US EPA RECORDS CENTER REGION 5
410822

INSPECTION REPORT
FOR
WALKER LANDFILL
ROMEO, MICHIGAN

MID980792014
R05-8303-03B

MARCH 17, 1986

of coarse textured till. The boring process intersected deposits of well-sorted sands and gravels with lenses of sills and clays. It is expected that this is an area of till modified by the outwash.

Groundwater elevations were obtained on July 30, 1985 for the S.M.D.A. #11 monitoring wells and the FIT wells. The data is presented in Figure 3. Potentiometric surface contours drawn from the groundwater elevations indicate that a groundwater divide along 31 mile road separates flow at Walker Landfill from flow at S.M.D.A. #11 (see Figure 3). At Walker L.F., flow is in a northwest direction towards a discharge point at Crooked Lake. At S.M.D.A. #11 groundwater flows in a southwesterly direction, probably discharging at Inwood Lake and the swampy area west of the site (Figure 4).

At Walker Landfill, six monitoring wells were installed around the slugde pits, under the direction of Lynn Miller, P.E. in 1965. These wells were installed to sample the upper five feet of the saturated material. Of these wells, five were located, with two being dry, two of the caps could not be removed, and one had a measureable amount of water. Without the well logs, it was not possible to interpret the water levels from these wells with any degree of confidence.

Sampling results showed volatile organics in downgradient wells at S.M.D.A. # and not in the upgradient well "N" at S.M.D.A. #11 or in the Walker Landfill wells. Heavy metal contamination was found in both the downgradient wells and upgradient well at S.M.D.A. #11. See Table 1 for sampling results and attached analysis.

During an inspection of S.M.D.A. #11, conducted by E&E personnel on August 30, 1983, persons were observed fishing in the ponds located immediately south of the site. In addition, it was noted that the northwest side of the site is unfenced and easily accessible.

Contents:

SITE INSPECTION MEMO 1

2070 - 13 FORM 2

SITE MAPS 3

SITE PHOTOGRAPHS 4

ANALYTICAL DATA 5

1

Cardinal

ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

MEMORANDUM

DATE: March 14, 1986
TO: File
FROM: Greg Smith/Kevin Phillips KP
SUBJECT: Michigan/R5-8501-2/MI0290
Romeo/South Macomb Disposal Authority #11 MID980609317/
Walker Landfill MID980792014
Installation of One Upgradient and Two Downgradient
Monitoring Wells at Walker Landfill and the Results
of Sampling

The Technical Directive Document (TDD) tasked FIT to install three wells at Walker Landfill, one upgradient and two downgradient, and sample to determine if Walker Landfill is contributing to groundwater contamination at the South MaComb Disposal Authority #1 (S.M.D.A. #11) site. The three wells were installed during the week of June 10, 1985, with the sampling taking place the week of July 29, 1985. Nine S.M.D.A. #11 wells were sampled along with the newly installed FIT wells. The results of these activities are reported herein.

Figure 1 illustrates the location of the Walker Landfill and S.M.D.A. #11 sites, showing rough topography and some physiographic features. Figure 2 indicates the location of the FIT wells and the monitoring wells at S.M.D.A. #1. Figure 3 illustrates the potentiometric head contours for July 30, 1985.

Based on the boring logs, viewing the exposures in the adjacent gravel pit and a review of the literature, it would appear that the site is on the margin of glacial outwash deposits and end moraines

recycled paper

2

Cardinal

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
MI	D980609317

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
WALKER LANDFILL	5001 31 Mile Rd

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
ROMEO	MI	48065	Macomb	099	12

09 COORDINATES LATITUDE	LONGITUDE
42 47 13.0	083 04 14.5

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

III. INSPECTION INFORMATION

01 DATE OF INSPECTION (MONTH DAY YEAR)	02 SITE STATUS	03 YEARS OF OPERATION
7 29 86	☐ ACTIVE ☐ INACTIVE	1966 (BEGINNING YEAR) 1974 (ENDING YEAR) ___ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)
☐ A. EPA ☒ B. EPA CONTRACTOR Ecology + Environment (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.
FRAN ALLAIRS	BIOLOGIST / FIT Member	E+E	(312) 663-9415

09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO
KATHY McCORMACK	ENGINEER / FIT Member	E+E	(312) 663 9415
KEVIN PHILLIPS	GEOLOGIST / FIT Member	E+E	(312) 663 9415
KURT SIMS	GEOLOGIST / FIT Member	E+E	(312) 663-9415
PETER ALVEY	Chemical Engineer	E+E	(312) 663-9415
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
			( )
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☐ PERMISSION ☐ WARRANT		

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Don Josif	USEPA Region V	(312) 886-0393

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Peter Alvey	USEPA Region V	E+E Region V	(312) 663-9415	03 12 86 (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
MI	D980792014

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- [x] A. SOLID
- [ ] B. POWDER, FINES
- [x] 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 _____
CUBIC YARDS UnKnown
NO. OF DRUMS UnKnown

03 WASTE CHARACTERISTICS (Check all that apply)

- [x] A. TOXIC
- [ ] B. CORROSIVE
- [ ] C. RADIOACTIVE
- [x] D. PERSISTENT
- [ ] E. SOLUBLE
- [ ] F. INFECTIOUS
- [x] G. FLAMMABLE
- [ ] H. IGNITABLE
- [x] 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		
OLW	OILY WASTE			
SOL	SOLVENTS	UNKnown		
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

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

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
	PAINT THINNER				
	SOLVENTS				
	SLUDGES				
	REFUSE (General + Construction)				

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS	N/A		FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

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

E&E files
Interview w/ County health officials
On-site inspections 1981 + 1985

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
MI	D980792014

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ■ A. GROUNDWATER CONTAMINATION — 02 ■ OBSERVED (DATE: 7/31/85) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 7300 — 04 NARRATIVE DESCRIPTION
Sampling performed by E&E FIT personnel indicates that groundwater is contaminated w/ tin and di-n-octyl phthalate.

01 ■ B. SURFACE WATER CONTAMINATION — 02 ☐ OBSERVED (DATE:) — ■ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 7300 (PEC) — 04 NARRATIVE DESCRIPTION
Surface water runoff & leachate could affect Dollar Lake & Crooked Lake west of the site.

01 ☐ C. CONTAMINATION OF AIR — 02 ☐ OBSERVED (DATE:) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: — — 04 NARRATIVE DESCRIPTION
No air contamination was documented or observed.

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS — 02 ☐ OBSERVED (DATE:) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED — 04 NARRATIVE DESCRIPTION
No fire or explosion potential exists

01 ■ E. DIRECT CONTACT — 02 ☐ OBSERVED (DATE:) — ■ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 190 — 04 NARRATIVE DESCRIPTION
The northern end of the site is easily accessible

01 ■ F. CONTAMINATION OF SOIL — 02 ☐ OBSERVED (DATE) — ☐ POTENTIAL — ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: 52 (Acres) — 04 NARRATIVE DESCRIPTION
Hazardous waste was buried in the ground on-site.

01 ■ G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE:) — ■ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED 7300 — 04 NARRATIVE DESCRIPTION
Neighboring residents utilize wells in the aquifer 40'-80' deep. The nearest well is 200 ft north of the site

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

01 ■ I. POPULATION EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE:) — ■ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 7300 — 04 NARRATIVE DESCRIPTION
Population may be exposed to contaminated ground or surface water. Persons were observed fishing on ponds south of the site.

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
MI	D980792014

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ■ J. DAMAGE TO FLORA — 02 ■ OBSERVED (DATE: 7-16-31) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Portions of the landfill show signs of erosion. Seeding is not taking hold in places

01 ■ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ■ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)
Seagulls + Canadian geese were observed on the ponds south of the site, in addition persons were observed fishing -

01 ■ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ■ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Crops are grown on the farm land surrounding the site

01 ■ M. UNSTABLE CONTAINMENT OF WASTES (Spills/Runoff/Standing liquids, Leaking drums) — 02 ☐ OBSERVED (DATE _____) ■ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 7300 — 04 NARRATIVE DESCRIPTION
There are no known liners at the site, in the Past (1981) drums were observed leaking onto the ground.

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

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

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
No illegal dumping in known to have occurred, a court order restrained the site from disposing of liquid waste.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS
South Macomb Disposal Authority site #11 is located directly south of the site.

III. TOTAL POPULATION POTENTIALLY AFFECTED: 7300

IV. COMMENTS
None

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)
E&E files
interview w/ County Health officials
site inspections 1981 & 1985.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
MI	D980792014

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☐ A. NPDES				
☐ B. UIC				
☐ C. AIR				
☐ D. RCRA				
☐ E. RCRA INTERIM STATUS				
☐ F. SPCC PLAN				
■ G. STATE (Specify)		1966	1974	landfill operating permit
☐ H. LOCAL (Specify)				
☐ I. OTHER (Specify)				
☐ J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☐ A. SURFACE IMPOUNDMENT		
☐ B. PILES		
■ C. DRUMS, ABOVE GROUND	~10,000	Drums ①
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
■ F. LANDFILL	52	Acres
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)

☐ A. INCENERATION None
☐ B. UNDERGROUND INJECTION
☐ C. CHEMICAL/PHYSICAL
☐ D. BIOLOGICAL
☐ E. WASTE OIL PROCESSING
☐ F. SOLVENT RECOVERY
☐ G. OTHER RECYCLING/RECOVERY
☐ H. OTHER (Specify)

05 OTHER

☐ A. BUILDINGS ON SITE

NONE

06 AREA OF SITE

52 (Acres)

07 COMMENTS

① Contents of drums were pumped out and removed to an incinerator to be burned. the drums and any solids were crushed + buried on-site.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

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

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

No known liner exists, ponding was observed on-site, and drums were observed leaking onto the ground in 1981.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ■ YES ☐ NO

02 COMMENTS

Site is easily accessible from the north side.

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

E+E files.
Interview w/ County Health Dept. officials

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
MI	D980792014

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)	SURFACE	WELL	02 STATUS	ENDANGERED	AFFECTED	MONITORED	03 DISTANCE TO SITE
COMMUNITY	A. ☐	B. ■		A. ☐	B. ☐	C. ■	A. 2.5 (mi)
NON-COMMUNITY	C. ☐	D. ■		D. ☐	E. ☐	F. ■	B. 200 ft

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

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

02 POPULATION SERVED BY GROUND WATER 7300

03 DISTANCE TO NEAREST DRINKING WATER WELL 200 ft

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
40-80 (ft)	S-SW	40-80 (ft)	UNKNOWN (gpd)	☐ YES ■ NO

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

The majority of the wells in the area are completed in the glacial outwash at a depth of 40-80 feet. The outwash is underlied by hardpan + water bearing gravel.

10 RECHARGE AREA		11 DISCHARGE AREA	
☐ YES ■ NO	COMMENTS	■ YES ☐ NO	COMMENTS Ground water discharges to surface water to south

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

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

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
Dollar & Crooked Lake	☐	200 ft
Stoney Creek - Stoney Creek Lake	☐	1/4 (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. 194 NO. OF PERSONS	B. 1041 NO. OF PERSONS	C. 7325 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION 200 ft

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE 290

04 DISTANCE TO NEAREST OFF-SITE BUILDING 200 ft

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

sparsely populated rural area surrounds the site. Romeo Michigan ~5000 population lies at the edge of the three mile radius.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
MI	D980792014

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

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

02 PERMEABILITY OF BEDROCK (Check one)

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

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH
~200 (ft)	UNKNOWN (ft)	—

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
0.1 (in)	2.0 (in)	0-40 %	VARIES	3-5 %

09 FLOOD POTENTIAL

SITE IS IN 500 YEAR FLOODPLAIN

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

N/A

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE: A. N/A (mi)

OTHER: B. 1.0-1.5 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

N/A (mi)

ENDANGERED SPECIES: —

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS, NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS: PRIME AG LAND	AGRICULTURAL LANDS: AG LAND
A. 1/4 (mi) Mining operation south	B. 1 1/2 (mi)	C. 1/4 (mi)	D. (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

The site is located on an old gravel mine. The site elevation is equal to that of the neighboring site to the South, SMDA #11. Crooked Lake lies north & west of the site. Gravel pits and farm land lie to the east of the site

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

E&E files

USGS Romeo, Michigan Quadrangle, Topo Map 1968, Photorevised 1973

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
MI	D980792014

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER	10-SMDA #11 3-Walker 2-BLANK	ORGANIC - ERG INORGANIC - CHEMTECK CASE # 4757	Nov 85
SURFACE WATER	—		
WASTE	—		
AIR	—		
RUNOFF	—		
SPILL	—		
SOIL	—		
VEGETATION	—		
OTHER	—		

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
Water level	surveyed wells & determined water levels
pH	determined pH of ground water samples
Conductivity	determined conductivity in mhos/cm
Temperature	determined temperature of samples in °C
	filtered samples for lab

IV. PHOTOGRAPHS AND MAPS

01 TYPE ■ GROUND ☐ AERIAL

02 IN CUSTODY OF Ecology & Environment files (Name of organization or individual)

03 MAPS ■ YES ☐ NO

04 LOCATION OF MAPS Ecology & Environment files

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

None

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

On-site inspection and sampling conducted by E&E/FIT personnel on 7-31 + 8-1, 1985.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
MI	D980792014

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER
Auto Products Transport Inc	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
5001 31 Mile Rd	

05 CITY	06 STATE	07 ZIP CODE
Washington Twp.	MI	48065

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

PARENT COMPANY (If applicable)

08 NAME	09 D+B NUMBER

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

12 CITY	13 STATE	14 ZIP CODE

08 NAME	09 D+B NUMBER

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

12 CITY	13 STATE	14 ZIP CODE

08 NAME	09 D+B NUMBER

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

12 CITY	13 STATE	14 ZIP CODE

08 NAME	09 D+B NUMBER

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

12 CITY	13 STATE	14 ZIP CODE

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

01 NAME	02 D+B NUMBER
Charles F. Myers	

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

05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER
Mitchell B. Foster	

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

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)

E+E files

Interview w/ County Health Dept. officials

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
MI	D980792014

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER
Walker Land Reclamation Inc	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
5001 31 Mile Rd	

05 CITY	06 STATE	07 ZIP CODE
Washington Twp	MI	48065

08 YEARS OF OPERATION	09 NAME OF OWNER
1966-1978	See Part 7

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER

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

14 CITY	15 STATE	16 ZIP CODE

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

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

10 NAME	11 D+B NUMBER

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

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

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

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

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

14 CITY	15 STATE	16 ZIP CODE

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

E&E files

Interview w/ County Health officials

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
MI	D980792014

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
None	

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
Unkown			

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

IV. TRANSPORTER(S)

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

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)

EHE files
Interview w/ County Health officials

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
MI	D980792214

II. PAST RESPONSE ACTIVITIES

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

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

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

01 ☐ D. SPILLED MATERIAL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: N/A

01 ☐ E. CONTAMINATED SOIL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: N/A

01 ☐ F. WASTE REPACKAGED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: N/A

01 ■ G. WASTE DISPOSED ELSEWHERE — 02 DATE 1965 — 03 AGENCY State DNR
04 DESCRIPTION: court ordered liquid waste to be pumped from drums and hauled to off-site incinerator

01 ■ H. ON SITE BURIAL — 02 DATE 1965 — 03 AGENCY MDNR
04 DESCRIPTION: Drums were crushed a buried on-site after liquids were removed as ordered by court

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

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

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

01 ☐ L. ENCAPSULATION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: N/A

01 ☐ M. EMERGENCY WASTE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: N/A

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

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

01 ☐ P. CUTOFF TRENCHES/SUMP — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: N/A

01 ☐ Q. SUBSURFACE CUTOFF WALL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: N/A

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
MI	D980772014

II PAST RESPONSE ACTIVITIES *(Continued)*

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

01 ☐ S. CAPPING/COVERING — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION N/A

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

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

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

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

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

01 ☐ Y. LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION N/A

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

01 ☐ 1. ACCESS TO SITE RESTRICTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION N/A

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

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

N/A

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

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
MI	D980742014

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ■ NO

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

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

3

nal

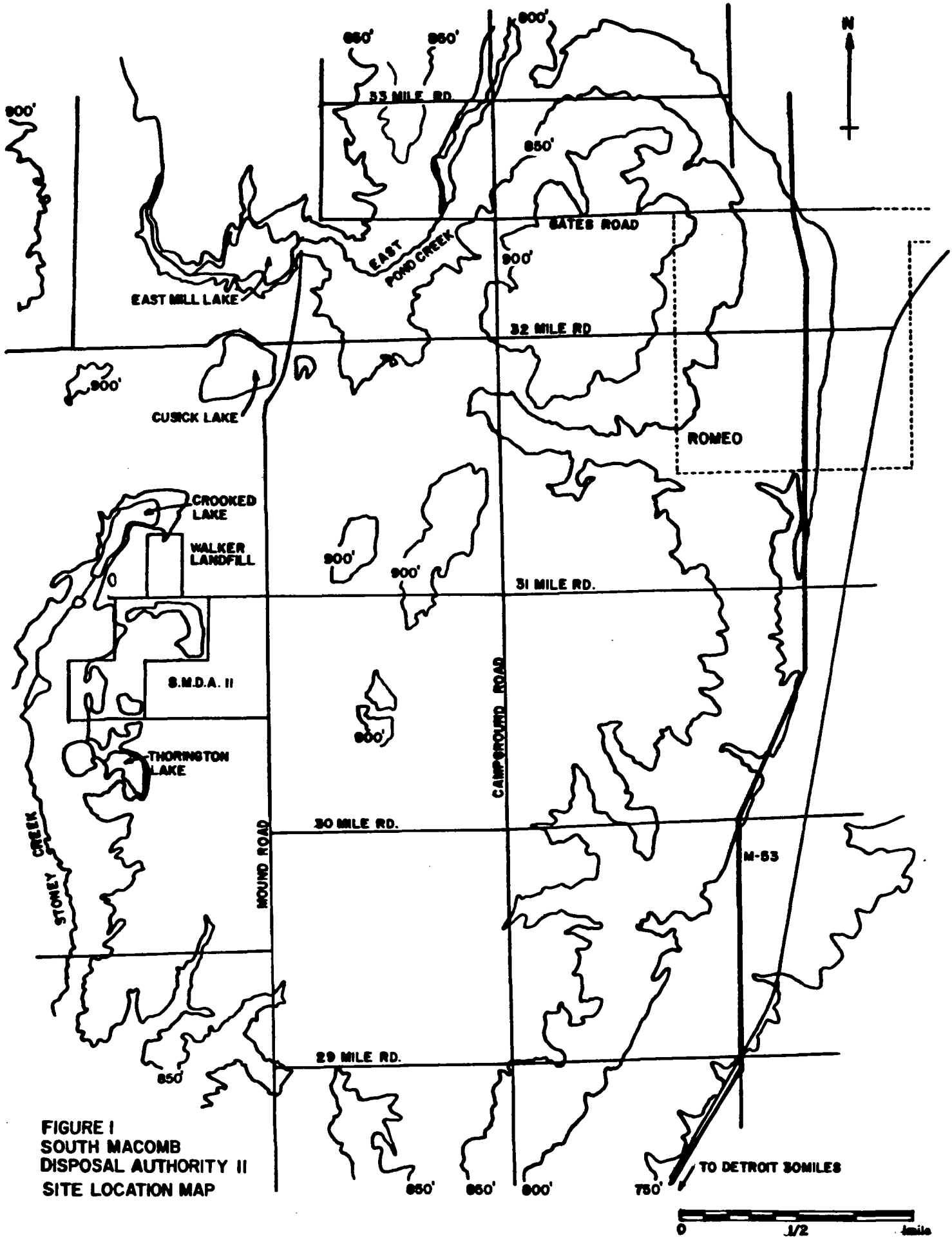
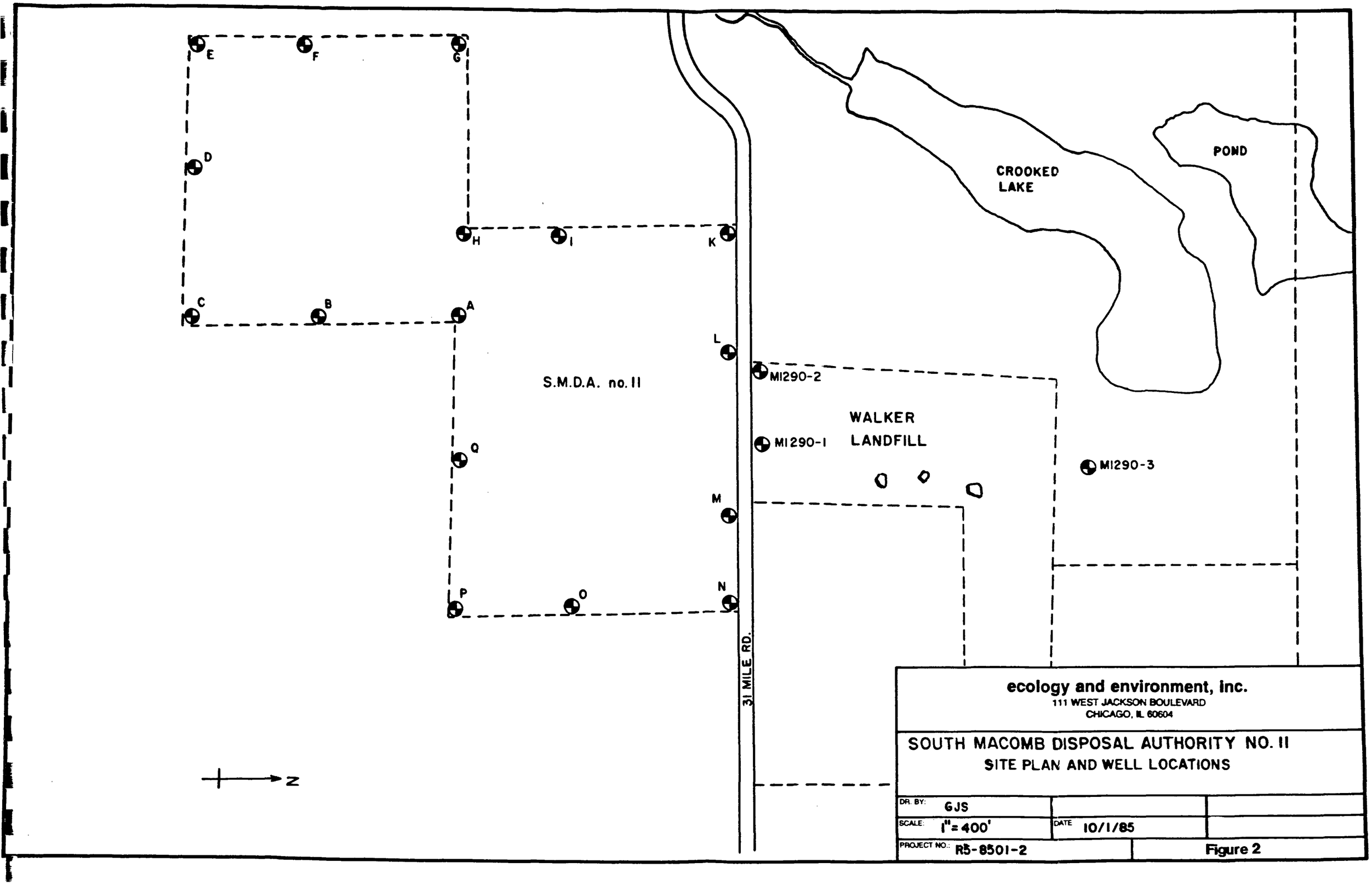
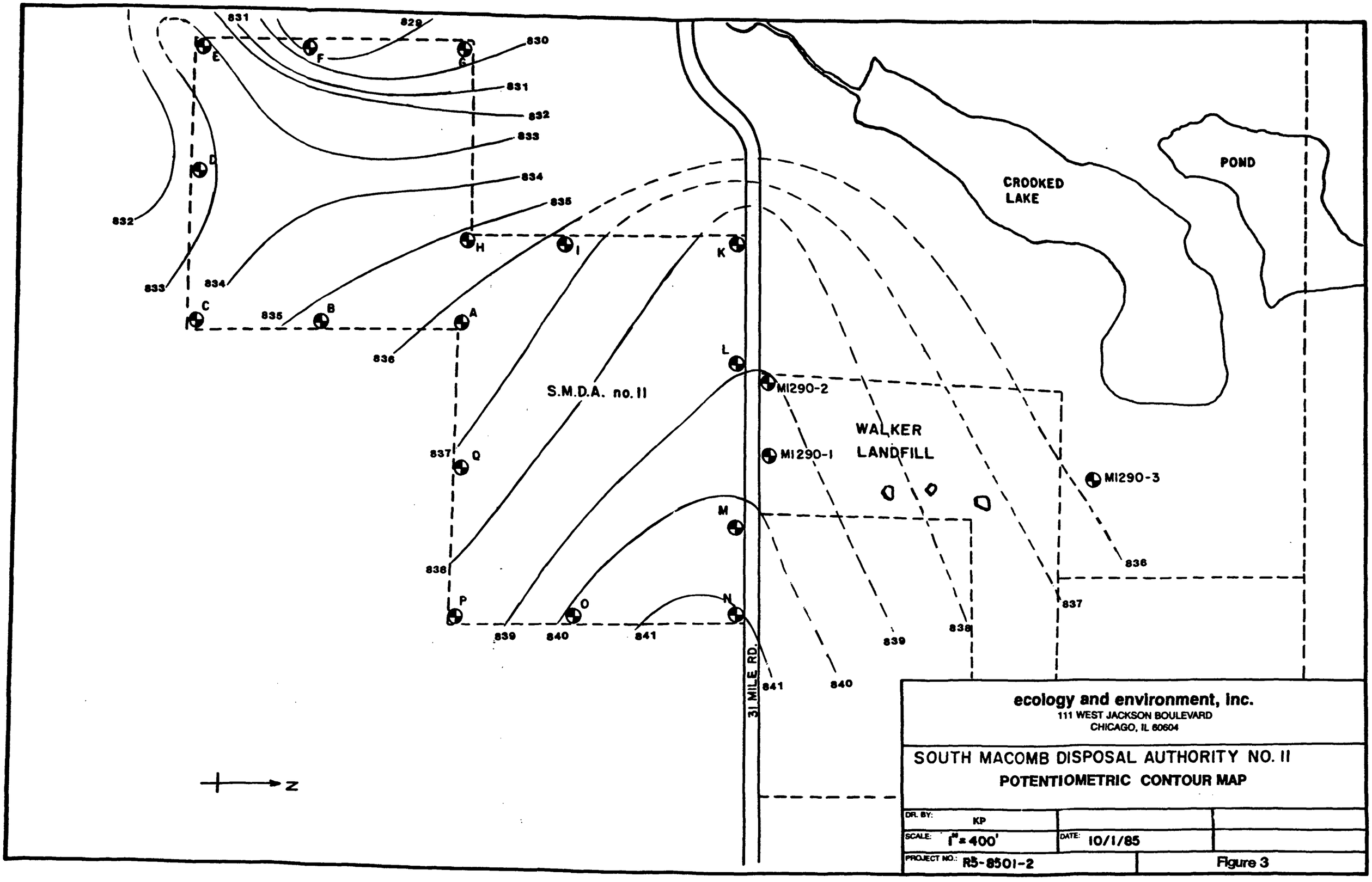


FIGURE I
SOUTH MACOMB
DISPOSAL AUTHORITY II
SITE LOCATION MAP

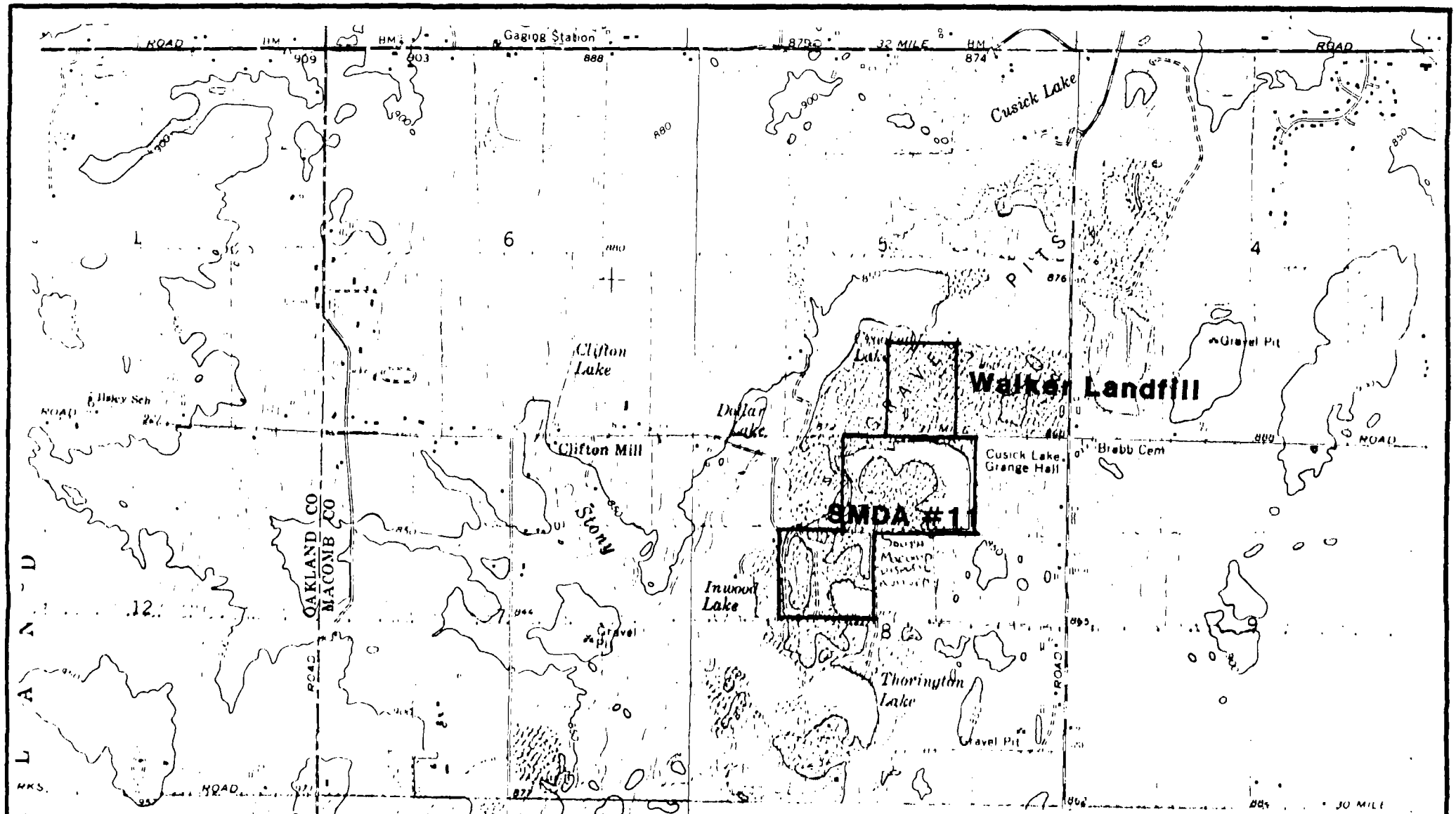

E
F
G
D
H
I
K
C
B
A
L
S.M.D.A. no. II
MI290-2
WALKER
LANDFILL
MI290-1
MI290-3
Q
M
P
O
N
31 MILE RD.
CROOKED
LAKE
POND
N
ecology and environment, inc.
111 WEST JACKSON BOULEVARD
CHICAGO, IL 60604
SOUTH MACOMB DISPOSAL AUTHORITY NO. II
SITE PLAN AND WELL LOCATIONS
DR. BY: GJS
SCALE: 1" = 400'
DATE 10/1/85
PROJECT NO.: R5-8501-2
Figure 2



ecology and environment, inc.
111 WEST JACKSON BOULEVARD
CHICAGO, IL 60604

SOUTH MACOMB DISPOSAL AUTHORITY NO. II
POTENTIOMETRIC CONTOUR MAP

DR. BY: KP		
SCALE: 1" = 400'	DATE: 10/1/85	
PROJECT NO.: R5-8501-2		Figure 3



ecology and environment, inc.
111 WEST JACKSON BOULEVARD
CHICAGO, IL 60604

SCALE: 1:24000		DRAWN BY
DATE: 1/10/86		REVISED

Macomb County, Michigan

SMDA #11/ Walker Landfill

DRAWING NUMBER
Figure 4

4

Cardinal

Date: 7/7/81

Time: 1700 A.M. P.M.

Photograph by:

Dan Cozza

TDD# FS-8106-04

State: Michigan

Site: Pontiac / Walker

Comments: Photograph taken

toward the W.

Old tires and

trash on SE portion

of site. (Used telephoto lens).

Date:

Time: A.M. P.M.

Photograph by:

TDD#

State:

Site: /

Comments: Photograph taken

toward the

Date: 7/7/81

Time: 1650 A.M. P.M.

Photograph by:

Ellen J. Jurczak

TDD# F5-8106-04

State: Michigan

Site: Pontiac / Walker

Comments: Photograph taken toward the NW. Standing water in old landfill.

Date: 7/7/81

Time: 1655 A.M. P.M.

Photograph by:

Dan Cozza

TDD# F5-8106-04

State: Michigan

Site: Pontiac / Walker

Comments: Photograph taken toward the N/NE. Gravel fill and erosion in old landfill.

ardinal

INTRODUCTION TO DATA TABLES

A SUMMARY OF THE ANALYTICAL RESULTS FOR SAMPLES WHICH WERE TAKEN DURING FIELD ACTIVITIES CAN BE FOUND IN THE FOLOWING TABLES. ONLY DETECTABLE CONCENTRATIONS ARE REPORTED, HOWEVER, IF THE COMPOUND HAS A FOOTNOTE FOLLOWING THE VALUE, CONSULT THE DEFINITION OF THE FOOTNOTE PROVIDED BELOW. ADDITIONAL QA/QC INFORMATION IS PROVIDED IN THE ATTACHED DATA SHEETS.

I) REPORTING UNITS
- A) ORGANICS
  - 1) Water Samples - ug/l or ppb (parts per billion)
  - 2) Soils or Sediments - ug/kg or ppb (parts per billion)
- B) METALS
  - 1) Water Samples - ug/l or ppb
  - 2) Soils or sediments - mg/kg or ppm

II) DEFINITION OF FOOTNOTES TO ANALYTICAL DATA

A) ORGANICS

Footnote	Definition	Interpretation
UJ	Detection Limit (D.L.) is estimated because of a Quality Control (QC) protocol. D.L. is possibly above or below Contract Required Detection Limit (CRDL).	Compound was not detected
UB	Compound found in laboratory blank. No Value above CRDL.	Compound was not detected
UJB	Compound found in laboratory blank, but not detected in sample. CRDL is estimated because of a QC protocol.	Compound was not detected
B	Compound found in blank. Two interpretations are possible:	
	a) If sample value is equivalent to D.L. to 5x blank concentration	Compound value is semi-quantitative.
	b) If sample value is greater than 5x the blank concentration	Compound value is quantitative
JB	Compound found in blank, value is estimated because of QC protocol.	Compound value is semi-quantitative
R	Do Not Use Value. Major Violation of QC Protocol	Compound value is not usable.
C	Value adjusted for blank (an unacceptable procedure)	Compound value is semi-quantitative
J	Value is above CRDL and is an estimated value because of a QC protocol	Compound value is semi-quantitative
Q	No Analytical Result	Compound was not detected
N	Presumptive evidence for the presence of a compound as used for a Tentatively Identified Compound (TIC)	Compound value is semi-quantitative

B) METALS

FOOTNOTE	DEFINITION	INTERPRETATION
E	Estimated or not reported due to interference. See laboratory narrative.	Compound or element was not detected or value is semi-quantitative
s	Analysis by Method of Standard Additions (Look for a "+" Footnote)	Value is quantative
R	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semiquantitative
*	Duplicate value outside QC protocols which indicates a possible matrix problem	Value is semiquantitative
+	Correlation coefficient for standard additions is less than 0.995. See review and laboratory narrative.	Data value is biased
[ ]	Value is real, but is above instrument D.L. and below CRDL	Value may be quantitative or semiquantitative
UJ	D.L. is estimated because of a QC protocol. D.L. is possibly above or below CRDL.	Compound or element was not detected
J	Value is above CRDL and is an estimated value because of a QC protocol.	Value is semiquantitative

Table 1

COMPOUND	ITC	MEF 296	MEF 297	MEF 298	MEF 801	MEF 802	MEF 803	MEF 804	MEF 805	MEF 806	MEF 807	MEF 808
	OTC	EF 962	EF 963	EF 964	EF 965	EF 966	EF 967	EF 968	EF 969	EF 970	EF 971	EF 972
	SAMPLE	MW D	MW Q	MW L	MW F	BLANK	MW E	MW E	MW B	MW N	MW I	MW MI-2902
chloromethane												
bromomethane		20 UJ										
vinyl chloride												
chloroethane		9.3 J										
methylene chloride		12 B	2.7 JB	3.3 JB	3.5 JB	25 UJ	2.2 JB	3.1 JB	2.3 B	2.5 JB	2.2 JB	2.5 JB
acetone		15 BJ	4.1 JB	3.6 JB	4.6 JB	10 UJ	4.6 B	3.8 JB	8.8 JB	4.4 JB	5.6 JB	7.7 JB
carbon disulfide												
1,1-dichloroethene												
1,1-dichloroethane		300										
trans-1,2,-dichloroethene		7.0 J										
chloroform						11.						
1,2-dichloroethane												
2-butanone		9.9 JB	6.5 B	5.6 JB	5.6 JB	6.8 UJ	5.2 JB	5.9 JB	7.1 JB	5.9 JB	6.2 JB	5.6 JB
1,1,1-trichloroethane		66.		4.5 JB	2.4 JB	2.5 UJ	3.2 JB	2.7 J	2.2 JB	3.0 JB	6.6 JB	7.7 B
carbon tetrachloride												
vinyl acetate						4.5 J						
bromodichloromethane												
1,1,2,2-tetrachloroethane												
1,2-dichloropropane												
trans-1,3-dichloropropene												
trichloroethene		3.2.										
dibromochloromethane												
1,1,2-trichloroethane												
benzene		2.4 J										
cis-1,3-dichloropropene												
2-chloroethylvinylether		20. JB										
bromoform												
2-hexanone												
4-methyl-2-pentanone												
tetrachloroethene						5.7						
toluene						1.5 J						
chlorobenzene												
ethylbenzene												
styrene												
total xylenes												
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												
N-nitroso-di-n-propylamine												
hexachloroethane												
nitrobenzene												
isophrone												
2-nitrophenol												
2,4-dimethylphenol												
benzoic acid												
bis(2-chloroethoxy)methane												
2,4-dichlorophenol												
1,2,4-trichlorobenzene												
napthalene												
4-chloroaniline												
hexachlorobutadiene												
4-chloro-3-methylphenol												
2-methylnapthalene												
hexachlorocyclopentadiene												
2,4,6-trichlorophenol												
2,4,5-trichlorophenol												
2-chloronaphthalene												
2-nitroaniline												
dimethyl phthalate												
acenapthylene												
3-nitroaniline												
acenaphthene												
2,4-dinitrophenol												
4-nitrophenol												
dibenzofurnan												
2,4-dinitrotoluene												
2,6-dinitrotoluene												
diethylphthalate												
4-chlorophenyl-phenylether												
flourene												
4-nitroaniline												
4,6-dinitro-2-methylphenol												
N-nitrosodiphenylamine												
4-bromophenyl-phenylether												
hexachlorobenzene												

STATE MI SITE Walker Landfill TDD R05-8303-03B PAGE 1 OF 2, SET # 1

Table 1 (cont.)

COMPOUND											
ITC	MEF 809	MEF 810	MEF 811	MEF 812							
OTC	EF 973	EF 974	EF 975	EF 976							
SAMPLE	MW MI290-1	MW MI-290 3	BLANK	WELL G							
pentachlorophenol											
phenanthrene											
anthracene											
di-n-butylphthalate	8.8 JB	14 BJ	4.9 JB	3.7 JB							
fluoranthene											
benzidine											
pyrene											
butylbenzylphthalate											
3,3'-dichlorobenzidine											
benzo(a)anthracene											
bis(2-ethylhexyl)phthlate	14 J										
chrysene											
di-n-octyl phthlate	16			25							
benzo(b&k)fluoranthene											
benzo(a)pyrene											
indeno(1,2,3-cd)pyrene											
dibenzo(a,h)anthracene											
benzo(g,h,i)perylene											
alpha-BHC											
beta-BHC											
delta-BHC											
gamma-BHC(lindane)											
heptachlor											
aldrin											
heptachlor epoxide											
endosulfan I											
dieldrin											
4,4'-DDE											
endrin											
endosulfan II											
4,4'-DDD											
endrin aldehyde											
endosulfan sulfate											
4,4'-DDT											
methoxychlor											
endrin ketone											
chlorodane											
toxaphene											
Aroclor-1016											
Aroclor-1221											
Aroclor-1232											
Aroclor-1242											
Aroclor-1248											
Aroclor-1254											
Aroclor-1260											
ELEMENT											
aluminum	[122]	[118]	[114]								
antimony											
arsenic											
barium											
beryllium											
cadmium											
calcium	134100	116,600	[2177]	185,800							
chromium											
cobalt											
copper											
iron	[39] E	[78] E	[74] E	1928 E							
lead											
magnesium	32670	28950	[679]	48100							
manganese	54	31		1563							
mercury											
nickel											
potassium	[1822]	[1108]		[1466]							
selenium	8R	8SR	8SR	8R							
silver											
sodium	21150	7947	[9981]	12120							
thallium											
tin		876 SR									
vanadium											
zinc	32	68	85	1898							
cyanide CHECK IF ANALYZED ( )											
TENTATIVELY IDENTIFIED ORGANICS											

STATE MI SITE Walker Landfill TDD R05-8303-03B PAGE 2 OF 2, SET # 2

Table 1 (cont.)

COMPOUND											
ITC	MEF 809	MEF 810	MEF 811	MEF 812							
OTC	EF 973	EF 974	EF 975	EF 976							
SAMPLE	MW MF 290-1	MW MF 290-3	BLANK	WELL G							
chloromethane											
bromomethane											
vinyl chloride											
chloroethane											
methylene chloride	24 B	2.2 JB	25 B	23 B							
acetone	5.9 B	21 B	10 B	6.6 JB							
carbon disulfide											
1,1-dichloroethene											
1,1-dichloroethane											
trans-1,2,-dichloroethene				8.2							
chloroform			10.								
1,2-dichloroethane											
2-butanone	6.2 JB	6.8 B	6.3 JB	2.4 JB							
1,1,1-trichloroethane	2.8 JB	3.1 B	2.5 JB	2.2 JB							
carbon tetrachloride											
vinyl acetate											
bromodichloromethane			3.7 J								
1,1,2,2-tetrachloroethane											
1,2-dichloropropane				7.3							
trans-1,3-dichloropropene											
trichloroethene											
dibromochloromethane											
1,1,2-trichloroethane											
benzene				1.8 J							
cis-1,3-dichloropropene											
2-chloroethylvinylether											
bromoform											
2-hexanone											
4-methyl-2-pentanone											
tetrachloroethene			4.3 J	2.5 J							
toluene											
chlorobenzene											
ethylbenzene											
styrene											
total xylenes											
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											
N-nitroso-di-n-propylamine											
hexachloroethane											
nitrobenzene											
isophrone											
2-nitrophenol											
2,4-dimethylphenol											
benzoic acid											
bis(2-chloroethoxy)methane											
2,4-dichlorophenol											
1,2,4-trichlorobenzene											
napthalene											
4-chloroaniline											
hexachlorobutadiene											
4-chloro-3-methylphenol											
2-methylnapthalene											
hexachlorocyclopentadiene											
2,4,6-trichlorophenol											
2,4,5-trichlorophenol											
2-chloronaphthalene											
2-nitroaniline											
dimethyl phthalate											
acenapthylene											
3-nitroaniline											
acenaphthene											
2,4-dinitrophenol											
4-nitrophenol											
dibenzofurnan											
2,4-dinitrotoluene											
2,6-dinitrotoluene											
diethylphthalate											
4-chlorophenyl-phenylether											
flourene											
4-nitroaniline											
4,6-dinitro-2-methylphenol											
N-nitrosodiphenylamine											
4-bromophenyl-phenylether											
hexachlorobenzene											

STATE MT SITE Walker Landfill TDD R05-8303-03B PAGE 1 OF 2, SET # 2

Table 1 (cont.)

COMPOUND											
ITC	MEF 246	MEF 247	MEF 248	MEF 801	MEF 802	MEF 803	MEF 804	MEF 805	MEF 806	MEF 807	MEF 808
OTC	EF 762	EF 763	EF 764	EF 765	EF 766	EF 767	EF 768	EF 769	EF 770	EF 771	EF 772
SAMPLE	MW D	MW Q	MW L	MW F	BLANK	MW E	MW E	MW B	MW N	MW I	MW MI 2002
pentachlorophenol											
phenanthrene											
anthracene											
di-n-butylphthalate	8.7 JB	9.8 JB	10 B	6.9 B	4.7 B	4.0 B	3.9 JB	3.0 JB	2.4 JB	18 BJ	19 BJ
fluoranthene											
benzidine											
pyrene											
butylbenzylphthalate											
3,3'-dichlorobenzidine											
benzo(a)anthracene											
bis(2-ethylhexyl)phthlate	15.	9.8 J	11	10.				2.2 J	1.8 J		20 J
chrysene											
* di-n-octyl phthlate	68.	6.1 J	6.8 J	37.							5.6 JB
benzo(b&k)fluoranthene											
benzo(a)pyrene											
indeno(1,2,3-cd)pyrene											
dibenzo(a,h)anthracene											
benzo(g,h,i)perylene											
alpha-BHC											
beta-BHC											
delta-BHC											
gamma-BHC(lindane)											
heptachlor											
aldrin											
heptachlor epoxide											
endosulfan I											
dieldrin											
4,4'-DDE											
endrin											
endosulfan II											
4,4'-DDD											
endrin aldehyde											
endosulfan sulfate											
4,4'-DDT											
methoxychlor											
endrin ketone											
chlorodane											
toxaphene											
Aroclor-1016											
Aroclor-1221											
Aroclor-1232											
Aroclor-1242											
Aroclor-1248											
Aroclor-1254											
Aroclor-1260											
ELEMENT											
aluminum	[161]	239	[129]	[172]	203		[88]	[61]	[96]	[76]	
antimony											
arsenic											
barium	[100]		[100]	347				[90]	[162]	[110]	[106]
beryllium											
cadmium									7.8		
calcium	130,300	61380	173,800	122,500	[1667]	72,800	73,710	79720	85780	62100	120200
chromium		11		11		13	12	[9]	11	15	
cobalt									[20]		
copper	42		26	39	35						
iron	4328 E	106 E	138 E	10830 E	[77] E	[58] E	33 E	138 E	111 E	633 E	[61] E
lead											
magnesium	33710	30900	47700	45530	[420]	23640	23930	19310	28050	19780	32210
manganese	515	783	30	325		21	31	84	42	25	1252
mercury											
nickel											
potassium	[4681]	5024	[2284]	8004		[1430]	[1478]		[2721]	[977]	[3027]
selenium	7 R	8 R	9 R	8 SR		10 SR	5 R		10 R	7 R	7 R
silver											
sodium	22800	31330	35550	37400	[2532]	10960	11190	[4708]	17,990	5868	21580
thallium											
tin						[25] R		218 R			
vanadium											
zinc	2396	3058	3305	2747	39	46	66	4493	1368	66	72
cyanide CHECK IF ANALYZED ( )											
TENTATIVELY IDENTIFIED ORGANICS											

STATE MI SITE Walker Landfill TDD R05-8303-03B PAGE 2 OF 2, SET # 1

ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL 312-663 9415
International Specialists in the Environment

Date Received for Review: 11/9/85 Date Review Completed: 11/19/85

To: Fran Allans

From: Cynthia Pugh

Subject: South Macomb Disposal (Michigan)
R05- 8501-02

Sample Description: Case # 4757 : Low Water Organics

Project Data Status: Complete

FIT Data Review Findings:
See attached CRL review. Chloroform, bromodichloromethane, tetrachloroethene, 1,1,1 TCE and 2-butanone were found in the blanks. 2-butanone was outside (24%) of the QC limits (15%) for the duplicate.

Additional Comments:

353-2720

Book No. 5
Page No. 2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

RECEIVED NOV 0 8 1985

DATE: 10/23/85

SUBJECT: Review of Region V CLP Data
Received for Review on 9-9-85

FROM: Curtis Ross, Director
Central Regional Laboratory Francis Thomas

TO: Data User: FIT

We have reviewed the data for the following case(s).

SITE NAME South Macomb Disposal SMO Case No. 2757

EPA Data Set No. 5F2562 No. of Samples 15 D.U./Activity Numbers 1985 1 348500

CRL No. 85FM11580 - 85FM11591

SMO Traffic No. EF962 - EF976

Contract Laboratory: ERG Hours Required for Review: 10

Following are our findings.

1. 4,4'-DDT degradation was greater than 20% and 4,4'-DDT calibration factor %RSD was greater than 10% for the quantitation column, therefore, all pesticide/PCB results are considered estimated.
2. The VOA reagent blank run on 8-1-85 contained methylene chloride at 5 times the contract required detection limit. The analytical system is considered out of control and all samples associated with this blank are unusable. These are EF966, EF967, EF969 - EF976. *
3. The ABN blank run on 8-9-85 had poor sensitivity and high background contamination. All samples associated with this blank are unusable. These are EF971 - EF976. *
4. In the VOA field blanks EF966 and EF975, chloroform and tetrachloroethene were detected above CRDL.

CONTINUED →

Patrick J. Chwalle
10-11-85

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualifications noted above.
( ) Data are preliminary - pending verification by Contractor Laboratory.
(X) Data are unacceptable.

cc: Dr. Alfred Haeberer/Joan Fisk/Gary Ward, EPA Support Services
Ross K. Robeson, EMSL-Las Vegas

RECEIVED NOV 0 9 1985

DATA QUALIFIERS

Contractor: ERG

Case 4757

Below is a summary of the out of control audits and the possible effect on the data for this case:

5. VOA initial and continuing calibrations all met SPCC and CCC criteria. 2-chloroethyl ether had a response factor below .05. Bromo[illegible] had a %D > 30%.

6. ABN initial and continuing calibrations met all SPCC and CCC criteria. 21 HSL compounds had %D > 25% for the continuing calibrations.

Reviewed by: Patrick J Chinillo

Phone: 353-2720

Date: 10-11-85

ENVIRONMENTAL RESEARCH GROUP, INC.

7 N. First Ann Arbor, Michigan 48104 (313) 662-3104

RECEIVED NOV 0 9 1985

September 3, 1985

Mr. Curtis Ross
USEPA Region V
536 South Clark Street
Central Regional Laboratory
10th Floor
Chicago, IL 60605

Dear Mr. Ross:

The following report contains the final results for the chemical analysis of the fifteen water samples contained in RAS Case 4757. The samples arrived in the laboratory on July 31 and August 1, 1985 and were analyzed for complete organics according to the September 1984 revision of the Statement of Work. The work was performed according to Contract 68-01-6869.

QA/QC Summary - GC/MS Volatiles

Zero of fifty-seven surrogates were outside of QC limits. Zero of ten matrix spike recoveries and zero of five matrix spike RPSs were outside of QC limits. BFB tuning criteria were met for all BFB spectra.

QA/QC Summary - GC/MS Semi-Volatiles

Twelve of one hundred fourteen surrogates were outside of QC limits. Five of twenty-four matrix spike recoveries and zero of twelve matrix spike RPDs were outside of QC limits. DFTPP tuning criteria were met for all DFTPP spectra.

QA/QC Summary - GC/EC

One of eighteen surrogate recoveries fell outside the QC limits for dibutyl chlorendate. Three of twelve matrix spike recoveries and two of six matrix spike RPDs were outside of QC limits.

Analytical Problems

One VOA vile for sample EF969 arrived broken. The other VOA viles for this sample were intact.

The DBC area in sample EF962 was elevated due to an interference peak. This caused the recovery to be higher than expected. In three samples (EF963, EF965, and EF976) multiresponse compounds appear to be present at low levels in the pesticide fractions.

RECEIVED NOV 0 9 1985

If you have any questions please contact me at (313) 662-3104.

Sincerely,

Joseph A. Hnatow

Joseph A. Hnatow
Project Manager

JAH:kg

cc Linda Boynton
USEPA Contract Lab Program
Sample Management Office

Data Audit Staff
USEPA Environmental Monitoring
Systems Laboratory (EMS/LV)

File
Case 4757

CONTRACT LABORATORY PROGRAM

Deputy Project Officer Communication Summary

RECEIVED NOV 8 1985

Date DPO Notified of Issue: 10/15/85 DPO Notified By: PATRICK CHURA

Subject Laboratory: ERG Case/Sas No: 4757

Contact for Resolution: JOAN FISH
(Laboratory or PO)

Date of Contact: Visit Call or Visit (Circle One)

Summary of Issues & Resolutions:

Document the issue(s), resolution(s), and action deadlines, if any.

There were significant problems with many of the reagent blanks associated with this case. The volatile reagent blank run on 8-1-85 contained methylene chloride at 5 times the CRDL. Because of this, the analytical system is considered out of control and the following samples are unusable: EF966, EF967, EF969-EF976. The ABN reagent blank run on 8-9-85 contained large amounts of background contamination. Therefore, ABN samples EF971 to EF976 are unusable. None of the samples were rerun and there is no evidence that any attempt to solve these problems was made. We request that penalties be assessed for these major contract violations.

Charles J. Elby
Signature

10/15/85
Date

V
Region

(1) DPO Copy (2) Project Officer Copy (3) SMO Copy (4) Lab Copy

5/84

RECEIVED NOV 0 9 1985

Case: 4757

Contractor: ERG

TENTATIVELY IDENTIFIED COMPOUNDS
MATCH ASSESSMENT

NOTE: Reviewer should note directly on Organic Analysis Data Sheet (OADS) those matches that in his opinion (based on contract criteria) are unreasonable.

CRITERIA

(1) Relative intensities of major ions (>10%) reference spectrum should be present in the sample spectrum.

(2) Relative intensities of major ions in sample spectrum should agree to within ± 20% of reference spectrum intensities.

(3) Molecular ions present in reference spectrum should be present in sample spectrum.

(4) Ions present in sample spectrum, but not in reference spectrum should be reviewed for possible background contamination or presence of coeluting interferences.

(5) Ions present in reference spectrum, but not in the sample spectrum should be reviewed for possible subtraction from the sample spectrum because of background contamination or coeluting interferences.

(6) If, in the reviewer's opinion, no valid identification can be made the compound should be labelled as "unknown" and the initials and date of the reviewer placed on the OADS.

Well D

Sample Number
EF 962 RI

85FM11580

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: E.R.G., Inc.
Case No: 4757
Lab Sample ID No: EF 962 RI
QC Report No: —
Sample Matrix: WATER
Contract No: 58-01-6869
Data Release Authorized By: Joseph A. Hnatow
Date Sample Received: 7/31/85

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 8/2/85
Date Analyzed: 8/2/85
Conc/Dil Factor: 2 pH NR
Percent Moisture: NR
Percent Moisture (Decanted): NR

RECEIVED ... 0 0 1985

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	20.	U
74-83-9	Bromomethane	20.	U J
75-01-4	Vinyl Chloride	20.	U
75-00-3	Chloroethane	9.3	J B
75-09-2	Methylene Chloride	12.	B
67-64-1	Acetone	15.	B J
75-15-0	Carbon Disulfide	10.	U
75-35-4	1, 1-Dichloroethene	10.	U
75-34-3	1, 1-Dichloroethane	300.	
156-60-5	Trans-1, 2-Dichloroethene	7.0	J
67-66-3	Chloroform	10.	U
107-06-2	1, 2-Dichloroethane	10.	U
78-93-3	2-Butanone	9.9	J B
71-55-6	1, 1, 1-Trichloroethane	66.	B
56-23-5	Carbon Tetrachloride	10.	U
108-05-4	Vinyl Acetate	20.	U
75-27-4	Bromodichloromethane	10.	U

PSC 10/11/85

CAS Number		ug/l or ug/Kg (Circle One)	
79-34-5	1, 1, 2, 2-Tetrachloroethane	10.	U
78-87-5	1, 2-Dichloropropane	10.	U
10061-02-6	Trans-1, 3-Dichloropropene	10.	U
79-01-6	Trichloroethene	32.	
124-48-1	Dibromochloromethane	10.	U
79-00-5	1, 1, 2-Trichloroethane	10.	U
71-43-2	Benzene	2.4	J
10061-01-5	cis-1, 3-Dichloropropene	10.	U
110-75-8	2-Chloroethylvinylether	20.	U R
75-25-2	Bromoform	10.	U
591-78-6	2-Hexanone	20.	U
108-10-1	4-Methyl-2-Pentanone	20.	U
127-18-4	Tetrachloroethene	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
	Total Xylenes	10.	U

PSC 10/11/85

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.

R = UNUSABLE

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 actions. (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 indicates 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)

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: ERG INC.

Case No: 4757

Sample Number
EF 962

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 8/1/85

Date Analyzed: 8/8/85

Conc/Dil Factor: 1

RECEIVED NOV 0 9 1985

CAS Number		ug/l or ug/Kg (Circle One)		
62-75-9	N-Nitrosodimethylamine	10	U	J
108-95-2	Phenol	10	U	
62-53-3	Aniline	10	U	J
111-44-4	bis(-2-Chloroethyl)Ether	10	U	J
95-57-8	2-Chlorophenol	10	U	
541-73-1	1, 3-Dichlorobenzene	10	U	
106-46-7	1, 4-Dichlorobenzene	10	U	
100-51-6	Benzyl Alcohol	10	U	J
95-50-1	1, 2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	J
39638-32-9	bis(2-chloroisopropyl)Ether	10	U	J
106-44-5	4-Methylphenol	10	U	J
621-64-7	N-Nitroso-Di-n-Propylamine	10	U	
67-72-1	Hexachloroethane	10	U	J
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	J
88-75-5	2-Nitrophenol	10	U	
105-67-9	2, 4-Dimethylphenol	10	U	
65-85-0	Benzoic Acid	50	U	J
111-91-1	bis(-2-Chloroethoxy)Methane	10	U	J
120-83-2	2, 4-Dichlorophenol	10	U	
120-82-1	1, 2, 4-Trichlorobenzene	10	U	J
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-Methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	J
77-47-4	Hexachlorocyclopentadiene	10	U	J
88-06-2	2, 4, 6-Trichlorophenol	10	U	
95-95-4	2, 4, 5-Trichlorophenol	50	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	50	U	
131-11-3	Dimethyl Phthalate	10	U	
208-96-8	Acenaphthylene	10	U	
99-09-2	3-Nitroaniline	50	U	J

CAS Number		ug/l or ug/Kg (Circle One)		
83-32-9	Acenaphthene	10	U	
51-28-5	2, 4-Dinitrophenol	50	U	J
100-02-7	4-Nitrophenol	50	U	J
132-64-9	Dibenzofuran	10	U	
121-14-2	2, 4-Dinitrotoluene	10	U	
606-20-2	2, 6-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	50	U	J
534-52-1	4, 6-Dinitro-2-Methylphenol	50	U	J
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
84-74-2	Di-n-Butylphthalate	8.7	JB	
206-44-0	Fluoranthene	10	U	
92-87-5	Benzidine	100	U	J
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	J
91-94-1	3, 3'-Dichlorobenzidine	20	U	
56-55-3	Benzo(a)Anthracene	10	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	15		
218-01-9	Chrysene	10	U	
117-84-0	Di-n-Octyl Phthalate	68		
205-99-2	Benzo(b)Fluoranthene	10	U	
207-08-9	Benzo(k)Fluoranthene	10	U	
50-32-8	Benzo(a)Pyrene	10	U	
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10	U	
53-70-3	Dibenz(a, h)Anthracene	10	U	
191-24-2	Benzo(g, h, i)Perylene	10	U	

(1)-Cannot be separated from diphenylamine

PSC 10-11-85

PSC 10-11-8

Form I

Laboratory Name: E.R.G., inc.

Case No: 4757

Sample Number
EF962

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/5/85

Date Analyzed: 8/12/85

Conc/Dil Factor: 1

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
7421-93-4	Endrin Aldehyde	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	2.0	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

RECEIVED NOV 0 9 1985

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 1000ml or W_s — V_t 10,000ul V_i 1.0ul

Laboratory Name: E.R.G. Inc

Case No: 4757

Sample Number
EF962

Organics Analysis Data Sheet
(Page 4)

RECEIVED NOV 0 9 1989

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	75-43-4	DICHLORODIFLUOROMETHANE	VOA	95	440
2.		UNKNOWN-NOT IN EPA/NIH LIBRARY	VOA	276	290
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.	104-76-7	1-HEXANOL, 2-ETHYL-	BNA	603	17
14.	193-18-6	2-CYCLOHEXEN-1-ONE, 3-METHYL-	BNA	630	30
15.	105-60-2	2H-AZEPIN-2-ONE, HEXAHYDRO-	BNA	901	230
16.	10544-50-0	SULFUR, MOL. (S8)	BNA	1483	58
17.		UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1629	20
18.		UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1742	47
19.		UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1778	81
20.		UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1841	48
21.		UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1847	48
22.		UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1862	140
23.		UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1900	29
24.		UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1926	54
25.		UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1938	110
26.		UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1946	50
27.		UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1977	200
28.		UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	2031	60
29.		UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	2067	130
30.		UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	2153	41

Well Q

Sample Number
EF 963

85FM11581

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: EIZG. INC.
Case No: 4757
Lab Sample ID No: EF 963
QC Report No: —
Sample Matrix: WATER
Contract No: 68-01-6869
Data Release Authorized By: Joseph C. Hunter
Date Sample Received: 7/31/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 8/2/85
Date Analyzed: 8/2/85
Conc/Dil Factor: 1 pH NR
Percent Moisture: NR
Percent Moisture (Decanted): NR

RECEIVED NOV 0 9 1985

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U J
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	2.7	J B
67-64-1	Acetone	4.1	J B
75-15-0	Carbon Disulfide	5.0	U
75-35-4	1, 1-Dichloroethene	5.0	U
75-34-3	1, 1-Dichloroethane	5.0	U
156-60-5	Trans-1, 2-Dichloroethene	5.0	U
67-66-3	Chloroform	5.0	U
107-06-2	1, 2-Dichloroethane	5.0	U
78-93-3	2-Butanone	6.5	B
71-55-6	1, 1, 1-Trichloroethane	5.0	U
56-23-5	Carbon Tetrachloride	5.0	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.0	U

PJC 10-11-85

CAS Number		ug/l or ug/Kg (Circle One)	
79-34-5	1, 1, 2, 2-Tetrachloroethane	5.0	U
78-87-5	1, 2-Dichloropropane	5.0	U
10061-02-6	Trans-1, 3-Dichloropropene	5.0	U
79-01-6	Trichloroethene	5.0	U
124-48-1	Dibromochloromethane	5.0	U
79-00-5	1, 1, 2-Trichloroethane	5.0	U
71-43-2	Benzene	5.0	U
10061-01-5	cis-1, 3-Dichloropropene	5.0	U
110-75-8	2-Chloroethylvinylether	10.	U R
75-25-2	Bromoform	5.0	U PJC 10-11-85
591-78-6	2-Hexanone	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
100-42-5	Styrene	5.0	U
	Total Xylenes	5.0	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.

R = UNUSABLE

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 actions. (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 indicates 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)

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: ERG, INC.

Case No: 4757

Sample Number
EF 963

Organics Analysis Data Sheet
(Page 2)

RECEIVED NOV 0 9 1985

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/1/85

Date Analyzed: 8/8/85

Conc/Dil Factor: 1

CAS Number		(ug/l) or ug/Kg (Circle One)		
62-75-9	N-Nitrosodimethylamine	10	U	J
108-95-2	Phenol	10	U	
62-53-3	Aniline	10	U	J
111-44-4	bis(-2-Chloroethyl)Ether	10	U	J
95-57-8	2-Chlorophenol	10	U	
541-73-1	1, 3-Dichlorobenzene	10	U	
106-46-7	1, 4-Dichlorobenzene	10	U	
100-51-6	Benzyl Alcohol	10	U	J
95-50-1	1, 2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	J
39638-32-9	bis(2-chloroisopropyl)Ether	10	U	J
106-44-5	4-Methylphenol	10	U	J
621-64-7	N-Nitroso-Di-n-Propylamine	10	U	
67-72-1	Hexachloroethane	10	U	J
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	J
88-75-5	2-Nitrophenol	10	U	
105-67-9	2, 4-Dimethylphenol	10	U	
65-85-0	Benzoic Acid	50	U	J
111-91-1	bis(-2-Chloroethoxy)Methane	10	U	J
120-83-2	2, 4-Dichlorophenol	10	U	
120-82-1	1, 2, 4-Trichlorobenzene	10	U	J
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-Methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	J
77-47-4	Hexachlorocyclopentadiene	10	U	J
88-06-2	2, 4, 6-Trichlorophenol	10	U	
95-95-4	2, 4, 5-Trichlorophenol	50	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	50	U	
131-11-3	Dimethyl Phthalate	10	U	
208-96-8	Acenaphthylene	10	U	
99-09-2	3-Nitroaniline	50	U	J

PJC 10-11-85

CAS Number		(ug/l) or ug/Kg (Circle One)		
83-32-9	Acenaphthene	10	U	
51-28-5	2, 4-Dinitrophenol	50	U	J
100-02-7	4-Nitrophenol	50	U	J
132-64-9	Dibenzofuran	10	U	
121-14-2	2, 4-Dinitrotoluene	10	U	
606-20-2	2, 6-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	50	U	J
534-52-1	4, 6-Dinitro-2-Methylphenol	50	U	J
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
84-74-2	Di-n-Butylphthalate	4.8	JB	
206-44-0	Fluoranthene	10	U	
92-87-5	Benzidine	100	U	J
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	J
91-94-1	3, 3'-Dichlorobenzidine	20	U	
56-55-3	Benzo(a)Anthracene	10	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	9.8	J	
218-01-9	Chrysene	10	U	
117-84-0	Di-n-Octyl Phthalate	6.1	J	
205-99-2	Benzo(b)Fluoranthene	10	U	
207-08-9	Benzo(k)Fluoranthene	10	U	
50-32-8	Benzo(a)Pyrene	10	U	
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10	U	
53-70-3	Dibenz(a, h)Anthracene	10	U	
191-24-2	Benzo(g, h, i)Perylene	10	U	

PJC 10-11-85

(1)-Cannot be separated from diphenylamine

Form I

Laboratory Name: ERG, Inc.

Case No: 4257

Sample Number
EF 963

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/5/85

Date Analyzed: 8/14/85

Conc/Dil Factor: 1

RECEIVED AUG 9 1985

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
7421-93-4	Endrin Aldehyde	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	2.0	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 1000 ml or W_s _____ V_t 10,000 ul V_i 1.0 ul

Laboratory Name: E.R.G., Inc.

Case No: 4757

Sample Number: EF963

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

RECEIVED NOV 0 9 1988

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NO VOLATILE COMPOUNDS FOUND	VOA		
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11. 104-76-7	1-HEXANOL, 2-ETHYL-	BNA	602	21
12. 1193-18-6	2-CYCLOHEXEN-1-ONE, 3-METHYL-	BNA	628	22
13. 105-60-2	2H-AZEPIN-2-ONE, HEXAHYDRO-	BNA	923	2300
14. 10544-50-0	SULFUR, MOL. (S8)	BNA	1481	2.4
15.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1633	17
16.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1783	11
17.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1861	300
18.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	2065	18
19.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	2150	11
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

85FM11582

Well L

Sample Number
EF 964

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ERG, Inc.
Case No: 4757
Lab Sample ID No: EF 964
QC Report No: —
Sample Matrix: Water
Contract No: 68-01-6869
Data Release Authorized By: Joseph A. Hnatow
Date Sample Received: 7/31/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 8/2/85
Date Analyzed: 8/2/85
Conc/Dil Factor: 1 pH NR
Percent Moisture: NR
Percent Moisture (Decanted): NR

RECEIVED NOV 0 9 1985

CAS Number		(ug/l or ug/Kg) (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3.5	JB
67-64-1	Acetone	3.6	JB
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	5.6	JB
71-55-6	1, 1, 1-Trichloroethane	4.5	JB
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

J PSC 10-11-85

CAS Number		(ug/l or ug/Kg) (Circle One)	
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U
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	10	U
75-25-2	Bromoform	5	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
127-18-4	Tetrachloroethene	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

R PSC 10-11-85

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 actions. (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 indicates 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)

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: ERG, INC.

Case No: 4757

Sample Number
EF964

Organics Analysis Data Sheet
(Page 2)

RECEIVED NOV 0 9 1985

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/1/85

Date Analyzed: 8/8/85

Conc/Dil Factor: 1

CAS Number		(ug/l) or ug/Kg (Circle One)		
62-75-9	N-Nitrosodimethylamine	10	U	J
108-95-2	Phenol	10	U	
62-53-3	Aniline	10	U	J
111-44-4	bis(-2-Chloroethyl)Ether	10	U	J
95-57-8	2-Chlorophenol	10	U	
541-73-1	1, 3-Dichlorobenzene	10	U	
106-46-7	1, 4-Dichlorobenzene	10	U	
100-51-6	Benzyl Alcohol	10	U	J
95-50-1	1, 2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	J
39638-32-9	bis(2-chloroisopropyl)Ether	10	U	J
106-44-5	4-Methylphenol	10	U	J
621-64-7	N-Nitroso-Di-n-Propylamine	10	U	
67-72-1	Hexachloroethane	10	U	J
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	J
88-75-5	2-Nitrophenol	10	U	
105-67-9	2, 4-Dimethylphenol	10	U	
65-85-0	Benzoic Acid	50	U	J
111-91-1	bis(-2-Chloroethoxy)Methane	10	U	J
120-83-2	2, 4-Dichlorophenol	10	U	
120-82-1	1, 2, 4-Trichlorobenzene	10	U	J
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-Methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	J
77-47-4	Hexachlorocyclopentadiene	10	U	J
88-06-2	2, 4, 6-Trichlorophenol	10	U	
95-95-4	2, 4, 5-Trichlorophenol	50	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	50	U	
131-11-3	Dimethyl Phthalate	10	U	
208-96-8	Acenaphthylene	10	U	
99-09-2	3-Nitroaniline	50	U	J

CAS Number		(ug/l) or ug/Kg (Circle One)		
83-32-9	Acenaphthene	10	U	
51-28-5	2, 4-Dinitrophenol	50	U	J
100-02-7	4-Nitrophenol	50	U	J
132-64-9	Dibenzofuran	10	U	
121-14-2	2, 4-Dinitrotoluene	10	U	
606-20-2	2, 6-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	50	U	J
534-52-1	4, 6-Dinitro-2-Methylphenol	50	U	J
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
84-74-2	Di-n-Butylphthalate	10	B	
206-44-0	Fluoranthene	10	U	
92-87-5	Benzidine	100	U	J
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	J
91-94-1	3, 3'-Dichlorobenzidine	20	U	
56-55-3	Benzo(a)Anthracene	10	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	11		
218-01-9	Chrysene	10	U	
117-84-0	Di-n-Octyl Phthalate	6.8	J	
205-99-2	Benzo(b)Fluoranthene	10	U	
207-08-9	Benzo(k)Fluoranthene	10	U	
50-32-8	Benzo(a)Pyrene	10	U	
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10	U	
53-70-3	Dibenz(a, h)Anthracene	10	U	
191-24-2	Benzo(g, h, i)Perylene	10	U	

PJC 10-11-85

(1)-Cannot be separated from diphenylamine

PJC 10-11-85

Form I

Laboratory Name: E.R.G., inc.

Case No: 4757

Sample Number
EF964

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

RECEIVED NOV 0 9 1985

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/5/85

Date Analyzed: 8/13/85

Conc/Dil Factor: 1

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
7421-93-4	Endrin Aldehyde	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	2.0	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 1000 ml or W_s — V_t 10,000 ul V_i 1.0 ul

Laboratory Name: E.R.G. Inc.

Case No: 4757

Sample Number
EF964

Organics Analysis Data Sheet
(Page 4)

RECEIVED

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NO VOLATILE COMPOUNDS FOUND	VOA		
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11. 104-76-7	1-HEXANOL, 2-ETHYL-	BNA	603	34
12. 1193-18-6	2-CYCLOHEXEN-1-ONE, 3-METHYL-	BNA	630	37
13. 105-60-2	2H-AZEPIN-2-ONE, HEXAHYDRO-	BNA	909	2600
14.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1462	21
15.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1497	9.4
16.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1629	27
17.	UNKNOWN HYDROCARBON	BNA	1634	69
18.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1710	2[illegible]
19.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1741	46
20.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1789	69
21.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1899	7.0
22.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1924	32
23.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1928	82
24.	UNKNOWN OCTANOIC ACID	BNA	1980	48
25.	UNKNOWN OCTANETHIOIC ACID	BNA	2038	210
26.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	2055	52
27.	UNKNOWN OCTANOIC ACID	BNA	2066	55
28.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	2097	18
29.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	2148	54
30.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	2174	25

85FM11583

Well F

Sample Number
EF 965

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ERG, Inc.

Case No: 4757

Lab Sample ID No: EF 965

QC Report No: –

Sample Matrix: Water

Contract No: 68-01-6869

Data Release Authorized By: Joseph A. Hnatow

Date Sample Received: 7/31/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)

RECEIVED NOV 0 9 1985

Date Extracted/Prepared: 8/2/85

Date Analyzed: 8/2/85

Conc/Dil Factor: 1 pH N/A

Percent Moisture: NR

Percent Moisture (Decanted): NR

CAS Number		(ug/l) or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3.5	JB
67-64-1	Acetone	4.6	JB
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	5.6	JB
71-55-6	1, 1, 1-Trichloroethane	2.4	JB
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

J PJC 10-11-85

CAS Number		(ug/l) or ug/Kg (Circle One)	
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U
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	10	U
75-25-2	Bromoform	5	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
127-18-4	Tetrachloroethene	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

R PJC 10-11-85

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.

R = UNUSABLE

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 actions. (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 indicates 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).

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: ERG. INC.

Case No: 4757

Sample Number
EF 965

Organics Analysis Data Sheet
(Page 2)

RECEIVED NOV 0 9 1985

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/1/85

Date Analyzed: 8/8/85

Conc/Dil Factor:

CAS Number		ug/l or ug/Kg (Circle One)		
62-75-9	N-Nitrosodimethylamine	10	U	J
108-95-2	Phenol	10	U	
62-53-3	Aniline	10	U	J
111-44-4	bis(-2-Chloroethyl)Ether	10	U	J
95-57-8	2-Chlorophenol	10	U	
541-73-1	1, 3-Dichlorobenzene	10	U	
106-46-7	1, 4-Dichlorobenzene	10	U	
100-51-6	Benzyl Alcohol	10	U	J
95-50-1	1, 2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	J
39638-32-9	bis(2-chloroisopropyl)Ether	10	U	J
106-44-5	4-Methylphenol	10	U	J
621-64-7	N-Nitroso-Di-n-Propylamine	10	U	
67-72-1	Hexachloroethane	10	U	J
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	J
88-75-5	2-Nitrophenol	10	U	
105-67-9	2, 4-Dimethylphenol	10	U	
65-85-0	Benzoic Acid	50	U	J
111-91-1	bis(-2-Chloroethoxy)Methane	10	U	J
120-83-2	2, 4-Dichlorophenol	10	U	
120-82-1	1, 2, 4-Trichlorobenzene	10	U	J
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-Methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	J
77-47-4	Hexachlorocyclopentadiene	10	U	J
88-06-2	2, 4, 6-Trichlorophenol	10	U	
95-95-4	2, 4, 5-Trichlorophenol	50	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	50	U	
131-11-3	Dimethyl Phthalate	10	U	
208-96-8	Acenaphthylene	10	U	
99-09-2	3-Nitroaniline	50	U	J

CAS Number		ug/l or ug/Kg (Circle One)		
83-32-9	Acenaphthene	10	U	
51-28-5	2, 4-Dinitrophenol	50	U	J
100-02-7	4-Nitrophenol	50	U	J
132-64-9	Dibenzofuran	10	U	
121-14-2	2, 4-Dinitrotoluene	10	U	
606-20-2	2, 6-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	50	U	J
534-52-1	4, 6-Dinitro-2-Methylphenol	50	U	J
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
84-74-2	Di-n-Butylphthalate	6.9	B	
206-44-0	Fluoranthene	10	U	
92-87-5	Benzidine	100	U	J
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	J
91-94-1	3, 3'-Dichlorobenzidine	20	U	
56-55-3	Benzo(a)Anthracene	10	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	10		
218-01-9	Chrysene	10	U	
117-84-0	Di-n-Octyl Phthalate	37		
205-99-2	Benzo(b)Fluoranthene	10	U	
207-08-9	Benzo(k)Fluoranthene	10	U	
50-32-8	Benzo(a)Pyrene	10	U	
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10	U	
53-70-3	Dibenz(a, h)Anthracene	10	U	
191-24-2	Benzo(g, h, i)Perylene	10	U	

PS 10-11-

(1)-Cannot be separated from diphenylamine

PJC 10-11-85

Form I

Laboratory Name: ERG, Inc.

Case No: 4757

Sample Number
EF 965

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/5/85

Date Analyzed: 8/14/85

Conc/Dil Factor: 1

RECEIVED NOV 0 9 1985

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
7421-93-4	Endrin Aldehyde	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	2.0	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 1000 ml or W_s _____ V_t 10,000 ul V_i 1.0 ul

Laboratory Name: E.R.G. Inc.

Case No: RAS 4757

Sample Number: EF965

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

RECEIVED

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. —	UNKNOWN-NOT IN EPA/NIH LIBRARY	VOA	417	6
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11. 104-76-7	1-HEXANOL, 2-METHYL-	BNA	604	15
12. 1193-18-6	2-CYCLOHEXEN-1-ONE, 3-METHYL-	BNA	630	29
13.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	735	3.1
14.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	818	1.9
15.	2H-AZEPIN-2-ONE, HEXAHYDRO-	BNA	895	94
16.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1635	15
17.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1778	42
18.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1840	25
19.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1846	35
20.	UNKNOWN HENEICOSANOIC ACID	BNA	1862	280
21.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1929	24
22.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1938	58
23.	UNKNOWN PHTHALATE	BNA	1977	100
24.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	2066	500
25.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	2152	32
26.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	2190	16
27.				
28.				
29.				
30.				

85FM11R03

Sample Number
EF 966

FIELD BLANK
7/30/85 Sampling

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ERG, Inc.
Case No: 4757
Lab Sample ID No: EF 966
QC Report No: —
Sample Matrix: Water
Contract No: 68-01-6869
Data Release Authorized By: Joseph A. Hnatow
Date Sample Received: 7/31/85

RECEIVED NOV 09 1985

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 8/1/85
Date Analyzed: 8/1/85
Conc/Dil Factor: 1 pH NR
Percent Moisture: NR
Percent Moisture (Decanted): NR

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U J
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	25	UJ
67-64-1	Acetone	10	UJ
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	11	
107-06-2	1, 2-Dichloroethane	5	U
78-93-3	2-Butanone	6.8	UJ
71-55-6	1, 1, 1-Trichloroethane	2.5	UJ
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	4.5	J

CAS Number		ug/l or ug/Kg (Circle One)	
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U
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	10	U R
75-25-2	Bromoform	5	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
127-18-4	Tetrachloroethene	5.7	
108-88-3	Toluene	1.5	J
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
	Total Xylenes	5	U

PJC 12/11/85

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.

R = UNUSABLE

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 actions. (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 indicates 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)

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 full described and such description attached to the data summary report.

Laboratory Name: ERG. INC.

Case No: 4757

Sample Number
EF96C

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 8/1/85

Date Analyzed: 8/8/85

Conc/Dil Factor: 1

RECEIVED NOV 0 8 1985

CAS Number		ug/l or ug/Kg (Circle One)		
62-75-9	N-Nitrosodimethylamine	10	U	J
108-95-2	Phenol	10	U	
62-53-3	Aniline	10	U	J
111-44-4	bis(-2-Chloroethyl)Ether	10	U	J
95-57-8	2-Chlorophenol	10	U	
541-73-1	1, 3-Dichlorobenzene	10	U	
106-46-7	1, 4-Dichlorobenzene	10	U	
100-51-6	Benzyl Alcohol	10	U	J
95-50-1	1, 2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	J
39638-32-9	bis(2-chloroisopropyl)Ether	10	U	J
106-44-5	4-Methylphenol	10	U	J
621-64-7	N-Nitroso-Di-n-Propylamine	10	U	
67-72-1	Hexachloroethane	10	U	J
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	J
88-75-5	2-Nitrophenol	10	U	
105-67-9	2, 4-Dimethylphenol	10	U	
65-85-0	Benzoic Acid	50	U	J
111-91-1	bis(-2-Chloroethoxy)Methane	10	U	J
120-83-2	2, 4-Dichlorophenol	10	U	
120-82-1	1, 2, 4-Trichlorobenzene	10	U	J
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-Methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	J
77-47-4	Hexachlorocyclopentadiene	10	U	J
88-06-2	2, 4, 6-Trichlorophenol	10	U	
95-95-4	2, 4, 5-Trichlorophenol	50	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	50	U	
131-11-3	Dimethyl Phthalate	10	U	
208-96-8	Acenaphthylene	10	U	
99-09-2	3-Nitroaniline	50	U	J

CAS Number		ug/l or ug/Kg (Circle One)		
83-32-9	Acenaphthene	10	U	
51-28-5	2, 4-Dinitrophenol	50	U	J
100-02-7	4-Nitrophenol	50	U	J
132-64-9	Dibenzofuran	10	U	
121-14-2	2, 4-Dinitrotoluene	10	U	
606-20-2	2, 6-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	50	U	J
534-52-1	4, 6-Dinitro-2-Methylphenol	50	U	J
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
84-74-2	Di-n-Butylphthalate	4.7	B	
206-44-0	Fluoranthene	10	U	
92-87-5	Benzidine	100	U	J
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	J
91-94-1	3, 3'-Dichlorobenzidine	20	U	
56-55-3	Benzo(a)Anthracene	10	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U	
218-01-9	Chrysene	10	U	
117-84-0	Di-n-Octyl Phthalate	10	U	
205-99-2	Benzo(b)Fluoranthene	10	U	
207-08-9	Benzo(k)Fluoranthene	10	U	
50-32-8	Benzo(a)Pyrene	10	U	
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10	U	
53-70-3	Dibenz(a, h)Anthracene	10	U	
191-24-2	Benzo(g, h, i)Perylene	10	U	

PJC 10-11-85

(1)-Cannot be separated from diphenylamine

PJC 10-11-85

Form I

Laboratory Name: E.R.G., Inc.

Case No: 4757

Sample Number
EF966

FIELD BLANK

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/5/95

Date Analyzed: 8/13/95

Conc/Dil Factor: 1

RECEIVED NOV 0 9 1995

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
7421-93-4	Endrin Aldehyde	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	2.0	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 1000 ml or W_s – V_t 10,000 ul V_i 1.0 ul

Laboratory Name: E.R.G. Inc.

Case No: 4757

Sample Number
EF966

Organics Analysis Data Sheet
(Page 4)

RECEIVED NOV 0 9 1993

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 110-54-3	HEXANE	VOA	573	24
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11. 1193-18-6	2-CYCLOHEXEN-1-ONE, 3-METHYL-	BNA	621	19
12. 96-76-4	PHENOL, 2,4-BIS(1,1-DIMETHYLETHYL-)	BNA	1090	13
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

75FD011584

Well E

Sample Number
EF 967

Organics Analysis Data Sheet
(Page 1)

RECEIVED NOV 0 8 1985

Laboratory Name: ERG, Inc. Case No: 4757

Lab Sample ID No EF 967 QC Report No: —

Sample Matrix: Water Contract No: 68-01-6869

Data Release Authorized By: Joseph A. Hudson Date Sample Received: 8/1/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/1/85

Date Analyzed: 8/1/85

Conc/Dil Factor: 1 pH NR

Percent Moisture: NR

Percent Moisture (Decanted): NR

CAS Number		(ug/l) or ug/Kg (Circle One)		
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	J
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	2.2	J	B
67-64-1	Acetone	4.6	B	
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	5.2	J	B
71-55-6	1, 1, 1-Trichloroethane	3.2	J	B
56-23-5	Carbon Tetrachloride	5	U	
108-05-4	Vinyl Acetate	10	U	
75-27-4	Bromodichloromethane	5	U	

PJC 10/11/85

CAS Number		(ug/l) or ug/Kg (Circle One)		
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U	
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	10	U	R
75-25-2	Bromoform	5	U	PJC 10/11/85
591-78-6	2-Hexanone	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
127-18-4	Tetrachloroethene	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 actions. (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 indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but [illegible]

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: ERG. INC.

Case No: 4757

Sample Number
EF 967

Organics Analysis Data Sheet
(Page 2)

RECEIVED NOV 0 9 1985

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/1/85

Date Analyzed: 8/8/85

Conc/Dil Factor: 1

CAS Number		(ug/l) or ug/Kg (Circle One)		
62-75-9	N-Nitrosodimethylamine	10	U	J
108-95-2	Phenol	10	U	
62-53-3	Aniline	10	U	J
111-44-4	bis(-2-Chloroethyl)Ether	10	U	J
95-57-8	2-Chlorophenol	10	U	
541-73-1	1, 3-Dichlorobenzene	10	U	
106-46-7	1, 4-Dichlorobenzene	10	U	
100-51-6	Benzyl Alcohol	10	U	J
95-50-1	1, 2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	J
39638-32-9	bis(2-chloroisopropyl)Ether	10	U	J
106-44-5	4-Methylphenol	10	U	J
621-64-7	N-Nitroso-Di-n-Propylamine	10	U	
67-72-1	Hexachloroethane	10	U	J
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	J
88-75-5	2-Nitrophenol	10	U	
105-67-9	2, 4-Dimethylphenol	10	U	
65-85-0	Benzoic Acid	50	U	J
111-91-1	bis(-2-Chloroethoxy)Methane	10	U	J
120-83-2	2, 4-Dichlorophenol	10	U	
120-82-1	1, 2, 4-Trichlorobenzene	10	U	J
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-Methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	J
77-47-4	Hexachlorocyclopentadiene	10	U	J
88-06-2	2, 4, 6-Trichlorophenol	10	U	
95-95-4	2, 4, 5-Trichlorophenol	50	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	50	U	
131-11-3	Dimethyl Phthalate	10	U	
208-96-8	Acenaphthylene	10	U	
99-09-2	3-Nitroaniline	50	U	J

PJC 10-11-85

CAS Number		(ug/l) or ug/Kg (Circle One)		
83-32-9	Acenaphthene	10	U	
51-28-5	2, 4-Dinitrophenol	50	U	J
100-02-7	4-Nitrophenol	50	U	J
132-64-9	Dibenzofuran	10	U	
121-14-2	2, 4-Dinitrotoluene	10	U	
606-20-2	2, 6-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	50	U	J
534-52-1	4, 6-Dinitro-2-Methylphenol	50	U	J
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
84-74-2	Di-n-Butylphthalate	4.0	B	
206-44-0	Fluoranthene	10	U	
92-87-5	Benzidine	100	U	J
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	J
91-94-1	3, 3'-Dichlorobenzidine	20	U	
56-55-3	Benzo(a)Anthracene	10	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U	
218-01-9	Chrysene	10	U	
117-84-0	Di-n-Octyl Phthalate	10	U	
205-99-2	Benzo(b)Fluoranthene	10	U	
207-08-9	Benzo(k)Fluoranthene	10	U	
50-32-8	Benzo(a)Pyrene	10	U	
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10	U	
53-70-3	Dibenz(a, h)Anthracene	10	U	
191-24-2	Benzo(g, h, i)Perylene	10	U	

PJC 10-11-85

(1)-Cannot be separated from diphenylamine

Laboratory Name: E.R.G., inc.

Case No: 4757

Sample Number
EF 967

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/5/85

Date Analyzed: 8/3/85

Conc/Dil Factor: 1

RECEIVED NOV 0 9 1985

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
7421-93-4	Endrin Aldehyde	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	2.0	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 1000ml or W_s — V_t 10,000ul V_i 1.0ml

Laboratory Name: E.R.G. Inc.

Case No: 4757

Sample Number
EF967

Organics Analysis Data Sheet
(Page 4)

RECEIVED NOV 0 9 1985

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NO VOLATILE COMPOUNDS FOUND	VOA		
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	321	12
12.	UNKNOWN TRICHLOROPROPENE	BNA	468	10
13. 1193-18-6	2-CYCLOHEXEN-1-ONE, 3-METHYL-	BNA	631	27
14. 19573-22-9	CYCLOHEXANE, AZIDO-	BNA	735	11
15. 105-60-2	2H-AZEPIN-2-ONE, HEXAHYDRO-	BNA	941	2500
16.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1245	8.3
17.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1635	7.6
18.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1788	5.5
19.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1812	11
20.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1826	23
21.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1925	58
22.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	2150	230
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

85EM11084

Well E

Sample Number
EF 968

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ERG, Inc. Case No: 4757

Lab Sample ID No: EF968 QC Report No: —

Sample Matrix: Water Contract No: 68-01-6869

Data Release Authorized By: Joseph A. Hinton Date Sample Received: 8/1/85

RECEIVED NOV 0 9 1985

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/2/85

Date Analyzed: 8/2/85

Conc/Dil Factor: 1 pH NR

Percent Moisture: NR

Percent Moisture (Decanted): NR

CAS Number		(ug/l) or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3.1	JB
67-64-1	Acetone	3.8	JB
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	5.9	JB
71-55-6	1, 1, 1-Trichloroethane	2.7	JB
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

PJC 10-11-85

CAS Number		(ug/l) or ug/Kg (Circle One)	
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U
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	10	U
75-25-2	Bromoform	5	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
127-18-4	Tetrachloroethene	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

R PJC 10/11/85

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.

R = UNUSABLE

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 actions. (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 indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but

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: ERG. INC.

Case No: 4757

Sample Number
EF 968

Organics Analysis Data Sheet
(Page 2)

RECEIVED NOV 0 9 1985

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/1/85

Date Analyzed: 8/8/85

Conc/Dil Factor: 1

CAS Number		(ug/l or ug/Kg) (Circle One)		
62-75-9	N-Nitrosodimethylamine	10	U	J
108-95-2	Phenol	10	U	
62-53-3	Aniline	10	U	J
111-44-4	bis(-2-Chloroethyl)Ether	10	U	J
95-57-8	2-Chlorophenol	10	U	
541-73-1	1, 3-Dichlorobenzene	10	U	
106-46-7	1, 4-Dichlorobenzene	10	U	
100-51-6	Benzyl Alcohol	10	U	J
95-50-1	1, 2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	J
39638-32-9	bis(2-chloroisopropyl)Ether	10	U	J
106-44-5	4-Methylphenol	10	U	J
621-64-7	N-Nitroso-Di-n-Propylamine	10	U	
67-72-1	Hexachloroethane	10	U	J
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	J
88-75-5	2-Nitrophenol	10	U	
105-67-9	2, 4-Dimethylphenol	10	U	
65-85-0	Benzoic Acid	50	U	J
111-91-1	bis(-2-Chloroethoxy)Methane	10	U	J
120-83-2	2, 4-Dichlorophenol	10	U	
120-82-1	1, 2, 4-Trichlorobenzene	10	U	J
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-Methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	J
77-47-4	Hexachlorocyclopentadiene	10	U	J
88-06-2	2, 4, 6-Trichlorophenol	10	U	
95-95-4	2, 4, 5-Trichlorophenol	50	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	50	U	
131-11-3	Dimethyl Phthalate	10	U	
208-96-8	Acenaphthylene	10	U	
99-09-2	3-Nitroaniline	50	U	J

CAS Number		(ug/l or ug/Kg) (Circle One)		
83-32-9	Acenaphthene	10	U	
51-28-5	2, 4-Dinitrophenol	50	U	J
100-02-7	4-Nitrophenol	50	U	J
132-64-9	Dibenzofuran	10	U	
121-14-2	2, 4-Dinitrotoluene	10	U	
606-20-2	2, 6-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	50	U	J
534-52-1	4, 6-Dinitro-2-Methylphenol	50	U	J
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
84-74-2	Di-n-Butylphthalate	3.9	JB	
206-44-0	Fluoranthene	10	U	
92-87-5	Benzidine	100	U	J
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	J
91-94-1	3, 3'-Dichlorobenzidine	20	U	
56-55-3	Benzo(a)Anthracene	10	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U	
218-01-9	Chrysene	10	U	
117-84-0	Di-n-Octyl Phthalate	10	U	
205-99-2	Benzo(b)Fluoranthene	10	U	
207-08-9	Benzo(k)Fluoranthene	10	U	
50-32-8	Benzo(a)Pyrene	10	U	
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10	U	
53-70-3	Dibenz(a, h)Anthracene	10	U	
191-24-2	Benzo(g, h, i)Perylene	10	U	

PJC 10-11-85

(1)-Cannot be separated from diphenylamine

PJC 10-11-85

Form I

Laboratory Name: E.R.G. Inc.

Case No: 4757

Sample Number: EF968

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

RECEIVED NOV 0 9 1985

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NO VOLATILE COMPOUNDS FOUND	VOA		
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	325	10
12. 1193-18-6	2-CYCLOHEXEN-1-ONE, 3-METHYL-	BNA	652	28
13.	UNKNOWN CYCLOHEXANE	BNA	735	4.0
14. 105-60-2	2H-AZEPIN-2-ONE, HEXAHYDRO-	BNA	944	2600
15.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1245	10
16.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1632	8.4
17.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1925	18
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

85FM11585

Well B

Sample Number
EF 969

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ERG, Inc.
Case No: 4757
Lab Sample ID No: EF 969
QC Report No: —
Sample Matrix: Water
Contract No: 68-01-6869
Data Release Authorized By: Joseph A. Hnatow
Date Sample Received: 8/1/85

Volatile Compounds

RECEIVED NOV 0 9 1985

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 8/1/85
Date Analyzed: 8/1/85
Conc/Dil Factor: 1 pH NR
Percent Moisture: NR
Percent Moisture (Decanted): NR

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U F
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	23	B
67-64-1	Acetone	8.8	J B
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	7.1	J B
71-55-6	1, 1, 1-Trichloroethane	2.2	J B
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

PJC 10/11/85

CAS Number		ug/l or ug/Kg (Circle One)	
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U
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	10	U R
75-25-2	Bromoform	5	U PJC 10/11/85
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
127-18-4	Tetrachloroethene	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.

R = UNUSABLE

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 actions. (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 indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but [illegible] (e.g., 10J).

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: ERG, INC.

Case No: 4757

Sample Number
EF 969

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/1/85

Date Analyzed: 8/13/85

Conc./Dil Factor: 1

RECEIVED AUG 09 1985

CAS Number		(ug/l) or ug/Kg (Circle One)		
62-75-9	N-Nitrosodimethylamine	10	U	
108-95-2	Phenol	10	U	
62-53-3	Aniline	10	U	
111-44-4	bis(-2-Chloroethyl)Ether	10	U	
95-57-8	2-Chlorophenol	10	U	
541-73-1	1, 3-Dichlorobenzene	10	U	
106-46-7	1, 4-Dichlorobenzene	10	U	
100-51-6	Benzyl Alcohol	10	U	
95-50-1	1, 2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	
39638-32-9	bis(2-chloroisopropyl)Ether	10	U	
106-44-5	4-Methylphenol	10	U	
621-64-7	N-Nitroso-Di-n-Propylamine	10	U	
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	
105-67-9	2, 4-Dimethylphenol	10	U	
65-85-0	Benzoic Acid	50	U	
111-91-1	bis(-2-Chloroethoxy)Methane	10	U	
120-83-2	2, 4-Dichlorophenol	10	U	
120-82-1	1, 2, 4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-Methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2, 4, 6-Trichlorophenol	10	U	
95-95-4	2, 4, 5-Trichlorophenol	50	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	50	U	
131-11-3	Dimethyl Phthalate	10	U	
208-96-8	Acenaphthylene	10	U	
99-09-2	3-Nitroaniline	50	U	

CAS Number		(ug/l) or ug/Kg (Circle One)		
83-32-9	Acenaphthene	10	U	
51-28-5	2, 4-Dinitrophenol	50	U	
100-02-7	4-Nitrophenol	50	U	
132-64-9	Dibenzofuran	10	U	
121-14-2	2, 4-Dinitrotoluene	10	U	
606-20-2	2, 6-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	50	U	
534-52-1	4, 6-Dinitro-2-Methylphenol	50	U	
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
84-74-2	Di-n-Butylphthalate	3.0	JB	
206-44-0	Fluoranthene	10	U	
92-87-5	Benzidine	100	U	
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	
91-94-1	3, 3'-Dichlorobenzidine	20	U	
56-55-3	Benzo(a)Anthracene	10	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	2.2	J	
218-01-9	Chrysene	10	U	
117-84-0	Di-n-Octyl Phthalate	10	U	
205-99-2	Benzo(b)Fluoranthene	10	U	
207-08-9	Benzo(k)Fluoranthene	10	U	
50-32-8	Benzo(a)Pyrene	10	U	
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10	U	
53-70-3	Dibenz(a, h)Anthracene	10	U	
191-24-2	Benzo(g, h, i)Perylene	10	U	

(1)-Cannot be separated from diphenylamine

PJC 10-11-85

R 10-11

Form I

1/85

Laboratory Name: E.R.G., inc.

Case No: 4757

Sample Number
EF969

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/5/85

Date Analyzed: 8/13/85

Conc/Dil Factor: 1

RECEIVED NOV 0 9 1985

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
7421-93-4	Endrin Aldehyde	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	2.0	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 1000 ml or W_s — V_t 10,000 ul V_i 1.0 ul

Laboratory Name: E.R.G. Inc.

Case No: 4757

Sample Number
EF969

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

RECEIVED NOV 0 9 1985

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 110-54-3	HEXANE	VOA	574	16
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	320	82
12. 1193-18-6	2-CYCLOHEXEN-1-ONE, 3-METHYL-	BNA	630	30
13.	UNKNOWN HEXENE	BNA	734	2.7
14. 105-60-2	2H-AZEPIN-2-ONE, HEXAHYDRO-	BNA	935	1700
15.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1244	4.0
16.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1633	8.6
17.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1924	7.5
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

85FM11586

Well N

Sample Number
EF 970

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ERG, Inc.
Case No: 4757
Lab Sample ID No: EF 770
QC Report No: —
Sample Matrix: Water
Contract No: 68-01-6869
Data Release Authorized By: Josephine Hustow
Date Sample Received: 8/1/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 8/1/85
Date Analyzed: 8/1/85
Conc/Dil Factor: 1 pH NR
Percent Moisture: NR
Percent Moisture (Decanted): NR

RECEIVED NOV 0 9 1985

CAS Number		(ug/l or ug/Kg) (Circle One)		
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	J
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	2.5	J	B
67-64-1	Acetone	4.4	J	B
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	5.9	J	B
71-55-6	1, 1, 1-Trichloroethane	3.0	J	B
56-23-5	Carbon Tetrachloride	5	U	
108-05-4	Vinyl Acetate	10	U	
75-27-4	Bromodichloromethane	5	U	

PJC 10/11/85

CAS Number		(ug/l or ug Kg) (Circle One)		
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U	
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	10	U	R PJC 10/11/85
75-25-2	Bromoform	5	U	
591-78-6	2-Hexanone	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
127-18-4	Tetrachloroethene	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.

R = UNUSABLE

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 actions. (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 indicates 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).

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: ERG. INC

Case No: 4757

Sample Number
EF 970

Organics Analysis Data Sheet
(Page 2)

RECEIVED NOV 0 9 1985

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/1/85

Date Analyzed: 8/3/85

Conc/Dil Factor: 1

CAS Number		(ug/l) or ug/Kg (Circle One)		
62-75-9	N-Nitrosodimethylamine	10	U	
108-95-2	Phenol	10	U	
62-53-3	Aniline	10	U	
111-44-4	bis(2-Chloroethyl)Ether	10	U	
95-57-8	2-Chlorophenol	10	U	
541-73-1	1, 3-Dichlorobenzene	10	U	
106-46-7	1, 4-Dichlorobenzene	10	U	
100-51-6	Benzyl Alcohol	10	U	
95-50-1	1, 2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	
39638-32-9	bis(2-chloroisopropyl)Ether	10	U	
106-44-5	4-Methylphenol	10	U	
621-64-7	N-Nitroso-Di-n-Propylamine	10	U	
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	
105-67-9	2, 4-Dimethylphenol	10	U	
65-85-0	Benzoic Acid	50	U	
111-91-1	bis(2-Chloroethoxy)Methane	10	U	
120-83-2	2, 4-Dichlorophenol	10	U	
120-82-1	1, 2, 4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-Methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2, 4, 6-Trichlorophenol	10	U	
95-95-4	2, 4, 5-Trichlorophenol	50	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	50	U	
131-11-3	Dimethyl Phthalate	10	U	
208-96-8	Acenaphthylene	10	U	
99-09-2	3-Nitroaniline	50	U	

CAS Number		(ug/l) or ug/Kg (Circle One)		
83-32-9	Acenaphthene	10	U	
51-28-5	2, 4-Dinitrophenol	50	U	
100-02-7	4-Nitrophenol	50	U	
132-64-9	Dibenzofuran	10	U	
121-14-2	2, 4-Dinitrotoluene	10	U	
606-20-2	2, 6-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	50	U	
534-52-1	4, 6-Dinitro-2-Methylphenol	50	U	
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
84-74-2	Di-n-Butylphthalate	2.4	JB	
206-44-0	Fluoranthene	10	U	
92-87-5	Benzidine	100	U	
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	
91-94-1	3, 3'-Dichlorobenzidine	20	U	
56-55-3	Benzo(a)Anthracene	10	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	1.8	J	
218-01-9	Chrysene	10	U	
117-84-0	Di-n-Octyl Phthalate	10	U	
205-99-2	Benzo(b)Fluoranthene	10	U	
207-08-9	Benzo(k)Fluoranthene	10	U	
50-32-8	Benzo(a)Pyrene	10	U	
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10	U	
53-70-3	Dibenz(a, h)Anthracene	10	U	
191-24-2	Benzo(g, h, i)Perylene	10	U	

(1)-Cannot be separated from diphenylamine

P. 10-11

RDC 10-14-85

Form I

Laboratory Name: E.R.G., inc.

Case No: 4252

Sample Number
EF 970

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

RECEIVED NOV 0 9 1995

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 8/5/95

Date Analyzed: 8/13/95

Conc/Dil Factor: 1

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
7421-93-4	Endrin Aldehyde	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	2.0	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 1000 ml or W_s — V_t 10,000 ul V_i 1.0 ul

Laboratory Name: E.R.G. Inc.

Case No: 4757

Sample Number: EF970

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

RECEIVED NOV 0 9 1985

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NO VOLATILE COMPOUNDS FOUND	VOA		
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.	UNKNOWN ACID HYDROCARBON	BNA	829	3.8
12. 105-60-2	2H-AZEPIN-2-ONE, HEXAHYDRO-	BNA	870	21
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

85 FW 11587

Well I

Sample Number
EF 971

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ERG, Inc.
Case No: 4757
Lab Sample ID No: EF 971
QC Report No: —
Sample Matrix: Water
Contract No: 68-01-6869
Data Release Authorized By: Joseph A. Hamilton
Date Sample Received: 8/1/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 8/1/85
Date Analyzed: 8/1/85
Conc./Dil Factor: 1 pH NR
Percent Moisture: NR
Percent Moisture (Decanted): NR

RECEIVED NOV 0 9 1985

CAS Number		(ug/l or ug/Kg) (Circle One)		
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	J
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	2.2	J	B
67-64-1	Acetone	5.6	J	B
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	6.2	J	B
71-55-6	1, 1, 1-Trichloroethane	6.6	J	B
56-23-5	Carbon Tetrachloride	5	U	
108-05-4	Vinyl Acetate	10	U	
75-27-4	Bromodichloromethane	5	U	

PSC 10-11-85

CAS Number		(ug/l or ug/Kg) (Circle One)		
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U	
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	10	U	R
75-25-2	Bromoform	5	U	
591-78-6	2-Hexanone	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
127-18-4	Tetrachloroethene	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

R = UNUSABLE

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 actions. (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 indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but

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: ERG. INC.

Case No: 4757

Sample Number: EF 971 R

Organics Analysis Data Sheet
(Page 2)

RECEIVED NOV 0 9 1985

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 8/1/85

Date Analyzed: 8/9/85

Conc/Dil Factor: 1

CAS Number		ug/l or ug/Kg (Circle One)		
62-75-9	N-Nitrosodimethylamine	10	U	J
108-95-2	Phenol	10	U	
62-53-3	Aniline	10	U	J
111-44-4	bis(-2-Chloroethyl)Ether	10	U	J
95-57-8	2-Chlorophenol	10	U	
541-73-1	1, 3-Dichlorobenzene	10	U	
106-46-7	1, 4-Dichlorobenzene	10	U	
100-51-6	Benzyl Alcohol	10	U	J
95-50-1	1, 2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	J
39638-32-9	bis(2-chloroisopropyl)Ether	10	U	J
106-44-5	4-Methylphenol	10	U	J
621-64-7	N-Nitroso-Di-n-Propylamine	10	U	J
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	J
88-75-5	2-Nitrophenol	10	U	
105-67-9	2, 4-Dimethylphenol	10	U	
65-85-0	Benzoic Acid	50	U	
111-91-1	bis(-2-Chloroethoxy)Methane	10	U	
120-83-2	2, 4-Dichlorophenol	10	U	
120-82-1	1, 2, 4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	J
106-47-8	4-Chloroaniline	10	U	J
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-Methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	J
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2, 4, 6-Trichlorophenol	10	U	
95-95-4	2, 4, 5-Trichlorophenol	50	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	50	U	
131-11-3	Dimethyl Phthalate	10	U	
208-96-8	Acenaphthylene	10	U	
99-09-2	3-Nitroaniline	50	U	J

PJC 10-11-85

CAS Number		ug/l or ug/Kg (Circle One)		
83-32-9	Acenaphthene	10	U	
51-28-5	2, 4-Dinitrophenol	50	U	
100-02-7	4-Nitrophenol	50	U	
132-64-9	Dibenzofuran	10	U	
121-14-2	2, 4-Dinitrotoluene	10	U	
606-20-2	2, 6-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	50	U	
534-52-1	4, 6-Dinitro-2-Methylphenol	50	U	
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
84-74-2	Di-n-Butylphthalate	18	B	J
206-44-0	Fluoranthene	10	U	
92-87-5	Benzidine	100	U	J
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	J
91-94-1	3, 3'-Dichlorobenzidine	20	U	
56-55-3	Benzo(a)Anthracene	10	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U	J
218-01-9	Chrysene	10	U	
117-84-0	Di-n-Octyl Phthalate	10	U	
205-99-2	Benzo(b)Fluoranthene	10	U	
207-08-9	Benzo(k)Fluoranthene	10	U	J
50-32-8	Benzo(a)Pyrene	10	U	
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10	U	J
53-70-3	Dibenz(a, h)Anthracene	10	U	
191-24-2	Benzo(g, h, i)Perylene	10	U	

PJC 10-11-8

(1)-Cannot be separated from diphenylamine

Form I

Laboratory Name: ERG, Inc.

Case No: 4757

Sample Number
EF971

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/5/85

Date Analyzed: 8/13/85

Conc/Dil Factor: 1

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
7421-93-4	Endrin Aldehyde	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	2.0	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

RECEIVED NOV 0 9 1985

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 1000 ml or W_s _____ V_t 10,000 ul V_i 1.0 ul

Laboratory Name: E.R.G., Inc.

Case No: 4757

Sample Number
EF 971

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

RECEIVED NOV 0 9 1985

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NO VOLATILE COMPOUNDS FOUND	VOA		
2.				
3.				
4.				
5. 1193-18-6	2-CYCLOHEXEN-1-ONE, 3-METHYL-	BNA	644	12
6. —	UNKNOWN AZEPINONE	BNA	857	71
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

85 FM 11588

Well MI290-2
Walker Landfill

Sample Number
EF 972

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ERG, Inc.
Case No: 4757
Lab Sample ID No: EF 972
QC Report No: –
Sample Matrix: Water
Contract No: 68-01-6869
Data Release Authorized By: Joseph A. Hnatow
Date Sample Received: 8/1/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 8/1/85
Date Analyzed: 8/1/85
Conc/Dil Factor: 1 pH NR
Percent Moisture: NR
Percent Moisture (Decanted): NR

RECEIVED AUG 09 1985

CAS Number		(ug/l or ug/Kg) (Circle One)		
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	J
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	2.5	J	B
67-64-1	Acetone	7.7	J	B
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	5.6	J	B
71-55-6	1, 1, 1-Trichloroethane	7.7		B
56-23-5	Carbon Tetrachloride	5	U	
108-05-4	Vinyl Acetate	10	U	
75-27-4	Bromodichloromethane	5	U	PJC 10-4-85

CAS Number		(ug/l or ug/Kg) (Circle One)		
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U	
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	10	U	R PJC 10/11/85
75-25-2	Bromoform	5	U	
591-78-6	2-Hexanone	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
127-18-4	Tetrachloroethene	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 actions. (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 indicates 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)

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: ERG, INC.

Case No: 4757

Sample Number
EF 972

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 8/6/85

Date Analyzed: 8/9/85

Conc/Dil Factor: 1

RECEIVED OCT 0 9 1985

CAS Number		ug/l or ug/Kg (Circle One)		
62-75-9	N-Nitrosodimethylamine	10	U	J
108-95-2	Phenol	10	U	
62-53-3	Aniline	10	U	J
111-44-4	bis(-2-Chloroethyl)Ether	10	U	J
95-57-8	2-Chlorophenol	10	U	
541-73-1	1, 3-Dichlorobenzene	10	U	
106-46-7	1, 4-Dichlorobenzene	10	U	
100-51-6	Benzyl Alcohol	10	U	J
95-50-1	1, 2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	J
39638-32-9	bis(2-chloroisopropyl)Ether	10	U	J
106-44-5	4-Methylphenol	10	U	J
621-64-7	N-Nitroso-Di-n-Propylamine	10	U	J
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	J
88-75-5	2-Nitrophenol	10	U	
105-67-9	2, 4-Dimethylphenol	10	U	
65-85-0	Benzoic Acid	50	U	
111-91-1	bis(-2-Chloroethoxy)Methane	10	U	
120-83-2	2, 4-Dichlorophenol	10	U	
120-82-1	1, 2, 4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	J
106-47-8	4-Chloroaniline	10	U	J
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-Methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	J
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2, 4, 6-Trichlorophenol	10	U	
95-95-4	2, 4, 5-Trichlorophenol	50	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	50	U	
131-11-3	Dimethyl Phthalate	10	U	
208-96-8	Acenaphthylene	10	U	
99-09-2	3-Nitroaniline	50	U	J

CAS Number		ug/l or ug/Kg (Circle One)		
83-32-9	Acenaphthene	10	U	
51-28-5	2, 4-Dinitrophenol	50	U	J
100-02-7	4-Nitrophenol	50	U	J
132-64-9	Dibenzofuran	10	U	
121-14-2	2, 4-Dinitrotoluene	10	U	
606-20-2	2, 6-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	50	U	J
534-52-1	4, 6-Dinitro-2-Methylphenol	50	U	
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
84-74-2	Di-n-Butylphthalate	19	B	J
206-44-0	Fluoranthene	10	U	
92-87-5	Benzidine	100	U	J
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	J
91-94-1	3, 3'-Dichlorobenzidine	20	U	
56-55-3	Benzo(a)Anthracene	10	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	20		J
218-01-9	Chrysene	10	U	
117-84-0	Di-n-Octyl Phthalate	5.6	JB	
205-99-2	Benzo(b)Fluoranthene	10	U	
207-08-9	Benzo(k)Fluoranthene	10	U	J
50-32-8	Benzo(a)Pyrene	10	U	
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10	U	J
53-70-3	Dibenz(a, h)Anthracene	10	U	
191-24-2	Benzo(g, h, i)Perylene	10	U	

PJC 10-11-85

(1)-Cannot be separated from diphenylamine

PJC 10-11-85

Form I

Laboratory Name: ERG, Inc.

Case No: 4757

Sample Number
EF 972

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/5/85

Date Analyzed: 8/13/85

Conc/Dil Factor: 1

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
7421-93-4	Endrin Aldehyde	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	2.0	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

RECEIVED ... 0 9 1985

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 1000 ml or W_s _____ V_t 10,000 ul V_i 1.0 ul

Laboratory Name: E.R.G., Inc.

Case No: 4757

Sample Number: EF 972

Organics Analysis Data Sheet
(Page 4)

RECEIVED NOV 0 9 1985

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NO VOLATILE COMPOUNDS FOUND	VOA		
2.				
3.				
4. 1193-18-6	2-CYCLOHEXEN-1-ONE, 3-METHYL-	BNA	625	75
5. 105-60-2	2H-AZEPIN-2-ONE	BNA	867	78
6.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1916	93
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

85FM11589

Well MI290-1
Walker Landfill

Sample Number
EF 973 R

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ERG, Inc.
Case No: 4757
Lab Sample ID No: EF973 R
QC Report No: –
Sample Matrix: Water
Contract No: 68-01-6869
Data Release Authorized By: Joseph A. Hunter
Date Sample Received: 8/1/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 8/1/85
Date Analyzed: 8/[illegible]/85
Conc/Dil Factor: 1 pH NR
Percent Moisture: NR
Percent Moisture (Decanted): NR

RECEIVED NOV 0 9 1985

CAS Number		(ug/l or ug/Kg) (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	24	B
67-64-1	Acetone	5.9	B
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	6.2	J B
71-55-6	1, 1, 1-Trichloroethane	2.8	J B
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

PJC 10-11-85

CAS Number		(ug/l or ug/Kg) (Circle One)	
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U
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	10	U
75-25-2	Bromoform	5	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
127-18-4	Tetrachloroethene	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

R PJC 10/11/85

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.

R = UNUSABLE

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 actions. (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 indicates 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)

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: ERG. INC.

Case No: 4757

Sample Number
EF 973

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/1/85

Date Analyzed: 8/9/85

Conc./Dil Factor: 1

RECEIVED NOV 0 9 1985

CAS Number		(ug/l) or ug/Kg (Circle One)		
62-75-9	N-Nitrosodimethylamine	10	U	J
108-95-2	Phenol	10	U	
62-53-3	Aniline	10	U	J
111-44-4	bis(-2-Chloroethyl)Ether	10	U	J
95-57-8	2-Chlorophenol	10	U	
541-73-1	1, 3-Dichlorobenzene	10	U	
106-46-7	1, 4-Dichlorobenzene	10	U	
100-51-6	Benzyl Alcohol	10	U	J
95-50-1	1, 2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	J
39638-32-9	bis(2-chloroisopropyl)Ether	10	U	J
106-44-5	4-Methylphenol	10	U	J
621-64-7	N-Nitroso-Di-n-Propylamine	10	U	J
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	J
88-75-5	2-Nitrophenol	10	U	
105-67-9	2, 4-Dimethylphenol	10	U	
65-85-0	Benzoic Acid	50	U	
111-91-1	bis(-2-Chloroethoxy)Methane	10	U	
120-83-2	2, 4-Dichlorophenol	10	U	
120-82-1	1, 2, 4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	J
106-47-8	4-Chloroaniline	10	U	J
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-Methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	J
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2, 4, 6-Trichlorophenol	10	U	
95-95-4	2, 4, 5-Trichlorophenol	50	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	50	U	
131-11-3	Dimethyl Phthalate	10	U	
208-96-8	Acenaphthylene	10	U	
99-09-2	3-Nitroaniline	50	U	J

CAS Number		(ug/l) or ug/Kg (Circle One)		
83-32-9	Acenaphthene	10	U	
51-28-5	2, 4-Dinitrophenol	50	U	J
100-02-7	4-Nitrophenol	50	U	J
132-64-9	Dibenzofuran	10	U	
121-14-2	2, 4-Dinitrotoluene	10	U	
606-20-2	2, 6-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	50	U	J
534-52-1	4, 6-Dinitro-2-Methylphenol	50	U	
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
84-74-2	Di-n-Butylphthalate	8.8	JB	
206-44-0	Fluoranthene	10	U	
92-87-5	Benzidine	100	U	J
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	J
91-94-1	3, 3'-Dichlorobenzidine	20	U	
56-55-3	Benzo(a)Anthracene	10	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	14		J
218-01-9	Chrysene	10	U	
117-84-0	Di-n-Octyl Phthalate	16		
205-99-2	Benzo(b)Fluoranthene	10	U	
207-08-9	Benzo(k)Fluoranthene	10	U	J
50-32-8	Benzo(a)Pyrene	10	U	
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10	U	J
53-70-3	Dibenz(a, h)Anthracene	10	U	
191-24-2	Benzo(g, h, i)Perylene	10	U	

(1)-Cannot be separated from diphenylamine

PSC 10-11-85

RJ 10-11-85

Form I

Laboratory Name: ERG, Inc.

Case No: 4757

Sample Number
EF973

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/5/85

Date Analyzed: 8/14/85

Conc/Dil Factor: 1

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
7421-93-4	Endrin Aldehyde	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	2.0	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

RECEIVED AUG 09 1985

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 1000 ml or W_s _____ V_t 10,000 ul V_i 1.0 ul

Laboratory Name: E.R.G. Inc.

Case No: 4757

Sample Number: EF973

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

RECEIVED NOV 0 9 1985

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 110-54-3	HEXANE	VOA	574	20
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11. 1193-18-6	2-CYCLOHEXEN-1-ONE, 3-METHYL-	BNA	625	22
12.	UNKNOWN AZEPINONE	BNA	868	56
13.	UNKNOWN HYDROCARBON	BNA	1489	39
14.	UNKNOWN HYDROCARBON	BNA	1505	55
15.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1654	36
16.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1774	16
17.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1806	67
18.	UNKNOWN PHTHALATE	BNA	1837	26
19.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1856	10
20.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1922	37
21.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1946	64
22.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1990	74
23.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	2016	63
24.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	2039	55
25.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	2074	100
26.	UNKNOWN HYDROCARBON	BNA	2175	120
27.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	2192	110
28.				
29.				
30.				

WK11 MI290-3
Walker Landfill

Sample Number
EF 974

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ERG, Inc.
Case No: 4757
Lab Sample ID No: EF 974
QC Report No: –
Sample Matrix: Water
Contract No: 68-01-6869
Data Release Authorized By: Joseph A. Hnatow
Date Sample Received: 8/1/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 8/1/85
Date Analyzed: 8/1/85
Conc/Dil Factor: 1 pH NR
Percent Moisture: NA
Percent Moisture (Decanted): NR

RECEIVED NOV 0 9 1985

CAS Number		(ug/l or ug/Kg) (Circle One)		
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	J
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	2.2	J	B
67-64-1	Acetone	21	B	
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	6.8	B	
71-55-6	1, 1, 1-Trichloroethane	3.1	B	
56-23-5	Carbon Tetrachloride	5	U	
108-05-4	Vinyl Acetate	10	U	
75-27-4	Bromodichloromethane	5	U	

CAS Number		(ug/l or ug/Kg) (Circle One)		
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U	
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	10	U	R PJC 10/11/85
75-25-2	Bromoform	5	U	
591-78-6	2-Hexanone	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
127-18-4	Tetrachloroethene	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	

PJC 10/11/85

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.

R = UNUSABLE

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 actions. (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 indicates 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)

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

: 85

Laboratory Name: ERG. INC.

Case No: 4757

Sample Number
EF 974

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 8/ /85

Date Analyzed: 8/9/85

Conc/Dil Factor:

RECEIVED NOV 0 9 1985

CAS Number		ug/l or ug/Kg (Circle One)		
62-75-9	N-Nitrosodimethylamine	10	U	J
108-95-2	Phenol	10	U	
62-53-3	Aniline	10	U	J
111-44-4	bis(-2-Chloroethyl)Ether	10	U	J
95-57-8	2-Chlorophenol	10	U	
541-73-1	1, 3-Dichlorobenzene	10	U	
106-46-7	1, 4-Dichlorobenzene	10	U	
100-51-6	Benzyl Alcohol	10	U	J
95-50-1	1, 2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	J
39638-32-9	bis(2-chloroisopropyl)Ether	10	U	J
106-44-5	4-Methylphenol	10	U	J
621-64-7	N-Nitroso-Di-n-Propylamine	10	U	J
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	J
88-75-5	2-Nitrophenol	10	U	
105-67-9	2, 4-Dimethylphenol	10	U	
65-85-0	Benzoic Acid	50	U	
111-91-1	bis(-2-Chloroethoxy)Methane	10	U	
120-83-2	2, 4-Dichlorophenol	10	U	
120-82-1	1, 2, 4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	J
106-47-8	4-Chloroaniline	10	U	J
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-Methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	J
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2, 4, 6-Trichlorophenol	10	U	
95-95-4	2, 4, 5-Trichlorophenol	50	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	50	U	
131-11-3	Dimethyl Phthalate	10	U	
208-96-8	Acenaphthylene	10	U	
99-09-2	3-Nitroaniline	50	U	J

PSC 10-11-85

CAS Number		ug/l or ug/Kg (Circle One)		
83-32-9	Acenaphthene	10	U	
51-28-5	2, 4-Dinitrophenol	50	U	J
100-02-7	4-Nitrophenol	50	U	J
132-64-9	Dibenzofuran	10	U	
121-14-2	2, 4-Dinitrotoluene	10	U	
606-20-2	2, 6-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	50	U	J
534-52-1	4, 6-Dinitro-2-Methylphenol	50	U	
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
84-74-2	Di-n-Butylphthalate	14	B	J
206-44-0	Fluoranthene	10	U	
92-87-5	Benzidine	100	U	J
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	J
91-94-1	3, 3'-Dichlorobenzidine	20	U	
56-55-3	Benzo(a)Anthracene	10	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U	J
218-01-9	Chrysene	10	U	
117-84-0	Di-n-Octyl Phthalate	10	U	
205-99-2	Benzo(b)Fluoranthene	10	U	
207-08-9	Benzo(k)Fluoranthene	10	U	J
50-32-8	Benzo(a)Pyrene	10	U	
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10	U	J
53-70-3	Dibenz(a, h)Anthracene	10	U	
191-24-2	Benzo(g, h, i)Perylene	10	U	

PSC 10-11-85

(1)-Cannot be separated from diphenylamine

Form I

Laboratory Name: ERG, Inc.

Case No: 4752

Sample Number: ER 974

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/5/85

Date Analyzed: 8/14/85

Conc/Dil Factor: 1

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
7421-93-4	Endrin Aldehyde	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	2.0	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

RECEIVED NOV 0 9 1985

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 1000ml or W_s — V_t 10,000 ul V_i 1.0 ul

Laboratory Name: E.R.G. Inc.

Case No: 4757

Sample Number
EF974

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

RECEIVED 0 9 1985

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NO VOLATILE COMPOUNDS FOUND	VOA		
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11. 1193-18-6	2-CYCLOHEXEN-1-ONE, 3-METHYL-	BNA	628	17
12. 105-60-2	2H-AZEPIN-2-ONE, HEXAHYDRO-	BNA	855	51
13.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1020	5.0
14.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1440	7.1
15.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1467	6.5
16.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1483	6.3
17.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1496	9.5
18.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1515	11
19.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1524	34
20.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1550	14
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Sample Number
EF 975

Blank 7/31/85 sampling

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ERG, Inc.
Case No: 4757
Lab Sample ID No: EF 975
QC Report No: –
Sample Matrix: Water
Contract No: 68-01-6869
Data Release Authorized By:
Date Sample Received: 8/1/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 8/1/85
Date Analyzed: 8/[illegible]
Conc./Dil Factor: 1 pH NR
Percent Moisture: NR
Percent Moisture (Decanted): NR

RECEIVED NOV 0 9 198[illegible]

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	25	B
67-64-1	Acetone	10	B
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	10	
107-06-2	1, 2-Dichloroethane	5	U
78-93-3	2-Butanone	6.3	J B
71-55-6	1, 1, 1-Trichloroethane	2.5	J B
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	3.7	J

PSC 10-1-85

CAS Number		ug/l or ug/Kg (Circle One)	
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U
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	10	U
75-25-2	Bromoform	5	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
127-18-4	Tetrachloroethene	4.3	J
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

PSC 10-1-85

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 actions. (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 indicates 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)

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: ERG. INC.

Case No: 4757

Sample Number
EF 975

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/1/85

Date Analyzed: 8/9/85

Conc. Dil Factor: 1

RECEIVED NOV 0 9 1985

CAS Number		(ug/l or ug/Kg) (Circle One)		
62-75-9	N-Nitrosodimethylamine	10	U	J
108-95-2	Phenol	10	U	
62-53-3	Aniline	10	U	J
111-44-4	bis(-2-Chloroethyl)Ether	10	U	J
95-57-8	2-Chlorophenol	10	U	
541-73-1	1, 3-Dichlorobenzene	10	U	
106-46-7	1, 4-Dichlorobenzene	10	U	
100-51-6	Benzyl Alcohol	10	U	J
95-50-1	1, 2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	J
39638-32-9	bis(2-chloroisopropyl)Ether	10	U	J
106-44-5	4-Methylphenol	10	U	J
621-64-7	N-Nitroso-Di-n-Propylamine	10	U	J
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	J
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	
105-67-9	2, 4-Dimethylphenol	10	U	
65-85-0	Benzoic Acid	50	U	
111-91-1	bis(-2-Chloroethoxy)Methane	10	U	
120-83-2	2, 4-Dichlorophenol	10	U	
120-82-1	1, 2, 4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	J
106-47-8	4-Chloroaniline	10	U	J
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-Methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	J
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2, 4, 6-Trichlorophenol	10	U	
95-95-4	2, 4, 5-Trichlorophenol	50	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	50	U	
131-11-3	Dimethyl Phthalate	10	U	
208-96-8	Acenaphthylene	10	U	
99-09-2	3-Nitroaniline	50	U	J

CAS Number		(ug/l or ug/Kg) (Circle One)		
83-32-9	Acenaphthene	10	U	
51-28-5	2, 4-Dinitrophenol	50	U	J
100-02-7	4-Nitrophenol	50	U	J
132-64-9	Dibenzofuran	10	U	
121-14-2	2, 4-Dinitrotoluene	10	U	
606-20-2	2, 6-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	50	U	J
534-52-1	4, 6-Dinitro-2-Methylphenol	50	U	
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
84-74-2	Di-n-Butylphthalate	4.9	JB	
206-44-0	Fluoranthene	10	U	
92-87-5	Benzidine	100	U	J
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	J
91-94-1	3, 3'-Dichlorobenzidine	20	U	
56-55-3	Benzo(a)Anthracene	10	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U	J
218-01-9	Chrysene	10	U	
117-84-0	Di-n-Octyl Phthalate	10	U	
205-99-2	Benzo(b)Fluoranthene	10	U	
207-08-9	Benzo(k)Fluoranthene	10	U	J
50-32-8	Benzo(a)Pyrene	10	U	
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10	U	J
53-70-3	Dibenz(a, h)Anthracene	10	U	
191-24-2	Benzo(g, h, i)Perylene	10	U	

(1)-Cannot be seperated from diphenylamine

PSC 10-11-85

Form I

Laboratory Name: ERG, Inc.

Case No: 4757

Sample Number: EF975

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/05/85

Date Analyzed: 8/14/85

Conc/Dil Factor: 1

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
7421-93-4	Endrin Aldehyde	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	2.0	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

RECEIVED NOV 0 9 1985

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 1000 ml or W_s _____ V_t 10,000 ul V_i 1.0 ul

Laboratory Name: E.R.G., Inc.

Case No: 4757

Sample Number
EF975

Organics Analysis Data Sheet
(Page 4)

RECEIVED NOV 0 9 1985

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 110-54-3	HEXANE	VOA	574	33
2.				
3. 1193-18-6	2-CYCLOHEXEN-1-ONE, 3-METHYL-	BNA	629	18
4.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	677	3.6
5. 96-76-4	PHENOL, 2,4-BIS (1,1-DIMETHYLETHYL)-	BNA	1091	17
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.				

Well G

Sample Number
EF 976

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ERG, Inc.
Case No: 4757
Lab Sample ID No: EF 976
QC Report No: —
Sample Matrix: Water
Contract No: 68-01-6869
Data Release Authorized By: Joseph C. Hunter
Date Sample Received: 8/1/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 8/1/85
Date Analyzed: 8/1/85
Conc/Dil Factor: 1 pH NR
Percent Moisture: NR
Percent Moisture (Decanted): NR

RECEIVED ... 0 9 1985

CAS Number		(ug/l) or ug/Kg (Circle One)		
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	J
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	23	B	
67-64-1	Acetone	6.6	J	B
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	8.2		
67-66-3	Chloroform	5	U	
107-06-2	1, 2-Dichloroethane	5	U	
78-93-3	2-Butanone	2.4	J	B
71-55-6	1, 1, 1-Trichloroethane	2.2	J	B
56-23-5	Carbon Tetrachloride	5	U	
108-05-4	Vinyl Acetate	10	U	
75-27-4	Bromodichloromethane	5	U	PJC 10-11-85

CAS Number		(ug/l) or ug/Kg (Circle One)		
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U	
78-87-5	1, 2-Dichloropropane	7.3		
10061-02-6	Trans-1, 3-Dichloropropene	5	U	
79-01-6	Trichloroethene	2.4	J	
124-48-1	Dibromochloromethane	5	U	
79-00-5	1, 1, 2-Trichloroethane	5	U	
71-43-2	Benzene	1.8	J	
10061-01-5	cis-1, 3-Dichloropropene	5	U	
110-75-8	2-Chloroethylvinylether	10	U	R PJC 10/11/85
75-25-2	Bromoform	5	U	
591-78-6	2-Hexanone	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
127-18-4	Tetrachloroethene	2.5	J	
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.

R = UNUSABLE

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 actions. (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 indicates 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)

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: ERG. INC.

Case No: 4757

Sample Number
EF 976

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/1/85

Date Analyzed: 8/9/85

Conc/Dil Factor: 1

RECEIVED NOV 0 9 1985

CAS Number		ug/l or ug/Kg (Circle One)		
62-75-9	N-Nitrosodimethylamine	10	U	J
108-95-2	Phenol	10	U	
62-53-3	Aniline	10	U	J
111-44-4	bis(-2-Chloroethyl)Ether	10	U	J
95-57-8	2-Chlorophenol	10	U	
541-73-1	1, 3-Dichlorobenzene	10	U	
106-46-7	1, 4-Dichlorobenzene	10	U	
100-51-6	Benzyl Alcohol	10	U	J
95-50-1	1, 2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	J
39638-32-9	bis(2-chloroisopropyl)Ether	10	U	J
106-44-5	4-Methylphenol	10	U	J
621-64-7	N-Nitroso-Di-n-Propylamine	10	U	J
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	J
88-75-5	2-Nitrophenol	10	U	
105-67-9	2, 4-Dimethylphenol	10	U	
65-85-0	Benzoic Acid	50	U	
111-91-1	bis(-2-Chloroethoxy)Methane	10	U	
120-83-2	2, 4-Dichlorophenol	10	U	
120-82-1	1, 2, 4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	J
106-47-8	4-Chloroaniline	10	U	J
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-Methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	J
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2, 4, 6-Trichlorophenol	10	U	
95-95-4	2, 4, 5-Trichlorophenol	50	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	50	U	
131-11-3	Dimethyl Phthalate	10	U	
208-96-8	Acenaphthylene	10	U	
99-09-2	3-Nitroaniline	50	U	J

PJC 10-11-85

CAS Number		ug/l or ug/Kg (Circle One)		
83-32-9	Acenaphthene	10	U	
51-28-5	2, 4-Dinitrophenol	50	U	J
100-02-7	4-Nitrophenol	50	U	J
132-64-9	Dibenzofuran	10	U	
121-14-2	2, 4-Dinitrotoluene	10	U	
606-20-2	2, 6-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	50	U	J
534-52-1	4, 6-Dinitro-2-Methylphenol	50	U	
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
84-74-2	Di-n-Butylphthalate	3.7	JB	
206-44-0	Fluoranthene	10	U	
92-87-5	Benzidine	100	U	J
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	J
91-94-1	3, 3'-Dichlorobenzidine	20	U	
56-55-3	Benzo(a)Anthracene	10	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U	J
218-01-9	Chrysene	10	U	
117-84-0	Di-n-Octyl Phthalate	25		
205-99-2	Benzo(b)Fluoranthene	10	U	
207-08-9	Benzo(k)Fluoranthene	10	U	J
50-32-8	Benzo(a)Pyrene	10	U	
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10	U	J
53-70-3	Dibenz(a, h)Anthracene	10	U	
191-24-2	Benzo(g, h, i)Perylene	10	U	

PJC 10-11-85

(1)-Cannot be separated from diphenylamine

Laboratory Name: ERG, Inc.

Case No: 4757

Sample Number: EF976

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/8/85

Date Analyzed: 8/14/85

Conc/Dil Factor: 1

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
7421-93-4	Endrin Aldehyde	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	2.0	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

RECEIVED NOV 0 9 1985

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 1000 ml or W_s _____ V_t 10,000 ul V_i 1.0 ul

Laboratory Name: E.R.G. INC

Case No: 4757

Sample Number
EF976

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

RECEIVED NOV 0 9 1985

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 110-54-3	HEXANE	VOA	574	13
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11. 1193-18-6	2-CYCLOHEXEN-1-ONE, 3-METHYL-	BNA	630	25
12.	UNKNOWN DIOXANE	BNA	722	17
13.	UNKNOWN DIOXANE	BNA	746	11
14.	UNKNOWN FURAN	BNA	804	19
15.	UNKNOWN AZEPINONE	BNA	877	68
16. 10544-50-0	SULFUR, MOL. (S8)	BNA	1482	7.5
17.	UNKNOWN PHTHALATE	BNA	1841	29
18.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1863	510
19.	UNKNOWN-NOT IN EPA/NIH LIBRARY	BNA	1896	13
20.	UNKNOWN PHTHALATE	BNA	1938	45
21.	UNKNOWN PHTHALATE	BNA	1978	84
22.	UNKNOWN PHTHALATE	BNA	2067	69
23.	UNKNOWN PENTENONE	BNA	2151	20
24.				
25.				
26.				
27.				
28.				
29.				
30.				

ecology and environment, inc.
223 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60606, TEL. 312-663-9415
International Specialists in the Environmental Sciences

Date Received for Review: 9/5/85 **Date Review Completed:** 9/6/85

To: KATHY McCORMACK

From: Cynthia Bachunas / ARIENE PRATT

Subject: SOUTH MACOMB DISPOSAL RD5-8501-02

Sample Description: CASE # 4757 low water metals

Project Data Status: still awaiting low organics

FIT Data Review Findings:

See attached CRL review.

Al, Ca, Cu, Fe, Mg, Na + Zn detected in field blank MEF 802

Al, Fe, Mg, Se, + Zn outside QC limits for dup.

Al, Ca, Fe, Mg, Se, Na + Zn detected in field blank MEF 811

Additional Comments:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

85

of Region V CLP Data
red for Review on 8/26/85

Ross, Director (SSCRL)
l Regional Laboratory Jay Thakker

ser: Jt

e reviewed the data for the following case(s).

AME: South Macomb Disposal SMO Case No. 4751

a Set No. SF 2562 No. of Samples: 15 D.U./Activity Numbers 14051 C 48500

85FM11580 - 85FM11591

affic No. MEF 296 - 298 ; MEF 301 - 312

oratory: Chemtech Hrs. Required for Review: 6 hrs

ing are our findings. This review covers 15 low water samples submitted FB metals analysis. Data for Fe, Mn, Zn, Ca & Mg should be "E" flagged ese elements do not pass the serial dilution test. The field blanks show -03 ug/L), Cu (35), Fe (77), Zn (85) + Se (8) in the amounts listed. Data these parameters can only be used if they exceed the amounts reported in the blanks by a factor of two. For samples MEF 303-312 the initial tion for Ni is 111%; this does not impact the data for these samples as they below the detection limit.

e recovery for Se (50%) is low as shown, the Se results where Se is detected low biased and the detection limits will be elevated. The spike recovery is 0%, the Ag data cannot be used. The spike recovery for Tl (54%) as shown; all the detection limits will be elevated.

ta are acceptable for use.
ta are acceptable for use with qualifications noted above. Ann O'Sullivan
ta are preliminary - pending verification by Contractor Laboratory. 8-29-85
ta are unacceptable.

Dr. Alfred Haeberer/Joan Fisk/Gary Ward, EPA Support Services
Ross K. Robeson, EMSL-Las Vegas
Don Trees, CLP/Sample Management Office

RECEIVED SEP 5 1985

ESD/Central Regional Laboratory

DATA TRACKING - FORM I

al Set No. SF 2562 ERRIS No. _____

ase No. 4757 Site Name: South Macomb Disposal

ab Laboratory: Chemtech Data User: Sit

f Samples: 15 Date Samples Received: 8/26/85

Have chain-of-custody records been received? YES ✓ NO ___

Have Traffic reports been received? YES ✓ NO ___

If no, are Traffic report numbers written on the chain-of-custody record? YES ✓ NO ___

If no, which Traffic report numbers are missing?

Are basic data forms in? YES ✓ NO ___

Number of samples claimed: 15 Number of samples received: 15

Checked by: Willie Felicano Date: 8/26/85

Received by Contract Project Management Section: [illegible] Date: 8-26-85

Review Started: 8-28-85 Reviewer Signature: [illegible]

Total time spent on review: 6 hrs Date review completed: 8-29-85

Copied (xeroxed) by: Willie G. Hun Date: 9-3-85

Mailed to Data User by: _____ Date: _____

DATA USERS:

Please fill in the blanks and return this form to:

RECEIVED SEP 5 1985

Charles Elly, DPO, Region V, SSCRL

Data received by: Arlene Grace Date: 9/5/85

Q.A. review received by: Arlene Grace Date: 9/5/85

Received by CRL - CPM Section for file by: _____

Date: _____

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

SF2562

Date 8-19-85

COVER PAGE
INORGANIC ANALYSES DATA PACKAGE

Lab Name CHEMTECH CONSULTING GROUP

Case No. 4757

SOW No. 784

Q.C. Report No. 524

Sample Numbers

EPA No.	Lab ID No.	EPA No.	Lab ID No.
MEF 296	G2-524-01	MEF 807	G2-524-10
297	-02	808	-11
298	-03	809	-12
801	-04	810	-13
802	-05	811	-14
803	-06	812	-15
804	-07		
805	-08		
806	-09		

RECEIVED
AUG 28 1985

Comments:

For samples MEF 803-812, the initial calibration for nickel is 111%, but since there was no nickel found in the samples it was not rerun.

* The initial calibration source for silver on Form II (B) is synthetic (~~50 P~~ (SYN 50PPB AG).

ICP Interelement and background corrections applied? Yes ✓ No ___.

If yes, corrections applied before ✓ or after ___ generation of raw data.

Footnotes:

RECEIVED SEP 5 1985

NR - not required by contract at this time

Form I:

Value - If the result is a value greater than or equal to the instrument detection limit but less than the contract required detection limit, report the value in brackets (i.e., [10]). Indicate the analytical method used with P (for ICP/Flame AA) or F (for furnace).

U - Indicates element was analyzed for but not detected. Report with the detection limit value (e.g., 10U).

E - Indicates a value estimated or not reported due to the presence of interference. Explanatory note included on cover page.

S - Indicates value determined by Method of Standard Addition.

R - Indicates spike sample recovery is not within control limits.

* - Indicates duplicate analysis is not within control limits.

+ - Indicates the correlation coefficient for method of standard addition is less than 0.995

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

85FM11580
EPA Sample No.
MEF 296

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-01 QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	[161] P	13.	Magnesium	33710 P
2.	Antimony	54 UP	14.	Manganese	515 P
3.	Arsenic	7 UF	15.	Mercury	0.15 U
4.	Barium	[100] P	16.	Nickel	21 UP
5.	Beryllium	5 UP	17.	Potassium	[4681] P
6.	Cadmium	5 UP	18.	Selenium	7 FR
7.	Calcium	130300 P	19.	Silver	9 UPR
8.	Chromium	9 UP	20.	Sodium	22800 P
9.	Cobalt	20 UP	21.	Thallium	10 UFR
10.	Copper	42 P	22.	Tin	24 UFR
11.	Iron	4328 PE	23.	Vanadium	24 UP
12.	Lead	5 UF	24.	Zinc	2396 P

Cyanide NR 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:

RECEIVED SEP 5 1985

Lab Manager C. Hedva

Form I

85EM11581

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. MEF 297

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-02 QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	239 P	13.	Magnesium	30900 P
2.	Antimony	54 UP	14.	Manganese	783 P
3.	Arsenic	7 UF	15.	Mercury	0.15U
4.	Barium	84 UP	16.	Nickel	21 UP
5.	Beryllium	5 UP	17.	Potassium	5024 P
6.	Cadmium	5 UP	18.	Selenium	8 FR
7.	Calcium	61380 P	19.	Silver	9 UPR
8.	Chromium	11 P	20.	Sodium	31330 P
9.	Cobalt	20 UP	21.	Thallium	10 UFR
10.	Copper	21 UP	22.	Tin	24 UFR
11.	Iron	106 PE	23.	Vanadium	24 UP
12.	Lead	5 UF	24.	Zinc	3058 P

Cyanide NR 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:

RECEIVED SEP 5 1985

Lab Manager E. Fedrat

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

85FM11582
EPA Sample No.
MEF 298

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-03 QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	[129]P	13.	Magnesium	47700 P
2.	Antimony	54 UP	14.	Manganese	30 P
3.	Arsenic	7UF	15.	Mercury	0.15U
4.	Barium	[100]P	16.	Nickel	21 UP
5.	Beryllium	5UP	17.	Potassium	[2284]P
6.	Cadmium	5UP	18.	Selenium	9FR
7.	Calcium	173800 P	19.	Silver	9UPR
8.	Chromium	9UP	20.	Sodium	35550 P
9.	Cobalt	20UP	21.	Thallium	10 UFR
10.	Copper	26P	22.	Tin	24 UFR
11.	Iron	138 PE	23.	Vanadium	24 UP
12.	Lead	5UF	24.	Zinc	3305 P

Cyanide NR 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:

RECEIVED SEP 5 1985

Lab Manager E Hedra

Form I

85FM11583

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. MEF 801

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-04 QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	[172] P	13.	Magnesium	45530 P
2.	Antimony	54 UP	14.	Manganese	325 P
3.	Arsenic	7 UFS	15.	Mercury	0.15 U
4.	Barium	347 P	16.	Nickel	21 UP
5.	Beryllium	5 UP	17.	Potassium	8004 P
6.	Cadmium	5 UP	18.	Selenium	8 FSR
7.	Calcium	122500 P	19.	Silver	9 UPR
8.	Chromium	11 P	20.	Sodium	37400 P
9.	Cobalt	20 UP	21.	Thallium	100 UFR
10.	Copper	39 P	22.	Tin	240 UFR
11.	Iron	10830 PE	23.	Vanadium	24 UP
12.	Lead	5 UF	24.	Zinc	2747 P

Cyanide NR 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: ____

RECEIVED SEP 5 1985

Lab Manager E Hedrick

Form I

85FM11R03

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. MEF 802

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-05 QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	203 P	13.	Magnesium	[420] P
2.	Antimony	54 UP	14.	Manganese	13 UP
3.	Arsenic	7 UF	15.	Mercury	0.15 U
4.	Barium	84 UP	16.	Nickel	21 UP
5.	Beryllium	5 UP	17.	Potassium	950 UP
6.	Cadmium	5 UP	18.	Selenium	5 UFR
7.	Calcium	[1667] P	19.	Silver	9 UPR
8.	Chromium	9 UP	20.	Sodium	[2532] P
9.	Cobalt	20 UP	21.	Thallium	10 UFR
10.	Copper	35 P	22.	Tin	24 UFR
11.	Iron	[77] PE	23.	Vanadium	24 UP
12.	Lead	5 UF	24.	Zinc	39 P

Cyanide NR 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: ____

RECEIVED SEP 5 1985

Lab Manager E Hedva

Form I

85F#11574

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. MEF 803

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH

CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-06

QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

(ug/L) or mg/kg dry weight (Circle One)

1.	Aluminum	74 UP	13.	Magnesium	23640 P
2.	Antimony	54 UP	14.	Manganese	21 P
3.	Arsenic	7 UF	15.	Mercury	0.15 U
4.	Barium	84 UP	16.	Nickel	21 UP
5.	Beryllium	5 UP	17.	Potassium	[1430] P
6.	Cadmium	5 UP	18.	Selenium	10 FSR
7.	Calcium	72800 P	19.	Silver	9 UPR
8.	Chromium	13 P	20.	Sodium	10960 P
9.	Cobalt	20 UP	21.	Thallium	10 UFR
10.	Copper	21 UP	22.	Tin	[25] FR
11.	Iron	[58] PE	23.	Vanadium	24 UP
12.	Lead	5 UF	24.	Zinc	46 P

Cyanide NR

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:

RECEIVED SEP 5 1985

Lab Manager E Hedrick

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

85FM11D84
EPA Sample No.
MEF 804

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-07 QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	[88] P	13.	Magnesium	23930 P
2.	Antimony	54 UP	14.	Manganese	31 P
3.	Arsenic	7 UF	15.	Mercury	0.15 U
4.	Barium	84 UP	16.	Nickel	21 UP
5.	Beryllium	5 UP	17.	Potassium	[1478] P
6.	Cadmium	5 UP	18.	Selenium	5 FR
7.	Calcium	73710 P	19.	Silver	9 UPR
8.	Chromium	12 P	20.	Sodium	11190 P
9.	Cobalt	20 UP	21.	Thallium	10 UFR
10.	Copper	21 UP	22.	Tin	24 UFR
11.	Iron	33 UPE	23.	Vanadium	24 UP
12.	Lead	5 UF	24.	Zinc	66 P

Cyanide NR 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: ____

RECEIVED SEP 5 1985

Lab Manager [signature]

Form I

85FM11585

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. MEF 805

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-08 QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	[61] P	13.	Magnesium	19310 P
2.	Antimony	54 UP	14.	Manganese	84 P
3.	Arsenic	7 UF	15.	Mercury	0.15 U
4.	Barium	[90] P	16.	Nickel	21 UP
5.	Beryllium	5 UP	17.	Potassium	950 UP
6.	Cadmium	5 UP	18.	Selenium	6 FSR
7.	Calcium	79720 P	19.	Silver	9 UPR
8.	Chromium	[9] P	20.	Sodium	[4708] P
9.	Cobalt	20 UP	21.	Thallium	10 UFR
10.	Copper	21 UP	22.	Tin	218 FR
11.	Iron	138 PE	23.	Vanadium	24 UP
12.	Lead	5 UF	24.	Zinc	4493 P

Cyanide NR 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:

RECEIVED SEP 5 1985

Lab Manager E Hedrat

Form I

85FM11586

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. MEF 806

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-09 QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	[96]P	13.	Magnesium	28050 P
2.	Antimony	54 UP	14.	Manganese	42 P
3.	Arsenic	7 UF	15.	Mercury	0.15 U
4.	Barium	[162]P	16.	Nickel	21 UP
5.	Beryllium	5 UP	17.	Potassium	[2721] P
6.	Cadmium	7.8 P	18.	Selenium	10 FR
7.	Calcium	85780 P	19.	Silver	9 UPR
8.	Chromium	11 P	20.	Sodium	17990 P
9.	Cobalt	[20]P	21.	Thallium	10 UFR
10.	Copper	21 UP	22.	Tin	24 UFR
11.	Iron	111 PE	23.	Vanadium	24 UP
12.	Lead	5 UF	24.	Zinc	1368 P

Cyanide NR 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:

RECEIVED SEP 5 1985

Lab Manager E Hedrick

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

85FM11587
EPA Sample No.
MEF 807

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-10 QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	[76] P	13.	Magnesium	19780 P
2.	Antimony	54 UP	14.	Manganese	25 P
3.	Arsenic	7 UF	15.	Mercury	0.15 U
4.	Barium	[110] P	16.	Nickel	21 UP
5.	Beryllium	5 UP	17.	Potassium	[977] P
6.	Cadmium	5 UP	18.	Selenium	7 FR
7.	Calcium	62100 P	19.	Silver	9 UPR
8.	Chromium	15 P	20.	Sodium	5868 P
9.	Cobalt	20 UP	21.	Thallium	10 UFR
10.	Copper	21 UP	22.	Tin	24 UFR
11.	Iron	633 PE	23.	Vanadium	24 UP
12.	Lead	5 UF	24.	Zinc	66 P

Cyanide NR 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:

RECEIVED SEP 5 1985

Lab Manager [signature]

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

85FM11588
EPA Sample No.
MEF 808

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-11 QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	74 UP	13.	Magnesium	32210 P
2.	Antimony	54UP	14.	Manganese	1252 P
3.	Arsenic	7UF	15.	Mercury	0.15U
4.	Barium	[106]P	16.	Nickel	21 UP
5.	Beryllium	5UP	17.	Potassium	[3027] P
6.	Cadmium	5UP	18.	Selenium	7 FR
7.	Calcium	120200 P	19.	Silver	9UPR
8.	Chromium	9UP	20.	Sodium	21580 P
9.	Cobalt	20UP	21.	Thallium	10UFR
10.	Copper	21UP	22.	Tin	24UFR
11.	Iron	[61]PE	23.	Vanadium	24UP
12.	Lead	5UF	24.	Zinc	72 P

Cyanide NR 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:

RECEIVED SEP 5 1985

Lab Manager E Hedrick

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

85FM11589
EPA Sample No.
MEF 809

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-12 QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	[122] P	13.	Magnesium	32670 P
2.	Antimony	54 UP	14.	Manganese	54 P
3.	Arsenic	7 UF	15.	Mercury	0.15 U
4.	Barium	84 UP	16.	Nickel	21 UP
5.	Beryllium	5 UP	17.	Potassium	[1822] P
6.	Cadmium	5 UP	18.	Selenium	8 FR
7.	Calcium	134100 P	19.	Silver	9 UPR
8.	Chromium	9 UP	20.	Sodium	21150 P
9.	Cobalt	20 UP	21.	Thallium	10 UFR
10.	Copper	21 UP	22.	Tin	24 UFR
11.	Iron	[39] PE	23.	Vanadium	24 UP
12.	Lead	5 UF	24.	Zinc	32 P

Cyanide NR 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:

RECEIVED SEP 5 1985

Lab Manager E Hedrick

Form I

85FM11590

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. MEF 810

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH

CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-13

QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

(ug/L) or mg/kg dry weight (Circle One)

1.	Aluminum	[118] P	13.	Magnesium	28950 P
2.	Antimony	54 UP	14.	Manganese	31 P
3.	Arsenic	7 UF	15.	Mercury	0.15 U
4.	Barium	84 UP	16.	Nickel	21 UP
5.	Beryllium	5 UP	17.	Potassium	[1108] P
6.	Cadmium	5 UP	18.	Selenium	8 FSR
7.	Calcium	116600 P	19.	Silver	9 UPR
8.	Chromium	9 UP	20.	Sodium	7947 P
9.	Cobalt	20 UP	21.	Thallium	10 UFR
10.	Copper	21 UP	22.	Tin	876 FS+R
11.	Iron	[78] PE	23.	Vanadium	24 UP
12.	Lead	5 UF	24.	Zinc	68 P

Cyanide NR

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:

RECEIVED SEP 5 1985

Lab Manager E Hedrick

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

85FM11R04
EPA Sample No.
MEF 811

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-14 QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	[114]P	13.	Magnesium	[679]P
2.	Antimony	54UP	14.	Manganese	13UP
3.	Arsenic	7UF	15.	Mercury	0.15U
4.	Barium	84UP	16.	Nickel	21UP
5.	Beryllium	5UP	17.	Potassium	950UP
6.	Cadmium	5UP	18.	Selenium	8FSR
7.	Calcium	[2177]P	19.	Silver	9UPR
8.	Chromium	9UP	20.	Sodium	[1981]P
9.	Cobalt	20UP	21.	Thallium	10UFR
10.	Copper	21UP	22.	Tin	24UFR
11.	Iron	[74]PE	23.	Vanadium	24UP
12.	Lead	5UF	24.	Zinc	85P

Cyanide NR 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: ____

RECEIVED SEP 5 1985

Lab Manager E Hedrick

Form I

85 FM11391

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. MEF 812

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH

CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-15

QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

(ug/L) or mg/kg dry weight (Circle One)

1.	Aluminum	74 UP	13.	Magnesium	48100 P
2.	Antimony	54 UP	14.	Manganese	1563 P
3.	Arsenic	7 UF	15.	Mercury	0.15 U
4.	Barium	84 UP	16.	Nickel	21 UP
5.	Beryllium	5 UP	17.	Potassium	[1466] P
6.	Cadmium	5 UP	18.	Selenium	8 FR
7.	Calcium	185800 P	19.	Silver	9 UPR
8.	Chromium	9 UP	20.	Sodium	12120 P
9.	Cobalt	20 UP	21.	Thallium	10 UFR
10.	Copper	21 UP	22.	Tin	24 UFR
11.	Iron	1928 PE	23.	Vanadium	24 UP
12.	Lead	5 UF	24.	Zinc	1898 P

Cyanide NR

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:

RECEIVED SEP 5 1985

Lab Manager C Hedva

DATA QUALIFIERS

Contractor: Chemtech

Case 4757 SF-2562

Below is a summary of the out of control audits and the possible effect on the data for this case:

This review covers 15 low water samples submitted for IFB metals analysis.

The following do not pass the serial dilution test Fe, Mn, Zn, Ca + Mg Data for these elements should be "E" flagged. Holding times are O.K.

The field blanks show Al (203 ug/L), Cu (35), Fe (77), Zn (85) + Se (8) in amounts listed. Data for these parameters can only be used if they exceed amounts reported in the field blanks by a factor of two.

For samples MEF803-812 the initial calibration for Ni is 111%; this does not impact the data for these samples as they are all below the detection limit.

The spike recovery for Se (50%) is low as shown, the Se results where Se is detected will be low biased and the detection limits will be elevated. The spike recovery for Ag (0%) is very low as shown, the Ag data cannot be used. It must be noted that the Ag LCS gave a recovery of 154% which is not acceptable. The spike recovery for Tl (54%) is low as shown, all detection limits reported will be elevated.

RECEIVED SEP 5 1985

Reviewed by: Aaron O. Synstelby

Phone: 886-1973

Date: 8-29-85

Case: 4757 SF-2562

Contractor: Chemtech

DATA PACKAGE COMPLETENESS AUDIT

I. Cover Page

✓ The cover page must include general comments, Statement of Work Number, QC Report #, EPA cross reference numbers, footnotes used in the data package, and the statement on ICP corrections.

II. Inorganic Data Report Sheet - Form I

A completed Form I must be submitted for every sample in that case.

✓ Proper matrix and concentration level indicated.

NR % solids reported for solid samples.

✓ Analytical method code for each parameter. "P" for ICP/flame AA or "F" for furnace.

✓ Any dilutions affecting the IDL explained in the comment section.

✓ For positive values less than the contract required detection limit, the value is put in brackets. [ ].

✓ For not detected, the detection limit is reported, followed by a "U".

✓ Lab manager's signature.

III. QA/QC Data

The following forms must be submitted. A check for completeness and and compliance follows in this audit.

✓ Initial and Continuing Calibration Verification - Form II.

✓ Blank data - Form III

✓ ICP Interference Check Sample - Form IV

✓ Spike Sample Recovery - Form V

✓ Duplicate Data - Form VI

✓ Instrument Detection Limit and Laboratory Control Sample - Form VII.

✓ Standard Addition Results - Form VIII

RECEIVED SEP 5 1985

LAB REVIEW SHEET

CASE # 4757
DATA SET # SF-2562
LAB Q.C.# 524
DATE: 8-29-85

SITE South Macomb Disposal
LAB Chemtech.
REVIEWED BY Dawn O Lynstaby

MATRIX: Water
CONC. : Low

WATER SAMPLE SPK. MEF-297
WATER SAMPLE DUP. MEF-296
~~SOIL SAMPLE SPK.~~
~~SOIL SAMPLE DUP.~~

Metals:	CALIBRATION ICV	CCV	CCV	CCV	BLANKS ICB	PREP	PREP	ICP INTER. INT	FINAL	SPIKE WATER	SOIL	DUPLICATE WATER	SOIL	LCS WATER	SOIL	JOL
1. Aluminum																
2. Antimony																
3. Arsenic																
4. Barium																
5. Beryllium																
6. Cadmium																
7. Calcium																
8. Chromium																
9. Cobalt																
10. Copper																
11. Iron																
12. Lead																
13. Magnesium																
14. Manganese																
15. Mercury																
16. Nickel	111															
17. Potassium																
18. Selenium										50						
19. Silver										0				154		
20. Sodium																
21. Thallium										54						
22. Vanadium																
23. Zinc																
24. Cyanide																
[redacted]		✓	✓	✓	✓	✓	✓	✓	✓			✓				✓

RECEIVED SEP 5 1985

4757 SF-2562
Chemtech

IV. Raw Data

A legible photocopy of raw data consisting of the sequential measurement readout record, such as an instrument tape or printout, clearly labeled with sufficient information to identify both the sample identity and the final result must be submitted for each of the following.

✓ calibration standards, with prep date.

✓ calibration and preparation blanks

✓ initial and continuing calibration

✓ interference check samples, initial and continuing.

✓ duplicates

✓ spikes - indicating standard solutions used, final spike concentrations and volumes involved.

✓ samples - including all weights, dilutions and volumes used to obtain the reported value.

✓ instrument adjustments or corrections, if any.

✓ raw furnace data for:

- initial single spike data
- single spike % recovery, if used
- full method of standard addition, if performed.
- method of standard addition correlation coefficient, slope and intercept of linear fit.

V. Sample Traffic Report

✓ Copy of SMO Sample Traffic Report with lab receipt information and original contractor signature.

RECEIVED SEP 5 1985

4757 SF-2562
Chemtech.

- Spike recovery is within 85%-115% limit, and sample concentration is > 50% of the measured spike value. Quantitation is obtained directly from the single spike.

  or

- Spike recovery is outside 85%-115% limit, and sample concentration is > 50% of the measured spike value. A full method of standard addition is required. (Sample plus 3 spikes). That sample result is flagged with an "s". The correlation coefficient must be ≥ 0.995. If it is less than this, that sample result is flagged with a "+".

List only where improper criteria was used.

Parameter	SMO#	Comment	Correlation Coefficient <0.995
Sn	MEF-810	Not on EPA list.	0.992
		All other MSA QC ok.	O.K. 8-29-85 GOB.

RECEIVED SEP 5 1985

ecology and environment, inc.
223 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60606, TEL. 312-663-9415
International Specialists in the Environmental Sciences

Date Received for Review: 9/5/85 Date Review Completed: 9/5/85

To: KATHY McCORMACK

From: Cynthia Bachunas / ARIENE PRATT

Subject: SOUTH MACOMB DISPOSAL RDS-8501-02

Sample Description: CASE # 4757 low water metals

Project Data Status: still awaiting low organics

FIT Data Review Findings:

See attached CRL review.

Al, Ca, Cu, Fe, Mg, Na + Zn detected in field blank MEF 802

Al, Fe, Mg, Se, + Zn outside QC limits for dup.

Al, Ca, Fe, Mg, Se, Na + Zn detected in field blank MEF 811

Additional Comments:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ATE: 9-3-85

EC: Review of Region V CLP Data
Received for Review on 8/26/85

O: Curtis Ross, Director (5SCRL)
Central Regional Laboratory Jay Thakker

: Data User: Fit

We have reviewed the data for the following case(s).

SITE NAME: South Macomb Disposal SMO Case No. 4757

EPA Data Set No. SF 2562 No. of Samples: 15 D.U./Activity Numbers 14051 C 48500

CRL No. 85FM11580 - 85FM11591

SMO Traffic No. MEF 296 - 298 ; MEF 801 - 812

CLP Laboratory: Chemtech Hrs. Required for Review: 6 hrs

Following are our findings. This review covers 15 low water samples submitted for IFB metals analysis. Data for Fe, Mn, Zn, Ca & Mg should be "E" flagged as these elements do not pass the serial dilution test. The field blanks show Al (203 ug/L), Cu (35), Fe (77), Zn (85) & Se (8) in the amounts listed. Data for these parameters can only be used if they exceed the amounts reported in the field blanks by a factor of two. For samples MEF 803-812 the initial calibration for Ni is 111%; this does not impact the data for these samples as they are all below the detection limit.
The spike recovery for Se (50%) is low as shown, the Se results where Se is detected will be low biased and the detection limits will be elevated. The spike recovery for Ag is 0%, the Ag data cannot be used. The spike recovery for Tl (54%) is low as shown; all the detection limits will be elevated.

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualifications noted above. Aaron O'Keefe 8-29-85
( ) Data are preliminary - pending verification by Contractor Laboratory.
( ) Data are unacceptable.

cc: Dr. Alfred Haeberer/Joan Fisk/Gary Ward, EPA Support Services
Ross K. Robeson, EMSL-Las Vegas
Don Trees, CLP/Sample Management Office

RECEIVED SEP 5 1985

PA FORM 1320-4 (REV 3-76)

ESD/Central Regional Laboratory

DATA TRACKING - FORM I

Data Set No. IF 2562 ERRIS No. _____

Case No. 4757 Site Name: South Macomb Disposal

Name of Laboratory: Chemtech Data User: Fit

# of Samples: 15 Date Samples Received: 8/26/85

Have chain-of-custody records been received? YES ✓ NO ___

Have Traffic reports been received? YES ✓ NO ___

If no, are Traffic report numbers written on the chain-of-custody record? YES ✓ NO ___

If no, which Traffic report numbers are missing?

Are basic data forms in? YES ✓ NO ___

Number of samples claimed: 15 Number of samples received: 15

Checked by: Willie Feliciano Date: 8/26/85

Received by Contract Project Management Section: [illegible] Date: 8-26-85

Review Started: 8-28-85 Reviewer Signature: [illegible]

Total time spent on review: 6 hrs Date review completed: 8-29-85

Copied (xeroxed) by: Willie G. Hun Date: 9-3-85

Mailed to Data User by: _____ Date: _____

DATA USERS:

Please fill in the blanks and return this form to:

RECEIVED SEP 5 1985

Charles Elly, DPO, Region V, SSCRL

Data received by: Arlene Brasel Date: 9/5/85

Q.A. review received by: Arlene Brasel Date: 9/5/85

Received by CRL - CPM Section for file by: _____

Date: _____

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

SF2562

Date 8-19-85

COVER PAGE
INORGANIC ANALYSES DATA PACKAGE

Lab Name CHEMTECH CONSULTING GROUP

Case No. 4757

SOW No. 784

Q.C. Report No. 524

Sample Numbers

EPA No.	Lab ID No.	EPA No.	Lab ID No.
MEF 296	G2-524-01	MEF 807	G2-524-10
297	-02	808	-11
298	-03	809	-12
801	-04	810	-13
802	-05	811	-14
803	-06	812	-15
804	-07		
805	-08		
806	-09		

RECEIVED AUG 23 1985

Comments:

For samples MEF 803-812, the initial calibration for nickel is 111%, but since there was no nickel found in the samples it was not rerun.

* The initial calibration source for silver on Form II (B) is synthetic ~~(50 P~~ (SYN 50PPB AG).

ICP Interelement and background corrections applied? Yes ✓ No ___.

If yes, corrections applied before ✓ or after ___ generation of raw data.

Footnotes:

RECEIVED SEP 5 1985

NR - not required by contract at this time

Form I:

Value - If the result is a value greater than or equal to the instrument detection limit but less than the contract required detection limit, report the value in brackets (i.e., [10]). Indicate the analytical method used with P (for ICP/Flame AA) or F (for furnace).

U - Indicates element was analyzed for but not detected. Report with the detection limit value (e.g., 10U).

E - Indicates a value estimated or not reported due to the presence of interference. Explanatory note included on cover page.

S - Indicates value determined by Method of Standard Addition.

R - Indicates spike sample recovery is not within control limits.

* - Indicates duplicate analysis is not within control limits.

+ - Indicates the correlation coefficient for method of standard addition is less than 0.995

Form I

85FM11580

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

Well O

EPA Sample No. MEF 296

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-01 QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

(ug/L) or mg/kg dry weight (Circle One)

1.	Aluminum	[161] P	13.	Magnesium	33710 P
2.	Antimony	54 UP	14.	Manganese	515 P
3.	Arsenic	7 UF	15.	Mercury	0.15 U
4.	Barium	[100] P	16.	Nickel	21 UP
5.	Beryllium	5 UP	17.	Potassium	[4681] P
6.	Cadmium	5 UP	18.	Selenium	7 FR
7.	Calcium	130300 P	19.	Silver	9 UPR
8.	Chromium	9 UP	20.	Sodium	22800 P
9.	Cobalt	20 UP	21.	Thallium	10 UFR
10.	Copper	42 P	22.	Tin	24 UFR
11.	Iron	4328 PE	23.	Vanadium	24 UP
12.	Lead	5 UF	24.	Zinc	2396 P

Cyanide NR 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:

RECEIVED SEP 5 1985

Lab Manager E Hedvat

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

Well Q

85FM11581
EPA Sample No.
MEF 297

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-02 QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

(ug/L) or mg/kg dry weight (Circle One)

1.	Aluminum	239 P	13.	Magnesium	30900 P
2.	Antimony	54 UP	14.	Manganese	783 P
3.	Arsenic	7 UF	15.	Mercury	0.15U
4.	Barium	84 UP	16.	Nickel	21 UP
5.	Beryllium	5 UP	17.	Potassium	5024 P
6.	Cadmium	5 UP	18.	Selenium	8 FR
7.	Calcium	61380 P	19.	Silver	9 UPR
8.	Chromium	11 P	20.	Sodium	31330 P
9.	Cobalt	20 UP	21.	Thallium	10 UFR
10.	Copper	21 UP	22.	Tin	24 UFR
11.	Iron	106 PE	23.	Vanadium	24 UP
12.	Lead	5 UF	24.	Zinc	3058 P

Cyanide NR 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:

RECEIVED SEP 5 1985

Lab Manager E. Hedrick

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

Well L

85FM11582
EPA Sample No.
MEF 298

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-03 QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	[129]P	13.	Magnesium	47700 P
2.	Antimony	54 UP	14.	Manganese	30 P
3.	Arsenic	7UF	15.	Mercury	0.15U
4.	Barium	[100]P	16.	Nickel	21 UP
5.	Beryllium	5UP	17.	Potassium	[2284]P
6.	Cadmium	5UP	18.	Selenium	9FR
7.	Calcium	173800 P	19.	Silver	9UPR
8.	Chromium	9UP	20.	Sodium	35550 P
9.	Cobalt	20UP	21.	Thallium	10 UFR
10.	Copper	26P	22.	Tin	24 UFR
11.	Iron	138 PE	23.	Vanadium	24 UP
12.	Lead	5UF	24.	Zinc	3305 P

Cyanide NR 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:

RECEIVED SEP 5 1985

Lab Manager E Hedrat

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

Well F

85FM11583
EPA Sample No.
MEF 801

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-04 QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	[172] P	13.	Magnesium	45530 P
2.	Antimony	54 UP	14.	Manganese	325 P
3.	Arsenic	7 UFS	15.	Mercury	0.15 U
4.	Barium	347 P	16.	Nickel	21 UP
5.	Beryllium	5 UP	17.	Potassium	8004 P
6.	Cadmium	5 UP	18.	Selenium	8 FSR
7.	Calcium	122500 P	19.	Silver	9 UPR
8.	Chromium	11 P	20.	Sodium	37400 P
9.	Cobalt	20 UP	21.	Thallium	100 UFR
10.	Copper	39 P	22.	Tin	240 UFR
11.	Iron	10830 PE	23.	Vanadium	24 UP
12.	Lead	5 UF	24.	Zinc	2747 P

Cyanide NR 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:

RECEIVED SEP 5 1985

Lab Manager C Hedrick

Form I

85FM11R03

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

Blank

EPA Sample No. MEF 802

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-05 QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	203 P	13.	Magnesium	[420] P
2.	Antimony	54 UP	14.	Manganese	13 UP
3.	Arsenic	7 UF	15.	Mercury	0.15 U
4.	Barium	84 UP	16.	Nickel	21 UP
5.	Beryllium	5 UP	17.	Potassium	950 UP
6.	Cadmium	5 UP	18.	Selenium	5 UFR
7.	Calcium	[1667] P	19.	Silver	9 UPR
8.	Chromium	9 UP	20.	Sodium	[2532] P
9.	Cobalt	20 UP	21.	Thallium	10 UFR
10.	Copper	35 P	22.	Tin	24 UFR
11.	Iron	[77] PE	23.	Vanadium	24 UP
12.	Lead	5 UF	24.	Zinc	39 P

Cyanide NR 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:

RECEIVED SEP 5 1985

Lab Manager E Hedva

Form I

85FM11574

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

Wd\E

EPA Sample No. MEF 803

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH

CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-06

QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

(ug/L) or mg/kg dry weight (Circle One)

1.	Aluminum	74 UP	13.	Magnesium	23640 P
2.	Antimony	54 UP	14.	Manganese	21 P
3.	Arsenic	7 UF	15.	Mercury	0.15 U
4.	Barium	84 UP	16.	Nickel	21 UP
5.	Beryllium	5 UP	17.	Potassium	[1430] P
6.	Cadmium	5 UP	18.	Selenium	10 FSR
7.	Calcium	72800 P	19.	Silver	9 UPR
8.	Chromium	13 P	20.	Sodium	10960 P
9.	Cobalt	20 UP	21.	Thallium	10 UFR
10.	Copper	21 UP	22.	Tin	[25] FR
11.	Iron	[58] PE	23.	Vanadium	24 UP
12.	Lead	5 UF	24.	Zinc	46 P

Cyanide NR

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:

RECEIVED SEP 5 1985

Lab Manager E Hedrat

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

Well E

85FM11D84
EPA Sample No.
MEF 804

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH

CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-07

QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	[88] P	13.	Magnesium	23930 P
2.	Antimony	54 UP	14.	Manganese	31 P
3.	Arsenic	7 UF	15.	Mercury	0.15 U
4.	Barium	84 UP	16.	Nickel	21 UP
5.	Beryllium	5 UP	17.	Potassium	[1478] P
6.	Cadmium	5 UP	18.	Selenium	5 FR
7.	Calcium	73710 P	19.	Silver	9 UPR
8.	Chromium	12 P	20.	Sodium	11190 P
9.	Cobalt	20 UP	21.	Thallium	10 UFR
10.	Copper	21 UP	22.	Tin	24 UFR
11.	Iron	33 UPE	23.	Vanadium	24 UP
12.	Lead	5 UF	24.	Zinc	66 P

Cyanide NR

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:

RECEIVED SEP 5 1985

Lab Manager

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

Well B

85FM11585
EPA Sample No.
MEF 805

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-08 QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	[61] P	13.	Magnesium	19310 P
2.	Antimony	54 UP	14.	Manganese	84 P
3.	Arsenic	7 UF	15.	Mercury	0.15 U
4.	Barium	[90] P	16.	Nickel	21 UP
5.	Beryllium	5 UP	17.	Potassium	950 UP
6.	Cadmium	5 UP	18.	Selenium	6 FSR
7.	Calcium	79720 P	19.	Silver	9 UPR
8.	Chromium	[9] P	20.	Sodium	[4708] P
9.	Cobalt	20 UP	21.	Thallium	10 UFR
10.	Copper	21 UP	22.	Tin	218 FR
11.	Iron	138 PE	23.	Vanadium	24 UP
12.	Lead	5 UF	24.	Zinc	4493 P

Cyanide NR 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: ____

RECEIVED SEP 5 1985

Lab Manager E Hetrick

Form I

85FM11386

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

Well N
South McComb
upgradient well

EPA Sample No. MEF 806

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-09 QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	[96]P	13.	Magnesium	28050 P
2.	Antimony	54 UP	14.	Manganese	42 P
3.	Arsenic	7 UF	15.	Mercury	0.15 U
4.	Barium	[162]P	16.	Nickel	21 UP
5.	Beryllium	5 UP	17.	Potassium	[2721]P
6.	Cadmium	7.8 P	18.	Selenium	10 FR
7.	Calcium	85780 P	19.	Silver	9 UPR
8.	Chromium	11 P	20.	Sodium	17990 P
9.	Cobalt	[20]P	21.	Thallium	10 UFR
10.	Copper	21 UP	22.	Tin	24 UFR
11.	Iron	111 PE	23.	Vanadium	24 UP
12.	Lead	5 UF	24.	Zinc	1368 P

Cyanide NR 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: ____

RECEIVED SEP 5 1985

Lab Manager E Hedrick

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

Well I

85FM11587
EPA Sample No.
MEF 807

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-10 QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	[76] P	13.	Magnesium	19780 P
2.	Antimony	54 UP	14.	Manganese	25 P
3.	Arsenic	7 UF	15.	Mercury	0.15 U
4.	Barium	[110] P	16.	Nickel	21 UP
5.	Beryllium	5 UP	17.	Potassium	[977] P
6.	Cadmium	5 UP	18.	Selenium	7 FR
7.	Calcium	62100 P	19.	Silver	9 UPR
8.	Chromium	15 P	20.	Sodium	5868 P
9.	Cobalt	20 UP	21.	Thallium	10 UFR
10.	Copper	21 UP	22.	Tin	24 UFR
11.	Iron	633 PE	23.	Vanadium	24 UP
12.	Lead	5 UF	24.	Zinc	66 P

Cyanide NR 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:

RECEIVED SEP 5 1985

Lab Manager

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

Well MW90-2 Walker Landfill

85FM11588
EPA Sample No. MEF 808

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-11 QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	74 UP	13.	Magnesium	32210 P
2.	Antimony	54 UP	14.	Manganese	1252 P
3.	Arsenic	7 UF	15.	Mercury	0.15 U
4.	Barium	[106] P	16.	Nickel	21 UP
5.	Beryllium	5 UP	17.	Potassium	[3027] P
6.	Cadmium	5 UP	18.	Selenium	7 FR
7.	Calcium	120200 P	19.	Silver	9 UPR
8.	Chromium	9 UP	20.	Sodium	21580 P
9.	Cobalt	20 UP	21.	Thallium	10 UFR
10.	Copper	21 UP	22.	Tin	24 UFR
11.	Iron	[61] PE	23.	Vanadium	24 UP
12.	Lead	5 UF	24.	Zinc	72 P

Cyanide NR 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:

RECEIVED SEP 5 1985

Lab Manager E Hedrick

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

Well MI290-1
Walker Landfill

85FM11589
EPA Sample No.
MEF 809

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-12 QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	[122] P	13.	Magnesium	32670 P
2.	Antimony	54 UP	14.	Manganese	54 P
3.	Arsenic	7 UF	15.	Mercury	0.15 U
4.	Barium	84 UP	16.	Nickel	21 UP
5.	Beryllium	5 UP	17.	Potassium	[1822] P
6.	Cadmium	5 UP	18.	Selenium	8 FR
7.	Calcium	134100 P	19.	Silver	9 UPR
8.	Chromium	9 UP	20.	Sodium	21150 P
9.	Cobalt	20 UP	21.	Thallium	10 UFR
10.	Copper	21 UP	22.	Tin	24 UFR
11.	Iron	[39] PE	23.	Vanadium	24 UP
12.	Lead	5 UF	24.	Zinc	32 P

Cyanide NR 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: ____

RECEIVED SEP 5 1985

Lab Manager E Hedrick

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

Well MI290-3
Walker Landfill

85FM11590
EPA Sample No.
MEF 810

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH

CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-13

QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	[118] P	13.	Magnesium	28950 P
2.	Antimony	54 UP	14.	Manganese	31 P
3.	Arsenic	7 UF	15.	Mercury	0.15 U
4.	Barium	84 UP	16.	Nickel	21 UP
5.	Beryllium	5 UP	17.	Potassium	[1108] P
6.	Cadmium	5 UP	18.	Selenium	8 FSR
7.	Calcium	116600 P	19.	Silver	9 UPR
8.	Chromium	9 UP	20.	Sodium	7947 P
9.	Cobalt	20 UP	21.	Thallium	10 UFR
10.	Copper	21 UP	22.	Tin	876 FS+R
11.	Iron	[78] PE	23.	Vanadium	24 UP
12.	Lead	5 UF	24.	Zinc	68 P

Cyanide NR

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:

RECEIVED SEP 5 1985

Lab Manager E Hedrick

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

Blank
7-31-85 sampling

85FM11R04
EPA Sample No.
MEF 811

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-14 QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	[114]P	13.	Magnesium	[679]P
2.	Antimony	54 UP	14.	Manganese	13 UP
3.	Arsenic	7 UF	15.	Mercury	0.15 U
4.	Barium	84 UP	16.	Nickel	21 UP
5.	Beryllium	5 UP	17.	Potassium	950 UP
6.	Cadmium	5 UP	18.	Selenium	8 FSR
7.	Calcium	[2177]P	19.	Silver	9 UPR
8.	Chromium	9 UP	20.	Sodium	[1981]P
9.	Cobalt	20 UP	21.	Thallium	10 UFR
10.	Copper	21 UP	22.	Tin	24 UFR
11.	Iron	[74]PE	23.	Vanadium	24 UP
12.	Lead	5 UF	24.	Zinc	85 P

Cyanide NR 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:

RECEIVED 5 1985

Lab Manager E Hedrick

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

Well 6

85FM11391
EPA Sample No.
MEF 812

Date 8-19-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME CHEMTECH CASE NO. 4757

SOW NO. 784

LAB SAMPLE ID. NO. 62-524-15 QC REPORT NO. 524

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

(ug/L) or mg/kg dry weight (Circle One)

1.	Aluminum	74 UP	13.	Magnesium	48100 P
2.	Antimony	54 UP	14.	Manganese	1563 P
3.	Arsenic	7 UF	15.	Mercury	0.15 U
4.	Barium	84 UP	16.	Nickel	21 UP
5.	Beryllium	5 UP	17.	Potassium	[1466] P
6.	Cadmium	5 UP	18.	Selenium	8 FR
7.	Calcium	185800 P	19.	Silver	9 UPR
8.	Chromium	9 UP	20.	Sodium	12120 P
9.	Cobalt	20 UP	21.	Thallium	10 UFR
10.	Copper	21 UP	22.	Tin	24 UFR
11.	Iron	1928 PE	23.	Vanadium	24 UP
12.	Lead	5 UF	24.	Zinc	1898 P

Cyanide NR 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:

RECEIVED SEP 5 1985

Lab Manager E Hedva

DATA QUALIFIERS

Contractor: Chemtech

Case 4757 SF-2562

Below is a summary of the out of control audits and the possible effect on the data for this case:

This review covers 15 low water samples submitted for IFB metals analysis.

The following do not pass the serial dilution test Fe, Mn, Zn, Ca + Mg Data for these elements should be "E" flagged. Holding times are O.K.

The field blanks show Al (203 ug/L), Cu (35), Fe (77), Zn (85) + Se (8) in amounts listed. Data for these parameters can only be used if they exceed amounts reported in the field blanks by a factor of two.

For samples MEF803-812 the initial calibration for Ni is 111%; this does not impact the data for these samples as they are all below the detection limit.

The spike recovery for Se (50%) is low as shown, the Se results where Se is detected will be low biased and the detection limits will be elevated. The spike recovery for Ag (0%) is very low as shown, the Ag data cannot be used. It must be noted that the Ag LCS gave a recovery of 154% which is not acceptable. The spike recovery for Tl (54%) is low as shown, all detection limits reported will be elevated.

RECEIVED SEP 5 1985

Reviewed by: Aaron O. Synstelby

Phone: 886-1973

Date: 8-29-85

Case: 4757 SF-2502

Contractor: Chemtech

DATA PACKAGE COMPLETENESS AUDIT

I. Cover Page

✓ The cover page must include general comments, Statement of Work Number, QC Report #, EPA cross reference numbers, footnotes used in the data package, and the statement on ICP corrections.

II. Inorganic Data Report Sheet - Form I

A completed Form I must be submitted for every sample in that case.

✓ Proper matrix and concentration level indicated.

NR % solids reported for solid samples.

✓ Analytical method code for each parameter. "P" for ICP/flame AA or "F" for furnace.

✓ Any dilutions affecting the IDL explained in the comment section.

✓ For positive values less than the contract required detection limit, the value is put in brackets. [ ].

✓ For not detected, the detection limit is reported, followed by a "U".

✓ Lab manager's signature.

III. QA/QC Data

The following forms must be submitted. A check for completeness and and compliance follows in this audit.

✓ Initial and Continuing Calibration Verification - Form II.

✓ Blank data - Form III

✓ ICP Interference Check Sample - Form IV

✓ Spike Sample Recovery - Form V

✓ Duplicate Data - Form VI

✓ Instrument Detection Limit and Laboratory Control Sample - Form VII.

✓ Standard Addition Results - Form VIII

RECEIVED SEP 5 1985

4757 SF-2562
Chemtech

IV. Raw Data

A legible photocopy of raw data consisting of the sequential measurement readout record, such as an instrument tape or printout, clearly labeled with sufficient information to identify both the sample identity and the final result must be submitted for each of the following.

✓ calibration standards, with prep date.

✓ calibration and preparation blanks

✓ initial and continuing calibration

✓ interference check samples, initial and continuing.

✓ duplicates

✓ spikes - indicating standard solutions used, final spike concentrations and volumes involved.

✓ samples - including all weights, dilutions and volumes used to obtain the reported value.

✓ instrument adjustments or corrections, if any.

✓ raw furnace data for:

- initial single spike data
- single spike % recovery, if used
- full method of standard addition, if performed.
- method of standard addition correlation coefficient, slope and intercept of linear fit.

V. Sample Traffic Report

✓ Copy of SMO Sample Traffic Report with lab receipt information and original contractor signature.

RECEIVED SEP 5 1985

DATA REVIEW SHEET

CASE # 4757
DATA SET # SF-2562
LAB Q.C.# 524
DATE: 8-29-85

SITE South Macomb Disposal
LAB Chemtech.
REVIEWED BY Dawn O. Symsteby

MATRIX: Water
CONC. : Low

WATER SAMPLE SPK. MEF-297
WATER SAMPLE DUP. MEF-296
~~SOIL SAMPLE SPK.~~
~~SOIL SAMPLE DUP.~~

Metals:	CALIBRATION ICV	CCV	CCV	CCV	BLANKS ICB	PREP	PREP	ICP INTER. INT	FINAL	SPIKE WATER	SOIL	DUPLICATE WATER	SOIL	LCS WATER	SOIL	IDL
1. Aluminum																
2. Antimony																
3. Arsenic																
4. Barium																
5. Beryllium																
6. Cadmium																
7. Calcium																
8. Chromium																
9. Cobalt																
10. Copper																
11. Iron																
12. Lead																
13. Magnesium																
14. Manganese																
15. Mercury																
16. Nickel	111															
17. Potassium																
18. Selenium										50						
19. Silver										0				154		
20. Sodium																
21. Thallium										54						
22. Vanadium																
23. Zinc																
24. Cyanide																
[redacted]		✓	✓	✓	✓	✓	✓	✓	✓			✓				✓

RECEIVED SEP 5 1985

4757 SF-2562
Chemtech.

- Spike recovery is within 85%-115% limit, and sample concentration is > 50% of the measured spike value. Quantitation is obtained directly from the single spike.

  or

- Spike recovery is outside 85%-115% limit, and sample concentration is > 50% of the measured spike value. A full method of standard addition is required. (Sample plus 3 spikes). That sample result is flagged with an "s". The correlation coefficient must be ≥ 0.995. If it is less than this, that sample result is flagged with a "+".

List only where improper criteria was used.

Parameter	SMO#	Comment	Correlation Coefficient <0.995
Sn	MEF-810	Not on EPA list.	0.992
		All other MSA QC ok.	O.K. 8-29-85 COB.

RECEIVED SEP 5 1985