02-8611-18-SI

FINAL DRAFT
SITE INSPECTION REPORT
AND HAZARD RANKING SYSTEM MODEL
STATE FAIR LANDFILL
GEDDES, NEW YORK

PREPARED UNDER

TECHNICAL DIRECTIVE DOCUMENT NO. 02-8611-18
CONTRACT NO. 68-01-7346
(CONTINUATION OF TDD #02-8606-02 UNDER CONTRACT #68-01-6699)

FOR THE

ENVIRONMENTAL SERVICES DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

JANUARY 28, 1987

NUS CORPORATION
SUPERFUND DIVISION

SUBMITTED BY

EDWARD L. LEONARD
PROJECT MANAGER

REVIEWED/APPROVED BY

STUART FERGUSON
FIT OFFICE MANAGER

NUS CORPORATION
RARITAN PLAZA III, FIELDCREST AVENUE
EDISON, NEW JERSEY 08837
201-225-6160

our 25th year

C-584-04-87-54

April 9, 1987

Ms. Diana Messina
U.S Environmental Protection Agency
Region 2
Edison, New Jersey 08817

Dear Diana:

Enclosed are the Site Inspection Report (EPA Form 2070-13) and the Hazard Ranking System (HRS) documents for State Fair Landfill, Geddes, New York. The site inspection was authorized under TDD #02-8611-18. (Continuation of TDD #02-8606-02).

Very truly yours,

Edward L. Leonard

Reviewed and Approved:

ELL/jm

Enclosures

Contents

Section	
1	Site Inspection Report Executive Summary
2	Environmental Protection Agency Form 2070-13
3	Maps and Photographs
4	Documentation Records for Hazard Ranking System
5	Hazard Ranking System Scoring Forms
6	Bibliography of Information Sources
7	Press Release Summary - MITRE Hazard Ranking System
8	Attachments - Cited Documents

SECTION 1

SITE INSPECTION REPORT EXECUTIVE SUMMARY

NUS CORPORATION
A Halliburton Company

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
EXECUTIVE SUMMARY

State Fair Landfill **Site Name**	NYD 981561970 ~~New Site~~ **EPA Site ID Number**
State Fair Boulevard Geddes, New York **Address**	02-8611-18 **TDD Number**

Date of Site Visit: 6/17/86

SITE DESCRIPTION

The State Fair Landfill is a five acre construction and demolition landfill built on a wetland area in the Town of Geddes, Onondaga County, New York. It is situated between Highway 695 to the southeast, Ninemile Creek to the northeast and an open field to the west and southwest. The landfill is owned by the New York State Fair. Crucible Speciality Metals dumped caustic solids and mill scale at the site that contained heavy metals including chromium. Onondaga County Health Department personnel have observed tank trucks disposing liquids of unknown character at the site.

The site is active today and receives construction and demolition debris from the State Fair. It is not known when the site started operations.

On June 17, 1986, Region II FIT conducted a site inspection at the State Fair Landfill. Five surface water and five sediment samples were collected and analyzed for Hazardous Substance List (HSL) parameters. Analytical results indicate the presents of numerous HSL compounds including inorganics, pesticides, polycyclic aromatic hydrocarbons and monocyclic aromatics.

HAZARD RANKING SCORE: S_M=13.83 (S_{gw}=20.88, S_{sw}=11.69, S_a=0.00)
S_{FE}=Not Scored
S_{DC}=25.00

Prepared by: Edward L. Leonard **Date:** 1/28/87
of NUS Corporation

SECTION 2

ENVIRONMENTAL PROTECTION AGENCY FORM 2070-13

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

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
NY New Site

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)
State Fair Landfill

02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
State Fair Blvd.

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST.
Geddes	NY	13209	Onondaga	67	27

09 COORDINATES

LATITUDE	LONGITUDE
4 3° 0 4' 3 3". N	0 7 6° 1 3' 5 2". W

10 TYPE OF OWNERSHIP (Check one)
_ A. PRIVATE _ B. FEDERAL _ C. STATE
_ D. COUNTY _ E. MUNICIPAL X F. OTHER State Fair Commission
_ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION
06 / 17 / 86
MONTH DAY YEAR

02 SITE STATUS
X ACTIVE
_ INACTIVE

03 YEARS OF OPERATION
Unknown / Active
BEGINNING YEAR ENDING YEAR
_ UNKNOWN

AGENCY PERFORMING INSPECTION (Check all that apply)
_ A. EPA X B. EPA CONTRACTOR NUS Corporation (Name of firm)
_ C. MUNICIPAL _ D. MUNICIPAL CONTRACTOR _____ (Name of firm)
_ E. STATE _ F. STATE CONTRACTOR _____ (Name of firm)
_ G. OTHER _____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
Richard Friend	Geologist	NUS Corporation	(201) 225-6160

09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
Jeanne Litwin	Environmental Scientist	NUS Corporation	(201) 225-6160
John Ducar	Geologist	NUS Corporation	(201) 225-6160
Peter Morton	Geologist	NUS Corporation	(201) 225-6160
Dennis Sutton	Geologist	NUS Corporation	(201) 225-6160

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO.

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
X PERMISSION _ WARRANT	0900	Sunny, 50°F, dry, 20 knot winds from Northwest

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Diana Messina	U.S. EPA	(201) 321-6685

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Edward L. Leonard		NUS Corp.	(201) 225-6160	01 / 28/ 87 MONTH DAY YEAR

EPA FORM 2070-13 (7-81)

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

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
NY New Site

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

X A. SOLID
_ B. POWDER, FINES
_ C. SLUDGE
_ D. OTHER _____ (Specify)
_ E. SLURRY
X F. LIQUID
_ G. GAS

02 WASTE QUANTITY AT SITE

(Measures of waste quantities must be independent)

TONS Unknown
CUBIC YARDS Unknown
NO. OF DRUMS Unknown

03 WASTE CHARACTERISTICS (Check all that apply)

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

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			Unknown amounts of caustic solids and mill scale from Crucible Speciality Metals were dumped at the landfill.
OLW	OILY WASTE			
SOL	SOLVENTS	Unknown*		
PSD	PESTICIDES	Unknown*		*These waste types were detected in sediment and water samples collected during the site inspection.
OCC	OTHER ORGANIC CHEMICALS	Unknown*		
IOC	INORGANIC CHEMICALS	Unknown		
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS	Unknown		

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

CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
OCC	Carbon Disulfide	75-15-0	Unknown	56	ug/l
OCC	Benzene	71-43-2	Unknown	38	ug/kg
OCC	Toluene	108-88-3	Unknown	49	ug/l
OCC	4-Methylphenol	106-44-5	Unknown	J	ug/kg
OCC	Naphthalene	91-20-3	Unknown	J	ug/kg
OCC	2-Methylnaphthalene	91-57-6	Unknown	J	ug/kg
OCC	Acenaphthylene	208-96-8	Unknown	J	ug/kg
OCC	Acenaphthene	83-32-9	Unknown	510	ug/kg
OCC	Dibenzofuran	132-64-9	Unknown	340	ug/kg

(SEE ATTACHMENT)

V. FEEDSTOCKS (See Appendix for CAS Numbers)

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

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

Letter from Kevin Kelly of NYSDEC to Richard Friend of NUS Corp., 7/86.
NUS FIT II Site Inspection under TDD# 02-8611-18, 6/17/86.
U.S. EPA Contract Laboratory Program, Analytical Data Sheets, Case #6100.

(ATTACHMENT)

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

CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
OCC	Fluorene	86-73-7	Unknown	540	ug/kg
OCC	Phenanthrene	85-01-8	Unknown	4000	ug/kg
OCC	Anthracene	120-12-7	Unknown	1300	ug/kg
OCC	Fluoranthene	206-44-0	Unknown	4600	ug/kg
OCC	Pyrene	129-00-0	Unknown	4700	ug/kg
OCC	Benzo(a)anthracene	56-55-3	Unknown	2900	ug/kg
OCC	Bis(2-ethylhexyl) phthalate	117-81-7	Unknown	63	ug/l
OCC	Chrysene	218-01-9	Unknown	2600	ug/kg
OCC	Benzo(b)fluoranthene	205-99-2	Unknown	3900	ug/kg
OCC	Benzo(a)pyrene	50-32-8	Unknown	2500	ug/kg
OCC	Indeno(1,2,3-cd) pyrene	193-39-5	Unknown	1900	ug/kg
OCC	Dibenzo(a,h) anthracene	53-70-3	Unknown	190	ug/kg
OCC	Benzo(g,h,i) perylene	191-24-2	Unknown	1700	ug/kg
PSD	Dieldrin	60-57-71	Unknown	300	ug/kg
IOC	Manganese	7439-96-5	Unknown	2240	ug/l
IOC	Potassium	7440-09-7	Unknown	48800	ug/l
IOC	Silver	7440-22-4	Unknown	33	mg/kg
IOC	Zinc	7440-66-6	Unknown	445	ug/l
MES	Copper**	7440-50-8	landfill	1842	mg/kg
MES	Chromium**	7440-47-3	landfill	7200	mg/kg
MES	Cadmium**	7440-43-9	landfill	70	mg/kg
MES	Cyanide**	57-12-5	landfill	2.75	mg/kg
MES	Nickel**	7440-02-0	landfill	16000	mg/kg

Notes: J - Compound present below the contract specified detection limit.
** - Analysis of the caustic solids and mill scale landfilled by Crucible Speciality Metals.

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 X A. GROUNDWATER CONTAMINATION — 02 _ OBSERVED (DATE: _____) — X POTENTIAL — _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 570 — 04 NARRATIVE DESCRIPTION

There is a slight potential for the unconsolidated sand and gravel aquifer under the site to become contaminated by the vertical migration of leachate from the landfill. The sand and gravel is overlain by 40 feet of less permeable glaciolacustrine clays and silts, making it less likely that water at the surface is able to recharge the aquifer. 570 people use the groundwater as a drinking water source.

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

Runoff from the landfill could migrate to the surrounding marsh and eventually into Ninemile Creek, 400 feet to the northwest. The creek discharges into Onondaga Lake one-half mile away. Fisherman use the lake for sport fishing, but consumption is restricted.

01 X C. CONTAMINATION OF AIR — 02 _ OBSERVED (DATE: _____) — X POTENTIAL — _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 83917 — 04 NARRATIVE DESCRIPTION

Tank trucks have been seen dumping unknown liquids at the landfill. A small potential exists for the contamination of the air if buried chemicals were unearthed by heavy equipment operating at the landfill.

01. _ D. FIRE/EXPLOSIVE CONDITIONS — 02 _ OBSERVED (DATE: _____) — _ POTENTIAL — _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0 — 04 NARRATIVE DESCRIPTION

No significant fire/explosion potential exist.

01. X E. DIRECT CONTACT — 02 _ OBSERVED (DATE: _____) — X POTENTIAL — _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 228 — 04 NARRATIVE DESCRIPTION

The potential exist for direct contact to contaminated soil on-site. The site is not fenced. The population indicated represents the number of employees working at the landfill and the population within one mile.

01 X F. CONTAMINATION OF SOIL — 02 _ OBSERVED (DATE: _____) — X POTENTIAL — _ ALLEGED
03 AREA POTENTIALLY AFFECTED: 4 (ACRES) — 04 NARRATIVE DESCRIPTION

Onondaga County Health Department personnel have observed tank trucks disposing liquids of unknown character at the site. Crucible Speciality Metals has disposed caustic solids and mill scale at the site which contains heavy metals such as chromium and nickel.

01. X G. DRINKING WATER CONTAMINATION — 02 _ OBSERVED (DATE: _____) — X POTENTIAL — _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 570 — 04 NARRATIVE DESCRIPTION

A potential exists for private wells northwest of the site to become contaminated. The potential is small due to the hydrogeological setting of the area, in which the sand and gravel aquifer is overlain by less permeable clays and silts. Therefore, the migration of water into the sand and gravel aquifer and then northward from the site unlikely.

01 X H. WORKER EXPOSURE/INJURY — 02 _ OBSERVED (DATE: _____) — X POTENTIAL — _ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: 20 — 04 NARRATIVE DESCRIPTION

State Fair employees working at the landfill could be exposed to contaminated soil, or volatile compounds if contaminants were unearthed during operations at the landfill.

01 X I. POPULATION EXPOSURE/INJURY — 02 _ OBSERVED (DATE: _____) — X POTENTIAL — _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 83967 — 04 NARRATIVE DESCRIPTION

There is a slight potential for population exposure from people drinking groundwater contaminated by migration of leachate northward toward private wells in Lakeland. People living close to the landfill could be exposed to contaminated air, and State Fair employees and trespassers could be exposed to contaminated soil.

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

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

The landfill was built in a wetland area. Reeds in the wetland could be affected by contaminants from the landfill.

01 X K. DAMAGE TO FAUNA — 02 _ OBSERVED (DATE: _____) X POTENTIAL _ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)

During the site inspection a woodchuck, a rabbit, and various common birds were seen on the site. A muskrat and Great Blue Heron were seen in Ninemile Creek. Local aquatic and terrestrial species could be affected by contaminated surface water or flora.

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

Potential exists, but is unlikely. Fishing is allowed in Onondaga Lake, but consumption is restricted. There is no agricultural activity in the area.

01 X M. UNSTABLE CONTAINMENT OF WASTES (Spills/runoff/standing liquids/leaking drums) — 02 _ OBSERVED (DATE: _____) X POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 50 — 04 NARRATIVE DESCRIPTION

The landfill has no cap or liner to prevent the off-site migration of hazardous materials into either the groundwater or surface water. A natural silt and clay layer makes contamination of the aquifer unlikely.

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

Contaminated water entering Ninemile Creek could damage property next to the creek downstream. It could also damage Onondaga Lake. A small potential exists for the contamination of off-site drinking water wells.

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

No potential exists as there are no sewers, storm drains or waste water treatment plants near the site.

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

Tank trucks have been observed disposing liquids of unknown character at the site.

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

No other hazards exist.

III. TOTAL POPULATION POTENTIALLY AFFECTED: 83967

IV. COMMENTS

The greatest danger to public health is the contamination of private drinking water wells one mile northwest of the site. The landfill lies on top of a buried valley aquifer of sand and gravel. Thick deposits of glaciolacustrine silt and clay make it difficult for contaminants to reach the aquifer. The wells, which are of concern, are northwest of the site and are either in bedrock or glacial till. The glacial till is impermeable relative to the sand and gravel deposits and migration of groundwater from the till into the sand and gravel aquifer is unlikely. The sand and gravel aquifer also has silt and clay under it. The till makes the lateral migration of groundwater unlikely, and silt and clay under the sand and gravel makes vertical migration of groundwater into the bedrock aquifer unlikely.

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

NUS FIT II Site Inspection, under TDD# 02-8611-18, 6/17/86.
Kantrowitz, I.H. Groundwater Resources in the Eastern Oswego River Basin, New York. 1970.
Telephone conversation between E. L. Leonard of NUS Corporation and C. Creech of NYSDEC, 3/18/87.

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

1. IDENTIFICATION
01 STATE 02 SITE NUMBER
NY New Site

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
_ A. NPDES				
_ B. UIC				
_ C. AIR				
_ D. RCRA				
_ E. RCRA INTERIM STATUS				The site officially should have a construction and demolition landfill permit, but this has not been enforced. There has been no action taken against the State Fair.
_ F. SPCC PLAN				
_ G. STATE (Specify)				
_ H. LOCAL (Specify)				
_ I. OTHER (Specify)				
X J. NONE				

III. SITE DESCRIPTION

01 Storage/Disposal (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE	04 TREATMENT (Check all that apply)	05 OTHER
_ A. SURFACE IMPOUNDMENT			_ A. INCINERATION	_ A. BUILDINGS ON SITE
_ B. PILES			_ B. UNDERGROUND INJECTION	
_ C. DRUMS, ABOVE GROUND			_ C. CHEMICAL/PHYSICAL	None
_ D. TANK, ABOVE GROUND			_ D. BIOLOGICAL	06 AREA OF SITE
_ E. TANK, BELOW GROUND			_ E. WASTE OIL PROCESSING	
X F. LANDFILL	Unknown		_ F. SOLVENT RECOVERY	
_ G. LANDFARM			_ G. OTHER RECYCLING/RECOVERY	5
_ H. OPEN DUMP			X H. OTHER None (Specify)	(Acres)
_ I. OTHER (Specify)				

07 COMMENTS

The landfill is used for construction and demolition debris. The site should have a permit, but lack of manpower at the NYSDEC prevents strict enforcement at construction and demolition landfills.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

_ A. ADEQUATE, SECURE _ B. MODERATE X C. INADEQUATE, POOR _ D. INSECURE, UNSOUND, DANGEROUS

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

The landfill has no cap or liner to prevent the off-site migration of hazardous materials into either the groundwater or surface water. A natural silt and clay layer makes contamination of the aquifer unlikely.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: X YES _ NO

02 COMMENTS

The site is not fenced or guarded. During the site inspection two men were seen dump picking through the construction and demolition debris.

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

NUS FIT II Site Inspection, under TDD# 02-8611-18, 6/17/86.
Telephone conversation between R. Friend of NUS and K. Kelly of NYSDEC, 6/23/86.

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

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
NY New Site

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable) / 02 STATUS / 03 DISTANCE TO SITE

	SURFACE	WELL	ENDANGERED	AFFECTED	MONITORED	
COMMUNITY	A. _	B. _	A. _	B. _	C. _	A. _____ (mi)
NON-COMMUNITY	C. _	D. X	D. _	E. _	F. _	B. 1.0 (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

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

02 POPULATION SERVED BY GROUND WATER: 570 03 DISTANCE TO NEAREST DRINKING WATER WELL: 1.0 (mi)

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
5 (ft)	Northeast	40 (ft)	2-4 million (gpd)	_ YES X NO

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

There are some private wells between one and three miles northwest of the site, but their depth and construction are unknown. Allied Chemical and Dye Co. used deep wells one mile southeast of the site, drawing from the bedrock aquifer, but these wells are now abandoned.

10 RECHARGE AREA

_ YES
X NO

COMMENTS Underlying the site are thick deposits of glaciolacustrine silt and clay which forms an impermeable layer between the surface and the sand and gravel aquifer.

11. DISCHARGE AREA

_ YES
X NO

COMMENTS The glaciolacustrine silt and clay prevents groundwater from discharging into Ninemile Creek.

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

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

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
Ninemile Creek		0.1 (mi)
Onondaga Lake		1.0 (mi)
		(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A. 208 NO. OF PERSONS	B. 11,000 NO. OF PERSONS	C. 47,500 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION: 0.3 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE: 8700

04 DISTANCE TO NEAREST OFF-SITE BUILDING: 0.2 (mi)

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

The site is located in a densely populated urban area. The small town of Lakeland is located one mile northwest of the site. The area west of the site is sparsely populated. One mile southeast, south, and southwest of the site are the densely populated towns of Solvay and Fairmount. One thousand feet to the east are the State Fair Grounds. Lake Onondaga is one mile to the northeast.

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

_ A. 10^{-6} - 10^{-8} cm/sec X B. 10^{-4} - 10^{-6} cm/sec _ C. 10^{-4} - 10^{-3} cm/sec _ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

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

03 DEPTH TO BEDROCK: 100 (ft)
04 DEPTH OF CONTAMINATED SOIL ZONE: Unknown (ft)
05 SOIL pH: 7

06 NET PRECIPITATION: 13 (in)
07 ONE YEAR 24 HOUR RAINFALL: 2.25 (in)
08 SLOPE
SITE SLOPE: 10 %
DIRECTION OF SITE SLOPE: All directions
TERRAIN AVERAGE SLOPE: 0-1 %

09 FLOOD POTENTIAL
SITE IS IN 100 YEAR FLOODPLAIN 10 _ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)
ESTUARINE: A. > 2 (mi)
OTHER: B. 0 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species): > 1 (mi)
ENDANGERED SPECIES: Not applicable

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL: A. 0.2 (mi)
RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES: B. 0.4 (mi)
AGRICULTURAL LANDS
PRIME AG LAND: C. >2 (mi)
AG LAND: D. > 2 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

The landfill was built in a wetland area and is immediately surrounded by areas of lower elevation. North and northwest of the site are 40 foot high waste beds across Ninemile Creek. The 20-foot grade for highway 695 lies along the southeast border a small strip of marsh lies between the highway and the actual landfill area. Southwest of the site are open fields and railroad tracks.

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

NUS FIT II Site Inspection, under TDD# 02-8611-18, 6/17/86.
Telephone conversation between R. Friend of NUS Corp. and J. Banikowski of Onondaga County Health Department, 6/6/86.
Kantrowitz, I.H. Groundwater Resources in the Eastern Oswego River Basin, New York. 1970.
Telephone conversation between E. L. Leonard of NUS Corp. and L. Brown of NYSDEC, Div. of Fish and Wildlife, 2/3/87.

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER	5	Inorganic and organic samples sent to: Cambridge Analytical Associates 1106 Commonwealth Avenue Boston, MA 02215	Inorganics: 10/23/86 Organics: 1/9/87
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL			
VEGETATION			
OTHER Sediment	5		

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
Air Quality	Used Foxboro OVA for health and safety; no readings above background.
Air Quality	Used HNu for health and safety; no readings above background. Results are documented in logbook #1647.

IV. PHOTOGRAPHS AND MAPS

01 TYPE X GROUND _ AERIAL

02 IN CUSTODY OF NUS Corporation, Edison, NJ
(Name of organization or individual)

03 MAPS X YES _ NO

04 LOCATION OF MAPS NUS Corporation, FIT II,

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

None

Field Notebook #1647 - Field under TDD# 02-8611-18

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

NUS FIT II Site Inspection, under TDD# 02-8611-18, 6/17/86.

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

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
NY New Site

II. CURRENT OWNER(S)

01 NAME	02 D + B NUMBER	08 NAME	09 D + B NUMBER
New York State Fairgrounds			
03 STREET ADDRESS (P.O. Box, RFD#, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD#, etc.)	11 SIC CODE
State Fair Blvd.			
05 CITY / 06 STATE	07 ZIP CODE	12 CITY / 13 STATE	14 ZIP CODE
Geddes / NY	13209		

PARENT COMPANY (If applicable)

01 NAME	02 D + B NUMBER	08 NAME	09 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD#, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD#, etc.)	11 SIC CODE
05 CITY / 06 STATE	07 ZIP CODE	12 CITY / 13 STATE	14 ZIP CODE

01 NAME	02 D + B NUMBER	08 NAME	09 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD#, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD#, etc.)	11 SIC CODE
05 CITY / 06 STATE	07 ZIP CODE	12 CITY / 13 STATE	14 ZIP CODE

01 NAME	02 D + B NUMBER	08 NAME	09 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD#, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD#, etc.)	11 SIC CODE
05 CITY / 06 STATE	07 ZIP CODE	12 CITY / 13 STATE	14 ZIP CODE

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

01 NAME	02 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD#, etc.)	04 SIC CODE
05 CITY / 06 STATE	07 ZIP CODE

01 NAME	02 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD#, etc.)	04 SIC CODE
05 CITY / 06 STATE	07 ZIP CODE

01 NAME	02 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD#, etc.)	04 SIC CODE
05 CITY / 06 STATE	07 ZIP CODE

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

01 NAME	02 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD#, etc.)	04 SIC CODE
05 CITY / 06 STATE	07 ZIP CODE

01 NAME	02 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD#, etc.)	04 SIC CODE
05 CITY / 06 STATE	07 ZIP CODE

01 NAME	02 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD#, etc.)	04 SIC CODE
05 CITY / 06 STATE	07 ZIP CODE

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

NUS FIT II Site Inspection, under TDD# 02-8611-18, 6/17/86.

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

1. IDENTIFICATION
01 STATE 02 SITE NUMBER
NY New Site

II. CURRENT OPERATOR(S)

01 NAME		02 D + B Number	OPERATOR'S PARENT COMPANY (If applicable) 10 NAME		11 D + B NUMBER
New York State Fairgrounds					
03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD#, etc.)		13 SIC CODE
State Fair Blvd.					
05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE
Geddes	NY	13209			
08 YEARS OF OPERATION	09 NAME OF OWNER				

III. PREVIOUS OPERATOR(S) (List most recent first: Provide only if different from owner)

PREVIOUS OPERATOR'S PARENT COMPANIES (If applicable)

01 NAME		02 D + B Number	10 NAME		11 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD#, etc.)		13 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER				

01 NAME		02 D + B Number	10 NAME		11 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD#, etc.)		13 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER				

01 NAME		02 D + B Number	10 NAME		11 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD#, etc.)		13 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER				

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

NUS FIT II Site Inspection, under TDD# 02-8611-18, 6/17/86.

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

1. IDENTIFICATION
01 STATE 02 SITE NUMBER
NY New Site

II ON-SITE GENERATOR

01 NAME		02 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE
05 CITY	06 STATE	07 ZIP CODE

III OFF-SITE GENERATOR(S)

01 NAME		02 D + B NUMBER	01 NAME		02 D + B NUMBER
Crucible Speciality Metals					
03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE
P.O. Box 977					
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
Syracuse	NY	13201			
01 NAME		02 D + B NUMBER	01 NAME		02 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME		02 D + B NUMBER	01 NAME		02 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
01 NAME		02 D + B NUMBER	01 NAME		02 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

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

NUS FIT II Site Inspection, under TDD# 02-8611-18, 6/17/86.
Telephone Conversation between Kevin Kelly of NYSDEC and Richard Friend of NUS FIT II, 6/4/86.

II. PAST RESPONSE ACTIVITIES

01 ___ A. WATER SUPPLY CLOSED 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

01 ___ B. TEMPORARY WATER SUPPLY PROVIDED 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

01 ___ C. PERMANENT WATER SUPPLY PROVIDED 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

01 ___ D. SPILLED MATERIAL REMOVED 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

01 ___ E. CONTAMINATED SOIL REMOVED 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

01 ___ F. WASTE REPACKAGED 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

01 ___ G. WASTE DISPOSED ELSEWHERE 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

01 ___ H. ON SITE BURIAL 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

01 ___ I. IN SITU CHEMICAL TREATMENT 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

01 ___ J. IN SITU BIOLOGICAL TREATMENT 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

01 ___ K. IN SITU PHYSICAL TREATMENT 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

01 ___ L. ENCAPSULATION 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

01 ___ M. EMERGENCY WASTE TREATMENT 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

01 ___ N. CUTOFF WALLS 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

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

No previous history.

01 ___ P. CUTOFF TRENCHES/SUMP 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

01 ___ Q. SUBSURFACE CUTOFF WALL 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

II. PAST RESPONSE ACTIVITIES

01 ___ R. BARRIER WALLS CONSTRUCTED 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

01 ___ S. CAPPING/COVERING 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

01 ___ T. BULK TANKAGE REPAIRED 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

01 ___ U. GROUT CURTAIN CONSTRUCTED 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

01 ___ V. BOTTOM SEALED 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

01 ___ W. GAS CONTROL 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

01 ___ X. FIRE CONTROL 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

01 ___ Y. LEACHATE TREATMENT 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

01 ___ Z. AREA EVACUATED 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

01 ___ 1. ACCESS TO SITE RESTRICTED 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

01 ___ 2. POPULATION RELOCATED 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No previous history.

01 ___ 3. OTHER REMEDIAL ACTIVITIES 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

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

NYDEC Files
NUS FIT II Site Inspection, under TDD# 02-8611-18, 6/17/86.

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION X YES _ NO

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

The Onondaga County Health Department inspected State Fair Landfill on numerous occasions between 1973 and 1978 and found the site to be in violation of Part 360 of the Environmental Conservation Law for the following reasons:

1. Leaching into a water course.
2. Refuse not confined to a manageable area.
3. Refuse protruding through completed areas.
4. Unsatisfactory daily soil cover.
5. Improper spread and compaction.
6. Evidence of rodents and insects.

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

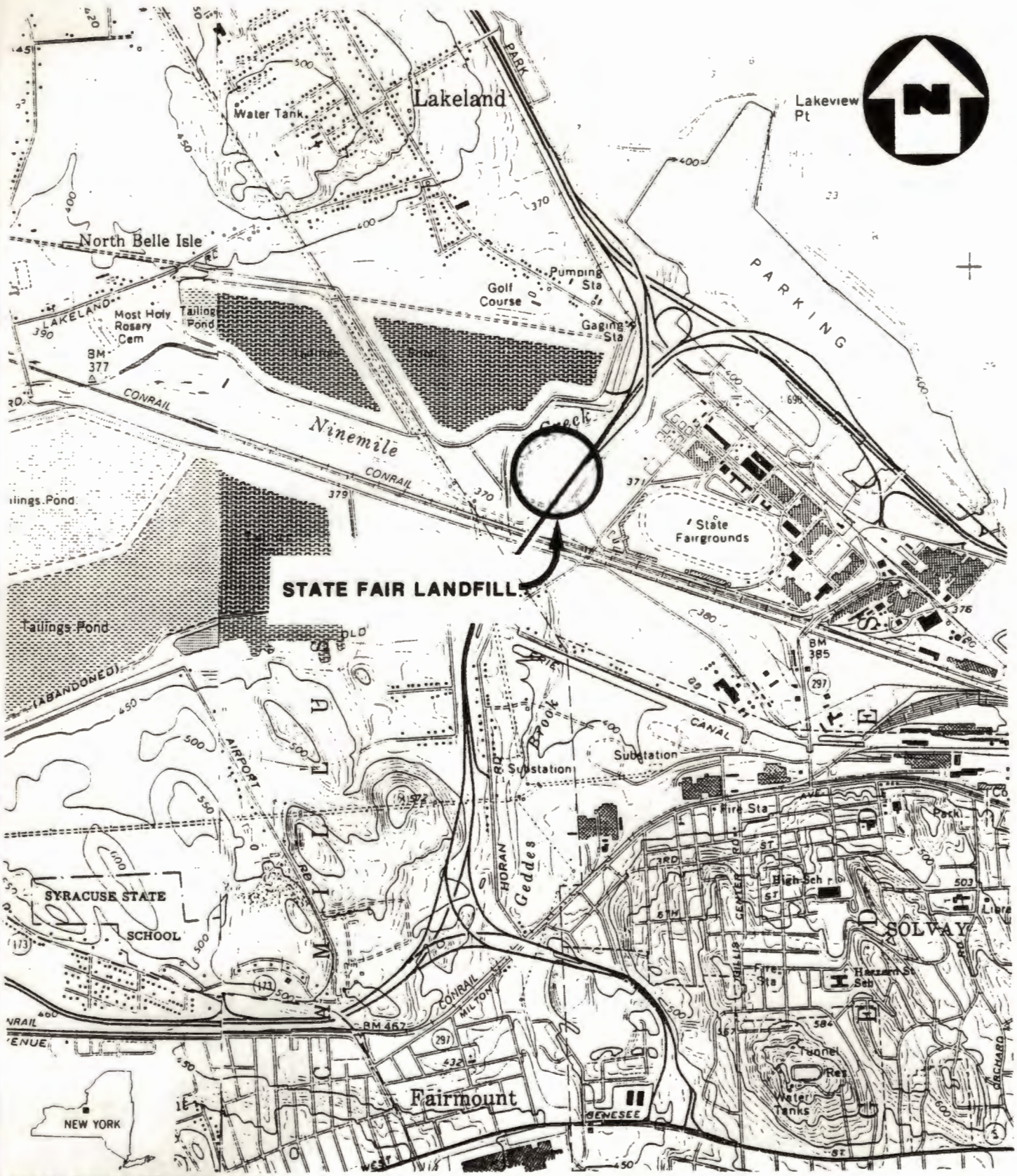
NYDEC Files.

SECTION 3

MAPS AND PHOTOGRAPHS

TABLE OF CONTENTS

Figure 1 - Site Location Map
Figure 2 - Site Map
Figure 3 - Sample Location Map
Exhibit 1 - Photograph Log



(QUAD) SYRACUSE WEST, N.Y.

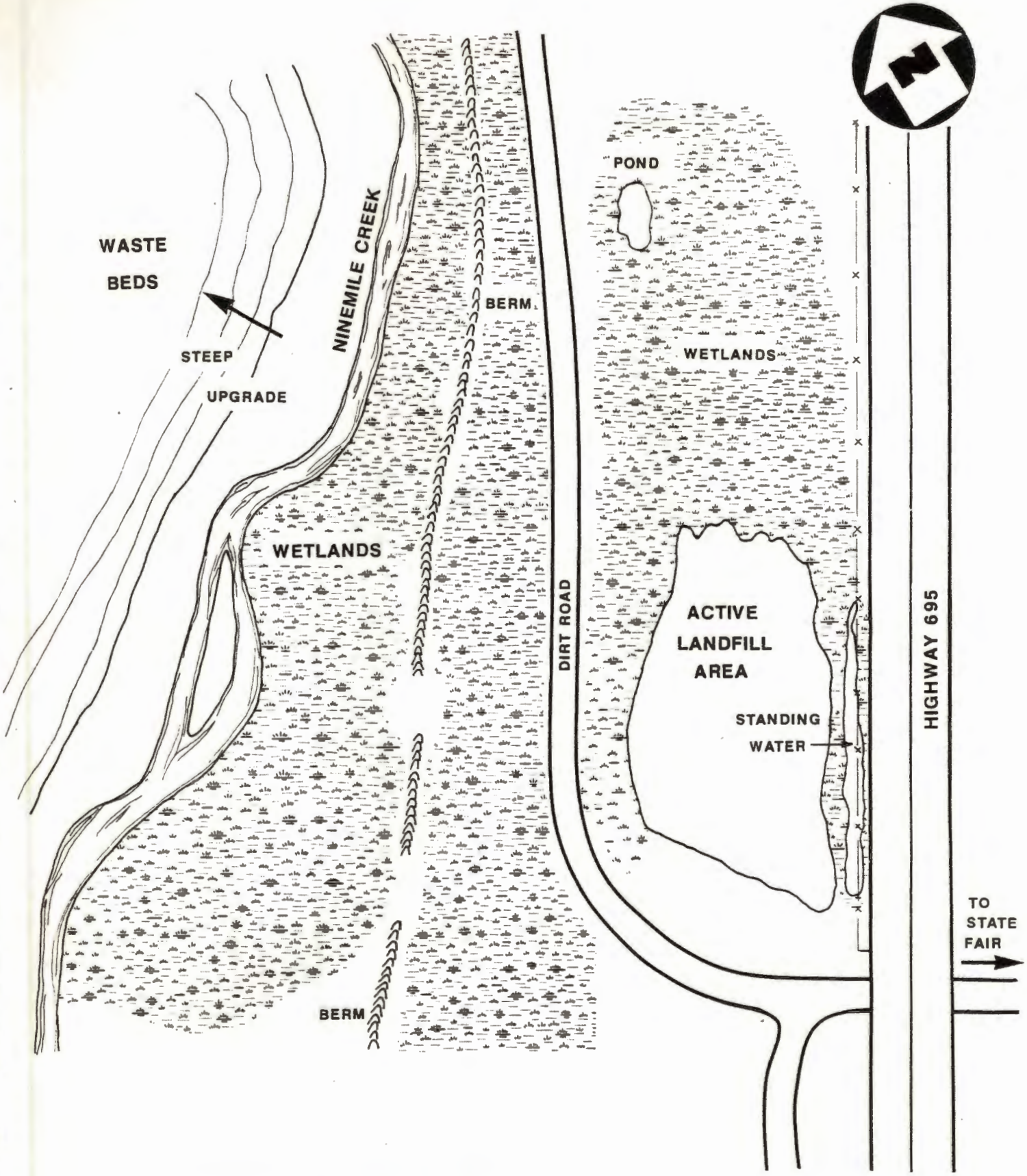
FIGURE 1

SITE LOCATION MAP

STATE FAIR LANDFILL, GEDDES, N.Y.

SCALE: 1" = 2000'

NUS CORPORATION
A Halliburton Company



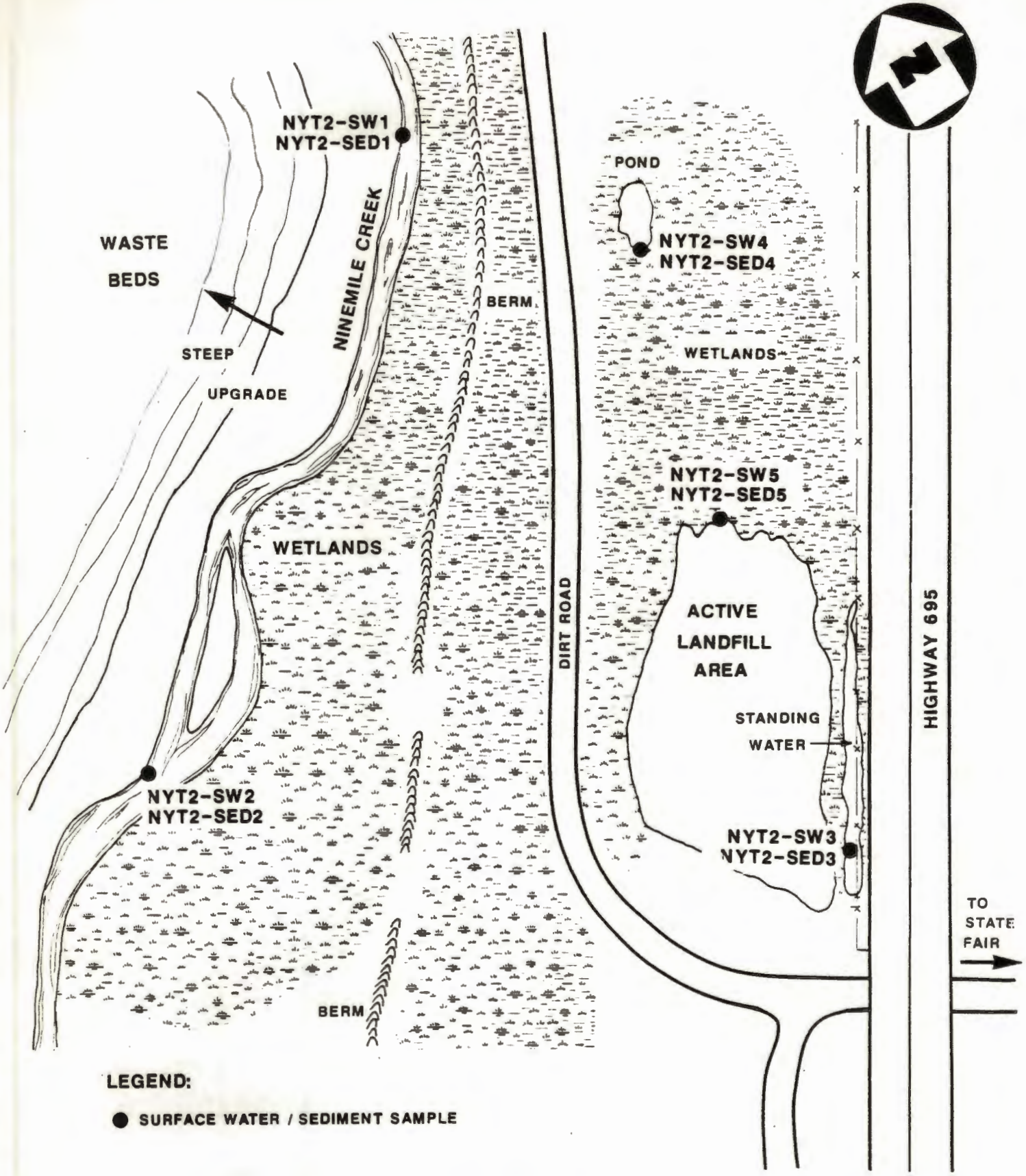
SITE MAP

STATE FAIR LANDFILL, GEDDES, N.Y.

(NOT TO SCALE)

FIGURE 2

NUS CORPORATION
A Halliburton Company



SAMPLE LOCATION MAP

STATE FAIR LANDFILL, GEDDES, N.Y.

(NOT TO SCALE)

FIGURE 3

NUS CORPORATION

A Halliburton Company

STATE FAIR LANDFILL
GEDDES, NEW YORK
TDD# 02-8611-18
JUNE 17, 1986

PHOTOGRAPH INDEX

EXHIBIT 1

STATE FAIR LANDFILL
GEDDES, NEW YORK
TDD# 02-8611-18
JUNE 17, 1986

PHOTOGRAPH INDEX

ALL PHOTOGRAPHS TAKEN BY RICHARD FRIEND

Photo Number	Description	Time
1P-24P	View from I-695 bridge looking north over the landfill.	1500
1P-12P	View of landfill looking north from sample NYT2-SW3 site.	1235
1P-23P	View of landfill looking south from sample NYT2-SW5 site.	1400
1P-1P	Dennis Sutton collecting sample NYT2-SW1 from Ninemile Creek.	1040
1P-2P	Dennis Sutton collecting sample NYT2-SED1 from Ninemile Creek.	1050
1P-3P	Dennis Sutton collecting sample NYT2-SW2 from Ninemile Creek.	1110
1P-4P	Dennis Sutton collecting sample NYT2-SED2 from Ninemile Creek.	1120
1P-10P	Dennis Sutton collecting sample NYT2-SW3 from standing water at northern corner of landfill 50 feet from I-695.	1225
1P-11P	Dennis Sutton collecting sample NYT2-SED3 from same location as NYT2-SW3.	1230
1P-14P	Pete Morton collecting sample NYT2-SW4 from pond 100 yards northeast of northern toe of landfill.	1250
1P-15P	Pete Morton collecting sample NYT2-SED4 from same location as NYT2-SW4.	1300
1P-21P	Dennis Sutton collecting sample NYT2-SW5 from marsh at northern edge of landfill.	1345
1P-22P	Dennis Sutton collecting sample NYT2-SED5 from same location as NYT2-SW5.	1350

NUS CORPORATION

STATE FAIR LANDFILL, GEDDES, NEW YORK

1P-1 June 17, 1986 1500
View from I-695 bridge looking north over the entire landfill.
Photographer: Richard Friend.

NUS CORPORATION

STATE FAIR LANDFILL, GEDDES, NEW YORK

1P-2 June 17, 1986 1235
View of landfill looking north from sample NYT2-SW3 site.
Photographer: Richard Friend.

1P-3 June 17, 1986 1400
View of landfill looking south from sample NYT2-SW5 site.
Photographer: Richard Friend.

NUS CORPORATION

STATE FAIR LANDFILL, GEDDES, NEW YORK

1P-4 June 17, 1986 1040
Dennis Sutton collecting sample NYT2-SW1 from Ninemile Creek.
Photographer: Richard Friend.

1P-5 June 17, 1986 1050
Dennis Sutton collecting smaple NYT2-SED1 from Ninemile Creek.
Photographer: Richard Friend.

NUS CORPORATION

STATE FAIR LANDFILL, GEDDES, NEW YORK

1P-6 June 17, 1986 1110
Dennis Sutton collecting sample NYT2-SW2 from Ninemile Creek.
Photographer: Richard Friend.

1P-7 June 17, 1986 1120
Dennis Sutton collecting sample NYT2-SED2 from Ninemile Creek.
Photographer: Richard Friend.

NUS CORPORATION

STATE FAIR LANDFILL, GEDDES, NEW YORK

1P-8 June 17, 1986 1225
Dennis Sutton collecting sample NYT2-SW3 from standing water at northern corner of landfill 50 feet from I-695.
Photographer: Richard Friend.

1P-9 June 17, 1986 1230
Dennis Sutton collecting sample NYT2-SED3 from same location as NYT2-SW3.
Photographer: Richard Friend.

NUS CORPORATION

STATE FAIR LANDFILL, GEDDES, NEW YORK

1P-10 June 17, 1986 1250
Pete Morton collecting sample NYT2-SW4 from pond 100 yards northeast of northern toe of landfill.
Photographer: Richard Friend.

1P-11 June 17, 1986 1300
Pete Morton collecting sample NYT2-SED4 from same location as NYT2-SW4.
Photographer: Richard Friend.

NUS CORPORATION

STATE FAIR LANDFILL, GEDDES, NEW YORK

1P-12 June 17, 1986 1345
Dennis Sutton collecting sample NYT2-SW5 from marsh at northern edge of landfill.
Photographer: Richard Friend.

1P-13 June 17, 1986 1350
Dennis Sutton collecting sample NYT2-SED5 from same location as NYT2-SW5.
Photographer: Richard Friend.

SECTION 4

DOCUMENTATION RECORDS FOR HAZARD RANKING SYSTEM

FIT QUALITY ASSURANCE TEAM
DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM

INSTRUCTIONS: As briefly as possible summarize the information you used to assign the score for each factor (e.g., "Waste quantity = 4,230 drums plus 800 cubic yards of sludges"). The source of information should be provided for each entry and should be a bibliographic-type reference. Include the location of the document.

FACILITY NAME: State Fair Landfill

LOCATION: Geddes, New York

DATE SCORED: 1/28/87

PERSON SCORING: Edward L. Leonard

PRIMARY SOURCE(S) OF INFORMATION (e.g., EPA region, state, FIT, etc.):
NYSDEC Files, NUS FIT II site inspection

FACTORS NOT SCORED DUE TO INSUFFICIENT INFORMATION:
Fire/explosion route

COMMENTS OR QUALIFICATIONS:
Sampling for specific air contaminants was not conducted during the site inspection. The site was screened utilizing an HNu Photoionization Detector and a Century Organic Vapor Analyzer. No readings were detected above background while on site, therefore the air route is scored zero.

Based on field observations the site does not pose a significant fire/explosion hazard, therefore the fire/explosion route was not scored.

GROUNDWATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

No groundwater samples were taken in order to document an observed release.

Ref: #1

Rationale for attributing the contaminants to the facility:

Not applicable.

* * *

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifer(s) of concern:

The site lies on 40 feet of glaciolacustrine silt and clay which overlies a buried valley sand and gravel aquifer. The valley runs east-northeast to south-southwest and is bordered by till-mantled hills on the north and south. The groundwater under the site flows northeast to Onondga Lake. The silt and clay under the site makes it unlikely that contaminants would reach the sand and gravel. A second layer of silt and clay below the sand and gravel would prevent contaminants from reaching the bedrock. The wells constructed in the till northwest of the site are protected from contamination because the permeability of the till is much lower than the sand and gravel, making groundwater migration into the till difficult.

Ref: #7

Depth(s) from the ground surface to the highest seasonal level of the saturated zone water table(s) of the aquifer of concern:

The site is located on at least 40 feet of glaciolacustrine silt and clay, so the depth to the water table is at least 40 feet below the site. A perched water table exists on top of the silt and clay layer, causing the site to be marshy.

Ref: #1, 7

Depth from the ground surface to the lowest point of waste disposal/storage:

Depth is unknown.

Net Precipitation

Mean annual or seasonal precipitation (list months for seasonal):

40 inches.

Ref: #2

Mean annual lake or seasonal evaporation (list months for seasonal):

27 inches.

Ref: #2

Net precipitation (subtract the above figures):

13 inches.

Ref: #2

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

The landfill overlies a layer of silt and clay which in turn overlies the sand and gravel aquifer.

Ref: #7

Permeability associated with soil type:

The silt and clay has a permeability of 10^{-4} to 10^{-7} cm/sec.

Ref. #3

Physical State

Physical state of substances at time of disposal (or at present time for generated gases):

Crucible Speciality Metals dumped caustic solids and mill scale containing heavy metals including chromium, nickel and cadmium. Onondaga County Health Department personnel have observed tank trucks disposing liquids of unknown character at the site.

Ref: #1, 8, 9

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

The landfill has no cap or liner.

Ref: #1

Method with highest score:

Lack of a containment method scores a 3.

Ref: #2

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

Numerous Hazardous Substances List (HSL) compounds were detected in the sediment and water samples, of the surrounding wetland, collected during the site inspection. These compounds include: phenanthrene, anthracene, pyrene, chrysene, benzo (a) pyrene, dieldrin, manganese and zinc. Crucible Speciality Metals dumped caustic solids and mill scale containing heavy metals including chromium, nickel and cadmium.

Ref: #9, 11

Compound with highest score:

Acenaphthylene, dibenzofuran, fluoranthene, pyrene, benzo (a) anthracene, chrysene, benzo (b) fluoranthene, benzo (a) pyrene, indeno (1,2,3-cd) pyrene, dibenzo (a,h) anthracene, benzo (ghi) perylene, dieldrin, arsenic, cadmium, chromium, lead, manganese, mercury, nickel, and zinc each score "18" for the toxicity/persistence matrix.

Ref: #2

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

Crucible Speciality Metals dumped an unknown quantity of caustic solids and mill scale at the site containing heavy metals. Onondaga County Health Department personnel have observed tank trucks disposing liquids of unknown character at the site.

Ref: #1, 8, 9

Basis of estimating and/or computing waste quantity:

Unknown waste quantity scores a 1.

Ref: #2

5 TARGETS

Groundwater Use

Use(s) of aquifer(s) of concern within a 3-mile radius of the facility:

Private wells located between one and three miles northwest of the site utilize the bedrock or glacial till aquifers. These wells are at a minimum risk to contamination. Permeability of the glacial till aquifer is lower than the sand and gravel aquifer, making lateral groundwater migration into the till difficult. The sand and gravel aquifer is also underlined with silt and clay. This makes vertical migration from the sand and gravel aquifer into the bedrock aquifer unlikely.

Ref: #1

Distance to Nearest Well

Location of nearest well drawing from aquifer of concern or occupied building not served by a public water supply:

Private wells are located one mile northwest of the site on Lakeland Road in North Belle Isle. It is not known whether these well draw upon the buried valley sand and gravel aquifer.

Ref: #10

Distance to above well or building:

One mile

Ref: #4

Population Served by Groundwater Wells Within a 3-Mile Radius

Identified water-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:

Using water supply maps and assuming that areas not served by public systems are using the groundwater, there are 150 houses that have wells. Multiplying by 3.8 people per house, there are approximately 570 people using the groundwater.

Ref: #4, 10

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a 3-mile radius, and conversion to population (1.5 people per acre).

There is no irrigation activity within three miles of the site.

Ref: #1

Total population served by groundwater within a 3-mile radius:

570

Ref: #4, 10

SURFACE WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected in surface water at the facility or downhill from it (5 maximum):

Surface water and sediment samples were collected from Ninemile Creek, northwest of the site. However, downstream contaminant levels are not significantly higher than upstream background levels.

Ref: #11

Rationale for attributing the contaminants to the facility:

Not applicable

* * *

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

10%

Ref: #1

Name/description of nearest downslope surface water:

Ninemile Creek is 400 feet northwest of the site and flows to Onondaga Lake.

Ref: #1

Average slope of terrain between facility and above-cited surface water body in percent:

0 to 1%

Ref: #1

Is the facility located either totally or partially in surface water?

No, the landfill was built on a wetland area.

Ref: #1

Is the facility completely surrounded by areas of higher elevation?

No, the site was built in a wetland area, so the entire site is surrounded by areas of lower elevation.

Ref: #1

1-Year 24-Hour Rainfall in Inches

2.25 inches.

Ref: #2

Distance to Nearest Downslope Surface Water

Ninemile Creek is located 400 feet to the northwest. The site is surrounded by wetlands, but they are seasonally wet.

Ref: #1

Physical State of Waste

Crucible Speciality Metals dumped caustic solids and mill scale containing heavy metals including chromium, nickel and cadmium. Onondaga County Health Department personnel have observed tank trucks disposing liquids of unknown character at the site.

Ref: #1, 8, 9

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

The landfill is not adequately covered and there is no diversion system present.

Ref: #1

Method with highest score:

Lack of a containment method scores a 3.

Ref: #2

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

Numerous HSL compounds were detected in the sediment and water samples, of the surrounding wetland, collected during the site inspection. These compounds include: phenanthrene, anthracene, pyrene, chrysene, benzo (a) pyrene, dieldrin, maganese and zinc. Crucible Speciality Metals dumped caustic solids and mill scales containing heavy metals including chromium, nickel and cadmium. Since the landfill is improperly covered these compounds are available for transport to surface water via site runoff.

Ref: #9, 11

Compound with highest score:

Acenaphthylene, dibenzofuran, fluoranthene, pyrene, benzo (a) anthracene, chrysene, benzo (b) fluoranthene, benzo (a) pyrene, indeno (1,2,3-cd) pyrene, dibenzo (a,h) anthracene, benzo (ghi) perylene, dieldrin, arsenic, cadmium, chromium, lead, manganese, mercury, nickel and zinc each score "18" for the toxicity/persistence matrix.

Ref: #2

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

Crucible Speciality Metals dumped an unknown quantity of caustic solids and mill scale containing heavy metals. Onondaga County Health Department personnel have observed tank truck disposing liquids of unknown character at the site.

Ref: #1, 8, 9

Basis of estimating and/or computing waste quantity:

Unknown waste quantity scores a 1.

Ref: #2

* * *

5 TARGETS

Surface Water Use

Use(s) of surface water within 3 miles downstream of the hazardous substance:

Ninemile Creek empties into Lake Onondaga one mile downstream from the site. The lake is polluted from other sources, so that it is unusable for swimming or drinking. Fishing is allowed, but the fish are not for consumption. The lake is also a commercial shipping lane for barges on route to Lake Ontario.

Ref: #1, 14

Is there tidal influence?

No, the site is well inland.

Ref: #4

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

Not applicable.

Ref: #4

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

The landfill was built in a wetland and is still surrounded by wetlands on three sides.

Ref: #1

Distance to critical habitat of an endangered species or national wildlife refuge, if 1 mile or less:

No applicable; none within one mile.

Ref: #6, 12, 13

Population Served by Surface Water

Location(s) of water-supply intake(s) within 3 miles (free-flowing bodies) or 1 mile (static water bodies) downstream of the hazardous substance and population served by each intake:

There are no surface water intakes within three miles.

Ref: #1

Computation of land area irrigated by above-cited intake(s) and conversion to population (1.5 people per acre):

Not applicable.

Total population served:

Not applicable.

Name/description of nearest of above water bodies:

Not applicable.

Distance to above-cited intakes, measured in stream miles.

Not applicable.

AIR ROUTE

1 OBSERVED RELEASE

Contaminants detected:

There were no readings above background on either the OVA or HNu. No other data was collected which would document an observed release.

Ref: #1

Date and location of detection of contaminants

Not applicable.

Methods used to detect the contaminants:

Not applicable.

Rationale for attributing the contaminants to the site:

Not applicable.

* * *

2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

Not applicable.

Most incompatible pair of compounds:

Not applicable.

Toxicity

Most toxic compound:

Not applicable.

Hazardous Waste Quantity

Total quantity of hazardous waste:

Not applicable.

Basis of estimating and/or computing waste quantity:

Not applicable.

* * *

3 TARGETS

Population Within 4-Mile Radius

Circle radius used, give population, and indicate how determined:

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

Not applicable.

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

Not applicable.

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

Not applicable.

Distance to critical habitat of an endangered species, if 1 mile or less:
Not applicable.

Land Use

Distance to commercial/industrial area, if 1 mile or less:
Not applicable.

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:
Not applicable.

Distance to residential area, if 2 miles or less:
Not applicable.

Distance to agricultural land in production within past 5 years, if 1 mile or less:
Not applicable.

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:
Not applicable.

Is a historic or landmark site (National Register or Historic Places and National Natural Landmarks) within the view of the site?
Not applicable.

FIRE AND EXPLOSION

1 CONTAINMENT

Hazardous substances present:

Based on visual observations and air monitoring readings, the site does not present a significant fire/explosion hazard. The site is active and covered, although the cover is inadequate. The fire/explosion route will not be scored.

Ref: #1

Type of containment, if applicable:

Not applicable.

* * *

2 WASTE CHARACTERISTICS

Direct Evidence

Type of instrument and measurements:

Not applicable.

Ignitability

Compound used:

Not applicable.

Reactivity

Most reactive compound:

Not applicable.

Incompatibility

Most incompatible pair of compounds:

Not applicable.

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility:

Not applicable.

Basis of estimating and/or computing waste quantity:

Not applicable.

* * *

3 TARGETS

Distance to Nearest Population

Not applicable.

Distance to Nearest Building

Not applicable.

Distance to Sensitive Environment

Distance to wetlands:

Not applicable.

Distance to critical habitat:

Not applicable.

Land Use

Distance to commercial/industrial area, if 1 mile or less:

Not applicable.

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:
Not applicable.

Distance to residential area, if 2 miles or less:
Not applicable.

Distance to agricultural land in production within past 5 years, if 1 mile or less:
Not applicable.

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:
Not applicable.

Is a historic or landmark site (National Register or Historic Places and National Natural Landmarks) within the view of the site?
Not applicable.

Population Within 2-Mile Radius
Not applicable.

Buildings Within 2-Mile Radius
Not applicable.

DIRECT CONTACT

1 OBSERVED INCIDENT

Date, location, and pertinent details of incident:

There are no reports of any person coming into contact with hazardous waste at the site.

Ref: #1

* * *

2 ACCESSIBILITY

Describe type of barrier(s):

The landfill has no fence or guard, and is easily accessable by car.

Ref: #1

* * *

3 CONTAINMENT

Type of containment, if applicable:

The landfill is neither lined or capped.

Ref: #1

* * *

4 WASTE CHARACTERISTICS

Toxicity

Compounds evaluated:

Numerous HSL compounds were detected in the sediment and water samples collected during the site inspection. These compounds include: benzene, anthracene, pyrene, benzo (a) pyrene, dieldrin, manganese and zinc.

Crucible Specialty Metals dumped caustic solids and mill scale containing heavy metals including chromium, nickel and cadmium.

Ref: #9, 11

Compound with highest score:

Benzene, 4-methylphenol, acenaphthylene, acenaphthene, phenanthrene, anthracene, fluoranthene, pyrene, benzo (a) anthracene, bis (2-ethylhexyl) phthalate, chrysene, benzo (b) fluoranthene, benzo (a) pyrene, indeno (1,2,3-cd) pyrene, dibenzo (a,h) anthracene, benzo (ghi) perylene, dieldrin, arsenic, cadmium, chromium, lead, manganese, mercury, nickel and zinc each score a toxicity value of "3".

Ref: #2

5 TARGETS

Population Within One-Mile Radius

208

Ref: #5

Distance to Critical Habitat (of Endangered Species)

No critical habitats are located within one mile.

Ref: #6, 12, 13

SECTION 5

HAZARD RANKING SYSTEM SCORING FORMS

Facility name: State Fair Landfill

Location: State Fair Blvd., Geddes, New York

EPA Region: Region II

Persons(s) in charge of the facility: William Isgar

Name of Reviewer: Edward L. Leonard **Date:** 1/28/87

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

The State Fair Landfill is a construction and demolition landfill owned and used by the New York State Fair. The site was built on a wetland near a commercial/industrial area. The major migration route for contamination is to Ninemile Creek which is adjacent to the site and leads into Onondaga Lake, one mile away. The lake is used as a commercial shipping lane for barges and for recreational fishing, although the fish are not for consumption due to pollution in the lake from other sources.

The contamination of three aquifers in the area are of concern: a buried valley sand and gravel aquifer, a bedrock aquifer and a glacial till aquifer. The sand and gravel aquifer lies directly beneath the landfill and has the greatest potential for contamination. However, due to a 40 foot layer of silt and clay between the landfill and the sand and gravel aquifer, contamination is minimal. A second layer of silt and clay below the sand and gravel aquifer would prevent contamination migration into the bedrock. The lower permeability of the glacial till aquifer would prevent contamination migration from the sand and gravel aquifer. Drinking water wells between one and three miles northwest of the site are in the bedrock and glacial till aquifers.

Crucible Speciality Metals disposed an unknown amount of caustic solids and mill scale containing heavy metals including chromium, nickel and cadmium at the site. Onondaga County Health Department personnel have observed tank trucks disposing liquids of unknown character at the site.

Analytical results from sediment and water samples indicate the presences of numerous Hazardous Substances List (HSL) compounds on site. These include inorganics, pesticides, polycyclic aromatic hydrocarbons and monocyclic aromatics.

Score: $S_M = 13.83$ ($S_{gw} = 20.88$, $S_{sw} = 11.69$, $S_a = 0.00$)

S_{FE} = Not scored.

$S_{DC} = 25.00$

HRS COVER SHEET

Ground Water Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	(0) 45	1	0	45	3.1
If observed release is given a score of 45, proceed to line 4. If observed release is given a score of 0, proceed to line 2.					
2 Route Characteristics					3.2
Depth to Aquifer of Concern	0 1 (2) 3	2	4	6	
Net Precipitation	0 1 (2) 3	1	2	3	
Permeability of the Unsaturated Zone	0 (1) 2 3	1	1	3	
Physical State	0 1 2 (3)	1	3	3	
Total Route Characteristics Score			10	15	
3 Containment	0 1 2 (3)	1	3	3	3.3
4 Waste Characteristics					3.4
Toxicity/Persistence	0 3 6 9 12 15 (18)	1	18	18	
Hazardous Waste Quantity	0 (1) 2 3 4 5 6 7 8	1	1	8	
Total Waste Characteristics Score			19	26	
5 Targets					3.5
Ground Water Use	0 1 2 (3)	3	9	9	
Distance to Nearest Well/Population Served	0 4 6 8 10 / (12) 16 18 20 / 24 30 32 35 40	1	12	40	
Total Targets Score			21	49	
6 If line 1 is 45, multiply 1 x 4 x 5 / If line 1 is 0, multiply 2 x 3 x 4 x 5			11970	57,330	
7 Divide line 6 by 57,330 and multiply by 100		S_{gw} = 20.88			

FIGURE 2
GROUND WATER ROUTE WORK SHEET

Surface Water Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	(0) 45	1	0	45	4.1
If observed release is given a value of 45, proceed to line 4. If observed release is given a value of 0, proceed to line 2.					
2 Route Characteristics					4.2
Facility Slope and Intervening Terrain	(0) 1 2 3	1	0	3	
1-yr. 24-hr. Rainfall	0 1 (2) 3	1	2	3	
Distance to Nearest Surface Water	0 1 2 (3)	2	6	6	
Physical State	0 1 2 (3)	1	3	3	
Total Route Characteristics Score			11	15	
3 Containment	0 1 2 (3)	1	3	3	4.3
4 Waste Characteristics					4.4
Toxicity/Persistence	0 3 6 9 12 15 (18)	1	18	18	
Hazardous Waste Quantity	0 (1) 2 3 4 5 6 7 8	1	1	8	
Total Waste Characteristics Score			19	26	
5 Targets					4.5
Surface Water Use	0 1 (2) 3	3	6	9	
Distance to a Sensitive Environment	0 1 2 (3)	2	6	6	
Population Served/Distance to Water Intake Downstream	(0) 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40	
Total Targets Score			12	55	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			7524	64,350	
7 Divide line 6 by 64,350 and multiply by 100		S_{sw} = 11.69			

FIGURE 7
SURFACE WATER ROUTE WORK SHEET

Air Route Work Sheet

Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Observed Release	(0) 45	1	0	45	5.1
Date and Location: 6/17/86 STATE FAIR LANDFILL GEDDES, NEW YORK					
Sampling Protocol: NO READINGS WERE OBTAINED ABOVE BACKGROUND ON OVA OR H-NU					
If line 1 is 0, the S_a = 0. Enter on line 5. If line 1 is 45, then proceed to line 2.					
2 Waste Characteristics					5.2
Reactivity and Incompatibility	0 1 2 3	1		3	
Toxicity	0 1 2 3	3		9	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
	Total Waste Characteristics Score			20	
3 Targets					5.3
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30	
Distance to Sensitive Environment	0 1 2 3	2		8	
Land Use	0 1 2 3	1		3	
	Total Targets Score			39	
4 Multiply 1 x 2 x 3				35,100	
5 Divide line 4 by 35,100 and multiply by 100			S_a = 0.00		

FIGURE 9
AIR ROUTE WORK SHEET

	S	S^2
Groundwater Route Score (S_{gw})	20.88	435.97
Surface Water Route Score (S_{sw})	11.69	136.66
Air Route Score (S_a)	0.00	0.00
$S_{gw}^2 + S_{sw}^2 + S_a^2$		572.63
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		23.93
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		13.83

FIGURE 10
WORKSHEET FOR COMPUTING S_M

Fire and Explosion Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Containment	1 3	1		3	7.1
2 Waste Characteristics					7.2
Direct Evidence	0 3	1		3	
Ignitability	0 1 2 3	1		3	
Reactivity	0 1 2 3	1		3	
Incompatibility	0 1 2 3	1		3	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
Total Waste Characteristics Score				20	
3 Targets					7.3
Distance to Nearest Population	0 1 2 3 4 5	1		5	
Distance to Nearest Building	0 1 2 3	1		3	
Distance to Sensitive Environment	0 1 2 3	1		3	
Land Use	0 1 2 3	1		3	
Population Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Buildings Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Total Targets Score				24	
4 Multiply 1 x 2 x 3				1,440	
5 Divide line 4 by 1,440 and multiply by 100			S_{FE} = NOT SCORED		

FIGURE 11
FIRE AND EXPLOSION WORK SHEET

Direct Contact Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Incident	(0) 45	1	0	45	8.1
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2					
2 Accessibility	0 1 2 (3)	1	3	3	8.2
3 Containment	0 (15)	1	15	15	8.3
4 Waste Characteristics Toxicity	0 1 2 (3)	5	15	15	8.4
5 Targets					8.5
Population Within a 1-Mile Radius	0 1 (2) 3 4 5	4	8	20	
Distance to a Critical Habitat	(0) 1 2 3	4	0	12	
Total Targets Score			8	32	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			5400	21,600	
7 Divide line 6 by 21,600 and multiply by 100		S_{DC} = 25.00			

FIGURE 12
DIRECT CONTACT WORK SHEET

SECTION 6

BIBLIOGRAPHY OF INFORMATION SOURCES

BIBLIOGRAPHY OF INFORMATION SOURCES

HRS MODEL

	SOURCE	LOCATION
1.	Site Inspection, NUS Corporation FIT II, under TDD #02-8611-18, 6/17/86.	NUS Corporation FIT II Office
2.	U.S. Environmental Protection Agency. 1984. Uncontrolled Hazardous Waste Site Ranking System. A User's Manual (HW-10). 60 pp.	NUS Corporation FIT II Office
3.	Mathewson, Christopher C. Engineering Geology. Charles E. Merrill Publishing Company. 1981.	NUS Corporation FIT II Office
4.	U.S. Department of the Interior, Geologic Survey Topographic Map, "Syracuse West, New York", 1973, photorevised 1978.	NUS Corporation FIT II Office
5.	General Software Corporation. 1984. Draft Graphical Exposure Modelling System (GEMS) User's Guide. Prepared for the U.S. Environmental Protection Agency, Office of Pesticides and Toxic Substance. Landover, Maryland.	NUS Corporation FIT II Office
6.	U.S. Department of the Interior, Fish and Wildlife Service List of Endagnered and Threatened Wildlife and Plants, January 9, 1985.	NUS Corporation FIT II Office
7.	Kantrowitz, I.H., Ground-Water Resources in the Eastern Oswego River Basin, New York. 1970.	NUS Corporation FIT II Office
8.	Telecon between E. Leonard (NUS Corp.) and Kevin Kelly (NYSDEC) on 6/04/86.	NUS Corporation FIT II Office
9.	Letter from Kevin Kelly (NYSDEC) to Richard Friend (NUS Corp.), 7/86.	NUS Corporation FIT II Office
10.	Onondaga County Water Authority Water Service Maps, Map Numbers 11, 13, 14, 19, 20, 26. Revised March, 1986.	NUS Corporation FIT II Office
11.	U.S. EPA Contract Laboratory Program, Sample Management Office, Case #6100. Analytical results of samples collected 6/17/86 by NUS Corporation FIT II.	NUS Corporation FIT II Office
12.	Telecon between E. Leonard (NUS Corp.) and Larry Brown (NYSDEC) on 2/03/87.	NUS Corporation FIT II Office
13.	NYSDEC; Division of Fish and Wildlife. Significant Habitat Overlay, "Rochester" (1 of 2), November 6, 1985.	NUS Corporation FIT II Office
14.	Telecon between E. Leonard (NUS Corp.) and C. Creech (NYSDEC) on 03/18/87.	NUS Corporation FIT II Office

SECTION 7

PRESS RELEASE SUMMARY-MITRE HAZARD RANKING SYSTEM

SUMMARY STATEMENT
STATE FAIR LANDFILL
GEDDES, NEW YORK

State Fair Landfill is an active five acre construction and demolition landfill in the town of Geddes, Onondaga County, New York. The site is built on a wetland near a commercial/industrial area and is owned by New York State Fair. It is unknown when the site started operation.

Crucible Speciality Metals disposed caustic solids and mill scale at the site that contained heavy metals including chromium, nickel and cadmium. Onondaga County Health Department personnel have observed tank trucks disposing liquids of unknown character at the site. Analytical results from sediment and water samples indicate the presence of numerous Hazardous Substances List (HSL) compounds on site. These include inorganics, pesticides, polycyclic hydrocarbons and monocyclic aromatics.

The Onondaga County Health Department has inspected the landfill numerous times and found it to be in violation of Part 360 of the Environmental Conservation Law for the following reasons: 1) Leaching into a waterway. 2) Refuse not confined to a manageable area. 3) Refuse protruding through completed areas. 4) Unsatisfactory daily soil cover. 5) Improper spread and compaction. 6) Evidence of rodents and insects.

SECTION 8

ATTACHMENTS- CITED DOCUMENTS

REFERENCE #3

REFERENCE - TO THE SOIL PERMEABILITY CHARTS,
DISTRIBUTED MAY 20, 86 BY RICH PAGANO.

Engineering Geology

Christopher C. Mathewson
Texas A&M University 1981

Charles E. Merrill Publishing Company
A Bell & Howell Company
Columbus Toronto London Sydney

NUS CORPORATION
SUPERFUND DIVISION

INTERNAL CORRESPONDENCE
C-584-05-86-86

TO: **STAFF**

DATE: **MAY 20, 1986**

FROM: **RICHARD PAGANO**

COPIES:

SUBJECT: **PERMEABILITY OF THE UNSATURATED ZONE**

The following charts can be an aid in determining the permeability of the unsaturated zone for future PAs, SIs and HRS Reports.

RP:jls

Reviewed and Approved: R. J. Califa

TABLE 8–3 Hydraulic conductivity

Material	Hydraulic Conductivity	
	cm/sec	ft/day
Clay		
Unweathered	10^{-8}–10^{-9}	10^{-3}–10^{-4}
High plastic (CH)	10^{-7}–10^{-9}	10^{-2}–10^{-4}
Low plastic (CL)	10^{-6}–10^{-8}	10^{-1}–10^{-3}
Silt		
High plastic (MH)	10^{-5}–10^{-7}	1 –10^{-2}
Low plastic (ML)	10^{-4}–10^{-7}	10 –10^{-2}
Sand		
(SP)	10^{-1}–10^{-5}	10^{-4}– 1
Well sorted, fine	10^{-3}–10^{-5}	10^{-2}– 1
Well sorted, medium	10^{-2}–10^{-4}	10^{-3}–10^{-1}
Well sorted, coarse	10^{-1}–10^{-3}	10^{-4}–10^{-2}
(SW)	10^{-1}–10^{-4}	10^{-4}–10^{-1}
Poorly sorted, fine	10^{-2}–10^{-4}	10^{-3}–10^{-1}
Poorly sorted, medium	10^{-1}–10^{-3}	10^{-4}–10^{-2}
Poorly sorted, coarse	10^{-1}–10^{-3}	10^{-4}–10^{-2}
Silty sand (SM)	10^{-4}–10^{-6}	10 –10^{-1}
Clayey sand (SC)	10^{-5}–10^{-7}	1 –10^{-2}
Gravel		
(GP)	10^{-3}–1	10^{-8}–10^{-5}
Well sorted	10^{-3}–1	10^{-8}–10^{-5}
(GW)	10^{-2}–1	10^{-7}–10^{-5}
Poorly sorted	10^{-2}–1	10^{-7}–10^{-5}
Silty gravel (GM)	10^{-3}–10^{-6}	10^{-2}–10^{-1}
Clayey gravel (GC)	10^{-4}–10^{-7}	10 –10^{-2}

				Identification Procedures on fraction smaller than no. 40 sieve size		
				Dry Strength (crushing characteristics)	Dilatancy (reaction to shaking)	Toughness (molding test)
Fine-grained Soils More than half of material is smaller than no. 200 sieve size The no. 200 sieve size is about the smallest particle visible to the naked eye.	Silts and Clays Liquid limit is less than 50	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.	None to slight	Quick to medium	None
		CL	Inorganic clays of low to medium plasticity, gravelly clays, silty clays, sandy clays, lean clays.	Medium to high	None to very slow	Medium
		OL	Organic silts, and organic silty clays of low plasticity.	Slight to medium	Slow	Slight, feels weak and spongy
	Silts and Clays Liquid limit is greater than 50	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.	Slight to medium	Slow to medium	Slight to medium
		CH	Inorganic clays of high plasticity, fat clays.	High to very high	None	High
		OH	Organic clays of medium to high plasticity, organic silt.	Medium to high	None to very slow	Slight to med spongy
Highly Organic Soils		Pt	Peat and other highly organic soils.	Readily identified by color, odor, spongy feel, & frequently by fibrous texture.		

Unified Soil Classification System					
				Typical Names	Identification Procedures
Coarse-grained Soils More than half of material is *larger* than No. 200 sieve size. The no. 200 sieve size is about the smallest particle visible to the naked eye.	Gravels More than half of the coarse fraction is larger than no. 4 sieve size	Clean gravels (little or no fines)	GW	Well-graded gravels, gravel-sand mixtures, little or no fines	Wide range in grain size and substantial amounts of all intermediate particle sizes.
			GP	Poorly graded gravels or gravel-sand mixtures, little or no fines	Predominantly one size or a range of sizes with some intermediate sizes missing.
		Gravels with fines (appreciable amount of fines)	GM	Silty gravels, gravel-sand-silt mixtures.	Nonplastic fines or fines with low plasticity. (For identification procedures, see ML in Fig. 7–8.)
			GC	Clayey gravels, gravel-sand-clay mixtures.	Plastic fines. (For identification procedures, see CL in Fig. 7–8.)
	Sands More than half of the coarse fraction is smaller than no. 4 sieve size.	Clean sands (little or no fines)	SW	Well-graded sands, gravelly sands, little or no fines.	Wide range in grain size and substantial amounts of all intermediate particle sizes.
			SP	Poorly graded sands or gravelly sands, little or no fines.	Predominantly one size or a range of sizes with some intermediate sizes missing.
		Sands with fines (appreciable amount of fines)	SM	Silty sands, silt-sand mixtures.	Nonplastic fines or fines with low plasticity. (For identification procedures, see ML in Fig. 7–8.)
			SC	Clayey sands, sand-clay mixtures.	Plastic fines. (For identification procedures, see CL in Fig. 7–8.)

(For visual classification, the ¼ in. size may be used as equivalent to the no. 4 sieve size.)

REFERENCE #5

DRAFT

GRAPHICAL EXPOSURE MODELING SYSTEM

(GEMS)

USER'S GUIDE

Prepared for:

U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDES AND TOXIC SUBSTANCES
EXPOSURE EVALUATION DIVISION
Task No. 4
Contract No. 68016618
William Wood - Project Officer
Loren Hall - Task Manager

Prepared by:

GENERAL SOFTWARE CORPORATION
8401 Corporate Drive
Landover, Maryland 20785

Submitted: June 25, 1984

	parameters: agriculture, climate, vegetation, forestry, air quality, land, natural areas, population, water quality, terrain (soils) and wildlife.
GAGE	The GAGE dataset contains primarily stream flow rates monitored consistently by approximately 99,500 stream gaging stations throughout the country, and some estimated flows.
IFDDIR	IFDDIR contains industrial facility data for approximately 28,000 direct dischargers excluding publicly owned treatment works (POTWs)
IFDIND	IFDIND contains limited industrial facility data for approximately 12,000 indirect dischargers which discharge through other facilities, usually POTWs.
Master Area Reference File (MARF) 1980 census	This dataset contains a variety of location identification information, population count by race, the number of occupied and owner-occupied

TABLE 2-2. GEMS Datasets (Continued)

DATASET NAME	DESCRIPTION
	number of families for all the enumeration district/block groups for continental USA, Hawaii, and Alaska.
Meteorological Data	Several meteorological data files are contained in this category: (1) the Stability Tabular Array (STAR) data file has meteorological data for 334 first order weather stations in the continental USA, (2) A master index file (STARSEL), and (3) An auxiliary file (AUX).
Publicly Owned Treatment Works (POTWs)	This dataset contains 1982 survey data on the unit treatment process, the influent and effluent and hour rates, and the population served by 33,000 publicly owned treatment works around the country.

MASTER AREA REFERENCE FILE (MARF) OF THE 1980 CENSUS

Source

The Master Area Reference File (MARF) is a proprietary product of Donnelly Marketing, Inc., a subsidiary of Dunn and Bradstreet, and is available only to EPA users and to contractors engaged in EPA projects.

Description

The complete corrected MARF of the 1980 Census, with geographic coordinates for small geographic areas, is installed for GEMS on a separate disk pack. It consists of four subfiles, one for each major census geographic region, and is available to users when that disk pack is mounted. The file has a variety of location identification information, including region, state, county, place, census tracts and enumeration districts or block groups (See Figure C-1 for illustrations). It also contains population count by race, the number of occupied and owner-occupied housing units, group quarters, and number of families for all the enumeration districts/block groups for the continental United States, Hawaii, and Alaska.

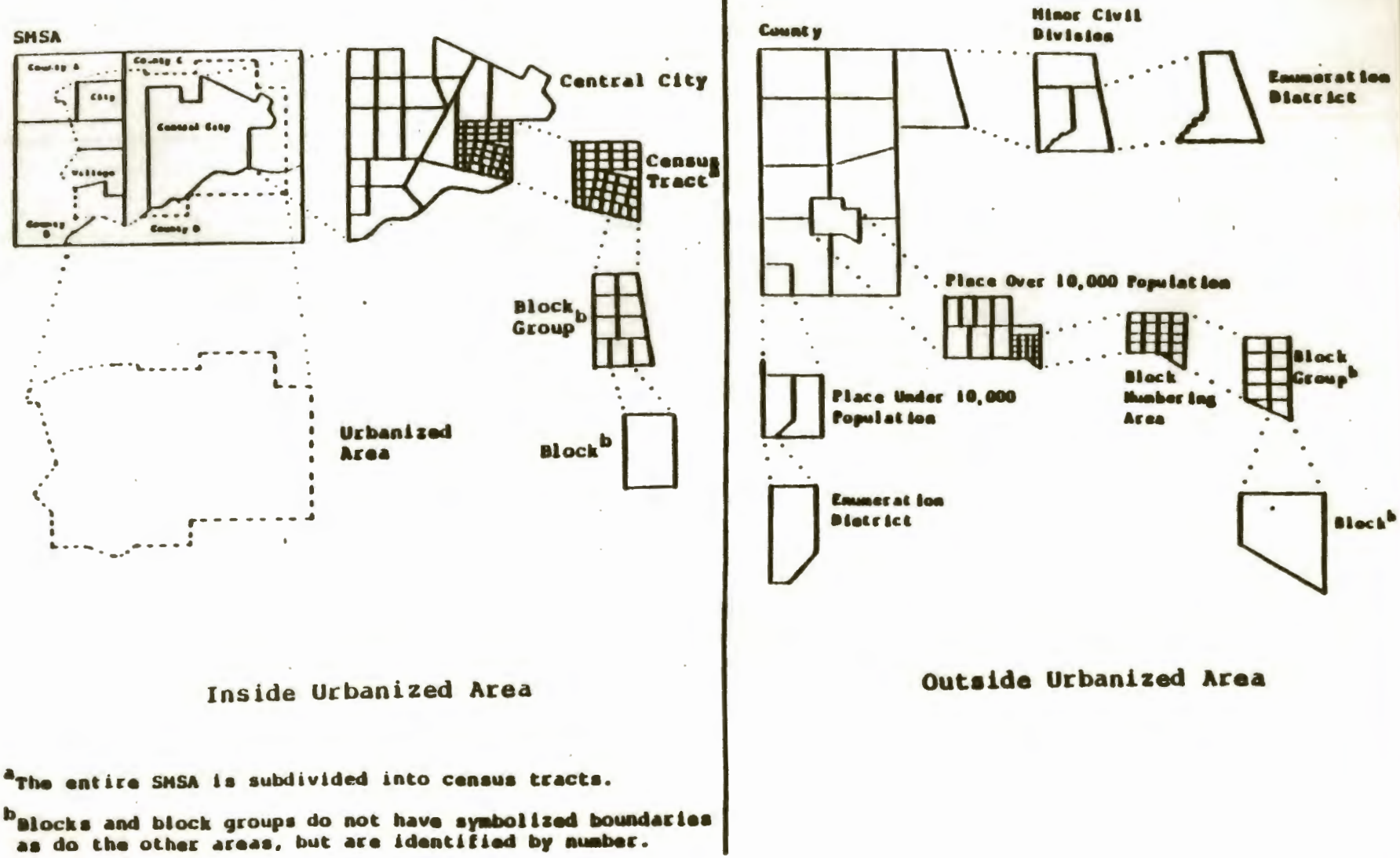
CEDPOP, a subset of the MARF of the 1980 Census, is accessible through GEMS. In addition to total population and household counts, the file includes geographic coordinates for the population-weighted centroid of each census block group or enumeration district (BG/ED) in the file.

Use

The complete MARF 80 Census file, installed in GEMS on a separate disk, is expected to be used heavily by GEMS users to identify household and population by racial groups at any required geographic level. County aggregate populations have already been created from this file.

CEDPOP was interfaced with ATM80 in GEMS to provide estimates of population sizes exposed to concentrations of airborne chemicals around a release site and with BOXMOD80 to provide population estimates within area source regions. The population centroids are identified, and populations are accumulated in sectors (typically the sixteen wind direction sectors) surrounding the center point within a user-specified number of radial distances out from the center.

The CEDPOP file also is accessed by CENSUS DATA and RADII-5 procedures under the GEODATA HANDLING operation in GEMS. CENSUS DATA accumulates population and housing counts by up to ten user-specified radial distances and from one-to-sixteen sectors. The RADII-5 program tabulates the same information (except housing counts) and displays the centroid locations for user-specified circular distances around a center point.



[a]The entire SMSA is subdivided into census tracts.

[b]Blocks and block groups do not have symbolized boundaries as do the other areas, but are identified by number.

Figure C-1. Geographic Hierarchy Inside and Outside Urbanized Areas (UA's)

```
ZDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD?
3                                                                              3
3MENU: Process Census Data by Latitude and Longitude                           3
3                                                                              3
3ref par-name          parameter description                value        index3
3--- --------    ------------------------------------     -----------    -----3
31.  LAT         latitude (DDMMSS or degree)                                   3
32.  LON         longitude (DDDMMSS or degree)                                 3
33.  RINGDIST    ring distances in km                                     (1)3
34.  NSECTORS    number of sectors                                             3
35.  DATASET     Name of the output dataset                                    3
36.  TAG         tag field of the output dataset           *                   3
3                                                                              3
3Enter one or more combinations of: reference or parameter name and value(s)  3
3[ref1 value1, ref2 value2, ...] or a command: HELP,NEXT,BACK,END,CLEAR,EXIT   3
3? 1 430433, 2 761352, 3 (.40, .81, 1.6, 3.2, 4.8, 6.4), 4 1, 5 STFR           3
3                                                                              3
3Enter one or more combinations of: reference or parameter name and value(s)  3
3[ref1 value1, ref2 value2, ...] or a command: HELP,NEXT,BACK,END,CLEAR,EXIT   3
3? NEXT                                                                        3
3                                                                              3
TMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMAIN>
01-Jan-80  06:40 AM             OnLine                        Cap
GO
```

Data List of Dataset: STFR   Number of Records = 6

REC #		POP		HOUSE	DISTANCE	SECTOR
1	¼	0		0	0.400000	1
2	½	208		75	0.810000	1
3	1	0	208	0	1.60000	1
4	2	10778	10,986	4101	3.20000	1
5	3	36415	47,401	13731	4.80000	1
6	4	36516	83917	13997	6.40000	1

REFERENCE #6

ENDANGERED AND THREATENED

WILDLIFE AND PLANTS

JANUARY 1, 1986

50 CFR 17.11 and 17.12

Department of the Interior
U.S. Fish and Wildlife Service

RECEIVED

APR 28 1986

NUS CORPORATION
REGION II

SENT TO_____

REFERENCE #7

NUS CORPORATION
SUPERFUND DIVISION

PROJECT NOTES

TO: File

DATE: 8-6-86

FROM: Richard Friend

COPIES:

SUBJECT: Kantrowitz Groundwater Report - Plates

REFERENCE:

plate 5: 2-4 mgd yield } upper aquifer
6 mgd infiltration }

plate 3: bedrock - middle shale unit
- likely to contain salt in upper 100 ft.
- v. hard and contains much sulfate
-

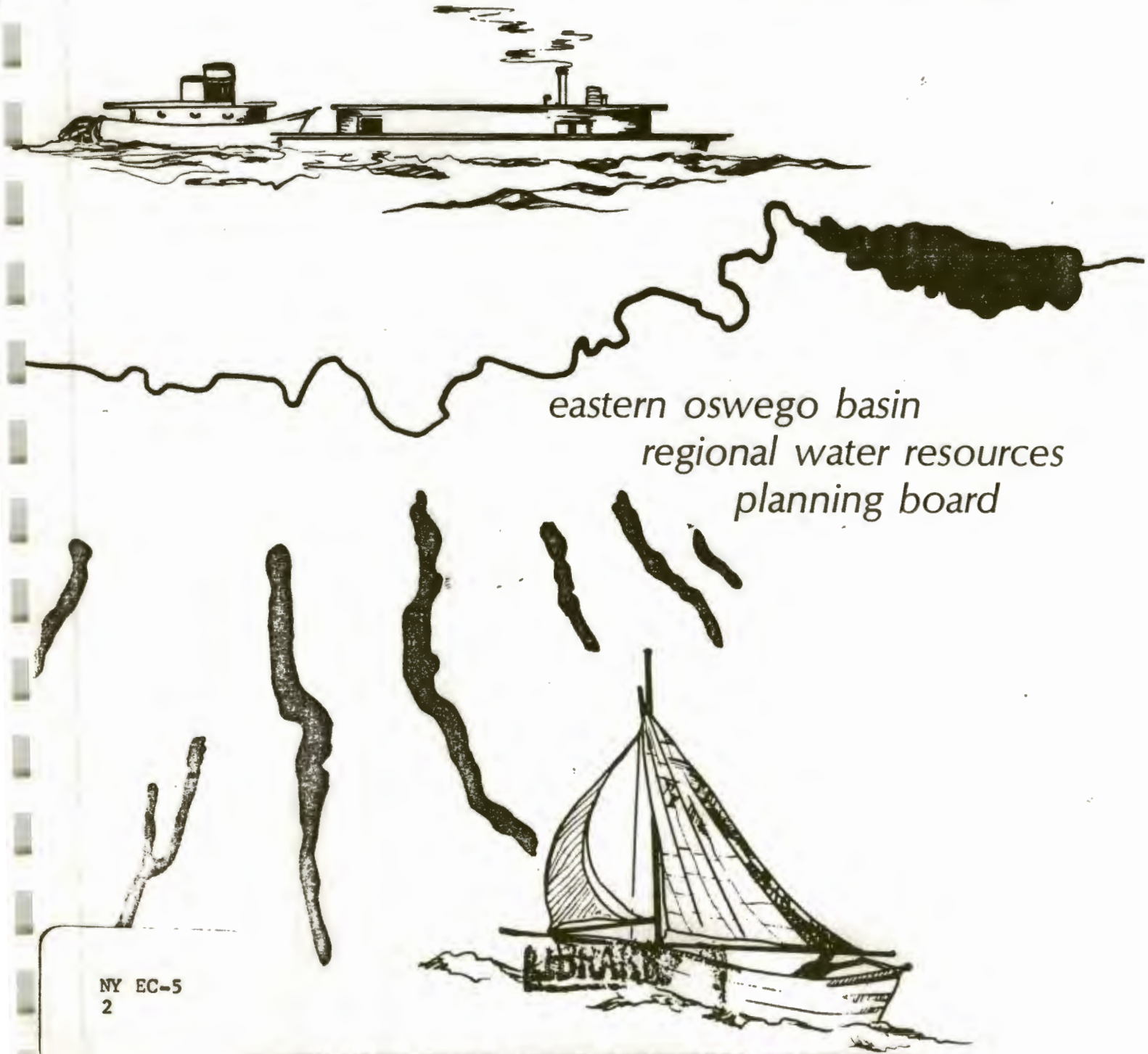
plate 1: unconsolidated material
at site { - 100 to 350 gpm
- Sand & gravel beneath less permable material

In lakesite { - aquifer is till. 0.1 to .2 gpm

NUS 443A 58 1182

NY EC-5
2

eastern oswego ground water



eastern oswego basin regional water resources planning board

NY EC-5
2

.E NEW YORK STATE WATER RESOURCES COMMISSION
CONSERVATION DEPARTMENT • DIVISION OF WATER RESOURCES

GROUND-WATER RESOURCES IN THE EASTERN OSWEGO RIVER BASIN, NEW YORK

Prepared for the
Eastern Oswego Regional Water Resources
Planning Board

by

I. H. Kantrowitz

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

in cooperation with

THE NEW YORK STATE CONSERVATION DEPARTMENT
DIVISION OF WATER RESOURCES

STATE OF NEW YORK
CONSERVATION DEPARTMENT
WATER RESOURCES COMMISSION

Basin Planning Report ORB-2

EXPLANATION

Sand and gravel

Clay and silt

Mixed deposits
(clay, silt, sand, gravel, and
till in morainic deposits)

Sand

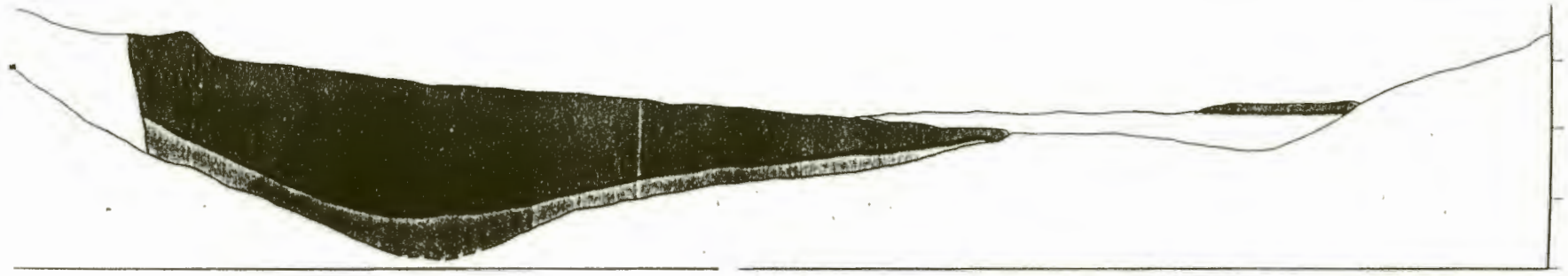
Till and bedrock

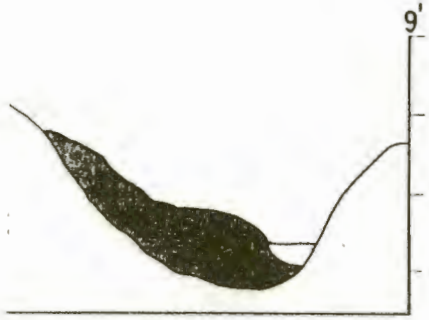
0 5,000 10,000 15,000

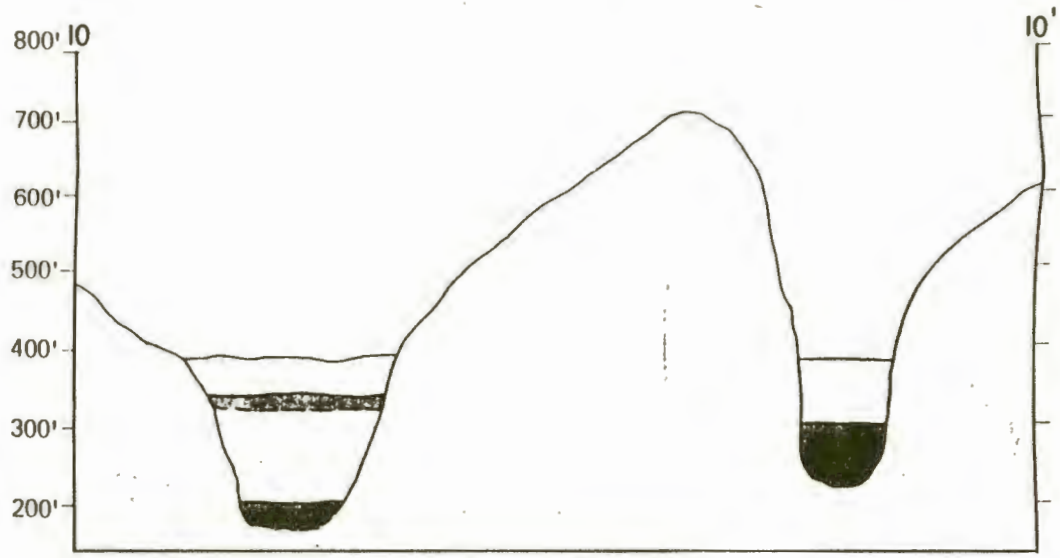
Horizontal scale, in feet

Datum for vertical scale is mean sea level;
vertical exaggeration x 21

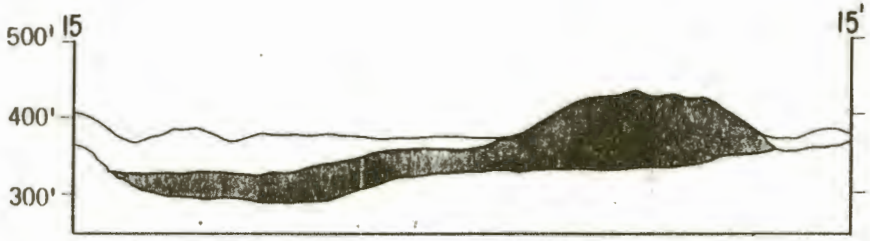
Locations of cross sections 1-1' through 17-17' on plate 1
Locations of cross sections 18-18' through 26-26' on plate 2
Contacts dashed where inferred

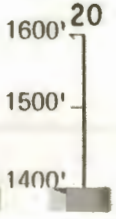



9'


800'
10
700'
600'
500'
400'
300'
200'
10'

4'


500'
15
400'
300'
15'


1600'
20
1500'
1400'

20'

EXPLANATION

Yield of aquifer or segment of aquifer based on recharge potential from direct precipitation and storm runoff, in million gallons per day.

0.4 | 0.4 - 2 | 2 - 4 | 4 - 8

8 - 12 | 12 - 20 | No major gravel aquifer present

Area boundary | Basin boundary

>6

Segment of stream along which infiltration of streamflow is likely. Number is potential yield of infiltration supply, in million gallons per day.

Central Square
West Monroe
Cleveland
Hannibal
Hannibal
OSWEGO CO
ONONDAGA CO
Phoenix
Brewerton
Toad Harbor
ONEIDA LAKE
Frenchman Island
Dunham Island
Jacksonville
Wrights Corners
Lysander
Three Rivers
Belgium
Clay
Cicero
Cicero Center
Meridian
Parker Pond
Seneca
Baldwinsville
Otter Lake
Cross Lake
Red Rock
Woodard
North Syracuse
Emerson
Liverpool
Onondaga
Hancock
Mattydale
Lakeside
Onondaga Lake
Collamer
Memphis
Jordan
Anthoson (Private)
Warners Amber
SYRACUSE
East Syracuse
Minoa (Private)
Minoa
Weedsport
Eastwood
Manlius Center
Bennetts Corners
Camillus
Fairmount
Elbridge
Howlet Hill
Hartlof
Marcellus Falls
Onondaga
Skaneateles Falls
Marcellus
Weighington Corners
SYRACUSE
Jamesville
Nedrow
Nedrow
Mottville
Auburn
Skaneateles
AUBURN
SKANEATELES
Navarino
South Onondaga
ONONDAGA RESERVATION
Cedar Swamp
Rose Hill
COON HILL
Carlos Corners
Amber
Dutch Hollow Brook
Bonnie Brae
ONONDAGA CO
CAYUGA CO
Otisco Lake
L-A-K-E
OWASCO
LAKE
Scipio Center
Venice Center
Moravia
Cortland
ONONDAGA
CORTLAND
COUNTY
COUNTY
Tully
Labrador Hollow
Cedar Swamp Creek
Dutch Hill
Miller Hill
Rich Hill
Lewis Hill
Pompey
Jordan
Factory
Fayetteville
Manlius
Minoa
Cicero
Clay
Liverpool
Baldwinsville
Auburn
Weedsport
Jordan
Marcellus
Skaneateles
Nedrow
Jamesville
Tully
Cortland
Moravia
Scipio Center
Venice Center
Factory
10
50
40
4
23
10
3

EXPLANATION

Note: See table 3 for geologic rock units comprising water-bearing units.

Upper shale unit
Almost all wells are adequate for domestic and farm supplies. Median yield is 6 gpm. Water is frequently hard.

Limestone unit
Wells are adequate for domestic and farm supplies. Median yield is 25 gpm. Industrial wells yield as much as 700 gpm. Water is almost always hard.

Middle shale unit
Almost all wells are adequate for domestic and farm supplies. Median yield is 20 gpm. Industrial wells yield as much as 245 gpm. Almost all water is very hard and contains excessive sulfate.

Dolomite unit
Most wells are adequate for domestic and farm supplies. Median yield is 4 gpm. Water is frequently hard.

Sandstone - shale unit
About one-fourth of all wells are inadequate for domestic and farm supplies. Median yield is 3 gpm. Water may be hard.

Sandstone unit
Most wells are adequate for domestic and farm supplies. Median yield is 10 gpm. Water is generally soft.

Lower shale unit
Most wells are adequate for domestic and farm supplies. Median yield is 3 gpm. Water is generally soft.

Areas where salty ground water is likely to occur within the upper 100 feet of bedrock.

Well — Spring

Well or spring which taps unconsolidated deposits. Number is well or spring number. (See "Well-numbering system" in text for explanation.)

Well — Spring

Well or spring which taps bedrock. Number is well or spring number.

Basin boundary

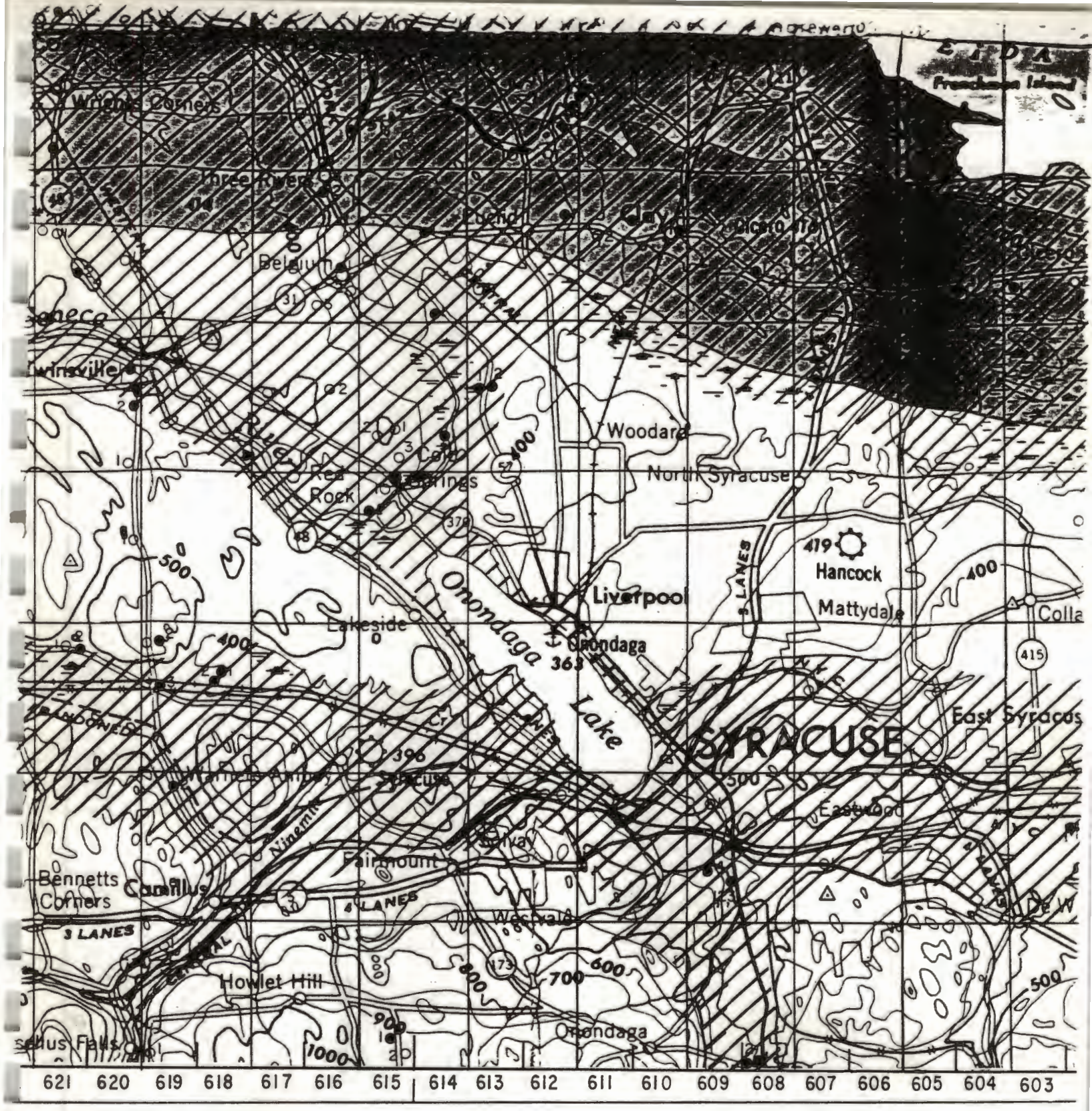
Geologic contact

Geology modified from Broughton and others, 1961

5 0 5
SCALE IN MILES

CONTOUR INTERVAL 100 FEET
DATUM IS MEAN SEA LEVEL

Osweg



TS AND LOCATION OF SELECTED WELLS AND SPRINGS IN THE NORTHERN

Prepared by

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY, Albany, N.Y.

45'

EXPLANATION

Note: Water-bearing material and estimated yield of individual wells. In some areas more than one aquifer may be found in a vertical section; only the most productive one is shown on the map. Well yields are based on saturated thickness and estimated permeability of water-bearing material.

50 to 100 gpm — 100 to 350 gpm — More than 350 gpm

Sand and gravel at land surface

100 to more than 350 gpm

Sand and gravel at land surface, favorably situated with respect to stream infiltration

50 to 100 gpm — 100 to 350 gpm — More than 350 gpm

Sand and gravel beneath less permeable material

5 to 50 gpm

Sand at land surface

5 to 50 gpm

Sand beneath less permeable material

0.1 to 0.5 gpm

Clay and silt at land surface

0.1 to 2 gpm

Till

(in some areas till may be missing or too thin to be water bearing)

30'

1 to 350 gpm

Mixed deposits

5 to 50 gpm
Sand at land surface

5 to 50 gpm
Sand beneath less permeable material

0.1 to 0.5 gpm
Clay and silt at land surface

0.1 to 2 gpm
Till
(in some areas till may be missing or too thin to be water bearing)

30'

1 to 350 gpm
Mixed deposits

Areas where unconsolidated deposits may yield salty ground water.
A fresh-water zone, from 10 to more than 100 feet thick,
occurs above the salt water.

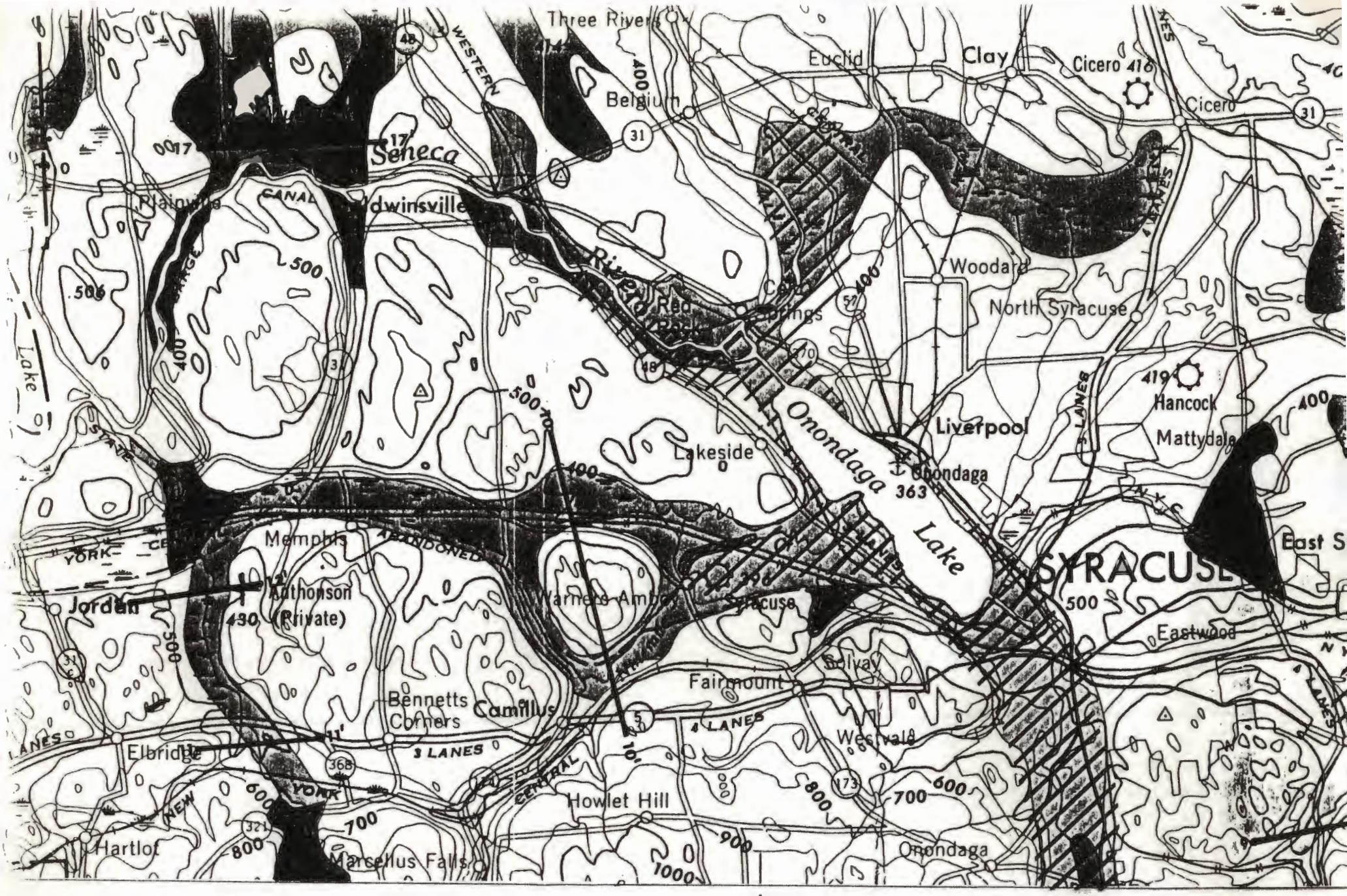
Area boundary

12——12'
Line of geologic section
on plate 6

Basin boundary

5 0 5
SCALE IN MILES

CONTOUR INTERVAL 100 FEET
DATUM IS MEAN SEA LEVEL



AVAILABILITY OF GROUND WATER IN THE UNCONSOLIDATED DEPOSITS IN THE NORTHERN HALF

REFERENCE #8

NUS CORPORATION — **TELECON NOTE**

CONTROL NO:	DATE:	TIME:
NYT2	6/4/86	1440

DISTRIBUTION: Files

BETWEEN:	OF:	PHONE:
Kevin Kelly	NYDEC Solid Waste	(315) 428-4483

AND: R. Friend (NUS)

DISCUSSION:

- Kevin said site was used by Crucibell Steel Industrial Metals to dump caustic coated mill scale
- Croc. Steel contact Bob Wills 315-487-4111
- he remebered high conc. of Cr. in mill scale
- confirmed site as between I-695 & mine tailings pond northwest of fairgrounds

ACTION ITEMS:

NUS 067 REVISED 0581

REFERENCE #9

New York State Department of Environmental Conservation

MEMORANDUM

TO: Dick Friend, N.U.S.
FROM: Kevin Kelly, N.Y.S.D.E.C.
SUBJECT: CRUCIBLE WASTE ANALYSES
DATE: 7/86

Enclosed is a copy of Crucible Specialty Metals solid waste analyses from Calocerinos & Spina Engineers. The waste dumped at the landfill contained the mill scale along with caustic solids. It is possible that other wastes were dumped with these in the past considering the circumstances when the dumping took place. Also, to date there has been no administrative action taken against the State Fair landfill. The area is a 100-year flood plain according to the National Flood Insurance Program Maps (Community I.D. #360579-0003C, panel 3 of 9).

Enc.

TABLE 4-1

LISTING OF CRUCIBLE SOLID WASTES

Specific Waste	Annual Quantity $yd.^3$	Percent of Total	Classification	Hazardous Parameters	Current Disposition
A) Currently Landfilled Wastes					
Slag	6,290	43.4	Non-Hazardous	None	Landfill
Construction Debris & Refractories	4,104	28.3	Non-Hazardous	None	Landfill
Boiler House Ashes	1,437	9.9	Non-Hazardous	None	Landfill
Coolant Swarf	1,375	9.5	Non-Hazardous	None	Landfill
*Mill Scale	1,121	7.7	Non-Hazardous	None	Landfill
WWTP Sludge	165	1.2	Non-Hazardous	None	Landfill
Total	14,492	100%			
B) Previously Landfilled Wastes					
Grinding Dusts	688	32.6	Non-Hazardous	None	Recycled & Reused
Air Pollution and AOD Dusts	1,176	55.6	Hazardous	Chromium & Cadmium	CECOS Int'l
*Waste Caustic Solids	200*	9.4	Hazardous	Chromium	CECOS Int'l
Acid Pickling Solids	50*	2.4	Hazardous	Chromium	On-Site Treatment
Total	2,114	100%			

* Estimated Amounts

TABLE 4-2

COMPOSITION OF CRUCIBLE WASTES

mg/Kg or ppm

Wastes	Parameters											
	ALK	Al	As	Cd	CN	Cr(T)	Cu	Fe	Pb	Hg	Ni	Zn
A) Non-Hazardous Wastes												
Coolant Swarf (Krasney)	62	590	3.0	100	0.04	50,000	5520	136,000	10	0.04	NA	19
WWTP Sludge	930	2,000	5.0	48	0.04	10,800	660	92,000	280	0.2	3,340	460
Slag	400	13,400	2.0	38	0.15	6,400	89	29,000	30	0.04	2,560	40
*Mill Scale	12	210	10	70	0.04	1,380	1840	58,600	2.0	0.04	16,000	18
Boiler House Ashes	48	2,000	2.0	1.2	0.04	47	33	111,000	2.0	0.04	48	17
Grinding Dust	20	290	7.5	8.1	0.004	60,800	3360	500,000	18	0.04	25,000	21
Coolant Swarf, South Wire Mill	94	120	5.0	71	0.04	26,000	47	166,000	4	0.04	11,800	50
B) Hazardous Wastes												
Air Pollution and AOD Dust	1680	4000	7.0	74	0.40	6,600	840	100,000	2600	0.6	4,200	5000
*Waste Caustic Solids	6000	120	7.0	8.0	2.75	7,200	75	8,600	2	0.04	336	7.0

REFERENCE # 10

NUS CORPORATION
SUPERFUND DIVISION

PROJECT NOTES

TO: File

DATE: 8-6-86

FROM: Richard Friend

COPIES:

SUBJECT: Onondaga County Water Line Maps

REFERENCE:

The Water Service Maps are located in the NUS FIT II project files. The maps are too large to put into the HRS report.

REFERENCE #11

STATE FAIR LANDFILL
GEDDES, NEW YORK
TDD #02-8611-18
SAMPLE CROSS REFERENCE

Sample I.D.	Organic Traffic Report #	Inorganic Traffic Report #
NYT2-SW1	BE952	MBK 077
NYT2-SW2	BE953	MBK 078
NYT2-SW3	BE954	MBF 439
NYT2-SW4	BE955	MBG 389
NYT2-SW5	BG993	MBG 400
NYT2-SED1	BE957	MBG 390
NYT2-SED2	BE958	MBG 391
NYT2-SED3	BE959	MBG 392
NYT2-SED4	BG991	MBG 393
NYT2-SED5	BG996	MBG 399
NYT2-BLK	BG992	MBG 397

ANALYTICAL DATA
NAME: STATE FAIR LF
SAMPLING DATE: 6-17-86
CASE: 5100

VOLATILES

SAMPLE NUMBER	NYT2-SW1	NYT2-SW2	NYT2-SW3	NYT2-SW4	NYT2-SW5	NYT2-SED1	NYT2-SED2	NYT2-SED3	NYT2-SED4	NYT2-SED5	NYT2-B1
MATRIX	WATER	WATER	WATER	WATER	WATER	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	BLANK
UNITS	ug/l	ug/l	ug/l	ug/l	ug/l	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/l
Chloromethane											
Bromomethane											
Vinyl Chloride											
Chloroethane											
Methylene Chloride		E	E			28					J
Acetone		80	140	42	74	160	160				
Carbon Disulfide					56	J					
1,1-Dichloroethene											
1,1-Dichloroethane											
trans-1,2-Dichloroethene											
Chloroform											
1,2-Dichloroethane											
2-Butanone					E						24
1,1,1-Trichloroethane											
Carbon Tetrachloride											
Vinyl Acetate											
Bromodichloromethane											
1,1,2,2-Tetrachloroethane											
1,2-Dichloropropane											
trans-1,3-Dichloropropene											
Trichloroethene						J					
Dibromochloromethane											
1,1,2-Trichloroethane											
Benzene						38					
Cis-1,3-Dichloropropene											
2-Chloroethylvinylether											
Bromoform											
2-Hexanone											
4-Methyl-2-Pentanone											
Tetrachloroethene											
Toluene					49	J					
Chlorobenzene											
Ethylbenzene											
Styrene											
Total Xylenes											

NOTES:
Blank space - compound analyzed for but not detected
E - analysis did not pass QA/QC requirements
J - compound present below the specified detection limit
B - compound found in laboratory blank as well as the sample, indicates possible/probable blank contamination

ANALYTICAL DATA
NAME: STATE FAIR LF
SAMPLING DATE: 6-17-86
CASE: 6100

SEMI-VOLATILES											
SAMPLE NUMBER	NYT2-SW1	NYT2-SW2	NYT2-SW3	NYT2-SW4	NYT2-SW5	NYT2-SED1	NYT2-SED2	NYT2-SED3	NYT2-SED4	NYT2-SED5	NYT2-B1
MATRIX	WATER	WATER	WATER	WATER	WATER	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	BLANK
UNITS	ug/l	ug/l	ug/l	ug/l	ug/l	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/l
N-Nitrosodimethylamine											
Phenol											
Aniline											
Bis(2-Chloroethyl)Ether											
2-Chlorophenol											
1,3-Dichlorobenzene											
1,4-Dichlorobenzene											
Benzyl Alcohol											
1,2-Dichlorobenzene											
2-Methylphenol											
Bis(2-Chloroisopropyl)Ether											
4-Methylphenol						J		J			
N-Nitroso-Di-n-Propylamine											
Hexachloroethane											
Nitrobenzene											
Isophorone											
2-Nitrophenol											
2,4-Dimethylphenol											
Benzoic Acid											
Bis(2-Chloroethoxy)Methane											
2,4-Dichlorophenol											
1,2,4-Trichlorobenzene											
Naphthalene						J		J		J	
4-Chloroaniline											
Hexachlorobutadiene											
4-Chloro-3-Methylphenol											
2-Methylnaphthalene								J		J	
Hexachlorocyclopentadiene											
2,4,6-Trichlorophenol											
2,4,5-Trichlorophenol											
2-Chloronaphthalene											
2-Nitroaniline											
Dimethyl Phthalate											
Acenaphthylene								J		J	
3-Nitroaniline											
Acenaphthene										510	
2,4-Dinitrophenol											
4-Nitrophenol											
Dibenzofuran										340	
2,4-Dinitrotoluene											
2,6-Dinitrotoluene											
Diethylphthalate											
4-Chlorophenylphenyl ether											
Fluorene										540	

ANALYTICAL DATA
NAME: STATE FAIR LF
SAMPLING DATE: 6-17-86
CASE: 6100

SEMI-VOLATILES

SAMPLE NUMBER	NYT2-SW1	NYT2-SW2	NYT2-SW3	NYT2-SW4	NYT2-SW5	NYT2-SED1	NYT2-SED2	NYT2-SED3	NYT2-SED4	NYT2-SED5	NYT2-B1
MATRIX	WATER	WATER	WATER	WATER	WATER	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	BLANK
UNITS	ug/l	ug/l	ug/l	ug/l	ug/l	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/l
4-Nitroaniline											
4,6-Dinitro-2-Methylphenol											
N-Nitrosodiphenylamine											
4-Bromophenylphenyl ether											
Hexachlorobenzene											
Pentachlorophenol											
Phenanthrene								790		4000	
Anthracene								J		1300	
Di-n-Butylphthalate											
Fluoranthene								1800		4600	
Benzidine											
Pyrene								1500		4700	
Butylbenzylphthalate											
3,3'-Dichlorobenzidine											
Benzo(a)Anthracene								1300		2900	
Bis(2-Ethylhexyl)Phthalate				63		J					
Chrysene								1300		2600	
Di-n-Octyl Phthalate											
Benzo(b)Fluoranthene								1700 *		3900 *	
Benzo(k)Fluoranthene											
Benzo(a)Pyrene								1300		2500	
Indeno(1,2,3-cd)Pyrene								810		1900	
Dibenzo(a,h)Anthracene								190			
Benzo(ghi)Perylene								770		1700	

NOTES:* Analysis can not differentiate between benzo(b)fluoranthene and benzo(k)fluoranthene.
Blank space - compound analyzed for but not detected
E - analysis did not pass QA/QC requirements
J - compound present below the specified detection limit
B - compound found in laboratory blank as well as the sample, indicates possible/probable blank contamination

ANALYTICAL DATA
NAME: STATE FAIR LF
SAMPLING DATE: 6-17-86
CASE: 6100

PESTICIDES/PCBs											
SAMPLE NUMBER	NYT2-SW1	NYT2-SW2	NYT2-SW3	NYT2-SW4	NYT2-SW5	NYT2-SED1	NYT2-SED2	NYT2-SED3	NYT2-SED4	NYT2-SED5	NYT2-B1
MATRIX	WATER	WATER	WATER	WATER	WATER	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	BLANK
UNITS	ug/l	ug/l	ug/l	ug/l	ug/l	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/l
Alpha-BHC											
Beta-BHC											
Delta-BHC											
Gamma-BHC (Lindane)											
Heptachlor											
Aldrin											
Heptachlor Epoxide											
Endosulfan I											
Dieldrin								24		300	
4.4 -DDE											
Endrin											
Endosulfan II											
4.4'-DDD											
Endosulfan sulfate											
Endrin Aldehyde											
4.4'-DDT											
Methoxychlor											
Endrin Ketone											
Chlordane											
Toxaphene											
Aroclor-1016											
Aroclor-1221											
Aroclor-1232											
Aroclor-1242											
Aroclor-1248											
Aroclor-1254											
Aroclor-1260											

NOTES:
Blank space - compound analyzed for but not detected
E - analysis did not pass QA/QC requirements
J - compound present below the specified detection limit
B - compound found in laboratory blank as well as the sample.
indicates possible/probable blank contamination

ANALYTICAL DATA
NAME: STATE FAIR LF
SAMPLING DATE: 6-17-86
CASE: 6100

INORGANICS											
SAMPLE NUMBER	NYT2-SW1	NYT2-SW2	NYT2-SW3	NYT2-SW4	NYT2-SW5	NYT2-SED1	NYT2-SED2	NYT2-SED3	NYT2-SED4	NYT2-SED5	NYT2-B1
MATRIX	WATER	WATER	WATER	WATER	WATER	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	BLANK
UNITS	ug/l	ug/l	ug/l	ug/l	ug/l	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/l
Aluminum	J	J	J	J	J	J	J	J	J	J	J
Antimony	J	J			110	154	139	111	163	122	
Arsenic											
Barium	J	J	J	J	J		J	J	J	J	
Beryllium											
Cadmium		6.81			5.29	4.35			4.47		
Calcium	353000	457000	82200	217000	280000	J	J	J	J	J	J
Chromium						18.9	16.5	36.9	27.8	18.2	
Cobalt	J					35.8	J	38.1	47.8		
Copper	J	J		J	J	J	J	33.4	25	27.7	
Iron	J	J	J	J	J	J	J	J	J	J	J
Lead				8.31	9.76	J	J	J	J	J	
Magnesium	35000	36200	37300	72900	66700	J	J	J	J	J	
Manganese	115	175	384	387	2240	J	J	J	J	J	
Mercury								0.13		0.19	
Nickel											
Potassium	7740	10100	6770	9030	48800	4440	J	J	9310	J	
Selenium											
Silver	14.1	19		12.8	14.1	9.73		33			
Sodium	242000	302000	214000	216000	199000	J	J	J	J	J	J
Thallium	E	E	E	E	E						E
Tin	E	E	E	E	E	J	J	J	J	J	E
Vanadium								J	41.6		
Zinc		28	39.4	165	445	26	76.2	65.7	93.3	79.6	

NOTES:
Blank space - compound analyzed for but not detected
E - analysis did not pass QA/QC requirements
J - compound present below the specified detection limit
B - compound found in laboratory blank as well as the sample, indicates possible/probable blank contamination

Sample Number
BE 952

Organics Analysis Data Sheet
(Page 1)

0:016

Laboratory Name: Cambridge Analytical Assoc.
Case No: 6100
Lab Sample ID No: CLPVOA 854
QC Report No: 03
Sample Matrix: Water
Contract No: 68-01-7278
Data Release Authorized By: Elauler
Date Sample Received: 6/18/86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 6/24/86
Date Analyzed: 6/24/86
Conc/Dil Factor: 1.0 pH 7
Percent Moisture: (Not Decanted) N/A

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	5 u
67-64-1	Acetone	10u
75-15-0	Carbon Disulfide	5 u
75-35-4	1, 1-Dichloroethene	5 u
75-34-3	1, 1-Dichloroethane	5 u
156-60-5	Trans-1, 2-Dichloroethene	5 u
67-66-3	Chloroform	5 u
107-06-2	1, 2-Dichloroethane	5 u
78-93-3	2-Butanone	10u
71-55-6	1, 1, 1-Trichloroethane	5 u
56-23-5	Carbon Tetrachloride	5 u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5 u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5 u
10061-02-6	Trans-1, 3-Dichloropropene	5 u
79-01-6	Trichloroethene	5 u
124-48-1	Dibromochloromethane	5 u
79-00-5	1, 1, 2-Trichloroethane	5 u
71-43-2	Benzene	5 u
10061-01-5	cis-1, 3-Dichloropropene	5 u
110-75-8	2-Chloroethylvinylether	10u
75-25-2	Bromoform	5 u
108-10-1	4-Methyl-2-Pentanone	10u
591-78-6	2-Hexanone	10u
127-18-4	Tetrachloroethene	5 u
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 u
108-88-3	Toluene	5 u
108-90-7	Chlorobenzene	5 u
100-41-4	Ethylbenzene	5 u
100-42-5	Styrene	5 u
	Total Xylenes	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

DE 952

Organics Analysis Data Sheet
(Page 2)

0:017

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 6-23-86

Date Analyzed: 7-13-86

Conc./Dil Factor: 1

Percent Moisture (Decanted) N/A

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☒Yes

CAS Number		(ug/l) or ug/Kg (Circle One)
108-95-2	Phenol	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1, 3-Dichlorobenzene	10u
106-46-7	1, 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1, 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2, 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2, 4-Dichlorophenol	10u
120-82-1	1, 2, 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2, 4, 6-Trichlorophenol	10u
95-95-4	2, 4, 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		(ug/l) or ug/Kg (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2, 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2, 4-Dinitrotoluene	10u
606-20-2	2, 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4, 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	10u
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3, 3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10u
53-70-3	Dibenz(a, h)Anthracene	10u
191-24-2	Benzo(g, h, i)Perylene	10u

(1)-Cannot be separated from diphenylamine

0.0C

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 06/22/86

Date Analyzed: 07/23/86

Conc/Dil Factor: —

Percent Moisture (decanted) NA

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☒Yes

CAS Number		(ug/l) or ug/Kg (Circle One)
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptachlor Epoxide	0.05 U
959-98-8	Endosulfan I	0.05 U
60-57-1	Dieldrin	0.10 U
72-55-9	4,4'-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-65-9	Endosulfan II	0.10 U
72-54-8	4,4'-DDD	0.10 U
1031-07-8	Endosulfan Sulfate	0.10 U
50-29-3	4,4'-DDT	0.10 U
72-43-5	Methoxychlor	0.5 U
53494-70-5	Endrin Ketone	0.10 U
57-74-9	Chlordane	0.5 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Aroclor-1016	0.5 U
11104-28-2	Aroclor-1221	0.5 U
11141-16-5	Aroclor-1232	0.5 U
53469-21-9	Aroclor-1242	0.5 U
12672-29-6	Aroclor-1248	0.5 U
11097-69-1	Aroclor-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 500mL or W_s NA V_t 10,000ul V_i 3 ul

atory Name Cambridge Analytical Associates

No 6100

Sample Number: BE 952

Organics Analysis Data Sheet
(Page 4)

0:019

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
	Unknown	BNA	6.48	9.7 J
	↓	↓	7.09	14.1 ↑
			9.10	14.2 ↓
	↓	↓	9.49	46.6 J
	NONE Detected	VOA	—	—

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MBK 077

Date: 08/18/86

INORGANIC ANALYSIS DATA SHEET

LAB NAME: CAMBRIdge Analytical Associates CASE NO. CASE 6100
SOW NO.: 784
LAB SAMPLE ID. NO.: 8606144-06 QC REPORT NO. 8606144

Elements Identified and Measured

Concentration: Low ✓ Medium ____
Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L

1	Aluminum	1130	P	13	Magnesium	35000	P
2	Antimony	[50.9]R	P	14	Manganese	115 *	P
3	Arsenic	10.0U	F	15	Mercury	0.18U	
4	Barium	[111]	P	16	Nickel	28.0UR	P
5	Beryllium	5.00UR	P	17	Potassium	7740	P
6	Cadmium	5.00U	P	18	Selenium	5.00U	F
7	Calcium	353000	P	19	Silver	14.1	P *
8	Chromium	10.0UR	P	20	Sodium	242000	P
9	Cobalt	[40.6]	P	~~21~~	~~Thallium~~	~~100 UR~~ 5 u	F
10	Copper	[10.2]	P	~~22~~	~~Tin~~	~~38.9UR~~	P
11	Iron	1650	P	23	Vanadium	23.3U	P
12	Lead	5.00U	F	24	Zinc	19.0U	P
Cyanide				Percent solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Linda P. Leonard

BE 953

00020

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Cambridge Analytical Assoc.
Case No: 6100
Lab Sample ID No: CLPVOA 855
QC Report No: 03
Sample Matrix: Water
Contract No: 68-01-7278
Data Release Authorized By: Flanter
Date Sample Received: 6/18/86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 6/23/86
Date Analyzed: 6/25/86
Conc/Dil Factor: 1.0 pH 7
Percent Moisture: (Not Decanted) N/A

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride RJH	~~4 u~~ 3 J
67-64-1	Acetone RJH	~~10u~~ 80
75-15-0	Carbon Disulfide	5 u
75-35-4	1, 1-Dichloroethene	5 u
75-34-3	1, 1-Dichloroethane	5 u
156-60-5	Trans-1, 2-Dichloroethene	5 u
67-66-3	Chloroform	5 u
107-06-2	1, 2-Dichloroethane	5 u
78-93-3	2-Butanone	10u
71-55-6	1, 1, 1-Trichloroethane	5 u
56-23-5	Carbon Tetrachloride	5 u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5 u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5 u
10061-02-6	Trans-1, 3-Dichloropropene	5 u
79-01-6	Trichloroethene	5 u
124-48-1	Dibromochloromethane	5 u
79-00-5	1, 1, 2-Trichloroethane	5 u
71-43-2	Benzene	5 u
10061-01-5	cis-1, 3-Dichloropropene	5 u
110-75-8	2-Chloroethylvinylether	10u
75-25-2	Bromoform	5 u
108-10-1	4-Methyl-2-Pentanone	10u
591-78-6	2-Hexanone	10u
127-18-4	Tetrachloroethene	5 u
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 u
108-88-3	Toluene	5 u
108-90-7	Chlorobenzene	5 u
100-41-4	Ethylbenzene	5 u
100-42-5	Styrene	5 u
	Total Xylenes	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Case No: 6100

Sample Number: BE 953

Organics Analysis Data Sheet
(Page 2)

00021

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 6-23-86

Date Analyzed: 7-13-86

Conc./Dil Factor: 1

Percent Moisture (Decanted): N/A

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		(ug/l) or ug/Kg (Circle One)
108-95-2	Phenol	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1, 3-Dichlorobenzene	10u
106-46-7	1, 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1, 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2, 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2, 4-Dichlorophenol	10u
120-82-1	1, 2, 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2, 4, 6-Trichlorophenol	10u
95-95-4	2, 4, 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		(ug/l) or ug/Kg (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2, 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2, 4-Dinitrotoluene	10u
606-20-2	2, 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-77-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4, 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	10u
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3, 3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10u
53-70-3	Dibenz(a, h)Anthracene	10u
191-24-2	Benzo(g, h, i)Perylene	10u

(1)-Cannot be separated from diphenylamine

Laboratory Name Cambridge Analytical Associates

Case No 6100

Sample Number BE 953

Organics Analysis Data Sheet
(Page 3)

00022

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 06/22/86

Date Analyzed 07/23/86

Conc/Dil Factor: —

Percent Moisture (decanted) NA

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☒Yes

CAS Number		(ug/l) or ug/Kg (Circle One)
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptachlor Epoxide	0.05 U
959-98-8	Endosulfan I	0.05 U
60-57-1	Dieldrin	0.10 U
72-55-9	4,4'-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-65-9	Endosulfan II	0.10 U
72-54-8	4,4'-DDD	0.10 U
1031-07-8	Endosulfan Sulfate	0.10 U
50-29-3	4,4'-DDT	0.10 U
72-43-5	Methoxychlor	0.5 U
53494-70-5	Endrin Ketone	0.10 U
57-74-9	Chlordane	0.5 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Aroclor-1016	0.5 U
11104-28-2	Aroclor-1221	0.5 U
11141-16-5	Aroclor-1232	0.5 U
53469-21-9	Aroclor-1242	0.5 U
12672-29-6	Aroclor-1248	0.5 U
11097-69-1	Aroclor-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 500mL or W_s NA V_t 10,000 µl V_i 3 µl

tory Name Cambridge Analytical Associates
No 6100

Sample Number
BE953

00023

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
0A	Unknown	BNA	6.49	11 J
			7.10	14 J
			9.10	12 J
			9.50	52 J
			10.31	9.0 J
	NONE Detected	VOA	—	—

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MBK 078

Date: 08/18/86

INORGANIC ANALYSIS DATA SHEET

LAB NAME: CAMBRIdge Analytical Associates CASE NO. CASE 6100
SOW NO.: 784
LAB SAMPLE ID. NO.: 8606144-07 QC REPORT NO. 8606144

Elements Identified and Measured

Concentration: Low ✓ Medium ____
Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L

1	Aluminum	2020	P J	13	Magnesium	36200	P
2	Antimony	[53.9]R	P	14	Manganese	175 *	P
3	Arsenic	10.0U	F	15	Mercury	0.18U	
4	Barium	[133]	P	16	Nickel	28.0UR	P
5	Beryllium	5.00UR	P	17	Potassium	10100	P
6	Cadmium	6.81	P	18	Selenium	5.00U	F
7	Calcium	457000	P	19	Silver	19.0	P *
8	Chromium	10.0UR	P	20	Sodium	302000	P
9	Cobalt	40.0U	P	~~21~~	~~Thallium~~	~~26.5~~ R	F
10	Copper	[12.2]	P	~~22~~	~~Tin~~	~~36.9~~UR	P
11	Iron	2350	P J	23	Vanadium	23.3U	P
12	Lead	5.00U	F	24	Zinc	28.0	P
Cyanide					Percent solids (%)		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Linda P. Leonard

Sample Number
BE 954

Organics Analysis Data Sheet
(Page 1)

01024

Laboratory Name: Cambridge Analytical Assoc.
Case No: 6100
Lab Sample ID No: CCPVOA 856
QC Report No: 03
Sample Matrix: Water
Contract No: 68-01-7278
Data Release Authorized By: Flawler
Date Sample Received: 6/18/86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 6/24/86
Date Analyzed: 6/25/86
Conc/Dil Factor: 1.0 pH 7
Percent Moisture: (Not Decanted) N/A

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride RJH	~~5 u~~ ~~2 J~~
67-64-1	Acetone RJH	~~100~~ 140
75-15-0	Carbon Disulfide	5 u
75-35-4	1, 1-Dichloroethene	5 u
75-34-3	1, 1-Dichloroethane	5 u
156-60-5	Trans-1, 2-Dichloroethene	5 u
67-66-3	Chloroform	5 u
107-06-2	1, 2-Dichloroethane	5 u
78-93-3	2-Butanone	10u
71-55-6	1, 1, 1-Trichloroethane	5 u
56-23-5	Carbon Tetrachloride	5 u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5 u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5 u
10061-02-6	Trans-1, 3-Dichloropropene	5 u
79-01-6	Trichloroethene	5 u
124-48-1	Dibromochloromethane	5 u
79-00-5	1, 1, 2-Trichloroethane	5 u
71-43-2	Benzene	5 u
10061-01-5	cis-1, 3-Dichloropropene	5 u
110-75-8	2-Chloroethylvinylether	10u
75-25-2	Bromoform	5 u
108-10-1	4-Methyl-2-Pentanone	10u
591-78-6	2-Hexanone	10u
127-18-4	Tetrachloroethene	5 u
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 u
108-88-3	Toluene	5 u
108-90-7	Chlorobenzene	5 u
100-41-4	Ethylbenzene	5 u
100-42-5	Styrene	5 u
	Total Xylenes	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

BE 95

0

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 6/23/86

Date Analyzed: 7/13/86

Conc./Dil Factor: 1

Percent Moisture (Decanted) N/A

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☒Ye

CAS Number		(ug/l) or ug/Kg (Circle One)
108-95-2	Phenol	10u
111-44-4	bis(2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1,3-Dichlorobenzene	10u
106-46-7	1,4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1,2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2,4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(2-Chloroethoxy)Methane	10u
120-83-2	2,4-Dichlorophenol	10u
120-82-1	1,2,4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2,4,6-Trichlorophenol	10u
95-95-4	2,4,5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		(ug/l) or ug (Circle
83-32-9	Acenaphthene	10u
51-28-5	2,4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2,4-Dinitrotoluene	10u
606-20-2	2,6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4,6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	10u
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3,3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1,2,3-cd)Pyrene	10u
53-70-3	Dibenz(a,h)Anthracene	10u
191-24-2	Benzo(g,h,i)Perylene	10u

(1)-Cannot be seperated from diphenylamine

Laboratory Name [illegible]

Case No 6100

Sample Number BE 954

Organics Analysis Data Sheet
(Page 3)

0:026

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 06/22/86

Date Analyzed: 07/23/86

Conc/Dil Factor: —

Percent Moisture (decanted) NA

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☒Yes

CAS Number		(ug/l) or ug/Kg (Circle One)
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptachlor Epoxide	0.05 U
959-98-8	Endosulfan I	0.05 U
60-57-1	Dieldrin	0.10 U
72-55-9	4,4'-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-65-9	Endosulfan II	0.10 U
72-54-8	4,4'-DDD	0.10 U
1031-07-8	Endosulfan Sulfate	0.10 U
50-29-3	4,4'-DDT	0.10 U
72-43-5	Methoxychlor	0.5 U
53494-70-5	Endrin Ketone	0.10 U
57-74-9	Chlordane	0.5 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Aroclor-1016	0.5 U
11104-28-2	Aroclor-1221	0.5 U
11141-16-5	Aroclor-1232	0.5 U
53469-21-9	Aroclor-1242	0.5 U
12672-29-6	Aroclor-1248	0.5 U
11097-69-1	Aroclor-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 500mL or W_s NA V_t 10,000 µl V_i 3 µl

ratory Name Cambridge Analytical Associates

e No 6100

Sample Number
BE 954

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
	unknown	BNA	6.46	12 J
	↓	↓	6.64	8.0 J
			7.07	10 J
			9.10	10 J
			9.49	43 J
			10.29	10 J
	NONE DETECTED	VOA	—	—

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 / Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MBF 439

Date: 08/18/86

INORGANIC ANALYSIS DATA SHEET

LAB NAME: CAMBRIdge Analytical Associates CASE NO. CASE 6100
SOW NO.: 784
LAB SAMPLE ID. NO.: 8606144-11 QC REPORT NO. 8606144

Elements Identified and Measured

Concentration: Low / Medium ____
Matrix: Water / Soil ____ Sludge ____ Other ____

ug/L

1	Aluminum	200U J	P	13	Magnesium	37300	P
2	Antimony	47.1UR	P	14	Manganese	384 *	P
3	Arsenic	10.00	uF	15	Mercury	0.18U	
4	Barium	[114]	P	16	Nickel	28.0UR	P
5	Beryllium	5.00UR	P	17	Potassium	6770	P
6	Cadmium	5.00U	P	18	Selenium	5.00U	F
7	Calcium	62200	P	19	Silver	10.0U	P *
8	Chromium	10.0UR	P	20	Sodium	214000	P
9	Cobalt	40.0U	P	21	Thallium	100	uF
10	Copper	10.0U	P	22	Tin	36.9UR	P
11	Iron	1380 J	P	23	Vanadium	23.3U	P
12	Lead	5.00U	F	24	Zinc	39.4	P
Cyanide				Percent solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Linda P. Leonard

Sample Number
BE 955

0:U028

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Cambridge Analytical Assoc.
Case No: 6100
Lab Sample ID No: CLPVOA 857
QC Report No: 03
Sample Matrix: Water
Contract No: 68-01-7278
Data Release Authorized By: Flawler
Date Sample Received: 6/18/86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 6/25/86
Date Analyzed: 6/25/86
Conc/Dil Factor: 1.0 pH 7
Percent Moisture: (Not Decanted) N/A

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	5 u
67-64-1	Acetone RJH ~~200~~ 42	
75-15-0	Carbon Disulfide	5 u
75-35-4	1, 1-Dichloroethene	5 u
75-34-3	1, 1-Dichloroethane	5 u
156-60-5	Trans-1, 2-Dichloroethene	5 u
67-66-3	Chloroform	5 u
107-06-2	1, 2-Dichloroethane	5 u
78-93-3	2-Butanone	10u
71-55-6	1, 1, 1-Trichloroethane	5 u
56-23-5	Carbon Tetrachloride	5 u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5 u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5 u
10061-02-6	Trans-1, 3-Dichloropropene	5 u
79-01-6	Trichloroethene	5 u
124-48-1	Dibromochloromethane	5 u
79-00-5	1, 1, 2-Trichloroethane	5 u
71-43-2	Benzene	5 u
10061-01-5	cis-1, 3-Dichloropropene	5 u
110-75-8	2-Chloroethylvinylether	10u
75-25-2	Bromoform	5 u
108-10-1	4-Methyl-2-Pentanone	10u
591-78-6	2-Hexanone	10u
127-18-4	Tetrachloroethene	5 u
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 u
108-88-3	Toluene	5 u
108-90-7	Chlorobenzene	5 u
100-41-4	Ethylbenzene	5 u
100-42-5	Styrene	5 u
	Total Xylenes	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Case No: 6100

Sample Number
BE955

Organics Analysis Data Sheet
(Page 2)

00029

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 6-23-86

Date Analyzed: 7-13-86

Conc./Dil Factor: 1

Percent Moisture (Decanted) N/A

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		(ug/l) or ug/Kg (Circle One)
108-95-2	Phenol	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1, 3-Dichlorobenzene	10u
106-46-7	1, 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1, 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2, 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2, 4-Dichlorophenol	10u
120-82-1	1, 2, 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2, 4, 6-Trichlorophenol	10u
95-95-4	2, 4, 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		(ug/l) or ug/Kg (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2, 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2, 4-Dinitrotoluene	10u
606-20-2	2, 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4, 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	10u
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3, 3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	~~10u~~ 31 63
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10u
53-70-3	Dibenz(a, h)Anthracene	10u
191-24-2	Benzo(g, h, i)Perylene	10u

(1)-Cannot be separated from diphenylamine

Laboratory Name Cambridge Analytical Associates

Case No 6100

Sample Number BE 955

Organics Analysis Data Sheet
(Page 3)

00030

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 06/22/86

Date Analyzed: 07/23/86

Conc/Dil Factor: —

Percent Moisture (decanted) NA

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☒Yes

CAS Number		(ug/l) or ug/Kg (Circle One)
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptachlor Epoxide	0.05 U
959-98-8	Endosulfan I	0.05 U
60-57-1	Dieldrin	0.10 U
72-55-9	4,4'-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-65-9	Endosulfan II	0.10 U
72-54-8	4,4'-DDD	0.10 U
1031-07-8	Endosulfan Sulfate	0.10 U
50-29-3	4,4'-DDT	0.10 U
72-43-5	Methoxychlor	0.5 U
53494-70-5	Endrin Ketone	0.10 U
57-74-9	Chlordane	0.5 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Aroclor-1016	0.5 U
11104-28-2	Aroclor-1221	0.5 U
11141-16-5	Aroclor-1232	0.5 U
53469-21-9	Aroclor-1242	0.5 U
12672-29-6	Aroclor-1248	0.5 U
11097-69-1	Aroclor-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 500mL or W_s NA V_t 10,000 ul V_i 3 ul

Sample Number
BE 955

C

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. NA	unknown	BNA	6.47	.16 J
2.			7.06	10
3.			9.07	12
4.			9.47	43
5.			10.28	9.0
6.				
7.				
8.	NONE Detected	VOA	—	—
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MB6 389

Date: 08/18/86

INORGANIC ANALYSIS DATA SHEET

LAB NAME: CAMBRIdge Analytical Associates CASE NO. CASE 6100
SOW NO.: 784
LAB SAMPLE ID. NO.: 8606144-10 QC REPORT NO. 8606144

Elements Identified and Measured

Concentration: Low ✓ Medium ____
Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L

1	Aluminum	3180 J	P	13	Magnesium	72900	P
2	Antimony	47.1UR	P	14	Manganese	387 *	P
3	Arsenic	10.0U	F	15	Mercury	0.18U	
4	Barium	[162]	P	16	Nickel	28.0UR	P
5	Beryllium	5.00UR	P	17	Potassium	9030	P
6	Cadmium	5.00U	P	18	Selenium	5.00U	F
7	Calcium	217000	P	19	Silver	12.8	P *
8	Chromium	10.0UR	P	20	Sodium	216000	P
9	Cobalt	40.0U	P	21	~~Thallium~~	~~100 UR~~	
10	Copper	[17.8]	P	22	~~Tin~~	~~38.9UR~~	P
11	Iron	10500 J	P	23	Vanadium	23.3U	P
12	Lead	8.3 J S	F	24	Zinc	165	P
Cyanide				Percent solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Linda P. Leonard

Sample Number
BG 993

00054

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Cambridge Analytical Assoc.
Case No: 6100
Lab Sample ID No: CLPJOA 862
QC Report No: 03
Sample Matrix: Water
Contract No: 68-01-7278
Date Release Authorized By: [illegible]
Date Sample Received: 6/18/86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 6/25/86
Date Analyzed: 6/25/86
Conc/Dil Factor: 1.0 pH 7
Percent Moisture: (Not Decanted) N/A

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	5 u
67-64-1	Acetone RJH	~~100~~ 74
75-15-0	Carbon Disulfide RJH	~~5u~~ 56
75-35-4	1, 1-Dichloroethene	5 u
75-34-3	1, 1-Dichloroethane	5 u
156-60-5	Trans-1, 2-Dichloroethene	5 u
67-66-3	Chloroform	5 u
107-06-2	1, 2-Dichloroethane	5 u
78-93-3	2-Butanone RJH	~~10u~~ 47
71-55-6	1, 1, 1-Trichloroethane	5 u
56-23-5	Carbon Tetrachloride	5 u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5 u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5 u
10061-02-6	Trans-1, 3-Dichloropropene	5 u
79-01-6	Trichloroethene	5 u
124-48-1	Dibromochloromethane	5 u
79-00-5	1, 1, 2-Trichloroethane	5 u
71-43-2	Benzene	5 u
10061-01-5	cis-1, 3-Dichloropropene	5 u
110-75-8	2-Chloroethylvinylether	10u
75-25-2	Bromoform	5 u
108-10-1	4-Methyl-2-Pentanone	10u
591-78-6	2-Hexanone	10u
127-18-4	Tetrachloroethene	5 u
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 u
108-88-3	Toluene RJH	~~5u~~ 49
108-90-7	Chlorobenzene	5 u
100-41-4	Ethylbenzene	5 u
100-42-5	Styrene	5 u
	Total Xylenes	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Case No: 6100

Sample Number: BG 993

Organics Analysis Data Sheet
(Page 2)

0:055

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 6/23/86

Date Analyzed: 7/13/86

Conc./Dil Factor: 1

Percent Moisture (Decanted) N/A

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☒Yes

CAS Number		(ug/l or ug/Kg) (Circle One)
108-95-2	Phenol	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1, 3-Dichlorobenzene	10u
106-46-7	1, 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1, 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2, 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2, 4-Dichlorophenol	10u
120-82-1	1, 2, 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2, 4, 6-Trichlorophenol	10u
95-95-4	2, 4, 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		(ug/l or ug/Kg) (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2, 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2, 4-Dinitrotoluene	10u
606-20-2	2, 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4, 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	10u
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3, 3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10u
53-70-3	Dibenz(a, h)Anthracene	10u
191-24-2	Benzo(g, h, i)Perylene	10u

(1)-Cannot be separated from diphenylamine

Laboratory Name Cambridge Analytical Associates

Case No 6100

Sample Number BG 993

00056

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 06/22/86

Date Analyzed: 07/23/86

Conc/Dil Factor: —

Percent Moisture (decanted) NA

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☒Yes

CAS Number		(ug/l) or ug/Kg (Circle One)
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptachlor Epoxide	0.05 U
959-98-8	Endosulfan I	0.05 U
60-57-1	Dieldrin	0.10 U
72-55-9	4,4'-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-65-9	Endosulfan II	0.10 U
72-54-8	4,4'-DDD	0.10 U
1031-07-8	Endosulfan Sulfate	0.10 U
50-29-3	4,4'-DDT	0.10 U
72-43-5	Methoxychlor	0.5 U
53494-70-5	Endrin Ketone	0.10 U
57-74-9	Chlordane	0.5 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Aroclor-1016	0.5 U
11104-28-2	Aroclor-1221	0.5 U
11141-16-5	Aroclor-1232	0.5 U
53469-21-9	Aroclor-1242	0.5 U
12672-29-6	Aroclor-1248	0.5 U
11097-69-1	Aroclor-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 500mL or W_s NA V_t 10,000 µl V_i 3 µl

BG 993

Organics Analysis Data Sheet
(Page 4)

0:057

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/L or ug/kg)
1.	DICHLOROFLUOROMETHANE	VOA	89	38 J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				

Laboratory Name Cambridge Analytical Associates

Case No 6100

Sample Number BG 993

0058

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
	Unknown	BNA	6.46	15 J
			9.08	9.0
			9.49	31
			10.76	10
			11.77	9.0
			14.34	13
	sulfur		23.27	7.0 J

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MB6 400

Date: 08/18/86

INORGANIC ANALYSIS DATA SHEET

LAB NAME: CAMBRIdge Analytical Associates CASE NO. CASE 6100
SOW NO.: 784
LAB SAMPLE ID. NO.: 8606144-09 QC REPORT NO. 8606144

Elements Identified and Measured

Concentration: Low ✓ Medium _____
Matrix: Water ✓ Soil _____ Sludge _____ Other _____

ug/L

1	Aluminum	1160	P	13	Magnesium	66700	P
2	Antimony	110 R	P	14	Manganese	2240 *	P
3	Arsenic	10.0U	F	15	Mercury	0.18U	
4	Barium	[177]	P	16	Nickel	28.0UR	P
5	Beryllium	5.00UR	P	17	Potassium	48800	P
6	Cadmium	5.29	P	18	Selenium	5.00U	F
7	Calcium	280000	P	19	Silver	14.1	P
8	Chromium	10.0UR	P	20	Sodium	199000	P
9	Cobalt	40.0U	P	21	~~Thallium~~	~~100~~	~~UF~~
10	Copper	[23.5]	P	22	~~Tin~~	~~36.9UR~~	P
11	Iron	7380	P	23	Vanadium	23.3U	P
12	Lead	9.76 S	F	24	Zinc	445	P
Cyanide				Percent solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Linda P. Leonard

Sample Number
BE 957

Organics Analysis Data Sheet
(Page 1)

00032

Laboratory Name: Cambridge Analytical Assoc.
Case No: 6100
Lab Sample ID No: CLPVOA 864
QC Report No: 03
Sample Matrix: Soil
Contract No: 68-01-7278
Data Release Authorized By: [illegible]
Date Sample Received: 6/18/86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: —
Date Analyzed: 6/25/86
Conc/Dil Factor: 6.6 pH ~7
Percent Moisture: (Not Decanted) 23.9

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	50u
74-83-9	Bromomethane	50u
75-01-4	Vinyl Chloride	50u
75-00-3	Chloroethane	50u
75-09-2	Methylene Chloride RJH	~~50u~~ 28
67-64-1	Acetone RJH	~~50u~~ 160
75-15-0	Carbon Disulfide RJH	~~50u~~ 2 J
75-35-4	1, 1-Dichloroethene	25u
75-34-3	1, 1-Dichloroethane	25u
156-60-5	Trans-1, 2-Dichloroethene	25u
67-66-3	Chloroform	25u
107-06-2	1, 2-Dichloroethane	25u
78-93-3	2-Butanone	50u
71-55-6	1, 1, 1-Trichloroethane	25u
56-23-5	Carbon Tetrachloride	25u
108-05-4	Vinyl Acetate	50u
75-27-4	Bromodichloromethane	25u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	25u
10061-02-6	Trans-1, 3-Dichloropropene	25u
79-01-6	Trichloroethene RJH	~~25u~~ 6 J
124-48-1	Dibromochloromethane	25u
79-00-5	1, 1, 2-Trichloroethane	25u
71-43-2	Benzene RJH	~~25u~~ 38
10061-01-5	cis-1, 3-Dichloropropene	25u
110-75-8	2-Chloroethylvinylether	50u
75-25-2	Bromoform	25u
108-10-1	4-Methyl-2-Pentanone	50u
591-78-6	2-Hexanone	50u
127-18-4	Tetrachloroethene	25u
79-34-5	1, 1, 2, 2-Tetrachloroethane	25u
108-88-3	Toluene RJH	~~25u~~ 23 J
108-90-7	Chlorobenzene	25u
100-41-4	Ethylbenzene	25u
100-42-5	Styrene	25u
	Total Xylenes	25u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report

OE 957

Organics Analysis Data Sheet
(Page 2)

0:033

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 6/26/86

Date Analyzed: 7/21/86

Conc/Dil Factor: 1

Percent Moisture (Decanted): 24

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330u
111-44-4	bis(-2-Chloroethyl)Ether	330u
95-57-8	2-Chlorophenol	330u
541-73-1	1,3-Dichlorobenzene	330u
106-46-7	1,4-Dichlorobenzene	330u
100-51-6	Benzyl Alcohol	330u
95-50-1	1,2-Dichlorobenzene	330u
95-48-7	2-Methylphenol	330u
39638-32-9	bis(2-chloroisopropyl)Ether	330u
106-44-5	4-Methylphenol SL ~~330u~~	100 J
621-64-7	N-Nitroso-Di-n-Propylamine	330u
67-72-1	Hexachloroethane	330u
98-95-3	Nitrobenzene	330u
78-59-1	Isophorone	330u
88-75-5	2-Nitrophenol	330u
105-67-9	2,4-Dimethylphenol	330u
65-85-0	Benzoic Acid	1600u
111-91-1	bis(-2-Chloroethoxy)Methane	330u
120-83-2	2,4-Dichlorophenol	330u
120-82-1	1,2,4-Trichlorobenzene	330u
91-20-3	Naphthalene SL ~~330u~~	79 J
106-47-8	4-Chloroaniline	330u
87-68-3	Hexachlorobutadiene	330u
59-50-7	4-Chloro-3-Methylphenol	330u
91-57-6	2-Methylnaphthalene	330u
77-47-4	Hexachlorocyclopentadiene	330u
88-06-2	2,4,6-Trichlorophenol	330u
95-95-4	2,4,5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
131-11-3	Dimethyl Phthalate	330u
208-96-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1600u

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2,4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600 u
132-64-9	Dibenzofuran	330u
121-14-2	2,4-Dinitrotoluene	330u
606-20-2	2,6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330u
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene	330u
100-01-6	4-Nitroaniline	330u
534-52-1	4,6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene	330u
120-12-7	Anthracene	330u
84-74-2	Di-n-Butylphthalate	330u
206-44-0	Fluoranthene	330u
129-00-0	Pyrene	330u
85-68-7	Butylbenzylphthalate	330u
91-94-1	3,3'-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene	330u
117-81-7	bis(2-Ethylhexyl)Phthalate SL ~~330u~~	73 J
218-01-9	Chrysene	330u
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene	330u
207-08-9	Benzo(k)Fluoranthene	330u
50-32-8	Benzo(a)Pyrene	330u
193-39-5	Indeno(1,2,3-cd)Pyrene	330u
53-70-3	Dibenzo(a,h)Anthracene	330u
191-24-2	Benzo(g,h,i)Perylene	330u

(1)-Cannot be separated from diphenylamine

Case No 6100

BE 957

Organics Analysis Data Sheet
(Page 3)

00034

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

GPC Cleanup ☐Yes ☒No

Date Extracted/Prepared: 06/26/86

Separatory Funnel Extraction ☐Yes

Date Analyzed: 08/05/86

Continuous Liquid - Liquid Extraction ☐Yes

Conc/Dil Factor: —

Percent Moisture (decanted) ~~36.1%~~ SMH 23.9%

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	8.0 U
319-85-7	Beta-BHC	8.0 U
319-86-8	Delta-BHC	8.0 U
58-89-9	Gamma-BHC (Lindane)	8.0 U
76-44-8	Heptachlor	8.0 U
309-00-2	Aldrin	8.0 U
1024-57-3	Heptachlor Epoxide	8.0 U
959-98-8	Endosulfan I	8.0 U
60-57-1	Dieldrin	16.0 U
72-55-9	4,4'-DDE	16.0 U
72-20-8	Endrin	16.0 U
33213-65-9	Endosulfan II	16.0 U
72-54-8	4,4'-DDD	16.0 U
1031-07-8	Endosulfan Sulfate	16.0 U
50-29-3	4,4'-DDT	16.0 U
72-43-5	Methoxychlor	80.0 U
53494-70-5	Endrin Ketone	16.0 U
57-74-9	Chlordane	80.0 U
8001-35-2	Toxaphene	160.0 U
12674-11-2	Aroclor-1016	80.0 U
11104-28-2	Aroclor-1221	80.0 U
11141-16-5	Aroclor-1232	80.0 U
53469-21-9	Aroclor-1242	80.0 U
12672-29-6	Aroclor-1248	80.0 U
11097-69-1	Aroclor-1254	160.0 U
11096-82-5	Aroclor-1260	160.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s NA or W_s 32.3 g V_t 10,000 ul V_i 3.0 ul

oratory Name Cimbridge Analytical Associates

No 6100

Sample Number BE 957

00035

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	2',2-oxybis-propANE	VOA	328	17 J
2.	unknown	↓	335	10 J
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Laboratory Name Cambridge Analytical Associates

Case No. 6100

Sample Number BE 957

Organics Analysis Data Sheet
(Page 4)

0.036

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Unknown	BNA	7.15	500 J
2.	↓	↓	7.96	250 ↓
3.			8.91	470
4.	sulfur, mol.		23.3	2300
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MBG 390

Date: 08/18/86

INORGANIC ANALYSIS DATA SHEET

LAB NAME: CAMBRIdge Analytical Associates CASE NO. CASE 6100
SOW NO.: 784
LAB SAMPLE ID. NO.: 8606144-05 QC REPORT NO. 8606144

Elements Identified and Measured

Concentration: Low ✓ Medium ____
Matrix: Water ____ Soil ✓ Sludge ____ Other ____

mg/Kg dry weight

1	Aluminum	11600	P J	13	Magnesium	52200	P J
2	Antimony	154 R	P	14	Manganese	261	P J
3	Arsenic	6.83U	F	15	Mercury	0.10U	
4	Barium	33.8U	P	16	Nickel	19.3U	P
5	Beryllium	3.45UR	P	17	Potassium	4440	P
6	Cadmium	4.35	P	18	Selenium	3.42U	F
7	Calcium	103000	P J	19	Silver	9.73	P
8	Chromium	18.9	P	20	Sodium	[1360]	P
9	Cobalt	35.8	P	21	Thallium	6.83U	F
10	Copper	[16.7]	P	22	Tin	25.5UR	P
11	Iron	12600	P J	23	Vanadium	16.1U	P
12	Lead	6.77 S	F J	24	Zinc	26.0	P
Cyanide					Percent solids (%)	72	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Linda P. Leonard

Sample Number
BE 958

Organics Analysis Data Sheet
(Page 1)

00037

Laboratory Name: Cambridge Analytical Assoc.
Case No: 6100
Lab Sample ID No: CLPVOA 877
QC Report No: 03
Sample Matrix: Soil
Contract No: 68-01-7278
Data Release Authorized By: [illegible]
Date Sample Received: 6/18/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 6/26/86
Date Analyzed: 6/26/86
Conc/Dil Factor: 7.4 pH 7
Percent Moisture: (Not Decanted) 32.2

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	50u
74-83-9	Bromomethane	50u
75-01-4	Vinyl Chloride	50u
75-00-3	Chloroethane	50u
75-09-2	Methylene Chloride	25u
67-64-1	Acetone RJH	~~50u~~ 160
75-15-0	Carbon Disulfide	25u
75-35-4	1, 1-Dichloroethene	25u
75-34-3	1, 1-Dichloroethane	25u
156-60-5	Trans-1, 2-Dichloroethene	25u
67-66-3	Chloroform	25u
107-06-2	1, 2-Dichloroethane	25u
78-93-3	2-Butanone	50u
71-55-6	1, 1, 1-Trichloroethane	25u
56-23-5	Carbon Tetrachloride	25u
108-05-4	Vinyl Acetate	50u
75-27-4	Bromodichloromethane	25u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	25u
10061-02-6	Trans-1, 3-Dichloropropene	25u
79-01-6	Trichloroethene	25u
124-48-1	Dibromochloromethane	25u
79-00-5	1, 1, 2-Trichloroethane	25u
71-43-2	Benzene	25u
10061-01-5	cis-1, 3-Dichloropropene	25u
110-75-8	2-Chloroethylvinylether	50u
75-25-2	Bromoform	25u
108-10-1	4-Methyl-2-Pentanone	50u
591-78-6	2-Hexanone	50u
127-18-4	Tetrachloroethene	25u
79-34-5	1, 1, 2, 2-Tetrachloroethane	25u
108-88-3	Toluene	25u
108-90-7	Chlorobenzene	25u
100-41-4	Ethylbenzene	25u
100-42-5	Styrene	25u
	Total Xylenes	25u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report

BE 150

..Analysis Data Sheet
(Page 2)

0003

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 6/26/86

Date Analyzed 7/21/86

Conc./Dil Factor: 1

Percent Moisture (Decanted) 32

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	330u
111-44-4	bis(2-Chloroethyl)Ether	330u
95-57-8	2-Chlorophenol	330u
541-73-1	1,3-Dichlorobenzene	330u
106-46-7	1,4-Dichlorobenzene	330u
100-51-6	Benzyl Alcohol	330u
95-50-1	1,2-Dichlorobenzene	330u
95-48-7	2-Methylphenol	330u
39638-32-9	bis(2-chloroisopropyl)Ether	330u
106-44-5	4-Methylphenol	330u
621-64-7	N-Nitroso-Di-n-Propylamine	330u
67-72-1	Hexachloroethane	330u
98-95-3	Nitrobenzene	330u
78-59-1	Isophorone	330u
88-75-5	2-Nitrophenol	330u
105-67-9	2,4-Dimethylphenol	330u
65-85-0	Benzoic Acid	1600u
111-91-1	bis(2-Chloroethoxy)Methane	330u
120-83-2	2,4-Dichlorophenol	330u
120-82-1	1,2,4-Trichlorobenzene	330u
91-20-3	Naphthalene	330u
106-47-8	4-Chloroaniline	330u
87-68-3	Hexachlorobutadiene	330u
59-50-7	4-Chloro-3-Methylphenol	330u
91-57-6	2-Methylnaphthalene	330u
77-47-4	Hexachlorocyclopentadiene	330u
88-06-2	2,4,6-Trichlorophenol	330u
95-95-4	2,4,5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
131-11-3	Dimethyl Phthalate	330u
208-96-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1600u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2,4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600 u
132-64-9	Dibenzofuran	330u
121-14-2	2,4-Dinitrotoluene	330u
606-20-2	2,6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330u
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene	330u
100-01-6	4-Nitroaniline	330u
534-52-1	4,6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene	330u
120-12-7	Anthracene	330u
84-74-2	Di-n-Butylphthalate	330u
206-44-0	Fluoranthene	330u
129-00-0	Pyrene	330u
85-68-7	Butylbenzylphthalate	330u
91-94-1	3,3'-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene	330u
117-81-7	bis(2-Ethylhexyl)Phthalate	330u
218-01-9	Chrysene	330u
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene	330u
207-08-9	Benzo(k)Fluoranthene	330u
50-32-8	Benzo(a)Pyrene	330u
193-39-5	Indeno(1,2,3-cd)Pyrene	330u
53-70-3	Dibenz(a,h)Anthracene	330u
191-24-2	Benzo(g,h,i)Perylene	330u

(1)-Cannot be separated from diphenylamine

Organics Analysis Data Sheet
(Page 3)

00039

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 06/26/86

Date Analyzed: 08/05/86

Conc/Dil Factor: —

Percent Moisture (decanted) ~~67.8%~~ SMH 32.2 %

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	8.0 U
319-85-7	Beta-BHC	8.0 U
319-86-8	Delta-BHC	8.0 U
58-89-9	Gamma-BHC (Lindane)	8.0 U
76-44-8	Heptachlor	8.0 U
309-00-2	Aldrin	8.0 U
1024-57-3	Heptachlor Epoxide	8.0 U
959-98-8	Endosulfan I	8.0 U
60-57-1	Dieldrin	16.0 U
72-55-9	4,4'-DDE	16.0 U
72-20-8	Endrin	16.0 U
33213-65-9	Endosulfan II	16.0 U
72-54-8	4,4'-DDD	16.0 U
1031-07-8	Endosulfan Sulfate	16.0 U
50-29-3	4,4'-DDT	16.0 U
72-43-5	Methoxychlor	80.0 U
53494-70-5	Endrin Ketone	16.0 U
57-74-9	Chlordane	80.0 U
8001-35-2	Toxaphene	160.0 U
12674-11-2	Aroclor-1016	80.0 U
11104-28-2	Aroclor-1221	80.0 U
11141-16-5	Aroclor-1232	80.0 U
53469-21-9	Aroclor-1242	80.0 U
12672-29-6	Aroclor-1248	80.0 U
11097-69-1	Aroclor-1254	160.0 U
11096-82-5	Aroclor-1260	160.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s NA or W_s 16.3g V_t 10,000 ul V_i 3.0 ul

ratory Name: Cambridge Analytical Associates

e No 6100

Sample Number
BE ~~957~~ MCK
958

0040

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
	Unknown	BNA	7.15	1200 J
	↓		7.95	440
	sulfur, mol		23.2	2000
	unknown		27.2	560
			28.8	6060
	↓	↓	30.2	300 ↓
	NONE Detected	VOA	—	—

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MBG 391

Date: 08/18/86

INORGANIC ANALYSIS DATA SHEET

LAB NAME: CAMBRIdge Analytical Associates CASE NO. CASE 6100
SOW NO.: 784
LAB SAMPLE ID. NO.: 8606144-04 QC REPORT NO. 8606144

Elements Identified and Measured

Concentration: Low ✓ Medium _____
Matrix: Water _____ Soil ✓ Sludge _____ Other _____

mg/Kg dry weight

1	Aluminum	12100	P J	13	Magnesium	17600	P J
2	Antimony	139 R	P	14	Manganese	256	P J
3	Arsenic	7.59U	F	15	Mercury	0.10U	
4	Barium	[51.4]	P	16	Nickel	21.2U	P
5	Beryllium	3.79UR	P	17	Potassium	[3480]	P
6	Cadmium	3.79U	P	18	Selenium	3.79U	F
7	Calcium	42300	P J	19	Silver	7.59U	P
8	Chromium	16.5	P	20	Sodium	[1560]	P
9	Cobalt	[37.4]	P	21	Thallium	7.59U	F
10	Copper	[14.3]	P J	22	Tin	28.0UR	P J
11	Iron	16100	P J	23	Vanadium	17.7U	P
12	Lead	11.5	SF J	24	Zinc	76.2	P
Cyanide					Percent solids (%)	66	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Linda P. Leonard

Sample Number
BE 959

Organics Analysis Data Sheet
(Page 1)

0 041

Laboratory Name: Cambridge Analytical Assoc.
Case No: 6100
Lab Sample ID No: CLPVOA 873
QC Report No: 03
Sample Matrix: Soil
Contract No: 68-01-7278
Data Release Authorized By: Elaulu
Date Sample Received: 6/18/86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 6/26/86
Date Analyzed: 6/26/86
Conc/Dil Factor: 7.3 pH 7
Percent Moisture: (Not Decanted) 31.3

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	50u
74-83-9	Bromomethane	50u
75-01-4	Vinyl Chloride	50u
75-00-3	Chloroethane	50u
75-09-2	Methylene Chloride	25u
67-64-1	Acetone	50u
75-15-0	Carbon Disulfide	25u
75-35-4	1, 1-Dichloroethene	25u
75-34-3	1, 1-Dichloroethane	25u
156-60-5	Trans-1, 2-Dichloroethene	25u
67-66-3	Chloroform	25u
107-06-2	1, 2-Dichloroethane	25u
78-93-3	2-Butanone	50u
71-55-6	1, 1, 1-Trichloroethane	25u
56-23-5	Carbon Tetrachloride	25u
108-05-4	Vinyl Acetate	50u
75-27-4	Bromodichloromethane	25u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	25u
10061-02-6	Trans-1, 3-Dichloropropene	25u
79-01-6	Trichloroethene	25u
124-48-1	Dibromochloromethane	25u
79-00-5	1, 1, 2-Trichloroethane	25u
71-43-2	Benzene	25u
10061-01-5	cis-1, 3-Dichloropropene	25u
110-75-8	2-Chloroethylvinylether	50u
75-25-2	Bromoform	25u
108-10-1	4-Methyl-2-Pentanone	50u
591-78-6	2-Hexanone	50u
127-18-4	Tetrachloroethene	25u
79-34-5	1, 1, 2, 2-Tetrachloroethane	25u
108-88-3	Toluene	25u
108-90-7	Chlorobenzene	25u
100-41-4	Ethylbenzene	25u
100-42-5	Styrene	25u
	Total Xylenes	25u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 1JU). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 6/26/86

Date Analyzed: 7/21/86

Conc./Dil Factor: 1

Percent Moisture (Decanted) 31 N/A SL

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330u
111-44-4	bis(2-Chloroethyl)Ether	330u
95-57-8	2-Chlorophenol	330u
541-73-1	1,3-Dichlorobenzene	330u
106-46-7	1,4-Dichlorobenzene	330u
100-51-6	Benzyl Alcohol	330u
95-50-1	1,2-Dichlorobenzene	330u
95-48-7	2-Methylphenol	330u
39638-32-9	bis(2-chloroisopropyl)Ether	330u
106-44-5	4-Methylphenol SL	~~330u~~ 210 J
621-64-7	N-Nitroso-Di-n-Propylamine	330u
67-72-1	Hexachloroethane	330u
98-95-3	Nitrobenzene	330u
78-59-1	Isophorone	330u
88-75-5	2-Nitrophenol	330u
105-67-9	2,4-Dimethylphenol	330u
65-85-0	Benzoic Acid	1600u
111-91-1	bis(2-Chloroethoxy)Methane	330u
120-83-2	2,4-Dichlorophenol	330u
120-82-1	1,2,4-Trichlorobenzene	330u
91-20-3	Naphthalene SL	~~330u~~ 120 J
106-47-8	4-Chloroaniline	330u
87-68-3	Hexachlorobutadiene	330u
59-50-7	4-Chloro-3-Methylphenol	330u
91-57-6	2-Methylnaphthalene SL	~~330u~~ 86 J
77-47-4	Hexachlorocyclopentadiene	330u
88-06-2	2,4,6-Trichlorophenol	330u
95-95-4	2,4,5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
131-11-3	Dimethyl Phthalate	330u
208-96-8	Acenaphthylene SL	~~330u~~ 330 J
99-09-2	3-Nitroaniline	1600u

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2,4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600 u
132-64-9	Dibenzofuran	330u
121-14-2	2,4-Dinitrotoluene	330u
606-20-2	2,6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330u
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene	330u
100-01-6	4-Nitroaniline	330u
534-52-1	4,6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene SL	~~330u~~ 790
120-12-7	Anthracene SL	~~330u~~ 240 J
84-74-2	Di-n-Butylphthalate	330u
206-44-0	Fluoranthene SL	~~330u~~ 1800
129-00-0	Pyrene SL	~~330u~~ 1500
85-68-7	Butylbenzylphthalate	330u
91-94-1	3,3'-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene SL	~~330u~~ 1300
117-81-7	bis(2-Ethylhexyl)Phthalate	330u
218-01-9	Chrysene SL	~~330u~~ 1300
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene * SL	~~330u~~ 1700
207-08-9	Benzo(k)Fluoranthene SL	~~330u~~
50-32-8	Benzo(a)Pyrene SL	~~330u~~ 1300
193-39-5	Indeno(1,2,3-cd)Pyrene SL	~~330u~~ 810
53-70-3	Dibenz(a,h)Anthracene SL	~~330u~~ 190
191-24-2	Benzo(g,h,i)Perylene SL	~~330u~~ 770

* Unresolved

(1)-Cannot be separated from diphenylamine

Case No 2.00

DE 757

00043

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 06/26/86

Date Analyzed: 08/05/86

Conc/Dil Factor: —

Percent Moisture (decanted) ~~68.7%~~ SMH 31.3%

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	8.0 U
319-85-7	Beta-BHC	8.0 U
319-86-8	Delta-BHC	8.0 U
58-89-9	Gamma-BHC (Lindane)	8.0 U
76-44-8	Heptachlor	8.0 U
309-00-2	Aldrin	8.0 U
1024-57-3	Heptachlor Epoxide	8.0 U
959-98-8	Endosulfan I	8.0 U
60-57-1	Dieldrin	~~16.0 U~~ 24
72-55-9	4,4'-DDE	16.0 U
72-20-8	Endrin	16.0 U
33213-65-9	Endosulfan II	16.0 U
72-54-8	4,4'-DDD	16.0 U
1031-07-8	Endosulfan Sulfate	16.0 U
50-29-3	4,4'-DDT	16.0 U
72-43-5	Methoxychlor	80.0 U
53494-70-5	Endrin Ketone	16.0 U
57-74-9	Chlordane	80.0 U
8001-35-2	Toxaphene	160.0 U
12674-11-2	Aroclor-1016	80.0 U
11104-28-2	Aroclor-1221	80.0 U
11141-16-5	Aroclor-1232	80.0 U
53469-21-9	Aroclor-1242	80.0 U
12672-29-6	Aroclor-1248	80.0 U
11097-69-1	Aroclor-1254	160.0 U
11096-82-5	Aroclor-1260	160.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s NA or W_s 20.1g V_t 10,000 ul V_i 3.0 ul

Laboratory Name: _____

Case No: 6100

Sample Number: BE 959

Organics Analysis Data Sheet
(Page 4)

00044

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	UNKNOWN	VOA	327	5 J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Laboratory Name Cambridge Analytical Associates

Case No 6100

Sample Number BE 959

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
	Unknown	BNA	7.05	710 J
	↓	↑	8.82	740 ↑
	↓		19.36	270
	methyl phenanthrene NOS		21.71	230
	↓		21.90	590
	↓		21.96	230
	unknown		22.41	240
	dimethyl phenanthrene NOS		23.05	350
	sulfur mol.		23.18	2100
	unknown aromatic		23.58	240
	benzo fluorene NOS		24.76	410
	benzo pyrene NOS		30.44	720
	↓		30.23	1500
	unknown		33.17	1800
	↓		36.55	950
	↓		31.88	540
	↓		26.29	280
	methyl benzanthracene NOS		27.92	370
	benzo pyrene NOS	↓	29.43	1600
	↓	BNA	30.10	1600 J

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MBG 392

Date: 08/18/86

INORGANIC ANALYSIS DATA SHEET

LAB NAME: CAMBRIdge Analytical Associates CASE NO. CASE 6100
SOW NO.: 784
LAB SAMPLE ID. NO.: 8606144-03 QC REPORT NO. 8606144

Elements Identified and Measured

Concentration: Low ✓ Medium _____
Matrix: Water _____ Soil ✓ Sludge _____ Other _____

mg/Kg dry weight

1	Aluminum	10300	P	13	Magnesium	14900	P
2	Antimony	111 R	P	14	Manganese	212	P
3	Arsenic	7.54U	F	15	Mercury	0.13	
4	Barium	[89.3]	P	16	Nickel	20.9U	P
5	Beryllium	3.73UR	P	17	Potassium	[2770]	P
6	Cadmium	3.73U	P	18	Selenium	3.77U	F
7	Calcium	114000	P	19	Silver	33.0	P
8	Chromium	36.9	P	20	Sodium	[438]	P
9	Cobalt	38.1	P	21	Thallium	7.54U	F
10	Copper	33.4	P	22	Tin	27.5UR	P
11	Iron	16300	P	23	Vanadium	[17.5]	P
12	Lead	32.4 ~~5.17R~~	SF	24	Zinc	65.7	P
Cyanide					Percent solids (%)	66	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Linda P. Leonard

Sample Number
BG 991

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Cambridge Analytical Assoc.

Case No: 6100

Lab Sample ID No: CLP VOA 867

QC Report No: 03

Sample Matrix: Soil

Contract No: 68-01-7278

Data Release Authorized By: Elaine

Date Sample Received: 6/18/86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 6/25/86

Date Analyzed: 6/25/86

Conc/Dil Factor: 8.2 pH 7

Percent Moisture: (Not Decanted) 38.8

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	50u
74-83-9	Bromomethane	50u
75-01-4	Vinyl Chloride	50u
75-00-3	Chloroethane	50u
75-09-2	Methylene Chloride	25u
67-64-1	Acetone	50u
75-15-0	Carbon Disulfide	25u
75-35-4	1, 1-Dichloroethene	25u
75-34-3	1, 1-Dichloroethane	25u
156-60-5	Trans-1, 2-Dichloroethene	25u
67-66-3	Chloroform	25u
107-06-2	1, 2-Dichloroethane	25u
78-93-3	2-Butanone	50u
71-55-6	1, 1, 1-Trichloroethane	25u
56-23-5	Carbon Tetrachloride	25u
108-05-4	Vinyl Acetate	50u
75-27-4	Bromodichloromethane	25u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	25u
10061-02-6	Trans-1, 3-Dichloropropene	25u
79-01-6	Trichloroethene	25u
124-48-1	Dibromochloromethane	25u
79-00-5	1, 1, 2-Trichloroethane	25u
71-43-2	Benzene	25u
10061-01-5	cis-1, 3-Dichloropropene	25u
110-75-8	2-Chloroethylvinylether	50u
75-25-2	Bromoform	25u
108-10-1	4-Methyl-2-Pentanone	50u
591-78-6	2-Hexanone	50u
127-18-4	Tetrachloroethene	25u
79-34-5	1, 1, 2, 2-Tetrachloroethane	25u
108-88-3	Toluene	25u
108-90-7	Chlorobenzene	25u
100-41-4	Ethylbenzene	25u
100-42-5	Styrene	25u
	Total Xylenes	25u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report

Case No 6100

Sample Number
~~BE~~ 991
B6

Organics Analysis Data Sheet
(Page 2)

0047

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 6/26/86

Date Analyzed 7/21/86

Conc./Dil Factor: 1

Percent Moisture (Decanted) 39 ~~N/A~~ SL

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330u
111-44-4	bis(-2-Chloroethyl)Ether	330u
95-57-8	2-Chlorophenol	330u
541-73-1	1 3-Dichlorobenzene	330u
106-46-7	1 4-Dichlorobenzene	330u
100-51-6	Benzyl Alcohol	330u
95-50-1	1 2-Dichlorobenzene	330u
95-48-7	2-Methylphenol	330u
39638-32-9	bis(2-chloroisopropyl)Ether	330u
106-44-5	4-Methylphenol	330u
621-64-7	N-Nitroso-Di-n-Propylamine	330u
67-72-1	Hexachloroethane	330u
98-95-3	Nitrobenzene	330u
78-59-1	Isophorone	330u
88-75-5	2-Nitrophenol	330u
105-67-9	2, 4-Dimethylphenol	330u
65-85-0	Benzoic Acid	1600u
111-91-1	bis(-2-Chloroethoxy)Methane	330u
120-83-2	2, 4-Dichlorophenol	330u
120-82-1	1, 2, 4-Trichlorobenzene	330u
91-20-3	Naphthalene	330u
106-47-8	4-Chloroaniline	330u
87-68-3	Hexachlorobutadiene	330u
59-50-7	4-Chloro-3-Methylphenol	330u
91-57-6	2-Methylnaphthalene	330u
77-47-4	Hexachlorocyclopentadiene	330u
88-06-2	2, 4, 6-Trichlorophenol	330u
95-95-4	2, 4, 5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
131-11-3	Dimethyl Phthalate	330u
208-96-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1600u

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2, 4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600 u
132-64-9	Dibenzofuran	330u
121-14-2	2 4-Dinitrotoluene	330u
606-20-2	2 6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330u
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene	330u
100-01-6	4-Nitroaniline	330u
534-52-1	4, 6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene	330u
120-12-7	Anthracene	330u
84-74-2	Di-n-Butylphthalate	330u
206-44-0	Fluoranthene	330u
129-00-0	Pyrene	330u
85-68-7	Butylbenzylphthalate	330u
91-94-1	3, 3 -Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene	330u
117-81-7	bis(2-Ethylhexyl)Phthalate	330u
218-01-9	Chrysene	330u
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene	330u
207-08-9	Benzo(k)Fluoranthene	330u
50-32-8	Benzo(a)Pyrene	330u
193-39-5	Indeno(1 2, 3-cd)Pyrene	330u
53-70-3	Dibenz(a h)Anthracene	330u
191-24-2	Benzo(g h, i)Perylene	330u

(1)-Cannot be separated from diphenylamine

Case No 6100

BG 991

Organics Analysis Data Sheet
(Page 3)

00048

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 06/26/86

Date Analyzed: 08/05/86

Conc/Dil Factor: —

Percent Moisture (decanted) ~~61.2%~~ SMH 38.8 %

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	8.0 U
319-85-7	Beta-BHC	8.0 U
319-86-8	Delta-BHC	8.0 U
58-89-9	Gamma-BHC (Lindane)	8.0 U
76-44-8	Heptachlor	8.0 U
309-00-2	Aldrin	8.0 U
1024-57-3	Heptachlor Epoxide	8.0 U
959-98-8	Endosulfan I	8.0 U
60-57-1	Dieldrin	16.0 U
72-55-3	4,4'-DDE	16.0 U
72-20-8	Endrin	16.0 U
33213-65-9	Endosulfan II	16.0 U
72-54-8	4,4'-DDD	16.0 U
1031-07-8	Endosulfan Sulfate	16.0 U
50-29-3	4,4'-DDT	16.0 U
72-43-5	Methoxychlor	80.0 U
53494-70-5	Endrin Ketone	16.0 U
57-74-9	Chlordane	80.0 U
8001-35-2	Toxaphene	160.0 U
12674-11-2	Aroclor-1016	80.0 U
11104-28-2	Aroclor-1221	80.0 U
11141-16-5	Aroclor-1232	80.0 U
53469-21-9	Aroclor-1242	80.0 U
12672-29-6	Aroclor-1248	80.0 U
11097-69-1	Aroclor-1254	160.0 U
11096-82-5	Aroclor-1260	160.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s NA or W_s 11.7g V_t 10,000 ul V_i 3.0 ul

ratory Name Cambridge Analytical Associates

No 6100

Sample Number
mck ~~BE~~ 991
BG

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
	Unknown	BNA	6.04	650 J
			6.22	570
			7.06	1300
			8.82	1200
	sulfur, mol.		23.17	2600
	unknown		29.63	410
			33.13	390
		BNA	39.66	530 J
	NONE DETECTED	VOA	—	—

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MB6 393

Date: 08/18/86

INORGANIC ANALYSIS DATA SHEET

LAB NAME: CAMBRIdge Analytical Associates CASE NO. CASE 6100
SOW NO.: 784
LAB SAMPLE ID. NO.: 8606144-02 QC REPORT NO. 8606144

Elements Identified and Measured

Concentration: Low ✓ Medium _____
Matrix: Water _____ Soil ✓ Sludge _____ Other _____

mg/Kg dry weight

1	Aluminum	31200 J	P	13	Magnesium	18200	P J
2	Antimony	163 R	P	14	Manganese	591	P J
3	Arsenic	8.13U	F	15	Mercury	0.11U	
4	Barium	[131]	P	16	Nickel	22.8U	P
5	Beryllium	4.06UR	P	17	Potassium	9310	P
6	Cadmium	4.47	P	18	Selenium	4.06U	F
7	Calcium	28500	P J	19	Silver	8.13U	P
8	Chromium	27.8	P	20	Sodium	[578]	P
9	Cobalt	47.8	P	21	Thallium	8.13U	F
10	Copper	25.0	P	22	Tin	30.0UR	P J
11	Iron	33200	P J	23	Vanadium	41.6	P
12	Lead	14.1 J	F	24	Zinc	93.3	P
Cyanide					Percent solids (%)	61	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Linda P. Leonard

Sample Number
BG 996

Organics Analysis Data Sheet
(Page 1)

0:059

Laboratory Name: Cambridge Analytical Assoc.
Case No: 6100
Lab Sample ID No: CCPVOA 874
QC Report No: 03
Sample Matrix: Soil
Contract No: 68-01-7276
Date Release Authorized By: Claude
Date Sample Received: 6/18/86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 6/26/86
Date Analyzed: 6/26/86
Conc/Dil Factor: 7.2 pH 7
Percent Moisture: (Not Decanted) 30.3

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	50u
74-83-9	Bromomethane	50u
75-01-4	Vinyl Chloride	50u
75-00-3	Chloroethane	50u
75-09-2	Methylene Chloride	25u
67-64-1	Acetone	50u
75-15-0	Carbon Disulfide	25u
75-35-4	1, 1-Dichloroethene	25u
75-34-3	1, 1-Dichloroethane	25u
156-60-5	Trans-1, 2-Dichloroethene	25u
67-66-3	Chloroform	25u
107-06-2	1, 2-Dichloroethane	25u
78-93-3	2-Butanone	50u
71-55-6	1, 1, 1-Trichloroethane	25u
56-23-5	Carbon Tetrachloride	25u
108-05-4	Vinyl Acetate	50u
75-27-4	Bromodichloromethane	25u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	25u
10061-02-6	Trans-1, 3-Dichloropropene	25u
79-01-6	Trichloroethene	25u
124-48-1	Dibromochloromethane	25u
79-00-5	1, 1, 2-Trichloroethane	25u
71-43-2	Benzene	25u
10061-01-5	cis-1, 3-Dichloropropene	25u
110-75-8	2-Chloroethylvinylether	50u
75-25-2	Bromoform	25u
108-10-1	4-Methyl-2-Pentanone	50u
591-78-6	2-Hexanone	50u
127-18-4	Tetrachloroethene	25u
79-34-5	1, 1, 2, 2-Tetrachloroethane	25u
108-88-3	Toluene	25u
108-90-7	Chlorobenzene	25u
100-41-4	Ethylbenzene	25u
100-42-5	Styrene	25u
	Total Xylenes	25u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value' If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report

Laboratory Name: Cambridge Analytical Associates

Case No: 6100

Sample Number: ~~BE~~ 996 BG

Organics Analysis Data Sheet
(Page 2)

0:060

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 6/26/86

Date Analyzed: 7/21/86

Conc./Dil Factor: 1

Percent Moisture (Decanted): 30 ~~N/A~~ SL

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330u
111-44-4	bis(-2-Chloroethyl)Ether	330u
95-57-8	2-Chlorophenol	330u
541-73-1	1, 3-Dichlorobenzene	330u
106-46-7	1, 4-Dichlorobenzene	330u
100-51-6	Benzyl Alcohol	330u
95-50-1	1, 2-Dichlorobenzene	330u
95-48-7	2-Methylphenol	330u
39638-32-9	bis(2-chloroisopropyl)Ether	330u
106-44-5	4-Methylphenol	330u
621-64-7	N-Nitroso-Di-n-Propylamine	330u
67-72-1	Hexachloroethane	330u
98-95-3	Nitrobenzene	330u
78-59-1	Isophorone	330u
88-75-5	2-Nitrophenol	330u
105-67-9	2, 4-Dimethylphenol	330u
65-85-0	Benzoic Acid	1600u
111-91-1	bis(-2-Chloroethoxy)Methane	330u
120-83-2	2, 4-Dichlorophenol	330u
120-82-1	1, 2, 4-Trichlorobenzene	330u
91-20-3	Naphthalene SL	~~330u~~ 300J
106-47-8	4-Chloroaniline	330u
87-68-3	Hexachlorobutadiene	330u
59-50-7	4-Chloro-3-Methylphenol	330u
91-57-6	2-Methylnaphthalene SL	~~330u~~ 190J
77-47-4	Hexachlorocyclopentadiene	330u
88-06-2	2, 4, 6-Trichlorophenol	330u
95-95-4	2, 4, 5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
131-11-3	Dimethyl Phthalate	330u
208-96-8	Acenaphthylene SL	~~330u~~ 83 J
99-09-2	3-Nitroaniline	1600u

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene SL	~~330u~~ 510
51-28-5	2, 4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600 u
132-64-9	Dibenzofuran SL	~~330u~~ 340
121-14-2	2, 4-Dinitrotoluene	330u
606-20-2	2, 6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330u
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene SL	~~330u~~ 540
100-01-6	4-Nitroaniline	330u
534-52-1	4, 6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene SL	~~330u~~ 4000
120-12-7	Anthracene SL	~~330u~~ 1300
84-74-2	Di-n-Butylphthalate	330u
206-44-0	Fluoranthene SL	~~330u~~ 4600
129-00-0	Pyrene SL	~~330u~~ 4700
85-68-7	Butylbenzylphthalate	330u
91-94-1	3, 3'-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene SL	~~330u~~ 2900
117-81-7	bis(2-Ethylhexyl)Phthalate	330u
218-01-9	Chrysene SL	~~330u~~ 2600
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene * SL	~~330u~~ 3900
207-08-9	Benzo(k)Fluoranthene SL	~~330u~~
50-32-8	Benzo(a)Pyrene SL	~~330u~~ 2500
193-39-5	Indeno(1, 2, 3-cd)Pyrene SL	~~330u~~ 1900
53-70-3	Dibenz(a, h)Anthracene	330u
191-24-2	Benzo(g, h, i)Perylene SL	~~330u~~ 1700

* Unresolved

(1)-Cannot be separated from diphenylamine

Case No 6100

Sample Number BG 996

Organics Analysis Data Sheet
(Page 3)

00061

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

GPC Cleanup ☐Yes ☒No

Date Extracted/Prepared: 06/26/86

Separatory Funnel Extraction ☐Yes

Date Analyzed: 08/05/86

Continuous Liquid - Liquid Extraction ☐Yes

Conc/Dil Factor: —

Percent Moisture (decanted) ~~69.7%~~ SAH 30.3%

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	8.0 U
319-85-7	Beta-BHC	8.0 U
319-86-8	Delta-BHC	8.0 U
58-89-9	Gamma-BHC (Lindane)	8.0 U
76-44-8	Heptachlor	8.0 U
309-00-2	Aldrin	8.0 U
1024-57-3	Heptachlor Epoxide	8.0 U
959-98-8	Endosulfan I	8.0 U
60-57-1	Dieldrin	~~16.0 U~~ 300
72-55-9	4,4'-DDE	16.0 U
72-20-8	Endrin	16.0 U
33213-65-9	Endosulfan II	16.0 U
72-54-8	4,4'-DDD	16.0 U
1031-07-8	Endosulfan Sulfate	16.0 U
50-29-3	4,4'-DDT	16.0 U
72-43-5	Methoxychlor	80.0 U
53494-70-5	Endrin Ketone	16.0 U
57-74-9	Chlordane	80.0 U
8001-35-2	Toxaphene	160.0 U
12674-11-2	Aroclor-1016	80.0 U
11104-28-2	Aroclor-1221	80.0 U
11141-16-5	Aroclor-1232	80.0 U
53469-21-9	Aroclor-1242	80.0 U
12672-29-6	Aroclor-1248	80.0 U
11097-69-1	Aroclor-1254	160.0 U
11096-82-5	Aroclor-1260	160.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s NA or W_s 26.7g V_t 10,000 ul V_i 3.0 ul

oratory Name Cambridge Analytical Associates
e No 6100

Sample Number
3G 996

0062

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
	2,2'-oxybis-propane	VOA	328	21 J

ratory Name Cambridge Analytical Associates

No 6100

Sample Number BE 996 pck BG

0:063

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
	Unknown	BNA	7.08	610 J
			8.80	390
			20.11	330
			21.90	560
			23.18	1400
			24.24	1200
	benzo fluorene N.O.S.		24.50	1200
			24.77	2500
	unknown		24.94	380
	methyl pyrene N.O.S.		25.01	850
	benzo fluoranthene N.O.S.		26.39	1300
	Unknown		27.43	1400
			27.16	760
			29.62	380
	methyl benz anthracene N.O.S		27.92	1100
	benzo pyrene N.O.S		30.09	1700
	Unknown		32.23	660
			33.13	910
			34.33	370
		BNA	35.36	380 J

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MBG 399

Date: 08/18/86

INORGANIC ANALYSIS DATA SHEET

LAB NAME: CAMBRIdge Analytical Associates CASE NO. CASE 6100
SOW NO.: 784
LAB SAMPLE ID. NO.: 8606144-01 QC REPORT NO. 8606144

Elements Identified and Measured

Concentration: Low ✓ Medium _____
Matrix: Water _____ Soil ✓ Sludge _____ Other _____

mg/Kg dry weight

1	Aluminum	10800	P	13	Magnesium	11300	P
2	Antimony	122 R	P	14	Manganese	294	P
3	Arsenic	7.84U	F	15	Mercury	0.19	
4	Barium	[69.4]	P	16	Nickel	22.2U	P
5	Beryllium	3.96UR	P	17	Potassium	[2400]	P
6	Cadmium	3.96U	P	18	Selenium	3.92U	F
7	Calcium	46600	P	19	Silver	7.92U	P
8	Chromium	18.2	P	20	Sodium	[382]	P
9	Cobalt	31.7U	P	21	Thallium	7.84U	F
10	Copper	27.7	P	22	Tin	29.2UR	P
11	Iron	17300	P	23	Vanadium	18.5U	P
12	Lead	54.7 ~~0.88~~	F	24	Zinc	79.6	P
Cyanide					Percent solids (%)	63	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Linda P. Leonard

Sample Number
BG 992

0:050

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Cambridge Analytical Assoc.
Case No: 6100
Lab Sample ID No: CLPVOA 859
QC Report No: 03
Sample Matrix: Water
Contract No: 68-01-7278
Data Release Authorized By: [illegible]
Date Sample Received: 6/18/86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 6/25/86
Date Analyzed: 6/25/86
Conc/Dil Factor: 1.0 pH 7
Percent Moisture: (Not Decanted) N/A

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride RJH	~~5 u~~ 3 J
67-64-1	Acetone	10u
75-15-0	Carbon Disulfide	5 u
75-35-4	1, 1-Dichloroethene	5 u
75-34-3	1, 1-Dichloroethane	5 u
156-60-5	Trans-1, 2-Dichloroethene	5 u
67-66-3	Chloroform	5 u
107-06-2	1, 2-Dichloroethane	5 u
78-93-3	2-Butanone RJH	~~10u~~ 24
71-55-6	1, 1, 1-Trichloroethane	5 u
56-23-5	Carbon Tetrachloride	5 u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5 u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5 u
10061-02-6	Trans-1, 3-Dichloropropene	5 u
79-01-6	Trichloroethene	5 u
124-48-1	Dibromochloromethane	5 u
79-00-5	1, 1, 2-Trichloroethane	5 u
71-43-2	Benzene	5 u
10061-01-5	cis-1, 3-Dichloropropene	5 u
110-75-8	2-Chloroethylvinylether	10u
75-25-2	Bromoform	5 u
108-10-1	4-Methyl-2-Pentanone	10u
591-78-6	2-Hexanone	10u
127-18-4	Tetrachloroethene	5 u
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 u
108-88-3	Toluene	5 u
108-90-7	Chlorobenzene	5 u
100-41-4	Ethylbenzene	5 u
100-42-5	Styrene	5 u
	Total Xylenes	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 6-23-86

Date Analyzed: 7-13-86

Conc./Dil Factor: 1

Percent Moisture (Decanted): N/A

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		(ug/l) or ug/Kg (Circle One)
108-95-2	Phenol	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1, 3-Dichlorobenzene	10u
106-46-7	1, 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1, 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2, 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2, 4-Dichlorophenol	10u
120-82-1	1, 2, 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2, 4, 6-Trichlorophenol	10u
95-95-4	2, 4, 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		(ug/l) or ug/Kg (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2, 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2, 4-Dinitrotoluene	10u
606-20-2	2, 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4, 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	10u
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3, 3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10u
53-70-3	Dibenz(a, h)Anthracene	10u
191-24-2	Benzo(g, h, i)Perylene	10u

(1)-Cannot be separated from diphenylamine

Laboratory Name Cambridge Analytical Associates

Case No 6100

Sample Number
BG 992

Organics Analysis Data Sheet
(Page 3)

0:052

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 06/22/86

Date Analyzed: 07/23/86

Conc/Dil Factor: —

Percent Moisture (decanted) NA

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☒Yes

CAS Number		(ug/l) or ug/Kg (Circle One)
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptachlor Epoxide	0.05 U
959-98-8	Endosulfan I	0.05 U
60-57-1	Dieldrin	0.10 U
72-55-9	4,4'-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-65-9	Endosulfan II	0.10 U
72-54-8	4,4'-DDD	0.10 U
1031-07-8	Endosulfan Sulfate	0.10 U
50-29-3	4,4'-DDT	0.10 U
72-43-5	Methoxychlor	0.5 U
53494-70-5	Endrin Ketone	0.10 U
57-74-9	Chlordane	0.5 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Aroclor-1016	0.5 U
11104-28-2	Aroclor-1221	0.5 U
11141-16-5	Aroclor-1232	0.5 U
53469-21-9	Aroclor-1242	0.5 U
12672-29-6	Aroclor-1248	0.5 U
11097-69-1	Aroclor-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 500mL or W_s NA V_t 10,000 µl V_i 3 µl

atory Name Cambridge Analytical Associates

: No 6100

Sample Number
BG 992

0:053

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

AS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
NA	unknown	BNA	7.10	8.0 J
↓	↓	↓	9.10	10 J
			9.50	38 J
	NONE DETECTED	VOA	—	—

Form 1, Part B

7/85

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MBG 397

Date: 08/18/86

INORGANIC ANALYSIS DATA SHEET

LAB NAME: CAMBRIdge Analytical Associates CASE NO. CASE 6100
SOW NO.: 784
LAB SAMPLE ID. NO.: 8606144-08 QC REPORT NO. 8606144

Elements Identified and Measured

Concentration: Low ✓ Medium ____
Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L

1	Aluminum	200U	P	13	Magnesium	157U	P
2	Antimony	47.1UR	P	14	Manganese	4.80U*	P
3	Arsenic	10.0U	F	15	Mercury	0.18U	
4	Barium	49.0U	P	16	Nickel	28.0UR	P
5	Beryllium	5.00UR	P	17	Potassium	359U	P
6	Cadmium	5.00U	P	18	Selenium	5.00U	F
7	Calcium	[259]	P	19	Silver	10.0U	P
8	Chromium	10.0UR	P	20	Sodium	[240]	P
9	Cobalt	40.0U	P	~~21~~	~~Thallium~~	~~100 UWR~~	F
10	Copper	10.0U	P	22	Tin	~~36.9UR~~	P
11	Iron	25.0U	P	23	Vanadium	23.3U	P
12	Lead	5.00U	F	24	Zinc	19.0U	P
Cyanide				Percent solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Linda P. Leonard

REFERENCE # 12

NUS CORPORATION TELECON NOTE

CONTROL NO:	DATE: 2/3/87	TIME: 11:45

DISTRIBUTION:

Files

ZIL 2/3/87

BETWEEN:	OF: ~~SIGNIFICANT HABITAT UNIT OF~~ NYDEC; DIV OF FISH & WILDLIFE	PHONE:
LARRY BROWN		(518) 439-8014

AND: E. L. LEONARD (NUS)

DISCUSSION:

Requested information on Significant Habitat Overlay (1 of 2) Rochester, NY. (11/6/55) Area PB: 34-J003.

A 1975 report, from the Onondaga County Environmental Management Council, stated that the Old Erie Canal Wetlands has potential educational and recreational value. No sitings of Federal endangered species were noted.

ACTION ITEMS:

REFERENCE # 14

NUS CORPORATION — **TELECON NOTE**

CONTROL NO:	DATE: 3/18/87	TIME: 0900 HRS

DISTRIBUTION: all
3/18/87 STATE FAIR L.F.
02.8611.18

BETWEEN:	OF:	PHONE:
C. CREECH	NYSDEC REG 7 DIV OF FISH/WILD.	(607) 753-3095

AND: R.L. LEONARD (NUS)

DISCUSSION: RE: CONTAMINATION OF ONONDAGA LAKE

CONTAMINATED WITH HUMAN WASTE, MERCURY, PCB'S AND MON/DI CHLOROBENZE.
FISHING A UNIQUE SITUATION CATCH AND RELEASE BASES ONLY.

ACTION ITEMS:

NUS 087 REVISED 0581