

Engineering Investigations and Evaluations of
Inactive Hazardous Waste Disposal Sites

Preliminary Site Assessment Report

Riverhead Landfill
Site No. 152048
Town of Riverhead, Suffolk County

October 1992

Prepared For:

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

Prepared By:

Division of Hazardous Waste Remediation
Bureau of Hazardous Site Control
Eastern Investigation Section

Riverhead Landfill, ID #152048

1.0 INTRODUCTION

In August 1980, the Suffolk County Department of Health Services (SCDHS), documented that mixed industrial solvents of unknown content were disposed in a brush dump at the Riverhead Landfill earlier that month, in violation of Part 360 regulations. Because of the dumping location, the county could not obtain a representative sample. Other than a yearly fee for scavenger waste businesses, the Town of Riverhead had not yet instituted preventative measures to prohibit the illegal disposal of liquid wastes. In December 1983, prior to the December 21, 1982 passage of the Long Island Landfill Law, sanitary landfills in Nassau and Suffolk Counties were listed on the Registry of Inactive Hazardous Waste Disposal Sites. Riverhead Landfill was placed on the Registry, as a Class 2a, on December 1, 1983. This is a temporary designation, which at that time was used for those sites at which hazardous waste disposal was suspected, but which lacked sufficient information to assign them to one of the classifications specified by law. In 1987, NYSDEC developed draft consent orders, for the continued operation of the sanitary landfill, and for a Phase II investigation. These orders required the submittal of a Part 360 Engineer's Report and a Phase II work plan. Evidently, neither a Phase I nor a Phase II investigation was initiated at this site. However, the Town of Riverhead's consultant, ERM-Northeast (ERM), prepared reports entitled "Proposed Work Plan for Phase II Site Investigation and Part 360 Engineer's Report (March 4, 1987)," and "Engineer's Report for Part 360 Permit Application - Construction and Demolition Debris Cell at Existing Sanitary Landfill (March 1, 1989)." In addition, the Environmental Protection Agency's consultant, NUS Corporation, completed a Preliminary Assessment and a Site Investigation (May 27, 1983). This Preliminary Site Assessment (PSA) has been prepared by the DEC, and is based on DEC's sampling of nearby groundwater monitoring wells (June 24, 1992), file information, and the above-mentioned reports.

2.0 SITE DESCRIPTION

The 40.5 acre Riverhead Landfill abuts Youngs Avenue to the north, and is situated west of properties along Osborn Avenue, north of Middle Road, and east of Twomey Avenue and Deep Hole Road (Figures 1 & 2), in the central portion of the Town of Riverhead, in rural Suffolk County, New York. The site is characterized as an acceptor of municipal and industrial wastes, septic sludge, and construction and demolition debris. Prior to beginning landfill operations in the late 1960's, the premises housed a sand and gravel quarry. The Town installed a methane gas recovery system in 1983.

The landfill lies atop approximately 1,200 feet of unconsolidated deposits. A locally continuous clay unit occurs between 90 and 120 feet below grade.

Groundwater beneath the site has been encountered in the range of 40 to 66 feet below surface, and the flow direction is north-northeastward.

3.0 SITE HISTORY AND PREVIOUS INVESTIGATIONS

The sanitary landfill began operations in 1967. An additional 29.5 acre parcel immediately west of the landfill was acquired by the town in mid 1983. The southernmost 9.2 acre portion of this parcel was mined for landfill cover (sand and gravel) and for roadway ice control (sand). North of this portion, another 9.5 acres was mined for sand and top soil. It was proposed that both excavations be operated as construction and demolition debris landfills.

In March and June 1980, SCDHS sampled water from homes near Riverhead landfill. The results suggested that leachate migration may have contaminated some of the wells. In November of that year, the Town of Riverhead sampled eleven private wells. Their results were not consistent with those of the SCDHS. Groundwater sampling of a private supply well, located on premises (Figure 3), revealed exceedences of drinking water standards for chloride, sodium, iron, and zinc.

On August 7, 1980, a SCDHS employee noted that two thousand gallons of mixed industrial waste solvents, retrieved from holding tanks by a cesspool scavenger service, was discharged at the landfill on that date. However, due to the lack of sufficient evidence, no legal action was taken on this matter.

From 1982 through 1987, the SCDHS investigated the quality of the groundwater near the landfill. Eleven groundwater monitoring wells (seven deep and four shallow) were emplaced around the landfill. The deep wells were screened 270 to 300 feet below grade, in the Magothy aquifer, and were installed adjacent to shallower wells to evaluate the vertical water quality profiles and vertical head distribution. The analyses indicated that a light to moderate strength leachate plume was moving north-northeastward, and had reached a depth ranging from 160 feet below surface (approximately 100 feet below the water table) immediately outside the landfill, to a depth of about 110 feet below grade further downgradient. Parameters which exceeded water quality standards included:

	<u>Groundwater (ug/l)</u>	<u>NYS Class GA Standard (ug/l)</u>
Benzene	6	Not detectable
Total xylenes	21	5
O-dichlorobenzene	15	4.7
1,2,4-trimethylbenzene	6	5
1,3,5-trimethylbenzene	10	5
Di-n-butylphthalate	52	0.44
Phenols	6	1.0
Lead	273	25

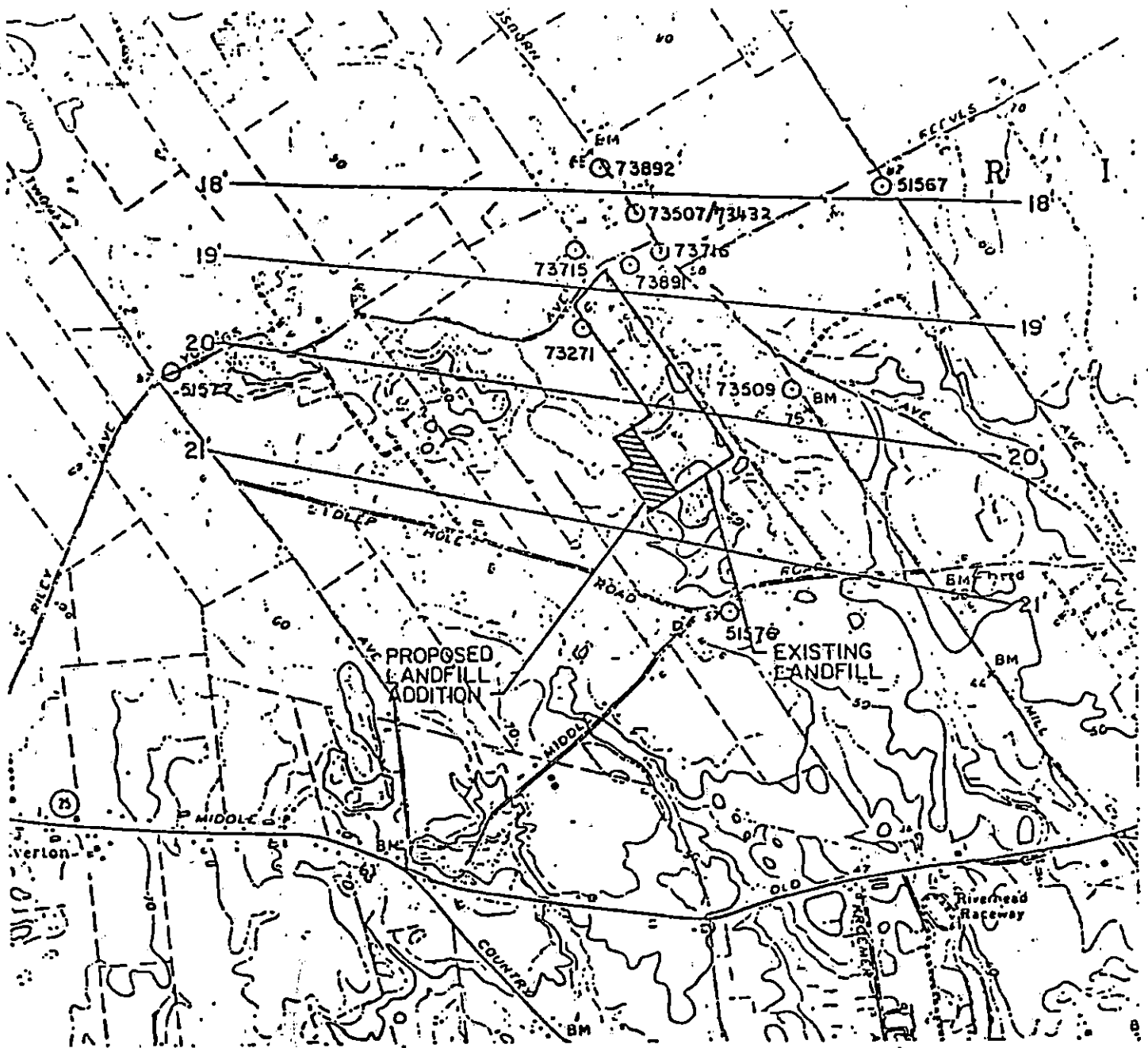
In February 1984, because of restrictions of the Long Island Landfill Law and Part 360, which require that landfills be lined, and due to the contravention of groundwater standards, evidently caused by the leachate plume originating from the landfill, the DEC did not renew the landfill's operating permit.

The United States Geological Survey, Water Resources Division, conducted a geophysical survey of Riverhead Landfill in April 1984. They used electromagnetic techniques to measure the conductivity of the soil matrix and groundwater, and proved a correlation between this and the specific conductance of groundwater collected from the monitoring well network. The leachate plume's areal extent and some of its vertical extent was also delineated. ERM's preliminary review of the data from that study showed that the plume extended aerially about 2,500 feet north of the landfill's northern boundary, and approached a maximum width of approximately 2,000 feet.

The most recent sampling that pertained to Riverhead Landfill was undertaken by DEC in June 1992. Four hydraulically downgradient wells, including one deep well (Table 1), were sampled, and analysis specifically for volatiles was provided. For each sample, no analyte was detected at any quantifiable level.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The DEC has reviewed all available documentation pertaining to the Riverhead sanitary landfill. The true nature of the "industrial wastes" unloaded at the landfill is still unknown. However, because the latest occurrence of a contravened groundwater quality standard was in 1984, it is evident that any significant environmental threat that may have resulted from suspected hazardous waste disposal incidents at the landfill, has been effectively curtailed with time.



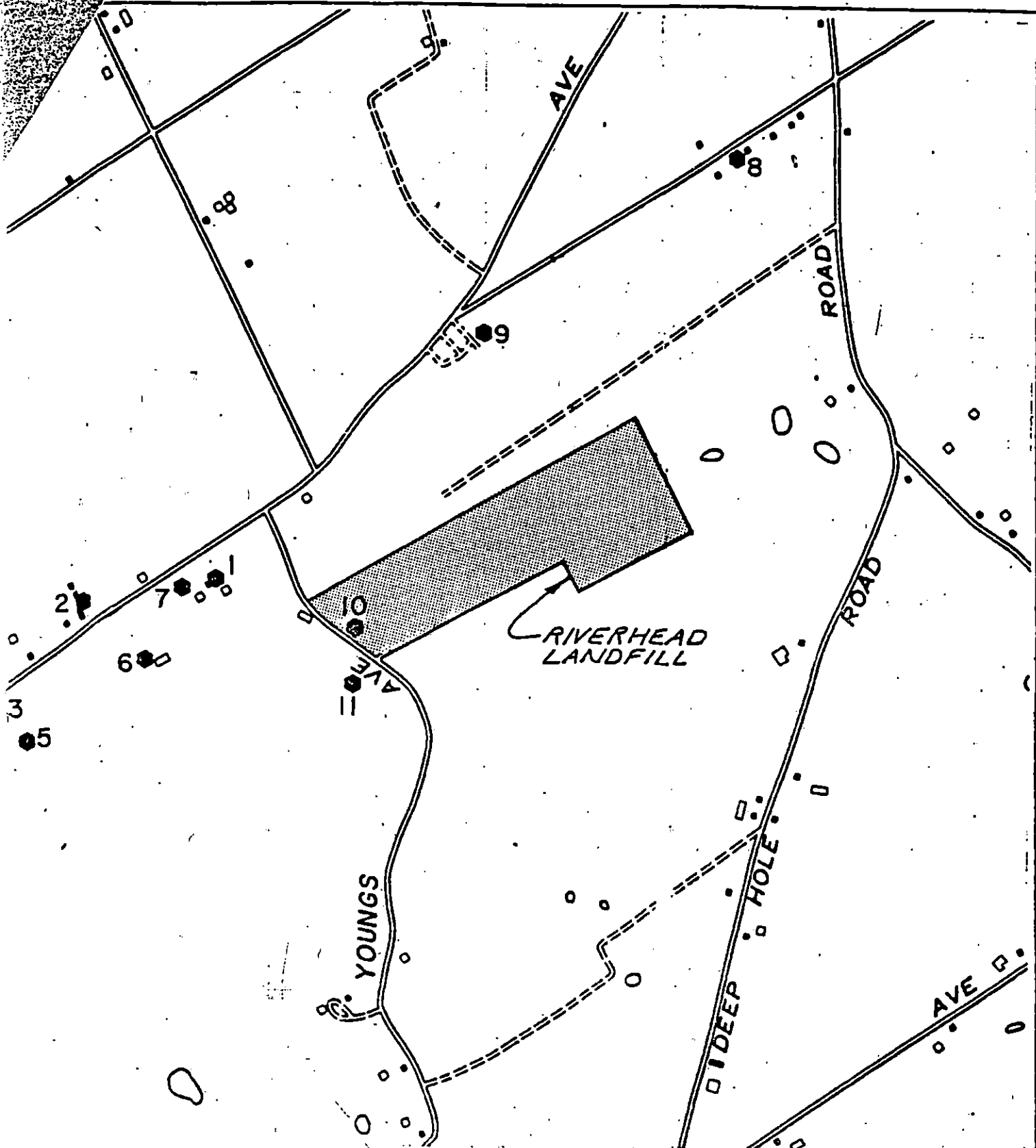
ELEVATIONS SHOWN INDICATE
GROUNDWATER LEVELS

SCALE: 1"=2000'

SOURCE: 1983 ERM-Northeast Part 360 Application
for Riverhead Landfill Extension

ERM ERM-Northeast
Environmental Resources Management

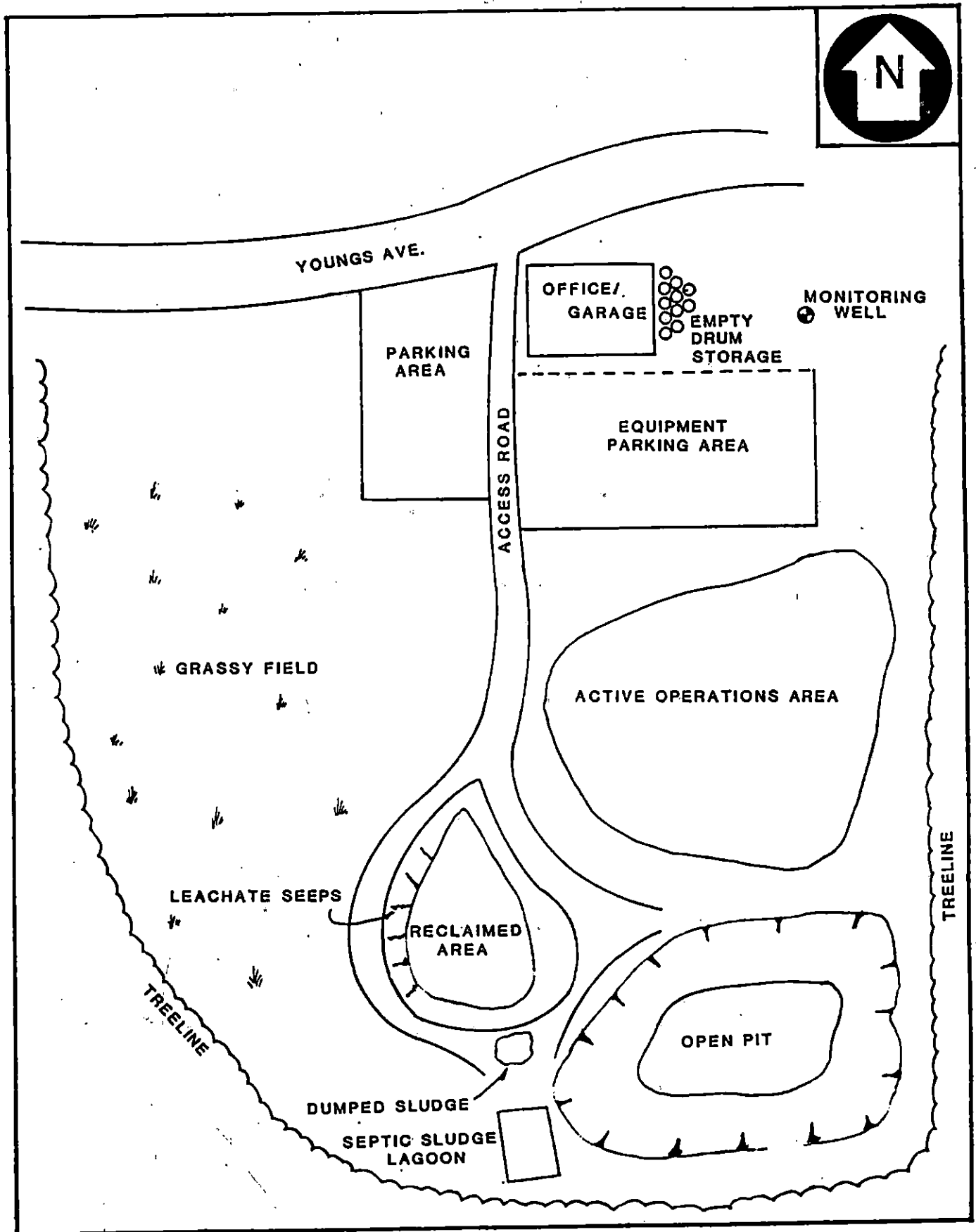
FIGURE 1
GROUND WATER CONTOUR MAP
RIVERHEAD LANDFILL
SUFFOLK COUNTY, NEW YORK



PRIVATE WELL SAMPLE LOCATION MAP

TOWN OF RIVERHEAD
PART 360 COMPLIANCE REPORT

7/80



RIVERHEAD LANDFILL
RIVERHEAD, N.Y.

SITE MAP
NOT TO SCALE

FIGURE 3



TABLE 1

SCDHS MONITORING WELL SPECIFICATIONS

WELL NUMBER	S-51576	S-73270	S-73271	S-73357	S-73432	S-73508	S-73509	S-73714	S-73715	S-73891
DEPTH OF WELL	69'2"	305'	83'	305'	305'	278'	78'	69'	89'	66'
APPROX. DEPTH TO WATER	40'8"	55'	55'	42'	46'	41.5'	42'	51'	66'	54'
DATE WELL COMPLETED	7/12/74	8/24/82	8/30/82	9/20/82	10/7/82	11/10/82	11/17/82	11/23/82	12/2/82	12/15/82
CASING										
o Diameter	6"	2"	4"	4"	4"	4"	4"	2"	2"	2"
o Matl. of Const.		Galv.	PVC	PVC	PVC	PVC	PVC	Steel	Steel	Iron
SCREENS										
o Make	Johnson	Iron Wire	Johnson	Johnson	Johnson PVC	Johnson	Johnson	Johnson	Johnson	Johnson
		wound Jet	PVC	Bored Pip	Bored Pip	(Fla.)	PVC	Stainless	Stainless	Stainless
		Point	Wirewound	Wirewound	Wirewound	PVC	Wirewound	Steel	Steel	Steel
o Diameter	6"	2"	4"	4"	4"	4"	4"	2"	2"	2"
o Openings	#12 Slot	#10 Slot	#12 Slot	#16 Slot	#16 Slot	#16 Slot	#12 Slot	#16 Slot	#16 Slot	#16 Slot
o Length	10'	3'	5'	5'	5'	5'	5'	2'	2'	2'
Drilling Method		Rotary	H.S. Auger	Rotary	Rotary	Rotary	Auger	Auger	Auger	Auger

Lab No. (18) 745
 Field No. 73270 #4
 Date 4-9-92
 Time 1300
 Col. By Mayer

Filed in Lab 5-1-92
 Public Water _____
 Private Water _____
 Other _____
 Date Completed _____
 Examined By _____

BM

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
 DIVISION OF MEDICAL LEGAL INVESTIGATIONS & FORENSIC SCIENCES
 PUBLIC HEALTH LABORATORY

TRACE ORGANIC ANALYSIS OF WATER

* BAILED

Name 73270 Owner or District SCDHS
 Location RIVERHEAD LANDFILL RIVERHEAD
 Point of Collection Observation Well

Remarks: PLEASE RE-SAMPLE IN LINE 1

Compound	ppb	Compound	ppb
306 Vinyl Chloride.....	<u>43</u>	250 Benzene.....	<u>6</u>
305 Methylene Chloride.....	<u>12</u>	251 Toluene.....	<u>45</u>
290 Bromochloromethane.....	<u>12</u>	254 o-Xylene.....	<u>-</u>
323 1,1 Dichloroethane.....	<u>12</u>	252 m-Xylene.....	<u>-</u>
309 Trans Dichloroethylene.....	<u>12</u>	253 p-Xylene.....	<u>-</u>
300 Chloroform.....	<u>12</u>	255 Xylene (s).....	<u>21</u>
324 1,2 Dichloroethane.....	<u>12</u>	258 Chlorobenzene.....	<u>46</u>
321 1,1,1 Trichloroethane.....	<u>12</u>	259 Ethylbenzene.....	<u>15</u>
304 Carbon Tetrachloride.....	<u>12</u>	257 Bromobenzene.....	<u>48</u>
294 1 Bromo-2-Chloroethane.....	<u>12</u>	266 o-Chlorotoluene.....	<u>16</u>
405 1,2 Dichloropropane.....	<u>12</u>	267 m-Chlorotoluene.....	<u>16</u>
310 1,1,2 Trichloroethylene.....	<u>12</u>	268 p-Chlorotoluene.....	<u>16</u>
303 Chlorodibromomethane.....	<u>12</u>	265 Chlorotoluene (s).....	<u>-</u>
293 1,2 Dibromomethane.....	<u>12</u>	419 1,3,5 Trimethylbenzene.....	<u>10</u>
420 2 Bromo-1-Chloropropane.....	<u>12</u>	418 1,2,4 Trimethylbenzene.....	<u>-</u>
301 Bromoform.....	<u>12</u>	415 m,p-Dichlorobenzene.....	<u>47</u>
311 Tetrachloroethylene.....	<u>12</u>	412 o-Dichlorobenzene.....	<u>15</u>
308 Cis Dichloroethylene.....	<u>12</u>	p-Diethylbenzene.....	<u>17</u>
320 Freon 113.....	<u>12</u>		
292 Dibromomethane.....	<u>12</u>	406 2,3 Dichloropropane.....	<u>12</u>
307 1,1 Dichloroethylene.....	<u>12</u>	322 1,1,2 Trichloroethane.....	<u>12</u>
302 Bromodichloromethane.....	<u>12</u>	409 1,1,1,2 Tetrachloroethane.....	<u>42</u>
429 1,3 Dichloropropane.....	<u>12</u>	1,2,2,3 Tetrachloropropane.....	<u>12</u>
Cis Dichloropropane.....	<u>12</u>	295 s-Tetrachloroethane.....	<u>-</u>
Trans Dichloropropane.....	<u>12</u>	1,1,1,2 Tetrachloropropane.....	<u>12</u>

NYS
 GA 56

ND

E

5

ERM-Northeast

2.2.4 Priority Pollutant Sampling

In April, 1984, SCDHS collected priority pollutant samples for NYSDEC from wells #S-73715, S-73270, S-73271 and S-73891, located along the northern section of the landfill. The samples were analyzed by H2M Laboratory, a laboratory approved by the NYSDEC. The sampling results, included in Appendix C, showed the following positive readings:

TABLE 2-2
SCDHS PRIORITY POLLUTANT SAMPLING
RIVERHEAD LANDFILL

Well Number	Parameter	Concentration	Units	GR ₂₅
S-73715	Di-n-butylphthalate	52	ug/L	0.44
	Arsenic	2.2	ug/L	25
	Copper	0.02	mg/L	5,000
	Lead	10.2	ug/L	25
	Zinc	0.42	mg/L	5,000
	Phenols	6.00	ug/L	25
	Specific Conductivity	669		
S-73270	Di-n-butylphthalate	43	ug/L	0.44
	Copper	0.04	mg/L	5,000
	Lead	8.2	ug/L	25
	Zinc	0.14	mg/L	5,000
	Specific Conductivity	100		
S-73271	Arsenic	25	ug/L	25
	Lead	273	ug/L	25
	Zinc	0.02	mg/L	5,000

Lab No. TO- 685381
 Field No. 73270 *Butt.*
 Date 9-16-85 *6/19/85*
 Time 1300
 Col. By NOAC17

Rec'd at Lab 6/19/85 *10:40*
 Public Water _____
 Private Water _____
 Other _____
 Date Completed 6-26-85
 Examined By JC PC JS P. P. H.

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
 DIVISION OF MEDICAL LEGAL INVESTIGATIONS & FORENSIC SCIENCES
 PUBLIC HEALTH LABORATORY

TRACE ORGANIC ANALYSIS OF WATER

Name S# 73270 ~~73270~~ Owner or District _____

Location Landfill Riverhead

Point of Collection Test well

Remarks:

Compound	ppb	Compound	ppb
306 vinyl chloride	_____	250 benzene	<3
305 methylene chloride	_____	251 toluene	<3
290 bromochloromethane	_____	258 chlorobenzene	<3
323 1,1 dichloroethane	_____	259 ethylbenzene	<3
309 trans dichloroethylene	_____	254 o-xylene	---
300 chloroform	<5	252 m-xylene	---
324 1,2 dichloroethane	_____	253 p-xylene	---
321 1,1,1 trichloroethane	<2	255 total xylenes	6
304 carbon tetrachloride	<1	257 bromobenzene	<4
294 1 bromo 2 chloroethane	_____	266 o-chlorotoluene	<3
405 1,2 dichloropropane	_____	267 m-chlorotoluene	<3
310 1,1,2 trichloroethylene	<5	268 p-chlorotoluene	<3
303 chlorodibromomethane	<2	265 total chlorotoluene	---
293 1,2 dibromoethane	_____	419 1,3,5 trimethylbenzene	<3
420 2 bromo 1 chloropropane	_____	418 1,2,4 trimethylbenzene	6 ← 5
301 bromoform	<5	415 m,p-dichlorobenzene	<4
311 tetrachloroethylene	<2	412 o-dichlorobenzene	<4
308 cis dichloroethylene	<4	432 p-diethylbenzene	<3
320 freon 113	<4	435 1,2,4,5 tetramethylbenz'	<3
292 dibromomethane	_____	--- 1,2,4 trichlorobenzene	<4
307 1,1 dichloroethylene	_____	--- 1,2,3 trichlorobenzene	<5
302 bromodichloromethane	<3	409 1,1,1,2 tetrachl'oethane	_____
406 2,3 dichloropropene	_____	430 1,2,2,3 tetrachl'propane	_____
407 cis dichloropropene	_____	295 s-tetrachloroethane	<3
408 trans dichloropropene	_____	431 1,1,1,2 tetrachl'propane	_____
322 1,1,2 trichloroethane	<5	433 1,2,3 trichloropropane	_____

NYS
 GH 511

ERM-Northeast

TABLE 2-11 BACKGROUND GROUNDWATER QUALITY DATA
 RIVERHEAD LAND FILL
 RIVERHEAD, NEW YORK

WELL:	51577	51576
	*****	*****
DATE SAMPLED:	6/16/87	6/17/87
CONSTITUENT (ppm)		

CHLORIDE	21	11
SULFATE	130	38
NITRATE-N	7.1	3.7
NITRITE	0.005	0.003
AMMONIA-N	0.08	0.14
IRON	0.9	0.4
MANGANESE	0.25	0.14
MAGNESIUM	10	5.2
CALCIUM	46	16
SODIUM	7.5	6
POTASIUM	7.8	4.3
VOLATILE ORGANIC COMPOUNDS	U	U
FIELD D.O.	5.5	6.7
FIELD TEMP.	12	11
FIELD PH	6	6
FIELD COND.	165	145
FIELD ALKA	8.75	9.01
D.T.M.	62.04	39.02

TABLE 2-3: WATER QUALITY DATA
RIVERHEAD LAND FILL
RIVERHEAD, NEW YORK

WELL:	51567	5157	51576	7357	7358	73508	73509	73271	73716	73432	73270
DATE SAMPLED:	6/15/87	6/18/87	6/17/87	7/17/85	6/20/85	6/18/85	6/18/85	6/19/85	6/18/85	6/20/85	6/15/85
CONSTITUENT (ppb)											
PHOSPHORUS	28	2	11	20	1	2	5	39	8	15	16
SILICA	170	13	38	12	1	17	8	40	44	19	10
NITRATE-N	8.4	1	3.7	0.3	0.4	0.2	1.1	0.7	0.2	2.2	0.2
NITRITE	0.035	0.05	0.003	NA	NA	NA	NA	NA	NA	NA	NA
AMMONIA-N	0.56	0.8	0.14	0.08	0.03	0.08	0.03	6.22	0.79	0.04	1.1
IRON	0.7	8	0.4	10.1	<0.1	0.13	<0.1	32	0.6	0.1	0.19
MANGANESE	0.07	26	0.14	10.05	0.24	0.14	<0.05	3.23	<0.05	0.05	<0.05
MANGANESE	13	1	5.2	18	NA	NA	NA	NA	NA	NA	NA
CALCIUM	66	4	16	18	NA	NA	NA	NA	NA	NA	NA
SODIUM	9	5	6	3.2	12	8.1	7.2	25.4	6.9	10.7	10.5
POTASSIUM	2.7	8	4.3	18	NA	NA	NA	NA	NA	NA	NA
VOLATILE ORGANIC COMPOUNDS	U		U	U	U	U	U	U	U	U	U
FIELD D.O.	7.9	5	6.7	5.5	13	6.1	9.3	5.1	4.4	6.3	4.5
FIELD TEMP.	11		11	7	15	7	7	10	10	7	10
FIELD PH	6.5		6	5.6	19	5.4	5.6	6.5	7.3	6.1	6.2
FIELD COND.	47.5	3	145	15	318	75	55	420	65	125	110
FIELD ALKA	18.82	1.75	9.01	9.06	18	6.95	4.3	222.76	24.10	24.82	32.54
D.T.L.	63.63	1.04	39.02	0.45	4413	39.13	39.41	54.51	44.06	42.08	52.42

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MOBILE LABORATORY VOLATILE ANALYSIS

SITE NAME: RIVERHEAD LANDFILL

FIELD ID: 73891

SITE CODE: 152848

PERCENT SOLIDS: 0.0

SAMPLE NUMBER: 192-177-01

MATRIX: AQUEOUS

SUBMISSION DATE: 6/25/92

ARCHIVE NO.: U17701

ANALYSIS DATE: 6/29/92

DATA FILE NO.: 9202C60A.D

COMPOUND	CONC (PPB)	NON TARGET COMPOUNDS:
Chloromethane	ND	
Bromomethane	ND	
Vinyl chloride	ND	
Chloroethane	ND	
Methylene chloride	ND	
Acetone	ND	
Carbon disulfide	ND	
1,1-Dichloroethene	ND	
1,1-Dichloroethane	ND	
trans-1,2-Dichloroethene	ND	
Chloroform	ND	
1,2-Dichloroethane	ND	
2-Butanone	ND	
1,1,1-Trichloroethane	ND	
Carbontetrachloride	ND	
Vinyl acetate	ND	
Bromodichloromethane	ND	
1,1,2,2-Tetrachloroethane	ND	
1,2-Dichloropropane	ND	
trans-1,3-Dichloropropene	ND	
Trichloroethene	ND	
Dibromochloromethane	ND	
1,1,2-Trichloroethane	ND	
Benzene	ND	
cis-1,3-Dichloropropene	ND	
2-Chloroethylvinylether	ND	
Bromoform	ND	
2-Hexanone	ND	
4-Methyl-2-pentanone	ND	
Tetrachloroethane	ND	
Toluene	ND	
Chlorobenzene	ND	
Ethylbenzene	ND	
Styrene	ND	
Total Xylenes	ND	
Total Chlorotoluene	ND	
Total Dichlorobenzene	ND	

ND = LESS THAN 5 PPB

ALL CONCENTRATIONS LESS THAN 5 PPB ARE ESTIMATES

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MOBILE LABORATORY VOLATILE ANALYSIS

SITE NAME: RIVERHEAD LANDFILL

FIELD ID: 73716

SITE CODE: 152648

PERCENT SOLIDS: 0.0

SAMPLE NUMBER: 192-177-04

MATRIX: AQUEOUS

SUBMISSION DATE: 6/25/92

ARCHIVE NO.: U17704

ANALYSIS DATE: 6/29/92

DATA FILE NO.: 9202C63A.D

COMPOUND	CONC (PPB)	NON TARGET COMPOUNDS:
Chloromethane	ND	
Bromomethane	ND	
Vinyl chloride	ND	
Chloroethane	ND	
Methylene chloride	ND	
Acetone	ND	
Carbon disulfide	ND	
1,1-Dichloroethene	ND	
1,1-Dichloroethane	ND	
trans-1,2-Dichloroethene	ND	
Chloroform	ND	
1,2-Dichloroethane	ND	
2-Butanone	ND	
1,1,1-Trichloroethane	ND	
Carbontetrachloride	ND	
Vinyl acetate	ND	
Bromodichloromethane	ND	
1,1,2,2-Tetrachloroethane	ND	
1,2-Dichloropropane	ND	
trans-1,3-Dichloropropene	ND	
Trichloroethene	ND	
Dibromochloromethane	ND	
1,1,2-Trichloroethane	ND	
Benzene	ND	
cis-1,3-Dichloropropene	ND	
2-Chloroethylvinylether	ND	
Bromoform	ND	
2-Hexanone	ND	
4-Methyl-2-pentanone	ND	
Tetrachloroethene	ND	
Toluene	ND	
Chlorobenzene	ND	
Ethylbenzene	ND	
Styrene	ND	
Total Xylenes	ND	
Total Chlorotoluene	ND	
Total Dichlorobenzene	ND	

ND = LESS THAN 5 PPB

ALL CONCENTRATIONS LESS THAN 5 PPB ARE ESTIMATES

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MOBILE LABORATORY VOLATILE ANALYSIS

SITE NAME: RIVERHEAD LANDFILL

FIELD ID: 73507

SITE CODE: 152648

PERCENT SOLIDS: 0.0

SAMPLE NUMBER: 192-177-02

MATRIX: AQUEOUS

SUBMISSION DATE: 6/25/92

ARCHIVE NO.: U17702

ANALYSIS DATE: 6/29/92

DATA FILE NO.: 9202C61A.D

COMPOUND	CONC (PPB)	NON TARGET COMPOUNDS:
Chloromethane	ND	UNKNOWN HYDROCARBON RT 3.07
Bromomethane	ND	
Vinyl chloride	ND	
Chloroethane	ND	
Methylene chloride	ND	
Acetone	ND	
Carbon disulfide	ND	
1,1-Dichloroethene	ND	
1,1-Dichloroethane	ND	
trans-1,2-Dichloroethene	ND	
Chloroform	ND	
1,2-Dichloroethane	ND	
2-Butanone	ND	
1,1,1-Trichloroethane	ND	
Carbontetrachloride	ND	
Vinyl acetate	ND	
Bromodichloromethane	ND	
1,1,2,2-Tetrachloroethane	ND	
1,2-Dichloropropane	ND	
trans-1,3-Dichloropropene	ND	
Trichloroethene	ND	
Dibromochloromethane	ND	
1,1,2-Trichloroethane	ND	
Benzene	ND	
cis-1,3-Dichloropropene	ND	
2-Chloroethylvinylether	ND	
Bromoform	ND	
2-Hexanone	ND	
4-Methyl-2-pentanone	ND	
Tetrachloroethene	ND	
Toluene	ND	
Chlorobenzene	ND	ND = LESS THAN 5 PPB
Ethylbenzene	ND	
Styrene	ND	ALL CONCENTRATIONS LESS THAN
Total Xylenes	ND	5 PPB ARE ESTIMATES
Total Chlorotoluene	ND	
Total Dichlorobenzene	ND	

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MOBILE LABORATORY VOLATILE ANALYSIS

SITE NAME: RIVERHEAD LANDFILL

FIELD ID: 73432

SITE CODE: 152048

PERCENT SOLIDS: 0.0

SAMPLE NUMBER: 192-177-03

MATRIX: AQUEOUS

SUBMISSION DATE: 6/25/92

ARCHIVE NO.: U17703

ANALYSIS DATE: 6/29/92

DATA FILE NO.: 9202C62A.D

COMPOUND	CONC (PPB)	NON TARGET COMPOUNDS:
Chloromethane	ND	
Bromomethane	ND	
Vinyl chloride	ND	
Chloroethane	ND	
Methylene chloride	ND	
Acetone	ND	
Carbon disulfide	ND	
1,1-Dichloroethene	ND	
1,1-Dichloroethane	ND	
trans-1,2-Dichloroethene	ND	
Chloroform	ND	
1,2-Dichloroethane	ND	
2-Butanone	ND	
1,1,1-Trichloroethane	ND	
Carbontetrachloride	ND	
Vinyl acetate	ND	
Bromodichloromethane	ND	
1,1,2,2-Tetrachloroethane	ND	
1,2-Dichloropropane	ND	
trans-1,3-Dichloropropene	ND	
Trichloroethene	ND	
Dibromochloromethane	ND	
1,1,2-Trichloroethane	ND	
Benzene	ND	
cis-1,3-Dichloropropene	ND	
2-Chloroethylvinylether	ND	
Bromoform	ND	
2-Hexanone	ND	
4-Methyl-2-pentanone	ND	
Tetrachloroethene	ND	
Toluene	ND	
Chlorobenzene	ND	
Ethylbenzene	ND	
Styrene	ND	
Total Xylenes	ND	
Total Chlorotoluene	ND	
Total Dichlorobenzene	ND	

ND = LESS THAN 5 PPB

ALL CONCENTRATIONS LESS THAN 5 PPB ARE ESTIMATES