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

#### ADDITIONS/CHANGE TO REGISTRY: SUMMARY OF APPROVALS

SITE NAME LANCASTER S	BNITARY L	E DEC	.D. NUMBER _	915068
Current Classification 2a				
Activity: Add as Class	Reclassify to	o <u>4</u> Ca	elist ategory	Modify
Approvals:				
Regional Hazardous Waste Engineer	Yes	No	P. B.	vechi Concurs per econ between he and ARCOMB 3/24/94.
NYSDOH	Yes	No	Posrt	RECEPTIVE TO OUR  10NPER Phonecon \$13/92  VEEN A CARLSON & E.Borz
DEE	Yes	No		
BHSC: a. Investigation Section	Yes	No		
b. Site Control Section	Re	14//1/1/a	num Dat	e 3/24/94
c. Director		Moa	Dat	e 7/24/94
DHWR Assistant Director	Ol Ch	ouls Holde.	Dat	e 3/28/94
COMPLETION CHECKLIST		YES		PLETED BY: PLALS DATE
OWNER NOTIFICATION LETTER?			<u></u>	
ADJACENT PROPERTY OWNER NOT:	IFICATION LETTER	R?		<del></del>
ENB/LEGAL NOTICE SENT? (For Deletion Only)				
COMMENTS SUMMARIZED/PLACED	IN REPOSITORY			
FINAL NOTIFICATION SENT TO ( (For Deletion Only)	OWNER?			
(For proposed Class 2a sites only)	Planned invest	igative activit	ies & dates:	
			4-1,-1	



# REGISTRY SITE CLASSIFICATION DECISION

CONT. NAME		2. SITE NUMBER	3. TOWN/CITY/VILLAGE	4. COUNTY
1. SITE NAME	_			
Lancaster Sanitary L		915068	Lancaster	Erie
5. REGION	6. CLASSIFICATION			1
9		CURRENT 2	a PROPOSED 4 N	MODIFY
7. LOCATION OF SITE (Attac	ch U.S.G.S. Topographic Map	showing site location)		
a. Quadrangle Clarence				
b. Site Latitude _42_° _57	_' _18_" Site Longitud	e _78_° _36_' _47 <sub>-</sub> "		Ì
c. Tax Map Numbers 83.00-	5-6.1, 84.00-3-3.1			
d. Site Street Address Gunn	ville Road			
8. BRIEFLY DESCRIBE THE S	ITE (Attach site plan showing	disposal/sampling locations	)	
currently an inactive landfill v	which accepted various indus	trial wastes, as well as resid	n of the New York State Thruway and east of the Lential and commercial wastes. Landfilling took pla hane recovery operation is currently underway. Un	ce in former sand and gravel pits.
a. Area155_ acres b. EF	A ID Number _NYD0799341	70		
c. Completed (x)Phase I	()Phase II () PSA	()RI/FS ()PA/SI (	)Other	
Industrial waste (much of wh	among the hazardous wastes	was disposed of here from reportedly disposed of at the thene (FOO2)	1961 through the late 1970's. Drums of chemical ne site.	wastes, solvents and PCB-
40 404177041 0474 477	WARIE			
10. ANALYTICAL DATA AVA			- / Marabasa / AFRT / ATOLD	
a. ()Air (x)Groundwate b. Contravention of Stands		diment ()Soil ()Wast	e ()Leachate ()EPTox ()TCLP	9
Compound	Standard	Levels		
methylene chloride	5 ppb	3-1880 ppb		1
carbon tetrachloride	5 ppb	6,020 ppb		
vinyl chloride	2 ppb	10 ppb		
1,1-dichloroethane trans 1,2-dichloroethene	5 ppb 5 ppb	24.2 ppb 160 ppb		
phenois	1 ppb	292 ppb		ì
lead	25 ppb	110 ppb		
cadmium	10 ppb	60 ppb		
The site has confirmed groundwater at levels edinking water. Geologiandfill has already been classification of 4 is ap	exceeding class GA sta pic conditions are favor n capped under an app propriate and would th	osal; associated volati ndards. Residential al able for the migration roved DSW closure pl a <sup>v</sup> DOH and DHWR to	ION le and metallic contaminants are confirm reas within 1 mile of the site use private of contaminants through groundwater lan and is in an O&M mode including groundwater review the current groundwater monitologram could be expanded, if appropriate	e wells as a source of from the landfill. The coundwater monitoring. A ring program to ensure
12. SITE IMPACT DATA				
a. Nearest Surface Water: Dis	stance90ft.	Directionnorth	Classification Class 1 wetland_	
b. Nearest Groundwater: Dep	th10 <b>f</b> i	Flow Directionwest	( )Sole Source ( )Primary (x)Princip	al
c. Nearest Water Supply: Dist	tance205ft.	Directioneast	Active ()Yes (x)No	
d. Nearest Building: Distance	275ft.	Directioneast	UseCommercial	
e. In State Economic Develop	ment Zone?	()Y (x)N	i. Controlled Site Access?	()Y (x)N
f. Crops or livestock on site?		()Y (x)N	j. Exposed hazardous waste?	()Y (x)N
g. Documented fish or wildlife	a mortality?	( )Y (x)N	k. HRS Score36.46	
h. Impact on special status fis	sh or wildlife resource?	()Y (x)N	I. For Class 2: Priority Category2	
13. SITE OWNER'S NAME		14. ADDRESS	<del></del>	15. TELEPHONE NUMBER
Pine Hill Concrete Mix Corp.		2255 Bailey Ave., Buff	alo, NY	
16. PREPARER  John B. Ju	rantwort 3-24	94		25/94
Signature  John B. Swartwout, Chief	Date f, Eastern Investigation Section	n	Signature , Date	, , , , , , , , , , , , , , , , , , ,
Name,	Title, Organization		Name, Title, Organization	

R T K - P R O G R A M REPORTED HAZARDOUS WASTE DATA LISTED BY REGION - SITE CODE - WASTE TYPE

PAGE - 196

WASTE DESCRIPTION	N ATILNAUD		A STUBLICK CONTRACTOR OF SCRIPTION CONTRACTOR OF STUBLIC STUBLICS STATES AND STATES ST	******
FINISHED PRODUCT, PIGMENTS BASED BA,CD,CR,PB,HG,SE METHYL METHACRYLATE, METHYLENE CHLORIDE, INERT FILLER NON-TOXIC PAINT SLUDGE, SPENT CLEANING SOLVENT PCB CAPACITORS SLUDGE, SAND (3X ASBESTOS) STOMMARY SON USAT (BETEON END ATERNAL)	200.00 1	: ! X X ! ! X X X X X X X X X X X X X X	FRATT & LAMBERT INC (CHEEKTOWAGA E.I.DUPONT DE NEMOURS & CO. (YERKE FISHER PRICE TOYS (DIV QUAKER OATS C : LANCASTER SERVICE CENTER NYSEG PARRITRON INC.	G0915309 G0914980 C G0914901 GX900709 G0915417
TETRACHLOROTHYLENE UNKNOWN WASTE VISCOSE, WOOD FULP, WATER, CARBON DISULFIDE WOOD CHIPS CONTAINING PHENOL & CYANIDE	60.00 1	(X   X   (X   X   (X   X	RAMSDELL'S DRYCLEANERS INC. WESTINGHOUSE ELECTRIC CORP. GENERAL MILLS INC.(O-CEL-O DIV.) NATIONAL FUEL GAS DISTRIBUTION CO	G0915287 GX900281 G0914963 G0915347
**************************************	**************************************	********	**************************************	**************************************
SOIL CONTAMINATED WITH TRACES OF SULFUR TETRACHLOROETHYLENE WOOD CHIPS CONTAINING PHENOL & CYANIDE	8,500.00 25.00 6,739.00	1111	ALLIED CHEMICAL CORP (BUFFALO CHE AURORA CLEANERS NATIONAL FUEL GAS DISTRIBUTION CO	G0915324 G0915347
TRANSPORTERS - RESPONDING WITH QUESTIONNAIRE	TH QUESTIONNAIR	1.1	ID NUMBER	
CLINTON DISPOSAL SERV,1273 SENECA ST,BUFF	ENECA ST, BUFF		10901769	

Ē	CENTERATOR NAME	-		HOTTETECHT
9-15-074	SITE CODE: 9-15-074	3	7 14150	SITE DESCRIPTION: SEAWAY IND FARK, 4825 RIVER RD., TONAWANDA NY 14150
******	宋宋年宋宋宋宋宋宋宋宋宋宋宋宋宋宋宋宋宋宋宋宋宋宋宋宋宋宋宋宋宋宋宋宋宋宋	******	********	本家本家家家家家家家家家家家家家家家家家家家家家家家家家家家家家家家家家家
GX901313	: - X X : BUFFALO SOCIETY OF NATURAL SCIENC	× × ·		SEWAGE TREATMENT SILUDGE
GX901313	62,00 T : - X X : BUFFALD SOCIETY OF NATURAL SCIENC	××	62,00 T	HAZARDOUS WASTE SOLID (NAPTHALENE,AR,CR,PB,HG,DICHLOROBEN)
e l	GENERATOR NAME ID	L S D	QUANTITY U LSD	WASTE DESCRIPTION
********	**********************	******	***********	<b>本家水水水水水水水水水水水水水水水水水水水水水水水水水水水水水水水水水水水水</b>
9-15-072	SITE CODE: 9-15-072		203	SITE DESCRIPTION: TIFFT FARM, 1200 FUHRMANN BLUD, BUFFALO NY 14203

SITE CODE: 9-15-074	**************	αı		60915248	60914986
បា	*****************	GENERATOR NAME		2.00 T : - X - : BUFFALO COLOR CORP	250,00 T : - X X : FMC CORP.
	********	LSD	1	×	× × ·
14150	*********	QUANTITY U LSD	1	2.00 T	250,00 T
UNAMANDA NY	********			••	PEROXIDE):
SITE DESCRIPTION: SEAWAY IND FARK, 4825 RIVER RD., TONAWANDA NY 14150	在水水水水水水水水水水水水水水水水水水水水水水水水水水水水水水水水水水水水	WASTE DESCRIPTION			FLOOR SWEEPINGS & OFF-SPEC PRODUCTS (PERSULFATES &
SITE DESCRIPTION: SEAWAY	****************	MAS		BENZIDINE SULFATE	FLOOR SWEEPINGS & OFF-SP



Center for Environmental Health

2 University Place

Albany, New York 12203-3399

Mark R. Chassin, M.D., M.P.P., M.P.H. Commissioner Paula Wilson Executive Deputy Commissioner

December 23, 1992

OFFICE OF PUBLIC HEALTH Sue Kelly Executive Deputy Director William N. Stasiuk, P.E., Ph. D. Center Director

Mr. Earl Barcomb, P.E. Bureau of Hazardous Site Control NYS Department of Environmental Conservation 50 Wolf Road Albany, NY 12233

RE: Registry Site Classification Decision Lancaster Sanitary landfill, ID 915068

(T) Lancaster, Erié Co.

Dear Mr. Barcomb:

My staff has reviewed the Registry Site Classification Decision package for the Lancaster Sanitary Landfill (#915068) in the Town of Lancaster, Erie County.

We do not agree with the revision of the proposed site classification from a class 2 to a class 3. The local geology consists of sand, gravel, and intermittent till units overlying limestone. Existing site information indicates that the overburden and bedrock are interconnected. These geologic conditions are favorable for the migration of contaminants through groundwater from the landfill. Residential areas within a 1 mile radius of the site use private wells as a source of drinking water. These homes are located on Tillman Road, Ransom Road, Genesee Road, and Gunnville Road. Since documented hazardous waste disposal has occurred, groundwater is contaminated above standards with contaminants associated with hazardous waste disposal, and a significant threat to residential water supplies exist, we feel the site should be a class 2.

If there are any questions please contact me or Al Wakeman at 458-6310.

Sincerely.

G. Anders Carlson, Ph.D.

Director

Bureau of Environmental Exposure

Investigation

23430265

cc: Mr. Wakeman

Dr. Smith-Blackwell/Mr. O'Connor - Western Region

Mr. Kociela - Erie County Health Dept.

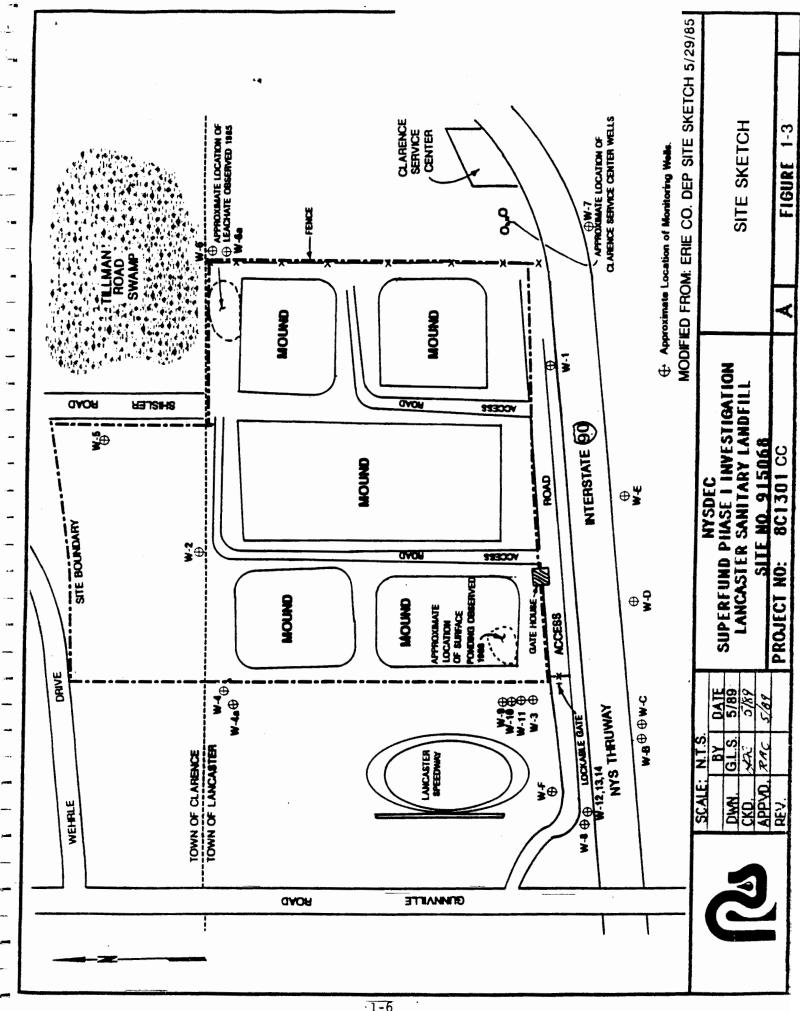
Mr. Sciascia - DEC - Region 9 Mr. Marino - DEC - Central Office

# =

# New York State Department of Environmental Conservation

# **MEMORANDUM**

of Supertout Cr. External Contact with Division	ion of Solid Waste Staff
3/23/94 (Telephone) (4)	Date 3/23/94/
Meeting ( )	Referred by
	Makitum Representing Regitt9
	Phone (7/6) <u>85/7600</u>
Subject of External Contact	Lancaster San. CF.
O(1)	generates electricity.
, a )	Braks are Mitigated Monitoring Continues Future.
NO plans ter	Turwe.
Action to be taken (if any)	
Staff Person Contacted/Involv	ved AAM.
Copy:	Call M 5-5855
(4/91)	



# NEW YORK STATE DEPARTMENTS OF ENVIRONMENTAL CONSERVATION AND HEALTH INACTIVE HAZARDOUS WASTE DISPOSAL SITE PRIORITY RANKING WORKSHEET

SITE # 915068 SITE NAME Lancaster Sanitary Land Fill

0	<u>Pri</u>	ority I - Top priority sites; supersede all others. Priority I can be igned if any of the following criteria is met:	
	ā)	A sole source or primary aquifer, or a public or private water supply is being contaminated or threatened, or	
	b)	Human exposure to contaminants has been identified which represents a Significant health risk as determined by DOH, or	
	c)	There is a bioaccumulation of site contaminants in flora or fauna which results in a health advisory, or	
	d)	Site contaminants are at levels that are acutely toxic to fish or wildlife or have caused documented fish or wildlife mortality, or	
	e)	An expedient response could measurably reduce the threat to health or the environment, reduce the scope of a corrective action, or reduce potential remedial costs.	
0		ority II - Important sites. Priority II can be assigned if any of the lowing criteria is met:	$\boxtimes$
	a)	A Class AA or a Class A surface water body or a principal aquifer is being contaminated or threatened; however, no existing water supply has been contaminated, or	$\geq$
	þ)	There is a bioaccumulation of site contaminants in flora or fauna which results in advisory or actionable levels but below levels necessitating a health advisory, or	
	c)	Site contaminants are at levels chronically toxic to fish/wildlife, or	
	d) '	Endangered, threatened or rare species, significant habitats, designated coastal zone areas or regulated wetlands are being impacted by releases from the site, or	
	e)	The site is identified by the International Joint Commission (IJC) as a component in a Remedial Action Plan (RAP), or	
	f)	The site is within a State Economic Development Zone or is targeted for local government supported development and the developer has expressed a willingness to enter into a consent order with DEC to finance investigation and remediation.	
D	unlapp for	ority III - General Site Category. Priority III will be assigned ess one or more of the site prioritization criteria, specified above, by to a site. When resources become available, after remedial needs Priority I and II sites have been accommodated, remediation of sites er this category can be considered.	
COM	MEN"	Principal aguifer has been contaminated	
Fil	lled	out by (Name): John B. Swartwort Date: 8-28-91	

# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION DIVISION OF SOLID AND HAZARDOUS WASTE INACTIVE HAZARDOUS WASTE DISPOSAL SITE REPORT

CLASSIFICATION CODE: 👱	REGION:	9	SITE CODE:	915068
NAME OF SITE: Lancaster S STREET ADDRESS: off Gunnvi TOWN/CITY: Clarence(T) and Lancaster(	ille Rd. COUNTY	:		IP:
SITE TYPE: Open Dump S ESTIMATED SIZE:/552 <del>60</del> Acre	Structure _ es	Lagoon _	Landfill <u>X</u> Tre	atment Pond _
SITE OWNER/OPERATOR INFORMACURRENT OWNER NAME: Pine CURRENT OWNER ADDRESS: 225 OWNER(S) DURING USE: Pine OPERATOR DURING USE: Lanca OPERATOR ADDRESS 2255 PERIOD ASSOCIATED WITH HAZA SITE DESCRIPTION:  155  The estimated 268-acre site and west of the Thruway Aut to the site is from Gunnvil commercial and industrial westensive groundwater monit frequently exceeded NYS wat Contaminants detected inclu others. Potential surface Road Swamp (a NYSDEC-owned Ransom Creek, a NYSDEC-desilies within three miles down conducted at this site in I solid waste program and manufacturing.  HAZARDOUS WASTE DISPOS	Hill Concrete 55 Bailey Ave. Hill Concrete aster Sanitary Bailey Ave., ARDOUS WASTE:  e lies just no thority's Clare le Road, which wastes were recorred has been ter quality stande phenol, ch water contaminated class wildlife managignated Class winstream from 1988-1989.	mix Corp.  Landfill,  Buffalo, NY  From I  rth of the lence Service h lies west portedly accommodated or nation is all gement area  C (T) - troop the site. I  C & M mode	NYS Thruway (Interest are of the site. Recepted at the fact at the site; compotable groundwarganics, several so of concern site of the site of the site; compotable groundwarganics, several so of concern site of the sadjacent that fishing surface of the sadjacent that the sadjace	erstate 90) ea. Access esidential, cility. etamination aters. metals and nce Tillman co the site. ee water,
TYPE Waste oils, foundry sand ash, adhesives, solvents ink, paint thinners and filters and PCB-contamin capacitors.	s, waste		ANTITY (units) 7,291.3 ton t	

	311E CODE: 313000
ANALYTICAL DATA AVAILABLE:	
Air _ Surface Water $\underline{X}$ Groundwater $\underline{X}$ Soil	_ Sediment _ None _
CONTRAVENTION OF STANDARDS:	
Groundwater $\underline{X}$ Drinking Water $\underline{X}$ Sur	face Water _ Air _
LEGAL ACTION:	
TYPE: Consent Order State X STATUS: In Progress Completed	Federal _
REMEDIAL ACTION:	
Proposed Under Design In Progres NATURE OF ACTION:	s Completed X
GEOTECHNICAL INFORMATION: SOIL TYPE: Largely sand and gravel overlying bedro	ck
GROUNDWATER DEPTH: 10 feet	,
ASSESSMENT OF ENVIRONMENTAL PROBLEMS:	
Contaminants detected in on-site groundwater and su	
Potential contamination of source of potable water	(groundwater) and of
recreational surface waters (Ransom Creek).	

ASSESSMENT OF HEALTH PROBLEMS:

# 1.0 EXECUTIVE SUMMARY

The Lancaster Sanitary Landfill site is located off Gunnville Road, in the Towns of Clarence and Lancaster, Erie County, New York (Figures 1,2 and 3). The estimated 268-acre site lies approximately 9.5 miles east of the City of Buffalo corporate boundary. The site is owned by Pine Kill Concrete Mix Corp. of Buffalo, New York. Lancaster Sanitary Landfill, Inc., a subsidiary of Pine Hill Concrete, operated the facility. The site is a currently inactive landfill which accepted various industrial wastes (much of which is considered hazardous), as well as residential and commercial wastes, from 1961 to the late 1970's; residential and commercial wastes continued to be accepted through 1985.

The site has the potential to impact both human health and the environment. On-site groundwater and surface water sampling conducted by Wehran Engineering and Recra Research, Inc. in 1979 (and others) has indicated that contaminant migration has occurred in both of these environmental media. Groundwater contamination is of major concern since numerous residences in the area use private wells as a source of potable water. Potential surface water contamination of Tillman Road Swamp and Ransom Creek, which is used for recreation, is also of concern.

A methane gas recovery system was designed for the landfill by E. T. Energy. The subsequent development of the system was completed by LFG Energy, Inc. with final plans being submitted to the NYSDEC for approval on November 1989. Final approval was granted by the NYSDEC in January 1990 at which time Phase I operations were formally initiated. Prior to January 1990, periodic demonstrations were conducted on-site.



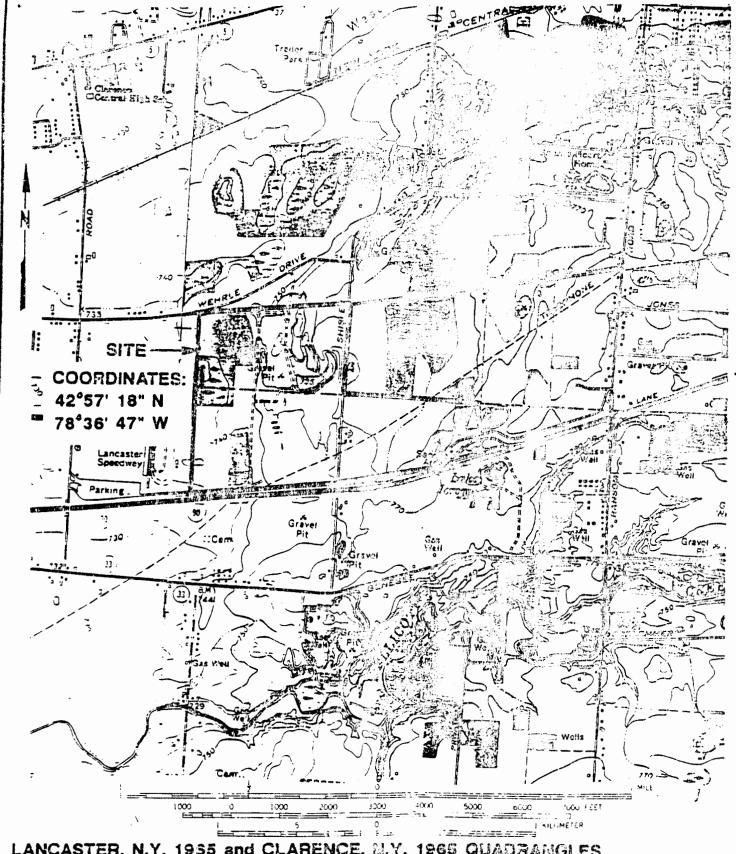
The Phase I recovery system includes 78 wells installed over approximately two-thirds of the landfill. Upon reaching the surface, the gas enters a collection system. The gas is then filtered, demoisturized and purified on site. After purification, the gas is used to power electricity producing generators.

Subsequent to the development, and NYSDEC approval, of a closure plan, the site was capped in 1985 with materials having a permeability of  $10^{-6}$  cm/sec. Closure also involved the installation of post-closure monitoring wells and the development and implementation of a post-closure monitoring plan.

The Phase I effort involved the compliation of information gathered from several sources, including, but not limited to, the following: the New York State Department of Environmental Conservation (NYSDEC) - Central Office and Region 9, the New York State Department of Health (NYSDOH), and site inspections conducted by Recra Environmental, Inc. personnel on October 25 and November 7, 1988. Photographs taken during the October site inspection are presented in Appendix B.

The Lancaster Sanitary Landfill Site was evaluated and scored in accordance with the Hazard Ranking System (HRS). USEPA uses a hazard ranking system (HRS) to apply uniform technical judgement in evaluating the relative hazards presented by sites being considered for federal superfund remediation. The HRS is sometimes called the MITRE Model because it was developed by the MITRE Corporation under contract to the USEPA. HRS addresses only relative hazard. It does not assess the feasibility, desirability, or degree of cleanup required, and does not address all potential environmental or health impacts.





LANCASTER, N.Y. 1955 and CLARENCE, M.Y. 1965 QUADRANGLES U.S.G.S. TOPOGRAPHIC MAPS 7.5 MINUTE SERIES

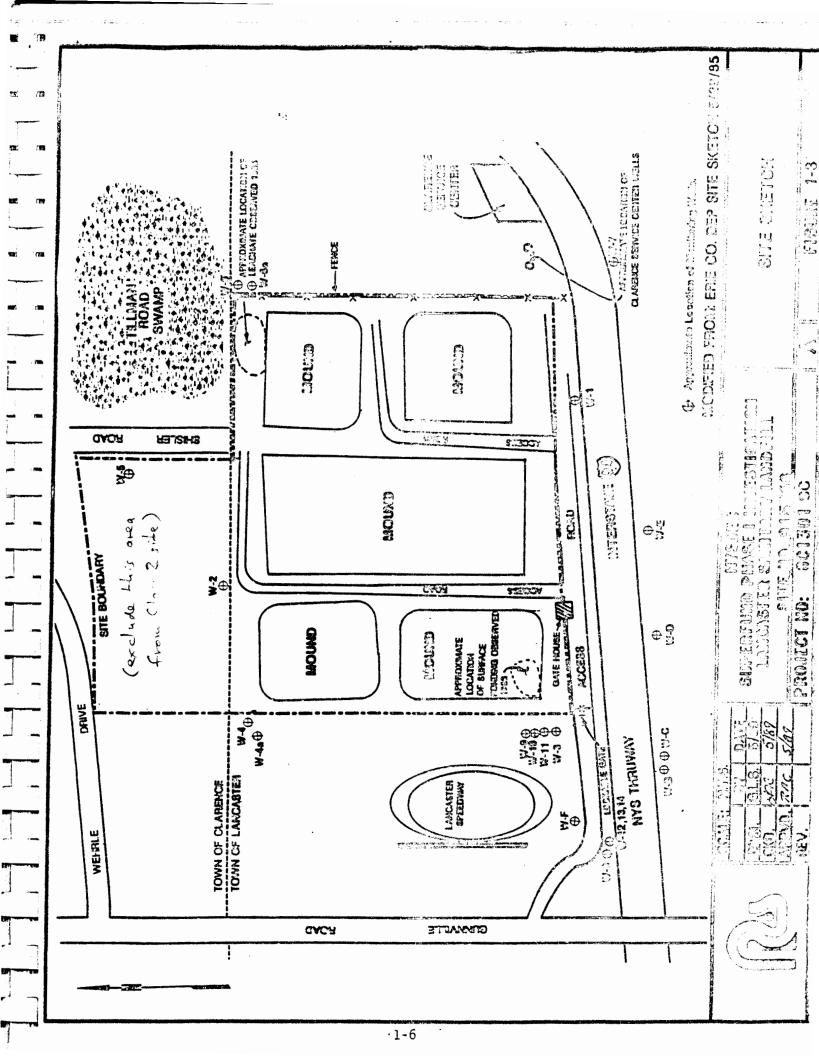


SCALE:	1:24	.000
	BY.	DATE
DWN.	G.L.S.	5/89
CKD.	24 يكوا	5/39
APPVD.	RAC	5/89
CEV	,	

NYSDEC SUPERFUND
PHASE I INVESTIBATION
LANCASTER SAN, LANDFILL
SITE NO. 915068
FROJECT NO. 80130100

SITE VICINITY MAP

A FIGURE 1-2



## 4.0 SITE ASSESSMENT

## 4.1 Site History

The Lancaster Sanitary Landfill site is the location of former sand and gravel excavation pits which subsequently have been landfilled. Pine Hill Concrete Mix Corp. of Buffalo, New York owns the facility. Lancaster Sanitary Landfill, Inc., a subsidiary of Pine Hill Concrete, operated the landfill. In 1961 landfilling operations commenced in the western portion of the site. Operations continued across the site and by the mid-1970's, landfilling of the eastern site area was being conducted. Landfill operations ceased in 1985 (Ref. 1, pg. R3; 8, pg. R108-128; 26, pg. R216; 27, pg. R216-218).

In addition to residential and commercial wastes from local municipalities, the facility reportedly accepted industrial wastes and chemical sludges from 13 or more industries from 1961 to the late 1970's. (The acceptance of municipal waste continued through 1985.) A 1979 report prepared by the Interagency Task Force on Hazardous Wastes (as stated in the Wehran Engineering, 1979 report) identified several industrial waste generators and haulers, as well as waste types and quantities disposed of at the site. Industrial wastes reportedly disp sed of at the landfill include, but are not limited to, the following: waste oils, foundry sand, fly ash, adhesives, waste ink, solvents, paint thinners and filters, and PCB-contaminated capacitors. Industrial waste generators include: Ford Motor Company, Westinghouse, Chevrolet Motor Company, E. I. DuPont, F. N. Burt, Allied Chemical, NYS Electric and Gas, and others (Ref. 1, pg. R47-48; 2, pg. R50; 7, pg. R106; 8, pg. R108-128). Drums containing chemical wastes were apparently crushed and broken open upon disposal. Wastes were disposed of



# 4.4 Site Contamination Assessment

#### 4.4.1 Waste Quantity and Type

Waste characterization information for the site was primarily obtained from the March 1979 Draft Report of the Interagency Task Force on Hazardous Wastes (as stated in the Wehran Engineering, 1979 report) and the "Community Right-To-Know" (RTK) program (Ref. 1, pg. R1-48; 2, pg. R49-78). Industrial waste types and quantities disposed of at the Lancaster Sanitary Landfill, as reported by the Task Force, are presented on Table 1 together with identification of generators and periods of disposal. Various solids. liquids and sludges are listed and include waste oils, foundry sand, fly ash, adhesives, waste ink, solvents, paint thinners and filters, PCB-contaminated capacitors, and others. A total of 413,400 gallons (8,268 drum equivalent), 475.8 tons and 4,050 cubic yards of industrial wastes were reportedly disposed of at the facility. It should be noted, however, that these figures represent a minimum quantity since quantity estimates were not listed for several of the wastes. In addition, those wastes listed as generated by the Curtiss Wright Corp. (paper, rags and sweepings) were not included in the quantity estimate because it is not certain whether they contained hazardous substances. The "Community RTK" program identified several additional industrial waste generators disposing at the facility. These generators include Pratt & Lambert, Fisher Price, Fabritron, Ramsdell's Drycleaners, and O-Cell-O.

Waste quantities reported by the "RTK" total 898.5 tons (equivalent) of liquids, solids and drummed waste; however, 200 tons were previously reported by the Interagency Task Force. Again, this quantity reflects a minimum known quantity. Therefore, total waste quantity estimates for the



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INDUSTRIAL WASTES REPORTEDLY DISPOSED OF AT THE LANCASTER SANITARY LANDFILL SITE (1)

GENERATORS		WASTE DESCRIPTION	QUANTITIES	TIME PERIOD
Wilson Greathatch, LTD	ā	Liquid waste; 90% acetone, 8% iodine, 2% polyvinyl pyridine	6,700 gallons per year (GPY)	1976-1978
Ford Motor Company	(B	Waste oil	30,000 GPY	197 <b>0'</b> to 1971
	ĝ	Oil Sludge	1	£ 1976 to 197 1974-1977
Westinghouse Motor Division	â	General Refuse	. [	1966-1979
Chevrolet Motor Division Metal Casting Plant	ā	Waste foundry sand (clay, insoluble metal compounds, trace oil regine form		
	(q	flour) Sand slurry		1978-1979 1977
Chevrolet Motor Division Motor Plant	(B	Fly ash	!	1977
Trico Products	a)	Plastic purging	;	1
Harrison Radiator (Buffalo)	ā	Garbage, cardboard, Paper, wood, rubber, plastics, other solids, kolene sludge drums, cans, bands, & wire	ii o	1969-1979
ElDuPont (Tonawanda)	a)	a) Wet "Corian"	200 tons	1974-1976
F.N. Burt Co.	Ê	Paperboard, cellophane, gold leaf, scrap wood, plastic, garbage, waste adhesive (animal glue, polyvinyl, acetate, dextrins) waste ink, & incinerator, residue & fly ash waste cans & metal	t ! ! !	1958-1975
Arcata Graphics	a)	paper, paper/dust, wood, general refuse	-	June 1978-1979

	GENERATORS		WASTE DESCRIPTION	QUANTITIES	TIME PERIOD
	Strippit	ଟି ଜିନ୍ଦି କ	Combustible Wastes Coolants heat treat sludge cutting oil compounds,	450 cy/yr 20,000 gal/year 3 tons/year	1970 to 1979 1975 to 1978
		•	solvents, water with paint contamination paint thinners & filters	20,000 gal/year	1975 to 1979 1975 to 1979
	Snyder Tank	â	Paper, wood, plastics & metal	72.8 tons/year	1972
	Curtiss Wright Corp. (Air Force Plant 49)	8	paper, rags & sweepings	60 cy/month	1956-1979
	Allied Chemical Dye Plant	8	filtration sludges, waste colors and solvents	200,000 gallons	1970 to 1971
	NYS Electric & Gas	ÎS	obsolete hardware rubbish, motor oil, capacitors (with PCB's)		to 1974
	Winsmith	. <b>a</b>	General Industrial Waste, dried paint filters, machine, cutting a cooling oils, hydrochloric acid neutralized with sodium hydroxide, Kolene heat treatment spillage, steel fines, grinding fines, mixed with waste coolant oil & water		1976-1979
_	NOTES:				
•	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				

4-14

(1) Modified from the Draft Report, March 1979 of the Interagency Task Force on Hazardous Wastes, as presented in Hydrogeologic Investigation Lancaster Sanitary Landtill by Wehran Engineering, P.C. and Recra Research, Inc., June 21, 1979. landfill total 7,291.3 ton equivalent (Ref. 1, pg. R47-48; 2, pg. R50).

# 4.4.2 <u>Previous Sampling and Analysis</u>

Extensive groundwater monitoring has taken place at the Lancaster Sanitary Landfill since 1979. During site-specific hydrogeologic investigations conducted in 1979 and 1980 by Wehran Engineering and Recra Research, Inc. on-site monitoring wells were installed to assess the extent, if any, of groundwater contamination from the landfill (Ref. 1, pg. R1-48; 18, pg. R169-183). Wells were constructed in both shallow (unconsolidated deposits) and bedrock (Onondaga Limestone) borings. One well was completed within the saturated waste thereby providing information representative of the landfill leachate. Two wells located in the northwestern portion of the site served as background since they were situated north of the landfill in an area of no apparent waste disposal. A surface water sample was also collected from this northern area. Chemical analyses performed on the groundwater and surface water samples collected in March 1979 and/or September 1979 indicated the presence of several contaminants within the shallow aquifer. These include volatile organic compounds (including chlorinated organics), phenols, pesticides, and several metals (See Table Concentrations of zinc were reported at 198 mg/l, 1.9 mg/l, 0.057 mg/1, 0.069 mg/1 and 0.111 mg/1 for samples collected in March 1979 in the waste (leachate), glacial sand and gravel (shallow) aquifer, bedrock aquifer, surface water, and "background" shallow groundwater samples, respectively (Ref. 1, pg. R1-48). Methylene chloride was reported at 54.3 ug/1, 1880 ug/1, 4.9 ug/1, 0.3 ug/1 and 9.7 ug/1 in samples collected in March 1979 in the waste, shallow aquifer, bedrock aquifer, surface water, and "background" samples, respectively. In addition, groundwater sampling



TABLE 2

LT7/10401-14

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SUMMARY OF GROUNDWATER ANALYSIS 1979

			MONITOR	MONITORING WELLS	4			PIE ZOME TERS		
		T-X			7-M			813		B13A
PARAMETER	3/14	3/29	2/8	3/14	3/29	8/9	3/14	2/8	3/14	2/8
Phenols	0.028	0.071		0.026	0.024		0.183		1.33	
Aluminum	0.2	0.4		0.2	0.2					
Lead		0.04			0.11	•				
Mercury*	-	6.0		6.0						
Cadmium			90.0			0.01	0.003	0.005	0.032	0.029
Zinc			0.424			0.098		0.088		198
Nickel*								0.02		0.51
Arsenic*										16
Chromium										0.034
Selenium*										2.3
TH05*			3.7			0.654		0.65		8.17
B-BHC*			0.04			0.04		0.04		0.04
Methylene Chloride*			1880			3.3		119		54.3
Chloroform*						1.3		1.4		
Carbon Tetrachloride		0209	0.5							
1,1-dichloroethane			18.4		24.2					
										-



RECRA ENVIRONMENTAL, INC.

TABLE 2 (continued)

# SUMMARY OF GROUNDWATER ANALYSIS 1979

PIEZOMETERS

		0150		150	0	PIEZ	PIEZOMETERS	-				
PARAMETER	3/14	5/8	3/14	5/8	3/14	5/8	3/14	5/8	1/14	5101 5/8	3/14	2/3
	;			0,0			27.0	2/2	2/ 72	0/5	2/ 14	9/6
Phenols	0.292		0.042		0.019		0.028				0.014	
Aluminum				;		•			-			
Lead		0.07									4	
Mercury*								-				
Cadmium		0.014	0.013	0.014	0.004	0.012		0.008	0.003	0.021		0.009
Zinc		1.9		0.057		0.15		0.052		0.052		0.069
Nickel*		0.12										
Arsenic*												
Chromium	·#-											
Selenium*												
TH0S*		2.41		0.94		0.37		0.58		0.59		1.40
B-BHC*				0.03				90.0		0.03		90.0
Methylene Chloride*		8.3	•	1.2		1.8		4.9		0.3		12.7
Chloroform*		1.0		0.3				1.4		1.1	-	0.3
Carbon Tetrachloride										9.0		
1,1-dichloroethane												
											1	



ECRA ENVIRONMENTAL, INC.

SECTION O

conducted on-site by the NYSDEC in February 1985 indicated the presence of trans-1,2-dichloroethene (160 ppb); 1,1-dichloroethane (67 ppb); toluene (13 ppb); and several metals, including manganese (68 ppm), zinc (0.063 ppm), lead (0.018 ppm) and others (Ref. 32, pg. R234-243).

# 4.4.3 <u>Groundwater Quality</u>

Analytical results for groundwater samples collected from on-site monitoring wells indicate several contaminants exceed New York State groundwater quality standards for Class GA waters (source of potable water supply) (Ref. 22, pg. R202-205). Quality standards were exceeded by the following substances (and the concentration reportedly detected): carbon tetrachloride (6,020 ug/1); vinyl chloride (10 ug/1); phenols (0.292 mg/1); lead (0.11 mg/l); manganese (68 mg/l); zinc (1.9 mg/l), and others (Ref. 1, pg. R26-41; 22, pg. R202-205; 32, pg. R234-243).

Groundwater contamination is of major concern since several residences in the area (an estimated 566 persons within a 3-mile radius) use private wells as a sole source of potable water. Additional private wells may be used by residents of the Town of Clarence and Lancaster, but the number has not been identified. The majority of these are located within the Towns of Newstead and Alden, New York east of the site. The remaining population is served by community municipal water supply systems which obtain their water from the Erie County Water Authority (source being surface water intakes from Lake Erie).



### 4.4.4 Surface Water Quality

Surface water sampling is apparently limited to one on-site sample collected in the northwestern portion of the site in March 1979 by Recra Research, Inc. (Ref. 1, pg. R24). Chemical analyses performed on this sample detected cadmium (0.021 mg/l), chromium (0.203 mg/l), zinc (0.069 mg/l), methylene chloride (0.3 ug/l), chloroform (0.2 mg/l), and others. Ransom Creek is a NYSDEC-designated Class "D" water in proximity to the site; further downstream (but within the HRS-required, three-mile distance) it is upgraded to Class "C" and Standard "C(T)" which are recreational waters suitable for fishing, including trout fishing (Ref. 21, pg. R193; 22, pg. R202-205). During a site inspection conducted by the NYSDEC in 1985, leachate was observed leaving the site and entering the Tillman Road Swamp to the north (Ref. 9, pg. R129-133). The Tillman Road Swamp is a NYSDEC-owned wildlife management area, a major portion of which includes NYSDEC-designated Class I fresh-water wetland CL-2 (Ref. 21, pg. R197).

# 4.4.5 Air Quality

As part of this Phase I Investigation, a preliminary air monitoring program was conducted during the site inspection on November 7, 1988. A Century Foxboro OVA Model 128 GC was used to monitor for airborne volatile organic contaminants. Measurements were taken in both upwind (for a source of background) and downwind locations from the site. Readings in excess of 100 ppm were obtained at some upwind locations. On-site measurements were generally about 30 ppm and did not exceed background. It should be noted that the OVA was not equipped with a methane filter. Since methane-producing wells are prevalent in the area and are potentially attributing to the high OVA readings at both "background" and on-site locations, all



Table 1

(Ref: Phase I, Pages R51-R78)

Waste	EPA Waste Code	Quantity (Tons)	Generator
Tetrachloroethylene	<b>U2</b> 10	9	Ramsdell's Dry Cleaners
Stoddard Solvent	D001	50	Ramsdell's Dry Cleaners
Methyl Methaerylate Methylene Chloride	U162 F002	200	E.I. Dupont
Pigments containing (Ba,Cd,Cr,Pb,Hg,Se)	D005-D010	6	Pratt & Lambert
Paint Sludge Cleaning solvents	F002 F001		Fisher Price Toys
Wood Chips containing Phenol and cyanide	U188 P030	572	National Fuel Gas
Waste Viscose (contained carbon disulfide)	D003	60	General Mills
Capacitors (containing PCBs)	-	<b>-</b> ,	New York State Electric & Gas
Solvents and dye sludge	è -	, · <del>-</del>	Allied Chemical



HELPING TO BUTTALO

Chemical and Environmental Analysis Services

November 5, 1993

Mr. Ken Ziccarelli Gunnville Energy Systems 324 Pavement Road Lancaster, New York 14086

Re:

Analytical/Field Report for the 1993

Third Quarter (Semi-Annual) Sampling Event

Dear Mr. Ziccarelli,



The following is the September (completed in October) 1993 Monitoring Program Report for samples collected at the Lancaster Sanitary landfill on October 4-5,1993. Please be advised that sampling was delayed due to the request of Mary E. McIntosh of the New York State Department of Environmental Conservation (NYSDEC), for purposes of conducting a split sampling event. Samples split with the NYSDEC included sample points W-3, W-A, W-B, W-C, and W-E. This sampling event represents the 1993 Third Quarter Monitoring required by your permit.

The points sampled were:

-three (3) upgradient wells (W-5,W-6,W-H) -eight (8) downgradient wells (W-3,W-8,W-A,W-B,W-C,W-D,W-E,W-F)

Please note: Upgradient Well W-6A unable to be sampled due to blockage in riser

The following is a brief summary of the field and analytical data:

#### Field Data

In summary, field measurements of pH ranged from 7.02 standard units (Well W-3) to 10.19 standard units (Well W-H). The pH has decreased to historical levels for sample point W-A and W-G. Sample point W-H continues to show an elevated pH.

Specific conductance measurements ranged from 300 (Well W-H) to 3800 (Well W-D) micromhos/centimeter(umhos/cm). Generally, conductivity measurements remained within historical ranges.

WP0608

Temperature measurements ranged from 9.1 to 14.1 degrees Celsius.

Sample turbidity observations generally ranged from clear to slightly turbid. Turbidity observations and other field measurements were taken within 20 minutes of sampling, utilizing calibrated instrumentation. Detailed information is presented in the Field Report.

#### Analytical Data

The analytical data package has been provided to you under Recra job #A3-3319, #A3-3335, #C3-0551, and #C3-0553.

Generally, all sample analytical results remain consistent with historical data. The following fluctuations have been noted:

- Sample point W-3 volatile results show detection of methylene chloride, trans-1,2-dichloroethene, 1,1-dichloroethane consistent with previous quarterly results. Volatile organics previously not detected include chloroethane, chloromethane, and 1,4-dichlorobenzene.
- Sample point W-8 nitrate levels remain elevated compared to historical levels. Total organic carbon results have decreased compared with the previous quarters results. Volatile organics detected include trichloroethene, 1,1,1-trichloroethane, and 1,1,2,2-tetrachloroethane.
- Sample point W-A chloride results continue to fluctuate.
- Sample point W-B exhibited chloride results remaining within the historical range.
- Sample point W-C results include detection of benzene, trichloroethene, and 1,1-dichloroethane (1,1-dichloroethane not previously detected).
- Sample point W-D chloride results elevated compared to previous quarter
- Sample point W-E chloride results remain elevated. Total iron levels have returned to historical levels. Lead was not detected.
- Sample point W-F organics were not detected for second consecutive quarter.
- Sample point W-G showed presence of trans-1,2-dichloroethene.

Additionally, sample point W-5 matrix spike duplicate recovery for the compound 1,1-dichloroethene, fell outside QC limits. The matrix spike blank for this sample fell within QC limits. Trip blanks exhibited contamination for some volatile compounds. This contamination does not appear to have impacted sample results.



WP0608

Please feel free to contact me at (716) 691-2600 with any additional questions or comments.

Sincerely, Recra Environmental, Inc.

Brian J. Fischer

Manager, Field Testing







Chemical and Environmental Analysis Services

November 3, 1993

Mr. Ken Ziccarelli Gunville Energy Systems 324 Pavement Road Lancaster, NY 14086

RECEIVED

DEC 1 6 1993

N.Y.S. DEPT. OF ENVIRONMENTAL CONSERVATION REGION 9

RE: Analytical Results

Dear Mr. Ziccarelli:

Please find enclosed results concerning the analyses of the samples recently collected by Recra Environmental, Inc. on your behalf. The Pertinent Information regarding these analyses is listed below:

Quote #: NY91-326R

Project Name: Lancaster Landfill-Quarterly

Matrix: Aqueous

Samples Received: 10/4/93, 10/5/93 Sample Date: 10/4/93, 10/5/93

If you have any questions concerning these data, please contact Mr. Brian Fischer, Program Manager at (716) 691-2600 and refer to the I.D. number listed below. It has been our pleasure to provide Gunville Energy Systems with Environmental Testing Services. We look forward to serving you in the future.

Sincerely,

RECRA ENVIRONMENTAL, INC.

Robert K. Wyeth Laboratory Director

Brian J. Fischer Program Manager

RES/RKW/sh Enclosure

> I.D. #A3-3319 C3-0551 #A3-3335 C3-0553 #NY1C3261

#### ANALYTICAL RESULTS

Prepared For

Gunville Energy Systems 324 Pavement Road Lancaster, NY 14086

Prepared By

Recra Environmental, Inc. 10 Hazelwood Drive, Suite 106 Amherst, New York 14228-2298

#### **METHODOLOGIES**

The specific methodologies employed in obtaining the enclosed analytical results are indicated on the specific data table. The method numbers presented refer to the following U.S. Environmental Protection Agency reference.

- \* 40 CFR Part 136 "Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act" October 26, 1984 (Federal Register) U.S. Environmental Protection Agency.
- \* U.S. Environmental Protection Agency "Test Methods for Evaluating Solid Waste-Physical/Chemical Methods." Office of Solid Waste and Emergency Response. November 1986, SW-846, Third Edition.

#### **COMMENTS**

Comments pertain to data on one or all pages of this report.

The enclosed data has been reported utilizing data qualifiers (Q) as defined on the Organic and Inorganic Data Comment Pages.

Sample W-5 Matrix Spike Duplicate exhibited a recovery for compound 1,1-dichloroethene which was outside of QC limits. The matrix spike blank recovery for this compound is within limits and is reported in this data package.



Trip blank AS046512 exhibited contamination from the compound Benzene. One associated well sample exhibited the presence of this compound.

Trip blank AS046461 exhibited contamination from the compound Tetrachloroethene and/or 1,1,2,2-Tetrachloroethane. One associated well sample exhibited the presence of this compound at a level greater than 10 times the concentration exhibited by trip blank AS046461.

Chromatographically Dibromochloromethane, 1,1,2-Trichloroethane, and trans-1,3-Dichloropropene coelute. The reported value is therefore and "and/or" value.

Chromatographically 1,1,2,2-Tetrachloroethane and Tetrachloroethene coelute. The reported value is therefore an "and/or" value.



#### ORGANIC DATA COMMENT PAGE

Laboratory Name RECRA ENVIRONMENTAL, INC.

USEPA Defined Organic Data Qualifiers:

- U Indicates compound was analyzed for but not detected.
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- C This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B This flag is used when the analyte is found in the associated blank as well as in the sample.
- E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
- D This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- G The TCLP Matrix Spike recovery was greater than the upper limit of the analytical method.
- L The TCLP Matrix Spike recovery was lower than the lower limit of the analytical method.
- T This flag is used when the analyte is found in the associated TCLP extraction as well as in the sample.
- N Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results.
- P This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the Form I and flagged with a "P".
- A This flag indicates that a TIC is a suspected aldolcondensation product.



Laboratory Name RECRA ENVIRONMENTAL, INC.

USEPA Defined Inorganic Data Qualifiers:

- B Indicates a value greater than or equal to the instrument detection limit but less than the contract required detection limit.
- U Indicates element was analyzed for but not detected. Report with the detection limit value (e.g., 100).
- E Indicates a value estimated or not reported due to the presence of interference.
- S Indicates value determined by Method of Standard Addition.
- N Indicates spike sample recovery is not within control limits.
- \* Indicates duplicate analysis is not within control limits.
- + Indicates the correlation coefficient for method of standard addition is less the 0.995.
- M Indicates duplicate injection results exceeded control limits.
- W Post digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.



Aqueous

#### GUNNVILLE ENERGY SYSTEMS

#### METHOD 601 - PURGEABLE HALOCARBONS

Recra Environmental, Inc. - RECNY Matrix: Laboratory:

Lab Job No: A93-3335 Dilution Factor: 1

Lab Sample ID: AS046514 Sample Date: 10/05/93 Client Sample ID: W-A Analysis Date: 10/12/93

Parameter	Units = UG/L	Result	Q
Bromodichloromethane		0.20	U
Bromoform		1.0	U
Bromomethane		1.0	U
Carbon Tetrachloride		0.20	U
Chlorobenzene		0.20	U
Chloroethane		1.0	U
2-Chloroethylvinyl ether		1.0	U
Chloroform		0.20	U
Chloromethane		1.0	U
Dibromochloromethane		0.20	U
1,2-Dichlorobenzene		0.40	U
1,3-Dichlorobenzene	1	0.40	U
1,4-Dichlorobenzene		0.40	U
1,1-Dichloroethane	į	0.20	U
1,2-Dichloroethane	}	0.20	U
1,1-Dichloroethene	į	0.20	U
trans-1,2-Dichloroethene	1	0.20	U
1,2-Dichloropropane	Ì	0.20	U
cis-1,3-Dichloropropene		0.20	U
trans-1,3-Dichloropropene		0.20	U
Methylene chloride		0.20	U
1,1,2,2-Tetrachloroethane	1	0.20	U
Tetrachloroethene		0.20	U
1,1,1-Trichloroethane		0.20	U
1,1,2-Trichloroethane		0.20	U
Trichloroethene		0.20	U
Trichlorofluoromethane		0.20	U
Vinyl chloride		1.0	U

#### GUNNVILLE ENERGY SYSTEMS

# METHOD 601 - PURGEABLE HALOCARBONS

Laboratory:

Recra Environmental, Inc. - RECNY

Matrix:

Aqueous

Lab Job No:

A93-3335

Dilution Factor: 1

Sample Date:

10/05/93

Lab Sample ID:

AS046515

Client Sample ID: W-B

Analysis Date: 10/12/93

Parameter	Units = UG/L	Result	Q
Bromodichloromethane		0.20	U
Bromoform		1.0	U
Bromomethane		1.0	U
Carbon Tetrachloride		0.20	U
Chlorobenzene		0.20	U
Chloroethane		1.0	U
2-Chloroethylvinyl ether		1.0	U
Chloroform		0.20	U
Chloromethane		1.0	U
Dibromochloromethane		0.20	U
1,2-Dichlorobenzene		0.40	U
1,3-Dichlorobenzene		0.40	U
1,4-Dichlorobenzene		0.40	U
1,1-Dichloroethane		0.20	U
1,2-Dichloroethane		0.20	υ
1,1-Dichloroethene		0.20	υ
trans-1,2-Dichloroethene		0.20	U
1,2-Dichloropropane		0.20	U
cis-1,3-Dichloropropene		0.20	U
trans-1,3-Dichloropropene		0.20	U
Methylene chloride		0.20	U
1,1,2,2-Tetrachloroethane		0.20	U
Tetrachloroethene		0.20	U
1,1,1-Trichloroethane		0.20	U
1,1,2-Trichloroethane		0.20	ប
Trichloroethene		0.20	U
Trichlorofluoromethane		0.20	U
Vinyl chloride		1.0	U

#### GUNNVILLE ENERGY SYSTEMS

#### METHOD 601 - PURGEABLE HALOCARBONS

Recra Environmental, Inc. - RECNY Laboratory: Matrix:

Aqueous Lab Job No: Dilution Factor: 1 A93-3335

Lab Sample ID: AS046516 Sample Date: 10/05/93 Client Sample ID: W-C Analysis Date: 10/12/93

Parameter	Units = UG/L	Result	Q
Bromodichloromethane		0.20	U
Bromoform		1.0	U
Bromomethane		1.0	U
Carbon Tetrachloride		0.20	U
Chlorobenzene		0.20	U
Chloroethane		1.0	U
2-Chloroethylvinyl ether		1.0	U
Chloroform		0.20	U
Chloromethane		1.0	U
Dibromochloromethane		0.20	U
1,2-Dichlorobenzene		0.40	U
1,3-Dichlorobenzene		0.40	U
1,4-Dichlorobenzene		0.40	U
1,1-Dichloroethane		0.55	
1,2-Dichloroethane		0.20	U
1,1-Dichloroethene		0.20	U
trans-1,2-Dichloroethene		0.20	U
1,2-Dichloropropane		0.20	U
cis-1,3-Dichloropropene		0.20	U
trans-1,3-Dichloropropene		0.20	U
Methylene chloride		0.20	U
1,1,2,2-Tetrachloroethane		0.20	U
Tetrachloroethene		0.20	U
1,1,1-Trichloroethane		0.20	U
1,1,2-Trichloroethane		0.20	U
Trichloroethene		0.50	
Trichlorofluoromethane		0.20	U
Vinyl chloride		1.0	U

#### GUNNVILLE ENERGY SYSTEMS

#### METHOD 601 - PURGEABLE HALOCARBONS

Aqueous

Dilution Factor: 1

Laboratory: Recra Environmental, Inc. - RECNY Matrix:
Lab Job No: A93-3335 Dilution
Lab Sample ID: AS046517 Sample ID:
Client Sample ID: W-D Analysis Sample Date: 10/05/93 Analysis Date: 10/12/93

Parameter	Units = UG/L	Result	Q
Bromodichloromethane		0.20	U
Bromoform	·	1.0	U
Bromomethane	Ī	1.0	U
Carbon Tetrachloride		0.20	U
Chlorobenzene	1	0.20	Ū
Chloroethane		1.0	U
2-Chloroethylvinyl ether		1.0	U
Chloroform	1	0.20	U
Chloromethane	j	1.0	U
Dibromochloromethane		0.20	U
1,2-Dichlorobenzene		0.40	U
1,3-Dichlorobenzene	İ	0.40	U
1,4-Dichlorobenzene		0.40	U
1,1-Dichloroethane	i	0.20	U
1,2-Dichloroethane		0.20	U
1,1-Dichloroethene		0.20	U
trans-1,2-Dichloroethene		0.20	U
1,2-Dichloropropane		0.20	U
cis-1,3-Dichloropropene		0.20	U
trans-1,3-Dichloropropene		0.20	U
Methylene chloride		0.20	U
1,1,2,2-Tetrachloroethane	j	0.20	U
Tetrachloroethene	;	0.20	U
1,1,1-Trichloroethane		0.20	U
1,1,2-Trichloroethane		0.20	U
Trichloroethene		0.20	U
Trichlorofluoromethane		0.20	U
Vinyl chloride		1.0	U

Aqueous

#### GUNNVILLE ENERGY SYSTEMS

#### METHOD 601 - PURGEABLE HALOCARBONS

Recra Environmental, Inc. - RECNY Matrix:

Laboratory: Lab Job No: A93-3335 Dilution Factor: 1

Lab Sample ID: AS046518 Sample Date: 10/05/93 Client Sample ID: W-E Analysis Date: 10/12/93

Parameter	Units = UG/L	Result	Q
Bromodichloromethane		0.20	U
Bromoform		1.0	ט
Bromomethane		1.0	ט
Carbon Tetrachloride		0.20	ט
Chlorobenzene		0.20	U
Chloroethane		1.0	U
2-Chloroethylvinyl ether		1.0	U
Chloroform		0.20	U
Chloromethane		1.0	U
Dibromochloromethane		0.20	U
1,2-Dichlorobenzene		0.40	U
1,3-Dichlorobenzene		0.40	U
1,4-Dichlorobenzene		0.40	U
1,1-Dichloroethane		0.20	U
1,2-Dichloroethane		0.20	U
1,1-Dichloroethene		0.20	U
trans-1,2-Dichloroethene		0.20	U
1,2-Dichloropropane		0.20	U
cis-1,3-Dichloropropene		0.20	U
trans-1,3-Dichloropropene		0.20	U
Methylene chloride		0.20	ט
1,1,2,2-Tetrachloroethane		0.20	U
Tetrachloroethene		0.20	Ü
1,1,1-Trichloroethane		0.20	U
1,1,2-Trichloroethane		0.20	U
Trichloroethene		0.20	U
Trichlorofluoromethane		0.20	U
Vinyl chloride		1.0	U

### METHOD 601 - PURGEABLE HALOCARBONS

Laboratory: Lab Job No: Recra Environmental, Inc. - RECNY

A93-3319

Lab Sample ID:

AS046464

Client Sample ID: W-F

Matrix:

Aqueous

Dilution Factor: 1

Sample Date:

10/04/93

Analysis Date: 10/12/93

Parameter	Units = UG/L	Result	Q
Bromodichloromethane		0.20	U
Bromoform		1.0	U
Bromomethane		1.0	U
Carbon Tetrachloride		0.20	U
Chlorobenzene		0.20	U
Chloroethane		1.0	U
2-Chloroethylvinyl ether		1.0	U
Chloroform		0.20	U
Chloromethane		1.0	U
Dibromochloromethane		0.20	U
1,2-Dichlorobenzene		0.40	U
1,3-Dichlorobenzene		0.40	U
1,4-Dichlorobenzene		0.40	U
1,1-Dichloroethane		0.20	U
1,2-Dichloroethane		0.20	U
1,1-Dichloroethene		0.20	U
trans-1,2-Dichloroethene		0.20	U
1,2-Dichloropropane		0.20	U
cis-1,3-Dichloropropene		0.20	U
trans-1,3-Dichloropropene		0.20	U
Methylene chloride		0.20	U
1,1,2,2-Tetrachloroethane		0.20	U
Tetrachloroethene		0.20	U
1,1,1-Trichloroethane		0.20	U
1,1,2-Trichloroethane		0.20	U
Trichloroethene		0.20	U
Trichlorofluoromethane		0.20	U
Vinyl chloride		1.0	U

### METHOD 601 - PURGEABLE HALOCARBONS

Laboratory:

Recra Environmental, Inc. - RECNY

Matrix:

Aqueous

Lab Job No:

A93-3335

Dilution Factor: 1

Lab Sample ID:

AS046519

Sample Date:

10/05/93

Client Sample ID: W-G

Analysis Date: 10/12/93

Parameter	Units = UG/L	Result	Q
Bromodichloromethane		0.20	U
Bromoform		1.0	ប
Bromomethane		1.0	ប
Carbon Tetrachloride		0.20	ប
Chlorobenzene		0.20	ប
Chloroethane		1.0	U
2-Chloroethylvinyl ether		1.0	Ū
Chloroform		0.20	U
Chloromethane		1.0	U
Dibromochloromethane		0.20	U
1,2-Dichlorobenzene		0.40	ប
1,3-Dichlorobenzene		0.40	U
1,4-Dichlorobenzene		0.40	ប
1,1-Dichloroethane		0.20	U
1,2-Dichloroethane		0.20	U
1,1-Dichloroethene		0.20	U
trans-1,2-Dichloroethene		0.24	
1,2-Dichloropropane		0.20	U
cis-1,3-Dichloropropene		0.20	U
trans-1,3-Dichloropropene		0.20	U
Methylene chloride		0.20	U
1,1,2,2-Tetrachloroethane		0.20	U
Tetrachloroethene		0.20	U
1,1,1-Trichloroethane		0.20	U
1,1,2-Trichloroethane		0.20	U
Trichloroethene		0.20	U
Trichlorofluoromethane		0.20	U
Vinyl chloride		1.0	U

### METHOD 601 - PURGEABLE HALOCARBONS

Laboratory: Lab Job No: Recra Environmental, Inc. - RECNY Matrix:

Aqueous A93-3335 Dilution Factor: 1

Lab Sample ID: AS046520 Sample Date: 10/05/93 Client Sample ID: W-H Analysis Date: 10/13/93

Parameter	Units = UG/L	Result	Q
Bromodichloromethane		0.20	U
Bromoform		1.0	U
Bromomethane		1.0	U
Carbon Tetrachloride		0.20	U
Chlorobenzene		0.20	U
Chloroethane		1.0	U
2-Chloroethylvinyl ether		1.0	υ
Chloroform		0.20	U
Chloromethane		1.0	U
Dibromochloromethane		0.20	U
1,2-Dichlorobenzene		0.40	U
1,3-Dichlorobenzene		0.40	Ū
1,4-Dichlorobenzene		0.40	Ū
1,1-Dichloroethane		0.20	U
1,2-Dichloroethane		0.20	U
1,1-Dichloroethene		0.20	U
trans-1,2-Dichloroethene		0.20	U
1,2-Dichloropropane		0.20	U
cis-1,3-Dichloropropene		0.20	U
trans-1,3-Dichloropropene		0.20	U
Methylene chloride		0.20	ט
1,1,2,2-Tetrachloroethane		0.20	U
Tetrachloroethene		0.20	U
1,1,1-Trichloroethane		0.20	U
1,1,2-Trichloroethane		0.20	U
Trichloroethene		0.20	U
Trichlorofluoromethane		0.20	U
Vinyl chloride		1.0	Ū

### METHOD 601 - PURGEABLE HALOCARBONS

Laboratory: Recra Environmental, Inc. - RECNY Matrix:
Lab Job No: A93-3335 Dilution
Lab Sample ID: AS046513 Sample Da

Dilution Factor: 1

Aqueous

Sample Date: 10/05/93 Analysis Date: 10/15/93

Client Sample ID: W-3

Parameter	Units = UG/L	Result	Q
Bromodichloromethane		0.20	U
Bromoform		1.0	U
Bromomethane		1.0	U
Carbon Tetrachloride		0.20	U
Chlorobenzene		0.20	U
Chloroethane		2.6	
2-Chloroethylvinyl ether		1.0	U
Chloroform		0.20	U
Chloromethane		8.7	
Dibromochloromethane		0.20	ן ט
1,2-Dichlorobenzene		0.40	U
1,3-Dichlorobenzene		0.40	U
1,4-Dichlorobenzene		0.52	
1,1-Dichloroethane		0.35	
1,2-Dichloroethane		0.20	U
1,1-Dichloroethene		0.20	U
trans-1,2-Dichloroethene		0.81	
1,2-Dichloropropane		0.20	U
cis-1,3-Dichloropropene		0.20	U
trans-1,3-Dichloropropene		0.20	U
Methylene chloride		0.21	
1,1,2,2-Tetrachloroethane		0.20	U
Tetrachloroethene		0.20	U
1,1,1-Trichloroethane		0.20	U
1,1,2-Trichloroethane		0.20	U
Trichloroethene		0.20	U
Trichlorofluoromethane		0.20	U
Vinyl chloride		1.0	U

### METHOD 601 - PURGEABLE HALOCARBONS

Recra Environmental, Inc. - RECNY Matrix: Aqueous Laboratory:

Dilution Factor: 1

Laboratory: Recra Env Lab Job No: A93-3319 Lab Sample ID: AS046462 Sample Date: Analysis Date: 10/04/93 Client Sample ID: W-5 10/11/93

Parameter	Units = UG/L	Result	Q
Bromodichloromethane		0.20	U
Bromoform		1.0	U
Bromomethane		1.0	U
Carbon Tetrachloride		0.20	U
Chlorobenzene		0.20	U
Chloroethane		1.0	U
2-Chloroethylvinyl ether		1.0	U
Chloroform		0.20	U
Chloromethane		1.0	U
Dibromochloromethane		0.20	U
1,2-Dichlorobenzene		0.40	U
1,3-Dichlorobenzene		0.40	U
1,4-Dichlorobenzene		0.40	U
1,1-Dichloroethane		0.20	U
1,2-Dichloroethane		0.20	U
1,1-Dichloroethene		0.20	U
trans-1,2-Dichloroethene		0.20	U
1,2-Dichloropropane		0.20	U
cis-1,3-Dichloropropene		0.20	U
trans-1,3-Dichloropropene		0.20	U
Methylene chloride		0.20	U
1,1,2,2-Tetrachloroethane		0.20	U
Tetrachloroethene		0.20	U
1,1,1-Trichloroethane		0.20	U
1,1,2-Trichloroethane		0.20	U
Trichloroethene		0.20	U
Trichlorofluoromethane		0.20	U
Vinyl chloride		1.0	U

### METHOD 601 - PURGEABLE HALOCARBONS

Laboratory:

Recra Environmental, Inc. - RECNY

Lab Job No:

A93-3319

Lab Sample ID: AS046462MS

Client Sample ID: W-5 MS

Matrix:

Dilution Factor: 1

10/04/93

Aqueous

Sample Date: Analysis Date: 10/11/93

Parameter	Units = UG/L	Result	Q
Bromodichloromethane		21	
Bromoform		18	
Bromomethane		21	
Carbon Tetrachloride		20	
Chlorobenzene		35	· ·
Chloroethane		19	
2-Chloroethylvinyl ether		14	
Chloroform		20	1
Chloromethane		20	1
Dibromochloromethane		58	1
1,2-Dichlorobenzene		32	
1,3-Dichlorobenzene		38	
1,4-Dichlorobenzene		35	
1,1-Dichloroethane		22	
1,2-Dichloroethane		21	
1,1-Dichloroethene		22	
trans-1,2-Dichloroethene		38	1
1,2-Dichloropropane		20	1
cis-1,3-Dichloropropene		19	İ
trans-1,3-Dichloropropene		0.20	U
Methylene chloride		19	
1,1,2,2-Tetrachloroethane		36	
Tetrachloroethene		0.20	U
1,1,1-Trichloroethane		21	
1,1,2-Trichloroethane		0.20	U
Trichloroethene		19	
Trichlorofluoromethane		20	
Vinyl chloride		42	

### METHOD 601 - PURGEABLE HALOCARBONS

Laboratory: Recra Environmental, Inc. - RECNY Matrix: Aqueous

Dilution Factor: 1 Lab Job No:

Lab Job No: A93-3319
Lab Sample ID: AS046462SD Sample Date: 10/04/93 Client Sample ID: W-5 MSD Analysis Date: 10/11/93

Parameter	Units = UG/L	Result	Q
Bromodichloromethane		23	
Bromoform		20	
Bromomethane		23	
Carbon Tetrachloride		22	
Chlorobenzene	Ì	41	
Chloroethane		21	
2-Chloroethylvinyl ether		15	
Chloroform		22	
Chloromethane		22	
Dibromochloromethane		65	
1,2-Dichlorobenzene		40	1
1,3-Dichlorobenzene		43	
1,4-Dichlorobenzene	ļ	41	
1,1-Dichloroethane		24	
1,2-Dichloroethane		23	
1,1-Dichloroethene		24	
trans-1,2-Dichloroethene		4 4	
1,2-Dichloropropane		24	
cis-1,3-Dichloropropene		18	1
trans-1,3-Dichloropropene		0.20	U
Methylene chloride		21	
1,1,2,2-Tetrachloroethane		4 3	
Tetrachloroethene		0.20	U
1,1,1-Trichloroethane		23	
1,1,2-Trichloroethane	·	0.20	U
Trichloroethene		23	
Trichlorofluoromethane		22	
Vinyl chloride		47	

### METHOD 601 - PURGEABLE HALOCARBONS

Laboratory:

Recra Environmental, Inc. - RECNY

Lab Job No:

A93-3319

Lab Sample ID: AS046463

Client Sample ID: W-8

Matrix:

Dilution Factor: 1

10/04/93

Aqueous

Sample Date: Analysis Date: 10/12/93

Parameter	Units = UG/L	Result	Q
Bromodichloromethane		0.20	U
Bromoform		1.0	U
Bromomethane		1.0	U
Carbon Tetrachloride		0.20	U
Chlorobenzene		0.20	U
Chloroethane		1.0	U
2-Chloroethylvinyl ether		1.0	U
Chloroform		0.20	U
Chloromethane		1.0	U
Dibromochloromethane		0.20	U
1,2-Dichlorobenzene		0.40	U
1,3-Dichlorobenzene		0.40	U
1,4-Dichlorobenzene		0.40	U
1,1-Dichloroethane		0.20	U
1,2-Dichloroethane		0.20	U
1,1-Dichloroethene		0.20	U
trans-1,2-Dichloroethene		0.20	U
1,2-Dichloropropane		0.20	U
cis-1,3-Dichloropropene		0.20	U
trans-1,3-Dichloropropene		0.20	U
Methylene chloride		0.20	U
1,1,2,2-Tetrachloroethane		3.6	
Tetrachloroethene		0.20	U
1,1,1-Trichloroethane		0.76	
1,1,2-Trichloroethane		0.20	U
Trichloroethene		0.76	
Trichlorofluoromethane		0.20	U
Vinyl chloride		1.0	U

### METHOD 601 - PURGEABLE HALOCARBONS

Laboratory:

Recra Environmental, Inc. - RECNY

Lab Job No:

A93-3319

Lab Sample ID:

AS046461

Client Sample ID: TRIP BLANK

Matrix:

Aqueous

Dilution Factor: 1

Sample Date:

10/04/93

Analysis Date:

10/11/93

Parameter	Units = UG/L	Result	Q
Bromodichloromethane		0.20	U
Bromoform		1.0	U
Bromomethane		1.0	U
Carbon Tetrachloride		0.20	U
Chlorobenzene		0.20	U
Chloroethane		1.0	U
2-Chloroethylvinyl ether		1.0	U
Chloroform		0.20	U
Chloromethane		1.0	U
Dibromochloromethane		0.20	U
1,2-Dichlorobenzene		0.40	U
1,3-Dichlorobenzene		0.40	U
1,4-Dichlorobenzene		0.40	U
1,1-Dichloroethane		0.20	U
1,2-Dichloroethane		0.20	U
1,1-Dichloroethene		0.20	U
trans-1,2-Dichloroethene		0.20	U
1,2-Dichloropropane		0.20	U
cis-1,3-Dichloropropene		0.20	U
trans-1,3-Dichloropropene		0.20	U
Methylene chloride		0.20	U
1,1,2,2-Tetrachloroethane		0.31	
Tetrachloroethene		0.20	U
1,1,1-Trichloroethane		0.20	U
1,1,2-Trichloroethane		0.20	U
Trichloroethene		0.20	U
Trichlorofluoromethane		0.20	U
Vinyl chloride		1.0	U

### METHOD 601 - PURGEABLE HALOCARBONS

Recra Environmental, Inc. - RECNY Laboratory: Lab Job No: Matrix: Aqueous

Dilution Factor: 1 A93-3335

Sample Date: Lab Sample ID: AS046512 10/05/93 Analysis Date: 10/12/93 Client Sample ID: TRIP BLANK

Parameter	Units = UG/L	Result	Q
Bromodichloromethane		0.20	U
Bromoform		1.0	U
Bromomethane		1.0	U
Carbon Tetrachloride		0.20	U
Chlorobenzene		0.20	U
Chloroethane		1.0	U
2-Chloroethylvinyl ether		1.0	U
Chloroform		0.20	U
Chloromethane		1.0	U
Dibromochloromethane		0.20	U
1,2-Dichlorobenzene		0.40	U
1,3-Dichlorobenzene		0.40	U
1,4-Dichlorobenzene		0.40	U
1,1-Dichloroethane		0.20	U
1,2-Dichloroethane		0.20	U
1,1-Dichloroethene		0.20	U
trans-1,2-Dichloroethene		0.20	U
1,2-Dichloropropane		0.20	U
cis-1,3-Dichloropropene		0.20	U
trans-1,3-Dichloropropene		0.20	U
Methylene chloride		0.20	U
1,1,2,2-Tetrachloroethane		0.20	U
Tetrachloroethene		0.20	U
1,1,1-Trichloroethane		0.20	U
1,1,2-Trichloroethane		0.20	U
Trichloroethene		0.20	U
Trichlorofluoromethane		0.20	U
Vinyl chloride		1.0	U
_			

### METHOD 601 - PURGEABLE HALOCARBONS

Laboratory:

Recra Environmental, Inc. - RECNY Matrix:

Aqueous

Lab Job No:

A93-3319

Dilution Factor: 1

Lab Sample ID:

AR011805

Sample Date:

Analysis Date: 10/11/93

Client	Sample	ID:	METHOD	BLANK (	(VBLK01)
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Parameter	Units = UG/L	Result	Q
Bromodichloromethane		0.20	U
Bromoform		1.0	Ū
Bromomethane		1.0	U
Carbon Tetrachloride		0.20	U
Chlorobenzene		0.20	U
Chloroethane		1.0	U
2-Chloroethylvinyl ether		1.0	U
Chloroform		0.20	U
Chloromethane		1.0	Ū
Dibromochloromethane		0.20	U
1,2-Dichlorobenzene		0.40	U
1,3-Dichlorobenzene		0.40	U
1,4-Dichlorobenzene		0.40	U
1,1-Dichloroethane		0.20	U
1,2-Dichloroethane		0.20	U
1,1-Dichloroethene		0.20	U
trans-1,2-Dichloroethene		0.20	U
1,2-Dichloropropane		0.20	U
cis-1,3-Dichloropropene		0.20	U
trans-1,3-Dichloropropene		0.20	U
Methylene chloride		0.20	U
1,1,2,2-Tetrachloroethane		0.20	U
Tetrachloroethene		0.20	U
1,1,1-Trichloroethane		0.20	U
1,1,2-Trichloroethane		0.20	U
Trichloroethene		0.20	U
Trichlorofluoromethane		0.20	U
Vinyl chloride		1.0	U

### METHOD 601 - PURGEABLE HALOCARBONS

Aqueous

Laboratory: Recra Environmental, Inc. - RECNY Matrix:
Lab Job No: A93-3319 Dilution
Lab Sample ID: AR011806 Sample D Dilution Factor: 1

Sample Date: Analysis Date: 10/11/93 Client Sample ID: MATRIX SPIKE BLANK

Parameter	Units = UG/L	Result	Q
Bromodichloromethane		21	
Bromoform		21	
Bromomethane		24	
Carbon Tetrachloride		22	
Chlorobenzene		38	
Chloroethane		22	
2-Chloroethylvinyl ether		24	
Chloroform		21	
Chloromethane		25	
Dibromochloromethane		65	
1,2-Dichlorobenzene		3 4	
1,3-Dichlorobenzene		40	
1,4-Dichlorobenzene		39	
1,1-Dichloroethane		24	
1,2-Dichloroethane		21	
1,1-Dichloroethene		23	
trans-1,2-Dichloroethene		42	
1,2-Dichloropropane		21	
cis-1,3-Dichloropropene		21	
trans-1,3-Dichloropropene		0.20	U
Methylene chloride		19	
1,1,2,2-Tetrachloroethane		41	
Tetrachloroethene		0.20	U
1,1,1-Trichloroethane		22	
1,1,2-Trichloroethane		0.20	U
Trichloroethene		21	
Trichlorofluoromethane		21	
Vinyl chloride		46	

### METHOD 601 - PURGEABLE HALOCARBONS

Aqueous

Dilution Factor: 1

Lab Job No: A93-3319 Dilution
Lab Sample ID: AR011807 Sample D

Sample Date: Analysis Date: 10/12/93 Client Sample ID: METHOD BLANK(VBLK02)

Parameter	Units = UG/L	Result	Q
Bromodichloromethane		0.20	U
Bromoform		1.0	U
Bromomethane		1.0	U
Carbon Tetrachloride		0.20	U
Chlorobenzene		0.20	U
Chloroethane		1.0	U
2-Chloroethylvinyl ether		1.0	U
Chloroform		0.20	U
Chloromethane		1.0	U
Dibromochloromethane		0.20	U
1,2-Dichlorobenzene		0.40	U
1,3-Dichlorobenzene		0.40	U
1,4-Dichlorobenzene		0.40	U
1,1-Dichloroethane		0.20	U
1,2-Dichloroethane		0.20	U
1,1-Dichloroethene		0.20	U
trans-1,2-Dichloroethene		0.20	U
1,2-Dichloropropane		0.20	U
cis-1,3-Dichloropropene		0.20	U
trans-1,3-Dichloropropene		0.20	U
Methylene chloride		0.20	U
1,1,2,2-Tetrachloroethane		0.20	U
Tetrachloroethene		0.20	U
1,1,1-Trichloroethane		0.20	U
1,1,2-Trichloroethane		0.20	U
Trichloroethene		0.20	U
Trichlorofluoromethane		0.20	U
Vinyl chloride		1.0	υ

### METHOD 601 - PURGEABLE HALOCARBONS

Laboratory: Recra Environmental, Inc. - RECNY Matrix: Lab Job No: A93-3319 Dilution Aqueous

Dilution Factor: 1

Lab Sample ID: AR011808 Sample Date:

Analysis Date: 10/12/93 Client Sample ID: MATRIX SPIKE BLANK

Parameter	Units = UG/L	Result	Q
Bromodichloromethane Bromoform Bromomethane Carbon Tetrachloride Chlorobenzene Chloroethane 2-Chloroethylvinyl ether Chloroform Chloromethane Dibromochloromethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,1-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,1-Dichloroethene trans-1,2-Dichloropropene trans-1,3-Dichloropropene trans-1,3-Dichloropropene Methylene chloride 1,1,2,2-Tetrachloroethane Tetrachloroethene 1,1,1-Trichloroethane 1,1,2-Trichloroethane Trichloroethene Trichlorofluoromethane Trichlorofluoromethane Vinyl chloride		22 20 18 20 17 18 15 22 25 61 17 19 17 24 23 22 21 21 21 21 21 21 21 21 21	U U

### METHOD 601 - PURGEABLE HALOCARBONS

Laboratory: Recra Environmental, Inc. - RECNY Matrix:
Lab Job No: A93-3335 Dilution Facto
Lab Sample ID: AR011815 Sample Date:

Aqueous

Dilution Factor: 1

Client Sample ID: METHOD BLANK(VBLK03)

Analysis Date:

Parameter	Units = UG/L	Result	Q
Bromodichloromethane		0.20	U
Bromoform		1.0	U
Bromomethane		1.0	U
Carbon Tetrachloride		0.20	U
Chlorobenzene		0.20	U
Chloroethane		1.0	U
2-Chloroethylvinyl ether		1.0	U
Chloroform		0.20	U
Chloromethane		1.0	U
Dibromochloromethane		0.20	U
1,2-Dichlorobenzene		0.40	U
1,3-Dichlorobenzene		0.40	U
1,4-Dichlorobenzene		0.40	U
1,1-Dichloroethane		0.20	U
1,2-Dichloroethane		0.20	U
1,1-Dichloroethene		0.20	U
trans-1,2-Dichloroethene		0.20	U
1,2-Dichloropropane		0.20	U
cis-1,3-Dichloropropene		0.20	U
trans-1,3-Dichloropropene		0.20	U
Methylene chloride		0.20	U
1,1,2,2-Tetrachloroethane		0.20	U
Tetrachloroethene		0.20	U
1,1,1-Trichloroethane		0.20	U
1,1,2-Trichloroethane		0.20	U
Trichloroethene		0.20	U
Trichlorofluoromethane		0.20	U
Vinyl chloride		1.0	U

### METHOD 601 - PURGEABLE HALOCARBONS

Recra Environmental, Inc. - RECNY Matrix: Aqueous

Laboratory: Recra Env Lab Job No: A93-3335 Lab Sample ID: AR011816 Dilution Factor: 1 Sample Date:

Client Sample ID: METHOD BLANK(VBLK04) Analysis Date:

Parameter	Units = UG/L	Result	Q
Bromodichloromethane		0.20	U
Bromoform		1.0	U
Bromomethane		1.0	U
Carbon Tetrachloride		0.20	ט
Chlorobenzene		0.20	บ
Chloroethane		1.0	U
2-Chloroethylvinyl ether		1.0	U
Chloroform		0.20	U
Chloromethane		1.0	U
Dibromochloromethane		0.20	U
1,2-Dichlorobenzene		0.40	U
1,3-Dichlorobenzene		0.40	U
1,4-Dichlorobenzene		0.40	U
1,1-Dichloroethane		0.20	U
1,2-Dichloroethane		0.20	U
1,1-Dichloroethene		0.20	U
trans-1,2-Dichloroethene		0.20	U
1,2-Dichloropropane		0.20	U
cis-1,3-Dichloropropene		0.20	บ
trans-1,3-Dichloropropene		0.20	U
Methylene chloride		0.20	U
1,1,2,2-Tetrachloroethane		0.20	U
Tetrachloroethene		0.20	U
1,1,1-Trichloroethane		0.20	Ū
1,1,2-Trichloroethane		0.20	U
Trichloroethene		0.20	U
Trichlorofluoromethane		0.20	Ū
Vinyl chloride		1.0	Ū

METHOD 601 - FURGEABLE HALOCARBONS WATER SURROGATE RECOVERY GUNNVILLE ENERGY SYSTEMS

Recra Environmental, Inc. - RECNY Laboratory: Lab Job No:

A93-3319

Sample ID	S1 BCM #
1806 11808 11805 11807 16461 16462 16462 16462MS 46463	97 91 92 85 85 93 86 89
	Iab Sample ID         AR011806         AR011808         AR011805         AR011807         AS046461         AS046462         AS046462MS         AS046462SD         AS046463         AS046463

Bromochloromethane ll Ø Sl Column to be used to flag recovery values Values outside of contract required QC limits Surrogates diluted out #= \* O

# GUNNVILLE ENERGY SYSTEMS METHOD 601 - FURGEABLE HALOCARBONS WATER SURROGATE RECOVERY

Recra Environmental, Inc. - RECNY A93-3335 aboratory: ab Job No:

Client Sample ID	Lab Sample ID	S1 BOM #
METHOD BLANK (VBLK03)	AR011815	87
METHOD BLANK (VBLK04)	AR011816	89
TRIP BLANK	AS046512	83
W-3	AS046513	92
W-A	AS046514	90
W-B	AS046515	88
2	AS046516	89
M-D	AS046517	90
W-E	AS046518	91
ΣP	AS046519	90
M-W	AS046520	98

Bromochloromethane ĮĮ BOM S1

Values outside of contract required QC limits Surrogates diluted out Column to be used to flag recovery values

## \* Q

### METHOD 602 - PURGEABLE AROMATICS

Laboratory:

Recra Environmental, Inc. - RECNY

Matrix:

Aqueous

Lab Job No: Lab Sample ID: AS046514

A93-3335

Dilution Factor: 1

10/05/93

Client Sample ID: W-A

Sample Date: Analysis Date:

	Parameter	Units = UG/L	Result	Q
1,3-Dich	lorobenzene lorobenzene lorobenzene		0.20 0.20 0.40 0.40 0.40 0.20 0.20	ט ט ט ט ט ט

### METHOD 602 - PURGEABLE AROMATICS

Laboratory:

Recra Environmental, Inc. - RECNY

Lab Job No: A93-3335

Lab Sample ID: AS046515

Client Sample ID: W-B

Matrix:

Aqueous

Dilution Factor: 1

Sample Date: Analysis Date:

10/05/93

	Parameter	Units = UG/L	Result	Q
1,3-Dic	oenzene chlorobenzene chlorobenzene chlorobenzene oenzene		0.20 0.20 0.40 0.40 0.40 0.20 0.20	u u u u

### METHOD 602 - PURGEABLE AROMATICS

aboratory:

Recra Environmental, Inc. - RECNY

Matrix:

Aqueous

ab Job No:

A93-3335

Dilution Factor: 1

Lab Sample ID: AS046516

10/05/93

Client Sample ID: W-C

Sample Date: Analysis Date:

	Parameter	Units = UG/L	Result	Q
1,3-Dich]	lorobenzene Lorobenzene Lorobenzene		0.46 0.20 0.40 0.40 0.20 0.20	n n n

### METHOD 602 - PURGEABLE AROMATICS

Laboratory:

Recra Environmental, Inc. - RECNY Matrix:

A93-3335

Lab Job No: Lab Sample ID: AS046517

Client Sample ID: W-D

Aqueous

Dilution Factor: 1

Sample Date: 10/05/93 Analysis Date: 10/12/93

Parameter	Units = UG/L	Result	Q
Benzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethyl benzene Toluene		0.20 0.20 0.40 0.40 0.40 0.20 0.20	บ บ บ บ บ

### METHOD 602 - PURGEABLE AROMATICS

Laboratory:

Recra Environmental, Inc. - RECNY

Matrix:

Aqueous

Lab Job No:

A93-3335

Dilution Factor: 1

Lab Sample ID:

AS046518

Sample Date:

10/05/93

Client Sample ID: W-E

Analysis Date: 10/12/93

Parameter	Units = UG/L	Result	Q
Benzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethyl benzene Toluene		0.20 0.20 0.40 0.40 0.40 0.20 0.20	n n n

### METHOD 602 - PURGEABLE AROMATICS

aboratory:

Recra Environmental, Inc. - RECNY Matrix:

A93-3319

ab Job No: ab Sample ID: AS046464

:lient Sample ID: W-F

Aqueous

Dilution Factor: 1

Sample Date: Analysis Date:

10/04/93

Parameter	Units = UG/L	Result	Q
Benzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethyl benzene Toluene		0.20 0.20 0.40 0.40 0.40 0.20	บ บ บ บ บ

### METHOD 602 - PURGEABLE AROMATICS

Laboratory:

Recra Environmental, Inc. - RECNY

Matrix:

Aqueous

Lab Job No:

A93-3335

Dilution Factor: 1

1

Lab Sample ID:

AS046519

Sample Date:

10/05/93

Client Sample ID: W-G

Analysis Date:

	Parameter	Units = UG/L	Result	Q
1,3-Dichl	orobenzene orobenzene orobenzene		0.20 0.20 0.40 0.40 0.40 0.20 0.20	บ บ บ บ บ บ

### METHOD 602 - PURGEABLE AROMATICS

Laboratory: Lab Job No:

Recra Environmental, Inc. - RECNY

Matrix:

Aqueous

A93-3335

Dilution Factor: 1

Lab Sample ID:

AS046520

Sample Date:

10/05/93

Client Sample ID: W-H

Analysis Date: 10/13/93

Parameter	Units = UG/L	Result	Q
Benzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethyl benzene Toluene		0.20 0.20 0.40 0.40 0.40 0.20 0.20	บ บ บ บ บ

## :0036

### GÜNNVILLE ENERGY SYSTEMS

### METHOD 602 - PURGEABLE AROMATICS

Laboratory:

Recra Environmental, Inc. - RECNY

Matrix:

Aqueous

Lab Job No:

A93-3335

Dilution Factor: 1

Lab Sample ID: AS046513

Sample Date:

10/05/93

Client Sample ID: W-3

Analysis Date:

10/15/93

	Parameter	Units = UG/L	Result	Q
1,3-Dichlo	orobenzene orobenzene orobenzene		0.20 0.20 0.40 0.40 1.6 0.20 0.20	n n n n

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### GUNNVILLE ENERGY SYSTEMS

### METHOD 602 - PURGEABLE AROMATICS

Recra Environmental, Inc. - RECNY aboratory:

Matrix:

Aqueous

ab Job No:

A93-3319

Dilution Factor: 1

ab Sample ID: AS046462

10/04/93

lient Sample ID: W-5

Sample Date: Analysis Date: 10/11/93

Paramete	r Units = UG/L	Result	Q
Benzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethyl benzene Toluene		0.20 0.20 0.40 0.40 0.40 0.20 0.20	ם ט ט ט

### METHOD 602 - PURGEABLE AROMATICS

Laboratory:

. . . .

Recra Environmental, Inc. - RECNY

Matrix:

Aqueous

Lab Job No:

Dilution Factor: 1

Lab Job No: A93-3319
Lab Sample ID: AS046462MS

Sample Date:

10/04/93

Client Sample ID: W-5 MS

Analysis Date: 10/11/93

	Parameter	Units = UG/L	Result	Q
Benzene Chlorobenze 1,2-Dichloro 1,3-Dichloro 1,4-Dichloro Ethyl benzen Toluene	obenzene obenzene obenzene		22 37 37 36 35 20 21	

### METHOD 602 - PURGEABLE AROMATICS

Laboratory: Lab Job No:

Recra Environmental, Inc. - RECNY

A93-3319

Lab Sample ID: AS046462SD Client Sample ID: W-5 MSD

Matrix:

Dilution Factor: 1

Sample Date: Analysis Date:

10/04/93

Aqueous

10/11/93

	Parameter	Units = UG/L	Result	Q
1,3-Dichl	.orobenzene .orobenzene .orobenzene		24 44 44 42 43 23 24	

### METHOD 602 - PURGEABLE AROMATICS

Laboratory: Recra Environmental, Inc. - RECNY
Lab Job No: A93-3319 Matrix: Aqueous

Dilution Factor: 1

Lab Job No: A93-3319
Lab Sample ID: AS046463 Sample Date: 10/04/93 Analysis Date: 10/12/93 Client Sample ID: W-8

Parameter	Units = UG/L	Result	Q
Benzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethyl benzene Toluene		0.71 0.20 0.40 0.40 0.40 0.20 0.20	บ บ บ บ

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



APR 05 1994

Pine Hill Concrete Corp. 2255 Bailey Ave. Buffalo, NY 14215

Dear Sirs/Madam:

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

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

DEC Site No.: 915068

Site Name: Lancaster Sanitary Landfill

Site Address: Gunnville Rd., Lancaster, NY 14086

Classification Change from 2a to 4

The reason for the change is as follows: The site has confirmed hazardous waste disposal; associated volatile and metallic contaminants are confirmed to be present in the groundwater at levels exceeding class GA standard. Residential areas within 1 mile of the site use private wells as a source of drinking water. Geologic conditions are favorable for the migration of contaminants through groundwater from the landfill. The landfill has already been capped under an approved DSW closure plan and is in an O&M mode including groundwater monitoring. A classification of 4 is appropriate and would allow the DOH and DHWR to review the current groundwater monitoring program to ensure that it is protective of the residents in the area. The monitoring program could be expanded, if appropriate.

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

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

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

sincerely,

Robert L. Marino

Chief

Site Control Section

Bureau of Hazardous Site Control

Division of Hazardous Waste Remediation

Enclosures

bcc:

w/o Enc.

E. Barcomb

R. Marino

T. Reamon

T. Sylvester

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

R. Dana

G. Anders Carlson, NYSDOH

L. Concra

A. Snyder, R-9

P. Buechi

E. Belmore

J. Rider

file

TS/DF:ker

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



Mr. David Swarts, Clerk County of Erie Erie County Hall 25 Delaware Ave. Buffalo, NY 14202

Dear Mr. Swarts:

The Department of Environmental Conservation (DEC) maintains a Registry of sites where hazardous waste disposal has occurred. Property located at Gunnville Rd. in the Town of Lancaster and County of Erie and designated as Tax Map Number 83.00-5-6.1 and 84.00-3-3.1 was recently reclassified as a Class 4 in the Registry. The name and site ID number of this property as listed in the Registry is Lancaster Sanitary Landfill, #915068.

The Classification Code 4 means that the site is properly closed but requires continued management.

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

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

The reason for this recent classification decision is as follows:

The site has confirmed hazardous waste disposal; associated volatile and metallic contaminants are confirmed to be present in the groundwater at levels exceeding class GA standards. Residential areas within 1 mile of the site use private wells as a source of drinking water. Geologic conditions are favorable for the migration of contaminants through groundwater from the landfill. The landfill has

already been capped under an approved DSW closure plan and is in an O&M mode including groundwater monitoring. A classification of 4 is appropriate and would allow the DOH and DHWR to review the current groundwater monitoring program to ensure that it is protective of the residents in the area. The monitoring program could be expanded, if appropriate.

If you would like additional information about this site or the inactive hazardous waste site remedial program, call:

DEC's Inactive Hazardous Waste Site Toll-Free Information Number 1-800-342-9296. Or New York State Health Department's Health Liaison Program (HeLP) 1-800-458-1158, ext. 402.

Sincerely,

Robert L. Marino

Chief, Site Control Section Bureau of Hazardous Site Control Div. of Haz. Waste Remediation

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bcc: R. Marino

T. Reamon

P. Nelson, Reg. 9

T. Sylvester /

L. Ennist

A. Carlson

file

TS:ker

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



APR 05 1994

Mr. Robert P. Thill, Clerk Town of Lancaster 21 Central Ave. Lancaster, NY 14086

Dear Mr. Thill:

The Department of Environmental Conservation (DEC) maintains a Registry of sites where hazardous waste disposal has occurred. Property located at Gunnville Rd. in the Town of Lancaster and County of Erie and designated as Tax Map Number 83.00-5-6.1 and 84.00-3-3.1 was recently reclassified as a Class 4 in the Registry. The name and site ID number of this property as listed in the Registry is Lancaster Sanitary Landfill, #915068.

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Sincerely,

Robert L. Marino

Chief, Site Control Section
Bureau of Hazardous Site Control
Div. of Haz. Waste Remediation

lef/11/ann

bcc: R. Marino

T. Reamon

P. Nelson, Reg. 9

T. Sylvester 🥒

L. Ennist

A. Carlson

file

TS:ker