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Quality Assurance Summary Report And Data Validation

Leachate/Drainageways (Second Set)

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prepared for

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COLOR CODE

GOLD	pages are "Data Validation Summary Report" forms (DVSR Forms).
BLUE	pages separate data validation sections.
GREEN	pages separate classes of compounds within a given section; i.e., volatiles, semivolatiles, pesticides/PCBs, and inorganics.

NOVAK SANITARY LANDFILL
WATER AND SOIL SAMPLES FROM
LEACHATE DRAINAGE WAYS
SET TWO

DATA VALIDATION SUMMARY

Introduction

This report presents the data validation of sample analysis for Novak Sanitary Landfill water and soil samples. On June 27 and July 26, 1990, three water samples and three soil samples were taken from the Leachate Drainage Ways at the Novak Sanitary Landfill. These samples were submitted to National Environmental Testing, Inc., Cambridge Division (NET) for analysis of Volatile Organic Compounds (VOCs), base, neutral, and acid extractable organic compounds (semivolatiles or BNAs), pesticides and polychlorinated biphenyls (PCBs), total metals (selected list), and selected inorganic wet chemistry parameters. Refer to Table 1 below for the identities of the specific samples and the parameters/methods requested.

The samples collected on July 26, 1990 for VOCs analysis were a resampling of samples originally collected on June 27, 1990. Resampling was necessary because holding times for VOCs were exceeded by the laboratory.

Samples were received at NET on June 28 and July 27, 1990. Three Chain of Custody (COC) forms were supplied with the two sample groups; however, none was signed by a

representative of NET. The laboratory was contacted and asked to provide copies of signed COCs.

The deliverables for volatile organics, semivolatile organics, and pesticides/PCBs were evaluated using EPA Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses, Modified for Region III, June 1988. The deliverables for metals and cyanide were evaluated using EPA Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analyses, Modified for Region III, June 1988. Conventional analyses were evaluated for holding time compliance and were reviewed for adherence to quality control procedures specified for each method. All data have been tabulated and have been assigned appropriate qualifier codes by the data reviewer. Please refer to Tables 2 through 12 for lists of compounds analyzed, reported concentrations, and the appropriate qualifier codes.

Table 1. Summary of Samples Collected and Parameters Analyzed at the Leachate Drainage Ways, Novak Sanitary Landfill

Sample #	Sample ID	Sample Date	VOCs 1/	BNAs	Metals	Cyanide	Pesticides /PCBs	Classical Inorganics
1	NSL-LH-10-01	6/27/90		X	X	X	X	X
2	NSL-SS-10-01	6/27/90		X	X	X	X	
3	NSL-SD-9-01	6/27/90		X	X	X	X	
4	NSL-SS-10-01R	6/27/90		X	X	X	X	
5	NSL-LH-10-02	7/26/90	X					
6	NSL-SS-10-02R	7/26/90	X					
7	NSL-SD-9-02	7/26/90	X					
8	NSL-SS-10-02	7/26/90	X					

Aqueous Samples

VOCs	Method 8240
BNAs	Method 8270
Metals	Furnace and ICP methods
Cyanides	Method 9010
Pesticides	Method 8080
Classical Inorganics	Various Methods

Soil Samples

VOCs	Method 8240
BNAs	Method 8270
Metals	Furnace and ICP methods
Cyanides	Method 9010
Pesticides	Method 8080

1/ VOCs were resampled on 7/26/90

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Summary of Data Validation

All quality control parameters have been separately evaluated and summarized on individual "Data Validation Summary Report" forms (DVSR forms). These DVSR forms are presented along with the pertinent "raw" and "reduced" data provided by the laboratory in subsequent sections of this report. The following comments have been taken from each DVRS form and are separated by parameters. These comments identify the uncorrectable deficiences:

ORGANICS (Volatiles, Semivolatiles, and Pesticides/PCBs)

1.0 Holding Times

All samples were prepared and/or analyzed within holding times as established under 40 CFR, Chapter 136 for VOCs, BNAs, and Pesticides/PCBs.

2.0 GC/MS Tuning and Performance

All ion abundance criteria were met, mass spectra were of good quality, and Form V was present for each 12-hour period.

3.0 Pesticide/PCB Instrument Performance

All criteria were met.

4.0 GC/MS Calibration

4.1 Volatiles

Two instruments were used to analyze the samples for volatile organic compounds.

4.1.1. Initial Calibration

Instrument HP5970K was initially calibrated on July 24, 1990. Relative response factors (RRF) for all compounds were greater than the minimum requirement of 0.05; however, three compounds were reported to have percent relative standard deviation (% RSD) exceeding the control limit of 30%. These compounds are acetone at 45.2 %RSD, 1,2-dichloroethane at 40.6 %RSD and vinyl acetate. The following samples were affected: LH1002, SS1002R, and the trip blank (TB).

Action Taken: For sample LH1002, the result for acetone (44 ug/L) was flagged "J" as estimated, while the results for 1,2-dichloroethane (<5 ug/L) and vinyl acetate (<10 ug/L) were flagged "UJ" as estimated undetected. For both sample SS1002R and the trip blank, the results for acetone (<10 ug/L) 1,2-dichloroethane (<5 ug/L) and vinyl acetate (<10 ug/L) were each flagged "UJ" as estimated undetected.

Instrument HP5995D was initially calibrated on July 8 and again on August 1, 1990, when analyses were performed. In both instances, relative response factors for all

compounds were greater than the minimum requirement of 0.05. All compounds were reported to have %RSDs of less than 30%, with the exception of bromomethane, which was reported to have %RSD of 98.9% on July 8 and %RSD of 67.8% on August 1, 1990. The following samples were affected: SS1002 and SD902.

Action Taken: Neither sample SS1002 nor sample SD902 was reported to contain bromomethane. Thus, the results for bromomethane in sample SS1002 (< 14 ug/kg) and in sample SD902 (< 12 ug/kg) were flagged "UJ" as estimated undetected.

4.1.2 Continuing Calibration

Continuing calibrations were performed on instrument HP5970K on July 30 and August 1, 1990, when analyses were performed. All compounds were reported to have percent differences (%D) of 25% or less on both dates, with the exception of 1,2-dichloroethane on July 30, 1990, which had a %D of 29.6%. Sample LH1002 and the trip blank were affected.

Action Taken: Because the results for this compound in the two affected samples had already been flagged "UJ" (due to the %RSD for 1,2-dichloroethane exceeding 30% in the initial calibration on July 24), no further action was required.

A continuing calibration was performed on instrument HP5995D on July 30, 1990, when analyses were performed. All compounds were reported to have %D of 25% or less, with

the exception of bromoform, which was reported to have a %D of 29.3%. Samples SD902 and SS1002 were affected.

Action Taken: In the case of both samples SD902 (<6 ug/kg) and SS1002 (<7 ug\kg), no bromoform was reported to have been detected. Thus, the result for each is flagged "UJ" as estimated undetected.

4.2 Semivolatiles

Two instruments were used to analyze the samples: instrument HP5970F and instrument HP4970J.

4.2.1 Initial Calibration

Instrument HP5970F was initially calibrated on July 9, 1990. Relative response factors for all compounds were greater than the minimum requirement of 0.05, and all compounds were reported to have %RPD of less than 30%.

Action Taken: No compounds affected; no action was required.

Instrument HP4970J was initially calibrated on July 5, 1990. Relative response factors for all compounds were greater than the minimum requirement of 0.05. Two compounds, however, were reported to have %RSD of greater than 30%: benzoic acid (43.9 %RSD) and 2,4-dinitrophenol (38.1 %RSD). Only sample LH1001 was affected.

Action Taken:

The results for benzoic acid (460 ug/L) and 2,4-dinitrophenol (<250 ug/L) in sample LH1001 were flagged "J" and "UJ", respectively.

4.2.2 Continuing Calibration

Continuing calibrations were performed on instrument HP5970F on July 23 and July 30, 1990, when analyses were performed. All compounds were reported to have percent differences of 25% or less, in both instances with the exception of 2,4-dinitrophenol (28.2 %RSD) and 4,6-dinitro-2-methylphenol (94.2 %RSD) when analyzed on July 23, 1990. The following samples were affected: SD901, SS1001, and SS1001R.

Action Taken: All results for 2,4-dinitrophenol and 4,6-dinitro-2-methylphenol for samples SD901, SS1001, and SS1001R were flagged "UJ" as estimated undetected.

Continuing calibrations were performed on instrument HP5970J on July 11 and July 27, 1990, when analyses were performed. All compounds for which calibrations were performed on July 11 were reported to have percent differences of 25% or less with the exception of 3,3'-dichlorobenzidine, which had %D of 26.9%. Only sample LH1001 was affected. For the continuing calibration performed on July 27, the following compounds were reported to have %D of greater than 25%: pyrene (42.3%D), benzo(k) fluoranthene (31.5 %D), and benzo (ghi), perylene (32.0 %D). Only sample LH1001 was affected.

Action Taken: The result for sample LH1001 for 3,3'-dichlorobenzidine (< 100 ug/L), pyrene (<50 ug/L), benzo (k) fluoranthene (<50 ug/L) and benzo (ghi) perylene (<50 ug/L) were each flagged "UJ" as estimated undetected.

5.0 Pesticides/PCB Instrument Performance and Calibration

All DDT retention times were greater than or equal to 12 minutes; all retention time windows were reported and were acceptable; however, the 4,4'-DDT degradation was out of control limits for the second standard. Samples LH1001 and SS1001 were affected. A retention time shift for DBC was out of control limits for samples LH1001 and SS1001. Lastly, calibration curves were used in the determination of DDT, DBC, aldrin, and endrin. Curves were acceptable.

Action Taken: All results were below the detection limit; no action was taken.

6.0 Method Blanks

The contaminants detected in method blanks, i.e., compounds identified in the blanks at concentrations less than 5X (non-common contaminants) or 10X (common lab contaminants) the amount seen in the blanks, are qualified according to the Functional Guidelines as shown below.

6.1 Volatiles

6.1.1 Method Blank VBLK73090K

This method blank was reported to contain methylene chloride at 1 ug/L and tetrachloroethene at 2 ug/L. Sample NSLLH1002 and the trip blank were affected. Sample NSLLH1002 was reported to contain methylene chloride at 2 ug/L and tetrachloroethene at 1 ug/L, while the trip blank was reported to contain methylene chloride at 6 ug/L and tetrachloroethene at 1 ug/L.

Action Taken: The results for methylene chloride and tetrachloroethene in sample NSLLH1002 and the trip blank were flagged "B" (presence qualitatively noted but not detected substantially above the level reported in laboratory or field blanks), as they are below 10X and 5X the amounts detected in the blank (10 x 1 ug/L = 10 ug/L methylene chloride and 5 x 2 = 10 ug/L tetrachloroethene), respectively.

6.1.2 Method Blank VBLK7030D

This method blank was reported to contain toluene at 2 ug/L. No toluene was detected, however, in the relevant sample (NSLSD902).

Action Taken: No action was taken, in accordance with the Functional Guidelines.

6.1.3 Method Blank VBLK80190D

This method blank was reported to contain methylene chloride at 1 ug/L and toluene at 1 ug/L. The sample affected, NSLSS1002, was reported to contain methylene chloride at 3 ug/L and toluene at 2 ug/L.

Action Taken: These results were flagged "B" (presence qualitatively noted but not detected substantially above the level reported in laboratory or field blanks), as the results are each less than 10X the amounts detected in the blank (10 x 1 ug/L = 10 ug/L methylene chloride and 10 x 1 ug/L = 10 ug/L toluene).

6.1.4 Method Blank VBLK80190K

This method blank was reported to contain methylene chloride at 2 ug/L, 1,1,2,2,-tetrachloroethane at 2 ug/L, and toluene at 1 ug/L. None of these compounds was detected in the relevant sample (SS1002R).

Action Taken: No action was taken, in accordance with the Functional Guidelines.

6.2 Semivolatiles

6.2.1 Method Blank SBLK70390J

No contaminants were detected in this blank.

6.2.2 Method Blank SBLK70690F

This method blank was reported to contain naphthalene at 63 ug/kg, di-n-butylphthalate at 560 ug/kg, butylbenzyl-phthalate at 670 ug/kg, and bis(2-ethylhexyl)phthalate at 93 ug/kg. The "phthalate" compounds are common laboratory contaminants. The affected samples were NSLSD901 and NSLSS1001. Sample NSLSD901 was reported to contain di-n-butylphthalate at 1700 ug/kg and butylbenzylphthlate at 240 ug/kg. Sample NSLSS1001 was reported to contain naphthalene at 410 ug/kg, di-n-butyl phthalate at 1500 ug/kg, butylbenzylphthalate at 120 ug/kg, and bis(2 ethyl-hexyl)phthalate at 1200 ug/kg.

Action Taken: The result for naphthalene in sample NSLSS1001 was flagged "J" by the laboratory because the amount detected was less than the quantitation limit but greater than 5X the amount found in the blank (5 X 63 ug/L = 315 ug/kg naphthalene). The results for di-n-butylphthalate for both samples (NSLSD901 and NSLSS1001) were flagged "B", as the amounts found were greater than the quantitation limit but less than 10X the amount detected in the blank (10 x 560 ug/kg = 5600 ug/kg di-n-butylphthalate). The results for butylbenzylphthalate for both samples (NSLSD901 and NSLSS1001) were flagged "B" as the amount detected in each was less than the quantitation limit and less than 10X the amount detected in the blank (10 x 670 ug/kg = 6700 ug/kg butylbenzylphthalate). The result for bis(2-ethylhexyl)phthalate was not flagged, as the amount detected in the samples was greater than 10X that detected in the blank (10 x 93 ug/kg = 930 ug/kg bis(2-ethylhexyl)phthalate).

6.2.3 Method Blank SBLK70390F

No contaminants were detected in this blank.

6.3 Pesticides/PCBs

No contaminants were detected in the blanks.

7.0 Field Blanks

7.1 Volatiles

One field blank (SS1002R), an equipment rinsate, was collected and applies to all samples analyzed for volatiles. As no contaminants were detected in this blank, no action was taken on the corresponding sample data.

7.2 Semivolatiles

One field blank (SS1001R) was collected and applies to all samples analyzed for semivolatiles. As no contaminants were detected in this blank, no action was taken on the corresponding sample data.

7.3 Pesticides/PCBs

No contaminants were detected in this blank.

8.0 Trip Blanks

One trip blank was analyzed and applies to all samples analyzed for VOCs. This trip blank was reported to contain methylene chloride at 6 ug/L, tetrachloroethene at 1 ug/L, and toluene at 5 ug/L.

Action Taken: These compounds have previously been flagged "B" because of their presence in low levels in the relevant method blanks; thus, no further action was taken.

9.0 GC/MS Surrogate Recovery

All surrogate recoveries for volatile organic compounds were within quality control limits. For the semivolatile compounds, two samples had recoveries which exceeded the control limit for D5-phenol. Since only this one compound was outside the control limit, the data is considered acceptable in accordance with the guidelines.

10.0 Pesticides/PCBs Surrogate Recovery

All surrogate recoveries were within quality control limits.

11.0 Matrix Spike/Matrix Spike Duplicate

11.1 Volatiles

The sample-specific matrix spike and matrix spike duplicate for water were reported to have recoveries of 130% and 159% for toluene, respectively. These values exceed the upper quality control limit of 125% established for this compound. All other compounds were found to be within limits for both recoveries and relative percent difference (RPD). The matrix spike and matrix spike duplicate recoveries for soil were within the quality control limits established for each compound; however, the RPD for 1,1-dichloroethene was 27%, exceeding the desired limit of 22%. In addition, the soil spikes were not sample specific; i.e., they were performed on samples from some source other than Novak.

Action Taken: No action was taken on the analytical results as matrix spike results are advisory only. However, it does suggest the potential high bias of the results for toluene.

11.2 Semivolatiles

The recoveries for both the matrix spike and matrix spike duplicate for water were all within quality control limits, although the RPD for 1,4-dichlorobenzene of 34% exceeded the control limit of 28%. The recoveries for both the matrix spike and matrix spike duplicate for soil were all within quality control limits, as were the RPDs. In the case of both water and soil, batch-specific samples were spiked.

Action Taken: No action was taken on the analytical results, as the evaluation is advisory only.

11.3 Pesticides/PCBs

The laboratory did not analyze a sample-specific matrix spike or matrix-spike duplicate with the pesticides analysis. Instead, the matrix spike and matrix spike duplicate were batch-specific. Also, the percent recovery of the gamma-BHC spike was out of control limits for the reagent water spike.

Action Taken: Although recoveries of batch-specific matrix spikes and matrix spiked duplicates are acceptable, no evaluation of matrix effects may be inferred. However, no action was taken on the analytical results, as the evaluation is advisory only.

12.0 Field Duplicates

No field duplicates were sampled on site.

13.0 Internal Standards Performance

All criteria were met. All internal standard counts were within -50% or +100% of the associated standard.

14.0 Compound Identification

The relative retention time did not exceed +/- 0.06 units of the RRT standard for any samples with the exception of benzoic acid reported in sample NSLLH1001, in which the relative retention time differed by 0.09 units. Because the chromatogram and mass spectra for this compound appeared to be in order and to confirm its presence, the slight exceedance of the relative retention time control limit was believed to be minimal in effect. No action was taken.

15.0 Compound Quantitation and Reported Detection Limits

All criteria were met. All sample results were correctly calculated and CRQLs were correctly determined.

16.0 Tentatively Identified Compounds

Tentatively identified compounds were identified in semivolatile analyses only. All criteria were met. A library search was completed.

INORGANICS (METALS, CYANIDE, WET CHEMISTRY)

1.0 Holding Times

All holding times were met for all parameters as specified under 40 CFR 136 except for fluorides, chlorides, nitrate/nitrite, and sulfates, which were analyzed past holding times.

Action Taken: Results for sample LH1001 for fluorides, chlorides, nitrate/nitrite, and sulfates have been qualified "L" as biased low.

2.0 Calibration Curves

All ICP curves were obtained using a one-point standard plus a blank. All other curves were three- to five-point curves with the lowest standard at the limit of quantitation (LOQ). All of the criteria were met.

3.0 Initial and Continuing Calibration Verification

All criteria were met.

4.0 Laboratory Blanks (Method and Calibration)

Contaminants were detected in the method blank and calibration blanks. Parameters detected, as well as the concentration of the contaminant and the 5X concentration of the

contaminant, are listed in Table 13. Results that are greater than IDL but less than 5X the amount of contaminant in the blank are flagged "B."

Action Taken: The results for the following samples and parameters are flagged "B" for blank contamination: LH1001, silver; SS1001R, calcium, silver, sodium, and zinc; SS1001, nickel; and SD901, nickel.

5.0 Field Blank (Rinsate)

A rinsate blank created in the field was analyzed. The table below lists the contaminants found, the concentration detected, and the 5X limit. The functional guidelines for Region III specify that if the result is greater than the IDL but less than 5X the blank concentration, the result is flagged "B."

Parameter	Field Blank Conc. (ug/L)	5X Blank Value Aqueous (ug/L)	5X Blank Value Soil (ug/g)
Calcium	561	2805	468
Copper	10.3	51.5	8.44
Iron	192	960	154
Manganese	7.4	37	6.07
Silver	9.4	47	7.7
Sodium	367	1835	301
Zinc	22.2	111	18.2

Action Taken: The following samples and parameters are flagged "B": SS1001, silver and sodium; SD901, calcium, silver and sodium. The result for silver in sample LH1001 has already been qualified as "B" for contamination by the method blank.

6.0 ICP Interference Check Samples

All criteria were met.

7.0 Laboratory Control Sample

The percent recoveries for the following compounds were outside of control limits:

Matrix	Compound	% R	QC Limits
Soil	Barium	243.8	80 - 120
Soil	Potassium	751.4	80 - 120

Action Taken: The soil sample results of SS1001 and SD901 for barium and potassium were flagged "K" as biased high.

8.0 Laboratory Duplicates

The laboratory did not analyze sample-specific duplicates for the soil samples submitted. Therefore, the precision of the analytical system or sample homogeneity cannot be determined. Also, the laboratory analyzed the rinsate blank as a duplicate, which is not an acceptable measure of the instrument reproducibility.

Action Taken: None.

9.0 Matrix Spike

For aqueous samples, the percent recoveries for the following parameters were outside of control limits:

Element	% R	Control Limits
Arsenic	71	75 - 125
Lead	43.8	75 - 125

For soil samples, the percent recoveries for the following parameters were outside of control limits:

Element	% R	Control Limits
Antimony	131.8	75 - 125
Arsenic	46	75 - 125
Barium	47	75 - 125
Beryllium	48.5	75 - 125
Cadmium	41.4	75 - 125
Chromium	37.6	75 - 125
Cobalt	50.6	75 - 125
Copper	49.4	75 - 125
Lead	245.3	75 - 125
Manganese	2.6	75 - 125
Nickel	48.8	75 - 125
Selenium	52.5	75 - 125
Silver	59.7	75 - 125
Thallium	52.6	75 - 125
Vanadium	38.6	75 - 125
Zinc	40.3	75 - 125

Action Taken: For samples LH1001 and SS1001R, results for arsenic and lead are qualified "L" as biased low. For samples SS1001 and SD901, results for arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, nickel, selenium, silver, thallium, vanadium, and zinc are qualified "L" as biased low. All results for lead and antimony are qualified "K" as biased high. All results for manganese are qualified "R" as unusable.

The following elements were not analyzed in the matrix spike for soils: aluminum, calcium, magnesium, potassium, and sodium.

10.0 Furnace AA QC

A description of each sample evaluation is presented below.

Batch 1 - Water

Arsenic

NSL-LH-10-01	Burn 1	Burn 2	Mean	%R	%RSD	Value
Sample	42.3	41.9	42.1	--	0.67	42.1
Spike	56.1	56.9	56.5	72	1.0	--

- Sample result is >CRDL, and %RSD is <±20% (acceptable).
- Sample concentration is >50% of spike concentration.
- Spike %R is > 40% but is < 85 - 115% (not acceptable).
- MSA required: MSA was performed but Corr. Coeff. <0.995; flag data as estimated "J".

NSL-SS-10-01R	Burn 1	Burn 2	Mean	%R	%RSD	Value
Sample	0.30	-0.40	0.05	--	989.8	0.05
Spike	17.5	18.6	18.05	90.1	4.31	--

- Sample result is <CRDL, RSD criteria not applicable.
- Sample concentration <50% of spike, no effect.
- Spike concentration acceptable.
- No flags.

Lead

NSL-LH-10-01	Burn 1	Burn 2	Mean	%R	%RSD	Value
Sample	71.1	69.1	70.1		2.02	701.0
Spike	75.4	75.5	75.45	53.5	0.09	754.0

- Sample result is >CRDL; RSD <±20% - acceptable.
- Sample concentration >50% of spike.
- Spike concentration outside 85 - 115%R limits, MSA required
- MSA performed; MSA acceptable, No flags.

NSL-SS-10-01	Burn 1	Burn 2	Mean	%R	%RSD	Value
Sample	4.1	3.4	3.75	-	13.2	3.75
Spike	11.7	11.4	11.55	7.81	--	--

- Sample result >CRDL, RSD <±20% acceptable.
- Sample concentration <50% of spike.
- No MSA required.
- Spike concentration <85 - 115%, flag data "L" as biased low.
  (Note: Lead was previously flagged "K" in this sample for high matrix spike recovery. Because the "L" flag contradicts the "K" flag, the flag is changed to "J" to indicate the value is estimated but the direction of the bias is uncertain.)
- MSA run but not required.

Lead

NSL-LH-10-01	Burn 1	Burn 2	Mean	%R	%RSD	Value
Sample	2.3	1.8	2.05		17.24	2.05
As	6.4	6.0	6.2	41.5	4.56	6.2

- Sample result >CRDL, RSD <±20%.
- Sample result <50% spike, no MSA required.
- Spike recovery <85% - 115%R.
- Flag data "L" as biased low.

Selenium

NSL-SS-10-10R	Burn 1	Burn 2	Mean	%R	%RSD	Value
Sample	-0.6	0.3	-0.15	-	424.2	-0.15
Spike	9.9	8.9	9.4	94.0	7.52	9.4

- Sample result <CRDL, RSD criteria not applicable.
- Sample result < 50% spike concentration
- Spike concentration acceptable
- No flags.

Thallium

NSL-LH-10-01	Burn 1	Burn 2	Mean	%R	%RSD	Value
Sample	0.6	0.3	0.45		47.13	0.45
Spike	19.0	20.7	19.85	97%	6.05	19.85

- Sample result < CRDL, RSD criteria not applicable.
- Sample result < 50% of spike result.
- Spike concentration between 85% - 115%R.
- No flags.

NSL-SS-10-01R	Burn 1	Burn 2	Mean	%R	%RSD	Value
Sample	-0.10	0.20	0.05	--	424.2	0.05
Spike	25.5	24.3	24.9	124.25%	3.41	24.9

- Sample result <CRDL, RSD criteria not applicable.
- Sample result <50% of spike result.
- Spike concentration >115% - flag data K, as biased high.

Batch 2 - Soils

Antimony

NSL-SS-10-01	Burn 1	Burn 2	Mean	%R	%RSD	Value
Sample	-1.2	2.3	0.55		449.9	1.90
Spike	149.6	149.6	149.6	124.67	0	149.6

- Sample result <CRDL, RSD Criteria not applicable.
- Sample result < 50% of spike result.
- Spike result > 115%R, flag K, as biased high.

NSL-SD-901	Burn 1	Burn 2	Mean	%R	%RSD	Value
Sample	-0.3	-0.9	-0.6		71.7	8.0
Spike	119.6	119.4	119.5	99.5	0.12	119.5

- Sample result < CRDL, RSD Criteria not applicable.
- Sample result < 50% of spike result
- Spike result acceptable.
- No flags.

Arsenic

NSL-SS-10-01	Burn 1	Burn 2	Mean	%R	%RSD	Value
Sample	40.4	34.9	37.6		10.3	37.6
Spike	59.30	51.4	55.3	88.5	10.09	55.35

- All criteria met - No flags required.

NSL-SD-9-01	Burn 1	Burn 2	Mean	%R	%RSD	Value
Sample	32.5	32.8	32.65	0	.65	32.65
Spike	50.5	51.5	51.0	91.75	1.39	51.0

- All criteria met - No flags required.

Lead

NSL-SS-10-01	Burn 1	Burn 2	Mean	%R	%RSD	Value
Sample	112.8	119.2	116.0		3.9	116.0
Spike	118.8	117.2	118.0	20	0.96	118.0

- Sample result > CRDL, RSD < ±20% (acceptable).
- Sample result > 50% of spike result; MSA required.
- Spike %R < 85%.
- MSA not done, but sample rerun on dilution.

	Burn 1	Burn 2	Mean	%R	%RSD	Value
Sample	22.2	20.5	21.35		5.63	106.75
Spike	31.3	29.3	30.3	89.5	4.67	151.5

- All criteria met, no flags required.

NSL-SD-9-01	Burn 1	Burn 2	Mean	%R	%RSD	Value
Sample	80.6	79.4	80.0		1.06	80.0
Spike	85.8	85.8	85.8	58.0	--	85.8

- Sample result >CRDL, RSD <±20% (acceptable).
- Sample result >50% of spike result, MSA required.
- Spike %R < 85%.
- MSA performed twice - Correlation Coefficient not acceptable.
- Flag data as estimated "J"

Selenium

NSL-SS-1001	Burn 1	Burn 2	Mean	%R	%RSD	Value
Sample	0.9	0.7	0.8		17.67	0.8
Spike	9.7	8.9	9.3	85	6.08	9.3

- All criteria met, no flags required.

NSL-SD-9-01

- All criteria met, no flags.

Thallium

NSL-SS-10-01

- All criteria met, no flags required.

NSL-SD-9-01

- All criteria met, no flags required.

11.0 ICP Serial Dilutions

Calcium results were out of control limits, but all other criteria were met. Samples affected are SS1001 and SD901.

Action Taken: The results for calcium are qualified as estimated and flagged "J".

12.0 Summary

12.1 Organics

NSL-LH-10-01

COMPOUND	CODE	QA FAILURE
Benzoic Acid	(J)	%RSD failure on initial calibration
2,4-Dinitro phenol	(UJ)	%RSD failure on initial calibration
3,3'-Dichlorobenzidine	(UJ)	%D failure on continuing calibration
Pyrene	(UJ)	%D failure on continuing calibration
Benzo(k)fluoranthene	(UJ)	%D failure on continuing calibration
Benzo (ghi) perylene	(UJ)	%D failure on continuing calibration

NSL-SS-10-01

COMPOUND	CODE	QA FAILURE
2,4-Dinitrophenol	(UJ)	%D failure on continuing calibration
4,6-Dinitro-2-methyl phenol	(UJ)	%D failure on continuing calibration
Naphthalene	(J)	Laboratory Flag
Di-n-butylphthalate	(B)	Method blank contaminant
Butylbenziphthalate	(B)	Method blank contaminant
Benzoic acid	(J)	Lab Flag
Phenanthrene	(J)	Lab Flag
Anthracene	(J)	Lab Flag
Benzo (a) anthracene	(J)	Lab Flag
Benzo (b) Fluoranthene	(J)	Lab Flag
Benzo (k) Fluoranthene	(J)	Lab Flag
Benzo (a) pyrene	(J)	Lab Flag
Indeno (1,2,3-Cd) pyrene	(J)	Lab Flag
Benzo (g,h,i) perylene	(J)	Lab Flag

NSL-SD-9-01

COMPOUND	CODE	QA FAILURE
2,4-Dinitrophenol	(UJ)	%D failure on continuing calibration
4,6-Dinitro-2-methylphenol	(UJ)	%D failure on continuing calibration
Di-n-butylphthalate	(B)	Method blank contaminant
Butylbenzylphthalate	(B)	Method blank contaminant

NSL-SS-10-01R

COMPOUND	CODE	QA FAILURE
2,4-Dinitrophenol	(UJ)	%D failure on continuing calibration
4,6-Dinitro-2-methylphenol	(UJ)	%D failure on continuing calibration

NSL-LH-10-02

COMPOUND	CODE	QA FAILURE
Acetone	(J)	%RSD failure on initial calibration
1,2-Dichloroethane	(UJ)	%RSD failure on initial calibration
Vinyl acetate	(UJ)	%RSD failure on initial calibration
Methylene Chloride	(B)	Method blank contaminant
Tetrachloroethane	(B)	Method blank contaminant

NSL-SS-10-02R

COMPOUND	CODE	QA FAILURE
Acetone	(UJ)	%RSD failure on initial calibration
1,2-Dichloroethane	(UJ)	%RSD failure on initial calibration
Vinyl acetate	(UJ)	%RSD failure on initial calibration

NSL-SD-9-02

COMPOUND	CODE	QA FAILURE
Bromomethane	(UJ)	%RSD failure on initial calibration
Bromoform	(UJ)	%RSD failure on initial calibration

NSL-SS-10-02

COMPOUND	CODE	QA FAILURE
Bromomethane	(UJ)	%RSD failure on initial calibration
Bromoform	(UJ)	%RSD failure on initial calibration
Methylene chloride	(B)	Method blank contaminant
Toluene	(B)	Method blank contaminant
Chloromethane	(J)	Laboratory Flag
2-Butonone	(J)	Laboratory Flag

Trip Blank

COMPOUND	CODE	QA FAILURE
Methylene chloride	(B)	Method blank contaminant
Tetrachloroethane	(B)	Method blank contaminant
Acetone	(UJ)	%RSD failure on initial calibration
1,2-Dichloroethane	(UJ)	%RSD failure on initital calibration %D failure on continuing calibration
Vinyl acetate	(UJ)	%RSD failure on initial calibration

12.2 Inorganics

NSL-LH-1001

COMPOUND	CODE	QA FAILURE
Fluoride	(L)	Exceeded holding time
Chloride	(L)	Exceeded holding time
Nitrate/Nitrite	(L)	Exceeded holding time
Sulfate	(L)	Exceeded holding time
Silver	(B)	Method blank contaminant
Arsenic	(J)	Matrix spike failure, furnace QA failure
Lead	(L)	Low matrix spike, %R, and furnace QA failure
Selenium	(L)	Furnace QA failure

NSL-SS-1001

COMPOUND	CODE	QA FAILURE
Nickel	(B)	Method blank contaminent, low matrix spike %R (L)
Silver	(B)	Field blank contaminant, low matrix spike %R (L)
Sodium	(B)	Field blank contaminant
Calcium	(J)	Field blank contaminant, ICP serial dilution failure
Barium	(J)	High LCS, low matrix spike %R
Potassium	(K)	High LCS
Arsenic	(J)	Low matrix spike %R, furnace QA failure
Beryllium	(L)	Low matrix spike %R
Cadmium	(L)	Low matrix spike %R
Chromium	(L)	Low matrix spike %R
Cobalt	(L)	Low matrix spike %R
Copper	(L)	Low matrix spike %R
Selenium	(L)	Low matrix spike %R
Thallium	(L)	Low matrix spike %R
Vanadium	(L)	Low matrix spike %R
Zinc	(L)	Low matrix spike %R
Lead	(J)	Low matrix spike %R, furnace QA failure
Antimony	(K)	High matrix spike %R
Manganese	(R)	Very low matrix spike %R

NSL-SD-9-01

COMPOUND	CODE	QA FAILURE
Nickel	(B)	Method blank contaminant, low matrix spike (L)
Silver	(B)	Field blank contaminant, low matrix spike %R (L)
Sodium	(B)	Field blank contaminant
Calcium	(B)	Field blank contaminant, ICP serial dilution failure
Arsenic	(J)	Low matrix spike %R, furnace QA failure
Barium	(J)	High LCS, low matrix spike %R
Beryllium	(L)	Low matrix spike %R
Cadmium	(L)	Low matrix spike %R
Chromium	(L)	Low matrix spike %R
Cobalt	(L)	Low matrix spike %R
Copper	(L)	Low matrix spike %R
Selenium	(L)	Low matrix spike %R
Thallium	(L)	Low matrix spike %R
Vanadium	(L)	Low matrix spike %R
Zinc	(L)	Low matrix spike %R
Lead	(J)	Low matrix spike %R, furnace QA failure
Antimony	(K)	High matrix spike %R
Manganese	(R)	Very low matrix spike %R
Potassium	(K)	High LCS %R

NSL-SS-10-01B

COMPOUND	CODE	QA FAILURE
Calcium	(B)	Method blank contaminant
Silver	(B)	Method blank contaminant
Sodium	(B)	Method blank contaminant
Zinc	(B)	Method blank contaminant
Arsenic	(L)	Low matrix spike %R
Lead	(L)	Low matrix spike %R

Table 2. Results of VOC Analysis on Soil and Aqueous Samples Taken from the Leachate Drainage Ways, Novak Sanitary Landfill

	NSL-LH-10-02 (ug/L)		NSL-SD-9-02 (ug/Kg)		NSL-SS-10-02 (ug/Kg)		NSL-SS-10-02R (ug/L)		Trip Blank (ug/L)	
Chloromethane	<10		<12		4	J	<10		<10	
Bromomethane	<10		<12	UJ	<14	UJ	<10		<10	
Vinyl chloride	<10		<12		<14		<10		<10	
Chloroethane	<10		<12		<14		<10		<10	
Methylene chloride	2	B	<6		3	B	<5		6	B
Acetone	44	J	<12		230		<10	UJ	<10	UJ
Carbon disulfide	<5		<6		<7		<5		<5	
1,1-dichloroethene	<5		<6		<7		<5		<5	
1,1-dichloroethane	<5		<6		<7		<5		<5	
1,2-dichloroethene (total)	<5		<6		<7		<5		<5	
Chloroform	<5		<6		<7		<5		<5	
1,2-dichloroethane	<5	UJ	<6		<7		<5	UJ	<5	UJ
2-butanone	<10		<12		15	J	<10		<10	
1,1,1-trichloroethane	<5		<6		<7		<5		<5	
Carbon tetrachloride	<5		<6		<7		<5		<5	
Vinyl acetate	<10	UJ	<12		<14		<10	UJ	<10	UJ
Bromodichloromethane	<5		<6		<7		<5		<5	
1,2-dichloropropane	<5		<6		<7		<5		<5	
cis-1,3-dichloropropene	<5		<6		<7		<5		<5	
Trichloroethene	<5		<6		<7		<5		<5	
Dibromochloromethane	<5		<6		<7		<5		<5	
1,1,2-trichloroethane	<5		<6		<7		<5		<5	
Benzene	<5		<6		<7		<5		<5	
trans-1,3-dichloropropene	<5		<6		<7		<5		<5	
Bromoform	<5		<6	UJ	<7	UJ	<5		<5	
4-methyl-2-pentanone	<10		<12		<14		<10		<10	
2-hexanone	<10		<12		<14		<10		<10	
Tetrachloroethene	1	B	<6		<7		<5		1	B
1,1,2,2-tetrachloroethane	<5		<6		<7		<5		<5	
Toluene	18		<6		2	B	<5		5	
Chlorobenzene	<5		<6		<7		<5		<5	
Ethylbenzene	<5		<6		<7		<5		<5	
Styrene	<5		<6		<7		<5		<5	
Xylenes	<5		<6		<7		<5		<5	

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Table 3. Results of BNA Analyses on Aqueous and Soil Samples Taken from the Leachate Drainage Ways, Novak Sanitary Landfill

	NSL-LH-10-01 (ug/L)	NSL-SD-9-01 (ug/Kg)	NSL-SS-10-01 (ug/Kg)	NSL-SS-10-01R (ug/L)
Phenol	<50	<420	<480	<10
Bis(2-chloroethyl)ether	<50	<420	<480	<10
2-Chlorophenol	<50	<420	<480	<10
1,3-Dichlorobenzene	<50	<420	<480	<10
1,4-Dichlorobenzene	<50	<420	<480	<10
Benzyl alcohol	<50	<420	<480	<10
1,2-Dichlorobenzene	<50	<420	<480	<10
2-Methylphenol	<50	<420	<480	<10
Bis(2-chloroisopropyl)ether	<50	<420	<480	<10
4-Methylphenol	93	<420	600	<10
N-Nitroso-di-n-propylamine	<50	<420	<480	<10
Hexachloroethane	<50	<420	<480	<10
Nitrobenzene	<50	<420	<480	<10
Isophorone	<50	<420	<480	<10
2-Nitrophenol	<50	<420	<480	<10
2,4-dimethylphenol	<50	<420	<480	<10
Benzoic acid	460 J	<2000	100 J	<50
Bis(2-chloroethoxy)methane	<50	<420	<480	<10
2,4-Dichlorophenol	<50	<420	<480	<10
1,2,4-Trichlorobenzene	<50	<420	<480	<10
Naphthalene	<50	<420	410 J	<10
4-Chloroaniline	<50	<420	<480	<10
Hexachlorobutadiene	<50	<420	<480	<10
4-Chloro-3-methylphenol	<50	<420	<480	<10
2-Methylnaphthalene	<50	<420	<480	<10
Hexachlorocyclopentadiene	<50	<420	<480	<10
2,4,6-Trichlorophenol	<50	<420	<480	<10
2,4,5-Trichlorophenol	<250	<2000	<2300	<50
2-Chloronaphthalene	<50	<420	<480	<10
2-Nitroaniline	<250	<2000	<2300	<50
Dimethyl phthalate	<50	<420	<480	<10
Acenaphthylene	<50	<420	<480	<10
2,6-Dinitrotoluene	<50	<420	<480	<10
3-Nitroaniline	<250	<2000	<2300	<50
Acenapthalene	<50	<420	<480	<10
2,4-Dinitrophenol	<250 UJ	<2000 UJ	<2300 UJ	<50 UJ
4-Nitrophenol	<250	<2000	<2300	<50
Dibenzofuran	<50	<420	<480	<10
2,4-Dinitrotoluene	<50	<420	<480	<10
Diethylphthalate	<50	<420	<480	<10
4-Chlorophenyl-phenylether	<50	<420	<480	<10
Fluorene	<50	<420	<480	<10

Table 3. Results of BNA Analyses on Aqueous and Soil Samples Taken from the Leachate Drainage Ways, Novak Sanitary Landfill

	NSL-LH-10-01 (ug/L)	NSL-SD-9-01 (ug/Kg)	NSL-SS-10-01 (ug/Kg)	NSL-SS-10-01R (ug/L)
4-Nitroaniline	<250	<2000	<2300	<50
4,6-Dinitro-2-Methylphenol	<250	<2000 UJ	<2300 UJ	<50 UJ
N-Nitrosodiphenylamine	<50	<420	<480	<10
4-Bromophenyl-phenylether	<50	<420	<480	<10
Hexachlorobenzene	<50	<420	<480	<10
Pentachlorophenol	<250	<2000	<2300	<50
Phenanthrene	<50	<420	350 J	<10
Anthracene	<50	<420	76 J	<10
Di-n-butylphthalate	<50	1700 B	1500 B	<10
Fluoranthene	<50	<420	570	<10
Pyrene	<50 UJ	<420	710	<10
Butylbenzylphthalate	<50	240 B	120 B	<10
3,3'-Dichlorobenzidine	<100 UJ	<840	<960	<20
Benzo(a)anthracene	<50	<420	320 J	<10
Chrysene	<50	<420	500	<10
Bis(2-ethylhexyl)phthalate	<50	<420	1200	<10
Di-n-octyl phthalate	<50	<420	<480	<10
Benzo(b)Fluoranthene	<50	<420	310 J	<10
Benzo(k)Fluoranthene	<50 UJ	<420	330 J	<10
Benzo(a)pyrene	<50	<420	320 J	<10
Indeno(1,2,3-cd)pyrene	<50	<420	240 J	<10
Dibenz(a,h)anthracene	<50	<420	<480	<10
Benzo(g,h,i)perylene	<50 UJ	<420	230 J	<10

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Table 4. Possible Identification of Tentatively Identified Compounds Detected in Semivolatile Analyses

Sample NSLLH1001

	Conc.(ug/L)	Probable Compounds	Probability (%)
Unknown #1	29	None found	--
Unknown #2	49	methylpropyl ether	25
		n-nitrosodimethylamine	25
		morpholine	15
Unknown #3	19	2-methylpentanoic acid	70
		methylpropyl ether	52
		n-nitrosodimethylamine	36
Unknown #4	9	None found	--
Unknown #5	8	4-methylhexanoic acid	51
		butanoic acid anhydride	24
		2-propenamide	15
		tetrahydro-2-furanmethanamine	15
		butanoic acid, methyl ester	11
		isocyanatoethane	11
Unknown #6	21	cyclohexanecarboxylic acid	24
		2-ethyl-hexanoic acid	11
		1-propene, 1-(methylthio)-(Z)-	11
		1,4-dioxane	11
		1-propene, 1-(methylthio)-(E)-	11
Unknown #7	7	1,3-pentanediol, 2,2,4-trimethyl-	86
		2-azetidinone, 3,3-dimethyl-	25
		1,3-propanediol, 2,2-dimethyl-	15
		butane, 2,2,3-trimethyl-	11
Unknown #8	15	1,3,5-cycloheptatriene	34
		benzeneacetic acid	20
		spiro[3,3]hepta-1,5-diene	20
		propanedioic acid, phenyl-	20

	Conc.(ug/L)	Probable Compounds	Probability (%)
Unknown #9	19	benzoic acid, 4-methyl-	93
		benzoic acid, 3-methyl-	88
		benzoic acid, 2-methyl-	63
		benzeneacetic acid	59
		propanedioic acid, phenyl-	51
		benzene, (2-methoxyethyl)-	36
		benzene, (1-nitropropyl)-	31
Unknown #10	6	6-octen-1-ol, 7-methyl-3-methylene-	25
		bicyclo[3.1.0]hex-3-en-2-one, 4-methyl-1-(1-methylethyl)-	11
Unknown #11	15	2,4-hexadiene, 3-methyl-	26
		2,4-hexadiene, 2-methyl-	26
		cyclopentene, 1,5-dimethyl-	20
		cyclohexene, 4-methyl-	20
		2,4-heptadiene, (E,E)-	20
		2,4-nonadienal, (E,E)-	15
		1H-imidazole, 2-ethyl	15
Unknown #12	4	cis-terpin hydrate	52
		1-propanamine	25
		silane, trimethyl-	25
		guanidine	15
		5-hexyn-3-ol	15
		2-pentanol, 2,4-dimethyl-	15
		oxirane, tetramethyl-	15
Unknown #13	10	phosphonic acid, bis(1-methylethyl) ester	25
		cyclopentane, 1-ethyl-1-methyl-	13
Unknown #14	11	benzene, methyl(1-methylethyl)-	58
		benzene, 1-methyl-3-(1-methylethyl)-	47
		benzene, 1-methyl-2-(1-methylethyl)-	47
		1-chloromethyl-3,5-dimethylbenzene	37
		[1,2,4]triazolo[1,5-a]pyridine	33
		cyanic acid, phenyl ester	31
		benzene, (1,1,2-trimethylpropyl)-	29
Unknown #15	6	benzene, (1-methyl-3-butenyl)-	32
		benzene, 1-methyl-4-(4-methyl-4-pentenyl)-	20

	Conc.(ug/L)	Probable Compounds	Probability (%)
Unknown #16	3	2-pentene, 5-bromo-2,3-dimethyl-	18
		bicyclo[3.1.1]heptan-3-one, 2,6,6-trimethyl	18
		2-octen-4-one, 2-methyl-	15
		2-pentene, 4,4-dimethyl-	12
		3-hexen-2-one	12
		cyclopropane, 1,1,2,2-tetramethyl	11
		2-pentene, 4,4-dimethyl-, (Z)	11
Unknown #17	5	cyclopropane, 1-(1-methylethyl)-2-(2-methyl-1-methylenepropyl)-	36
		ethanone, 1-(1-methyl-2-cyclopenten-1-yl)-	36
		2,4-octadienal, (E,E)-	32
		bicyclo[2.2.1]heptan-2-one, 1,3,3-trimethyl-	31
		2,4-decadienal, (E,E)-	25
		2,4-nonadienal	25
		2,4-nonadienal	20
Unknown #18	5	2-hexanol	31
		hexane, 1,6-dimethoxy-	25
		acetaldehyde, methoxy-	15
		propanoic acid, 2-hydroxy-, methyl ester,	15
		2,3-butanediol	15
Unknown #19	10	benzenebutanoic acid, 2,5-dimethyl-	73
		benzene, ethenyl-, dimethyl deriv	47
		benzenepropanoic acid, .beta., .beta.-dimethyl-,methyl ester	30
		benzenepropanoic acid, .alpha., .alpha.-dimethyl-thenyl ester	26
		benzene, (1,1-dimethylbutyl)-	25
Unknown #20	5	ethanol, 2-chloro-, phosphate	67

Table 5. Possible Identification of Tentatively Identified Compounds Detected in Semivolatile Analyses

Sample NSLSD901

	Conc.(ug/L)	Probable Compounds	Probability (%)
Unknown #1	14	4-penten-2-one, 4-methyl-	30
Unknown #2	19	Hexane, 2,3,5-trimethyl-	41
Unknown #3	18	1,3-butadien-1-ol, acetate	20
Unknown #4	95	None Found	
Unknown #5	61	Butane, 2,3-dimethyl-	36
		Ethanone, 1-oxiranyl	27
		Furan, tetrahydro-2-methyl	25
Unknown #6	7	Oxazole	27
Unknown #7	7	Benzenamine, N,N,4-trimethyl	36
		Benzenamine, N,N,3-trimethyl	36
		Methanamine, N-(phenylmethylene)-, N-oxide	36
		Pyridine, 3-(2-propenyloxy)-	26
		3-H-Pyrazolo[3,4-c]pyridin-3-one, 1,2-dihydro-	25
		3,3'-Bi-1H-pyrazole	25
		Formamide, N-(2-methylphenyl)-	25
Unknown #8	9	11-Dodecen-2-one	45
		8-Nonen-2-one	42
		2-Nonanone	35
		Undecanal, 2,6,10-trimethyl-	29
		2-Heptanone, 4-methyl-	25
		2-Heptanone, 6-methyl-	25
		2-Heptanone	20

	Conc.(ug/L)	Probable Compounds	Probability (%)
Unknown #9	11	1-Dotriacontanol	79
		Phosphonic acid, dioctadecyl ester	75
		1-Hentetracontanol	70
		Decane, 1,1'-oxybis-	60
		1-Pentadecanol	59
		1-Tetracosanol	54
		17-Pentatriacontene	53
Unknown #10	76	None Found	
Unknown #11	27	Iron, tricarbonyl[N-(phenyl-2-pyridinylmethylene) benzenamine-N,N']	89
		Tetratetracontane	89
		Docosane	86
		Hexadecane	79
		Octacosane	76
		Heptadecane	76
		Heptacosane	76
Unknown #12	56	Iron, tricarbonyl[N-(phenyl-2-pyridinylmethylene)benzenamine-N,N']	89
		Tetratetracontane	86
		Octacosane	83
		Hexadecane	81
		Pentatriacontane	80
		Docosane	79
		Tetracosane	79
Unknown #13	14	1,2-Benzisothiazole, 3-methoxy-	42
		1H-Purin-2-amine, 6-methoxy-	41
		Thiazolo[3,2-a]pyridinium, 8-hydroxy-3-methyl-,hydroxide, inner salt	31
		6H-Purin-6-one, Z-amino-1,7-dihydro-7-methyl-	30
		6H-Purin-6-one, 1,7-dihydro-2-(methylamino)-	30
		Acetamide, 2,2,2-trichloro-N-(4-nitrophenyl)-	29
		6H-Purin-6-one, 2-amino-1, 7-dihydro-1-methyl-	28

	Conc.(ug/L)	Probable Compounds	Probability (%)
Unknown #14	14	Heptacosane	83
		Tetratetracontane	79
		Hexatriacontane	79
		Pentatriacontane	76
		Docosane	76
		Iron, tricarbonyl[N-(phenyl-2-pyridinylmethylene)benzenamine-N,N']-	71
		Tritetracontane	71
Unknown #15	15	Naphthalene, 1,8-di-1-propynyl-	25
		Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-1,8a-dimethyl-7-(1-methylethenyl)-	15
		3H-3a,7-Methanoazulene, 2,4,5,6,7,8-hexahydro-1,4,9,9-tetramethyl-	15
		[1,1'-Biphenyl]-4,4'-dicarbonitrile	11
		Cyclopropene, 1,3-dimethyl-2,3-bis (trifluoromethyl)-	11
		Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(1,methylethylidene)-	11
Unknown #16	24	None Found	--
Unknown #17	67	[1,1'-Biphenyl-]2,2'-dicarbonitrile	25
		5H-Dibenzo[a,d]cycloheptene, 5-methylene-	25
		1H-Cyclopropa[a]naphthalene, 1a,2,3,3a,4,5,6,7b-octahydro-1,1,3a,7-tetramethyl-	24
		Propanedinitrile, 3,2,'-(2,5-cyclohexadiene-1,4-diylidene)bis-	20
		Ethanone, 1-[5-[(5-methyl-2-furanyl) methyl-]2-furanyl]-	20
		Cyclopentanone, 5-furfurylidene-2,2,3-trimethyl-	20
		Naphthalene, 1,8-di-l-propynyl-	20

	Conc.(ug/L)	Probable Compounds	Probability (%)
Unknown #18	22	Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-1,8a-dimethyl-7-(1-methylethenyl)-	64
		1-Naphthalenol, decahydro-1,4a-dimethyl-7-(1-methylethylidene)-	41
		3H-v-Triazolo[4,5-d]pyrimidine, 7-[(3-methyl-2-butenyl)amino]-	35
		Naphthalene, 1,2,4a,5,6,8a-hexahydro-4,7-dimethyl-1-(1-methylethyl)-	30
		1H-Cyclopropa[a]naphthalene, 1a,2,3,3a,4,5,6,7b-octahydro-1,1,3a,7-tetramethyl-	26
		Cyclopentanone, 5-furfurylidene-2,2,3-trimethyl-	26
		Naphthalene, 1,2,4a,5,6,8a-hexahydro-4,7-dimethyl-1-(1-methylethyl)-	25
Unknown #19	21	None Found	--
Unknown #20	60	5.alpha.,14.beta.-Pregnan-15-one	18

Table 6. Possible Identification of Tentatively Identified Compounds Detected in Semivolatile Analyses

Sample NSL SS1001

	Conc.(ug/L)	Probable Compounds	Probability (%)
Unknown #1	8	None Found	--
Unknown #2	8	2-Propanone	32
		4-Penten-2-one, 4-methyl-	30
Unknown #3	12	Hexane, 2,3,5-trimethyl	35
		2(3H)-Furanone, dihydro-5-propyl	25
Unknown #4	13	5-Hexen-2-one, 5-methyl	11
		Oxazole, 2,4-dimethyl	11
Unknown #5	50	None Found	--
Unknown #6	29	Butane, 2,3-dimethyl	25
		2-Buten-1-ol, 2-methyl	25
		2-Buten-1-ol, 3-methyl	25
		Pentanoic acid, 2-methyl	11
Unknown #7	10	Benzene, 1,2,3,4-tetramethyl	94
		Benzene, 1,2,3,5-tetramethyl	94
		Benzene, 1,2,4,5-tetramethyl	87
		Benzene, 2-ethyl-1,3-dimethyl	87
		Benzene, 1-ethyl-3,5-dimethyl	87
		Benzene, 1-ethyl-2,3-dimethyl	86
		Benzene, 1-ethyl-2,4-dimethyl	86
Unknown #8	10	Propanedioic acid, phenyl	78
		Benzeneacetic acid	78
		Benzene, (iodomethyl)	35
		Sprio[3,3]hepta-1,5-diene	26
		1,3,5-Cycloheptatriene	25
		Benzene, methyl	11
Unknown #9	42	None Found	--
Unknown #10	8	1H-1,2,4-Triazole, 1-methyl	25

	Conc.(ug/L)	Probable Compounds	Probability (%)
Unknown #11	7	Eicosane, 10-methyl-	83
		Heptacosane	78
		Hexadecane	78
		Decane, 2,3,5-trimethyl-	78
		Heptadecane, 2,6,10,15-tetramethyl-	78
		Tridecane, 6-propyl	78
		Pentadecane	78
Unknown #12	4	Dodecanamide, N,N-bis(2-hydroxyethyl)	55
		Glycine, N-methyl-N-(1-oxododecyl)-	46
		Decanoic acid	29
		Heptanoic acid	28
		Pentanoic acid	27
		Pentanoic acid, 3-methyl-	25
		Isoxazolidine, 5-ethyl-2,4-dimethyl, trans-	25
Unknown #13	9	9-Hexadecenoic acid	89
		Oxacyclotetradecane-2,11-dione, 13-methyl-	76
		15-Tetracosenoic acid, methyl ester, (2)	67
		1-Tetradecanol	39
		2-Heptenal	35
		Cyclotetradecane	31
		Cyclohexadecane	31
Unknown #14	4	Sulfuric acid, 5,8,11-heptadecatrienyl methyl ester	70
		Spiro[2.9]dodeca-4,8-diene	42
		9-Oxabicyclo[6.1.0]non-4-ene	41
		Bicyclo[8.2.0]dodeca-3,7-diene, 11,11-dimethyl	38
		5-Undecen-3-yne, (E)	31
		1,4-Cyclohexadiene	30
		1,3-Cyclohexadiene	30
Unknown #15	26	Sulfur, mol.	47
Unknown #16	39	Tetradecanoic acid, tetradecyl ester	57
Unknown #17	53	Tetradecanoic acid, tetradecyl ester	25
Unknown #18	150	Tetradecanoic acid, hexadecyl ester	26
		Tetradecanoic acid, tetradecyl ester	25

	Conc.(ug/L)	Probable Compounds	Probability (%)
Unknown #19	26	1,1'-Bicycloheptyl	30
		1,1'-Bicyclohexyl, 4,4'-dimethyl-	28
		Nonadecanenitrile	20
		Hexadecanenitrile	20
		14-Pentadecenoic acid	18
		Cyclohexene, 1-decyl-	15
		Cyclohexane, 1-(cyclohexylmethyl)-4 methyl-, trans-	15
Unknown #20	91	Benz[c]acridine, 5,10-dimethyl-	20
		Benz[c]acridine, 7,8-dimethyl-	20
		Benz[c]acridine, 5,9-dimethyl-	20
		Benz[c]acridine, 7,9-dimethyl-	15

Table 7. Possible Identification of Tentatively Identified Compounds Detected in Semivolatile Analyses

Sample SBLK70390J

	Conc.(ug/L)	Probable Compounds	Probability (%)
Unknown #1	6	2-pyrrolidinone, 1-methyl-	89
		1H-Azepine, hexahydro-	52
		2-propenamide, N,N-dimethyl-	30
		1,3-cyclopentanedione	25
		3-penten-2-one, 4-amino-	20
		furazan, dimethyl-	20
		1H-tetrazaborole, 4,5-dihydro-1,4-dimethyl-	20

Table 8. Possible Identification of Tentatively Identified Compounds Detected in Semivolatile Analyses

Sample NSLSS1001 - Rinsate

	Conc.(ug/L)	Probable Compounds	Probability (%)
Unknown #1	6	None Found	--

Table 9. Possible Identification of Tentatively Identified Compounds Detected in Semivolatile Analyses

Blank SBLK70690F

	Conc.(ug/L)	Probable Compounds	Probability (%)
Unknown #1	14	2-Propanone	32
		Butane	30
Unknown #2	11	2(3H)-Furanone, dihydro-5-propyl-	25
Unknown #3	22	4H-1,2,4-Triazole, 4-ethyl	11
Unknown #4	4	None Found	--
Unknown #5	6	Benzene, diethyl	20
		2-Cyclohexen-1-ol, 2-methyl-5-(1-methylethenyl)-, trans -	15
		2-Cyclohexen-1-ol, 2-methyl-5-(1-methylethenyl)-, cis-	15
		Pyridine, 2-ethyl-4,6-dimethyl-	11
		Benzaldehyde, 4-ethyl-	11
Unknown #6	28	Phosphonic acid, dioctadecyl ester	89
		3-Eicosene	65
		9-Eicosene	50
		1-Dotriacontanol	38
		1-Heptadecanol	37
		5-Eicosene	37
		Cyclopentane, 1-ethyl-3-methyl-, cis	30
Unknown #7	42	Phosphoric acid, 2-ethylhexyl diphenyl ester	28
Unknown #8	6	None Found	--
Unknown #9	4	1-Pentadecanol	52
		9-Eicosene	26
		1H-1,2,4-Triazole, 1-ethyl-	11
		1H-1,2,4-Triazole, 1-butyl-	11

	Conc.(ug/L)	Probable Compounds	Probability (%)
Unknown #10	51	1,2-Benzenedicarboxylic acid, bis (1-methylethyl) ester	52
		1,2-Benzenedicarboxylic acid, dipropyl ester	43
		1,2-Benzenedicarboxylic acid, butyl cyclohexyl ester	41
		Benzene, 1-isocyanato-3-methoxy-	36

Table 10
Results of Pesticide/PCBs Analysis on Soil and Aqueous Samples
Taken from the Leachate Drainage Ways, Novak Sanitary Landfill

Parameter	LH1001 (ug/L)	SS1001R (ug/L)	SS1001 (ug/g)	SD901 (ug/g)
Alpha-BHC	<0.05	<0.05	<12	<10
Beta-BHC	<0.05	<0.05	<12	<10
Delta-BHC	<0.05	<0.05	<12	<10
Lindane	<0.05	<0.05	<12	<10
Heptachlor	<0.05	<0.05	<12	<10
Aldrin	<0.05	<0.05	<12	<10
Heptachlor epoxide	<0.05	<0.05	<12	<10
Endosulfan I	<0.05	<0.05	<12	<10
Dieldin	<0.01	<0.01	<23	<20
4,4'-DDE	<0.01	<0.01	<23	<20
Endrin	<0.01	<0.01	<23	<20
Endosulfan II	<0.01	<0.01	<23	<20
4,4'-DDD	<0.01	<0.01	<23	<20
Endosulfan sulfate	<0.01	<0.01	<23	<20
4,4'-DDT	<0.01	<0.01	<23	<20
Methoxychlor	<0.5	<0.5	<120	<100
Endrin ketone	<0.1	<0.1	<23	<20
Alpha-chlordane	<0.5	<0.5	<120	<100
Gamma-chlordane	<0.5	<0.5	<120	<100
Toxaphene	<1.0	<1.0	<230	<200
Aroclor-1016	<0.5	<0.5	<120	<100
Aroclor-1221	<0.5	<0.5	<120	<100
Aroclor-1232	<0.5	<0.5	<120	<100
Aroclor-1242	<0.5	<0.5	<120	<100
Aroclor-1248	<0.5	<0.5	<120	<100
Aroclor-1254	<1.0	<1.0	<230	<200
Aroclor-1260	<1.0	<1.0	<230	<200

Project # NJ06401
(M001\EXCEL\NOVAKP.XLS)

Table 11. Results of Metal Analyses on Soil and Aqueous Samples Taken from the Leachate Drainage Ways, Novak Sanitary Landfill

Parameter	NSL-LH-10-01 (ug/L)		NSL-SS-10-01 (mg/Kg)		NSL-SD-9-01 (mg/Kg)	
Alumium	69300		9980		17500	
Antimony	350		<1.9		<1.8	
Arsenic	26.5	J	9.30	J1/	7.3	J1/
Barium	4550		169	J1/	80.1	J1/
Beryllium	11.4		1.10	L	2	L
Cadmium	83		10.2	L	8.8	L
Calcium	1380000		46600	J	2630	B
Chromium	212		20.1	L	23.6	L
Cobalt	118		7.8	L	17.2	L
Copper	286		22.3	L	21.8	L
Iron	331000		33100		28500	
Lead	644	L	26.4	J1/	11.9	J
Magnesium	130000		1710		2080	
Manganese	16200		1110	R	1140	R
Mercury	<2		<0.13		<0.13	
Nickel	231		22.70	B	35.1	B
Potassium	56700		1070	K	1580	K
Selenium	2.0	L	<0.49	L	<0.44	L
Silver	28.5	B	2.8	B	2.0	B
Sodium	91000		170	B	59.4	B
Thallium	<4.0		<0.99	L	<0.89	L
Vanadium	324		34.70	L	33.5	L
Zinc	3310		157	L	87.2	L
Cyanide	<5		<1.6		<1.5	

1/ J flag required because different QC failures indicated bias in different directions (L and K).

Project # NJ06401
(M001\EXCEL\NOV1I.XLS)

Table 11 continued. Results of Metal Analyses on Field Blank
Taken from the Leachate Drainage Ways, Novak Sanitary Landfill

Parameter	NSL-SS-10-01B (ug/L)	
Alumium	<60	
Antimony	<60	
Arsenic	<3	L
Barium	<32	
Beryllium	<1	
Cadmium	<5	
Calcium	561	B
Chromium	<10	
Cobalt	<20	
Copper	10.3	
Iron	192	
Lead	<3	L
Magnesium	<70	
Manganese	7.4	
Mercury	<0.4	
Nickel	<15	
Potassium	<830	
Selenium	<2.0	
Silver	9.4	B
Sodium	367	B
Thallium	<4	
Vanadium	<11	
Zinc	22.2	B
Cyanide	<5	

1/ J flag required because different QC failures indicated bias in different directions (L and K).

Project # NJ06401
(M001\EXCEL\NOV11.1)

Table 12. Results of Classical Inorganic Analyses on Soil and Aqueous Samples Taken from the Leachate Drainage Ways, Novak Sanitary Landfill

Parameter	NSL-LH-10-01 (mg/L)
Alkalinity	69
Chlorides	64 L
Fluorides	6.4 L
Nitrates/Nitrites	<0.2 L
Sulfates	9.9 L
Ammonia	0.8
COD	430
Phenols	0.13
TDS	1300
TOC	160
Turbidity	1000

PROJECT # NJ06401
(M001\EXCEL\NOVAKCI2.XLS)

Table 13. Results of Contaminates found in the Method and Calibration Blanks
Leachate Drainage Ways, Novak Sanitary Landfill

Aqueous Matrix - Prep Batch 2304CW

	Element	Conc. found (ug/L)	5X conc. (ug/L)
Method Blank			
	Sodium	179	895
Calibration Blank			
	Calcium	281.3	1406.5
	Copper	8.4	42
	Potassium	1112	5560
	Sodium	266.3	1331.5
	Silver	8.8	44
	Selenium	3	15
	Zinc	19.4	97

Soil Matrix - Prep Batch 1526CS

	Element	Conc. found (ug/g)	5x conc. (ug/g)
Method Blank			
	Calcium	11.238	56.19
	Copper	1.65	8.25
	Sodium	29.28	146.4
	Zinc	1.616	8.08
Calibration Blank			
	Nickel	37.1	37.1

Project # NJ06401
(M001\EXCEL\NTBL2.XLS)

Narrative Laboratory Summary

R E P O R T T O

Geraghty & Miller, Inc.
290 Vincent Avenue
Hackensack, NJ 07601

Attn: Ms. Jackie Baron

Work ID: Novak Surface Sediments
Work Order: 90-06-403 & 90-07-305

P.O. No.: NJ06401

NET Atlantic, Cambridge Division
12 Oak Park
Bedford, MA 01730

NET NATIONAL ENVIRONMENTAL TESTING, INC.

NET Atlantic, Inc.
Cambridge Division
12 Oak Park
Bedford, MA 01730
Tel: (617) 275-3535
Fax: (617) 275-7411

(Formerly Cambridge Analytical Associates, Inc.)

August 20, 1990

Ms. Jackie Baron
Geraghty & Miller, Inc.
290 Vincent Ave.
Hackensack, NJ 07601

RE: Data Package for Novak Site

Dear Ms. Baron:

Enclosed please find the data package for samples from the Novak site recieved at our facility June 28th and July 27th. Samples received on June 28th were logged-in as NET work order 9006403 for ABN's, VOA's, pesticides, metals and inorganics. Samples received on July 27th were logged-in as NET work order 9007305 for VOA analysis. These latter samples were performed as a result of missed holding times for the VOA samples in case 9006403.

Soil and aqueous sample results are reported together in the ABN and VOA packages. The metals analysis for soil and aqueous samples are reported in separate packages.

No unusual occurrences were reported for the inorganics analysis.

The matrix spike and duplicate samples for the aqueous VOA analysis showed high recoveries and RPD for toluene. Batch QC is provided for soil VOA samples.

The associated aqueous blank for the ABN analysis showed trace contamination of phthalate and naphthalene. Both were below the action limits according to the EPA's CLP SOW. One acid surrogate was out of CLP control limits in samples NSLLH1001 and NSLSS1001R. Sample NSLSS1001R was extracted for base neutrals only. Batch QC is supplied for both soil and aqueous samples.

Several continuing calibration standards failed to meet the percent difference requirements due to matrix carryover from samples not associated with this case.

NET

The aqueous package for metals shows the duplicate analysis is out of control limits for iron. Inability to homogenize the particulate portion of the sample is believed to be responsible. Arsenic and lead digestion spike recoveries were out of control limits. The IDL for mercury was raised due to the necessity of using a reduced sample volume. The field blank was used for the cyanide spike.

Digestion spike recoveries, for the soil samples, were all out of control windows except for mercury and cyanide. The post digestion spike showed excellent recoveries except for manganese. This indicates probable matrix interference. Aluminum and lead duplicates were out of control limits.

If you have any questions regarding this data package, or any other matter, please do not hesitate to call.

Sincerely,

D. Wesley Miller
Project Manager

Chain-of-Custody

GE[illegible]GHTY & M[illegible]ER, INC.
Ground-Water Consultants

CHAIN-OF-CUSTODY RECORD

Page 1 of 2

Project Number NJT06401
Project Location NSL
Laboratory NET - Cambridge
Sampler(s) A. Rana, J. Mossinger

SAMPLE BOTTLE / CONTAINER DESCRIPTION

SAMPLE IDENTITY	Date Sampled	VOA Soils wide mouth w/ septa vials	ABN / PCB/Pest Soils wide mouth Jars	Metals Total CN Soils Total plastic Jars	Phenols Aqueous	PCB/Pest Aqueous	ABN Aqueous	Tot. Metals & Hardness Aqueous	Sulfate, Cl, F, TDS, Turb., Alk. Aqueous	Total CN Aqueous	Ammonia/ Nitrate/ Nitrite Aqueous	TOTAL
NSL-Lh-10-01	6-27-90	—	—	—	1	1	1	1	1	1	1	
NSL-SS-10-01	6-27-90	1	1	1	—	—	—	—	—	—	—	
NSL-Sd-9-01	6-27-90	1	1	1	—	—	—	—	—	—	—	
NSL-SS-10-01R	6-27-90	—	—	—	—	1	—	1*	—	1	—	
Trip Blank	Lab Supplied	—	—	—	—	—	—	—	—	—	—	

*NO Hardness DUM

Total No. of Bottles/ Containers

Relinquished by: A. Rana Organization: GHM Date 6/27/90 Time 1600
Received by: Organization: Date / / Time
Seal Intact? Yes No N/A

Relinquished by: Organization: Date / / Time
Received by: Organization: Date / / Time
Seal Intact? Yes No N/A

Special Instructions/Remarks: NSL-SS-10-01R = Field Rinsate Blank
~~Soils [illegible]~~ ATR

Delivery Method: ☐ In Person ☒ Common Carrier Fed-X ☐ Lab Courier ☐ Other

AR301573

018

Geraghty & Miller, Inc.
Ground-Water Consultants

CHAIN-OF-CUSTODY RECORD

9006403

Page 2 of 2

Project Number NJ06401

Project Location NSL

Laboratory NET - Cambridge

Sampler(s) AJR, S.M.

SAMPLE IDENTITY	Date Sampled	VOA Vials Aqueous	BNA Aqueous 1/2 gal/jug	TOC, COD							TOTAL
NSL-Lh-10-01	6-27-90	3	—	1							11
NSL-SS-10-01	6-27-90	—	—	—							3
NSL-Sd-9-01	6-27-90	—	—	—							3
NSL-SS-10-01R	6-27-90	2	—	—							6
Trip Blank	Lab Supplied	2	—	—							2

Total No. of Bottles/Containers: 25

AR301574

Relinquished by: A. Ree	Organization: G&M	Date 6/27/90 Time 1900	Seal Intact? (Yes) No N/A
Received by:	Organization:	Date / / Time	
Relinquished by:	Organization:	Date / / Time	Seal Intact? Yes No N/A
Received by:	Organization:	Date / / Time	

Special Instructions/Remarks: NSL-SS-10-01R = Field Rinsate Blank

Delivery Method: ☐ In Person ☒ Common Carrier Fed-X ☐ Lab Courier ☐ Other

1 009

TABULATED DATA AND DEFINITIONS OF QUALIFIER CODES

GERAGHTY & MILLER, INC.
Environmental Services

Laboratory Task Order No. N/A

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number

Project Location Novak S.L.

Laboratory NET Cambridge

Sampler(s)/Affiliation Bill Delaney, John Messinger

SAMPLE IDENTITY	Code	Date/Time Sampled	Lab ID	VOC / clear glass vials 40ml pres. w/ HCl	Clear glass / Wide mouth vials (Soil) no pres.								TOTAL
NSL-LH-10-02	L	11:26 7-26		3									3
NSL-SS-10-02R	L	11:45 7-26		3									3
NSL-SD-9-02	S	12:20 7-26		~~1~~ 2	1								1
NSL-SS-10-02	S	11:45 7-26		~~1~~ 2	1								1
Triplank	L	7-26		~~2~~ 2									2

AR301576

Sample Code: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 10

Relinquished by: Bill Delaney Received by:	Organization: Geraghty and Miller Organization:	Date 7/26/90 Time 5:30	Seal Intact? (Yes) No N/A
Relinquished by: John Messinger Received by:	Organization: Geraghty and Miller Organization:	Date 7/26/90 Time 5:30	Seal Intact? (Yes) No N/A

Special Instructions/Remarks: NSL-SS-10-02R - Field rinsate blank
Packed with Ice.

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex ☐ Lab Courier ☐ Other

1 of 1

NET

Inorganic CLP SOW 7/87 Data Qualifiers

Form I-IN includes fields for three types of result qualifiers.

- C Qualifier - (concentration qualifier)

  " B " - If the reported value is less than the Contract Required Detection Limit (CRDL), but greater than the Instrument Detection Limit (IDL).

  " U " - Analyte was not detected. The result of the analyte is less than the Instrument Detection Limit (IDL).

- Q Qualifier -

  " E " - The reported value is estimated because of the presence of interference. If the 5-fold dilution analysis for one or more analytes is not within 10%, a chemical or physical interference effect must be suspected, and the data for all affected analytes in the samples received associated with that serial dilution must be flagged with an "E" on Form IX-IN and Form I-IN.

  " M " - Duplicate injection precision not met.

  " N " - Spike sample recovery not within control limits.

  " S " - The reported value was determined by the Method of Standard Addition (MSA)

  " W " - Postdigested spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.

  " * " - Duplicate analysis not within control limits.

  " + " - Correlation coefficient for the MSA is less than 0.995.

- M (Method) Qualifier -

  " P " - for ICP

  " A " - for Flame AA

  " F " - for Furnace AA

  " CV "- for Manual Cold Vapor AA

  " C " - for Manual Spectrophotometric

  " NR "- if the analyte is not required to be analyzed

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: NET-CAMBRIDGE DIVISION Contract: _____

Lab Code: CAMBRG Case No.: NOVAK SAS No.: _____ SDG No.: 1526CS

SOW No.: 7/87

EPA Sample No.	Lab Sample ID.
SS1001	06403-02S
SD901	06403-03S
SED53	07040-10S
SED53D	07040-10S2
SED53S	07040-10DS

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES
If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Lab Manager: Tom M. Prendergast for P. Opelman

Date: _____ AR301578

Results of Volatile Analyses

NSLLH1002 (water)
NSLSD902 (soil)
NSLSS1002 (soil)

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NSLLH1002

Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9007305-01

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K4034

Level: (low/med) LOW Date Received: 07/27/90

% Moisture: not dec. ____ Date Analyzed: 07/30/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	BJ
67-64-1	Acetone	44	~~B~~
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	1	BJ
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	18	
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
NSLLH1002

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9007305-01

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K4034

Level: (low/med) LOW Date Received: 07/27/90

% Moisture: not dec. _____ Date Analyzed: 07/30/90

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

AR301581

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NSLSD902

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 9007305-03A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: D7415

Level: (low/med) LOW Date Received: 07/27/90

% Moisture: not dec. 14 Date Analyzed: 07/30/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

AR301582

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
NSLSD902

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 9007305-03A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: D7415

Level: (low/med) LOW Date Received: 07/27/90

% Moisture: not dec. 14 Date Analyzed: 07/30/90

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

AR301583

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NSLSS1002

Name: CAMBRG Contract: NOVAK

ab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 9007305-04A

ample wt/vol: 5.0 (g/mL) G Lab File ID: D7455

evel: (low/med) LOW Date Received: 07/27/90

% Moisture: not dec. 27 Date Analyzed: 08/01/90

olumn: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	4	J
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	3	BJ
67-64-1	Acetone	230	~~B~~ SA
75-15-0	Carbon Disulfide	7	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	15	~~B~~ SA
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	14	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	2	BJ
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	7	U

AR301584

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NSLSS1002

Lab Name: CAMBRG Contract: NOVAK

ab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

atrix: (soil/water) SOIL Lab Sample ID: 9007305-04A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: D7455

evel: (low/med) LOW Date Received: 07/27/90

% Moisture: not dec. 27 Date Analyzed: 08/01/90

olumn (pack/cap) PACK Dilution Factor: 1.0

umber TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

AR301585

Results of Semivolatile Analyses

NSLLH1001 (water)
NSLSD901 (soil)
NSLSS1001 (soil)

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NSLLH1001

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAK5 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9006403-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: J7543

Level: (low/med) LOW Date Received: 06/28/90

% Moisture: not dec. ____ dec. ____ Date Extracted: 07/03/90

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 07/27/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 5.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		G
108-95-2	Phenol	50	U
111-44-4	bis(2-Chloroethyl)Ether	50	U
95-57-8	2-Chlorophenol	50	U
541-73-1	1,3-Dichlorobenzene	50	U
106-46-7	1,4-Dichlorobenzene	50	U
100-51-6	Benzyl Alcohol	50	U
95-50-1	1,2-Dichlorobenzene	50	U
95-48-7	2-Methylphenol	50	U
39638-32-9	bis(2-Chloroisopropyl)Ether	50	U
106-44-5	4-Methylphenol	93	
621-64-7	N-Nitroso-Di-n-Propylamine	50	U
67-72-1	Hexachloroethane	50	U
98-95-3	Nitrobenzene	50	U
78-59-1	Isophorone	50	U
88-75-5	2-Nitrophenol	50	U
105-67-9	2,4-Dimethylphenol	50	U
65-85-0	Benzoic Acid	460	Y
111-91-1	bis(2-Chloroethoxy)Methane	50	U
120-83-2	2,4-Dichlorophenol	50	U
120-82-1	1,2,4-Trichlorobenzene	50	U
91-20-3	Naphthalene	50	U
106-47-8	4-Chloroaniline	50	U
87-68-3	Hexachlorobutadiene	50	U
59-50-7	4-Chloro-3-Methylphenol	50	U
91-57-6	2-Methylnaphthalene	50	U
77-47-4	Hexachlorocyclopentadiene	50	U
88-06-2	2,4,6-Trichlorophenol	50	U
95-95-4	2,4,5-Trichlorophenol	250	U
91-58-7	2-Chloronaphthalene	50	U
88-74-4	2-Nitroaniline	250	U
131-11-3	Dimethyl Phthalate	50	U
208-96-8	Acenaphthylene	50	U
606-20-2	2,6-Dinitrotoluene	50	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NSLLH1001

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAK5 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9006403-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: J7543

Level: (low/med) LOW Date Received: 06/28/90

Moisture: not dec. ____ dec. ____ Date Extracted: 07/03/90

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 07/27/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 5.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	250	U
83-32-9	Acenaphthene	50	U
51-28-5	2,4-Dinitrophenol	250	U
100-02-7	4-Nitrophenol	250	U
132-64-9	Dibenzofuran	50	U
121-14-2	2,4-Dinitrotoluene	50	U
84-66-2	Diethylphthalate	50	U
7005-72-3	4-Chlorophenyl-phenylether	50	U
86-73-7	Fluorene	50	U
100-10-6	4-Nitroaniline	250	U
534-52-1	4,6-Dinitro-2-Methylphenol	250	U
86-30-6	N-Nitrosodiphenylamine (1)	50	U
101-55-3	4-Bromophenyl-phenylether	50	U
118-74-1	Hexachlorobenzene	50	U
87-86-5	Pentachlorophenol	250	U
85-01-8	Phenanthrene	50	U
120-12-7	Anthracene	50	U
84-74-2	Di-n-Butylphthalate	50	U
206-44-0	Fluoranthene	50	U
129-00-0	Pyrene	50	U
85-68-7	Butylbenzylphthalate	50	U
91-94-1	3,3'-Dichlorobenzidine	100	U
56-55-3	Benzo(a)Anthracene	50	U
218-01-9	Chrysene	50	U
117-81-7	bis(2-Ethylhexyl)Phthalate	50	U
117-84-0	Di-n-Octyl Phthalate	50	U
205-99-2	Benzo(b)Fluoranthene	50	U
207-08-9	Benzo(k)Fluoranthene	50	U
50-32-8	Benzo(a)Pyrene	50	U
193-39-5	Indeno(1,2,3-cd)Pyrene	50	U
53-70-3	Dibenz(a,h)Anthracene	50	U
191-24-2	Benzo(g,h,i)Perylene	50	U

(1) - Cannot be separated from Diphenylamine

AR301588

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
NSLLH1001

ab Name: CAMBRG Contract: NOVAK

ab Code: CAMBRG Case No.: NOVAK5 SAS No.: _____ SDG No.: _____

atrix: (soil/water) WATER Lab Sample ID: 9006403-01B

ample wt/vol: 1000 (g/mL) ML Lab File ID: J7543

evel: (low/med) LOW Date Received: 06/28/90

Moisture: not dec. ____ dec. ____ Date Extracted: 07/03/90

xtraction: (SepF/Cont/Sonc) CONT Date Analyzed: 07/27/90

PC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 5.0

umber TICs found: 19

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	Unknown	7.60	290	J
	Unknown	7.80	490	J
3.	Unknown	9.20	190	J
4.	Unknown	9.40	90	J
5.	Unknown	11.20	80	J
6.	Unknown	12.40	210	J
7.	Unknown	12.80	70	J
8.	Unknown	14.50	150	J
9.	Methylbenzoic acid isomer	14.90	190	J
10.	Unknown	15.20	60	J
11.	Unknown	15.30	150	J
12.	Unknown	15.70	40	J
13.	Unknown	16.10	100	J
14.	Unknown	16.60	110	J
15.	Unknown	17.10	60	J
16.	Unknown	17.70	50	J
17.	Unknown	18.10	50	J
18.	Unknown	18.90	100	J
19.	Unknown	21.20	50	J

AR301589

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
NSLSD901

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAK5 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 9006403-03B

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F2631

Level: (low/med) LOW Date Received: 06/28/90

Moisture: not dec. 21 dec. 21 Date Extracted: 07/06/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/23/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	420	U
111-44-4	bis(2-Chloroethyl)Ether	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
100-51-6	Benzyl Alcohol	420	U
95-50-1	1,2-Dichlorobenzene	420	U
95-48-7	2-Methylphenol	420	U
39638-32-9	bis(2-Chloroisopropyl)Ether	420	U
106-44-5	4-Methylphenol	420	U
621-64-7	N-Nitroso-Di-n-Propylamine	420	U
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
65-85-0	Benzoic Acid	2000	U
111-91-1	bis(2-Chloroethoxy)Methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
120-82-1	1,2,4-Trichlorobenzene	420	U
91-20-3	Naphthalene	420	U
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-Methylphenol	420	U
91-57-6	2-Methylnaphthalene	420	U
77-47-4	Hexachlorocyclopentadiene	420	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethyl Phthalate	420	U
208-96-8	Acenaphthylene	420	U
606-20-2	2,6-Dinitrotoluene	420	U

AR301590

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NSLSD901

ab Name: CAMBRG Contract: NOVAK

ab Code: CAMBRG Case No.: NOVAK5 SAS No.: _____ SDG No.: _____

atrix: (soil/water) SOIL Lab Sample ID: 9006403-03B

ample wt/vol: 30.0 (g/mL) G Lab File ID: F2631

evel: (low/med) LOW Date Received: 06/28/90

Moisture: not dec. 21 dec. 21 Date Extracted: 07/06/90

xtraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/23/90

PC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	420	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	420	U
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-phenylether	420	U
86-73-7	Fluorene	420	U
100-10-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-Methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	420	U
101-55-3	4-Bromophenyl-phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
84-74-2	Di-n-Butylphthalate	1700	B
206-44-0	Fluoranthene	420	U
129-00-0	Pyrene	420	U
85-68-7	Butylbenzylphthalate	240	BJ
91-94-1	3,3'-Dichlorobenzidine	840	U
56-55-3	Benzo(a)Anthracene	420	U
218-01-9	Chrysene	420	U
117-81-7	bis(2-Ethylhexyl)Phthalate	420	U
117-84-0	Di-n-Octyl Phthalate	420	U
205-99-2	Benzo(b)Fluoranthene	420	U
207-08-9	Benzo(k)Fluoranthene	420	U
50-32-8	Benzo(a)Pyrene	420	U
193-39-5	Indeno(1,2,3-cd)Pyrene	420	U
53-70-3	Dibenz(a,h)Anthracene	420	U
191-24-2	Benzo(g,h,i)Perylene	420	U

(1) - Cannot be separated from Diphenylamine

AR301591

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
NSLSD901

ab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAK5 SAS No.: _____ SDG No.: _____

atrix: (soil/water) SOIL Lab Sample ID: 9006403-03B

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F2631

evel: (low/med) LOW Date Received: 06/28/90

% Moisture: not dec. 21 dec. 21 Date Extracted: 07/06/90

xtraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/23/90

PC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

umber TICs found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	Unknown aldol	6.60	590	J
	Unknown aldol	7.00	800	J
3.	Unknown aldol	7.40	760	J
4.	Unknown aldol	8.40	4000	J
5	Unknown	9.50	2600	J
6.	Unknown	14.20	300	J
7.	Unknown	16.60	300	J
8.	Unknown	20.50	380	J
9.	Unknown	26.61	460	J
10.	Unknown	27.11	3200	J
11.	Unknown hydrocarbon	29.71	1100	J
12.	Unknown hydrocarbon	31.61	2400	J
13.	Unknown	32.11	590	J
14.	Unknown hydrocarbon	34.21	590	J
15.	Unknown	34.71	630	J
16.	Unknown	34.91	1000	J
17	Unknown	35.21	2800	J
18.	Unknown	36.91	930	J
19.	Unknown	37.21	890	J
20.	Unknown	38.91	2500	J

AR301592

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO
NSLSS1001

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAK5 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 9006403-02B

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F2630

Level: (low/med) LOW Date Received: 06/28/90

% Moisture: not dec. 31 dec. 31 Date Extracted: 07/06/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/23/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	480	U
111-44-4	bis(2-Chloroethyl)Ether	480	U
95-57-8	2-Chlorophenol	480	U
541-73-1	1,3-Dichlorobenzene	480	U
106-46-7	1,4-Dichlorobenzene	480	U
100-51-6	Benzyl Alcohol	480	U
95-50-1	1,2-Dichlorobenzene	480	U
95-48-7	2-Methylphenol	480	U
39638-32-9	bis(2-Chloroisopropyl)Ether	480	U
106-44-5	4-Methylphenol	600	
621-64-7	N-Nitroso-Di-n-Propylamine	480	U
67-72-1	Hexachloroethane	480	U
98-95-3	Nitrobenzene	480	U
78-59-1	Isophorone	480	U
88-75-5	2-Nitrophenol	480	U
105-67-9	2,4-Dimethylphenol	480	U
65-85-0	Benzoic Acid	100	JXX
111-91-1	bis(2-Chloroethoxy)Methane	480	U
120-83-2	2,4-Dichlorophenol	480	U
120-82-1	1,2,4-Trichlorobenzene	480	U
91-20-3	Naphthalene	410	BJ
106-47-8	4-Chloroaniline	480	U
87-68-3	Hexachlorobutadiene	480	U
59-50-7	4-Chloro-3-Methylphenol	480	U
91-57-6	2-Methylnaphthalene	480	U
77-47-4	Hexachlorocyclopentadiene	480	U
88-06-2	2,4,6-Trichlorophenol	480	U
95-95-4	2,4,5-Trichlorophenol	2300	U
91-58-7	2-Chloronaphthalene	480	U
88-74-4	2-Nitroaniline	2300	U
131-11-3	Dimethyl Phthalate	480	U
208-96-8	Acenaphthylene	480	U
606-20-2	2,6-Dinitrotoluene	480	U

AR301593

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
NSLSS1001

ab Name: CAMBRG Contract: NOVAK

ab Code: CAMBRG Case No.: NOVAK5 SAS No.: _____ SDG No.: _____

atrix: (soil/water) SOIL Lab Sample ID: 9006403-02B

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F2630

evel: (low/med) LOW Date Received: 06/28/90

Moisture: not dec. 31 dec. 31 Date Extracted: 07/06/90

xtraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/23/90

PC Cleanup (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2300	U
83-32-9	Acenaphthene	480	U
51-28-5	2,4-Dinitrophenol	2300	U
100-02-7	4-Nitrophenol	2300	U
132-64-9	Dibenzofuran	480	U
121-14-2	2,4-Dinitrotoluene	480	U
84-66-2	Diethylphthalate	480	U
7005-72-3	4-Chlorophenyl-phenylether	480	U
86-73-7	Fluorene	480	U
100-10-6	4-Nitroaniline	2300	U
534-52-1	4,6-Dinitro-2-Methylphenol	2300	U
86-30-6	N-Nitrosodiphenylamine (1)	480	U
101-55-3	4-Bromophenyl-phenylether	480	U
118-74-1	Hexachlorobenzene	480	U
87-86-5	Pentachlorophenol	2300	U
85-01-8	Phenanthrene	350	J
120-12-7	Anthracene	76	J
84-74-2	Di-n-Butylphthalate	1500	B
206-44-0	Fluoranthene	570	
129-00-0	Pyrene	710	
85-68-7	Butylbenzylphthalate	120	BJ
91-94-1	3,3'-Dichlorobenzidine	960	U
56-55-3	Benzo(a)Anthracene	320	J
218-01-9	Chrysene	500	
117-81-7	bis(2-Ethylhexyl)Phthalate	1200	B
117-84-0	Di-n-Octyl Phthalate	480	U
205-99-2	Benzo(b)Fluoranthene	310	JY
207-08-9	Benzo(k)Fluoranthene	330	JY
50-32-8	Benzo(a)Pyrene	320	J
193-39-5	Indeno(1,2,3-cd)Pyrene	240	J
53-70-3	Dibenz(a,h)Anthracene	480	U
191-24-2	Benzo(g,h,i)Perylene	230	J

(1) - Cannot be separated from Diphenylamine

AR301594

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
NSLSS1001

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAK5 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 9006403-02B

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F2630

Level: (low/med) LOW Date Received: 06/28/90

% Moisture: not dec. 31 dec. 31 Date Extracted: 07/06/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/23/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 20

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	Unknown	6.50	390	J
	Unknown aldol	6.60	390	J
3.	Unknown aldol	6.90	580	J
4.	Unknown aldol	7.40	630	J
5.	Unknown aldol	8.40	2400	J
6.	Unknown aldol	9.50	1400	J
7.	Tetramethylbenzene isomer	10.80	480	J
8.	Unknown	13.00	480	J
9.	Unknown	14.30	2000	J
10.	Unknown	15.50	390	J
11.	Unknown hydrocarbon	18.90	340	J
12.	Unknown	19.60	190	J
13.	Unknown	21.50	430	J
14.	Unknown	22.60	190	J
15. 10544500	Molecular sulfur	22.70	1300	J
16. 3234853	Tetradecanoic acid, tetradec	30.31	1900	J
17.	Unknown	31.21	2600	J
18. 2599011	tetradecanoic acid, hexadecy	32.41	7200	J
19.	Unknown	35.11	1300	J
20.	Unknown	35.31	4400	J

AR301595

Results of Pesticide/PCB Analyses

NSLLH1001 (water)
NSLSD901 (soil)
NSLSS1001 (soil)

60009

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NSLLH1001

ab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

atrix: (soil/water) WATER Lab Sample ID: 9006403-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

evel: (low/med) LOW Date Received: 06/28/90

Moisture: not dec. __ dec. __ Date Extracted: 07/03/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/05/90

PC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	Lindane	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

AR301597

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NSLSD901

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 9006403-03

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 06/28/90

% Moisture: not dec. 21 dec. __ Date Extracted: 07/06/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/14/90

GPC Cleanup: (Y/N) N pH: 6.9 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	10	U
319-85-7	beta-BHC	10	U
319-86-8	delta-BHC	10	U
58-89-9	Lindane	10	U
76-44-8	Heptachlor	10	U
309-00-2	Aldrin	10	U
1024-57-3	Heptachlor epoxide	10	U
959-98-8	Endosulfan I	10	U
60-57-1	Dieldrin	20	U
72-55-9	4,4'-DDE	20	U
72-20-8	Endrin	20	U
33213-65-9	Endosulfan II	20	U
72-54-8	4,4'-DDD	20	U
1031-07-8	Endosulfan sulfate	20	U
50-29-3	4,4'-DDT	20	U
72-43-5	Methoxychlor	100	U
53494-70-5	Endrin ketone	20	U
5103-71-9	alpha-Chlordane	100	U
5103-74-2	gamma-Chlordane	100	U
8001-35-2	Toxaphene	200	U
12674-11-2	Aroclor-1016	100	U
11104-28-2	Aroclor-1221	100	U
11141-16-5	Aroclor-1232	100	U
53469-21-9	Aroclor-1242	100	U
12672-29-6	Aroclor-1248	100	U
11097-69-1	Aroclor-1254	200	U
11096-82-5	Aroclor-1260	200	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NSLSS1001

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 9006403-02

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 06/28/90

% Moisture: not dec. 31 dec. __ Date Extracted: 07/06/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/14/90

GPC Cleanup: (Y/N) N pH: 6.6 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	12	U
319-85-7	beta-BHC	12	U
319-86-8	delta-BHC	12	U
58-89-9	Lindane	12	U
76-44-8	Heptachlor	12	U
309-00-2	Aldrin	12	U
1024-57-3	Heptachlor epoxide	12	U
959-98-8	Endosulfan I	12	U
60-57-1	Dieldrin	23	U
72-55-9	4,4'-DDE	23	U
72-20-8	Endrin	23	U
33213-65-9	Endosulfan II	23	U
72-54-8	4,4'-DDD	23	U
1031-07-8	Endosulfan sulfate	23	U
50-29-3	4,4'-DDT	23	U
72-43-5	Methoxychlor	120	U
53494-70-5	Endrin ketone	23	U
5103-71-9	alpha-Chlordane	120	U
5103-74-2	gamma-Chlordane	120	U
8001-35-2	Toxaphene	230	U
12674-11-2	Aroclor-1016	120	U
11104-28-2	Aroclor-1221	120	U
11141-16-5	Aroclor-1232	120	U
53469-21-9	Aroclor-1242	120	U
12672-29-6	Aroclor-1248	120	U
11097-69-1	Aroclor-1254	230	U
11096-82-5	Aroclor-1260	230	U

Results of Inorganic Analyses
Novack Samples:

LH1001 (water)
SS1001 (soil)
SD901 (soil)

Non-Novack samples (included for completeness):

SED53
GZ5M10
GZ5S10
GZ5D10
FB2510
GZ4S10
GZ4M10
GZ4D10
FB2610
GZ4D3T
FB6263D
GZ710
GZ7D10
GZ7M10
FB62710
TB7S10
B1310
B310
FB62810

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

LH1001

Lab Name: NET-CAMBRIDGE DIVISION Contract:

Lab Code: CAMBRG Case No.: NOVAK SAS No.: SDG No.: 2304CW

Matrix (soil/water): WATER Lab Sample ID: 06403-01S

Level (low/med): LOW Date Received: 06/28/90

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	69300.00			P
7440-36-0	Antimony	350.00			P
7440-38-2	Arsenic	26.50		N+	F
7440-39-3	Barium	4550.00			P
7440-41-7	Beryllium	11.40			P
7440-41-7	Cadmium	83.00			P
7440-70-2	Calcium	1380000.00			P
7440-47-3	Chromium	212.00			P
7440-48-4	Cobalt	118.00			P
7440-50-8	Copper	286.00			P
7439-89-6	Iron	331000.00		*	P
7439-92-1	Lead	644.00		NS	~~NR~~ F SP 7/31/90
7439-95-4	Magnesium	130000.00			P
7439-96-5	Manganese	16200.00			P
7439-97-6	Mercury	2.00	U	N	CV SP 7/31/90
7440-02-0	Nickel	231.00			P
7440-09-7	Potassium	56700.00			P
7782-49-2	Selenium	2.00	B	W	~~NR~~ F SP 7/31/90
7440-22-4	Silver	28.50			P
7440-23-5	Sodium	91000.00			P
7440-28-0	Thallium	4.00	U		F
7440-62-2	Vanadium	324.00			P
7440-66-6	Zinc	3310.00			P
	Cyanide	5.00	U		C

Color Before: BLACK Clarity Before: OPAQUE Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

AR301601

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1A

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS1001

Lab Name: NET-CAMBRIDGE DIVISION Contract:

Lab Code: CAMBRG Case No.: NOVAK SAS No.: SDG No.: 1526CS

Matrix (soil/water): SOIL Lab Sample ID: 06403-02S

Level (low/med): LOW Date Received: 06/28/90

% Solids: 66.4

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9980.00		*	P
7440-36-0	Antimony	1.90	U	NW	F
7440-38-2	Arsenic	9.30		N	F
7440-39-3	Barium	169.00		N	P
7440-41-7	Beryllium	1.10	B	N	P
7440-41-7	Cadmium	10.20		N	P
7440-70-2	Calcium	46600.00			P
7440-47-3	Chromium	20.10		N	P
7440-48-4	Cobalt	7.80	B	N	P
7440-50-8	Copper	22.30		N	P
7439-89-6	Iron	33100.00			P
7439-92-1	Lead	26.40		N*	F
7439-95-4	Magnesium	1710.00			P
7439-96-5	Manganese	1110.00		N	P
7439-97-6	Mercury	0.13	U		CV
7440-02-0	Nickel	22.70		N	P
7440-09-7	Potassium	1070.00	B		P
7782-49-2	Selenium	0.49	U	N	F
7440-22-4	Silver	2.80		N	P
7440-23-5	Sodium	170.00	B		P
7440-28-0	Thallium	0.99	U	N	F
7440-62-2	Vanadium	34.70		N	P
7440-66-6	Zinc	157.00		N	P
	Cyanide	1.60	U		C

Color Before: GREY Clarity Before: Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts: YES

Comments:

THERE WERE ROCKS PRESENT AS ARTIFACTS.

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD901

Lab Name: NET-CAMBRIDGE DIVISION Contract:

Lab Code: CAMBRG Case No.: NOVAK SAS No.: SDG No.: 1526CS

Matrix (soil/water): SOIL Lab Sample ID: 06403-03S

Level (low/med): LOW Date Received: 06/28/90

% Solids: 77.5

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	17500.00		*	P
7440-36-0	Antimony	1.80	U	N	F
7440-38-2	Arsenic	7.30		N	F
7440-39-3	Barium	80.10		N	P
7440-41-7	Beryllium	2.00		N	P
7440-41-7	Cadmium	8.80		N	P
7440-70-2	Calcium	2630.00			P
7440-47-3	Chromium	23.60		N	P
7440-48-4	Cobalt	17.20		N	P
7440-50-8	Copper	21.80		N	P
7439-89-6	Iron	28500.00			P
7439-92-1	Lead	11.90		N+*	F
7439-95-4	Magnesium	2080.00			P
7439-96-5	Manganese	1140.00		N	P
7439-97-6	Mercury	0.13	U		CV
7440-02-0	Nickel	35.10		N	P
7440-09-7	Potassium	1580.00			P
7782-49-2	Selenium	0.44	U	N	F
7440-22-4	Silver	2.00	B	N	P
7440-23-5	Sodium	59.40	B		P
7440-28-0	Thallium	0.89	U	N	F
7440-62-2	Vanadium	33.50		N	P
7440-66-6	Zinc	87.20		N	P
	Cyanide	1.50	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts: YES

Comments:

THERE WERE PLANTS PRESENT AS ARTIFACTS.

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED53

Lab Name: NET-CAMBRIDGE DIVISION Contract:

Lab Code: CAMBRG Case No.: South SAS No.: SDG No.: 1526CS

Matrix (soil/water): SOIL Lab Sample ID: 07040-10S

Level (low/med): LOW Date Received: 07/05/90

% Solids: 79.2

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6140.00		*	P
7440-36-0	Antimony	1.40	U	N	F
7440-38-2	Arsenic	0.80	B	NW	F
7440-39-3	Barium	36.70		N	P
7440-41-7	Beryllium	0.37	B	N	P
7440-41-7	Cadmium	2.70		N	P
7440-70-2	Calcium	612.00	B		P
7440-47-3	Chromium	12.40		N	P
7440-48-4	Cobalt	4.40	B	N	P
7440-50-8	Copper	9.50		N	P
7439-89-6	Iron	10500.00			P
7439-92-1	Lead	3.60	B	N*W	F
7439-95-4	Magnesium	2780.00			P
7439-96-5	Manganese	176.00		N	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	10.30		N	P
7440-09-7	Potassium	966.00			P
7782-49-2	Selenium	0.37	U	N	F
7440-22-4	Silver	1.40	U	N	P
7440-23-5	Sodium	88.10	B		P
7440-28-0	Thallium	0.73	U	N	F
7440-62-2	Vanadium	26.00		N	P
7440-66-6	Zinc	32.30		N	P
	Cyanide	1.40	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments:

THERE WERE ROCKS AND PLANTS PRESENT AS ARTIFACTS.

AR301604

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

G25M10

Lab Name: NET-CAMBRIDGE DIVISION Contract:

Lab Code: CAMBRG Case No.: South SAS No.: SDG No.: 2304CW

Matrix (soil/water): WATER Lab Sample ID: 06348-02S

Level (low/med): LOW Date Received: 06/26/90

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	9430.00			P	
7440-36-0	Antimony	60.00	U		P	
7440-38-2	Arsenic	3.00	U	N	~~NF~~ F	SP 7/31/90
7440-39-3	Barium	1210.00			P	
7440-41-7	Beryllium	1.00	U		P	
7440-41-7	Cadmium	9.30			P	
7440-70-2	Calcium	118000.00			P	
7440-47-3	Chromium	21.60	B		P	
7440-48-4	Cobalt	20.00	U		P	
7440-50-8	Copper	29.00			P	
7439-89-6	Iron	12500.00		*	P	
7439-92-1	Lead	5.80		N	~~NF~~ F	SP 7/31/90
7439-95-4	Magnesium	25400.00			P	
7439-96-5	Manganese	2820.00			P	
7439-97-6	Mercury	0.80	U		~~NF~~ CV	SP 7/31/90
7440-02-0	Nickel	25.10	B		P	
7440-09-7	Potassium	4750.00	B		P	
7782-49-2	Selenium	2.00	U	W	~~NF~~ F	SP 7/31/90
7440-22-4	Silver	8.00	B		P	
7440-23-5	Sodium	21800.00			P	
7440-28-0	Thallium	4.00	U	W	P	
7440-62-2	Vanadium	29.00	B		P	
7440-66-6	Zinc	63.20			P	
	Cyanide				NR	

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

G25810

Lab Name: NET-CAMBRIDGE DIVISION Contract:

Lab Code: CAMBRG Case No.: South SAS No.: SDG No.: 23404W

Matrix (soil/water): WATER Lab Sample ID: 06328-04S

Level (low/med): LOW Date Received: 06/26/90

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4090.00			P
7440-36-0	Antimony	60.00	U		P
7440-38-2	Arsenic	3.00	U	N	F
7440-39-3	Barium	79.60	B		F
7440-41-7	Beryllium	1.00	U		P
7440-41-7	Cadmium	5.00	U		P
7440-70-2	Calcium	13000.00			F
7440-47-3	Chromium	14.80	B		F
7440-48-4	Cobalt	20.00	U		P
7440-50-8	Copper	18.60	B		F
7439-89-6	Iron	5710.00		*	F
7439-92-1	Lead	5.80		N	F
7439-95-4	Magnesium	5440.00			F
7439-96-5	Manganese	279.00			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	15.00	U		P
7440-09-7	Potassium	1820.00	B		F
7782-49-2	Selenium	2.00	U	W	F
7440-22-4	Silver	8.00	U		P
7440-23-5	Sodium	4470.00	B		F
7440-28-0	Thallium	4.00	U	W	F
7440-62-2	Vanadium	12.90	B		F
7440-66-6	Zinc	42.10			F
	Cyanide				NR

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

G2FD1C

Lab Name: NET-CAMBRIDGE DIVISION Contract:

Lab Code: CAMBRG Case No.: South SAS No.: SDG No.: 2304CW

Matrix (soil/water): WATER Lab Sample ID: 06328-069

Level (low/med): LOW Date Received: 06/28/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2050.00			P
7440-36-0	Antimony	60.00	U		P
7440-38-2	Arsenic	3.00	U	N	F
7440-39-3	Barium	210.00			P
7440-41-7	Beryllium	1.00	U		P
7440-41-7	Cadmium	5.00	U		P
7440-70-2	Calcium	41300.00			P
7440-47-3	Chromium	10.00	U		P
7440-48-4	Cobalt	20.00	U		P
7440-50-8	Copper	12.70	B		P
7439-89-6	Iron	2850.00		*	P
7439-92-1	Lead	3.10	B	N5	F
7439-95-4	Magnesium	8980.00			P
7439-96-5	Manganese	520.00			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	15.00	U		P
7440-09-7	Potassium	2050.00	B		P
7782-49-2	Selenium	3.00	U	W	F
7440-22-4	Silver	14.70			P
7440-23-5	Sodium	17300.00			P
7440-28-0	Thallium	4.00	U		F
7440-62-2	Vanadium	11.00	U		P
7440-66-6	Zinc	41.80			P
	Cyanide				NR

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments: -

AR301607

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

FB2510

Lab Name: NET-CAMBRIDGE DIVISION Contract:

Lab Code: CAMBRG Case No.: South SAS No.: SDG No.: 2504CK

Matrix (soil/water): WATER Lab Sample ID: 06329-085

Level (low/med): LOW Date Received: 06/2[illegible]/90

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	60.00	U		P
7440-36-0	Antimony	60.00	U		P
7440-38-2	Arsenic	3.00	U	NW	F 7/31/90
7440-39-3	Barium	32.00	U		P
7440-41-7	Beryllium	1.00	U		P
7440-41-7	Cadmium	5.00	U		P
7440-70-2	Calcium	299.00	B		P
7440-47-3	Chromium	10.00	U		P
7440-48-4	Cobalt	20.00	U		P
7440-50-8	Copper	5.00	U		P
7439-89-6	Iron	41.10	B	*	P
7439-92-1	Lead	6.00	U	N	F 7/31/90
7439-95-4	Magnesium	70.00	U		P
7439-96-5	Manganese	3.00	U		P
7439-97-6	Mercury	0.20	U		CV 7/31/90
7440-02-0	Nickel	15.00	U		P
7440-09-7	Potassium	830.00	U		P
7782-49-2	Selenium	2.00	U		P
7440-22-4	Silver	8.00	U		P
7440-23-5	Sodium	258.00	B		P
7440-28-0	Thallium	4.00	U		P
7440-62-2	Vanadium	11.00	U		P
7440-66-6	Zinc	18.20	B		P
	Cyanide				NP

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

AR301608

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GZ4S10

Lab Name: NET-CAMBRIDGE DIVISION Contract:

Lab Code: CAMBRG Case No.: South SAS No.: SDG No.: 2304CW

Matrix (soil/water): WATER Lab Sample ID: 06373-02S

Level (low/med): LOW Date Received: 06/27/90

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	25500.00			P
7440-36-0	Antimony	60.00	U		P
7440-38-2	Arsenic	4.60	B	N	~~NR~~ E 7/31/90
7440-39-3	Barium	299.00			P
7440-41-7	Beryllium	1.40	B		P
7440-41-7	Cadmium	10.40			P
7440-70-2	Calcium	25500.00			P
7440-47-3	Chromium	54.50			P
7440-48-4	Cobalt	25.90	B		P
7440-50-8	Copper	79.70			P
7439-89-6	Iron	40800.00		*	P
7439-92-1	Lead	54.10		NS	F
7439-95-4	Magnesium	17600.00			P
7439-96-5	Manganese	879.00			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	54.70			P
7440-09-7	Potassium	9020.00			P
7782-49-2	Selenium	8.00	U	W	~~NR~~ E 7/31/90
7440-22-4	Silver	9.30	B		P
7440-23-5	Sodium	25600.00			P
7440-28-0	Thallium	4.00	U	W	F
7440-62-2	Vanadium	128.00			P
7440-66-6	Zinc	218.00			P
	Cyanide				NR

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

AR301609

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GZ4M10

Lab Name: NET-CAMBRIDGE DIVISION Contract:

Lab Code: CAMBRG Case No.: South SAS No.: SDG No.: 2304CW

Matrix (soil/water): WATER Lab Sample ID: 06373-04S

Level (low/med): LOW Date Received: 06/27/90

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	455.00			P
7440-36-0	Antimony	60.00	U		P
7440-38-2	Arsenic	3.00	U	NW	~~NR~~ F 3P 7/31/90
7440-39-3	Barium	82.40	B		P
7440-41-7	Beryllium	1.00	U		P
7440-41-7	Cadmium	5.00	U		P
7440-70-2	Calcium	42800.00			P
7440-47-3	Chromium	10.00	U		P
7440-48-4	Cobalt	20.00	U		P
7440-50-8	Copper	18.30	B		P
7439-89-6	Iron	818.00		*	P
7439-92-1	Lead	3.00	U	NS	F
7439-95-4	Magnesium	8330.00			P
7439-96-5	Manganese	1070.00			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	15.00	U		P
7440-09-7	Potassium	1630.00	B		P
7782-49-2	Selenium	2.00	U		~~NR~~ F 3P 7/31/90
7440-22-4	Silver	10.00			P
7440-23-5	Sodium	7950.00			P
7440-28-0	Thallium	4.00	U		F
7440-62-2	Vanadium	11.00	U		P
7440-66-6	Zinc	28.00			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

AR301610

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GZ4D10

Lab Name: NET-CAMBRIDGE DIVISION Contract:

Lab Code: CAMBRG Case No.: South SAS No.: SDG No.: 2304CW

Matrix (soil/water): WATER Lab Sample ID: 06373-06S

Level (low/med): LOW Date Received: 06/27/90

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6880.00			P
7440-36-0	Antimony	60.00	U		P
7440-38-2	Arsenic	3.00	U	N W	~~NR~~ F 7/31/90
7440-39-3	Barium	160.00	B		P
7440-41-7	Beryllium	1.00	U		P
7440-41-7	Cadmium	5.00	U		P
7440-70-2	Calcium	67000.00			P
7440-47-3	Chromium	19.70	B		P
7440-48-4	Cobalt	20.00	U		P
7440-50-8	Copper	25.50			P
7439-89-6	Iron	13200.00		*	P
7439-92-1	Lead	6.90		NS	F
7439-95-4	Magnesium	16800.00			P
7439-96-5	Manganese	817.00			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	18.50	B		P
7440-09-7	Potassium	10200.00			P
7782-49-2	Selenium	2.00	U	W	~~NR~~ F 7/31/90
7440-22-4	Silver	9.30	B		P
7440-23-5	Sodium	23600.00			P
7440-28-0	Thallium	4.00	U	W	F
7440-62-2	Vanadium	26.80	B		P
7440-66-6	Zinc	69.80			P
	Cyanide				NR

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

AR301611

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB62610

Lab Name: NET-CAMBRIDGE DIVISION Contract:

Lab Code: CAMBRG Case No.: South SAS No.: SDG No.: 2304CW

Matrix (soil/water): WATER Lab Sample ID: 06373-07S

Level (low/med): LOW Date Received: 06/27/90

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	60.00	U		P
7440-36-0	Antimony	60.00	U		P
7440-38-2	Arsenic	3.00	U	N	~~NR~~ F 7/31/90
7440-39-3	Barium	32.00	U		P
7440-41-7	Beryllium	1.00	U		P
7440-41-7	Cadmium	5.00	U		P
7440-70-2	Calcium	210.00	B		P
7440-47-3	Chromium	10.00	U		P
7440-48-4	Cobalt	20.00	U		P
7440-50-8	Copper	6.20	B		P
7439-89-6	Iron	25.90	B	*	P
7439-92-1	Lead	3.00	U	NS	F
7439-95-4	Magnesium	70.00	U		P
7439-96-5	Manganese	3.00	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	15.00	U		P
7440-09-7	Potassium	856.00	B		P
7782-49-2	Selenium	2.00	U		~~NR~~ F 7/31/90
7440-22-4	Silver	8.00	U		P
7440-23-5	Sodium	295.00	B		P
7440-28-0	Thallium	4.00	U		F
7440-62-2	Vanadium	11.00	U		P
7440-66-6	Zinc	16.50	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

AR301612

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GZ4D3T

Name: NET-CAMBRIDGE DIVISION Contract: _____

Lab Code: CAMBRG Case No.: NOVAK SAS No.: _____ SDG No.: 9304CW

Matrix (soil/water): WATER Lab Sample ID: 900636G-04S

Level (low/med): LOW Date Received: 06/27/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium				
7440-70-2	Calcium				
7440-47-3	Chromium				
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead				
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury				
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide	5.00	U		C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN

AR301613

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB6363D

Name: NET-CAMBRIDGE DIVISION Contract: _____

ab Code: CAMBRG Case No.: NOVAK SAS No.: _____ SDG No.: 2304CW

Matrix (soil/water): WATER Lab Sample ID: 06366-055

evel (low/med): LOW Date Received: 06/27/90

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium				
7440-70-2	Calcium				
7440-47-3	Chromium				
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead				
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury				
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide	5.00	U		C

lor Before: _____ Clarity Before: _____ Texture: _____

lor After: _____ Clarity After: _____ Artifacts: _____

mments:

AR301614

FORM I - IN 7/87

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GZ710

Lab Name: NET-CAMBRIDGE DIVISION Contract:

Lab Code: CAMBRG Case No.: South SAS No.: SDG No.: 2304CW

Matrix (soil/water): WATER Lab Sample ID: 06400-02S

Level (low/med): LOW Date Received: 06/28/90

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	41400.00			P
7440-36-0	Antimony	197.00			P
7440-38-2	Arsenic	9.70	B	N	~~NR~~ F SP 7/31/90
7440-39-3	Barium	850.00			P
7440-41-7	Beryllium	2.60	B		P
7440-41-7	Cadmium	62.90			P
7440-70-2	Calcium	97400.00			P
7440-47-3	Chromium	593.00			P
7440-48-4	Cobalt	1360.00			P
7440-50-8	Copper	461.00			P
7439-89-6	Iron	273000.00		*	P
7439-92-1	Lead	6.00	B	N	~~NR~~ F SP 7/31/90
7439-95-4	Magnesium	25200.00			P
7439-96-5	Manganese	6200.00			P
7439-97-6	Mercury	2.00	U		CV
7440-02-0	Nickel	1650.00			P
7440-09-7	Potassium	12600.00			P
7782-49-2	Selenium	2.30	B		~~NR~~ F SP 7/31/90
7440-22-4	Silver	91.50			P
7440-23-5	Sodium	7320.00			P
7440-28-0	Thallium	4.00	U		F
7440-62-2	Vanadium	134.00			P
7440-66-6	Zinc	3540.00			P
	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

AR301615

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GZ7D10

Lab Name: NET-CAMBRIDGE DIVISION Contract:

Lab Code: CAMBRG Case No.: South SAS No.: SDG No.: 2304CW

Matrix (soil/water): WATER Lab Sample ID: 06400-04S

Level (low/med): LOW Date Received: 06/28/90

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	222.00			P
7440-36-0	Antimony	60.00	U		P
7440-38-2	Arsenic	3.00	U	N	~~NR~~ P 7/31/90
7440-39-3	Barium	159.00	B		P
7440-41-7	Beryllium	1.00	U		P
7440-41-7	Cadmium	5.00	U		P
7440-70-2	Calcium	40100.00			P
7440-47-3	Chromium	10.00	U		P
7440-48-4	Cobalt	20.00	U		P
7440-50-8	Copper	13.80	B		P
7439-89-6	Iron	773.00		*	P
7439-92-1	Lead	3.00	U	N	~~NR~~ P 7/31/90
7439-95-4	Magnesium	7100.00			P
7439-96-5	Manganese	21.20			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	15.00	U		P
7440-09-7	Potassium	2100.00	B		P
7782-49-2	Selenium	2.00		W	~~NR~~ F 8/16/90
7440-22-4	Silver	12.30			P
7440-23-5	Sodium	7760.00			P
7440-28-0	Thallium	4.00	U		F
7440-62-2	Vanadium	11.00	U		P
7440-66-6	Zinc	44.80			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

AR301616

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GZ7M10

Lab Name: NET-CAMBRIDGE DIVISION Contract:

Lab Code: CAMBRG Case No.: South SAS No.: SDG No.: 2304CW

Matrix (soil/water): WATER Lab Sample ID: 06400-06S

Level (low/med): LOW Date Received: 06/28/90

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12000.00			P
7440-36-0	Antimony	60.00	U		P
7440-38-2	Arsenic	3.00	U	N	~~NR~~ F ap 7/31/90
7440-39-3	Barium	278.00			P
7440-41-7	Beryllium	1.10	B		P
7440-41-7	Cadmium	6.00			P
7440-70-2	Calcium	52800.00			P
7440-47-3	Chromium	35.20	B		P
7440-48-4	Cobalt	20.00	U		P
7440-50-8	Copper	46.80			P
7439-89-6	Iron	18300.00		*	P
7439-92-1	Lead	60.40		N+	F
7439-95-4	Magnesium	16000.00			P
7439-96-5	Manganese	2700.00			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	33.60	B		P
7440-09-7	Potassium	5220.00			P
7782-49-2	Selenium	2.00	U		~~NR~~ F ap 7/31/90
7440-22-4	Silver	10.90			P
7440-23-5	Sodium	10500.00			P
7440-28-0	Thallium	4.00	U		F
7440-62-2	Vanadium	54.40			P
7440-66-6	Zinc	88.40			P
	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

AR301617

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB62710

Lab Name: NET-CAMBRIDGE DIVISION Contract:

Lab Code: CAMBRG Case No.: South SAS No.: SDG No.: 2304CW

Matrix (soil/water): WATER Lab Sample ID: 06400-07S

Level (low/med): LOW Date Received: 06/28/90

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	90.90	B		P
7440-36-0	Antimony	60.00	U		P
7440-38-2	Arsenic	3.00	U	N	~~NR~~ F SP 7/31/90
7440-39-3	Barium	32.00	U		P
7440-41-7	Beryllium	1.00	U		P
7440-41-7	Cadmium	5.00	U		P
7440-70-2	Calcium	210.00	B		P
7440-47-3	Chromium	10.00	U		P
7440-48-4	Cobalt	20.00	U		P
7440-50-8	Copper	7.90	B		P
7439-89-6	Iron	90.20	B	*	P
7439-92-1	Lead	3.15	B	NW	~~NR~~ F SP 7/31/90
7439-95-4	Magnesium	70.00	U		P
7439-96-5	Manganese	3.00	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	15.00	U		P
7440-09-7	Potassium	830.00	U		P
7782-49-2	Selenium	2.00	U		~~NR~~ F SP 7/31/90
7440-22-4	Silver	12.00			P
7440-23-5	Sodium	260.00	B		P
7440-28-0	Thallium	4.00	U	W	F
7440-62-2	Vanadium	11.00	U		P
7440-66-6	Zinc	9.80	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

AR301618

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

[illegible]

Lab Name: NET-CAMBRIDGE DIVISION Contract:

Lab Code: CAMB-S Case No.: SOUTH SAS No.: SDG No.: 9304CU

Matrix (soil/water): WATER Lab Sample ID: [illegible]-025

Level (low/med): LOW Date Received: 06/29/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
[illegible]	Aluminum	31700.00			P
7440-36-0	Antimony	164.00			P
7440-38-2	Arsenic	5.00	B	N W	F 7/31/90
7440-39-3	Barium	885.00			P
7440-41-7	Beryllium	1.20	B		P
7440-43-9	Cadmium	95.30			P
7440-70-2	Calcium	74800.00			P
7440-47-3	Chromium	120.00			P
7440-48-4	Cobalt	38.80	B		P
7440-50-8	Copper	306.00			P
7439-89-6	Iron	120000.00		*	P
7439-92-1	Lead	294.00		N	P
[illegible]	Magnesium	16100.00			P
7439-96-5	Manganese	2700.00			P
7439-97-6	Mercury	6.00			CV
7440-02-0	Nickel	556.00			P
7440-09-7	Potassium	6850.00			P
7782-49-2	Selenium	2.00	U		F 7/31/90
7440-22-4	Silver	16.90			P
7440-23-5	Sodium	54400.00			P
7440-28-0	Thallium	4.00	U		P
7440-62-2	Vanadium	93.40			P
7440-66-6	Zinc	2030.00			P
	Cyanide				P

Color Before: BROWN Clarity Before: OPAQUE Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1310

Lab Name: NET-CAMBRIDGE DIVISION Contract:

Lab Code: CAMBRG Case No.: SOUTH SAS No.: SDG No.: 22045W

Matrix (soil/water): WATER Lab Sample ID: 06446-045

Level (low/med): LOW Date Received: 06/29/90

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	59400.00			P
7440-36-0	Antimony	446.00			P
7440-38-2	Arsenic	38.90		N	P
7440-39-3	Barium	11000.00			P
7440-41-7	Beryllium	4.40	B		P
7440-43-9	Cadmium	421.00			P
7440-70-2	Calcium	245000.00			P
7440-47-3	Chromium	497.00			P
7440-48-4	Cobalt	110.00			P
7440-50-8	Copper	15500.00			P
7439-89-6	Iron	517000.00		*	P
7439-92-1	Lead	8820.00		N+	F
7439-95-4	Magnesium	7240.00			P
7439-96-5	Manganese	5220.00			P
7439-97-6	Mercury	0.60			CV
7440-02-0	Nickel	7000.00			P
7440-09-7	Potassium	7100.00			P
7782-49-2	Selenium	11.10		S	P
7440-22-4	Silver	274.00			P
7440-23-5	Sodium	78200.00			P
7440-28-0	Thallium	10.00	U	E	P
7440-62-2	Vanadium	222.00			P
7440-66-6	Zinc	17600.00			P
	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

AR301620

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

R910

Lab Name: NET-CAMBRIDGE DIVISION Contract:

Lab Code: CAMBRG Case No.: SOUTH SAS No.: SDG No.: 23404W

Matrix (soil/water): WATER Lab Sample ID: 7444-06S

Level (low/med): LOW Date Received: 06/25/90

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	150000.00			P
7440-36-0	Antimony	241.00			P
7440-38-2	Arsenic	47.40		N	P
7440-39-3	Barium	19400.00			P
7440-41-7	Beryllium	9.90			P
7440-41-7	Cadmium	946.00			P
7440-70-2	Calcium	364000.00			P
7440-47-3	Chromium	1170.00			P
7440-48-4	Cobalt	258.00			P
7440-50-8	Copper	35500.00			P
7439-89-6	Iron	1010000.00		*	P
7439-92-1	Lead	15400.00		N+	P
7439-95-4	Magnesium	97700.00			P
7439-96-5	Manganese	2600.00			P
7439-97-6	Mercury	0.70			CV
7440-02-0	Nickel	4390.00			P
7440-09-7	Potassium	77600.00			P
7782-49-2	Selenium	11.60		S	P
7440-22-4	Silver	902.00			P
7440-23-5	Sodium	73600.00			P
7440-28-0	Thallium	10.00	U	B	P
7440-62-2	Vanadium	464.00			P
7440-66-6	Zinc	38200.00			P
	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

AR301621

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

FF62R10

Lab Name: NET-CAMBRIDGE DIVISION Contract:

Lab Code: CAMBRG Case No.: SOUTH SAS No.: SDG No.: 22040W

Matrix (soil/water): WATER Lab Sample ID: 0-445-079

Level (low/med): LOW Date Received: 06/25/90

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	92.90	B		P
7440-36-0	Antimony	60.00	U		P
7440-38-2	Arsenic	15.00	U	N	P
7440-39-3	Barium	32.00	U		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	5.00	U		P
7440-70-2	Calcium	378.00	B		P
7440-47-3	Chromium	10.00	U		P
7440-48-4	Cobalt	50.00	U		P
7440-50-8	Copper	14.50	B		P
7439-89-6	Iron	511.00		*	P
7439-92-1	Lead	3.00	U	N+	P
7439-95-4	Magnesium	70.00	U		P
7439-96-5	Manganese	4.50	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	15.00	U		P
7440-09-7	Potassium	850.00	U		P
7782-49-2	Selenium	2.00	U	W	P
7440-22-4	Silver	5.00	U		P
7440-23-5	Sodium	210.00	B		P
7440-28-0	Thallium	4.00	U		P
7440-62-2	Vanadium	11.00	U		P
7440-66-6	Zinc	41.00	B		P
	Cyanide				CN

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

AR301622

Received: 06/28/90

NET Cambridge REPORT Work Order # 90-06-

Results by Sample

SAMPLE ID NSL-LH-10-01 SAMPLE # 01 FRACTIONS: B,C,D,E,F,G,H

Date & Time Collected 06/27/90 Category AQ

ALK_A 69 mg/l as CaCO3	CLIC_A 64 mg/l	COD 430 mg/l	ECABNA 07/03/90 extraction date	ECPESA 07/03/90 extraction date	FIC_A 6.4 mg/l
HARDCA 1,380 mg/l as CaCO3	NH3_A 0.80 mg/l as N	NO32_A <0.20 mg/l as N	PHEN_A 0.13 mg/l	SO4ICA 9.9 mg/l	TDS 1,300 mg/l
TOC_A 160 mg/l	TURB 1,000 NTU				

AR301623

2 002

Data Validation - Organics

(volatiles, semivolatiles,
and pesticides/PCBs)

DATA VALIDATION SUMMARY

PROJECT DESCRIPTION: _____

SITE NAME & LOCATION: Novack Sanitary Landfill

SAMPLE GROUP: Leachate Draining Ways Set Two

DATE COLLECTED: 06/28/90 & 07/27/90 MATRIX: Soil & Water

QC REQUIREMENTS:	VOCs	BNAs	PEST/PCBs
1 - Holding Times	A	A	A
2 - GC/MS Tuning & Performance	A	A	N
3 - Pest/PCBs Performance	N	N	A
4 - GC/MS Calibration	P	P	N
5 - Pest/PCBs Calibration	N	N	P
6 - Method Blanks	P	P	A
7 - Field Blanks	A	A	A
8 - Trip Blanks	P	N	N
9 - GC/MS Surrogate Recovery	A	A	N
10 - Pest/PCBs Surrogate Recovery	N	N	A
11 - MS/MSD	P	A	P
12 - Field Duplicates	N	N	N
13 - Internal Standards	A	A	N
14 - Compound Identification	A	A	A
15 - Quant & Detection Limits	A	A	A
16 - TICs	N	A	N

QC CRITERIA:

A - Acceptable: All criteria met (see *Functional Guidelines*).

P - Provisional: All criteria not met; data usable as flagged.

U - Unacceptable: Criteria not met: data unusable

N - Not Applicable.

* - data qualifier flags applied to data summary table.

GERAGHTY & MILLER, INC.

LABORATORY DATA VALIDATION
ORGANICS - 1

HOLDING TIMES

PROJECT DESCRIPTION: _____

SITE NAME & LOCATION: Novack Sanitary Landfill

SAMPLE GROUP: Leachate Draining Ways Set Two

DATE COLLECTED: 06/28/90 & 07/27/90 MATRIX: Soil & Water

PARAMETERS:

VOCs A

BNAs A

PEST/PCBs A

QC CRITERIA: *

A - Acceptable: All QAPP and 40 CFR 136 specified holding times met.

P - Provisional: Some QAPP and 40 CFR 136 specified holding times are exceeded; data usable as flagged (see *Functional Guidelines*).

U - Unacceptable: Holding times grossly exceeded; data unusable.

N - Not Applicable.

REMARKS:

AR301626

* Attachments: Holding Times Table

FORM A

MASTER SAMPLE LIST AND HOLDING TIME ANALYSIS

Parameters (Method): VOCs

SAMPLE ID NO.	COC NO.	PARAMETERS	SAMPLE COLLECTION DATE	SAMPLE PREPARATION DATE	SAMPLE ANALYSIS DATE	ALLOWABLE HOLD TIME	ACTUAL HOLD TIME	EXCEE TI
NSLLH1002	3		07/26/90	---	07/30/90	14	4	---
NSLSS1002R	3		07/26/90	---	08/01/90	14	6	---
NSLSD902	3		07/26/90	---	07/30/90	14	4	---
NSLSS1002	3		07/26/90	---	08/01/90	14	6	---
SWTB3	3		07/26/90	---	07/30/90	14	4	---

FORM A

MASTER SAMPLE LIST AND HOLDING TIME ANALYSIS

Parameters (Method): Semi-Volatiles

SAMPLE ID NO.	COC NO.	PARAMETERS	SAMPLE COLLECTION DATE	SAMPLE PREPARATION DATE	SAMPLE ANALYSIS DATE	ALLOWABLE HOLD TIME	ACTUAL HOLD TIME	EXCEE TI
NSLSS1001	1	(soil)	06/27/90	07/06/90	07/23/90	7/40	9/17	- /
NSLSD901	1	(soil)	06/27/90	07/06/90	07/23/90	7/40	9/17	- /
NSLLH1001	1	(water)	06/27/90	07/03/90	07/27/90	7/40	6/24	- /
NSLSS1001R	2	(water)	06/27/90	07/03/90	07/30/90	7/40	6/24	- /

FORM A

MASTER SAMPLE LIST AND HOLDING TIME ANALYSIS

Parameters (Method): _____

SAMPLE ID NO.	COC NO.	PARAMETERS	SAMPLE COLLECTION DATE	SAMPLE PREPARATION DATE	SAMPLE ANALYSIS DATE	ALLOWABLE HOLD TIME	ACTUAL HOLD TIME	EXCEE TI
LH1001		Pest/PCB	06/28/90	07/03/90	08/05/90	7/40	5/38	---
SD901		Pest/PCB	06/28/90	07/06/90	08/14/90	7/40	8/47	---
SS1001		Pest/PCB	06/28/90	07/06/90	08/14/90	7/40	8/47	---
SS1001R		Pest/PCB	06/28/90	07/03/90	08/05/90	7/40	5/38	---

Evaluation of Pesticide/PCB Instrument Performance

AR301630

GC/MS TUNING AND PERFORMANCE

PROJECT DESCRIPTION: _____

SITE NAME & LOCATION: Novack Sanitary Landfill

SAMPLE GROUP: Leachate Draining Ways Set Two

DATE COLLECTED: 06/28/90 % 07/27/90 MATRIX: Soil & Water

PARAMETERS:

VOCs A

BNAs A

PEST/PCBs N

QC CRITERIA: *

A - Acceptable: All ion abundance criteria met, spectra of good quality; Form V present for each 12-hour period.

P - Provisional: All ion abundance criteria not met or results within expanded criteria; data usable as flagged (see *Functional Guidelines*).

U - Unacceptable: Criteria not met or mass calibration in error, spectra of poor quality; data unusable.

N - Not Applicable.

REMARKS:

AR301631

* Attachments: Form V (VOCs & BNAs)

Evaluation of GC/MS Tuning and Performance

(volatiles and semi-volatiles)

AR301632

GERAGHTY & MILLER, INC.

LABORATORY DATA VALIDATION
ORGANICS - 3

PESTICIDE/PCB INSTRUMENT PERFORMANCE

PROJECT DESCRIPTION: _____

SITE NAME & LOCATION: Novack Sanitary Landfill

SAMPLE GROUP: Leachate Draining Ways Set Two

DATE COLLECTED: 06/28/90 & 07/27/90 MATRIX: Soil & Water

PARAMETERS:

VOCs N

BNAs N

PEST/PCBs A

QC CRITERIA: *

A - Acceptable: All criteria met in *Functional Guidelines*, Section II, Pesticide Instrument Performance.

P - Provisional: All criteria not met; data usable as flagged (see *Functional Guidelines*).

U - Unacceptable: Criteria not met; data unusable.

N - Not Applicable.

REMARKS:

AR301633

* Attachments: Form IX (Pest/PCBs) and Raw Data Package

Volatiles Calibration Raw Data

Note: Calibrations have been arranged by instrument and in chronological order for ease in tracking and validating.

GC/MS CALIBRATION

PROJECT DESCRIPTION: _____

SITE NAME & LOCATION: Novack Sanitary Landfill

SAMPLE GROUP: Leachate Draining Ways Set Two

DATE COLLECTED: 06/28/90 & 07/27/90 MATRIX: Soil & Water

PARAMETERS:

VOCs P

BNAs P

PEST/PCBs N

QC CRITERIA: *

A - Acceptable: Average relative response factor ($\overline{RRF}$) ≥0.05; Percent relative standard deviations (%RSD) ≤30% for initial calibration and percent difference (%D) ≤25% for continuing calibration.

P - Provisional: Some criteria met; data usable as flagged (see *Functional Guidelines*).

U - Unacceptable: Criteria not met; data unusable.

N - Not Applicable.

REMARKS:

VOCs: acetone, 1,2-dichlorobenzene, and vinyl acetate out of control limits for $\overline{RRF}$, %RSD, or both, affecting samples NSLLH1002, SS1002-Rinsate, Trip Blank (Instrument HPS970K). Data flagged "UJ". Bromomethane, bromoform out of control limits for $\overline{RRF}$, %RSD, or both, affecting samples NSLSS1002 and NSLSD902 (Instrument HP5995D). Data flagged "UJ".

AR301635

* Attachments: Form VI and VII (VOCs & BNAs)

BNAs (semivolatiles): 2,4-dinitrophenol; 4,6-dinitro-2-methyl-phenol; di-n-butylphthalate out of control limits for RRF, %RDS, or both, affecting samples NSLSD901, NSLSS1011, and NSLSS1001-Rinsate. Data flagged "UJ" or "J", (Instrument HP5970F).

Benzoic acid; 2,4-dinitrophenol; 3,3'-dichlorobenzidine; pyrene, benzo(k)fluoranthene; benzo(ghi) perylene; terphenyl-d14 out of control limits for RRF, %RSD, or both. Only sample NSLLH1001 affected. Data flagged "J" or "UJ" (Instrument HP5970J).

Semi-Volatiles Calibration Raw Data

Note: Calibrations have been arranged by instrument and in chronological order for ease in tracking and validating.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Instrument ID: HP5970K Calibration Date(s): 07/24/90 07/24/90

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) PACK

Min RRF for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = K3945 RRF50 = K3949
RRF100= K3946 RRF150= K3947 RRF200= K3948

COMPOUND	RRF20	RRF50	RRF100	RRF150	RRF200	RRF	% RSD
Chloromethane #	0.547	0.649	0.579	0.649	0.665	0.618	8.4#
Bromomethane	1.043	1.070	1.012	0.760	0.640	0.905	21.3
Vinyl Chloride *	0.827	0.840	0.816	0.863	0.756	0.820	4.9*
Chloroethane	0.531	0.550	0.552	0.577	0.528	0.548	3.6
Methylene Chloride	1.083	1.054	1.056	1.081	1.001	1.055	3.1
Acetone	0.338	0.140	0.193	0.147	0.133	0.190	45.2
Carbon Disulfide	2.367	2.440	2.488	2.727	2.543	2.513	5.4
1,1-Dichloroethene *	1.167	1.194	1.199	1.260	1.140	1.192	3.8*
1,1-Dichloroethane #	2.152	2.296	2.312	2.495	2.278	2.307	5.3#
1,2-Dichloroethene (total)	1.292	1.290	1.320	1.386	1.294	1.316	3.1
Chloroform *	2.868	2.721	2.749	2.946	2.705	2.798	3.7*
1,2-Dichloroethane	3.064	1.452	1.457	1.508	1.397	1.776	40.6
2-Butanone	0.075	0.076	0.076	0.075	0.067	0.074	5.2
1,1,1-Trichloroethane	0.522	0.572	0.570	0.612	0.551	0.565	5.8
Carbon Tetrachloride	0.530	0.564	0.574	0.623	0.557	0.570	6.0
Vinyl Acetate	0.300	0.447	0.153	0.474	0.432	0.361	37.2
Bromodichloromethane	0.636	0.675	0.686	0.730	0.656	0.677	5.2
1,2-Dichloropropane *	0.331	0.364	0.343	0.376	0.329	0.349	5.9*
cis-1,3-Dichloropropene	0.647	0.700	0.684	0.753	0.672	0.691	5.7
Trichloroethene	0.461	0.465	0.486	0.490	0.433	0.467	4.9
Dibromochloromethane	0.618	0.655	0.621	0.668	0.593	0.631	4.8
1,1,2-Trichloroethane	0.316	0.333	0.295	0.321	0.273	0.308	7.7
Benzene	0.792	0.868	0.797	0.879	0.771	0.821	5.9
trans-1,3-Dichloropropene	0.304	0.319	0.295	0.325	0.281	0.305	5.8
Bromoform #	0.500	0.532	0.494	0.552	0.476	0.511	6.0#
4-Methyl-2-Pentanone	0.211	0.210	0.191	0.207	0.184	0.201	6.1
2-Hexanone	0.145	0.142	0.120	0.130	0.117	0.131	9.6
Tetrachloroethene	0.459	0.461	0.447	0.486	0.430	0.457	4.5
1,1,2,2-Tetrachloroethane #	0.549	0.568	0.446	0.539	0.476	0.516	10.1#
Toluene *	0.630	0.658	0.623	0.667	0.581	0.632	5.4*
Chlorobenzene #	0.901	0.957	0.928	1.009	0.900	0.939	4.9#
Ethylbenzene *	0.428	0.434	0.420	0.453	0.411	0.429	3.7*
Styrene	0.901	0.963	0.919	1.014	0.901	0.940	5.2
Xylene (total)	0.509	0.527	0.485	0.550	0.438	0.502	8.5
Toluene-d8	1.077	1.071	1.046	1.157	0.896	1.049	9.1
Bromofluorobenzene	0.737	0.682	0.673	0.756	0.587	0.687	9.6
1,2-Dichloroethane-d4	1.392	1.259	1.227	1.319	1.092	1.258	8.9

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Instrument ID: HP5970K Calibration date: 07/30/90 Time: 1205

Lab File ID: K4024 Init. Calib. Date(s): 07/24/90 07/24/90

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) PACK

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

COMPOUND		RRF	RRF50	%D	
Chloromethane	#	0.618	0.602	2.6	#
Bromomethane		0.905	1.020	-12.7	
Vinyl Chloride	*	0.820	0.710	13.4	*
Chloroethane		0.548	0.507	7.5	
Methylene Chloride		1.055	0.994	5.8	
Acetone		0.190	0.170	10.5	
Carbon Disulfide		2.513	2.665	-6.0	
1,1-Dichloroethene	*	1.192	1.271	-6.6	*
1,1-Dichloroethane	#	2.307	2.110	8.5	#
1,2-Dichloroethene (total)		1.316	1.376	-4.6	
Chloroform	*	2.798	2.735	2.3	*
1,2-Dichloroethane		1.776	1.251	29.6	
2-Butanone		0.074	0.088	-18.9	
1,1,1-Trichloroethane		0.565	0.565	0.0	
Carbon Tetrachloride		0.570	0.566	0.7	
Vinyl Acetate		0.361	0.454	-25.8	
Bromodichloromethane		0.677	0.682	-0.7	
1,2-Dichloropropane	*	0.349	0.319	8.6	*
cis-1,3-Dichloropropene		0.691	0.650	5.9	
Trichloroethene		0.467	0.485	-3.9	
Dibromochloromethane		0.631	0.669	-6.0	
1,1,2-Trichloroethane		0.308	0.319	-3.6	
Benzene		0.821	0.850	-3.5	
trans-1,3-Dichloropropene		0.305	0.287	5.9	
Bromoform	#	0.511	0.534	-4.5	#
4-Methyl-2-Pentanone		0.201	0.215	-7.0	
2-Hexanone		0.131	0.158	-20.6	
Tetrachloroethene		0.457	0.601	-31.5	
1,1,2,2-Tetrachloroethane	#	0.516	0.551	-6.8	#
Toluene	*	0.632	0.692	-9.5	*
Chlorobenzene	#	0.939	0.987	-5.1	#
Ethylbenzene	*	0.429	0.460	-7.2	*
Styrene		0.940	0.989	-5.2	
Xylene (total)		0.502	0.562	-12.0	
Toluene-d8		1.049	1.056	-0.7	
Bromofluorobenzene		0.687	0.681	0.9	
1,2-Dichloroethane-d4		1.258	1.098	12.7	

AR301639

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Instrument ID: HP5970K Calibration date: 08/01/90 Time: 1511

Lab File ID: K4066 Init. Calib. Date(s): 07/24/90 07/24/90

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) PACK

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

COMPOUND		RRF	RRF50	%D	
Chloromethane	#	0.618	0.530	14.2	#
Bromomethane		0.905	1.036	-14.5	
Vinyl Chloride	*	0.820	0.807	1.6	*
Chloroethane		0.548	0.588	-7.3	
Methylene Chloride		1.055	1.122	-6.4	
Acetone		0.190	0.236	-24.2	
Carbon Disulfide		2.513	2.758	-9.7	
1,1-Dichloroethene	*	1.192	1.305	-9.5	*
1,1-Dichloroethane	#	2.307	2.412	-4.6	#
1,2-Dichloroethene (total)		1.316	1.389	-5.5	
Chloroform	*	2.798	3.191	-14.0	*
1,2-Dichloroethane		1.776	1.711	3.7	
2-Butanone		0.074	0.078	-5.4	
1,1,1-Trichloroethane		0.565	0.726	-28.5	
Carbon Tetrachloride		0.570	0.746	-30.9	
Vinyl Acetate		0.361	0.556	-54.0	
Bromodichloromethane		0.677	0.819	-21.0	
1,2-Dichloropropane	*	0.349	0.359	-2.9	*
cis-1,3-Dichloropropene		0.691	0.696	-0.7	
Trichloroethene		0.467	0.484	-3.6	
Dibromochloromethane		0.631	0.758	-20.1	
1,1,2-Trichloroethane		0.308	0.338	-9.7	
Benzene		0.821	0.866	-5.5	
trans-1,3-Dichloropropene		0.305	0.339	-11.2	
Bromoform	#	0.511	0.586	-14.7	#
4-Methyl-2-Pentanone		0.201	0.256	-27.4	
2-Hexanone		0.131	0.173	-32.1	
Tetrachloroethene		0.457	0.551	-20.6	
1,1,2,2-Tetrachloroethane	#	0.516	0.587	-13.8	#
Toluene	*	0.632	0.695	-10.0	*
Chlorobenzene	#	0.939	0.988	-5.2	#
Ethylbenzene	*	0.429	0.457	-6.5	*
Styrene		0.940	1.012	-7.7	
Xylene (total)		0.502	0.608	-21.1	
Toluene-d8		1.049	1.106	-5.4	
Bromofluorobenzene		0.687	0.839	-22.1	
1,2-Dichloroethane-d4		1.258	1.549	-23.1	

AR301640

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Instrument ID: HP5995D Calibration Date(s): 07/08/90 07/08/90

Matrix: (soil/water) SOIL Level: (low/med) LOW Column: (pack/cap) PACK

Min $\overline{RRF}$ for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = D7010 RRF50 = D7004
RRF100= D7006 RRF150= D7007 RRF200= D7008

COMPOUND	RRF20	RRF50	RRF100	RRF150	RRF200	$\overline{RRF}$	% RSD
Chloromethane #	0.871	0.710	0.605	0.593	0.522	0.660	20.6#
Bromomethane	1.169	0.352	0.228	0.215	0.164	0.426	98.9
Vinyl Chloride *	1.209	0.971	0.873	0.913	0.757	0.945	17.7*
Chloroethane	0.813	0.702	0.628	0.635	0.566	0.669	14.0
Methylene Chloride	1.296	1.383	1.345	1.290	1.210	1.305	5.0
Acetone	0.818	0.976	0.998	0.840	0.857	0.898	9.2
Carbon Disulfide	3.881	3.216	2.877	2.911	2.540	3.085	16.4
1,1-Dichloroethene *	1.254	1.026	0.933	0.922	0.799	0.987	17.2*
1,1-Dichloroethane #	2.512	2.351	2.215	2.186	1.998	2.252	8.5#
-Dichloroethene (total)	1.324	1.155	1.089	1.076	0.950	1.119	12.2
Chloroform *	2.747	2.739	2.583	2.474	2.201	2.549	8.8*
1,2-Dichloroethane	2.231	2.645	2.531	2.371	2.243	2.404	7.5
2-Butanone	0.311	0.334	0.357	0.318	0.319	0.328	5.6
1,1,1-Trichloroethane	0.572	0.577	0.517	0.510	0.454	0.526	9.6
Carbon Tetrachloride	0.476	0.504	0.463	0.457	0.393	0.459	8.9
Vinyl Acetate	0.776	1.163	1.226	1.174	1.190	1.106	16.8
Bromodichloromethane	0.520	0.690	0.674	0.647	0.626	0.631	10.6
1,2-Dichloropropane *	0.313	0.389	0.388	0.381	0.373	0.369	8.6*
cis-1,3-Dichloropropene	0.664	0.889	0.876	0.840	0.817	0.817	11.0
Trichloroethene	0.382	0.401	0.382	0.377	0.347	0.378	5.2
Dibromochloromethane	0.491	0.679	0.676	0.620	0.606	0.614	12.4
1,1,2-Trichloroethane	0.307	0.451	0.436	0.419	0.399	0.402	14.1
Benzene	0.911	1.010	0.964	0.962	0.894	0.948	4.9
trans-1,3-Dichloropropene	0.366	0.525	0.502	0.479	0.448	0.464	13.3
Bromoform #	0.431	0.659	0.698	0.664	0.657	0.622	17.4#
4-Methyl-2-Pentanone	0.561	0.741	0.779	0.741	0.768	0.718	12.4
2-Hexanone	0.479	0.624	0.639	0.578	0.608	0.586	10.9
Tetrachloroethene	0.391	0.369	0.342	0.333	0.292	0.345	10.9
1,1,2,2-Tetrachloroethane #	0.602	0.781	0.834	0.783	0.785	0.757	11.8#
Toluene *	0.758	0.735	0.691	0.676	0.631	0.698	7.2*
Chlorobenzene #	0.882	0.974	0.951	0.932	0.884	0.925	4.4#
Ethylbenzene *	0.425	0.439	0.428	0.420	0.392	0.421	4.2*
Styrene	0.922	1.059	1.052	1.034	0.983	1.010	5.7
Xylene (total)	0.347	0.552	0.543	0.504	0.505	0.490	16.9
Toluene-d8	1.234	1.114	1.064	1.005	0.978	1.[illegible]	[illegible]
Bromofluorobenzene	0.639	0.662	0.664	0.612	0.621	0.[illegible]40	3.7
1,2-Dichloroethane-d4	2.130	2.225	2.148	1.908	1.851	2.052	7.9

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Instrument ID: HP5995D Calibration date: 07/30/90 Time: 0905

Lab File ID: D7408 Init. Calib. Date(s): 07/08/90 07/08/90

Matrix: (soil/water) SOIL Level: (low/med) LOW Column: (pack/cap) PACK

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

COMPOUND		RRF	RRF50	%D	
Chloromethane	#	0.660	0.672	-1.8	#
Bromomethane		0.426	0.895	-99.9	
Vinyl Chloride	*	0.945	0.985	-4.2	*
Chloroethane		0.669	0.702	-4.9	
Methylene Chloride		1.305	1.259	3.5	
Acetone		0.898	0.746	16.9	
Carbon Disulfide		3.085	2.527	18.1	
1,1-Dichloroethene	*	0.987	0.989	-0.2	*
1,1-Dichloroethane	#	2.252	2.282	-1.3	#
1,2-Dichloroethene (total)		1.119	1.093	2.3	
Chloroform	*	2.549	2.501	1.9	*
1,2-Dichloroethane		2.404	2.293	4.6	
2-Butanone		0.328	0.259	21.0	
1,1,1-Trichloroethane		0.526	0.488	7.2	
Carbon Tetrachloride		0.459	0.445	3.0	
Vinyl Acetate		1.106	0.848	23.3	
Bromodichloromethane		0.631	0.570	9.7	
1,2-Dichloropropane	*	0.369	0.329	10.8	*
cis-1,3-Dichloropropene		0.817	0.735	10.0	
Trichloroethene		0.378	0.325	14.0	
Dibromochloromethane		0.614	0.508	17.3	
1,1,2-Trichloroethane		0.402	0.328	18.4	
Benzene		0.948	0.871	8.1	
trans-1,3-Dichloropropene		0.464	0.410	11.6	
Bromoform	#	0.622	0.440	29.3	#
4-Methyl-2-Pentanone		0.718	0.596	17.0	
2-Hexanone		0.586	0.472	19.4	
Tetrachloroethene		0.345	0.317	8.1	
1,1,2,2-Tetrachloroethane	#	0.757	0.609	19.6	#
Toluene	*	0.698	0.674	3.4	*
Chlorobenzene	#	0.925	0.857	7.4	#
Ethylbenzene	*	0.421	0.404	4.0	*
Styrene		1.010	1.020	-1.0	
Xylene (total)		0.490	0.557	-13.7	
Toluene-d8		1.079	1.124	-4.2	
Bromofluorobenzene		0.640	0.627	2.0	
1,2-Dichloroethane-d4		2.052	2.105	-2.6	

AR301642

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Instrument ID: HP5995D Calibration Date(s): 08/01/90 08/01/90

Matrix: (soil/water) SOIL Level: (low/med) LOW Column: (pack/cap) PACK

Min $\overline{RRF}$ for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = D7448 RRF50 = D7447
RRF100= D7449 RRF150= D7450 RRF200= D7451

COMPOUND	RRF20	RRF50	RRF100	RRF150	RRF200	$\overline{RRF}$	% RSD
Chloromethane #	1.098	1.146	1.027	1.133	0.981	1.077	6.6#
Bromomethane	1.074	1.041	0.306	0.324	0.289	0.607	67.8
Vinyl Chloride *	1.379	1.376	1.196	1.265	1.095	1.262	9.6*
Chloroethane	0.940	0.965	0.839	0.883	0.789	0.883	8.2
Methylene Chloride	1.634	1.588	1.460	1.546	1.352	1.516	7.4
Acetone	1.699	1.527	1.610	1.668	1.564	1.614	4.4
Carbon Disulfide	3.086	3.126	2.851	2.968	2.626	2.931	6.9
1,1-Dichloroethene *	1.127	1.090	0.977	1.034	0.893	1.024	9.1*
1,1-Dichloroethane #	3.416	3.400	3.138	3.430	2.974	3.272	6.3#
-Dichloroethene (total)	1.245	1.194	1.107	1.175	1.025	1.149	7.4
Chloroform *	3.237	3.148	2.941	3.197	2.798	3.064	6.1*
1,2-Dichloroethane	3.504	3.425	3.295	3.673	3.367	3.453	4.2
2-Butanone	0.451	0.421	0.441	0.466	0.428	0.441	4.1
1,1,1-Trichloroethane	0.498	0.523	0.499	0.531	0.475	0.505	4.4
Carbon Tetrachloride	0.424	0.440	0.417	0.445	0.392	0.424	5.0
Vinyl Acetate	1.793	1.865	1.933	2.199	1.978	1.954	7.9
Bromodichloromethane	0.673	0.716	0.676	0.739	0.681	0.697	4.2
1,2-Dichloropropane *	0.511	0.532	0.508	0.574	0.508	0.527	5.4*
cis-1,3-Dichloropropene	0.993	1.033	0.971	1.060	0.948	1.001	4.5
Trichloroethene	0.326	0.325	0.298	0.316	0.276	0.308	6.9
Dibromochloromethane	0.541	0.547	0.522	0.571	0.499	0.536	5.1
1,1,2-Trichloroethane	0.405	0.403	0.384	0.422	0.372	0.397	4.9
Benzene	1.187	1.180	1.080	1.174	1.022	1.129	6.5
trans-1,3-Dichloropropene	0.575	0.580	0.545	0.599	0.533	0.566	4.8
Bromoform #	0.469	0.499	0.482	0.552	0.492	0.499	6.4#
4-Methyl-2-Pentanone	1.330	1.196	1.408	1.572	1.478	1.397	10.3
2-Hexanone	1.076	1.000	1.092	1.186	1.158	1.102	6.6
Tetrachloroethene	0.319	0.300	0.285	0.277	0.236	0.283	10.9
1,1,2,2-Tetrachloroethane #	0.871	0.841	0.890	0.930	0.845	0.875	4.2#
Toluene *	0.863	0.795	0.743	0.778	0.692	0.774	8.2*
Chlorobenzene #	0.927	0.894	0.862	0.901	0.804	0.878	5.4#
Ethylbenzene *	0.472	0.426	0.417	0.428	0.387	0.426	7.2*
Styrene	1.132	1.047	1.013	1.070	0.969	1.046	5.9
Xylene (total)	0.599	0.576	0.535	0.536	0.508	0.551	6.6
Toluene-d8	1.309	1.240	1.233	1.232	1.138	1.230	4.9
Bromofluorobenzene	0.832	0.803	0.810	0.870	0.824	0.828	3.2
1,2-Dichloroethane-d4	3.134	3.160	3.078	3.475	3.076	3.185	5.2

AR300163

Pesticide/PCB Evaluation of Instrument Calibration

AR301644

GERAGHTY & MILLER, INC.

LABORATORY DATA VALIDATION
ORGANICS - 5

Pest/PCBs CALIBRATION

PROJECT DESCRIPTION: _____

SITE NAME & LOCATION: Novack Sanitary Landfill

SAMPLE GROUP: Leachate Draining Ways Set Two

DATE COLLECTED: 06/28/90 & 07/27/90 MATRIX: Soil & Water

PARAMETERS:

VOCs N

BNAs N

PEST/PCBs P

QC CRITERIA: *

A - Acceptable: All criteria met in *Functional Guidelines*, Section III, Pesticide Calibration and all standards were analyzed in the 72-hour sequence.

P - Provisional: Some criteria met; data usable as flagged (see *Functional Guidelines*).

U - Unacceptable: Criteria not met; data unusable.

N - Not Applicable.

REMARKS:

4,4-DDT degradation is out of control limits (20%) beginning with check sample #2. LH1001 and SS1001R are affected. Neuterition time shift for DBC is out of control limits for LH1001 and SS1001R. Calibration curves were used in the determination of DDT, DBC, ALDAIN and ENDRIN.

AR301645

* Attachments: Form VIII (Pest/PCBs)

Pesticide/PCB Evaluation of Instrument Calibration

AR301646

BD

PESTICIDE EVALUATION STANDARDS SUMMARY

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Instrument ID: HP2 GC Column ID: SP2250

Dates of Analyses: 08/03/90 to 08/05/90

Evaluation Check for Linearity

PESTICIDE	CALIBRATION FACTOR EVAL MIX A	CALIBRATION FACTOR EVAL MIX B	CALIBRATION FACTOR EVAL MIX C	%RSD (</= 10.0%)
Aldrin	11600000	12900000	14400000	10.8
Endrin	11400000	12200000	14300000	11.9
4,4'-DDT	8810000	9680000	11000000	11.2 (1)
DBC	73800000	89300000	64200000	16.7

(1) If > 10.0% RSD, plot a standard curve and determine the ng for each sample in that set from the curve.

Evaluation Check for 4,4'-DDT/Endrin Breakdown
(percent breakdown expressed as total degradation)

		DATE ANALYZED	TIME ANALYZED	ENDRIN	4,4'-DDT	COMBINED (2)
	INITIAL					
01	EVAL MIX B	08/03/90	1835	0.0	7.6	
02	EVAL MIX B	08/04/90	1857	0.0	20.4	
03	EVAL MIX B	08/05/90	0451	0.0	11.6	

(2) See Form instructions.

AR301647

BE

PESTICIDE EVALUATION STANDARDS SUMMARY

Evaluation of Retention Time Shift for Dibutylchlorendate

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Instrument ID: HP2 GC Column ID: SP2250

Dates of Analyses: 08/03/90 to 08/05/90

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	% D	*
01	EVALA	4301042390	08/03/90	1749	0.0	
02	EVALB	4302042390	08/03/90	1835	-0.2	
03	EVALC	4303042390	08/03/90	1920	0.3	
04	INDA	4306050990	08/04/90	0840	0.3	
05	INDB	4307050990	08/04/90	0926	0.7	
06	TOXAPH	4308072090	08/04/90	1012	0.7	
07	AR1016	4310_060790	08/04/90	1057	0.5	
08	AR1242	4312_072390	08/04/90	1143	0.6	
09	AR1242	4312_072390	08/04/90	1229	0.5	
10	AR1254	4316_072390	08/04/90	1337	0.0	
11	AR1260	4311_062590	08/04/90	1437	0.5	
12	ZZZZZ	9006396-BLK1	08/04/90	1821	0.5	
13	EVALB	4302_042390	08/04/90	1857	0.3	
14	ZZZZZ	9006396-01	08/04/90	1942		*
15	ZZZZZ	9006396-04	08/04/90	2028	0.3	
16	ZZZZZ	9006443-01	08/04/90	2114	0.9	
17	ZZZZZ	9006443-02	08/04/90	2200	0.6	
18	ZZZZZ	9006443-04	08/04/90	2245		*
19	INDA	4306_050990	08/04/90	2331	0.1	
20	INDB	4307_050990	08/05/90	0017	0.7	
21	ZZZZZ	9006443-06	08/05/90	0103	0.6	
22	NSLLH1001	9006403-01	08/05/90	0148	-4.1	*
23	NSLSS1001R	9006403-04	08/05/90	0234	0.6	
24	EVALB	4302_042390	08/05/90	0451	0.6	
25	INDA	4306_050990	08/05/90	0840	0.7	
26	INDB	4307_050990	08/05/90	0926	0.7	

* Values outside of QC limits (2.0% for packed columns, 0.3% for capillary columns)

AR301648

FORM VIII PEST-2 1/87 Rev.

8D
PESTICIDE EVALUATION STANDARDS SUMMARY

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Instrument ID: HP4 GC Column ID: DB5

Dates of Analyses: 08/13/90 to 08/16/90

Evaluation Check for Linearity

PESTICIDE	CALIBRATION FACTOR EVAL MIX A	CALIBRATION FACTOR EVAL MIX B	CALIBRATION FACTOR EVAL MIX C	%RSD (<= 10.0%)
Aldrin	6680000	10400000	5510000	33.9
Endrin	4830000	5200000	4010000	13.0
4,4'-DDT	3470000	4270000	3600000	11.4 (1)
DBC	22200000	25900000	21500000	10.2

(1) If > 10.0% RSD, plot a standard curve and determine the ng for each sample in that set from the curve.

Evaluation Check for 4,4'-DDT/Endrin Breakdown
(percent breakdown expressed as total degradation)

		DATE ANALYZED	TIME ANALYZED	ENDRIN	4,4'-DDT	COMBINED (2)
	INITIAL					
01	EVAL MIX B	08/13/90	1305	26.7	0.0	
02	EVAL MIX B	08/14/90	0140	22.5	0.0	
03	EVAL MIX B	08/14/90	1116	0.0	0.0	
04	EVAL MIX B	08/14/90	2258	0.0	6.4	
05	EVAL MIX B	08/15/90	0354	0.0	5.7	

(2) See Form instructions.

8E
PESTICIDE EVALUATION STANDARDS SUMMARY
Evaluation of Retention Time Shift for Dibutylchlorendate

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Instrument ID: HP4 GC Column ID: DB5

Dates of Analyses: 08/13/90 to 08/16/90

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	% D	*
01	EVALA	4301042390	08/13/90	1220	0.0	
02	EVALB	4302042390	08/13/90	1305	0.0	
03	EVALC	4303042390	08/13/90	1349	0.0	
04	INDA	4306050990	08/13/90	1434	0.0	
05	INDB	4307050990	08/13/90	1518	0.0	
06	TOXAPH	4308072090	08/13/90	1603	0.0	
07	AR1016	4310080390	08/13/90	1647	0.0	
08	AR1221	4312052390	08/13/90	1731	0.0	
09	AR1232	4313060790	08/13/90	1816	0.0	
10	AR1242	4314072390	08/13/90	1900	0.0	
11	AR1248	4315072390	08/13/90	1945	0.0	
12	AR1254	4316072390	08/13/90	2029	0.0	
13	AR1260	4311062590	08/13/90	2113	0.0	
14	ZZZZZ	9007007-BLK1	08/13/90	2158	0.0	
15	ZZZZZ	9007007-04	08/13/90	2327	0.0	
16	ZZZZZ	9007007-07	08/14/90	0011	0.0	
17	ZZZZZ	9007007-09	08/14/90	0055	0.0	
18	EVALB	4302042390	08/14/90	0140	0.0	
19	ZZZZZ	9007007-11	08/14/90	0224	0.0	
20	ZZZZZ	9007007-12	08/14/90	0308	0.0	
21	ZZZZZ	9007007-12MS	08/14/90	0353	0.0	
22	ZZZZZ	9007007-12MD	08/14/90	0437	0.0	
23	ZZZZZ	9007040-BLK1	08/14/90	0522	0.0	
24	INDA	4306050990	08/14/90	0606	0.0	
25	INDB	4307050990	08/14/90	0650	-0.1	
26	ZZZZZ	9007040-03	08/14/90	0819	-0.1	
27	ZZZZZ	9007040-05	08/14/90	0903	-0.1	
28	ZZZZZ	9007040-06	08/14/90	0948	-0.2	
29	ZZZZZ	9007040-07	08/14/90	1032	-0.2	
30	EVALB	4302042390	08/14/90	1116	-0.2	
31	ZZZZZ	9007040-10	08/14/90	1200	0.0	
32	ZZZZZ	9007040-10MS	08/14/90	1245	0.0	
33	ZZZZZ	9007040-10MD	08/14/90	1329	0.0	
34	PBLK	9006403-BLK1	08/14/90	1458	0.0	
35	INDA	4306050990	08/14/90	1543	0.0	
36	INDB	4307050990	08/14/90	1627	0.0	
37	NSLSS1001	9006403-02	08/14/90	1711	0.0	
38	NSLSD901	9006403-03	08/14/90	1756	0.0	

AR301650

* Values outside of QC limits (2.0% for packed columns, 0.3% for capillary columns)

FORM VIII PEST-2 1/87 Rev.

8E

PESTICIDE EVALUATION STANDARDS SUMMARY

Evaluation of Retention Time Shift for Dibutylchlorendate

ab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

nstrument ID: HP4 GC Column ID: DB5

Dates of Analyses: 08/13/90 to 08/16/90

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	% D	*
01	MATRIXNATIVE	9006423-01	08/14/90	1845	0.0	
02	BATCHQCMS	9006423-01MS	08/14/90	1935	0.0	
03	BATCHQCMSD	9006423-01MD	08/14/90	2024	0.0	
04	INDA	4306050990	08/14/90	2119	0.0	
05	INDB	4307050990	08/14/90	2208	0.0	
06	EVALB	4302042390	08/14/90	2258	0.0	
07	ZZZZZ	9007117-01	08/14/90	2347	0.0	
08	ZZZZZ	9007117-02	08/15/90	0037	0.0	
09	ZZZZZ	9007117-03	08/15/90	0126	0.0	
10	ZZZZZ	9007117-04	08/15/90	0216	0.0	
11	ZZZZZ	9007117-05	08/15/90	0305	0.0	
12	EVALB	4302042390	08/15/90	0354	0.0	
13	ZZZZZ	9007117-06	08/15/90	0444	0.0	
14	ZZZZZ	9007117-07	08/15/90	0533	0.0	
15	ZZZZZ	9007117-08	08/15/90	0623	0.0	
16	ZZZZZ	9007117-09	08/15/90	0712	0.0	
17	ZZZZZ	9007117-10	08/15/90	0802	0.0	
18	INDA	4306050990	08/15/90	0851	0.0	
19	INDB	4307050990	08/15/90	0941		*
20	ZZZZZ	9007117-BLK2	08/16/90	1621	0.0	
21	ZZZZZ	9007117-11	08/16/90	1705	0.0	
22	INDAB	4307050990	08/16/90	1749	0.0	

* Values outside of QC limits (2.0% for packed columns, 0.3% for capillary columns)

AR301651

60033

8D

PESTICIDE EVALUATION STANDARDS SUMMARY

Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Instrument ID: HP8 GC Column ID: DB608

Dates of Analyses: 07/28/90 to 07/31/90

Evaluation Check for Linearity

PESTICIDE	CALIBRATION FACTOR EVAL MIX A	CALIBRATION FACTOR EVAL MIX B	CALIBRATION FACTOR EVAL MIX C	%RSD (</= 10.0%)	
Aldrin	12400000	14900000	14500000	9.6	
Endrin	13800000	13700000	13700000	0.4	
4,4'-DDT	11100000	10900000	12200000	6.1	(1)
DBC	49100000	47800000	51700000	4.0	

(1) If > 10.0% RSD, plot a standard curve and determine the ng for each sample in that set from the curve.

Evaluation Check for 4,4'-DDT/Endrin Breakdown
(percent breakdown expressed as total degradation)

		DATE ANALYZED	TIME ANALYZED	ENDRIN	4,4'-DDT	COMBINED (2)
	INITIAL					
01	EVAL MIX B	07/28/90	2217	13.1	4.6	
02	EVAL MIX B	07/29/90	1234	13.8	4.6	
03	EVAL MIX B	07/29/90	2151	17.9	4.8	
04	EVAL MIX B	07/30/90	0625	16.7	4.8	
05	EVAL MIX B	07/30/90	1543	19.9	5.3	
06	EVAL MIX B	07/31/90	0105	43.2	5.9	

(2) See Form instructions.

AR301652

8E

PESTICIDE EVALUATION STANDARDS SUMMARY

Evaluation of Retention Time Shift for Dibutylchlorendate

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Instrument ID: HP8 GC Column ID: DB608

Dates of Analyses: 07/28/90 to 07/31/90

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	% D	*
01	EVALA	4307050990	07/28/90	2134	0.0	
02	EVALB	4302042390	07/28/90	2217	0.2	
03	EVALC	4303042390	07/28/90	2300	0.3	
04	DDTA	4367011890	07/28/90	2342	0.3	
05	DDTB	4368011890	07/29/90	0025	0.3	
06	DDTC	4369011890	07/29/90	0108	0.3	
07	INDA	4306050990	07/29/90	0151	0.3	
08	INDB	4307050990	07/29/90	0234	0.3	
09	TOXAPH	4308072090	07/29/90	0317	0.3	
10	AR1016	4310060790	07/29/90	0400	0.3	
11	AR1221	4312052390	07/29/90	0443	0.3	
12	AR1232	4313060790	07/29/90	0525	0.3	
13	AR1242	4314072390	07/29/90	0608	0.3	
14	AR1248	4315072390	07/29/90	0651	0.3	
15	AR1254	4316072390	07/29/90	0734	0.3	
16	AR1260	4311062590	07/29/90	0817	0.3	
17	ZZZZZ	9006430-10	07/29/90	0900	0.3	
18	ZZZZZ	9006430-11	07/29/90	0943	0.4	
19	ZZZZZ	9006430-12	07/29/90	1025	0.6	
20	ZZZZZ	9006430-15	07/29/90	1108	0.6	
21	ZZZZZ	9006430-16	07/29/90	1151	0.6	
22	EVALB	4302042390	07/29/90	1234	0.7	
23	ZZZZZ	9006430-20	07/29/90	1317	0.8	
24	INDA	4306050990	07/29/90	1651	0.8	
25	INDB	4307050990	07/29/90	1734	0.7	
26	ZZZZZ	9006260-BLK1	07/29/90	2108	0.4	
27	EVALB	4302042390	07/29/90	2151	0.3	
28	ZZZZZ	9006260-04	07/29/90	2234	0.4	
29	ZZZZZ	9006285-01	07/30/90	0000	0.4	
30	ZZZZZ	9006285-02	07/30/90	0042	0.3	
31	ZZZZZ	9006285-03	07/30/90	0125	0.3	
32	INDB	4307050990	07/30/90	0208	0.3	
33	ZZZZZ	9006285-04	07/30/90	0251	0.2	
34	ZZZZZ	9006285-06	07/30/90	0334	0.2	
35	ZZZZZ	9006285-06MS	07/30/90	0417	0.2	
36	ZZZZZ	9006285-06MD	07/30/90	0500	0.1	
37	EVALB	4302042390	07/30/90	0625	0.1	
38	INDA	4306050990	07/30/90	1043	0.6	

* Values outside of QC limits (2.0% for packed columns, 0.3% for capillary columns)

8E
PESTICIDE EVALUATION STANDARDS SUMMARY
Evaluation of Retention Time Shift for Dibutylchlorendate

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Instrument ID: HP8 GC Column ID: DB608

Dates of Analyses: 07/28/90 to 07/31/90

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	% D	*
01	INDB	4307050990	07/30/90	1125	0.7	
02	ZZZZZ	9006366-03	07/30/90	1251	0.7	
03	ZZZZZ	9006366-04	07/30/90	1334	0.7	
04	ZZZZZ	9006366-05	07/30/90	1417	0.8	
05	ZZZZZ	9006396-BLK1	07/30/90	1500	0.9	
06	EVALB	4302042390	07/30/90	1543	0.8	
07	INDB	4307050990	07/30/90	2005	0.4	
08	INDB	4307050990	07/31/90	0032	0.9	
09	EVALB	4302042390	07/31/90	0105	0.3	
10	PBLK	9006403-BLK1	07/31/90	0440	0.1	
11	INDA	4306050990	07/31/90	1149	0.7	
12	INDB	4306050990	07/31/90	1232	0.9	

* Values outside of QC limits (2.0% for packed columns, 0.3% for capillary columns)

AR301654

60036

8D

PESTICIDE EVALUATION STANDARDS SUMMARY

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

nstrument ID: HP8 GC Column ID: DB608

Dates of Analyses: 08/14/90 to 08/16/90

Evaluation Check for Linearity

PESTICIDE	CALIBRATION FACTOR EVAL MIX A	CALIBRATION FACTOR EVAL MIX B	CALIBRATION FACTOR EVAL MIX C	%RSD (</= 10.0%)	
Aldrin	13300000	14300000	16300000	10.4	
Endrin	9450000	9780000	10900000	7.6	
4,4'-DDT	11400000	12000000	12800000	5.8	(1)
DBC	48300000	50100000	49100000	1.8	

(1) If > 10.0% RSD, plot a standard curve and determine the ng for each sample in that set from the curve.

Evaluation Check for 4,4'-DDT/Endrin Breakdown
(percent breakdown expressed as total degradation)

		DATE ANALYZED	TIME ANALYZED	ENDRIN	4,4'-DDT	COMBINED (2)
	INITIAL					
01	EVAL MIX B	08/14/90	1934	0.0	0.0	
02	EVAL MIX B	08/15/90	0935	11.0	1.4	
03	EVAL MIX B	08/15/90	1951	10.9	0.0	
04	EVAL MIX B	08/16/90	1342	13.8	8.2	

(2) See Form instructions.

AR301655

BE

PESTICIDE EVALUATION STANDARDS SUMMARY

Evaluation of Retention Time Shift for Dibutylchlorendate

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Instrument ID: HP8 GC Column ID: DB608

Dates of Analyses: 08/14/90 to 08/16/90

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	% D	*
01	EVALA	4302042390	08/14/90	1847	0.0	
02	EVALB	4302042390	08/14/90	1934	0.0	
03	EVALC	4302042390	08/14/90	2021	0.0	
04	INDA	4306050990	08/14/90	2328	-0.1	
05	INDB	4307050990	08/15/90	0015	-0.1	
06	TOXAPH	4307050990	08/15/90	0101	-0.1	
07	AR1016	4310080390	08/15/90	0148	-0.1	
08	AR1242	4314072390	08/15/90	0235	-0.1	
09	AR1248	4315080490	08/15/90	0321	-0.1	
10	AR1254	4316072390	08/15/90	0408	-0.2	
11	AR1260	4311062590	08/15/90	0455	-0.2	
12	ZZZZZ	9007111-09	08/15/90	0542	-0.1	
13	ZZZZZ	9007111-10	08/15/90	0628	0.0	
14	ZZZZZ	9007111-11	08/15/90	0715	0.2	
15	INDA	4306050990	08/15/90	0802	0.4	
16	INDB	4307050990	08/15/90	0848	0.7	
17	EVALB	4302042390	08/15/90	0935	0.9	
18	ZZZZZ	9007007-BLK1	08/15/90	1022	1.0	
19	ZZZZZ	9007007-04	08/15/90	1205	1.2	
20	ZZZZZ	9007007-07	08/15/90	1257	1.3	
21	ZZZZZ	9007007-09	08/15/90	1349	1.4	
22	INDAB	4356061990	08/15/90	1441	1.4	
23	ZZZZZ	9007007-11	08/15/90	1533	1.5	
24	ZZZZZ	9007007-12	08/15/90	1624	1.4	
25	ZZZZZ	9007007-12MS	08/15/90	1716	1.2	
26	ZZZZZ	9007007-12MD	08/15/90	1808	0.5	
27	ZZZZZ	9007040-BLK1	08/15/90	1900	-0.9	
28	EVALB	4302042390	08/15/90	1951	-1.5	
29	ZZZZZ	9007040-03	08/15/90	2135	-1.8	*
30	ZZZZZ	9007040-05	08/15/90	2226	0.3	
31	ZZZZZ	9007040-06	08/15/90	2318	-2.0	*
32	ZZZZZ	9007040-07	08/16/90	0010	-2.0	*
33	INDAB	4356060690	08/16/90	0101	-2.1	*
34	ZZZZZ	9007040-10	08/16/90	0153	-2.2	*
35	ZZZZZ	9007040-10MS	08/16/90	0245	-2.2	*
36	ZZZZZ	9007040-10MD	08/16/90	0337	-2.2	*
37	NSLSD901	9006403-03	08/16/90	1251	-0.1	
38	EVALB	4302042390	08/16/90	1342	-0.2	

* Values outside of QC limits (2.0% for packed columns, 0.3% for capillary columns)

BE

PESTICIDE EVALUATION STANDARDS SUMMARY

Evaluation of Retention Time Shift for Dibutylchlorendate

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Instrument ID: HP8 GC Column ID: DB608

Dates of Analyses: 08/14/90 to 08/16/90

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	% D	*
01	NSLSS1001	9006403-02	08/16/90	1434	-0.2	
02	MATRIXNATIVE	9006423-01	08/16/90	1526	-0.1	
03	BATCHQCMS	9006423-01MS	08/16/90	1618	-0.1	
04	BATCHQCMSD	9006423-01MD	08/16/90	1709	-0.2	
05	INDAB	4356061990	08/16/90	1801	-0.2	

* Values outside of QC limits (2.0% for packed columns, 0.3% for capillary columns)

AR301657

Evaluation of Method Blanks

AR301658

METHOD BLANKS

PROJECT DESCRIPTION: _____

SITE NAME & LOCATION: Novack Sanitary Landfill

SAMPLE GROUP: Leachate Draining Ways Set Two

DATE COLLECTED: 06/28/90 & 07/27/90 MATRIX: Soil & Water

PARAMETERS:

VOCs P

BNAs P

PEST/PCBs A

QC CRITERIA: *

A - Acceptable: No evidence of contaminants above minimum detection limits, no interference with sample results, appropriate blank used for each GC/MS system, extraction method, and analytical system.

P - Provisional: Contaminants present, but minimal interference with sample results; use *Functional Guidelines* 5X or 10X guidelines to assign data qualifier flags.

U - Unacceptable: Gross contamination, too much interference to use data for certain compounds or for the entire fraction; appropriate blanks not analyzed.

N - Not Applicable.

REMARKS:

(see attached)

AR301659

* Attachments: Form IV (All Parameters) and Method Blank analyses

VOCs

Blank	Parameter	Blank Conc.	5x/10x	NSLCH1002" Conc.	NSLCH1002" Flag	Trip Blank" Conc.	Trip Blank" Flag
VBLK73090K	Methylene chloride	1	10	2	B	6	B
	Tetrachloroethene	2	10	2	B	1	B
	Acetone	10	100	44	B	10	
				NSLSD902			
VBLK73090D	Toluene	2	20	6	B		
VBLK80190D	Methylene chloride	1	10	3	B		
	Toluene	1	10	2	B		
VBLK80190K	Methylene chloride	2	20	5	B		
	1,1,2,2-tetrachloro-ethane	2	10	5	B		
	Toluene	1	10	5	B		

1/ Reported concentration and applicable qualifier code.

AR301660

BNAs

Blank	Parameter	Blank Conc.	5x/10x	NSLSD901 Conc.	NSLSD901 Flag	NSLSS1001 Conc.	NSLSS1001 Flag
SBLK70690F	Naphthalene	63	315			410	J
	di-n-butylphthalate	560	5600	1700	B	1500	B
	butylbenzylphthalate	670	6700	240	BJ	120	BJ
	bis-2-ethylhexyl) phthalate	93	930			1200	

4A
VOLATILE METHOD BLANK SUMMARY

3 008

Name: CAMBRG Contract: NOVAK

ab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Lab File ID: K4025 Lab Sample ID: 6340-073090

ate Analyzed: 07/30/90 Time Analyzed: 1256

Matrix: (soil/water) WATER Level: (low/med) LOW

nstrument ID: HP5970K

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	NSLLH1002	9007305-01	K4034	1931
02	TB	9007305-05	K4036	2046

OMMENTS: 6340-073090,V,,BLANK
CLP,10000,,VBLK073090K,L,W,ALS2 5UL CHARLIE

AR301662

FORM IV VOA

1/87 Rev.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK73090K

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 6340-073090

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K4025

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ Date Analyzed: 07/30/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	1	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	2	J
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK73090K

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 6340-073090

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K4025

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ Date Analyzed: 07/30/90

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

AR301664

3 1c

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK73090D

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6340 073090

Sample wt/vol: 5.0 (g/mL) G Lab File ID: D7409

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. 0 Date Analyzed: 07/30/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

AR301665

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK73090D

Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6340 073090

Sample wt/vol: 5.0 (g/mL) G Lab File ID: D7409

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. 0 Date Analyzed: 07/30/90

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

AR301666

4A
VOLATILE METHOD BLANK SUMMARY

Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Lab File ID: D7452 Lab Sample ID: 6340_073090

Date Analyzed: 08/01/90 Time Analyzed: 1412

Matrix: (soil/water) SOIL Level: (low/med) LOW

Instrument ID: HP5995D

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	NSLSS1002	9007305-04A	D7455	1640

COMMENTS: 6340_073090, V, BLANK
CLP, 3000, , VBLK, L, S, ALS 6 5.0G HEATED DRY

AR301667

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK80190D

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6340 073090

Sample wt/vol: 5.0 (g/mL) G Lab File ID: D7452

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. 0 Date Analyzed: 08/01/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	1	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	1	J
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK80190D

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6340 073090

Sample wt/vol: 5.0 (g/mL) G Lab File ID: D7452

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. 0 Date Analyzed: 08/01/90

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

AR301669

4A
VOLATILE METHOD BLANK SUMMARY

Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Lab File ID: K4067 Lab Sample ID: 6340-073090

Date Analyzed: 08/01/90 Time Analyzed: 1548

Matrix: (soil/water) WATER Level: (low/med) LOW

Instrument ID: HP5970K

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
SL SS 10 02R 01	SS1002R	9007305-02	K4071	1857
SL SS10 02RMS 02	SS1002RMS	9007305_2MS	K4073	2012
SL SS1002RMSD 03	SS1002RMSD	9007305_2MSD	K4074	2049

COMMENTS: 6340-073090,V,,BLANK
CLP,10000,,VBLK080190K,L,W,ALS1 5UL CHARLIE

AR301670

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK80190K

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 6340-073090

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K4067

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ Date Analyzed: 08/01/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	2	J
108-88-3	Toluene	1	J
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

AR301671

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK80190K

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 6340-073090

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K4067

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ Date Analyzed: 08/01/90

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

AR301672

Method Blank Raw Data for Volatiles

SEMIVOLATILE METHOD BLANK SUMMARY

Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAK5 SAS No.: _____ SDG No.: _____

Lab File ID: J7361 Lab Sample ID: 9006396-BLK2

Date Extracted: 07/03/90 Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 07/11/90 Time Analyzed: 2203

Matrix: (soil/water) WATER Level: (low/med) LOW

Instrument ID: HP5970J

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	NSLLH1001	9006403-01B	J7543	07/27/90

COMMENTS: 9006396-BLK2,S,,SBLK
CLP, ,,SBLK2_070390 ,L,W, DHP HP5970J

AR301674

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK70390J

Lab Name: CAMBRG Contract: NOVAK

ab Code: CAMBRG Case No.: NOVAK5 SAS No.: _____ SDG No.: _____

atrix: (soil/water) WATER Lab Sample ID: 9006396-BLK2

Sample wt/vol: 1000 (g/mL) ML Lab File ID: J7361

evel: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ dec. ____ Date Extracted: 07/03/90

xtraction: (SepF/Cont/Sonc) CONT Date Analyzed: 07/11/90

PC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	G
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

AR301675

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK70390J

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAK5 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9006396-BLK2

Sample wt/vol: 1000 (g/mL) ML Lab File ID: J7361

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ dec. ____ Date Extracted: 07/03/90

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 07/11/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		G
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

AR301676

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
SBLK70390J

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAK5 SAS No.: _____ SDG No.: _____

atrix: (soil/water) WATER Lab Sample ID: 9006396-BLK2

Sample wt/vol: 1000 (g/mL) ML Lab File ID: J7361

evel: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ dec. ____ Date Extracted: 07/03/90

xtraction: (SepF/Cont/Sonc) CONT Date Analyzed: 07/11/90

PC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

umber TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	UNKNOWN	11.25	12	J

AR301677

4B
SEMIVOLATILE METHOD BLANK SUMMARY

Name: CAMBRG Contract: NOVAK

ab Code: CAMBRG Case No.: NOVAK5 SAS No.: _____ SDG No.: _____

Lab File ID: F2768 Lab Sample ID: 9006419-BLK1

ate Extracted: 07/03/90 Extraction: (SepF/Cont/Sonc) SEPF

ate Analyzed: 08/01/90 Time Analyzed: 1337

Matrix: (soil/water) WATER Level: (low/med) LOW

nstrument ID: HP5970F

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	NSLSS1001R	9006403-04A	F2743	07/30/90

OMMENTS: 9006419-BLK1,S,SBLK,
CLP, ,,SBLK1_070390,L,W, DHP

AR301678

FORM IV SV

1/87 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK70390F

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAK5 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9006419-BLK1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: F2768

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ dec. ____ Date Extracted: 07/03/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/01/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SBLK70390F

Name: CAMBRG Contract: NOVAK

ab Code: CAMBRG Case No.: NOVAK5 SAS No.: _____ SDG No.: _____

atrix: (soil/water) WATER Lab Sample ID: 9006419-BLK1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: F2768

evel: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ dec. ____ Date Extracted: 07/03/90

xtraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/01/90

PC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

AR301680

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
SBLK70390F

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAK5 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9006419-BLK1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: F2768

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ dec. ____ Date Extracted: 07/03/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/01/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

AR301681

4B
SEMIVOLATILE METHOD BLANK SUMMARY

Name: CAMBRG Contract: NOVAK

ab Code: CAMBRG Case No.: NOVAK5 SAS No.: _____ SDG No.: _____

ab File ID: F2629 Lab Sample ID: 9006403-BLK1

ate Extracted: 07/06/90 Extraction: (SepF/Cont/Sonc) SONC

ate Analyzed: 07/23/90 Time Analyzed: 2004

Matrix: (soil/water) SOIL Level: (low/med) LOW

nstrument ID: HP5970F

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	NSLSD901	9006403-03B	F2631	07/23/90
02	NSLSS1001	9006403-02B	F2630	07/23/90

COMMENTS: 9006403-BLK1,S,SBLK,
CLP,NOVAK,,SBLK1_070690,L,S, DHP

AR301682

FORM IV SV 1/87 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK70690F

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAK5 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 9006403-BLK1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F2629

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. 0 dec. 0 Date Extracted: 07/06/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/23/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
100-51-6	Benzyl Alcohol	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	bis(2-Chloroisopropyl)Ether	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
65-85-0	Benzoic Acid	1600	U
111-91-1	bis(2-Chloroethoxy)Methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	63	J
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK70690F

Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAK5 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 9006403-BLK1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F2629

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. 0 dec. 0 Date Extracted: 07/06/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/23/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1600	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-10-6	4-Nitroaniline	1600	U
534-52-1	4,6-Dinitro-2-Methylphenol	1600	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	560	
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	670	
91-94-1	3,3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	93	J
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1,2,3-cd)Pyrene	330	U
53-70-3	Dibenz(a,h)Anthracene	330	U
191-24-2	Benzo(g,h,i)Perylene	330	U

(1) - Cannot be separated from Diphenylamine

AR301684

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
SBLK70690F

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAK5 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 9006403-BLK1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F2629

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. 0 dec. 0 Date Extracted: 07/06/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/23/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	Unknown aldol	6.60	470	J
	Unknown aldol	6.90	370	J
3.	Unknown aldol	7.40	730	J
4.	Unknown aldol	8.40	130	J
5.	Unknown	23.70	200	J
6.	Unknown	24.90	930	J
7.	Unknown	26.11	1400	J
8.	Unknown	26.31	200	J
9.	Unknown	26.81	130	J
10.	Unknown	26.91	1700	J

AR301685

Method Blank Raw Data for Pesticides/PCBs

4C
PESTICIDE METHOD BLANK SUMMARY

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Lab Sample ID: 9006403-BLK1 Lab File ID: _____

Matrix: (soil/water) SOIL Level: (low/med) LOW

Date Extracted: 07/06/90 Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed (1): 07/31/90 Date Analyzed (2): 08/14/90

Time Analyzed (1): 0440 Time Analyzed (2): 1458

Instrument ID (1): HP8 Instrument ID (2): HP4

GC Column ID (1): DB608 GC Column ID (2): DB5

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	BATCHQCMS	9006423-01MS	08/16/90	08/14/90
02	BATCHQCMSD	9006423-01MD	08/16/90	08/14/90
03	MATRIXNATIVE	9006423-01	08/16/90	08/14/90
04	NSLSD901	9006403-03 ✓	08/16/90	08/14/90
05	NSLSS1001	9006403-02 ✓	08/16/90	08/14/90

COMMENTS:

60007

4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Lab Sample ID: 9006396-BLK1 Lab File ID: _____

Matrix: (soil/water) WATER Level: (low/med) LOW

Date Extracted: 07/03/90 Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed (1): 07/30/90 Date Analyzed (2): 08/04/90

Time Analyzed (1): 1500 Time Analyzed (2): 1821

Instrument ID (1): HP8 Instrument ID (2): HP2

GC Column ID (1): DB608 GC Column ID (2): SP2250

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2	
01	NSLLH1001	9006403-01 ✓	08/05/90		60008
02	NSLSS1001R	9006403-04 ✓	08/05/90		60024

COMMENTS:

AR301688

FORM IV PEST 1/87 Rev.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 9006403-BLK1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 01267

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. __ dec. __ Date Extracted: 07/06/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/31/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	8.0	U
319-85-7	beta-BHC	8.0	U
319-86-8	delta-BHC	8.0	U
58-89-9	Lindane	8.0	U
76-44-8	Heptachlor	8.0	U
309-00-2	Aldrin	8.0	U
1024-57-3	Heptachlor epoxide	8.0	U
959-98-8	Endosulfan I	8.0	U
60-57-1	Dieldrin	16	U
72-55-9	4,4'-DDE	16	U
72-20-8	Endrin	16	U
33213-65-9	Endosulfan II	16	U
72-54-8	4,4'-DDD	16	U
1031-07-8	Endosulfan sulfate	16	U
50-29-3	4,4'-DDT	16	U
72-43-5	Methoxychlor	80	U
53494-70-5	Endrin ketone	16	U
5103-71-9	alpha-Chlordane	80	U
5103-74-2	gamma-Chlordane	80	U
8001-35-2	Toxaphene	160	U
12674-11-2	Aroclor-1016	80	U
11104-28-2	Aroclor-1221	80	U
11141-16-5	Aroclor-1232	80	U
53469-21-9	Aroclor-1242	80	U
12672-29-6	Aroclor-1248	80	U
11097-69-1	Aroclor-1254	160	U
11096-82-5	Aroclor-1260	160	U

AR301689

61272

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK2

ab Name: CAMBRG Contract: OLDSOUTH

Lab Code: CAMBRG Case No.: FD214 SAS No.: _____ SDG No.: _____

atrix: (soil/water) WATER Lab Sample ID: 9006396-BLK1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

evel: (low/med) LOW Date Received: _____

% Moisture: not dec. __ dec. __ Date Extracted: 07/03/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/30/90

PC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	Lindane	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

AR301690

Evaluation of Field Blanks

(Equipment Rinsate)

AR301691

GERAGHTY & MILLER, INC.

FIELD BLANKS

PROJECT DESCRIPTION: _____

SITE NAME & LOCATION: Novack Sanitary Landfill

SAMPLE GROUP: Leachate Draining Ways Set Two

DATE COLLECTED: 06/28/90 & 07/27/90 MATRIX: Soil & Water

PARAMETERS:

VOCs A

BNAs A

PEST/PCBs A

QC CRITERIA: *

A - Acceptable: No evidence of contaminants above minimum detection limit.

P - Provisional: Contaminants present, but minimal interference with sample results; use *Functional Guidelines* 5X or 10X guidelines to assign data qualifier flags.

U - Unacceptable: Gross contamination in blanks indicating poor sampling technique, bottle contamination, air-borne contamination, preservative contamination, or improper handling. Data for batch invalid or suspect.

N -Not Applicable.

REMARKS:

_____

_____

_____

_____

AR301692

* Attachments: Refer to data summary table

Field (Rinsate) Blank Raw Data for Volatiles

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS1002R

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9007305-02

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K4071

Level: (low/med) LOW Date Received: 07/27/90

% Moisture: not dec. ____ Date Analyzed: 08/01/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS1002R

Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9007305-02

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K4071

Level: (low/med) LOW Date Received: 07/27/90

% Moisture: not dec. _____ Date Analyzed: 08/01/90

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

AR301695

Field (Rinsate) Blank Data for Semi-Volatiles

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
NSLSS1001R

Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAK5 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9006403-04A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: F2743

Level: (low/med) LOW Date Received: 06/28/90

% Moisture: not dec. ____ dec. ____ Date Extracted: 07/03/90

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 07/30/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

AR301697

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
NSLSS1001R

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAK5 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9006403-04A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: F2743

Level: (low/med) LOW Date Received: 06/28/90

% Moisture: not dec. ____ dec. ____ Date Extracted: 07/03/90

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 07/30/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	R
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

AR301090

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
NSLSS1001R

Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAK5 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9006403-04A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: F2743

Level: (low/med) LOW Date Received: 06/28/90

% Moisture: not dec. ____ dec. ____ Date Extracted: 07/03/90

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 07/30/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	26.81	12	J

AR301699

Field (Rinsate) Blank Data for Pesticides/PCBs

60024

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NSLSS1001R

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9006403-04

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 06/28/90

% Moisture: not dec. __ dec. __ Date Extracted: 07/03/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/05/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	Lindane	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

AR301701

Evaluation of Trip Blank (Volatiles Only)

GERAGHTY & MILLER, INC.

LABORATORY DATA VALIDATION
ORGANICS - 8

TRIP BLANKS

PROJECT DESCRIPTION: _____

SITE NAME & LOCATION: Novack Sanitary Landfill

SAMPLE GROUP: Leachate Draining Ways Set Two

DATE COLLECTED: 06/28/90 & 07/27/90 MATRIX: Soil & Water

PARAMETERS:

VOCs P

BNAs N

PEST/PCBs N

QC CRITERIA: *

A - Acceptable: No evidence of contaminants above minimum detection limit.

P - Provisional: Contaminants present, but minimal interference with sample results; use *Functional Guidelines* 5X or 10X guidelines to assign data qualifier flags.

U - Unacceptable: Gross contamination resulting in compromise to the sample data integrity.

N - Not Applicable.

REMARKS:

Single trip blank, analyzed for volatiles, was found to contain methylene chloride at 6 ug/L, tetrachloroethane at 1 ug/L, and toluene at 5 ug/L. Previously flagged as "B" due to method blank contamination.

AR301703

* Attachments: Refer to data summary table

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB

Lab Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9007305-05

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K4036

Level: (low/med) LOW Date Received: 07/27/90

% Moisture: not dec. ____ Date Analyzed: 07/30/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	6	B
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	1	BJ ✓
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

AR 301704

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TB

Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9007305-05

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K4036

Level: (low/med) LOW Date Received: 07/27/90

% Moisture: not dec. ____ Date Analyzed: 07/30/90

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

AR301705

Evaluation of GC/MS Surrogate Recovery for Volatiles and Semi-Volatiles

AR301706

GC/MS SURROGATE RECOVERY

PROJECT DESCRIPTION: _____

SITE NAME & LOCATION: Novack Sanitary Landfill

SAMPLE GROUP: Leachate Draining Ways Set Two

DATE COLLECTED: 06/28/90 & 07/27/90 MATRIX: Soil & Water

PARAMETERS:

VOCs A

BNAs A

PEST/PCBs N

QC CRITERIA: *

A - Acceptable: No VOCs surrogate recovery or one BNAs surrogate recovery out of QC limits and all percent recoveries (%R) >10%.

P - Provisional: No more than one VOCs surrogate recovery or two BNAs surrogate recoveries out of QC limits and all percent recovery (%R) >10%; or if any percent recovery <10% with results greater than CRQL; data usable as flagged (see *Functional Guidelines*).

U - Unacceptable: Any percent recovery <10% with results less than CRQL; data unusable.

N - Not Applicable.

REMARKS:

Two samples (NSLLH1001 and NLSSS1001R), had recoveries of 111% and 97%, respectively, for D5-phenol, exceeding upper QC limit of 94%.

AR301707

* Attachments: Form II (VOCs & BNAs)

2A
WATER VOLATILE SURROGATE RECOVERY

Name: CAMBRG Contract: NOVAK

Lab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

	EPA SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
01	NSLLH1002	94	96	96	0	0
NSL SS 10 02R 02	SS1002R	103	102	103	0	0
03	TB	93	99	102	0	0
NSL SS 10 02RMS 04	SS1002RMS	98	97	101	0	0
NSL SS 10 02RMSD 05	SS1002RMSD	102	101	98	0	0
06	VBLK73090K	102	106	101	0	0
07	VBLK80190K	106	106	100	0	0

		GC LIMITS
S1 (TOL)	= Toluene-d8	(88-110)
S2 (BFB)	= Bromofluorobenzene	(86-115)
S3 (DCE)	= 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

AR301708

FORM II VOA-1 1/87 Rev.

2B
SOIL VOLATILE SURROGATE RECOVERY

Name: CAMBRG Contract: NOVAK

ab Code: CAMBRG Case No.: NOVAC SAS No.: _____ SDG No.: _____

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
01	NSLSD902	90	87	97	0	0
02	NSLSS1002	106	111	116	0	0
03	VBLK73090D	96	104	104	0	0
04	VBLK80190D	113	117	113	0	0

	QC LIMITS
S1 (TOL) = Toluene-d8	(81-117)
S2 (BFB) = Bromofluorobenzene	(74-121)
S3 (DCE) = 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

AR301709

FORM II VOA-2

1/87 Rev.

GC/MS Evaluation of Instrument Calibration

(volatiles and semi-volatiles)