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SWEPSONVILLE LANDFILL
ALAMANCE COUNTY, NC

RESULTS OF WATER QUALITY SAMPLING
OCTOBER 1996

PREPARED FOR
ALAMANCE COUNTY

JANUARY 9, 1997

BPA Environmental & Engineering, Inc.

(910) 272-9713 2641-G Randleman Road, Greensboro, NC 27406

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I hereby certify this 9th day of January 1997, that this report was prepared by me or under my direct supervision.

Julia I. Geniac
Geologist

Technical review performed by:

E. W. Scarlett, Jr., P.G.
Principal

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SWEPSONVILLE LANDFILL
ALAMANCE COUNTY, NC
RESULTS OF WATER QUALITY SAMPLING
OCTOBER 1996

1.0 EXECUTIVE SUMMARY

Eleven monitoring wells and two stream locations at the Alamance County Swepsonville Landfill were sampled on October 14, 1996. All sampling was conducted according to North Carolina Solid Waste Management Guidelines. The samples were submitted to a North Carolina certified laboratory for testing using the Federal Appendix I list of constituents for detection monitoring plus mercury.

Results from the eleven monitoring well samples show that the concentrations of three inorganic constituents (cadmium in MW-3, chromium in MW-3 and MW-5, and lead in MW-5) exceeded the 15A NCAC 2L Standards for Class GA groundwater on the dates that samples were collected. Eight inorganic constituents (barium, cadmium, chromium, copper, lead, mercury, nickel, and zinc) were detected in one or more of the monitoring well samples at concentrations that did not exceed the 2L Standards. Low concentrations of three inorganic constituents (beryllium, cobalt, and vanadium) were detected in one or more of the monitoring well samples; no 15A NCAC 2L Standards have been established for these constituents.

Concentrations of four volatile organic constituents (1,1 dichloroethene in MW-2, cis-1,2-dichloroethene in MW-4, tetrachloroethene in MW-2 and MW-4, and trichloroethene in MW-2 and MW-4) exceeded the 15A NCAC 2L Standards for Class GA groundwater on the dates that samples were collected. Two volatile organic constituents (1,1-dichloroethane and cis-1,2-dichloroethene) were detected in two monitoring well samples at concentrations that did not exceed 2L Standards.

No volatile organic or inorganic constituents were detected in the surface water samples collected from two locations on the creek that flows along the east/southeast boundary of the landfill disposal area.

2.0 INTRODUCTION

BPA Environmental & Engineering, Inc. was contracted by Alamance County, North Carolina to sample the ground and surface water at eleven monitoring wells and two surface water locations at the Swepsonville Landfill. The site location is shown on Figure 1.

3.0 SCOPE OF WORK

This sampling task included sampling eleven monitoring wells and two locations on a nearby stream for Federal Appendix I organic and inorganic constituents plus mercury as listed in 40 CFR, Part 258.

4.0 METHODS EMPLOYED

4.1 Monitoring Well Sampling

Groundwater sampling took place on October 14, 1996. The wells were purged by either removing a minimum of three (3) well volumes or purging the wells to dryness prior to obtaining water samples. The water samples were collected using properly decontaminated teflon bailers. All water samples were field checked for temperature, specific conductance, and pH. These data are summarized in Table 1. Field data sheets are included as Appendix A. Samples were placed in laboratory cleaned and supplied containers, packed on ice, and placed under chain-of-custody. Samples were shipped to the laboratory by a next day delivery service. All analyses were conducted by IEA, Inc., a North Carolina certified laboratory located in Cary, North Carolina. The monitoring well locations are shown on Figure 2.

4.2 Stream Sampling

Surface water sampling took place on October 14, 1996. Samples SW-1 and SW-2 were collected from a stream that flows along the east/southeast side of the Swepsonville Landfill. The stream samples were analyzed for the same parameters as the groundwater samples. The stream sample locations are shown on Figure 2.

5.0 RESULTS

The results of the laboratory analyses for Appendix I constituents in the groundwater and surface water are summarized in Tables 2 and 3, and the complete laboratory reports are included as Appendix B.

5.1 Groundwater

The groundwater sample analyses revealed seven constituents that had concentrations at or above 2L Standards in one or more of the wells. A summary of these analytical results is provided below.

- Cadmium was detected in MW-3 at 0.00833 ppm. The 2L Standard is 0.005 ppm.
- Chromium was detected in MW-3 at 0.0926 ppm and MW-5 at 0.145 ppm. The 2L Standard is 0.05 ppm.
- Lead was detected in MW-5 at 0.0362 ppm. The 2L Standard is 0.015 ppm.
- 1,1 Dichloroethene was detected in MW-2 at 7.0 ppb. The 2L Standard is 7.0 ppb.
- cis-1,2-Dichloroethene was detected in MW-4 at 310.0 ppb. The 2L Standard is 70.0 ppb.

- Tetrachloroethene was detected in MW-2 at 8.3 ppb, and MW-4 at 85.0 ppb. The 2L Standard is 0.7 ppb.

- Trichloroethene was detected in MW-2 at 10.0 ppb, and MW-4 at 42.0 ppb. The 2L Standard is 2.8 ppb.

The following ten constituents were detected in one or more of the wells in concentrations below the 2L Standards.

- Barium was detected in MW-2 at 0.647 ppm, MW-3 at 1.140 ppm, MW-5 at 0.808 ppm, MW-7B at 0.844 ppm, and MW-8B at 0.506 ppm. The 2L Standard is 2.0 ppm.

- Cadmium was detected in MW-5 at 0.00367 ppm and MW-8A at 0.00118 ppm. The 2L Standard is 0.005 ppm.

- Chromium was detected in MW-2 at 0.0498 ppm, MW-7B at 0.0216 ppm, and MW-9 at 0.0239 ppm. The 2L Standard in 0.05 ppm.

- Copper was detected in MW-5 at 0.232 ppm. The 2L Standard is 1.0 ppm.

- Lead was detected in MW-3 at 0.0118 ppm. The 2L Standard is 0.015 ppm.

- Mercury was detected in MW-4 at 0.000588 ppm. The 2L Standard is 0.0011 ppm.

- Nickel was detected in MW-3 at 0.0526 ppm and MW-5 at 0.0596 ppm. The 2L Standard is 0.1 ppm.

- Zinc was detected in MW-1 at 0.0697 ppm, MW-2 at 0.144 ppm, MW-3 at 0.256 ppm, MW-4 at 0.0585 ppm, MW-5 at 0.255 ppm, MW-7B at 0.145 ppm, MW-8B at 0.108 ppm, and MW-9 at 0.0773 ppm. The 2L Standard is 2.1 ppm.

- 1,1-Dichloroethane was detected in MW-2 at 31.0 ppb and MW-4 at 29.0 ppb. The 2L Standard is 700.0 ppb.

- cis-1,2-Dichloroethene was detected in MW-2 at 8.4 ppb. The 2L Standard is 70 ppb.

No 2L Standards have been set for the following three potentially naturally occurring constituents that were found in detectable concentrations. The practical quantitation limits of the analyses do not serve as standards for naturally occurring constituents.

- Beryllium was detected in MW-3 at 0.00270 ppm and MW-5 at 0.00341 ppm.

- Cobalt was detected in MW-2 at 0.0217 ppm, MW-3 at 0.0475 ppm, MW-4 at 0.0376 ppm, MW-5 at 0.0548 ppm, MW-7B at 0.0410 ppm, MW-8B at 0.0233 ppm, and MW-9 at 0.0734 ppm.

- Vanadium was detected in MW-2 at 0.186 ppm, MW-3 at 0.279 ppm, MW-4 at 0.222 ppm, MW-5 at 0.470 ppm, MW-7B at 0.136 ppm, and MW-9 at 0.0539 ppm.

5.2 Surface Water

There were no inorganic or volatile organic constituents detected in either of the surface water samples.

6.0 REFERENCES

North Carolina Administrative Code, Title 15A, Department of Environment, Health and Natural Resources, Division of Environmental Management, Subchapter 2L, Classifications and Water Quality Standards Applicable to the Groundwaters of North Carolina, Sections .0100, .0200, and .0300 (November 8, 1993); from the Environmental Management Commission, Raleigh, North Carolina.

North Carolina Administrative Code, Title 15A, Department of Environment, Health and Natural Resources, Division of Environmental Management, Subchapter 2B, Classifications and Water Quality Standards Applicable to the Surface Waters of North Carolina, Section .0200 (April 1, 1991); from the Environmental Management Commission, Raleigh, North Carolina.

North Carolina Administrative Code, Title 15A, Department of Environment, Health and Natural Resources, Division of Solid Waste Management, Subchapter 13B, Solid Waste Management, Section .1600 (January 4, 1994).

TABLE 1
GROUND AND SURFACE WATER SAMPLING FIELD DATA
SWEPSONVILLE LANDFILL
ALAMANCE COUNTY, NORTH CAROLINA
OCTOBER 14, 1996

Field Parameter	Sample No.							
	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7A	MW-7B
Temperature	58.3°F	61.1°F	59.2°F	62.2°F	66.0°F	68.6°F	68.9°F	64.6°F
Specific Conductance	140 μMHOs	166 μMHOs	89 μMHOs	480 μMHOs	128 μMHOs	195 μMHOs	30 μMHOs	25 μMHOs
pH	7.0	6.5	6.5	6.5	6.0	7.0	6.5	7.0

Field Parameter	Sample No.				
	MW-8A	MW-8B	MW-9	SW-1	SW-2
Temperature	69.3°F	64.1°F	58.6°F	68.8°F	59.0°F
Specific Conductance	21 μMHOs	18 μMHOs	68 μMHOs	260 μMHOs	210 μMHOs
pH	7.0	6.5	6.5	6.5	7.0

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TABLE 2
APPENDIX I INORGANIC ANALYSES BY SW-846 METHOD 6010
APPENDIX II MERCURY ANALYSIS BY SW-846 METHOD 7470
SWEPSONVILLE LANDFILL
OCTOBER 14, 1996

Compound	Sample No.													15A NCAC 2L Standards for Class GA Groundwater	15A NCAC 2B Standards for Class B, C Surface Waters	Practical Quantitation Limit (PQL)
	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7A	MW-7B	MW-8A	MW-8B	MW-9	SW-1	SW-2			
Antimony, Total	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	*		0.03
Arsenic, Total	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	0.05	0.05	0.01
Barium, Total	BQL	0.647	1.140	BQL	0.808	BQL	BQL	0.844	BQL	0.506	BQL	BQL	BQL	2.0		0.5
Beryllium, Total	BQL	BQL	0.00270	BQL	0.00341	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	*	0.0065	0.002
Cadmium, Total	BQL	BQL	0.00833	BQL	0.00367	BQL	BQL	BQL	0.00118	BQL	BQL	BQL	BQL	0.005	0.002	0.001
Chromium, Total	BQL	0.0498	0.0926	BQL	0.145	BQL	BQL	0.0216	BQL	BQL	0.0239	BQL	BQL	0.05	0.05	0.01
Cobalt, Total	BQL	0.0217	0.0475	0.0376	0.0548	BQL	BQL	0.0410	BQL	0.0233	0.0734	BQL	BQL	*		0.01
Copper, Total	BQL	BQL	BQL	BQL	0.232	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	1.0		0.2
Lead, Total	BQL	BQL	0.0118	BQL	0.0362	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	0.015	0.025	0.01
Mercury, Total	BQL	BQL	BQL	0.000588	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	0.0011	0.000012	0.0005
Nickel, Total	BQL	BQL	0.0526	BQL	0.0596	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	0.1	0.088	0.04
Selenium, Total	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	0.05	0.005	0.02
Silver, Total	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	0.018		0.01
Thallium, Total	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	*		0.01
Vanadium, Total	BQL	0.186	0.279	0.222	0.470	BQL	BQL	0.136	BQL	BQL	0.0539	BQL	BQL	*		0.04
Zinc, Total	0.0697	0.144	0.256	0.0585	0.255	BQL	BQL	0.145	BQL	0.108	0.0773	BQL	BQL	2.1		0.05

Notes:
- All results in parts per million (ppm)
- BQL – Below practical quantitation limit
- Shaded blocks denote concentrations that do not meet 15A NCAC 2L Standards for Class GA Groundwater (MW data) or 15A NCAC 2B Standards for Class B surface waters (SW data)
- * – No 15A NCAC 2L Standard has been established for these constituents

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BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date October 14, 1996

Source/Well MW-1

Time 9:25 am

Sampled by James Roberts

Weather Sunny, 60s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 22.75 ft.

2) Depth to well bottom from measuring point 33.67 ft.

3) Height of water column 10.92 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 1.78 gal.

2) Volume of water removed prior to sampling 5.3 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 58.3°F

2) Specific Conductance 140 μmhos

3) pH 7.0

4) Physical Appearance and Odor Tan, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date October 14, 1996

Source/Well MW-2

Time 12:05 pm

Sampled by James Roberts

Weather Sunny, upper 60s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 25.18 ft.

2) Depth to well bottom from measuring point 29.30 ft.

3) Height of water column 4.12 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) .67 gal.

2) Volume of water removed prior to sampling .75 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 61.1°F

2) Specific Conductance 166 μmhos

3) pH 6.5

4) Physical Appearance and Odor Tan, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date October 14, 1996

Source/Well MW-3

Time 10:20 am

Sampled by James Roberts

Weather Sunny, upper 60s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 7.04 ft.

2) Depth to well bottom from measuring point 23.85 ft.

3) Height of water column 16.81 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 2.74 gal.

2) Volume of water removed prior to sampling 8.5 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 59.2°F

2) Specific Conductance 89 μmhos

3) pH 6.5

4) Physical Appearance and Odor Tan, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date October 14, 1996

Source/Well MW-4

Time 11:30 am

Sampled by James Roberts

Weather Sunny, upper 60s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 34.03 ft.

2) Depth to well bottom from measuring point 49.90 ft.

3) Height of water column 15.87 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 2.59 gal.

2) Volume of water removed prior to sampling 8.0 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 62.2°F

2) Specific Conductance 480 μmhos

3) pH 6.5

4) Physical Appearance and Odor Brown, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date October 14, 1996

Source/Well MW-5

Time 12:25 pm

Sampled by James Roberts

Weather Sunny, 70s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 10.40 ft.

2) Depth to well bottom from measuring point 19.40 ft.

3) Height of water column 9.0 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 1.47 gal.

2) Volume of water removed prior to sampling 1.5 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 66.0°F

2) Specific Conductance 128 μmhos

3) pH 6.0

4) Physical Appearance and Odor Reddish, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date October 14, 1996

Source/Well MW-6

Time 1:25 pm

Sampled by James Roberts

Weather Sunny, 70s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 20.15 ft.

2) Depth to well bottom from measuring point 52.67 ft.

3) Height of water column 32.52 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 5.30 gal.

2) Volume of water removed prior to sampling 16.0 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 68.6°F

2) Specific Conductance 195 μmhos

3) pH 7.0

4) Physical Appearance and Odor Clearish

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date October 14, 1996

Source/Well MW-7A

Time 1:45 pm

Sampled by James Roberts

Weather Sunny, 70s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 24.05 ft.

2) Depth to well bottom from measuring point 63.33 ft.

3) Height of water column 39.28 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 6.40 gal.

2) Volume of water removed prior to sampling 20.0 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 68.9°F

2) Specific Conductance 30 μmhos

3) pH 6.5

4) Physical Appearance and Odor Clear

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date October 14, 1996

Source/Well MW-7B

Time 1:55 pm

Sampled by James Roberts

Weather Sunny, 70s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 23.03 ft.

2) Depth to well bottom from measuring point 32.45 ft.

3) Height of water column 9.42 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 1.54 gal.

2) Volume of water removed prior to sampling 1.75 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 64.6°F

2) Specific Conductance 25 μmhos

3) pH 7.0

4) Physical Appearance and Odor Brown, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date October 14, 1996

Source/Well MW-8A

Time 2:35 pm

Sampled by James Roberts

Weather Sunny, 70s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 21.60 ft.

2) Depth to well bottom from measuring point 63.35 ft.

3) Height of water column 41.75 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 6.81 gal.

2) Volume of water removed prior to sampling 20.5 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 69.3°F

2) Specific Conductance 21 μmhos

3) pH 7.0

4) Physical Appearance and Odor Clear

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date October 14, 1996

Source/Well MW-8B

Time 2:45 pm

Sampled by James Roberts

Weather Sunny, 70s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 20.96 ft.

2) Depth to well bottom from measuring point 25.80 ft.

3) Height of water column 4.84 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) .79 gal.

2) Volume of water removed prior to sampling 1.0 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 64.1°F

2) Specific Conductance 18 μmhos

3) pH 6.5

4) Physical Appearance and Odor Tan, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date October 14, 1996

Source/Well MW-9

Time 8:55 am

Sampled by James Roberts

Weather Sunny, 60s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 14.56 ft.

2) Depth to well bottom from measuring point 27.25 ft.

3) Height of water column 12.69 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 2.07 gal.

2) Volume of water removed prior to sampling 6.5 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 58.6°F

2) Specific Conductance 68 μmhos

3) pH 6.5

4) Physical Appearance and Odor Tan, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

SURFACE WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date October 14, 1996

Source/Well SW-1

Time 12:55 pm

Sampled by James Roberts

Weather Sunny, 70s

FIELD ANALYSIS

1) Temperature 68.8°F

2) Specific Conductance 260 μmhos

3) pH 6.5

4) Physical Appearance and Odor Clear

BPA ENVIRONMENTAL & ENGINEERING, INC.

SURFACE WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date October 14, 1996

Source/Well SW-2

Time 10:30 am

Sampled by James Roberts

Weather Sunny, upper 60s

FIELD ANALYSIS

1) Temperature 59.0°F

2) Specific Conductance 210 μmhos

3) pH 7.0

4) Physical Appearance and Odor Clear

IEA, Inc.
3000 Weston Parkway
Cary, NC 27513

Phone 919-677-0090
Fax 919-677-0427

IEA
An Aquarion Company

October 27, 1996

OCT 1996
RECEIVED

Wes Scarlett
BPA Environmental & Engineering, Inc.
2641-G Randleman Road
Greensboro, NC 27406

IEA Project No.: 631942D/9610320
IEA Reference No.: W9610101
Client Project I.D.: 170.010 SWEPSONVILLE

Dear Mr. Scarlett,

Transmitted herewith are the results of analyses on 13 samples submitted to our laboratory.

The samples were received intact.

Analyses were performed according to approved methodologies and meet the requirements of the IEA Quality Assurance Program except where noted. Please see the enclosed reports for your results and a copy of the Chain of Custody documentation.

Thank you for selecting IEA for your sample analysis. Please do not hesitate to call me at 1-919-677-0090 or 1-800-444-9919 should you have any questions regarding this report. We look forward to serving you in the future.

Very truly yours,

IEA, Inc.

L. Barnett
for Rodney Raimonde
Project Manager

IEA, Inc.
3000 Weston Parkway
Cary, NC 27513

Phone 919-677-0090
Fax 919-677-0427

IEA
An Aquarion Company

November 11, 1996

NOV 1996
RECEIVED

Wes Scarlett
BPA Environmental & Engineering, Inc.
2641-G Randleman Road
Greensboro, NC 27406

IEA Project No.: 631944\9610656
IEA Reference No.: W9610636
Client Project I.D.: 170.010 SWEPSONVILLE

Dear Mr. Scarlett,

Transmitted herewith are the results of analyses on 13 samples submitted to our laboratory.

The samples were received intact.

Analyses were performed according to approved methodologies and meet the requirements of the IEA Quality Assurance Program except where noted. Please see the enclosed reports for your results and a copy of the Chain of Custody documentation.

Thank you for selecting IEA for your sample analysis. Please do not hesitate to call me at 1-919-677-0090 or 1-800-444-9919 should you have any questions regarding this report. We look forward to serving you in the future.

Very truly yours,

IEA, Inc.

Jim Hays
Project Manager

IEA, Inc.
3000 Weston Parkway
Cary, NC 27513

Phone 919-677-0090
Fax 919-677-0427

IEA IEA-NORTH CAROLINA CERTIFICATIONS

An Aquarion Company

Certifying State	Program Type	Lab ID #
Alabama	DW	40210
Arkansas	WW	None Provided
California	DW, WW, HW Radiolog.	1768
Connecticut	DW, WW	PH-0135
Kansas	DW, HW, WW	E-158 (DW, WW) E-1189 (HW)
Kentucky	DW	90049
Maryland	DW, Radiolog.	259
Massachusetts	DW, WW	M-NC039
New Jersey	DW, WW Radiolog.	67719 67681
New York	Radiolog.	11422
North Carolina	DW WW Radiolog.	DW 37720 WW 84 Rad 37720
Ohio	Voluntary Action Program	CL00021
South Carolina	DW,WW,HW	99021
Tennessee	DW UST App List	02914
Utah	Radiolog. RCRA	E-206 E-226
Virginia	DW	00179
West Virginia	DW	9908C
Wisconsin	WW	998051010

DW=Drinking Water WW=Wastewater HW=Hazardous Waste Radiolog.=Radiological

Rev4.09/96

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_942D
IEA Sample #: 961032001 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 10/15/96
Client Proj. I.D.: 170.010 SWEPSONVILLE Date Sampled: 10/14/96
Sample I.D.: MW-1

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
ANTIMONY	SW846 6010	30.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
ARSENIC	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
BARIUM	SW846 6010	500.	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
BERYLLIUM	SW846 6010	2.00	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
CADMIUM	SW846 6010	1.00	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
CHROMIUM	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
COBALT	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
COPPER	SW846 6010	200.	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
LEAD	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
NICKEL	SW846 6010	50.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
SELENIUM	SW846 6010	20.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
SILVER	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
THALLIUM	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
VANADIUM	SW846 6010	40.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
ZINC	SW846 6010	50.0	69.7	10/17/96	10/25/96	FXW	R8422	10179603P

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_942D
IEA Sample #: 9610320002 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 10/15/96
Client Proj. I.D.: 170.010 SWEPSONVILLE Date Sampled: 10/14/96
Sample I.D.: MW-2

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
ANTIMONY	SW846 6010	30.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
ARSENIC	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
BARIUM	SW846 6010	500.	647.	10/17/96	10/25/96	FXW	R8422	10179603P
BERYLLIUM	SW846 6010	2.00	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
CADMIUM	SW846 6010	1.00	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
CHROMIUM	SW846 6010	10.0	49.8	10/17/96	10/25/96	FXW	R8422	10179603P
COBALT	SW846 6010	10.0	21.7	10/17/96	10/25/96	FXW	R8422	10179603P
COPPER	SW846 6010	200.	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
LEAD	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
NICKEL	SW846 6010	50.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
SELENIUM	SW846 6010	20.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
SILVER	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
THALLIUM	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
VANADIUM	SW846 6010	40.0	186.	10/17/96	10/25/96	FXW	R8422	10179603P
ZINC	SW846 6010	50.0	144.	10/17/96	10/25/96	FXW	R8422	10179603P

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_942D
IEA Sample #: 961032003 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 10/15/96
Client Proj. I.D.: 170.010 SWEPSONVILLE Date Sampled: 10/14/96
Sample I.D.: MW-3

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
ANTIMONY	SW846 6010	30.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
ARSENIC	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
BARIUM	SW846 6010	500.	1140	10/17/96	10/25/96	FXW	R8422	10179603P
BERYLLIUM	SW846 6010	2.00	2.70	10/17/96	10/25/96	FXW	R8422	10179603P
CADMIUM	SW846 6010	1.00	8.33	10/17/96	10/25/96	RH	R8423	10179603P
CHROMIUM	SW846 6010	10.0	92.6	10/17/96	10/25/96	FXW	R8422	10179603P
COBALT	SW846 6010	10.0	47.5	10/17/96	10/25/96	FXW	R8422	10179603P
COPPER	SW846 6010	200.	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
LEAD	SW846 6010	10.0	11.8	10/17/96	10/25/96	FXW	R8422	10179603P
NICKEL	SW846 6010	50.0	52.6	10/17/96	10/25/96	FXW	R8422	10179603P
SELENIUM	SW846 6010	20.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
SILVER	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
THALLIUM	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
VANADIUM	SW846 6010	40.0	279.	10/17/96	10/25/96	FXW	R8422	10179603P
ZINC	SW846 6010	50.0	256.	10/17/96	10/25/96	FXW	R8422	10179603P

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_942D
IEA Sample #: 9610320004 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 10/15/96
Client Proj. I.D.: 170.010 SWEPSONVILLE Date Sampled: 10/14/96
Sample I.D.: MW-4

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
ANTIMONY	SW846 6010	30.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
ARSENIC	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
BARIUM	SW846 6010	500.	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
BERYLLIUM	SW846 6010	2.00	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
CADMIUM	SW846 6010	1.00	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
CHROMIUM	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
COBALT	SW846 6010	10.0	37.6	10/17/96	10/25/96	FXW	R8422	10179603P
COPPER	SW846 6010	200.	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
LEAD	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
NICKEL	SW846 6010	50.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
SELENIUM	SW846 6010	20.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
SILVER	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
THALLIUM	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
VANADIUM	SW846 6010	40.0	222.	10/17/96	10/25/96	FXW	R8422	10179603P
ZINC	SW846 6010	50.0	58.5	10/17/96	10/25/96	FXW	R8422	10179603P

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_942D
IEA Sample #: 961032005 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 10/15/96
Client Proj. I.D.: 170.010 SWEPSONVILLE Date Sampled: 10/14/96
Sample I.D.: MW-5

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
ANTIMONY	SW846 6010	30.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
ARSENIC	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
BARIUM	SW846 6010	500.	808.	10/17/96	10/25/96	FXW	R8422	10179603P
BERYLLIUM	SW846 6010	2.00	3.41	10/17/96	10/25/96	FXW	R8422	10179603P
CADMIUM	SW846 6010	1.00	3.67	10/17/96	10/25/96	RH	R8423	10179603P
CHROMIUM	SW846 6010	10.0	145.	10/17/96	10/25/96	FXW	R8422	10179603P
COBALT	SW846 6010	10.0	54.8	10/17/96	10/25/96	FXW	R8422	10179603P
COPPER	SW846 6010	200.	232.	10/17/96	10/25/96	FXW	R8422	10179603P
LEAD	SW846 6010	10.0	36.2	10/17/96	10/25/96	FXW	R8422	10179603P
NICKEL	SW846 6010	50.0	59.6	10/17/96	10/25/96	FXW	R8422	10179603P
SELENIUM	SW846 6010	20.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
SILVER	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
THALLIUM	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
VANADIUM	SW846 6010	40.0	470.	10/17/96	10/25/96	FXW	R8422	10179603P
ZINC	SW846 6010	50.0	255.	10/17/96	10/25/96	FXW	R8422	10179603P

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_942D
IEA Sample #: 961032006 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 10/15/96
Client Proj. I.D.: 170.010 SWEPSONVILLE Date Sampled: 10/14/96
Sample I.D.: MW-6

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
ANTIMONY	SW846 6010	30.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
ARSENIC	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
BARIUM	SW846 6010	500.	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
BERYLLIUM	SW846 6010	2.00	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
CADMIUM	SW846 6010	1.00	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
CHROMIUM	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
COBALT	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
COPPER	SW846 6010	200.	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
LEAD	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
NICKEL	SW846 6010	50.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
SELENIUM	SW846 6010	20.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
SILVER	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
THALLIUM	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
VANADIUM	SW846 6010	40.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
ZINC	SW846 6010	50.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_942D
IEA Sample #: 961032007 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 10/15/96
Client Proj. I.D.: 170.010 SWEPSONVILLE Date Sampled: 10/14/96
Sample I.D.: MW-7A

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
ANTIMONY	SW846 6010	30.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
ARSENIC	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
BARIUM	SW846 6010	500.	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
BERYLLIUM	SW846 6010	2.00	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
CADMIUM	SW846 6010	1.00	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
CHROMIUM	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
COBALT	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
COPPER	SW846 6010	200.	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
LEAD	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
NICKEL	SW846 6010	50.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
SELENIUM	SW846 6010	20.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
SILVER	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
THALLIUM	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
VANADIUM	SW846 6010	40.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
ZINC	SW846 6010	50.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_942D
IEA Sample #: 9610320008 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 10/15/96
Client Proj. I.D.: 170.010 SWEPSONVILLE Date Sampled: 10/14/96
Sample I.D.: MW-7B

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
ANTIMONY	SW846 6010	30.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
ARSENIC	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
BARIUM	SW846 6010	500.	844.	10/17/96	10/25/96	FXW	R8422	10179603P
BERYLLIUM	SW846 6010	2.00	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
CADMIUM	SW846 6010	1.00	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
CHROMIUM	SW846 6010	10.0	21.6	10/17/96	10/25/96	FXW	R8422	10179603P
COBALT	SW846 6010	10.0	41.0	10/17/96	10/25/96	FXW	R8422	10179603P
COPPER	SW846 6010	200.	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
LEAD	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
NICKEL	SW846 6010	50.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
SELENIUM	SW846 6010	20.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
SILVER	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
THALLIUM	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
VANADIUM	SW846 6010	40.0	136.	10/17/96	10/25/96	FXW	R8422	10179603P
ZINC	SW846 6010	50.0	145.	10/17/96	10/25/96	FXW	R8422	10179603P

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_942D
IEA Sample #: 961032009 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 10/15/96
Client Proj. I.D.: 170.010 SWEPSONVILLE Date Sampled: 10/14/96
Sample I.D.: MW-8A

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
ANTIMONY	SW846 6010	30.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
ARSENIC	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
BARIUM	SW846 6010	500.	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
BERYLLIUM	SW846 6010	2.00	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
CADMIUM	SW846 6010	1.00	1.18	10/17/96	10/25/96	FXW	R8422	10179603P
CHROMIUM	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
COBALT	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
COPPER	SW846 6010	200.	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
LEAD	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
NICKEL	SW846 6010	50.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
SELENIUM	SW846 6010	20.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
SILVER	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
THALLIUM	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
VANADIUM	SW846 6010	40.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
ZINC	SW846 6010	50.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_942D
IEA Sample #: 961032010 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 10/15/96
Client Proj. I.D.: 170.010 SWEPSONVILLE Date Sampled: 10/14/96
Sample I.D.: MW-8B

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
NTIMONY	SW846 6010	30.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
RSENIC	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
BARIUM	SW846 6010	500.	506.	10/17/96	10/25/96	FXW	R8422	10179603P
BERYLLIUM	SW846 6010	2.00	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
ADMIUM	SW846 6010	1.00	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
HROMIUM	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
COBALT	SW846 6010	10.0	23.3	10/17/96	10/25/96	FXW	R8422	10179603P
OPPER	SW846 6010	200.	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
EAD	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
NICKEL	SW846 6010	50.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
SELENIUM	SW846 6010	20.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
ILVER	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
HALLIUM	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
VANADIUM	SW846 6010	40.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
ZINC	SW846 6010	50.0	108.	10/17/96	10/25/96	FXW	R8422	10179603P

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_942D
IEA Sample #: 961032011 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 10/15/96
Client Proj. I.D.: 170.010 SWEPSONVILLE Date Sampled: 10/14/96
Sample I.D.: MW-9

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
ANTIMONY	SW846 6010	30.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
ARSENIC	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
BARIUM	SW846 6010	500.	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
BERYLLIUM	SW846 6010	2.00	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
CADMIUM	SW846 6010	1.00	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
CHROMIUM	SW846 6010	10.0	23.9	10/17/96	10/25/96	FXW	R8422	10179603P
COBALT	SW846 6010	10.0	73.4	10/17/96	10/25/96	FXW	R8422	10179603P
COPPER	SW846 6010	200.	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
LEAD	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
NICKEL	SW846 6010	50.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
SELENIUM	SW846 6010	20.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
SILVER	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
THALLIUM	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
VANADIUM	SW846 6010	40.0	53.9	10/17/96	10/25/96	FXW	R8422	10179603P
ZINC	SW846 6010	50.0	77.3	10/17/96	10/25/96	FXW	R8422	10179603P

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_942D
IEA Sample #: 9610320 12 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 10/15/96
Client Proj. I.D.: 170.010 SWEPSONVILLE Date Sampled: 10/14/96
Sample I.D.: SW-1

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
ANTIMONY	SW846 6010	30.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
ARSENIC	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
BARIUM	SW846 6010	500.	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
BERYLLIUM	SW846 6010	2.00	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
CADMIUM	SW846 6010	1.00	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
CHROMIUM	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
COBALT	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
COPPER	SW846 6010	200.	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
LEAD	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
NICKEL	SW846 6010	50.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
SELENIUM	SW846 6010	20.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
SILVER	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
THALLIUM	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
VANADIUM	SW846 6010	40.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
ZINC	SW846 6010	50.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_942D
IEA Sample #: 961032013 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 10/15/96
Client Proj. I.D.: 170.010 SWEPSONVILLE Date Sampled: 10/14/96
Sample I.D.: SW-2

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
ANTIMONY	SW846 6010	30.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
ARSENIC	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
BARIUM	SW846 6010	500.	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
BERYLLIUM	SW846 6010	2.00	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
CADMIUM	SW846 6010	1.00	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
CHROMIUM	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
COBALT	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
COPPER	SW846 6010	200.	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
LEAD	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
NICKEL	SW846 6010	50.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
SELENIUM	SW846 6010	20.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
SILVER	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
THALLIUM	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
VANADIUM	SW846 6010	40.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
ZINC	SW846 6010	50.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
PREPARATION BLANKS

IEA Project #: 631_942D
Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC
Client Proj. I.D.: 170.010 SWEPSONVILLE
Sample Number: PBW 10179603P (1)

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
ANTIMONY	SW846 6010	30.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
ARSENIC	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
BARIUM	SW846 6010	500.	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
BERYLLIUM	SW846 6010	2.00	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
CADMIUM	SW846 6010	1.00	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
CHROMIUM	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
COBALT	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
COPPER	SW846 6010	200.	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
LEAD	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
NICKEL	SW846 6010	50.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
SELENIUM	SW846 6010	20.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
SILVER	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
THALLIUM	SW846 6010	10.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
VANADIUM	SW846 6010	40.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P
ZINC	SW846 6010	50.0	BQL	10/17/96	10/25/96	FXW	R8422	10179603P

Corresponding Samples:
961031601, 961032001, 961032002, 961032003, 961032004, 961032005, 961032006, 961032007, 961032008, 961032009, 961032010, 961032011, 961032012, 961032013, 961034408

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
LABORATORY CONTROL SAMPLE

IEA Project #: 631_942D
IEA Sample #: LCSW 10179603P (1)
Matrix: WATER

Parameter	Method	Results (ug/l) True	Found	Limits Lower	Upper	% RCY	Date Analyzed	IEA Run	Prep Batch
ANTIMONY	SW846 6010	5000	5010	4000	6000	100.	10/25/96	R8422	10179603P
ARSENIC	SW846 6010	5000	5020	4000	6000	100.	10/25/96	R8422	10179603P
BARIUM	SW846 6010	5000	4880	4000	6000	97.7	10/25/96	R8422	10179603P
BERYLLIUM	SW846 6010	5000	5230	4000	6000	104.	10/25/96	R8422	10179603P
CADMIUM	SW846 6010	5000	5060	4000	6000	101.	10/25/96	R8422	10179603P
CHROMIUM	SW846 6010	5000	5010	4000	6000	100.	10/25/96	R8422	10179603P
COBALT	SW846 6010	5000	5060	4000	6000	101.	10/25/96	R8422	10179603P
COPPER	SW846 6010	5000	5350	4000	6000	107.	10/25/96	R8422	10179603P
LEAD	SW846 6010	5000	5040	4000	6000	101.	10/25/96	R8422	10179603P
NICKEL	SW846 6010	5000	4950	4000	6000	99.0	10/25/96	R8422	10179603P
SELENIUM	SW846 6010	5000	5030	4000	6000	100.	10/25/96	R8422	10179603P
SILVER	SW846 6010	500	526.	400	600	105.	10/25/96	R8422	10179603P
THALLIUM	SW846 6010	5000	4980	4000	6000	99.7	10/25/96	R8422	10179603P
VANADIUM	SW846 6010	5000	4980	4000	6000	99.7	10/25/96	R8422	10179603P
ZINC	SW846 6010	5000	4950	4000	6000	99.1	10/25/96	R8422	10179603P

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
DUPLICATE ANALYSIS

IEA Project #: 631_942D
IEA Sample #: 961032009
Matrix: WATER

Parameter	Method	Duplicate Analysis Sample (ug/l)	Duplicate (ug/l)	RPD %	Date Analyzed	Samp Run	Dup Run	Prep Batch
ANTIMONY	SW846 6010	BQL	BQL		10/25/96	R8422	R8422	10179603P
ARSENIC	SW846 6010	BQL	BQL		10/25/96	R8422	R8422	10179603P
BARIUM	SW846 6010	BQL	BQL		10/25/96	R8422	R8422	10179603P
BERYLLIUM	SW846 6010	BQL	BQL		10/25/96	R8422	R8422	10179603P
CADMIUM	SW846 6010	1.18	1.08	9.35	10/25/96	R8422	R8422	10179603P
CHROMIUM	SW846 6010	BQL	BQL		10/25/96	R8422	R8422	10179603P
COBALT	SW846 6010	BQL	BQL		10/25/96	R8422	R8422	10179603P
COPPER	SW846 6010	BQL	BQL		10/25/96	R8422	R8422	10179603P
LEAD	SW846 6010	BQL	BQL		10/25/96	R8422	R8422	10179603P
NICKEL	SW846 6010	BQL	BQL		10/25/96	R8422	R8422	10179603P
SELENIUM	SW846 6010	BQL	BQL		10/25/96	R8422	R8422	10179603P
SILVER	SW846 6010	BQL	BQL		10/25/96	R8422	R8422	10179603P
THALLIUM	SW846 6010	BQL	BQL		10/25/96	R8422	R8422	10179603P
VANADIUM	SW846 6010	BQL	BQL		10/25/96	R8422	R8422	10179603P
ZINC	SW846 6010	BQL	BQL		10/25/96	R8422	R8422	10179603P

$$RPD = \frac{S-D}{(S+D)/2} \times 100$$

Control Limits: +/- 20%

Corresponding Samples:
961031601, 961032001, 961032002, 961032003, 961032004, 961032005, 961032006, 961032007, 961032008, 961032009, 961032010, 961032011, 961032012, 961032013, 961034408

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
SPIKE RESULTS

IEA Project #: 631_942D
IEA Sample #: 961032009
Matrix: WATER

Spike Results (ug/l)

Parameter	Method	SA	SR	SSR	%RCY	Date Analyzed	Samp Run	Spike Run	Prep Batch
ANTIMONY	SW846 6010	500.	BQL	492.	98.4	10/25/96	R8422	R8422	10179603P
ARSENIC	SW846 6010	2000	BQL	2000	99.8	10/25/96	R8422	R8422	10179603P
BARIUM	SW846 6010	2000	BQL	1930	96.3	10/25/96	R8422	R8422	10179603P
BERYLLIUM	SW846 6010	50.0	BQL	50.8	102.	10/25/96	R8422	R8422	10179603P
CADMIUM	SW846 6010	50.0	1.18	51.9	101.	10/25/96	R8422	R8422	10179603P
CHROMIUM	SW846 6010	200.	BQL	201.	100.	10/25/96	R8422	R8422	10179603P
COBALT	SW846 6010	500.	BQL	497.	99.4	10/25/96	R8422	R8422	10179603P
COPPER	SW846 6010	250.	BQL	272.	109.	10/25/96	R8422	R8422	10179603P
LEAD	SW846 6010	500.	BQL	501.	100.	10/25/96	R8422	R8422	10179603P
NICKEL	SW846 6010	500.	BQL	503.	100.	10/25/96	R8422	R8422	10179603P
SELENIUM	SW846 6010	2000	BQL	1980	99.2	10/25/96	R8422	R8422	10179603P
SILVER	SW846 6010	50.0	BQL	54.4	109.	10/25/96	R8422	R8422	10179603P
THALLIUM	SW846 6010	2000	BQL	1970	98.5	10/25/96	R8422	R8422	10179603P
VANADIUM	SW846 6010	500.	BQL	498.	99.6	10/25/96	R8422	R8422	10179603P
ZINC	SW846 6010	500.	BQL	534.	107.	10/25/96	R8422	R8422	10179603P

%R = ((SSR - SR) / SA) * 100 Control Limits: 75-125%

Corresponding Samples:
961031601, 961032001, 961032002, 961032003, 961032004, 961032005, 961032006, 961032007, 961032008, 961032009, 961032010, 961032011, 961032012, 961032013, 961034408

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
SPIKE DUPLICATE RESULTS

IEA Project #: 631_942D
IEA Sample #: 961032009S
Matrix: WATER

Spike Duplicate Results

Parameter	Method	Sample (ug/l)	Duplicate (ug/l)	RPD %	Date Analyzed	Samp Run	Dup Run	Prep Batch
ANTIMONY	SW846 6010	492.	496.	0.86	10/25/96	R8422	R8422	10179603P
ARSENIC	SW846 6010	2000	1990	0.39	10/25/96	R8422	R8422	10179603P
BARIUM	SW846 6010	1930	1920	0.19	10/25/96	R8422	R8422	10179603P
BERYLLIUM	SW846 6010	50.8	50.7	0.23	10/25/96	R8422	R8422	10179603P
CADMIUM	SW846 6010	51.9	51.6	0.51	10/25/96	R8422	R8422	10179603P
CHROMIUM	SW846 6010	201.	200.	0.43	10/25/96	R8422	R8422	10179603P
COBALT	SW846 6010	497.	496.	0.26	10/25/96	R8422	R8422	10179603P
COPPER	SW846 6010	272.	270.	0.73	10/25/96	R8422	R8422	10179603P
LEAD	SW846 6010	501.	500.	0.13	10/25/96	R8422	R8422	10179603P
NICKEL	SW846 6010	503.	501.	0.31	10/25/96	R8422	R8422	10179603P
SELENIUM	SW846 6010	1980	1970	0.51	10/25/96	R8422	R8422	10179603P
SILVER	SW846 6010	54.4	53.5	1.62	10/25/96	R8422	R8422	10179603P
THALLIUM	SW846 6010	1970	1960	0.37	10/25/96	R8422	R8422	10179603P
VANADIUM	SW846 6010	498.	497.	0.30	10/25/96	R8422	R8422	10179603P
ZINC	SW846 6010	534.	530.	0.81	10/25/96	R8422	R8422	10179603P

$$RPD = \frac{S-D}{(S+D)/2} \times 100$$

Control Limits: +/- 20%

Corresponding Samples:
961031601, 961032001, 961032002, 961032003, 961032004, 961032005, 961032006, 961032007, 961032008, 961032009, 961032010, 961032011, 961032012, 961032013, 961034408

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_944DR
IEA Sample #: 961065601 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 10/31/96
Client Proj. I.D.: 170.010 SWEPSONVILLE Date Sampled: 10/14/96
Sample I.D.: MW-1

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
MERCURY	SW846 7470	0.500	BQL	11/01/96	11/04/96	PW	R8590	11019601H

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_944DR
IEA Sample #: 961065602 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 10/31/96
Client Proj. I.D.: 170.010 SWEPSONVILLE Date Sampled: 10/14/96
Sample I.D.: MW-2

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
MERCURY	SW846 7470	0.500	BQL	11/01/96	11/04/96	PW	R8590	11019601H

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_944DR
IEA Sample #: 961065603 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 10/31/96
Client Proj. I.D.: 170.010 SWEPSONVILLE Date Sampled: 10/14/96
Sample I.D.: MW-3

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
MERCURY	SW846 7470	0.500	BQL	11/01/96	11/04/96	PW	R8590	11019601H

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_944DR
IEA Sample #: 961065604 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 10/31/96
Client Proj. I.D.: 170.010 SWEPSONVILLE Date Sampled: 10/14/96
Sample I.D.: MW-4

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
MERCURY	SW846 7470	0.500	0.588	11/01/96	11/04/96	PW	R8590	11019601H

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_944DR
IEA Sample #: 961065605 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 10/31/96
Client Proj. I.D.: 170.010 SWEPSONVILLE Date Sampled: 10/14/96
Sample I.D.: MW-5

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
MERCURY	SW846 7470	0.500	BQL	11/01/96	11/04/96	PW	R8590	11019601H

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_944DR
IEA Sample #: 961065606 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 10/31/96
Client Proj. I.D.: 170.010 SWEPSONVILLE Date Sampled: 10/14/96
Sample I.D.: MW-6

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
MERCURY	SW846 7470	0.500	BQL	11/01/96	11/04/96	PW	R8590	11019601H

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_944DR
IEA Sample #: 961065607 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 10/31/96
Client Proj. I.D.: 170.010 SWEPSONVILLE Date Sampled: 10/14/96
Sample I.D.: MW-7A

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
MERCURY	SW846 7470	0.500	BQL	11/01/96	11/04/96	PW	R8590	11019601H

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_944DR
IEA Sample #: 961065608 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 10/31/96
Client Proj. I.D.: 170.010 SWEPSONVILLE Date Sampled: 10/14/96
Sample I.D.: MW-7B

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
MERCURY	SW846 7470	0.500	BQL	11/01/96	11/04/96	PW	R8590	11019601H

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_944DR
IEA Sample #: 961065609 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 10/31/96
Client Proj. I.D.: 170.010 SWEPSONVILLE Date Sampled: 10/14/96
Sample I.D.: MW-8A

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
MERCURY	SW846 7470	0.500	BQL	11/01/96	11/04/96	PW	R8590	11019601H

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_944DR
IEA Sample #: 961065610 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 10/31/96
Client Proj. I.D.: 170.010 SWEPSONVILLE Date Sampled: 10/14/96
Sample I.D.: MW-8B

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
MERCURY	SW846 7470	0.500	BQL	11/01/96	11/04/96	PW	R8590	11019601H

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_944DR
IEA Sample #: 961065611 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 10/31/96
Client Proj. I.D.: 170.010 SWEPSONVILLE Date Sampled: 10/14/96
Sample I.D.: MW-9

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
MERCURY	SW846 7470	0.500	BQL	11/01/96	11/04/96	PW	R8590	11019601H

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_944DR
IEA Sample #: 961065612 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 10/31/96
Client Proj. I.D.: 170.010 SWEPSONVILLE Date Sampled: 10/14/96
Sample I.D.: SW-1

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
MERCURY	SW846 7470	0.500	BQL	11/01/96	11/04/96	PW	R8590	11019601H

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_944DR
IEA Sample #: 961065613 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 10/31/96
Client Proj. I.D.: 170.010 SWEPSONVILLE Date Sampled: 10/14/96
Sample I.D.: SW-2

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
MERCURY	SW846 7470	0.500	BQL	11/01/96	11/04/96	PW	R8590	11019601H

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
PREPARATION BLANKS

IEA Project #: 631_944DR
Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC
Client Proj. I.D.: 170.010 SWEPSONVILLE
Sample Number: PBW 11019601H

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
MERCURY	SW846 7470	0.500	BQL	11/01/96	11/04/96	PW	R8590	11019601H

Corresponding Samples:
961057402, 961063706, 961063707, 961063708, 961063709, 961065601, 961065602, 961065603, 961065604, 961065605, 961065606, 961065607, 961065608, 961065609, 961065610, 961065611, 961065612, 961065613

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
DUPLICATE ANALYSIS

IEA Project #: 631_944DR
IEA Sample #: 961057402
Matrix: WATER

Duplicate Analysis

Parameter	Method	Sample (ug/l)	Duplicate (ug/l)	RPD %	Date Analyzed	Samp Run	Dup Run	Prep Batch
MERCURY	SW846 7470	BQL	BQL		11/04/96	R8590	R8590	11019601H

$$RPD = \frac{S-D}{(S+D)/2} \times 100$$

Control Limits: +/- 20%

Corresponding Samples:
961057402, 961063706, 961063707, 961063708, 961063709, 961065601, 961065602, 961065603, 961065604, 961065605, 961065606, 961065607, 961065608, 961065609, 961065610, 961065611, 961065612, 961065613

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
SPIKE RESULTS

IEA Project #: 631_944DR
IEA Sample #: 961057402
Matrix: WATER

Spike Results (ug/l)

Parameter	Method	SA	SR	SSR	%RCY	Date Analyzed	Samp Run	Spike Run	Prep Batch
MERCURY	SW846 7470	1.00	BQL	0.996	99.6	11/04/96	R8590	R8590	11019601H

%R = ((SSR - SR) / SA) * 100 Control Limits: 75-125%

Corresponding Samples:
961057402, 961063706, 961063707, 961063708, 961063709, 961065601, 961065602, 961065603, 961065604, 961065605, 961065606, 961065607, 961065608, 961065609, 961065610, 961065611, 961065612, 961065613

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
SPIKE DUPLICATE RESULTS

IEA Project #: 631_944DR
IEA Sample #: 961057402S
Matrix: WATER

Spike Duplicate Results

Parameter	Method	Sample (ug/l)	Duplicate (ug/l)	RPD %	Date Analyzed	Samp Run	Dup Run	Prep Batch
MERCURY	SW846 7470	0.996	0.992	0.40	11/04/96	R8590	R8590	11019601H

$$RPD = \frac{S-D}{(S+D)/2} \times 100$$

Control Limits: +/- 20%

Corresponding Samples:
961057402, 961063706, 961063707, 961063708, 961063709, 961065601, 961065602, 961065603, 961065604, 961065605, 961065606, 961065607, 961065608, 961065609, 961065610, 961065611, 961065612, 961065613

Comments:

Client-specific quantitative limits used.

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-942	Date Received:	10/15/96
IEA Sample Number:	9610320-01	Date Sampled:	10/14/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/23/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	CREWES
Sample Identification:	MW-1	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-942	Date Received:	10/15/96
IEA Sample Number:	9610320-01	Date Sampled:	10/14/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/23/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	CREWES
Sample Identification:	MW-1	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-942	Date Received:	10/15/96
IEA Sample Number:	9610320-02	Date Sampled:	10/14/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/23/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	CREWES
Sample Identification:	MW-2	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	31
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	7.0
25	cis-1,2-Dichloroethene	5	8.4
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-942	Date Received:	10/15/96
IEA Sample Number:	9610320-02	Date Sampled:	10/14/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/23/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	CREWES
Sample Identification:	MW-2	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	8.3
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	10
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

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Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-942	Date Received:	10/15/96
IEA Sample Number:	9610320-03	Date Sampled:	10/14/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/23/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	CREWES
Sample Identification:	MW-3	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-942	Date Received:	10/15/96
IEA Sample Number:	9610320-03	Date Sampled:	10/14/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/23/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	CREWES
Sample Identification:	MW-3	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-942	Date Received:	10/15/96
IEA Sample Number:	9610320-04	Date Sampled:	10/14/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/23/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	MOORE
Sample Identification:	MW-4	Dilution Factor:	2.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	29
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	310
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-942	Date Received:	10/15/96
IEA Sample Number:	9610320-04	Date Sampled:	10/14/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/23/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	MOORE
Sample Identification:	MW-4	Dilution Factor:	2.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	85
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	42
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit
Quantitation limit elevated due to sample dilution prior to analysis.
Sample diluted due to high concentration of target compounds present.

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Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-942	Date Received:	10/15/96
IEA Sample Number:	9610320-05	Date Sampled:	10/14/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/22/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	MOORE
Sample Identification:	MW-5	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-942	Date Received:	10/15/96
IEA Sample Number:	9610320-05	Date Sampled:	10/14/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/22/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	MOORE
Sample Identification:	MW-5	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-942	Date Received:	10/15/96
IEA Sample Number:	9610320-06	Date Sampled:	10/14/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/22/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	MOORE
Sample Identification:	MW-6	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
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Appendix I Target List

IEA Project Number:	631-942	Date Received:	10/15/96
IEA Sample Number:	9610320-06	Date Sampled:	10/14/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/22/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	MOORE
Sample Identification:	MW-6	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
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Appendix I Target List

IEA Project Number:	631-942	Date Received:	10/15/96
IEA Sample Number:	9610320-07	Date Sampled:	10/14/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/22/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	MOORE
Sample Identification:	MW-7A	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
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Appendix I Target List

IEA Project Number:	631-942	Date Received:	10/15/96
IEA Sample Number:	9610320-07	Date Sampled:	10/14/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/22/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	MOORE
Sample Identification:	MW-7A	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

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Appendix I Target List

IEA Project Number:	631-942	Date Received:	10/15/96
IEA Sample Number:	9610320-08	Date Sampled:	10/14/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/22/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	MOORE
Sample Identification:	MW-7B	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

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IEA Project Number:	631-942	Date Received:	10/15/96
IEA Sample Number:	9610320-08	Date Sampled:	10/14/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/22/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	MOORE
Sample Identification:	MW-7B	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

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IEA Project Number:	631-942	Date Received:	10/15/96
IEA Sample Number:	9610320-09	Date Sampled:	10/14/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/22/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	MOORE
Sample Identification:	MW-8A	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

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IEA Project Number:	631-942	Date Received:	10/15/96
IEA Sample Number:	9610320-09	Date Sampled:	10/14/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/22/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	MOORE
Sample Identification:	MW-8A	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
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IEA Project Number:	631-942	Date Received:	10/15/96
IEA Sample Number:	9610320-10	Date Sampled:	10/14/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/22/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	MOORE
Sample Identification:	MW-8B	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

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IEA Project Number:	631-942	Date Received:	10/15/96
IEA Sample Number:	9610320-10	Date Sampled:	10/14/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/22/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	MOORE
Sample Identification:	MW-8B	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

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IEA Project Number:	631-942	Date Received:	10/15/96
IEA Sample Number:	9610320-11	Date Sampled:	10/14/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/22/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	MOORE
Sample Identification:	MW-9	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

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IEA Project Number:	631-942	Date Received:	10/15/96
IEA Sample Number:	9610320-11	Date Sampled:	10/14/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/22/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	MOORE
Sample Identification:	MW-9	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

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IEA Project Number:	631-942	Date Received:	10/15/96
IEA Sample Number:	9610320-12	Date Sampled:	10/14/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/22/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	MOORE
Sample Identification:	SW-1	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

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IEA Project Number:	631-942	Date Received:	10/15/96
IEA Sample Number:	9610320-12	Date Sampled:	10/14/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/22/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	MOORE
Sample Identification:	SW-1	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-942	Date Received:	10/15/96
IEA Sample Number:	9610320-13	Date Sampled:	10/14/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/22/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	MOORE
Sample Identification:	SW-2	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-942	Date Received:	10/15/96
IEA Sample Number:	9610320-13	Date Sampled:	10/14/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/22/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	MOORE
Sample Identification:	SW-2	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-942	Date Received:	N/A
IEA Sample Number:	9610320	Date Sampled:	N/A
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/22/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	CREWES
Sample Identification:	QC BLANK (VBLK57)	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-942	Date Received:	N/A
IEA Sample Number:	9610320	Date Sampled:	N/A
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/22/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	CREWES
Sample Identification:	QC BLANK (VBLK57)	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit
N/A = Not Applicable
Corresponding Samples: 9610320-01, 02, 03, 9610411-09MS/MSD
Filename: 1022E02
FORM APPI8260 Rev. 060195

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-942	Date Received:	N/A
IEA Sample Number:	9610320	Date Sampled:	N/A
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/23/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	MOORE
Sample Identification:	QC BLANK (VBLK58)	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-942	Date Received:	N/A
IEA Sample Number:	9610320	Date Sampled:	N/A
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/23/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	MOORE
Sample Identification:	QC BLANK (VBLK58)	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit
N/A = Not Applicable
Corresponding Samples: 9610320-04
Filename: 1023502
FORM APPI8260 Rev. 060195

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-942	Date Received:	N/A
IEA Sample Number:	9610320	Date Sampled:	N/A
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/22/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	MOORE
Sample Identification:	QC BLANK (VBLK56)	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-942	Date Received:	N/A
IEA Sample Number:	9610320	Date Sampled:	N/A
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/22/96
Client Project I.D.:	170.010 SWEPSONVILLE	Analysis By:	MOORE
Sample Identification:	QC BLANK (VBLK56)	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit
N/A = Not Applicable
Corresponding Samples: 9610320-05 through 13
Filename: 1022503
FORM APPI8260 Rev. 060195

Industrial & Environmental Analysts, Inc. (IEA)
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

IEA Project No.: 631-942
IEA Reference No: 9610411-09

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC
1,1-Dichloroethene	50	BQL	54	108	61-145
Trichloroethene	50	BQL	48	96	71-120
Benzene	50	BQL	52	104	76-127
Toluene	50	BQL	50	100	76-125
Chlorobenzene	50	BQL	50	100	75-130

	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
1,1-Dichloroethene	50	53	106	2	14	61-145
Trichloroethene	50	48	96	0	14	71-120
Benzene	50	51	102	2	11	76-127
Toluene	50	49	98	2	13	76-125
Chlorobenzene	50	49	98	2	13	75-130

Comments:

FORM WAVOLMAS REV 012492

Industrial & Environmental Analysts, Inc. (IEA)
8260 VOLATILE SURROGATE RECOVERY

IEA Project No.: 631-942

Sample ID	SURR 1	SURR 2	SURR 3
VBLK57	96	91	99
9610320-01	96	94	96
9610320-02	98	91	97
9610320-03	98	96	96
9610411-09MS	97	92	95
9610411-09MSD	98	93	96
VBLK58	95	88	99
9610320-04	98	94	95
VBLK56	97	94	93
9610320-05	99	93	96
9610320-06	97	87	96
9610320-07	98	100	91
9610320-08	98	91	97
9610320-09	98	94	98
9610320-10	98	92	96
9610320-11	98	93	97
9610320-12	99	94	95
9610320-13	98	95	95

	QC Limits
S1 = Toluene-d8	(90-123)
S2 = 4-Bromofluorobenzene	(75-129)
S3 = 1,2-Dichloroethane-d4	(70-139)

IEA
An Aquarion Company

3000 WESTON PKWY.
CARY, N.C. 27513
PH # 919-677-0090
FAX # 919-677-0427

CHAIN OF CUSTODY RECORD

NO. 73104

REGULATORY CLASSIFICATION - PLEASE SPECIFY

☐ NPDES ☐ DRINKING WATER ☐ RCRA ☐ OTHER _____

COMPANY: BPA Environmental & Engineering

Page 1 of 2

PROJECT NO.: 170.010

PROJECT NAME: Swicegsonville landfill

SAMPLERS: (SIGNATURE) James P. Roberts

SAMPLE NO.	TIME	DATE			# OF CONTAINERS	SOIL	WATER	Apdix I metals & T-Hg	Apdix I vol
MW-1	925	10-14-96		✓	3		✓	✓	✓
MW-2	1205			✓	3		✓	✓	✓
MW-3	1020			✓	3		✓	✓	✓
MW-4	1130			✓	3		✓	✓	✓
MW-5	1225			✓	3		✓	✓	✓
MW-6	1325			✓	3		✓	✓	✓
MW-7A	1345			✓	3		✓	✓	✓
MW-7B	1355			✓	3		✓	✓	✓
MW-8A	1435			✓	3		✓	✓	✓
MW-8B	1345			✓	3		✓	✓	✓

RELINQUISHED BY: SIGNATURE	DATE	TIME	RECEIVED BY: SIGNATURE	DATE	TIME
[illegible]	10/8/96				
James P. Roberts	10/15/96	800 hr	[illegible]	10/15/96	4:00 pm

IEA QUOTE NO.: W7610163

IEA RUSH NO.:

PROJECT MANAGER (PLEASE PRINT):

P.O. NO.:

REMARKS: 631-9429 4°C

☒ BOTTLE INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☒ CHILLED ☐ SEE REMARKS

IEA
An Aquarion Company
3000 WESTON PKWY.
CARY, N.C. 27513
PH # 919-677-0090
FAX # 919-677-0427

CHAIN OF CUSTODY RECORD

NO. 69709

REGULATORY CLASSIFICATION - PLEASE SPECIFY

☐ NPDES ☐ DRINKING WATER ☐ RCRA ☐ OTHER _____

BPA Environmental & Engineering

Page 2 of 2

170.010 Sweepsonville landfill

SAMPLERS: (SIGNATURE) James L. Roberts

					# OF CONTAINERS	SOIL	WATER	Apdix I metals & T-Hg	Apdix I vol											
mw-9	10-4-96	855		✓	3		✓	✓	✓											
sw-1	↓	1255		✓	3		✓	✓	✓											
sw-2	↓	1030		✓	3		✓	✓	✓											

James L. Roberts	10/15/96	8:00am				IEA QUOTE NO.	IEA RUSH NO.
						PROJECT MANAGER (PLEASE PRINT)	P.O. NO.
				10/15/96	4:00pm	Kia Scarlet	

☒ BOTTLE INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☒ CHILLED ☐ SEE REMARKS

(31-9421) 4°C

BPA Environmental & Engineering, Inc.

John E. Palmer, P.G.
E.W. Scarlett, Jr., P.G.
R. Edward Hedgecock, P.E., P.G.

2641-G Randleman Road
Greensboro, NC 27406-5159
(910) 272-9713

January 9, 1997

Mr. Larry Rose
Division of Solid Waste Management
P.O. Box 27687
Raleigh, NC 27611-7687

RE: Water Quality Monitoring
Swepsonville Landfill
BPA Project No. 0170.010

Dear Mr. Rose:

Enclosed is one (1) copy of the report titled "Swepsonville Landfill, Alamance County, NC, Results of Water Quality Sampling, October 1996." If you have any comments or questions, please call.

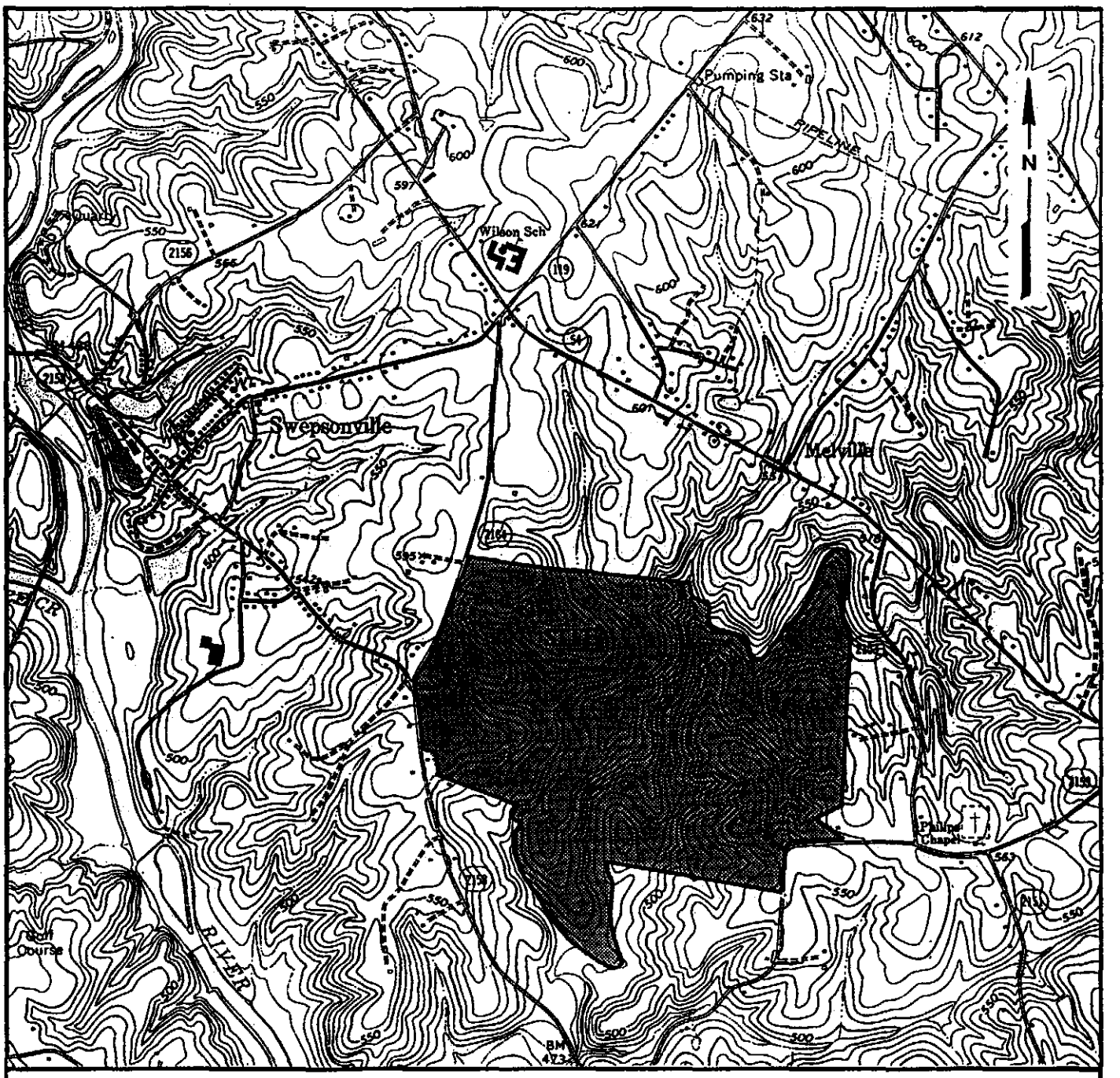
Sincerely yours,

BPA ENVIRONMENTAL & ENGINEERING, INC.

E. W. Scarlett, Jr., P.G.
Principal

EWS/cwm

JAN 1997
Received
Solid Waste
Section



MEBANE QUADRANGLE
NORTH CAROLINA
USGS 7.5 MINUTE TOPOGRAPHIC SERIES
1969

1000 0 2000 3000
SCALE IN FEET

SWEPSONVILLE LANDFILL
ALAMANCE COUNTY, NORTH CAROLINA

BPA Environmental & Engineering, Inc.

SITE LOCATION MAP

FIGURE 1

01-01
4-11/19-96

CLOSED

SWEPSONVILLE LANDFILL
ALAMANCE COUNTY, NC

RESULTS OF WATER QUALITY SAMPLING
APRIL 1996

SEP 1996
Received
Solid Waste
Section

PREPARED FOR
ALAMANCE COUNTY

SEPTEMBER 19, 1996

BPA Environmental & Engineering, Inc.

(910) 272-9713 2641-G Randleman Road, Greensboro, NC 27406

SWEPSONVILLE LANDFILL
ALAMANCE COUNTY, NC

RESULTS OF WATER QUALITY SAMPLING
APRIL 1996

PREPARED FOR
ALAMANCE COUNTY

SEPTEMBER 19, 1996

BPA Environmental & Engineering, Inc.

(910) 272-9713 2641-G Randleman Road, Greensboro, NC 27406

I hereby certify this 19th day of September 1996, that this report was prepared by me or under my direct supervision.

Julia I. Almy
Geologist

Technical review performed by:

E. W. Scarlett, Jr., P.G.
Principal

TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY 1

2.0 INTRODUCTION 2

3.0 SCOPE OF WORK 2

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- 4.2 Stream Sampling 2

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- 5.2 Surface Water 5

6.0 REFERENCES 5

TABLES

Table 1 — Ground and Surface Water Field Sampling Data, Swepsonville Landfill, April 11-19, 1996

Table 2 — Appendix I Inorganic Analyses Plus Mercury, Swepsonville Landfill, April 11-19, 1996

Table 3 — Appendix I Volatiles by SW-846 Method 8260, Swepsonville Landfill, April 11-19, 1996

FIGURES

Figure 1 — Site Location Map

Figure 2 — Sample Location Map

APPENDICES

Appendix A — Ground and Surface Water Sampling Field Data Sheets

Appendix B — Laboratory Analytical Reports

SWEPSONVILLE LANDFILL
ALAMANCE COUNTY, NC
RESULTS OF WATER QUALITY SAMPLING
APRIL 1996

1.0 EXECUTIVE SUMMARY

Eleven monitoring wells and two stream locations at the Alamance County Swepsonville Landfill were sampled on [redacted] All sampling was conducted according to North Carolina Solid Waste Management Guidelines. The samples were submitted to a North Carolina certified laboratory for testing using the Federal Appendix I list of constituents for detection monitoring plus mercury.

Results from the eleven monitoring well samples show that the concentrations of two inorganic constituents (chromium in MW-3 and MW-5, and lead in MW-5) exceeded the 15A NCAC 2L Standards for Class GA groundwater on the dates that samples were collected. Five inorganic constituents (barium, chromium, lead, nickel, and zinc) were detected in one or more of the monitoring well samples at concentrations that did not exceed the 2L Standards. Low concentrations of three inorganic constituents (beryllium, cobalt, and vanadium) were detected in one or more of the monitoring well samples; no 15A NCAC 2L Standards have been established for these constituents.

Concentrations of three volatile organic constituents [redacted] and [redacted]) exceeded the 15A NCAC 2L Standards for Class GA groundwater on the dates that samples were collected. One volatile organic constituent (1,1-dichloroethane) was detected in two monitoring well samples at concentrations that did not exceed 2L Standards.

No volatile organic or inorganic constituents were detected in the surface water samples collected from two locations on the creek that flows along the east/southeast boundary of the landfill disposal area.

2.0 INTRODUCTION

BPA Environmental & Engineering, Inc. was contracted by Alamance County, North Carolina to sample the ground and surface water at eleven monitoring wells and two surface water locations at the Swepsonville Landfill. The site location is shown on Figure 1.

3.0 SCOPE OF WORK

This sampling task included sampling eleven monitoring wells and two locations on a nearby stream for Federal Appendix I organic and inorganic constituents plus mercury as listed in 40 CFR, Part 258.

4.0 METHODS EMPLOYED

4.1 Monitoring Well Sampling

Groundwater sampling took place on April 11-19, 1996. The wells were purged by either removing a minimum of three (3) well volumes or purging the wells to dryness prior to obtaining water samples. The water samples were collected using properly decontaminated teflon bailers. All water samples were field checked for temperature, specific conductance, and pH. These data are summarized in Table 1. Field data sheets are included as Appendix A. Samples were placed in laboratory cleaned and supplied containers, packed on ice, and placed under chain-of-custody. Samples were shipped to the laboratory by a next day delivery service. All analyses were conducted by IEA, Inc., a North Carolina certified laboratory located in Cary, North Carolina. The monitoring well locations are shown on Figure 2.

4.2 Stream Sampling

Surface water sampling took place on April 11, 1996. Samples SW-1 and SW-2 were collected from a stream that flows along the east/southeast side of the Swepsonville Landfill. The

stream samples were analyzed for the same parameters as the groundwater samples. The stream sample locations are shown on Figure 2.

5.0 RESULTS

The results of the laboratory analyses for Appendix I constituents in the groundwater and surface water are summarized in Tables 2 and 3, and the complete laboratory reports are included as Appendix B.

5.1 Groundwater

The groundwater sample analyses revealed five constituents that had concentrations at or above 2L Standards in one or more of the wells. A summary of these analytical results is provided below.

- Chromium was detected in MW-3 at 0.0938 ppm and MW-5 at 0.0758 ppm. The 2L Standard is 0.05 ppm.

- Lead was detected in MW-5 at 0.0159 ppm. The 2L Standard is 0.015 ppm.

- Cis-1,2-Dichloroethene was detected in MW-4 at 310.0 ppb. The 2L Standard is 70.0 ppb.

- Tetrachloroethene was detected in MW-4 at 95.0 ppb. The 2L Standard is 0.7 ppb.

- Trichloroethene was detected in MW-4 at 39.0 ppb. The 2L Standard is 2.8 ppb.

The following six constituents were detected in one or more of the wells in concentrations below the 2L Standards.

- Barium was detected in MW-3 at 1.14 ppm and MW-7B at 0.668 ppm. The 2L Standard is 2.0 ppm.

- Chromium was detected in MW-2 at 0.0389 ppm, MW-7B at 0.0334 ppm, and MW-9B at 0.0375 ppm. The 2L Standard in 0.05 ppm.

- Lead was detected in MW-3 at 0.0134 ppm and MW-9 at 0.0102 ppm. The 2L Standard is 0.015 ppm.

- Nickel was detected in MW-3 at 0.0551 ppm. The 2L Standard is 0.1 ppm.

- Zinc was detected in MW-1 at 0.0571 ppm, MW-2 at 0.0999 ppm, MW-3 at 0.263 ppm, MW-5 at 0.133 ppm, MW-7B at 0.338 ppm, MW-8B at 0.117 ppm, and MW-9 at 0.120 ppm. The 2L Standard is 2.1 ppm.

- 1,1-Dichloroethane was detected in MW-2 at 11.0 ppb and MW-4 at 32.0 ppb. The 2L Standard is 700.0 ppb.

No 2L Standards have been set for the following three naturally occurring constituents that were found in detectable concentrations. The practical quantitation limits of the analyses do not serve as standards for naturally occurring constituents.

- Beryllium was detected in MW-3 at 0.0027 ppm, and MW-7B at 0.0039 ppm.

- Cobalt was detected in MW-2 at 0.0149 ppm, MW-3 at 0.0489 ppm, MW-4 at 0.0201 ppm, MW-5 at 0.0281 ppm, MW-7B at 0.0446 ppm, MW-8B at 0.0205 ppm, and MW-9 at 0.105 ppm.

- Vanadium was detected in MW-2 at 0.122 ppm, MW-3 at 0.281 ppm, MW-4 at 0.0644 ppm, MW-5 at 0.230 ppm, MW-7B at 0.205 ppm, and MW-9 at 0.0919 ppm.

5.2 Surface Water

There were no inorganic or volatile organic constituents detected in either of the surface water samples.

6.0 REFERENCES

North Carolina Administrative Code, Title 15A, Department of Environment, Health and Natural Resources, Division of Environmental Management, Subchapter 2L, Classifications and Water Quality Standards Applicable to the Groundwaters of North Carolina, Sections .0100, .0200, and .0300 (November 8, 1993); from the Environmental Management Commission, Raleigh, North Carolina.

North Carolina Administrative Code, Title 15A, Department of Environment, Health and Natural Resources, Division of Environmental Management, Subchapter 2B, Classifications and Water Quality Standards Applicable to the Surface Waters of North Carolina, Section .0200 (April 1, 1991); from the Environmental Management Commission, Raleigh, North Carolina.

North Carolina Administrative Code, Title 15A, Department of Environment, Health and Natural Resources, Division of Solid Waste Management, Subchapter 13B, Solid Waste Management, Section .1600 (January 4, 1994).

TABLE 1
GROUND AND SURFACE WATER FIELD SAMPLING DATA
SWEPSONVILLE LANDFILL
APRIL 11–19, 1996

Field Parameter	Sample No.							
	MW–1	MW–2	MW–3	MW–4	MW–5	MW–6	MW–7A	MW–7B
Temperature	57.8°F	70.3°F	63.6°F	67.1°F	64.8°F	67.2°F	63.8°F	63.5°F
Specific Conductance	277 μMHOs	632 μMHOs	92 μMHOs	557 μMHOs	226 μMHOs	364 μMHOs	201 μMHOs	133 μMHOs
pH	6.74	7.70	6.49	6.14	6.74	7.47	6.15	5.71

Field Parameter	Sample No.				
	MW–8A	MW–8B	MW–9	SW–1	SW–2
Temperature	64.9°F	63.1°F	62.8°F	61.8°F	68.1°F
Specific Conductance	85 μMHOs	48 μMHOs	185 μMHOs	248 μMHOs	146 μMHOs
pH	6.72	6.91	6.24	6.49	6.69

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TABLE 2
APPENDIX I INORGANIC ANALYSES PLUS MERCURY
SWEPSONVILLE LANDFILL
APRIL 11–19, 1996

Compound	Sample No.													15A NCAC 2L Standards for Class GA Ground Water	15A NCAC 2B Standards for Class B, C Surface Waters	Practical Quantitation Limit (PQL)
	MW–1	MW–2	MW–3	MW–4	MW–5	MW–6	MW–7A	MW–7B	MW–8A	MW–8B	MW–9	SW–1	SW–2			
Antimony, Total	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	*		0.03
Arsenic, Total	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	0.05	0.05	0.01
Barium, Total	BQL	BQL	1.140	BQL	BQL	BQL	BQL	0.668	BQL	BQL	BQL	BQL	BQL	2.0		0.5
Beryllium, Total	BQL	BQL	0.0027	BQL	BQL	BQL	BQL	0.0039	BQL	BQL	BQL	BQL	BQL	*	0.0065	0.002
Cadmium, Total	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	0.005	0.002	0.001
[redacted] Total	BQL	0.0389	[redacted]	BQL	[redacted]	BQL	BQL	0.0334	BQL	BQL	0.0375	BQL	BQL	0.05	0.05	0.01
Cobalt, Total	BQL	0.0149	0.0489	0.0201	0.0281	BQL	BQL	0.0446	BQL	0.0205	0.105	BQL	BQL	*		0.01
Copper, Total	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	1.0		0.2
[redacted] Total	BQL	BQL	0.0134	BQL	[redacted]	BQL	BQL	BQL	BQL	BQL	0.0102	BQL	BQL	0.015	0.025	0.01
Mercury, Total	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	0.0011	0.000012	0.0005
Nickel, Total	BQL	BQL	0.0551	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	0.1	0.088	0.04
Selenium, Total	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	0.05	0.005	0.02
Silver, Total	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	0.018		0.01
Thallium, Total	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	*		0.01
Vanadium, Total	BQL	0.122	0.281	0.0644	0.230	BQL	BQL	0.205	BQL	BQL	0.0919	BQL	BQL	*		0.04
Zinc, Total	0.0571	0.0999	0.263	BQL	0.133	BQL	BQL	0.338	BQL	0.117	0.120	BQL	BQL	2.1		0.05

Notes:
- All results in parts per million (ppm)
- BQL – Below practical quantitation limit
- Shaded blocks denote concentrations that do not meet 15A NCAC 2L Standards for Class GA Groundwater (MW data) or 15A NCAC 2B Standards for Class B surface waters (SW data)
- * – No 15A NCAC 2L Standard has been established for these constituents

C:\123R23\SWEPAPR2.WK1

COMPOUND	MW-1	MW-2
Acetone	BQL	BQL
Acrylonitrile	BQL	BQL
Benzene	BQL	BQL
Bromochloromethane	BQL	BQL
Bromodichloromethane	BQL	BQL
Bromoform	BQL	BQL
Carbon Disulfide	BQL	BQL
Carbon Tetrachloride	BQL	BQL
Chlorobenzene	BQL	BQL
Chloroethane	BQL	BQ
Chloroform	BQL	BQ
Dibromochloromethane	BQL	BQ
1,2-Dibromo-3-Chloropropane	BQL	BC
1,2-Dibromoethane	BQL	BC
1,2-Dichlorobenzene	BQL	BC
1,4-Dichlorobenzene	BQL	BC
trans-1,4-Dichloro-2-butene	BQL	B
1,1-Dichloroethane	BQL	
1,2-Dichloroethane	BQL	E
1,1-Dichloroethene	BQL	E
[redacted]	BQL	
trans-1,2-Dichloroethene	BQL	
1,2-Dichloropropane	BQL	
cis-1,3-Dichloropropene	BQL	
trans-1,3-Dichloropropene	BQL	
Ethylbenzene	BQL	
2-Hexanone	BQL	
Bromomethane	BQL	
Chloromethane	BQL	
Dibromomethane	BQL	
Dichloromethane	BQL	
2 - Butanone (MEK)	BQL	
Methyl Iodide	BQL	
4-Methyl-2-pentanone	BQL	
Styrene	BQL	
1,1,1,2-Tetrachloroethane	BQ	
1,1,2,2-Tetrachloroethane	BQ	
[redacted]	BQ	
Toluene	BQ	
1,1,1-Trichloroethane	BC	
1,1,2-Trichloroethane	BC	
[redacted]	BC	
Trichlorofluoromethane	B	
1,2,3-Trichloropropane	B	
Vinyl acetate	B	
Vinyl chloride	E	
Xylenes, Total		

Notes:

All results in parts per billion (ppb)

BQL - Below practical quantitation limit

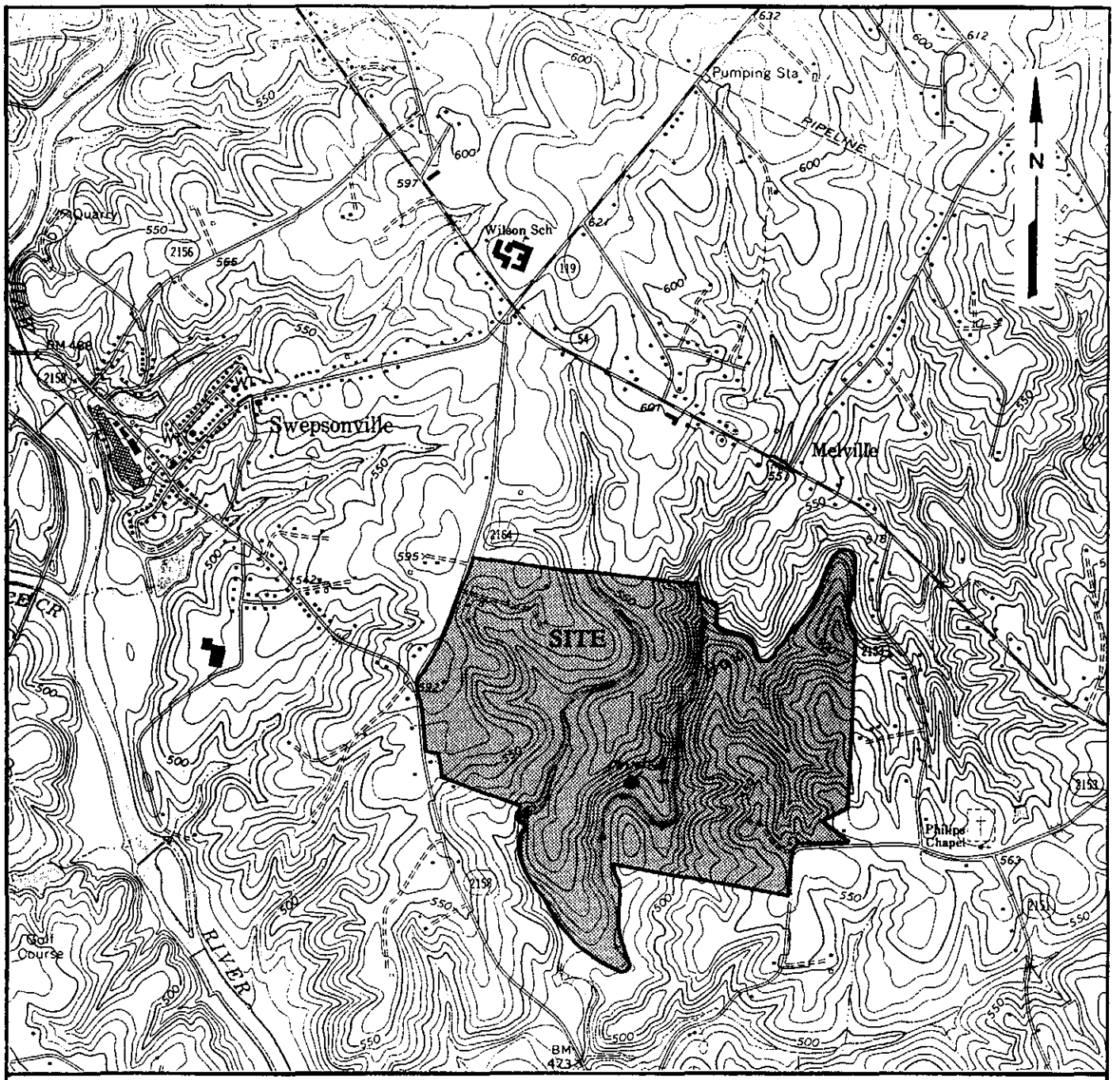
Shaded blocks denote concentrations that do not meet 15A NCAC 2L Standards for Class GA Groundwater (MW data) or 15A NCAC 2B Standards for Class B surface waters (SW data)

* - For constituents that are not naturally occuring and are not listed in the 15A NCAC 2L Standards, the practical quantitation limit is the Standard

[1] The 15A NCAC 2L Standard presented is an interim maximum allowable concentration

TABLE 3
APPENDIX I VOLATILES BY
SW-846 METHOD 8260
SWEPSONVILLE LANDFILL
APRIL 11-19, 1996

C:\123R23\SWEPAPR3.WK1



MEBANE QUADRANGLE
NORTH CAROLINA
USGS 7.5 MINUTE TOPOGRAPHIC SERIES
1969

1000 0 2000 3000
SCALE IN FEET

SWEPSONVILLE LANDFILL
ALAMANCE COUNTY, NORTH CAROLINA

BPA Environmental & Engineering, Inc.

SITE LOCATION MAP

FIGURE 1

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date April 11, 1996

Source/Well MW-1

Time 9:50 am

Sampled by James Roberts

Weather Sunny, cool

GROUNDWATER ELEVATION

1) Depth to water from measuring point 21.36 ft.

2) Depth to well bottom from measuring point 33.65 ft.

3) Height of water column 12.29 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 2.0 gal.

2) Volume of water removed prior to sampling 5.5 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 57.8°F

2) Specific Conductance 277 μmhos

3) pH 6.74

4) Physical Appearance and Odor Brownish, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date April 12, 1996

Source/Well MW-2

Time 1:45 pm

Sampled by James Roberts

Weather Sunny, warm

GROUNDWATER ELEVATION

1) Depth to water from measuring point 23.46 ft.

2) Depth to well bottom from measuring point 29.30 ft.

3) Height of water column 5.84 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 0.95 gal.

2) Volume of water removed prior to sampling 1.0 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 70.3°F

2) Specific Conductance 632 μmhos

3) pH 7.70

4) Physical Appearance and Odor Tanish, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date April 11, 1996

Source/Well MW-3

Time 4:10 pm

Sampled by James Roberts

Weather Sunny, 70s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 8.45 ft.

2) Depth to well bottom from measuring point 23.85 ft.

3) Height of water column 15.4 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 2.5 gal.

2) Volume of water removed prior to sampling 7.5 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 63.6°F

2) Specific Conductance 92 μmhos

3) pH 6.49

4) Physical Appearance and Odor Brown, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date April 11, 1996

Source/Well MW-4

Time 3:00 pm

Sampled by James Roberts

Weather Sunny, 60s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 33.68 ft.

2) Depth to well bottom from measuring point 49.90 ft.

3) Height of water column 16.22 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 2.64 gal.

2) Volume of water removed prior to sampling 8.0 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 67.1°F

2) Specific Conductance 557 μmhos

3) pH 6.14

4) Physical Appearance and Odor Dark brown, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date April 11, 1996

Source/Well MW-5

Time 2:00 pm

Sampled by James Roberts

Weather Sunny, 60s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 13.61 ft.

2) Depth to well bottom from measuring point 19.40 ft.

3) Height of water column 5.79 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 0.94 gal.

2) Volume of water removed prior to sampling 1.0 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 64.8°F

2) Specific Conductance 226 μmhos

3) pH 6.74

4) Physical Appearance and Odor Brownish, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date April 11, 1996

Source/Well MW-6

Time 11:15 am

Sampled by James Roberts

Weather Sunny, 60s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 19.76 ft.

2) Depth to well bottom from measuring point 52.67 ft.

3) Height of water column 32.91 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 5.36 gal.

2) Volume of water removed prior to sampling 16.0 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 67.2°F

2) Specific Conductance 364 μmhos

3) pH 7.47

4) Physical Appearance and Odor Clear, no odor

BPA Environmental & Engineering, Inc.

John E. Palmer, P.G.
E.W. Scarlett, Jr., P.G.
R. Edward Hedgecock, P.E., P.G.

2641-G Randleman Road
Greensboro, NC 27406-5159
(910) 272-9713

September 20, 1996

Mr. Larry Rose
Division of Solid Waste Management
P.O. Box 27687
Raleigh, NC 27611-7687

RE: Water Quality Monitoring
Swepsonville Landfill
BPA Project Nos. 0170.010

Dear Mr. Rose:

Enclosed is one (1) copy of the report titled "Swepsonville Landfill, Alamance County, NC, Results of Water Quality Sampling, April 1996." If you have any comments or questions, please call.

Sincerely yours,

BPA ENVIRONMENTAL & ENGINEERING, INC.

E. W. Scarlett, Jr., P.G.
Principal

EWS/cwm

01-01
10-10/11-95

SWEPSONVILLE LANDFILL - closed
ALAMANCE COUNTY, NC

RESULTS OF WATER QUALITY SAMPLING
OCTOBER 1995

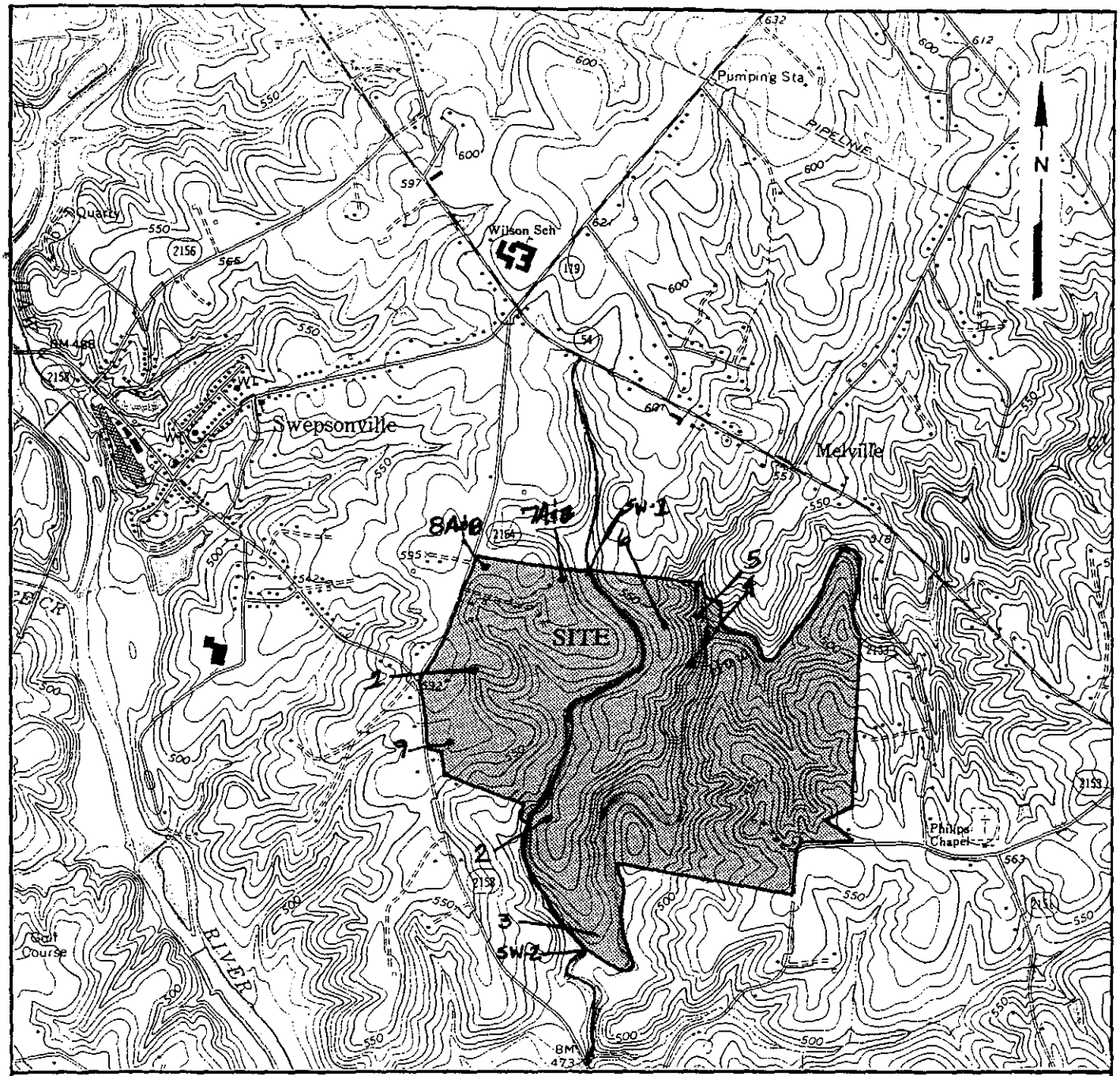
PREPARED FOR
ALAMANCE COUNTY

JANUARY 4, 1996

JAN 1996
Received
Solid Waste
Section

BPA Environmental & Engineering, Inc.

(910) 272-9713 2641-G Randleman Road, Greensboro, NC 27406



MEBANE QUADRANGLE
NORTH CAROLINA
USGS 7.5 MINUTE TOPOGRAPHIC SERIES
1969

1000 0 2000 3000
SCALE IN FEET

SWEPSONVILLE LANDFILL
ALAMANCE COUNTY, NORTH CAROLINA

BPA Environmental & Engineering, Inc.

SITE LOCATION MAP

FIGURE 1

SWEPSONVILLE LANDFILL
ALAMANCE COUNTY, NC

RESULTS OF WATER QUALITY SAMPLING
OCTOBER 1995

PREPARED FOR
ALAMANCE COUNTY

JANUARY 4, 1996

BPA Environmental & Engineering, Inc.

(910) 272-9713 2641-G Randleman Road, Greensboro, NC 27406

I hereby certify this 4th day of January 1996, that this report was prepared by me or under my direct supervision.

Kenneth B. Vanhoy
Geologist

NORTH CAROLINA LICENSED SEAL 681 GEOLOGIST E. W. SCARLETT, JR.

E. W. Scarlett, Jr., P.G.
Principal

Technical review performed by:

John M. Stewart, P.G.
Geologist

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1.0 EXECUTIVE SUMMARY 1

2.0 INTRODUCTION 2

3.0 SCOPE OF WORK 2

4.0 METHODS EMPLOYED 2
- 4.1 Monitoring Well Sampling 2
- 4.2 Stream Sampling 2

5.0 RESULTS 3
- 5.1 Groundwater 3
- 5.2 Surface Water 5

6.0 REFERENCES 5

TABLES

Table 1 — Ground and Surface Water Field Sampling Data, Swepsonville Landfill, October 10-11, 1995

Table 2 — Appendix I Inorganic Analyses Plus Mercury, Swepsonville Landfill, October 10-11, 1995

Table 3 — Appendix I Volatiles by SW-846 Method 8260, Swepsonville Landfill, October 10-11, 1995

FIGURES

Figure 1 — Site Location Map

Figure 2 — Sample Location Map

APPENDICES

Appendix A — Ground and Surface Water Field Sampling Data Sheets

Appendix B — Laboratory Reports

ALAMANCE COUNTY
SWEPSONVILLE LANDFILL
RESULTS OF WATER QUALITY SAMPLING
OCTOBER 1995

1.0 EXECUTIVE SUMMARY

Eleven monitoring wells and two stream locations at the Alamance County Swepsonville Landfill were sampled on October 10-11, 1995. All sampling was conducted according to North Carolina Solid Waste Management Guidelines. The samples were submitted to a North Carolina certified laboratory for testing using the Federal Appendix I list of constituents for detection monitoring plus mercury.

Results from the eleven monitoring well samples show that the concentrations of four organic volatile constituents (tetrachloroethene and trichloroethene in MW-2 and MW-4, 1,1-dichloroethene in MW-2 and cis-1,2-dichloroethene in MW-4) exceeded the 15A NCAC 2L Standards for Class GA groundwater on the date the samples were collected. Chloroethane and 1,1-dichloroethene were detected in well MW-4 and 1,1-dichloroethene, cis-1,2-dichloroethene and 1,1,1-trichloroethane were detected in well MW-2 at concentrations that did not exceed the 15A NCAC 2L Standards for Class GA groundwater. Low level concentrations of seven inorganic constituents (barium, cadmium, chromium, copper, lead, mercury and zinc) were detected, but did not exceed the 2L Standards for Class GA groundwater on the date the samples were collected. Low level concentrations of three inorganic constituents (beryllium, cobalt and vanadium) were detected, but no 15A NCAC 2L Standard has been established for these constituents.

Results from the two surface water samples collected from the creek that flows along the east/southeast boundary of the landfill disposal area show no concentrations of organic volatile or inorganic constituents in either of the samples.

2.0 INTRODUCTION

BPA Environmental & Engineering, Inc. was contracted by Alamance County, North Carolina to sample the ground and surface water at eleven monitoring wells and two surface water locations at the Swepsonville Landfill. The site location is shown on Figure 1.

3.0 SCOPE OF WORK

This sampling task included sampling eleven monitoring wells and two locations on a nearby stream for Federal Appendix I organic and inorganic constituents plus mercury as listed in 40 CFR, Part 258.

4.0 METHODS EMPLOYED

4.1 Monitoring Well Sampling

Groundwater sampling took place on October 10-11, 1995. The wells were purged by either removing a minimum of three (3) well volumes or purging the wells to dryness prior to obtaining water samples. The water samples were collected using properly decontaminated teflon bailers. All water samples were field checked for temperature, specific conductance, and pH. These data are summarized in Table 1. Field data sheets are included as Appendix A. Samples were placed in laboratory cleaned and supplied containers, packed on ice, and placed under chain-of-custody. Samples were shipped to the laboratory by a next day delivery service. All analyses were conducted by IEA, Inc., a North Carolina certified laboratory located in Cary, North Carolina. The monitoring well locations are shown on Figure 2.

4.2 Stream Sampling

Surface water sampling took place on October 10-11, 1995. Samples SW-1 and SW-2 were collected from a stream that flows along the east/southeast side of the Swepsonville Landfill.

All stream samples were analyzed for the same parameters as the groundwater samples. The stream sample locations are shown on Figure 2.

5.0 RESULTS

The results of the laboratory analysis are summarized in Tables 2 and 3, and the complete laboratory reports are included as Appendix B.

5.1 Groundwater

The groundwater sample analyses revealed concentrations of four constituents that are above 2L Groundwater Standards. A summary of these analytical results is provided below.

- 1,1-Dichloroethene was detected in MW-2 at 16.0 ppb. The 2L Standard is 7.0 ppb.
- Cis-1,2-Dichloroethene was detected in MW-4 at 230.0 ppb. The 2L Standard is 70.0 ppb.
- Tetrachloroethene was detected in MW-2 at 13.0 ppb and MW-4 at 91.0 ppb. The 2L Standard is 0.7 ppb.
- Trichloroethene was detected in MW-2 at 19.0 ppb and MW-4 at 48.0 ppb. The 2L Standard is 2.8 ppb.

The following constituents were detected in concentrations below the 2L Standard.

- Chloroethene was detected in MW-4 at 15.0 ppb. The interim 2L Standard is 2800.0 ppb.

- 1,1-Dichloroethene was detected in MW-2 at 65.0 ppb and in MW-4 at 38.0 ppb. The 2L Standard is 700.0 ppb.

- Cis-1,2-Dichloroethene was detected in MW-2 at 13.0 ppb. The 2L Standard is 70.0 ppb.

- 1,1,1-Trichloroethane was detected in MW-2 at 7.0 ppb. The 2L Standard is 200.0 ppb.

- Barium was detected in MW-2 at 0.331 ppm, MW-3 at 0.300 ppm, MW-7B at 0.326 ppm, and MW-8B at 1.090 ppm. The 2L Standard is 2.0 ppm.

- Cadmium was detected in MW-8A at 0.001 ppm. The 2L Standard is 0.005 ppm.

- Chromium was detected in MW-2 at 0.025 ppm, MW-3 at 0.038 ppm, MW-5 at 0.033 ppm, MW-6 at 0.019 ppm, MW-7B at 0.020 ppm, and MW-8B at 0.016 ppm. The 2L Standard in 0.05 ppm.

- Copper was detected in MW-3 at 0.058 ppm, MW-5 at 0.038 ppm, and MW-7B at 0.037 ppm. The 2L Standard is 1.0 ppm.

- Lead was detected in MW-1 at 0.014 ppm, MW-3 at 0.006 ppm, MW-4 at 0.007 ppm, MW-5 at 0.009 ppm, MW-6 at 0.004 ppm, MW-7A at 0.006 ppm, MW-7B at 0.007 ppm, MW-8B at 0.014 ppm, and MW-9 at 0.004 ppm. The 2L Standard is 0.015 ppm.

- Mercury was detected in MW-4 at 0.0003 ppm. The 2L Standard is 0.0011 ppm.

- Zinc was detected in MW-1 at 0.063 ppm, MW-2 at 0.070 ppm, MW-3 at 0.076 ppm, MW-4 at 0.024 ppm, MW-5 at 0.047 ppm, MW-6 at 0.066 ppm, MW-7B at 0.116 ppm, MW-8B at 0.491 ppm, and MW-9 at 0.025 ppm. The 2L Standard is 2.1 ppm.

No 2L Standards have been set for the following naturally occurring constituents that were found in detectable concentrations. The practical quantitation limits of the analyses do not serve as standards for naturally occurring constituents.

- Beryllium was detected in MW-8B at 0.005 ppm.

- Cobalt was detected in MW-8B at 0.052 ppm.

- Vanadium was detected in MW-2 at 0.088 ppm, MW-3 at 0.104 ppm, MW-4 at 0.056 ppm, MW-5 at 0.086 ppm, MW-7B at 0.110 ppm, and MW-8B at 0.120 ppm.

5.2 Surface Water

There were no inorganic or volatile organic constituents detected in either of the surface water samples.

6.0 REFERENCES

North Carolina Administrative Code, Title 15A, Department of Environment, Health and Natural Resources, Division of Environmental Management, Subchapter 2L, Classifications and Water Quality Standards Applicable to the Groundwaters of North Carolina, Sections .0100, .0200, and .0300 (November 8, 1993); from the Environmental Management Commission, Raleigh, North Carolina.

North Carolina Administrative Code, Title 15A, Department of Environment, Health and Natural Resources, Division of Environmental Management, Subchapter 2B, Classifications and Water Quality Standards Applicable to the Surface Waters of North Carolina, Section .0200 (April 1, 1991); from the Environmental Management Commission, Raleigh, North Carolina.

North Carolina Administrative Code, Title 15A, Department of Environment, Health and Natural Resources, Division of Solid Waste Management, Subchapter 13B, Solid Waste Management, Section .1600 (January 4, 1994).

TABLE 1
GROUND AND SURFACE WATER FIELD SAMPLING DATA
SWEPSONVILLE LANDFILL
OCTOBER 10–11, 1995

Field Parameter	Sample No.							
	MW–1	MW–2	MW–3	MW–4	MW–5	MW–6	MW–7A	MW–7B
Temperature	68.9°F	69.5°F	64.7°F	71.4°F	61.3°F	61.9°F	65.0°F	69.6°F
Specific Conductance	238 μMHOs	308 μMHOs	171 μMHOs	723 μMHOs	164 μMHOs	255 μMHOs	158 μMHOs	187 μMHOs
pH	7.34	6.33	6.88	6.38	6.97	6.82	7.01	6.49

Field Parameter	Sample No.				
	MW–8A	MW–8B	MW–9	SW–1	SW–2
Temperature	60.6°F	62.1°F	60.1°F	63.2°F	65.4°F
Specific Conductance	76.5 μMHOs	87.5 μMHOs	112 μMHOs	336 μMHOs	143 μMHOs
pH	6.24	6.63	7.23	7.09	7.26

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TABLE 2
APPENDIX I INORGANIC ANALYSES PLUS MERCURY
SWEPSONVILLE LANDFILL
OCTOBER 10-11, 1995

Compound	Sample No.													15A NCAC 2L Standards for Class GA Ground Water	15A NCAC 2B Standards for Class B, C Surface Waters	Practical Quantitation Limit (PQL)
	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7A	MW-7B	MW-8A	MW-8B	MW-9	SW-1	SW-2			
Antimony, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*		0.03
Arsenic, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.05	0.05	0.01
Barium, Total	ND	0.331	0.300	ND	ND	ND	ND	0.326	ND	1.090	ND	ND	ND	2.0		0.5
Beryllium, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.005	ND	ND	ND	*	0.0065	0.002
Cadmium, Total	ND	ND	ND	ND	ND	ND	ND	ND	0.001	ND	ND	ND	ND	0.005	0.002	0.001
Chromium, Total	ND	0.025	0.038	ND	0.033	0.019	ND	0.020	ND	0.016	ND	ND	ND	0.05	0.05	0.01
Cobalt, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.052	ND	ND	ND	*		0.01
Copper, Total	ND	ND	0.058	ND	0.038	ND	ND	0.037	ND	ND	ND	ND	ND	1.0		0.2
Lead, Total	0.014	ND	0.006	0.007	0.009	0.004	0.006	0.007	ND	0.014	0.004	ND	ND	0.015	0.025	0.01
Mercury, Total	ND	ND	ND	0.0003	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0011	0.000012	0.0005
Nickel, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.1	0.088	0.05
Selenium, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.05	0.005	0.02
Silver, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.018		0.01
Thallium, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*		0.01
Vanadium, Total	ND	0.088	0.104	0.056	0.086	ND	ND	0.110	ND	0.120	ND	ND	ND	*		0.04
Zinc, Total	0.063	0.070	0.076	0.024	0.047	0.066	ND	0.116	ND	0.491	0.025	ND	ND	2.1		0.05

Notes:
- All results expressed in parts per million (ppm)
- ND – Not detected (<PQL)
- * – No NC 15A NCAC 2L Standard has been established for these constituents
- Shaded blocks denote concentrations or measured parameters that do not meet NC 15A NCAC 2L Standards for Class GA Groundwater (MW data) or NC 15A NCAC 2B Standards for Class B surface waters (SW data)

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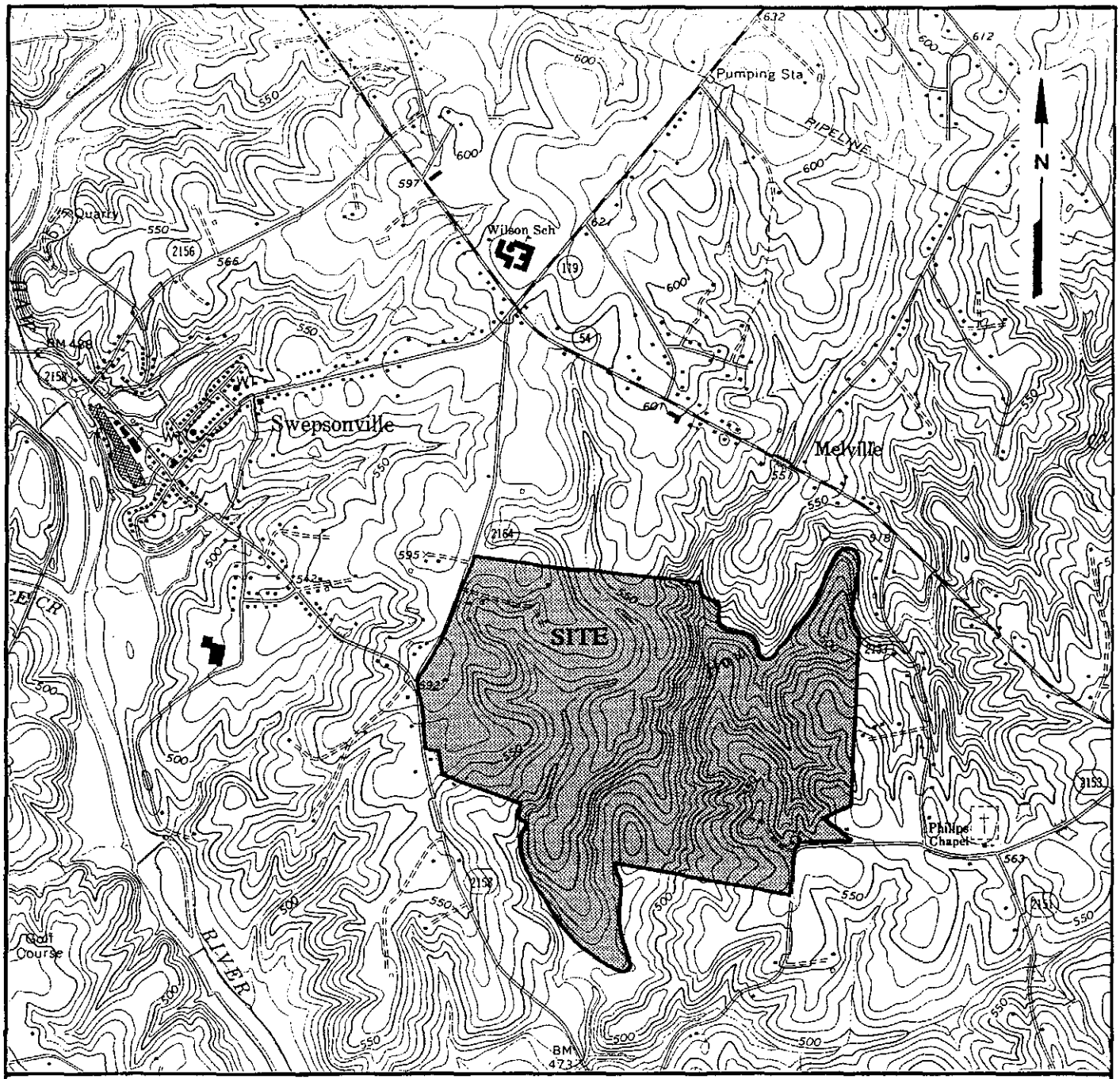

MEBANE QUADRANGLE
NORTH CAROLINA
USGS 7.5 MINUTE TOPOGRAPHIC SERIES
1969

1000 0 2000 3000
SCALE IN FEET

SWEPSONVILLE LANDFILL
ALAMANCE COUNTY, NORTH CAROLINA

BPA Environmental & Engineering, Inc.

SITE LOCATION MAP

FIGURE 1

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date October 11, 1995

Source/Well MW-1

Time 7:40 am

Sampled by James Roberts

Weather Sunny, upper 60s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 24.98 ft.

2) Depth to well bottom from measuring point 33.65 ft.

3) Height of water column 8.67 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 1.41 gal.

2) Volume of water removed prior to sampling 2.0 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 68.9°F

2) Specific Conductance 238 μmhos

3) pH 7.34

4) Physical Appearance and Odor Tan, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date October 10, 1995

Source/Well MW-2

Time 12:55 pm

Sampled by James Roberts

Weather Sunny, 70s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 26.49 ft.

2) Depth to well bottom from measuring point 29.30 ft.

3) Height of water column 2.81 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) .45 gal.

2) Volume of water removed prior to sampling .25 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 69.5°F

2) Specific Conductance 308 μmhos

3) pH 6.33

4) Physical Appearance and Odor Tan, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date October 10, 1995

Source/Well MW-3

Time 11:45 am

Sampled by James Roberts

Weather Sunny, 70s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 8.29 ft.

2) Depth to well bottom from measuring point 23.90 ft.

3) Height of water column 15.61 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 2.54 gal.

2) Volume of water removed prior to sampling 12.0 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 64.7°F

2) Specific Conductance 171 μmhos

3) pH 6.88

4) Physical Appearance and Odor Brown, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date October 10, 1995

Source/Well MW-4

Time 4:55 pm

Sampled by James Roberts

Weather Partly sunny

GROUNDWATER ELEVATION

1) Depth to water from measuring point 35.37 ft.

2) Depth to well bottom from measuring point 49.90 ft.

3) Height of water column 14.53 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 2.36 gal.

2) Volume of water removed prior to sampling 7.5 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 71.4°F

2) Specific Conductance 723 μmhos

3) pH 6.38

4) Physical Appearance and Odor Clearish, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date October 11, 1995

Source/Well MW-5

Time 8:30 am

Sampled by James Roberts

Weather Foggy, lower 60s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 15.09 ft.

2) Depth to well bottom from measuring point 19.40 ft.

3) Height of water column 4.31 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) .70 gal.

2) Volume of water removed prior to sampling .5 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 61.3°F

2) Specific Conductance 164 μmhos

3) pH 6.97

4) Physical Appearance and Odor Brown, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date October 11, 1995

Source/Well MW-6

Time 9:25 am

Sampled by James Roberts

Weather Partly Sunny, mid 60s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 21.30 ft.

2) Depth to well bottom from measuring point 52.66 ft.

3) Height of water column 31.36 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 5.11 gal.

2) Volume of water removed prior to sampling 15.5 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 61.9°F

2) Specific Conductance 255 μmhos

3) pH 6.82

4) Physical Appearance and Odor Clearish, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date October 10, 1995

Source/Well MW-7A

Time 2:30 pm

Sampled by James Roberts

Weather Sunny, 70s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 26.81 ft.

2) Depth to well bottom from measuring point 63.31 ft.

3) Height of water column 36.5 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 5.94 gal.

2) Volume of water removed prior to sampling 18 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 65.0°F

2) Specific Conductance 158 μmhos

3) pH 7.01

4) Physical Appearance and Odor Clear, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date October 10, 1995

Source/Well MW-7B

Time 2:15 pm

Sampled by James Roberts

Weather Sunny, 70s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 26.19 ft.

2) Depth to well bottom from measuring point 32.55 ft.

3) Height of water column 6.36 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 1.03 gal.

2) Volume of water removed prior to sampling 1.5 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 69.6°F

2) Specific Conductance 187 μmhos

3) pH 6.49

4) Physical Appearance and Odor Brown, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date October 11, 1995

Source/Well MW-8A

Time 10:40 am

Sampled by James Roberts

Weather Partly Sunny, upper 60s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 24.16 ft.

2) Depth to well bottom from measuring point 63.31 ft.

3) Height of water column 39.15 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 6.38 gal.

2) Volume of water removed prior to sampling 20.0 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 60.6°F

2) Specific Conductance 76.5 μmhos

3) pH 6.24

4) Physical Appearance and Odor Clear, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date October 11, 1995

Source/Well MW-8B

Time 10:50 am

Sampled by James Roberts

Weather Partly Sunny, upper 60s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 23.57 ft.

2) Depth to well bottom from measuring point 25.80 ft.

3) Height of water column 2.23 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) .36 gal.

2) Volume of water removed prior to sampling .5 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 62.1°F

2) Specific Conductance 87.5 μmhos

3) pH 6.63

4) Physical Appearance and Odor Brown, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date October 11, 1995

Source/Well MW-9

Time 7:15 am

Sampled by James Roberts

Weather Partly sunny, upper 60s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 17.0 ft.

2) Depth to well bottom from measuring point 27.25 ft.

3) Height of water column 10.25 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 1.67 gal.

2) Volume of water removed prior to sampling 5.5 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 60.1°F

2) Specific Conductance 112 μmhos

3) pH 7.23

4) Physical Appearance and Odor Tan, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date October 11, 1995

Source/Well SW-1

Time 9:40 am

Sampled by James Roberts

Weather

FIELD ANALYSIS

1) Temperature 63.2°F

2) Specific Conductance 366 μmhos

3) pH 7.09

4) Physical Appearance and Odor Clearish

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date October 10, 1995

Source/Well SW-2

Time 11:25 am

Sampled by James Roberts

Weather

FIELD ANALYSIS

1) Temperature 65.4°F

2) Specific Conductance 143 μmhos

3) pH 7.26

4) Physical Appearance and Odor Cloudy

IEA, Inc.
P.O. Box 12846
Research Triangle Park,
NC 27709

919.677 0090
919.677 8702 Fax

IEA
An Aquarion Company

OCT 1995
RECEIVED

October 27, 1995

Wes Scarlett
BPA Environmental & Engineering, Inc.
2641-G Randleman Road
Greensboro, NC 27406

IEA Project No.: 631874/9510306
IEA Reference No.: W9510132
Client Project I.D.: 170.010

Dear Mr. Scarlett,

Transmitted herewith are the results of analyses on fourteen samples submitted to our laboratory.

The samples were received intact.

Analyses were performed according to approved methodologies and meet the requirements of the IEA Quality Assurance Program except where noted. Please see the enclosed reports for your results and a copy of the Chain of Custody documentation.

Thank you for selecting IEA for your sample analysis. Please do not hesitate to call me at 1-919-677-0090 or 1-800-444-9919 should you have any questions regarding this report. We look forward to serving you in the future.

Very truly yours,

IEA, Inc.

R. Lopez for
Edward C. Braunsdorf
Project Manager

IEA
An Aquarion Company

IEA-NORTH CAROLINA CERTIFICATIONS

Certifying State	Program Type	Lab ID #
Alabama	DW	40210
California	DW, WW, HW Radiolog.	I-1035,1768, I-1047 I-1018 (Rad)
Connecticut	DW, WW	PH-0135
Florida	DW WW (CompQAP)	87350 E87439 QAP#930007G
Georgia	DW	None
Kansas	DW, HW, WW	E-158 (DW, WW) E-1189 (HW)
Kentucky	DW	90049
Massachusetts	DW, WW	M-NC039
New Jersey	DW, WW Radiolog.	67719 67681
New York	Radiolog.	11422
North Carolina	DW WW Radiolog.	DW 37720 WW 84 Rad 37720
Ohio	Voluntary Action Program	CL00021
South Carolina	DW WW HW	99021
Tennessee	DW UST App List	02914
Utah	Radiolog. RCRA	E-206 E-226
Virginia	DW	00179
West Virginia	DW	9908C
Wisconsin	WW	998051010

DW=Drinking Water WW=Wastewater HW=Hazardous Waste Radiolog.=Radiological

Rev4.07/95

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_874
IEA Sample #: 951030601 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 11-OCT-95
Client Proj. I.D.: 170.010 Date Sampled: 11-OCT-95
Sample I.D.: MW-1

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run
ANTIMONY	SW-846 6010	30.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
ARSENIC	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
BARIUM	SW-846 6010	200.	BQL	16-OCT-95	17-OCT-95	FXW	R1379
BERYLLIUM	SW-846 6010	2.00	BQL	16-OCT-95	17-OCT-95	FXW	R1379
CADMIUM	SW-846 6010	1.00	BQL	16-OCT-95	17-OCT-95	FXW	R1379
CHROMIUM	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
COBALT	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
COPPER	SW-846 6010	200.	BQL	16-OCT-95	17-OCT-95	FXW	R1379
LEAD	SW-846 6010	10.0	13.7	16-OCT-95	17-OCT-95	FXW	R1379
MERCURY	SW-846 7470	1.00	BQL	16-OCT-95	17-OCT-95	MLH	R1456
NICKEL	SW-846 6010	50.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SELENIUM	SW-846 6010	20.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SILVER	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
THALLIUM	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
VANADIUM	SW-846 6010	40.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
ZINC	SW-846 6010	50.0	63.0	16-OCT-95	17-OCT-95	FXW	R1379

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_874
IEA Sample #: 9510306Ø2
Client Name: BPA ENVIRONMENTAL & ENG., INC
Client Proj. I.D.: 17Ø.Ø1Ø
Sample I.D.: MW-2

Matrix: WATER
Date Received: 11-OCT-95
Date Sampled: 1Ø-OCT-95

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run
ANTIMONY	SW-846 6Ø1Ø	3Ø.Ø	BQL	16-OCT-95	17-OCT-95	FXW	R1379
ARSENIC	SW-846 6Ø1Ø	1Ø.Ø	BQL	16-OCT-95	17-OCT-95	FXW	R1379
BARIUM	SW-846 6Ø1Ø	5ØØ.	331.	16-OCT-95	17-OCT-95	FXW	R1379
BERYLLIUM	SW-846 6Ø1Ø	2.ØØ	BQL	16-OCT-95	17-OCT-95	FXW	R1379
CADMIUM	SW-846 6Ø1Ø	1.ØØ	BQL	16-OCT-95	17-OCT-95	FXW	R1379
CHROMIUM	SW-846 6Ø1Ø	1Ø.Ø	25.3	16-OCT-95	17-OCT-95	FXW	R1379
COBALT	SW-846 6Ø1Ø	1Ø.Ø	BQL	16-OCT-95	17-OCT-95	FXW	R1379
COPPER	SW-846 6Ø1Ø	2ØØ.	BQL	16-OCT-95	17-OCT-95	FXW	R1379
LEAD	SW-846 6Ø1Ø	1Ø.Ø	BQL	16-OCT-95	17-OCT-95	FXW	R1379
MERCURY	SW-846 747Ø	1.ØØ	BQL	16-OCT-95	17-OCT-95	MLH	R1456
NICKEL	SW-846 6Ø1Ø	5Ø.Ø	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SELENIUM	SW-846 6Ø1Ø	2Ø.Ø	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SILVER	SW-846 6Ø1Ø	1Ø.Ø	BQL	16-OCT-95	17-OCT-95	FXW	R1379
THALLIUM	SW-846 6Ø1Ø	1Ø.Ø	BQL	16-OCT-95	17-OCT-95	FXW	R1379
VANADIUM	SW-846 6Ø1Ø	4Ø.Ø	87.7	16-OCT-95	17-OCT-95	FXW	R1379
ZINC	SW-846 6Ø1Ø	5Ø.Ø	69.9	16-OCT-95	17-OCT-95	FXW	R1379

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_874
IEA Sample #: 951030603
Client Name: BPA ENVIRONMENTAL & ENG., INC
Client Proj. I.D.: 170.010
Sample I.D.: MW-3

Matrix: WATER
Date Received: 11-OCT-95
Date Sampled: 10-OCT-95

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run
ANTIMONY	SW-846 6010	30.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
ARSENIC	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
BARIUM	SW-846 6010	500.	300.	16-OCT-95	17-OCT-95	FXW	R1379
BERYLLIUM	SW-846 6010	2.00	BQL	16-OCT-95	17-OCT-95	FXW	R1379
CADMIUM	SW-846 6010	1.00	BQL	16-OCT-95	17-OCT-95	FXW	R1379
CHROMIUM	SW-846 6010	10.0	37.7	16-OCT-95	17-OCT-95	FXW	R1379
COBALT	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
COPPER	SW-846 6010	200.	58.4	16-OCT-95	17-OCT-95	FXW	R1379
LEAD	SW-846 6010	10.0	6.11	16-OCT-95	17-OCT-95	FXW	R1379
MERCURY	SW-846 7470	1.00	BQL	16-OCT-95	17-OCT-95	MLH	R1456
NICKEL	SW-846 6010	50.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SELENIUM	SW-846 6010	20.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SILVER	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
THALLIUM	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
VANADIUM	SW-846 6010	40.0	104.	16-OCT-95	17-OCT-95	FXW	R1379
ZINC	SW-846 6010	50.0	76.3	16-OCT-95	17-OCT-95	FXW	R1379

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_874
IEA Sample #: 951030604
Client Name: BPA ENVIRONMENTAL & ENG., INC
Client Proj. I.D.: 170.010
Sample I.D.: MW-4

Matrix: WATER
Date Received: 11-OCT-95
Date Sampled: 10-OCT-95

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run
ANTIMONY	SW-846 6010	30.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
ARSENIC	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
BARIUM	SW-846 6010	500.	BQL	16-OCT-95	17-OCT-95	FXW	R1379
BERYLLIUM	SW-846 6010	2.00	BQL	16-OCT-95	17-OCT-95	FXW	R1379
CADMIUM	SW-846 6010	1.00	BQL	16-OCT-95	17-OCT-95	FXW	R1379
CHROMIUM	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
COBALT	SW-846 6010	50.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
COPPER	SW-846 6010	200.	BQL	16-OCT-95	17-OCT-95	FXW	R1379
LEAD	SW-846 6010	10.0	7.45	16-OCT-95	17-OCT-95	FXW	R1379
MERCURY	SW-846 7470	1.00	0.271	16-OCT-95	17-OCT-95	MLH	R1456
NICKEL	SW-846 6010	50.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SELENIUM	SW-846 6010	20.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SILVER	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
THALLIUM	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
VANADIUM	SW-846 6010	40.0	56.0	16-OCT-95	17-OCT-95	FXW	R1379
ZINC	SW-846 6010	50.0	24.4	16-OCT-95	17-OCT-95	FXW	R1379

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_874
IEA Sample #: 951030605
Client Name: BPA ENVIRONMENTAL & ENG., INC
Client Proj. I.D.: 170.010
Sample I.D.: MW-5

Matrix: WATER
Date Received: 11-OCT-95
Date Sampled: 11-OCT-95

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run
ANTIMONY	SW-846 6010	30.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
ARSENIC	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
BARIUM	SW-846 6010	500.	BQL	16-OCT-95	17-OCT-95	FXW	R1379
BERYLLIUM	SW-846 6010	2.00	BQL	16-OCT-95	17-OCT-95	FXW	R1379
CADMIUM	SW-846 6010	1.00	BQL	16-OCT-95	17-OCT-95	FXW	R1379
CHROMIUM	SW-846 6010	10.0	32.5	16-OCT-95	17-OCT-95	FXW	R1379
COBALT	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
COPPER	SW-846 6010	200.	38.1	16-OCT-95	17-OCT-95	FXW	R1379
LEAD	SW-846 6010	10.0	9.29	16-OCT-95	17-OCT-95	FXW	R1379
MERCURY	SW-846 7470	1.00	BQL	16-OCT-95	17-OCT-95	MLH	R1456
NICKEL	SW-846 6010	50.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SELENIUM	SW-846 6010	20.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SILVER	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
THALLIUM	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
VANADIUM	SW-846 6010	40.0	86.1	16-OCT-95	17-OCT-95	FXW	R1379
ZINC	SW-846 6010	50.0	47.2	16-OCT-95	17-OCT-95	FXW	R1379

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_874
IEA Sample #: 9510306 06
Client Name: BPA ENVIRONMENTAL & ENG., INC
Client Proj. I.D.: 170.010
Sample I.D.: MW-6

Matrix: WATER
Date Received: 11-OCT-95
Date Sampled: 11-OCT-95

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run
ANTIMONY	SW-846 6010	30.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
ARSENIC	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
BARIUM	SW-846 6010	500.	BQL	16-OCT-95	17-OCT-95	FXW	R1379
BERYLLIUM	SW-846 6010	2.00	BQL	16-OCT-95	17-OCT-95	FXW	R1379
CADMIUM	SW-846 6010	1.00	BQL	16-OCT-95	17-OCT-95	FXW	R1379
CHROMIUM	SW-846 6010	10.0	18.7	16-OCT-95	17-OCT-95	FXW	R1379
COBALT	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
COPPER	SW-846 6010	200.	BQL	16-OCT-95	17-OCT-95	FXW	R1379
LEAD	SW-846 6010	10.0	3.91	16-OCT-95	17-OCT-95	FXW	R1379
MERCURY	SW-846 7470	1.00	BQL	16-OCT-95	17-OCT-95	MLH	R1456
NICKEL	SW-846 6010	50.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SELENIUM	SW-846 6010	20.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SILVER	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
THALLIUM	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
VANADIUM	SW-846 6010	40.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
ZINC	SW-846 6010	50.0	66.0	16-OCT-95	17-OCT-95	FXW	R1379

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_874
IEA Sample #: 9510306007 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 11-OCT-95
Client Proj. I.D.: 170.010 Date Sampled: 10-OCT-95
Sample I.D.: MW-7A

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run
ANTIMONY	SW-846 6010	30.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
ARSENIC	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
BARIUM	SW-846 6010	500.	BQL	16-OCT-95	17-OCT-95	FXW	R1379
BERYLLIUM	SW-846 6010	2.00	BQL	16-OCT-95	17-OCT-95	FXW	R1379
CADMIUM	SW-846 6010	1.00	BQL	16-OCT-95	17-OCT-95	FXW	R1379
CHROMIUM	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
COBALT	SW-846 6010	50.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
COPPER	SW-846 6010	200.	BQL	16-OCT-95	17-OCT-95	FXW	R1379
LEAD	SW-846 6010	10.0	5.86	16-OCT-95	17-OCT-95	FXW	R1379
MERCURY	SW-846 7470	1.00	BQL	16-OCT-95	17-OCT-95	MLH	R1456
NICKEL	SW-846 6010	50.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SELENIUM	SW-846 6010	20.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SILVER	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
THALLIUM	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
VANADIUM	SW-846 6010	40.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
ZINC	SW-846 6010	50.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_874
IEA Sample #: 9510306Ø8 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 11-OCT-95
Client Proj. I.D.: 17Ø.Ø1Ø Date Sampled: 1Ø-OCT-95
Sample I.D.: MW-7B

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run
ANTIMONY	SW-846 6Ø1Ø	3Ø.Ø	BQL	16-OCT-95	17-OCT-95	FXW	R1379
ARSENIC	SW-846 6Ø1Ø	1Ø.Ø	BQL	16-OCT-95	17-OCT-95	FXW	R1379
BARIUM	SW-846 6Ø1Ø	5ØØ.	326.	16-OCT-95	17-OCT-95	FXW	R1379
BERYLLIUM	SW-846 6Ø1Ø	2.ØØ	BQL	16-OCT-95	17-OCT-95	FXW	R1379
CADMIUM	SW-846 6Ø1Ø	1.ØØ	BQL	16-OCT-95	17-OCT-95	FXW	R1379
CHROMIUM	SW-846 6Ø1Ø	1Ø.Ø	2Ø.Ø	16-OCT-95	17-OCT-95	FXW	R1379
COBALT	SW-846 6Ø1Ø	1Ø.Ø	BQL	16-OCT-95	17-OCT-95	FXW	R1379
COPPER	SW-846 6Ø1Ø	2ØØ.	37.1	16-OCT-95	17-OCT-95	FXW	R1379
LEAD	SW-846 6Ø1Ø	1Ø.Ø	7.12	16-OCT-95	17-OCT-95	FXW	R1379
MERCURY	SW-846 747Ø	1.ØØ	BQL	16-OCT-95	17-OCT-95	MLH	R1456
NICKEL	SW-846 6Ø1Ø	5Ø.Ø	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SELENIUM	SW-846 6Ø1Ø	2Ø.Ø	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SILVER	SW-846 6Ø1Ø	1Ø.Ø	BQL	16-OCT-95	17-OCT-95	FXW	R1379
THALLIUM	SW-846 6Ø1Ø	1Ø.Ø	BQL	16-OCT-95	17-OCT-95	FXW	R1379
VANADIUM	SW-846 6Ø1Ø	4Ø.Ø	11Ø.	16-OCT-95	17-OCT-95	FXW	R1379
ZINC	SW-846 6Ø1Ø	5Ø.Ø	116.	16-OCT-95	17-OCT-95	FXW	R1379

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_874
IEA Sample #: 9510306 09
Client Name: BPA ENVIRONMENTAL & ENG., INC
Client Proj. I.D.: 170.010
Sample I.D.: MW-8A

Matrix: WATER
Date Received: 11-OCT-95
Date Sampled: 11-OCT-95

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run
ANTIMONY	SW-846 6010	30.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
ARSENIC	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
BARIUM	SW-846 6010	500.	BQL	16-OCT-95	17-OCT-95	FXW	R1379
BERYLLIUM	SW-846 6010	2.00	BQL	16-OCT-95	17-OCT-95	FXW	R1379
CADMIUM	SW-846 6010	1.00	1.16	16-OCT-95	17-OCT-95	FXW	R1379
CHROMIUM	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
COBALT	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
COPPER	SW-846 6010	200.	BQL	16-OCT-95	17-OCT-95	FXW	R1379
LEAD	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
MERCURY	SW-846 7470	1.00	BQL	16-OCT-95	17-OCT-95	MLH	R1456
NICKEL	SW-846 6010	50.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SELENIUM	SW-846 6010	20.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SILVER	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
THALLIUM	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
VANADIUM	SW-846 6010	40.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
ZINC	SW-846 6010	50.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_874
IEA Sample #: 9510306 10
Client Name: BPA ENVIRONMENTAL & ENG., INC.
Client Proj. I.D.: 170.010
Sample I.D.: MW-8B

Matrix: WATER
Date Received: 11-OCT-95
Date Sampled: 11-OCT-95

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run
ANTIMONY	SW-846 6010	30.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
ARSENIC	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
BARIUM	SW-846 6010	500.	1090	16-OCT-95	17-OCT-95	FXW	R1379
BERYLLIUM	SW-846 6010	2.00	5.03	16-OCT-95	17-OCT-95	FXW	R1379
CADMIUM	SW-846 6010	1.00	BQL	16-OCT-95	17-OCT-95	FXW	R1379
CHROMIUM	SW-846 6010	10.0	16.3	16-OCT-95	17-OCT-95	FXW	R1379
COBALT	SW-846 6010	10.0	52.3	16-OCT-95	17-OCT-95	FXW	R1379
COPPER	SW-846 6010	200.	BQL	16-OCT-95	17-OCT-95	FXW	R1379
LEAD	SW-846 6010	10.0	14.2	16-OCT-95	17-OCT-95	FXW	R1379
MERCURY	SW-846 7470	1.00	BQL	16-OCT-95	17-OCT-95	MLH	R1456
NICKEL	SW-846 6010	50.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SELENIUM	SW-846 6010	20.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SILVER	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
THALLIUM	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
VANADIUM	SW-846 6010	40.0	120.	16-OCT-95	17-OCT-95	FXW	R1379
ZINC	SW-846 6010	50.0	491.	16-OCT-95	17-OCT-95	FXW	R1379

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_874
IEA Sample #: 9510306 11
Client Name: BPA ENVIRONMENTAL & ENG., INC
Client Proj. I.D.: 170.010
Sample I.D.: MW-9

Matrix: WATER
Date Received: 11-OCT-95
Date Sampled: 11-OCT-95

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run
ANTIMONY	SW-846 6010	30.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
ARSENIC	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
BARIUM	SW-846 6010	500.	BQL	16-OCT-95	17-OCT-95	FXW	R1379
BERYLLIUM	SW-846 6010	2.00	BQL	16-OCT-95	17-OCT-95	FXW	R1379
CADMIUM	SW-846 6010	1.00	BQL	16-OCT-95	17-OCT-95	FXW	R1379
CHROMIUM	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
COBALT	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
COPPER	SW-846 6010	200.	BQL	16-OCT-95	17-OCT-95	FXW	R1379
LEAD	SW-846 6010	10.0	3.63	16-OCT-95	17-OCT-95	FXW	R1379
MERCURY	SW-846 7470	1.00	BQL	16-OCT-95	17-OCT-95	MLH	R1456
NICKEL	SW-846 6010	50.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SELENIUM	SW-846 6010	20.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SILVER	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
THALLIUM	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
VANADIUM	SW-846 6010	40.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
ZINC	SW-846 6010	50.0	25.0	16-OCT-95	17-OCT-95	FXW	R1379

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_874
IEA Sample #: 9510306 12
Client Name: BPA ENVIRONMENTAL & ENG., INC
Client Proj. I.D.: 170.010
Sample I.D.: SW-1

Matrix: WATER
Date Received: 11-OCT-95
Date Sampled: 11-OCT-95

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run
ANTIMONY	SW-846 6010	30.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
ARSENIC	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
BARIUM	SW-846 6010	500.	BQL	16-OCT-95	17-OCT-95	FXW	R1379
BERYLLIUM	SW-846 6010	2.00	BQL	16-OCT-95	17-OCT-95	FXW	R1379
CADMIUM	SW-846 6010	1.00	BQL	16-OCT-95	17-OCT-95	FXW	R1379
CHROMIUM	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
COBALT	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
COPPER	SW-846 6010	200.	BQL	16-OCT-95	17-OCT-95	FXW	R1379
LEAD	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
MERCURY	SW-846 7470	1.00	BQL	16-OCT-95	17-OCT-95	MLH	R1456
NICKEL	SW-846 6010	50.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SELENIUM	SW-846 6010	20.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SILVER	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
THALLIUM	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
VANADIUM	SW-846 6010	40.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
ZINC	SW-846 6010	50.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_874
IEA Sample #: 951030613
Client Name: BPA ENVIRONMENTAL & ENG., INC
Client Proj. I.D.: 170.010
Sample I.D.: SW-2

Matrix: WATER
Date Received: 11-OCT-95
Date Sampled: 10-OCT-95

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run
ANTIMONY	SW-846 6010	30.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
ARSENIC	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
BARIUM	SW-846 6010	500.	BQL	16-OCT-95	17-OCT-95	FXW	R1379
BERYLLIUM	SW-846 6010	2.00	BQL	16-OCT-95	17-OCT-95	FXW	R1379
CADMIUM	SW-846 6010	1.00	BQL	16-OCT-95	17-OCT-95	FXW	R1379
CHROMIUM	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
COBALT	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
COPPER	SW-846 6010	200.	BQL	16-OCT-95	17-OCT-95	FXW	R1379
LEAD	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
MERCURY	SW-846 7470	1.00	BQL	16-OCT-95	17-OCT-95	MLH	R1456
NICKEL	SW-846 6010	50.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SELENIUM	SW-846 6010	20.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SILVER	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
THALLIUM	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
VANADIUM	SW-846 6010	40.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
ZINC	SW-846 6010	50.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
PREPARATION BLANKS

IEA Project #: 631_874
Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC
Client Proj. I.D.: 170.010
Sample Number: PBW 10169503H

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run
MERCURY	SW-846 7470	1.00	BQL	16-OCT-95	17-OCT-95	MLH	R1456

Corresponding Samples:
951030601, 951030602, 951030603, 951030604, 951030605, 951030606, 951030607, 951030608, 951030609, 951030610, 951030611, 951030612, 951030613

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
PREPARATION BLANKS

IEA Project #: 631_874
Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC
Client Proj. I.D.: 170.010
Sample Number: PBW 10169505P

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run
ANTIMONY	SW-846 6010	30.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
ARSENIC	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
BARIUM	SW-846 6010	500.	BQL	16-OCT-95	17-OCT-95	FXW	R1379
BERYLLIUM	SW-846 6010	2.00	BQL	16-OCT-95	17-OCT-95	FXW	R1379
CADMIUM	SW-846 6010	1.00	BQL	16-OCT-95	17-OCT-95	FXW	R1379
CHROMIUM	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
COBALT	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
COPPER	SW-846 6010	200.	BQL	16-OCT-95	17-OCT-95	FXW	R1379
LEAD	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
NICKEL	SW-846 6010	50.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SELENIUM	SW-846 6010	20.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
SILVER	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
THALLIUM	SW-846 6010	10.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
VANADIUM	SW-846 6010	40.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379
ZINC	SW-846 6010	50.0	BQL	16-OCT-95	17-OCT-95	FXW	R1379

Corresponding Samples:
951030601, 951030602, 951030603, 951030604, 951030605, 951030606, 951030607, 951030608, 951030609, 951030610, 951030611, 951030612, 951030613, 951030614

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
DUPLICATE ANALYSIS

IEA Project #: 631_874
IEA Sample #: 951030601
Matrix: WATER

Duplicate Analysis

Parameter	Method	Sample (ug/l)	Duplicate (ug/l)	RPD %	Date Analyzed	Samp Run	Dup Run
MERCURY	SW-846 7470	BQL	BQL		17-OCT-95	R1456	R1456

$$RPD = \frac{S-D}{(S+D)/2} \times 100$$

Control Limits: + - 20

Corresponding Samples:
951030601, 951030602, 951030603, 951030604, 951030605, 951030606, 951030607, 951030608, 951030609, 951030610, 951030611, 951030612, 951030613

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
DUPLICATE ANALYSIS

IEA Project #: 631_874
IEA Sample #: 951030606
Matrix: WATER

Duplicate Analysis

Parameter	Method	Sample (ug/l)	Duplicate (ug/l)	RPD %	Date Analyzed	Samp Run	Dup Run
ANTIMONY	SW-846 6010	BQL	BQL		17-OCT-95	R1379	R1379
ARSENIC	SW-846 6010	BQL	BQL		17-OCT-95	R1379	R1379
BARIUM	SW-846 6010	BQL	BQL		17-OCT-95	R1379	R1379
BERYLLIUM	SW-846 6010	BQL	BQL		17-OCT-95	R1379	R1379
CADMIUM	SW-846 6010	BQL	BQL		17-OCT-95	R1379	R1379
CHROMIUM	SW-846 6010	18.7	BQL		17-OCT-95	R1379	R1379
COBALT	SW-846 6010	BQL	BQL		17-OCT-95	R1379	R1379
COPPER	SW-846 6010	BQL	BQL		17-OCT-95	R1379	R1379
LEAD	SW-846 6010	BQL	BQL		17-OCT-95	R1379	R1379
NICKEL	SW-846 6010	BQL	BQL		17-OCT-95	R1379	R1379
SELENIUM	SW-846 6010	BQL	BQL		17-OCT-95	R1379	R1379
SILVER	SW-846 6010	BQL	BQL		17-OCT-95	R1379	R1379
THALLIUM	SW-846 6010	BQL	BQL		17-OCT-95	R1379	R1379
VANADIUM	SW-846 6010	BQL	BQL		17-OCT-95	R1379	R1379
ZINC	SW-846 6010	66.0	BQL		17-OCT-95	R1379	R1379

$$RPD = \frac{S-D}{(S+D)/2} \times 100$$

Control Limits: + - 20

Corresponding Samples:
951030601, 951030602, 951030603, 951030604, 951030605, 951030606, 951030607, 951030608, 951030609, 951030610, 951030611, 951030612, 951030613, 951030614

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
SPIKE RESULTS

IEA Project #: 631_874
IEA Sample #: 951030601
Matrix: WATER

Spike Results (ug/l)

Parameter	Method	SA	SR	SSR	%RCY	Date Analyzed	Samp Run	Spike Run
MERCURY	SW-846 7470	1.00	BQL	0.910	91.0	17-OCT-95	R1456	R1456

R = ((SSR - SR) / SA) * 100

Corresponding Samples:
951030601, 951030602, 951030603, 951030604, 951030605, 951030606, 951030607, 951030608, 951030609, 951030610, 951030611, 951030612, 951030613

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
SPIKE RESULTS

IEA Project #: 631_874
IEA Sample #: 951030609
Matrix: WATER

Spike Results (ug/l)

Parameter	Method	SA	SR	SSR	%RCY	Date Analyzed	Samp Run	Spike Run
ANTIMONY	SW-846 6010	500.	BQL	507.	101.	17-OCT-95	R1379	R1379
ARSENIC	SW-846 6010	2000	BQL	2030	102.	17-OCT-95	R1379	R1379
BARIUM	SW-846 6010	2000	BQL	2020	101.	17-OCT-95	R1379	R1379
BERYLLIUM	SW-846 6010	50.0	BQL	50.9	102.	17-OCT-95	R1379	R1379
CADMIUM	SW-846 6010	50.0	BQL	49.8	99.7	17-OCT-95	R1379	R1379
CHROMIUM	SW-846 6010	200.	BQL	203.	101.	17-OCT-95	R1379	R1379
COBALT	SW-846 6010	500.	BQL	501.	100.	17-OCT-95	R1379	R1379
COPPER	SW-846 6010	250.	BQL	256.	103.	17-OCT-95	R1379	R1379
LEAD	SW-846 6010	500.	BQL	513.	103.	17-OCT-95	R1379	R1379
NICKEL	SW-846 6010	500.	BQL	509.	102.	17-OCT-95	R1379	R1379
SELENIUM	SW-846 6010	2000	BQL	2040	102.	17-OCT-95	R1379	R1379
SILVER	SW-846 6010	50.0	BQL	51.3	102.	17-OCT-95	R1379	R1379
THALLIUM	SW-846 6010	2000	BQL	2040	102.	17-OCT-95	R1379	R1379
VANADIUM	SW-846 6010	500.	BQL	504.	101.	17-OCT-95	R1379	R1379
ZINC	SW-846 6010	500.	BQL	514.	103.	17-OCT-95	R1379	R1379

R = ((SSR - SR) / SA) * 100

Corresponding Samples:
951030601, 951030602, 951030603, 951030604, 951030605, 951030606, 951030607, 951030608, 951030609, 951030610, 951030611, 951030612, 951030613, 951030614

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	10/11/95
IEA Sample Number:	9510306-01	Date Sampled:	10/11/95
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/18/95
Client Project I.D.:	170.010	Analysis By:	Moore
Sample Identification:	MW-1	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	10/11/95
IEA Sample Number:	9510306-01	Date Sampled:	10/11/95
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/18/95
Client Project I.D.:	170.010	Analysis By:	Moore
Sample Identification:	MW-1	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	10/11/95
IEA Sample Number:	9510306-02	Date Sampled:	10/10/95
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/18/95
Client Project I.D.:	170.010	Analysis By:	Crewes
Sample Identification:	MW-2	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	65
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	16
25	cis-1,2-Dichloroethene	5	13
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	10/11/95
IEA Sample Number:	9510306-02	Date Sampled:	10/10/95
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/18/95
Client Project I.D.:	170.010	Analysis By:	Crewes
Sample Identification:	MW-2	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	13
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	7
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	19
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	10/11/95
IEA Sample Number:	9510306-03	Date Sampled:	10/10/95
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/18/95
Client Project I.D.:	170.010	Analysis By:	Moore
Sample Identification:	MW-3	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	10/11/95
IEA Sample Number:	9510306-03	Date Sampled:	10/10/95
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/18/95
Client Project I.D.:	170.010	Analysis By:	Moore
Sample Identification:	MW-3	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	10/11/95
IEA Sample Number:	9510306-04	Date Sampled:	10/10/95
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/19/95
Client Project I.D.:	170.010	Analysis By:	Moore
Sample Identification:	MW-4	Dilution Factor:	2.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	15
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	38
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	230
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	10/11/95
IEA Sample Number:	9510306-04	Date Sampled:	10/10/95
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/19/95
Client Project I.D.:	170.010	Analysis By:	Moore
Sample Identification:	MW-4	Dilution Factor:	2.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	91
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	48
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit
Quantitation limit elevated due to sample dilution prior to analysis.
Sample diluted due to high concentration of target compounds present.

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	10/11/95
IEA Sample Number:	9510306-05	Date Sampled:	10/11/95
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/18/95
Client Project I.D.:	170.010	Analysis By:	Moore
Sample Identification:	MW-5	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	10/11/95
IEA Sample Number:	9510306-05	Date Sampled:	10/11/95
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/18/95
Client Project I.D.:	170.010	Analysis By:	Moore
Sample Identification:	MW-5	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	10/11/95
IEA Sample Number:	9510306-06	Date Sampled:	10/11/95
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/18/95
Client Project I.D.:	170.010	Analysis By:	Moore
Sample Identification:	MW-6	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	10/11/95
IEA Sample Number:	9510306-06	Date Sampled:	10/11/95
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/18/95
Client Project I.D.:	170.010	Analysis By:	Moore
Sample Identification:	MW-6	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	10/11/95
IEA Sample Number:	9510306-07	Date Sampled:	10/10/95
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/18/95
Client Project I.D.:	170.010	Analysis By:	Moore
Sample Identification:	MW-7A	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	10/11/95
IEA Sample Number:	9510306-07	Date Sampled:	10/10/95
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/18/95
Client Project I.D.:	170.010	Analysis By:	Moore
Sample Identification:	MW-7A	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	10/11/95
IEA Sample Number:	9510306-08	Date Sampled:	10/10/95
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/18/95
Client Project I.D.:	170.010	Analysis By:	Moore
Sample Identification:	MW-7B	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	10/11/95
IEA Sample Number:	9510306-08	Date Sampled:	10/10/95
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/18/95
Client Project I.D.:	170.010	Analysis By:	Moore
Sample Identification:	MW-7B	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	10/11/95
IEA Sample Number:	9510306-09	Date Sampled:	10/11/95
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/18/95
Client Project I.D.:	170.010	Analysis By:	Moore
Sample Identification:	MW-8A	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	10/11/95
IEA Sample Number:	9510306-09	Date Sampled:	10/11/95
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/18/95
Client Project I.D.:	170.010	Analysis By:	Moore
Sample Identification:	MW-8A	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	10/11/95
IEA Sample Number:	9510306-10	Date Sampled:	10/11/95
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/18/95
Client Project I.D.:	170.010	Analysis By:	Moore
Sample Identification:	MW-8B	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	10/11/95
IEA Sample Number:	9510306-10	Date Sampled:	10/11/95
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/18/95
Client Project I.D.:	170.010	Analysis By:	Moore
Sample Identification:	MW-8B	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date April 11, 1996

Source/Well MW-7A

Time 12:30 pm

Sampled by James Roberts

Weather Sunny, 60s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 22.43 ft.

2) Depth to well bottom from measuring point 63.35 ft.

3) Height of water column 40.92 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 6.67 gal.

2) Volume of water removed prior to sampling 20 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 63.8°F

2) Specific Conductance 201 μmhos

3) pH 6.15

4) Physical Appearance and Odor Clear, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date April 19, 1996

Source/Well MW-7B

Time 12:50 pm

Sampled by James Roberts

Weather Sunny, 60s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 20.20 ft.

2) Depth to well bottom from measuring point 32.46 ft.

3) Height of water column 12.26 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 1.99 gal.

2) Volume of water removed prior to sampling 5.5 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 63.5°F

2) Specific Conductance 133 μmhos

3) pH 5.71

4) Physical Appearance and Odor Tan, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date April 11, 1996

Source/Well MW-8A

Time 1:30 pm

Sampled by James Roberts

Weather Sunny, 60s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 19.77 ft.

2) Depth to well bottom from measuring point 63.35 ft.

3) Height of water column 43.58 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 7.1 gal.

2) Volume of water removed prior to sampling 21.5 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 64.9°F

2) Specific Conductance 85 μmhos

3) pH 6.72

4) Physical Appearance and Odor Clearish, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date April 11, 1996

Source/Well MW-8B

Time 1:10 pm

Sampled by James Roberts

Weather Sunny, 60s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 19.10 ft.

2) Depth to well bottom from measuring point 25.80 ft.

3) Height of water column 6.7 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 1.09 gal.

2) Volume of water removed prior to sampling 3.5 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 63.1°F

2) Specific Conductance 48 μmhos

3) pH 6.91

4) Physical Appearance and Odor Brown, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

GROUND WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date April 11, 1996

Source/Well MW-9

Time 9:30 am

Sampled by James Roberts

Weather Sunny, 40s

GROUNDWATER ELEVATION

1) Depth to water from measuring point 13.20 ft.

2) Depth to well bottom from measuring point 27.25 ft.

3) Height of water column 14.05 ft.

4) Measuring point description Top of PVC Casing

WELL PURGING AND SAMPLE COLLECTION

1) Volume of water in well
   a) 2" well . . . . (v = 0.163 x h)
   b) 4" well . . . . (v = 0.651 x h) 2.29 gal.

2) Volume of water removed prior to sampling 7.0 gal.

3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

1) Temperature 62.8°F

2) Specific Conductance 185 μmhos

3) pH 6.24

4) Physical Appearance and Odor Clearish, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

SURFACE WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date April 11, 1996

Source/Well SW-1

Time 11:30 am

Sampled by James Roberts

Weather Sunny, 60s

FIELD ANALYSIS

1) Temperature 61.8°F

2) Specific Conductance 248 μmhos

3) pH 6.49

4) Physical Appearance and Odor Tanish, no odor

BPA ENVIRONMENTAL & ENGINEERING, INC.

SURFACE WATER SAMPLING FIELD DATA

Location Swepsonville Landfill

Date April 11, 1996

Source/Well SW-2

Time 4:15 pm

Sampled by James Roberts

Weather Sunny, 70s

FIELD ANALYSIS

1) Temperature 68.1°F

2) Specific Conductance 146 μmhos

3) pH 6.69

4) Physical Appearance and Odor Tanish, no odor

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IEA
An Aquarion Company

May 29, 1996

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BPA Environmental & Engineering, Inc.
2641-G Randleman Road
Greensboro, NC 27406

IEA Project No.: 631909/9604331 Revision
IEA Reference No.: W9604081
Client Project I.D.: 0170.010 Swepsonville Landfill

Dear Mr. Scarlett,

Transmitted herewith are the revised results of analyses on 11 samples submitted to our laboratory.

The samples were received intact.

Analyses were performed according to approved methodologies and meet the requirements of the IEA Quality Assurance Program except where noted. Please see the enclosed reports for your results and a copy of the Chain of Custody documentation.

Thank you for selecting IEA for your sample analysis. Please do not hesitate to call me at 1-919-677-0090 or 1-800-444-9919 should you have any questions regarding this report. We look forward to serving you in the future.

Very truly yours,

IEA, Inc.

Sherry R Alers

Rodney Raimonde
Project Manager

IEA, Inc.
3000 Weston Parkway
Cary, NC 27513

Phone 919-677-0090
Fax 919-677-0427

IEA
An Aquarion Company

May 29, 1996

Wes Scarlett
BPA Environmental & Engineering, Inc.
2641-G Randleman Road
Greensboro, NC 27406

IEA Project No.: 631910/9604422 Revision
IEA Reference No.: W9604363
Client Project I.D.: 0170.010 Swepsonville landfill

Dear Mr. Scarlett,

Transmitted herewith are the revised results of analyses on one samples submitted to our laboratory.

The samples were received intact.

Analyses were performed according to approved methodologies and meet the requirements of the IEA Quality Assurance Program except where noted. Please see the enclosed reports for your results and a copy of the Chain of Custody documentation.

Thank you for selecting IEA for your sample analysis. Please do not hesitate to call me at 1-919-677-0090 or 1-800-444-9919 should you have any questions regarding this report. We look forward to serving you in the future.

Very truly yours,

IEA, Inc.

for Edward C. Braunsdorf
Project Manager

IEA, Inc.
3000 Weston Parkway
Cary, NC 27513

Phone 919-677-0090
Fax 919-677-0427

IEA
An Aquarion Company

April 25, 1996

APR 1996
RECEIVED

Wes Scarlett
BPA Environmental & Engineering, Inc.
2641-G Randleman Road
Greensboro, NC 27406

IEA Project No.: 631909/9604331
IEA Reference No.: W9604081
Client Project I.D.: 0170.010 Swepsonville Landfill

Dear Mr. Scarlett,

Transmitted herewith are the results of analyses on 11 samples submitted to our laboratory.

The samples were received intact.

Analyses were performed according to approved methodologies and meet the requirements of the IEA Quality Assurance Program except where noted. Please see the enclosed reports for your results and a copy of the Chain of Custody documentation.

Thank you for selecting IEA for your sample analysis. Please do not hesitate to call me at 1-919-677-0090 or 1-800-444-9919 should you have any questions regarding this report. We look forward to serving you in the future.

Very truly yours,

IEA, Inc.

S. Alex
for Rodney Raimonde
Project Manager

IEA, Inc.
3000 Weston Parkway
Cary, NC 27513

Phone 919-677-0090
Fax 919-677-0427

IEA
An Aquarion Company

IEA-NORTH CAROLINA CERTIFICATIONS

Certifying State	Program Type	Lab ID #
Alabama	DW	40210
California	DW, WW, HW Radiolog.	I-1035,1768, I-1047 I-1018 (Rad)
Connecticut	DW, WW	PH-0135
Florida	DW WW (CompQAP)	87350 E87439 QAP#930007G
Kansas	DW, HW, WW	E-158 (DW, WW) E-1189 (HW)
Kentucky	DW	90049
Massachusetts	DW, WW	M-NC039
New Jersey	DW, WW Radiolog.	67719 67681
New York	Radiolog.	11422
North Carolina	DW WW Radiolog.	DW 37720 WW 84 Rad 37720
Ohio	Voluntary Action Program	CL00021
South Carolina	DW WW HW	99021
Tennessee	DW UST App List	02914
Utah	Radiolog. RCRA	E-206 E-226
Virginia	DW	00179
West Virginia	DW	9908C
Wisconsin	WW	998051010

DW=Drinking Water WW=Wastewater HW=Hazardous Waste Radiolog.=Radiological

Rev3 01/96

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_909D
IEA Sample #: 960433101 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 04/12/96
Client Proj. I.D.: 0170.010 Swepsonville landfil Date Sampled: 04/11/96
Sample I.D.: MW-1

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
ANTIMONY	SW846 6010	30.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
ARSENIC	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
BARIUM	SW846 6010	500.	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
BERYLLIUM	SW846 6010	2.00	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
CADMIUM	SW846 6010	1.00	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
CHROMIUM	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
COBALT	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
COPPER	SW846 6010	200.	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
LEAD	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
MERCURY	SW846 7470	0.500	BQL	04/17/96	04/18/96	MLH	R4941	04179601H
NICKEL	SW846 6010	40.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
SELENIUM	SW846 6010	20.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
SILVER	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
THALLIUM	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
VANADIUM	SW846 6010	40.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
ZINC	SW846 6010	50.0	57.1	04/16/96	04/17/96	FXW	R4904	04169603P

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_909D
IEA Sample #: 960433102 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 04/12/96
Client Proj. I.D.: 0170.010 Swepsonville landfil Date Sampled: 04/11/96
Sample I.D.: MW-3

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
ANTIMONY	SW846 6010	30.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
ARSENIC	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
BARIUM	SW846 6010	500.	1140	04/16/96	04/17/96	FXW	R4904	04169603P
BERYLLIUM	SW846 6010	2.00	2.68	04/16/96	04/17/96	FXW	R4904	04169603P
CADMIUM	SW846 6010	1.00	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
CHROMIUM	SW846 6010	10.0	93.8	04/16/96	04/17/96	FXW	R4904	04169603P
COBALT	SW846 6010	10.0	48.9	04/16/96	04/17/96	FXW	R4904	04169603P
COPPER	SW846 6010	200.	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
LEAD	SW846 6010	10.0	13.4	04/16/96	04/17/96	FXW	R4904	04169603P
MERCURY	SW846 7470	0.500	BQL	04/17/96	04/18/96	MLH	R4941	04179601H
NICKEL	SW846 6010	40.0	55.1	04/16/96	04/17/96	FXW	R4904	04169603P
SELENIUM	SW846 6010	20.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
SILVER	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
THALLIUM	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
VANADIUM	SW846 6010	40.0	281.	04/16/96	04/17/96	FXW	R4904	04169603P
ZINC	SW846 6010	50.0	263.	04/16/96	04/17/96	FXW	R4904	04169603P

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_909D
IEA Sample #: 960433103 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 04/12/96
Client Proj. I.D.: 0170.010 Swepsonville landfil Date Sampled: 04/11/96
Sample I.D.: MW-4

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
ANTIMONY	SW846 6010	30.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
ARSENIC	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
BARIUM	SW846 6010	500.	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
BERYLLIUM	SW846 6010	2.00	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
CADMIUM	SW846 6010	1.00	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
CHROMIUM	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
COBALT	SW846 6010	10.0	20.1	04/16/96	04/17/96	FXW	R4904	04169603P
COPPER	SW846 6010	200.	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
LEAD	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
MERCURY	SW846 7470	0.500	BQL	04/17/96	04/18/96	MLH	R4941	04179601H
NICKEL	SW846 6010	40.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
SELENIUM	SW846 6010	20.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
SILVER	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
THALLIUM	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
VANADIUM	SW846 6010	40.0	64.4	04/16/96	04/17/96	FXW	R4904	04169603P
ZINC	SW846 6010	50.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_909D
IEA Sample #: 960433104 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 04/12/96
Client Proj. I.D.: 0170.010 Swepsonville landfil Date Sampled: 04/11/96
Sample I.D.: MW-5

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
ANTIMONY	SW846 6010	30.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
ARSENIC	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
BARIUM	SW846 6010	500.	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
BERYLLIUM	SW846 6010	2.00	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
CADMIUM	SW846 6010	1.00	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
CHROMIUM	SW846 6010	10.0	75.8	04/16/96	04/17/96	FXW	R4904	04169603P
COBALT	SW846 6010	10.0	28.1	04/16/96	04/17/96	FXW	R4904	04169603P
COPPER	SW846 6010	200.	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
LEAD	SW846 6010	10.0	15.9	04/16/96	04/17/96	FXW	R4904	04169603P
MERCURY	SW846 7470	0.500	BQL	04/17/96	04/18/96	MLH	R4941	04179601H
NICKEL	SW846 6010	40.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
SELENIUM	SW846 6010	20.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
SILVER	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
THALLIUM	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
VANADIUM	SW846 6010	40.0	230.	04/16/96	04/17/96	FXW	R4904	04169603P
ZINC	SW846 6010	50.0	133.	04/16/96	04/17/96	FXW	R4904	04169603P

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_909D
IEA Sample #: 960433105 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 04/12/96
Client Proj. I.D.: 0170.010 Swepsonville landfil Date Sampled: 04/11/96
Sample I.D.: MW-6

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
ANTIMONY	SW846 6010	30.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
ARSENIC	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
BARIUM	SW846 6010	500.	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
BERYLLIUM	SW846 6010	2.00	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
CADMIUM	SW846 6010	1.00	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
CHROMIUM	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
COBALT	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
COPPER	SW846 6010	200.	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
LEAD	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
MERCURY	SW846 7470	0.500	BQL	04/17/96	04/18/96	MLH	R4941	04179601H
NICKEL	SW846 6010	40.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
SELENIUM	SW846 6010	20.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
SILVER	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
THALLIUM	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
VANADIUM	SW846 6010	40.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
ZINC	SW846 6010	50.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_909D
IEA Sample #: 960433106 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 04/12/96
Client Proj. I.D.: 0170.010 Swepsonville landfil Date Sampled: 04/11/96
Sample I.D.: MW-7A

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
ANTIMONY	SW846 6010	30.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
ARSENIC	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
BARIUM	SW846 6010	500.	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
BERYLLIUM	SW846 6010	2.00	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
CADMIUM	SW846 6010	1.00	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
CHROMIUM	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
COBALT	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
COPPER	SW846 6010	200.	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
LEAD	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
MERCURY	SW846 7470	0.500	BQL	04/17/96	04/18/96	MLH	R4941	04179601H
NICKEL	SW846 6010	40.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
SELENIUM	SW846 6010	20.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
SILVER	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
THALLIUM	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
VANADIUM	SW846 6010	40.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
ZINC	SW846 6010	50.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_909D
IEA Sample #: 960433107 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 04/12/96
Client Proj. I.D.: 0170.010 Swepsonville landfil Date Sampled: 04/11/96
Sample I.D.: MW-8A

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
ANTIMONY	SW846 6010	30.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
ARSENIC	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
BARIUM	SW846 6010	500.	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
BERYLLIUM	SW846 6010	2.00	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
CADMIUM	SW846 6010	1.00	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
CHROMIUM	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
COBALT	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
COPPER	SW846 6010	200.	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
LEAD	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
MERCURY	SW846 7470	0.500	BQL	04/17/96	04/18/96	MLH	R4941	04179601H
NICKEL	SW846 6010	40.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
SELENIUM	SW846 6010	20.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
SILVER	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
THALLIUM	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
VANADIUM	SW846 6010	40.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
ZINC	SW846 6010	50.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_909D
IEA Sample #: 960433108 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 04/12/96
Client Proj. I.D.: 0170.010 Swepsonville landfil Date Sampled: 04/11/96
Sample I.D.: MW-8B

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
ANTIMONY	SW846 6010	30.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
ARSENIC	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
BARIUM	SW846 6010	500.	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
BERYLLIUM	SW846 6010	2.00	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
CADMIUM	SW846 6010	1.00	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
CHROMIUM	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
COBALT	SW846 6010	10.0	20.5	04/16/96	04/17/96	FXW	R4904	04169603P
COPPER	SW846 6010	200.	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
LEAD	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
MERCURY	SW846 7470	0.500	BQL	04/17/96	04/18/96	MLH	R4941	04179601H
NICKEL	SW846 6010	40.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
SELENIUM	SW846 6010	20.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
SILVER	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
THALLIUM	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
VANADIUM	SW846 6010	40.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
ZINC	SW846 6010	50.0	117.	04/16/96	04/17/96	FXW	R4904	04169603P

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_909D
IEA Sample #: 960433109 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 04/12/96
Client Proj. I.D.: 0170.010 Swepsonville landfil Date Sampled: 04/11/96
Sample I.D.: MW-9

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
ANTIMONY	SW846 6010	30.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
ARSENIC	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
BARIUM	SW846 6010	500.	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
BERYLLIUM	SW846 6010	2.00	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
CADMIUM	SW846 6010	1.00	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
CHROMIUM	SW846 6010	10.0	37.5	04/16/96	04/17/96	FXW	R4904	04169603P
COBALT	SW846 6010	10.0	105.	04/16/96	04/17/96	FXW	R4904	04169603P
COPPER	SW846 6010	200.	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
LEAD	SW846 6010	10.0	10.2	04/16/96	04/17/96	FXW	R4904	04169603P
MERCURY	SW846 7470	0.500	BQL	04/17/96	04/18/96	MLH	R4941	04179601H
NICKEL	SW846 6010	40.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
SELENIUM	SW846 6010	20.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
SILVER	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
THALLIUM	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
VANADIUM	SW846 6010	40.0	91.9	04/16/96	04/17/96	FXW	R4904	04169603P
ZINC	SW846 6010	50.0	120.	04/16/96	04/17/96	FXW	R4904	04169603P

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_909D
IEA Sample #: 960433110 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 04/12/96
Client Proj. I.D.: 0170.010 Swepsonville landfil Date Sampled: 04/11/96
Sample I.D.: SW-1

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
ANTIMONY	SW846 6010	30.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
ARSENIC	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
BARIUM	SW846 6010	500.	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
BERYLLIUM	SW846 6010	2.00	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
CADMIUM	SW846 6010	1.00	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
CHROMIUM	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
COBALT	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
COPPER	SW846 6010	200.	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
LEAD	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
MERCURY	SW846 7470	0.500	BQL	04/17/96	04/18/96	MLH	R4941	04179601H
NICKEL	SW846 6010	40.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
SELENIUM	SW846 6010	20.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
SILVER	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
THALLIUM	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
VANADIUM	SW846 6010	40.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
ZINC	SW846 6010	50.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_909D
IEA Sample #: 960433111 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 04/12/96
Client Proj. I.D.: 0170.010 Swepsonville landfil Date Sampled: 04/11/96
Sample I.D.: SW-2

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
ANTIMONY	SW846 6010	30.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
ARSENIC	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
BARIUM	SW846 6010	500.	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
BERYLLIUM	SW846 6010	2.00	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
CADMIUM	SW846 6010	1.00	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
CHROMIUM	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
COBALT	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
COPPER	SW846 6010	200.	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
LEAD	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
MERCURY	SW846 7470	0.500	BQL	04/17/96	04/18/96	MLH	R4941	04179601H
NICKEL	SW846 6010	40.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
SELENIUM	SW846 6010	20.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
SILVER	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
THALLIUM	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
VANADIUM	SW846 6010	40.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
ZINC	SW846 6010	50.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
PREPARATION BLANKS

IEA Project #: 631_909D
Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC
Client Proj. I.D.: 0170.010 Swepsonville landfil
Sample Number: PBW 04169603P

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
TIMONY	SW846 6010	30.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
ARSENIC	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
BARIUM	SW846 6010	500.	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
RYLLIUM	SW846 6010	2.00	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
DMIUM	SW846 6010	1.00	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
CHROMIUM	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
COBALT	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
PPER	SW846 6010	200.	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
AD	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
NICKEL	SW846 6010	40.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
LENIUM	SW846 6010	20.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
LVER	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
THALLIUM	SW846 6010	10.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
VANADIUM	SW846 6010	40.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P
NC	SW846 6010	50.0	BQL	04/16/96	04/17/96	FXW	R4904	04169603P

orresponding Samples:
960432801, 960433101, 960433102, 960433103, 960433104, 960433105,
960433106, 960433107, 960433108, 960433109, 960433110, 960433111

omments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
PREPARATION BLANKS

IEA Project #: 631_909D
Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC
Client Proj. I.D.: 0170.010 Swepsonville landfil
Sample Number: PBW 04179601H

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
RCURY	SW846 7470	0.200	BQL	04/17/96	04/18/96	MLH	R4941	04179601H

Corresponding Samples:
960433001, 960433101, 960433102, 960433103, 960433104, 960433105,
960433106, 960433107, 960433108, 960433109, 960433110, 960433111,
960433601, 960436002, 960436003, 960436004, 960436005, 960437701

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
LABORATORY CONTROL SAMPLE

A Project #: 631_909D
_EA Sample #: LCSW 04169603P
Matrix: WATER

_rameter	Method	Results (ug/l) True	Found	Limits Lower	Upper	% RCY	Date Analyzed	IEA Run	Prep Batch
''TIMONY	SW846 6010	5000	5050	4000	6000	101.	04/17/96	R4904	04169603P
SENIC	SW846 6010	5000	4960	4000	6000	99.2	04/17/96	R4904	04169603P
RIUM	SW846 6010	5000	4870	4000	6000	97.4	04/17/96	R4904	04169603P
BERYLLIUM	SW846 6010	5000	5090	4000	6000	102.	04/17/96	R4904	04169603P
DMIUM	SW846 6010	5000	4940	4000	6000	98.8	04/17/96	R4904	04169603P
ROMIUM	SW846 6010	5000	4980	4000	6000	99.5	04/17/96	R4904	04169603P
COBALT	SW846 6010	5000	5020	4000	6000	100.	04/17/96	R4904	04169603P
COPPER	SW846 6010	5000	5000	4000	6000	100.	04/17/96	R4904	04169603P
AD	SW846 6010	5000	5010	4000	6000	100.	04/17/96	R4904	04169603P
_CKEL	SW846 6010	5000	4990	4000	6000	99.8	04/17/96	R4904	04169603P
SELENIUM	SW846 6010	5000	4940	4000	6000	98.9	04/17/96	R4904	04169603P
SILVER	SW846 6010	500	498.	400	600	99.7	04/17/96	R4904	04169603P
ALLIUM	SW846 6010	5000	4960	4000	6000	99.2	04/17/96	R4904	04169603P
_NADIUM	SW846 6010	5000	4980	4000	6000	99.7	04/17/96	R4904	04169603P
ZINC	SW846 6010	5000	4970	4000	6000	99.4	04/17/96	R4904	04169603P

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
DUPLICATE ANALYSIS

IEA Project #: 631_909D
EA Sample #: 960433101
Matrix: WATER

		Duplicate Analysis						
rameter	Method	Sample (ug/l)	Duplicate (ug/l)	RPD %	Date Analyzed	Samp Run	Dup Run	Prep Batch
MERCURY	SW846 7470	BQL	BQL		04/18/96	R4941	R4941	04179601H

$$RPD = \frac{S-D}{(S+D)/2} \times 100$$

Control Limits: +/- 20%

orresponding Samples:
960433001, 960433101, 960433102, 960433103, 960433104, 960433105,
960433106, 960433107, 960433108, 960433109, 960433110, 960433111,
960433601, 960436002, 960436003, 960436004, 960436005, 960437701

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
DUPLICATE ANALYSIS

EA Project #: 631_909D
EA Sample #: 960433105
Matrix: WATER

Duplicate Analysis

rameter	Method	Sample (ug/l)	Duplicate (ug/l)	RPD %	Date Analyzed	Samp Run	Dup Run	Prep Batch
NTIMONY	SW846 6010	BQL	BQL		04/17/96	R4904	R4904	04169603P
SENIC	SW846 6010	BQL	BQL		04/17/96	R4904	R4904	04169603P
RIUM	SW846 6010	BQL	BQL		04/17/96	R4904	R4904	04169603P
ERYLLIUM	SW846 6010	BQL	BQL		04/17/96	R4904	R4904	04169603P
ADMIUM	SW846 6010	BQL	BQL		04/17/96	R4904	R4904	04169603P
ROMIUM	SW846 6010	BQL	BQL		04/17/96	R4904	R4904	04169603P
BALT	SW846 6010	BQL	BQL		04/17/96	R4904	R4904	04169603P
OPPER	SW846 6010	BQL	BQL		04/17/96	R4904	R4904	04169603P
EAD	SW846 6010	BQL	BQL		04/17/96	R4904	R4904	04169603P
CKEL	SW846 6010	BQL	BQL		04/17/96	R4904	R4904	04169603P
LENIUM	SW846 6010	BQL	BQL		04/17/96	R4904	R4904	04169603P
ILVER	SW846 6010	BQL	BQL		04/17/96	R4904	R4904	04169603P
ALLIUM	SW846 6010	BQL	BQL		04/17/96	R4904	R4904	04169603P
NADIUM	SW846 6010	BQL	BQL		04/17/96	R4904	R4904	04169603P
NC	SW846 6010	BQL	BQL		04/17/96	R4904	R4904	04169603P

$$RPD = \frac{S-D}{(S+D)/2} \times 100$$

Control Limits: +/- 20%

orresponding Samples:
960432801, 960433101, 960433102, 960433103, 960433104, 960433105,
960433106, 960433107, 960433108, 960433109, 960433110, 960433111

omments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
SPIKE RESULTS

:EA Project #: 631_909D
EA Sample #: 960433101
Matrix: WATER

Spike Results (ug/l)

rameter	Method	SA	SR	SSR	%RCY	Date Analyzed	Samp Run	Spike Run	Prep Batch
MERCURY	SW846 7470	1.00	BQL	0.991	88.4	04/18/96	R4941	R4941	04179601H

%R = ((SSR - SR) / SA) * 100 Control Limits: 75-125%

_orresponding Samples:
960433001, 960433101, 960433102, 960433103, 960433104, 960433105,
960433106, 960433107, 960433108, 960433109, 960433110, 960433111,
960433601, 960436002, 960436003, 960436004, 960436005, 960437701

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
SPIKE RESULTS

:EA Project #: 631_909D
EA Sample #: 960433105
Matrix: WATER

Spike Results (ug/l)

rameter	Method	SA	SR	SSR	%RCY	Date Analyzed	Samp Run	Spike Run	Prep Batch
ANTIMONY	SW846 6010	500.	BQL	474.	94.7	04/17/96	R4904	R4904	04169603P
SENIC	SW846 6010	2000	BQL	1880	94.3	04/17/96	R4904	R4904	04169603P
RIUM	SW846 6010	2000	BQL	1890	90.7	04/17/96	R4904	R4904	04169603P
BERYLLIUM	SW846 6010	50.0	BQL	48.2	96.4	04/17/96	R4904	R4904	04169603P
CADMIUM	SW846 6010	50.0	BQL	47.0	94.0	04/17/96	R4904	R4904	04169603P
ROMIUM	SW846 6010	200.	BQL	194.	93.2	04/17/96	R4904	R4904	04169603P
BALT	SW846 6010	500.	BQL	470.	93.1	04/17/96	R4904	R4904	04169603P
COPPER	SW846 6010	250.	BQL	246.	95.0	04/17/96	R4904	R4904	04169603P
LEAD	SW846 6010	500.	BQL	474.	93.9	04/17/96	R4904	R4904	04169603P
CKEL	SW846 6010	500.	BQL	481.	95.0	04/17/96	R4904	R4904	04169603P
LENIUM	SW846 6010	2000	BQL	1870	93.5	04/17/96	R4904	R4904	04169603P
SILVER	SW846 6010	50.0	BQL	48.6	97.3	04/17/96	R4904	R4904	04169603P
THALLIUM	SW846 6010	2000	BQL	1870	93.5	04/17/96	R4904	R4904	04169603P
NADIUM	SW846 6010	500.	BQL	482.	93.8	04/17/96	R4904	R4904	04169603P
NC	SW846 6010	500.	BQL	518.	94.6	04/17/96	R4904	R4904	04169603P

%R = ((SSR - SR) / SA) * 100 Control Limits: 75-125%

orresponding Samples:
960432801, 960433101, 960433102, 960433103, 960433104, 960433105,
960433106, 960433107, 960433108, 960433109, 960433110, 960433111

omments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
SPIKE DUPLICATE RESULTS

EA Project #: 631_909D
EA Sample #: 960433101S
Matrix: WATER

Spike Duplicate Results

rameter	Method	Sample (ug/l)	Duplicate (ug/l)	RPD %	Date Analyzed	Samp Run	Dup Run	Prep Batch
IERCURY	SW846 7470	0.991	0.973	1.83	04/18/96	R4941	R4941	04179601H

$$RPD = \frac{S-D}{(S+D)/2} \times 100$$

Control Limits: +/- 20%

orresponding Samples:
960433001, 960433101, 960433102, 960433103, 960433104, 960433105,
960433106, 960433107, 960433108, 960433109, 960433110, 960433111,
960433601, 960436002, 960436003, 960436004, 960436005, 960437701

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
SPIKE DUPLICATE RESULTS

IEA Project #: 631_909D
EA Sample #: 960433105S
Matrix: WATER

Spike Duplicate Results

rameter	Method	Sample (ug/l)	Duplicate (ug/l)	RPD %	Date Analyzed	Samp Run	Dup Run	Prep Batch
ANTIMONY	SW846 6010	474.	481.	1.51	04/17/96	R4904	R4904	04169603P
SENIC	SW846 6010	1880	1900	1.06	04/17/96	R4904	R4904	04169603P
RIUM	SW846 6010	1890	1920	1.38	04/17/96	R4904	R4904	04169603P
BERYLLIUM	SW846 6010	48.2	48.8	1.22	04/17/96	R4904	R4904	04169603P
CADMIUM	SW846 6010	47.0	47.6	1.24	04/17/96	R4904	R4904	04169603P
ROMIUM	SW846 6010	194.	198.	1.60	04/17/96	R4904	R4904	04169603P
BALT	SW846 6010	470.	476.	1.33	04/17/96	R4904	R4904	04169603P
COPPER	SW846 6010	246.	252.	2.49	04/17/96	R4904	R4904	04169603P
EAD	SW846 6010	474.	480.	1.29	04/17/96	R4904	R4904	04169603P
CKEL	SW846 6010	481.	487.	1.27	04/17/96	R4904	R4904	04169603P
LENIUM	SW846 6010	1870	1890	1.23	04/17/96	R4904	R4904	04169603P
SILVER	SW846 6010	48.6	49.2	1.14	04/17/96	R4904	R4904	04169603P
ALLIUM	SW846 6010	1870	1900	1.61	04/17/96	R4904	R4904	04169603P
NADIUM	SW846 6010	482.	490.	1.57	04/17/96	R4904	R4904	04169603P
NC	SW846 6010	518.	527.	1.82	04/17/96	R4904	R4904	04169603P

$$RPD = \frac{S-D}{(S+D)/2} \times 100$$

Control Limits: +/- 20%

Corresponding Samples:
960432801, 960433101, 960433102, 960433103, 960433104, 960433105,
960433106, 960433107, 960433108, 960433109, 960433110, 960433111

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-909	Date Received:	04/12/96
IEA Sample Number:	9604331-01	Date Sampled:	04/11/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/18/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Crewes
Sample Identification:	MW-1	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-909	Date Received:	04/12/96
IEA Sample Number:	9604331-01	Date Sampled:	04/11/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/18/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Crewes
Sample Identification:	MW-1	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-909	Date Received:	04/12/96
IEA Sample Number:	9604331-02	Date Sampled:	04/11/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/18/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Crewes
Sample Identification:	MW-3	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-909	Date Received:	04/12/96
IEA Sample Number:	9604331-02	Date Sampled:	04/11/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/18/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Crewes
Sample Identification:	MW-3	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
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Appendix I Target List

IEA Project Number:	631-909	Date Received:	04/12/96
IEA Sample Number:	9604331-03	Date Sampled:	04/11/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/18/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Moore
Sample Identification:	MW-4	Dilution Factor:	2.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	32
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	310
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
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Appendix I Target List

IEA Project Number:	631-909	Date Received:	04/12/96
IEA Sample Number:	9604331-03	Date Sampled:	04/11/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/18/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Moore
Sample Identification:	MW-4	Dilution Factor:	2.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	95
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	39
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit
Quantitation limit elevated due to sample dilution prior to analysis.
Sample diluted due to high concentration of target compounds present.

Industrial & Environmental Analysts, Inc. (IEA)
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Appendix I Target List

IEA Project Number:	631-909	Date Received:	04/12/96
IEA Sample Number:	9604331-04	Date Sampled:	04/11/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/18/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Crewes
Sample Identification:	MW-5	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
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Appendix I Target List

IEA Project Number:	631-909	Date Received:	04/12/96
IEA Sample Number:	9604331-04	Date Sampled:	04/11/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/18/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Crewes
Sample Identification:	MW-5	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
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Appendix I Target List

IEA Project Number:	631-909	Date Received:	04/12/96
IEA Sample Number:	9604331-05	Date Sampled:	04/11/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/18/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Crewes
Sample Identification:	MW-6	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
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Appendix I Target List

IEA Project Number:	631-909	Date Received:	04/12/96
IEA Sample Number:	9604331-05	Date Sampled:	04/11/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/18/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Crewes
Sample Identification:	MW-6	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
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IEA Project Number:	631-909	Date Received:	04/12/96
IEA Sample Number:	9604331-06	Date Sampled:	04/11/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/17/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Moore
Sample Identification:	MW-7A	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

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IEA Project Number:	631-909	Date Received:	04/12/96
IEA Sample Number:	9604331-06	Date Sampled:	04/11/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/17/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Moore
Sample Identification:	MW-7A	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
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IEA Project Number:	631-909	Date Received:	04/12/96
IEA Sample Number:	9604331-07	Date Sampled:	04/11/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/17/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Moore
Sample Identification:	MW-8A	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
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IEA Project Number:	631-909	Date Received:	04/12/96
IEA Sample Number:	9604331-07	Date Sampled:	04/11/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/17/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Moore
Sample Identification:	MW-8A	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
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IEA Project Number:	631-909	Date Received:	04/12/96
IEA Sample Number:	9604331-08	Date Sampled:	04/11/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/17/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Moore
Sample Identification:	MW-8B	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
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Appendix I Target List

IEA Project Number:	631-909	Date Received:	04/12/96
IEA Sample Number:	9604331-08	Date Sampled:	04/11/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/17/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Moore
Sample Identification:	MW-8B	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-909	Date Received:	04/12/96
IEA Sample Number:	9604331-09	Date Sampled:	04/11/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/17/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Moore
Sample Identification:	MW-9	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-909	Date Received:	04/12/96
IEA Sample Number:	9604331-09	Date Sampled:	04/11/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/17/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Moore
Sample Identification:	MW-9	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-909	Date Received:	04/12/96
IEA Sample Number:	9604331-10	Date Sampled:	04/11/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/17/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Moore
Sample Identification:	SW-1	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-909	Date Received:	04/12/96
IEA Sample Number:	9604331-10	Date Sampled:	04/11/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/17/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Moore
Sample Identification:	SW-1	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-909	Date Received:	04/12/96
IEA Sample Number:	9604331-11	Date Sampled:	04/11/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/17/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Moore
Sample Identification:	SW-2	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-909	Date Received:	04/12/96
IEA Sample Number:	9604331-11	Date Sampled:	04/11/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/17/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Moore
Sample Identification:	SW-2	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-909	Date Received:	N/A
IEA Sample Number:	9604331	Date Sampled:	N/A
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/17/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Moore
Sample Identification:	QC BLANK (VBLKJW)	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-909	Date Received:	N/A
IEA Sample Number:	9604331	Date Sampled:	N/A
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/17/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Moore
Sample Identification:	QC BLANK (VBLKJW)	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit
N/A = Not Applicable
Corresponding Samples: 9604331-06 through 11
Filename: 0417103

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-909	Date Received:	N/A
IEA Sample Number:	9604331	Date Sampled:	N/A
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/18/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Crewes
Sample Identification:	QC BLANK (VBLKJX)	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-909	Date Received:	N/A
IEA Sample Number:	9604331	Date Sampled:	N/A
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/18/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Crewes
Sample Identification:	QC BLANK (VBLKJX)	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit
N/A = Not Applicable
Corresponding Samples: 9604331-01, 02, 04, 05
Filename: 0417J06

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-909	Date Received:	N/A
IEA Sample Number:	9604331	Date Sampled:	N/A
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/18/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Moore
Sample Identification:	QC BLANK (VBLKJY)	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-909	Date Received:	N/A
IEA Sample Number:	9604331	Date Sampled:	N/A
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/18/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Moore
Sample Identification:	QC BLANK (VBLKJY)	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit
N/A = Not Applicable
Corresponding Samples: 9604331-03, 03MS/MSD
Filename: 0418102

Industrial & Environmental Analysts, Inc. (IEA)
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

IEA Project No.: 631-909
IEA Reference No: 9604331-03

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC
1,1-Dichloroethene	100	BQL	128	128	61-145
Trichloroethene	100	39	117	78	71-120
Benzene	100	BQL	93	93	76-127
Toluene	100	BQL	88	88	76-125
Chlorobenzene	100	BQL	88	88	75-130

	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
1,1-Dichloroethene	100	140	140	9	14	61-145
Trichloroethene	100	123	84	5	14	71-120
Benzene	100	108	108	15 *	11	76-127
Toluene	100	99	99	12	13	76-125
Chlorobenzene	100	99	99	12	13	75-130

Comments:
* Outside QC Limits
Corresponding Samples: 9604331-01 through 11
The associated LCS met all quality control criteria as determined by the laboratory showing the instrument to be in control.

FORM WAVOLMAS REV 012492

Industrial & Environmental Analysts, Inc. (IEA)
8260 VOLATILE SURROGATE RECOVERY

IEA Project No.: 631-909

Sample ID	SURR 1	SURR 2	SURR 3
VBLKJX	103	102	101
9604331-01	106	90	107
9604331-02	102	97	105
9604331-04	103	101	104
9604331-05	105	109	106
VBLKJY	103	106	105
9604331-03	103	102	105
VBLKJW	104	102	105
9604331-06	104	104	107
9604331-07	101	96	107
9604331-08	103	99	105
9604331-09	103	90	102
9604331-10	105	101	103
9604331-11	106	104	105
9604331-03MS	106	110	103
9604331-03MSD	103	106	104

	QC Limits
S1 = Toluene-d8	(90-123)
S2 = 4-Bromofluorobenzene	(75-129)
S3 = 1,2-Dichloroethane-d4	(70-139)

BPA Environmental & Engineering, Inc.

(910) 272-9713 2641-G Randleman Road, Greensboro, NC 27406

CHAIN OF CUSTODY RECORD

Sheet 1 of 1

Sample No.	Description/Location	Date	Time	Grab	Comp	No. of Containers	Preservative	MATRIX soil	MATRIX water	ANALYSES REQUESTED: AP1 VOC	AP1 metals						
mw-1		4.11.96	950	✓		3	HCl HNO3		✓								
~~mw-2~~				✓					✓								
mw-3			400	✓					✓								
mw-4			300						✓								
mw-5			200	✓					✓								
mw-6			1115	✓					✓								
mw-7A			1230	✓					✓								
mw-8A			130	✓					✓								
mw-8B			110	✓					✓								
mw-9			930	✓					✓								
sw-1			1115	✓					✓								
sw-2			1130	✓					✓								

SPECIAL INSTRUCTIONS:

FIELD OBSERVATIONS:

W 9604081

Items/Reason	Relinquished By	Received By	Date	Time
All Shipping	[illegible]	[illegible]	4-12	12:40pm
		[illegible]	4-12-96	1530

Items/Reason	Relinquished By	Received By	Date	Time

PROJECT QUOTE NO.

PROJECT RUSH NO.

PROJECT MANAGER Kim S.

2C

631-9090

PROJECT NAME Sampson Landfill

PROJECT NUMBER 170000

SAMPLER(S) [illegible]

IEA, Inc.
3000 Weston Parkway
Cary, NC 27513

Phone 919-677-0090
Fax 919-677-0427

IEA
An Aquarion Company

April 29, 1996

MAY 1996
RECEIVED

Wes Scarlett
BPA Environmental & Engineering, Inc.
2641-G Randleman Road
Greensboro, NC 27406

IEA Project No.: 631910/9604422
IEA Reference No.: W9604363
Client Project I.D.: 0170.010 Swepsonville landfill

Dear Mr. Scarlett,

Transmitted herewith are the results of analyses on one samples submitted to our laboratory.

The samples were received intact.

Analyses were performed according to approved methodologies and meet the requirements of the IEA Quality Assurance Program except where noted. Please see the enclosed reports for your results and a copy of the Chain of Custody documentation.

Thank you for selecting IEA for your sample analysis. Please do not hesitate to call me at 1-919-677-0090 or 1-800-444-9919 should you have any questions regarding this report. We look forward to serving you in the future.

Very truly yours,

IEA, Inc.

for S Alex
Edward C. Braunsdorf
Project Manager

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_910D
IEA Sample #: 960442201 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 04/16/96
Client Proj. I.D.: 0170.010 Swepsonville landfil Date Sampled: 04/12/96
Sample I.D.: MW-2

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
ANTIMONY	SW846 6010	30.0	BQL	04/18/96	04/23/96	FXW	R4993	04189602P
ARSENIC	SW846 6010	10.0	BQL	04/18/96	04/23/96	FXW	R4993	04189602P
BARIUM	SW846 6010	500.	BQL	04/18/96	04/23/96	FXW	R4993	04189602P
BERYLLIUM	SW846 6010	2.00	BQL	04/18/96	04/23/96	FXW	R4993	04189602P
CADMIUM	SW846 6010	1.00	BQL	04/18/96	04/23/96	FXW	R4993	04189602P
CHROMIUM	SW846 6010	10.0	38.9	04/18/96	04/23/96	FXW	R4993	04189602P
COBALT	SW846 6010	10.0	14.9	04/18/96	04/23/96	FXW	R4993	04189602P
COPPER	SW846 6010	200.	BQL	04/18/96	04/23/96	FXW	R4993	04189602P
LEAD	SW846 6010	10.0	BQL	04/18/96	04/23/96	FXW	R4993	04189602P
MERCURY	SW846 7470	0.500	BQL	04/18/96	04/19/96	MLH	R4987	04189602H
NICKEL	SW846 6010	50.0	BQL	04/18/96	04/23/96	FXW	R4993	04189602P
SELENIUM	SW846 6010	20.0	BQL	04/18/96	04/23/96	FXW	R4993	04189602P
SILVER	SW846 6010	10.0	BQL	04/18/96	04/23/96	FXW	R4993	04189602P
THALLIUM	SW846 6010	10.0	BQL	04/18/96	04/23/96	FXW	R4993	04189602P
VANADIUM	SW846 6010	40.0	122.	04/18/96	04/23/96	FXW	R4993	04189602P
ZINC	SW846 6010	50.0	99.9	04/18/96	04/23/96	FXW	R4993	04189602P

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
PREPARATION BLANKS

IEA Project #: 631_910D
Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC
Client Proj. I.D.: 0170.010 Swepsonville landfil
Sample Number: PBW 04189602H

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
MERCURY	SW846 7470	0.500	BQL	04/18/96	04/19/96	MLH	R4987	04189602H

Corresponding Samples:
960432101, 960432801, 960440201, 960440203, 960440204, 960440205, 960440206, 960440207, 960440208, 960441501, 960442201

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
PREPARATION BLANKS

IEA Project #: 631_910D
Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC
Client Proj. I.D.: 0170.010 Swepsonville landfil
Sample Number: PBW 04189602P

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
ANTIMONY	SW846 6010	30.0	BQL	04/18/96	04/23/96	FXW	R4993	04189602P
ARSENIC	SW846 6010	10.0	BQL	04/18/96	04/23/96	FXW	R4993	04189602P
BARIUM	SW846 6010	500.	BQL	04/18/96	04/23/96	FXW	R4993	04189602P
BERYLLIUM	SW846 6010	2.00	BQL	04/18/96	04/23/96	FXW	R4993	04189602P
CADMIUM	SW846 6010	1.00	BQL	04/18/96	04/23/96	FXW	R4993	04189602P
CHROMIUM	SW846 6010	10.0	BQL	04/18/96	04/23/96	FXW	R4993	04189602P
COBALT	SW846 6010	10.0	BQL	04/18/96	04/23/96	FXW	R4993	04189602P
COPPER	SW846 6010	200.	BQL	04/18/96	04/23/96	FXW	R4993	04189602P
LEAD	SW846 6010	10.0	BQL	04/18/96	04/23/96	FXW	R4993	04189602P
NICKEL	SW846 6010	50.0	BQL	04/18/96	04/23/96	FXW	R4993	04189602P
SELENIUM	SW846 6010	20.0	BQL	04/18/96	04/23/96	FXW	R4993	04189602P
SILVER	SW846 6010	10.0	BQL	04/18/96	04/23/96	FXW	R4993	04189602P
THALLIUM	SW846 6010	10.0	BQL	04/18/96	04/23/96	FXW	R4993	04189602P
VANADIUM	SW846 6010	40.0	BQL	04/18/96	04/23/96	FXW	R4993	04189602P
ZINC	SW846 6010	50.0	BQL	04/18/96	04/23/96	FXW	R4993	04189602P

Corresponding Samples:
960440201, 960440203, 960440204, 960440205, 960440206, 960440207, 960440208, 960440209, 960440210, 960440211, 960440212, 960440213, 960441501, 960442201

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
LABORATORY CONTROL SAMPLE

IEA Project #: 631_910D
IEA Sample #: LCSW 04189602P
Matrix: WATER

arameter	Method	Results (ug/l) True	Found	Limits Lower	Upper	% RCY	Date Analyzed	IEA Run	Prep Batch
ANTIMONY	SW846 6010	5000	5120	4000	6000	102.	04/23/96	R4993	04189602P
RSENIC	SW846 6010	5000	4920	4000	6000	98.4	04/23/96	R4993	04189602P
ARIUM	SW846 6010	5000	4870	4000	6000	97.4	04/23/96	R4993	04189602P
BERYLLIUM	SW846 6010	5000	5020	4000	6000	100.	04/23/96	R4993	04189602P
CADMIUM	SW846 6010	5000	4960	4000	6000	99.2	04/23/96	R4993	04189602P
HROMIUM	SW846 6010	5000	4960	4000	6000	99.1	04/23/96	R4993	04189602P
OBALT	SW846 6010	5000	4980	4000	6000	99.5	04/23/96	R4993	04189602P
COPPER	SW846 6010	5000	4780	4000	6000	95.6	04/23/96	R4993	04189602P
EAD	SW846 6010	5000	4950	4000	6000	99.1	04/23/96	R4993	04189602P
ICKEL	SW846 6010	5000	4970	4000	6000	99.4	04/23/96	R4993	04189602P
ELENIUM	SW846 6010	5000	4900	4000	6000	98.0	04/23/96	R4993	04189602P
SILVER	SW846 6010	500	480.	400	600	96.1	04/23/96	R4993	04189602P
THALLIUM	SW846 6010	5000	4980	4000	6000	99.6	04/23/96	R4993	04189602P
ANADIUM	SW846 6010	5000	4940	4000	6000	98.9	04/23/96	R4993	04189602P
ZINC	SW846 6010	5000	4970	4000	6000	99.4	04/23/96	R4993	04189602P

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
DUPLICATE ANALYSIS

IEA Project #: 631_910D
IEA Sample #: 960440201
Matrix: WATER

Duplicate Analysis

Parameter	Method	Sample (ug/l)	Duplicate (ug/l)	RPD %	Date Analyzed	Samp Run	Dup Run	Prep Batch
ANTIMONY	SW846 6010	BQL	BQL		04/23/96	R4993	R4993	04189602P
ARSENIC	SW846 6010	BQL	BQL		04/23/96	R4993	R4993	04189602P
BARIUM	SW846 6010	BQL	BQL		04/23/96	R4993	R4993	04189602P
BERYLLIUM	SW846 6010	BQL	BQL		04/23/96	R4993	R4993	04189602P
CADMIUM	SW846 6010	BQL	BQL		04/23/96	R4993	R4993	04189602P
CHROMIUM	SW846 6010	23.8	23.4	1.77	04/23/96	R4993	R4993	04189602P
COBALT	SW846 6010	BQL	BQL		04/23/96	R4993	R4993	04189602P
COPPER	SW846 6010	BQL	BQL		04/23/96	R4993	R4993	04189602P
LEAD	SW846 6010	BQL	BQL		04/23/96	R4993	R4993	04189602P
MERCURY	SW846 7470	BQL	BQL		04/19/96	R4987	R4987	04189602H
NICKEL	SW846 6010	BQL	BQL		04/23/96	R4993	R4993	04189602P
SELENIUM	SW846 6010	BQL	BQL		04/23/96	R4993	R4993	04189602P
SILVER	SW846 6010	BQL	BQL		04/23/96	R4993	R4993	04189602P
THALLIUM	SW846 6010	BQL	BQL		04/23/96	R4993	R4993	04189602P
VANADIUM	SW846 6010	BQL	BQL		04/23/96	R4993	R4993	04189602P
ZINC	SW846 6010	BQL	BQL		04/23/96	R4993	R4993	04189602P

$$RPD = \frac{S-D}{(S+D)/2} \times 100$$

Control Limits: +/- 20%

Corresponding Samples:
960432101, 960432801, 960440201, 960440203, 960440204, 960440205, 960440206, 960440207, 960440208, 960440209, 960440210, 960440211, 960440212, 960440213, 960441501, 960442201

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
SPIKE RESULTS

IEA Project #: 631_910D
IEA Sample #: 960440201
Matrix: WATER

Spike Results (ug/l)

Parameter	Method	SA	SR	SSR	%RCY	Date Analyzed	Samp Run	Spike Run	Prep Batch
ANTIMONY	SW846 6010	500.	BQL	473.	94.6	04/23/96	R4993	R4993	04189602P
ARSENIC	SW846 6010	2000	BQL	1870	93.4	04/23/96	R4993	R4993	04189602P
ARIUM	SW846 6010	2000	BQL	1960	93.9	04/23/96	R4993	R4993	04189602P
ERYLLIUM	SW846 6010	50.0	BQL	48.8	94.6	04/23/96	R4993	R4993	04189602P
CADMIUM	SW846 6010	50.0	BQL	46.0	92.0	04/23/96	R4993	R4993	04189602P
CHROMIUM	SW846 6010	200.	23.8	204.	90.4	04/23/96	R4993	R4993	04189602P
OBALT	SW846 6010	500.	BQL	461.	90.8	04/23/96	R4993	R4993	04189602P
OPPER	SW846 6010	250.	BQL	257.	97.5	04/23/96	R4993	R4993	04189602P
LEAD	SW846 6010	500.	BQL	463.	91.4	04/23/96	R4993	R4993	04189602P
MERCURY	SW846 7470	1.00	BQL	0.961	96.1	04/19/96	R4987	R4987	04189602H
ICKEL	SW846 6010	500.	BQL	476.	93.4	04/23/96	R4993	R4993	04189602P
ELENIUM	SW846 6010	2000	BQL	1890	94.5	04/23/96	R4993	R4993	04189602P
SILVER	SW846 6010	50.0	BQL	47.3	94.6	04/23/96	R4993	R4993	04189602P
THALLIUM	SW846 6010	2000	BQL	1900	94.5	04/23/96	R4993	R4993	04189602P
ANADIUM	SW846 6010	500.	BQL	488.	92.4	04/23/96	R4993	R4993	04189602P
INC	SW846 6010	500.	BQL	510.	93.0	04/23/96	R4993	R4993	04189602P

%R = ((SSR - SR) / SA) * 100 Control Limits: 75-125%

orresponding Samples:
960432101, 960432801, 960440201, 960440203, 960440204, 960440205, 960440206, 960440207, 960440208, 960440209, 960440210, 960440211, 960440212, 960440213, 960441501, 960442201

omments: % Recovery calculated based on idl values.

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
SPIKE DUPLICATE RESULTS

IEA Project #: 631_910D
IEA Sample #: 960440201S
Matrix: WATER

Spike Duplicate Results

Parameter	Method	Sample (ug/l)	Duplicate (ug/l)	RPD %	Date Analyzed	Samp Run	Dup Run	Prep Batch
ANTIMONY	SW846 6010	473.	477.	0.84	04/23/96	R4993	R4993	04189602P
ARSENIC	SW846 6010	1870	1900	1.69	04/23/96	R4993	R4993	04189602P
BARIUM	SW846 6010	1960	1940	1.03	04/23/96	R4993	R4993	04189602P
BERYLLIUM	SW846 6010	48.8	49.9	2.24	04/23/96	R4993	R4993	04189602P
CADMIUM	SW846 6010	46.0	47.3	2.81	04/23/96	R4993	R4993	04189602P
CHROMIUM	SW846 6010	204.	212.	3.62	04/23/96	R4993	R4993	04189602P
COBALT	SW846 6010	461.	475.	2.88	04/23/96	R4993	R4993	04189602P
COPPER	SW846 6010	257.	249.	3.08	04/23/96	R4993	R4993	04189602P
LEAD	SW846 6010	463.	475.	2.49	04/23/96	R4993	R4993	04189602P
MERCURY	SW846 7470	0.961	1.00	4.18	04/19/96	R4987	R4987	04189602H
NICKEL	SW846 6010	476.	490.	2.85	04/23/96	R4993	R4993	04189602P
SELENIUM	SW846 6010	1890	1880	0.57	04/23/96	R4993	R4993	04189602P
SILVER	SW846 6010	47.3	47.4	0.25	04/23/96	R4993	R4993	04189602P
THALLIUM	SW846 6010	1900	1920	1.22	04/23/96	R4993	R4993	04189602P
VANADIUM	SW846 6010	488.	499.	2.19	04/23/96	R4993	R4993	04189602P
ZINC	SW846 6010	510.	533.	4.36	04/23/96	R4993	R4993	04189602P

$$RPD = \frac{S-D}{(S+D)/2} \times 100$$

Control Limits: +/- 20%

Corresponding Samples:
960432101, 960432801, 960440201, 960440203, 960440204, 960440205, 960440206, 960440207, 960440208, 960440209, 960440210, 960440211, 960440212, 960440213, 960441501, 960442201

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-910	Date Received:	04/16/96
IEA Sample Number:	9604422-01	Date Sampled:	04/12/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/18/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Crewes
Sample Identification:	MW-2	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	11
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-910	Date Received:	04/16/96
IEA Sample Number:	9604422-01	Date Sampled:	04/12/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/18/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Crewes
Sample Identification:	MW-2	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-910	Date Received:	N/A
IEA Sample Number:	9604422	Date Sampled:	N/A
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/18/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Moore
Sample Identification:	QC BLANK (VBLKJY)	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-910	Date Received:	N/A
IEA Sample Number:	9604422	Date Sampled:	N/A
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	04/18/96
Client Project I.D.:	0170.010 Swepsonville Landfil	Analysis By:	Moore
Sample Identification:	QC BLANK (VBLKJY)	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit
N/A = Not Applicable
Corresponding Samples: 9604422-01, 9604331-03MS/MSD
Filename: 0418102

Industrial & Environmental Analysts, Inc. (IEA)
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

IEA Project No.: 631-910
IEA Reference No: 9604331-03

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC
1,1-Dichloroethene	100	BQL	128	128	61-145
Trichloroethene	100	39	117	78	71-120
Benzene	100	BQL	93	93	76-127
Toluene	100	BQL	88	88	76-125
Chlorobenzene	100	BQL	88	88	75-130

	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
1,1-Dichloroethene	100	140	140	9	14	61-145
Trichloroethene	100	123	84	5	14	71-120
Benzene	100	108	108	15 *	11	76-127
Toluene	100	99	99	12	13	76-125
Chlorobenzene	100	99	99	12	13	75-130

Comments:
* Outside QC Limits
Corresponding Samples: 9604422-01
The associated LCS met all quality control criteria as determined by the laboratory showing the instrument to be in control.

FORM WAVOLMAS REV 012492

Industrial & Environmental Analysts, Inc. (IEA)
8260 VOLATILE SURROGATE RECOVERY

IEA Project No.: 631-910

Sample ID	SURR 1	SURR 2	SURR 3
VBLKJY	103	106	105
960422-01	102	103	100
9604331-03MS	106	110	103
9604331-03MSD	103	106	104

	QC Limits
S1 = Toluene-d8	(90-123)
S2 = 4-Bromofluorobenzene	(75-129)
S3 = 1,2-Dichloroethane-d4	(70-139)

IEA
An Aquarion Company
3000 WESTON PKWY.
CARY, N.C. 27513
PH # 919-677-0090
FAX # 919-677-0427

CHAIN OF CUSTODY RECORD

NO. 66901

REGULATORY CLASSIFICATION - PLEASE SPECIFY

☐ NPDES ☐ DRINKING WATER ☐ RCRA ☐ OTHER _____

COMPANY: BPA

Page 1 of 1

170.010 Sheepsonville Landfill

SAMPLERS (SIGNATURE): [illegible]

						# OF CONTAINERS	SOIL	WATER	Ap1 val	Ap1 wd											
MW-2	4/12/96	1415		V		3		✓	✓	✓												

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
[illegible]	4/12/96				
[illegible]	4/13/96	8:30	[illegible]		

IEA QUOTE NO.: 9804363

IEA RUSH NO.:

PROJECT MANAGER (PLEASE PRINT):

P.O. NO.:

REMARKS:

☒ BOTTLE INTACT ☐ CUSTODY SEALS
☒ PRESERVED ☐ SEALS INTACT
☒ CHILLED ☐ SEE REMARKS

Received [illegible] @ 8:30 631-910D 4C

SHIPPING REMARKS:

IEA, Inc.
3000 Weston Parkway
Cary, NC 27513

Phone 919-677-0090
Fax 919-677-0427

IEA
An Aquarion Company

May 6, 1996

RECEIVED
MAY 1996

Wes Scarlett
BPA Environmental & Engineering, Inc.
2641-G Randleman Road
Greensboro, NC 27406

IEA Project No.: 631913/9604571
IEA Reference No.: W9604081
Client Project I.D.: 0170.010 Swepsonville landfil

Dear Mr. Scarlett,

Transmitted herewith are the results of analyses on one samples submitted to our laboratory.

The samples were received intact.

Analyses were performed according to approved methodologies and meet the requirements of the IEA Quality Assurance Program except where noted. Please see the enclosed reports for your results and a copy of the Chain of Custody documentation.

Thank you for selecting IEA for your sample analysis. Please do not hesitate to call me at 1-919-677-0090 or 1-800-444-9919 should you have any questions regarding this report. We look forward to serving you in the future.

Very truly yours,

IEA, Inc.

S Alex for
Rodney Raimonde
Project Manager

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report

IEA Project #: 631_913D
IEA Sample #: 960457101 Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC Date Received: 04/22/96
Client Proj. I.D.: 0170.010 Swepsonville landfil Date Sampled: 04/19/96
Sample I.D.: 7-B

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
TIMONY	SW846 6010	30.0	BQL	04/25/96	04/30/96	JDJ	R5140	04259602P
RSENIC	SW846 6010	10.0	BQL	04/25/96	04/30/96	JDJ	R5140	04259602P
ARIUM	SW846 6010	500.	668.	04/25/96	04/30/96	JDJ	R5140	04259602P
RYLLIUM	SW846 6010	2.00	3.88	04/25/96	04/30/96	JDJ	R5140	04259602P
DMIUM	SW846 6010	1.00	BQL	04/25/96	04/30/96	JDJ	R5140	04259602P
HROMIUM	SW846 6010	10.0	33.4	04/25/96	04/30/96	JDJ	R5140	04259602P
OBALT	SW846 6010	10.0	44.6	04/25/96	04/30/96	JDJ	R5140	04259602P
PPER	SW846 6010	200.	BQL	04/25/96	04/30/96	JDJ	R5140	04259602P
AD	SW846 6010	10.0	BQL	04/25/96	04/30/96	JDJ	R5140	04259602P
ERCURY	SW846 7470	0.200	BQL	04/25/96	04/26/96	LXG	R5094	04259601H
CKEL	SW846 6010	50.0	BQL	04/25/96	04/30/96	JDJ	R5140	04259602P
LENIUM	SW846 6010	20.0	BQL	04/25/96	04/30/96	JDJ	R5140	04259602P
LVER	SW846 6010	10.0	BQL	04/25/96	04/30/96	JDJ	R5140	04259602P
HALLIUM	SW846 6010	10.0	BQL	04/25/96	04/30/96	JDJ	R5140	04259602P
NADIUM	SW846 6010	40.0	205.	04/25/96	04/30/96	JDJ	R5140	04259602P
NC	SW846 6010	50.0	338.	04/25/96	04/30/96	JDJ	R5140	04259602P

omments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
PREPARATION BLANKS

IEA Project #: 631_913D
Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC
Client Proj. I.D.: 0170.010 Swepsonville landfil
Sample Number: PBW 04259601H

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
MERCURY	SW846 7470	0.200	BQL	04/25/96	04/26/96	LXG	R5094	04259601H

Corresponding Samples:
960436106, 960436107, 960436517, 960436518, 960448901, 960448902, 960448903F, 960450201, 960457101, 960462504, 960462505F

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
PREPARATION BLANKS

IEA Project #: 631_913D
Matrix: WATER
Client Name: BPA ENVIRONMENTAL & ENG., INC
Client Proj. I.D.: 0170.010 Swepsonville landfil
Sample Number: PBW 04259602P

Parameter	Method	Quant Limit	Result (ug/l)	Date Prepared	Date Analyzed	Analyst	IEA Run	Prep Batch
NTIMONY	SW846 6010	30.0	BQL	04/25/96	04/29/96	JDJ	R5140	04259602P
ARSENIC	SW846 6010	10.0	BQL	04/25/96	04/29/96	JDJ	R5140	04259602P
BARIUM	SW846 6010	500.	BQL	04/25/96	04/29/96	JDJ	R5140	04259602P
ERYLLIUM	SW846 6010	2.00	BQL	04/25/96	04/29/96	JDJ	R5140	04259602P
ADMIUM	SW846 6010	1.00	BQL	04/25/96	04/29/96	JDJ	R5140	04259602P
CHROMIUM	SW846 6010	10.0	BQL	04/25/96	04/29/96	JDJ	R5140	04259602P
COBALT	SW846 6010	10.0	BQL	04/25/96	04/29/96	JDJ	R5140	04259602P
OPPER	SW846 6010	200.	BQL	04/25/96	04/29/96	JDJ	R5140	04259602P
EAD	SW846 6010	10.0	BQL	04/25/96	04/29/96	JDJ	R5140	04259602P
NICKEL	SW846 6010	50.0	BQL	04/25/96	04/29/96	JDJ	R5140	04259602P
SELENIUM	SW846 6010	20.0	BQL	04/25/96	04/29/96	JDJ	R5140	04259602P
ILVER	SW846 6010	10.0	BQL	04/25/96	04/29/96	JDJ	R5140	04259602P
HALLIUM	SW846 6010	10.0	BQL	04/25/96	04/29/96	JDJ	R5140	04259602P
VANADIUM	SW846 6010	40.0	BQL	04/25/96	04/29/96	JDJ	R5140	04259602P
ZINC	SW846 6010	50.0	BQL	04/25/96	04/29/96	JDJ	R5140	04259602P

orresponding Samples:
960435708, 960439711, 960450801, 960451201, 960451202, 960451203, 960457101

omments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
LABORATORY CONTROL SAMPLE

A Project #: 631_913D
EA Sample #: LCSW 04259602P
Matrix: WATER

rameter	Method	Results (ug/l) True	Found	Limits Lower	Upper	% RCY	Date Analyzed	IEA Run	Prep Batch
TIMONY	SW846 6010	5000	5040	4000	6000	101.	04/30/96	R5140	04259602P
SENIC	SW846 6010	5000	4900	4000	6000	97.9	04/30/96	R5140	04259602P
RIUM	SW846 6010	5000	5120	4000	6000	102.	04/30/96	R5140	04259602P
ERYLLIUM	SW846 6010	5000	4730	4000	6000	94.5	04/30/96	R5140	04259602P
DMIUM	SW846 6010	5000	4670	4000	6000	93.5	04/30/96	R5140	04259602P
ROMIUM	SW846 6010	5000	4730	4000	6000	94.7	04/30/96	R5140	04259602P
OBALT	SW846 6010	5000	4780	4000	6000	95.6	04/30/96	R5140	04259602P
OPPER	SW846 6010	5000	5020	4000	6000	100.	04/30/96	R5140	04259602P
AD	SW846 6010	5000	4870	4000	6000	97.4	04/30/96	R5140	04259602P
CKEL	SW846 6010	5000	4820	4000	6000	96.4	04/30/96	R5140	04259602P
ELENIUM	SW846 6010	5000	5050	4000	6000	101.	04/30/96	R5140	04259602P
LVER	SW846 6010	500	470.	400	600	94.0	04/30/96	R5140	04259602P
ALLIUM	SW846 6010	5000	5090	4000	6000	102.	04/30/96	R5140	04259602P
NADIUM	SW846 6010	5000	4840	4000	6000	96.9	04/30/96	R5140	04259602P
ZINC	SW846 6010	5000	4570	4000	6000	91.5	04/30/96	R5140	04259602P

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
DUPLICATE ANALYSIS

IEA Project #: 631_913D
EA Sample #: 960435708
Matrix: WATER

Duplicate Analysis

rameter	Method	Sample (ug/l)	Duplicate (ug/l)	RPD %	Date Analyzed	Samp Run	Dup Run	Prep Batch
ANTIMONY	SW846 6010	BQL	BQL		04/30/96	R5140	R5140	04259602P
SENIC	SW846 6010	BQL	BQL		04/30/96	R5140	R5140	04259602P
RIUM	SW846 6010	BQL	BQL		04/30/96	R5140	R5140	04259602P
BERYLLIUM	SW846 6010	BQL	BQL		04/30/96	R5140	R5140	04259602P
CADMIUM	SW846 6010	BQL	BQL		04/30/96	R5140	R5140	04259602P
ROMIUM	SW846 6010	BQL	BQL		04/30/96	R5140	R5140	04259602P
BALT	SW846 6010	BQL	BQL		04/30/96	R5140	R5140	04259602P
COPPER	SW846 6010	BQL	BQL		04/30/96	R5140	R5140	04259602P
LEAD	SW846 6010	BQL	BQL		04/30/96	R5140	R5140	04259602P
CKEL	SW846 6010	BQL	BQL		04/30/96	R5140	R5140	04259602P
LENIUM	SW846 6010	BQL	BQL		04/30/96	R5140	R5140	04259602P
SILVER	SW846 6010	BQL	BQL		04/30/96	R5140	R5140	04259602P
THALLIUM	SW846 6010	BQL	BQL		04/30/96	R5140	R5140	04259602P
NADIUM	SW846 6010	BQL	BQL		04/30/96	R5140	R5140	04259602P
NC	SW846 6010	BQL	BQL		04/30/96	R5140	R5140	04259602P

$$RPD = \frac{S-D}{(S+D)/2} \times 100$$

Control Limits: +/- 20%

orresponding Samples:
960435708, 960439711, 960450801, 960451201, 960451202, 960451203,
960457101

omments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
DUPLICATE ANALYSIS

IEA Project #: 631_913D
IEA Sample #: 960457101
Matrix: WATER

Parameter	Method	Duplicate Analysis Sample (ug/l)	Duplicate (ug/l)	RPD %	Date Analyzed	Samp Run	Dup Run	Prep Batch
MERCURY	SW846 7470	BQL	BQL		04/26/96	R5094	R5094	04259601H

$$RPD = \frac{S-D}{(S+D)/2} \times 100$$

Control Limits: +/- 20%

Corresponding Samples:
960436106, 960436107, 960436517, 960436518, 960448901, 960448902, 960448903F, 960450201, 960457101, 960462504, 960462505F

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
SPIKE RESULTS

IEA Project #: 631_913D
IEA Sample #: 960435708
Matrix: WATER

Spike Results (ug/l)

arameter	Method	SA	SR	SSR	%RCY	Date Analyzed	Samp Run	Spike Run	Prep Batch
ANTIMONY	SW846 6010	500.	BQL	497.	99.4	04/30/96	R5140	R5140	04259602P
RSENIC	SW846 6010	2000	BQL	1940	96.9	04/30/96	R5140	R5140	04259602P
ARIUM	SW846 6010	2000	BQL	2020	101.	04/30/96	R5140	R5140	04259602P
ERYLLIUM	SW846 6010	50.0	BQL	48.7	95.0	04/30/96	R5140	R5140	04259602P
CADMIUM	SW846 6010	50.0	BQL	46.6	93.2	04/30/96	R5140	R5140	04259602P
HROMIUM	SW846 6010	200.	BQL	189.	93.3	04/30/96	R5140	R5140	04259602P
OBALT	SW846 6010	500.	BQL	465.	93.0	04/30/96	R5140	R5140	04259602P
COPPER	SW846 6010	250.	BQL	252.	101.	04/30/96	R5140	R5140	04259602P
LEAD	SW846 6010	500.	BQL	483.	96.1	04/30/96	R5140	R5140	04259602P
ICKEL	SW846 6010	500.	BQL	482.	96.3	04/30/96	R5140	R5140	04259602P
ELENIUM	SW846 6010	2000	BQL	1990	99.6	04/30/96	R5140	R5140	04259602P
SILVER	SW846 6010	50.0	BQL	47.7	95.5	04/30/96	R5140	R5140	04259602P
THALLIUM	SW846 6010	2000	BQL	2030	101.	04/30/96	R5140	R5140	04259602P
ANADIUM	SW846 6010	500.	BQL	480.	96.0	04/30/96	R5140	R5140	04259602P
INC	SW846 6010	500.	BQL	478.	93.8	04/30/96	R5140	R5140	04259602P

%R = ((SSR - SR) / SA) * 100 Control Limits: 75-125%

orresponding Samples:
960435708, 960439711, 960450801, 960451201, 960451202, 960451203,
960457101

omments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
SPIKE RESULTS

IEA Project #: 631_913D
IEA Sample #: 960457101
Matrix: WATER

Spike Results (ug/l)

arameter	Method	SA	SR	SSR	%RCY	Date Analyzed	Samp Run	Spike Run	Prep Batch
MERCURY	SW846 7470	1.00	BQL	0.908	81.6	04/26/96	R5094	R5094	04259601H

%R = ((SSR - SR) / SA) * 100 Control Limits: 75-125%

Corresponding Samples:
960436106, 960436107, 960436517, 960436518, 960448901, 960448902,
960448903F, 960450201, 960457101, 960462504, 960462505F

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
SPIKE DUPLICATE RESULTS

IEA Project #: 631_913D
IEA Sample #: 960435708S
Matrix: WATER

Spike Duplicate Results

Parameter	Method	Sample (ug/l)	Duplicate (ug/l)	RPD %	Date Analyzed	Samp Run	Dup Run	Prep Batch
ANTIMONY	SW846 6010	497.	500.	0.53	04/30/96	R5140	R5140	04259602P
ARSENIC	SW846 6010	1940	1940	0.41	04/30/96	R5140	R5140	04259602P
BARIUM	SW846 6010	2020	2030	0.77	04/30/96	R5140	R5140	04259602P
BERYLLIUM	SW846 6010	48.7	48.9	0.38	04/30/96	R5140	R5140	04259602P
CADMIUM	SW846 6010	46.6	46.8	0.39	04/30/96	R5140	R5140	04259602P
CHROMIUM	SW846 6010	189.	189.	0.10	04/30/96	R5140	R5140	04259602P
COBALT	SW846 6010	465.	466.	0.27	04/30/96	R5140	R5140	04259602P
COPPER	SW846 6010	252.	253.	0.31	04/30/96	R5140	R5140	04259602P
LEAD	SW846 6010	483.	485.	0.40	04/30/96	R5140	R5140	04259602P
NICKEL	SW846 6010	482.	483.	0.08	04/30/96	R5140	R5140	04259602P
SELENIUM	SW846 6010	1990	2000	0.17	04/30/96	R5140	R5140	04259602P
SILVER	SW846 6010	47.7	47.7	0.09	04/30/96	R5140	R5140	04259602P
THALLIUM	SW846 6010	2030	2040	0.59	04/30/96	R5140	R5140	04259602P
VANADIUM	SW846 6010	480.	482.	0.33	04/30/96	R5140	R5140	04259602P
ZINC	SW846 6010	478.	482.	0.81	04/30/96	R5140	R5140	04259602P

$$RPD = \frac{S-D}{(S+D)/2} \times 100$$

Control Limits: +/- 20%

Corresponding Samples:
960435708, 960439711, 960450801, 960451201, 960451202, 960451203, 960457101

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
Level 2 Metals Results Report
SPIKE DUPLICATE RESULTS

IEA Project #: 631_913D
IEA Sample #: 960457101S
Matrix: WATER

Spike Duplicate Results

Parameter	Method	Sample (ug/l)	Duplicate (ug/l)	RPD %	Date Analyzed	Samp Run	Dup Run	Prep Batch
MERCURY	SW846 7470	0.908	0.915	0.76	04/26/96	R5094	R5094	04259601H

$$RPD = \frac{S-D}{(S+D)/2} \times 100$$

Control Limits: +/- 20%

Corresponding Samples:
960436106, 960436107, 960436517, 960436518, 960448901, 960448902, 960448903F, 960450201, 960457101, 960462504, 960462505F

Comments:

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-913	Date Received:	04/22/96
IEA Sample Number:	9604571-01	Date Sampled:	04/19/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	05/02/96
Client Project I.D.:	0170.010 Swepsonville landfil	Analysis By:	Moore
Sample Identification:	7-B	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-913	Date Received:	04/22/96
IEA Sample Number:	9604571-01	Date Sampled:	04/19/96
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	05/02/96
Client Project I.D.:	0170.010 Swepsonville landfil	Analysis By:	Moore
Sample Identification:	7-B	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-913	Date Received:	N/A
IEA Sample Number:	9604571	Date Sampled:	N/A
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	05/02/96
Client Project I.D.:	0170.010 Swepsonville landfil	Analysis By:	Moore
Sample Identification:	QC BLANK (VBLKJR)	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-913	Date Received:	N/A
IEA Sample Number:	9604571	Date Sampled:	N/A
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	05/02/96
Client Project I.D.:	0170.010 Swepsonville landfil	Analysis By:	Moore
Sample Identification:	QC BLANK (VBLKJR)	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit
N/A = Not Applicable
Corresponding Samples: 9604571-01, 01MS/MSD, LCSJR
Filename:0502104

Industrial & Environmental Analysts, Inc. (IEA)
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

IEA Project No.: 631-913
IEA Reference No: 9604571-01

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC
1,1-Dichloroethene	50	BQL	51	102	61-145
Trichloroethene	50	BQL	37	74	71-120
Benzene	50	BQL	44	88	76-127
Toluene	50	BQL	42	84	76-125
Chlorobenzene	50	BQL	42	84	75-130

	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
1,1-Dichloroethene	50	57	114	11	14	61-145
Trichloroethene	50	43	86	15 *	14	71-120
Benzene	50	51	102	15 *	11	76-127
Toluene	50	49	98	15 *	13	76-125
Chlorobenzene	50	49	98	15 *	13	75-130

Comments:
* Outside QC Limits
The associated LCS met all quality control criteria as determined by the laboratory showing the instrument to be in control. The LCS data is provided with the report as supporting documentation.

FORM WAVOLMAS REV 012492

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Laboratory Control Spike (LCS)

IEA Project Number: 631-913
IEA Sample Number: 9604571
Client Name: BPA ENVIRONMENTAL & ENG., INC
Client Project I.D.: 0170.010 Swepsonville landfil
Sample Identification: VLCSJR

Date Analyzed: 05/02/96
Analysis By: Moore
Matrix: Water

Number	Compound	Amount Spiked (ug/L)	Amount Recovered (ug/L)	SLCS % REC	Control Limits Lower (%REC)	Upper (%REC)
40	1,1-Dichloroethene	20	22.5	113	10	200
41	cis-1,2-Dichloroethene	20	20.7	104	10	200
42	trans-1,2-Dichloroethene	20	18.1	91	10	200
43	1,2-Dichloropropane	20	19.0	95	10	200
44	cis-1,3-Dichloropropene	20	16.8	84	10	200
45	trans-1,3-Dichloropropene	20	16.4	82	10	200
46	Ethylbenzene	20	19.4	97	10	200
47	Ethyl Methacrylate	20	18.0	90	10	200
48	2-Hexanone	20	14.2	71	10	200
49	Iodomethane	20	17.1	86	10	200
50	p-Isopropyltoluene	20	18.6	93	10	200
51	Methacrylonitrile	20	18.9	95	10	200
52	Methylene Chloride	20	20.0	100	10	200
53	Methyl Methacrylate	20	18.4	92	10	200
54	4-Methyl-2-Pentanone	20	18.8	94	10	200
55	Methyl-tert-Butyl Ether	20	20.4	102	10	200
56	Naphthalene	20	9.4	47	10	200
57	Pentachloroethane	20	13.8	69	10	200
58	n-Propylbenzene	20	17.5	88	10	200
59	Styrene	20	17.9	90	10	200
60	1,1,1,2-Tetrachloroethane	20	16.6	83	10	200
61	1,1,2,2-Tetrachloroethane	20	19.3	97	10	200
62	Tetrachloroethene	20	19.1	96	10	200
63	Toluene	20	19.2	96	10	200
64	1,2,4-Trichlorobenzene	20	14.2	71	10	200
65	1,1,1-Trichloroethane	20	17.7	89	10	200
66	1,1,2-Trichloroethane	20	18.4	92	10	200
67	Trichloroethene	20	20.0	100	10	200
68	Trichlorofluoromethane	20	16.6	83	10	200
69	1,2,3-Trichlorobenzene	20	14.1	71	10	200
70	1,2,4-Trimethylbenzene	20	12.6	63	10	200
71	1,3,5-Trimethylbenzene	20	19.4	97	10	200
72	1,2,3-Trichloropropane	20	18.9	95	10	200
73	Vinyl Acetate	20	2.0	10	10	200
74	Vinyl Chloride	20	17.9	90	10	200
75	Xylenes (Total)	60	60.3	101	10	200

Comments:
Corresponding Samples: 9604571-01, 01MS/MSD
Filename: 0502108

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Laboratory Control Spike (LCS)

IEA Project Number: 631-913
IEA Sample Number: 9604571
Client Name: BPA ENVIRONMENTAL & ENG., INC
Client Project I.D.: 0170.010 Swepsonville landfil
Sample Identification: VLCSJR

Date Analyzed: 05/02/96
Analysis By: Moore
Matrix: Water

Number	Compound	Amount Spiked (ug/L)	Amount Recovered (ug/L)	SLCS % REC	Control Limits Lower (%REC)	Upper (%REC)
40	1,1-Dichloroethene	20	22.5	113	10	200
41	cis-1,2-Dichloroethene	20	20.7	104	10	200
42	trans-1,2-Dichloroethene	20	18.1	91	10	200
43	1,2-Dichloropropane	20	19.0	95	10	200
44	cis-1,3-Dichloropropene	20	16.8	84	10	200
45	trans-1,3-Dichloropropene	20	16.4	82	10	200
46	Ethylbenzene	20	19.4	97	10	200
47	Ethyl Methacrylate	20	18.0	90	10	200
48	2-Hexanone	20	14.2	71	10	200
49	Iodomethane	20	17.1	86	10	200
50	p-Isopropyltoluene	20	18.6	93	10	200
51	Methacrylonitrile	20	18.9	95	10	200
52	Methylene Chloride	20	20.0	100	10	200
53	Methyl Methacrylate	20	18.4	92	10	200
54	4-Methyl-2-Pentanone	20	18.8	94	10	200
55	Methyl-tert-Butyl Ether	20	20.4	102	10	200
56	Naphthalene	20	9.4	47	10	200
57	Pentachloroethane	20	13.8	69	10	200
58	n-Propylbenzene	20	17.5	88	10	200
59	Styrene	20	17.9	90	10	200
60	1,1,1,2-Tetrachloroethane	20	16.6	83	10	200
61	1,1,2,2-Tetrachloroethane	20	19.3	97	10	200
62	Tetrachloroethene	20	19.1	96	10	200
63	Toluene	20	19.2	96	10	200
64	1,2,4-Trichlorobenzene	20	14.2	71	10	200
65	1,1,1-Trichloroethane	20	17.7	89	10	200
66	1,1,2-Trichloroethane	20	18.4	92	10	200
67	Trichloroethene	20	20.0	100	10	200
68	Trichlorofluoromethane	20	16.6	83	10	200
69	1,2,3-Trichlorobenzene	20	14.1	71	10	200
70	1,2,4-Trimethylbenzene	20	12.6	63	10	200
71	1,3,5-Trimethylbenzene	20	19.4	97	10	200
72	1,2,3-Trichloropropane	20	18.9	95	10	200
73	Vinyl Acetate	20	2.0	10	10	200
74	Vinyl Chloride	20	17.9	90	10	200
75	Xylenes (Total)	60	60.3	101	10	200

Comments:
Corresponding Samples: 9604571-01, 01MS/MSD
Filename: 0502108

Industrial & Environmental Analysts, Inc. (IEA)
8260 VOLATILE SURROGATE RECOVERY

IEA Project No.: 631-913

Sample ID	SURR 1	SURR 2	SURR 3
VBLKJR	108	103	107
9604571-01	106	107	105
9604571-01MS	106	104	103
9604571-01MSD	107	101	104
LCSJR	104	104	106

	QC Limits
S1 = Toluene-d8	(90-123)
S2 = 4-Bromofluorobenzene	(75-129)
S3 = 1,2-Dichloroethane-d4	(70-139)

IEA
An Aquarion Company
3000 WESTON PKWY.
CARY, N.C. 27513
PH # 919-677-0090
FAX # 919-677-0427

CHAIN OF CUSTODY RECORD

NO. 67136

REGULATORY CLASSIFICATION - PLEASE SPECIFY

☐ NPDES ☐ DRINKING WATER ☐ RCRA ☐ OTHER _____

COMPANY: BPA

631-913

Page 1 of 1

PROJECT: 170.010

PROJECT TYPE: Swepsonville Landfill

SAMPLERS: (SIGNATURE) Lora C. Robert

SAMPLE I.D.	DATE	TIME			STATION LOCATION	# OF CONTAINERS	SOIL	WATER	API Volatiles	API Metals											
7-B	4/19/96	12:30P		✓		3		✓	✓	✓											

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[illegible]	4/11/96		KED Svcs	4/22/96	12:15p
Lora C. Robert	4/22/96		D. McCombs	4/22/96	13:35

IEA QUOTE NO.	IEA RUSH NO.
[illegible]	
PROJECT MANAGER (PLEASE PRINT)	**P.O. NO.**

REMARKS ON SAMPLE RECEIPT: 4°C

IEA REMARKS:

FIELD REMARKS:

☒ BOTTLE INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☒ CHILLED ☐ SEE REMARKS

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	10/11/95
IEA Sample Number:	9510306-11	Date Sampled:	10/11/95
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/18/95
Client Project I.D.:	170.010	Analysis By:	Moore
Sample Identification:	MW-9	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	10/11/95
IEA Sample Number:	9510306-11	Date Sampled:	10/11/95
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/18/95
Client Project I.D.:	170.010	Analysis By:	Moore
Sample Identification:	MW-9	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	10/11/95
IEA Sample Number:	9510306-12	Date Sampled:	10/11/95
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/19/95
Client Project I.D.:	170.010	Analysis By:	Crewes
Sample Identification:	SW-1	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	10/11/95
IEA Sample Number:	9510306-12	Date Sampled:	10/11/95
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/19/95
Client Project I.D.:	170.010	Analysis By:	Crewes
Sample Identification:	SW-1	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	10/11/95
IEA Sample Number:	9510306-13	Date Sampled:	10/10/95
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/19/95
Client Project I.D.:	170.010	Analysis By:	Crewes
Sample Identification:	SW-2	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	10/11/95
IEA Sample Number:	9510306-13	Date Sampled:	10/10/95
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/19/95
Client Project I.D.:	170.010	Analysis By:	Crewes
Sample Identification:	SW-2	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	N/A
IEA Sample Number:	9510306	Date Sampled:	N/A
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/18/95
Client Project I.D.:	170.010	Analysis By:	Moore
Sample Identification:	QC Blank (VBLKKF)	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	N/A
IEA Sample Number:	9510306	Date Sampled:	N/A
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/18/95
Client Project I.D.:	170.010	Analysis By:	Moore
Sample Identification:	QC Blank (VBLKKF)	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit
N/A = Not Applicable
Corresponding Samples:9510306-01,03,05 through 11
Filename:1018K03

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	N/A
IEA Sample Number:	9510306	Date Sampled:	N/A
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/18/95
Client Project I.D.:	170.010	Analysis By:	Crewes
Sample Identification:	QC Blank (VBLKKG)	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	N/A
IEA Sample Number:	9510306	Date Sampled:	N/A
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/18/95
Client Project I.D.:	170.010	Analysis By:	Crewes
Sample Identification:	QC Blank (VBLKKG)	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit
N/A = Not Applicable
Corresponding Samples:9510306-02,12,13,14
Filename:1018V02

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	N/A
IEA Sample Number:	9510306	Date Sampled:	N/A
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/19/95
Client Project I.D.:	170.010	Analysis By:	Moore
Sample Identification:	QC Blank (VBLKKH)	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	100	BQL
2	Acrylonitrile	200	BQL
3	Benzene	5	BQL
4	Bromochloromethane	5	BQL
5	Bromodichloromethane	5	BQL
6	Bromoform	5	BQL
7	Bromomethane	10	BQL
8	2-Butanone	100	BQL
9	Carbon Disulfide	100	BQL
10	Carbon Tetrachloride	10	BQL
11	Chlorobenzene	5	BQL
12	Chlorodibromomethane	5	BQL
13	Chloroethane	10	BQL
14	Chloroform	5	BQL
15	Chloromethane	10	BQL
16	1,2-Dibromo-3-Chloropropane	25	BQL
17	1,2-Dibromoethane	5	BQL
18	Dibromomethane	10	BQL
19	1,2-Dichlorobenzene	5	BQL
20	1,4-Dichlorobenzene	5	BQL
21	trans-1,4-Dichloro-2-Butene	100	BQL
22	1,1-Dichloroethane	5	BQL
23	1,2-Dichloroethane	5	BQL
24	1,1-Dichloroethene	5	BQL
25	cis-1,2-Dichloroethene	5	BQL
26	trans-1,2-Dichloroethene	5	BQL
27	1,2-Dichloropropane	5	BQL
28	cis-1,3-Dichloropropene	10	BQL
29	trans-1,3-Dichloropropene	10	BQL
30	Ethylbenzene	5	BQL
31	2-Hexanone	50	BQL
32	Iodomethane	10	BQL
33	Methylene Chloride	10	BQL
34	4-Methyl-2-Pentanone	100	BQL
35	Styrene	10	BQL
36	1,1,1,2-Tetrachloroethane	5	BQL
37	1,1,2,2-Tetrachloroethane	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES SW-846 METHOD 8260
Appendix I Target List

IEA Project Number:	631-874	Date Received:	N/A
IEA Sample Number:	9510306	Date Sampled:	N/A
Client Name:	BPA ENVIRONMENTAL & ENG., INC	Date Analyzed:	10/19/95
Client Project I.D.:	170.010	Analysis By:	Moore
Sample Identification:	QC Blank (VBLKKH)	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
38	Tetrachloroethene	5	BQL
39	Toluene	5	BQL
40	1,1,1-Trichloroethane	5	BQL
41	1,1,2-Trichloroethane	5	BQL
42	Trichloroethene	5	BQL
43	Trichlorofluoromethane	5	BQL
44	1,2,3-Trichloropropane	15	BQL
45	Vinyl Acetate	50	BQL
46	Vinyl Chloride	10	BQL
47	Xylenes (Total)	5	BQL

Comments:
Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
BQL = Below Quantitation Limit
N/A = Not Applicable
Corresponding Samples:9510306-04
Filename:1019K02

Industrial & Environmental Analysts, Inc. (IEA)
WATER VOLATILE SURROGATE RECOVERY

IEA Project No.: 631-874

Sample ID	SURR 1	SURR 2	SURR 3
VBLKKF	87	94	98
9510306-01	84	94	98
9510306-03	87	95	97
9510306-05	91	94	100
9510306-06	88	94	95
9510306-07	86	94	96
9510306-08	86	94	95
9510306-09	87	94	96
9510306-10	86	94	97
9510306-11	87	94	97
VBLKKG	85	95	97
9510306-02	85	94	98
9510306-12	88	95	98
9510306-13	86	96	99
9510306-14	89	96	101
VBLKKH	89	95	100
9510306-04	84	95	98

	QC Limits
S1 = Toluene-d8	(88-110)
S2 = Bromofluorobenzene	(86-115)
S3 = 1,2-Dichloroethane-d4	(76-114)

Industrial & Environmental Analysts, Inc. (IEA)
WATER VOLATILE SURROGATE RECOVERY

IEA Project No.: 631-874

Sample ID	SURR 1	SURR 2	SURR 3
MS	87	94	98
MSD	87	94	95

	QC Limits
S1 = Toluene-d8	(88-110)
S2 = Bromofluorobenzene	(86-115)
S3 = 1,2-Dichloroethane-d4	(76-114)

Industrial & Environmental Analysts, Inc. (IEA)
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

IEA Project No.: 631-874
IEA Reference No: 9510306-01MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC
1,1-Dichloroethene	50	BQL	57	114	61-145
Trichloroethene	50	BQL	46	92	71-120
Benzene	50	BQL	47	94	76-127
Toluene	50	BQL	45	90	76-125
Chlorobenzene	50	BQL	45	90	75-130

	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
1,1-Dichloroethene	50	58	116	2	14	61-145
Trichloroethene	50	49	98	6	14	71-120
Benzene	50	50	100	6	11	76-127
Toluene	50	48	96	6	13	76-125
Chlorobenzene	50	47	94	4	13	75-130

Comments:
Corresponding Samples:9510306-01 through 14

FORM WAVOLMAS REV 012492

IEA
An Aquarion Company

3000 WESTON PKWY.
CARY, N.C. 27513
PH # 919-677-0090
FAX # 919-677-0427

CHAIN OF CUSTODY RECORD

NO. 63584

REGULATORY CLASSIFICATION - PLEASE SPECIFY

☐ NPDES ☐ DRINKING WATER ☐ RCRA ☐ OTHER _____

COMPANY: BFA Environmental & Engineering

Page 1 of 2

PROJECT #: 010.010

PROJECT NAME: Swepsonville Landfill

SAMPLERS: (SIGNATURE) Dave / Bobbie

SAMPLE I.D.	DATE	TIME	GRAB	COMP	STATION LOCATION	# OF CONTAINERS	SOIL	WATER	APPX. 1 VOT	APPX. 1 METALS
MW-1	10.11.95	7:40A		✓		4		✓	✓	✓
MW-2	10.10.95	12:55		✓		4		✓	✓	✓
MW-3	10.10.95	11:45 A		✓		4		✓	✓	✓
MW-4	10.10.95	4:55P		✓		4		✓	✓	✓
MW-5	10.11.95	8:30A		✓		4		✓	✓	✓
MW-6	10.11.95	9:25A		✓		4		✓	✓	✓
MW-7A	10.10.95	2:30P		✓		4		✓	✓	✓
MW-7B	10.10.95	2:15P		✓		4		✓	✓	✓
MW-8A	10.11.95	10:40A		✓		4		✓	✓	✓
MW-8B	10.11.95	10:30A		✓		4		✓	✓	✓

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	10/16/95		[signature]	10/17	2:15
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY	DATE	TIME
			S. Pace	10/20/95	0910

IEA QUOTE NO.	IEA RUSH NO.
WSS1 0132	
PROJECT MANAGER (PLEASE PRINT)	P.O. NO.
Wes Scarborough	10.010

REMARKS ON SAMPLE RECEIPT

☑ BOTTLE INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☒ CHILLED ☐ SEE REMARKS

IEA REMARKS: #631-874 4°C

FIELD REMARKS:

IEA
An Aquarion Company

3000 WESTON PKWY.
CARY, N.C. 27513
PH # 919-677-0090
FAX # 919-677-0427

CHAIN OF CUSTODY RECORD

NO. 63583

REGULATORY CLASSIFICATION - PLEASE SPECIFY

☐ NPDES ☐ DRINKING WATER ☐ RCRA ☐ OTHER

COMPANY: BTA Environmental & Engineering

Page ____ of ____

PROJECT #: 0170.010

PROJECT NAME: Statesville Landfill

SAMPLERS: (SIGNATURE) [illegible]

SAMPLE I.D.	DATE	TIME	COMP	GRAB	STATION LOCATION	# OF CONTAINERS	SOIL	WATER	APPX I VOL	APPX I METALS		APPX I VOL	APPX I METALS								
MW-9	10-11-95	7:15A		✓		4		✓	✓	✓											
SW-1	10-11-95	9:40A		✓		4		✓	✓	✓											
SW-2	10-11-95	11:25A		✓		4		✓	✓	✓											
SW-7	10-10-95	8:25		✓	Avery Quarrel Landfill	4		✓				✓	✓								

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME	IEA QUOTE NO.	IEA RUSH NO.
[illegible]	10/6/95		[illegible]	10/11	2/3	WSS10132	
RELINQUISHED BY (SIGNATURE)	**DATE**	**TIME**	**RECEIVED FOR LAB BY**	**DATE**	**TIME**	**PROJECT MANAGER (PLEASE PRINT)**	**P.O. NO.**
			S. Pascal	10/11/95	0915	Wes Scandlett	0170.010

REMARKS ON SAMPLE RECEIPT

☐ BOTTLE INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☑ CHILLED ☐ SEE REMARKS

IEA REMARKS: 4°C

FIELD REMARKS

01-01
4-18-95

311-J South Westgate Drive, Greensboro, North Carolina 27407

May 01, 1995

Mr. Bobby Lutfy, Hydrogeologist
Solid Waste Section
North Carolina Dept. of Environment,
Health, & Natural Resources
401 Oberlin Road, Suite 150
Raleigh, North Carolina 27605

RE: Alamance County
Swepsonville Landfill
Monitoring Well and Surface Water Sampling
Analytical Report

Telephone
910.299.9998
Emergency
910.288.5979
Facsimile
910.299.0655

Dear Mr. Lutfy:

Earth Tech Remediation Services has completed Series 2 water sampling at the above referenced site. Attached is the laboratory summary report and associated transcripts for the Appendix I metals/organics and mercury as required. A quality assurance check of the data indicates that all practical quantitation limits (PQLs) are at or better than those specified in Solid Waste Section guidelines.

Please call 910-299-9998 if you have any questions.

Very truly yours,

EARTH TECH

Eric K. Lintz, P.G.
Project Manager

Michael J. Lamore, P.E.
Vice President

MJL/EKL/ekl
attachments

cc: Alvin Cagle (Landfill Manager, Alamance County)

MAY 1995
Received
Solid Waste
Section

EARTH TECH
REMEDIATION SERVICES

Formerly Environmental Technology of North America

CLIENT: EARTH TECH REMEDIATION SERVICE
WORK ID: ALAMANCE CNTY, SWEPSONVILLE
PROJECT NO: 1462

SAMPLE DESCRIPTION:							TRIP BLK	F. BLANK	MW-1	MW-2	MW-3	MW-4
WORK ORDER NO:							B504227-01	B504227-02	B504227-03	B504227-04	B504227-05	B504227-06
Parameter:	CAS Number:	EPA Method:	Units:	Det. Limit:	Date Analyzed:	Analysts' Initials:	Results:					
Appendix I: Metals:												
Antimony	Total	7041	mg/L	0.005	4/21/95	SW	na	BDL	BDL	BDL	BDL	BDL
Arsenic	Total	7061	mg/L	0.005	4/21/95	SW	na	BDL	BDL	BDL	BDL	BDL
Barium	Total	6010	mg/L	0.03	4/19/95	MM	na	BDL	0.462	0.355	0.043	0.047
Beryllium	Total	7091	mg/L	0.0001	4/17/95	SW	na	BDL	0.0033	0.0014	BDL	BDL
Cadmium	Total	7131	mg/L	0.0001	4/19/95	SW	na	BDL	0.0002	0.0003	0.0002	0.0006
Chromium	Total	7191	mg/L	0.005	4/19/95	SW	na	BDL	0.009	0.014	BDL	BDL
Cobalt	Total	7201	mg/L	0.001	4/18/95	SW	na	BDL	0.016	0.009	BDL	0.011
Copper	Total	6010	mg/L	0.01	4/18/95	KS	na	BDL	0.013	0.014	BDL	BDL
Lead	Total	7421	mg/L	0.003	4/24/95	SW	na	BDL	0.007	BDL	BDL	BDL
Mercury	Total	245.1	mg/L	0.0002	4/18/95	SK	na	BDL	BDL	BDL	BDL	BDL
Nickel	Total	6010	mg/L	0.03	4/18/95	KS	na	BDL	BDL	BDL	BDL	BDL
Selenium	Total	7741	mg/L	0.005	4/24/95	SW	na	BDL	BDL	BDL	BDL	BDL
Silver	Total	7761	mg/L	0.00007	4/17/95	SW	na	BDL	BDL	BDL	BDL	BDL
Thallium	Total	7841	mg/L	0.002	4/20/95	SW	na	BDL	BDL	BDL	BDL	BDL
Vanadium	Total	7911	mg/L	0.005	4/18/95	SW	na	BDL	0.038	0.07	BDL	BDL
Zinc	Total	6010	mg/L	0.03	4/18/95	KS	na	BDL	0.134	0.082	BDL	0.032
Appendix I: Volatiles	CAS#	METHOD	UNITS	D.L.	DATE AN:	ANALYST	TRIP BLK.	FLD. BLK.	MW-1	MW-2	MW-3	MW-4
Acetone	67-64-1	8260	µg/L	10	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
Acrylonitrile	107-13-1	8260	µg/L	100	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	71-43-2	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	4.7
Bromochloromethane	74-97-5	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	75-27-4	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
Bromoform	75-25-2	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
Carbon disulfide	75-15-0	8260	µg/L	10	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
Carbon tetrachloride	56-23-5	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
Chlorobenzene	108-90-7	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
Chloroethane	75-00-3	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	9.6
Chloroform	67-66-3	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
Dibromochloromethane	124-48-1	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	64.4
1,2-Dibromo-3-chloropropane	96-12-8	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dibromoethane (EDB)	103-96-4	8260	µg/L	1	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
o-Dichlorobenzene	95-50-1	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL

CLIENT: EARTH TECH REMEDIATION SERVICE
WORK ID: ALAMANCE CNTY, SWEPSONVILLE
PROJECT NO: 1462

SAMPLE DESCRIPTION:							TRIP BLK	F. BLANK	MW-1	MW-2	MW-3	MW-4
WORK ORDER NO:							B504227-01	B504227-02	B504227-03	B504227-04	B504227-05	B504227-06
Parameter:	CAS Number:	EPA Method:	Units:	Det. Limit:	Date Analyzed:	Analysts' Initials:	Results:					
p-Dichlorobenzene	106-46-7	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	2
trans-1,4-Dichloro-2-butene	110-57-6	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethane	75-34-3	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	17.9	BDL	32.3
1,2-Dichloroethane	107-06-2	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethene	75-35-4	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	1.5	BDL	BDL
cis-1,2-Dichloroethene	156-59-2	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	3.4	BDL	187
trans-1,2-Dichloroethene	156-60-5	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dichloropropane	78-87-5	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
cis-1,3-Dichloropropene	10061-01-5	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
trans-1,3-Dichloropropene	10061-02-6	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	100-41-4	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
2-Hexanone	591-78-6	8260	µg/L	10	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
Methyl bromide	74-83-9	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
Methyl chloride	74-87-3	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
Methylene bromide	74-95-3	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
Methylene chloride	75-09-2	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone (MEK)	78-93-3	8260	µg/L	10	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
Iodomethane	74-88-4	8260	µg/L	10	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
4-Methyl-2-Pentanone (MIBK)	108-10-1	8260	µg/L	10	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	100-42-5	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
1,1,1,2-Tetrachloroethane	630-20-6	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
1,1,2,2-Tetrachloroethane	79-34-5	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethylene	127-18-4	8260	µg/L	5	4/18/95	JS	BDL	BDL	4	3.8	BDL	BDL
Toluene	108-88-3	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
1,1,1-Trichloroethane	71-55-6	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	2.1	BDL	1.1
1,1,2 Trichloroethane	79-00-5	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	79-01-6	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	5.1	BDL	33.9
Trichlorofluoromethane	75-69-4	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
1,2,3-Trichloropropane	96-18-4	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
Vinyl acetate	108-05-4	8260	µg/L	50	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
Vinyl Chloride	75-01-4	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	6.6
O - Xylene	95-47-6	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL
M & P - Xylene	108-38-3	8260	µg/L	10	4/18/95	JS	BDL	BDL	BDL	BDL	BDL	BDL

CLIENT: EARTH TECH REMEDIATION SERVICE
WORK ID: ALAMANCE CNTY, SWEPSONVILLE
PROJECT NO: 1462

SAMPLE DESCRIPTION:							MW-5	MW-6	MW-7A	MW-7B	MW-8A	MW-8B
WORK ORDER NO:							B504227-07	B504227-08	B504227-09	B504227-10	B504227-11	B504227-12
Parameter:	CAS Number:	EPA Method:	Units:	Det. Limit:	Date Analyzed:	Analysts' Initials:	Results:					
Appendix I: Metals:												
Antimony	Total	7041	mg/L	0.005	4/21/95	SW	BDL	BDL	BDL	BDL	BDL	BDL
Arsenic	Total	7061	mg/L	0.005	4/21/95	SW	BDL	BDL	BDL	BDL	0.016	0.018
Barium	Total	6010	mg/L	0.03	4/19/95	MM	0.062	0.072	0.041	0.038	1.06	2.59
Beryllium	Total	7091	mg/L	0.0001	4/17/95	SW	0.0002	0.0001	BDL	0.0002	0.0066	0.0156
Cadmium	Total	7131	mg/L	0.0001	4/19/95	SW	0.0021	0.0006	0.0002	0.0001	0.0004	0.0009
Chromium	Total	7191	mg/L	0.005	4/19/95	SW	BDL	BDL	BDL	BDL	0.007	0.016
Cobalt	Total	7201	mg/L	0.001	4/18/95	SW	0.002	BDL	BDL	0.006	0.047	0.112
Copper	Total	6010	mg/L	0.01	4/18/95	KS	BDL	BDL	BDL	BDL	BDL	0.016
Lead	Total	7421	mg/L	0.003	4/24/95	SW	BDL	BDL	BDL	BDL	0.005	0.011
Mercury	Total	245.1	mg/L	0.0002	4/18/95	SK	BDL	BDL	BDL	BDL	BDL	BDL
Nickel	Total	6010	mg/L	0.03	4/18/95	KS	BDL	BDL	BDL	BDL	BDL	BDL
Selenium	Total	7741	mg/L	0.005	4/24/95	SW	BDL	BDL	BDL	BDL	BDL	BDL
Silver	Total	7761	mg/L	0.00007	4/17/95	SW	BDL	BDL	BDL	BDL	BDL	BDL
Thallium	Total	7841	mg/L	0.002	4/20/95	SW	BDL	BDL	BDL	BDL	BDL	BDL
Vanadium	Total	7911	mg/L	0.005	4/18/95	SW	0.008	BDL	BDL	BDL	0.083	0.222
Zinc	Total	6010	mg/L	0.03	4/18/95	KS	0.03	BDL	BDL	BDL	0.488	1.08
Appendix I: Volatiles	**CAS#**	**METHOD**	**UNITS**	**D.L.**	**DATE AN:**	**ANALYST**	**MW-5**	**MW-6**	**MW-7A**	**MW-7B**	**MW-8A**	**MW-8B**
Acetone	67-64-1	8260	µg/L	10	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
Acrylonitrile	107-13-1	8260	µg/L	100	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
Benzene	71-43-2	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
Bromochloromethane	74-97-5	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	75-27-4	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
Bromoform	75-25-2	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
Carbon disulfide	75-15-0	8260	µg/L	10	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
Carbon tetrachloride	56-23-5	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
Chlorobenzene	108-90-7	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
Chloroethane	75-00-3	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
Chloroform	67-66-3	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
Dibromochloromethane	124-48-1	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
1,2-Dibromo-3-chloropropane	96-12-8	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
1,2-Dibromoethane (EDB)	103-96-4	8260	µg/L	1	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
o-Dichlorobenzene	95-50-1	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL

CLIENT: EARTH TECH REMEDIATION SERVICE
WORK ID: ALAMANCE CNTY, SWEPSONVILLE
PROJECT NO: 1462

SAMPLE DESCRIPTION:							MW-5	MW-6	MW-7A	MW-7B	MW-8A	MW-8B
WORK ORDER NO:							B504227-07	B504227-08	B504227-09	B504227-10	B504227-11	B504227-12
Parameter:	CAS Number:	EPA Method:	Units:	Det. Limit:	Date Analyzed:	Analysts' Initials:	Results:					
p-Dichlorobenzene	106-46-7	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
trans-1,4-Dichloro-2-butene	110-57-6	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethane	75-34-3	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
1,2-Dichloroethane	107-06-2	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethene	75-35-4	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
cis-1,2-Dichloroethene	156-59-2	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
trans-1,2-Dichloroethene	156-60-5	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
1,2-Dichloropropane	78-87-5	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
cis-1,3-Dichloropropene	10061-01-5	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
trans-1,3-Dichloropropene	10061-02-6	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	100-41-4	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
2-Hexanone	591-78-6	8260	µg/L	10	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
Methyl bromide	74-83-9	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
Methyl chloride	74-87-3	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
Methylene bromide	74-95-3	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
Methylene chloride	75-09-2	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
2-Butanone (MEK)	78-93-3	8260	µg/L	10	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
Iodomethane	74-88-4	8260	µg/L	10	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
4-Methyl-2-Pentanone (MIBK)	108-10-1	8260	µg/L	10	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
Styrene	100-42-5	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
1,1,1,2-Tetrachloroethane	630-20-6	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
1,1,2,2-Tetrachloroethane	79-34-5	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
Tetrachloroethylene	127-18-4	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
Toluene	108-88-3	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
1,1,1-Trichloroethane	71-55-6	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
1,1,2 Trichloroethane	79-00-5	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
Trichloroethene	79-01-6	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
Trichlorofluoromethane	75-69-4	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
1,2,3-Trichloropropane	96-18-4	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
Vinyl acetate	108-05-4	8260	µg/L	50	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
Vinyl Chloride	75-01-4	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
O - Xylene	95-47-6	8260	µg/L	5	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL
M & P - Xylene	108-38-3	8260	µg/L	10	4/18/95	JS	na	BDL	BDL	BDL	BDL	BDL

CLIENT: EARTH TECH REMEDIATION SERVICE
WORK ID: ALAMANCE CNTY, SWEPSONVILLE
PROJECT NO: 1462

SAMPLE DESCRIPTION:							MW-9	S-1	S-2
WORK ORDER NO:							B504227-013	B504227-014	B504227-015
Parameter:	CAS Number:	EPA Method:	Units:	Det. Limit:	Date Analyzed:	Analysts' Initials:	Results:		
Appendix I: Metals:									
Antimony	Total	7041	mg/L	0.005	4/21/95	SW	BDL	BDL	BDL
Arsenic	Total	7061	mg/L	0.005	4/21/95	SW	BDL	BDL	BDL
Barium	Total	6010	mg/L	0.03	4/19/95	MM	0.041	0.03	BDL
Beryllium	Total	7091	mg/L	0.0001	4/17/95	SW	0.0001	0.0001	0.0001
Cadmium	Total	7131	mg/L	0.0001	4/19/95	SW	0.0001	BDL	BDL
Chromium	Total	7191	mg/L	0.005	4/19/95	SW	BDL	BDL	BDL
Cobalt	Total	7201	mg/L	0.001	4/18/95	SW	0.002	0.001	0.002
Copper	Total	6010	mg/L	0.01	4/18/95	KS	BDL	BDL	BDL
Lead	Total	7421	mg/L	0.003	4/24/95	SW	BDL	BDL	BDL
Mercury	Total	245.1	mg/L	0.0002	4/18/95	SK	BDL	BDL	BDL
Nickel	Total	6010	mg/L	0.03	4/18/95	KS	BDL	BDL	BDL
Selenium	Total	7741	mg/L	0.005	4/24/95	SW	BDL	BDL	BDL
Silver	Total	7761	mg/L	0.00007	4/17/95	SW	BDL	BDL	BDL
Thallium	Total	7841	mg/L	0.002	4/20/95	SW	BDL	BDL	BDL
Vanadium	Total	7911	mg/L	0.005	4/18/95	SW	BDL	BDL	BDL
Zinc	Total	6010	mg/L	0.03	4/18/95	KS	BDL	BDL	BDL
Appendix I: Volatiles	CAS#	METHOD	UNITS	D.L.	DATE AN:	ANALYST	MW-9	S-1	S-2
Acetone	67-64-1	8260	µg/L	10	4/18/95	JS	BDL	BDL	BDL
Acrylonitrile	107-13-1	8260	µg/L	100	4/18/95	JS	BDL	BDL	BDL
Benzene	71-43-2	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
Bromochloromethane	74-97-5	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
Bromodichloromethane	75-27-4	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
Bromoform	75-25-2	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
Carbon disulfide	75-15-0	8260	µg/L	10	4/18/95	JS	BDL	BDL	BDL
Carbon tetrachloride	56-23-5	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
Chlorobenzene	108-90-7	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
Chloroethane	75-00-3	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
Chloroform	67-66-3	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
Dibromochloromethane	124-48-1	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
1,2-Dibromo-3-chloropropane	96-12-8	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
1,2-Dibromoethane (EDB)	103-96-4	8260	µg/L	1	4/18/95	JS	BDL	BDL	BDL
o-Dichlorobenzene	95-50-1	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL

CLIENT: EARTH TECH REMEDIATION SERVICE
WORK ID: ALAMANCE CNTY, SWEPSONVILLE
PROJECT NO: 1462

SAMPLE DESCRIPTION:							MW-9	S-1	S-2
WORK ORDER NO:							B504227-013	B504227-014	B504227-015
Parameter:	CAS Number:	EPA Method:	Units:	Det. Limit:	Date Analyzed:	Analysts' Initials:	Results:		
p-Dichlorobenzene	106-46-7	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
trans-1,4-Dichloro-2-butene	110-57-6	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
1,1-Dichloroethane	75-34-3	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
1,2-Dichloroethane	107-06-2	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
1,1-Dichloroethene	75-35-4	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
cis-1,2-Dichloroethene	156-59-2	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
trans-1,2-Dichloroethene	156-60-5	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
1,2-Dichloropropane	78-87-5	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
cis-1,3-Dichloropropene	10061-01-5	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
trans-1,3-Dichloropropene	10061-02-6	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
Ethylbenzene	100-41-4	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
2-Hexanone	591-78-6	8260	µg/L	10	4/18/95	JS	BDL	BDL	BDL
Methyl bromide	74-83-9	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
Methyl chloride	74-87-3	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
Methylene bromide	74-95-3	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
Methylene chloride	75-09-2	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
2-Butanone (MEK)	78-93-3	8260	µg/L	10	4/18/95	JS	BDL	BDL	BDL
Iodomethane	74-88-4	8260	µg/L	10	4/18/95	JS	BDL	BDL	BDL
4-Methyl-2-Pentanone (MIBK)	108-10-1	8260	µg/L	10	4/18/95	JS	BDL	BDL	BDL
Styrene	100-42-5	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
1,1,1,2-Tetrachloroethane	630-20-6	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
1,1,2,2-Tetrachloroethane	79-34-5	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
Tetrachloroethylene	127-18-4	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
Toluene	108-88-3	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
1,1,1-Trichloroethane	71-55-6	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
1,1,2 Trichloroethane	79-00-5	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
Trichloroethene	79-01-6	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
Trichlorofluoromethane	75-69-4	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
1,2,3-Trichloropropane	96-18-4	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
Vinyl acetate	108-05-4	8260	µg/L	50	4/18/95	JS	BDL	BDL	BDL
Vinyl Chloride	75-01-4	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
O - Xylene	95-47-6	8260	µg/L	5	4/18/95	JS	BDL	BDL	BDL
M & P - Xylene	108-38-3	8260	µg/L	10	4/18/95	JS	BDL	BDL	BDL

Alamance County Landfill
Swepsonville Site

Collected By: Earth Tech Remediation Services
Last Revised: 05/01/95

WELL NO.	DATE	WELL HEAD ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PRODUCT THICKNESS	GROUND WATER ELEVATION	CORRECTED POTENTIOMETRIC SURFACE	REMARKS
Measurements in Feet								
MW-1	04/10/95	574.67	N/A	23.67	0.00	551.00	551.00	
MW-2	04/10/95	510.67	N/A	25.67	0.00	485.00	485.00	
MW-3	04/10/95	466.63	N/A	9.87	0.00	456.76	456.76	
MW-4	04/10/95	497.57	N/A	33.95	0.00	463.62	463.62	
MW-5	04/11/95	476.56	N/A	14.62	0.00	461.94	461.94	
MW-6	04/11/95	529.50	N/A	21.20	0.00	508.30	508.30	
MW-7A	04/11/95	553.09	N/A	23.25	0.00	529.84	529.84	
MW-7B	04/11/95	554.12	N/A	25.07	0.00	529.05	529.05	
MW-8A	04/11/95	591.08	N/A	22.75	0.00	568.33	568.33	
MW-8B	04/11/95	591.25	N/A	21.95	0.00	569.30	569.30	
MW-9	04/10/95	568.78	N/A	15.81	0.00	552.97	552.97	

Alamance County Landfill
Old Swepsonville Landfill

Earth Tech Remediation Services
Last File Update: 05/01/95

FIELD PARAMETERS; April 10 – 11, 1995

LOCATION	Temp (deg. F)	pH (mg/l)	Conductivity (u/cm)
MW–1	58.7	7.70	199.0
MW–2	59.5	6.04	294.0
MW–3	60.7	7.68	66.6
MW–4	62.5	9.75	124.0
MW–5	53.1	7.86	1066.0
MW–6	53.2	9.65	776.0
MW–7A	53.4	5.98	311.0
MW–7B	53.7	6.00	363.0
MW–8A	54.5	6.93	1686.0
MW–8B	55.8	6.15	2640.0
MW–9	58.9	6.51	128.0
S–1	54.7	5.49	421.0
S–2	63.6	7.11	80.1

Bionomics Laboratory, Inc.

ATLANTA • COLUMBIA • ORLANDO • RICHMOND

4310 E. ANDERSON ROAD, ORLANDO, FLORIDA 32812 (407) 851-2560 FAX (407) 856-0886
FL DEP CQAP # 870223G · FL DHRS DW # 83331, ENV # E83012 · NC DEM ENV # 327
SC DHEC # 96012 · VA DCLS DW # 00042

ENVIRONMENTAL TECHNOLOGY, INC
311-J SOUTH WESTGATE DRIVE
GREENSBORO, NC 27407

Attn: ERIC EWALD

Purchase Order: 1462
Invoice Number:

Order #: B5-04-227
Date: 04/27/95 11:14
Work ID: ALAMANCE CTY, SWEPSONVILLE
Date Received: 04/12/95
Date Completed: 04/27/95

Client Code: ETI_GREEN_EE

NC CERT #327

SAMPLE IDENTIFICATION

Sample Number	Sample Description
01	TRIP BLANK
02	FIELD BLANK
03	MW-1
04	MW-2
05	MW-3
06	MW-4
07	MW-5
08	MW-6
09	MW-7A
10	MW-7B
11	MW-8A
12	MW-8B
13	MW-9
14	S-1
15	S-2

Mark Rusler

Certified By
MARK RUSLER, CHEMIST

TEST RESULTS BY SAMPLE

Sample: 02A FIELD BLANK Collected: 04/11/95

Test Description		Result	Limit	Units	Analyzed	By
MERCURY -	EPA 245.1	BDL	0.0002	mg/L	04/18/95	SK

Sample: 03A MW-1 Collected: 04/10/95

Test Description		Result	Limit	Units	Analyzed	By
MERCURY -	EPA 245.1	BDL	0.0002	mg/L	04/18/95	SK

Sample: 04A MW-2 Collected: 04/10/95

Test Description		Result	Limit	Units	Analyzed	By
MERCURY -	EPA 245.1	BDL	0.0002	mg/L	04/18/95	SK

Sample: 05A MW-3 Collected: 04/10/95

Test Description		Result	Limit	Units	Analyzed	By
MERCURY -	EPA 245.1	BDL	0.0002	mg/L	04/18/95	SK

Sample: 06A MW-4 Collected: 04/10/95

Test Description		Result	Limit	Units	Analyzed	By
MERCURY -	EPA 245.1	BDL	0.0002	mg/L	04/18/95	SK

Sample: 07A MW-5 Collected: 04/11/95

Test Description		Result	Limit	Units	Analyzed	By
MERCURY -	EPA 245.1	BDL	0.0002	mg/L	04/18/95	SK

Sample: 08A MW-6 Collected: 04/11/95

Test Description		Result	Limit	Units	Analyzed	By
MERCURY -	EPA 245.1	BDL	0.0002	mg/L	04/18/95	SK

Sample: 09A MW-7A Collected: 04/11/95

Test Description		Result	Limit	Units	Analyzed	By
MERCURY -	EPA 245.1	BDL	0.0002	mg/L	04/18/95	SK

Sample: 10A MW-7B Collected: 04/11/95

Test Description		Result	Limit	Units	Analyzed	By
MERCURY -	EPA 245.1	BDL	0.0002	mg/L	04/18/95	SK

Sample: 11A MW-8A Collected: 04/11/95

Test Description		Result	Limit	Units	Analyzed	By
MERCURY -	EPA 245.1	BDL	0.0002	mg/L	04/18/95	SK

TEST RESULTS BY SAMPLE

Sample: 12A MW-8B **Collected: 04/11/95**

Test Description		Result	Limit	Units	Analyzed	By
MERCURY -	EPA 245.1	BDL	0.0002	mg/L	04/18/95	SK

Sample: 13A MW-9 **Collected: 04/10/95**

Test Description		Result	Limit	Units	Analyzed	By
MERCURY -	EPA 245.1	BDL	0.0002	mg/L	04/18/95	SK

Sample: 14A S-1 **Collected: 04/11/95**

Test Description		Result	Limit	Units	Analyzed	By
MERCURY -	EPA 245.1	BDL	0.0002	mg/L	04/18/95	SK

Sample: 15A S-2 **Collected: 04/10/95**

Test Description		Result	Limit	Units	Analyzed	By
MERCURY -	EPA 245.1	BDL	0.0002	mg/L	04/18/95	SK

TEST RESULTS BY SAMPLE

Sample Description: TRIP BLANK Lab No: 01A
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW

PARAMETER		RESULT	LIMIT	Q
Chloromethane	74-87-3	BDL	5	U
Vinyl Chloride	75-01-4	BDL	5	U
Bromomethane	74-83-9	BDL	5	U
Chloroethane	75-00-3	BDL	5	U
Trichlorofluoromethane	75-69-4	BDL	5	U
Acetone	67-64-1	BDL	50	U
1,1-Dichloroethene	75-35-4	BDL	5	U
Iodomethane	74-88-4	BDL	10	U
Carbon disulfide	75-15-0	BDL	10	U
Dichloromethane (MeCl2)	75-09-2	BDL	5	U
Acrylonitrile	107-13-1	BDL	5	U
trans-1,2-Dichloroethene	156-60-5	BDL	5	U
1,1-Dichloroethane	75-34-3	BDL	5	U
Vinyl acetate	108-05-4	BDL	50	U
2-Butanone (MEK)	78-93-3	BDL	10	U
cis-1,2-Dichloroethene	156-59-2	BDL	5	U
Bromochloromethane	74-97-5	BDL	5	U
Chloroform	67-66-3	BDL	5	U
1,1,1-Trichloroethane	71-55-6	BDL	5	U
Carbon tetrachloride	56-23-5	BDL	5	U
Benzene	71-43-2	BDL	5	U
1,2-Dichloroethane	107-06-2	BDL	5	U
Trichloroethene	79-01-6	BDL	5	U

TEST RESULTS BY SAMPLE

Sample Description: TRIP BLANK Lab No: 01A
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW

1,2-Dichloropropane 78-87-5	BDL	5	U
Dibromomethane 74-95-3	BDL	5	U
Bromodichloromethane 75-27-4	BDL	5	U
4-Methyl-2-Pentanone (MIBK) 108-10-1	BDL	10	U
cis-1,3-Dichloropropene 10061-01-5	BDL	5	U
Toluene 108-88-3	BDL	5	U
trans-1,3-Dichloropropene 10061-02-6	BDL	5	U
1,1,2 Trichloroethane 79-00-5	BDL	5	U
2-Hexanone 591-78-6	BDL	10	U
Tetrachloroethene 127-18-4	BDL	5	U
Dibromochloromethane 124-48-1	BDL	5	U
1,2-Dibromoethane (EDB) 106-96-4	BDL	1	U
Chlorobenzene 108-90-7	BDL	5	U
Ethylbenzene 100-41-4	BDL	5	U
1,1,1,2-Tetrachloroethane 630-20-6	BDL	5	U
M & P - Xylene 108-38-3	BDL	10	U
O - Xylene 95-47-6	BDL	5	U
Styrene 100-42-5	BDL	5	U
Bromoform 75-25-2	BDL	5	U
1,1,2,2-Tetrachloroethane 79-34-5	BDL	5	U
1,2,3-Trichloropropane 96-18-4	BDL	5	U
trans-1,4-Dichloro-2-butene 110-57-6	BDL	5	U
1,4-Dichlorobenzene 106-46-7	BDL	5	U
1,2-Dichlorobenzene 95-50-1	BDL	5	U
1,2-Dibromo-3-chloropropane 96-12-8	BDL	5	U

TEST RESULTS BY SAMPLE

Sample Description: TRIP BLANK Lab No: 01A
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW

SURROGATE	%RECOVERY	LIMITS		
Dibromoflouromethane	101	88	-	116
Toluene-d8	102	76	-	118
4-Bromofluorobenzene	101	77	-	117

Notes and Definitions for this Report:

DATE RUN 04/18/95
ANALYST JS
INSTRUMENT 5971
FILE ID 21018
CONC FACTOR 1
UNITS µg/L
COLUMN DB-624

Sample Description: FIELD BLANK Lab No: 02A
Test Description: APP.1 METALS N. CAROLINA Method: VARIOUS Test Code: A1MTNC
Collected: 04/11/95 12:00

PARAMETER		RESULT	PQL	RUN ON	BY
Antimony	by 7041	BDL	0.005	04/21/95	SW
Arsenic	by 7061	BDL	0.005	04/21/95	SW
Barium	by 6010	BDL	0.03	04/19/95	MM
Beryllium	by 7091	BDL	0.0001	04/17/95	SW
Cadmium	by 7131	BDL	0.0001	04/19/95	SW
Chromium	by 7191	BDL	0.005	04/19/95	SW
Cobalt	by 7201	BDL	0.001	04/18/95	SW
Copper	by 6010	BDL	0.01	04/18/95	KS
Lead	by 7421	BDL	0.003	04/24/95	SW
Nickel	by 6010	BDL	0.03	04/18/95	KS
Selenium	by 7741	BDL	0.005	04/24/95	SW
Silver	by 7761	BDL	0.00007	04/17/95	SW
Thallium	by 7841	BDL	0.002	04/20/95	SW
Vanadium	by 7911	BDL	0.005	04/18/95	SW
Zinc	by 6010	BDL	0.03	04/18/95	KS

Notes and Definitions for this Report:

UNITS mg/L

TEST RESULTS BY SAMPLE

Sample Description: FIELD BLANK Lab No: 02B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/11/95 12:00

PARAMETER		RESULT	LIMIT	Q
Chloromethane	74-87-3	BDL	5	U
Vinyl Chloride	75-01-4	BDL	5	U
Bromomethane	74-83-9	BDL	5	U
Chloroethane	75-00-3	BDL	5	U
Trichlorofluoromethane	75-69-4	BDL	5	U
Acetone	67-64-1	BDL	50	U
1,1-Dichloroethene	75-35-4	BDL	5	U
Iodomethane	74-88-4	BDL	10	U
Carbon disulfide	75-15-0	BDL	10	U
Dichloromethane (MeCl2)	75-09-2	BDL	5	U
Acrylonitrile	107-13-1	BDL	5	U
trans-1,2-Dichloroethene	156-60-5	BDL	5	U
1,1-Dichloroethane	75-34-3	BDL	5	U
Vinyl acetate	108-05-4	BDL	50	U
2-Butanone (MEK)	78-93-3	BDL	10	U
cis-1,2-Dichloroethene	156-59-2	BDL	5	U
Bromochloromethane	74-97-5	BDL	5	U
Chloroform	67-66-3	BDL	5	U
1,1,1-Trichloroethane	71-55-6	BDL	5	U
Carbon tetrachloride	56-23-5	BDL	5	U
Benzene	71-43-2	BDL	5	U
1,2-Dichloroethane	107-06-2	BDL	5	U
Trichloroethene		BDL	5	U

TEST RESULTS BY SAMPLE

Sample Description: FIELD BLANK Lab No: 02B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/11/95 12:00

1,2-Dichloropropane	79-01-6	BDL	5	U
Dibromomethane	78-87-5	BDL	5	U
Bromodichloromethane	74-95-3	BDL	5	U
4-Methyl-2-Pentanone (MIBK)	75-27-4	BDL	10	U
cis-1,3-Dichloropropene	108-10-1	BDL	5	U
Toluene	10061-01-5	BDL	5	U
trans-1,3-Dichloropropene	108-88-3	BDL	5	U
1,1,2 Trichloroethane	10061-02-6	BDL	5	U
2-Hexanone	79-00-5	BDL	10	U
Tetrachloroethene	591-78-6	BDL	5	U
Dibromochloromethane	127-18-4	BDL	5	U
1,2-Dibromoethane (EDB)	124-48-1	BDL	1	U
Chlorobenzene	103-96-4	BDL	5	U
Ethylbenzene	108-90-7	BDL	5	U
1,1,1,2-Tetrachloroethane	100-41-4	BDL	5	U
M & P - Xylene	630-20-6	BDL	10	U
O - Xylene	108-38-3	BDL	5	U
Styrene	95-47-6	BDL	5	U
Bromoform	100-42-5	BDL	5	U
1,1,2,2-Tetrachloroethane	75-25-2	BDL	5	U
1,2,3-Trichloropropane	79-34-5	BDL	5	U
trans-1,4-Dichloro-2-butene	96-18-4	BDL	5	U
1,4-Dichlorobenzene	110-57-6	BDL	5	U
1,2-Dichlorobenzene	106-46-7	BDL	5	U
	95-50-1			

TEST RESULTS BY SAMPLE

Sample Description: FIELD BLANK Lab No: 02B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/11/95 12:00

1,2-Dibromo-3-chloropropane 96-12-8	BDL	5	U

SURROGATE	%RECOVERY	LIMITS		
Dibromoflouromethane	104	88	-	116
Toluene-d8	102	76	-	118
4-Bromofluorobenzene	103	77	-	117

Notes and Definitions for this Report:

DATE RUN 04/18/95
ANALYST JS
INSTRUMENT 5971
FILE ID 21019
CONC FACTOR 1
UNITS µg/L
COLUMN DB-624

Sample Description: MW-1 Lab No: 03A
Test Description: APP.1 METALS N. CAROLINA Method: VARIOUS Test Code: A1MTNC
Collected: 04/[illegible]5/95 11:45

PARAMETER		RESULT	PQL	RUN ON	BY
Antimony	by 7041	BDL	0.005	04/21/95	SW
Arsenic	by 7061	BDL	0.005	04/21/95	SW
Barium	by 6010	0.462	0.03	04/19/95	MM
Beryllium	by 7091	0.0033	0.0001	04/17/95	SW
Cadmium	by 7131	0.0002	0.0001	04/19/95	SW
Chromium	by 7191	0.009	0.005	04/19/95	SW
Cobalt	by 7201	0.016	0.001	04/18/95	SW
Copper	by 6010	0.013	0.01	04/18/95	KS
Lead	by 7421	0.007	0.003	04/24/95	SW
Nickel	by 6010	BDL	0.03	04/18/95	KS
Selenium	by 7741	BDL	0.005	04/24/95	SW
Silver	by 7761	BDL	0.00007	04/17/95	SW
Thallium	by 7841	BDL	0.002	04/20/95	SW
Vanadium	by 7911	0.038	0.005	04/18/95	SW
Zinc	by 6010	0.134	0.03	04/18/95	KS

Notes and Definitions for this Report:

UNITS mg/L

TEST RESULTS BY SAMPLE

Sample Description: MW-1 Lab No: 03B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/10/95 11:45

PARAMETER		RESULT	LIMIT	Q
Chloromethane	74-87-3	BDL	5	U
Vinyl Chloride	75-01-4	BDL	5	U
Bromomethane	74-83-9	BDL	5	U
Chloroethane	75-00-3	BDL	5	U
Trichlorofluoromethane	75-69-4	BDL	5	U
Acetone	67-64-1	BDL	50	U
1,1-Dichloroethene	75-35-4	BDL	5	U
Iodomethane	74-88-4	BDL	10	U
Carbon disulfide	75-15-0	BDL	10	U
Dichloromethane (MeCl2)	75-09-2	BDL	5	U
Acrylonitrile	107-13-1	BDL	5	U
trans-1,2-Dichloroethene	156-60-5	BDL	5	U
1,1-Dichloroethane	75-34-3	BDL	5	U
Vinyl acetate	108-05-4	BDL	50	U
2-Butanone (MEK)	78-93-3	BDL	10	U
cis-1,2-Dichloroethene	156-59-2	BDL	5	U
Bromochloromethane	74-97-5	BDL	5	U
Chloroform	67-66-3	BDL	5	U
1,1,1-Trichloroethane	71-55-6	BDL	5	U
Carbon tetrachloride	56-23-5	BDL	5	U
Benzene	71-43-2	BDL	5	U
1,2-Dichloroethane	107-06-2	BDL	5	U
Trichloroethene		BDL	5	U

TEST RESULTS BY SAMPLE

Sample Description: MW-1 Lab No: 03B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/10/95 11:45

1,2-Dichloropropane (79-01-6)	BDL	5	U
Dibromomethane (78-87-5)	BDL	5	U
Bromodichloromethane (74-95-3)	BDL	5	U
4-Methyl-2-Pentanone (MIBK) (75-27-4)	BDL	10	U
cis-1,3-Dichloropropene (108-10-1)	BDL	5	U
Toluene (10061-01-5)	BDL	5	U
trans-1,3-Dichloropropene (108-88-3)	BDL	5	U
1,1,2 Trichloroethane (10061-02-6)	BDL	5	U
2-Hexanone (79-00-5)	BDL	10	U
Tetrachloroethene (591-78-6)	4.0	5	J
Dibromochloromethane (127-18-4)	BDL	5	U
1,2-Dibromoethane (EDB) (124-48-1)	BDL	1	U
Chlorobenzene (103-96-4)	BDL	5	U
Ethylbenzene (108-90-7)	BDL	5	U
1,1,1,2-Tetrachloroethane (100-41-4)	BDL	5	U
M & P - Xylene (630-20-6)	BDL	10	U
O - Xylene (108-38-3)	BDL	5	U
Styrene (95-47-6)	BDL	5	U
Bromoform (100-42-5)	BDL	5	U
1,1,2,2-Tetrachloroethane (75-25-2)	BDL	5	U
1,2,3-Trichloropropane (79-34-5)	BDL	5	U
trans-1,4-Dichloro-2-butene (96-18-4)	BDL	5	U
1,4-Dichlorobenzene (110-57-6)	BDL	5	U
1,2-Dichlorobenzene (106-46-7)	BDL	5	U
(95-50-1)			

TEST RESULTS BY SAMPLE

Sample Description: MW-1 Lab No: 03B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/10/95 11:45

1,2-Dibromo-3-chloropropane 96-12-8	BDL	5	U

SURROGATE	%RECOVERY	LIMITS		
Dibromoflouromethane	103	88	-	116
Toluene-d8	103	76	-	118
4-Bromofluorobenzene	101	77	-	117

Notes and Definitions for this Report:

DATE RUN 04/18/95
ANALYST JS
INSTRUMENT 5971
FILE ID 21020
CONC FACTOR 1
UNITS µg/L
COLUMN DB-624

Sample Description: MW-2 Lab No: 04A
Test Description: APP.1 METALS N. CAROLINA Method: VARIOUS Test Code: A1MTNC
Collected: 04/10/95 12:50

PARAMETER		RESULT	PQL	RUN ON	BY
Antimony	by 7041	BDL	0.005	04/21/95	SW
Arsenic	by 7061	BDL	0.005	04/21/95	SW
Barium	by 6010	0.355	0.03	04/19/95	MM
Beryllium	by 7091	0.0014	0.0001	04/17/95	SW
Cadmium	by 7131	0.0003	0.0001	04/19/95	SW
Chromium	by 7191	0.014	0.005	04/19/95	SW
Cobalt	by 7201	0.009	0.001	04/18/95	SW
Copper	by 6010	0.014	0.01	04/18/95	KS
Lead	by 7421	BDL	0.003	04/24/95	SW
Nickel	by 6010	BDL	0.03	04/18/95	KS
Selenium	by 7741	BDL	0.005	04/24/95	SW
Silver	by 7761	BDL	0.00007	04/17/95	SW
Thallium	by 7841	BDL	0.002	04/20/95	SW
Vanadium	by 7911	0.070	0.005	04/18/95	SW
Zinc	by 6010	0.082	0.03	04/18/95	KS

Notes and Definitions for this Report:

UNITS mg/L

TEST RESULTS BY SAMPLE

Sample Description: MW-2 Lab No: 04B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/10/95 12:50

PARAMETER		RESULT	LIMIT	Q
Chloromethane	74-87-3	BDL	5	U
Vinyl Chloride	75-01-4	BDL	5	U
Bromomethane	74-83-9	BDL	5	U
Chloroethane	75-00-3	BDL	5	U
Trichlorofluoromethane	75-69-4	BDL	5	U
Acetone	67-64-1	BDL	50	U
1,1-Dichloroethene	75-35-4	1.5	5	J
Iodomethane	74-88-4	BDL	10	U
Carbon disulfide	75-15-0	BDL	10	U
Dichloromethane (MeCl2)	75-09-2	BDL	5	U
Acrylonitrile	107-13-1	BDL	5	U
trans-1,2-Dichloroethene	156-60-5	BDL	5	U
1,1-Dichloroethane	75-34-3	17.9	5	
Vinyl acetate	108-05-4	BDL	50	U
2-Butanone (MEK)	78-93-3	BDL	10	U
cis-1,2-Dichloroethene	156-59-2	3.4	5	J
Bromochloromethane	74-97-5	BDL	5	U
Chloroform	67-66-3	BDL	5	U
1,1,1-Trichloroethane	71-55-6	2.1	5	J
Carbon tetrachloride	56-23-5	BDL	5	U
Benzene	71-43-2	BDL	5	U
1,2-Dichloroethane	107-06-2	BDL	5	U
Trichloroethene		5.1	5	

TEST RESULTS BY SAMPLE

Sample Description: MW-2 Lab No: 04B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/10/95 12:50

79-01-6			
1,2-Dichloropropane	BDL	5	U
78-87-5			
Dibromomethane	BDL	5	U
74-95-3			
Bromodichloromethane	BDL	5	U
75-27-4			
4-Methyl-2-Pentanone (MIBK)	BDL	10	U
108-10-1			
cis-1,3-Dichloropropene	BDL	5	U
10061-01-5			
Toluene	BDL	5	U
108-88-3			
trans-1,3-Dichloropropene	BDL	5	U
10061-02-6			
1,1,2 Trichloroethane	BDL	5	U
79-00-5			
2-Hexanone	BDL	10	U
591-78-6			
Tetrachloroethene	3.8	5	J
127-18-4			
Dibromochloromethane	BDL	5	U
124-48-1			
1,2-Dibromoethane (EDB)	BDL	1	U
103-96-4			
Chlorobenzene	BDL	5	U
108-90-7			
Ethylbenzene	BDL	5	U
100-41-4			
1,1,1,2-Tetrachloroethane	BDL	5	U
630-20-6			
M & P - Xylene	BDL	10	U
108-38-3			
O - Xylene	BDL	5	U
95-47-6			
Styrene	BDL	5	U
100-42-5			
Bromoform	BDL	5	U
75-25-2			
1,1,2,2-Tetrachloroethane	BDL	5	U
79-34-5			
1,2,3-Trichloropropane	BDL	5	U
96-18-4			
trans-1,4-Dichloro-2-butene	BDL	5	U
110-57-6			
1,4-Dichlorobenzene	BDL	5	U
106-46-7			
1,2-Dichlorobenzene	BDL	5	U
95-50-1			

TEST RESULTS BY SAMPLE

Sample Description: MW-2 Lab No: 04B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/10/95 12:50

1,2-Dibromo-3-chloropropane 96-12-8	BDL	5	U

SURROGATE	%RECOVERY	LIMITS		
Dibromoflouromethane	108	88	-	116
Toluene-d8	102	76	-	118
4-Bromofluorobenzene	101	77	-	117

Notes and Definitions for this Report:

DATE RUN 04/18/95
ANALYST JS
INSTRUMENT 5971
FILE ID 21021
CONC FACTOR 1
UNITS µg/L
COLUMN DB-624

Sample Description: MW-3 Lab No: 05A
Test Description: APP.1 METALS N. CAROLINA Method: VARIOUS Test Code: A1MTNC
Collected: 04/10/95 13:25

PARAMETER		RESULT	PQL	RUN ON	BY
Antimony	by 7041	BDL	0.005	04/21/95	SW
Arsenic	by 7061	BDL	0.005	04/21/95	SW
Barium	by 6010	0.043	0.03	04/19/95	MM
Beryllium	by 7091	BDL	0.0001	04/17/95	SW
Cadmium	by 7131	0.0002	0.0001	04/19/95	SW
Chromium	by 7191	BDL	0.005	04/19/95	SW
Cobalt	by 7201	BDL	0.001	04/18/95	SW
Copper	by 6010	BDL	0.01	04/18/95	KS
Lead	by 7421	BDL	0.003	04/24/95	SW
Nickel	by 6010	BDL	0.03	04/18/95	KS
Selenium	by 7741	BDL	0.005	04/24/95	SW
Silver	by 7761	BDL	0.00007	04/17/95	SW
Thallium	by 7841	BDL	0.002	04/20/95	SW
Vanadium	by 7911	BDL	0.005	04/18/95	SW
Zinc	by 6010	BDL	0.03	04/18/95	KS

Notes and Definitions for this Report:

UNITS mg/L

TEST RESULTS BY SAMPLE

Sample Description: MW-3 Lab No: 05B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/10/95 13:25

PARAMETER		RESULT	LIMIT	Q
Chloromethane	74-87-3	BDL	5	U
Vinyl Chloride	75-01-4	BDL	5	U
Bromomethane	74-83-9	BDL	5	U
Chloroethane	75-00-3	BDL	5	U
Trichlorofluoromethane	75-69-4	BDL	5	U
Acetone	67-64-1	BDL	50	U
1,1-Dichloroethene	75-35-4	BDL	5	U
Iodomethane	74-88-4	BDL	10	U
Carbon disulfide	75-15-0	BDL	10	U
Dichloromethane (MeCl2)	75-09-2	BDL	5	U
Acrylonitrile	107-13-1	BDL	5	U
trans-1,2-Dichloroethene	156-60-5	BDL	5	U
1,1-Dichloroethane	75-34-3	BDL	5	U
Vinyl acetate	108-05-4	BDL	50	U
2-Butanone (MEK)	78-93-3	BDL	10	U
cis-1,2-Dichloroethene	156-59-2	BDL	5	U
Bromochloromethane	74-97-5	BDL	5	U
Chloroform	67-66-3	BDL	5	U
1,1,1-Trichloroethane	71-55-6	BDL	5	U
Carbon tetrachloride	56-23-5	BDL	5	U
Benzene	71-43-2	BDL	5	U
1,2-Dichloroethane	107-06-2	BDL	5	U
Trichloroethene		BDL	5	U

TEST RESULTS BY SAMPLE

Sample Description: MW-3 Lab No: 05B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/10/95 13:25

1,2-Dichloropropane	79-01-6	BDL	5	U
Dibromomethane	78-87-5	BDL	5	U
Bromodichloromethane	74-95-3	BDL	5	U
4-Methyl-2-Pentanone (MIBK)	75-27-4	BDL	10	U
cis-1,3-Dichloropropene	108-10-1	BDL	5	U
Toluene	10061-01-5	BDL	5	U
trans-1,3-Dichloropropene	108-88-3	BDL	5	U
1,1,2 Trichloroethane	10061-02-6	BDL	5	U
2-Hexanone	79-00-5	BDL	10	U
Tetrachloroethene	591-78-6	BDL	5	U
Dibromochloromethane	127-18-4	BDL	5	U
1,2-Dibromoethane (EDB)	124-48-1	BDL	1	U
Chlorobenzene	103-96-4	BDL	5	U
Ethylbenzene	108-90-7	BDL	5	U
1,1,1,2-Tetrachloroethane	100-41-4	BDL	5	U
M & P - Xylene	630-20-6	BDL	10	U
O - Xylene	108-38-3	BDL	5	U
Styrene	95-47-6	BDL	5	U
Bromoform	100-42-5	BDL	5	U
1,1,2,2-Tetrachloroethane	75-25-2	BDL	5	U
1,2,3-Trichloropropane	79-34-5	BDL	5	U
trans-1,4-Dichloro-2-butene	96-18-4	BDL	5	U
1,4-Dichlorobenzene	110-57-6	BDL	5	U
1,2-Dichlorobenzene	106-46-7	BDL	5	U
	95-50-1			

TEST RESULTS BY SAMPLE

Sample Description: MW-3 Lab No: 05B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/10/95 13:25

1,2-Dibromo-3-chloropropane 96-12-8	BDL	5	U

SURROGATE	%RECOVERY	LIMITS		
Dibromoflouromethane	114	88	-	116
Toluene-d8	104	76	-	118
4-Bromofluorobenzene	105	77	-	117

Notes and Definitions for this Report:

DATE RUN 04/18/95
ANALYST JS
INSTRUMENT 5971
FILE ID 21022
CONC FACTOR 1
UNITS µg/L
COLUMN DB-624

Sample Description: MW-4 Lab No: 06A
Test Description: APP.1 METALS N. CAROLINA Method: VARIOUS Test Code: A1MTNC
Collected: 04/10/95 14:10

PARAMETER		RESULT	PQL	RUN ON	BY
Antimony	by 7041	BDL	0.005	04/21/95	SW
Arsenic	by 7061	BDL	0.005	04/21/95	SW
Barium	by 6010	0.047	0.03	04/19/95	MM
Beryllium	by 7091	BDL	0.0001	04/17/95	SW
Cadmium	by 7131	0.0006	0.0001	04/19/95	SW
Chromium	by 7191	BDL	0.005	04/19/95	SW
Cobalt	by 7201	0.011	0.001	04/18/95	SW
Copper	by 6010	BDL	0.01	04/18/95	KS
Lead	by 7421	BDL	0.003	04/24/95	SW
Nickel	by 6010	BDL	0.03	04/18/95	KS
Selenium	by 7741	BDL	0.005	04/24/95	SW
Silver	by 7761	BDL	0.00007	04/17/95	SW
Thallium	by 7841	BDL	0.002	04/20/95	SW
Vanadium	by 7911	BDL	0.005	04/18/95	SW
Zinc	by 6010	0.032	0.03	04/18/95	KS

Notes and Definitions for this Report:

UNITS mg/L

TEST RESULTS BY SAMPLE

Sample Description: MW-4 Lab No: 06B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/10/95 14:10

PARAMETER		RESULT	LIMIT	Q
Chloromethane	74-87-3	BDL	5	U
Vinyl Chloride	75-01-4	6.6	5	
Bromomethane	74-83-9	BDL	5	U
Chloroethane	75-00-3	9.6	5	
Trichlorofluoromethane	75-69-4	BDL	5	U
Acetone	67-64-1	BDL	50	U
1,1-Dichloroethene	75-35-4	BDL	5	U
Iodomethane	74-88-4	BDL	10	U
Carbon disulfide	75-15-0	BDL	10	U
Dichloromethane (MeCl2)	75-09-2	BDL	5	U
Acrylonitrile	107-13-1	BDL	5	U
trans-1,2-Dichloroethene	156-60-5	BDL	5	U
1,1-Dichloroethane	75-34-3	32.3	5	
Vinyl acetate	108-05-4	BDL	50	U
2-Butanone (MEK)	78-93-3	BDL	10	U
cis-1,2-Dichloroethene	156-59-2	187	5	
Bromochloromethane	74-97-5	BDL	5	U
Chloroform	67-66-3	BDL	5	U
1,1,1-Trichloroethane	71-55-6	1.1	5	J
Carbon tetrachloride	56-23-5	BDL	5	U
Benzene	71-43-2	4.7	5	J
1,2-Dichloroethane	107-06-2	BDL	5	U
Trichloroethene		33.9	5	

TEST RESULTS BY SAMPLE

Sample Description: MW-4 Lab No: 06B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/10/95 14:10

79-01-6			
1,2-Dichloropropane	BDL	5	U
78-87-5			
Dibromomethane	BDL	5	U
74-95-3			
Bromodichloromethane	BDL	5	U
75-27-4			
4-Methyl-2-Pentanone (MIBK)	BDL	10	U
108-10-1			
cis-1,3-Dichloropropene	BDL	5	U
10061-01-5			
Toluene	BDL	5	U
108-88-3			
trans-1,3-Dichloropropene	BDL	5	U
10061-02-6			
1,1,2 Trichloroethane	BDL	5	U
79-00-5			
2-Hexanone	BDL	10	U
591-78-6			
Tetrachloroethene	BDL	5	U
127-18-4			
Dibromochloromethane	64.4	5	
124-48-1			
1,2-Dibromoethane (EDB)	BDL	1	U
103-96-4			
Chlorobenzene	BDL	5	U
108-90-7			
Ethylbenzene	BDL	5	U
100-41-4			
1,1,1,2-Tetrachloroethane	BDL	5	U
630-20-6			
M & P - Xylene	BDL	10	U
108-38-3			
O - Xylene	BDL	5	U
95-47-6			
Styrene	BDL	5	U
100-42-5			
Bromoform	BDL	5	U
75-25-2			
1,1,2,2-Tetrachloroethane	BDL	5	U
79-34-5			
1,2,3-Trichloropropane	BDL	5	U
96-18-4			
trans-1,4-Dichloro-2-butene	BDL	5	U
110-57-6			
1,4-Dichlorobenzene	2.0	5	J
106-46-7			
1,2-Dichlorobenzene	BDL	5	U
95-50-1			

TEST RESULTS BY SAMPLE

Sample Description: MW-4 Lab No: 06B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/10/95 14:10

1,2-Dibromo-3-chloropropane 96-12-8	BDL	5	U

SURROGATE	%RECOVERY	LIMITS		
Dibromoflouromethane	112	88	-	116
Toluene-d8	103	76	-	118
4-Bromofluorobenzene	103	77	-	117

Notes and Definitions for this Report:

DATE RUN 04/18/95
ANALYST JS
INSTRUMENT 5971
FILE ID 21023
CONC FACTOR 1
UNITS µg/L
COLUMN DB-624

Sample Description: MW-5 Lab No: 07A
Test Description: APP.1 METALS N. CAROLINA Method: VARIOUS Test Code: A1MTNC
Collected: 04/11/95 11:35

PARAMETER		RESULT	PQL	RUN ON	BY
Antimony	by 7041	BDL	0.005	04/21/95	SW
Arsenic	by 7061	BDL	0.005	04/21/95	SW
Barium	by 6010	0.062	0.03	04/19/95	MM
Beryllium	by 7091	0.0002	0.0001	04/17/95	SW
Cadmium	by 7131	0.0021	0.0001	04/19/95	SW
Chromium	by 7191	BDL	0.005	04/19/95	SW
Cobalt	by 7201	0.002	0.001	04/18/95	SW
Copper	by 6010	BDL	0.01	04/18/95	KS
Lead	by 7421	BDL	0.003	04/24/95	SW
Nickel	by 6010	BDL	0.03	04/18/95	KS
Selenium	by 7741	BDL	0.005	04/24/95	SW
Silver	by 7761	BDL	0.00007	04/17/95	SW
Thallium	by 7841	BDL	0.002	04/20/95	SW
Vanadium	by 7911	0.008	0.005	04/18/95	SW
Zinc	by 6010	0.030	0.03	04/18/95	KS

Notes and Definitions for this Report:

UNITS mg/L

TEST RESULTS BY SAMPLE

Sample Description: MW-6 Lab No: 08A
Test Description: APP.1 METALS N. CAROLINA Method: VARIOUS Test Code: A1MTNC
Collected: 04/11/95 10:50

PARAMETER		RESULT	PQL	RUN ON	BY
Antimony	by 7041	BDL	0.005	04/21/95	SW
Arsenic	by 7061	BDL	0.005	04/21/95	SW
Barium	by 6010	0.072	0.03	04/19/95	MM
Beryllium	by 7091	0.0001	0.0001	04/17/95	SW
Cadmium	by 7131	0.0006	0.0001	04/19/95	SW
Chromium	by 7191	BDL	0.005	04/19/95	SW
Cobalt	by 7201	BDL	0.001	04/18/95	SW
Copper	by 6010	BDL	0.01	04/18/95	KS
Lead	by 7421	BDL	0.003	04/24/95	SW
Nickel	by 6010	BDL	0.03	04/18/95	KS
Selenium	by 7741	BDL	0.005	04/24/95	SW
Silver	by 7761	BDL	0.00007	04/17/95	SW
Thallium	by 7841	BDL	0.002	04/20/95	SW
Vanadium	by 7911	BDL	0.005	04/18/95	SW
Zinc	by 6010	BDL	0.03	04/18/95	KS

Notes and Definitions for this Report:

UNITS mg/L

Sample Description: MW-6 Lab No: 08B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/11/95 10:50

PARAMETER		RESULT	LIMIT	Q
Chloromethane	74-87-3	BDL	5	U
Vinyl Chloride	75-01-4	BDL	5	U
Bromomethane	74-83-9	BDL	5	U
Chloroethane	75-00-3	BDL	5	U
Trichlorofluoromethane	75-69-4	BDL	5	U
Acetone	67-64-1	BDL	50	U
1,1-Dichloroethene	75-35-4	BDL	5	U
Iodomethane		BDL	10	U

TEST RESULTS BY SAMPLE

Sample Description: MW-6 Lab No: 08B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/11/95 10:50

74-88-4			
Carbon disulfide	BDL	10	U
75-15-0			
Dichloromethane (MeCl2)	BDL	5	U
75-09-2			
Acrylonitrile	BDL	5	U
107-13-1			
trans-1,2-Dichloroethene	BDL	5	U
156-60-5			
1,1-Dichloroethane	BDL	5	U
75-34-3			
Vinyl acetate	BDL	50	U
108-05-4			
2-Butanone (MEK)	BDL	10	U
78-93-3			
cis-1,2-Dichloroethene	BDL	5	U
156-59-2			
Bromochloromethane	BDL	5	U
74-97-5			
Chloroform	BDL	5	U
67-66-3			
1,1,1-Trichloroethane	BDL	5	U
71-55-6			
Carbon tetrachloride	BDL	5	U
56-23-5			
Benzene	BDL	5	U
71-43-2			
1,2-Dichloroethane	BDL	5	U
107-06-2			
Trichloroethene	BDL	5	U
79-01-6			
1,2-Dichloropropane	BDL	5	U
78-87-5			
Dibromomethane	BDL	5	U
74-95-3			
Bromodichloromethane	BDL	5	U
75-27-4			
4-Methyl-2-Pentanone (MIBK)	BDL	10	U
108-10-1			
cis-1,3-Dichloropropene	BDL	5	U
10061-01-5			
Toluene	BDL	5	U
108-88-3			
trans-1,3-Dichloropropene	BDL	5	U
10061-02-6			
1,1,2 Trichloroethane	BDL	5	U
79-00-5			
2-Hexanone	BDL	10	U
591-78-6			

TEST RESULTS BY SAMPLE

Sample Description: MW-6 Lab No: 08B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/11/95 10:50

Tetrachloroethene	BDL	5	U
127-18-4			
Dibromochloromethane	BDL	5	U
124-48-1			
1,2-Dibromoethane (EDB)	BDL	1	U
103-96-4			
Chlorobenzene	BDL	5	U
108-90-7			
Ethylbenzene	BDL	5	U
100-41-4			
1,1,1,2-Tetrachloroethane	BDL	5	U
630-20-6			
M & P - Xylene	BDL	10	U
108-38-3			
O - Xylene	BDL	5	U
95-47-6			
Styrene	BDL	5	U
100-42-5			
Bromoform	BDL	5	U
75-25-2			
1,1,2,2-Tetrachloroethane	BDL	5	U
79-34-5			
1,2,3-Trichloropropane	BDL	5	U
96-18-4			
trans-1,4-Dichloro-2-butene	BDL	5	U
110-57-6			
1,4-Dichlorobenzene	BDL	5	U
106-46-7			
1,2-Dichlorobenzene	BDL	5	U
95-50-1			
1,2-Dibromo-3-chloropropane	BDL	5	U
96-12-8			

SURROGATE	%RECOVERY	LIMITS		
Dibromoflouromethane	111	88	-	116
Toluene-d8	103	76	-	118
4-Bromofluorobenzene	101	77	-	117

Notes and Definitions for this Report:

DATE RUN 04/18/95
ANALYST JS
INSTRUMENT 5971
FILE ID 21024
CONC FACTOR 1
UNITS µg/L
COLUMN DB-624

TEST RESULTS BY SAMPLE

Sample Description: MW-7A Lab No: 09A
Test Description: APP.1 METALS N. CAROLINA Method: VARIOUS Test Code: A1MTNC
Collected: 04/11/95 10:25

PARAMETER		RESULT	PQL	RUN ON	BY
Antimony	by 7041	BDL	0.005	04/21/95	SW
Arsenic	by 7061	BDL	0.005	04/21/95	SW
Barium	by 6010	0.041	0.03	04/19/95	MM
Beryllium	by 7091	BDL	0.0001	04/17/95	SW
Cadmium	by 7131	0.0002	0.0001	04/19/95	SW
Chromium	by 7191	BDL	0.005	04/19/95	SW
Cobalt	by 7201	BDL	0.001	04/18/85	SW
Copper	by 6010	BDL	0.01	04/18/95	KS
Lead	by 7421	BDL	0.003	04/24/95	SW
Nickel	by 6010	BDL	0.03	04/18/95	KS
Selenium	by 7741	BDL	0.005	04/27/95	SW
Silver	by 7761	BDL	0.00007	04/17/95	SW
Thallium	by 7841	BDL	0.002	04/20/95	SW
Vanadium	by 7911	BDL	0.005	04/18/95	SW
Zinc	by 6010	BDL	0.03	04/18/95	KS

Notes and Definitions for this Report:

UNITS mg/L

Sample Description: MW-7A Lab No: 09B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/11/95 10:25

PARAMETER		RESULT	LIMIT	Q
Chloromethane	74-87-3	BDL	5	U
Vinyl Chloride	75-01-4	BDL	5	U
Bromomethane	74-83-9	BDL	5	U
Chloroethane	75-00-3	BDL	5	U
Trichlorofluoromethane	75-69-4	BDL	5	U
Acetone	67-64-1	BDL	50	U
1,1-Dichloroethene	75-35-4	BDL	5	U
Iodomethane		BDL	10	U

TEST RESULTS BY SAMPLE

Sample Description: MW-7A Lab No: 09B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/11/95 10:25

74-88-4			
Carbon disulfide	BDL	10	U
75-15-0			
Dichloromethane (MeCl2)	BDL	5	U
75-09-2			
Acrylonitrile	BDL	5	U
107-13-1			
trans-1,2-Dichloroethene	BDL	5	U
156-60-5			
1,1-Dichloroethane	BDL	5	U
75-34-3			
Vinyl acetate	BDL	50	U
108-05-4			
2-Butanone (MEK)	BDL	10	U
78-93-3			
cis-1,2-Dichloroethene	BDL	5	U
156-59-2			
Bromochloromethane	BDL	5	U
74-97-5			
Chloroform	BDL	5	U
67-66-3			
1,1,1-Trichloroethane	BDL	5	U
71-55-6			
Carbon tetrachloride	BDL	5	U
56-23-5			
Benzene	BDL	5	U
71-43-2			
1,2-Dichloroethane	BDL	5	U
107-06-2			
Trichloroethene	BDL	5	U
79-01-6			
1,2-Dichloropropane	BDL	5	U
78-87-5			
Dibromomethane	BDL	5	U
74-95-3			
Bromodichloromethane	BDL	5	U
75-27-4			
4-Methyl-2-Pentanone (MIBK)	BDL	10	U
108-10-1			
cis-1,3-Dichloropropene	BDL	5	U
10061-01-5			
Toluene	BDL	5	U
108-88-3			
trans-1,3-Dichloropropene	BDL	5	U
10061-02-6			
1,1,2 Trichloroethane	BDL	5	U
79-00-5			
2-Hexanone	BDL	10	U
591-78-6			

TEST RESULTS BY SAMPLE

Sample Description: MW-7A Lab No: 09B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/11/95 10:25

Tetrachloroethene	127-18-4	BDL	5	U
Dibromochloromethane	124-48-1	BDL	5	U
1,2-Dibromoethane (EDB)	103-96-4	BDL	1	U
Chlorobenzene	108-90-7	BDL	5	U
Ethylbenzene	100-41-4	BDL	5	U
1,1,1,2-Tetrachloroethane	630-20-6	BDL	5	U
M & P - Xylene	108-38-3	BDL	10	U
O - Xylene	95-47-6	BDL	5	U
Styrene	100-42-5	BDL	5	U
Bromoform	75-25-2	BDL	5	U
1,1,2,2-Tetrachloroethane	79-34-5	BDL	5	U
1,2,3-Trichloropropane	96-18-4	BDL	5	U
trans-1,4-Dichloro-2-butene	110-57-6	BDL	5	U
1,4-Dichlorobenzene	106-46-7	BDL	5	U
1,2-Dichlorobenzene	95-50-1	BDL	5	U
1,2-Dibromo-3-chloropropane	96-12-8	BDL	5	U

SURROGATE	%RECOVERY	LIMITS		
Dibromoflouromethane	112	88	-	116
Toluene-d8	103	76	-	118
4-Bromofluorobenzene	102	77	-	117

Notes and Definitions for this Report:

DATE RUN 04/18/95
ANALYST JS
INSTRUMENT 5971
FILE ID 21025
CONC FACTOR 1
UNITS µg/L
COLUMN DB-624

TEST RESULTS BY SAMPLE

Sample Description: MW-7B Lab No: 10A
Test Description: APP.1 METALS N. CAROLINA Method: VARIOUS Test Code: A1MTNC
Collected: 04/11/95 10:15

PARAMETER		RESULT	PQL	RUN ON	BY
Antimony	by 7041	BDL	0.005	04/21/95	SW
Arsenic	by 7061	BDL	0.005	04/21/95	SW
Barium	by 6010	0.038	0.03	04/19/95	MM
Beryllium	by 7091	0.0002	0.0001	04/17/95	SW
Cadmium	by 7131	0.0001	0.0001	04/19/95	SW
Chromium	by 7191	BDL	0.005	04/19/95	SW
Cobalt	by 7201	0.006	0.001	04/18/95	SW
Copper	by 6010	BDL	0.01	04/18/95	KS
Lead	by 7421	BDL	0.003	04/24/95	SW
Nickel	by 6010	BDL	0.03	04/18/95	KS
Selenium	by 7741	BDL	0.005	04/24/95	SW
Silver	by 7761	BDL	0.00007	04/17/95	SW
Thallium	by 7841	BDL	0.002	04/20/95	SW
Vanadium	by 7911	BDL	0.005	04/18/95	SW
Zinc	by 6010	BDL	0.03	04/18/95	KS

Notes and Definitions for this Report:

UNITS mg/L

Sample Description: MW-7B Lab No: 10B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/11/95 10:15

PARAMETER		RESULT	LIMIT	Q
Chloromethane	74-87-3	BDL	5	U
Vinyl Chloride	75-01-4	BDL	5	U
Bromomethane	74-83-9	BDL	5	U
Chloroethane	75-00-3	BDL	5	U
Trichlorofluoromethane	75-69-4	BDL	5	U
Acetone	67-64-1	BDL	50	U
1,1-Dichloroethene	75-35-4	BDL	5	U
Iodomethane		BDL	10	U

TEST RESULTS BY SAMPLE

Sample Description: MW-7B
Lab No: 10B
Test Description: APPENDIX 1 VOC EPA 8260/40
Method: EPA 8260/40
Test Code: A1VOLW
Collected: 04/11/95 10:15

74-88-4			
Carbon disulfide	BDL	10	U
75-15-0			
Dichloromethane (MeCl2)	BDL	5	U
75-09-2			
Acrylonitrile	BDL	5	U
107-13-1			
trans-1,2-Dichloroethene	BDL	5	U
156-60-5			
1,1-Dichloroethane	BDL	5	U
75-34-3			
Vinyl acetate	BDL	50	U
108-05-4			
2-Butanone (MEK)	BDL	10	U
78-93-3			
cis-1,2-Dichloroethene	BDL	5	U
156-59-2			
Bromochloromethane	BDL	5	U
74-97-5			
Chloroform	BDL	5	U
67-66-3			
1,1,1-Trichloroethane	BDL	5	U
71-55-6			
Carbon tetrachloride	BDL	5	U
56-23-5			
Benzene	BDL	5	U
71-43-2			
1,2-Dichloroethane	BDL	5	U
107-06-2			
Trichloroethene	BDL	5	U
79-01-6			
1,2-Dichloropropane	BDL	5	U
78-87-5			
Dibromomethane	BDL	5	U
74-95-3			
Bromodichloromethane	BDL	5	U
75-27-4			
4-Methyl-2-Pentanone (MIBK)	BDL	10	U
108-10-1			
cis-1,3-Dichloropropene	BDL	5	U
10061-01-5			
Toluene	BDL	5	U
108-88-3			
trans-1,3-Dichloropropene	BDL	5	U
10061-02-6			
1,1,2 Trichloroethane	BDL	5	U
79-00-5			
2-Hexanone	BDL	10	U
591-78-6			

TEST RESULTS BY SAMPLE

Sample Description: MW-7B Lab No: 10B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/11/95 10:15

Tetrachloroethene	BDL	5	U
127-18-4			
Dibromochloromethane	BDL	5	U
124-48-1			
1,2-Dibromoethane (EDB)	BDL	1	U
103-96-4			
Chlorobenzene	BDL	5	U
108-90-7			
Ethylbenzene	BDL	5	U
100-41-4			
1,1,1,2-Tetrachloroethane	BDL	5	U
630-20-6			
M & P - Xylene	BDL	10	U
108-38-3			
O - Xylene	BDL	5	U
95-47-6			
Styrene	BDL	5	U
100-42-5			
Bromoform	BDL	5	U
75-25-2			
1,1,2,2-Tetrachloroethane	BDL	5	U
79-34-5			
1,2,3-Trichloropropane	BDL	5	U
96-18-4			
trans-1,4-Dichloro-2-butene	BDL	5	U
110-57-6			
1,4-Dichlorobenzene	BDL	5	U
106-46-7			
1,2-Dichlorobenzene	BDL	5	U
95-50-1			
1,2-Dibromo-3-chloropropane	BDL	5	U
96-12-8			

SURROGATE	%RECOVERY	LIMITS		
Dibromoflouromethane	110	88	-	116
Toluene-d8	103	76	-	118
4-Bromofluorobenzene	102	77	-	117

Notes and Definitions for this Report:

DATE RUN 04/18/95
ANALYST JS
INSTRUMENT 5971
FILE ID 21026
CONC FACTOR 1
UNITS µg/L
COLUMN DB-624

TEST RESULTS BY SAMPLE

Sample Description: MW-8A Lab No: 11A
Test Description: APP.1 METALS N. CAROLINA Method: VARIOUS Test Code: A1MTNC
Collected: 04/11/95 09:20

PARAMETER		RESULT	PQL	RUN ON	BY
Antimony	by 7041	BDL	0.005	04/21/95	SW
Arsenic	by 7061	0.016	0.005	04/21/95	SW
Barium	by 6010	1.06	0.03	04/19/95	MM
Beryllium	by 7091	0.0066	0.0001	04/17/95	SW
Cadmium	by 7131	0.0004	0.0001	04/19/95	SW
Chromium	by 7191	0.007	0.005	04/19/95	SW
Cobalt	by 7201	0.047	0.001	04/18/95	SW
Copper	by 6010	BDL	0.01	04/18/95	KS
Lead	by 7421	0.005	0.003	04/24/95	SW
Nickel	by 6010	BDL	0.03	04/18/95	KS
Selenium	by 7741	BDL	0.005	04/24/95	SW
Silver	by 7761	BDL	0.00007	04/17/95	SW
Thallium	by 7841	BDL	0.002	04/20/95	SW
Vanadium	by 7911	0.083	0.005	04/18/95	SW
Zinc	by 6010	0.488	0.03	04/18/95	KS

Notes and Definitions for this Report:

UNITS mg/L

Sample Description: MW-8A Lab No: 11B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/11/95 09:20

PARAMETER		RESULT	LIMIT	Q
Chloromethane	74-87-3	BDL	5	U
Vinyl Chloride	75-01-4	BDL	5	U
Bromomethane	74-83-9	BDL	5	U
Chloroethane	75-00-3	BDL	5	U
Trichlorofluoromethane	75-69-4	BDL	5	U
Acetone	67-64-1	BDL	50	U
1,1-Dichloroethene	75-35-4	BDL	5	U
Iodomethane		BDL	10	U

TEST RESULTS BY SAMPLE

Sample Description: MW-8A Lab No: 11B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/11/95 09:20

74-88-4			
Carbon disulfide	BDL	10	U
75-15-0			
Dichloromethane (MeCl2)	BDL	5	U
75-09-2			
Acrylonitrile	BDL	5	U
107-13-1			
trans-1,2-Dichloroethene	BDL	5	U
156-60-5			
1,1-Dichloroethane	BDL	5	U
75-34-3			
Vinyl acetate	BDL	50	U
108-05-4			
2-Butanone (MEK)	BDL	10	U
78-93-3			
cis-1,2-Dichloroethene	BDL	5	U
156-59-2			
Bromochloromethane	BDL	5	U
74-97-5			
Chloroform	BDL	5	U
67-66-3			
1,1,1-Trichloroethane	BDL	5	U
71-55-6			
Carbon tetrachloride	BDL	5	U
56-23-5			
Benzene	BDL	5	U
71-43-2			
1,2-Dichloroethane	BDL	5	U
107-06-2			
Trichloroethene	BDL	5	U
79-01-6			
1,2-Dichloropropane	BDL	5	U
78-87-5			
Dibromomethane	BDL	5	U
74-95-3			
Bromodichloromethane	BDL	5	U
75-27-4			
4-Methyl-2-Pentanone (MIBK)	BDL	10	U
108-10-1			
cis-1,3-Dichloropropene	BDL	5	U
10061-01-5			
Toluene	BDL	5	U
108-88-3			
trans-1,3-Dichloropropene	BDL	5	U
10061-02-6			
1,1,2 Trichloroethane	BDL	5	U
79-00-5			
2-Hexanone	BDL	10	U
591-78-6			

TEST RESULTS BY SAMPLE

Sample Description: MW-8A Lab No: 11B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/11/95 09:20

Tetrachloroethene	BDL	5	U
127-18-4			
Dibromochloromethane	BDL	5	U
124-48-1			
1,2-Dibromoethane (EDB)	BDL	1	U
103-96-4			
Chlorobenzene	BDL	5	U
108-90-7			
Ethylbenzene	BDL	5	U
100-41-4			
1,1,1,2-Tetrachloroethane	BDL	5	U
630-20-6			
M & P - Xylene	BDL	10	U
108-38-3			
O - Xylene	BDL	5	U
95-47-6			
Styrene	BDL	5	U
100-42-5			
Bromoform	BDL	5	U
75-25-2			
1,1,2,2-Tetrachloroethane	BDL	5	U
79-34-5			
1,2,3-Trichloropropane	BDL	5	U
96-18-4			
trans-1,4-Dichloro-2-butene	BDL	5	U
110-57-6			
1,4-Dichlorobenzene	BDL	5	U
106-46-7			
1,2-Dichlorobenzene	BDL	5	U
95-50-1			
1,2-Dibromo-3-chloropropane	BDL	5	U
96-12-8			

SURROGATE	%RECOVERY	LIMITS		
Dibromoflouromethane	115	88	-	116
Toluene-d8	102	76	-	118
4-Bromofluorobenzene	101	77	-	117

Notes and Definitions for this Report:

DATE RUN 04/18/95
ANALYST JS
INSTRUMENT 5971
FILE ID 21027
CONC FACTOR 1
UNITS µg/L
COLUMN DB-624

TEST RESULTS BY SAMPLE

Sample Description: MW-8B Lab No: 12A
Test Description: APP.1 METALS N. CAROLINA Method: VARIOUS Test Code: A1MTNC
Collected: 04/11/95 09:10

PARAMETER		RESULT	PQL	RUN ON	BY
Antimony	by 7041	BDL	0.005	04/21/95	SW
Arsenic	by 7061	0.018	0.005	04/21/95	SW
Barium	by 6010	2.59	0.03	04/19/95	MM
Beryllium	by 7091	0.0156	0.0001	04/17/95	SW
Cadmium	by 7131	0.0009	0.0001	04/19/95	SW
Chromium	by 7191	0.016	0.005	04/19/95	SW
Cobalt	by 7201	0.112	0.001	04/18/95	SW
Copper	by 6010	0.016	0.01	04/18/95	KS
Lead	by 7421	0.011	0.003	04/24/95	SW
Nickel	by 6010	BDL	0.03	04/18/95	KS
Selenium	by 7741	BDL	0.005	04/24/95	SW
Silver	by 7761	BDL	0.00007	04/17/95	SW
Thallium	by 7841	BDL	0.002	04/20/95	SW
Vanadium	by 7911	0.222	0.005	04/18/95	SW
Zinc	by 6010	1.08	0.03	04/18/95	KS

Notes and Definitions for this Report:

UNITS mg/L

Sample Description: MW-8B Lab No: 12B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/11/95 09:10

PARAMETER		RESULT	LIMIT	Q
Chloromethane	74-87-3	BDL	5	U
Vinyl Chloride	75-01-4	BDL	5	U
Bromomethane	74-83-9	BDL	5	U
Chloroethane	75-00-3	BDL	5	U
Trichlorofluoromethane	75-69-4	BDL	5	U
Acetone	67-64-1	BDL	50	U
1,1-Dichloroethene	75-35-4	BDL	5	U
Iodomethane		BDL	10	U

TEST RESULTS BY SAMPLE

Sample Description: MW-8B Lab No: 12B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/11/95 09:10

Carbon disulfide	74-88-4	BDL	10	U
Dichloromethane (MeCl2)	75-15-0	BDL	5	U
Acrylonitrile	75-09-2	BDL	5	U
trans-1,2-Dichloroethene	107-13-1	BDL	5	U
1,1-Dichloroethane	156-60-5	BDL	5	U
Vinyl acetate	75-34-3	BDL	50	U
2-Butanone (MEK)	108-05-4	BDL	10	U
cis-1,2-Dichloroethene	78-93-3	BDL	5	U
Bromochloromethane	156-59-2	BDL	5	U
Chloroform	74-97-5	BDL	5	U
1,1,1-Trichloroethane	67-66-3	BDL	5	U
Carbon tetrachloride	71-55-6	BDL	5	U
Benzene	56-23-5	BDL	5	U
1,2-Dichloroethane	71-43-2	BDL	5	U
Trichloroethene	107-06-2	BDL	5	U
1,2-Dichloropropane	79-01-6	BDL	5	U
Dibromomethane	78-87-5	BDL	5	U
Bromodichloromethane	74-95-3	BDL	5	U
4-Methyl-2-Pentanone (MIBK)	75-27-4	BDL	10	U
cis-1,3-Dichloropropene	108-10-1	BDL	5	U
Toluene	10061-01-5	BDL	5	U
trans-1,3-Dichloropropene	108-88-3	BDL	5	U
1,1,2 Trichloroethane	10061-02-6	BDL	5	U
2-Hexanone	79-00-5	BDL	10	U
	591-78-6			

TEST RESULTS BY SAMPLE

Sample Description: MW-8B Lab No: 12B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/11/95 09:10

Tetrachloroethene	BDL	5	U
127-18-4			
Dibromochloromethane	BDL	5	U
124-48-1			
1,2-Dibromoethane (EDB)	BDL	1	U
103-96-4			
Chlorobenzene	BDL	5	U
108-90-7			
Ethylbenzene	BDL	5	U
100-41-4			
1,1,1,2-Tetrachloroethane	BDL	5	U
630-20-6			
M & P - Xylene	BDL	10	U
108-38-3			
O - Xylene	BDL	5	U
95-47-6			
Styrene	BDL	5	U
100-42-5			
Bromoform	BDL	5	U
75-25-2			
1,1,2,2-Tetrachloroethane	BDL	5	U
79-34-5			
1,2,3-Trichloropropane	BDL	5	U
96-18-4			
trans-1,4-Dichloro-2-butene	BDL	5	U
110-57-6			
1,4-Dichlorobenzene	BDL	5	U
106-46-7			
1,2-Dichlorobenzene	BDL	5	U
95-50-1			
1,2-Dibromo-3-chloropropane	BDL	5	U
96-12-8			

SURROGATE	%RECOVERY	LIMITS		
Dibromoflouromethane	115	88	-	116
Toluene-d8	104	76	-	118
4-Bromofluorobenzene	101	77	-	117

Notes and Definitions for this Report:

DATE RUN 04/18/95
ANALYST JS
INSTRUMENT 5971
FILE ID 21028
CONC FACTOR 1
UNITS µg/L
COLUMN DB-624

TEST RESULTS BY SAMPLE

Sample Description: MW-9 Lab No: 13A
Test Description: APP.1 METALS N. CAROLINA Method: VARIOUS Test Code: A1MTNC
Collected: 04/10/95 12:15

PARAMETER		RESULT	PQL	RUN ON	BY
Antimony	by 7041	BDL	0.005	04/21/95	SW
Arsenic	by 7061	BDL	0.005	04/21/95	SW
Barium	by 6010	0.041	0.03	04/19/95	MM
Beryllium	by 7091	0.0001	0.0001	04/17/95	SW
Cadmium	by 7131	0.0001	0.0001	04/19/95	SW
Chromium	by 7191	BDL	0.005	04/19/95	SW
Cobalt	by 7201	0.002	0.001	04/18/95	SW
Copper	by 6010	BDL	0.01	04/18/95	KS
Lead	by 7421	BDL	0.003	04/24/95	SW
Nickel	by 6010	BDL	0.03	04/18/95	KS
Selenium	by 7741	BDL	0.005	04/24/95	SW
Silver	by 7761	BDL	0.00007	04/17/95	SW
Thallium	by 7841	BDL	0.002	04/20/95	SW
Vanadium	by 7911	BDL	0.005	04/18/95	SW
Zinc	by 6010	BDL	0.03	04/18/95	KS

Notes and Definitions for this Report:

UNITS mg/L

Sample Description: MW-9 Lab No: 13B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/10/95 12:15

PARAMETER		RESULT	LIMIT	Q
Chloromethane	74-87-3	BDL	5	U
Vinyl Chloride	75-01-4	BDL	5	U
Bromomethane	74-83-9	BDL	5	U
Chloroethane	75-00-3	BDL	5	U
Trichlorofluoromethane	75-69-4	BDL	5	U
Acetone	67-64-1	BDL	50	U
1,1-Dichloroethene	75-35-4	BDL	5	U
Iodomethane		BDL	10	U

TEST RESULTS BY SAMPLE

Sample Description: MW-9 Lab No: 13B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/10/95 12:15

74-88-4			
Carbon disulfide	BDL	10	U
75-15-0			
Dichloromethane (MeCl2)	BDL	5	U
75-09-2			
Acrylonitrile	BDL	5	U
107-13-1			
trans-1,2-Dichloroethene	BDL	5	U
156-60-5			
1,1-Dichloroethane	BDL	5	U
75-34-3			
Vinyl acetate	BDL	50	U
108-05-4			
2-Butanone (MEK)	BDL	10	U
78-93-3			
cis-1,2-Dichloroethene	BDL	5	U
156-59-2			
Bromochloromethane	BDL	5	U
74-97-5			
Chloroform	BDL	5	U
67-66-3			
1,1,1-Trichloroethane	BDL	5	U
71-55-6			
Carbon tetrachloride	BDL	5	U
56-23-5			
Benzene	BDL	5	U
71-43-2			
1,2-Dichloroethane	BDL	5	U
107-06-2			
Trichloroethene	BDL	5	U
79-01-6			
1,2-Dichloropropane	BDL	5	U
78-87-5			
Dibromomethane	BDL	5	U
74-95-3			
Bromodichloromethane	BDL	5	U
75-27-4			
4-Methyl-2-Pentanone (MIBK)	BDL	10	U
108-10-1			
cis-1,3-Dichloropropene	BDL	5	U
10061-01-5			
Toluene	BDL	5	U
108-88-3			
trans-1,3-Dichloropropene	BDL	5	U
10061-02-6			
1,1,2 Trichloroethane	BDL	5	U
79-00-5			
2-Hexanone	BDL	10	U
591-78-6			

TEST RESULTS BY SAMPLE

Sample Description: MW-9 Lab No: 13B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/10/95 12:15

Tetrachloroethene	127-18-4	BDL	5	U
Dibromochloromethane	124-48-1	BDL	5	U
1,2-Dibromoethane (EDB)	103-96-4	BDL	1	U
Chlorobenzene	108-90-7	BDL	5	U
Ethylbenzene	100-41-4	BDL	5	U
1,1,1,2-Tetrachloroethane	630-20-6	BDL	5	U
M & P - Xylene	108-38-3	BDL	10	U
O - Xylene	95-47-6	BDL	5	U
Styrene	100-42-5	BDL	5	U
Bromoform	75-25-2	BDL	5	U
1,1,2,2-Tetrachloroethane	79-34-5	BDL	5	U
1,2,3-Trichloropropane	96-18-4	BDL	5	U
trans-1,4-Dichloro-2-butene	110-57-6	BDL	5	U
1,4-Dichlorobenzene	106-46-7	BDL	5	U
1,2-Dichlorobenzene	95-50-1	BDL	5	U
1,2-Dibromo-3-chloropropane	96-12-8	BDL	5	U

SURROGATE	%RECOVERY	LIMITS		
Dibromoflouromethane	118 Q	88	-	116
Toluene-d8	105	76	-	118
4-Bromofluorobenzene	102	77	-	117

Notes and Definitions for this Report:

DATE RUN 04/18/95
ANALYST JS
INSTRUMENT 5971
FILE ID 21029
CONC FACTOR 1
UNITS µg/L
COLUMN DB-624

TEST RESULTS BY SAMPLE

Sample Description: S-1 Lab No: 14A
Test Description: APP.1 METALS N. CAROLINA Method: VARIOUS Test Code: A1MTNC
Collected: 04/11/95 11:15

PARAMETER		RESULT	PQL	RUN ON	BY
Antimony	by 7041	BDL	0.005	04/21/95	SW
Arsenic	by 7061	BDL	0.005	04/21/95	SW
Barium	by 6010	0.030	0.03	04/19/95	MM
Beryllium	by 7091	0.0001	0.0001	04/17/95	SW
Cadmium	by 7131	BDL	0.0001	04/19/95	SW
Chromium	by 7191	BDL	0.005	04/19/95	SW
Cobalt	by 7201	0.001	0.001	04/18/95	SW
Copper	by 6010	BDL	0.01	04/18/95	KS
Lead	by 7421	BDL	0.003	04/24/95	SW
Nickel	by 6010	BDL	0.03	04/18/95	KS
Selenium	by 7741	BDL	0.005	04/24/95	SW
Silver	by 7761	BDL	0.00007	04/17/95	SW
Thallium	by 7841	BDL	0.002	04/20/95	SW
Vanadium	by 7911	BDL	0.005	04/18/95	SW
Zinc	by 6010	BDL	0.03	04/18/95	KS

Notes and Definitions for this Report:

UNITS mg/L

Sample Description: S-1 Lab No: 14B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/11/95 11:15

PARAMETER		RESULT	LIMIT	Q
Chloromethane	74-87-3	BDL	5	U
Vinyl Chloride	75-01-4	BDL	5	U
Bromomethane	74-83-9	BDL	5	U
Chloroethane	75-00-3	BDL	5	U
Trichlorofluoromethane	75-69-4	BDL	5	U
Acetone	67-64-1	BDL	50	U
1,1-Dichloroethene	75-35-4	BDL	5	U
Iodomethane		BDL	10	U

TEST RESULTS BY SAMPLE

Sample Description: S-1 Lab No: 14B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/11/95 11:15

74-88-4			
Carbon disulfide	BDL	10	U
75-15-0			
Dichloromethane (MeCl2)	BDL	5	U
75-09-2			
Acrylonitrile	BDL	5	U
107-13-1			
trans-1,2-Dichloroethene	BDL	5	U
156-60-5			
1,1-Dichloroethane	BDL	5	U
75-34-3			
Vinyl acetate	BDL	50	U
108-05-4			
2-Butanone (MEK)	BDL	10	U
78-93-3			
cis-1,2-Dichloroethene	BDL	5	U
156-59-2			
Bromochloromethane	BDL	5	U
74-97-5			
Chloroform	BDL	5	U
67-66-3			
1,1,1-Trichloroethane	BDL	5	U
71-55-6			
Carbon tetrachloride	BDL	5	U
56-23-5			
Benzene	BDL	5	U
71-43-2			
1,2-Dichloroethane	BDL	5	U
107-06-2			
Trichloroethene	BDL	5	U
79-01-6			
1,2-Dichloropropane	BDL	5	U
78-87-5			
Dibromomethane	BDL	5	U
74-95-3			
Bromodichloromethane	BDL	5	U
75-27-4			
4-Methyl-2-Pentanone (MIBK)	BDL	10	U
108-10-1			
cis-1,3-Dichloropropene	BDL	5	U
10061-01-5			
Toluene	BDL	5	U
108-88-3			
trans-1,3-Dichloropropene	BDL	5	U
10061-02-6			
1,1,2 Trichloroethane	BDL	5	U
79-00-5			
2-Hexanone	BDL	10	U
591-78-6			

TEST RESULTS BY SAMPLE

Sample Description: S-1 Lab No: 14B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/11/95 11:15

Tetrachloroethene	127-18-4	BDL	5	U
Dibromochloromethane	124-48-1	BDL	5	U
1,2-Dibromoethane (EDB)	103-96-4	BDL	1	U
Chlorobenzene	108-90-7	BDL	5	U
Ethylbenzene	100-41-4	BDL	5	U
1,1,1,2-Tetrachloroethane	630-20-6	BDL	5	U
M & P - Xylene	108-38-3	BDL	10	U
O - Xylene	95-47-6	BDL	5	U
Styrene	100-42-5	BDL	5	U
Bromoform	75-25-2	BDL	5	U
1,1,2,2-Tetrachloroethane	79-34-5	BDL	5	U
1,2,3-Trichloropropane	96-18-4	BDL	5	U
trans-1,4-Dichloro-2-butene	110-57-6	BDL	5	U
1,4-Dichlorobenzene	106-46-7	BDL	5	U
1,2-Dichlorobenzene	95-50-1	BDL	5	U
1,2-Dibromo-3-chloropropane	96-12-8	BDL	5	U

SURROGATE	%RECOVERY	LIMITS		
Dibromoflouromethane	108	88	-	116
Toluene-d8	103	76	-	118
4-Bromofluorobenzene	97	77	-	117

Notes and Definitions for this Report:

DATE RUN 04/18/95
ANALYST JS
INSTRUMENT 5971
FILE ID 21030
CONC FACTOR 1
UNITS µg/L
COLUMN DB-624

TEST RESULTS BY SAMPLE

Sample Description: S-2 Lab No: 15A
Test Description: APP.1 METALS N. CAROLINA Method: VARIOUS Test Code: A1MTNC
Collected: 04/10/95 13:35

PARAMETER		RESULT	PQL	RUN ON	BY
Antimony	by 7041	BDL	0.005	04/21/95	SW
Arsenic	by 7061	BDL	0.005	04/21/95	SW
Barium	by 6010	BDL	0.03	04/19/95	MM
Beryllium	by 7091	0.0001	0.0001	04/17/95	SW
Cadmium	by 7131	BDL	0.0001	04/19/95	SW
Chromium	by 7191	BDL	0.005	04/19/95	SW
Cobalt	by 7201	0.002	0.001	04/18/95	SW
Copper	by 6010	BDL	0.01	04/18/95	KS
Lead	by 7421	BDL	0.003	04/24/95	SW
Nickel	by 6010	BDL	0.03	04/18/95	KS
Selenium	by 7741	BDL	0.005	04/24/95	SW
Silver	by 7761	BDL	0.00007	04/17/95	SW
Thallium	by 7841	BDL	0.002	04/20/95	SW
Vanadium	by 7911	BDL	0.005	04/18/95	SW
Zinc	by 6010	BDL	0.03	04/18/95	KS

Notes and Definitions for this Report:

UNITS mg/L

Sample Description: S-2 Lab No: 15B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/10/95 13:35

PARAMETER		RESULT	LIMIT	Q
Chloromethane	74-87-3	BDL	5	U
Vinyl Chloride	75-01-4	BDL	5	U
Bromomethane	74-83-9	BDL	5	U
Chloroethane	75-00-3	BDL	5	U
Trichlorofluoromethane	75-69-4	BDL	5	U
Acetone	67-64-1	BDL	50	U
1,1-Dichloroethene	75-35-4	BDL	5	U
Iodomethane		BDL	10	U

TEST RESULTS BY SAMPLE

Sample Description: S-2 Lab No: 15B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/10/95 13:35

Carbon disulfide	74-88-4	BDL	10	U
Dichloromethane (MeCl2)	75-15-0	BDL	5	U
Acrylonitrile	75-09-2	BDL	5	U
trans-1,2-Dichloroethene	107-13-1	BDL	5	U
1,1-Dichloroethane	156-60-5	BDL	5	U
Vinyl acetate	75-34-3	BDL	50	U
2-Butanone (MEK)	108-05-4	BDL	10	U
cis-1,2-Dichloroethene	78-93-3	BDL	5	U
Bromochloromethane	156-59-2	BDL	5	U
Chloroform	74-97-5	BDL	5	U
1,1,1-Trichloroethane	67-66-3	BDL	5	U
Carbon tetrachloride	71-55-6	BDL	5	U
Benzene	56-23-5	BDL	5	U
1,2-Dichloroethane	71-43-2	BDL	5	U
Trichloroethene	107-06-2	BDL	5	U
1,2-Dichloropropane	79-01-6	BDL	5	U
Dibromomethane	78-87-5	BDL	5	U
Bromodichloromethane	74-95-3	BDL	5	U
4-Methyl-2-Pentanone (MIBK)	75-27-4	BDL	10	U
cis-1,3-Dichloropropene	108-10-1	BDL	5	U
Toluene	10061-01-5	BDL	5	U
trans-1,3-Dichloropropene	108-88-3	BDL	5	U
1,1,2 Trichloroethane	10061-02-6	BDL	5	U
2-Hexanone	79-00-5	BDL	10	U
	591-78-6			

TEST RESULTS BY SAMPLE

Sample Description: S-2 Lab No: 15B
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/10/95 13:35

Tetrachloroethene	BDL	5	U
127-18-4			
Dibromochloromethane	BDL	5	U
124-48-1			
1,2-Dibromoethane (EDB)	BDL	1	U
103-96-4			
Chlorobenzene	BDL	5	U
108-90-7			
Ethylbenzene	BDL	5	U
100-41-4			
1,1,1,2-Tetrachloroethane	BDL	5	U
630-20-6			
M & P - Xylene	BDL	10	U
108-38-3			
O - Xylene	BDL	5	U
95-47-6			
Styrene	BDL	5	U
100-42-5			
Bromoform	BDL	5	U
75-25-2			
1,1,2,2-Tetrachloroethane	BDL	5	U
79-34-5			
1,2,3-Trichloropropane	BDL	5	U
96-18-4			
trans-1,4-Dichloro-2-butene	BDL	5	U
110-57-6			
1,4-Dichlorobenzene	BDL	5	U
106-46-7			
1,2-Dichlorobenzene	BDL	5	U
95-50-1			
1,2-Dibromo-3-chloropropane	BDL	5	U
96-12-8			

SURROGATE	%RECOVERY	LIMITS		
Dibromoflouromethane	118 Q	88	-	116
Toluene-d8	103	76	-	118
4-Bromofluorobenzene	101	77	-	117

Notes and Definitions for this Report:

DATE RUN 04/18/95
ANALYST JS
INSTRUMENT 5971
FILE ID 21031
CONC FACTOR 1
UNITS µg/L
COLUMN DB-624

REPORT COMMENTS

ADDITIONAL COMPOUNDS WERE FOUND AS FOLLOWS; IN (µg/L)

I.D. #	ANALYTE	RESULT
MW-2	DCDFM	2.9 (J)
MW-4	DCDFM	5.8

Environmental Technology, Inc.
311-J South Westgate Drive
Greensboro, North Carolina 27407
Phone: (910) 299-9998
Fax: (910) 299-0655

B004281

№ 6096

CHAIN OF CUSTODY RECORD

PROJECT NO. 1452
PROJECT NAME: ALAMANCE CTY, Swepsonville LANDFILL
SAMPLERS: (Signature) Eric A Ewald (Eric Ewald)

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	TPH 3550	TPH 5030	EPA 602 (Modified)	EPA 610	Appendix I volatiles	Appendix I METALS	Hg	REMARKS
TB	4/11	12:00		x	TRIP BLANK	3					x	x	x	
FB	4/11	12:00		x	FIELD BLANK	3					x	x	x	
MW1	4/10	11:45		x	Mon. well 1	3					x	x	x	
MW2	4/10	1250		x	" 2	3					x	x	x	
MW3	4/10	1325		x	" 3	3					x	x	x	
MW4	4/10	1410		x	" 4	3					x	x	x	
MW5	4/11	11:35		x	" 5	3					x	x	x	Did not receive VOA'S for MW5
MW6	4/11	10:50		x	" 6	3					x	x	x	
MW7A	4/11	10:25		x	" 7A	3					x	x	x	
MW7B	4/11	10:15		x	" 7B	3					x	x	x	
MW8A	4/11	9:20		x	" 8A	3					x	x	x	
MW8B	4/11	9:10		x	" 8B	3					x	x	x	
MW9	4/10	12:15		x	" 9	3					x	x	x	
S-1	4/11	11:15		x	Surface Sample 1	3					x	x	x	
S-2	4/10	1335		x	Surface Sample 2	3					x	x	x	

RELINQUISHED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)
Eric A Ewald	4/11/95 17:00				
RELINQUISHED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature)	DATE / TIME	RECEIVED for Laboratory BY: (Signature)	DATE / TIME	REMARKS:	
		C. Taylor	4/12/95 9:50	rec'd on cooler Temp = 6°C 28-VOA'S 14-Lt (2) HNO3	

Bionomics Laboratory, Inc.
South Carolina Division

200 Rich Lex Drive
Lexington, South Carolina 29072
Phone: (803) 796-8989
Fax: (803) 796-1602
South Carolina Certification Number: 96012
South Carolina Lab ID Number: 32117

ENVIRONMENTAL TECHNOLOGY, INC
311-J SOUTH WESTGATE DRIVE
GREENSBORO, NC 27407

Attn: ERIC EWALD

Purchase Order: 1462
Invoice Number:

NC CERT #327

Order #: B5-04-257
Date: 04/21/95 08:33
Work ID: ALAMANCE CTY, SWEPSONVILLE
Date Received: 04/13/95
Date Completed: 04/20/95

Client Code: ETI_GREEN_EE

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
01	MW-5		

Teresa Hubbard
Certified By
TERESA HUBBARD, LAB MGR

TEST RESULTS BY SAMPLE

Sample Description: MW-5 Lab No: 01A
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/11/95 11:35

PARAMETER		RESULT	LIMIT	Q
Chloromethane	74-87-3	BDL	5	U
Vinyl Chloride	75-01-4	BDL	5	U
Bromomethane	74-83-9	BDL	5	U
Chloroethane	75-00-3	BDL	5	U
Trichlorofluoromethane	75-69-4	BDL	5	U
Acetone	67-64-1	BDL	50	U
1,1-Dichloroethene	75-35-4	BDL	5	U
Iodomethane	74-88-4	BDL	10	U
Carbon disulfide	75-15-0	BDL	10	U
Dichloromethane (MeCl2)	75-09-2	BDL	5	U
Acrylonitrile	107-13-1	BDL	5	U
trans-1,2-Dichloroethene	156-60-5	BDL	5	U
1,1-Dichloroethane	75-34-3	BDL	5	U
Vinyl acetate	108-05-4	BDL	50	U
2-Butanone (MEK)	78-93-3	BDL	10	U
cis-1,2-Dichloroethene	156-59-2	BDL	5	U
Bromochloromethane	74-97-5	BDL	5	U
Chloroform	67-66-3	BDL	5	U
1,1,1-Trichloroethane	71-55-6	BDL	5	U
Carbon tetrachloride	56-23-5	BDL	5	U
Benzene	71-43-2	BDL	5	U
1,2-Dichloroethane	107-06-2	BDL	5	U
Trichloroethene		BDL	5	U

TEST RESULTS BY SAMPLE

Sample Description: MW-5 Lab No: 01A
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/11/95 11:35

79-01-6			
1,2-Dichloropropane	BDL	5	U
78-87-5			
Dibromomethane	BDL	5	U
74-95-3			
Bromodichloromethane	BDL	5	U
75-27-4			
4-Methyl-2-Pentanone (MIBK)	BDL	10	U
108-10-1			
cis-1,3-Dichloropropene	BDL	5	U
10061-01-5			
Toluene	BDL	5	U
108-88-3			
trans-1,3-Dichloropropene	BDL	5	U
10061-02-6			
1,1,2 Trichloroethane	BDL	5	U
79-00-5			
2-Hexanone	BDL	10	U
591-78-6			
Tetrachloroethene	BDL	5	U
127-18-4			
Dibromochloromethane	BDL	5	U
124-48-1			
1,2-Dibromoethane (EDB)	BDL	1	U
103-96-4			
Chlorobenzene	BDL	5	U
108-90-7			
Ethylbenzene	BDL	5	U
100-41-4			
1,1,1,2-Tetrachloroethane	BDL	5	U
630-20-6			
M & P - Xylene	BDL	10	U
108-38-3			
O - Xylene	BDL	5	U
95-47-6			
Styrene	BDL	5	U
100-42-5			
Bromoform	BDL	5	U
75-25-2			
1,1,2,2-Tetrachloroethane	BDL	5	U
79-34-5			
1,2,3-Trichloropropane	BDL	5	U
96-18-4			
trans-1,4-Dichloro-2-butene	BDL	5	U
110-57-6			
1,4-Dichlorobenzene	BDL	5	U
106-46-7			
1,2-Dichlorobenzene	BDL	5	U
95-50-1			

TEST RESULTS BY SAMPLE

Sample Description: MW-5 Lab No: 01A
Test Description: APPENDIX 1 VOC EPA 8260/40 Method: EPA 8260/40 Test Code: A1VOLW
Collected: 04/11/95 11:35

1,2-Dibromo-3-chloropropane 96-12-8	BDL	5	U

SURROGATE	%RECOVERY	LIMITS		
Dibromoflouromethane	103	88	-	116
Toluene-d8	104	76	-	118
4-Bromofluorobenzene	100	77	-	117

Notes and Definitions for this Report:

DATE RUN 04/19/95
ANALYST JS
INSTRUMENT 5971
FILE ID 21036
CONC FACTOR 1
UNITS µg/L
COLUMN DB-624

EARTH TECH REMEDIATION SERVICES
311-J South Westgate Drive
Greensboro, North Carolina 27407
Phone: (910) 299-9998
Fax: (910) 299-0655

CHAIN OF CUSTODY RECORD

№ 006634

PROJECT NO. 1152 PROJECT NAME Alamance City, Swepsonville

SAMPLERS: (Signature) Eric Evans

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	Appendix I - Volatile	REMARKS
MW5	4/1	1135		X	Monitoring Well 5	2	X	

RELINQUISHED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature)	DATE / TIME	RECEIVED for Laboratory BY: (Signature)	DATE / TIME	REMARKS:	
		[illegible]	4/1/97 9:15	in cooler 2°C	

* * NOTICE * *

The following are an explanation of Bionomics' Laboratory footnotes (where applicable):

MICROBIOLOGY:

(E) = Less than statistically valid number of colonies or greater than 200 colonies per plate or confluent growth present.

TNTC = Too numerous to count microorganisms on 1 ml plate.

TNTC N/C = Too numerous to count non-coliform microorganisms on 1 ml plate.

ORGANICS:

(Q): Qualifiers:
B: Found in associated blank as well as sample
J: Estimated Value, less than calibration limit
O: Estimated Value, greater than calibration limit
U: Analyzed for but not detected
BDL: Below detection limit

SOLIDS:

T: Sample turbid after filtering through 934 Whatman Filter Paper - EPA Method 160.1. Turbidity reflects high TDS values.