms the offsite migration of contaminants (Ref. 5). Groundwater contamination is of major concern because private and municipal wells are the primary source of potable water within a three mile radius of the site (Ref.6).

A site inspection was conducted on May 29, 1990. Inspection personnel included: Robert Kreuzer (URS Consultants), Dave Locey (NYSDEC), Kevin Glaser (NYSDEC), and John Wulforst (Allegany County Soil and Water Conservation Department). At the time of the inspection, the site appeared to be well capped, but the ground surface was not vegetated. No areas of leachate outbreaks could be observed due to runoff from heavy rain during the site inspection.

While existing groundwater data is insufficient to accurately determine the significance of the threat to the water supply in the vicinity of the Patton's Busy Bee Disposal site, contaminants detected in analysis of water from monitoring wells indicates that a threat does exist. It is recommended that the NYSDEC reclassify the site as a Class 2 and perform a remedial investigation/feasibility study (RI/FS). The RI/FS should include a soil vapor survey, the installation of an additional monitoring well to serve as a background well and analysis of surface water, soil, and groundwater samples incorporating the entire NYSDEC ASP list. URS Consultants also recommends conducting hydrologic tests to determine the hydraulic conductivity of the bedrock in the area.

TABLE 1.1

PATTON'S BUSY BEE LANDFILL
DETECTED ANALYTICAL RESULTS
WELL NO. W-4S

SAMPLING DATE	11/05/86	10/14/87	1/19/88	4/22/88	8/05/88	11/30/88	1/19/89	4/27/89	1/27/90
trans-1,2-Dichloroethylene (ug/l)	84	77	64	41	85		96	68	
Trichloroethylene (ug/l)	21	21	5	7.1	10	6.4	4	4	
1,1,1-Trichloroethane (ug/l)	7.4	5.7			4		0		
Methylene Chloride (ug/l)									9.6
Total Chromium (mg/l)	0.553								
Total Iron (mg/l)	690	0.25							
Total Magnesium (mg/l)		14							
Total Manganese (mg/l)			4.7						
Total Sodium (mg/l)		20							
Soluble Aluminum (mg/l)	0.2								
Soluble Calcium (mg/l)	80.6								
Soluble Copper (mg/l)	0.009								
Soluble Magnesium (mg/l)		15							
Soluble Manganese (mg/l)	1.78		0.008						
Soluble Sodium (mg/l)	39	20							
Soluble Zinc (mg/l)	0.08								
Total Alkalinity (mg/l)		44							
Ammonia (mg/l)		0.12							
Total Organic Carbon (mg/l)		3.5	3.8	19	14.6	10	49.5	19.7	
Chemical Oxygen Demand (mg/l)	93								
Chloride (mg/l)		110			64.6	150	96	76	
Nitrate (mg/l)	3.7								
Sulfate (mg/l)	29								
Total Kjeldahl Nitrogen (mg/l)		0.5							
Turbidity (N.T.U.)		860							
pH (s.u.)	6.25	6.75	7.31	6.5	6.19	6.24	6.54	6.63	
Specific Conductance (umhos/cm)	740	410	475	875	610	580	520	559	
Phenol (ppb)						6.3			

TABLE 1.2

PATTON'S BUSY BEE LANDFILL
DETECTED ANALYTICAL RESULTS
WELL NO. W-4D

SAMPLING DATE	1/19/88	4/22/88	8/05/88	11/30/88	1/19/89	4/27/89	1/27/90
trans-1,2-Dichloroethylene (ug/l)	58	48	52		55	88	160
Trichloroethylene (ug/l)	15	16	18	22	13	28	60
Vinyl Chloride (ug/l)	7						
Chloroethene (ug/l)						9.8	
Chloroethane (ug/l)							58
Total Manganese (mg/l)	3.9						
Soluble Manganese (mg/l)	0.13						
Total Organic Carbon (mg/l)	6.8	25	20.9	6	43.3	15.6	
Chloride (mg/l)			88.2	120	96	113	
pH (s.u.)	7.02	7.51		7.66	6.39	7.22	
Specific Conductance (umhos/cm)	525	1050		630	540	390	
Phenol (ppb)				6.3			

TABLE 1.3

PATTON'S BUSY BEE LANDFILL
DETECTED ANALYTICAL RESULTS
WELL NO. W-7

SAMPLING DATE	11/05/86	1/19/88	4/22/88	8/05/88	11/30/88	1/19/89	4/27/89	1/27/90
Acetone (ug/l)								200 B
Total Chromium (mg/l)	0.013							
Total Iron (mg/l)	3.7							
Total Manganese (mg/l)		0.045						
Soluble Aluminum (mg/l)	0.2							
Soluble Calcium (mg/l)	49.1							
Soluble Manganese (mg/l)	0.11	0.029						
Soluble Sodium (mg/l)	11							
Soluble Zinc (mg/l)	0.04							
Total Alkalinity (mg/l)	60							
Total Organic Carbon (mg/l)	2.9		13	10.4	8	9.4	34.5	
Chemical Oxygen Demand (mg/l)	28							
Chloride (mg/l)	172			66.1	99	140	166	
Total Hardness (mg/l)	288							
Nitrate (mg/l)	0.61							
Sulfate (mg/l)	18	35						
Total Kjeldahl Nitrogen (mg/l)	1.4							
Turbidity (N.T.U.)	100							
pH (s.u.)	7.15	7.25	6.65	6.1	6.08	5.53	6.39	
Specific Conductance (umhos/cm)	730	425	650	347	430	520	643	
Phenol (ppb)				0.3	6.3	4.1		

Note: Field Blank value for Acetone = 17 ug/l.

TABLE 1.4

PATTON'S BUSY BEE LANDFILL
DETECTED ANALYTICAL RESULTS
WELL NO. W-8

SAMPLING DATE	10/14/87	1/19/88	4/22/88	8/05/88	11/30/88	1/19/89	4/27/89	1/27/90
Trichlorofluormethane (ug/l)		9						
1,1,1-Trichloroethane (ug/l)				8				
Acetone (ug/l)								52
Total Iron (mg/l)	0.19							
Tota Magnesium (mg/l)	7.8							
Total Manganese (mg/l)		0.24						
Total Sodium (mg/l)	5							
Soluble Magensium (mg/l)	8							
Soluble Manganese (mg/l)		0.24						
Total Alkalinity (mg/l)	66							
Ammonia (mg/l)	0.14							
Biochemical Oxygen Demand (mg/l)	2.4							
Total Organic Carbon (mg/l)	7.9	12	37	27.4	12	38.2	19.7	
Chloride (mg/l)	16			3.37	200	29	32.3	
Total Kheldahl Nitrogen (mg/l)	0.59							
Trubidity (N.T.U.)	20							
pH (s.u.)	5.8	6.17	5.85	5.94	6.82	5.95	6.04	
Specific Conductance (umhos/cm)	175	200	350	182	240	230	256	

TABLE 1.5

PATTON'S BUSY BEE LANDFILL
DETECTED ANALYTICAL RESULTS
WELL NO. W-9

SAMPLING DATE	10/14/87	1/19/88	4/22/88	8/05/88	11/30/88	1/19/89	4/27/89	1/27/90
trans-1,2-Dichloroethylene (ug/l)	3.7							
Total Iron (mg/l)	0.48							
Total Magnesium (mg/l)	23							
Total Manganese (mg/l)		8.1						
Total Sodium (mg/l)	17							
Soluble Magnesium (mg/l)	22							
Soluble Manganese (mg/l)		1.3						
Soluble Sodium (mg/l)	16							
Total Alkalinity (mg/l)	34							
Ammonia (mg/l)	0.21							
Biochemical Oxygen Deman (mg/l)	2.4							
Total Organic Carbon (mg/l)	3	12	2	12.5	13	10.3	20.8	
Chloride (mg/l)	160			133	200	1930	251	
Total Kjeldahl Nitrogen (mg/l)	0.66							
Turbidity (N.T.U.)	250							
pH (s.u.)	7.1	6.17	5.82	5.72	6.09	5.69	5.58	
Specific Conductance (umhos/cm)	490	200	850	481	710	750	761	
Phenol (ppb)					6.3		11.4	
Methylene Chloride								32

TABLE 1.6

PATTON'S BUSY BEE LANDFILL
DETECTED ANALYTICAL RESULTS
WELL NO. W-10S

SAMPLING DATE	10/14/87	1/19/88	4/22/88	8/05/88	1/19/89	4/27/89	1/27/90
trans-1,2-Dichloroethylene (ug/l)	59000	*	*	760**	18000	13000	11000
Trichloroethylene (ug/l)	110000			1300**	38000	32000	28000
1,1-Dichloroethylene (ug/l)	72					12	
Tetrachloroethylene (ug/l)	77					15	
Toluene (ug/l)	570						
Vinyl Chloride (ug/l)	500						
Methylene Chloride (ug/l)				140**			35
1,1,2-Trichloroethane (ug/l)					160		
1,1,2,2-Tetrachloroethane (ug/l)					14		
1,1-Dichloroethylene (ug/l)					13		
Chloroethene (ug/l)					11	4	
Acetone (ug/l)							120 B
Total Organic Carbon (mg/l)							
Chloride (mg/l)							
pH (s.u.)							
Specific Conductance (umhos/cm)							

Note: Trichloroethylene in various quarterly monitoring reports was recorded as 110 ug/l. It should have been 110,000 ug/l. This value was checked using Recra Environmental's original data sheet.

Note: Acetone value for the field blank = 17 ug/l.

* W-10S was dry during these sampling events.

** Sample vial froze and broke during storage at lab. Analysis performed on remaining sample in vial.

TABLE 1.7

PATTON'S BUSY BEE LANDFILL
DETECTED ANALYTICAL RESULTS
WELL NO. W-10D

SAMPLING DATE	1/19/88	4/22/88	4/22/88	8/05/88	11/30/88	1/18/89	4/27/89
trans-1,2-Dichloroethylene (ug/l)	6	3.5	3.7	9		7	9.2
Total Dichlorobenzene (ug/l)				26			
Methylene Chloride (ug/l)				70			
Total Manganese (mg/l)	0.074						
Soluble Manganese (mg/l)	0.014						
Total Organic Carbon (mg/l)	10	17	18	24.1	18	19.3	20.8
Chloride (mg/l)				101	150	72	66.8
pH (s.u.)	7.68	7.43	7.48	7.6	7.64	7.04	7.05
Specific Conductance (umhos/cm)	550	925	925	548	580	490	488

TABLE 1.8

PATTON'S BUSY BEE LANDFILL
DETECTED ANALYTICAL RESULTS
WELL NO. W-11

SAMPLING DATE	4/22/88	8/05/88	11/30/88	1/19/89	4/27/89	1/27/90
trans-1,2-Dichloroethylene (ug/l)	100	220		140	82	100
Trichloroethylene (ug/l)	21	20	37	24	18	19
Chloroethene (ug/l)		4		5		
Total Organic Carbon (mg/l)	16	38	10	37.4	20.9	
Chloride (mg/l)			220	170	129	
pH (s.u.)	5.89	5.85	6.21	5.55	5.78	
Specific Conductance (umhos/cm)	1050	584	720	830	557	
Phenol (ppb)			5.8			

TABLE 1.9

PATTON'S BUSY BEE LANDFILL
DETECTED ANALYTICAL RESULTS
LEACHATE

SAMPLING DATE:	UNITS	6/25/87		4/22/99*		6/15/88*		4/27/89
Benzene	ug/l	7.0						
Chloroethene	ug/l							220
1,2-Dichlorobenzene	ug/l	3.2						
Trans-1,2-Dichloroethylene	ug/l	42				295		340
Ethylbenzene	ug/l	32						
Methylene Chloride	ug/l							9.0
Toluene	ug/l	220						20
Vinyl Chloride	ug/l	32						
Total Dichlorobenzenezes	ug/l	3.2						6.2
Total Xylenes	ug/l							30
Total Aluminum	mg/l	1.5		0.33				
Total Arsenic	mg/l	0.010		0.0060				
Total Cadmium	mg/l	0.012		0.0065				
Total Calcium	mg/l	505		310				
Total Chromium	mg/l	0.015		0.015				
Total Copper	mg/l	0.009		0.016				
Total Iron	mg/l	86		35				
Total Lead	mg/l	0.026						
Total Manganese	mg/l	17		3.1				
Total Silver	mg/l			0.049				
Total Sodium	mg/l	600		1600				
Total Zinc	mg/l	2.1		2.0				

NOTE*: Due to problems with the contract laboratory exceeding holding times on several parameters associated with the 4/22/88 sampling, resampling was conducted on 6/1/88 for subsequent analysis of these parameters.

Patton's Disposal had planned to have a soil vapor survey conducted to map the extent and source of the contaminants plume. JEB Consultants (Mr. Patton's engineering firm) has subsequently notified the NYSDEC Division of Solid Waste that Patton's Disposal will not be performing the scheduled soil vapor survey due to financial reasons (Ref. 7).

It appears that Laverne Patton, the site owner, is not taking action to remediate the groundwater contamination problem. As a result, a comprehensive RI/FS should be conducted at the site to assess the threat posed by the contaminants detected. Based on available data, the site's current Hazard Ranking System scoring is as follows:

$S_M = 35.95$ ($S_{GW} = 62.17$, $S_{SW} = 2.01$, $Sa = 0$)

$S_{FE} = 0$

$S_{DC} = 0$

47-15-25 (2/90)—9d

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

Original—BHSC
Copy—REGION
Copy—DEE
Copy—DOH

ADDITIONS/CHANGES TO REGISTRY OF INACTIVE HAZARDOUS WASTE DISPOSAL SITES

1. SITE NAME	2. TAX MAP NO.	3. TOWN	4. COUNTY
Patton's Busy Bee Disposal		Alfred Station	Allegany

5. REGION	6. CLASSIFICATION	7. ACTIVITY
9	☐ Current ☒ Proposed	☐ Add ☒ Reclassify ☐ Delist ☐ Modify From 2a to 2

8. DESCRIBE LOCATION OF SITE

Patton's Busy Bee Landfill is located in a rural area approximately 1 mile northeast of Alfred Station, New York. It is located on top of a N-S trending shale ridge along the eastern border of Allegany County.

b. Site Latitude 42° 16' 21" longitude 77° 44' 20"

c. A USGS Topographic Map is attached showing site location ☒ Yes Quadrangle Hornell ☐ No

9. BRIEFLY DESCRIBE THE SITE Patton's Busy Bee Disposal Site is a 23.25 acre landfill located 1 mile Northeast of Alfred Station New York. The facility reportedly accepted municipal, industrial and commercial waste. The site consists of 3 unlined trenches and a lined remedial trench. Groundwater contamination is of major concern since wells are the primary source of potable water for the area.

b. Area 23.25 acres c. DEC ID Number 902014 d. EPA ID Number

e. PA/SI ☐ Yes ☐ No f. DEC Investigation ☐ None ☐ Phase I ☐ Phase II ☒ Other PSA

g. A Property Survey Map is attached showing disposal areas ☐ Yes ☒ No

10. BRIEFLY LIST THE TYPE AND QUANTITY OF THE HAZARDOUS WASTE AND THE DATES THAT IT WAS STORED/DISPOSED OF AT THIS SITE

- SKF Industries of New York Reportedly used Patton's Disposal service to dispose of 77 tons of a corrosive Alkaline cleaner between Feb. 81-Aug.81
- Various organic compounds detected in monitoring wells indicate a significant amount of halogenated organic waste was disposed of at the facility.

11. SUMMARIZED SAMPLING DATA ATTACHED

☐ Air ☒ Groundwater ☐ Surface Water ☐ Soil ☐ Waste ☐ EP Tox.

b. List contravened parameters and values

Trichloroethylene 110,000 micrograms/liter
trans-1,2-dichloroethylene 59,000 micrograms/liter
toluene 510 micrograms/liter
Vinyl Chloride 500 micrograms/liter

12. PLEASE PROVIDE THE FOLLOWING INFORMATION

a. Distance to nearest surface water 1,500 ft. Classification Class D

b. Depth to nearest groundwater 50-150 ft. ☒ Aquifer ☐ Sole Source ☐ Primary ☐ Principal

c. Distance to nearest water supply 4,000 ft. Classification Village of Alfred Municipal Wells

d. Is site used for agricultural purposes (crops or livestock)? ☐ Yes ☒ No

e. Is access to site controlled (e.g. fences, gates)? ☒ Yes ☐ No

f. Has site documented fish or wildlife mortality? ☐ Yes ☒ No

g. Has site impacted on a special status fish or wildlife resource? ☐ Yes ☒ no

h. Is the site within a State Economic Development Zone? ☐ Yes ☒ No

i. For Class 2a, Health Model Score. ☐ Yes _____ ☐ No

j. For Class 2, Priority Category. ☐ 1 ☐ 2 ☐ 3 Reason

k. HRS Score ☒ Yes _____ ☐ No Sm=35.95, Sfe=0.00, Sdc=0.00

13. SITE OWNER'S NAME	14. ADDRESS	15. TELEPHONE NUMBER
LaVerne Patton	Alfred-Almond Rd. Alfred Station, N.Y.	(607) 276-2683

16. APPROVAL

Date

Signature and Title

2. PURPOSE

Task 1, Data Records Search and Assessment, of the Preliminary Site Assessment (PSA) was conducted at Patton's Busy Bee Waste Disposal, Site No. 902014, Alfred Station, Allegany County, New York by URS Consultants under contract to the New York State Department of Environmental Conservation (NYSDEC) Superfund Standby Contract (Contract No. D002340, Work Assignment No. D002340-3).

The Patton's Busy Bee Disposal site (Figure 1) is a suspected inactive hazardous waste site recognized by NYSDEC. This site is currently classified as Class 2a because there is insufficient information to document hazardous waste disposal and/or assess the significance of potential risks to public health or the environment. The purpose of a PSA is to provide the information for NYSDEC to reclassify the site according to the following classifications:

- Class 2- Hazardous waste sites presenting a significant threat to the public health or the environment.
- Class 3- Hazardous waste sites not presenting a significant threat to the public health or the environment
- Delist-Sites where hazardous waste disposal can not be documented.

3. SCOPE OF WORK

The Preliminary Site Assessment of Patton's Busy Bee Disposal Site comprised several interrelated tasks as follows:

File Reviews and Data Search

An extensive data search was conducted, utilizing both site-specific and regional sources. This information was compiled from existing data as well as new sources, and a preliminary characterization of the site was developed after review.

During the preliminary site assessment, a number of sources were contacted for information, including but not limited to:

- o NYSDEC Region 9 Headquarters - Martin Doster, Dave Locey, Solid and Hazardous Waste Division, May 26 - June 22, 1990, (716) 847-4590.
  - Site inspection reports, permit information, and general files.
- o NYS Department of Health, Allegany District - Albert Vossler, P.E., May 29, 1990, (716) 268-9254.
  - Site inspection report, use of surface water, and sources of potable water.
- o Allegany Soil and Water Conservation Department, Fred Sinclair, District Field Manager, May 29, 1990, (716) 268-7831.

- Aerial photographs, soil and groundwater data, and water use in the area.

o Patton's Busy Bee Disposal, LaVerne Patton, Site Owner, June 29, 1990, (607) 276-2683.

- Site history, operation methods, current plans.
- Visit to the NYSDEC office in Albany to Conduct a file search 6/14/90 general files.

Site Inspection

A site inspection was conducted on May 29, 1990, between 3:00 and 4:20 p.m., in order to assess the site's surface characteristics, observe evidence (if any) of hazardous substances or wastes present, photograph the site, conduct preliminary air monitoring, and confirm information obtained from the initial data search. A USEPA Site Inspection Report (EPA Form 2070-13) was completed following the site inspection. At the time of the inspection, the trench area appeared to be well capped, but the ground surface had not been vegetated. As a result of runoff from heavy rain, it was not possible to determine whether leachate was seeping from the site. Preliminary air monitoring could not be conducted due to poor weather conditions.

Participants of the site inspection included:

NAME	TITLE	AFFILIATION
Robert Kreuzer	Geologist	URS Consultants, Inc.
Dave Locey	Asst. Sanitary Engineer	NYSDEC
Kevin Glaser	Sr. Env. Technician	NYSDEC
John Wulforst	Soil Scientist	Allegany County Soil Conservation Dept.

4. SITE ASSESSMENT

4.1 Site History

The Patton's Busy Bee Disposal site is a 23.25-acre, privately owned landfill which operated between the mid-1950s and 1988 (Ref. 8). The site is currently owned by LaVerne Patton of Alfred-Almond Road, Alfred Station, New York (Ref. 1). Mr. Patton purchased the property in 1974 from Nelson Henry (Ref. 8). The section of the property under investigation is the southwestern portion (approximately 8-10 acres) permitted by the NYSDEC in 1980 to operate as a sanitary landfill (Permit Number 02S13) (Figs. 1, 2). The area of the property used as a sanitary landfill prior to 1980 is located along the north side of the access road (Fig. 2).

Between 1980 and 1986 the site received municipal, non-hazardous industrial waste and sewage sludge from wastewater treatment plants. The wastes were deposited in three unlined trenches each of which was approximately 25 feet wide by 12 feet deep by 600 feet long (Ref. 1). The waste was backfilled daily with a clayey-silt soil found at the site (Ref. 1). In 1986 the NYSDEC Division of Solid Waste approved an application to use a lined remedial trench with a leachate collection system along the southern and eastern border's of the site (Figure 4, Ref. 8) which had already been constructed. The purpose of the remedial trench was to prevent the migration of leachate from the three unlined trenches and to provide the landfill with additional volume to accept C&D waste. The trenches have been covered with a two foot thick clay cap.

The site is currently under investigation as a potential hazardous waste site by the NYSDEC Division of Hazardous Waste. SKF Industries (formerly of Hornell, New York) indicated on a right-to-know questionnaire that they disposed of 77 tons of a corrosive alkaline cleaning solution between February and August of 1981 through Patton's Disposal Service

(Ref. 2). The alkaline cleaner is classified as a hazardous waste according to 6 NYCRR Part 371, 371.3(c)1(i) since its pH was greater than or equal to 12.5 (Ref. 2). The alleged disposal of hazardous waste (1981-SKF Industries corrosive waste) may have taken place in one of the unlined trenches (Ref. 31). The highest pH level detected in the monitoring wells was 7.68 in MW-10D which is beyond the limits of the remedial trench. Elevated levels of chlorinated organic compounds detected in groundwater monitoring wells (installed at the site between 1983 - 1988) also suggest hazardous waste has been disposed of at the site. The site was closed in December of 1988 under the terms of a Consent Order. Mr. Patton wanted to continue landfill operations beyond 1988, but the NYSDEC Division of Solid Waste would not permit the site for use as C&D waste landfill due to groundwater contamination problems. The present remedial trench has been determined to be inadequate to prevent the offsite migration of contaminants. Thus, further actions need to be taken to prevent the migration of a contaminant plume.

4.2 Site Topography

Patton's Busy Bee Landfill site is located in a rural area approximately one mile northeast of Alfred Station. The facility is situated on top of a north-south trending shale ridge along the eastern border of Allegany County (Fig. 1).

The landfill trench area (approximately 8-10 acres) has been mounded with fill and cap material to form a dome approximately 30-40 feet above the surrounding site area (Fig. 2) (Ref. Site Visit). Elevations surrounding the site drop off steeply. Surface runoff from the site drains in a radial pattern and eventually discharges into Canacadea Creek to the west or Crosby Creek to the east. Both streams ultimately discharge into the Canisteo River (Ref. 5). A small pond is located in a borrow area east of the mounded trench area (Fig. 2). The borrow was created by excavating soils for cap and liner material.

The population in the area uses predominantly groundwater as a potable source of water (Ref. 6). The closest well is located approximately 400 - 600 feet to the east of the trench area (Ref. 27)(Fig. 2). The majority of the population is served by municipal wells located approximately 4,000 feet downgradient (west-southwest) of the site (Ref. 6).

4.3 Site Hydrology

The bedrock underlying the site consists of the Upper Devonian Age Canisteo Shale Member of the Perrysburg Formation. The formation consists of shales interbedded with fine sandstone layers which dip approximately 2° to the southwest (Ref. 9). The overburden encountered consists of a silt or clayey-silt matrix with shale fragments (Ref. 9) and ranges in thickness between 5-10 feet.

Surface Water Hydrology

Surface water drains radially from the site and ultimately discharges into Canacadea Creek to the west or Crosby Creek to the east. Both streams eventually discharge into the Canisteo River (Ref. 5). Numerous seeps and springs are reportedly located along the sides of the ridge on which the site is located (Ref. 9). Outcrops of sandstone along the sides of the ridge are the probable source of these reported seeps and springs (Ref. 1). Discharge from the seeps and springs also drain into Canacadea Creek to the west or Crosby Creek to the east. At the time of the site inspection, the landfill area was not vegetated. As a result, an excessive amount of runoff produced numerous rills in the surrounding soils (Ref. Site Visit).

Groundwater Hydrology

Several water bearing zones have been identified in the upper portion of the bedrock. The water bearing zones are located in three separate sandstone units, and are thought to exist under perched conditions (Ref. 5). The sandstone units range between 1-8 feet in thickness with thinner units to the south (Ref. 9). Groundwater within these water bearing zones generally flows in a southwest direction (Ref. 9). This southwest flow direction is probably the result of a 2°-3° dip to the southwest of the sandstone layers along with a topographic influence (contours drop off steeply to the west). The upper two sandstone units may have a radial flow component based on the site's location (on top of a topographic high).

Eleven PVC ground water monitoring wells are present at the site. Of the eleven wells, nine are used to monitor the three water bearing zones. The nine wells include: four shallow wells (W-4S, W-8, W-9, W-10S), three intermediate wells (B-1, W4-D, W10-D), and two deep wells (W-7, W-11). The elevation of wells W-6 and W-5 is not known since they are not currently used for groundwater monitoring. The approximate elevations of the three water bearing zones are located between 2210'-2186' (shallow), 2178'-2160' (intermediate), and 2166'-2154' deep (Figure 5) (Ref. 9). Groundwater level data is presented in Table 2. Figures 4 and 4A were reproduced from potentiometric maps made by JEB in April of 1989 for the shallow and intermediate wells.

Hydraulic conductivities have been calculated to be on the order of 10^{-4} or less for test pits dug 12 feet into the overburden and weathered shale (Ref. 3). Based on the available hydrologic information, an average seepage velocity of 13.45 ft./year (Ref. 10) was calculated for the upper aquifer by URS Consultants. According to calculations, the time needed for contaminants to reach well W-10S (approximately 100 ft. from the

TABLE 2

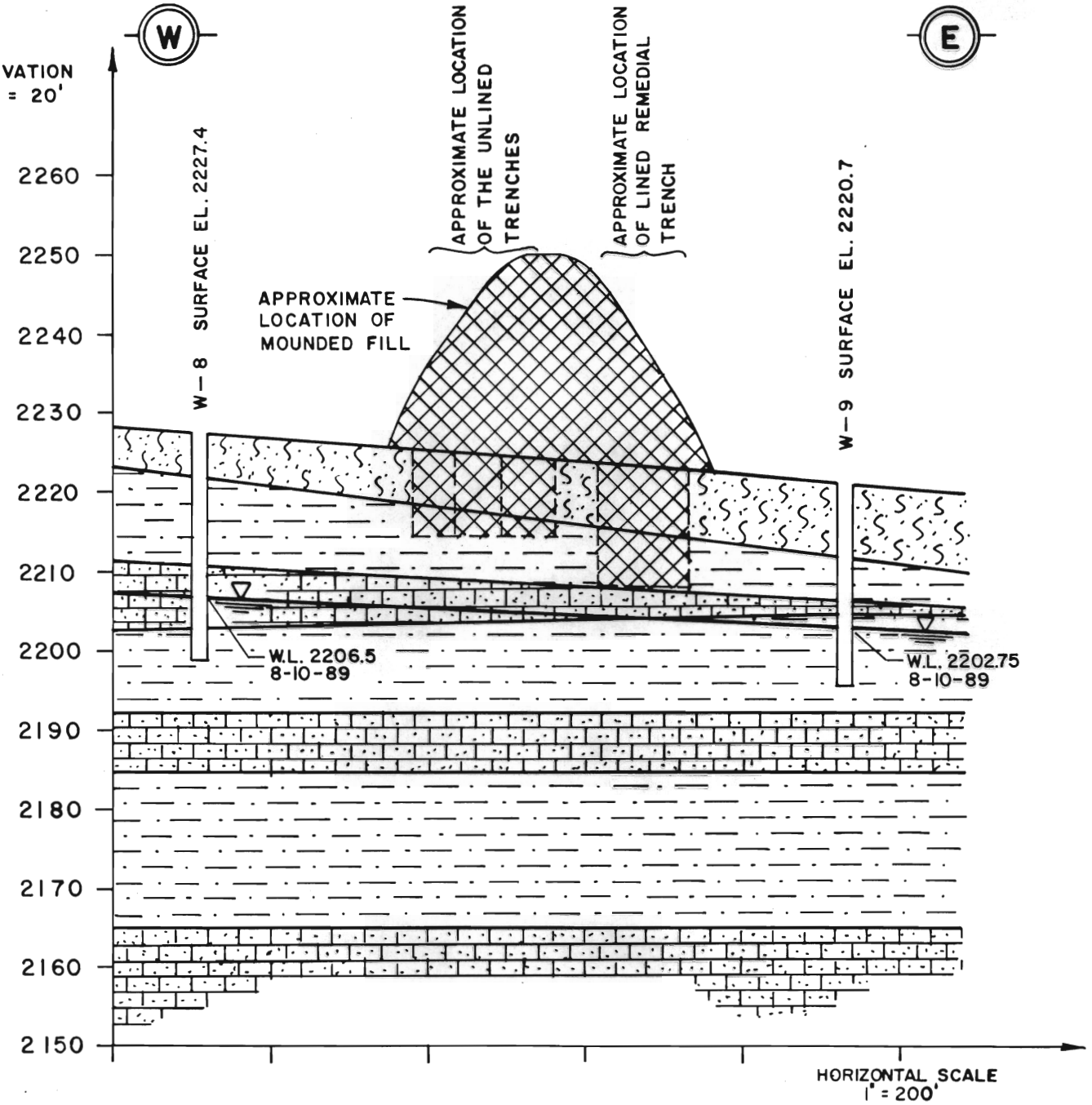
PATTON'S BUSY BEE LANDFILL
MONITORING WELL DATA

WELL NUMBER	TOP OF CASING ELEVATION (feet)	GROUND SURFACE ELEVATION (feet)	SCREEN INTERVAL ELEVATION (feet)	GROUNDWATER LEVEL									
				8/22/87	10/14/87	1/19/88	2/22/88	4/22/88	8/05/88	11/30/88	1/18/89	4/27/89	8/10/89
Shallow Wells:													
W-4S	2217.6	2215.5	2199.7-2194.7	2195.6	2198.7	2196.7	2196.4	2197.7	2197.6	2198.32	2196.88	2197.25	2195.95
W-8	2230	2227.4	2203.2-2198.2	2209.2	2211.0	2207.2	2207.8	2207.5	2207.1	2208.02	2205.45	2203.53	2206.50
W-9	2223.9	2220.7	2202.6-2197.6	2201.3	2203.9	2201.9	2201.7	2202.3	2202.4	2202.76	2202.35	2202.40	2202.75
W-10S	2209.6	2206.6	2192.5-2187.5	2188.4	2188.2	Dry	Dry	Dry	2187.7	2187.7	2187.86	2187.63	2188.28
Intermediate Wells:													
B-1	2218.7					2172.4	2172.4	2173.4	2170.8	2169.5	2169.66	2169.78	2168.54
W-4D	2217.1	2215.1				2159.1	2158.1	2158.9	2158.2	2158.2	2157.89	2159.06	2158.2
W-10D	2209.6	2207.0				2165.7	2165.0	2165.3	2165.3	2164.9	2164.75	2165.21	2165.38
Deep Wells:													
W-7	2177.2	2175.3				2169.0	2169.2	2170.0	2168.6	2168.36	2169.39	2168.39	2168.15
W-11	2180.7							2160.7	2159.7	2156.18	2155.64	2153.91	2157.54

trenches) would be approximately 6-7 years (Ref. 10). This suggests the contaminants detected may have seeped from the trench area.

Groundwater contamination is of major concern because wells are the primary source of potable water within a three mile radius of the site. The closest well (130 feet deep) is located 400-600 feet to the east of the trenches along Clark Road. The location of this well is southeast of Well W-7 in a possible direction of localized flow for that area as shown on Figure 5. In 1988 leachate seeps were reported to occur along the embankment near the pond (Ref. 27). This suggests radial flow may be taking place in the upper water zones. The private well (400-600 feet east of the trenches) was analyzed in 1988 for contaminants detected in the groundwater monitoring wells at the site. Results did not indicate contamination problems at that time (Ref 11). Additionally, 35-40 private wells are located along Crosby Creek road approximately 3 miles northeast of the site.

The municipal wells for the Village of Alfred are located approximately 4,000 feet west of the site in the general direction of groundwater flow. Based on available information: contaminant concentrations in the monitoring wells, the hydraulic gradient between the site and the municipal wells, and assuming higher vertical and horizontal hydraulic conductivities than what probably exist, a rough calculation was made by URS Consultants using a dispersion equation to assess the threat of contamination to the municipal wells (Ref. 12). The results indicate that it is unlikely that the contaminant plume could travel the 400' vertical and 4,000' horizontal distance needed to contaminate the municipal wells in a ten-year time span. The results indicate the plume is migrating at a very slow rate and currently does not pose an immediate threat of groundwater contamination to the municipal wells. The calculations were based on limited data and should not be accepted as an adequate assessment of the groundwater problem. Not enough is known about the hydrologic conditions between the site and the village wells.



NOTE: FOR WELL LOCATION SEE SITE SKETCH.

SHALE BEDROCK

FILL

SANDSTONE BEDROCK

OVERBURDEN SOIL MATERIAL

SOURCE:
JEB CONSULTANTS SUBSURFACE LOGS.
8-6-87 AND 8-11-87

URS CONSULTANTS, INC.

PATTON'S BUSY BEE DISPOSAL

GEOLOGIC SECTION BETWEEN WELLS W-8 & W-9

FIGURE 5

A-3448

4.4 Site Contamination

Groundwater contaminants have been detected in several of the site's groundwater monitoring wells (Ref. 4). Wells showing the highest levels of contamination are the shallow wells located along the western and southwestern borders of the site. Shallow wells in which elevated levels of contaminants were detected, include W-4S and W-10S. Well W-10S, located 100' downgradient of the orginal trenches and beyond the limits of the remedial trench showed the highest levels of contamination with concentrations of up to 110,000 ppb (trichloroethylene), (Table 1.6, Ref. 4). Results of groundwater analysis also showed the presence of trans-1,2-dichloroethylene, toluene and vinyl chloride. The deeper wells are also showing signs of contamination. Well W-4D, located 240 feet southwest of the remedial trench, contained the highest levels of contamination for the deeper wells at 160 ppb (trans-1,2-dichloroethylene) (Table 1.2, Ref. 4). Monitoring well and leachate analytical data is presented in Tables 1.1 through 1.9.

In 1988 JEB Consultants compiled a key parameter list from previous leachate analysis for future monitoring, sampling and analysis. The NYSDEC approved analytical program includes: pH, specific conductance (field), EPA method 624-purgeable organics, total organic carbon, total manganese, and soluble manganese (Table 1.9).

Groundwater contamination is of major concern at the site since groundwater is the primary source of potable water for the area within a three mile radius (Ref. 6). Present analytical data indicates that a contaminant plume is leaving the site in the southwesterly direction. Although no documentation exists of halogenated solvents being disposed of at the site, elevated concentrations of trichloroethylene and trans-1,2-dichloroethylene detected in the groundwater indicate that significant quantities of the compounds were disposed of at the facility.

Surface water contamination is also of concern at the site. In 1988 leachate seeps were observed along the embankment near the pond area (Ref. 27). The discharge of leachate from this area or along the embankment at the western end of the site has the potential to impact the water quality of Crosby and Canacadea Creeks. Crosby and Canacadea Creeks are class D streams used for recreational fishing (Ref. 15).

5. ASSESSMENT OF DATA ACCURACY AND RECOMMENDATIONS

5.1 Hazardous Waste Deposition

SKF Industries of Hornell acknowledges disposing of 77 tons of a corrosive liquid by Patton's Disposal Service. The liquid is listed as an alkaline cleaning solution with a pH of 12.5 and was classified as hazardous according to 6NYCRR 371,371.3(C) 1(i) since its pH was $\geq$ 12.5. SKF could not locate records indicating whether the waste was characterized by a lab prior to disposal (Ref. 2).

Although documentation of the deposition of organic solvents in the unlined trenches does not exist, organic contaminant levels detected in the monitoring wells indicate a significant amount of solvents have been disposed of at the site. The contaminants detected are presented in Tables 1.1 through 1.9.

In order to determine the nature of those contaminants detected, a comparison was made between detected compounds and those listed in the Minnesota Pollution Control Agency study "Volatile Organic Compounds as Indicators of Municipal Solid Waste Contamination" (Sabel and Clark, 1983; Ref. 32). The concentrations of trans-1,2-dichloroethene, trichloroethene, and vinyl chloride detected in wells at the site exceeded those reported for groundwater contaminated with municipal landfill leachate. For example, the typical range of trichloroethene found in groundwater containing municipal landfill leachate is 0.02 - 144.0 ug/l (Ref. 32). The range found at the site was 4.0 - 110,000 ug/l. It should be noted that the 110,000 ug/l concentration found in well 10s on October 14, 1987 was an exceptionally high value, whereas the average concentration for this well was 41, 860 ug/l. The average is still approximately 300 times greater than the highest value listed in the Sable and Clark study for trichloroethene (144 ug/l). In addition, trans-1,2- dichloroethylene and vinyl chloride exceeded the typical range listed for groundwater near

municipal landfills. These results indicates that more than just municipal waste was deposited within the landfill. A comparison of trichloroethylene, trans-1,2-dichloroethene, and vinyl chloride concentrations detected versus those listed in the study is presented in Table 3.

Prior to 1986 wastes at the site were placed in unlined trenches 12 feet deep by 25 feet wide by 600 feet long (Ref. 1). Between 1986 and 1988 wastes were placed in a lined remedial trench 20 feet deep which was constructed along the southern and eastern borders of the original trenches (Ref. 1, 8). It is difficult to say whether the source of the organic contamination is from the lined trench area or unlined area. The locations of the unlined and remedial trenches are shown on Figures 4 and 4A.

5.2 Significant Threat Determination

Groundwater contamination is of major concern because the population within a three mile radius of the site relies solely on wells for a potable source of water. Approximately 5,000-5,500 residents downgradient (southwest) would be affected by groundwater contamination. Based on current data, a rough calculation was made to determine whether the contaminant plume, migrating in a southwest direction, could reach the municiple wells. Current information suggests that the plume is traveling at a very slow rate of approximately 15 ft./year. These calculations are based on several assumptions (i.e. hydraulic conductivities, hydraulic connection) thus further investigation of the area's hydrologic conditions southwest of the site needs to be performed. Additionally, the threat of groundwater contamination may exists for residents of Patton's Rest Home along Clark Road east of the landfill. Leachate seeps along the embankment near the pond area indicate that there is localized flow to the east. This localized flow is probably the result of the steep embankment

TABLE 3

COMPARISON OF GROUNDWATER FROM MUNICIPAL
LANDFILLS TO GROUNDWATER FOUND AT THE SITE

GROUNDWATER DATA FROM SABLE AND CLARK REPORT				ANALYTICAL DATA FROM PATTON'S DISPOSAL	
Compound	# of sites Detected / Total sites	%	Range (ug/l)	Wells Detected in	Range (ug/l)
Trans-1,2-Dichloroethylene	3/13	23	0.6-98.0	4S, 4D, W-9, 10S, 10D, W-11	3.5-59,000
Trichloroethylene	9/13	69	0.2-144.0	4S, 4D, 10S, W-11	4.0-110,000.
Vinyl Chloride	3/13	23	ND to Pres	4D, 10S	7.0-500.

DATA FROM: Sable and Clark, 1983. "Volatile Organic Compounds as Indicators of Municipal Solid Waste Leachate Contamination" and JEB Consultants Groundwater Monitoring Results for Patton's Busy Bee Disposal Site between November 1986 and January 1990.

in this area. The flow is most likely isolated to the upper two water zones, but the threat of vertical migration to deeper strata is possible. Vertical migration could take place in the fractures of the underlying beds (Ref. boring logs).

Surface water contamination is also of major concern because leachate outbreaks have been reported along the sides of the ridge. According to Sharon Patton, a resident who lives at Patton's Rest Home, leachate seeps were observed in 1988 along the embankment by the pond area in 1988 (Ref. 27). Thus, leachate has the potential to impact the water quality of nearby Crosby Creek and the pond which are located in the direction of surface water drainage.

5.3 Recommendations

Based on the current hydrologic and analytical data, URS Consultants recommends reclassifying Patton's Busy Bee Disposal Site from a Class 2A to a Class 2. A Remedial Investigation/Feasibility Study should be conducted at this site. Due to the current data deficiencies URS Consultants recommends the following additional work.

Specific recommendations include:

- Additional analysis should be conducted on groundwater samples from the sites monitoring wells as well as a sample taken from the private well east of the site. Analyses should incorporate the entire NYSDEC ASP list plus indicator parameters.

- A soil vapor survey should be performed at the site to try to map the extent and source of the contaminant plume.

- An additional monitoring well should be installed along the north side of the access road. According to geologic data (strike and dip of the water bearing zones) a 20-30 foot well would intercept the deep water bearing zone at this location. This well would be useful in determining the direction of groundwater flow in the deep water bearing zone. Presently, only wells W-7 and W-11 are installed in this zone. It would also serve as a more accurate background well. (The proposed location is presented on Figure 2.) Slug tests need to be conducted of the shallow, intermediate, and deep wells to more accurately determine hydraulic conductivities of the material present in the area.

- Surface water samples should be collected from the pond located in the northeast corner of the site. Additionally, the embankments near the pond area and along the western border should be checked for leachate outbreaks, and if found, analyzed for the entire NYSDEC ASP List and indicator parameters.

- Soil samples should also be taken near the leachate sample collection locations. (The proposed locations are located on Figure 2.)

APPENDIX A

References

APPENDIX A

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ASB ojo (7)
RSM
1. KH 2. File: 02513

May 24, 1989

Mr. John Banaszak, P.E.
JEB Consultants
Suite 515
Brisbane Building
Buffalo, New York 14203

Dear Mr. Banaszak:

The Region 9 and Central Offices have reviewed your submission of March 20, 1989, concerning the groundwater monitoring program at Patton's Busy Bee Landfill. From the data presented, the Department concurs with your conclusion that several contaminants, particularly trichloroethylene and trans-1,2-dichloroethylene, are migrating in an apparent southwesterly direction from the landfill. The Department had previously recommended use of soil gas sampling to determine the extent of contamination (letter of December 28, 1987) and you indicate in your letter that you are considering the use of soil gas survey techniques to better define the plume. The following comments are provided on the submission:

1. Although method 8240 was utilized for the analysis of both the November and January data, the parameter list varied between the two dates. What is the reason for this?

2. Chloride is extremely elevated in well 9 on the January sampling date. Is any salt or brine used on the roads in the winter?

3. A previous report noted that the volatiles sample from the August 1988 sampling of well W-10S froze in BLT's freezer and had to be thawed, resulting in creation of a head space. A review of the data from the August sample reveals much lower levels of trichloroethylene and trans-1,2-dichloroethylene than recorded in the October 1987 or January 1989 sampling rounds (during other sampling rounds the well was dry). It is likely that a significant portion of the volatiles were lost as a result of the freezing of the sample, and the Department considers the October 1987 and January 1989 data more representative of levels in this well.

4. Contamination is apparently migrating to deeper zones in the bedrock as evidenced by low levels of trans-1,2-dichloroethene in well W-10D and higher levels (up to 220 ppb) in well W-11.

(7)

5. A review of our files indicates that we have not received any sampling data for the April 1988 quarter. Was this data forwarded to the Department?

In view of the above results, the Department requests that you develop a proposal for your planned use of soil gas survey techniques. Upon receipt and review of this document, the Department will schedule a meeting to discuss your proposal. If you have any questions, please contact the writer at 847-4585.

Yours truly,

Mary E. McIntosh

Mary E. McIntosh
Senior Engineering Geologist

MEM:vam

cc: Mr. Peter Buechi ✓
Mr. Robert Mitrey ✓
Ms. Anita Grikstas

REF. PAGE

CALCULATION OF AVERAGE SEEPAGE VELOCITY

SEEPAGE VELOCITY = $V_s = \frac{K}{n_e} \frac{dh}{dl}$

$\frac{dh}{dl}$ = hydraulic gradient

K = hydraulic gradient

n_e = effective porosity

USING DATA FROM JEB HYDROGEOLOGIC REPORT 8/87

WELL W-8 WATER LEVEL = 2209.2'
WELL W-10S WATER LEVEL 2188.4', $dh = 2209.2 - 2188.4 = 20.8'$

DISTANCE BETWEEN W8 AND W10S = $dl = 400'$

HYDRAULIC GRADIENT = $\frac{20.8'}{400'} = .052$

HYDRAULIC CONDUCTIVITY (FROM: JEB REPORT) 10^{-4} cm/SEC

EFFECTIVE POROSITY = .4 (CLAYEY SILT .3-.5)

$$V_s = \frac{10^{-4} \text{ cm/SEC}}{.4} \times .052 = 1.3 \times 10^{-5} \frac{\text{cm}}{\text{SEC}} \times 31536000 \text{ SEC/YEAR}$$

$$= 409.968 \text{ cm/year} \div 30.48 = 13.45 \text{ ft/YEAR}$$

BLT TECHNICAL SERVICES, INC.
4626 Royal Avenue, Niagara Falls, New York 14303 • Phone (716) 285-2587

Date: August 25, 1988

ANALYSIS FOR: JEB Consultants

BLT # 2296-11 SAMPLE # Laverne's Brother

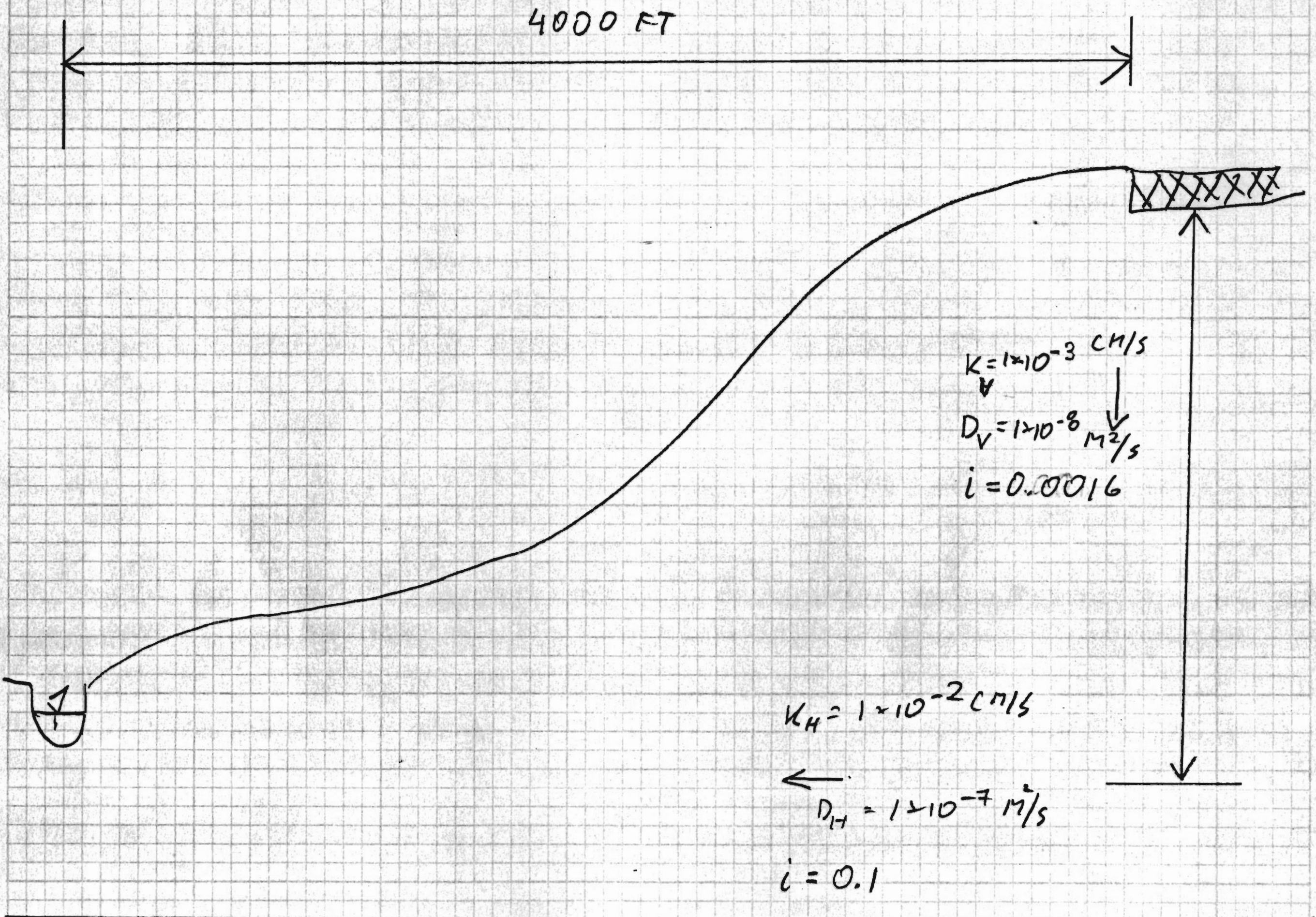
PARAMETER	DETECTION LIMIT ug/L	RESULT ug/L
Chloromethane	4	<DL
Bromomethane	4	<DL
Chloroethene	4	<DL
Chloroethane	4	<DL
Methylene Chloride	4	<DL
Trichlorofluoromethane	4	<DL
1,1-Dichloroethylene	4	<DL
Acrolein	200	<DL
Acrylonitrile	200	<DL
1,1-Dichloroethane	4	<DL
Trans-1,2-Dichloroethylene	4	<DL
Chloroform	4	<DL
1,2-Dicloroethane	4	<DL
1,1,1-Trichloroethane	4	<DL
Carbon Tetrachloride	4	<DL
Bromodichloromethane	4	<DL
1,2-Dichloropropane	4	<DL
Trans-1,3-Dichloropropene	4	<DL
Trichloroethylene	4	<DL
Benzene	4	<DL
Dibromochloromethane	4	<DL
Cis-1,3-Dichloropropene	4	<DL
1,1,2-Trichloroethane	4	<DL
2-Chlorovinyl Ether	4	<DL
Bromoform	4	<DL
Tetrachloroethylene	4	<DL
1,1,2,2-Tetrachloroethane	4	<DL
Toluene	4	<DL
Chlorobenzene	4	<DL
Ethylbenzene	4	<DL
1,3-Dichlorobenzene	4	<DL
1,4-Dichlorobenzene	4	<DL
1,2-Dichlorobenzene	4	<DL
Total Xylene	12	<DL

SURROGATE RECOVERIES	%RECOVERY
1,2-Dichloroethane D4	102
Toluene D8	92
4-Bromofluorobenzene	101

URS CONSULTANTS, INC.

PAGE .... OF ....
SHEET NO. 1 OF 12
JOB NO. ....
PROJECT ....
SUBJECT ....
MADE BY .... DATE ....
CHKD. BY .... DATE ....

REF. PAGE



$1.5 \times 10^{-8}\ m/s \times 100\ cm/m =$

$\frac{1\ in}{2.54\ cm} = .0000006\ in/sec \quad \frac{1\ ft}{12\ in}$

$= 5.0 \times 10^{-8}\ ft/sec \times 31536000$

$= 18.29\ ft/year$

VERT

REF. PAGE

CONC AT DEPTH OF 20 M (60 FT) AFTER 10 YRS (WELL 10d)

$C = 9.2$ mg/L

CONC AT THE SOURCE

$C_0 \simeq 11{,}000$ mg/L (WELL 10s)

$$2\frac{C(x,t)}{C_0} = \left\{ \operatorname{erfc}\frac{x - \frac{q}{n}t}{2[D_h t]^{1/2}} + \exp\left(\frac{qx}{nD_h}\right) \operatorname{erfc}\frac{x + \frac{q}{n}t}{2[D_h t]^{1/2}} \right\} \quad *$$

$$2\frac{9.2}{11{,}000} = \operatorname{erfc}\frac{20 - q \cdot 7.884\times10^{8}}{3.55} + \exp\left(q \times 5\times10^{9}\right) \operatorname{erfc}\frac{20 + q \cdot 7.884\times10^{8}}{3.55}$$

$0.0016 = f(q)$

$f(q) = 0.0016$ for $q \simeq 1.5\times10^{-8}$ m/s

$q = ki \rightarrow i = \frac{q}{k} = \frac{1.5\times10^{-8}}{1\times10^{-5}} \simeq 0.0016$

q, i - VERTICAL

* FROM "HYDRAULICS OF GROUNDWATER" BEAR PAGE 76B

REF. PAGE

GOING 400 FT (120 M) DEEP AFTER 10 YRS

$$C(x,t) = \frac{C_0}{2}\left(\operatorname{erfc}\frac{120 - 1.5\times10^{-8}\times7.884\times10^{8}}{3.55} + \exp\left(\frac{1.5\times10^{-8}\times120}{0.4\times1\times10^{-8}}\right)\operatorname{erfc}\frac{120 + 1.5\times10^{-8}\times7.884\times10^{8}}{3.55}\right)$$

$$C(x,t) = \frac{C_0}{0.5}\left(\operatorname{erfc} 30.5 + e^{450}\operatorname{erfc} 37.1\right)$$

≈ 0 ≈ 0

$$C(x,t) \approx 0.0$$

IT IS VERY UNLIKELY THAT THE CONTAMINANT REACHED A DEPTH OF 400 FT DURING THE 10 YRS OF THE LANDFILL'S EXISTANCE

- FOR A 100 YRS PERIOD (VERTICAL MIGRATION 400 FT)

$$C(x,t) = \frac{C_0}{2}\left(\operatorname{erfc}\frac{120 - 1.5\times10^{-8}\times3.1536\times10^{9}}{2\left[1\times10^{-8}\times3.1536\times10^{9}\right]^{\frac{1}{2}}} + e^{450}\times\operatorname{erfc}\frac{120 + 1.5\times10^{-8}\,3.1536\times10^{9}}{0.4}\right)$$

$$C(x,t) = \frac{C_0}{2}\left(\operatorname{erfc} 0.07 + e^{450}\operatorname{erfc}\underset{220}{9.70}\right)$$

$$C = \frac{C_0}{2}\,0.88 = 0.44\,C_0 = 4{,}840\ \text{mg/L}$$

REF. PAGE

HORIZONTAL MIGRATION 4000 FT (1200 M)

$$C(x,t) = \frac{C_0}{2}\left\{ \operatorname{erfc} \frac{1200 - \frac{1\times10^{-4}\times0.1}{0.4}\times 3.1536\times10^{9}}{2\left[1\times10^{-7}\times 3.1536\times10^{9}\right]^{\frac{1}{2}}} + \right.$$

$$\left. + \exp\left(\frac{1\times10^{-4}\times0.1}{0.4}\times\frac{1200}{1\times10^{-7}}\right) \operatorname{erfc} \frac{1200 + \frac{1\times10^{-4}\times0.1}{0.4}\times 3.1536\times10^{9}}{2\left[1\times10^{-7}\times 3.1536\times10^{9}\right]^{\frac{1}{2}}} \right\}$$

$$C(x,t) = \frac{C_0}{2}\left\{ \underset{\approx 1.0}{\operatorname{erfc}(-2186.0)} + e^{3\times10^{5}} \underset{\approx 0}{\operatorname{erfc}\, 2553.6} \right\}$$

$$C(x,t) \approx 0.5\, C_0 \approx 0.5 \times 4{,}840 = 2{,}420 \text{ mg/L}$$

ALLEGANY COUNTY DEPARTMENT OF HEALTH
Environmental Health Division
Information Sheet

(24)

PROGRAM: TOWN: Alfred

CLIENT: Patton's Busy Bee Disposal Service

ADDRESS: Alfred Almond Rd., Alfred Station N.Y. 14803

PHONE:

NOTES: Tel: (716) 847-4585

FV-1 6/2/87 Accompanied Kevin Glazer, DEC to Patton's landfill sites.

Noted on the attached map (Att. #1) the approximate location of both landfill sites. The inactive one is covered and appears as a large field. The active site has been fully covered on the West side but not reseeded to grass, only bare soil. A new trench has been prepared on the East side to receive trash (but not garbage). This trench has leachate collection pipes at low points and is lined with a 2 ft. thick layer of clay which has been tested to meet permability specifications.

Albert M. Vossler

Mr. Patton expects a Part 360 permit soon to allow him to begin using the trench.

TC - Telephone Call

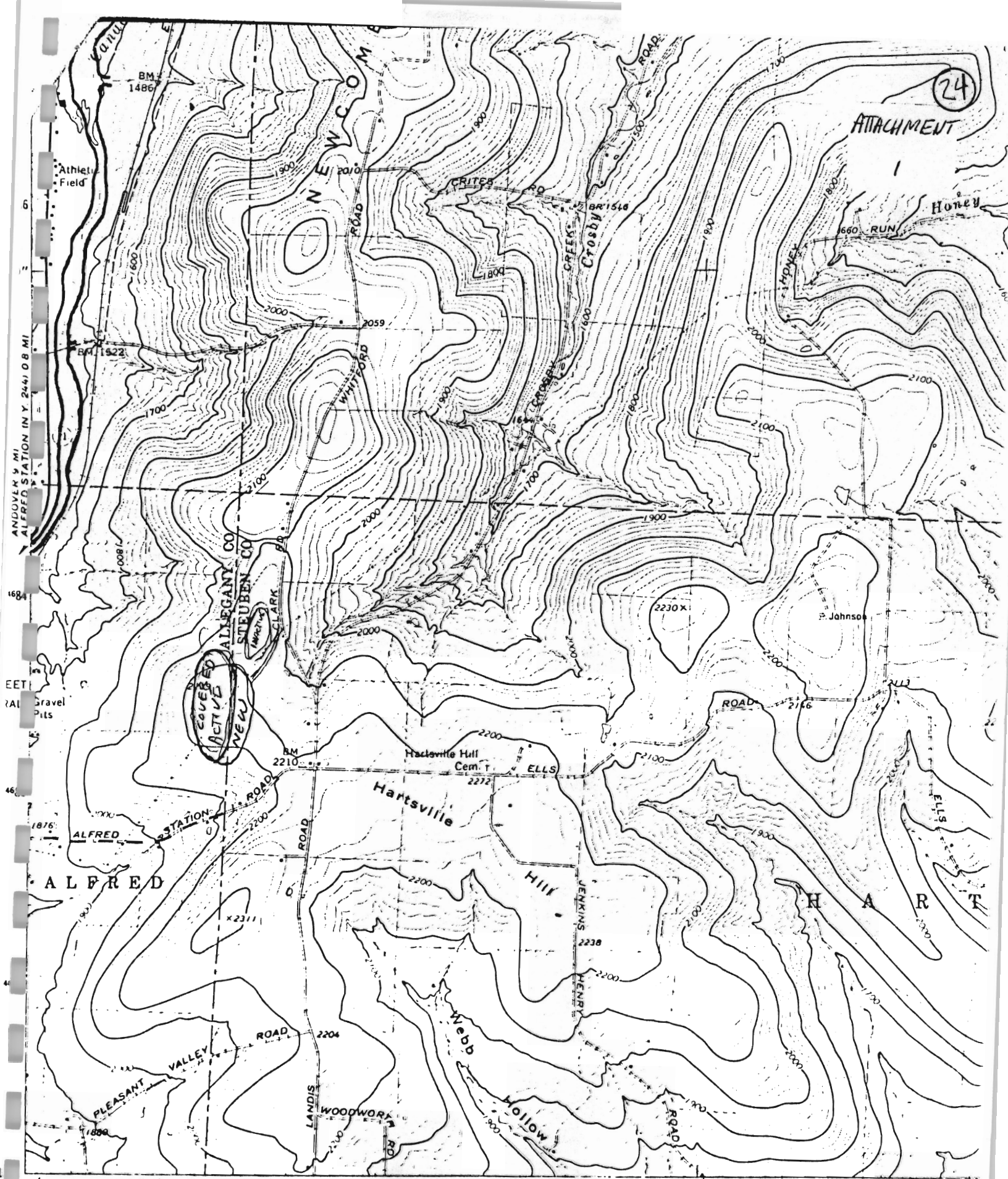
OV - Office Visit

See Diagram on Reverse

FV-1 - Field Visit Initial Visit

FV-2 - Field Visit Re-Visit

OC - Office Conference



45' Approximate boundaries of flood-prone areas are shown on this map. There is, on the average, about 1 chance in 100 that the designated areas will be inundated in any year. This information is important to public agencies and private citizens concerned with future land developments.

The flood-prone areas have been delineated through use of readily available information on past floods rather than from detailed field surveys and inspections. In general, the delineated areas are for natural conditions and do not take into consideration the pos-

(30)

New York State Department of Environmental Conservation

MEMORANDUM

TO: File

FROM: [redacted]

SUBJECT: Patton's Busy Bee Disposal Landfill, #02S13

DATE: May 13, 1988

Attended Town of Alfred Board Meeting on 5/11/88 to discuss Patton's proposal to construct another cell or landfill at his facility.

Overall, the writer sensed that the large crowd was against the new landfill. Most concerns expressed related to the auto shredder fluff. Many expressed a concern about the great number of trucks bringing the fluff to the landfill. [redacted] expressed concerns about the noise and safety hazards with the truck traffic.

Cannot understand why DEC - Avon closed the Steuben County part of Patton's Landfill while DEC - Buffalo approved the continued operation.

He also indicated he now could see the top of the landfill.

Stream below the landfill is a protected trout stream.

Buffalo slag could possibly be sending contaminated material to wherever.

Operational violations of the site.

Bonding insufficient to protect the residents in the event of groundwater contamination.

Can hear operations from house. Is difficult to determine where the groundwater comes from. [redacted] indicated that he was told that his water could possibly come from Kansas.

DEC indicated they would close the landfill immediately due to the oil and grease in the fluff (?). He did not say who made this statement.

Citizen indicated that the Board Members are responsible for the landfill in the event that Patton walks away.

Citizen wonders if the material is ignitable, fire hazard.

[redacted] told citizen that hazardous waste strike force was able to dump drums of hazardous waste in the landfill. (1986 - Operation Sting).

[redacted] to send DEC copy of all his concerns.

vam

(31)

FILE

Mr. Frank Ricotta, Division of Hazardous Waste Remediation, Albany
Mr. Peter Buechi, Region 9
Patton's Busy Bee Disposal Site

July 7, 1988

Attached find a recommendation to list Patton's Busy Bee Disposal site in Allegany County as an inactive hazardous waste disposal site. This recommendation is based on the RTK information provided by SKF of Hornell.

The Busy Bee Disposal site is an active Part 360 facility receiving construction and demolition waste and certain other industrial solid waste. The site is operating under the terms of a Consent Order requiring closure by December, 1988. In the past, prior to December 1986, the site received municipal solid waste. The area currently being operated has a soil liner and leachate collection system, whereas the older areas did not have a complete leachate collection system. Disposal of the allegedly hazardous waste would have taken place in the older area. Groundwater monitoring has revealed the presence of volatile organics, particularly in one well. Further investigation of this contamination has been requested by the Municipal Waste Program.

Please call if you have questions regarding this matter.

vam

cc: Mr. Robert Mitrey
Mr. John Tygert

HOUSE COUNT PATTON'S BUSY BEE REF (33)

1 MILE RADIUS 87 x 3.8 = 331 PEOPLE

2 MILE RADIUS 235 x 3.8 = 893 PEOPLE + 331 = 1,224

3 MILE RADIUS 408 x 3.8 = 1,550 PEOPLE + 1,224 = 2,774

SOURCE FOR HOUSE COUNT USGS TOPOGRAPHIC QUAD SHEETS

THE APPROXIMATE

TOTAL POPULATION SERVED BY GROUNDWATER WITHIN A 3 MILE RADIUS ≈

2,774 + 50% OF THE STUDENTS AND STAFF OF ALFRED COLLEGE AND ALFRED UNIVERSITY

STUDENTS + STAFF ALFRED COLLEGE ≈ 3750
SOURCE: COLLEGE INFORMATION 607-587-4111

STUDENTS AND STAFF OF ALFRED UNIVERSITY ≈ 1683
SOURCE; UNIVERSITY INFORMATION 607-871-2111

TOTAL OF BOTH SCHOOLS 5,433

ASSUMING A MAJOR PERCENTAGE OF THE STUDENTS AND STAFF ARE INCLUDED IN THE POPULATION REPRESENTED BY THE HOUSE COUNT, 50% of STUDENTS AND STAFF WERE USED TO DETERMINE THE TOTAL POPULATION WITHIN 3 MILES of THE SITE SERVED BY GROUND WATER.

TOTAL POPULATION SERVED BY GROUNDWATER WITHIN A 3 MILE RADIUS OF THE SITE = 2,774 + 2716 = 5,490

APPENDIX B

Site Inspection Report
USEPA Form 2070-13

Site Inspection Report

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

EPA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	902014

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER				
Patton's Busy Bee Disposal	Clark Road				
03 CITY	**04 STATE**	**05 ZIP CODE**	**06 COUNTY**	**07 COUNTY CODE**	**08 CONG DIST**
Alfred Station	NY	14803	Allegany		

09 COORDINATES LATITUDE 42 16' 21" | LONGITUDE 77 44' 20"

10 TYPE OF OWNERSHIP (Check one)
☒ A. PRIVATE ☐ B. FEDERAL _____ ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL
☐ F. OTHER _____ ☐ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
5 / 29 / 90 (MONTH DAY YEAR)	☐ ACTIVE ☒ INACTIVE	Mid 1950's (BEGINNING YEAR) 1988 (ENDING YEAR) ___ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)
☐ A. EPA ☐ B. EPA CONTRACTOR _____ (Name of firm) ☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR _____ (Name of firm)
☐ E. STATE ☒ F. STATE CONTRACTOR URS Consultants (Name of firm) ☐ G. OTHER _____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
Robert Kreuzer	Geologist	URS	(716) 883-5525
09 OTHER INSPECTORS	**10 TITLE**	**11 ORGANIZATION**	**12 TELEPHONE NO.**
Dave Locey	Assistant Sanitary Engineer	NYSDEC	(716) 847-4585
Kevin Glaser	Sr. Env. Tech.	NYSDEC	(716) 847-4585
John Wolforst	Soil Scientist	Allegany Cty. Soil Cons.	(716) 268-7831
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
LaVern Patton	Owner	Alfred Almond Road Alfred Station	(607) 276-2683
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☒ PERMISSION ☐ WARRANT	3:00-4:20	Raining 55°

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Robert Kreuzer	URS Consultants	(716) 883-5525

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Robert Kreuzer	URS		(716) 883-5525	5 / 29 / 90 (MONTH DAY YEAR)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	902014

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- ☐ A. SOLID
- ☐ B. POWDER, FINES
- ☒ C. SLUDGE
- ☐ D. OTHER (Specify)
- ☐ E. SLURRY
- ☐ F. LIQUID
- ☐ G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

- TONS: 77
- CUBIC YARDS:
- NO. OF DRUMS:

03 WASTE CHARACTERISTICS (Check all that apply)

- ☒ A. TOXIC
- ☒ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ☐ D. PERSISTENT
- ☐ E. SOLUBLE
- ☐ F. INFECTIOUS
- ☐ G. FLAMMABLE
- ☐ H. IGNITABLE
- ☐ I. HIGHLY VOLATILE
- ☐ J. EXPLOSIVE
- ☐ K. REACTIVE
- ☐ L. INCOMPATIBLE
- ☐ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS	Unknown		
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES	77 Tons		Cleaner with pH of 12.5
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

Groundwater

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
	Trichloroethylene		Landfill/GW-Conc	110,000	mg/l
	trams-1,2, -Dichloroethylene		"	59,000	"
	Vinyl Chloride		"	500	"
	Tetrachloroethylene		"	77	"
	1,1 - Dichloroethylene		"	72	"
	Toluene		"	570	"
	1,1,2-Trichloroethene		"	160	"
	1,1,2,2-Tetrachloroethane		"	14	"
	Chloroethene		"	11	"
	Acetone		"	120	"

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

- Monitoring Well Analytical Data
- Right to Know Questionnaire

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	902014

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — ☒ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 5,490 — 04 NARRATIVE DESCRIPTION

Various inorganic compounds have been detected in groundwater monitoring wells at the site. The Village of Alfred draws its water from wells 4,000 ft. downgradient from the site.

01 ☒ B. SURFACE WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — ☒ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

Although leachate outbreaks are not common at the site, surface runoff could impacttwo creeks in the area located approximately 1,500-2,000 away.

01 ☐ C. CONTAMINATION OF AIR — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

None Reported

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

None Reported

01 ☒ E. DIRECT CONTACT — 02 ☐ OBSERVED (DATE: _____) — ☒ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 331 — 04 NARRATIVE DESCRIPTION

Population within one mile of the site.

01 ☒ F. CONTAMINATION OF SOIL — 02 ☐ OBSERVED (DATE: _____) — ☒ POTENTIAL — ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: _____ (Acres) — 04 NARRATIVE DESCRIPTION

Contaminated groundwater plume is migrating through the overburden.

01 ☒ G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — ☒ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 5,490 — 04 NARRATIVE DESCRIPTION

Groundwater is the sole source of drinking water; 5,490 is the approximate population within 3 miles.

01 ☐ H. WORKER EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

None Reported

01 ☐ I. POPULATION EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

Non Reported

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	902014

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None Reported

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include names) of species)

None Reported

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None Known of

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES (Spills Runoff Standing liquids, Leaking drums) — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 5,490 — 04 NARRATIVE DESCRIPTION

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None Known of

01 ☐ O CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None Known of

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

None Known of

III. TOTAL POPULATION POTENTIALLY AFFECTED: 5,490

IV. COMMENTS

Municipal wells 4,000 ft. from site serve the Village of Alfred, Alfred Station and two colleges.

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Site visit, DEC files, Health Dept. files

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	902014

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☐ A. NPDES				
☐ B. UIC				
☐ C. AIR				
☐ D. RCRA				
☐ E. RCRA INTERIM STATUS				
☐ F. SPCC PLAN				
☐ G. STATE (Specify)	02S13	1980	1988	sanitary landfill
☐ H. LOCAL (Specify)				
☐ I. OTHER (Specify)				
☐ J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☐ A. SURFACE IMPOUNDMENT		
☐ B. PILES		
☐ C. DRUMS, ABOVE GROUND		
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
☐ F. LANDFILL		
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)

- ☐ A. INCENERATION
- ☐ B. UNDERGROUND INJECTION
- ☐ C. CHEMICAL/PHYSICAL
- ☐ D. BIOLOGICAL
- ☐ E. WASTE OIL PROCESSING
- ☐ F. SOLVENT RECOVERY
- ☐ G. OTHER RECYCLING/RECOVERY
- ☐ H. OTHER (Specify)

05 OTHER

☒ A. BUILDINGS ON SITE

Metal Storage Shed

06 AREA OF SITE

23.25 (Acres)

07 COMMENTS

The site has operated for approximately 35-40 years. The portion of the site presently under NYSDEC investigation includes 3 unlined trenches which were permitted by the NYSDEC in 1980.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

☐ A. ADEQUATE, SECURE ☐ B. MODERATE ☒ C. INADEQUATE, POOR ☐ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

The older trenches of the landfill were not lined. Shallow and deep monitoring wells are showing signs of groundwater contamination.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☐ YES ☒ NO

02 COMMENTS

The site has been capped, signs of leachate outbreaks did not appear to be a problem. The site does not have a fence surrounding it, but does have a gate.

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

Site visit, DEC files, Health Dept. files.

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 902014

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)	SURFACE	WELL	02 STATUS: ENDANGERED	AFFECTED	MONITORED	03 DISTANCE TO SITE
COMMUNITY	A. ☐	B. ☒	A. ☐	B. ☐	C. ☐	A. 4,000 (mi) ft.
NON-COMMUNITY	C. ☐	D. ☒	D. ☐	E. ☐	F. ☐	B. 600-800 (mi) ft.

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☒ A. ONLY SOURCE FOR DRINKING ☐ B. DRINKING (Other sources available) COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available) ☐ C. COMMERCIAL, INDUSTRIAL, IRRIGATION (Limited other sources available) ☐ D. NOT USED, UNUSEABLE

02 POPULATION SERVED BY GROUND WATER	03 DISTANCE TO NEAREST DRINKING WATER WELL
5,490	400-600 (mi) ft

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
40+ (ft)	South West	40-150 (ft)	(gpd)	☒ YES ☐ NO

09 DESCRIPTION OF WELLS (Including useage, depth, and location relative to population and buildings)

Wells near the site 400'-5,000'to the East are installed in fractured shale between 100'-150'. A flow in the Northeast corner of the site is towards these wells. The general groundwater flow is South West toward the Village wells 4,000 ft. west of the site which are installed in a sand & gravel layer.

10 RECHARGE AREA	COMMENTS	11 DISCHARGE AREA	COMMENTS
☐ YES ☐ NO		☐ YES ☐ NO	

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

☐ A. RESERVOIR, RECREATION DRINKING WATER SOURCE ☐ B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES ☐ C. COMMERCIAL, INDUSTRIAL ☒ D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
Crosby Creek Tributary	☐	1,500 (mi) ft.
Canacadea Creek Tributary	☐	2,000 (mi) ft.
	☐	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE	02 DISTANCE TO NEAREST POPULATION
A. 331 NO. OF PERSONS	B. 1,224 NO. OF PERSONS	C. 5490 NO. OF PERSONS	600-800 (mi) ft.

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE	04 DISTANCE TO NEAREST OFF-SITE BUILDING
235	600-800 (mi) ft.

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)

The site is located in a rural area, Northeast of Alfred Station. Approximately 5,490 people are served by municipal ground water wells located 4,000 ft. West of the site.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	902014

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A. $10^{-6} - 10^{-8}$ cm/sec ☒ B. $10^{-4} - 10^{-6}$ cm/sec ☐ C. $10^{-4} - 10^{-3}$ cm/sec ☐ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☐ A. IMPERMEABLE (Less than 10^{-6} cm/sec) ☒ B. RELATIVELY IMPERMEABLE ($10^{-4} - 10^{-6}$ cm/sec) ☐ C. RELATIVELY PERMEABLE ($10^{-2} - 10^{-4}$ cm/sec) ☐ D. VERY PERMEABLE (Greater than 10^{-2} cm/sec)

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH	
0-12 (ft)	unknown (ft)		

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
10.9 (in)	2.1 (in)	up to 25 %	Hill East, West, South	8.3 %

09 FLOOD POTENTIAL
SITE IS IN Hill Top None YEAR FLOODPLAIN

10 ☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE	OTHER
A. _____ (mi)	B. _____ (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

_____ (mi)

ENDANGERED SPECIES: None Known

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS: PRIME AG LAND	AG LAND
A. 1-2 (mi)	B. 1-2 (mi)	C. 1 (mi)	D. 1 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

The site is located on a Hill Top Drainage from the site flows to the East, West and South. The Landfill area appears as a large dome (30-40' in Height) located on top of the hill.

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

NYSDEC Files, Site Visit, Health Dept. Files.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	902014

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER		No additional samples taken	
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL			
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☒ GROUND ☐ AERIAL

02 IN CUSTODY OF URS Consultants
(Name of organization or individual)

03 MAPS ☒ YES ☐ NO

04 LOCATION OF MAPS URS Consultants

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

Site Inspection, USGS 7.5 minute series topographic maps,
JEB Consultants Reports

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	902014

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER
LaVerne Patton	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
Alfred-Almond Road	

05 CITY	06 STATE	07 ZIP CODE
Alfred Station	NY	14803

PARENT COMPANY (If applicable)

08 NAME	09 D+B NUMBER

10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

12 CITY	13 STATE	14 ZIP CODE

III. PREVIOUS OWNER(S) (List most recent first)

01 NAME	02 D+B NUMBER
Nelson Henry	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
not listed in the phone book or NYSDEC files.	

05 CITY	06 STATE	07 ZIP CODE
	E	

IV. REALTY OWNER(S) (If applicable, list most recent first)

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

LaVerne Patton, DEC Files.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	902014

II. CURRENT OPERATOR *(Provide if different from owner)*

01 NAME	02 D+B NUMBER
Inactive	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER

OPERATOR'S PARENT COMPANY *(If applicable)*

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

III. PREVIOUS OPERATOR(S) *(List most recent first; provide only if different from owner)*

01 NAME	02 D+B NUMBER
LaVerne Patton	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
Alfred-Almond Road	

05 CITY	06 STATE	07 ZIP CODE
Alfred Station	NY	14803

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

PREVIOUS OPERATORS' PARENT COMPANIES *(If applicable)*

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

IV. SOURCES OF INFORMATION *(Cite specific references, e.g., state files, sample analysis, reports)*

LaVerne Patton, DEC Files

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	902014

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
SKF Industries			

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
1100 First Avenue			

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
King of Prussia	PA	19406			

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

SKF Industries

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	902014

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ D. SPILLED MATERIAL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ E. CONTAMINATED SOIL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ F. WASTE REPACKAGED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ G. WASTE DISPOSED ELSEWHERE — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ H. ON SITE BURIAL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ I. IN SITU CHEMICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ J. IN SITU BIOLOGICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ K. IN SITU PHYSICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ L. ENCAPSULATION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ M. EMERGENCY WASTE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ N. CUTOFF WALLS — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☒ P. CUTOFF TRENCHES/SUMP — 02 DATE 1986 — 03 AGENCY _____
04 DESCRIPTION
Remedial Trench with Leachate Collection System was constructed.

01 ☐ Q. SUBSURFACE CUTOFF WALL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	902014

II PAST RESPONSE ACTIVITIES *(Continued)*

01 ☐ R. BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ S. CAPPING/COVERING — 02 DATE 1988 — 03 AGENCY _____
04 DESCRIPTION
After closure a 2' thick clay cap was placed over the Landfill

01 ☐ T. BULK TANKAGE REPAIRED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ U. GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ V. BOTTOM SEALED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ W. GAS CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ X. FIRE CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☒ Y. LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Leachate from the remedial trench is hauled off site to a wastewater treatment plant in Hornell, N.Y.

01 ☐ Z. AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ 1. ACCESS TO SITE RESTRICTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Chained gate, No fence around the facility

01 ☐ 2. POPULATION RELOCATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ 3. OTHER REMEDIAL ACTIVITIES — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

III. SOURCES OF INFORMATION *(Cite specific references, e.g., state files, sample analysis, reports)*

NYSDEC File, Conversation with Laverne Patton

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	902014

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☐ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

Consent order for closure by December, 1988.

III. SOURCES OF INFORMATION *(Cite specific references, e.g., state files, sample analysis, reports)*

EPA FORM 2070-13 (7-81)

APPENDIX C

Interview Documentation Forms

REF (2) File

URS

AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATIO

June 29, 1990

URS CONSULTANTS, INC.
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202-1207
(716) 883-5525
FAX: (716) 883-0754

ATLANTA
BOSTON
BUFFALO
CLEVELAND
COLUMBUS
DENVER
NEW YORK
PARAMUS, NJ
NEW ORLEANS
SAN FRANCISCO
SAN MATEO
SEATTLE
VIRGINIA BEACH
WASHINGTON, D.C.

Bill McGlocklin
SKF Industries
1100 First Avenue
King of Prushia, PA 19406

RE: DISPOSAL OF CORROSIVE WASTE BY PATTON'S DISPOSAL SERVICE

Dear Mr. McGlocklin:

As I mentioned during our telephone conversation on June 29, 1990, URS Consultants, Inc. is currently conducting a Preliminary Site Assessment of Patton's Busy Bee Disposal Site.

We are performing this investigation under contract to the New York State Department of Environmental Conservation (NYSDEC) pursuant to the requirements of the New York State Environmental Conservation Law, Section 3-0309.

This is to confirm our telephone conversation wherein you provided the following information:

To the best of my knowledge,

- The 77 Tons of Corrosive liquid our plant in Hornell disposed of in 1981 was an alkaline cleaner with a pH of 12.5.
- The Alkaline cleaner was listed as a Quaker Chemical Co. Product 699GN.
- The above liquid was used to clean bearings prior to installing them in metal castings.
- I have been unable To locate any records that exist stating whether the waste was characterized by a lab prior to disposal.

We would appreciate it if you would review this information, note any necessary corrections, and return a signed and dated copy to indicate your concurrence. Your prompt attention to this would be greatly appreciated, as the information is necessary to complete our evaluation of the site. Please use enclosed return envelope.

Sincerely,
URS CONSULTANTS, INC.

Robert F. Kreuzer

Robert F. Kreuzer
Project Geologist

RFK/ys
6-29-90S.RK
35216.03 (File: 5010)

I agree with the information as it is presented.

Bill McGlocklin — 7/3/90
Bill McGlocklin — Date

REF. (3)

File

URS

AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

URS CONSULTANTS, INC.
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202-1207
(716) 883-5525
FAX: (716) 883-0754

ATLANTA
BOSTON
BUFFALO
CLEVELAND
COLUMBUS
DENVER
NEW YORK
PARAMUS, NJ
NEW ORLEANS
SAN FRANCISCO
SAN MATEO
SEATTLE
VIRGINIA BEACH
WASHINGTON, D.C.

June 27, 1990

John Palaski
New York State Department of
Enviornmental Conservation
50 Wolf Road
Albany, New York 12233

RE: PATTON'S BUSY BEE DISPOSAL SERVICE

Dear Mr. Palaski:

As I mentioned during our telephone conversation on June 26, 1990, URS Consultants, Inc. is currently conducting a Preliminary Site Assessment of Patton's Disposal Service.

We are performing this investigation under contract to the New York State Department of Environmental Conservation (NYSDEC) pursuant to the requirements of the New York State Environmental Conservation Law, Section 3-0309.

This is to confirm our telephone conversation wherein you provided the following information:

- SKF Industries of Hornell, New York was a manufacturer which processed steel tubing and bar stock. The company closed its facility in Hornell, New York in November of 1988.

We would appreciate it if you would review this information, note any necessary corrections, and return a signed and dated copy to indicate your concurrence. Your prompt attention to this would be greatly appreciated, as the information is necessary to complete our evaluation of the site. Please use enclosed return envelope.

Sincerely,

URS CONSULTANTS, INC.

Robert F. Kreuzer
Project Geologist

RFK/ys
6-27-90S.RK
35216.03 (File: 5010)

RECEIVED
URS CONSULTANTS
JUL 5 1990
JOB# 35216.03
(5010)

I agree with the information as it is presented.

John Palaski

John Palaski

7/2/90
Date

JUL 01 1988

SKF Log

SKF Bearing Industries Co.

SKF ROLLING BEARINGS

(3)

Hornell, NY
USA

closed Nov 88

Bill McLaughlin

June 28, 1988

New York Emergency Response Commission
State Dept. of Environmental Conservation
Bureau of Spill Prevention and Response
50 Wolf Road, Room 326
Albany, New York 12233-3510

Gentlemen:

Enclosed you will find five (5) form "R"'s submitted as required by section 313 of Title III.

All five (5) were required under the process portion for our facility.

We process steel tubing and bar stock along with castings to make our product. Most of the incoming tonnage goes into the Article with the remainder going out as scrap cast iron and steel which is sold for reuse. This is exempt according to Part II (off site locations) of Title III and does not have to be noted on the forms.

For: SKF Ind. Inc.

James Barr

J. Barr

JB/djm
cc: R. Elzinga
enclosure

Horton Street
Hornell, NY 14843-1499

Telephone: 607-324-5435
FAX: 607-324-7544

81 15-3 (10/79)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ALBANY, NEW YORK 12233

INDUSTRIAL CHEMICAL SURVEY

Please refer to attached table I

PART I.

Reg 8

PLEASE COMPLETE AND RETURN TO THE ABOVE ADDRESS, ATTENTION: INDUSTRIAL CHEMICAL SURVEY.

COMPANY NAME	SIC CODE (If known)	OFFICE USE ONLY
SKF INDUSTRIES, INC.	3562	46 66793

COMPANY MAILING ADDRESS	CITY	STATE	ZIP CODE
Horton Street	Hornell	NY	14843

NAME (If different)	CONTACT NAME	TELEPHONE
SKF Mounted Bearings Division	James E. Gallman	Area 607-324-5435

PLANT ADDRESS (If different) Street	CITY	STATE	ZIP CODE

PRINCIPAL BUSINESS OF PLANT

Manufacture of Bearing Mounting Devices & Accessories

NOTE: (If parent company, give name and addresses of all divisions, subsidiaries, etc. located in New York State. A separate questionnaire is to be completed and submitted for each.)

5002

No other SKF Manufacturing Facilities within N.Y. State

00-220-9773

PART II
Discharge Information

WATER

1. Does your plant discharge liquid wastes to a municipally owned sanitary sewer system? [X] Yes [ ] No
   Name of System Hornell Water Pollution Control Plant
2. Is your facility permitted to discharge liquid wastes under a State (SPDES) or Federal (NPDES) permit? [ ] Yes [X] No
   Permit Number
3. Do you discharge liquid wastes in any other manner? [X] Yes [ ] No
   Explain Used Coolant & Alkaline Cleaner shipped to treatment and Disposal site

If any of the above are "Yes":

a. Do you discharge process or chemical wastes – (i.e. water used in manufacturing including direct contact cooling water and scrubber water)? [X] Yes [ ] No
b. Do you discharge non-contact cooling water? [X] Yes [ ] No
c. Do you discharge collected storm drainage only? [ ] Yes [X] No
d. Do you discharge sanitary wastes only? [ ] Yes [X] No

AIR

1. Does your facility have sources of possible emissions to the atmosphere? [X] Yes [ ] No
2. Enter Location and Facility Code as shown on your Air Pollution Control Application for Permits and Certification (If applicable) 4 6 0 6 0 0 0 0 7 9

LIQUID WASTES

1. List Name and Address of Firm (Including yourself) removing wastes other than office and cafeteria refuse.

Name	Address	City	State	Zip Code	Active	Inactive
Patton's Busy Bee Disposal Service	Alfred-Almond Rd.	Almond	NY	14804	[ ]	[ ]
Midstate Trading Co.	2525 Trenton Ave. P.O. 3275	Williamsport	PA	17701	[ ]	[ ]

SM-034
~~PA-137~~
PA-025

2. List Location(s) of Landfill(s) owned and used by your facility.
   1 N/A
   2

PESTICIDES

1. Does this facility:
   Manufacture Pesticides or Pesticide Product Ingredients? [ ] Yes [X] No
   Produce Pesticides or Pesticide Product Ingredients? [ ] Yes [X] No
   Formulate Pesticides? [ ] Yes [X] No
   Repackage Pesticides? [ ] Yes [X] No
2. EPA Establishment Number

PART III

SUBSTANCES OF CONCERN
(Refer to attached TABLE I)

Complete all information for those substances your facility has used, produced, stored, distributed or otherwise disposed of since January 1, 1977. Do not include chemicals used only in analytical laboratory work. Enter the name and code from Table I. If facility uses a substance in any of the Classes A – F which is not specified in the list, enter it as code class plus 99, e.g. B99 with name, usage, etc.

NAME OF SUBSTANCE	CODE	AVERAGE ANNUAL USAGE	AMOUNT NOW ON HAND	(✓) GAL.	(✓) LB.	PURPOSE OF USE (State whether produced, reacted, blended, packaged, distributed, no longer used, etc.)
Polychlorinated Biphenyl	A21	0	0			Disposed of 450 KVA transformer and oil July 1979. Disposal agent: Transformer Service, Inc. Box 1077, Concord Industrial Park Concord, N.H. 03301 This material not used since disposal of transformer.

use chemicals of unknown composition, list trade name or other identification, name of supplier and complete information.

NAME OF SUBSTANCE	AVERAGE ANNUAL USAGE	AMOUNT NOW ON HAND	(✓) GAL.	(✓) LB.	SUPPLIER	PURPOSE OF USE (State whether produced, reacted, blended, packaged, distributed, no longer used, etc.)

I hereby affirm under penalty of perjury that information provided on this form is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

TI[illegible] (Owner, Partner, or Officer) [signature] DATE 4/2/82

(Printed or Typed) [illegible]ymon A. Hunt TITLE Division President

(3)

NYSDEC

"COMMUNITY-RIGHT-TO-KNOW" EXECUTIVE ORDER #33

ICS #: 8166793
SKF INDUSTRIES INC.(MOUNTED BEA
JAMES GALLMAN
HORTON ST.
HORNELL NY 14843

INDUSTRIAL CHEMICAL SURVEY (ICS)

INSTRUCTIONS

A. If you have submitted an ICS form to the Department since January 1, 1980 (1), please check the box below, sign and return (2), this sheet.

☒ ICS submitted since January 1, 1980

Jim Barr — Signature

8-3-84 — Date

B. If you have not submitted an ICS form to the Department since January 1, 1980, please complete and return (2) the attached ICS form.

NOTE: (1) If you wish to update the ICS currently on file you may do so by completing and returning the enclosed forms.

(2) All materials are to be returned in the enclosed self-addressed envelope.

RECEIVED SEP 0 4 1984

APPENDIX C

Interview Documentation Forms

REF (6)

URS

AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

July 2, 1990

URS CONSULTANTS, INC.
570 DELAWARE AVENUE
BUFFALO NEW YORK 14202-1207
(716) 883-5525
FAX: (716) 883-0754

ATLANTA
BOSTON
BUFFALO
CLEVELAND
COLUMBUS
DENVER
NEW YORK
PARAMUS NJ
NEW ORLEANS
SAN FRANCISCO
SAN MATEO
SEATTLE
VIRGINIA BEACH
WASHINGTON DC

RECEIVED
URS CONSULTANTS
JUL 9 1990
JOB# 35216.03

(5010)

Roger Mullen
Village of Alfred Department of Works
7 West University Street
Alfred, New York 14802

RE: MUNICIPAL WATER SUPPLY FOR THE ALFRED AREA

Dear Mr. Mullen:

As I mentioned during our telephone conversation on July, 1990, URS Consultants, Inc. is currently conducting a Preliminary Site Assessment of Patton's Landfill located off of Clark Road in Alfred Station.

We are performing this investigation under contract to the New York State Department of Environmental Conservation (NYSDEC) pursuant to the requirements of the New York State Environmental Conservation Law, Section 3-0309.

This is to confirm our telephone conversation wherein you provided the following information:

- The Village of Alfred Municipal wells are located along Shaw Road in Alfred Station.
- The wells serve Alfred university, Alfred College, the Village of Alfred as well as Alfred Station.
- The wells have been tested on an annual basis and have shown no contaminant concentrations to be above acceptable limits.
- The trailer park located along Alfred Station Road is also served by municipal water.

We would appreciate it if you would review this information, note any necessary corrections, and return a signed and dated copy to indicate your concurrence. Your prompt attention to this would be greatly appreciated, as the information is necessary to complete our evaluation of the site. Please use enclosed return envelope.

Sincerely,

URS CONSULTANTS, INC.

Robert F. Kreuzer
Project Geologist

RFK/ys
7-2-90S.RK
35216.03 (File: 5010)

I agree with the information as it is presented.

Roger Mullen — 7/5/90

Roger Mullen — Date

REF ⑧

URS

AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

June 29, 1990

URS CONSULTANTS, INC.
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202-1207
(716) 883-5525
FAX: (716) 883-0754

LaVerne Patton
Patton's Busy Bee Disposal
Alfred-Almond Road
Alfred Station, New York 14803

RE: PATTON'S BUSY BEE DISPOSAL SERVICE

Dear Mr. Patton:

As I mentioned during our telephone conversation on June 29, 1990, URS Consultants, Inc. is currently conducting a Preliminary Site Assessment of your landfill located off of Clark Road.

We are performing this investigation under contract to the New York State Department of Environmental Conservation (NYSDEC) pursuant to the requirements of the New York State Environmental Conservation Law, Section 3-0309.

This is to confirm our telephone conversation wherein you provided the following site history information:

- o I have owned the landfill property since 1974.
- o The previous owner was Nelson Henry.
- o the property has been used as a landfill approximately 35-40 years.
- o The trench area under investigation was permitted by the NYSDEC in 1980 and was closed under a consent order in 1988.

We would appreciate it if you would review this information, note any necessary corrections, and return a signed and dated copy to indicate your concurrence. Your prompt attention to this would be greatly appreciated, as the information is necessary to complete our evaluation of the site. Please use enclosed return envelope.

Sincerely,

URS CONSULTANTS, INC.

Robert F. Kreuzer
Project Geologist

RFK/ys
6-29-90S.RK
35216.03 (File: 5010)

rec. 7/19/90

Distribution		
RK		
CH		
FILE	35216.03 5010	

I agree with the information as it is presented.

LaVerne Patton

7-12-90
Date

REF (3)

File

URS

AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

July 6, 1990

URS CONSULTANTS, INC.
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202-1207
(716) 883-5525
FAX: (716) 883-0754

ATLANTA
BOSTON
BUFFALO
CLEVELAND
COLUMBUS
DENVER
NEW YORK
PARAMUS, NJ
NEW ORLEANS
SAN FRANCISCO
SAN MATEO
SEATTLE
VIRGINIA BEACH
WASHINGTON, D.C.

Mr. John Wulforst
Soil Scientist
Allegany Soil Conservation Department
Agelica Road
Belmont, New York 14813

RE: PATTON'S BUSY BEE DISPOSAL

Dear Mr. Wulforst:

As I mentioned during our telephone conversation on July 6, 1990, URS Consultants, Inc. is currently conducting a Preliminary Site Assessment of the Patton's Busy Bee Disposal Site.

We are performing this investigation under contract to the New York State Department of Environmental Conservation (NYSDEC) pursuant to the requirements of the New York State Environmental Conservation Law, Section 3-0309.

This is to confirm our telephone conversation wherein you provided the following information: To the best of my knowledge,

- The area surrounding Patton's Landfill (3 mile radius) is not a particularly active agricultural area.
- Irrigation by surface or groundwater does not take place on a large scale within several miles of the site.
- The only probable use of surface water is for live stock and irrigation of small farms located several miles away in the valley near Alfred Station.

We would appreciate it if you would review this information, note any necessary corrections, and return a signed and dated copy to indicate your concurrence. Your prompt attention to this would be greatly appreciated, as the information is necessary to complete our evaluation of the site. Please use enclosed return envelope.

Sincerely,

URS CONSULTANTS, INC.

Robert F. Kreuzer
Project Geologist

RFK/ys
7-6-90L.RK
35216.03 (File: 5010)

I agree with the information as it is presented.

John Wulforst Soil Scientist 7-10-90
John Wulforst Date

REF (16) R.K.

URS

AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

URS CONSULTANTS, INC.
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202-1207
(716) 883-5525
FAX: (716) 883-0754

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NEW ORLEANS
SAN FRANCISCO
SAN MATEO
SEATTLE
VIRGINIA BEACH
WASHINGTON, D.C.

July 10, 1990

Keith Stanley
Alfred Station Fire Chief
P.O. Box 152
Alfred Station, New York 14803

RE: PATTON'S LANDFILL (THREAT OF FIRE AND/OR EXPLOSION)

Dear Mr. Stanley:

As I mentioned during our telephone conversation on July 10, 1990, URS Consultants, Inc. is currently conducting a Preliminary Site Assessment of Patton's Busy Bee Disposal Site.

We are performing this investigation under contract to the New York State Department of Environmental Conservation (NYSDEC) pursuant to the requirements of the New York State Environmental Conservation Law, Section 3-0309.

This is to confirm our telephone conversation wherein you provided the following information:

To the best of my knowledge,

- There is no known threat of fire and/or explosion at the Landfill.
- To date, there have been no reported fires or explosions at the site.

We would appreciate it if you would review this information, note any necessary corrections, and return a signed and dated copy to indicate your concurrence. Your prompt attention to this would be greatly appreciated, as the information is necessary to complete our evaluation of the site. Please use enclosed return envelope.

Sincerely,

URS CONSULTANTS, INC.

Robert F. Kreuzer
Project Geologist

RFK/ys
7-10-90L.RK
35216.03 (File: 5010)

RECEIVED
URS CONSULTANTS
AUG 16 1990
JOB#_____

I agree with the information as it is presented.

Keith Stanley

8-1-90
Date

REF (27)

URS
AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION
ATLANTA
BOSTON
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CLEVELAND
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WASHINGTON, D.C.

URS CONSULTANTS, INC.
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202-1207
(716) 883-5525
FAX: (716) 883-0754

FILE 35216.03
file 5010

July 11, 1990

Sharon Patton
P.O. Box 37
Alfred Station, New York 14803

RE: PATTON'S BUSY BEE DISPOSAL SITE

Dear Mrs. Patton:

As I mentioned during our telephone conversation on July 11, 1990, URS Consultants, Inc. is currently conducting a Preliminary Site Assessment of the Patton's Busy Bee Disposal Site.

We are performing this investigation under contract to the New York State Department of Environmental Conservation (NYSDEC) pursuant to the requirements of the New York State Environmental Conservation Law, Section 3-0309.

This is to confirm our telephone conversation wherein you provided the following site history information:

- Leachate seeps were observed along the embankment near the pond in 1988. The leachate appeared as a rust colored water with an oily sheen.
- Eight people living on your property are served by well water.
- One resident who lives in a trailer on your property draws his water from a spring. The spring is located near the pond area.

Incorrect see Attachment

We would appreciate it if you would review this information, note any necessary corrections, and return a signed and dated copy to indicate your concurrence. Your prompt attention to this would be greatly appreciated, as the information is necessary to complete our evaluation of the site. Please use enclosed return envelope.

Sincerely,

URS CONSULTANTS, INC.

Robert F. Kreuzer

Robert F. Kreuzer
Project Geologist

RFK/ys
7-11-90S.RK
35216.03 (File: 5010)

I agree with the information as it is presented. See Attachment:

Sharon Patton

7-16-90
Date

July 16 1990
Stephen Patton

Spring
Feeding
Liberty Trailer

Approx 1200-1500 feet

Liberty Trailer
Residence

County Rd

Crosby Creek to Hornell

Patton's
Mountain View Rest Home
Box 37 Alfred Station
NY 14803
Smile God Loves You

PA Home
Residence
House

well water

Buddy Trailer
& residence

From House
to
Buddy
Trailer

Circle Driveway

Clark Rd

Pond

Home Farm

Sandfield

APPENDIX D

Hazard Ranking System

Facility name: Patton's Busy Bee Disposal

Location: Clark Road Alfred Station, New York

EPA Region: II, NYSDEC Region 9

Person(s) in charge of the facility: LaVerne Patton
Alfred-Almond Road
Alfred Station, New York

Name of Reviewer: URS Consultants Date: 5/29/90

General description of the facility:

(For example: landfill, surface impoundment, pile, container; types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action, etc.)

Patton's Busy Bee Disposal Site is a 23.25 acre Landfill located 1 mile Northeast of Alfred Station, Allegany County, NY. The site reportedly accepted municipal, industrial and commercial waste from Allegany and Steuben counties. Included in the waste accepted was 77 tons of a corrosive liquid from SKF Industries of Hornell, New York. Groundwater from monitoring wells indicated the presence of various halogenated organic compounds. Groundwater contamination is of major concern because the areas municipal wells are located within 4,000 ft of the site.

Scores: S_M = 35.95 S_{gw} = 62.17 S_{sw} = 2.01 S_a = 0.00

S_{FE} = 0.00

S_{DC} = 0.00

HRS COVER SHEET

Ground Water Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 (45)	1	45	45	3.1
If observed release is given a score of 45, proceed to line 4. If observed release is given a score of 0, proceed to line 2.					
2 Route Characteristics					3.2
Depth to Aquifer of Concern	0 1 2 3	2		6	
Net Precipitation	0 1 2 3	1		3	
Permeability of the Unsaturated Zone	0 1 2 3	1		3	
Physical State	0 1 2 3	1		3	
Total Route Characteristics Score			0	15	
3 Containment	0 1 2 3	1	0	3	3.3
4 Waste Characteristics					3.4
Toxicity/Persistence	0 3 6 9 12 (15) 18	1	15	18	
Hazardous Waste Quantity	0 1 2 (3) 4 5 6 7 8	1	3	8	
Total Waste Characteristics Score			18	26	
5 Targets					3.5
Ground Water Use	0 1 2 (3)	3	9	9	
Distance to Nearest Well/Population Served	0 4 6 8 10 12 16 18 20 24 30 32 (35) 40	1	35	40	
Total Targets Score			44	49	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			35640	57,330	
7 Divide line 6 by 57,330 and multiply by 100			S_{gw} = 62.17		

GROUND WATER ROUTE WORK SHEET

Surface Water Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	(0) 45	1	0	45	4.1
If observed release is given a value of 45, proceed to line 4. If observed release is given a value of 0, proceed to line 2.					
2 Route Characteristics					4.2
Facility Slope and Intervening Terrain	0 1 2 (3)	1	3	3	
1-yr. 24-hr. Rainfall	0 1 (2) 3	1	2	3	
Distance to Nearest Surface Water	0 1 (2) 3	2	4	6	
Physical State	0 1 2 (3)	1	3	3	
Total Route Characteristics Score			12	15	
3 Containment	0 (1) 2 3	1	1	3	4.3
4 Waste Characteristics					4.4
Toxicity/Persistence	0 3 6 9 12 (15) 18	1	15	18	
Hazardous Waste Quantity	0 1 2 (3) 4 5 6 7 8	1	3	8	
Total Waste Characteristics Score			18	26	
5 Targets					4.5
Surface Water Use	0 1 (2) 3	3	6	9	
Distance to a Sensitive Environment	(0) 1 2 3	2	0	6	
Population Served/Distance to Water Intake Downstream	(0) 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40	
Total Targets Score			6	55	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			1296	64,350	
7 Divide line 6 by 64,350 and multiply by 100		S_{sw} =	2.01		

SURFACE WATER ROUTE WORK SHEET

Air Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 45	1	0	45	5.1
Date and Location:					
Sampling Protocol:					
If line 1 is 0, the S_a = 0. Enter on line 5. If line 1 is 45, then proceed to line 2.					
2 Waste Characteristics					5.2
Reactivity and Incompatibility	0 1 2 3	1		3	
Toxicity	0 1 2 3	3		9	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
Total Waste Characteristics Score				20	
3 Targets					5.3
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30	
Distance to Sensitive Environment	0 1 2 3	2		6	
Land Use	0 1 2 3	1		3	
Total Targets Score				39	
4 Multiply 1 x 2 x 3				35,100	
5 Divide line 4 by 35,100 and multiply by 100		S_a =	0		

AIR ROUTE WORK SHEET

	S	S^2
Groundwater Route Score (S_{gw})	62.17	3865.11
Surface Water Route Score (S_{sw})	2.01	4.04
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		3869.15
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		62.20
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		35.96

WORKSHEET FOR COMPUTING S_M

Fire and Explosion Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Containment	1 3	1	0	3	7.1
2 Waste Characteristics					7.2
Direct Evidence	0 3	1		3	
Ignitability	0 1 2 3	1		3	
Reactivity	0 1 2 3	1		3	
Incompatibility	0 1 2 3	1		3	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
Total Waste Characteristics Score				20	
3 Targets					7.3
Distance to Nearest Population	0 1 2 3 4 5	1		5	
Distance to Nearest Building	0 1 2 3	1		3	
Distance to Sensitive Environment	0 1 2 3	1		3	
Land Use	0 1 2 3	1		3	
Population Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Buildings Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Total Targets Score				24	
4 Multiply 1 x 2 x 3				1,440	
5 Divide line 4 by 1,440 and multiply by 100			S_{FE} =		

FIRE AND EXPLOSION WORK SHEET

Direct Contact Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Incident	(0) 45	1	0	45	8.1
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2					
2 Accessibility	0 1 2 (3)	1	3	3	8.2
3 Containment	(0) 15	1	0	15	8.3
4 Waste Characteristics Toxicity	0 1 2 (3)	5	15	15	8.4
5 Targets					8.5
Population Within a 1-Mile Radius	0 1 (2) 3 4 5	4	8	20	
Distance to a Critical Habitat	(0) 1 2 3	4	0	12	
Total Targets Score			8	32	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			0	21,600	
7 Divide line 6 by 21,600 and multiply by 100	S_{DC} = 0.00				

DIRECT CONTACT WORK SHEET

GROUNDWATER ROUTE

1 OBSERVED RELEASE 45

o CONTAMINANTS DETECTED (5 MAXIMUM):

Trichloroethylene
trans-1,2-dichloroethylene
Toluene
Vinyl Chloride
Methylene Chloride

o RATIONALE FOR ATTRIBUTING THE CONTAMINANTS TO THE FACILITY:

The analytes are found in the downgradient monitoring wells, and the upgradient background wells do not show signs of contamination.

Score 45

***

2 ROUTE CHARACTERISTICS

DEPTH TO AQUIFER OF CONCERN

o NAME/DESCRIPTION OF AQUIFER(S) OF CONCERN:

N/A

o DEPTH(S) FROM THE GROUND SURFACE TO THE HIGHEST SEASONAL LEVEL OF THE SATURATED ZONE [WATER TABLE(S)] OF THE AQUIFER OF CONCERN:

N/A

o DEPTH FROM THE GROUND SURFACE TO THE LOWEST POINT OF WASTE DISPOSAL/STORAGE:

N/A

Score 0

NET PRECIPITATION

- MEAN ANNUAL OR SEASONAL PRECIPITATION (LIST MONTHS FOR SEASONAL):

  N/A

- MEAN ANNUAL LAKE OR SEASONAL EVAPORATION (LIST MONTHS FOR SEASONAL):

  N/A

- NET PRECIPITATION (SUBTRACT THE ABOVE FIGURES):

  N/A

Score 0

PERMEABILITY OF UNSATURATED ZONE

- SOIL TYPE IN UNSATURATED ZONE:

  N/A

- PERMEABILITY ASSOCIATED WITH SOIL TYPE:

  N/A

Score 0

PHYSICAL STATE

- PHYSICAL STATE OF SUBSTANCES AT TIME OF DISPOSAL (OR AT PRESENT TIME FOR GENERATED GASES):

  N/A

Score 0

***

3 CONTAINMENT

CONTAINMENT

o METHOD(S) OF WASTE OR LEACHATE CONTAINMENT EVALUATED:

N/A

o METHOD WITH HIGHEST SCORE:

N/A

Score 0

***

4 WASTE CHARACTERISTICS

TOXICITY AND PERSISTENCE

o COMPOUND(S) EVALUATED:

Compound	Toxicity	Persistence	Score
Trichloroethylene	2	2	12
trans-1,2-dichloroethylene	2	2	12
Toluene	2	1	9
Vinyl Chloride	3	2	15
Methylene Chloride	2	2	12

o COMPOUND WITH HIGHEST SCORE:

Vinyl Chloride

Score 15

HAZARDOUS WASTE QUANTITY

o TOTAL QUANTITY OF HAZARDOUS SUBSTANCES AT THE FACILITY, EXCLUDING THOSE WITH A CONTAINMENT SCORE OF 0 (GIVE A REASONABLE ESTIMATE EVEN IF QUANTITY IS ABOVE MAXIMUM):

77 tons of a corrosive alkaline cleaner from SKF Industries

Score 3

o BASIS OF ESTIMATING AND/OR COMPUTING WASTE QUANTITY:

Communication with SKF Industries (Ref. 2)

***

5 TARGETS

GROUNDWATER USE

o USE(S) OF AQUIFER(S) OF CONCERN WITHIN A 3-MILE RADIUS OF THE FACILITY:

Drinking water, no other water available from an unthreatened source (Ref. 6)

Score 3

DISTANCE TO NEAREST WELL

o LOCATION OF NEAREST WELL DRAWING FROM AQUIFER OF CONCERN OR OCCUPIED BUILDING NOT SERVED BY A PUBLIC WATER SUPPLY:

Patton's retirement home northeast of the site

o DISTANCE TO ABOVE WELL OR BUILDING:

600-800 ft. (Ref. Site Visit)

POPULATION SERVED BY GROUNDWATER WELLS WITHIN A 3-MILE RADIUS

o IDENTIFIED WATER-SUPPLY WELL(S) DRAWING FROM AQUIFER(S) OF CONCERN WITHIN A 3-MILE RADIUS AND POPULATIONS SERVED BY EACH:

Municipal water wells supply the Village of Alfred, Alfred Station, Alfred University, and Alfred College.

3.8 x 408 houses + 50% of college students and staff = 5,490 (Ref. 33).

o COMPUTATION OF LAND AREA IRRIGATED BY SUPPLY WELL(S) DRAWING FROM AQUIFER(S) OF CONCERN WITHIN A 3-MILE RADIUS, AND CONVERSION TO POPULATION (1.5 PEOPLE PER ACRE):

No irrigation known of (Ref. 13)

o TOTAL POPULATION SERVED BY GROUNDWATER WITHIN A 3-MILE RADIUS:

5,490

Score 35

***

SURFACE WATER ROUTE

1 OBSERVED RELEASE

0

o CONTAMINANTS DETECTED IN SURFACE WATER AT THE FACILITY OR DOWNHILL FROM IT (5 MAXIMUM):

N/A

o RATIONALE FOR ATTRIBUTING THE CONTAMINANTS TO THE FACILITY:

N/A

Score 0

***

2 ROUTE CHARACTERISTICS

FACILITY SLOPE AND INTERVENING TERRAIN

o AVERAGE SLOPE OF FACILITY IN PERCENT:

Steep slopes are found surrounding the facility to the east, west, and south of the site as great as 25%

o NAME/DESCRIPTION OF NEAREST DOWNSLOPE SURFACE WATER:

1,500 ft. Crosby Creek to the east

2,000 ft. to a tributary of Canacadea Creek to the west

o AVERAGE SLOPE OF TERRAIN BETWEEN FACILITY AND ABOVE-CITED SURFACE WATER BODY IN PERCENT:

8.3% distance bewteen the site and Crosby Creek (REF. USGS topo. map)

o IS THE FACILITY LOCATED EITHER TOTALLY OR PARTIALLY IN SURFACE WATER?

No

Score 3

o IS THE FACILITY COMPLETELY SURROUNDED BY AREAS OF HIGHER ELEVATION?

No

1-YEAR 24-HOUR RAINFALL IN INCHES

2.1 inches (Ref.14)

Score 2

DISTANCE TO NEAREST DOWNSLOPE SURFACE WATER

1,500 ft.

Score 2

PHYSICAL STATE OF WASTE

Solvents, aqueous cleaning solution (REF. 2, organics detected in monitoring wells)

Score 3

***

3 CONTAINMENT

CONTAINMENT

o METHOD(S) OF WASTE OR LEACHATE CONTAINMENT EVALUATED:

Landfill has cover as well as a leachate collection system
Leachate seeps reportedly occurred in 1988 (Ref. 27)

o METHOD WITH HIGHEST SCORE:

N/A

Score 1

***

4 WASTE CHARACTERISTICS

TOXICITY AND PERSISTENCE

o COMPOUND(S) EVALUATED

Compound	Toxicity	Persistence	Score
Trichloroethylene	2	2	12
trans-1,2-dichloroethylene	2	2	12
Toluene	2	1	9
Vinyl Chloride	3	2	15
Methylene Chloride	2	2	12

o COMPOUND WITH HIGHEST SCORE:

Vinyl Chloride

Score 15

HAZARDOUS WASTE QUANTITY

o TOTAL QUANTITY OF HAZARDOUS SUBSTANCES AT THE FACILITY EXCLUDING THOSE WITH A CONTAINMENT SCORE OF 0 (GIVE A REASONABLE ESTIMATE EVEN IF QUANTITY IS ABOVE MAXIMUM):

77 tons of a corrosive alkaline cleaner from SKF Industries (Ref. 2).

Score 3

o BASIS OF ESTIMATING AND/OR COMPUTING WASTE QUANTITY:

Communication with SKF Industries (Ref. 2)

*****

5 TARGETS

SURFACE WATER USE

o USE(S) OF SURFACE WATER WITHIN 3 MILES DOWNSTREAM OF THE HAZARDOUS SUBSTANCE:

Recreational fishing, no known surface water intakes (Ref.13,15)

Score 2

o IS THERE TIDAL INFLUENCE?

There is no tidal influence on the site.

DISTANCE TO A SENSITIVE ENVIRONMENT

o DISTANCE TO 5-ACRE (MINIMUM) COASTAL WETLAND, IF 2 MILES OR LESS:

None within 2 miles of the site.

o DISTANCE TO 5-ACRE (MINIMUM) FRESH-WATER WETLAND, IF 1 MILE OR LESS:

None within 1 mile of the site (Ref. 15)

o DISTANCE TO CRITICAL HABITAT OF AN ENDANGERED SPECIES OR NATIONAL WILDLIFE REFUGE, IF 1 MILE OR LESS:

No known endangered species or national wildlife refuges within 1 mile (Ref. 15)

Score 0

POPULATION SERVED BY SURFACE WATER

o LOCATION(S) OF WATER-SUPPLY INTAKE(S) WITHIN 3 MILES (FREE-FLOWING BODIES) OR 1 MILE (STATIC WATER BODIES) DOWNSTREAM OF THE HAZARDOUS SUBSTANCE AND POPULATION SERVED BY EACH INTAKE:

None known of (Ref. 13)

- COMPUTATION OF LAND AREA IRRIGATED BY ABOVE-CITED INTAKE(S) AND CONVERSION TO POPULATION (1.5 PEOPLE PER ACRE):

  None known of (Ref. 13)

- TOTAL POPULATION SERVED:

  N/A

- NAME/DESCRIPTION OF NEAREST OF ABOVE WATER BODIES:

  N/A

- DISTANCE TO ABOVE-CITED INTAKES, MEASURED IN STREAM MILES.

  N/A

Score 0

***

AIR ROUTE

1 OBSERVED RELEASE

o CONTAMINANTS DETECTED:

No recorded air release

o DATE AND LOCATION OF DETECTION OF CONTAMINANTS

N/A

o METHODS USED TO DETECT THE CONTAMINANTS:

N/A

o RATIONALE FOR ATTRIBUTING THE CONTAMINANTS TO THE SITE:

N/A

Score 0

***

2 WASTE CHARACTERISTICS

REACTIVITY AND INCOMPATIBILITY

o MOST REACTIVE COMPOUND:

N/A

o MOST INCOMPATIBLE PAIR OF COMPOUNDS:

N/A

Score 0

TOXICITY

o MOST TOXIC COMPOUND:

N/A

Score 0

HAZARDOUS WASTE QUANTITY

o TOTAL QUANTITY OF HAZARDOUS WASTE:

N/A

Score 0

o BASIS OF ESTIMATING AND/OR COMPUTING WASTE QUANTITY:

N/A

***

3 TARGETS

POPULATION WITHIN 4-MILE RADIUS

o UNDERLINE RADIUS USED, GIVE POPULATION, AND INDICATE HOW DETERMINED:

0 to 4 mi 0 to 1 mi 0 to 1/2 mi 0 to 1/4 mi

Score 0

DISTANCE TO A SENSITIVE ENVIRONMENT

o DISTANCE TO 5-ACRE (MINIMUM) COASTAL WETLAND, IF 2 MILES OR LESS:

N/A

o DISTANCE TO 5-ACRE (MINIMUM) FRESH-WATER WETLAND, IF 1 MILE OR LESS:

N/A

- DISTANCE TO CRITICAL HABITAT OF AN ENDANGERED SPECIES, IF 1 MILE OR LESS:

  N/A

Score 0

LAND USE

- DISTANCE TO COMMERCIAL/INDUSTRIAL AREA, IF 1 MILE OR LESS:

  N/A

- DISTANCE TO NATIONAL OR STATE PARK, FOREST, OR WILDLIFE RESERVE, IF 2 MILES OR LESS:

  N/A

- DISTANCE TO RESIDENTIAL AREA, IF 2 MILES OR LESS:

  N/A

- DISTANCE TO AGRICULTURAL LAND IN PRODUCTION WITHIN PAST 5 YEARS, IF 1 MILE OR LESS:

  N/A

- DISTANCE TO PRIME AGRICULTURAL LAND IN PRODUCTION WITHIN PAST 5 YEARS, IF 2 MILES OR LESS:

  N/A

- IS A HISTORIC OR LANDMARK SITE (NATIONAL REGISTER OR HISTORIC PLACES AND NATIONAL NATURAL LANDMARKS) WITHIN THE VIEW OF THE SITE?

  N/A

Score 0

FIRE AND EXPLOSION

1 CONTAINMENT

o HAZARDOUS SUBSTANCES PRESENT:

No documented fire or explosion threat (Ref. 16).

o TYPE OF CONTAINMENT, IF APPLICABLE

No documented fire or explosion threat.

Score 0

***

2 WASTE CHARACTERISTICS

DIRECT EVIDENCE

o TYPE OF INSTRUMENT AND MEASUREMENTS:

N/A

Score 0

IGNITABILITY

o COMPOUND USED:

N/A

Score 0

REACTIVITY

o MOST REACTIVE COMPOUND:

N/A

Score 0

INCOMPATIBILITY

o MOST INCOMPATIBLE PAIR OF COMPOUNDS:

N/A

Score 0

HAZARDOUS WASTE QUANTITY

o TOTAL QUANTITY OF HAZARDOUS SUBSTANCES AT THE FACILITY:

N/A

Score 0

o BASIS OF ESTIMATING AND/OR COMPUTING WASTE QUANTITY:

N/A

***

3 TARGETS

DISTANCE TO NEAREST POPULATION

N/A

Score 0

DISTANCE TO NEAREST BUILDING

N/A

Score 0

DISTANCE TO SENSITIVE ENVIRONMENT

o DISTANCE TO WETLANDS:

N/A

o DISTANCE TO CRITICAL HABITAT:

N/A

Score 0

LAND USE

- DISTANCE TO COMMERCIAL/INDUSTRIAL AREA, IF 1 MILE OR LESS:

  N/A

- DISTANCE TO NATIONAL OR STATE PARK, FOREST, OR WILDLIFE RESERVE, IF 2 MILES OR LESS:

  N/A

- DISTANCE TO RESIDENTIAL AREA, IF 2 MILES OR LESS:

  N/A

- DISTANCE TO AGRICULTURAL LAND IN PRODUCTION WITHIN PAST 5 YEARS, IF 1 MILE OR LESS:

  N/A

- DISTANCE TO PRIME AGRICULTURAL LAND IN PRODUCTION WITHIN PAST 5 YEARS, IF 2 MILES OR LESS:

  N/A

- IS A HISTORIC OR LANDMARK SITE (NATIONAL REGISTER OR HISTORIC PLACES AND NATIONAL NATURAL LANDMARKS) WITHIN THE VIEW OF THE SITE?

  N/A

Score 0

POPULATION WITHIN 2-MILE RADIUS

N/A

Score 0

BUILDINGS WITHIN 2-MILE RADIUS

N/A

Score 0

DIRECT CONTACT

1 OBSERVED INCIDENT

o DATE, LOCATION, AND PERTINENT DETAILS OF INCIDENT:

No documented direct contact problems have been reported.

Score 0

***

2 ACCESSIBILITY

o DESCRIBE TYPE OF BARRIER(S):

Low chain gate is located at the end of the access road.

Score 3

***

3 CONTAINMENT

o TYPE OF CONTAINMENT, IF APPLICABLE:

Two foot clay cap covers the landfill, no leachate outbreaks were observed at the time of inspection.

Score 0

***

4 WASTE CHARACTERISTICS

TOXICITY

o COMPOUNDS EVALUATED:

Trichloroethylene 2
trans-1,2-dichloroethylene 2
Toluene 2
Vinyl Chloride 3

o COMPOUND WITH HIGHEST SCORE:

Vinyl Chloride 3

Score 3

***

5 TARGETS

POPULATION WITHIN ONE-MILE RADIUS

87 homes at 3.8 person = 331 people (REF. USGS topo map)

Score 2

DISTANCE TO CRITICAL HABITAT (OF ENDANGERED SPECIES)

None known of

Score 0

***