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ENVIRONMENTAL
CHEMICAL
CORPORATION

Round 12 Groundwater Monitoring Report for Area A Landfill

Naval Submarine Base New London Groton, Connecticut

Engineering Field Activity, Northeast
Naval Facilities Engineering Command

Contract Number N62472-02-D-0810
Contract Task Order 0002

September 2003

1240 Bayshore Hwy.
Burlingame, CA 94010
Telephone: (650) 347-1555 Facsimile: (650) 347-4571

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ROUND 12 GROUNDWATER MONITORING REPORT
FOR
AREA A LANDFILL

NAVAL SUBMARINE BASE – NEW LONDON
GROTON CONNECTICUT

ENVIRONMENTAL OPERATION AND
MAINTENANCE CONTRACT

Submitted to:
Engineering Field Activity, Northeast
Environmental Branch, Code 18
Naval Facilities Engineering Command
10 Industrial Highway, Mail Stop No. 82
Lester, Pennsylvania 19113-2090

Submitted by:
Environmental Chemical Corporation
50 D'Angelo Drive
Marlborough, MA 01752

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PREPARED BY:

for JENNIFER DIAZ
GEOLOGIST
ENVIRONMENTAL CHEMICAL CORP.
MARLBOROUGH, MA

APPROVED BY:

DARREN GAINER, P.G.
PROJECT MANAGER
ENIVIRONMENTAL CHEMICAL CORP.
MARLBOROUGH, MA

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1.0 INTRODUCTION

A Remedial Action (RA) was completed in 1997 at the Area A Landfill site in order to address the risk from direct exposure to landfill material and to minimize the risk of landfill contaminants leaching into the groundwater. The RA consisted of capping the site with a multilayer low-permeability cover system and installing a surface water and shallow groundwater interception and diversion system upgradient of the cover system. Groundwater and surface water monitoring is being conducted as part of the postclosure activities associated with the Area A Landfill in order to evaluate the effectiveness of the RA.

The objective of this Round 12 Groundwater Monitoring Report is to present the results of the twelfth round of long-term groundwater and surface water monitoring at the Area A Landfill site. Groundwater samples were collected from 15 wells, one seep sample and seven surface water samples and analyzed for a suite of analytes based on an evaluation of site history and previous analytical results. Sample collection and analyses were performed in accordance to the *Draft Operation and Maintenance Manual for Installation Restoration Program Sites at Naval Submarine Base New London, Volume II - Groundwater Monitoring Plan* (GMP),(TtNUS, 2002b). Because this is an interim report, the evaluation of monitoring results is limited to a comparison of the results to the criteria identified in the original GMP for the Area A Landfill (TtNUS 1999).

1.1 BACKGROUND INFORMATION

NSB-NLON is located in southeastern Connecticut in the Towns of Ledyard and Groton. It encompasses approximately 687 acres and lies on the east bank of the Thames River, approximately 6 miles north of the Long Island Sound. NSB-NLON is bounded to the east by Connecticut Route 12, to the south by Crystal Lake Road, and to the west by the Thames River (Figure 1-1). The northern border is a low, east-southeast trending ridge extending from the Thames River to Baldwin Hill.

NSB-NLON currently provides base command for naval submarine activities in the Atlantic Ocean. It also provides housing for Navy personnel and their families and supports submarine training facilities, military offices, medical facilities, and facilities for submarine maintenance, repair, and overhaul.

The Area A Landfill is located in the northeastern and north central part of NSB-NLON and encompasses approximately 13 acres (Figure 1-2). The Area A Landfill is relatively flat and is bordered by a steep, wooded hillside that rises to the south, a steep wooded ravine to the west, and the Area A Wetland to the north. Access to the west end of the landfill is via a gate off

Wahoo Avenue and access to the east end of the landfill is via a paved road and gate adjacent to a parking lot and the Area A recreational facilities.

Before the Area A Landfill was opened, dredge spoil from the Thames River was deposited continuously along a major portion of the hillside and within the former valley, which is currently the Area A Wetland. The Area A Landfill reportedly opened sometime before 1957. However, a 1957 aerial photograph (USEPA 1957) shows no apparent landfill activities, indicating a somewhat later start-up date. After the NSB-NLON incinerator closed in 1963, most of the wastes generated by submarine and base operations were disposed of in the landfill, including all non-salvageable materials.

The area fill method was reportedly used in landfill operations at the Area A Landfill. The area fill method consists of filling an area in a sequence of cells and lifts. Each lift is a specified thickness and consists of several cells. Each cell can be viewed as a rectangular area that is filled from back to front. The front area is the "working face" and is the location where new refuse is placed and covered on a daily basis. The cover material used on the landfill was gravel obtained from the Groton water supply reservoir. The Area A Landfill closed in 1973.

After closure, a bituminous concrete pad approximately 160 x 100 feet in size was constructed in the southwest portion of the landfill for above-ground storage of industrial wastes. Steel drums, transformers, and electrical switches were stored on this pad until the time of the RA. All of these materials, were at that point, properly disposed of off-site

A two phase Remedial Investigation (RI) was conducted to determine the nature and extent of the contamination (Atlantic 1992 and B&R Environmental 1997). A site-specific Area A Landfill Focused Feasibility Study (FFS) (Atlantic 1995a), and a Proposed Remedial Action Plan (PRAP), (Atlantic 1995b) were also prepared. A Record of Decision (ROD) was signed by the Navy and United States Environmental Protection Agency (USEPA) Region I on September 26, 1995 (Navy 1995). The selected remedy consisted of the following major components:

- Restricting access to the contaminated areas of the site using perimeter fencing and institutional controls.
- Capping the site with a low-permeability multi-layer cover system to prevent water infiltration into the landfill.
- Constructing an interception system to collect shallow groundwater and storm water and re-route these around the landfill.
- Establishing landfill gas controls to manage landfill gas migration.

- Developing a groundwater monitoring plan to monitor the quality of groundwater after the landfill closure is completed.

Construction of the landfill cover system (including gas control and storm water and shallow groundwater interception systems) was completed as part of an RA in September 1997 by Foster Wheeler Environmental Corporation. Prior to commencement of construction, a large quantity of metal, concrete, wood debris, several thousand sandbags, the Deployed Parking lot, the electrical storage building (Building 496), the Master at Arms Building (Building 373), salt storage shed, and various other items that had been located on the surface of the landfill were removed or relocated. The majority of the surficial debris was disposed of off-site as scrap metal or at an off-site landfill. The debris that was salvageable by NSB-NLON was removed and relocated to other areas of NSB-NLON.

The preparation of the subgrade cover required excavation from the northern slope of the landfill and placement of the excavated material on the southern slope. Also, approximately 4,000 cubic yards of soil from the Rubble Fill Area at Bunker A 86 (Site 4) and 1,000 cubic yards of common fill were placed over the eastern portion of the landfill, beneath the area of the relocated Deployed Parking. The soils were then compacted. During the subgrade preparation activities, two storm water drainage structures located within the limits of the site were decommissioned. These structures consisted of open catch basins on the southern edge of the landfill that discharged into a reinforced concrete culvert running through the landfill and ultimately into the Area A Wetland. Both culverts were entirely filled with flowable concrete to eliminate potential voids in the subgrade due to pipe collapse. The catch basins were filled with materials unsuitable for placement in the landfill subgrade (e.g., tires, large metal and wood debris, large concrete debris, etc.) followed by encapsulation with flowable concrete fill.

The public works at NSB-NLON has developed a plan for storing equipment and materials on the paved section of the completed landfill. Equipment such as trailer trucks, buses, and plows have already been relocated to the site.

1.2 REPORT ORGANIZATION

This report has been prepared in the following format to address the requirements for long-term groundwater monitoring at the Area A Landfill. Section 2.0 describes Round 12 field activities. Section 3.0 presents the analytical results from the Round 12 sampling effort.

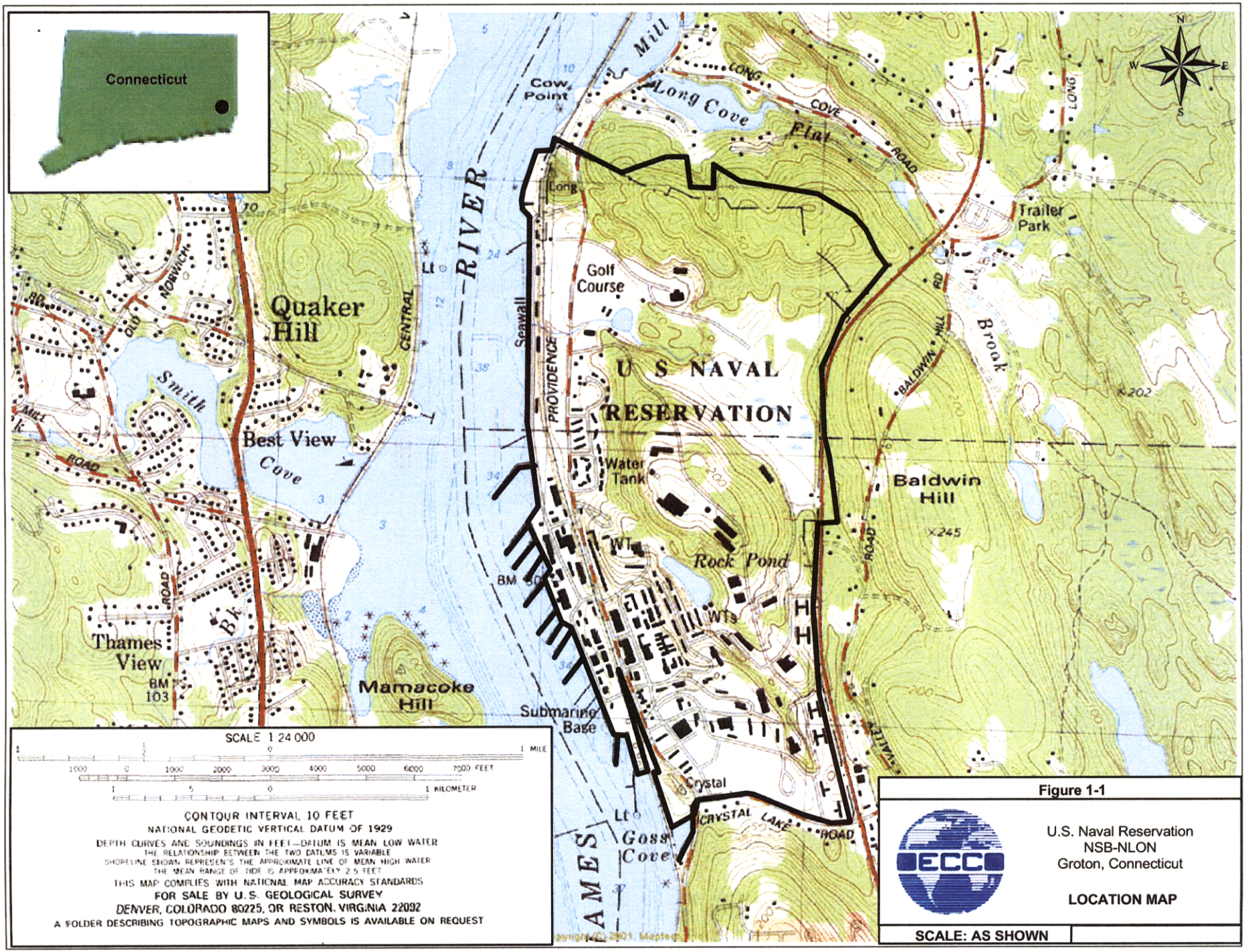


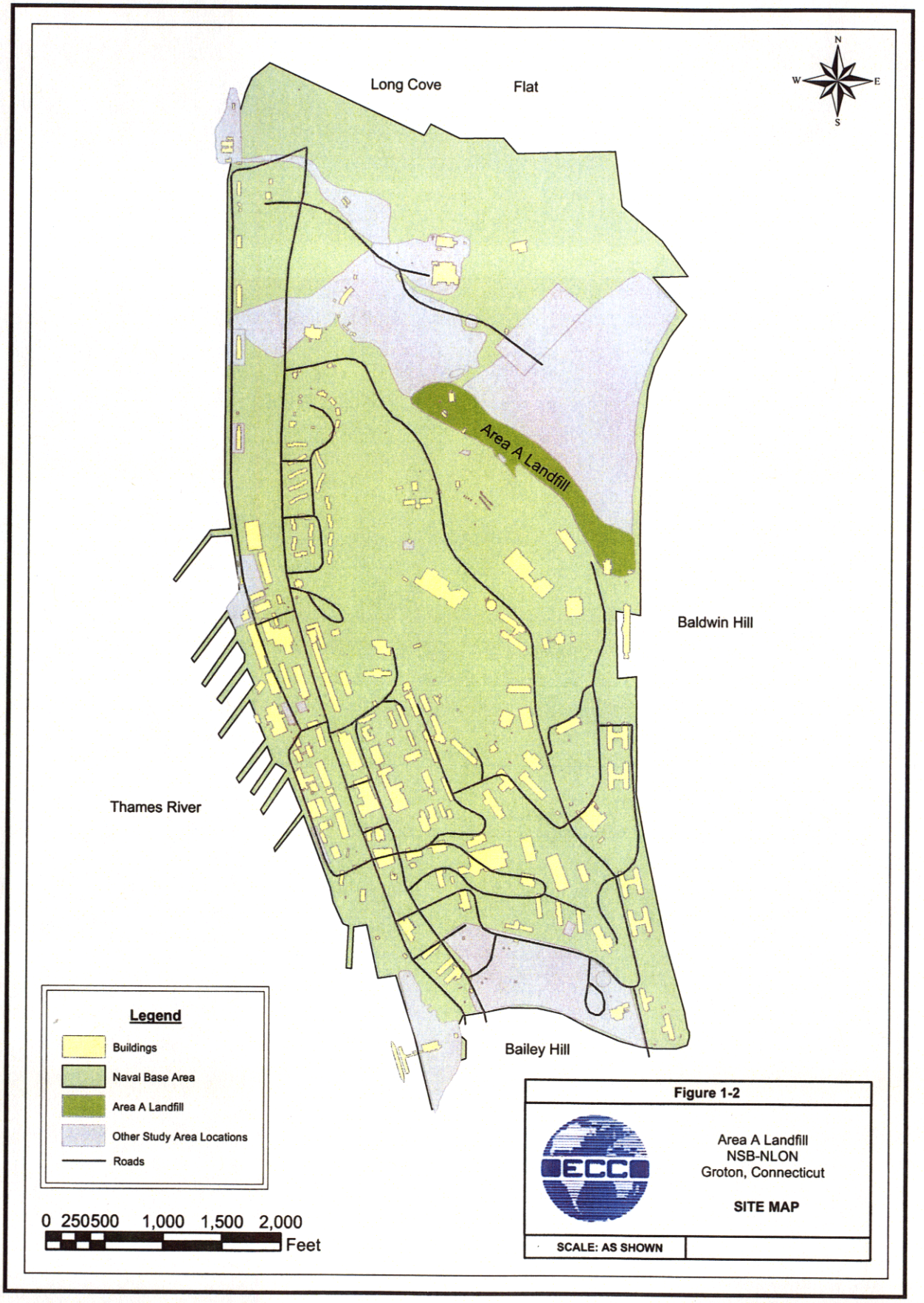
Figure 1-1

U.S. Naval Reservation
NSB-NLON
Groton, Connecticut

LOCATION MAP

SCALE: AS SHOWN

H:\Groups\Navy\New London_NSB\Goss Cove GIS\Round 12\Maps\Figure 1-1 (Location Map)


Long Cove
Flat
N
W
E
S
Area A Landfill
Baldwin Hill
Thames River
Bailey Hill
Legend
Buildings
Naval Base Area
Area A Landfill
Other Study Area Locations
Roads
0 250500 1,000 1,500 2,000
Feet
Figure 1-2
ECC
Area A Landfill
NSB-NLON
Groton, Connecticut
SITE MAP
SCALE: AS SHOWN
H:\Groups\Navy\New London_NSB\Goss Cove GIS\Round 12\Maps\Figure 1-2 (Site Map)

2.0 FIELD INVESTIGATION ACTIVITIES

Field investigation activities performed as part of the twelfth round of the groundwater monitoring at Area A Landfill included the following:

- One round of water level measurements at 15 monitoring wells and 11 staff gauges
- Collection of groundwater samples from 15 monitoring wells.
- Collection of surface water samples from 7 surface water locations.
- Collection of one seep sample.

Monitoring well 3MW12D was replaced in October 2002 and was included in the list of wells to be sampled. Round 12 field activities took place in April 2003. Monitoring and sampling locations are shown on Figure 2-1. Copies of the monitoring well inspection sheets, water level field forms, calibration logs, groundwater and surface water field forms, and data validation memos and laboratory analytical results for Round 12 are provided in Appendices A through E, respectively.

2.1 MONITORING WELL INSPECTION

Prior to water level measurements, all 15 monitoring wells were inspected. Monitoring well 2LMW20S had a broken well pad and the vault was full of water. Otherwise, the monitoring wells were in good condition (Appendix A).

2.2 WATER LEVEL MEASUREMENT

Prior to groundwater and surface water sampling, water levels were measured at 15 monitoring wells and 11 staff gauge locations. Table 2-1 summarizes the water level measurements. Figure 2-2 illustrates the potentiometric surface map for the shallow groundwater at the Area A Landfill. A copy of the water level measurement sheet is provided in Appendix B.

2.3 GROUNDWATER SAMPLING

A total of 15 monitoring wells; (3MW12D, 2LMW20S, 2WMW21S, 4MW1S, 2WMW38DS through 2WMW47DS, and 3MW37S), were sampled during the twelfth round of groundwater monitoring (Figure 2-1). Monitoring well 2LMW20S was sampled, although the well pad is broken and the vault was full of water. All wells were sampled in accordance with *Low-Stress (Low Flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells* (EPA 1996).

The wells were purged using a peristaltic pump with disposable Teflon® tubing. Prior to purging, the initial static water level was measured in the well using a water-level indicator. During purging, the water level was measured every 5 to 10 minutes. The pumping rate was initially set at less than 0.3 liters per minute and reduced to 0.1 to 0.2 liters per minute. The pumping rate was adjusted in order to prevent exceeding 0.3 foot drawdown limit during purging. Monitoring wells 2WMW38DS and 2WMW42DS were dewatered during purging due to the low recharge rate of the screened formation. These wells were sampled over two days to provide sufficient sample volume.

During purging, water quality parameters (pH, turbidity, specific conductance (SpC), temperature, oxidation-reduction potential (ORP) and dissolved oxygen (DO)) were measured and recorded every 5 to 10 minutes using a water quality meter and flow-through cell until all of the parameters stabilized and the minimum purge volume (equal to the stabilized drawdown volume plus the tubing volume) was removed. A summary of groundwater water quality data for Round 12 is provided in Table 2-1. Stabilization of the above parameters was generally defined as follows:

- pH ± 0.2 standard units
- turbidity ± 10 % for values greater than 1 nephelometric turbidity unit (NTU)
- SPC ± 10 %
- temperature ± 10 %
- ORP ± 10 (mV)
- DO ± 10 %

Following purging, samples were collected directly from the discharge end of the tubing. All sample containers were filled by allowing the discharge to flow gently down the inside of the container with minimal turbulence. For filtered inorganic samples, an in-line 0.45-micron filter was used. Equipment calibration logs are provided in Appendix C. Groundwater sampling field forms are provided in Appendix D and chain of custody records are provided in Appendix E.

Groundwater samples were sent to the project laboratory (Alpha Analytical Labs) for analysis for select total compound list (TCL) semivolatile organic compounds (SVOCs) without polynuclear aromatic hydrocarbons (PAHs), PAHs, total analyte list (TA)L metals (total and dissolved); total organic carbon (TOC); chemical oxygen demand (COD); and water chemistry parameters (total dissolved solids (TDS), total suspended solids (TSS), alkalinity, chloride, sulfate, and hardness) as presented in the GMP (TtNUS 2002b). Analytical results for the groundwater samples are discussed in Section 3.0.

2.4 SURFACE WATER SAMPLING

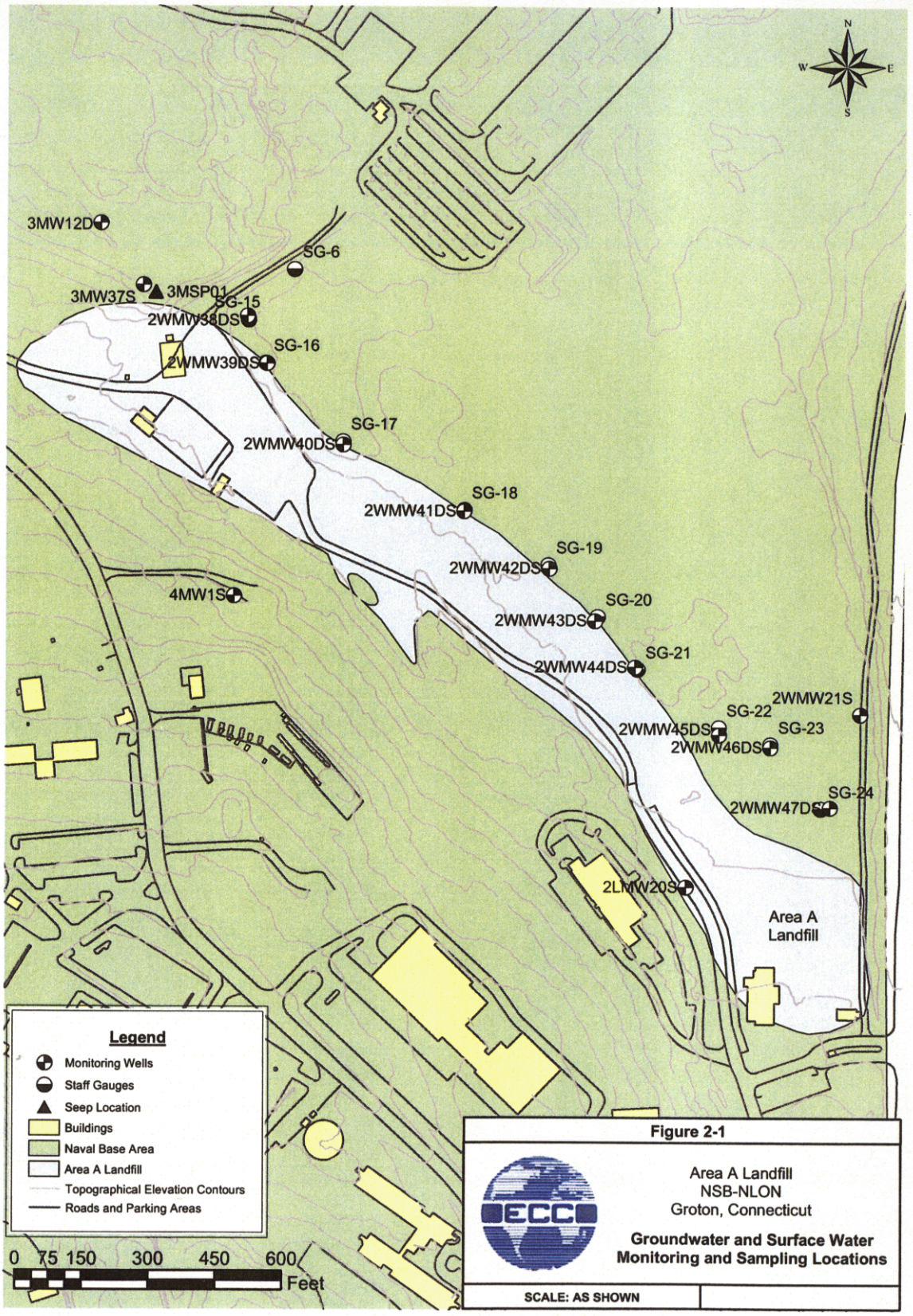
As directed in the GMP (TtNUS, 2002b), seven staff gauge locations and one seep sampling location were to be sampled as part of the sampling program (Figure 2-1). Surface water samples were collected by directly filling a clean unpreserved sample container and transferring the water to the appropriate sample containers. Dissolved metal samples were collected using a clean unpreserved sample container and using a peristaltic pump to filter the water from the collection container, through a 0.45-micron filter, to the sample container. Surface water field forms and chain of custody are provided in Appendices D and E, respectively. A summary of surface water quality data for Round 12 is provided in Table 2-2.

The surface water samples were sent to the project laboratory for analysis for the same parameters as the groundwater samples. Analytical results for surface water samples are discussed in Section 3.0.

2.5 DECONTAMINATION AND INVESTIGATION – DERIVED WASTE

All water quality and water level meters were decontaminated by washing them in a solution of Alconox and deionized water and rinsing with deionized water, prior to and after use.

Liquid investigation-derived waste (IDW) derived from the sampling of groundwater at the Area A Landfill was extensively tested for COCs during the first four rounds of quarterly monitoring. The liquid IDW generated has been determined to be non-hazardous and therefore it is disposed directly to the OT-10 wastewater processing facility in compliance with the NSB NLON Pre-Treatment Permit from the Connecticut Department of Environmental Protection (CTDEP).



H:\Groups\Navy\New London_NSB\Goss Cove GIS Round 12\Maps\Figure 2-1 (GW Mon.)

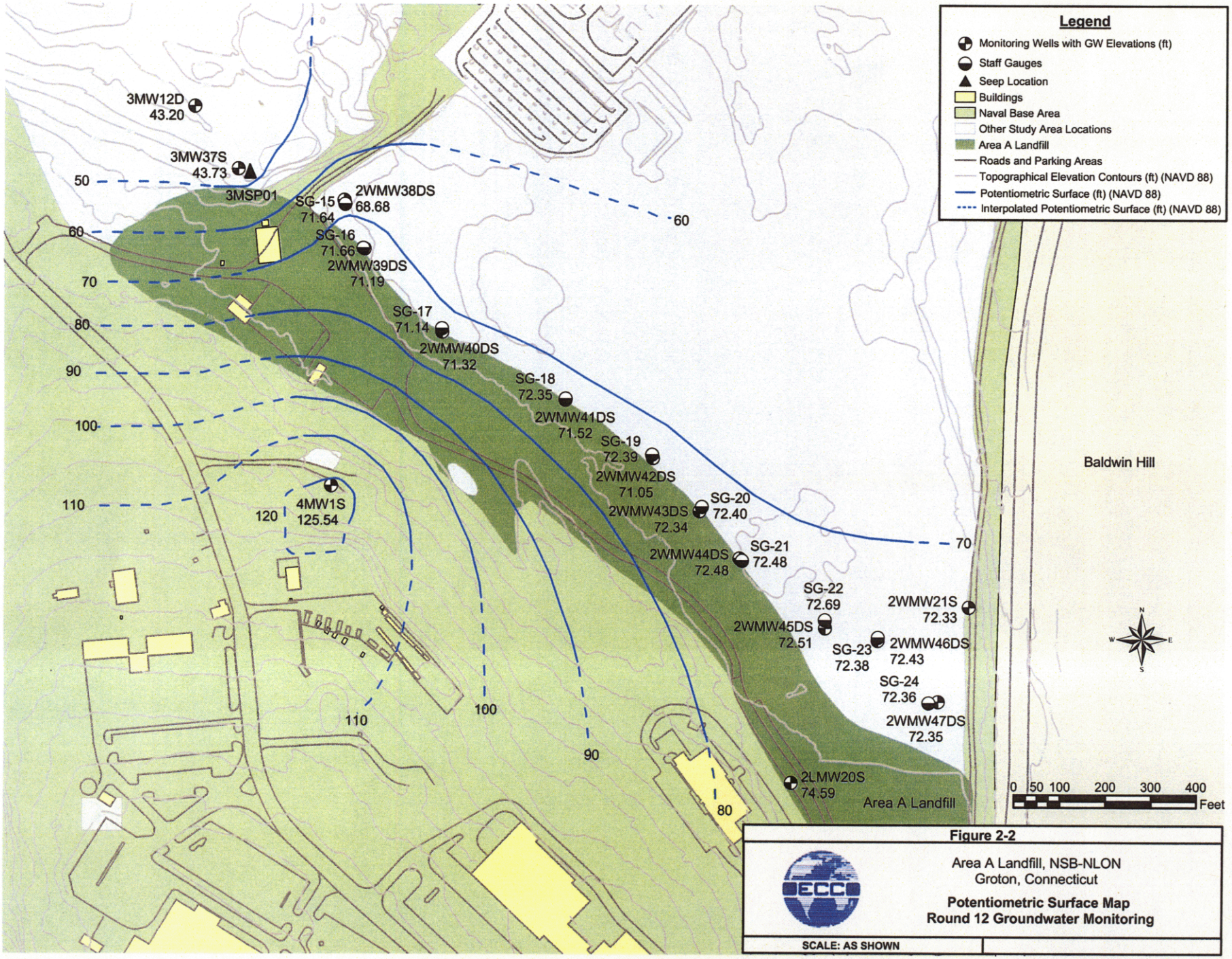


Figure 2-2

Area A Landfill, NSB-NLON
Groton, Connecticut

Potentiometric Surface Map
Round 12 Groundwater Monitoring

SCALE: AS SHOWN

H:\Groups\Navy\New London, NSB\Goss Cove OU3\Round 12\Maps\Figure 2-2 (Surface Map)

TABLE 2-1
GROUNDWATER MEASUREMENTS AND ELEVATIONS
ROUND 12 - GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CT

Location	Screened Unit	Measuring Point Elevation (ft msl)	Depth to Water[1] (feet)	Groundwater Elevation (ft msl)	Location	Screened Unit	Measuring Point Elevation (ft msl)	Depth to Water[1] (feet)	Groundwater Elevation (ft msl)
2LMW20S	F/A	86.83	12.24	74.59	3MW37S	A	47.26	3.53	43.73
2WMW21S	DS	76.31	3.98	72.33	4MW1S	BR	129.55	4.01	125.54
2WMW38DS	DS	74.06	5.38	68.68	SG15	NA	74.03	2.39	71.64
2WMW39DS	SS/DS	73.54	2.35	71.19	SG16	NA	73.50	1.84	71.66
2WMW40DS	DS	73.21	2.89	70.32	SG17	NA	73.57	2.43	71.14
2WMW41DS	DS	73.39	1.87	71.52	SG18	NA	75.92	3.57	72.35
2WMW42DS	DS	73.65	1.60	72.05	SG19	NA	75.83	3.44	72.39
2WMW43DS	DS	74.36	2.02	72.34	SG20	NA	75.19	2.79	72.40
2WMW44DS	DS	73.72	1.24	72.48	SG21	NA	75.32	2.84	72.48
2WMW45DS	DS	74.24	1.73	72.51	SG22	NA	76.13	3.44	72.69
2WMW46DS	DS	73.53	1.10	72.43	SG23	NA	75.83	3.45	72.38
2WMW47DS	SS/DS	73.39	1.04	72.35	SG24	NA	76.68	4.32	72.36
3MW12D	BR	47.22	4.02	43.20					

Notes:

(1) Depth to water is the distance in feet from the measuring point (top of well casing) to the water.

A = alluvium
BR = bedrock
DS = dredge spoil
F = fill
ft = feet
MSL = mean sea level (Base 1982 Vertical Datum = NAVD 88 + 2.39 ft), (TtNUS 2003)
NA = not applicable
SS = surficial sand

TABLE 2-2
GROUNDWATER QUALITY DATA
ROUND 12 - GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CT

WELL	DATE	TIME (24hr)	Cumulative Volume Purged (liters)	Temp (°C)	pH (std)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Purge Rate (ml/min)
2LMW20S	04/15/03	0930	4.6	11.03	5.81	0.64	-375.0	0.86	5.00	100
2WMW21S	04/15/03	1240	3.1	11.25	6.47	39.76	-452.0	-0.50	3.00	125
2WMW38DS	04/03/03	0940	6.9	7.71	6.95	0.57	-14.7	2.35	0.75	100
2WMW39DS	04/03/03	1130	4.8	8.32	6.77	1.14	34.0	0.53	30.00	100
2WMW40DS	04/03/03	1458	5.5	7.67	7.38	12.41	-320.0	-0.21	11.00	120
2WMW41DS	04/04/03	0925	4.5	7.15	6.88	12.49	-436.2	-0.36	2.30	100
2WMW42DS	04/08/03	1649	10.0	8.02	7.05	12.10	-459.7	-0.23	14.00	100
2WMW43DS	04/08/03	1430	4.9	7.35	6.72	20.26	-400.8	0.02	16.60	110
2WMW44DS	04/13/03	1317	4.7	10.65	6.60	34.31	-447.6	0.11	9.50	120
2WMW45DS	04/14/03	1525	3.4	9.61	6.32	39.18	-446.3	0.35	5.00	100
2WMW46DS	04/13/03	1700	4.3	8.53	6.84	43.94	-464.3	-0.06	21.00	100
2WMW47DS	04/15/03	1037	4.4	10.35	6.26	14.20	-353.5	0.26	6.80	110
3MW12D	04/02/03	1612	5.0	9.90	6.16	2.10	85.0	1.23	5.50	350
3MW37S	04/02/03	1540	5.2	8.60	6.22	1.40	138.7	1.54	1.40	100
4MW1S	04/15/03	0832	4.0	9.92	5.77	0.36	87.4	12.02	0.30	110

°C = degrees Celcius
DO = dissolved oxygen
mg/L = milligrams per liter
ml/min = milliliters per minute
mS/cm = millisiemens per centimeter
mV = millivolts
NTU = nephelometric turbidity units
ORP = oxidation-reduction potential
ppt = parts per thousand
Spec. Cond. = specific conductivity
std = standard units
Temp = temperature

TABLE 2-3
SURFACE WATER AND SEEP WATER QUALITY MEASUREMENTS
ROUND 12 - GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CT

LOCATION	DATE	TIME (24hr)	Temp (°C)	pH (std)	Spec. Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Salinity (ppt)
SG18	04/11/03	0840	4.00	6.37	0.42	6.0	1.56	0.17
SG19	04/08/03	1700	3.60	7.09	0.31	-112.0	9.24	NR
SG20	04/08/03	1450	3.11	8.37	0.27	-316.7	5.73	NR
SG21	04/11/03	0900	5.12	6.30	0.35	42.9	7.29	1.70
SG22	04/11/03	0925	6.14	6.35	0.39	-38.9	4.43	0.19
SG23	04/11/03	0935	3.79	6.08	0.59	-75.2	3.97	0.29
SG24	04/11/03	0950	6.43	6.49	2.81	-137.8	1.57	1.46
3MSP01	04/03/03	1450	11.73	6.45	0.65	NR	6.90	NR

°C = degrees Celcius
DO = dissolved oxygen
mg/L = milligrams per liter
mS/cm = millisiemens per centimeter
mV = millivolts
ORP = oxidation-reduction potential
ppt = parts per thousand
Spec. Cond. = specific conductivity
std = standard units
Temp = temperature

3.0 MONITORING RESULTS

Samples collected from 15 monitoring wells, seven surface water locations, and one seep location were analyzed for select TCL SVOCs, TAL metals (total and dissolved), PAHs, TOC, COD, TDS, TSS, alkalinity, chloride, sulfate, and hardness. Monitoring focused on the following organic and inorganic chemicals of potential concern (COPC), as identified in the GMP (TtNUS, 2002b).

- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Benzo(k)fluoranthene
- Bis(2-ethylhexyl)phthalate
- Phenanthrene
- Arsenic
- Beryllium
- Cadmium
- Chromium
- Copper
- Lead
- Zinc

The Round 12 analytical results for the COPC are summarized in Tables 3-1 and 3-2. Within each table, the analytical results are compared to the primary and secondary monitoring criteria, as established in the original GMP (TtNUS, 1999). Inorganic results are also compared to NSB-NLON background groundwater concentrations as established in the Basewide Groundwater OU RI (TtNUS 2002a). Chemical detections exceeding either primary or secondary monitoring criteria, and/or background concentrations, in the case of the inorganics, are noted by shading. Figure 3-1 presents the COPC detected in groundwater samples that exceed one or more of the criteria. Figure 3-2 displays the COPC detected in seep and surface water samples that exceed one or more of the criteria. A complete list of analytical results, data validation memorandums, and laboratory data sheets are located in Appendix E.

The results of this comparison can be summarized as follows:

- There were no detections of Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Bis(2-ethylhexyl)phthalate, total and dissolved beryllium, total and dissolved cadmium, and total and dissolved copper in groundwater or surface water samples.

- Benzo(a)anthracene was detected in groundwater well 2WM42DS at a concentration of 0.11 µg/L. This concentration does not exceed any of the criteria.

- Phenanthrene was detected in one groundwater well and at one surface water location. 2MW42DS had a concentration of 7.2 µg/L and location SG19 had a detection of 0.48 µg/L. Both of these values exceed the primary criterion (0.3 µg/L) for phenanthrene.

- Monitoring wells 2WMW41DS and 2WMW43DS had detections of total chromium at 10 µg/L and 20 µg/L respectively. The concentration detected in 2WMW42DS exceeds the secondary criterion for total chromium (11 µg/L).

- Total lead was detected at 14 µg/L in groundwater well 2WMW47DS. This concentration exceeds the primary, secondary, and background criterion for lead.

- Two monitoring wells and four surface water locations had detections of total zinc. Locations 2LMW20S, 2WMW46DS, SG19, SG22, SG23, and the field duplicate for SG24 had concentrations of 50 µg/L, 60 µg/L, 120 µg/L, 80 µg/L, 490 µg/L and 100 J µg/L, respectively. The concentrations at locations 2WMW46DS, SG19, SG22, SG23, and the field duplicate for SG24 exceeded the secondary criterion of 58.2 µg/L. The concentration at surface water location SG23 (490 µg/L) also exceeded the primary (123 µg/L) and background criterion (131 µg/L).

- Total arsenic was detected at 7 groundwater locations (plus one field duplicate) and one surface water location. Concentrations detected were 8 µg/L, 4 µg/L, 4 µg/L, 7 µg/L, 12 µg/L (duplicate 5µg/L), 18 µg/L, 15 µg/L, and 4 J µg/L at locations; 2WMW40DS, 2WMW41DS, 2WMW42DS, 2WMW43DS, 2WMW45DS (plus duplicate), 2WMW46DS, 2WMW47DS, and SG24, respectively. The laboratory reporting limit for total arsenic (4 µg/L) is equal to the primary criterion and exceeds the background criterion (1.92 µg/L) for this COCP. Concentrations detected at locations 2WMW40DS, 2WMW43DS, 2WMW45DS (plus duplicate), 2WMW46DS, and 2WMW47DS exceeded the primary and background criterion.

- Dissolved arsenic was detected in the following 8 groundwater wells: 2WMW38DS, 2WMW40DS, 2WMW41DS, 2WMW42DS, 2WMW43DS, 2WMW45DS (plus field duplicate), 2WMW46DS, and 2WMW47DS at concentrations of 4 µg/L, 6 µg/L, 4 µg/L, 13 µg/L, 6 µg/L, 5 µg/L, (duplicate 6 µg/L), 19 µg/L, and 12 µg/L, respectively. The laboratory reporting limit for dissolved arsenic (4 µg/L) is equal to the primary criterion, and exceeds the background criterion (2.55 µg/L) for this COCP. Detections at groundwater wells 2WMW40DS, 2WMW42DS, 2WMW43DS, 2WMW45DS (plus field duplicate), 2WMW46DS, and 2WMW47DS also exceed the primary and background criterion.

- Dissolved lead was detected at 15 µg/L in groundwater well 2WMW47DS, which exceeds the primary (13 µg/L), secondary (1.2 µg/L) and background (2.52 µg/L) criterion for dissolved lead at the site. The laboratory reporting limit for lead was 10 µg/L which also exceeds the secondary and background criterion.

- Dissolved zinc was detected at surface water locations SG19, SG22, and SG23. The concentrations were 50 µg/L, 60 µg/L, 60 µg/L, and 250 µg/L respectively. The results for the surface water locations exceed the secondary criterion (58.2 µg/L) and the result for location SG23 also exceeds the primary (123 µg/L) and background (109 µg/L) criterion for the site.

No conclusions are recommendations are drawn from the comparisons at this time. An evaluation of the data from Rounds 12 and 13 will be done in the annual report.

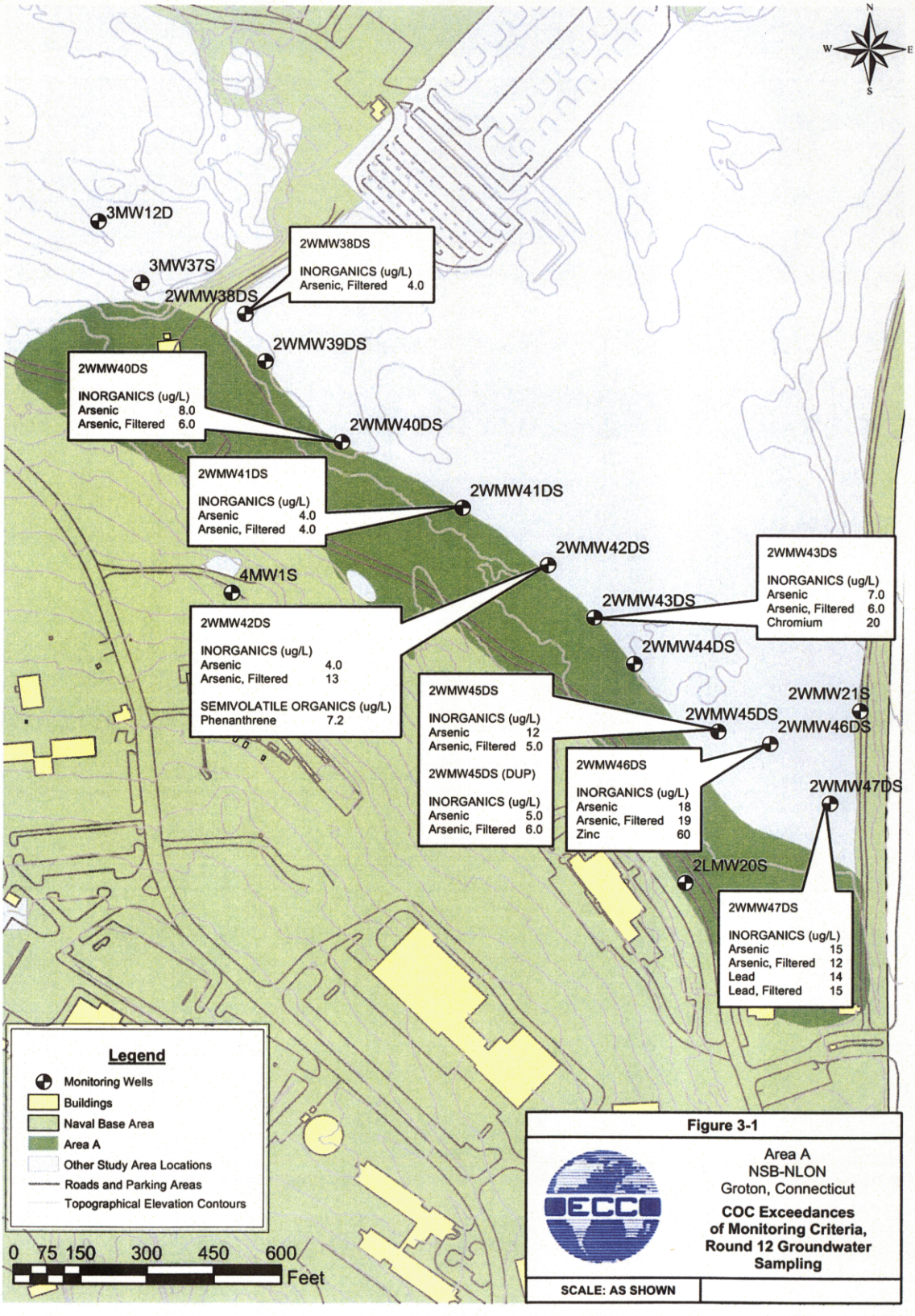


Figure 3-1

Area A
NSB-NLON
Groton, Connecticut

COC Exceedances of Monitoring Criteria, Round 12 Groundwater Sampling

SCALE: AS SHOWN

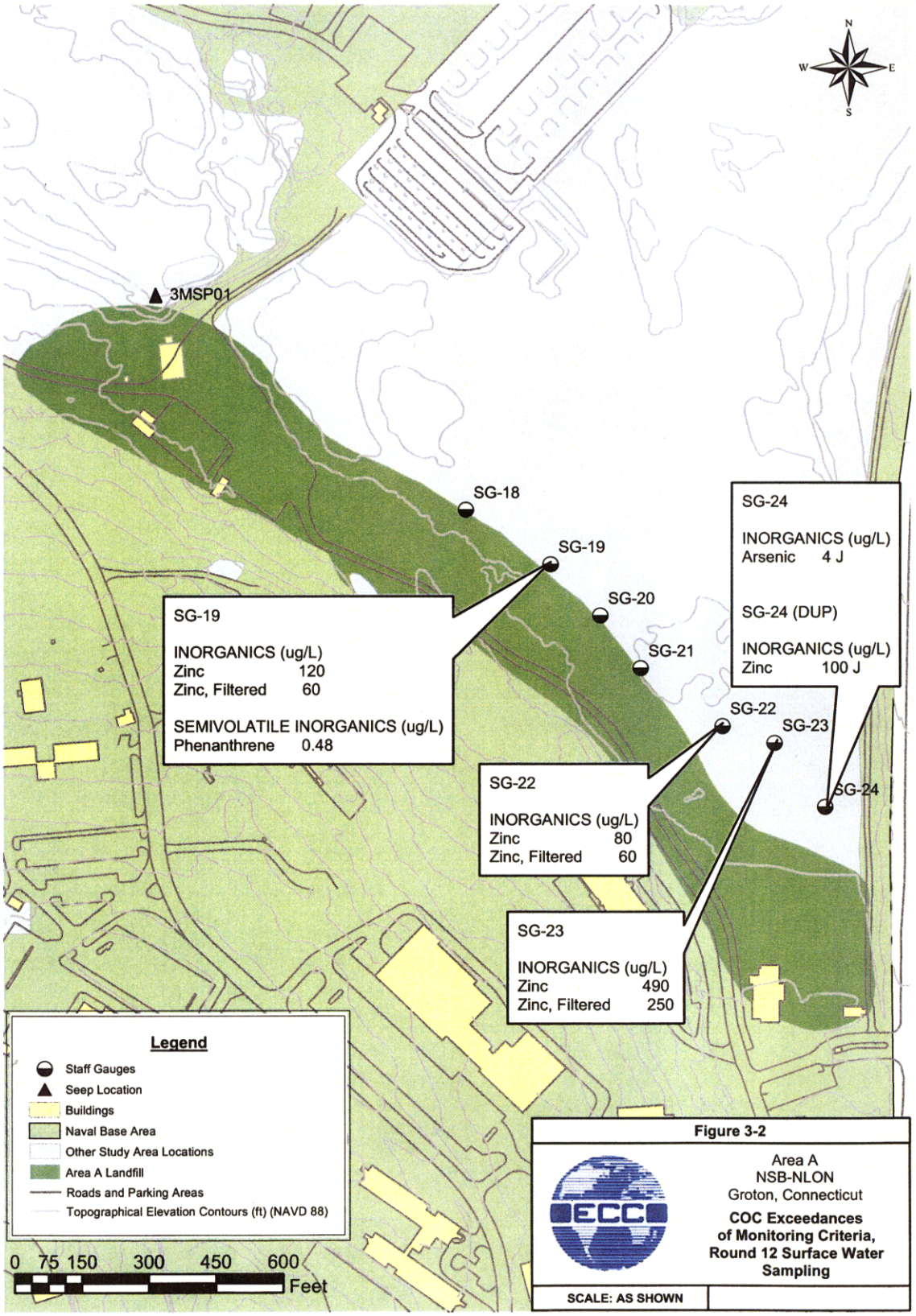


Figure 3-2

ECC

Area A
NSB-NLON
Groton, Connecticut

COC Exceedances of Monitoring Criteria, Round 12 Surface Water Sampling

SCALE: AS SHOWN

TABLE 3-1
GROUNDWATER ANALYTICAL RESULTS SUMMARY
ROUND 12 - GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Chemical	Primary Monitoring Criterion [1]	Secondary Monitoring Criterion	NSB-NLON Background Concentration[4]	2LMW20S Round 12 4/15/2003	2WMW21S Round 12 4/11/2003	2WMW38DS Round 12 4/3/2003	2WMW39DS Round 12 4/3/2003	2WMW40DS Round 12 4/3/2003	2WMW41DS Round 12 4/4/2003	2WMW42DS Round 12 4/8/2003	2WMW43DS Round 12 4/8/2003
SVOCs (µg/L)											
BENZO(A)ANTHRACENE	0.3	NA	--	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.11**	0.1 U
BENZO(A)PYRENE	0.3	NA	--	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
BENZO(B)FLUORANTHENE	0.3	NA	--	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
BENZO(K)FLUORANTHENE	0.3	NA	--	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
BIS(2-ETHYLHEXYL)PHTHALATE	59	NA	--	12 U	19 U	4.9 U	5 U	5 U	5 U	5 U	5 UJ
PHENANTHRENE	0.3	NA	--	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**7.2**	0.1 U
Inorganics (Total) (µg/L)											
ARSENIC	4	150 [2]	1.92	4 U	4 U	4 U	4 U	**8**	**4**	**4**	**7**
BERYLLIUM	4	NA	NA	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
CADMIUM	6	0.62[3]	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
CHROMIUM	110	11[2]	49.9	10 U	10 U	10 U	10 U	10 U	10	10 U	**20**
COPPER	48	4.8[3]	107	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
LEAD	13	1.2[3]	6.63	10U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
ZINC	123	58.2[3]	131	50	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Inorganics (Dissolved) (µg/L)											
ARSENIC	4	150 [2]	2.55	4 U	4 U	**4**	4 U	**6**	**4**	**13**	**6**
BERYLLIUM	4	NA	NA	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
CADMIUM	6	0.62[3]	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
CHROMIUM	110	11[2]	16	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
COPPER	48	4.8[3]	39.4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
LEAD	13	1.2[3]	2.52	10U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
ZINC	123	58.2[3]	109	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U

NOTES:

Bold numbers denote exceedance of monitoring criterion or background concentrations.

1 SWPC for substances in groundwater. (CTDEP, January 1996)
2 Federal AWQC for protection of aquatic life (chronic, freshwater). (USEPA, 1999)
3 Connecticut WQC for protection of human health from consumption of organisms. (CTDEP, 1997)
4 Background concentrations taken from Basewide Groundwater Operable Unit Remedial Investigation Report (TtNUS, 2002a)
J Estimated Value
R Rejected Value
U Undetected
NA Not Available
ND Not Detected in background samples
-- Not analyzed for in background samples.

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TABLE 3-1
GROUNDWATER ANALYTICAL RESULTS SUMMARY
ROUND 12 - GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Chemical	Primary Monitoring Criterion [1]	Secondary Monitoring Criterion	NSB-NLON Background Concentration[4]	2WMW44DS Round 12 4/14/2003	2WMW45DS Round 12 4/14/2003	2WMW45DS (DUP) Round 12 4/14/2003	2WMW46DS Round 12 4/13/2003	2WMW47DS Round 12 4/15/2003	3MW12D Round 12 4/2/2003	3MW37S Round 12 4/2/2003	4MW1S Round 12 4/15/2003
SVOCs (µg/L)											
BENZO(A)ANTHRACENE	0.3	NA	--	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
BENZO(A)PYRENE	0.3	NA	--	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
BENZO(B)FLUORANTHENE	0.3	NA	--	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
BENZO(K)FLUORANTHENE	0.3	NA	--	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
BIS(2-ETHYLHEXYL)PHTHALATE	59	NA	--	11 U	11 U	5 U	5 U	21 U	5 U	5 U	10 U
PHENANTHRENE	0.3	NA	--	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Inorganics (Total) (µg/L)											
ARSENIC	4	150 [2]	1.92	4 U	**12**	**5**	**18**	**15**	4 U	4 U	4 U
BERYLLIUM	4	NA	NA	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
CADMIUM	6	0.62[3]	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
CHROMIUM	110	11[2]	49.9	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
COPPER	48	4.8[3]	107	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
LEAD	13	1.2[3]	6.63	10 U	10 U	10 U	10 U	**14**	10 U	10 U	10 U
ZINC	123	58.2[3]	131	50 U	50 U	50 U	**60**	50 U	50 U	50 U	50 U
Inorganics (Dissolved) (µg/L)											
ARSENIC	4	150 [2]	2.55	4 U	**5**	**6**	**19**	**12**	4 U	4 U	4 U
BERYLLIUM	4	NA	NA	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
CADMIUM	6	0.62[3]	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
CHROMIUM	110	11[2]	16	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
COPPER	48	4.8[3]	39.4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
LEAD	13	1.2[3]	2.52	10 U	10 U	10 U	10 U	**15**	10 U	10 U	10 U
ZINC	123	58.2[3]	109	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U

NOTES:
Bold numbers denote exceedance of monitoring criterion or background concentrations.
1 SWPC for substances in groundwater. (CTDEP, January 1996)
2 Federal AWQC for protection of aquatic life (chronic, freshwater). (USEPA, 1999)
3 Connecticut WQC for protection of human health from consumption of organisms. (CTDEP, 1997)
4 Background concentrations taken from Basewide Groundwater Operable Unit Remedial Investigation R
J Estimated Value
R Rejected Value
U Undetected
NA Not Available
ND Not Detected in background samples
-- Not analyzed for in background samples.

TABLE 3-2
SURFACE WATER ANALYTICAL RESULTS SUMMARY
ROUND 12 - GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Chemical	Primary Monitoring Criterion [1]	Secondary Monitoring Criterion	NSB-NLON Background Concentration[4]	3MSP01 Round 12 4/3/2003	SG-18 Round 12 4/11/2003	SG-19 Round 12 4/8/2003	SG-20 Round 12 4/11/2003	SG-21 Round 12 4/11/2003	SG-22 Round 12 4/11/2003	SG-23 Round 12 4/11/2003	SG-24 Round 12 4/11/2003	SG-24 (DUP) Round 12 4/11/2003
SVOCs (µg/L)												
BENZO(A)ANTHRACENE	0.3	NA	--	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
BENZO(A)PYRENE	0.3	NA	--	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
BENZO(B)FLUORANTHENE	0.3	NA	--	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
BENZO(K)FLUORANTHENE	0.3	NA	--	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
BIS(2-ETHYLHEXYL)PHTHALATE	59	NA	--	5 U	6.8 U	5 U	5 UJ	7.2 U	6.7 U	5.9 U	6.2 U	6.3 U
PHENANTHRENE	0.3	NA	--	0.1 U	0.1 U	**0.48**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Inorganics (Total) (µg/L)												
ARSENIC	4	150[2]	1.92	4 U	4 U	4 U	4 U	4 U	4 U	4 U	**4 J**	4 UJ
BERYLLIUM	4	NA	NA	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
CADMIUM	6	0.62[3]	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
CHROMIUM	110	11[2]	49.9	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
COPPER	48	4.8[3]	107	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
LEAD	13	1.2[3]	6.63	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
ZINC	123	58.2[3]	131	50 U	50 U	**120**	50 U	50 U	**80**	**490**	50 UJ	**100 J**
Inorganics (Dissolved) (µg/L)												
ARSENIC	4	150[2]	2.55	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
BERYLLIUM	4	NA	NA	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
CADMIUM	6	0.62[3]	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
CHROMIUM	110	11[2]	16	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
COPPER	48	4.8[3]	39.4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
LEAD	13	1.2[3]	2.52	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
ZINC	123	58.2[3]	109	50 U	50 U	**60**	50 U	50 U	**60**	**250**	50 U	50 U

NOTES:

Bold numbers denote exceedances of primary or secondary monitoring criterion and/or background groundwater concentrations.

1 Surface Water Protection Criteria for substances in groundwater. (CTDEP, January 1996)
2 Federal Ambient Water Quality Criteria for protection of aquatic life (chronic, freshwater). (USEPA, 1999)
3 Connecticut Water Quality Criteria for protection of human health from consumption of organisms. (CTDEP, 1997)
4 Background Concentrations taken from Basewide Groundwater Operable Unit Remedial Investigation Report (TtNUS, January 2002)
J Estimated Value
R Rejected Value
U Undetected
NA Not Available
ND Not Detected in background samples
-- Not analyzed for in background samples.

4.0 REFERENCES

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APPENDIX A

Monitoring Well Inspection Sheets

MONITORING WE INSPECTION SHEET

WELL ID: 2L MW 20S

DATE: 4/2/03

INSPECTOR'S NAME: DS

TIME: 1048

INSPECTION ITEM	TYPES OF PROBLEMS	STATUS		OBSERVATION
		S	U	
Well Tag	Is it in place, legible?		✓	NOT Legible
Well Security	Condition of protective case, cap and lock.		✓	Damaged
Well Pad	Concrete or gravel & condition		✓	debris around
Well Seal	Condition of.....		✓	
Area immediately around well pad.	Record any evidence of /or standing water in area of well			
Dedicated sampling equipment	Condition.....	✓		
PVC Riser	Condition of riser & survey reference point	✓		

Comments:

Signature: [signature]

S = satisfactory, U = unsatisfactory
Check one, if unsatisfactory please explain

MONITORING WE INSPECTION SHEET

WELL ID: 2W MW 215 **DATE:** 4/2/03

INSPECTOR'S NAME: D. Gainer **TIME:** 1035

INSPECTION ITEM	TYPES OF PROBLEMS	STATUS		OBSERVATION
		S	U	
Well Tag	Is it in place, legible?	✓		
Well Security	Condition of protective case, cap and lock.	✓		
Well Pad	Concrete or gravel & condition	✓		
Well Seal	Condition of.....	✓		
Area immediately around well pad.	Record any evidence of /or standing water in area of well	✓		
Dedicated sampling equipment	Condition.....	✓		
PVC Riser	Condition of riser & survey reference point	✓		

Comments:

Signature: Darren M. Gainer

S = satisfactory, U = unsatisfactory
Check one, if unsatisfactory please explain

MONITORING WE INSPECTION SHEET

WELL ID: MW37s

DATE: 4/2/03

INSPECTOR'S NAME: Dmg

TIME: 1155

INSPECTION ITEM	TYPES OF PROBLEMS	STATUS		OBSERVATION
		S	U	
Well Tag	Is it in place, legible?	✓		
Well Security	Condition of protective case, cap and lock.	✓		
Well Pad	Concrete or gravel & condition	✓		
Well Seal	Condition of.....	✓		
Area immediately around well pad.	Record any evidence of /or standing water in area of well	✓		
Dedicated sampling equipment	Condition.....	✓		
PVC Riser	Condition of riser & survey reference point	✓		

Comments:

Signature: Dallas Sidney

S = satisfactory, U = unsatisfactory
Check one, if unsatisfactory please explain

MONITORING WE INSPECTION SHEET

WELL ID: MW38DS

DATE: 4-2-03

INSPECTOR'S NAME: DMG

TIME: 1146

INSPECTION ITEM	TYPES OF PROBLEMS	STATUS		OBSERVATION
		S	U	
Well Tag	Is it in place, legible?			
Well Security	Condition of protective case, cap and lock.			
Well Pad	Concrete or gravel & condition			
Well Seal	Condition of.....			
Area immediately around well pad.	Record any evidence of /or standing water in area of well			dry
Dedicated sampling equipment	Condition.....			NA
PVC Riser	Condition of riser & survey reference point			

Comments:

Signature: [illegible]

S = satisfactory, U = unsatisfactory
Check one, if unsatisfactory please explain

MONITORING WE INSPECTION SHEET

WELL ID: MW39 DS

DATE: 4-2-03

INSPECTOR'S NAME: DG

TIME: 1139

INSPECTION ITEM	TYPES OF PROBLEMS	STATUS		OBSERVATION
		S	U	
Well Tag	Is it in place, legible?	✓		
Well Security	Condition of protective case, cap and lock.	✓		
Well Pad	Concrete or gravel & condition	✓		
Well Seal	Condition of.....	✓		
Area immediately around well pad.	Record any evidence of /or standing water in area of well	✓		
Dedicated sampling equipment	Condition.....	✓		
PVC Riser	Condition of riser & survey reference point	✓		

Comments:

Signature: Darren Gahm

S = satisfactory, U = unsatisfactory
Check one, if unsatisfactory please explain

MONITORING WE INSPECTION SHEET

WELL ID: MW 40 DS **DATE:** 4-2-03

INSPECTOR'S NAME: DMG **TIME:** 1132

INSPECTION ITEM	TYPES OF PROBLEMS	STATUS		OBSERVATION
		S	U	
Well Tag	Is it in place, legible?	✓		
Well Security	Condition of protective case, cap and lock.	✓		
Well Pad	Concrete or gravel & condition	✓		
Well Seal	Condition of.....	✓		
Area immediately around well pad.	Record any evidence of /or standing water in area of well	✓		
Dedicated sampling equipment	Condition.....	✓		
PVC Riser	Condition of riser & survey reference point	✓		

Comments:

Signature: Darren Gabney

S = satisfactory, U = unsatisfactory
Check one, if unsatisfactory please explain

MONITORING WE INSPECTION SHEET

WELL ID: MW 41 DS

DATE: 4-2-03

INSPECTOR'S NAME: DMG

TIME: 1113

INSPECTION ITEM	TYPES OF PROBLEMS	STATUS		OBSERVATION
		S	U	
Well Tag	Is it in place, legible?	✓		
Well Security	Condition of protective case, cap and lock.	✓		
Well Pad	Concrete or gravel & condition	✓		
Well Seal	Condition of.....	✓		
Area immediately around well pad.	Record any evidence of /or standing water in area of well	✓		
Dedicated sampling equipment	Condition.....	✓		
PVC Riser	Condition of riser & survey reference point	✓		

Comments:

Signature: Darren Sachs

S = satisfactory, U = unsatisfactory
Check one, if unsatisfactory please explain

MONITORING WE INSPECTION SHEET

WELL ID: MW 42 DS

DATE: 4/2/03

INSPECTOR'S NAME: DMG

TIME: 1118

INSPECTION ITEM	TYPES OF PROBLEMS	STATUS		OBSERVATION
		S	U	
Well Tag	Is it in place, legible?	✓		
Well Security	Condition of protective case, cap and lock.	✓		
Well Pad	Concrete or gravel & condition	✓		
Well Seal	Condition of.....	✓		
Area immediately around well pad.	Record any evidence of /or standing water in area of well	✓		
Dedicated sampling equipment	Condition.....	✓		
PVC Riser	Condition of riser & survey reference point	✓		

Comments:

Signature: Darren Salvey

S = satisfactory, U = unsatisfactory
Check one, if unsatisfactory please explain

MONITORING WE INSPECTION SHEET

WELL ID: MW 43 DS

DATE: 4/2-03

INSPECTOR'S NAME: DMG

TIME: 1123

INSPECTION ITEM	TYPES OF PROBLEMS	STATUS		OBSERVATION
		S	U	
Well Tag	Is it in place, legible?	✓		
Well Security	Condition of protective case, cap and lock.	✓		
Well Pad	Concrete or gravel & condition	✓		
Well Seal	Condition of.....	✓		
Area immediately around well pad.	Record any evidence of /or standing water in area of well	✓		
Dedicated sampling equipment	Condition.....	✓		
PVC Riser	Condition of riser & survey reference point	✓		

Comments:

Signature: Darren Sabey

S = satisfactory, U = unsatisfactory
Check one, if unsatisfactory please explain

MONITORING WE INSPECTION SHEET

WELL ID: 2WMW 44DS **DATE:** 4-2-03

INSPECTOR'S NAME: DMG **TIME:** 1105

INSPECTION ITEM	TYPES OF PROBLEMS	STATUS		OBSERVATION
		S	U	
Well Tag	Is it in place, legible?	✓		
Well Security	Condition of protective case, cap and lock.	✓		
Well Pad	Concrete or gravel & condition	✓		
Well Seal	Condition of.....	✓		
Area immediately around well pad.	Record any evidence of /or standing water in area of well		✓	WATER level around well high
Dedicated sampling equipment	Condition.....	✓		
PVC Riser	Condition of riser & survey reference point	✓		

Comments:

Signature: Daffran Gaines

S = satisfactory, U = unsatisfactory
Check one, if unsatisfactory please explain

MONITORING WE INSPECTION SHEET

WELL ID: 2WMW 45DS

DATE: 4/2/03

INSPECTOR'S NAME: DMG

TIME: 1053

INSPECTION ITEM	TYPES OF PROBLEMS	STATUS		OBSERVATION
		S	U	
Well Tag	Is it in place, legible?	✓		
Well Security	Condition of protective case, cap and lock.	✓		
Well Pad	Concrete or gravel & condition	✓		
Well Seal	Condition of.....	✓		
Area immediately around well pad.	Record any evidence of /or standing water in area of well	✓		
Dedicated sampling equipment	Condition.....	✓		
PVC Riser	Condition of riser & survey reference point	✓		

Comments:

Signature: [illegible]

S = satisfactory, U = unsatisfactory
Check one, if unsatisfactory please explain

MONITORING WE INSPECTION SHEET

WELL ID: 2WMW46ds **DATE:** 4/2/03

INSPECTOR'S NAME: D.G. **TIME:** 1058

INSPECTION ITEM	TYPES OF PROBLEMS	STATUS		OBSERVATION
		S	U	
Well Tag	Is it in place, legible?	✓		
Well Security	Condition of protective case, cap and lock.	✓		
Well Pad	Concrete or gravel & condition	✓		
Well Seal	Condition of.....	✓		
Area immediately around well pad.	Record any evidence of /or standing water in area of well	✓		
Dedicated sampling equipment	Condition.....	✓		
PVC Riser	Condition of riser & survey reference point	✓		

Comments:

Signature: Darren Sidney

S = satisfactory, U = unsatisfactory
Check one, if unsatisfactory please explain

MONITORING WE INSPECTION SHEET

WELL ID: 2MW47DS

DATE: 4/2/03

INSPECTOR'S NAME:

TIME: 1037

INSPECTION ITEM	TYPES OF PROBLEMS	STATUS		OBSERVATION
		S	U	
Well Tag	Is it in place, legible?	✓		
Well Security	Condition of protective case, cap and lock.	✓		
Well Pad	Concrete or gravel & condition	✓		
Well Seal	Condition of.....	✓		
Area immediately around well pad.	Record any evidence of /or standing water in area of well	✓		
Dedicated sampling equipment	Condition.....	✓		TUBING
PVC Riser	Condition of riser & survey reference point	✓		

Comments:

Signature:

S = satisfactory, U = unsatisfactory
Check one, if unsatisfactory please explain

MONITORING WE INSPECTION SHEET

WELL ID: MW12D

DATE: 4-2-03

INSPECTOR'S NAME: DMG

TIME: 1159

INSPECTION ITEM	TYPES OF PROBLEMS	STATUS		OBSERVATION
		S	U	
Well Tag	Is it in place, legible?	✓		
Well Security	Condition of protective case, cap and lock.	✓		
Well Pad	Concrete or gravel & condition	✓		
Well Seal	Condition of.....	✓		
Area immediately around well pad.	Record any evidence of /or standing water in area of well	✓		
Dedicated sampling equipment	Condition.....	✓		
PVC Riser	Condition of riser & survey reference point	✓		

Comments:

Signature: Darren Gulney

S = satisfactory, U = unsatisfactory
Check one, if unsatisfactory please explain

MONITORING WE INSPECTION SHEET

WELL ID: 4MW15

DATE: 4-2-03

INSPECTOR'S NAME:

TIME: 1207

INSPECTION ITEM	TYPES OF PROBLEMS	STATUS		OBSERVATION
		S	U	
Well Tag	Is it in place, legible?	✓		
Well Security	Condition of protective case, cap and lock.	~~✓~~	✓	TOP OF CASING LOOSE
Well Pad	Concrete or gravel & condition	✓		
Well Seal	Condition of.....	✓		
Area immediately around well pad.	Record any evidence of /or standing water in area of well	✓		
Dedicated sampling equipment	Condition.....	✓		
PVC Riser	Condition of riser & survey reference point	✓		

Comments:

Signature: [illegible]

S = satisfactory, U = unsatisfactory
Check one, if unsatisfactory please explain

APPENDIX B

Groundwater Level Field Forms

Tetra Tech NUS, Inc.

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: AREA A LANDFILL
Project No.:
Location: NSB - NEW LONDON
Personnel: D. GAINER, D. COMEAU
Weather Conditions:
Measuring Device:
Tidally Influenced: Yes ___ No X
Remarks: W/ KIETH (TTNUS)

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
2WMW 21s	4/2	1035			3.98			✓
MW 47ds		1037			1.04			✓
SG-24		1040			4.32			staff gauge Broken
2L MW 20s		1048			12.24			NS
2WMW 46ds		1050			1.10			S
SG 23					3.45			
2W MW 45ds		1053			1.73			✓
SG 22		1055			3.44			S
2MW 44ds		1105			1.24			water level are well high
SG 21		1107			2.84			S
MW 43ds		1123			2.02			S
SG 20		1125			2.79			S
MW 42ds		1118			1.60			S
SG 19		1120			3.44			S
MW 41ds		1113			1.87			S
SG 18		1115			3.57			S
MW 40ds		1132			2.89			S
SG 17		1134			2.43			NO WATER
MW 39ds		1139			2.35			✓
SG 16		1141			1.84			clay
MW 38ds		1146			5.38			clay
SG 15		1147			2.39			clay
MW 37s		1155			3.53			✓
MW 12d		1159			4.02			S
4MW 1S		1207			4.01			TOP [redacted] of Loose

* All measurements to the nearest 0.01 foot

SG06

17.02

APPENDIX C

Calibration Logs

INSTRUMENT CALIBRATION LOG

Project/Site Name GOSS COVE/Area A **Calibrated By** Dave C.

Instrument/Serial Number	Pre-cal 0 (NTU)	Pre-cal 10 (NTU)	Post-cal 0 (NTU)	Post-cal 10 (NTU)	Date
Lamotte Turbidimeter 1765-1800	0.0	10.0	0.0	10.0	4/3/03
Lamotte Turbidimeter 1765-1800	0.0	10.0	0.0	10.0	4/9/03
Lamotte Turbidimeter 1765-1900	0.15	10	0.0	10	4/14/03
Lamotte Turbidimeter 3661-3802	0.0	10	0.05	9.9	4/14/03
Lamotte Turbidimeter 1765-1900	0.05	9.9	0.40	9.8	4/15/03
Lamotte Turbidimeter 3661-3802	0	10	0.45	10	4/15/03
Lamotte Turbidimeter					
Lamotte Turbidimeter					
Lamotte Turbidimeter					
Lamotte Turbidimeter					
Lamotte Turbidimeter					
Lamotte Turbidimeter					
Lamotte Turbidimeter					

INSTRUMENT CALIBRATION LOG

Project/Site Name Goss Cove / Area A **Calibrated By** Dave C

Instrument/Serial Number	Pre-calibration Reading	Post-calibration Reading	Calibration Gas/Concentration	Date
Photovac 20/20 PID ED FN 311	98.2	89.9	Isobutylene / 100ppm	4/3/03
Photovac 20/20 PID ED FN 311	92.7	93.6	Isobutylene / 100ppm	4/4/03
Photovac 20/20 PID ED FN 311	92.1	90.2	Isobutylene / 100ppm	4/14/03
Photovac 20/20 PID EDFN 311	93.6	97.1	Isobutylene / 100ppm	4/15/03
Photovac 20/20 PID			Isobutylene / 100ppm	
Photovac 20/20 PID			Isobutylene / 100ppm	
Photovac 20/20 PID			Isobutylene / 100ppm	
Photovac 20/20 PID			Isobutylene / 100ppm	
Photovac 20/20 PID			Isobutylene / 100ppm	
Photovac 20/20 PID			Isobutylene / 100ppm	
Photovac 20/20 PID			Isobutylene / 100ppm	
Photovac 20/20 PID			Isobutylene / 100ppm	

INSTRUMENT CALIBRATION LOG

Project/Site Name GOSS COVE **Calibrated By** Fred Santos

Instrument/Serial Number	Pre-calibration Reading	Post-calibration Reading	Calibration Gas/Concentration	Date
Photovac 20/20 PID #EDFN311	89.7	82.2	Isobutylene / 100ppm	4/8/03
Photovac 20/20 PID	*Heavy Rainfall	Today	Isobutylene / 100ppm	4/9/03
Photovac 20/20 PID #EDFN311	94.8	97.6	Isobutylene / 100ppm	4/10/03
Photovac 20/20 PID			Isobutylene / 100ppm	
Photovac 20/20 PID			Isobutylene / 100ppm	
Photovac 20/20 PID			Isobutylene / 100ppm	
Photovac 20/20 PID			Isobutylene / 100ppm	
Photovac 20/20 PID			Isobutylene / 100ppm	
Photovac 20/20 PID			Isobutylene / 100ppm	
Photovac 20/20 PID			Isobutylene / 100ppm	
Photovac 20/20 PID			Isobutylene / 100ppm	
Photovac 20/20 PID			Isobutylene / 100ppm	

INSTRUMENT CALIBRATION LOG

Project/Site Name Goss Cove **Calibrated By** Dave C.

Instrument/Serial Number	Pre-cal 0 (NTU)	Pre-cal 10 (NTU)	Post-cal 0 (NTU)	Post-cal 10 (NTU)	Date
Lamotte Turbidimeter # 1765 - 1800	0.0	10.0	0.0	10.0	4/8/03
Lamotte Turbidimeter # 3661 - 3802	0.0	10.0	0.0	10.22	4/8/03
Lamotte Turbidimeter # 1765 - 1800	0.0	9.8	0.0	10.0	4/9/03
Lamotte Turbidimeter # 3661 - 3802	0.0	10.23	0.0	10.0	4/9/03
Lamotte Turbidimeter # 3661 - 3802	0.0	9.2	0.0	10.05	4/10/03
Lamotte Turbidimeter # 1765 - 1800	0.0	11.0	0.0	10.0	4/10/03
Lamotte Turbidimeter					
Lamotte Turbidimeter					
Lamotte Turbidimeter					
Lamotte Turbidimeter					
Lamotte Turbidimeter					
Lamotte Turbidimeter					
Lamotte Turbidimeter					

INSTRUMENT CALIBRATION LOG

Project/Site Name Goss Cove/ Area A **Date** 4/4/03 **Weather** _____

Calibrated By Dave C. **Instrument** YSI **Serial Number** 01H0711AE

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature C	Comments
Conductivity				
pH (7)	7.09	7.03		
pH (4)	3.95	4.16		
pH (10)	10.01	10.04		
ORP	230.6	112.0		
Dissolved Oxygen mg/L	12.56	12.26		
Barometric Pressure mm Hg	759.1	759.6		

INSTRUMENT CALIBRATION LOG

Project/Site Name Goss Cove **Date** 4/8/03 **Weather** _____

Calibrated By Fred Santos **Instrument** YSI 650 **Serial Number** 01H 0711AE

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity mS/cm	0.972	0.986		
pH (7)	6.99	7.24		
pH (4)	3.97	4.08		
pH (10)	10.00	10.24		
ORP	115.9	78.0		
Dissolved Oxygen %	118.3	100.8		
Barometric Pressure mm Hg	768.3	765.6		

INSTRUMENT CALIBRATION LOG

Project/Site Name Goss Cove **Date** 4/8/03 **Weather** _____

Calibrated By Fred Santos **Instrument** YSI 650 **Serial Number** 02B0985AE

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity us/cm	993	1003		
pH (7)	6.99	6.82		
pH (4)	4.05	4.00		
pH (10)	10.04	9.86		
ORP	100.05	138.2		
Dissolved Oxygen %	101.6	103.1		
Barometric Pressure mmHg	765.2	762.3		

INSTRUMENT CALIBRATION LOG

Project/Site Name Gods Cove **Date** 4/9/03 **Weather** Heavy rainfall

Calibrated By Fred Santos **Instrument** YSI 650 **Serial Number** 02009985AE

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature C	Comments
Conductivity us/cm	983	1021		
pH (7)	6.96	7.12		
pH (4)	3.76	4.21		
pH (10)	10.03	10.03		
ORP	105.5	86.8		
Dissolved Oxygen %	101.9	102.8		
Barometric Pressure mmHg	761.8	758.5		

INSTRUMENT CALIBRATION LOG

Project/Site Name Goss Cove **Date** 4/9/03 **Weather** Heavy rainfall

Calibrated By Dave C. **Instrument** YSI 650 **Serial Number** 01H0711AE

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature C	Comments
Conductivity ms/cm	.969	1.041		
pH (7)	7.06	7.08		
pH (4)	4.16	4.10		
pH (10)	10.03	10.07		
ORP	82.7	99.7		
Dissolved Oxygen ms/L	13.50	13.58		
Barometric Pressure mmHg	765	761.7		

INSTRUMENT CALIBRATION LOG

Project/Site Name GOSS COVE **Date** 4/10/03 **Weather** _____

Calibrated By Fred Santos **Instrument** YSI 650 **Serial Number** 00D0698

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity µS/cm	999	996		
pH (7)	7.02	6.97		
pH (4)	3.96	4.09		
pH (10)	10.05	10.02		
ORP	108.8	103.2		
Dissolved Oxygen mg/L	14.75	14.51		
Barometric Pressure	766.1	756.2		

INSTRUMENT CALIBRATION LOG

Project/Site Name GOSS COVE **Date** 4/10/03 **Weather** _____

Calibrated By Dave C. **Instrument** YSI 650 **Serial Number** 00D0472

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity uS/cm	1011	1007		
pH (7)	7.02	6.98		
pH (4)	3.98	4.06		
pH (10)	9.87	9.94		
ORP	100.2	99.1		
Dissolved Oxygen mg/L	15.25	15.31		
Barometric Pressure	761.3	760.8		

INSTRUMENT CALIBRATION LOG

Project/Site Name Goss Cove **Date** 4/11/03 **Weather** _____

Calibrated By Fred Santos **Instrument** YSI 650 **Serial Number** 02B 0985 AE

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature °C	Comments
Conductivity mS/cm	1001	1001		
pH (7)	6.82	7.06		
pH (4)	4.15	4.07		
pH (10)	10.10	9.97		
ORP	85.2	99.7		
Dissolved Oxygen	101	112.4		
Barometric Pressure	756.4	754.9		

INSTRUMENT C LIBRATION LOG

Project/Site Name Goss Cove/Area A **Date** 4/14/03 **Weather** _____

Calibrated By Dave C. **Instrument** YSI **Serial Number** 02B0985AE

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature C	Comments
Conductivity us/cm	1008	1010		
pH (7)	7.05	6.77		
pH (4)	3.98	4.30		
pH (10)	10.08	10.15		
ORP	86.3	100.5		
Dissolved Oxygen %	110.4	72.6		
Barometric Pressure mmHg	768.2	759.9		

INSTRUMENT CALIBRATION LOG

Project/Site Name Goss Cove / Area A **Date** 4/14/03 **Weather** _____

Calibrated By Dave C. **Instrument** YSI **Serial Number** 01H0711AE

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature C	Comments
Conductivity us/cm	979	1024		
pH (7)	6.89	6.92		
pH (4)	4.02	3.90		
pH (10)	10.10	10.04		
ORP	76.3	99.0		
Dissolved Oxygen %	111.9	61.8		
Barometric Pressure mmHg	771.4	761.5		

INSTRUMENT C. LIBRATION LOG

Project/Site Name Goss Cove / Area A **Date** 4/15/03 **Weather** _____

Calibrated By Dave C. **Instrument** YSI **Serial Number** 02B 0985AE

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature C	Comments
Conductivity	1010	985		
pH (7)	6.77	6.71		
pH (4)	4.30	3.87		
pH (10)	10.15	9.77		
ORP	100.5	65.0		
Dissolved Oxygen	87.4	90.6		
Barometric Pressure mmHg	761.5	770.4		

INSTRUMENT C..LIBRATION LOG

Project/Site Name Goss Cove/Area A **Date** 4/15/03 **Weather** _____

Calibrated By Dave C. **Instrument** YSI **Serial Number** 01H0711AE

Parameters	Pre-calibration Reading	Post-calibration Reading	Temperature C	Comments
Conductivity	1024	991		
pH (7)	6.92	6.94		
pH (4)	3.90	3.90		
pH (10)	10.04	9.87		
ORP	99.0	77.8		
Dissolved Oxygen %	83.5	127.2		
Barometric Pressure mm Hg	761.5	764.4		

APPENDIX D

Groundwater and Surface Water Field Forms

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: NSB - NL
Location: Area A Landfill
Well ID: 2L MW205

Date: 4/15/03
Sampler: FS

Well Construction: 2" PVC - Flush Mount - Concrete cracked
Depth to water: 12.25
Well Depth: 18.60
Water Column:

Field Testing Equipment

Make	Model	Serial #
GeoTech	GeoPump	329
YSI	650	02B0985AE
Lamotte	Turbidity	1765 - 1800

Time	volume removed (liters)	Flow Rate (ml/min)	drawdown (ft)	Temp (celsius)	pH	Spec. Cond.	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
0845		125	12.25	11.89	6.60	3157	0.44	-106.8	60	Clear
0850		100	12.45	10.96	6.22	996	1.62	-78.8	55	Clear
0855		100	12.49	10.95	6.11	877	1.55	-68	50	Clear
0900		100	12.53	10.91	6.04	854	1.33	-61.2	40	Clear
0905		100	12.55	10.95	6.00	844	1.31	-58	40	Clear
0910		100	12.57	11.02	5.96	789	1.19	-53.4	33	Clear
915		100	12.55	11.04	5.92	755	1.10	-49.7	22	Clear
0920		100	12.55	11.05	5.88	734	1.01	-46.1	16	Clear
0925		100	12.55	11.06	5.83	680	0.88	-41.3	8	Clear
0930		100	12.54	11.03	5.81	640	0.86	-37.5	5	Clear
Acceptance Criteria:			<0.3 ft	3%	+/- 0.1	3%	10%	+/-10mv	<10	

Sample Collection

Time	Sample ID	Container	#	Preservation	Analyses
0940	2L MW205	1 Liter Plastic	1	None	TSS
0940	"	500 mL	1	HNO_3	Total Metals + Hardness
0940	"	500 mL	1	None	TDS Alk Cl SO_4
0940	"	250 mL	1	HNO_3	Dissolved Metals (FF)
0940	"	VOA	2	H_2SO_4	TOC
0940	"	Amber L	2	None	SVOC

Comments

* 2" PVC cracked
Concrete around MW is cracked into 5 large sections. Surface runoff infiltration is possible due to the condition of the concrete and PVC riser.
PID = 1.7 ppm

Signature

4/15/03
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: NSB-NL
Location: Area A Landfill
Well ID: 2WMW21S

Date: 4/15/03
Sampler: FS

Well Construction: 2" PVC - 3' Riser
Depth to water: 4.07
Well Depth: 17.00
Water Column:

Field Testing Equipment

Make	Model	Serial #
GeoTech	GeoPump	329
YSI	650	02B0985AE
Lamotte	Turbidity	1765-1800

Time	volume removed (liters)	Flow Rate (ml/min)	drawdown (ft)	Temp (celsius)	pH	Spec. Cond.	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color	
1215		125	4.07	11.19	6.70	43,745	-0.93	-454	11	Clear	
1220		125	4.75	11.21	6.53	43,351	~~-0.68~~ -0.67	-449	8	Clear	
1225		125	4.96	11.50	6.50	42056	-0.56	-448.8	4.2	Clear	
1230		125	5.11	11.25	6.47	40867	-0.46	-449	3.7	Clear	* Salinity 26.02
1235		125	5.14	11.25	6.47	40316	-0.50	-451	2.4	Clear	25.45
1240		125	5.17	11.25	6.47	39758	-0.50	-452	3.0	Clear	25.18
Acceptance Criteria:			<0.3 ft	3%	+/- 0.1	3%	10%	+/-10mv	<10		

Sample Collection

Time	Sample ID	Container	#	Preservation	Analyses
1245	2WMW21S	1 L	1	None	TSS
1245	2WMW21S	500 mL	1	HNO_3	Total Metals/Hardness
1245	2WMW21S	500 mL	1	None	TDS, Alk, Cl, SO4
1245	2WMW21S	250 mL	1	HNO_3	Dissolved metals (FF)
1245	2WMW21S	VOA	2	H_2SO_4	TOC
1245	2WMW21S	Amber L	2	None	SVOC

Comments

PID = 0.0 ppm - strong sulfur odor

Signature

4/15/03
Date

~~NWIRP~~ NSB - AREA A
~~BEDFORD, MA~~ NEW LONDON

Environmental Chemical Corporation
Low Flow/Low Stress Groundwater Sampling Log

Project: NSB
Location: Area - A
Well ID: 2WMW38DS

Date: 4/3/03
Sampler: David C

Well Construction: 2" PVC Peristaltic
Depth to water: 6.23
Well Depth: 11.61
Water Column: 5.38

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	02B0985 AE
La motte	2020 Turbidity Meter	1765-1800
Geo Pump 2	Peristaltic pump	329
Photovac	P.I.D.	EDFM311

Time	volume removed (liters)	Flow Rate (ml/min)	drawdown (ft)	Temp (celsius)	pH	Spec. Cond.	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
8:55		200	6.23	7.50	7.18	493	6.63	199.2	4.7	clear
9:05		175	7.53	7.40	7.02	473	5.58	203.4	3.1	clear
9:15		160	8.35	7.37	6.97	489	4.17	110.6	1.1	clear
9:25		100	9.13	7.52	6.92	519	3.10	43.9	0.90	clear
9:30		110	9.44	7.59	6.92	535	2.81	24.0	0.80	clear
9:35		100	9.85	7.63	6.93	556	2.50	0.4	0.75	clear
9:38		100	10.06	7.69	6.94	567	2.45	-10.2	0.75	clear
9:40		100	10.19	7.71	6.95	574	2.35	-14.7	0.75	clear
Acceptance Criteria:			<0.3 ft	3%	+/- 0.1	3%	10%	+/-10mv	<10	

Sample Collection

Time	Sample ID	Container	#	Preservation	Analyses	
9:40	2-GW38DS-01	40ml vial	2	H_2SO_4	TOC	sent 4/3/03
9:40	2-GW38DS-01	1 Liter amber	2	None	SVOC 8270/PAH-SIM	sent 1 4/3/03
[redacted]	2-GW38DS-01	250 ml	1	HNO_3	Dissolved Metals (FF)	sent 4/8/03
[redacted]	2-GW38DS-01	1 Liter	1	None	TSS	sent 4/8/03
9:40	2-GW38DS-01	500 ml	1	HNO_3	Total Metals hardness	sent 4/3/03
	2-GW38DS-01	500 ml	1	None	TDS, Alk, Cl, SO4	sent 4/8/03

sent 1 4/8/03

Comments

0.0 ppm PID reading at wellhead

Signature

4/3/03
Date

Not completely sampled, well went dry.

~~NWIRP~~ NSB - Area A
~~BEDFORD, MA~~ New London

Environmental Chemical Corporation
Low Flow/Low Stress Groundwater Sampling Log

Project: NSB
Location: Area - A
Well ID: 2WMW39DS

Date: 4/3/03
Sampler: David C.

Well Construction: 2" PVC Peristaltic
Depth to water: 2.43'
Well Depth: 16.68
Water Column: 14.25

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	02B0985AE
Lamotte	2020 Turbidimeter	1765-1800
Geo Pump 2	Peristaltic	329
Photovac	P.I.D.	EDFN311

Time	volume removed (liters)	Flow Rate (ml/min)	drawdown (ft)	Temp (celsius)	pH	Spec. Cond.	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
10:45		125	3.34	9.52	7.13	1125	1.10	-14.8	170	Lt. Brown
10:55		100	4.38	8.18	6.74	1134	0.67	28.7	210	Lt. Brown
11:00		100	4.85	8.18	6.78	1135	0.74	32.6	60	Lt. Brown
11:05		100	5.24	8.21	6.78	1136	0.67	35.5	34	Clear
11:10		100	5.55	8.19	6.79	1136	0.58	37.5	32	Clear
11:15		100	5.86	8.22	6.78	1135	0.57	39.3	28	Clear
11:20		100	6.11	8.31	6.78	1138	0.53	38.4	30	Clear
11:30		100	6.45	8.32	6.77	1138	0.53	34.0	30	Clear
Acceptance Criteria:			<0.3 ft	3%	+/- 0.1	3%	10%	+/-10mv	<10	

Sample Collection

Time	Sample ID	Container	#	Preservation	Analyses
11:30	2-GW39DS-01	40ml. vial	(2)	H_2SO_4	TOC
11:30	2-GW39DS-01	1 Liter amber	(2)	None	SVOC 8270/PAH-SIM
11:30	2-GW39DS-01	250 ml	(1)	HNO_3	Dissolved Metals ← (FF)
11:30	2-GW39DS-01	1 Liter	(1)	None	TSS
11:30	2-GW39DS-01	500 ml	(1)	HNO_3	Total Metals, Hardness
11:30	2-GW39DS-01	500 ml	(1)	None	TDS, Alk, Cl, SO_4
11:30	2-GW39DS-01	250 ml	(1)	HNO_3	COD

Comments
0.0 ppm with P.I.D. at wellhead

Signature: [signature]
Date: 4/3/03

~~NWIRR~~ NSB AREA A
~~BEDFORD, MA~~ NRW, London

Environmental Chemical Corporation
Low Flow/Low Stress Groundwater Sampling Log

Project: NSB
Location: AREA - A
Well ID: 2WMW40DS

Date: 4/3/03
Sampler: David C.

Well Construction: 2" PVC Peristaltic
Depth to water: 2.91
Well Depth: 16.42
Water Column: 13.51

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	02B0985 AE
LaMotte	2020 Turbidimeter	1765-1800
Geo Pump 2	Peristaltic	329
Photovac	P.I.D.	EDFN311

Time	volume removed (liters)	Flow Rate (ml/min)	drawdown (ft)	Temp (celsius)	pH	Spec. Cond.	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
14:20		175	4.66	8.95	7.07	23234	-0.38	-322.8	0.65	clear
14:30		140	6.58	8.49	7.10	21457	-1.17	-326.9	0.60	clear
14:40		140	8.18	8.36	7.09	18629	-1.01	-327.9	2.9	clear
14:50		140	9.28	7.88	7.35	13190	-0.43	-319.9	9.1	clear
14:55		120	9.77	7.83	7.39	12499	-0.25	-318.6	12	clear
14:58		120	10.00	7.67	7.38	12409	-0.21	-320.0	11	clear
Acceptance Criteria:			<0.3 ft	3%	+/- 0.1	3%	10%	+/-10mv	<10	

Sample Collection

Time	Sample ID	Container	#	Preservation	Analyses
14:58	2-GW 40DS-01	40ml. Vial	2	H_2SO_4	TOC
14:58	2-GW 40DS-01	1 Liter amber	2	None	SVOC 8270 / PAH-SIM
14:58	2-GW 40DS-01	250 ml	1	HNO_3	Dissolved metals (FF)
14:58	2-GW 40DS-01	1 Liter	1	None	TSS
14:58	2-GW40DS-01	500ml	1	HNO_3	Total metals, hardness
14:58	2-GW40DS-01	500ml	1	None	TDS, Alk, Cl, SO_4
14:58	2-GW40DS-01	250ml	1	H_2SO_4	COD

Comments

0.0 ppm at wellhead with P.I.D.

Signature

4/3/03
Date

~~NUWIRP~~ NSB Area-A
~~BEDFORD, MA~~ New London

Environmental Chemical Corporation
Low Flow/Low Stress Groundwater Sampling Log

Project: NSB
Location: Area-A
Well ID: 2WMW41DS

Date: 4/4/03
Sampler: David C.

Well Construction: 2" PVC Peristaltic
Depth to water: 1.90'
Well Depth: 16.38'
Water Column: 14.48

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	01H0511AE
Lamotte	2020 Turbidimeter	1765-1800
GeoPump2	Peristaltic	329
Photovac	P.I.D.	EDFN311

Time	volume removed (liters)	Flow Rate (ml/min)	drawdown (ft)	Temp (celsius)	pH	Spec. Cond. mS/cm	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
8:40		100	3.23	6.98	6.81	18.86	9.2	-394.8	3.9	clear
8:50		100	3.72	7.10	6.84	17.52	-0.07	-433.6	4.4	clear
9:00		100	5.33	7.29	6.85	16.10	-0.39	-435.4	3.7	clear
9:10		100	6.44	7.41	6.86	14.69	-0.41	-437.4	2.4	clear
9:20		100	6.64	7.33	6.87	14.06	-0.40	-430.2	2.4	clear
9:25		100	7.04	7.15	6.88	12.49	-0.36	-436.2	2.3	clear
Acceptance Criteria:			<0.3 ft	3%	+/- 0.1	3%	10%	+/-10mv	<10	

Sample Collection

Time	Sample ID	Container	#	Preservation	Analyses
9:25	2-GW41DS-01	40ml Vial	2	H_2SO_4	TOC
9:25	2-GW41DS-01	1 Liter amber	2	None	SVOC 8270/PAH-Sim
9:25	2-GW41DS-01	250ml	1	HNO_3	Dissolved Metals (FF)
9:25	2-GW41DS-01	1 Liter	1	None	TSS
9:25	2-GW41DS-01	500ml	1	HNO_3	Total metals, hardness
9:25	2-GW41DS-01	500ml	1	None	TDS, Alk, Cl, SO4
9:25	2-GW41DS-01	250ml	1	H_2SO_4	COD

Comments

0.0 ppm P.I.D. reading at wellhead

Signature

4/4/03
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: NSB-NL
Date: 4-8-03
Location: AREA A LANDFILL
Sampler: J. DIAZ
Well ID: 2WMW 42DS

Well Construction: 2" diam PVC CASING w/ DEDICATED TUBING
Depth to water: 1.71 FT
Well Depth: 15.95 FT
Water Column: 14.24 FT

Field Testing Equipment

Make	Model	Serial #
PID	2020	EDFN311
SOLINST	101	SN 26500
YSI	6000 XLM	00D0698AB
GEOTECH	GEOPUMP 2	329

Time	volume removed (liters)	Flow Rate (ml/min)	drawdown (ft)	Temp (celsius)	pH	Spec. Cond. mS/cm	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
1519	1	100	7.38	7.10	6.79	15.69	1.08	-449.7	32.0	gray
1529	NED 1	100	7.51	7.14	6.82	12.98	0.29	-450.3	6.8	clear w/ FLECKS OF BLACK
1539	NED 1	100	8.35	7.39	6.85	11.97	-0.40	-463	5.5	"
1549	1	100	9.85	7.59	6.80	10.33	-0.29	-508.4	33.0	gray - w/ BLACK PARTICLES
1559	1	100	10.65	7.72	6.98	9.60	-0.01	-532.6	65.0	black
1609	1	100	11.46	7.84	7.02	9.95	0.16	-505.6	50.0	black
1619	1	100	12.03	7.88	7.03	10.93	0.20	-471.9	35.0	gray - black
1624	0.5	100	12.41	7.88	7.02	11.40	0.11	-465.4	29.0	gray
1629	0.5	100	12.64	7.88	7.04	11.37	0.03	-463.4	24.0	gray
1634	0.5	100	12.84	7.94	7.02	11.66	-0.03	-463.2	19.0	gray - clear
1639	0.5	100	13.10	7.99	7.05	11.84	-0.15	-460.3	16.0	clear - gray
1644	0.5	100	13.31	8.01	7.05	12.02	-0.18	-458.2	15.0	"
Acceptance Criteria:			<0.3 ft	3%	+/- 0.1	3%	10%	+/-10mv	<10	
1649	0.5	100	13.50	8.02	7.05	12.10	-0.23	-459.7	14.0	Clear - gray

Sample Collection

Time	Sample ID	Container	#	Preservation	Analyses
1654	2-GW42DS-01	1L PLAS	1	NONE	TSS
4-03 1654	2-GW42DS-01	500 mL PLAS	1	HNO3	Total Metals HARDNESS
6:10 ~~1654~~	2GW 42 DS-01	500 mL PLAS	1	NONE	TDS, ALK, CL, SO4 4/9/03
16:10 ~~[illegible]~~	2GW42DS-01	250 mL PLAS	1	HNO3	DISSOLVED METALS FT 4/9/03
7-03	2GW 42 DS-01		2	H_2SO_4	TOC

Comments

WELL LOCKED, CASING IN GOOD CONDITION STRONG SULFUR ODER FROM WELL

4-9-03 1654	2GW42DS-01	250 mL PLAS	1	H_2SO_4	COD
1r:10 ~~[illegible]~~	2GW42DS-01	1 L Amber	2	NONE	SVOC

1 sampled on 4/9/03

Signature [signature]
Date 4-9-03

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: NSB
Location: ARea A [redacted]
Well ID: 2WMW43DS

Date: 4/8/03
Sampler: David C.

Well Construction: 2" PVC Peristaltic
Depth to water: 2.16'
Well Depth: 15.65
Water Column: 13.49

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	02B0985 AE
Lamotte	Turbidimeter	3661-3802
Geopump 2	Peristaltic	336

Time	volume removed (liters)	Flow Rate (ml/min)	drawdown (ft)	Temp (celsius)	pH	Spec. Cond. US/CM	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
13:45		100	3.19	6.88	6.54	27965	1.08	-381.1	20.3	clear
13:55		100	4.77	6.69	6.57	27940	-1.83	-399.7	19.9	clear
14:05		110	5.47	7.06	6.52	26895	-0.74	-402.2	21.8	clear
14:15		110	6.63	7.25	6.54	25168	-0.01	-401.0	19.1	clear
14:20		110	7.23	7.30	6.58	23427	0.08	-400.9	16.0	clear
14:25		110	7.66	7.32	6.65	21141	0.09	-399.6	[redacted]169	clear
14:30		110	7.93	7.35	6.72	20259	0.02	-400.8	16.6	clear
Acceptance Criteria:		<0.3 ft		3%	+/- 0.1	3%	10%	+/-10mv	<10	

Sample Collection

Time	Sample ID	Container	#	Preservation	Analyses
14:30	2-GW43DS-01	40ml. vial	2	H_2SO_4	TOC
14:30	2-GW43DS-01	1 Liter amber	2	None	SVOC 8270/PAH-Sim
14:30	2-GW43DS-01	250ml	1	HNO_3	Dissolved Metals (FF)
14:30	2-GW43DS-01	1 Liter	1	None	TSS
14:30	2-GW43DS-01	500ml	1	HNO_3	Total metals, hardness
14:30	2-GW43DS-01	500ml	1	None	TDS, Alk, Cl, SO_4
14:30	2-GW43DS-01	250ml	1	H_2SO_4	COD

Comments

0.0 ppm at wellhead with P.I.D.

Signature

4/8/03
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: NSB
Date: 4/13/03
Location: Area A
Sampler: David C.
Well ID: 2WMW44DS

Well Construction: 2" PVC Peristaltic
Depth to water: 1.81
Well Depth: 16.65'
Water Column: 14.84

Field Testing Equipment

Make	Model	Serial #
Photovac	P.I.D.	ED FN 311
YSI	650MDS	02B0985AE
Lamotte	Turbidimeter	1765-1800
Geo Pump 2	Peristaltic	[redacted] 336

Time	volume removed (liters)	Flow Rate (ml/min)	drawdown (ft)	Temp (celsius)	pH	Spec. Cond. us/cm	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
12:35		110	2.20	10.41	6.78	42611	-0.03	-449.2	40	clear
12:45		120	3.64	10.16	6.65	42685	-0.05	-450.9	15	clear
12:55		110	4.59	10.28	6.64	41520	0.02	-445.6	15	clear
13:05		110	5.74	10.52	6.61	39000	0.12	-449.1	11	clear
13:15		110	6.32	10.66	6.60	35455	[redacted] 0.11	-448.7	8.1	clear
13:17		120	6.41	10.65	6.60	34312	0.11	-447.6	9.5	clear
Acceptance Criteria:			<0.3 ft	3%	+/- 0.1	3%	10%	+/-10mv	<10	

Sample Collection

Time	Sample ID	Container	#	Preservation	Analyses
13:17	2-GW44DS-01	40ml vial	2	H_2SO_4	TOC
13:17	2-GW44DS-01	1 Liter amber	2	None	SVOC 8270/PAH-SIM
13:17	2-GW44DS-01	250ml plastic	1	HNO_3	Dissolved Metals (FF)
13:17	2-GW44DS-01	1 Liter Plastic	1	None	TSS
13:17	2-GW44DS-01	500ml Plastic	1	HNO_3	Total metals, hardness
13:17	2-GW44DS-01	500ml Plastic	1	None	TDS, Alk, Cl, SO_4
13:17	2-GW44DS-01	250ml Plastic	1	H_2SO_4	COD

Comments

Well in Good Condition
P.I.D. at wellhead = 2.7 ppm

Signature

4/13/03
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: NSB-NL
Location: Area A Landfill
Well ID: 2WMW45DS

Date: 4/14/03
Sampler: Fred Santos

Well Construction: 2" PVC - Riser Good condition
Depth to water: 1.75
Well Depth: 16.60
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	650	01H0711 AE
Lamotte	Turbidity	3661-3802
Geo Tech	Geo Pump	

Time	volume removed (liters)	Flow Rate (ml/min)	drawdown (ft)	Temp (celsius)	pH	Spec. Cond. us/cm²	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
2:55pm		150ml/min	1.75	10.61	6.23	44,615	0.43	-434	30	Clear
3:00pm		125	3.76	10.05	6.18	43,628	0.37	-433.6	20	Clear
3:05pm		100	5.64	9.70	6.23	42,185	0.34	-435.7	9.5	Clear
3:10pm		100	6.93	9.30	6.28	41,373	0.33	-442.7	5.0	Clear
3:15pm		100	7.05	9.49	6.29	40,603	0.34	-442.7	7.1	Clear
3:20pm		100	7.12	9.55	6.31	39,859	0.34	-444.1	2.5	Clear
25pm		100	7.16	9.61	6.32	39,176	0.35	-446.3	5.0	Clear
Acceptance Criteria:			<0.3 ft	3%	+/- 0.1	3%	10%	+/-10mv	<10	

Sample Collection

Time	Sample ID	Container	#	Preservation	Analyses
3:40pm (1540)	2WMW45DS-01	1 Liter Plastic	1	None	TSS
1540	2WMW45DS-01	500 mL	1	HNO_3	Metals/Hardness
1540	2WMW45DS-01	500mL	1	None	TDS, Alk, Cl, SO_4
1540	2WMW45DS-01	250mL	1	HNO_3	Dissolved metals (FF)
1540	2WMW45DS-01	~~Amber Liter~~ VOA	2	H_2SO_4	TOC
1540		Amber Liter	2	None	SVOC

Comments

Strong Sulfur odor emitted from well

* Collected a Field Duplicate for the identical analysis and Jars as 2WMW45DS-01
The ID of the Field Duplicate is *2WMW45DS-01D

1540	2WMW45DS-01	250 ml	1	H_2SO_4	COD

Signature

4/14/03
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: NBS
Location: AREA - A
Well ID: 2WMW46DS

Date: 4/13/03
Sampler: David C.

Well Construction: 2" PVC Peristaltic
Depth to water: 1.20'
Well Depth: 16.57
Water Column: 15.37

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	02B0985AE
Photovac	P.I.D.	ED FN 311
Lamotte	Turbidimeter	1765-1800
GeoPump 2	Peristaltic	336

Time	volume removed (liters)	Flow Rate (ml/min)	drawdown (ft)	Temp (celsius)	pH	Spec. Cond. us/cm²	DO (mg/L)	ORP (mv)	Turbidity (NTU)	color
16:20		130	[redacted]	9.40	7.08	44968	-1.04	-474.6	85	[redacted] Lt. Brow
16:30		100	~~2.20~~ 3.44	8.97	6.88	44503	-0.44	-470.8	21	clear
16:40		100	4.69	8.74	6.83	44048	-0.18	-467.7	21	clear
16:50		100	5.85	8.64	6.83	43988	-0.09	-465.8	18	clear
17:00		100	6.70	8.53	6.84	43938	-0.06	-464.3	21	clear
[redacted]										
Acceptance Criteria:			<0.3 ft	3%	+/- 0.1	3%	10%	+/-10mv	<10	

Sample Collection

Time	Sample ID	Container	#	Preservation	Analyses
17:00	2-GW46DS-01	40ml Vial	(2)	H_2SO_4	TOC
17:00	2-GW46DS-01	1 Liter amber	(2)	NONE	SVOC 8270/PAH-SIM
17:00	2-GW46DS-01	250ml plastic	(1)	HNO_3	Dissolved metals (FF)
17:00	2-GW46DS-01	1 Liter Plastic	(1)	NONE	TSS
17:00	2-GW46DS-01	500ml Plastic	(1)	HNO_3	Total metals, hardness
17:00	2-GW46DS-01	500ml Plastic	(1)	NONE	TDS, Alk, Cl, SO_4
17:00	2-GW46DS-01	250ml Plastic	(1)	H_2SO_4	COD

Comments

Well is in Good condition
1.1 ppm at wellhead with P.I.D.

Signature

4/13/03
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: NSB
Location: Area-A
Well ID: 2WMW47DS

Date: 4/15/03
Sampler: David C

Well Construction: 2" PVC Peristaltic
Depth to water: 1.11'
Well Depth: 16.21'
Water Column: 15.10'

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	01H0711 AE
Lamotte	Turbidimeter	3661-3802
Photovac	P.I.D.	ED FN 311
GeoPump 2	Peristaltic	336

Time	volume removed (liters)	Flow Rate (ml/min)	drawdown (ft)	Temp (celsius)	pH	Spec. Cond. US/cm	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
10:00		140	1.44	9.89	6.90	26895	0.16	-377.8	60	Black
10:10		110	2.48	10.53	6.48	23995	-0.02	-414.7	29	clear
10:20		110	2.82	11.15	6.36	20367	0.07	-397.4	12	clear
10:30		110	3.46	10.35	6.27	16012	0.18	-353.4	17	clear
10:35		110	3.50	10.29	6.26	14790	0.22	-354.8	10	clear
10:37		110	3.51	10.35	6.26	14199	0.26	-353.5	6.8	clear
Acceptance Criteria:			<0.3 ft	3%	+/- 0.1	3%	10%	+/-10mv	<10	

Sample Collection

Time	Sample ID	Container	#	Preservation	Analyses
10:37	2-GW47DS-01	40ml Vial	2	H_2SO_4	TOC
10:37	2-GW47DS-01	1 Liter amber	2	None	SVOC 8270/PAH-SIM
10:37	2-GW47DS-01	250ml Plastic	1	HNO_3	Dissolved metals (FF)
10:37	2-GW47DS-01	1 Liter amber	1	None	TSS
10:37	2-GW47DS-01	500ml Plastic	1	HNO_3	Total metals, hardness
10:37	2-GW47DS-01	500ml Plastic	1	None	TDS, Alk, Cl, SO_4
10:37	2-GW47DS-01	250ml Plastic	1	H_2SO_4	COD

Comments

well is in Good condition
0.0 ppm at wellhead with P.I.D.

Signature: [signature]

Date: 4/15/03

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: AREA A NSB - NL
Project No.:

[] Domestic Well Data
[] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: 3MW12D
Sample Location: AREA A
Sampled By: DMG
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date:	Color	pH	S.C.	Temp.	Turbidity	DO	TBD	TBD
Time:	Visual	Standard	mS/cm	°C	NTU	mg/l		
Method:								

PURGE DATA:

Date: 4/2	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	TBD	TBD
Method: Peristl								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 4.05								
One Casing Volume(gal/L):								
Start Purge (hrs): 1512								
End Purge (hrs): 1615								
Total Purge Time (min): 63								
Total Vol. Purged (gal/L): 5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL SVOC	NONE	1 - 1L Amber	1615
TCL PAH	NP	1 - 1L Amber	
TAL INORGANICS - TOTAL			
" - DISSOLVED			
TDS, ALK, Chl, SO_4			

OBSERVATIONS / NOTES:

SAMPLE NO. 3-GW12D-01

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): DMG

TBD: To Be Determined

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NSB-NL Area Alpha
PROJECT NUMBER:

WELL ID.: 3 MW 12d
DATE: 4-02-03

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
			0.1	3%	10%	10%	3%	±10 mv		
1512	4.05	300m	6.1	2115		0.79				
1517	4.09		6.1	2115		0.79	9.8	76		
1520	4.09	300	6.1	2110	15	0.75	9.9	74		
1525	4.09	300	6.1	2103	10	0.61	9.9	80		
1530	4.10	300	6.14	2098	7	1.29	9.9	83		
1545	4.10	300	6.14	2091	10	1.21	9.9	85		
1550	4.10	350	6.18	2100	6	1.18	9.9	83		
1600	4.10	350	6.16	2100	3.5	1.22	9.9	84		
1608	4.10	350	6.16	2100	6.0	1.20	9.9	85		TU
1612	4.10	350	6.16	2100	5.5	1.23	9.9	85		
	Stop Purge @ 1615									

SIGNATURE(S): _____

PAGE___OF___

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: AREA A - NSB NL
Project No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: 3GW37s
Sample Location:
Sampled By: David C.
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color Visual	pH Standard	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	TBD	TBD
Date: 4/2/03								
Time: 15:40								
Method: Peristaltic Pump	Clear	6.22	1403	8.60	1.4	1.54		

PURGE DATA:

	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	TBD	TBD
Date: 4/2/03								
Method: Peristaltic Pump								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD): 8.45								
Static Water Level (WL): 3.56								
One Casing Volume(gal/L):								
Start Purge (hrs): 1503								
End Purge (hrs): 1540								
Total Purge Time (min): 40								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SVOC 8270 /PAH -SIM	None	(2) 1 Liter Amber	✓
TOC	H_2SO_4	(2) 40ml vial	✓
Dissolved Metals	HNO_3	(1) 250ml FF	✓
Total Metals, Hardness	HNO_3	(1) 500ml	✓
TDS, Alk, Cl, SO_4	None	(1) 500ml	✓
TSS	None	(1) 1 Liter	✓

OBSERVATIONS / NOTES:

SAMPLE NO. 3-GW37s-01

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [illegible]

TBD: To Be Determined

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: AREA A - NSB NL

PROJECT NUMBER:

WELL ID.: 36W37S

DATE: 4-02-03

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
	<0.3 ft	+/- 3 %	+/- .1	3%	<10 +/-10	3%	+/- 10			
1500	4.05	175	6.46	1623	4.7	4.91	8.61	210.7	1.22	clear
1510	4.05	140	6.29	1558	3.9	2.70	5.59	170.9	1.17	clear
1520	4.05	100	6.27	1466	2.3	2.02	8.73	150.0	1.09	
1530	3.93	100	6.25	1418	2.2	1.81	8.68	140.0	1.06	
1540	3.93	100	6.22	1403	1.4	1.54	8.60	138.7	1.05	

SIGNATURE(S): [illegible]

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: NSB
Date: 4/15/03
Location: Area-A
Sampler: David C.
Well ID: 4MW15

Well Construction: 2" PVC Peristaltic
Depth to water: 4.19'
Well Depth: 20.02'
Water Column: 15.83'

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	01H0711 AE
Lamotte	turbidimeter	3661-3802
Photovac	P.I.D.	ED FN 311
GeoPump P2	Peristaltic	336

Time	volume removed (liters)	Flow Rate (ml/min)	drawdown (ft)	Temp (celsius)	pH	Spec. Cond. us/cm	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
8:00		160	4.25	8.56	5.99	412	10.46	46.7	19	clear
8:10		110	4.26	8.30	5.76	394	11.09	91.0	1.00	clear
8:20		110	4.27	8.44	5.70	378	11.58	108.1	0.75	clear
8:30		110	4.27	10.32	5.78	355	11.86	85.7	0.75	clear
8:32		110	4.27	9.92	5.77	360	12.02	87.4	0.30	clear
Acceptance Criteria:			<0.3 ft	3%	+/- 0.1	3%	10%	+/-10mv	<10	

Sample Collection

Time	Sample ID	Container	#	Preservation	Analyses
8:32	4-GW15-01	40ml vial	2	H_2SO_4	TOC
8:32	4-GW15-01	1 Liter amber	2	NONE	SVOC 8270/PAH-SIM
8:32	4-GW15-01	250ml plastic	1	HNO_3	Dissolved Metals (FF)
8:32	4-GW15-01	1 Liter plastic	1	NONE	TSS
8:32	4-GW15-01	500ml plastic	1	HNO_3	Total metals, hardness
8:32	4-GW15-01	500ml plastic	1	NONE	TDS, Alk, Cl, SO_4
8:32	4-GW15-01	250ml plastic	1	H_2SO_4	COD

Comments

well is in Good Condition
2.3ppm at wellhead with P.I.D.

Signature

4/15/03
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: NSB-NL

Date: 4-11-03

Location: AREA A LANDFILL

Sampler: DAVE CONRAD, FRED SANTOS / JDAS

Well ID: SG18 SURFACE WATER

Well Construction: N/A

Depth to water: N/A

Well Depth: N/A

Water Column: N/A

Field Testing Equipment

Make	Model	Serial #
YSI	600XLM	02B0985AE

Time	volume removed (liters)	Flow Rate (ml/min)	drawdown (ft)	Temp (celsius)	pH	Spec. Cond. uS/cm³	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
0840	N/A	N/A	N/A	4.00	6.37	424	1.56	6.0	NA	ORANGE/CLEAR
Acceptance Criteria:			<0.3 ft	3%	+/- 0.1	3%	10%	+/-10mv	<10	

Salinity .17

Sample Collection

Time	Sample ID	Container	#	Preservation	Analyses
0840	2-SW18-01	1 L AMBER	2	NONE	SVOC 8270/PAH-SIM
0840	2-SW18-01	40 ML AMBER VOA	2	H_2SO_4	TOC
0840	2-SW18-01	250 ML PLASTIC	1	HNO_3	DISSOLVED METALS (FF)
0840	2-SW18-01	1 L PLASTIC	1	NONE	TSS
0840	2SW18-01	500 ML PLASTIC	1	HNO_3	Total Metals/HARDNESS

Comments

0840	2SW18-01	500ML PLASTIC	1	NONE	TDS, ALK, CL, SO4
0840	2SW18-01	250 ML PLASTIC	1	H_2SO_4	COD

Signature

Date 4-11-03

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: NSB
Location: AREA - A
Well ID: SG-19

Date: 4/8/03
Sampler: David c

Well Construction:
Depth to water:
Well Depth:
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	02B0985AE

Time	volume removed (liters)	Flow Rate (ml/min)	drawdown (ft)	Temp (celsius)	pH	Spec. Cond. US/CM	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
17:00				3.60	7.09	312	4.24	-112.0		
Acceptance Criteria:			<0.3 ft	3%	+/- 0.1	3%	10%	+/-10mv	<10	

Sample Collection

Time	Sample ID	Container	#	Preservation	Analyses
17:00	2-SW19-01	40ml Vial	(2)	H_2SO_4	TOC
17:00	2-SW19-01	1 Liter amber	(2)	None	SVOC 8270 /PAH-SIM
17:00	2-SW19-01	250 ml	(1)	HNO_3	Dissolved Metals (FF)
17:00	2-SW19-01	1 Liter	(1)	None	TSS
17:00	2-SW19-01	500ml	(1)	HNO_3	Total metals, hardness
17:00	2-SW19-01	500ml	(1)	None	TDS, Alk, Cl, SO_4
17:00	2-SW19-01	250ml	(1)	H_2SO_4	COD

Comments

Signature

4/8/03
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: NSB
Location: Area A
Well ID: SG-20

Date: 4/8/03
Sampler: David C.

Well Construction:
Depth to water:
Well Depth:
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	02B0985 AE

Time	volume removed (liters)	Flow Rate (ml/min)	drawdown (ft)	Temp (celsius)	pH	Spec. Cond. us/cm	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color
14:50				3.11	8.37	[redacted]	5.73	-316.7		
						272				
Acceptance Criteria:			<0.3 ft	3%	+/- 0.1	3%	10%	+/-10mv	<10	

Sample Collection

Time	Sample ID	Container	#	Preservation	Analyses
14:50	2-SW20-01	40ml Vial	2	H_2SO_4	TOC
14:50	2-SW20-01	1 Liter amber	2	NONE	SVOC 8270/PAH-Sim
14:50	2-SW20-01	250ml	1	HNO_3	Dissolved metals (FF)
14:50	2-SW20-01	1 Liter	1	NONE	TSS
14:50	2-SW20-01	500ml	1	HNO_3	Total metals, hardness
14:50	2-SW20-01	500ml	1	NONE	TDS, Alk, Cl, SO_4
14:50	2-SW20-01	250ml	1	H_2SO_4	COD

Comments

seep sample

Signature

4/8/03
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: JRD 4-11-03 ~~NBL~~ NSB/NL
Date: 4-11-03
Location: AREA A LANDFILL
Sampler: Dave Comeau
FRED SANTOS / J DIAZ
Well ID: SG 21 SURFACEWATER

Well Construction: N/A
Depth to water: N/A
Well Depth: N/A
Water Column: N/A

Field Testing Equipment

Make	Model	Serial #
YSI	600XLM	02B0985AE

Time	volume removed (liters)	Flow Rate (ml/min)	drawdown (ft)	Temp (celsius)	pH	Spec. Cond. uS/cm³	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color	SAL.
0900	N/A	N/A	N/A	5.12	6.30	348	7.29	42.9	N/A	Clear-orange	1.7
Acceptance Criteria:			<0.3 ft	3%	+/- 0.1	3%	10%	+/-10mv	<10		

Sample Collection

Time	Sample ID	Container	#	Preservation	Analyses
JRD ~~0800~~ 0900	2-SW21-01	1 L AMBER	6	NONE	SVOC 8270/PAH-SIM
0900	2-SW21-01	40 ML VOA AMBER	6	H_2SO_4	TOC
0900	2-SW21-01	250 ML PLASTIC	3	HNO_3	DISSOLVED METALS (FF)
0900	2-SW21-01	1 L PLASTIC	3	NONE	TSS
0900	2-SW21-01	500 ML PLAS.	3	HNO_3	TOTAL METALS / HARDNESS

Comments

MS/MSD Collected

0900	2-SW21-01	500 ML PLAS.	3	NONE	TDS, ALK, CL, SO_4
0900	2-SW21-01	250 ML PLAS.	3	H_2SO_4	COD

Signature: [signature]
Date: 4-11-03

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: NSB/NL

Date: 4-11-03

Location: AREA A - LANDFILL

Sampler: D. CUMEAU/E. SANTOS J. DIAZ

Well ID: ~~SW22~~ SG22 surface water JCD 4-11-03

Well Construction: N/A

Depth to water: N/A

Well Depth: N/A

Water Column: N/A

Field Testing Equipment

Make	Model	Serial #
YSI	600XLM	02B0985AE

Time	volume removed (liters)	Flow Rate (ml/min)	drawdown (ft)	Temp (celsius)	pH	Spec. Cond.	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color	SAL
0925	N/A	N/A	N/A	6.14	6.35	394	4.43	-38.9	—	Clear	0.19
Acceptance Criteria:			<0.3 ft	3%	+/- 0.1	3%	10%	+/-10mv	<10		

Sample Collection

Time	Sample ID	Container	#	Preservation	Analyses
0925	2-SW22-01	1L AMBER	2	NONE	SVOC 3270/PAH-SIM
0925	2-SW22-01	40 ML VOA	2	H_2SO_4	TOC
0925	2-SW22-01	250 ML PLASTIC	1	HNO_3	DISSOLVED METALS FE
0925	2-SW22-01	1 L PLASTIC	1	NONE	~~TOTAL METALS~~ TSS JCD 4-11-03
0925	2-SW22-01	500 ML PLASTIC	1	HNO_3	TOTAL METALS/HARDNESS

Comments

0925	2-SW22-01	500 ML PLASTIC	1	NONE	TDS, ALK, CL, SO4
0925	2-SW22-01	250 ML PLASTIC	1	HNO_3	COD

Signature: [signature]

Date: 4-11-03

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: NSB
Location: Area - A
Well ID: SG - 23

Date: 4/11/03
Sampler: David C.

Well Construction: Surface water
Depth to water:
Well Depth:
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	650MDS	02B0985 AE

Time	volume removed (liters)	Flow Rate (ml/min)	drawdown (ft)	Temp (celsius)	pH	Spec. Cond. US/cm	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color	sal
9:35				3.79	6.08	594	3.97	-75.2			.29
Acceptance Criteria:			<0.3 ft	3%	+/- 0.1	3%	10%	+/-10mv	<10		

Sample Collection

Time	Sample ID	Container	#	Preservation	Analyses
9:35	2-SW23-01	40ml vial	2	H_2SO_4	TOC
9:35	2-SW23-01	1 Liter amber	2	None	SVOC 8270/PAN-Sim
9:35	2-SW23-01	250ml plastic	1	HNO_3	Dissolved metals (FF)
9:35	2-SW23-01	1 Liter plastic	1	None	TSS
9:35	2-SW23-01	500ml plastic	1	HNO_3	Total metals, hardness
9:35	2-SW23-01	500ml plastic	1	None	TDS, Alk, Cl, SO_4
9:35	2-SW23-01	250ml plastic	1	H_2SO_4	COD

Comments

Signature

4/11/03
Date

Environmental Chemical Corporation

Low Flow/Low Stress Groundwater Sampling Log

Project: NSB
Location: AREA-A
Well ID: SG-24

Date: 4/11/03
Sampler: David C.

Well Construction: Surface Water
Depth to water:
Well Depth:
Water Column:

Field Testing Equipment

Make	Model	Serial #
YSI	650 MDS	02B0985 AE

Time	volume removed (liters)	Flow Rate (ml/min)	drawdown (ft)	Temp (celsius)	pH	Spec. Cond. uS/cm²	DO (mg/L)	ORP (mV)	Turbidity (NTU)	color	Sal
9:50				6.43	6.49	2806	1.57	-137.8			1.46
Acceptance Criteria:			<0.3 ft	3%	+/- 0.1	3%	10%	+/-10mv	<10		

Sample Collection

Time	Sample ID	Container	#	Preservation	Analyses
9:50	2-SW24-01	40ml. Vial	2	H_2SO_4	TOC
9:50	2-SW24-01	1 Liter amber	2	None	SVOC 8270/PAH-SIM
9:50	2-SW24-01	250ml Plastic	1	HNO_3	Dissolved metals — FF
9:50	2-SW24-01	1 Liter Plastic	1	None	TSS
9:50	2-SW24-01	500ml Plastic	1	HNO_3	Total metals, hardness
9:50	2-SW24-01	500ml Plastic	1	None	TDS, Alk, Cl, SO4
9:50	2-SW24-01	250ml Plastic	1	H_2SO_4	COD
9:50	2-SW24-01D	40ml Vial	2	H_2SO_4	TOC
9:50	2-SW24-01D	1 Liter amber	2	None	SVOC 8270/PAH-SIM
9:50	2-SW24-01D	250ml Plastic	1	HNO_3	Dissolved metals, [redacted] — FF
9:50	2-SW24-01D	1 Liter Plastic	1	None	TSS
9:50	2-SW24-01D	500ml Plastic	1	HNO_3	Total metals, hardness
9:50	2-SW24-01D	500ml Plastic	1	None	TDS, Alk, Cl, SO4
9:50	2-SW24-01D	250ml Plastic	1	H_2SO_4	COD

50 Comments

Signature

4/11/03
Date

Tetra Tech NUS, Inc.

SURFACE WATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: AREA A LANDFILL
Project No.: NSB - New London

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: SEEP
[] QA Sample Type:

Sample ID No.: 3WQD 7-2-03 R-SP01-01
Sample Location: AREA A
Sampled By: D. GAINER
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color Visual	pH Standard	S.C. mS/cm	Temp. Degrees C	Turbidity NTU	DO mg/l	Salinity %	Other NA
Date: 4/3/03								
Time: 1450								
Depth: SURFACE		6.45	646	11.73		6.9		
Method:								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

APPENDIX E

Data Validation Memos and Laboratory Analytical Results

AREA A

MASTER DATA VALIDATION MEMORANDUM

APRIL 2003 SAMPLING ROUND 12

TO: ENGINEERING FIELD ACTIVITY NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NEW LONDON NSB – IRP O&M MONITORING - SAMPLING ROUND 12

DATE: 6 AUGUST 2003

Project data were validated using the following O&M Manual and Validation Functional Guideline, as modified for non-CLP methods.

1. Region I, EPA-NE Data Validation Functional Guidelines for Evaluation of Environmental Analyses (Dec, 1996).

2. Operations and Maintenance Manual for Installation Restoration Program at Naval Submarine Base New London (Nov, 2002).

The validation guideline exceedences are assessed and documented on the method specific data validation worksheets. On the ECC modified USEPA Region I data validation worksheets, the data quality acceptance criteria are presented, analytes requiring qualification based on laboratory historical control limits and/or validation guidance criteria exceedences are listed, assigned qualifiers, qualifying rationale is documented, and any potential bias noted. The overall evaluation of the data generated is presented in the data validation worksheet.

Presented in this Master Data Validation Memorandum are the data validation reports for the 8 Sample Data Groups (SDGs) presented in Table I. Data validation reports are presented for each SDG. The USEPA Region I Organic Regional Data Assessment (ORDA) sheet displays the summarized results of the data validation assessment for all analytical methods reported in the SDG.

Acronym and abbreviations used in the data validation reports are presented in Table II.

Standard EPA Region I data qualifiers are used to denote the assessment of data quality. Ancillary qualifiers are noted on the data validation worksheets. Data qualifiers are defined in Table III. The final and ranking assigned data qualifier for an analyte is presented in Table IV- Data Summary Table.

SAMPLE DATA GROUPS

The SVOC, PAH, and metals (totals/dissolved) data were validated according to USEPA Region I Tier II criteria. All QC parameters applicable to the method and Tier II criteria were validated and documented in the data worksheets.

Laboratory: The samples were analyzed by Alpha Laboratory of Westborough, MA.
Sample Matrix:: Samples with GW or MW in sample nomenclature - Groundwater.
Sample Matrix:: Samples with SG or SW in sample nomenclature – surface water.
Sample Matrix:: Sample with SP in sample nomenclature – seep water.
The project's analytical samples were grouped in the SDGs and analyzed for the parameters listed in Table 1. Data validation reports are prepared for each SDG.

Table I Sample Data Groups

Sample Data Groups	Sample Name	SVOCs 8270C	PAHs 8270C -SIM	Metals (totals) 6010B/ 7470A	Metals (dissolved) 6010B/ 7470	Water Quality Parameters
L0302959-02	3-GW37S-01	X	X	X	X	X
L0302959-03	3-GW12D-01	X	X	X	X	X
L0303029-02	2WMW39DS	X	X	X	X	X
L0303029-03	2WMW40DS	X	X	X	X	X
L0303029-04	2SP01-01	X	X	X	X	X
L0303053-01	2WMW41DS	X	X	X	X	X
L0303151-01	2WMW38DS	X	X	X	X	X
L0303151-02	2WMW43DS	X	X	X	X	X
L0303151-03	SG-20	X	X	X	X	X
L0303197-01	2WMW42DS	X	X	X	X	X
L0303197-03	2-SW19-01	X	X	X	X	X
L0303295-01	2-SW21-01 MS/MSD	X	X	X	X	X
L0303295-02	2-SW22-01	X	X	X	X	X
L0303295-03	2-SW23-01	X	X	X	X	X
L0303295-04	2-SW24-01	X	X	X	X	X
L0303295-05	2-SW24-01D	X	X	X	X	X
L0303295-06	2-SW18-01	X	X	X	X	X
L0303359-01	2WMW44DS	X	X	X	X	X
L0303359-02	2WMW45DS-01	X	X	X	X	X
L0303389-01	4MW1S	X	X	X	X	X
L0303389-02	2LMW20S	X	X	X	X	X
L0303389-03	2WMW47DS	X	X	X	X	X
L0303389-04	2WMW21S	X	X	X	X	X
L0303389-05	2-WMW45DS-01D	X	X	X	X	X
L0303389-06	2-WMW46DS-01	X	X	X	X	X

ACRONYMS AND ABBREVIATIONS

Following is a list of acronyms and abbreviations that may be used in the data validation reports.

Table II Acronyms and Abbreviations

Acronym / Abbreviation	Definition
%D	Percent difference
%R	Percent recovery
Ug/L	Microgram per liter
BEHP	2-bis(ethylhexyl)phthalate
BFB	Bromofluorobenzene
CCB	Continuing calibration Blank
CCC	Continuing Check Compound
CCV	Continuing Calibration Verification
COC	Chain of custody
CRI	standard at RL for ICP
CVAA	Cold vapor atomic absorption
DFTPP	Decafluorotriphenylphosphine
DQO	Data quality objective
EB	Equipment blank
EPA	Environmental Protection Agency
FD	Field duplicate
GC	Gas Chromatography
GC/MS	Gas chromatography/mass spectrometry
HT	Holding time
ICAL	Initial calibration
ICS-A/AB	Interelement check standard A or AB
ICV	Initial calibration verification
IDL	Instrument detection limit
IRP	Installation restoration program
IS	Internal standards
LCL	Lower control limit
LCS	Laboratory control sample
MeCl	Methylene chloride
MS	Matrix spike
MSD	Matrix spike duplicate
MPC	Measurement performance criteria
NA	Not applicable
NC	Not calculated.

Acronym / Abbreviation	Definition
NSB	Naval Submarine Base
O&M	Operations and Maintenance
PAH	Polycyclic aromatic hydrocarbon
PCB	Polychlorinated biphenyls
PQL	Practical quantitation limit
QAPP	Quality Assurance Project Plan
QC	Quality control
RF	Response Factor
RPD	Relative percent difference
RRF	Relative response factor
RSD	Relative standard deviation
RT	Retention time
SDG	Sample Delivery Group
SOP	Standard Operation Procedure
SVOC	Semi-volatile organic compound
SPCC	System performance check compound
SQL	Sample Quantitation Limit
TB	Tripblank
TCX	Tetrachloro-m-xylene
TIC	Tentatively identified compound
UCL	Upper control limit
VOC	Volatile organic compound

DATA QUALIFIER REFERENCE TABLE

Data validation reports will summarize the samples reviewed, elements reviewed, any nonconformances with the established criteria, validation actions (including data qualifiers). Data qualifiers will be consistent with EPA Region I – New England guidelines and will consist of the following qualifiers listed in Table III:

Table III Data Qualifiers

USEPA Region I – Data Qualifier	USEPA Region I – Qualifier Definition
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample
UJ	The analyte was not detected above the sample reporting limit; and the reporting limit is approximate
U	The sample was analyzed for, but was not detected above the sample reporting limit.
R	The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	1,2,4-Trichlorobenzene	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	Hexachlorobenzene	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	Bis(2-chloroethyl)ether	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	1,2-Dichlorobenzene	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	1,3-Dichlorobenzene	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	1,4-Dichlorobenzene	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	3,3'-Dichlorobenzidine	50	UJ	50	1	50	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	2,4-Dinitrotoluene	6	UJ	6	1	6	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	2,6-Dinitrotoluene	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	4-Chlorophenyl phenyl ether	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	4-Bromophenyl phenyl ether	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	Bis(2-chloroisopropyl)ether	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	Bis(2-chloroethoxy)methane	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	Hexachlorobutadiene	10	UJ	10	1	10	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	Hexachlorocyclopentadiene	10	UJ	10	1	10	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	Hexachloroethane	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	Isophorone	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	Nitrobenzene	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	NDPA/DPA	15	UJ	15	1	15	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	n-Nitrosodi-n-propylamine	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	Butyl benzyl phthalate	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	Di-n-butylphthalate	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	Di-n-octylphthalate	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	Diethyl phthalate	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	Dimethyl phthalate	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	4-Chloroaniline	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	2-Nitroaniline	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	3-Nitroaniline	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	4-Nitroaniline	7	UJ	7	1	7	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	Dibenzofuran	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	2,4,6-Trichlorophenol	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	p-Chloro-m-cresol	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	2-Chlorophenol	6	UJ	6	1	6	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	2,4-Dichlorophenol	10	UJ	10	1	10	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	2,4-Dimethylphenol	10	UJ	10	1	10	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	2-Nitrophenol	20	UJ	20	1	20	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	2320B	Alkalinity, Total	34		2	1	2	mg CaCO3/L
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	4-Nitrophenol	10	UJ	10	1	10	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	2,4-Dinitrophenol	20	UJ	20	1	20	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	2340B	Hardness	53		1.7	1	0.66	mg CaCO3/L
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	9251	Chloride	55		1	1	1	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	9060	Total Organic Carbon	2.1		0.5	1	0.5	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	4,6-Dinitro-o-cresol	20	UJ	20	1	20	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	Pentachlorophenol	20	UJ	20	1	20	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	Phenol	7	UJ	7	1	7	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	2-Methylphenol	6	UJ	6	1	6	ug/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	3-Methylphenol/4-Methylphenol	6	UJ	6	1	6	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Barium, Dissolved	0.02		0.01	1	0.01	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	2,4,5-Trichlorophenol	5	UJ	5	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	Carbazole	2	UJ	2	1	5	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Iron, Dissolved	0.16		0.05	1	0.05	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Manganese, Dissolved	0.07		0.01	1	0.01	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Calcium, Dissolved	18		0.5	1	0.5	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Magnesium, Dissolved	2		0.5	1	0.1	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Potassium, Dissolved	3.2		2	1	1	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Sodium, Dissolved	45		1	1	1	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Aluminum, Total	0.11		0.1	1	0.1	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Barium, Total	0.02		0.01	1	0.01	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Iron, Total	0.32		0.05	1	0.05	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Manganese, Total	0.06		0.01	1	0.01	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Zinc, Total	0.05		0.05	1	0.05	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Calcium, Total	16		0.5	1	0.5	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Magnesium, Total	1.8		0.5	1	0.1	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Potassium, Total	2.8		2	1	1	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Sodium, Total	40		1	1	1	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	2540C	Solids, Total Dissolved	170		10	1	10	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C-M	Acenaphthene	0.1	U	0.1	1	0.2	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C-M	2-Chloronaphthalene	0.1	UJ	0.1	1	0.2	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C-M	Fluoranthene	0.1	U	0.1	1	0.2	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C-M	Naphthalene	0.1	U	0.1	1	0.2	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C-M	Benzo(a)anthracene	0.1	U	0.1	1	0.2	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C-M	Benzo(a)pyrene	0.1	U	0.1	1	0.2	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C-M	Benzo(b)fluoranthene	0.1	U	0.1	1	0.2	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C-M	Benzo(k)fluoranthene	0.1	U	0.1	1	0.2	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C-M	Chrysene	0.1	U	0.1	1	0.2	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C-M	Acenaphthylene	0.1	U	0.1	1	0.2	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C-M	Anthracene	0.1	U	0.1	1	0.2	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C-M	Benzo(ghi)perylene	0.1	U	0.1	1	0.2	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C-M	Fluorene	0.1	U	0.1	1	0.2	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C-M	Phenanthrene	0.1	U	0.1	1	0.2	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C-M	Dibenzo(a,h)anthracene	0.1	U	0.1	1	0.2	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C-M	Indeno(1,2,3-cd)Pyrene	0.1	U	0.1	1	0.2	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C-M	Pyrene	0.1	U	0.1	1	0.2	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C-M	2-Methylnaphthalene	0.2	U	0.2	1	0.2	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C-M	Nitrobenzene-d5	65			1		%
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C-M	2-Fluorobiphenyl	67			1		%
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C-M	4-Terphenyl-d14	108			1		%
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	Bis(2-ethylhexyl)phthalate	12	U	5	1	10	ug/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	2-Fluorophenol	28			1		%
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	Phenol-d6	20			1		%
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	Nitrobenzene-d5	56			1		%
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	2-Fluorobiphenyl	55			1		%

TABLE IV
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Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	2,4,6-Tribromophenol	34			1		%
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	8270C	4-Terphenyl-d14	86			1		%
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	9038	Sulfate	10	U	10	1	10	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	5220D	Chemical Oxygen Demand	20	U	20	1	20	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	2540D	Solids, Total Suspended	5	U	5	1	5	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	7470A	Mercury, Total	0.0002	U	0.0002	1	0.0005	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	7470A	Mercury, Dissolved	0.0002	U	0.0002	1	0.5	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Aluminum, Dissolved	0.1	U	0.1	1	0.1	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Antimony, Dissolved	0.05	U	0.05	1	0.05	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Arsenic, Dissolved	0.004	U	0.004	1	0.005	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Beryllium, Dissolved	0.004	U	0.004	1	0.005	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Cadmium, Dissolved	0.005	U	0.005	1	0.005	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Chromium, Dissolved	0.01	U	0.01	1	0.01	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Cobalt, Dissolved	0.02	U	0.02	1	0.02	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Copper, Dissolved	0.01	U	0.01	1	0.01	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Lead, Dissolved	0.01	U	0.01	1	0.05	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Nickel, Dissolved	0.025	U	0.025	1	0.025	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Selenium, Dissolved	0.01	U	0.01	1	0.005	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Silver, Dissolved	0.01	U	0.01	1	0.007	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Thallium, Dissolved	0.02	U	0.02	1	0.005	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Vanadium, Dissolved	0.01	U	0.01	1	0.01	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Zinc, Dissolved	0.05	U	0.05	1	0.05	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Antimony, Total	0.05	U	0.05	1	0.05	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Arsenic, Total	0.004	U	0.004	1	0.005	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Beryllium, Total	0.004	U	0.004	1	0.005	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Cadmium, Total	0.005	U	0.005	1	0.005	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Chromium, Total	0.01	U	0.01	1	0.01	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Cobalt, Total	0.02	U	0.02	1	0.02	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Copper, Total	0.01	U	0.01	1	0.01	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Lead, Total	0.01	U	0.01	1	0.05	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Nickel, Total	0.025	U	0.025	1	0.025	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Selenium, Total	0.01	U	0.01	1	0.005	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Silver, Total	0.01	U	0.01	1	0.007	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Thallium, Total	0.02	U	0.02	1	0.005	mg/l
2LMW20S	2LMW20S	4/15/2003	L0303389-02	L0303389	6010B	Vanadium, Total	0.01	U	0.01	1	0.01	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	1,2,4-Trichlorobenzene	5	UJ	5	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	Hexachlorobenzene	5	UJ	5	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	Bis(2-chloroethyl)ether	5	UJ	5	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	1,2-Dichlorobenzene	5	UJ	5	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	1,3-Dichlorobenzene	5	UJ	5	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	1,4-Dichlorobenzene	5	UJ	5	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	3,3'-Dichlorobenzidine	50	UJ	50	1	50	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	2,4-Dinitrotoluene	6	UJ	6	1	6	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	2,6-Dinitrotoluene	5	UJ	5	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	4-Chlorophenyl phenyl ether	5	UJ	5	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	4-Bromophenyl phenyl ether	5	UJ	5	1	5	ug/l

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ROUND 12 GROUNDWATER MONITORING REPORT
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Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	Bis(2-chloroisopropyl)ether	5	UJ	5	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	Bis(2-chloroethoxy)methane	5	UJ	5	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	Hexachlorobutadiene	10	UJ	10	1	10	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	Hexachlorocyclopentadiene	10	UJ	10	1	10	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	Hexachloroethane	5	UJ	5	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	Isophorone	5	UJ	5	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	Nitrobenzene	5	UJ	5	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	NDPA/DPA	15	UJ	15	1	15	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	n-Nitrosodi-n-propylamine	5	UJ	5	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	Butyl benzyl phthalate	5	UJ	5	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	Di-n-butylphthalate	5	UJ	5	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	Di-n-octylphthalate	5	UJ	5	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	Diethyl phthalate	5	UJ	5	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	Dimethyl phthalate	5	UJ	5	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	4-Chloroaniline	5	UJ	5	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	2-Nitroaniline	5	UJ	5	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	3-Nitroaniline	5	UJ	5	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	4-Nitroaniline	7	UJ	7	1	7	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	Dibenzofuran	5	UJ	5	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	2,4,6-Trichlorophenol	5	UJ	5	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	p-Chloro-m-cresol	5	UJ	5	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	2-Chlorophenol	6	UJ	6	1	6	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	2,4-Dichlorophenol	10	UJ	10	1	10	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	2,4-Dimethylphenol	10	UJ	10	1	10	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	2-Nitrophenol	20	UJ	20	1	20	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	4-Nitrophenol	10	UJ	10	1	10	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	2,4-Dinitrophenol	20	UJ	20	1	20	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	4,6-Dinitro-o-cresol	20	UJ	20	1	20	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	Pentachlorophenol	20	UJ	20	1	20	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	Phenol	7	UJ	7	1	7	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	2-Methylphenol	6	UJ	6	1	6	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	3-Methylphenol/4-Methylphenol	6	UJ	6	1	6	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	2,4,5-Trichlorophenol	5	UJ	5	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	Carbazole	2	UJ	2	1	5	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	2320B	Alkalinity, Total	1700		5	2.5	2	mg CaCO3/L
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	5220D	Chemical Oxygen Demand	740		40	2	20	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	2540D	Solids, Total Suspended	29		5	1	5	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	2340B	Hardness	4100		1.7	1	0.66	mg CaCO3/L
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	9251	Chloride	9800		200	200	1	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	9060	Total Organic Carbon	49		20	40	0.5	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Barium, Dissolved	0.08		0.01	1	0.01	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Iron, Dissolved	0.24		0.05	1	0.05	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Manganese, Dissolved	0.05		0.01	1	0.01	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Vanadium, Dissolved	0.01		0.01	1	0.01	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Calcium, Dissolved	270		10	1	0.5	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Magnesium, Dissolved	800		10	1	0.1	mg/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Potassium, Dissolved	250		40	1	1	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Sodium, Dissolved	6600		20	1	1	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Barium, Total	0.08		0.01	1	0.01	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Iron, Total	1.5		0.05	1	0.05	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Vanadium, Total	0.01		0.01	1	0.01	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Calcium, Total	270		10	1	0.5	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Magnesium, Total	830		10	1	0.1	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Potassium, Total	280		40	1	1	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Sodium, Total	6800		20	1	1	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	2540C	Solids, Total Dissolved	18000		20	2	10	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C-M	Acenaphthene	0.1	U	0.1	1	0.2	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C-M	2-Chloronaphthalene	0.1	UJ	0.1	1	0.2	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C-M	Fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C-M	Naphthalene	0.1	U	0.1	1	0.2	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C-M	Benzo(a)anthracene	0.1	U	0.1	1	0.2	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C-M	Benzo(a)pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C-M	Benzo(b)fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C-M	Benzo(k)fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C-M	Chrysene	0.1	U	0.1	1	0.2	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C-M	Acenaphthylene	0.1	U	0.1	1	0.2	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C-M	Anthracene	0.1	U	0.1	1	0.2	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C-M	Benzo(ghi)perylene	0.1	U	0.1	1	0.2	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C-M	Fluorene	0.1	U	0.1	1	0.2	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C-M	Phenanthrene	0.1	U	0.1	1	0.2	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C-M	Dibenzo(a,h)anthracene	0.1	U	0.1	1	0.2	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C-M	Indeno(1,2,3-cd)Pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C-M	Pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C-M	2-Methylnaphthalene	0.2	U	0.2	1	0.2	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C-M	Nitrobenzene-d5	68			1		%
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C-M	2-Fluorobiphenyl	85			1		%
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C-M	4-Terphenyl-d14	104			1		%
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	Bis(2-ethylhexyl)phthalate	19	U	5	1	10	ug/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	2-Fluorophenol	31			1		%
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	Phenol-d6	25			1		%
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	Nitrobenzene-d5	55			1		%
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	2-Fluorobiphenyl	65			1		%
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	2,4,6-Tribromophenol	41			1		%
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	8270C	4-Terphenyl-d14	75			1		%
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	9038	Sulfate	10	U	10	1	10	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	7470A	Mercury, Total	0.0002	U	0.0002	1	0.0005	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	7470A	Mercury, Dissolved	0.0002	U	0.0002	1	0.5	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Aluminum, Dissolved	0.1	U	0.1	1	0.1	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Antimony, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Arsenic, Dissolved	0.004	U	0.004	1	0.005	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Beryllium, Dissolved	0.004	U	0.004	1	0.005	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Cadmium, Dissolved	0.005	U	0.005	1	0.005	mg/l

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AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Chromium, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Cobalt, Dissolved	0.02	U	0.02	1	0.02	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Copper, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Lead, Dissolved	0.01	U	0.01	1	0.05	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Nickel, Dissolved	0.025	U	0.025	1	0.025	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Selenium, Dissolved	0.01	U	0.01	1	0.005	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Silver, Dissolved	0.01	U	0.01	1	0.007	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Thallium, Dissolved	0.02	U	0.02	1	0.005	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Zinc, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Aluminum, Total	0.1	U	0.1	1	0.1	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Antimony, Total	0.05	U	0.05	1	0.05	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Arsenic, Total	0.004	U	0.004	1	0.005	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Beryllium, Total	0.004	U	0.004	1	0.005	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Cadmium, Total	0.005	U	0.005	1	0.005	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Chromium, Total	0.01	U	0.01	1	0.01	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Cobalt, Total	0.02	U	0.02	1	0.02	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Copper, Total	0.01	U	0.01	1	0.01	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Lead, Total	0.01	U	0.01	1	0.05	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Manganese, Total	0.01	U	0.01	1	0.01	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Nickel, Total	0.025	U	0.025	1	0.025	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Selenium, Total	0.01	U	0.01	1	0.005	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Silver, Total	0.01	U	0.01	1	0.007	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Thallium, Total	0.02	U	0.02	1	0.005	mg/l
2WMW21S	2WMW21S	4/15/2003	L0303389-04	L0303389	6010B	Zinc, Total	0.05	U	0.05	1	0.05	mg/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	9060	Total Organic Carbon	10		2	4	0.5	mg/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	6010B	Aluminum, Total	0.14		0.1	1	0.1	mg/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	6010B	Antimony, Total	0.05	U	0.05	1	0.05	mg/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	6010B	Arsenic, Total	0.004	U	0.004	1	0.005	mg/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	6010B	Barium, Total	0.01	U	0.01	1	0.01	mg/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	6010B	Beryllium, Total	0.004	U	0.004	1	0.005	mg/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	6010B	Cadmium, Total	0.005	U	0.005	1	0.005	mg/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	6010B	Calcium, Total	48		0.5	1	0.5	mg/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	6010B	Chromium, Total	0.01	U	0.01	1	0.01	mg/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	6010B	Cobalt, Total	0.02	U	0.02	1	0.02	mg/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	6010B	Copper, Total	0.01	U	0.01	1	0.01	mg/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	6010B	Iron, Total	1.4		0.05	1	0.05	mg/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	6010B	Lead, Total	0.01	U	0.01	1	0.05	mg/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	6010B	Magnesium, Total	12		0.5	1	0.1	mg/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	6010B	Manganese, Total	0.37		0.01	1	0.01	mg/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	6010B	Nickel, Total	0.025	U	0.025	1	0.025	mg/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	6010B	Potassium, Total	8.6		2	1	1	mg/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	6010B	Selenium, Total	0.01	U	0.01	1	0.005	mg/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	6010B	Silver, Total	0.01	UJ	0.01	1	0.007	mg/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	6010B	Sodium, Total	99		1	1	1	mg/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	6010B	Thallium, Total	0.02	U	0.02	1	0.005	mg/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	6010B	Vanadium, Total	0.01	U	0.01	1	0.01	mg/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	6010B	Zinc, Total	0.05	U	0.05	1	0.05	mg/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	7470A	Mercury, Total	0.0002	U	0.0002	1	0.0005	mg/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	1,2,4-Trichlorobenzene	4.9	U	4.9	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	1,2-Dichlorobenzene	4.9	U	4.9	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	1,3-Dichlorobenzene	4.9	U	4.9	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	1,4-Dichlorobenzene	4.9	U	4.9	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	2,4,5-Trichlorophenol	4.9	U	4.9	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	2,4,6-Tribromophenol	82			0.9		%
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	2,4,6-Trichlorophenol	4.9	U	4.9	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	2,4-Dichlorophenol	9.8	U	9.8	0.9	10	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	2,4-Dimethylphenol	9.8	U	9.8	0.9	10	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	2,4-Dinitrophenol	20	U	20	0.9	20	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	2,4-Dinitrotoluene	5.9	U	5.9	0.9	6	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	2,6-Dinitrotoluene	4.9	U	4.9	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	2-Chlorophenol	5.9	U	5.9	0.9	6	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	2-Fluorobiphenyl	78			0.9		%
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	2-Fluorophenol	46			0.9		%
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	2-Methylphenol	5.9	UJ	5.9	0.9	6	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	2-Nitroaniline	4.9	U	4.9	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	2-Nitrophenol	20	U	20	0.9	20	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	3,3'-Dichlorobenzidine	49	U	49	0.9	50	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	3-Methylphenol/4-Methylphenol	5.9	U	5.9	0.9	6	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	3-Nitroaniline	4.9	U	4.9	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	4,6-Dinitro-o-cresol	20	U	20	0.9	20	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	4-Bromophenyl phenyl ether	4.9	U	4.9	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	4-Chloroaniline	4.9	U	4.9	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	4-Chlorophenyl phenyl ether	4.9	U	4.9	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	4-Nitroaniline	6.8	U	6.8	0.9	7	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	4-Nitrophenol	9.8	U	9.8	0.9	10	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	4-Terphenyl-d14	82			0.9		%
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	Bis(2-chloroethoxy)methane	4.9	U	4.9	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	Bis(2-chloroethyl)ether	4.9	U	4.9	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	Bis(2-chloroisopropyl)ether	4.9	U	4.9	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	Bis(2-ethylhexyl)phthalate	4.9	U	4.9	0.9	10	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	Butyl benzyl phthalate	4.9	U	4.9	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	Carbazole	2	U	2	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	Dibenzofuran	4.9	U	4.9	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	Diethyl phthalate	4.9	U	4.9	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	Dimethyl phthalate	4.9	U	4.9	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	Di-n-butylphthalate	4.9	U	4.9	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	Di-n-octylphthalate	4.9	U	4.9	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	Hexachlorobenzene	4.9	U	4.9	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	Hexachlorobutadiene	9.8	U	9.8	0.9	10	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	Hexachlorocyclopentadiene	9.8	U	9.8	0.9	10	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	Hexachloroethane	4.9	U	4.9	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	Isophorone	4.9	U	4.9	0.9	5	ug/l

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Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	NDPA/DPA	15	U	15	0.9	15	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	Nitrobenzene	4.9	U	4.9	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	Nitrobenzene-d5	79			0.9		%
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	n-Nitrosodi-n-propylamine	4.9	U	4.9	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	p-Chloro-m-cresol	4.9	U	4.9	0.9	5	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	Pentachlorophenol	20	U	20	0.9	20	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	Phenol	6.8	UJ	6.8	0.9	7	ug/l
2WMW38DS	2WMW38DS	4/3/2003	L0303029-01	L0303029	8270C	Phenol-d6	33			0.9		%
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	9038	Sulfate	10		10	1	10	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	2320B	Alkalinity, Total	270		2	1	2	mg CaCO3/L
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	5220D	Chemical Oxygen Demand	28		20	1	20	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	2540D	Solids, Total Suspended	10	U	10	2	5	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	2340B	Hardness	190		1.7	1	0.66	mg CaCO3/L
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	9251	Chloride	130		5	5	1	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	7470A	Mercury, Dissolved	0.0002	U	0.0002	1	0.5	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	6010B	Aluminum, Dissolved	0.1	U	0.1	1	0.1	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	6010B	Antimony, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	6010B	Arsenic, Dissolved	0.004		0.004	1	0.005	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	6010B	Barium, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	6010B	Beryllium, Dissolved	0.004	U	0.004	1	0.005	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	6010B	Cadmium, Dissolved	0.005	U	0.005	1	0.005	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	6010B	Chromium, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	6010B	Cobalt, Dissolved	0.02	U	0.02	1	0.02	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	6010B	Copper, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	6010B	Iron, Dissolved	0.13		0.05	1	0.05	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	6010B	Lead, Dissolved	0.01	U	0.01	1	0.05	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	6010B	Manganese, Dissolved	0.01		0.01	1	0.01	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	6010B	Nickel, Dissolved	0.025	U	0.025	1	0.025	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	6010B	Selenium, Dissolved	0.01	U	0.01	1	0.005	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	6010B	Silver, Dissolved	0.01	U	0.01	1	0.007	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	6010B	Thallium, Dissolved	0.02	U	0.02	1	0.005	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	6010B	Vanadium, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	6010B	Zinc, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	6010B	Calcium, Dissolved	44		0.5	1	0.5	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	6010B	Magnesium, Dissolved	17		0.5	1	0.1	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	6010B	Potassium, Dissolved	14		2	1	1	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	6010B	Sodium, Dissolved	140		1	1	1	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	2540C	Solids, Total Dissolved	590		10	1	10	mg/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	8270C-M	Acenaphthene	0.1	U	0.1	0.95	0.2	ug/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	8270C-M	2-Chloronaphthalene	0.1	U	0.1	0.95	0.2	ug/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	8270C-M	Fluoranthene	0.1	UJ	0.1	0.95	0.2	ug/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	8270C-M	Naphthalene	0.1	U	0.1	0.95	0.2	ug/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	8270C-M	Benzo(a)anthracene	0.1	U	0.1	0.95	0.2	ug/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	8270C-M	Benzo(a)pyrene	0.1	U	0.1	0.95	0.2	ug/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	8270C-M	Benzo(b)fluoranthene	0.1	U	0.1	0.95	0.2	ug/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	8270C-M	Benzo(k)fluoranthene	0.1	U	0.1	0.95	0.2	ug/l

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Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	8270C-M	Chrysene	0.1	U	0.1	0.95	0.2	ug/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	8270C-M	Acenaphthylene	0.1	U	0.1	0.95	0.2	ug/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	8270C-M	Anthracene	0.1	U	0.1	0.95	0.2	ug/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	8270C-M	Benzo(ghi)perylene	0.1	U	0.1	0.95	0.2	ug/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	8270C-M	Fluorene	0.1	U	0.1	0.95	0.2	ug/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	8270C-M	Phenanthrene	0.1	U	0.1	0.95	0.2	ug/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	8270C-M	Dibenzo(a,h)anthracene	0.1	U	0.1	0.95	0.2	ug/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	8270C-M	Indeno(1,2,3-cd)Pyrene	0.1	U	0.1	0.95	0.2	ug/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	8270C-M	Pyrene	0.1	U	0.1	0.95	0.2	ug/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	8270C-M	2-Methylnaphthalene	0.2	UJ	0.2	0.95	0.2	ug/l
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	8270C-M	Nitrobenzene-d5	67			0.95		%
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	8270C-M	2-Fluorobiphenyl	76			0.95		%
2WMW38DS	2WMW38DS	4/8/2003	L0303151-01	L0303151	8270C-M	4-Terphenyl-d14	89			0.95		%
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	9038	Sulfate	10	U	10	1	10	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	9060	Total Organic Carbon	4.1		2	4	0.5	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	9251	Chloride	400		10	10	1	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	2320B	Alkalinity, Total	270		2	1	2	mg CaCO3/L
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	2340B	Hardness	130		1.7	1	0.66	mg CaCO3/L
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	2540C	Solids, Total Dissolved	920		10	1	10	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	2540D	Solids, Total Suspended	8.6		5	1	5	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	5220D	Chemical Oxygen Demand	20	U	20	1	20	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Aluminum, Dissolved	0.1	U	0.1	1	0.1	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Aluminum, Total	0.1	U	0.1	1	0.1	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Antimony, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Antimony, Total	0.05	U	0.05	1	0.05	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Arsenic, Dissolved	0.004	U	0.004	1	0.005	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Arsenic, Total	0.004	U	0.004	1	0.005	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Barium, Dissolved	0.05		0.01	1	0.01	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Barium, Total	0.07		0.01	1	0.01	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Beryllium, Dissolved	0.004	U	0.004	1	0.005	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Beryllium, Total	0.004	U	0.004	1	0.005	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Cadmium, Dissolved	0.005	U	0.005	1	0.005	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Cadmium, Total	0.005	U	0.005	1	0.005	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Calcium, Dissolved	39		0.5	1	0.5	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Calcium, Total	37		0.5	1	0.5	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Chromium, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Chromium, Total	0.01	U	0.01	1	0.01	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Cobalt, Dissolved	0.02	U	0.02	1	0.02	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Cobalt, Total	0.02	U	0.02	1	0.02	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Copper, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Copper, Total	0.01	U	0.01	1	0.01	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Iron, Dissolved	1.8		0.05	1	0.05	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Iron, Total	22		0.05	1	0.05	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Lead, Dissolved	0.01	U	0.01	1	0.05	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Lead, Total	0.01	U	0.01	1	0.05	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Magnesium, Dissolved	13		0.5	1	0.1	mg/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Magnesium, Total	10		0.5	1	0.1	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Manganese, Dissolved	0.7		0.01	1	0.01	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Manganese, Total	0.74		0.01	1	0.01	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Nickel, Dissolved	0.025	U	0.025	1	0.025	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Nickel, Total	0.025	U	0.025	1	0.025	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Potassium, Dissolved	17		2	1	1	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Potassium, Total	12		2	1	1	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Selenium, Dissolved	0.01	U	0.01	1	0.005	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Selenium, Total	0.01	U	0.01	1	0.005	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Silver, Dissolved	0.01	UJ	0.01	1	0.007	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Silver, Total	0.01	UJ	0.01	1	0.007	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Sodium, Dissolved	280		1	1	1	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Sodium, Total	220		1	1	1	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Thallium, Dissolved	0.02	U	0.02	1	0.005	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Thallium, Total	0.02	U	0.02	1	0.005	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Vanadium, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Vanadium, Total	0.01	U	0.01	1	0.01	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Zinc, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	6010B	Zinc, Total	0.05	U	0.05	1	0.05	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	7470A	Mercury, Dissolved	0.0002	U	0.0002	1	0.5	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	7470A	Mercury, Total	0.0002	U	0.0002	1	0.0005	mg/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	1,2,4-Trichlorobenzene	5	U	5	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	1,2-Dichlorobenzene	5	U	5	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	1,3-Dichlorobenzene	5	U	5	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	1,4-Dichlorobenzene	5	U	5	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	2,4,5-Trichlorophenol	5	U	5	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	2,4,6-Tribromophenol	84			1		%
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	2,4,6-Trichlorophenol	5	U	5	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	2,4-Dichlorophenol	10	U	10	1	10	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	2,4-Dimethylphenol	10	U	10	1	10	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	2,4-Dinitrophenol	20	U	20	1	20	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	2,4-Dinitrotoluene	6	U	6	1	6	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	2,6-Dinitrotoluene	5	U	5	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	2-Chlorophenol	6	U	6	1	6	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	2-Fluorobiphenyl	78			1		%
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	2-Fluorophenol	44			1		%
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	2-Methylphenol	6	UJ	6	1	6	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	2-Nitroaniline	5	U	5	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	2-Nitrophenol	20	U	20	1	20	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	3,3'-Dichlorobenzidine	50	U	50	1	50	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	3-Methylphenol/4-Methylphenol	6	U	6	1	6	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	3-Nitroaniline	5	U	5	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	4,6-Dinitro-o-cresol	20	U	20	1	20	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	4-Bromophenyl phenyl ether	5	U	5	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	4-Chloroaniline	5	U	5	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	4-Chlorophenyl phenyl ether	5	U	5	1	5	ug/l

TABLE IV
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Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	4-Nitroaniline	7	U	7	1	7	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	4-Nitrophenol	10	U	10	1	10	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	4-Terphenyl-d14	89			1		%
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	Bis(2-chloroethoxy)methane	5	U	5	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	Bis(2-chloroethyl)ether	5	U	5	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	Bis(2-chloroisopropyl)ether	5	U	5	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	Bis(2-ethylhexyl)phthalate	5	U	5	1	10	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	Butyl benzyl phthalate	5	U	5	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	Carbazole	2	U	2	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	Dibenzofuran	5	U	5	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	Diethyl phthalate	5	U	5	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	Dimethyl phthalate	5	U	5	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	Di-n-butylphthalate	5	U	5	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	Di-n-octylphthalate	5	U	5	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	Hexachlorobenzene	5	U	5	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	Hexachlorobutadiene	10	U	10	1	10	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	Hexachlorocyclopentadiene	10	U	10	1	10	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	Hexachloroethane	5	U	5	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	Isophorone	5	U	5	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	NDPA/DPA	15	U	15	1	15	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	Nitrobenzene	5	U	5	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	Nitrobenzene-d5	79			1		%
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	n-Nitrosodi-n-propylamine	5	U	5	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	p-Chloro-m-cresol	5	U	5	1	5	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	Pentachlorophenol	20	U	20	1	20	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	Phenol	7	UJ	7	1	7	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C	Phenol-d6	30			1		%
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C-M	2-Chloronaphthalene	0.1	U	0.1	1	0.2	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C-M	2-Fluorobiphenyl	82			1		%
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C-M	2-Methylnaphthalene	0.2	UJ	0.2	1	0.2	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C-M	4-Terphenyl-d14	82			1		%
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C-M	Acenaphthene	0.1	U	0.1	1	0.2	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C-M	Acenaphthylene	0.1	U	0.1	1	0.2	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C-M	Anthracene	0.1	U	0.1	1	0.2	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C-M	Benzo(a)anthracene	0.1	U	0.1	1	0.2	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C-M	Benzo(a)pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C-M	Benzo(b)fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C-M	Benzo(ghi)perylene	0.1	U	0.1	1	0.2	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C-M	Benzo(k)fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C-M	Chrysene	0.1	U	0.1	1	0.2	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C-M	Dibenzo(a,h)anthracene	0.1	U	0.1	1	0.2	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C-M	Fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C-M	Fluorene	0.1	U	0.1	1	0.2	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C-M	Indeno(1,2,3-cd)Pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C-M	Naphthalene	0.1	U	0.1	1	0.2	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C-M	Nitrobenzene-d5	71			1		%

TABLE IV
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Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C-M	Phenanthrene	0.1	U	0.1	1	0.2	ug/l
2WMW39DS	2WMW39DS	4/3/2003	L0303029-02	L0303029	8270C-M	Pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	9038	Sulfate	310		100	10	10	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	9060	Total Organic Carbon	34		10	20	0.5	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	9251	Chloride	7100		100	100	1	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	2320B	Alkalinity, Total	1500		5	2.5	2	mg CaCO3/L
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	2340B	Hardness	2700		1.7	1	0.66	mg CaCO3/L
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	2540C	Solids, Total Dissolved	15000		10	1	10	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	2540D	Solids, Total Suspended	11		10	2	5	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	5220D	Chemical Oxygen Demand	700		20	1	20	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Aluminum, Dissolved	0.1	U	0.1	1	0.1	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Aluminum, Total	0.1	U	0.1	1	0.1	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Antimony, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Antimony, Total	0.05	U	0.05	1	0.05	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Arsenic, Dissolved	0.006		0.004	1	0.005	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Arsenic, Total	0.008		0.004	1	0.005	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Barium, Dissolved	0.04		0.01	1	0.01	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Barium, Total	0.05		0.01	1	0.01	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Beryllium, Dissolved	0.004	U	0.004	1	0.005	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Beryllium, Total	0.004	U	0.004	1	0.005	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Cadmium, Dissolved	0.005	U	0.005	1	0.005	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Cadmium, Total	0.005	U	0.005	1	0.005	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Calcium, Dissolved	140		10	1	0.5	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Calcium, Total	180		10	1	0.5	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Chromium, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Chromium, Total	0.01	U	0.01	1	0.01	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Cobalt, Dissolved	0.02	U	0.02	1	0.02	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Cobalt, Total	0.02	U	0.02	1	0.02	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Copper, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Copper, Total	0.01	U	0.01	1	0.01	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Iron, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Iron, Total	0.59		0.05	1	0.05	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Lead, Dissolved	0.01	U	0.01	1	0.05	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Lead, Total	0.01	U	0.01	1	0.05	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Magnesium, Dissolved	450		10	1	0.1	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Magnesium, Total	560		10	1	0.1	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Manganese, Dissolved	0.06		0.01	1	0.01	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Manganese, Total	0.05		0.01	1	0.01	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Nickel, Dissolved	0.025	U	0.025	1	0.025	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Nickel, Total	0.025	U	0.025	1	0.025	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Potassium, Dissolved	160		40	1	1	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Potassium, Total	200		40	1	1	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Selenium, Dissolved	0.01	U	0.01	1	0.005	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Selenium, Total	0.01	U	0.01	1	0.005	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Silver, Dissolved	0.01	UJ	0.01	1	0.007	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Silver, Total	0.01	UJ	0.01	1	0.007	mg/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Sodium, Dissolved	3900		20	1	1	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Sodium, Total	4900		20	1	1	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Thallium, Dissolved	0.02	U	0.02	1	0.005	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Thallium, Total	0.02	U	0.02	1	0.005	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Vanadium, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Vanadium, Total	0.01	U	0.01	1	0.01	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Zinc, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	6010B	Zinc, Total	0.05	U	0.05	1	0.05	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	7470A	Mercury, Dissolved	0.0002	U	0.0002	1	0.5	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	7470A	Mercury, Total	0.0002	U	0.0002	1	0.0005	mg/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	1,2,4-Trichlorobenzene	5	U	5	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	1,2-Dichlorobenzene	5	U	5	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	1,3-Dichlorobenzene	5	U	5	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	1,4-Dichlorobenzene	5	U	5	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	2,4,5-Trichlorophenol	5	U	5	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	2,4,6-Tribromophenol	85			1		%
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	2,4,6-Trichlorophenol	5	U	5	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	2,4-Dichlorophenol	10	U	10	1	10	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	2,4-Dimethylphenol	10	U	10	1	10	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	2,4-Dinitrophenol	20	U	20	1	20	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	2,4-Dinitrotoluene	6	U	6	1	6	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	2,6-Dinitrotoluene	5	U	5	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	2-Chlorophenol	6	U	6	1	6	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	2-Fluorobiphenyl	74			1		%
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	2-Fluorophenol	39			1		%
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	2-Methylphenol	6	UJ	6	1	6	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	2-Nitroaniline	5	U	5	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	2-Nitrophenol	20	U	20	1	20	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	3,3'-Dichlorobenzidine	50	U	50	1	50	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	3-Methylphenol/4-Methylphenol	6	U	6	1	6	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	3-Nitroaniline	5	U	5	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	4,6-Dinitro-o-cresol	20	U	20	1	20	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	4-Bromophenyl phenyl ether	5	U	5	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	4-Chloroaniline	5	U	5	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	4-Chlorophenyl phenyl ether	5	U	5	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	4-Nitroaniline	7	U	7	1	7	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	4-Nitrophenol	10	U	10	1	10	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	4-Terphenyl-d14	76			1		%
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	Bis(2-chloroethoxy)methane	5	U	5	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	Bis(2-chloroethyl)ether	5	U	5	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	Bis(2-chloroisopropyl)ether	5	U	5	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	Bis(2-ethylhexyl)phthalate	5	U	5	1	10	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	Butyl benzyl phthalate	5	U	5	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	Carbazole	2	U	2	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	Dibenzofuran	5	U	5	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	Diethyl phthalate	5	U	5	1	5	ug/l

TABLE IV
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ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	Dimethyl phthalate	5	U	5	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	Di-n-butylphthalate	5	U	5	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	Di-n-octylphthalate	5	U	5	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	Hexachlorobenzene	5	U	5	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	Hexachlorobutadiene	10	U	10	1	10	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	Hexachlorocyclopentadiene	10	U	10	1	10	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	Hexachloroethane	5	U	5	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	Isophorone	5	U	5	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	NDPA/DPA	15	U	15	1	15	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	Nitrobenzene	5	U	5	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	Nitrobenzene-d5	66			1		%
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	n-Nitrosodi-n-propylamine	5	U	5	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	p-Chloro-m-cresol	5	U	5	1	5	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	Pentachlorophenol	20	U	20	1	20	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	Phenol	7	UJ	7	1	7	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C	Phenol-d6	30			1		%
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C-M	2-Chloronaphthalene	0.1	U	0.1	1	0.2	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C-M	2-Fluorobiphenyl	89			1		%
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C-M	2-Methylnaphthalene	0.2	UJ	0.2	1	0.2	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C-M	4-Terphenyl-d14	84			1		%
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C-M	Acenaphthene	0.1	U	0.1	1	0.2	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C-M	Acenaphthylene	0.1	U	0.1	1	0.2	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C-M	Anthracene	0.1	U	0.1	1	0.2	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C-M	Benzo(a)anthracene	0.1	U	0.1	1	0.2	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C-M	Benzo(a)pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C-M	Benzo(b)fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C-M	Benzo(ghi)perylene	0.1	U	0.1	1	0.2	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C-M	Benzo(k)fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C-M	Chrysene	0.1	U	0.1	1	0.2	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C-M	Dibenzo(a,h)anthracene	0.1	U	0.1	1	0.2	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C-M	Fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C-M	Fluorene	0.1	U	0.1	1	0.2	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C-M	Indeno(1,2,3-cd)Pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C-M	Naphthalene	0.1	U	0.1	1	0.2	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C-M	Nitrobenzene-d5	69			1		%
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C-M	Phenanthrene	0.1	U	0.1	1	0.2	ug/l
2WMW40DS	2WMW40DS	4/3/2003	L0303029-03	L0303029	8270C-M	Pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	9038	Sulfate	10	U	10	1	10	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	9060	Total Organic Carbon	66		10	20	0.5	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	9251	Chloride	4400		100	100	1	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	2320B	Alkalinity, Total	1500		5	2.5	2	mg CaCO3/L
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	2340B	Hardness	1900		1.7	1	0.66	mg CaCO3/L
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	2540C	Solids, Total Dissolved	9600		10	1	10	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	2540D	Solids, Total Suspended	16		5	1	5	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	5220D	Chemical Oxygen Demand	340		20	1	20	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Aluminum, Dissolved	0.1	U	0.1	1	0.1	mg/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Aluminum, Total	0.16	J	0.1	1	0.1	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Antimony, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Antimony, Total	0.05	U	0.05	1	0.05	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Arsenic, Dissolved	0.004		0.004	1	0.005	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Arsenic, Total	0.004		0.004	1	0.005	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Barium, Dissolved	0.04		0.01	1	0.01	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Barium, Total	0.04		0.01	1	0.01	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Beryllium, Dissolved	0.004	U	0.004	1	0.005	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Beryllium, Total	0.004	U	0.004	1	0.005	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Cadmium, Dissolved	0.005	U	0.005	1	0.005	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Cadmium, Total	0.005	U	0.005	1	0.005	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Calcium, Dissolved	130		5	1	0.5	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Calcium, Total	140		5	1	0.5	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Chromium, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Chromium, Total	0.01		0.01	1	0.01	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Cobalt, Dissolved	0.02	U	0.02	1	0.02	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Cobalt, Total	0.02	U	0.02	1	0.02	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Copper, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Copper, Total	0.01	U	0.01	1	0.01	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Iron, Dissolved	2.4		0.05	1	0.05	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Iron, Total	2.9		0.05	1	0.05	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Lead, Dissolved	0.01	U	0.01	1	0.05	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Lead, Total	0.01	U	0.01	1	0.05	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Magnesium, Dissolved	360		5	1	0.1	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Magnesium, Total	370		5	1	0.1	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Manganese, Dissolved	0.23		0.01	1	0.01	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Manganese, Total	0.22		0.01	1	0.01	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Nickel, Dissolved	0.025	U	0.025	1	0.025	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Nickel, Total	0.025	U	0.025	1	0.025	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Potassium, Dissolved	130		20	1	1	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Potassium, Total	140		20	1	1	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Selenium, Dissolved	0.01	U	0.01	1	0.005	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Selenium, Total	0.01	U	0.01	1	0.005	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Silver, Dissolved	0.01	U	0.01	1	0.007	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Silver, Total	0.01	U	0.01	1	0.007	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Sodium, Dissolved	3000		10	1	1	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Sodium, Total	3100		10	1	1	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Thallium, Dissolved	0.02	U	0.02	1	0.005	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Thallium, Total	0.02	U	0.02	1	0.005	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Vanadium, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Vanadium, Total	0.01	U	0.01	1	0.01	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Zinc, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	6010B	Zinc, Total	0.05	U	0.05	1	0.05	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	7470A	Mercury, Dissolved	0.0002	U	0.0002	1	0.5	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	7470A	Mercury, Total	0.0002	U	0.0002	1	0.0005	mg/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	1,2,4-Trichlorobenzene	5	U	5	1	5	ug/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	1,2-Dichlorobenzene	5	U	5	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	1,3-Dichlorobenzene	5	U	5	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	1,4-Dichlorobenzene	5	U	5	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	2,4,5-Trichlorophenol	5	U	5	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	2,4,6-Tribromophenol	84			1		%
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	2,4,6-Trichlorophenol	5	U	5	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	2,4-Dichlorophenol	10	U	10	1	10	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	2,4-Dimethylphenol	10	U	10	1	10	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	2,4-Dinitrophenol	20	U	20	1	20	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	2,4-Dinitrotoluene	6	U	6	1	6	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	2,6-Dinitrotoluene	5	U	5	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	2-Chlorophenol	6	U	6	1	6	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	2-Fluorobiphenyl	67			1		%
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	2-Fluorophenol	35			1		%
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	2-Methylphenol	6	U	6	1	6	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	2-Nitroaniline	5	U	5	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	2-Nitrophenol	20	U	20	1	20	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	3,3'-Dichlorobenzidine	50	U	50	1	50	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	3-Methylphenol/4-Methylphenol	6	U	6	1	6	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	3-Nitroaniline	5	U	5	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	4,6-Dinitro-o-cresol	20	U	20	1	20	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	4-Bromophenyl phenyl ether	5	U	5	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	4-Chloroaniline	5	U	5	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	4-Chlorophenyl phenyl ether	5	U	5	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	4-Nitroaniline	7	U	7	1	7	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	4-Nitrophenol	10	U	10	1	10	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	4-Terphenyl-d14	77			1		%
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	Bis(2-chloroethoxy)methane	5	U	5	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	Bis(2-chloroethyl)ether	5	U	5	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	Bis(2-chloroisopropyl)ether	5	U	5	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	Bis(2-ethylhexyl)phthalate	5	U	5	1	10	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	Butyl benzyl phthalate	5	U	5	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	Carbazole	2	U	2	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	Dibenzofuran	5	U	5	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	Diethyl phthalate	5	U	5	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	Dimethyl phthalate	5	U	5	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	Di-n-butylphthalate	5	U	5	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	Di-n-octylphthalate	5	U	5	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	Hexachlorobenzene	5	U	5	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	Hexachlorobutadiene	10	U	10	1	10	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	Hexachlorocyclopentadiene	10	U	10	1	10	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	Hexachloroethane	5	U	5	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	Isophorone	5	U	5	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	NDPA/DPA	15	U	15	1	15	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	Nitrobenzene	5	U	5	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	Nitrobenzene-d5	60			1		%

TABLE IV
DATA SUMMARY TABLE
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Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	n-Nitrosodi-n-propylamine	5	U	5	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	p-Chloro-m-cresol	5	U	5	1	5	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	Pentachlorophenol	20	U	20	1	20	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	Phenol	7	UJ	7	1	7	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C	Phenol-d6	27			1		%
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C-M	2-Chloronaphthalene	0.1	U	0.1	1	0.2	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C-M	2-Fluorobiphenyl	84			1		%
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C-M	2-Methylnaphthalene	0.2	U	0.2	1	0.2	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C-M	4-Terphenyl-d14	90			1		%
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C-M	Acenaphthene	0.1	U	0.1	1	0.2	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C-M	Acenaphthylene	0.1	U	0.1	1	0.2	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C-M	Anthracene	0.12		0.1	1	0.2	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C-M	Benzo(a)anthracene	0.1	U	0.1	1	0.2	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C-M	Benzo(a)pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C-M	Benzo(b)fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C-M	Benzo(ghi)perylene	0.1	U	0.1	1	0.2	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C-M	Benzo(k)fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C-M	Chrysene	0.1	U	0.1	1	0.2	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C-M	Dibenzo(a,h)anthracene	0.1	U	0.1	1	0.2	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C-M	Fluoranthene	0.14		0.1	1	0.2	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C-M	Fluorene	0.1	U	0.1	1	0.2	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C-M	Indeno(1,2,3-cd)Pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C-M	Naphthalene	0.1	U	0.1	1	0.2	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C-M	Nitrobenzene-d5	67			1		%
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C-M	Phenanthrene	0.1	U	0.1	1	0.2	ug/l
2WMW41DS	2WMW41DS	4/4/2003	L0303053-01	L0303053	8270C-M	Pyrene	0.15		0.1	1	0.2	ug/l
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	5220D	Chemical Oxygen Demand	560		20	1	20	mg/l
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	2540D	Solids, Total Suspended	45		5	1	5	mg/l
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	2340B	Hardness	2500		1.7	1	0.66	mg CaCO3/L
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	9060	Total Organic Carbon	43		20	40	0.5	mg/l
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	7470A	Mercury, Total	0.0002	U	0.0002	1	0.0005	mg/l
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	6010B	Aluminum, Total	0.1	U	0.1	1	0.1	mg/l
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	6010B	Antimony, Total	0.05	U	0.05	1	0.05	mg/l
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	6010B	Arsenic, Total	0.004		0.004	1	0.005	mg/l
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	6010B	Barium, Total	0.06		0.01	1	0.01	mg/l
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	6010B	Beryllium, Total	0.004	U	0.004	1	0.005	mg/l
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	6010B	Cadmium, Total	0.005	U	0.005	1	0.005	mg/l
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	6010B	Chromium, Total	0.01	U	0.01	1	0.01	mg/l
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	6010B	Cobalt, Total	0.02	U	0.02	1	0.02	mg/l
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	6010B	Copper, Total	0.01	U	0.01	1	0.01	mg/l
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	6010B	Iron, Total	2.1		0.05	1	0.05	mg/l
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	6010B	Lead, Total	0.01	U	0.01	1	0.05	mg/l
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	6010B	Manganese, Total	0.18		0.01	1	0.01	mg/l
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	6010B	Nickel, Total	0.025	U	0.025	1	0.025	mg/l
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	6010B	Selenium, Total	0.01	U	0.01	1	0.005	mg/l
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	6010B	Silver, Total	0.01	U	0.01	1	0.007	mg/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	6010B	Thallium, Total	0.02	U	0.02	1	0.005	mg/l
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	6010B	Vanadium, Total	0.01	U	0.01	1	0.01	mg/l
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	6010B	Zinc, Total	0.05	U	0.05	1	0.05	mg/l
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	6010B	Calcium, Total	200		5	1	0.5	mg/l
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	6010B	Magnesium, Total	490		5	1	0.1	mg/l
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	6010B	Potassium, Total	190		20	1	1	mg/l
2WMW42DS	2WMW42DS 4/8/03	4/8/2003	L0303197-01	L0303197	6010B	Sodium, Total	4400		10	1	1	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	9038	Sulfate	160		50	5	10	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	2320B	Alkalinity, Total	1300		5	2.5	2	mg CaCO3/L
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	9251	Chloride	7500		100	100	1	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	7470A	Mercury, Dissolved	0.0002	U	0.0002	1	0.5	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	6010B	Aluminum, Dissolved	0.1	U	0.1	1	0.1	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	6010B	Antimony, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	6010B	Arsenic, Dissolved	0.013		0.004	1	0.005	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	6010B	Barium, Dissolved	0.06		0.01	1	0.01	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	6010B	Beryllium, Dissolved	0.004	U	0.004	1	0.005	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	6010B	Cadmium, Dissolved	0.005	U	0.005	1	0.005	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	6010B	Chromium, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	6010B	Cobalt, Dissolved	0.02	U	0.02	1	0.02	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	6010B	Copper, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	6010B	Iron, Dissolved	0.13		0.05	1	0.05	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	6010B	Lead, Dissolved	0.01	U	0.01	1	0.05	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	6010B	Manganese, Dissolved	0.12		0.01	1	0.01	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	6010B	Nickel, Dissolved	0.025	U	0.025	1	0.025	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	6010B	Selenium, Dissolved	0.01	U	0.01	1	0.005	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	6010B	Silver, Dissolved	0.01	U	0.01	1	0.007	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	6010B	Thallium, Dissolved	0.02	U	0.02	1	0.005	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	6010B	Vanadium, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	6010B	Zinc, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	6010B	Calcium, Dissolved	220		5	1	0.5	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	6010B	Magnesium, Dissolved	630		5	1	0.1	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	6010B	Potassium, Dissolved	260		20	1	1	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	6010B	Sodium, Dissolved	5800		10	1	1	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	2540C	Solids, Total Dissolved	14000		10	1	10	mg/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C-M	Acenaphthene	4.8		0.1	1	0.2	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C-M	2-Chloronaphthalene	0.1	U	0.1	1	0.2	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C-M	Fluoranthene	1.2		0.1	1	0.2	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C-M	Naphthalene	29		0.1	1	0.2	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C-M	Benzo(a)anthracene	0.11		0.1	1	0.2	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C-M	Benzo(a)pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C-M	Benzo(b)fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C-M	Benzo(k)fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C-M	Chrysene	0.13		0.1	1	0.2	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C-M	Acenaphthylene	0.16		0.1	1	0.2	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C-M	Anthracene	1.1		0.1	1	0.2	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C-M	Benzo(ghi)perylene	0.1	U	0.1	1	0.2	ug/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C-M	Fluorene	5		0.1	1	0.2	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C-M	Phenanthrene	7.2		0.1	1	0.2	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C-M	Dibenzo(a,h)anthracene	0.1	U	0.1	1	0.2	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C-M	Indeno(1,2,3-cd)Pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C-M	Pyrene	0.77		0.1	1	0.2	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C-M	2-Methylnaphthalene	4.8		0.2	1	0.2	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C-M	Nitrobenzene-d5	71			1		%
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C-M	2-Fluorobiphenyl	72			1		%
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C-M	4-Terphenyl-d14	86			1		%
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	1,2,4-Trichlorobenzene	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	Hexachlorobenzene	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	Bis(2-chloroethyl)ether	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	1,2-Dichlorobenzene	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	1,3-Dichlorobenzene	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	1,4-Dichlorobenzene	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	3,3'-Dichlorobenzidine	50	U	50	1	50	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	2,4-Dinitrotoluene	6	U	6	1	6	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	2,6-Dinitrotoluene	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	4-Chlorophenyl phenyl ether	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	4-Bromophenyl phenyl ether	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	Bis(2-chloroisopropyl)ether	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	Bis(2-chloroethoxy)methane	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	Hexachlorobutadiene	10	U	10	1	10	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	Hexachlorocyclopentadiene	10	U	10	1	10	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	Hexachloroethane	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	Isophorone	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	Nitrobenzene	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	NDPA/DPA	15	U	15	1	15	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	n-Nitrosodi-n-propylamine	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	Bis(2-ethylhexyl)phthalate	5	U	5	1	10	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	Butyl benzyl phthalate	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	Di-n-butylphthalate	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	Di-n-octylphthalate	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	Diethyl phthalate	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	Dimethyl phthalate	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	4-Chloroaniline	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	2-Nitroaniline	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	3-Nitroaniline	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	4-Nitroaniline	7	U	7	1	7	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	Dibenzofuran	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	2,4,6-Trichlorophenol	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	p-Chloro-m-cresol	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	2-Chlorophenol	6	U	6	1	6	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	2,4-Dichlorophenol	10	U	10	1	10	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	2,4-Dimethylphenol	25		10	1	10	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	2-Nitrophenol	20	U	20	1	20	ug/l

TABLE IV
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ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	4-Nitrophenol	10	U	10	1	10	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	2,4-Dinitrophenol	20	U	20	1	20	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	4,6-Dinitro-o-cresol	20	U	20	1	20	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	Pentachlorophenol	20	U	20	1	20	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	Phenol	7	U	7	1	7	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	2-Methylphenol	6	U	6	1	6	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	3-Methylphenol/4-Methylphenol	6	U	6	1	6	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	2,4,5-Trichlorophenol	5	U	5	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	Carbazole	5.6		2	1	5	ug/l
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	2-Fluorophenol	40			1		%
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	Phenol-d6	27			1		%
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	Nitrobenzene-d5	73			1		%
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	2-Fluorobiphenyl	68			1		%
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	2,4,6-Tribromophenol	41			1		%
2WMW42DS	2WMW42DS 4/9/03	4/9/2003	L0303197-02	L0303197	8270C	4-Terphenyl-d14	78			1		%
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	9038	Sulfate	240		120	12.5	10	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	2320B	Alkalinity, Total	1900		6.6	3.3	2	mg CaCO3/L
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	5220D	Chemical Oxygen Demand	1100		20	1	20	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	2540D	Solids, Total Suspended	39		5	1	5	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	2340B	Hardness	4000		1.7	1	0.66	mg CaCO3/L
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	9251	Chloride	11000		500	500	1	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	9060	Total Organic Carbon	51		20	40	0.5	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	7470A	Mercury, Total	0.0002	U	0.0002	1	0.0005	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	7470A	Mercury, Dissolved	0.0002	U	0.0002	1	0.5	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Iron, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Aluminum, Dissolved	0.1	U	0.1	1	0.1	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Antimony, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Arsenic, Dissolved	0.006		0.004	1	0.005	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Barium, Dissolved	0.1		0.01	1	0.01	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Beryllium, Dissolved	0.004	U	0.004	1	0.005	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Cadmium, Dissolved	0.005	U	0.005	1	0.005	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Chromium, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Cobalt, Dissolved	0.02	U	0.02	1	0.02	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Copper, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Lead, Dissolved	0.01	U	0.01	1	0.05	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Manganese, Dissolved	0.06		0.01	1	0.01	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Nickel, Dissolved	0.025	U	0.025	1	0.025	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Selenium, Dissolved	0.01	U	0.01	1	0.005	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Silver, Dissolved	0.01	U	0.01	1	0.007	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Thallium, Dissolved	0.02	U	0.02	1	0.005	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Vanadium, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Zinc, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Calcium, Dissolved	260		10	1	0.5	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Magnesium, Dissolved	750		10	1	0.1	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Potassium, Dissolved	210		40	1	1	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Sodium, Dissolved	5700		20	1	1	mg/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Aluminum, Total	0.35		0.1	1	0.1	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Antimony, Total	0.05	U	0.05	1	0.05	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Arsenic, Total	0.007		0.004	1	0.005	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Barium, Total	0.1		0.01	1	0.01	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Beryllium, Total	0.004	U	0.004	1	0.005	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Cadmium, Total	0.005	U	0.005	1	0.005	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Chromium, Total	0.02		0.01	1	0.01	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Cobalt, Total	0.02	U	0.02	1	0.02	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Copper, Total	0.01	U	0.01	1	0.01	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Iron, Total	3.9		0.05	1	0.05	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Lead, Total	0.01	U	0.01	1	0.05	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Manganese, Total	0.05		0.01	1	0.01	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Nickel, Total	0.025	U	0.025	1	0.025	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Selenium, Total	0.01	U	0.01	1	0.005	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Silver, Total	0.01	U	0.01	1	0.007	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Thallium, Total	0.02	U	0.02	1	0.005	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Vanadium, Total	0.01	U	0.01	1	0.01	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Zinc, Total	0.05	U	0.05	1	0.05	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Calcium, Total	270		10	1	0.5	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Magnesium, Total	810		10	1	0.1	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Potassium, Total	230		40	1	1	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	6010B	Sodium, Total	6300		20	1	1	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	2540C	Solids, Total Dissolved	19000		10	1	10	mg/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C-M	Acenaphthene	0.1	U	0.1	1	0.2	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C-M	2-Chloronaphthalene	0.1	U	0.1	1	0.2	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C-M	Fluoranthene	0.1	UJ	0.1	1	0.2	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C-M	Naphthalene	0.1	U	0.1	1	0.2	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C-M	Benzo(a)anthracene	0.1	U	0.1	1	0.2	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C-M	Benzo(a)pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C-M	Benzo(b)fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C-M	Benzo(k)fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C-M	Chrysene	0.1	U	0.1	1	0.2	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C-M	Acenaphthylene	0.1	U	0.1	1	0.2	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C-M	Anthracene	0.1	U	0.1	1	0.2	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C-M	Benzo(ghi)perylene	0.1	U	0.1	1	0.2	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C-M	Fluorene	0.1	U	0.1	1	0.2	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C-M	Phenanthrene	0.1	U	0.1	1	0.2	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C-M	Dibenzo(a,h)anthracene	0.1	U	0.1	1	0.2	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C-M	Indeno(1,2,3-cd)Pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C-M	Pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C-M	2-Methylnaphthalene	0.2	UJ	0.2	1	0.2	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C-M	Nitrobenzene-d5	58			1		%
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C-M	2-Fluorobiphenyl	89			1		%
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C-M	4-Terphenyl-d14	95			1		%
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	1,2,4-Trichlorobenzene	5	UJ	5	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	Hexachlorobenzene	5	UJ	5	1	5	ug/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
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Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	Bis(2-chloroethyl)ether	5	UJ	5	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	1,2-Dichlorobenzene	5	UJ	5	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	1,3-Dichlorobenzene	5	UJ	5	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	1,4-Dichlorobenzene	5	UJ	5	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	3,3'-Dichlorobenzidine	50	UJ	50	1	50	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	2,4-Dinitrotoluene	6	UJ	6	1	6	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	2,6-Dinitrotoluene	5	UJ	5	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	4-Chlorophenyl phenyl ether	5	UJ	5	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	4-Bromophenyl phenyl ether	5	UJ	5	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	Bis(2-chloroisopropyl)ether	5	UJ	5	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	Bis(2-chloroethoxy)methane	5	UJ	5	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	Hexachlorobutadiene	10	UJ	10	1	10	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	Hexachlorocyclopentadiene	10	UJ	10	1	10	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	Hexachloroethane	5	UJ	5	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	Isophorone	5	UJ	5	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	Nitrobenzene	5	UJ	5	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	NDPA/DPA	15	UJ	15	1	15	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	n-Nitrosodi-n-propylamine	5	UJ	5	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	Bis(2-ethylhexyl)phthalate	5	UJ	5	1	10	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	Butyl benzyl phthalate	5	UJ	5	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	Di-n-butylphthalate	5	UJ	5	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	Di-n-octylphthalate	5	UJ	5	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	Diethyl phthalate	5	UJ	5	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	Dimethyl phthalate	5	UJ	5	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	4-Chloroaniline	5	UJ	5	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	2-Nitroaniline	5	UJ	5	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	3-Nitroaniline	5	UJ	5	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	4-Nitroaniline	7	UJ	7	1	7	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	Dibenzofuran	5	UJ	5	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	2,4,6-Trichlorophenol	5	UJ	5	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	p-Chloro-m-cresol	5	UJ	5	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	2-Chlorophenol	6	UJ	6	1	6	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	2,4-Dichlorophenol	10	UJ	10	1	10	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	2,4-Dimethylphenol	10	UJ	10	1	10	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	2-Nitrophenol	20	UJ	20	1	20	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	4-Nitrophenol	10	UJ	10	1	10	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	2,4-Dinitrophenol	20	UJ	20	1	20	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	4,6-Dinitro-o-cresol	20	UJ	20	1	20	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	Pentachlorophenol	20	UJ	20	1	20	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	Phenol	7	UJ	7	1	7	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	2-Methylphenol	6	UJ	6	1	6	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	3-Methylphenol/4-Methylphenol	6	UJ	6	1	6	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	2,4,5-Trichlorophenol	5	UJ	5	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	Carbazole	2	UJ	2	1	5	ug/l
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	2-Fluorophenol	28			1		%
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	Phenol-d6	26			1		%

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	Nitrobenzene-d5	50			1		%
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	2-Fluorobiphenyl	68			1		%
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	2,4,6-Tribromophenol	81			1		%
2WMW43DS	2WMW43DS	4/8/2003	L0303151-02	L0303151	8270C	4-Terphenyl-d14	79			1		%
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	9038	Sulfate	10	U	10	1	10	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	2320B	Alkalinity, Total	1300		5	2.5	2	mg CaCO3/L
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	5220D	Chemical Oxygen Demand	460		200	10	20	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	2540D	Solids, Total Suspended	38		5	1	5	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	2340B	Hardness	3100		1.7	1	0.66	mg CaCO3/L
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	9251	Chloride	6700		200	200	1	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	9060	Total Organic Carbon	25		12	25	0.5	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	7470A	Mercury, Total	0.0002	U	0.0002	1	0.0005	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	7470A	Mercury, Dissolved	0.0002	U	0.0002	1	0.5	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Aluminum, Dissolved	0.1	U	0.1	1	0.1	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Antimony, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Arsenic, Dissolved	0.004	U	0.004	1	0.005	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Barium, Dissolved	0.04		0.01	1	0.01	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Beryllium, Dissolved	0.004	U	0.004	1	0.005	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Cadmium, Dissolved	0.005	U	0.005	1	0.005	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Chromium, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Cobalt, Dissolved	0.02	U	0.02	1	0.02	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Copper, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Iron, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Lead, Dissolved	0.01	U	0.01	1	0.05	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Manganese, Dissolved	0.35		0.01	1	0.01	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Nickel, Dissolved	0.025	U	0.025	1	0.025	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Selenium, Dissolved	0.01	U	0.01	1	0.005	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Silver, Dissolved	0.01	U	0.01	1	0.007	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Thallium, Dissolved	0.02	U	0.02	1	0.005	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Vanadium, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Zinc, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Calcium, Dissolved	120		10	1	0.5	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Magnesium, Dissolved	240		10	1	0.1	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Potassium, Dissolved	87		40	1	1	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Sodium, Dissolved	2100		20	1	1	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Aluminum, Total	0.34		0.1	1	0.1	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Antimony, Total	0.05	U	0.05	1	0.05	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Arsenic, Total	0.004	U	0.004	1	0.005	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Barium, Total	0.08		0.01	1	0.01	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Beryllium, Total	0.004	U	0.004	1	0.005	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Cadmium, Total	0.005	U	0.005	1	0.005	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Chromium, Total	0.01	U	0.01	1	0.01	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Cobalt, Total	0.02	U	0.02	1	0.02	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Copper, Total	0.01	U	0.01	1	0.01	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Iron, Total	3.2		0.05	1	0.05	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Lead, Total	0.01	U	0.01	1	0.05	mg/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Manganese, Total	0.18		0.01	1	0.01	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Nickel, Total	0.025	U	0.025	1	0.025	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Selenium, Total	0.01	U	0.01	1	0.005	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Silver, Total	0.01	U	0.01	1	0.007	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Thallium, Total	0.02	U	0.02	1	0.005	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Vanadium, Total	0.01	U	0.01	1	0.01	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Zinc, Total	0.05	U	0.05	1	0.05	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Calcium, Total	220		10	1	0.5	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Magnesium, Total	620		10	1	0.1	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Potassium, Total	200		40	1	1	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	6010B	Sodium, Total	5300		20	1	1	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	2540C	Solids, Total Dissolved	12000		20	2	10	mg/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C-M	Acenaphthene	0.1	U	0.1	1	0.2	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C-M	2-Chloronaphthalene	0.1	U	0.1	1	0.2	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C-M	Fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C-M	Naphthalene	0.1	U	0.1	1	0.2	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C-M	Benzo(a)anthracene	0.1	U	0.1	1	0.2	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C-M	Benzo(a)pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C-M	Benzo(b)fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C-M	Benzo(k)fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C-M	Chrysene	0.1	U	0.1	1	0.2	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C-M	Acenaphthylene	0.1	U	0.1	1	0.2	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C-M	Anthracene	0.1	U	0.1	1	0.2	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C-M	Benzo(ghi)perylene	0.1	U	0.1	1	0.2	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C-M	Fluorene	0.1	U	0.1	1	0.2	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C-M	Phenanthrene	0.1	U	0.1	1	0.2	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C-M	Dibenzo(a,h)anthracene	0.1	U	0.1	1	0.2	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C-M	Indeno(1,2,3-cd)Pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C-M	Pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C-M	2-Methylnaphthalene	0.2	U	0.2	1	0.2	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C-M	Nitrobenzene-d5	40			1		%
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C-M	2-Fluorobiphenyl	47			1		%
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C-M	4-Terphenyl-d14	76			1		%
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	1,2,4-Trichlorobenzene	5	UJ	5	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	Hexachlorobenzene	5	UJ	5	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	Bis(2-chloroethyl)ether	5	UJ	5	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	1,2-Dichlorobenzene	5	UJ	5	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	1,3-Dichlorobenzene	5	UJ	5	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	1,4-Dichlorobenzene	5	UJ	5	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	3,3'-Dichlorobenzidine	50	UJ	50	1	50	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	2,4-Dinitrotoluene	6	UJ	6	1	6	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	2,6-Dinitrotoluene	5	UJ	5	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	4-Chlorophenyl phenyl ether	5	UJ	5	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	4-Bromophenyl phenyl ether	5	UJ	5	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	Bis(2-chloroisopropyl)ether	5	UJ	5	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	Bis(2-chloroethoxy)methane	5	UJ	5	1	5	ug/l

TABLE IV
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ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	Hexachlorobutadiene	10	UJ	10	1	10	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	Hexachlorocyclopentadiene	10	UJ	10	1	10	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	Hexachloroethane	5	UJ	5	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	Isophorone	5	UJ	5	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	Nitrobenzene	5	UJ	5	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	NDPA/DPA	15	UJ	15	1	15	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	n-Nitrosodi-n-propylamine	5	UJ	5	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	Bis(2-ethylhexyl)phthalate	11	U	11	1	10	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	Butyl benzyl phthalate	5	UJ	5	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	Di-n-butylphthalate	5	UJ	5	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	Di-n-octylphthalate	5	UJ	5	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	Diethyl phthalate	5	UJ	5	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	Dimethyl phthalate	5	UJ	5	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	4-Chloroaniline	5	UJ	5	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	2-Nitroaniline	5	UJ	5	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	3-Nitroaniline	5	UJ	5	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	4-Nitroaniline	7	UJ	7	1	7	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	Dibenzofuran	5	UJ	5	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	2,4,6-Trichlorophenol	5	UJ	5	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	p-Chloro-m-cresol	5	UJ	5	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	2-Chlorophenol	6	UJ	6	1	6	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	2,4-Dichlorophenol	10	UJ	10	1	10	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	2,4-Dimethylphenol	10	UJ	10	1	10	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	2-Nitrophenol	20	UJ	20	1	20	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	4-Nitrophenol	10	UJ	10	1	10	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	2,4-Dinitrophenol	20	UJ	20	1	20	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	4,6-Dinitro-o-cresol	20	UJ	20	1	20	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	Pentachlorophenol	20	UJ	20	1	20	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	Phenol	7	UJ	7	1	7	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	2-Methylphenol	6	UJ	6	1	6	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	3-Methylphenol/4-Methylphenol	6	UJ	6	1	6	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	2,4,5-Trichlorophenol	5	UJ	5	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	Carbazole	2	UJ	2	1	5	ug/l
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	2-Fluorophenol	23			1		%
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	Phenol-d6	17			1		%
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	Nitrobenzene-d5	44			1		%
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	2-Fluorobiphenyl	46			1		%
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	2,4,6-Tribromophenol	35			1		%
2WMW44DS	2WMW44DS	4/14/2003	L0303359-01	L0303359	8270C	4-Terphenyl-d14	77			1		%
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	9038	Sulfate	10	U	10	1	10	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	2320B	Alkalinity, Total	1100		5	2.5	2	mg CaCO3/L
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	5220D	Chemical Oxygen Demand	480		200	10	20	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	2540D	Solids, Total Suspended	16		5	1	5	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	2340B	Hardness	3900		1.7	1	0.66	mg CaCO3/L
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	9251	Chloride	8500		200	200	1	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	9060	Total Organic Carbon	22		12	25	0.5	mg/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	7470A	Mercury, Total	0.0002	U	0.0002	1	0.0005	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	7470A	Mercury, Dissolved	0.0002	U	0.0002	1	0.5	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Aluminum, Dissolved	0.1	U	0.1	1	0.1	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Antimony, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Arsenic, Dissolved	0.005		0.004	1	0.005	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Barium, Dissolved	0.04		0.01	1	0.01	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Beryllium, Dissolved	0.004	U	0.004	1	0.005	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Cadmium, Dissolved	0.005	U	0.005	1	0.005	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Chromium, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Cobalt, Dissolved	0.02	U	0.02	1	0.02	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Copper, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Iron, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Lead, Dissolved	0.01	U	0.01	1	0.05	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Manganese, Dissolved	0.05		0.01	1	0.01	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Nickel, Dissolved	0.025	U	0.025	1	0.025	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Selenium, Dissolved	0.01	U	0.01	1	0.005	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Silver, Dissolved	0.01	U	0.01	1	0.007	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Thallium, Dissolved	0.02	U	0.02	1	0.005	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Vanadium, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Zinc, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Calcium, Dissolved	150		10	1	0.5	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Magnesium, Dissolved	440		10	1	0.1	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Potassium, Dissolved	150		40	1	1	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Sodium, Dissolved	3800		20	1	1	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Aluminum, Total	0.16		0.1	1	0.1	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Antimony, Total	0.05	U	0.05	1	0.05	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Arsenic, Total	0.012		0.004	1	0.005	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Barium, Total	0.09		0.01	1	0.01	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Beryllium, Total	0.004	U	0.004	1	0.005	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Cadmium, Total	0.005	U	0.005	1	0.005	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Chromium, Total	0.01	U	0.01	1	0.01	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Cobalt, Total	0.02	U	0.02	1	0.02	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Copper, Total	0.01	U	0.01	1	0.01	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Iron, Total	1.2		0.05	1	0.05	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Lead, Total	0.01	U	0.01	1	0.05	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Manganese, Total	0.02		0.01	1	0.01	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Nickel, Total	0.025	U	0.025	1	0.025	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Selenium, Total	0.01	U	0.01	1	0.005	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Silver, Total	0.01	U	0.01	1	0.007	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Thallium, Total	0.02	U	0.02	1	0.005	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Vanadium, Total	0.01	U	0.01	1	0.01	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Zinc, Total	0.05	U	0.05	1	0.05	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Calcium, Total	260		10	1	0.5	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Magnesium, Total	790		10	1	0.1	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Potassium, Total	280		40	1	1	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	6010B	Sodium, Total	6800		20	1	1	mg/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	2540C	Solids, Total Dissolved	14000		20	2	10	mg/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C-M	Acenaphthene	0.1	UJ	0.1	1	0.2	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C-M	2-Chloronaphthalene	0.1	UJ	0.1	1	0.2	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C-M	Fluoranthene	0.1	UJ	0.1	1	0.2	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C-M	Naphthalene	0.1	UJ	0.1	1	0.2	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C-M	Benzo(a)anthracene	0.1	UJ	0.1	1	0.2	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C-M	Benzo(a)pyrene	0.1	UJ	0.1	1	0.2	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C-M	Benzo(b)fluoranthene	0.1	UJ	0.1	1	0.2	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C-M	Benzo(k)fluoranthene	0.1	UJ	0.1	1	0.2	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C-M	Chrysene	0.1	UJ	0.1	1	0.2	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C-M	Acenaphthylene	0.1	UJ	0.1	1	0.2	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C-M	Anthracene	0.1	UJ	0.1	1	0.2	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C-M	Benzo(ghi)perylene	0.1	UJ	0.1	1	0.2	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C-M	Fluorene	0.1	UJ	0.1	1	0.2	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C-M	Phenanthrene	0.1	UJ	0.1	1	0.2	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C-M	Dibenzo(a,h)anthracene	0.1	UJ	0.1	1	0.2	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C-M	Indeno(1,2,3-cd)Pyrene	0.1	UJ	0.1	1	0.2	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C-M	Pyrene	0.1	UJ	0.1	1	0.2	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C-M	2-Methylnaphthalene	0.2	UJ	0.2	1	0.2	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C-M	Nitrobenzene-d5	26			1		%
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C-M	2-Fluorobiphenyl	40			1		%
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C-M	4-Terphenyl-d14	77			1		%
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	1,2,4-Trichlorobenzene	5	UJ	5	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	Hexachlorobenzene	5	UJ	5	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	Bis(2-chloroethyl)ether	5	UJ	5	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	1,2-Dichlorobenzene	5	UJ	5	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	1,3-Dichlorobenzene	5	UJ	5	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	1,4-Dichlorobenzene	5	UJ	5	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	3,3'-Dichlorobenzidine	50	UJ	50	1	50	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	2,4-Dinitrotoluene	6	UJ	6	1	6	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	2,6-Dinitrotoluene	5	UJ	5	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	4-Chlorophenyl phenyl ether	5	UJ	5	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	4-Bromophenyl phenyl ether	5	UJ	5	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	Bis(2-chloroisopropyl)ether	5	UJ	5	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	Bis(2-chloroethoxy)methane	5	UJ	5	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	Hexachlorobutadiene	10	UJ	10	1	10	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	Hexachlorocyclopentadiene	10	UJ	10	1	10	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	Hexachloroethane	5	UJ	5	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	Isophorone	5	UJ	5	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	Nitrobenzene	5	UJ	5	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	NDPA/DPA	15	UJ	15	1	15	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	n-Nitrosodi-n-propylamine	5	UJ	5	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	Bis(2-ethylhexyl)phthalate	11	U	11	1	10	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	Butyl benzyl phthalate	5	UJ	5	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	Di-n-butylphthalate	5	UJ	5	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	Di-n-octylphthalate	5	UJ	5	1	5	ug/l

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Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	Diethyl phthalate	5	UJ	5	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	Dimethyl phthalate	5	UJ	5	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	4-Chloroaniline	5	UJ	5	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	2-Nitroaniline	5	UJ	5	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	3-Nitroaniline	5	UJ	5	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	4-Nitroaniline	7	UJ	7	1	7	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	Dibenzofuran	5	UJ	5	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	2,4,6-Trichlorophenol	5	UJ	5	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	p-Chloro-m-cresol	5	UJ	5	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	2-Chlorophenol	6	UJ	6	1	6	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	2,4-Dichlorophenol	10	UJ	10	1	10	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	2,4-Dimethylphenol	10	UJ	10	1	10	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	2-Nitrophenol	20	UJ	20	1	20	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	4-Nitrophenol	10	UJ	10	1	10	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	2,4-Dinitrophenol	20	UJ	20	1	20	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	4,6-Dinitro-o-cresol	20	UJ	20	1	20	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	Pentachlorophenol	20	UJ	20	1	20	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	Phenol	7	UJ	7	1	7	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	2-Methylphenol	6	UJ	6	1	6	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	3-Methylphenol/4-Methylphenol	6	UJ	6	1	6	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	2,4,5-Trichlorophenol	5	UJ	5	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	Carbazole	2	UJ	2	1	5	ug/l
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	2-Fluorophenol	13			1		%
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	Phenol-d6	13			1		%
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	Nitrobenzene-d5	29			1		%
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	2-Fluorobiphenyl	41			1		%
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	2,4,6-Tribromophenol	26			1		%
2WMW45DS	2WMW45DS-01	4/14/2003	L0303359-02	L0303359	8270C	4-Terphenyl-d14	80			1		%
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	Bis(2-ethylhexyl)phthalate	5	U	5	1	10	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	1,2,4-Trichlorobenzene	5	UJ	5	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	Hexachlorobenzene	5	UJ	5	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	Bis(2-chloroethyl)ether	5	UJ	5	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	1,2-Dichlorobenzene	5	UJ	5	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	1,3-Dichlorobenzene	5	UJ	5	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	1,4-Dichlorobenzene	5	UJ	5	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	3,3'-Dichlorobenzidine	50	UJ	50	1	50	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	2,4-Dinitrotoluene	6	UJ	6	1	6	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	2,6-Dinitrotoluene	5	UJ	5	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	4-Chlorophenyl phenyl ether	5	UJ	5	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	4-Bromophenyl phenyl ether	5	UJ	5	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	Bis(2-chloroisopropyl)ether	5	UJ	5	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	Bis(2-chloroethoxy)methane	5	UJ	5	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	Hexachlorobutadiene	10	UJ	10	1	10	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	Hexachlorocyclopentadiene	10	UJ	10	1	10	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	Hexachloroethane	5	UJ	5	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	Isophorone	5	UJ	5	1	5	ug/l

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Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	Nitrobenzene	5	UJ	5	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	NDPA/DPA	15	UJ	15	1	15	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	n-Nitrosodi-n-propylamine	5	UJ	5	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	Butyl benzyl phthalate	5	UJ	5	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	Di-n-butylphthalate	5	UJ	5	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	Di-n-octylphthalate	5	UJ	5	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	Diethyl phthalate	5	UJ	5	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	Dimethyl phthalate	5	UJ	5	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	4-Chloroaniline	5	UJ	5	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	2-Nitroaniline	5	UJ	5	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	3-Nitroaniline	5	UJ	5	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	4-Nitroaniline	7	UJ	7	1	7	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	Dibenzofuran	5	UJ	5	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	2,4,6-Trichlorophenol	5	UJ	5	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	p-Chloro-m-cresol	5	UJ	5	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	2-Chlorophenol	6	UJ	6	1	6	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	2,4-Dichlorophenol	10	UJ	10	1	10	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	2,4-Dimethylphenol	10	UJ	10	1	10	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	2-Nitrophenol	20	UJ	20	1	20	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	4-Nitrophenol	10	UJ	10	1	10	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	2,4-Dinitrophenol	20	UJ	20	1	20	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	4,6-Dinitro-o-cresol	20	UJ	20	1	20	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	Pentachlorophenol	20	UJ	20	1	20	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	Phenol	7	UJ	7	1	7	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	2-Methylphenol	6	UJ	6	1	6	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	3-Methylphenol/4-Methylphenol	6	UJ	6	1	6	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	2,4,5-Trichlorophenol	5	UJ	5	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	Carbazole	2	UJ	2	1	5	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	9038	Sulfate	100		50	5	10	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	2320B	Alkalinity, Total	1200		5	2.5	2	mg CaCO3/L
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	5220D	Chemical Oxygen Demand	400		20	1	20	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	2540D	Solids, Total Suspended	14		5	1	5	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	2340B	Hardness	1700		1.7	1	0.66	mg CaCO3/L
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	9251	Chloride	8200		200	200	1	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	9060	Total Organic Carbon	24		10	20	0.5	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Barium, Dissolved	0.04		0.01	1	0.01	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Manganese, Dissolved	0.03		0.01	1	0.01	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Arsenic, Dissolved	0.006		0.004	1	0.005	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Calcium, Dissolved	130		10	1	0.5	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Magnesium, Dissolved	390		10	1	0.1	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Potassium, Dissolved	140		40	1	1	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Sodium, Dissolved	3400		20	1	1	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Aluminum, Total	0.12		0.1	1	0.1	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Arsenic, Total	0.005		0.004	1	0.005	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Barium, Total	0.03		0.01	1	0.01	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Iron, Total	1.3		0.05	1	0.05	mg/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Manganese, Total	0.04		0.01	1	0.01	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Calcium, Total	110		10	1	0.5	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Magnesium, Total	340		10	1	0.1	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Potassium, Total	120		40	1	1	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Sodium, Total	3000		20	1	1	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	2540C	Solids, Total Dissolved	14000		20	2	10	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C-M	Acenaphthene	0.1	U	0.1	1	0.2	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C-M	2-Chloronaphthalene	0.1	UJ	0.1	1	0.2	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C-M	Fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C-M	Naphthalene	0.1	U	0.1	1	0.2	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C-M	Benzo(a)anthracene	0.1	U	0.1	1	0.2	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C-M	Benzo(a)pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C-M	Benzo(b)fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C-M	Benzo(k)fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C-M	Chrysene	0.1	U	0.1	1	0.2	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C-M	Acenaphthylene	0.1	U	0.1	1	0.2	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C-M	Anthracene	0.1	U	0.1	1	0.2	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C-M	Benzo(ghi)perylene	0.1	U	0.1	1	0.2	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C-M	Fluorene	0.1	U	0.1	1	0.2	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C-M	Phenanthrene	0.1	U	0.1	1	0.2	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C-M	Dibenzo(a,h)anthracene	0.1	U	0.1	1	0.2	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C-M	Indeno(1,2,3-cd)Pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C-M	Pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C-M	2-Methylnaphthalene	0.2	U	0.2	1	0.2	ug/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C-M	Nitrobenzene-d5	63			1		%
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C-M	2-Fluorobiphenyl	70			1		%
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C-M	4-Terphenyl-d14	86			1		%
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	2-Fluorophenol	22			1		%
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	Phenol-d6	16			1		%
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	Nitrobenzene-d5	64			1		%
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	2-Fluorobiphenyl	61			1		%
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	2,4,6-Tribromophenol	27			1		%
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	8270C	4-Terphenyl-d14	75			1		%
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	7470A	Mercury, Total	0.0002	U	0.0002	1	0.0005	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	7470A	Mercury, Dissolved	0.0002	U	0.0002	1	0.5	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Iron, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Aluminum, Dissolved	0.1	U	0.1	1	0.1	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Antimony, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Beryllium, Dissolved	0.004	U	0.004	1	0.005	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Cadmium, Dissolved	0.005	U	0.005	1	0.005	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Chromium, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Cobalt, Dissolved	0.02	U	0.02	1	0.02	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Copper, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Lead, Dissolved	0.01	U	0.01	1	0.05	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Nickel, Dissolved	0.025	U	0.025	1	0.025	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Selenium, Dissolved	0.01	U	0.01	1	0.005	mg/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Silver, Dissolved	0.01	U	0.01	1	0.007	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Thallium, Dissolved	0.02	U	0.02	1	0.005	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Vanadium, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Zinc, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Antimony, Total	0.05	U	0.05	1	0.05	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Beryllium, Total	0.004	U	0.004	1	0.005	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Cadmium, Total	0.005	U	0.005	1	0.005	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Chromium, Total	0.01	U	0.01	1	0.01	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Cobalt, Total	0.02	U	0.02	1	0.02	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Copper, Total	0.01	U	0.01	1	0.01	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Lead, Total	0.01	U	0.01	1	0.05	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Nickel, Total	0.025	U	0.025	1	0.025	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Selenium, Total	0.01	U	0.01	1	0.005	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Silver, Total	0.01	U	0.01	1	0.007	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Thallium, Total	0.02	U	0.02	1	0.005	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Vanadium, Total	0.01	U	0.01	1	0.01	mg/l
2WMW45DS	2-WMW45DS-01D	4/13/2003	L0303389-05	L0303389	6010B	Zinc, Total	0.05	U	0.05	1	0.05	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	Bis(2-ethylhexyl)phthalate	5	U	5	1	10	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	1,2,4-Trichlorobenzene	5	UJ	5	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	Hexachlorobenzene	5	UJ	5	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	Bis(2-chloroethyl)ether	5	UJ	5	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	1,2-Dichlorobenzene	5	UJ	5	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	1,3-Dichlorobenzene	5	UJ	5	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	1,4-Dichlorobenzene	5	UJ	5	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	3,3'-Dichlorobenzidine	50	UJ	50	1	50	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	2,4-Dinitrotoluene	6	UJ	6	1	6	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	2,6-Dinitrotoluene	5	UJ	5	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	4-Chlorophenyl phenyl ether	5	UJ	5	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	4-Bromophenyl phenyl ether	5	UJ	5	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	Bis(2-chloroisopropyl)ether	5	UJ	5	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	Bis(2-chloroethoxy)methane	5	UJ	5	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	Hexachlorobutadiene	10	UJ	10	1	10	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	Hexachlorocyclopentadiene	10	UJ	10	1	10	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	Hexachloroethane	5	UJ	5	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	Isophorone	5	UJ	5	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	Nitrobenzene	5	UJ	5	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	NDPA/DPA	15	UJ	15	1	15	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	n-Nitrosodi-n-propylamine	5	UJ	5	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	Butyl benzyl phthalate	5	UJ	5	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	Di-n-butylphthalate	5	UJ	5	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	Di-n-octylphthalate	5	UJ	5	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	Diethyl phthalate	5	UJ	5	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	Dimethyl phthalate	5	UJ	5	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	4-Chloroaniline	5	UJ	5	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	2-Nitroaniline	5	UJ	5	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	3-Nitroaniline	5	UJ	5	1	5	ug/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	4-Nitroaniline	7	UJ	7	1	7	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	Dibenzofuran	5	UJ	5	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	2,4,6-Trichlorophenol	5	UJ	5	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	p-Chloro-m-cresol	5	UJ	5	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	2-Chlorophenol	6	UJ	6	1	6	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	2,4-Dichlorophenol	10	UJ	10	1	10	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	2,4-Dimethylphenol	10	UJ	10	1	10	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	2-Nitrophenol	20	UJ	20	1	20	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	4-Nitrophenol	10	UJ	10	1	10	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	2,4-Dinitrophenol	20	UJ	20	1	20	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	4,6-Dinitro-o-cresol	20	UJ	20	1	20	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	Pentachlorophenol	20	UJ	20	1	20	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	Phenol	7	UJ	7	1	7	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	2-Methylphenol	6	UJ	6	1	6	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	3-Methylphenol/4-Methylphenol	6	UJ	6	1	6	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	2,4,5-Trichlorophenol	5	UJ	5	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	Carbazole	2	UJ	2	1	5	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	2320B	Alkalinity, Total	2500		10	5	2	mg CaCO3/L
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	5220D	Chemical Oxygen Demand	1400		40	2	20	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	2540D	Solids, Total Suspended	38		5	1	5	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	2340B	Hardness	5700		1.7	1	0.66	mg CaCO3/L
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	9251	Chloride	16000		200	200	1	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	9060	Total Organic Carbon	49		20	40	0.5	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Iron, Dissolved	0.07		0.05	1	0.05	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Arsenic, Dissolved	0.019		0.004	1	0.005	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Barium, Dissolved	0.09		0.01	1	0.01	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Manganese, Dissolved	0.04		0.01	1	0.01	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Calcium, Dissolved	360		10	1	0.5	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Magnesium, Dissolved	1100		10	1	0.1	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Potassium, Dissolved	330		40	1	1	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Sodium, Dissolved	8600		20	1	1	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Aluminum, Total	0.13		0.1	1	0.1	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Arsenic, Total	0.018		0.004	1	0.005	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Barium, Total	0.1		0.01	1	0.01	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Iron, Total	2.6		0.05	1	0.05	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Manganese, Total	0.04		0.01	1	0.01	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Zinc, Total	0.06		0.05	1	0.05	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Calcium, Total	370		10	1	0.5	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Magnesium, Total	1200		10	1	0.1	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Potassium, Total	350		40	1	1	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Sodium, Total	9000		20	1	1	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	2540C	Solids, Total Dissolved	28000		20	2	10	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C-M	Acenaphthene	0.1	U	0.1	1	0.2	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C-M	2-Chloronaphthalene	0.1	UJ	0.1	1	0.2	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C-M	Fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C-M	Naphthalene	0.1	U	0.1	1	0.2	ug/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C-M	Benzo(a)anthracene	0.1	U	0.1	1	0.2	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C-M	Benzo(a)pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C-M	Benzo(b)fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C-M	Benzo(k)fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C-M	Chrysene	0.1	U	0.1	1	0.2	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C-M	Acenaphthylene	0.1	U	0.1	1	0.2	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C-M	Anthracene	0.1	U	0.1	1	0.2	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C-M	Benzo(ghi)perylene	0.1	U	0.1	1	0.2	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C-M	Fluorene	0.1	U	0.1	1	0.2	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C-M	Phenanthrene	0.1	U	0.1	1	0.2	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C-M	Dibenzo(a,h)anthracene	0.1	U	0.1	1	0.2	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C-M	Indeno(1,2,3-cd)Pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C-M	Pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C-M	2-Methylnaphthalene	0.2	U	0.2	1	0.2	ug/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C-M	Nitrobenzene-d5	46			1		%
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C-M	2-Fluorobiphenyl	70			1		%
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C-M	4-Terphenyl-d14	84			1		%
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	2-Fluorophenol	21			1		%
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	Phenol-d6	21			1		%
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	Nitrobenzene-d5	49			1		%
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	2-Fluorobiphenyl	64			1		%
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	2,4,6-Tribromophenol	27			1		%
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	8270C	4-Terphenyl-d14	76			1		%
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	9038	Sulfate	10	U	10	1	10	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	7470A	Mercury, Total	0.0002	U	0.0002	1	0.0005	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	7470A	Mercury, Dissolved	0.0002	U	0.0002	1	0.5	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Aluminum, Dissolved	0.1	U	0.1	1	0.1	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Antimony, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Beryllium, Dissolved	0.004	U	0.004	1	0.005	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Cadmium, Dissolved	0.005	U	0.005	1	0.005	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Chromium, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Cobalt, Dissolved	0.02	U	0.02	1	0.02	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Copper, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Lead, Dissolved	0.01	U	0.01	1	0.05	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Nickel, Dissolved	0.025	U	0.025	1	0.025	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Selenium, Dissolved	0.01	U	0.01	1	0.005	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Silver, Dissolved	0.01	U	0.01	1	0.007	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Thallium, Dissolved	0.02	U	0.02	1	0.005	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Vanadium, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Zinc, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Antimony, Total	0.05	U	0.05	1	0.05	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Beryllium, Total	0.004	U	0.004	1	0.005	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Cadmium, Total	0.005	U	0.005	1	0.005	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Chromium, Total	0.01	U	0.01	1	0.01	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Cobalt, Total	0.02	U	0.02	1	0.02	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Copper, Total	0.01	U	0.01	1	0.01	mg/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Lead, Total	0.01	U	0.01	1	0.05	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Nickel, Total	0.025	U	0.025	1	0.025	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Selenium, Total	0.01	U	0.01	1	0.005	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Silver, Total	0.01	U	0.01	1	0.007	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Thallium, Total	0.02	U	0.02	1	0.005	mg/l
2WMW46DS	2-WMW46DS-01	4/13/2003	L0303389-06	L0303389	6010B	Vanadium, Total	0.01	U	0.01	1	0.01	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	1,2,4-Trichlorobenzene	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	Hexachlorobenzene	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	Bis(2-chloroethyl)ether	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	1,2-Dichlorobenzene	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	1,3-Dichlorobenzene	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	1,4-Dichlorobenzene	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	3,3'-Dichlorobenzidine	50	UJ	50	1	50	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	2,4-Dinitrotoluene	6	UJ	6	1	6	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	2,6-Dinitrotoluene	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	4-Chlorophenyl phenyl ether	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	4-Bromophenyl phenyl ether	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	Bis(2-chloroisopropyl)ether	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	Bis(2-chloroethoxy)methane	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	Hexachlorobutadiene	10	UJ	10	1	10	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	Hexachlorocyclopentadiene	10	UJ	10	1	10	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	Hexachloroethane	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	Isophorone	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	Nitrobenzene	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	NDPA/DPA	15	UJ	15	1	15	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	n-Nitrosodi-n-propylamine	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	Butyl benzyl phthalate	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	Di-n-butylphthalate	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	Di-n-octylphthalate	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	Diethyl phthalate	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	Dimethyl phthalate	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	4-Chloroaniline	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	2-Nitroaniline	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	3-Nitroaniline	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	4-Nitroaniline	7	UJ	7	1	7	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	Dibenzofuran	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	2,4,6-Trichlorophenol	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	p-Chloro-m-cresol	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	2-Chlorophenol	6	UJ	6	1	6	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	2,4-Dichlorophenol	10	UJ	10	1	10	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	2,4-Dimethylphenol	10	UJ	10	1	10	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	2-Nitrophenol	20	UJ	20	1	20	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	4-Nitrophenol	10	UJ	10	1	10	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	2,4-Dinitrophenol	20	UJ	20	1	20	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	4,6-Dinitro-o-cresol	20	UJ	20	1	20	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	Pentachlorophenol	20	UJ	20	1	20	ug/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	Phenol	7	UJ	7	1	7	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	2-Methylphenol	6	UJ	6	1	6	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	3-Methylphenol/4-Methylphenol	6	UJ	6	1	6	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	2,4,5-Trichlorophenol	5	UJ	5	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	Carbazole	2	UJ	2	1	5	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	2320B	Alkalinity, Total	410		2	1	2	mg CaCO3/L
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	5220D	Chemical Oxygen Demand	160		20	1	20	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	2540D	Solids, Total Suspended	100		10	2	5	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	2340B	Hardness	430		1.7	1	0.66	mg CaCO3/L
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	9251	Chloride	2300		50	50	1	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	9060	Total Organic Carbon	14		5	10	0.5	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Arsenic, Dissolved	0.012		0.004	1	0.005	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Barium, Dissolved	0.26		0.01	1	0.01	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Iron, Dissolved	97		0.05	1	0.05	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Lead, Dissolved	0.015		0.01	1	0.05	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Manganese, Dissolved	3.4		0.01	1	0.01	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Calcium, Dissolved	50		5	1	0.5	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Magnesium, Dissolved	81		5	1	0.1	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Potassium, Dissolved	61		20	1	1	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Sodium, Dissolved	1100		10	1	1	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Aluminum, Total	0.15		0.1	1	0.1	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Arsenic, Total	0.015		0.004	1	0.005	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Barium, Total	0.26		0.01	1	0.01	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Iron, Total	94		0.05	1	0.05	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Lead, Total	0.014		0.01	1	0.05	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Manganese, Total	3.3		0.01	1	0.01	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Calcium, Total	48		5	1	0.5	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Magnesium, Total	76		5	1	0.1	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Potassium, Total	55		20	1	1	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Sodium, Total	1000		10	1	1	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	2540C	Solids, Total Dissolved	4200		20	2	10	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C-M	Acenaphthene	0.1	U	0.1	1	0.2	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C-M	2-Chloronaphthalene	0.1	UJ	0.1	1	0.2	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C-M	Fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C-M	Naphthalene	0.1	U	0.1	1	0.2	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C-M	Benzo(a)anthracene	0.1	U	0.1	1	0.2	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C-M	Benzo(a)pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C-M	Benzo(b)fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C-M	Benzo(k)fluoranthene	0.1	U	0.1	1	0.2	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C-M	Chrysene	0.1	U	0.1	1	0.2	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C-M	Acenaphthylene	0.1	U	0.1	1	0.2	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C-M	Anthracene	0.1	U	0.1	1	0.2	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C-M	Benzo(ghi)perylene	0.1	U	0.1	1	0.2	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C-M	Fluorene	0.1	U	0.1	1	0.2	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C-M	Phenanthrene	0.1	U	0.1	1	0.2	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C-M	Dibenzo(a,h)anthracene	0.1	U	0.1	1	0.2	ug/l

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DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C-M	Indeno(1,2,3-cd)Pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C-M	Pyrene	0.1	U	0.1	1	0.2	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C-M	2-Methylnaphthalene	0.2	U	0.2	1	0.2	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C-M	Nitrobenzene-d5	62			1		%
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C-M	2-Fluorobiphenyl	67			1		%
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C-M	4-Terphenyl-d14	96			1		%
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	Bis(2-ethylhexyl)phthalate	21	U	5	1	10	ug/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	2-Fluorophenol	34			1		%
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	Phenol-d6	24			1		%
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	Nitrobenzene-d5	60			1		%
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	2-Fluorobiphenyl	61			1		%
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	2,4,6-Tribromophenol	42			1		%
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	8270C	4-Terphenyl-d14	86			1		%
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	9038	Sulfate	10	U	10	1	10	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	7470A	Mercury, Total	0.0002	U	0.0002	1	0.0005	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	7470A	Mercury, Dissolved	0.0002	U	0.0002	1	0.5	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Aluminum, Dissolved	0.1	U	0.1	1	0.1	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Antimony, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Beryllium, Dissolved	0.004	U	0.004	1	0.005	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Cadmium, Dissolved	0.005	U	0.005	1	0.005	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Chromium, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Cobalt, Dissolved	0.02	U	0.02	1	0.02	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Copper, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Nickel, Dissolved	0.025	U	0.025	1	0.025	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Selenium, Dissolved	0.01	U	0.01	1	0.005	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Silver, Dissolved	0.01	U	0.01	1	0.007	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Thallium, Dissolved	0.02	U	0.02	1	0.005	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Vanadium, Dissolved	0.01	U	0.01	1	0.01	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Zinc, Dissolved	0.05	U	0.05	1	0.05	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Antimony, Total	0.05	U	0.05	1	0.05	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Beryllium, Total	0.004	U	0.004	1	0.005	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Cadmium, Total	0.005	U	0.005	1	0.005	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Chromium, Total	0.01	U	0.01	1	0.01	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Cobalt, Total	0.02	U	0.02	1	0.02	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Copper, Total	0.01	U	0.01	1	0.01	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Nickel, Total	0.025	U	0.025	1	0.025	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Selenium, Total	0.01	U	0.01	1	0.005	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Silver, Total	0.01	U	0.01	1	0.007	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Thallium, Total	0.02	U	0.02	1	0.005	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Vanadium, Total	0.01	U	0.01	1	0.01	mg/l
2WMW47DS	2WMW47DS	4/15/2003	L0303389-03	L0303389	6010B	Zinc, Total	0.05	U	0.05	1	0.05	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	9038	Sulfate	12		10	1	10	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	9060	Total Organic Carbon	3.4		2	4	0.5	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	9251	Chloride	210		10	10	1	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	2320B	Alkalinity, Total	63		2	1	2	mg CaCO3/L
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	2340B	Hardness	100		1.7	1	0.66	mg CaCO3/L

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	2540C	Solids, Total Dissolved	480		10	1	10	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	2540D	Solids, Total Suspended	13		5	1	5	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	5220D	Chemical Oxygen Demand	20	U	20	1	20	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Aluminum, Dissolved	0.1	U	0.1	1	0.1	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Aluminum, Total	0.1	U	0.1	1	0.1	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Antimony, Dissolved	0.05	U	0.05	1	0.05	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Antimony, Total	0.05	U	0.05	1	0.05	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Arsenic, Dissolved	0.004	U	0.004	1	0.005	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Arsenic, Total	0.004	U	0.004	1	0.005	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Barium, Dissolved	0.06		0.01	1	0.01	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Barium, Total	0.06		0.01	1	0.01	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Beryllium, Dissolved	0.004	U	0.004	1	0.005	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Beryllium, Total	0.004	U	0.004	1	0.005	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Cadmium, Dissolved	0.005	U	0.005	1	0.005	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Cadmium, Total	0.005	U	0.005	1	0.005	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Calcium, Dissolved	22		0.5	1	0.5	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Calcium, Total	22		0.5	1	0.5	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Chromium, Dissolved	0.01	U	0.01	1	0.01	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Chromium, Total	0.01	U	0.01	1	0.01	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Cobalt, Dissolved	0.02	U	0.02	1	0.02	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Cobalt, Total	0.02	U	0.02	1	0.02	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Copper, Dissolved	0.01	U	0.01	1	0.01	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Copper, Total	0.01	U	0.01	1	0.01	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Iron, Dissolved	7.3	J	0.05	1	0.05	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Iron, Total	9.3	J	0.05	1	0.05	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Lead, Dissolved	0.01	U	0.01	1	0.05	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Lead, Total	0.01	U	0.01	1	0.05	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Magnesium, Dissolved	12		0.5	1	0.1	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Magnesium, Total	11		0.5	1	0.1	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Manganese, Dissolved	1.2		0.01	1	0.01	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Manganese, Total	1.2		0.01	1	0.01	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Nickel, Dissolved	0.025	U	0.025	1	0.025	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Nickel, Total	0.025	U	0.025	1	0.025	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Potassium, Dissolved	6.6		2	1	1	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Potassium, Total	5.5		2	1	1	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Selenium, Dissolved	0.01	U	0.01	1	0.005	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Selenium, Total	0.01	U	0.01	1	0.005	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Silver, Dissolved	0.01	JU	0.01	1	0.007	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Silver, Total	0.01	UJ	0.01	1	0.007	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Sodium, Dissolved	130	J	1	1	1	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Sodium, Total	120	J	1	1	1	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Thallium, Dissolved	0.02	U	0.02	1	0.005	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Thallium, Total	0.02	U	0.02	1	0.005	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Vanadium, Dissolved	0.01	U	0.01	1	0.01	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Vanadium, Total	0.01	U	0.01	1	0.01	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Zinc, Dissolved	0.05	U	0.05	1	0.05	mg/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	6010B	Zinc, Total	0.05	U	0.05	1	0.05	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	7470A	Mercury, Dissolved	0.0002	U	0.0002	1	0.5	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	7470A	Mercury, Total	0.0002	U	0.0002	1	0.0005	mg/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	1,2,4-Trichlorobenzene	5	U	5	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	1,2-Dichlorobenzene	5	U	5	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	1,3-Dichlorobenzene	5	U	5	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	1,4-Dichlorobenzene	5	U	5	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	2,4,5-Trichlorophenol	5	U	5	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	2,4,6-Tribromophenol	78			1		%
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	2,4,6-Trichlorophenol	5	U	5	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	2,4-Dichlorophenol	10	U	10	1	10	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	2,4-Dimethylphenol	10	U	10	1	10	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	2,4-Dinitrophenol	20	U	20	1	20	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	2,4-Dinitrotoluene	6	U	6	1	6	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	2,6-Dinitrotoluene	5	U	5	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	2-Chlorophenol	6	U	6	1	6	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	2-Fluorobiphenyl	72			1		%
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	2-Fluorophenol	37			1		%
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	2-Methylphenol	6	U	6	1	6	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	2-Nitroaniline	5	U	5	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	2-Nitrophenol	20	U	20	1	20	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	3,3'-Dichlorobenzidine	50	U	50	1	50	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	3-Methylphenol/4-Methylphenol	6	U	6	1	6	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	3-Nitroaniline	5	U	5	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	4,6-Dinitro-o-cresol	20	U	20	1	20	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	4-Bromophenyl phenyl ether	5	U	5	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	4-Chloroaniline	5	U	5	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	4-Chlorophenyl phenyl ether	5	U	5	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	4-Nitroaniline	7	U	7	1	7	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	4-Nitrophenol	10	U	10	1	10	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	4-Terphenyl-d14	81			1		%
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	Bis(2-chloroethoxy)methane	5	U	5	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	Bis(2-chloroethyl)ether	5	U	5	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	Bis(2-chloroisopropyl)ether	5	U	5	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	Bis(2-ethylhexyl)phthalate	5	U	5	1	10	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	Butyl benzyl phthalate	5	U	5	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	Carbazole	2	U	2	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	Dibenzofuran	5	U	5	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	Diethyl phthalate	5	U	5	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	Dimethyl phthalate	5	U	5	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	Di-n-butylphthalate	5	U	5	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	Di-n-octylphthalate	5	U	5	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	Hexachlorobenzene	5	U	5	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	Hexachlorobutadiene	10	U	10	1	10	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	Hexachlorocyclopentadiene	10	U	10	1	10	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	Hexachloroethane	5	U	5	1	5	ug/l

TABLE IV
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AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	Isophorone	5	U	5	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	NDPA/DPA	15	U	15	1	15	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	Nitrobenzene	5	U	5	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	Nitrobenzene-d5	70			1		%
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	n-Nitrosodi-n-propylamine	5	U	5	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	p-Chloro-m-cresol	5	U	5	1	5	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	Pentachlorophenol	20	U	20	1	20	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	Phenol	7	UJ	7	1	7	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C	Phenol-d6	28			1		%
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C-M	2-Chloronaphthalene	0.1	U	0.1	1	0.2	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C-M	2-Fluorobiphenyl	86			1		%
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C-M	2-Methylnaphthalene	0.2	UJ	0.2	1	0.2	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C-M	4-Terphenyl-d14	83			1		%
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C-M	Acenaphthene	0.1	U	0.1	1	0.2	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C-M	Acenaphthylene	0.1	U	0.1	1	0.2	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C-M	Anthracene	0.1	U	0.1	1	0.2	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C-M	Benzo(a)anthracene	0.1	U	0.1	1	0.2	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C-M	Benzo(a)pyrene	0.1	U	0.1	1	0.2	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C-M	Benzo(b)fluoranthene	0.1	U	0.1	1	0.2	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C-M	Benzo(ghi)perylene	0.1	U	0.1	1	0.2	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C-M	Benzo(k)fluoranthene	0.1	U	0.1	1	0.2	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C-M	Chrysene	0.1	U	0.1	1	0.2	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C-M	Dibenzo(a,h)anthracene	0.1	U	0.1	1	0.2	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C-M	Fluoranthene	0.1	U	0.1	1	0.2	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C-M	Fluorene	0.1	U	0.1	1	0.2	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C-M	Indeno(1,2,3-cd)Pyrene	0.1	U	0.1	1	0.2	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C-M	Naphthalene	0.1	U	0.1	1	0.2	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C-M	Nitrobenzene-d5	71			1		%
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C-M	Phenanthrene	0.1	U	0.1	1	0.2	ug/l
3MSP01	2SP01-01	4/3/2003	L0303029-04	L0303029	8270C-M	Pyrene	0.1	U	0.1	1	0.2	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	9056	Sulfate	21		1	1	1	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	9060	Total Organic Carbon	4.8		2	4	0.5	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	9251	Chloride	750		10	10	1	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	2320B	Alkalinity, Total	200		2	1	2	mg CaCO3/L
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	2540C	Solids, Total Dissolved	1600		10	1	10	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	2540D	Solids, Total SuspeUed	6.6		5	1	5	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	5220D	Chemical Oxygen DemaU	50		20	1	20	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Aluminum, Dissolved	0.1	U	0.1	1	0.1	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Aluminum, Total	0.1	U	0.1	1	0.1	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Antimony, Dissolved	0.05	U	0.05	1	0.05	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Antimony, Total	0.05	U	0.05	1	0.05	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Arsenic, Dissolved	0.004	U	0.004	1	0.005	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Arsenic, Total	0.004	U	0.004	1	0.005	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Barium, Dissolved	0.07		0.01	1	0.01	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Barium, Total	0.07		0.01	1	0.01	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Beryllium, Dissolved	0.004	U	0.004	1	0.005	mg/l

TABLE IV
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ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Beryllium, Total	0.004	U	0.004	1	0.005	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Cadmium, Dissolved	0.005	U	0.005	1	0.005	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Cadmium, Total	0.005	U	0.005	1	0.005	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Calcium, Dissolved	60		0.1	1	0.1	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Calcium, Total	61		0.5	1	0.1	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Chromium, Dissolved	0.01	U	0.01	1	0.01	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Chromium, Total	0.01	U	0.01	1	0.01	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Cobalt, Dissolved	0.02	U	0.02	1	0.02	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Cobalt, Total	0.02	U	0.02	1	0.02	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Copper, Dissolved	0.01	U	0.01	1	0.01	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Copper, Total	0.01	U	0.01	1	0.01	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Hardness	360		1.7	1	1.66	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Iron, Dissolved	9.9		0.05	1	0.05	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Iron, Total	11		0.05	1	0.05	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Lead, Dissolved	0.01	U	0.01	1	0.05	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Lead, Total	0.01	U	0.01	1	0.05	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Magnesium, Dissolved	54		0.1	1	0.1	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Magnesium, Total	52		0.5	1	0.1	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Manganese, Dissolved	6		0.01	1	0.01	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Manganese, Total	6		0.01	1	0.01	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Nickel, Dissolved	0.025	U	0.025	1	0.025	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Nickel, Total	0.025	U	0.025	1	0.025	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Potassium, Dissolved	19		2	1	1	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Potassium, Total	18		2	1	1	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Selenium, Dissolved	0.01	U	0.01	1	0.005	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Selenium, Total	0.01	U	0.01	1	0.005	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Silver, Dissolved	0.01	U	0.01	1	0.007	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Silver, Total	0.01	U	0.01	1	0.007	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Sodium, Dissolved	460		1	1	1	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Sodium, Total	460		1	1	1	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Thallium, Dissolved	0.02	U	0.02	1	0.005	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Thallium, Total	0.02	U	0.02	1	0.005	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Vanadium, Dissolved	0.01	U	0.01	1	0.01	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Vanadium, Total	0.01	U	0.01	1	0.01	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Zinc, Dissolved	0.05	U	0.05	1	0.05	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	6010B	Zinc, Total	0.05	U	0.05	1	0.05	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	7470A	Mercury, Dissolved	0.0002	U	0.0002	1	0.0002	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	7470A	Mercury, Total	0.0002	U	0.0002	1	0.0002	mg/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	1,2,4-Trichlorobenzene	5	U	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	1,2-Dichlorobenzene	5	U	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	1,3-Dichlorobenzene	5	U	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	1,4-Dichlorobenzene	5	U	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	2,4,5-Trichlorophenol	5	U	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	2,4,6-Tribromophenol	82			1		%
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	2,4,6-Trichlorophenol	5	U	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	2,4-Dichlorophenol	10	U	10	1	10	ug/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	2,4-Dimethylphenol	10	U	10	1	10	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	2,4-Dinitrophenol	20	U	20	1	20	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	2,4-Dinitrotoluene	6	U	6	1	6	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	2,6-Dinitrotoluene	5	U	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	2-Chlorophenol	6	U	6	1	6	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	2-Fluorobiphenyl	63			1		%
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	2-Fluorophenol	33			1		%
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	2-Methylphenol	6	U	6	1	6	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	2-Nitroaniline	5	U	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	2-Nitrophenol	20	U	20	1	20	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	3,3'-Dichlorobenzidine	50	UJ	50	1	50	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	3-Methylphenol/4-Methylphenol	6	U	6	1	6	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	3-Nitroaniline	5	UJ	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	4,6-Dinitro-o-cresol	20	U	20	1	20	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	4-Bromophenyl phenyl ether	5	U	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	4-Chloroaniline	5	UJ	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	4-Chlorophenyl phenyl ether	5	U	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	4-Nitroaniline	7	UJ	7	1	7	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	4-Nitrophenol	10	U	10	1	10	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	4-Terphenyl-d14	90			1		%
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	Bis(2-chloroethoxy)methane	5	U	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	Bis(2-chloroethyl)ether	5	U	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	Bis(2-chloroisopropyl)ether	5	U	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	Bis(2-ethylhexyl)phthalate	5	U	5	1	10	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	Butyl benzyl phthalate	5	U	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	Carbazole	2	U	2	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	Dibenzofuran	5	U	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	Diethyl phthalate	5	U	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	Dimethyl phthalate	5	U	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	Di-n-butylphthalate	5	U	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	Di-n-octylphthalate	5	U	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	Hexachlorobenzene	5	U	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	Hexachlorobutadiene	10	U	10	1	10	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	Hexachlorocyclopentadiene	10	UJ	10	1	10	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	Hexachloroethane	5	U	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	Isophorone	5	U	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	NDPA/DPA	15	U	15	1	15	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	Nitrobenzene	5	U	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	Nitrobenzene-d5	61			1		%
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	n-Nitrosodi-n-propylamine	5	U	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	p-Chloro-m-cresol	5	U	5	1	5	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	Pentachlorophenol	20	U	20	1	20	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	Phenol	7	U	7	1	7	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C	Phenol-d6	22			1		%
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C-M	2-Chloronaphthalene	0.1	U	0.1	1	0.2	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C-M	2-Fluorobiphenyl	59			1		%

TABLE IV
DATA SUMMARY TABLE
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Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C-M	2-Methylnaphthalene	0.2	U	0.2	1	0.2	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C-M	4-Terphenyl-d14	72			1		%
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C-M	Acenaphthene	0.1	U	0.1	1	0.2	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C-M	Acenaphthylene	0.1	U	0.1	1	0.2	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C-M	Anthracene	0.1	U	0.1	1	0.2	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C-M	Benzo(a)anthracene	0.1	U	0.1	1	0.2	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C-M	Benzo(a)pyrene	0.1	U	0.1	1	0.2	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C-M	Benzo(b)fluoranthene	0.1	U	0.1	1	0.2	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C-M	Benzo(ghi)perylene	0.1	U	0.1	1	0.2	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C-M	Benzo(k)fluoranthene	0.1	U	0.1	1	0.2	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C-M	Chrysene	0.1	U	0.1	1	0.2	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C-M	Dibenzo(a,h)anthracene	0.1	U	0.1	1	0.2	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C-M	Fluoranthene	0.1	U	0.1	1	0.2	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C-M	Fluorene	0.1	U	0.1	1	0.2	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C-M	Indeno(1,2,3-cd)Pyrene	0.1	U	0.1	1	0.2	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C-M	Naphthalene	0.1	U	0.1	1	0.2	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C-M	Nitrobenzene-d5	55			1		%
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C-M	Phenanthrene	0.1	U	0.1	1	0.2	ug/l
3MW12D	3-GW12D-01	4/2/2003	L0302959-03	L0302959	8270C-M	Pyrene	0.1	U	0.1	1	0.2	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	9056	Sulfate	69		5	5	1	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	9060	Total Organic Carbon	3.8		1	2	0.5	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	9251	Chloride	510		10	10	1	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	2320B	Alkalinity, Total	140		2	1	2	mg CaCO3/L
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	2540C	Solids, Total Dissolved	1000		10	1	10	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	2540D	Solids, Total SuspeUed	5	U	5	1	5	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	5220D	Chemical Oxygen DemaU	34		20	1	20	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Aluminum, Dissolved	0.1	U	0.1	1	0.1	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Aluminum, Total	0.1	U	0.1	1	0.1	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Antimony, Dissolved	0.05	U	0.05	1	0.05	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Antimony, Total	0.05	U	0.05	1	0.05	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Arsenic, Dissolved	0.004	U	0.004	1	0.005	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Arsenic, Total	0.004	U	0.004	1	0.005	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Barium, Dissolved	0.22		0.01	1	0.01	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Barium, Total	0.21		0.01	1	0.01	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Beryllium, Dissolved	0.004	U	0.004	1	0.005	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Beryllium, Total	0.004	U	0.004	1	0.005	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Cadmium, Dissolved	0.005	U	0.005	1	0.005	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Cadmium, Total	0.005	U	0.005	1	0.005	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Calcium, Dissolved	44		0.5	1	0.1	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Calcium, Total	45		0.5	1	0.1	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Chromium, Dissolved	0.01	U	0.01	1	0.01	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Chromium, Total	0.01	U	0.01	1	0.01	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Cobalt, Dissolved	0.02	U	0.02	1	0.02	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Cobalt, Total	0.02	U	0.02	1	0.02	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Copper, Dissolved	0.01	U	0.01	1	0.01	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Copper, Total	0.01	U	0.01	1	0.01	mg/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
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Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Hardness	240		1.7	1	1.66	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Iron, Dissolved	0.43		0.05	1	0.05	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Iron, Total	0.5		0.05	1	0.05	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Lead, Dissolved	0.01	U	0.01	1	0.05	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Lead, Total	0.01	U	0.01	1	0.05	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Magnesium, Dissolved	31		0.5	1	0.1	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Magnesium, Total	30		0.5	1	0.1	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Manganese, Dissolved	4		0.01	1	0.01	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Manganese, Total	4.1		0.01	1	0.01	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Nickel, Dissolved	0.025	U	0.025	1	0.025	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Nickel, Total	0.025	U	0.025	1	0.025	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Potassium, Dissolved	12		2	1	1	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Potassium, Total	10		2	1	1	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Selenium, Dissolved	0.01	U	0.01	1	0.005	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Selenium, Total	0.01	U	0.01	1	0.005	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Silver, Dissolved	0.01	U	0.01	1	0.007	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Silver, Total	0.01	U	0.01	1	0.007	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Sodium, Dissolved	300		1	1	1	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Sodium, Total	270		1	1	1	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Thallium, Dissolved	0.02	U	0.02	1	0.005	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Thallium, Total	0.02	U	0.02	1	0.005	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Vanadium, Dissolved	0.01	U	0.01	1	0.01	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Vanadium, Total	0.01	U	0.01	1	0.01	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Zinc, Dissolved	0.05	U	0.05	1	0.05	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	6010B	Zinc, Total	0.05	U	0.05	1	0.05	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	7470A	Mercury, Dissolved	0.0002	U	0.0002	1	0.0002	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	7470A	Mercury, Total	0.0002	U	0.0002	1	0.0002	mg/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	1,2,4-Trichlorobenzene	5	U	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	1,2-Dichlorobenzene	5	U	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	1,3-Dichlorobenzene	5	U	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	1,4-Dichlorobenzene	5	U	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	2,4,5-Trichlorophenol	5	U	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	2,4,6-Tribromophenol	84			1		%
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	2,4,6-Trichlorophenol	5	U	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	2,4-Dichlorophenol	10	U	10	1	10	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	2,4-Dimethylphenol	10	U	10	1	10	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	2,4-Dinitrophenol	20	U	20	1	20	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	2,4-Dinitrotoluene	6	U	6	1	6	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	2,6-Dinitrotoluene	5	U	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	2-Chlorophenol	6	U	6	1	6	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	2-Fluorobiphenyl	73			1		%
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	2-Fluorophenol	43			1		%
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	2-Methylphenol	6	U	6	1	6	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	2-Nitroaniline	5	U	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	2-Nitrophenol	20	U	20	1	20	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	3,3'-Dichlorobenzidine	50	UJ	50	1	50	ug/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	3-Methylphenol/4-Methylphenol	6	U	6	1	6	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	3-Nitroaniline	5	UJ	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	4,6-Dinitro-o-cresol	20	U	20	1	20	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	4-Bromophenyl phenyl ether	5	U	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	4-Chloroaniline	5	UJ	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	4-Chlorophenyl phenyl ether	5	U	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	4-Nitroaniline	7	UJ	7	1	7	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	4-Nitrophenol	10	U	10	1	10	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	4-Terphenyl-d14	90			1		%
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	Bis(2-chloroethoxy)methane	5	U	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	Bis(2-chloroethyl)ether	5	U	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	Bis(2-chloroisopropyl)ether	5	U	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	Bis(2-ethylhexyl)phthalate	5	U	5	1	10	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	Butyl benzyl phthalate	5	U	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	Carbazole	2	U	2	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	Dibenzofuran	5	U	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	Diethyl phthalate	5	U	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	Dimethyl phthalate	5	U	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	Di-n-butylphthalate	5	U	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	Di-n-octylphthalate	5	U	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	Hexachlorobenzene	5	U	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	Hexachlorobutadiene	10	U	10	1	10	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	Hexachlorocyclopentadiene	10	UJ	10	1	10	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	Hexachloroethane	5	U	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	Isophorone	5	U	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	NDPA/DPA	15	U	15	1	15	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	Nitrobenzene	5	U	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	Nitrobenzene-d5	76			1		%
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	n-Nitrosodi-n-propylamine	5	U	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	p-Chloro-m-cresol	5	U	5	1	5	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	Pentachlorophenol	20	U	20	1	20	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	Phenol	7	U	7	1	7	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C	Phenol-d6	28			1		%
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C-M	2-Chloronaphthalene	0.1	U	0.1	1	0.2	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C-M	2-Fluorobiphenyl	69			1		%
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C-M	2-Methylnaphthalene	0.2	U	0.2	1	0.2	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C-M	4-Terphenyl-d14	77			1		%
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C-M	Acenaphthene	0.1	U	0.1	1	0.2	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C-M	Acenaphthylene	0.1	U	0.1	1	0.2	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C-M	Anthracene	0.1	U	0.1	1	0.2	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C-M	Benzo(a)anthracene	0.1	U	0.1	1	0.2	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C-M	Benzo(a)pyrene	0.1	U	0.1	1	0.2	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C-M	Benzo(b)fluoranthene	0.1	U	0.1	1	0.2	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C-M	Benzo(ghi)perylene	0.1	U	0.1	1	0.2	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C-M	Benzo(k)fluoranthene	0.1	U	0.1	1	0.2	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C-M	Chrysene	0.1	U	0.1	1	0.2	ug/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C-M	Dibenzo(a,h)anthracene	0.1	U	0.1	1	0.2	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C-M	Fluoranthene	0.1	U	0.1	1	0.2	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C-M	Fluorene	0.1	U	0.1	1	0.2	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C-M	Indeno(1,2,3-cd)Pyrene	0.1	U	0.1	1	0.2	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C-M	Naphthalene	0.1	U	0.1	1	0.2	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C-M	Nitrobenzene-d5	67			1		%
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C-M	Phenanthrene	0.1	U	0.1	1	0.2	ug/l
3MW37S	3-GW37S-01	4/2/2003	L0302959-02	L0302959	8270C-M	Pyrene	0.1	U	0.1	1	0.2	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	9038	Sulfate	26		10	1	10	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	2320B	Alkalinity, Total	16		2	1	2	mg CaCO3/L
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	2340B	Hardness	70		1.7	1	0.66	mg CaCO3/L
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	9251	Chloride	71		1	1	1	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	9060	Total Organic Carbon	1.2		0.5	1	0.5	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	1,2,4-Trichlorobenzene	5	UJ	5	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	Hexachlorobenzene	5	UJ	5	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	Bis(2-chloroethyl)ether	5	UJ	5	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	1,2-Dichlorobenzene	5	UJ	5	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Barium, Dissolved	0.05		0.01	1	0.01	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	1,3-Dichlorobenzene	5	UJ	5	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	1,4-Dichlorobenzene	5	UJ	5	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	3,3'-Dichlorobenzidine	50	UJ	50	1	50	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	2,4-Dinitrotoluene	6	UJ	6	1	6	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	2,6-Dinitrotoluene	5	UJ	5	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	4-Chlorophenyl phenyl ether	5	UJ	5	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	4-Bromophenyl phenyl ether	5	UJ	5	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	Bis(2-chloroisopropyl)ether	5	UJ	5	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	Bis(2-chloroethoxy)methane	5	UJ	5	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	Hexachlorobutadiene	10	UJ	10	1	10	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	Hexachlorocyclopentadiene	10	UJ	10	1	10	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	Hexachloroethane	5	UJ	5	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	Isophorone	5	UJ	5	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	Nitrobenzene	5	UJ	5	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Calcium, Dissolved	23		0.5	1	0.5	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Magnesium, Dissolved	3.1		0.5	1	0.1	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Potassium, Dissolved	3.7		2	1	1	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Sodium, Dissolved	40		1	1	1	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	NDPA/DPA	15	UJ	15	1	15	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	n-Nitrosodi-n-propylamine	5	UJ	5	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	Butyl benzyl phthalate	5	UJ	5	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Barium, Total	0.05		0.01	1	0.01	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	Di-n-butylphthalate	5	UJ	5	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	Di-n-octylphthalate	5	UJ	5	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	Diethyl phthalate	5	UJ	5	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	Dimethyl phthalate	5	UJ	5	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	4-Chloroaniline	5	UJ	5	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	2-Nitroaniline	5	UJ	5	1	5	ug/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	3-Nitroaniline	5	UJ	5	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	4-Nitroaniline	7	UJ	7	1	7	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	Dibenzofuran	5	UJ	5	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	2,4,6-Trichlorophenol	5	UJ	5	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	p-Chloro-m-cresol	5	UJ	5	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	2-Chlorophenol	6	UJ	6	1	6	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	2,4-Dichlorophenol	10	UJ	10	1	10	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	2,4-Dimethylphenol	10	UJ	10	1	10	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Calcium, Total	23		0.5	1	0.5	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Magnesium, Total	3.1		0.5	1	0.1	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Potassium, Total	3.4		2	1	1	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Sodium, Total	39		1	1	1	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	2540C	Solids, Total Dissolved	230		10	1	10	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C-M	Acenaphthene	0.1	U	0.1	1	0.2	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C-M	2-Chloronaphthalene	0.1	UJ	0.1	1	0.2	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C-M	Fluoranthene	0.1	U	0.1	1	0.2	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C-M	Naphthalene	0.1	U	0.1	1	0.2	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C-M	Benzo(a)anthracene	0.1	U	0.1	1	0.2	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C-M	Benzo(a)pyrene	0.1	U	0.1	1	0.2	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C-M	Benzo(b)fluoranthene	0.1	U	0.1	1	0.2	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C-M	Benzo(k)fluoranthene	0.1	U	0.1	1	0.2	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C-M	Chrysene	0.1	U	0.1	1	0.2	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C-M	Acenaphthylene	0.1	U	0.1	1	0.2	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C-M	Anthracene	0.1	U	0.1	1	0.2	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C-M	Benzo(ghi)perylene	0.1	U	0.1	1	0.2	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C-M	Fluorene	0.1	U	0.1	1	0.2	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C-M	Phenanthrene	0.1	U	0.1	1	0.2	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C-M	Dibenzo(a,h)anthracene	0.1	U	0.1	1	0.2	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C-M	Indeno(1,2,3-cd)Pyrene	0.1	U	0.1	1	0.2	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C-M	Pyrene	0.1	U	0.1	1	0.2	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C-M	2-Methylnaphthalene	0.2	U	0.2	1	0.2	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C-M	Nitrobenzene-d5	56			1		%
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C-M	2-Fluorobiphenyl	56			1		%
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C-M	4-Terphenyl-d14	92			1		%
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	2-Nitrophenol	20	UJ	20	1	20	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	4-Nitrophenol	10	UJ	10	1	10	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	2,4-Dinitrophenol	20	UJ	20	1	20	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	4,6-Dinitro-o-cresol	20	UJ	20	1	20	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	Pentachlorophenol	20	UJ	20	1	20	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	Phenol	7	UJ	7	1	7	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	2-Methylphenol	6	UJ	6	1	6	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	3-Methylphenol/4-Methylphenol	6	UJ	6	1	6	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	2,4,5-Trichlorophenol	5	UJ	5	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	Carbazole	2	UJ	2	1	5	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	Bis(2-ethylhexyl)phthalate	10	U	5	1	10	ug/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	2-Fluorophenol	27			1		%

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	Phenol-d6	18			1		%
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	Nitrobenzene-d5	51			1		%
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	2-Fluorobiphenyl	48			1		%
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	2,4,6-Tribromophenol	25			1		%
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	8270C	4-Terphenyl-d14	77			1		%
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	5220D	Chemical Oxygen Demand	20	U	20	1	20	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	2540D	Solids, Total Suspended	5	U	5	1	5	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	7470A	Mercury, Total	0.0002	U	0.0002	1	0.0005	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	7470A	Mercury, Dissolved	0.0002	U	0.0002	1	0.5	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Aluminum, Dissolved	0.1	U	0.1	1	0.1	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Antimony, Dissolved	0.05	U	0.05	1	0.05	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Arsenic, Dissolved	0.004	U	0.004	1	0.005	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Beryllium, Dissolved	0.004	U	0.004	1	0.005	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Cadmium, Dissolved	0.005	U	0.005	1	0.005	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Chromium, Dissolved	0.01	U	0.01	1	0.01	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Cobalt, Dissolved	0.02	U	0.02	1	0.02	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Copper, Dissolved	0.01	U	0.01	1	0.01	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Iron, Dissolved	0.05	U	0.05	1	0.05	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Lead, Dissolved	0.01	U	0.01	1	0.05	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Manganese, Dissolved	0.01	U	0.01	1	0.01	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Nickel, Dissolved	0.025	U	0.025	1	0.025	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Selenium, Dissolved	0.01	U	0.01	1	0.005	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Silver, Dissolved	0.01	U	0.01	1	0.007	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Thallium, Dissolved	0.02	U	0.02	1	0.005	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Vanadium, Dissolved	0.01	U	0.01	1	0.01	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Zinc, Dissolved	0.05	U	0.05	1	0.05	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Aluminum, Total	0.1	U	0.1	1	0.1	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Antimony, Total	0.05	U	0.05	1	0.05	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Arsenic, Total	0.004	U	0.004	1	0.005	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Beryllium, Total	0.004	U	0.004	1	0.005	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Cadmium, Total	0.005	U	0.005	1	0.005	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Chromium, Total	0.01	U	0.01	1	0.01	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Cobalt, Total	0.02	U	0.02	1	0.02	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Copper, Total	0.01	U	0.01	1	0.01	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Iron, Total	0.05	U	0.05	1	0.05	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Lead, Total	0.01	U	0.01	1	0.05	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Manganese, Total	0.01	U	0.01	1	0.01	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Nickel, Total	0.025	U	0.025	1	0.025	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Selenium, Total	0.01	U	0.01	1	0.005	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Silver, Total	0.01	U	0.01	1	0.007	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Thallium, Total	0.02	U	0.02	1	0.005	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Vanadium, Total	0.01	U	0.01	1	0.01	mg/l
4MW1S	4MW1S	4/15/2003	L0303389-01	L0303389	6010B	Zinc, Total	0.05	U	0.05	1	0.05	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	9038	Sulfate	10	U	10	1	10	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	2320B	Alkalinity, Total	48		2	1	2	mg CaCO3/L
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	5220D	Chemical Oxygen Demand	20	U	20	1	20	mg/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	2540D	Solids, Total Suspended	6.7		5	1	5	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	9251	Chloride	83		1	1	1	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	9060	Total Organic Carbon	2.9		0.5	1	0.5	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	7470A	Mercury, Total	0.0002	J	0.0002	1	0.0005	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	7470A	Mercury, Dissolved	0.0002	U	0.0002	1	0.5	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Aluminum, Dissolved	0.1	U	0.1	1	0.1	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Antimony, Dissolved	0.05	U	0.05	1	0.05	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Arsenic, Dissolved	0.004	U	0.004	1	0.005	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Barium, Dissolved	0.03		0.01	1	0.01	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Beryllium, Dissolved	0.004	U	0.004	1	0.005	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Cadmium, Dissolved	0.005	U	0.005	1	0.005	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Calcium, Dissolved	18		0.5	1	0.1	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Chromium, Dissolved	0.01	U	0.01	1	0.01	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Cobalt, Dissolved	0.02	U	0.02	1	0.02	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Copper, Dissolved	0.01	U	0.01	1	0.01	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Iron, Dissolved	1.2		0.05	1	0.05	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Lead, Dissolved	0.01	U	0.01	1	0.05	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Magnesium, Dissolved	3.7		0.5	1	0.1	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Manganese, Dissolved	0.15		0.01	1	0.01	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Nickel, Dissolved	0.025	U	0.025	1	0.025	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Selenium, Dissolved	0.01	U	0.01	1	0.005	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Silver, Dissolved	0.01	U	0.01	1	0.007	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Thallium, Dissolved	0.02	U	0.02	1	0.005	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Vanadium, Dissolved	0.01	U	0.01	1	0.01	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Zinc, Dissolved	0.05	U	0.05	1	0.05	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Potassium, Dissolved	3.8		2	1	1	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Sodium, Dissolved	53		1	1	1	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Hardness	60		1.7	1	1.66	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Aluminum, Total	0.1	U	0.1	1	0.1	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Antimony, Total	0.05	U	0.05	1	0.05	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Arsenic, Total	0.004	U	0.004	1	0.005	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Barium, Total	0.03		0.01	1	0.01	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Beryllium, Total	0.004	U	0.004	1	0.005	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Cadmium, Total	0.005	U	0.005	1	0.005	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Calcium, Total	18		0.5	1	0.1	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Chromium, Total	0.01	U	0.01	1	0.01	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Cobalt, Total	0.02	U	0.02	1	0.02	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Copper, Total	0.01	U	0.01	1	0.01	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Iron, Total	2.7		0.05	1	0.05	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Lead, Total	0.01	U	0.01	1	0.05	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Magnesium, Total	3.7		0.5	1	0.1	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Manganese, Total	0.15		0.01	1	0.01	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Nickel, Total	0.025	U	0.025	1	0.025	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Selenium, Total	0.01	U	0.01	1	0.005	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Silver, Total	0.01	U	0.01	1	0.007	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Thallium, Total	0.02	U	0.02	1	0.005	mg/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Vanadium, Total	0.01	U	0.01	1	0.01	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Zinc, Total	0.05	U	0.05	1	0.05	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Potassium, Total	3.5		2	1	1	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	6010B	Sodium, Total	52		1	1	1	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	2540C	Solids, Total Dissolved	220		10	1	10	mg/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C-M	Acenaphthene	0.1	U	0.1	1	0.2	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C-M	2-Chloronaphthalene	0.1	U	0.1	1	0.2	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C-M	Fluoranthene	0.1	U	0.1	1	0.2	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C-M	Naphthalene	0.1	U	0.1	1	0.2	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C-M	Benzo(a)anthracene	0.1	U	0.1	1	0.2	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C-M	Benzo(a)pyrene	0.1	U	0.1	1	0.2	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C-M	Benzo(b)fluoranthene	0.1	U	0.1	1	0.2	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C-M	Benzo(k)fluoranthene	0.1	U	0.1	1	0.2	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C-M	Chrysene	0.1	U	0.1	1	0.2	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C-M	Acenaphthylene	0.1	U	0.1	1	0.2	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C-M	Anthracene	0.1	U	0.1	1	0.2	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C-M	Benzo(ghi)perylene	0.1	U	0.1	1	0.2	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C-M	Fluorene	0.1	U	0.1	1	0.2	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C-M	Phenanthrene	0.1	U	0.1	1	0.2	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C-M	Dibenzo(a,h)anthracene	0.1	U	0.1	1	0.2	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C-M	Indeno(1,2,3-cd)Pyrene	0.1	U	0.1	1	0.2	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C-M	Pyrene	0.1	U	0.1	1	0.2	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C-M	2-Methylnaphthalene	0.2	U	0.2	1	0.2	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C-M	Nitrobenzene-d5	71			1		%
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C-M	2-Fluorobiphenyl	73			1		%
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C-M	4-Terphenyl-d14	112			1		%
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	1,2,4-Trichlorobenzene	5	UJ	5	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	Hexachlorobenzene	5	UJ	5	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	Bis(2-chloroethyl)ether	5	UJ	5	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	1,2-Dichlorobenzene	5	UJ	5	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	1,3-Dichlorobenzene	5	UJ	5	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	1,4-Dichlorobenzene	5	UJ	5	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	3,3'-Dichlorobenzidine	50	UJ	50	1	50	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	2,4-Dinitrotoluene	6	UJ	6	1	6	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	2,6-Dinitrotoluene	5	UJ	5	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	4-Chlorophenyl phenyl ether	5	UJ	5	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	4-Bromophenyl phenyl ether	5	UJ	5	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	Bis(2-chloroisopropyl)ether	5	UJ	5	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	Bis(2-chloroethoxy)methane	5	UJ	5	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	Hexachlorobutadiene	10	UJ	10	1	10	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	Hexachlorocyclopentadiene	10	UJ	10	1	10	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	Hexachloroethane	5	UJ	5	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	Isophorone	5	UJ	5	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	Nitrobenzene	5	UJ	5	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	NDPA/DPA	15	UJ	15	1	15	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	n-Nitrosodi-n-propylamine	5	UJ	5	1	5	ug/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	Bis(2-ethylhexyl)phthalate	6.8	U	6.8	1	10	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	Butyl benzyl phthalate	5	UJ	5	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	Di-n-butylphthalate	5	UJ	5	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	Di-n-octylphthalate	5	UJ	5	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	Diethyl phthalate	5	UJ	5	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	Dimethyl phthalate	5	UJ	5	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	4-Chloroaniline	5	UJ	5	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	2-Nitroaniline	5	UJ	5	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	3-Nitroaniline	5	UJ	5	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	4-Nitroaniline	7	UJ	7	1	7	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	Dibenzofuran	5	UJ	5	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	2,4,6-Trichlorophenol	5	UJ	5	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	p-Chloro-m-cresol	5	UJ	5	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	2-Chlorophenol	6	UJ	6	1	6	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	2,4-Dichlorophenol	10	UJ	10	1	10	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	2,4-Dimethylphenol	10	UJ	10	1	10	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	2-Nitrophenol	20	UJ	20	1	20	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	4-Nitrophenol	10	UJ	10	1	10	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	2,4-Dinitrophenol	20	UJ	20	1	20	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	4,6-Dinitro-o-cresol	20	UJ	20	1	20	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	Pentachlorophenol	20	UJ	20	1	20	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	Phenol	7	UJ	7	1	7	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	2-Methylphenol	6	UJ	6	1	6	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	3-Methylphenol/4-Methylphenol	6	UJ	6	1	6	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	2,4,5-Trichlorophenol	5	UJ	5	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	Carbazole	2	UJ	2	1	5	ug/l
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	2-Fluorophenol	36			1		%
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	Phenol-d6	28			1		%
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	Nitrobenzene-d5	74			1		%
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	2-Fluorobiphenyl	68			1		%
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	2,4,6-Tribromophenol	38			1		%
SG-18	2-SW18-01	4/11/2003	L0303295-06	L0303295	8270C	4-Terphenyl-d14	104			1		%
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	9038	Sulfate	10	U	10	1	10	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	2320B	Alkalinity, Total	73		2	1	2	mg CaCO3/L
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	5220D	Chemical Oxygen Demand	32		20	1	20	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	2540D	Solids, Total Suspended	24		5	1	5	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	2340B	Hardness	85		1.7	1	0.66	mg CaCO3/L
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	9251	Chloride	96		5	5	1	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	9060	Total Organic Carbon	7.3		5	10	0.5	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	7470A	Mercury, Total	0.0002	U	0.0002	1	0.0005	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	7470A	Mercury, Dissolved	0.0002	U	0.0002	1	0.5	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Aluminum, Dissolved	0.1	U	0.1	1	0.1	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Antimony, Dissolved	0.05	U	0.05	1	0.05	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Arsenic, Dissolved	0.004	U	0.004	1	0.005	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Barium, Dissolved	0.04		0.01	1	0.01	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Beryllium, Dissolved	0.004	U	0.004	1	0.005	mg/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Cadmium, Dissolved	0.005	U	0.005	1	0.005	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Chromium, Dissolved	0.01	U	0.01	1	0.01	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Cobalt, Dissolved	0.02	U	0.02	1	0.02	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Copper, Dissolved	0.01	U	0.01	1	0.01	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Iron, Dissolved	5.9		0.05	1	0.05	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Lead, Dissolved	0.01	U	0.01	1	0.05	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Manganese, Dissolved	0.22		0.01	1	0.01	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Nickel, Dissolved	0.025	U	0.025	1	0.025	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Selenium, Dissolved	0.01	U	0.01	1	0.005	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Silver, Dissolved	0.01	U	0.01	1	0.007	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Thallium, Dissolved	0.02	U	0.02	1	0.005	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Vanadium, Dissolved	0.01	U	0.01	1	0.01	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Zinc, Dissolved	0.06		0.05	1	0.05	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Calcium, Dissolved	27		0.5	1	0.5	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Magnesium, Dissolved	4.3		0.5	1	0.1	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Potassium, Dissolved	4.7		2	1	1	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Sodium, Dissolved	60		1	1	1	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Aluminum, Total	0.1	U	0.1	1	0.1	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Antimony, Total	0.05	U	0.05	1	0.05	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Arsenic, Total	0.004	U	0.004	1	0.005	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Barium, Total	0.04		0.01	1	0.01	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Beryllium, Total	0.004	U	0.004	1	0.005	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Cadmium, Total	0.005	U	0.005	1	0.005	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Chromium, Total	0.01	U	0.01	1	0.01	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Cobalt, Total	0.02	U	0.02	1	0.02	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Copper, Total	0.01	U	0.01	1	0.01	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Iron, Total	10		0.05	1	0.05	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Lead, Total	0.01	U	0.01	1	0.05	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Manganese, Total	0.23		0.01	1	0.01	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Nickel, Total	0.025	U	0.025	1	0.025	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Selenium, Total	0.01	U	0.01	1	0.005	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Silver, Total	0.01	U	0.01	1	0.007	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Thallium, Total	0.02	U	0.02	1	0.005	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Vanadium, Total	0.01	U	0.01	1	0.01	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Zinc, Total	0.12		0.05	1	0.05	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Calcium, Total	27		0.5	1	0.5	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Magnesium, Total	4.3		0.5	1	0.1	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Potassium, Total	4.3		2	1	1	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	6010B	Sodium, Total	60		1	1	1	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	2540C	Solids, Total Dissolved	270		10	1	10	mg/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C-M	Acenaphthene	1.6		0.1	1	0.2	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C-M	2-Chloronaphthalene	0.1	U	0.1	1	0.2	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C-M	Fluoranthene	0.12		0.1	1	0.2	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C-M	Naphthalene	4.6		0.1	1	0.2	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C-M	Benzo(a)anthracene	0.1	U	0.1	1	0.2	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C-M	Benzo(a)pyrene	0.1	U	0.1	1	0.2	ug/l

TABLE IV
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AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C-M	Benzo(b)fluoranthene	0.1	U	0.1	1	0.2	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C-M	Benzo(k)fluoranthene	0.1	U	0.1	1	0.2	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C-M	Chrysene	0.1	U	0.1	1	0.2	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C-M	Acenaphthylene	0.1	U	0.1	1	0.2	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C-M	Anthracene	0.1	U	0.1	1	0.2	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C-M	Benzo(ghi)perylene	0.1	U	0.1	1	0.2	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C-M	Fluorene	0.85		0.1	1	0.2	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C-M	Phenanthrene	0.48		0.1	1	0.2	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C-M	Dibenzo(a,h)anthracene	0.1	U	0.1	1	0.2	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C-M	Indeno(1,2,3-cd)Pyrene	0.1	U	0.1	1	0.2	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C-M	Pyrene	0.1	U	0.1	1	0.2	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C-M	2-Methylnaphthalene	0.83		0.2	1	0.2	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C-M	Nitrobenzene-d5	70			1		%
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C-M	2-Fluorobiphenyl	72			1		%
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C-M	4-Terphenyl-d14	88			1		%
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	1,2,4-Trichlorobenzene	5	U	5	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	Hexachlorobenzene	5	U	5	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	Bis(2-chloroethyl)ether	5	U	5	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	1,2-Dichlorobenzene	5	U	5	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	1,3-Dichlorobenzene	5	U	5	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	1,4-Dichlorobenzene	5	U	5	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	3,3'-Dichlorobenzidine	50	U	50	1	50	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	2,4-Dinitrotoluene	6	U	6	1	6	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	2,6-Dinitrotoluene	5	U	5	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	4-Chlorophenyl phenyl ether	5	U	5	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	4-Bromophenyl phenyl ether	5	U	5	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	Bis(2-chloroisopropyl)ether	5	U	5	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	Bis(2-chloroethoxy)methane	5	U	5	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	Hexachlorobutadiene	10	U	10	1	10	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	Hexachlorocyclopentadiene	10	U	10	1	10	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	Hexachloroethane	5	U	5	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	Isophorone	5	U	5	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	Nitrobenzene	5	U	5	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	NDPA/DPA	15	U	15	1	15	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	n-Nitrosodi-n-propylamine	5	U	5	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	Bis(2-ethylhexyl)phthalate	5	U	5	1	10	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	Butyl benzyl phthalate	5	U	5	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	Di-n-butylphthalate	5	U	5	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	Di-n-octylphthalate	5	U	5	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	Diethyl phthalate	5	U	5	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	Dimethyl phthalate	5	U	5	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	4-Chloroaniline	5	U	5	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	2-Nitroaniline	5	U	5	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	3-Nitroaniline	5	U	5	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	4-Nitroaniline	7	U	7	1	7	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	Dibenzofuran	5	U	5	1	5	ug/l

TABLE IV
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AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	2,4,6-Trichlorophenol	5	U	5	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	p-Chloro-m-cresol	5	U	5	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	2-Chlorophenol	6	U	6	1	6	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	2,4-Dichlorophenol	10	U	10	1	10	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	2,4-Dimethylphenol	10	U	10	1	10	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	2-Nitrophenol	20	U	20	1	20	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	4-Nitrophenol	10	U	10	1	10	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	2,4-Dinitrophenol	20	U	20	1	20	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	4,6-Dinitro-o-cresol	20	U	20	1	20	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	Pentachlorophenol	20	U	20	1	20	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	Phenol	7	U	7	1	7	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	2-Methylphenol	6	U	6	1	6	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	3-Methylphenol/4-Methylphenol	6	U	6	1	6	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	2,4,5-Trichlorophenol	5	U	5	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	Carbazole	2	U	2	1	5	ug/l
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	2-Fluorophenol	36			1		%
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	Phenol-d6	24			1		%
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	Nitrobenzene-d5	68			1		%
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	2-Fluorobiphenyl	65			1		%
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	2,4,6-Tribromophenol	38			1		%
SG-19	2-SW19-01	4/8/2003	L0303197-03	L0303197	8270C	4-Terphenyl-d14	77			1		%
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	9038	Sulfate	10		10	1	10	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	2320B	Alkalinity, Total	28		2	1	2	mg CaCO3/L
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	5220D	Chemical Oxygen Demand	20	U	20	1	20	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	2540D	Solids, Total Suspended	5	U	5	1	5	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	2340B	Hardness	48		1.7	1	0.66	mg CaCO3/L
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	9251	Chloride	65		1	1	1	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	9060	Total Organic Carbon	3.1		2	4	0.5	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	7470A	Mercury, Total	0.0002	J	0.0002	1	0.0005	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	7470A	Mercury, Dissolved	0.0002	U	0.0002	1	0.5	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Aluminum, Dissolved	0.1	U	0.1	1	0.1	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Antimony, Dissolved	0.05	U	0.05	1	0.05	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Arsenic, Dissolved	0.004	U	0.004	1	0.005	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Barium, Dissolved	0.01		0.01	1	0.01	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Beryllium, Dissolved	0.004	U	0.004	1	0.005	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Cadmium, Dissolved	0.005	U	0.005	1	0.005	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Chromium, Dissolved	0.01	U	0.01	1	0.01	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Cobalt, Dissolved	0.02	U	0.02	1	0.02	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Copper, Dissolved	0.01	U	0.01	1	0.01	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Iron, Dissolved	0.22		0.05	1	0.05	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Lead, Dissolved	0.01	U	0.01	1	0.05	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Manganese, Dissolved	0.03		0.01	1	0.01	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Nickel, Dissolved	0.025	U	0.025	1	0.025	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Selenium, Dissolved	0.01	U	0.01	1	0.005	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Silver, Dissolved	0.01	U	0.01	1	0.007	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Thallium, Dissolved	0.02	U	0.02	1	0.005	mg/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Vanadium, Dissolved	0.01	U	0.01	1	0.01	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Zinc, Dissolved	0.05	U	0.05	1	0.05	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Calcium, Dissolved	15		0.5	1	0.5	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Magnesium, Dissolved	3.3		0.5	1	0.1	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Potassium, Dissolved	3.6		2	1	1	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Sodium, Dissolved	49		1	1	1	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Aluminum, Total	0.1	U	0.1	1	0.1	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Antimony, Total	0.05	U	0.05	1	0.05	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Arsenic, Total	0.004	U	0.004	1	0.005	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Barium, Total	0.02		0.01	1	0.01	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Beryllium, Total	0.004	U	0.004	1	0.005	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Cadmium, Total	0.005	U	0.005	1	0.005	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Chromium, Total	0.01	U	0.01	1	0.01	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Cobalt, Total	0.02	U	0.02	1	0.02	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Copper, Total	0.01	U	0.01	1	0.01	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Iron, Total	0.44		0.05	1	0.05	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Lead, Total	0.01	U	0.01	1	0.05	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Manganese, Total	0.04		0.01	1	0.01	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Nickel, Total	0.025	U	0.025	1	0.025	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Selenium, Total	0.01	U	0.01	1	0.005	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Silver, Total	0.01	U	0.01	1	0.007	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Thallium, Total	0.02	U	0.02	1	0.005	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Vanadium, Total	0.01	U	0.01	1	0.01	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Zinc, Total	0.05	U	0.05	1	0.05	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Calcium, Total	14		0.5	1	0.5	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Magnesium, Total	2.9		0.5	1	0.1	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Potassium, Total	3		2	1	1	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	6010B	Sodium, Total	44		1	1	1	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	2540C	Solids, Total Dissolved	180		10	1	10	mg/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C-M	Acenaphthene	0.1	U	0.1	1	0.2	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C-M	2-Chloronaphthalene	0.1	U	0.1	1	0.2	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C-M	Fluoranthene	0.1	UJ	0.1	1	0.2	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C-M	Naphthalene	0.1	U	0.1	1	0.2	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C-M	Benzo(a)anthracene	0.1	U	0.1	1	0.2	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C-M	Benzo(a)pyrene	0.1	U	0.1	1	0.2	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C-M	Benzo(b)fluoranthene	0.1	U	0.1	1	0.2	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C-M	Benzo(k)fluoranthene	0.1	U	0.1	1	0.2	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C-M	Chrysene	0.1	U	0.1	1	0.2	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C-M	Acenaphthylene	0.1	U	0.1	1	0.2	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C-M	Anthracene	0.1	U	0.1	1	0.2	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C-M	Benzo(ghi)perylene	0.1	U	0.1	1	0.2	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C-M	Fluorene	0.1	U	0.1	1	0.2	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C-M	Phenanthrene	0.1	U	0.1	1	0.2	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C-M	Dibenzo(a,h)anthracene	0.1	U	0.1	1	0.2	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C-M	Indeno(1,2,3-cd)Pyrene	0.1	U	0.1	1	0.2	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C-M	Pyrene	0.1	U	0.1	1	0.2	ug/l

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SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C-M	2-Methylnaphthalene	0.2	UJ	0.2	1	0.2	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C-M	Nitrobenzene-d5	59			1		%
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C-M	2-Fluorobiphenyl	63			1		%
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C-M	4-Terphenyl-d14	79			1		%
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	1,2,4-Trichlorobenzene	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	Hexachlorobenzene	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	Bis(2-chloroethyl)ether	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	1,2-Dichlorobenzene	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	1,3-Dichlorobenzene	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	1,4-Dichlorobenzene	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	3,3'-Dichlorobenzidine	50	UJ	50	1	50	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	2,4-Dinitrotoluene	6	UJ	6	1	6	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	2,6-Dinitrotoluene	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	4-Chlorophenyl phenyl ether	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	4-Bromophenyl phenyl ether	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	Bis(2-chloroisopropyl)ether	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	Bis(2-chloroethoxy)methane	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	Hexachlorobutadiene	10	UJ	10	1	10	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	Hexachlorocyclopentadiene	10	UJ	10	1	10	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	Hexachloroethane	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	Isophorone	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	Nitrobenzene	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	NDPA/DPA	15	UJ	15	1	15	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	n-Nitrosodi-n-propylamine	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	Bis(2-ethylhexyl)phthalate	5	UJ	5	1	10	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	Butyl benzyl phthalate	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	Di-n-butylphthalate	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	Di-n-octylphthalate	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	Diethyl phthalate	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	Dimethyl phthalate	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	4-Chloroaniline	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	2-Nitroaniline	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	3-Nitroaniline	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	4-Nitroaniline	7	UJ	7	1	7	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	Dibenzofuran	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	2,4,6-Trichlorophenol	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	p-Chloro-m-cresol	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	2-Chlorophenol	6	UJ	6	1	6	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	2,4-Dichlorophenol	10	UJ	10	1	10	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	2,4-Dimethylphenol	10	UJ	10	1	10	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	2-Nitrophenol	20	UJ	20	1	20	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	4-Nitrophenol	10	UJ	10	1	10	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	2,4-Dinitrophenol	20	UJ	20	1	20	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	4,6-Dinitro-o-cresol	20	UJ	20	1	20	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	Pentachlorophenol	20	UJ	20	1	20	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	Phenol	7	UJ	7	1	7	ug/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	2-Methylphenol	6	UJ	6	1	6	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	3-Methylphenol/4-Methylphenol	6	UJ	6	1	6	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	2,4,5-Trichlorophenol	5	UJ	5	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	Carbazole	2	UJ	2	1	5	ug/l
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	2-Fluorophenol	30			1		%
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	Phenol-d6	21			1		%
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	Nitrobenzene-d5	57			1		%
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	2-Fluorobiphenyl	54			1		%
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	2,4,6-Tribromophenol	68			1		%
SG-20	SG-20	4/8/2003	L0303151-03	L0303151	8270C	4-Terphenyl-d14	77			1		%
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	9038	Sulfate	11		10	1	10	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	2320B	Alkalinity, Total	32		2	1	2	mg CaCO3/L
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	5220D	Chemical Oxygen Demand	20	U	20	1	20	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	2540D	Solids, Total Suspended	5	U	5	1	5	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	9251	Chloride	71		1	1	1	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	9060	Total Organic Carbon	2.8		0.5	1	0.5	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	7470A	Mercury, Total	0.0002	J	0.0002	1	0.0005	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	7470A	Mercury, Dissolved	0.0002	U	0.0002	1	0.5	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Aluminum, Dissolved	0.1	U	0.1	1	0.1	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Antimony, Dissolved	0.05	U	0.05	1	0.05	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Arsenic, Dissolved	0.004	U	0.004	1	0.005	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Barium, Dissolved	0.02		0.01	1	0.01	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Beryllium, Dissolved	0.004	U	0.004	1	0.005	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Cadmium, Dissolved	0.005	U	0.005	1	0.005	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Calcium, Dissolved	14		0.5	1	0.1	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Chromium, Dissolved	0.01	U	0.01	1	0.01	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Cobalt, Dissolved	0.02	U	0.02	1	0.02	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Copper, Dissolved	0.01	U	0.01	1	0.01	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Iron, Dissolved	0.67		0.05	1	0.05	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Lead, Dissolved	0.01	U	0.01	1	0.05	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Magnesium, Dissolved	3.2		0.5	1	0.1	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Manganese, Dissolved	0.08		0.01	1	0.01	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Nickel, Dissolved	0.025	U	0.025	1	0.025	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Selenium, Dissolved	0.01	U	0.01	1	0.005	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Silver, Dissolved	0.01	U	0.01	1	0.007	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Thallium, Dissolved	0.02	U	0.02	1	0.005	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Vanadium, Dissolved	0.01	U	0.01	1	0.01	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Zinc, Dissolved	0.05	U	0.05	1	0.05	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Potassium, Dissolved	3.3		2	1	1	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Sodium, Dissolved	45		1	1	1	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Hardness	49		1.7	1	1.66	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Aluminum, Total	0.1	U	0.1	1	0.1	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Antimony, Total	0.05	U	0.05	1	0.05	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Arsenic, Total	0.004	U	0.004	1	0.005	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Barium, Total	0.02		0.01	1	0.01	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Beryllium, Total	0.004	U	0.004	1	0.005	mg/l

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ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Cadmium, Total	0.005	U	0.005	1	0.005	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Calcium, Total	14		0.5	1	0.1	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Chromium, Total	0.01	U	0.01	1	0.01	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Cobalt, Total	0.02	U	0.02	1	0.02	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Copper, Total	0.01	U	0.01	1	0.01	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Iron, Total	1.1		0.05	1	0.05	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Lead, Total	0.01	U	0.01	1	0.05	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Magnesium, Total	3.2		0.5	1	0.1	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Manganese, Total	0.08		0.01	1	0.01	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Nickel, Total	0.025	U	0.025	1	0.025	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Selenium, Total	0.01	U	0.01	1	0.005	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Silver, Total	0.01	U	0.01	1	0.007	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Thallium, Total	0.02	U	0.02	1	0.005	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Vanadium, Total	0.01	U	0.01	1	0.01	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Zinc, Total	0.05	U	0.05	1	0.05	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Potassium, Total	2.8		2	1	1	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	6010B	Sodium, Total	44		1	1	1	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	2540C	Solids, Total Dissolved	190		10	1	10	mg/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C-M	Acenaphthene	0.1	U	0.1	1	0.2	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C-M	2-Chloronaphthalene	0.1	U	0.1	1	0.2	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C-M	Fluoranthene	0.1	U	0.1	1	0.2	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C-M	Naphthalene	0.1	U	0.1	1	0.2	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C-M	Benzo(a)anthracene	0.1	U	0.1	1	0.2	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C-M	Benzo(a)pyrene	0.1	U	0.1	1	0.2	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C-M	Benzo(b)fluoranthene	0.1	U	0.1	1	0.2	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C-M	Benzo(k)fluoranthene	0.1	U	0.1	1	0.2	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C-M	Chrysene	0.1	U	0.1	1	0.2	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C-M	Acenaphthylene	0.1	U	0.1	1	0.2	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C-M	Anthracene	0.1	U	0.1	1	0.2	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C-M	Benzo(ghi)perylene	0.1	U	0.1	1	0.2	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C-M	Fluorene	0.1	U	0.1	1	0.2	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C-M	Phenanthrene	0.1	U	0.1	1	0.2	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C-M	Dibenzo(a,h)anthracene	0.1	U	0.1	1	0.2	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C-M	Indeno(1,2,3-cd)Pyrene	0.1	U	0.1	1	0.2	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C-M	Pyrene	0.1	U	0.1	1	0.2	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C-M	2-Methylnaphthalene	0.2	U	0.2	1	0.2	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C-M	Nitrobenzene-d5	80			1		%
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C-M	2-Fluorobiphenyl	79			1		%
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C-M	4-Terphenyl-d14	101			1		%
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	1,2,4-Trichlorobenzene	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	Hexachlorobenzene	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	Bis(2-chloroethyl)ether	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	1,2-Dichlorobenzene	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	1,3-Dichlorobenzene	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	1,4-Dichlorobenzene	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	3,3'-Dichlorobenzidine	50	UJ	50	1	50	ug/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	2,4-Dinitrotoluene	6	UJ	6	1	6	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	2,6-Dinitrotoluene	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	4-Chlorophenyl phenyl ether	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	4-Bromophenyl phenyl ether	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	Bis(2-chloroisopropyl)ether	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	Bis(2-chloroethoxy)methane	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	Hexachlorobutadiene	10	UJ	10	1	10	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	Hexachlorocyclopentadiene	10	UJ	10	1	10	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	Hexachloroethane	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	Isophorone	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	Nitrobenzene	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	NDPA/DPA	15	UJ	15	1	15	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	n-Nitrosodi-n-propylamine	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	Bis(2-ethylhexyl)phthalate	7.2	U	7.2	1	10	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	Butyl benzyl phthalate	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	Di-n-butylphthalate	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	Di-n-octylphthalate	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	Diethyl phthalate	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	Dimethyl phthalate	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	4-Chloroaniline	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	2-Nitroaniline	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	3-Nitroaniline	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	4-Nitroaniline	7	UJ	7	1	7	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	Dibenzofuran	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	2,4,6-Trichlorophenol	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	p-Chloro-m-cresol	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	2-Chlorophenol	6	UJ	6	1	6	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	2,4-Dichlorophenol	10	UJ	10	1	10	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	2,4-Dimethylphenol	10	UJ	10	1	10	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	2-Nitrophenol	20	UJ	20	1	20	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	4-Nitrophenol	10	UJ	10	1	10	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	2,4-Dinitrophenol	20	UJ	20	1	20	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	4,6-Dinitro-o-cresol	20	UJ	20	1	20	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	Pentachlorophenol	20	UJ	20	1	20	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	Phenol	7	UJ	7	1	7	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	2-Methylphenol	6	UJ	6	1	6	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	3-Methylphenol/4-Methylphenol	6	UJ	6	1	6	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	2,4,5-Trichlorophenol	5	UJ	5	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	Carbazole	2	UJ	2	1	5	ug/l
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	2-Fluorophenol	34			1		%
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	Phenol-d6	30			1		%
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	Nitrobenzene-d5	85			1		%
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	2-Fluorobiphenyl	76			1		%
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	2,4,6-Tribromophenol	26			1		%
SG-21	2-SW21-01 MS/MSD	4/11/2003	L0303295-01	L0303295	8270C	4-Terphenyl-d14	98			1		%
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	9038	Sulfate	12		10	1	10	mg/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	2320B	Alkalinity, Total	66		2	1	2	mg CaCO3/L
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	5220D	Chemical Oxygen Demand	23		20	1	20	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	2540D	Solids, Total Suspended	28		5	1	5	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	9251	Chloride	74		1	1	1	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	9060	Total Organic Carbon	3.8		0.5	1	0.5	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	7470A	Mercury, Total	0.0002	J	0.0002	1	0.0005	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	7470A	Mercury, Dissolved	0.0002	U	0.0002	1	0.5	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Aluminum, Dissolved	0.1	U	0.1	1	0.1	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Antimony, Dissolved	0.05	U	0.05	1	0.05	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Arsenic, Dissolved	0.004	U	0.004	1	0.005	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Barium, Dissolved	0.05		0.01	1	0.01	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Beryllium, Dissolved	0.004	U	0.004	1	0.005	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Cadmium, Dissolved	0.005	U	0.005	1	0.005	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Calcium, Dissolved	25		0.5	1	0.1	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Chromium, Dissolved	0.01	U	0.01	1	0.01	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Cobalt, Dissolved	0.02	U	0.02	1	0.02	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Copper, Dissolved	0.01	U	0.01	1	0.01	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Iron, Dissolved	2.6		0.05	1	0.05	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Lead, Dissolved	0.01	U	0.01	1	0.05	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Magnesium, Dissolved	3.9		0.5	1	0.1	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Manganese, Dissolved	0.29		0.01	1	0.01	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Nickel, Dissolved	0.025	U	0.025	1	0.025	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Selenium, Dissolved	0.01	U	0.01	1	0.005	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Silver, Dissolved	0.01	U	0.01	1	0.007	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Thallium, Dissolved	0.02	U	0.02	1	0.005	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Vanadium, Dissolved	0.01	U	0.01	1	0.01	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Zinc, Dissolved	0.06		0.05	1	0.05	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Potassium, Dissolved	4		2	1	1	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Sodium, Dissolved	46		1	1	1	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Hardness	83		1.7	1	1.66	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Aluminum, Total	0.13		0.1	1	0.1	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Antimony, Total	0.05	U	0.05	1	0.05	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Arsenic, Total	0.004	U	0.004	1	0.005	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Barium, Total	0.05		0.01	1	0.01	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Beryllium, Total	0.004	U	0.004	1	0.005	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Cadmium, Total	0.005	U	0.005	1	0.005	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Calcium, Total	26		0.5	1	0.1	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Chromium, Total	0.01	U	0.01	1	0.01	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Cobalt, Total	0.02	U	0.02	1	0.02	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Copper, Total	0.01	U	0.01	1	0.01	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Iron, Total	8.3		0.05	1	0.05	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Lead, Total	0.01	U	0.01	1	0.05	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Magnesium, Total	4.1		0.5	1	0.1	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Manganese, Total	0.3		0.01	1	0.01	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Nickel, Total	0.025	U	0.025	1	0.025	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Selenium, Total	0.01	U	0.01	1	0.005	mg/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Silver, Total	0.01	U	0.01	1	0.007	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Thallium, Total	0.02	U	0.02	1	0.005	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Vanadium, Total	0.01	U	0.01	1	0.01	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Zinc, Total	0.08		0.05	1	0.05	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Potassium, Total	4		2	1	1	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	6010B	Sodium, Total	47		1	1	1	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	2540C	Solids, Total Dissolved	230		10	1	10	mg/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C-M	Acenaphthene	0.1	U	0.1	1	0.2	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C-M	2-Chloronaphthalene	0.1	U	0.1	1	0.2	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C-M	Fluoranthene	0.1	U	0.1	1	0.2	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C-M	Naphthalene	0.1	U	0.1	1	0.2	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C-M	Benzo(a)anthracene	0.1	U	0.1	1	0.2	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C-M	Benzo(a)pyrene	0.1	U	0.1	1	0.2	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C-M	Benzo(b)fluoranthene	0.1	U	0.1	1	0.2	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C-M	Benzo(k)fluoranthene	0.1	U	0.1	1	0.2	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C-M	Chrysene	0.1	U	0.1	1	0.2	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C-M	Acenaphthylene	0.1	U	0.1	1	0.2	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C-M	Anthracene	0.1	U	0.1	1	0.2	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C-M	Benzo(ghi)perylene	0.1	U	0.1	1	0.2	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C-M	Fluorene	0.1	U	0.1	1	0.2	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C-M	Phenanthrene	0.1	U	0.1	1	0.2	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C-M	Dibenzo(a,h)anthracene	0.1	U	0.1	1	0.2	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C-M	Indeno(1,2,3-cd)Pyrene	0.1	U	0.1	1	0.2	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C-M	Pyrene	0.1	U	0.1	1	0.2	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C-M	2-Methylnaphthalene	0.2	U	0.2	1	0.2	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C-M	Nitrobenzene-d5	67			1		%
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C-M	2-Fluorobiphenyl	67			1		%
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C-M	4-Terphenyl-d14	106			1		%
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	1,2,4-Trichlorobenzene	5	UJ	5	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	Hexachlorobenzene	5	UJ	5	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	Bis(2-chloroethyl)ether	5	UJ	5	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	1,2-Dichlorobenzene	5	UJ	5	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	1,3-Dichlorobenzene	5	UJ	5	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	1,4-Dichlorobenzene	5	UJ	5	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	3,3'-Dichlorobenzidine	50	UJ	50	1	50	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	2,4-Dinitrotoluene	6	UJ	6	1	6	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	2,6-Dinitrotoluene	5	UJ	5	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	4-Chlorophenyl phenyl ether	5	UJ	5	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	4-Bromophenyl phenyl ether	5	UJ	5	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	Bis(2-chloroisopropyl)ether	5	UJ	5	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	Bis(2-chloroethoxy)methane	5	UJ	5	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	Hexachlorobutadiene	10	UJ	10	1	10	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	Hexachlorocyclopentadiene	10	UJ	10	1	10	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	Hexachloroethane	5	UJ	5	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	Isophorone	5	UJ	5	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	Nitrobenzene	5	UJ	5	1	5	ug/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	NDPA/DPA	15	UJ	15	1	15	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	n-Nitrosodi-n-propylamine	5	UJ	5	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	Bis(2-ethylhexyl)phthalate	6.7	U	6.7	1	10	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	Butyl benzyl phthalate	5	UJ	5	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	Di-n-butylphthalate	5	UJ	5	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	Di-n-octylphthalate	5	UJ	5	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	Diethyl phthalate	5	UJ	5	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	Dimethyl phthalate	5	UJ	5	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	4-Chloroaniline	5	UJ	5	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	2-Nitroaniline	5	UJ	5	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	3-Nitroaniline	5	UJ	5	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	4-Nitroaniline	7	UJ	7	1	7	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	Dibenzofuran	5	UJ	5	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	2,4,6-Trichlorophenol	5	UJ	5	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	p-Chloro-m-cresol	5	UJ	5	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	2-Chlorophenol	6	UJ	6	1	6	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	2,4-Dichlorophenol	10	UJ	10	1	10	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	2,4-Dimethylphenol	10	UJ	10	1	10	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	2-Nitrophenol	20	UJ	20	1	20	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	4-Nitrophenol	10	UJ	10	1	10	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	2,4-Dinitrophenol	20	UJ	20	1	20	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	4,6-Dinitro-o-cresol	20	UJ	20	1	20	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	Pentachlorophenol	20	UJ	20	1	20	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	Phenol	7	UJ	7	1	7	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	2-Methylphenol	6	UJ	6	1	6	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	3-Methylphenol/4-Methylphenol	6	UJ	6	1	6	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	2,4,5-Trichlorophenol	5	UJ	5	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	Carbazole	2	UJ	2	1	5	ug/l
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	2-Fluorophenol	36			1		%
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	Phenol-d6	27			1		%
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	Nitrobenzene-d5	68			1		%
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	2-Fluorobiphenyl	63			1		%
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	2,4,6-Tribromophenol	35			1		%
SG-22	2-SW22-01	4/11/2003	L0303295-02	L0303295	8270C	4-Terphenyl-d14	100			1		%
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	9038	Sulfate	10	U	10	1	10	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	2320B	Alkalinity, Total	47		2	1	2	mg CaCO3/L
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	5220D	Chemical Oxygen Demand	20	U	20	1	20	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	2540D	Solids, Total Suspended	9.5		5	1	5	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	9251	Chloride	53		1	1	1	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	9060	Total Organic Carbon	3.5		0.5	1	0.5	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	7470A	Mercury, Total	0.0002	J	0.0002	1	0.0005	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	7470A	Mercury, Dissolved	0.0002	U	0.0002	1	0.5	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Aluminum, Dissolved	0.1	U	0.1	1	0.1	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Antimony, Dissolved	0.05	U	0.05	1	0.05	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Arsenic, Dissolved	0.004	U	0.004	1	0.005	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Barium, Dissolved	0.04		0.01	1	0.01	mg/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Beryllium, Dissolved	0.004	U	0.004	1	0.005	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Cadmium, Dissolved	0.005	U	0.005	1	0.005	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Calcium, Dissolved	17		0.5	1	0.1	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Chromium, Dissolved	0.01	U	0.01	1	0.01	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Cobalt, Dissolved	0.02	U	0.02	1	0.02	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Copper, Dissolved	0.01	U	0.01	1	0.01	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Iron, Dissolved	6.4		0.05	1	0.05	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Lead, Dissolved	0.01	U	0.01	1	0.05	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Magnesium, Dissolved	3.1		0.5	1	0.1	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Manganese, Dissolved	0.34		0.01	1	0.01	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Nickel, Dissolved	0.025	U	0.025	1	0.025	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Selenium, Dissolved	0.01	U	0.01	1	0.005	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Silver, Dissolved	0.01	U	0.01	1	0.007	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Thallium, Dissolved	0.02	U	0.02	1	0.005	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Vanadium, Dissolved	0.01	U	0.01	1	0.01	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Zinc, Dissolved	0.25		0.05	1	0.05	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Potassium, Dissolved	3		2	1	1	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Sodium, Dissolved	37		1	1	1	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Hardness	37		1.7	1	1.66	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Aluminum, Total	0.1	U	0.1	1	0.1	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Antimony, Total	0.05	U	0.05	1	0.05	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Arsenic, Total	0.004	U	0.004	1	0.005	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Barium, Total	0.03		0.01	1	0.01	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Beryllium, Total	0.004	U	0.004	1	0.005	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Cadmium, Total	0.005	U	0.005	1	0.005	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Calcium, Total	11		0.5	1	0.1	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Chromium, Total	0.01	U	0.01	1	0.01	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Cobalt, Total	0.02	U	0.02	1	0.02	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Copper, Total	0.01	U	0.01	1	0.01	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Iron, Total	2.9		0.05	1	0.05	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Lead, Total	0.01	U	0.01	1	0.05	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Magnesium, Total	2.1		0.5	1	0.1	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Manganese, Total	0.22		0.01	1	0.01	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Nickel, Total	0.025	U	0.025	1	0.025	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Selenium, Total	0.01	U	0.01	1	0.005	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Silver, Total	0.01	U	0.01	1	0.007	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Thallium, Total	0.02	U	0.02	1	0.005	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Vanadium, Total	0.01	U	0.01	1	0.01	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Zinc, Total	0.49		0.05	1	0.05	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Potassium, Total	2		2	1	1	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	6010B	Sodium, Total	22		1	1	1	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	2540C	Solids, Total Dissolved	160		10	1	10	mg/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C-M	Acenaphthene	0.1	U	0.1	1	0.2	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C-M	2-Chloronaphthalene	0.1	U	0.1	1	0.2	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C-M	Fluoranthene	0.1	U	0.1	1	0.2	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C-M	Naphthalene	0.1	U	0.1	1	0.2	ug/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C-M	Benzo(a)anthracene	0.1	U	0.1	1	0.2	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C-M	Benzo(a)pyrene	0.1	U	0.1	1	0.2	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C-M	Benzo(b)fluoranthene	0.1	U	0.1	1	0.2	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C-M	Benzo(k)fluoranthene	0.1	U	0.1	1	0.2	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C-M	Chrysene	0.1	U	0.1	1	0.2	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C-M	Acenaphthylene	0.1	U	0.1	1	0.2	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C-M	Anthracene	0.1	U	0.1	1	0.2	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C-M	Benzo(ghi)perylene	0.1	U	0.1	1	0.2	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C-M	Fluorene	0.1	U	0.1	1	0.2	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C-M	Phenanthrene	0.1	U	0.1	1	0.2	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C-M	Dibenzo(a,h)anthracene	0.1	U	0.1	1	0.2	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C-M	Indeno(1,2,3-cd)Pyrene	0.1	U	0.1	1	0.2	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C-M	Pyrene	0.1	U	0.1	1	0.2	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C-M	2-Methylnaphthalene	0.2	U	0.2	1	0.2	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C-M	Nitrobenzene-d5	77			1		%
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C-M	2-Fluorobiphenyl	78			1		%
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C-M	4-Terphenyl-d14	91			1		%
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	1,2,4-Trichlorobenzene	5	UJ	5	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	Hexachlorobenzene	5	UJ	5	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	Bis(2-chloroethyl)ether	5	UJ	5	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	1,2-Dichlorobenzene	5	UJ	5	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	1,3-Dichlorobenzene	5	UJ	5	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	1,4-Dichlorobenzene	5	UJ	5	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	3,3'-Dichlorobenzidine	50	UJ	50	1	50	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	2,4-Dinitrotoluene	6	UJ	6	1	6	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	2,6-Dinitrotoluene	5	UJ	5	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	4-Chlorophenyl phenyl ether	5	UJ	5	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	4-Bromophenyl phenyl ether	5	UJ	5	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	Bis(2-chloroisopropyl)ether	5	UJ	5	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	Bis(2-chloroethoxy)methane	5	UJ	5	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	Hexachlorobutadiene	10	UJ	10	1	10	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	Hexachlorocyclopentadiene	10	UJ	10	1	10	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	Hexachloroethane	5	UJ	5	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	Isophorone	5	UJ	5	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	Nitrobenzene	5	UJ	5	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	NDPA/DPA	15	UJ	15	1	15	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	n-Nitrosodi-n-propylamine	5	UJ	5	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	Bis(2-ethylhexyl)phthalate	5.9	U	5.9	1	10	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	Butyl benzyl phthalate	5	UJ	5	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	Di-n-butylphthalate	5	UJ	5	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	Di-n-octylphthalate	5	UJ	5	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	Diethyl phthalate	5	UJ	5	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	Dimethyl phthalate	5	UJ	5	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	4-Chloroaniline	5	UJ	5	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	2-Nitroaniline	5	UJ	5	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	3-Nitroaniline	5	UJ	5	1	5	ug/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	4-Nitroaniline	7	UJ	7	1	7	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	Dibenzofuran	5	UJ	5	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	2,4,6-Trichlorophenol	5	UJ	5	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	p-Chloro-m-cresol	5	UJ	5	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	2-Chlorophenol	6	UJ	6	1	6	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	2,4-Dichlorophenol	10	UJ	10	1	10	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	2,4-Dimethylphenol	10	UJ	10	1	10	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	2-Nitrophenol	20	UJ	20	1	20	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	4-Nitrophenol	10	UJ	10	1	10	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	2,4-Dinitrophenol	20	UJ	20	1	20	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	4,6-Dinitro-o-cresol	20	UJ	20	1	20	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	Pentachlorophenol	20	UJ	20	1	20	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	Phenol	7	UJ	7	1	7	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	2-Methylphenol	6	UJ	6	1	6	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	3-Methylphenol/4-Methylphenol	6	UJ	6	1	6	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	2,4,5-Trichlorophenol	5	UJ	5	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	Carbazole	2	UJ	2	1	5	ug/l
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	2-Fluorophenol	40			1		%
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	Phenol-d6	32			1		%
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	Nitrobenzene-d5	84			1		%
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	2-Fluorobiphenyl	76			1		%
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	2,4,6-Tribromophenol	33			1		%
SG-23	2-SW23-01	4/11/2003	L0303295-03	L0303295	8270C	4-Terphenyl-d14	90			1		%
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	9038	Sulfate	10	U	10	1	10	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	2320B	Alkalinity, Total	78		2	1	2	mg CaCO3/L
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	5220D	Chemical Oxygen Demand	30		20	1	20	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	2540D	Solids, Total Suspended	58		5	1	5	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	9251	Chloride	310		10	10	1	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	9060	Total Organic Carbon	6.2		2.5	5	0.5	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	7470A	Mercury, Total	0.0002	J	0.0002	1	0.0005	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	7470A	Mercury, Dissolved	0.0002	U	0.0002	1	0.5	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Aluminum, Dissolved	0.1	U	0.1	1	0.1	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Antimony, Dissolved	0.05	U	0.05	1	0.05	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Arsenic, Dissolved	0.004	U	0.004	1	0.005	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Barium, Dissolved	0.14		0.01	1	0.01	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Beryllium, Dissolved	0.004	U	0.004	1	0.005	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Cadmium, Dissolved	0.005	U	0.005	1	0.005	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Calcium, Dissolved	18		0.5	1	0.1	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Chromium, Dissolved	0.01	U	0.01	1	0.01	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Cobalt, Dissolved	0.02	U	0.02	1	0.02	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Copper, Dissolved	0.01	U	0.01	1	0.01	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Iron, Dissolved	22		0.05	1	0.05	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Lead, Dissolved	0.01	U	0.01	1	0.05	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Magnesium, Dissolved	16		0.5	1	0.1	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Manganese, Dissolved	1.1		0.01	1	0.01	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Nickel, Dissolved	0.025	U	0.025	1	0.025	mg/l

TABLE IV
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ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Selenium, Dissolved	0.01	U	0.01	1	0.005	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Silver, Dissolved	0.01	U	0.01	1	0.007	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Thallium, Dissolved	0.02	U	0.02	1	0.005	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Vanadium, Dissolved	0.01	U	0.01	1	0.01	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Zinc, Dissolved	0.05	U	0.05	1	0.05	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Potassium, Dissolved	7.4		2	1	1	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Sodium, Dissolved	170		1	1	1	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Hardness	120		1.7	1	1.66	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Aluminum, Total	0.14	J	0.1	1	0.1	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Antimony, Total	0.05	U	0.05	1	0.05	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Arsenic, Total	0.004	J	0.004	1	0.005	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Barium, Total	0.16		0.01	1	0.01	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Beryllium, Total	0.004	U	0.004	1	0.005	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Cadmium, Total	0.005	U	0.005	1	0.005	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Calcium, Total	18		0.5	1	0.1	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Chromium, Total	0.01	U	0.01	1	0.01	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Cobalt, Total	0.02	U	0.02	1	0.02	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Copper, Total	0.01	U	0.01	1	0.01	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Iron, Total	28		0.05	1	0.05	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Lead, Total	0.01	U	0.01	1	0.05	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Magnesium, Total	17		0.5	1	0.1	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Manganese, Total	1.2		0.01	1	0.01	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Nickel, Total	0.025	U	0.025	1	0.025	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Selenium, Total	0.01	U	0.01	1	0.005	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Silver, Total	0.01	U	0.01	1	0.007	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Thallium, Total	0.02	U	0.02	1	0.005	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Vanadium, Total	0.01	U	0.01	1	0.01	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Zinc, Total	0.05	UJ	0.05	1	0.05	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Potassium, Total	7.7		2	1	1	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	6010B	Sodium, Total	190		1	1	1	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	2540C	Solids, Total Dissolved	620		10	1	10	mg/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C-M	Acenaphthene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C-M	2-Chloronaphthalene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C-M	Fluoranthene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C-M	Naphthalene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C-M	Benzo(a)anthracene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C-M	Benzo(a)pyrene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C-M	Benzo(b)fluoranthene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C-M	Benzo(k)fluoranthene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C-M	Chrysene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C-M	Acenaphthylene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C-M	Anthracene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C-M	Benzo(ghi)perylene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C-M	Fluorene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C-M	Phenanthrene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C-M	Dibenzo(a,h)anthracene	0.1	U	0.1	1	0.2	ug/l

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ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C-M	Indeno(1,2,3-cd)Pyrene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C-M	Pyrene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C-M	2-Methylnaphthalene	0.2	U	0.2	1	0.2	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C-M	Nitrobenzene-d5	76			1		%
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C-M	2-Fluorobiphenyl	75			1		%
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C-M	4-Terphenyl-d14	103			1		%
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	1,2,4-Trichlorobenzene	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	Hexachlorobenzene	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	Bis(2-chloroethyl)ether	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	1,2-Dichlorobenzene	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	1,3-Dichlorobenzene	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	1,4-Dichlorobenzene	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	3,3'-Dichlorobenzidine	50	UJ	50	1	50	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	2,4-Dinitrotoluene	6	UJ	6	1	6	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	2,6-Dinitrotoluene	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	4-Chlorophenyl phenyl ether	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	4-Bromophenyl phenyl ether	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	Bis(2-chloroisopropyl)ether	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	Bis(2-chloroethoxy)methane	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	Hexachlorobutadiene	10	UJ	10	1	10	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	Hexachlorocyclopentadiene	10	UJ	10	1	10	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	Hexachloroethane	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	Isophorone	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	Nitrobenzene	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	NDPA/DPA	15	UJ	15	1	15	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	n-Nitrosodi-n-propylamine	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	Bis(2-ethylhexyl)phthalate	6.2	U	6.2	1	10	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	Butyl benzyl phthalate	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	Di-n-butylphthalate	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	Di-n-octylphthalate	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	Diethyl phthalate	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	Dimethyl phthalate	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	4-Chloroaniline	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	2-Nitroaniline	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	3-Nitroaniline	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	4-Nitroaniline	7	UJ	7	1	7	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	Dibenzofuran	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	2,4,6-Trichlorophenol	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	p-Chloro-m-cresol	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	2-Chlorophenol	6	UJ	6	1	6	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	2,4-Dichlorophenol	10	UJ	10	1	10	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	2,4-Dimethylphenol	10	UJ	10	1	10	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	2-Nitrophenol	20	UJ	20	1	20	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	4-Nitrophenol	10	UJ	10	1	10	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	2,4-Dinitrophenol	20	UJ	20	1	20	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	4,6-Dinitro-o-cresol	20	UJ	20	1	20	ug/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	Pentachlorophenol	20	UJ	20	1	20	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	Phenol	7	UJ	7	1	7	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	2-Methylphenol	6	UJ	6	1	6	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	3-Methylphenol/4-Methylphenol	6	UJ	6	1	6	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	2,4,5-Trichlorophenol	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	Carbazole	2	UJ	2	1	5	ug/l
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	2-Fluorophenol	38			1		%
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	Phenol-d6	29			1		%
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	Nitrobenzene-d5	74			1		%
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	2-Fluorobiphenyl	66			1		%
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	2,4,6-Tribromophenol	33			1		%
SG-24	2-SW24-01	4/11/2003	L0303295-04	L0303295	8270C	4-Terphenyl-d14	93			1		%
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	9038	Sulfate	10	U	10	1	10	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	2320B	Alkalinity, Total	72		2	1	2	mg CaCO3/L
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	5220D	Chemical Oxygen Demand	20	U	20	1	20	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	2540D	Solids, Total Suspended	31		5	1	5	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	9251	Chloride	240		10	10	1	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	9060	Total Organic Carbon	5		2.5	5	0.5	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	7470A	Mercury, Total	0.0002	J	0.0002	1	0.0005	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	7470A	Mercury, Dissolved	0.0002	U	0.0002	1	0.5	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Aluminum, Dissolved	0.1	U	0.1	1	0.1	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Antimony, Dissolved	0.05	U	0.05	1	0.05	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Arsenic, Dissolved	0.004	U	0.004	1	0.005	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Barium, Dissolved	0.14		0.01	1	0.01	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Beryllium, Dissolved	0.004	U	0.004	1	0.005	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Cadmium, Dissolved	0.005	U	0.005	1	0.005	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Calcium, Dissolved	18		0.5	1	0.1	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Chromium, Dissolved	0.01	U	0.01	1	0.01	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Cobalt, Dissolved	0.02	U	0.02	1	0.02	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Copper, Dissolved	0.01	U	0.01	1	0.01	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Iron, Dissolved	22		0.05	1	0.05	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Lead, Dissolved	0.01	U	0.01	1	0.05	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Magnesium, Dissolved	16		0.5	1	0.1	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Manganese, Dissolved	1.2		0.01	1	0.01	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Nickel, Dissolved	0.025	U	0.025	1	0.025	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Selenium, Dissolved	0.01	U	0.01	1	0.005	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Silver, Dissolved	0.01	U	0.01	1	0.007	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Thallium, Dissolved	0.02	U	0.02	1	0.005	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Vanadium, Dissolved	0.01	U	0.01	1	0.01	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Zinc, Dissolved	0.05	U	0.05	1	0.05	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Potassium, Dissolved	7.2		2	1	1	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Sodium, Dissolved	170		1	1	1	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Hardness	87		1.7	1	1.66	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Aluminum, Total	0.1	UJ	0.1	1	0.1	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Antimony, Total	0.05	U	0.05	1	0.05	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Arsenic, Total	0.004	UJ	0.004	1	0.005	mg/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Barium, Total	0.11		0.01	1	0.01	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Beryllium, Total	0.004	U	0.004	1	0.005	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Cadmium, Total	0.005	U	0.005	1	0.005	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Calcium, Total	16		0.5	1	0.1	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Chromium, Total	0.01	U	0.01	1	0.01	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Cobalt, Total	0.02	U	0.02	1	0.02	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Copper, Total	0.01	U	0.01	1	0.01	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Iron, Total	17		0.05	1	0.05	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Lead, Total	0.01	U	0.01	1	0.05	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Magnesium, Total	12		0.5	1	0.1	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Manganese, Total	0.9		0.01	1	0.01	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Nickel, Total	0.025	U	0.025	1	0.025	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Selenium, Total	0.01	U	0.01	1	0.005	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Silver, Total	0.01	U	0.01	1	0.007	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Thallium, Total	0.02	U	0.02	1	0.005	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Vanadium, Total	0.01	U	0.01	1	0.01	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Zinc, Total	0.1	J	0.05	1	0.05	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Potassium, Total	5.6		2	1	1	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	6010B	Sodium, Total	120		1	1	1	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	2540C	Solids, Total Dissolved	490		10	1	10	mg/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C-M	Acenaphthene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C-M	2-Chloronaphthalene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C-M	Fluoranthene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C-M	Naphthalene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C-M	Benzo(a)anthracene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C-M	Benzo(a)pyrene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C-M	Benzo(b)fluoranthene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C-M	Benzo(k)fluoranthene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C-M	Chrysene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C-M	Acenaphthylene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C-M	Anthracene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C-M	Benzo(ghi)perylene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C-M	Fluorene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C-M	Phenanthrene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C-M	Dibenzo(a,h)anthracene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C-M	Indeno(1,2,3-cd)Pyrene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C-M	Pyrene	0.1	U	0.1	1	0.2	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C-M	2-Methylnaphthalene	0.2	U	0.2	1	0.2	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C-M	Nitrobenzene-d5	90			1		%
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C-M	2-Fluorobiphenyl	89			1		%
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C-M	4-Terphenyl-d14	109			1		%
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	1,2,4-Trichlorobenzene	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	Hexachlorobenzene	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	Bis(2-chloroethyl)ether	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	1,2-Dichlorobenzene	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	1,3-Dichlorobenzene	5	UJ	5	1	5	ug/l

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	1,4-Dichlorobenzene	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	3,3'-Dichlorobenzidine	50	UJ	50	1	50	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	2,4-Dinitrotoluene	6	UJ	6	1	6	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	2,6-Dinitrotoluene	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	4-Chlorophenyl phenyl ether	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	4-Bromophenyl phenyl ether	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	Bis(2-chloroisopropyl)ether	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	Bis(2-chloroethoxy)methane	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	Hexachlorobutadiene	10	UJ	10	1	10	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	Hexachlorocyclopentadiene	10	UJ	10	1	10	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	Hexachloroethane	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	Isophorone	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	Nitrobenzene	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	NDPA/DPA	15	UJ	15	1	15	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	n-Nitrosodi-n-propylamine	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	Bis(2-ethylhexyl)phthalate	6.3	U	6.3	1	10	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	Butyl benzyl phthalate	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	Di-n-butylphthalate	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	Di-n-octylphthalate	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	Diethyl phthalate	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	Dimethyl phthalate	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	4-Chloroaniline	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	2-Nitroaniline	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	3-Nitroaniline	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	4-Nitroaniline	7	UJ	7	1	7	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	Dibenzofuran	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	2,4,6-Trichlorophenol	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	p-Chloro-m-cresol	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	2-Chlorophenol	6	UJ	6	1	6	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	2,4-Dichlorophenol	10	UJ	10	1	10	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	2,4-Dimethylphenol	10	UJ	10	1	10	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	2-Nitrophenol	20	UJ	20	1	20	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	4-Nitrophenol	10	UJ	10	1	10	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	2,4-Dinitrophenol	20	UJ	20	1	20	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	4,6-Dinitro-o-cresol	20	UJ	20	1	20	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	Pentachlorophenol	20	UJ	20	1	20	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	Phenol	7	UJ	7	1	7	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	2-Methylphenol	6	UJ	6	1	6	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	3-Methylphenol/4-Methylphenol	6	UJ	6	1	6	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	2,4,5-Trichlorophenol	5	UJ	5	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	Carbazole	2	UJ	2	1	5	ug/l
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	2-Fluorophenol	39			1		%
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	Phenol-d6	32			1		%
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	Nitrobenzene-d5	91			1		%
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	2-Fluorobiphenyl	82			1		%
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	2,4,6-Tribromophenol	31			1		%

TABLE IV
DATA SUMMARY TABLE
ROUND 12 GROUNDWATER MONITORING REPORT
AREA A LANDFILL, NSB-NLON, GROTON, CONNECTICUT

Location Identifier	Sample Name	Sample Date	Lab Sample ID	Sample Data Groups	Method	Analyte	Result	Qualifiers	Reporting Limit	Dilution Factor	Method Detection Limit	Units
SG-24	2-SW24-01D	4/11/2003	L0303295-05	L0303295	8270C	4-Terphenyl-d14	103			1		%

DATA VALIDATION MEMORANDUM
O&M MONITORING SITES – NEW LONDON NSB
APRIL 2003 SAMPLING ROUND (SDG 0302959 ALPHA LAB)

TO: ENGINEERING FIELD ACTIVITY NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NEW LONDON NSB – IRP O&M MONITORING SITES - SAMPLING ROUND APRIL 2003

DATE: 30 JULY 2003

Project data were validated using the following Validation Functional Guideline, as modified for non-CLP methods.

1. Region I, EPA-NE Data Validation Functional Guidelines for Evaluation of Environmental Analyses (Dec, 1996).

The validation guideline exceedences are assessed and documented on the method specific data validation worksheet. On the data validation worksheet, the data quality acceptance criteria are presented, analytes requiring qualification based on laboratory historical control limits and/or validation guidance criteria exceedences are listed, assigned qualifiers, qualifying rationale is documented, and any potential bias noted. The overall evaluation of the data generated is presented in the data validation worksheet.

Standard EPA Region I data qualifiers are used to denote the assessment of data quality. The final and ranking assigned data qualifier for an analyte is presented in the data summary table. Ancillary qualifiers are noted on the data validation worksheets.

As an exception to the USEPA Region I data validation guidance, non-target ketone VOC data with response factors (RFs) less than the 0.05 were not qualified, as the Tier guidance allows for exceptions to the RF guidance.

The USEPA Region I Organic Regional Data Assessment (ORDA) sheet displays the summarized results of the data validation assessment for all analytical methods reported in the SDG.

Region I, EPA-NE ORGANIC REGIONAL DATA ASSESSMENT

LAB NAME: Alpha Lab
SDG #:__0302959_____
EPA-NE DV TIER LEVEL:___II___
SITE NAME: New London NSB – O&M

# of SAMPLES/MATRIX:___3 GW and TB__
VALIDATION CONTRACTOR:__ECC
VALIDATOR'S NAME: Jackson Kiker
DV Completion Date:__30 July 2003
Date Sampled__4/1/03 & 4/2/03_____

ANALYTICAL DATA QUALITY SUMMARY

		VOC	PCB	PAH	SVOC	Metals	Pesticide
1	Preservation and HT	O	O	O	O	O	O
2	Instrument Performance Check	O	-	O	O	O	-
3	Initial Calibration:	O	M	M	M	O	M
4	Continuing Calibration:	Z	M	O	O	O	M
5	Blanks:	O	O	O	O	O	O
6	Surrogate Compounds:	O	O	O	O	-	O
7	Internal Standards	O	O	O	O	-	O
8	Matrix Spike/Matrix Spike Duplicate:	O	M	O	O	O	M
9	Sensitivity Check:	O	0	O	O	O	O
10	PE Samples- Accuracy Check	O	0	O	O	O	O
11	Target Compound Identification:	-	-	-	-	-	-
12	Compound Quantitation and Reported QLs	O	M	O	O	O	O
13	Tentatively Identified Compounds:	-	-	-	-	-	-
14	Semivolatile/Pesticide/PCB Cleanup:	-	-	-	-	-	-
15	Data Completeness	O	O	M	M	O	O
16	Overall Evaluation of Data:	O	O	O	0	O	O

O = Data had no problems or were qualified due to minor contractual problems; M = Data were qualified due to major/systemic MPC exceedences: Z = Data were rejected as unusable due to major contractual problems.

ACTION ITEMS: (Z items): ____VOC: bromomethane CCV RRF<0.05 results qualified as R. This is not a site COC.

AREAS OF CONCERN: (M items): _. Pesticides: CCV %D>MPC for endrin and methoxychlor. MS/MSD not analyzed due to one-sample. Matrix interference not assessed. SVOC; DDT degradation check not provided by laboratory for tune checks associated with sample analysis. PCB: end of run CCV only 1248 reported. MS/MSD not analyzed due to low sample volume (1 sample). Lab duplicate performed. PCB QL<O&M manual but >CT criteria. VOC: bromomethane qualifed as Rejected due to low CCV RRF (<0.05), chloromethane and carbon disulfide qual. As UJ due to %D>MPC. None of these VOCs are site COCs. VOC ICV %D>MPC for carbon disulfide.

COMMENTS:. PAH ICV not performed. Data less than the RL but greater than the MDL was not reported by the laboratory. Water quality parameters are not validated, but all Tier I items are included, as applicable.

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

VOCs 8260B
Review Criteria: Region I Tier II Guidance (with ketone RRF exclusion) & OM Manual

Data Validation Level	Matrix	Preservation	Temp Sample Receipt	Laboratory	SDG Number
Tier II	Aqueous	HCl	1.2 C (1-cooler)	Alpha Laboratory Westborough, MA	0302959

Field Identification and Laboratory Number of Samples Evaluated:

Field ID	Lab Sample Number
8-GW02S-01	L0302959-01
3-GW37S-01	L0302959-02
3-GW12D-01	L0302959-03
TRIPBLANK TB-1	L0302959-04

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inventory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature, HCl (aq), MeOH/NAHSO4 (soils) (J, UJ, or R (function of HT and compound)	Cooler temperatures <6C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No samples qualified.	X	-	
Holding Time	1) 14 Days to analysis, if preserved 2) J –detects, UJ or R –nondetects (function of time) 3) *transcription errors	All samples analyzed within holding times	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made. 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	Not applicable (NA)	X	-	
Trip Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate TB (X rules apply to raw data) 4) MeCl & Acetone < 5 5) >RL report sample level U 6) <RL report PQL as U	L0302959-04 is the associated tripblank. Tripblank non-detect for all reported analytes. No samples qualified.	x	-	
Equip'Blank	1) < 5x (<10x common) contaminants for aq samples- 2) TGT analytes <Lab QL (contact lab) -for soils indicate TB (X rules don't apply) 3) MeCl & Acetone < 5 *Check IS area (10% of them) * recalculate surrogate (%R – 10 % of them)	Non-collected. Equipment is dedicated.	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated) listed on data summary sheet.	Lab did not report VOCs <RL as qualitative detections.	-		

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

VOCs 8260B
Review Criteria: Region I Tier II Guidance (with ketone RRF exclusion) & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
*TICs (if reported)	1) *verify library search for samples and blanks 2) verify TICs were not misreported compounds (different fraction or miss in search) 3) All TICs – J estimated 4) * verify blanks do not contain TIC peaks 5) * check TIC assignment spectra to STD spectra 6) *review blank and Samples for common lab contaminants	None Reported/not evaluated	-	-	
Surrogates	1,2-Dichloroethane-d4 62-139% Toluene-d8 75%-125% 4-BFB 75%-125% *check raw data for surrogated (recalculate 10% of them). *Transcription errors Qualification: >UCL J –detects, %R<10% J –detects, R –NDs, %R >10% but <70% J-detects, UJ NDs	All surrogates are within QC limits. No samples qualified.	X	-	
Lab Blanks (method	1) < 5x (<10x common) contaminants for aq samples- 3) TGT analytes <Lab QL 4) MeCl & Acetone, 2-butanone, 4M-2Pentaone, and 2-hexanone < 5 (25 ml purge) 5) if linear range is exceeded, verify if a instrument blank was performed 6) *verify accurate transcription of times, Ids, are reported on forms 7) *verify from the raw data if the instrument blank was performed in the same vessel 8) *verify IS, RRT, and surrogate %R 9) *check 10% of raw chromotgrams for false +/-, check for transcription errors	MB non-detect for all reported VOCs.	x	-	
LCS Recovery	1) benzene 79-119%, toluene 75-123%, chlorobenzene 81-123%, 1,1 DCE 69-126%, TCE 79-118%. 2) 10% and <LCL% J detec ts, UJ –Nods 3) >UCL% J detects <10% R NDs, J-detects 7) *Recalculate the concentrations for one compound in the LCS 8) * Recalucate the %R (within 10% of lab) Note: Tier guidance as a zero blind	All LCS %R's are within limits.	X	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

VOCs 8260B
Review Criteria: Region I Tier II Guidance (with ketone RRF exclusion) & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
MS/MSD Recovery	1) benzene 79-119%, toluene 75-123%, chlorobenzene 81-123%, 1,1 DCE 69-126%, TCE 79-118%. 2) 80-120% (if MS > 4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <LCL% J detects, UJ -NDs >UCL% J detects 3) *Recalculate the concentrations for one compound in the MS/MSD 4) * Recalucate the %R (within 10% of lab)	Native sample; lab ID L0303267-05 (not part of this SDG). MS %r's within limits. Goss Cove MS/MSD (no tidal influences).	x	-	
MS/MSD RPD	RPD ≤30% (aq) J –detects in MS sample UJ-non detects * recalculate RPD	Native sample; lab ID L0303267-05 (not part of this SDG). RPDs within limits. Laboratory precision is acceptable. No samples qualified.	x	-	
Field Dup RPD	1) RPD ≤ 30%, <40% gaseous VOCs water; ≤ 50 soil for Results > PQL (FD pair only) J-detects (both > PQL) 2) If one >PQL, other ND, J-detections, UJ non-detect 3) Other conditions use judgement 4) Determine RPD for detects only. 5) *Recalculate the concentrations for one compound and the PQL	None analyzed with this SDG.	-		
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 5) * performed annually 6) *MDL is at least ½ of PQL 7) *tgt and surrogate 80-120% R 8) *VOA/SV-X11 (recalcuate %RSD and %R for three compounds (10% of them).	NA	-	-	
Internal Stds	1) IS are –50% to 200% of last Ical, or CCV 3) RRT<0.06 (30 sec) 4) IS>100% J-detects 5) IS<20%CCV NDs – R 6) IS>20%CCV <50%CCV NDs – UJ 7) *check for IS transcription errors	All IS %R are within Method limits.	X	-	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %in control limits. 3) %R <10 ND- (R) , J- detects 4) 10%> but <LCL% , judgement 5) %R>UCL% J-detects 6) QC, IS, RRT meet criteria, 7) %RSD < 20% 8) MDL< MQL (3x less ideal) 9) Lab fortitied blank (see VOA/SV Part II –section X). 10) *Check and recalculate %RSDs and %R for three compounds (with 10% of lab)	MeCl PQL>O&M limits but <Ground water criteria. All site COCs have lab RL < applicable criteria. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

VOCs 8260B
Review Criteria: Region I Tier II Guidance (with ketone RRF exclusion) & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
	11) Dilution factors for samples – impacts to sensitivity				
*Compound Quantitation (completed as part of other steps)	1) Check sensitivy (MDL< 1/3 PQL) 2) *Recalculate one detection and quantitation limit 3) *verify concentrations have been adjusted to account for DW, DF, 4) *verifiy correct IS and RRF were used	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 10) *Matrix effects- MS/MSD, surrogated, PDS. 11) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 12) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*TGT Compound Identification	1) *Within 0.06 (30 sec) of CCV RRT 2) * compare sample Mass spectra to standard spectra; a) all ions in std spectra (with 10% rel intensity) presnent in sample spectra. B) sample ion abundance within 20% of standard spectra. 3) *chromatogram: all peaks greater than 10% of nearest IS identified.	NA	-	-	
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 13) PES > acceptance criteria – Detects in samples J, 14) PES<acceptance criteria – Detects J, NDs –R 15) VOA/SV-XI14 other criteria 16) *% of PES sample above and below criteria 17) *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	
Tune check	1) ion abundance with method limits 2) *check for co-elution /proper background subtratction 3) *compare reported data to raw data	All tunes passed method criteria.	X	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

VOCs 8260B
Review Criteria: Region I Tier II Guidance (with ketone RRF exclusion) & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
Initial Cal Multipoint (instrument evaluation)	1) correct calibration stds 2) within 12 hours of the tune check 3) CCCs %RSD: <30% (1,1 DCA, chloroform, 1,2dichloropropane, Toluene, EB, VC (J –detects, R or UJ NDs all samples associated with Ical) 4) SPCCs Average RRF: SPCCs Chloromethane >0.10, 1,1 DCA>0.10, bromoform >0.10, chlorobenzene>0..3, 1122TCA>0..3 (J –detects, R NDs) 5) RRF>0.05 all compounds 6) RRT < 0.06 units (all stds within 30 sec) *7) RRF exclusions: surrogates, acetone, MeCL, chloroethane/methane, CS, 1,2 DCA, 2-butanone, 1,2 dichloropropane, 2-hexanone (IV-8)./* 8) *verify that instrument parameters met method and that Ical and analysis used the same parameters 9) *recalculate RRF one tgt compound associated with each IS. Recalculated values within 10% of lab values. 10) *recalculate one tgt compound associated with each IS. Recalculated values within 10% 11) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 12) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	Instrument: elaine ICAL; 8 april 2003 RRF>0.05, COD>0.99 and %RSD<15%	X	-	
Initial Cal (Linearity)	%RSD < 15% use average RF for calibration %RSD> 15% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 or alternatively mean %RSD <15% for all target analytes, with no analyte %RSD>30% or %RSD<30% each target analyte Qualification for compounds with %RSD>30% (see VOA/SVIII-5)	Ical acceptable per method requirements.	x	-	
2nd Source ICV	%R (between ICV and Ical) analytes 80%--120% (+ or -) once per 5 pt cal Qualification: J detects, R or UJ NDs	Not analyzed. Lab directed to analyze ICV. ICV's are a Navy CDQM requirement. ICV provided on July 25, 2003. % Drift within limits except for all VOCS except Carbon disulfide (38.7%).	X	UJ Carbon disulfide 01,02,03	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

VOCs 8260B
Review Criteria: Region I Tier II Guidance (with ketone RRF exclusion) & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED/Rationale	Inven-tory	QUAL	BIAS
CCV	1) SPCCs Average RRF: SPCCs Chloromethane >0.10, 1,1 DCA>0.10, bromoform >0.10, chlorobenzene>0..3, 1122TCA>0..3 2) RRF all compounds > 0.05 *3)* CCC: (1,1 DCA, chloroform, 1,2dichloropropane, Toluene, EB, VC) **%D<20% (or** all analytes if no CCCs reported). *4)* Lab method limits for non SPCC/CCC's. *5)* *RRF exclusions: surrogates, acetone, MeCL, chloroethane/methane, CS, 1,2 DCA, 2-butanone, 1,2 dichloropropane, 2-hexanone (IV-8)./* 6) Qualification-J detects, R or UJ NDs 7) *verify same instrument and parameters 8) *Recalculate RRF for one tgt cmpd associated with each IS. (within 10%) 9) *Recalculate %D for one tgt cmpd associated with each IS (within 10%) 10) *IS RRT<0.06 units (30 sec) 11) * IS area -50 % to 100 % of last ICAL 12) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 13) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	Pre-CCV; Bromomethane RRF<0.05 This result is qualified as R %D>MPC Chloromethane and carbon disulfide These results are qualified UJ Post CCV not provided by laboratory.	x	Bromomethane (_ R) Chloromethane and carbon disulfide - UJ	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Laboratory precision and accuracy acceptable. No apparent sample bias. Sample results usable for project decisions, as qualified. No sample bias indicated from evaluating laboratory QC. Calibration: ICAL linear. ICV; %D>MPC for CS2. CCV: Bromomethane RRF<0.05 – this results is qualified as rejected (R) Chloromethane and Carbon disulfide %D>MPC - UJ Sampling error – Field duplicate not collected/analyzed with this SDG. Tripblanks non-detect for all VOCs -no cross contamination apparent.	X	-	

* Tier III review items only.

Completeness Check: Inventory Check Sheet_____X__. Sample Quantitation Calculations (TIER III only):

Lab correspondence: 2nd source ICV requested July 24, 2003. Lab provided 2nd source ICV on July 25, 2003.

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

PCB 8082
Review Criteria: Region I Tier II Guidance & OM Manual

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**-**	**1.2 C (1-cooler)**	**Alpha Laboratory Westborough, MA**	**0302959**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
8-GW02S-01	L0302959-01

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No samples qualified.	X	-	
Holding Time	1) 7 to extract, 40 Days to analysis 2) J –detects, UJ or R –nondetects (function of time) 3) *check transcription errors	All samples analyzed within holding time	X	-	
Lab duplicate	1) RPD<20%	Native sample 8-GW02S-01 PCBs non-detect in the sample and lab duplicate RPDs not calculated.	x		
Results > Cal Range or <Cal Range	2) >Upper Cal Range J-detects - ensure instrument blank performed 3) <PQL but >MDL – J –detects (estimated)	Not applicable	X	-	
Compound Quantitation	1) Check sensitivy (MDL< 1/3 PQL or per QAPP 2) %D <25% primary and secondary column identification and quantitation 3) *Recalculate one detection and quantitation limit 4) *verify concentrations have been adjusted to account for DW, DF, 5) *verify correct RRFs were used	%D<25% between columns with detections. All arochlors non-detect.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made (no USACE) 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	Not applicable	X	-	
Lab Blanks (method	1) < 5x contaminants – U 2) analytes <lab PQL (contract lab) 3) if linear range is exceeded, verify if a instrument blank was performed 4) *verify accurate transcription of times,	No COCs detected in the MB. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 2) **PCB 8082**
Project: New London ECC Job No. 5700 **Review Criteria: Region I Tier II Guidance**
ℓ OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
	Ids, are reported on forms 5) *verify from the raw data if the instrument blank was performed in the same vessel 6) *verify, RRT, and surrogate %R 7) *check 10% of raw chromotgrams for false +/-, check for transcription errors recalculate surrogate recovery (10% of them)				
Equip Blank	< 5x (<10x common) contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not applicable	-		
Surrogates	Surrogate acceptance limits DCB&TCX – QAPP limits. Qualification: >UCL J –detects, %R<10% J –detects, R –NDs, %R >10% but <60% J-detects, UJ NDs	Surrogates within limits. No sample qualificatiion	X	-	
LCS Recovery	1) arochlors 1016/1260 2) QAPP limits 10% and <LCL% J detects, UJ -NDs >UCL% J detects <10% R NDs, J-detects 4) *Recalculate the concentrations for one compound in the LCS 5) * Recalucate the %R (within 10% of lab) Note: Tier guidance as a zero blind	LCS %R's with MPC. No samples qualified.	X	-	
MS/MSD Recovery	1) Lab limits; (if MS > 4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <70% J detects, UJ -NDs >UCL - J detects 6) *Recalculate the concentration for one compound in the MS/MSD 7) * Recalucate the %R (within 10% of lab)	MS/MSD not analyzed due to inadequate sample volume and/or laboratory batching.	x	-	
*MS/MSD/un spike sample RSD	1)For unspiked compounds if reported, Non- MS spike compounds <50% RSD calculated from MS/MSD/Unspiked Qualification: >50% RSD J-detects 2)*recalculate the RPD (within 10% of lab)	NA	-	-	
MS/MSD RPD	RPD ≤40%, 50% for concentrated extracts J – detects in MS sample UJ-non detects *recalculate one RPD	Laboratory duplicate used to determine laboratory precision, as the MS/MSD was not analyzed.	-	-	
ield Dup RPD	1) RPD ≤ 100% water & 50% soil for 2) Results > PQL (FD pair only) J-detects (both > PQL) 2) If one > PQL, other ND, J-detections, UJ	Not collected/analyzed with this SDG	-	-	

ECC Region I Data Review Worksheet (rv 2) **PCB 8082**
Project: New London ECC Job No. 5700 **Review Criteria: Region I Tier II Guidance & OM Manual**

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
	non-detect 3) Other conditions use judgement 8) *Recalculate the concentrations for one compound and the PQL				
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * retention times within method requirements 4) * performed annually 5) *MDL is at least ½ of PQL or QAPP limits 6) *tgt and surrogate 80-120% R *check and recalculate %RSD and %R for one arochlor for 10% of them (criteria within 10% of lab)	NA	-	-	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %R 80-120%, 3) %R <10 ND- (R) , J- detects 4) 10%> but <80% , judgement 5) %R>120% J-detects 6) QC, RRT meet criteria, 7) %RSD < 20% 8) MDL< MQL (3x less ideal) 9) Lab fortified blank (see VOA/SV Part II – section X). 10) *Check and recalculate %RSDs and %R for three compounds (with 10% of lab)	Sensitivity acceptable, as this is the best available technology. The groundwater criterion is below the method detection limit. The lab SQL is less than the O&M required RL. No action taken other than notation.	x	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 4) *Matrix effects- MS/MSD, surrogated, PDS. 5) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 6) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*TGT Compound Identification	1) *Within 0.06 (30 sec) of CCV RRT 2) * calculate %RPD 1 and 2 columns	NA	-	-	
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 7) PES > acceptance criteria – Detects in samples J, 8) PES<acceptance criteria – Detects J, NDs –R 9) VOA/SV-XI14 other criteria 10) *% of PES sample above and below criteria 11) *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	

ECC Region I Data Review Worksheet (rv 2) **PCB 8082**
Project: New London ECC Job No. 5700 **Review Criteria: Region I Tier II Guidance**
ɛ OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Initial Cal Multipoint (instrument evaluation)	1) correct calibration stds 2) *recalculate one tgt compound associated. Recalculated values within 10% 3) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 4) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	20 Mar 2003 Instrument: Pest 6 %RSD<20% No samples qualified.	X	-	
Initial Cal (Linearity)	%RSD < 20% use average RF for calibration %RSD> 20% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 or alternatively mean %RSD <20 for all target analytes, with no analyte %RSD>30% or %RSD<30% each target analyte	Linearity criteria met. No samples qualified	X	-	
2nd Source ICV	%R (between ICV and Ical) analytes 80%--120% (USACE) %D ≤ 15%, (+ or -) once per 5 pt cal Qualification: J detects, R or UJ NDs *Calculate %D ICV/ICAL	ICV results acceptable - %R within limits. No samples qualified.	X	-	
CCV	1) QAPP: 15% of initial calib. curve 2) Qualification-J detects, R or UJ NDs 3) *verify same instrument and parameters 4) *Recalculate RRF for one tgt cmpd (within 10%) 5) *Recalculate %D for one tgt cmpd (within 10%) 6) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 7) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	Pre-run CCV: Overall quantitation less than 15%. End of run CCV: Only arochlor 1248 reported (%D<MPC). No samples qualified. Lab directed to provide end of run CCV.	X	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Laboratory accuracy is acceptable Laboratory precision is acceptable. The sample results are usable for making project decisions. No apparent sample bias. ICAL: linear ICV; within limits. . CCV: Within MPC limits. Sampling error- FD not collected/analyzed with this SDG.	X	-	

(*asterisk sections Tier III only) Completeness Check: Inventory Check Sheet__X

Sample Quantitation Calculations on attached sheet (TIER III ONLY):

Lab correspondence: 20 June 2003; Lab asked to provide end of run CCV %D for all arochlors. End of run CCV not provided. Pre-analysis CCV used for data validation only.

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

PAH 8270C - SIM
Review Criteria: Region I Tier II Guidance & OM Manual

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	Aqueous	HCl	1.2 C (1-cooler)	Alpha Laboratory Westborough, MA	0302959

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
8-GW02S-01	L0302959-01
3-GW37S-01	L0302959-02
3-GW12D-01	L0302959-03

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No samples qualified.	X	-	
Holding Time	1) 7 Days water, 40 to analysis 2) J –detects, UJ or R –nondetects (function of time)	All analysis within hold times	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made (no USACE) 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	Not applicable	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	None	x	-	
Equip Blank	< 5x (<10x common) contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not applicable	-	-	
Surrogates	1) Surrogate acceptance limits Carbazole & p-Terphenly-d14 within QAPP limits. Qualification: >UCL J –detects, %R<10% J –detects, R –NDs, %R >10% but <60% J-detects, UJ NDs	Surrogates within QC limits. No samples qualified.	x	-	
Lab Blanks (method	1) < 5x (<10x common) contaminants – U 2) analytes <lab PQL (contract lab)	All method blanks were non-detects for COCs. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

PAH 8270C - SIM
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
LCS Recovery	1) QAPP limits 10% and <LCL% J detects, UJ -NDs >UCL% J detects <10% R NDs, J-detects	LCS %R within method limits. No samples qualified	X	-	
MS/MSD Recovery	1) QAPP limits (if MS > 4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <70% J detects, UJ -NDs >130% J detects	Native sample; 3-GW12D-01 MS %R's within limits. No samples qualified	X	-	
MS/MSD RPD	RPD ≤40% solid, 30% aq per QAPP Table 7-3. J –detects in MS sample UJ-non detects	Native sample; 3-GW12D-01 MS/MSD RPD <MPC. No samples qualified. Laboratory precision acceptable.	x		
Cleanup Performance Check (if performed)	%R< 10% NDs-R detections J %R>10% <LCL (80%GPC) –detections J, NDs UJ %R>UCL (120%) – detections J Retention Time shift <5%, symmetrical peakshape. GPC check with interferants. Good surrogate recovery, GPC blank check – no carryover.(VOA/SV-IX-I6). Sulfur and High MW compounds removed. SW-846 clean-up not required	NA	-	-	
Retention times	Within 3X standard deviation for each analyte from 72-hour study Exceeds: R qualify data	Retention times within limits.	X	-	
Field Dup RPD	1) RPD ≤ 100% water & soil for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect 3) Other conditions use judgement	FD pair not analyzed with this SDG.	-		
Initial Cal (Linearity)	Correct calibration stds %RSD < 15% use average RF for calibration %RSD> 15% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 or alternatively mean %RSD <20% for all target analytes, with no analyte %RSD>40% Resolution check mix –valley 60% hgt of shortest peak (CLP criteria only) Performance check mix - >90% (PEM) (CLP criteria only) SW-846 PEM –endirn/DDT breakdown evaluation. Blank and Performance Evaluation Mix (PEM) at start, and blank and midpoint Individual Standard Mix A (ISMA) and ISMB at end or samples(CLP only)	14 Mar 02 Instrument HPLows – Mork.i %RSD<20% ICAl linear. No samples qualified RRF>0.05 SPCC compounds not analyzed for this method. No action taken.	X	-	
Tune Check	Tune check within method parameters for DFTPP	All tunes checks within limits. Degradation checks within limits. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

PAH 8270C - SIM
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
CCV	1) QAPP: 15% of initial calib. Curve (85%-115%). I f low re-calibrate. If high no recalibration needed. J qualify data. 2) 15% D 3) Qualification-J detects, R or UJ NDs	%D<15% for all CCVs. No samples qualified.	X	-	
2nd Source ICV	%R (between ICV and Ical) analytes %D ≤ 15%, (+ or -) once per 5 pt cal Qualification: J detects, R or UJ NDs	ICV not analyzed. Lab notified that ICV is a method requirement. No further action taken.	-	-	
Internal Stds	1) IS are –50% to 200% of CCV 1) RRT<0.06 (30 sec) 2) IS>100% J-detects 3) IS<20%CCV NDs – R 4) IS>20%CCV <50%CCV NDs – UJ 5) *check for IS transcription errors	Internal standards are within MPC. No samples qualified.	X	-	
Compound Quantitation	1) Check sensitivy (MDL< 1/3 PQL or per QAPP	Sensitivity; supports PALs.	X	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	The laboratory accuracy for compound identification is acceptable. Laboratory precision is acceptable. Data are usable for project decisions. ICAL is linear. CCV; within MPC. Sampling error- FD pair not analyzed with this SDG.	X	-	

(*Tier III criteria)

Completeness Check: Inventory Check Sheet_____X__ Sample Quantitation Calculations (TIER III ONLY):

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

SVOCs 8270C
Review Criteria: Region I Tier II Guidance & OM Manual

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	Aqueous	-	1.2 C (1-cooler)	Alpha Laboratory Westborough, MA	0302959

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
8-GW02S-01	L0302959-01
3-GW37S-01	L0302959-02
3-GW12D-01	L0302959-03

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No samples qualified.	X	-	
ldding Time	1) 7 Days aqueous – 14 days soil (extract 40 days) 2) J –detects, UJ or R –nondetects (function of time)	None	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made (no USACE) 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	Not applicable	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	Results <SQL and >MDL are qualified as estimated. These are listed on the data summary sheet.	X	J	
TICs (if reported)	1) *verify library search for samples and blanks	None Reported	X	-	
Internal Stds	1) IS are –50% to 200% of CCV 1) RRT<0.06 (30 sec) 2) IS>100% J-detects 3) IS<20%CCV NDs – R 4) IS>20%CCV <50%CCV NDs – UJ 5) *check for IS transcription errors	Internal standards are within MPC. No samples qualified.	X	-	
Equip Blank	< 5x (<10x common) contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not collected/anlayzed with this SDG	x	-	

ECC Region I Data Review Worksheet (rv 2) **SVOCs 8270C**
Project: New London ECC Job No. 5700 **Review Criteria: Region I Tier II Guidance & OM Manual**

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Surrogates	Within historical laboratory limits Qualification: >UCL J –detects, %R<10% J –detects, R –NDs, %R >10% but <39% J-detects, UJ NDs	Surrogate phenol-d6 is low (ca. 25%), but there are no Navy crteria for this surrogate in aqueous SVOCs. No action taken. Other surrogate %R's within MPC. No samples qualified.	X	-	
Lab Blanks (method	1) < 5x (<10x common) contaminants – U 2) analytes <lab PQL (contract lab) 3) no phthalates >5X QL (QAPP)	Lab blank is non-detect for all reported SVOCs. No samples qualified.	x		
LCS Recovery	1) Within historical laboratory limits listed in (QAPP) 10% and <LCL% J detects, UJ –NDs >UCL% J detects <10% R NDs, J-detects	2,4 dinitrophenol %R>UCL. All samples non-detect for this SVOC. No action taken.	X		
MS/MSD Recovery	1) Within historical laboratory limits (QAPP) (if MS > 4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <70% J detects, UJ -NDs >130% J detects	Native sample; 3-GW12D-01 MS %R's within limits. No samples qualified. No apparent matrix bias.	x		
Cleanup Performance Check (if performed)	%R< 10% NDs-R detections J %R>10% <LCL (80%GPC) –detections J, NDs UJ %R>UCL (120%) – detections J Retention Time shift <5% symmetrical	NA	-	-	
MS/MSD RPD	RPD ≤40% aq, <50% (S) J –detects in MS sample UJ-non detects	Native sample; 3-GW12D-01 Within MPC limits. No samples qualified. Laboratory precision acceptable.	X	-	
Tune Check	Tune check within method parameters for DFTPP	All tunes checks within limits.	X	-	
DDT degradation Instrument performance check	1) Breakdown <20% DDT 2) benzidine and pentachlorophenol at normal response - no peak trailing (<3.0 benz. , <5.0 penta.) Detections – J	Degradation check provided on July 25, 2003 for ICAL tune check only. Lab did not analyze/report degradation check associated with sample analysis. No further action taken.	X	-	
Field Dup RPD	1) RPD ≤ 100% water; ≤ 100% soil for Results > PQL (FD pair only) J-detects (both > PQL) 2) If one > PQL, other ND, J-detections, UJ non-detect 3) Other conditions use judgement	FD pair not analyzed/collected with this SDG.	-	-	

ECC Region I Data Review Worksheet (rv 2) **SVOCs 8270C**
Project: New London ECC Job No. 5700 **Review Criteria: Region I Tier II Guidance & OM Manual**

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Initial Cal (Linearity)	Correct calibration stds %RSD < 15% use average RF for calibration %RSD> 15% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 or alternatively mean %RSD <15% for all target analytes, with no analyte %RSD>30% or %RSD<30% each target analyte 1) CCCs %RSD: <30% (acenatphthene, 1,4 dichlorobenzene, hexachlorobutadiene, dipheynlamin, di-n-octyl phthalate, fluoranthene, benzo(a)pyrene, 4-chloro-3-methylphenol, 2,4, dichlorophenol, 2-nitrophenol, phenol, pentachlorophenol, 2,4,6 trichlorophenol) J –detects, R or UJ NDs all samples associated with Ical) 2) SPCCs Average RRF > 0.05: SPCCs n-nitroso-di-n-propylamine, hexachlorcyclopentdiene, 2,4 dinitrophenol, 4-nitrophenol. (J –detects, R NDs) 3) RRF>0.05 all target compounds RRT < 0.06 units (all stds within 30 sec) 4) *verify that instrument parameters met method and that Ical and analysis used the same parameters 5) *recalculate RRF one tgt compound associated with each IS. Recalculated values within 10% of lab values. 6) *recalculate one tgt compound associated with each IS. Recalculated values within 10% 7) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 8) *option-recalculate cal std concentration	Instrument: Buffy Date:29 Jan 03 RRF>0.05 all SVOCs. Average RSD<15% - no %RSD>30% criteria used for linearity of SVOC Ical. No samples qualified based on ICAL.	X	-	
2nd Source ICV	%R (between ICV and Ical) analytes 80%--120% (USACE) %D ≤ 25%, (+ or -) once per 5 pt cal Qualification: J detects, R or UJ NDs	Within method limits. No samples qualified. Instrument Buffy, Date; 30 Jan 03.	x	-	
CCV	1) SPCCs Average RRF: SPCCs n-nitroso-di-n-propylamine, hexachlorcyclopentdiene, 2,4 dinitrophenol, 4-nitrophenol. 2) RRF all compounds > 0.05 3) CCC: (acenatphthene, 1,4 dichlorobenzene, hexachlorobutadiene, dipheynlamin, di-n-octyl phthalate, fluoranthene, benzo(a)pyrene, 4-chloro-3-methylphenol, 2,4, dichlorophenol, 2-nitrophenol, phenol, pentachlorophenol, 2,4,6 trichlorophenol) 4) %D<20%. CCCs (QAPP -except surrogates). 5) Qualification-J detects, R or UJ Nods 6) %D<25% all compounds (Tier I). 7) RRF exclusions: surrogates,	4-chloroaniline, 3-nitroaniline, 4-nitroaniline, 3-3" dichlorobenzidine, and hexachlorocyclopentadiene. %D> 25% for these SVOCs. These were non-detect in all samples. Results qualified UJ.	X	UJ	

ECC Region I Data Review Worksheet (rv 2) **SVOCs 8270C**
Project: New London ECC Job No. 5700 **Review Criteria: Region I Tier II Guidance & OM Manual**

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
	8) *verify same instrument and parameters 9) *Recalculate RRF for one tgt cmpd associated with each IS. (within 10%) 10) *Recalculate %D for one tgt cmpd associated with each IS (within 10%) 11) *IS RRT<0.06 units (30 sec) 12) * IS area -50 % to 100 % of last ICAL 13) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 14) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)				
Compound Quantitation	1) Check sensitivy (MDL< 1/3 PQL or per QAPP	NA	-	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	The laboratory accuracy and precision are acceptable for all compounds. No apparent sample matrix bias. Results are usable for making project decisions and have been reconciled with project objectives. Method blank; non-detect for all SVOCs. BEHP main SVOC COC was non-detect in the MB and samples. ICAL; linear. CCV exceedences for aniline compounds. These were non-detect in the samples and these are not site COCs. ICV: in limits for reported compounds. Not all COCs analyzed. Sampling error-FD not collected/analyzed with this SDG.	x	-	

*Tier III criteria.

Completeness Check: Inventory Check Sheet_____X__ Sample Quantitation Calculations (TIER III ONLY):

Lab correspondence/telephone: 19 June 2003. Lab asked to provide ICV and DDT IPC.
Lab provided DDT check and ICV on July 25, 2003.

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	Aqueous	Nitric Acid (field filtered) Unpreserved (dissolved metals)	1.2 C (1-cooler)	Alpha Laboratory Westborough , MA	0302959

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
8-GW02S-01	L0302959-01
3-GW37S-01	L0302959-02
3-GW12D-01	L0302959-03

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No samples qualified.	X	-	
Holding Time	1) 180 days (6010), Hg 28 Days to analysis 2) J –detects, UJ or R –nondetects (function of time)	None	X	-	
Lab Duplicate	1) RPD < 20% 1) If both values > PQL 2) Qualify samples in batch: detects J, NDs UJ	Native sample: 3-GW37S-01 Lab duplicate RPDs<MPC for both total and dissolved metals. Laboratory precision adequate. No samples qualifed.	X	-	
LCS Recovery	1) once per sample batch 2) 75-125% water, soil, QAPP limits. 3) <LCL% Reject 4) >UCL% detects J	LCS %R's acceptable. No samples qualified.	X	-	
Field Dup RPD	1) RPD ≤ 100% water & soil for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect	FD not analyzed with this SDG	-	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	Not applicable	-	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	none	X	-	
Lab Blanks (method blank or p reparation blank)	1) Once per sample batch 2) Results > QL; sample results <5X ; sample result U (nd) 3) Sample results >5X blank level; no action	Non-detect for target metals.	X	-	
MS Recovery	1) 75-125% GFAA/ICP if MS > 4X native levels) Qualification of MS sample: 2) <30% J detects, R NDs 3) 30%--74%, detects J, NDs UJ 4) >125% J detects	3-GW12D-01 native sample Totals and dissolved MS %R's within limits. Na metal MS %R is zero. The MS was not greater than 4X the native Na concentarion in the sample. No samples qualified.	X	-	
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %R 80-120%, 1) %R <10 ND- (R) , J- detects 2) 10%> but <80% , judgement 3) %R>120% J-detects 4) QC, IS, RRT meet criteria, 5) %RSD < 20% 6) MDL< MQL (3x less ideal) 7) Lab fortitied blank (see VOA/SV Part II – section X). 8) *Check and recalculate %RSDs and %R fir three compounds (with 10% of lab)	QL<O&M plan RL, but <groundwater criterion arsenic, beryllium, Lead > RL and groundwater criterion. Lead IDL = 1.1 ug/L. No qualitative lead detectsions. Cadmium. > criterion, but meets RLs.	X	-	
Equip Blank	< 5x contaminants for aq samples – for soil indicate EB (X rules don't apply)	Equipment blank not collected/analyzed with this SDG.	x	-	
Negative blanks	If negative values are reported for an analyte with absolute value >DL and sample value is <5X the absolute value of the blank or is nondetect Qualify detects as estimated (J) Nondetects as estimated (UJ	None	X	-	
Initial Cal Multipoint	1) 6010: 1 std and blank and low-level check at MQL – check std 20% 2) 3 stds and a blank- R = 0.995 3) %RSD <5%	ICal for Hg provided 25 July 2003. Calibration curve within limits. ICP metals – 2-point calibration, with analysis of high and low standard used.	X	-	
Initial and Continuing Calibration Blanks	1) Ical blank after Ical 2) CCB every 10 samples end of run 3) Results > QL; sample results <5X ; sample result U (nd) 4) Sample results >5X blank level; no action	Detected elements <QL. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

Serial Dilution	1) once per digestion batch 2) Meets method limits.	8-GW02S-01 within limits.	x		
Interelement checks ICS-A, ICS-AB Instrument performance check	1) start of sequence 2) 80-120% target analytes 3) >120% ; detects J (ICS-AB) 4) 50%-79% R ICS-AB; detects J, NDs – UJ 5) <50% R – reject data 6) ICS-A response > DL and samples have <5X ICS-A response: detects J	ICS's within limits. No samples qualified.	X	-	
2nd Source ICV	1) following calibration 2) 90- 110% Recovery (6010/7000) 3) 75%-89% R – detects J, NDs – UJ 4) 111-125% R – detects J 5) outside 75-125% R – reject data (R)	Within QC limits. No samples qualified.	X	-	
CCV	1) every 10 samples and end of run 2) 90- 110% Recovery (6010) Hg; 80-120% 3) 6010: 75%-89% R Hg, 65-79% R; – detects J, NDs – UJ. 4) 6010: 111-125%, Hg: 121-135% detects J 5) 6010: outside 75-125%, Hg; outside 65-135%; R – reject data (R)	Within QC limits. No samples qualified.	X	-	
Post Digestion Spike	1) 75- 125% R	PDS on 8-GW02S-01 %R's within limits.	x	-	
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 3) * performed annually 4) *MDL is at least ½ of PQL *tgt and surrogate 80-120% R	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 3) *Matrix effects- MS/MSD, surrogated, PDS. 4) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 5) PES > acceptance criteria – Detects in samples J, 6) PES<acceptance criteria – Detects J, NDs –R 7) VOA/SV-XI14 other criteria 8) *% of PES sample above and below criteria 9) *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Laboratory accuracy and precision is acceptable. Accuracy is shown by the LCS being within limits. Further the ICS-A, and ICS-AB were within limits for all elements. No apparent sample bias. Sample results are usable for project decision making. ICAL; acceptable ICV: acceptable CCV: within limits. Sampling error- FD not analyzed with this SDG.	X	-	

*TIER III DATA VALIDATION ONLY Completeness Check: Inventory Check Sheet___X_Sample Quantitation Calculations (TIER III DATA VALIDATION ONLY):

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Pesticide 8081A
Review Criteria: Region I Tier II Guidance & OM Manual

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	Aqueous	-	1.2 C (1-cooler)	Alpha Laboratory Westboroug h, MA	0302959

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
8-GW02S-01	L0302959-01

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No samples qualified.	X	-	
Holding Time	1) 7 to extract, 40 Days to analysis 2) J –detects, UJ or R –nondetects (function of time) 3) *check transcription errors	All samples analyzed within holding time	X	-	
Lab duplicate	1) RPD<20%	Native sample 8-GW02S-01 PCBs non-detect in the sample and lab duplicate RPDs not calculated.	x		
Results > Cal Range or <Cal Range	2) >Upper Cal Range J-detects - ensure instrument blank performed 3) <PQL but >MDL – J –detects (estimated)	Not applicable	X	-	
Internal Stds	1) IS are –50% to 200% of CCV 1) RRT<0.06 (30 sec) 2) IS>100% J-detects 3) IS<20%CCV NDs – R 4) IS>20%CCV <50%CCV NDs – UJ 5) *check for IS transcription errors	Internal standards are within MPC. No samples qualified.	X	-	
Compound Quantitation	1) Check sensitivy (MDL< 1/3 PQL or per QAPP 2) %D <25% primary and secondary column identification and quantitation 3) *Recalculate one detection and quantitation limit 4) *verify concentrations have been adjusted to account for DW, DF, 5) *verify correct RRFs were used	%D<25% between columns with detections. No pesticides detected in either column	X	-	
% Solids	30%<Solids: if no sample weight adjustment	Not applicable	X	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Pesticide 8081A
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Check (SOLIDS)	made (no USACE) 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R				
Lab Blanks (method	1) < 5x contaminants – U 2) analytes <lab PQL (contract lab) 3) if linear range is exceeded, verify if a instrument blank was performed 4) *verify accurate transcription of times, Ids, are reported on forms 5) *verify from the raw data if the instrument blank was performed in the same vessel 6) *verify, RRT, and surrogate %R 7) *check 10% of raw chromotgrams for false +/-, check for transcription errors recalculate surrogate recovery (10% of them)	No COCs detected in the MB. No samples qualified.	X	-	
Equip Blank	< 5x (<10x common) contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not applicable	-		
Surrogates	Surrogate acceptance limits DCB&TCX – QAPP limits. Qualification: >UCL J –detects, %R<10% J –detects, R –NDs, %R >10% but <60% J-detects, UJ NDs	Within limits. No samples qualified.	X	-	
LCS Recovery	1) arochlors 1016/1260 2) QAPP limits 10% and <LCL% J detects, UJ -NDs >UCL% J detects <10% R NDs, J-detects 4) *Recalculate the concentrations for one compound in the LCS 5) * Recalucate the %R (within 10% of lab) Note: Tier guidance as a zero blind	LCS %R's with MPC. No samples qualified.	X	-	
MS/MSD Recovery	1) Lab limits; (if MS > 4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <70% J detects, UJ -NDs >UCL - J detects 6) *Recalculate the concentration for one compound in the MS/MSD 7) * Recalucate the %R (within 10% of lab)	Native sample not analyzed for the MS/MSD. As only one sample in this SDG is for pesticide analysis. Matrix impacts not determined. No action taken.	x	-	
MS/MSD RPD	RPD ≤40%, 50% for concentrated extracts J – detects in MS sample UJ-non detects *recalculate one RPD	Native sample not analyzed for the MS/MSD. Laboratory duplicate analyzed to determine laboratory precision.	x	-	
Field Dup RPD	1) RPD ≤ 100% water & 50% soil for 2) Results > PQL (FD pair only) J-detects (both > PQL) 2) If one > PQL, other ND, J-detections, UJ non-detect	Not collected/analyzed with this SDG.	-	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Pesticide 8081A
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
	3) Other conditions use judgement 8) *Recalculate the concentrations for one compound and the PQL				
*MDL Study	6) *In accordance with 40CFR – seven replicates %RSD < 20% 7) * retention times within method requirements 4) * performed annually 5) *MDL is at least ½ of PQL or QAPP limits 6) *tgt and surrogate 80-120% R *check and recalculate %RSD and %R for one arochlor for 10% of them (criteria within 10% of lab)	NA	-	-	
Sensitivity	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %R 80-120%, 3) %R <10 ND- (R) , J- detects 4) 10%> but <80% , judgement 5) %R>120% J-detects 6) QC, RRT meet criteria, 7) %RSD < 20% 8) MDL< MQL (3x less ideal) 9) Lab fortitied blank (see VOA/SV Part II – section X). 10) *Check and recalculate %RSDs and %R for three compounds (with 10% of lab)	Sensitivity acceptable, as this is the best available technology. Groundwater criterion and RL are achieved.	x	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 4) *Matrix effects- MS/MSD, surrogated, PDS. 5) *System chromatography- evaluate RRTs, peaks shapes, system impacts on data, baseline shifts. 6) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*TGT Compound Identification	1) *Within 0.06 (30 sec) of CCV RRT 2) * calculate %RPD 1 and 2 columns	NA	-	-	
Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 7) PES > acceptance criteria – Detects in samples J, 8) PES<acceptance criteria – Detects J, NDs –R 9) VOA/SV-XI14 other criteria 10) *% of PES sample above and below criteria 11) *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Pesticide 8081A
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Initial Cal Multipoint (instrument evaluation)	1) correct calibration stds 2) *recalculate one tgt compound associated. Recalculated values within 10% 3) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 4) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	02 april 2003 Instrument; pest7 Re-submitted by lab on supplemental data PDF.	X	-	
Initial Cal (Linearity)	%RSD < 20% use average RF for calibration %RSD> 20% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 or alternatively mean %RSD <20 for all target analytes, with no analyte %RSD>30% or %RSD<30% each target analyte	First column; RSD%<20% No samples qualified.	X	-	
2nd Source ICV	%R (between ICV and Ical) analytes 80%--120% (USACE) %D ≤ 15%, (+ or -) once per 5 pt cal Qualification: J detects, R or UJ NDs *Calculate %D ICV/ICAL	ICV ; 15 April 2003 Instrument: Pest 7 Endrin %D>15%	X	UJ Endrin in the sample	
CCV	1) QAPP: 15% of initial calib. curve 2) Qualification-J detects, R or UJ NDs 3) *verify same instrument and parameters 4) *Recalculate RRF for one tgt cmpd (within 10%) 5) *Recalculate %D for one tgt cmpd (within 10%) 6) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 7) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)	Endrin and methoxychlor have %D>MPC. ND in samples qualify as UJ.	X	UJ	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Laboratory accuracy is acceptable Laboratory precision is acceptable. The sample results are usable for making project decisions. No apparent sample bias, based upon the surrogate %R. MS/MSD analysis not performed for this SDG. ICAL: linear ICV: within limits, except for endrin. CCV: Within MPC limits, except for endrin and methoxychlor. Sampling error- FD pair not collected/analyzed with this SDG.	X	-	

(*asterisk sections Tier III only) Completeness Check: Inventory Check Sheet__X

Sample Quantitation Calculations on attached sheet (TIER III ONLY):

CHAIN OF CUSTODY

PAGE ____ OF ____

Date Rec'd in Lab: 4/2/03

ALPHA Job #: L0302959

Eight Walkup Drive Westborough, MA 01581
TEL: 508-898-9220 FAX: 508-898-9193

Client Information

Client: ECC
Address: 50 D'ANGELO DR MARLBOROUGH, MA
Phone: 508 229-2270
Fax: 508 229-7737
Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: NSB-NL
Project Location:
Project #:
Project Manager: DARREN GAINER
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved)

Date Due: 4/16/03 Time:

Report Information - Data Deliverables

☐ FAX
☑ ADEx
Criteria Checker: ____
(Default based on Regulatory Criteria Indicated)
Other Formats: ____
☐ EMAIL (standard pdf report)
☐ Additional Deliverables: ____

Report to: (if different than Project Manager)

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed	Program	Criteria

Other Project Specific Requirements/Comments:

*1 LITER AMBERS FOR SVOC/PAH UNPRESERVED. LABELS INDICATED PRESERVATIVE REQ, NONE USED

ANALYSIS

SAMPLE HANDLING
Filtration
☑ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TCL VOC	TCL SVOC (w/o PAH)	TCL PAH	TCL PEST/PCB	TAL METALS TOTAL	TAL METALS dissolved	ANIONS SULF/NIT	TDS, ALK, CL, SO4	TSS	HARDNESS			Sample Specific Comments	TOTAL # BOTTLES
03959.1	8-GW02S-01	4/1/03	1635	W	DC	✓	✓	✓	✓	✓	✓	✓						GOSS COVE	
2	3-GW37s-01	4/2/03	1540	W	DC		✓	✓		✓	✓		✓	✓	✓			ALPHA	
3	3-GW12d-01	4/2	1615	W	DG		✓	✓		✗	✗		✓	✓	✓			ALPHA	
4	TRIP BLANK TB-1	3/31	1130	W	ALPHA	✓													

Shaded Gray Areas For Lab Use Only

Container Type	V	G	G										
Preservative	HCL												

Relinquished By:	Date/Time	Received By:	Date/Time
[signature] 17:02	4/2/03	[signature]	4/2/03 1738
[signature]	4/2/03 1910	[signature]	4/2/03 1910

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

Form No: 02-02 STD

DATA VALIDATION MEMORANDUM
O&M MONITORING SITES – NEW LONDON NSB
APRIL 2003 SAMPLING ROUND (SDG 0303029 ALPHA LAB)

TO: ENGINEERING FIELD ACTIVITY NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NEW LONDON NSB – IRP O&M MONITORING SITES - SAMPLING ROUND APRIL 2003

DATE: 29 JULY 03

Project data were validated using the following Validation Functional Guideline, as modified for non-CLP methods.

1. Region I, EPA-NE Data Validation Functional Guidelines for Evaluation of Environmental Analyses (Dec, 1996).

The validation guideline exceedences are assessed and documented on the method specific data validation worksheet. On the data validation worksheet, the data quality acceptance criteria are presented, analytes requiring qualification based on laboratory historical control limits and/or validation guidance criteria exceedences are listed, assigned qualifiers, qualifying rationale is documented, and any potential bias noted. The overall evaluation of the data generated is presented in the data validation worksheet.

Standard EPA Region I data qualifiers are used to denote the assessment of data quality. The final and ranking assigned data qualifier for an analyte is presented in the data summary table. Ancillary qualifiers are noted on the data validation worksheets.

As an exception to the USEPA Region I data validation guidance, non-target ketone VOC data with response factors (RFs) less than the 0.05 were not qualified, as the Tier guidance allows for exceptions to the RF guidance.

The USEPA Region I Organic Regional Data Assessment (ORDA) sheet displays the summarized results of the data validation assessment for all analytical methods reported in the SDG.

Region I, EPA-NE ORGANIC REGIONAL DATA ASSESSMENT

LAB NAME: Alpha Lab
SDG #:__0303029_____
EPA-NE DV TIER LEVEL:___II___
SITE NAME: New London NSB – O&M

# of SAMPLES/MATRIX:___4 GW __
VALIDATION CONTRACTOR:__ECC
VALIDATOR'S NAME: Jackson Kiker
DV Completion Date:__ 29 July 2003
Date Sampled__4/3/03_____

ANALYTICAL DATA QUALITY SUMMARY

		PAH	SVOC	Metals
1	Preservation and HT	O	O	O
2	Instrument Performance Check	O	O	O
3	Initial Calibration:	M	M	O
4	Continuing Calibration:	O	O	O
5	Blanks:	O	O	O
6	Surrogate Compounds:	O	O	-
7	Internal Standards	O	O	-
8	Matrix Spike/Matrix Spike Duplicate:	O	O	O
9	Sensitivity Check:	O	O	O
10	PE Samples- Accuracy Check	O	O	O
11	Target Compound Identification:	-	-	-
12	Compound Quantitation and Reported QLs	O	O	O
13	Tentatively Identified Compounds:	-	-	-
14	Semivolatile/Pesticide/PCB Cleanup:	-	-	O
15	Data Completeness	M	M	O
16	Overall Evaluation of Data:	O	O	O

O = Data had no problems or were qualified due to minor contractual problems; M = Data were qualified due to major/systemic MPC exceedences: Z = Data were rejected as unusable due to major contractual problems.

ACTION ITEMS: (Z items): ____

AREAS OF CONCERN: (M items): PDS %R for silver low. Potential matrix bias. Silver not a site COC. PAHs: ICV not analyzed., CCV low %D for 2-methylnaphthalene (not a site COC). SVOC; %D<MPC for 2-methylnaphthtalene (not a site COC).

COMMENTS:. ICV not analyzed for PAH analyses SVOC sample analysis deg check not analyzed. Water quality parameters included. Results and QC included in package.

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

PAH 8270C - SIM
Review Criteria: Region I Tier II Guidance & OM Manual

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	Aqueous	-	2.1 C (1-cooler)	Alpha Laboratory Westborough, MA	0303029

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
2-GW39DS-01 (2-WMW-39-DS)	L0303029-02
2-GW40DS-01 (2-WMW-40-DS)	L0303029-03
2-SP01-01	L0303029-04

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No samples qualified.	X	-	
Holding Time	1) 7 Days water, 40 to analysis 2) J –detects, UJ or R –nondetects (function of time)	All analysis within hold times	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made (no USACE) 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	Not applicable	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	Lab did not report qualitative detections.	-	-	
Equip Blank	< 5x (<10x common) contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not applicable	-	-	
Surrogates	1) Surrogate acceptance limits Carbazole & p-Terphenly-d14 within QAPP limits. Qualification: >UCL J –detects, %R<10% J –detects, R –NDs, %R >10% but <60% J-detects, UJ NDs	Surrogates within QC limits. No samples qualified.	x	-	
Lab Blanks (method	1) < 5x (<10x common) contaminants – U 2) analytes <lab PQL (contract lab)	All method blanks were non-detects for COCs. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

PAH 8270C - SIM
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
LCS Recovery	1) QAPP limits 10% and <LCL% J detects, UJ -NDs >UCL% J detects <10% R NDs, J-detects	LCS %R within method limits. No samples qualified	X	-	
MS/MSD Recovery	1) QAPP limits (if MS > 4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <70% J detects, UJ -NDs >130% J detects	Native sample; 2-GW39DS-01 MS %R's within limits. No samples qualified	X	-	
MS/MSD RPD	RPD ≤40% solid, 30% aq per QAPP Table 7-3. J –detects in MS sample UJ-non detects	Native sample2-GW39DS-01 MS/MSD RPD <MPC. No samples qualified. Laboratory precision acceptable.	x		
Cleanup Performance Check (if performed)	%R< 10% NDs-R detections J %R>10% <LCL (80%GPC) –detections J, NDs UJ %R>UCL (120%) – detections J	NA	-	-	
Retention times	Within 3X standard deviation for each analyte from 72-hour study Exceeds: R qualify data	Retention times within limits.	X	-	
Field Dup RPD	1) RPD ≤ 100% water & soil for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect 3) Other conditions use judgement	FD pair not analyzed with this SDG.	-		
Initial Cal (Linearity)	Correct calibration stds %RSD < 15% use average RF for calibration %RSD> 15% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 or alternatively mean %RSD <20% for all target analytes, with no analyte %RSD>40% Resolution check mix –valley 60% hgt of shortest peak (CLP criteria only) Performance check mix - >90% (PEM) (CLP criteria only) SW-846 PEM –endrn/DDT breakdown evaluation. Blank and Performance Evaluation Mix (PEM) at start, and blank and midpoint Individual Standard Mix A (ISMA) and ISMB at end or samples(CLP only)	12 Mar 03 Instrument HPLows – Mindy %RSD<20% ICAl linear. No samples qualified RRF>0.05 SPCC compounds not analyzed for this method. No action taken.	X	-	
Degradation Check	Within method limits.	Degradation check for tunes associated with sample analysis within limits. ICAL Degradation checks within limits.	X		
Tune Check	Tune check within method parameters for DFTPP	All tunes checks within limits.	X	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

PAH 8270C - SIM
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
CCV	1) QAPP: 15% of initial calib. Curve (85%-115%). I f low re-calibrate. If high no recalibration needed. J qualify data. 2) 15% D 3) Qualification-J detects, R or UJ NDs	%D<15% for all CCV (pre analysis provided). Post CCV not in package, lab called for information. %D<15% for all PAHs except 2-methylnaphthalene for all samples.	X	UJ 2-MNP	
2nd Source ICV	%R (between ICV and Ical) analytes %D ≤ 15%, (+ or -) once per 5 pt cal Qualification: J detects, R or UJ NDs	ICV not analyzed	X	-	
Internal Stds	1) IS are –50% to 200% of CCV 1) RRT<0.06 (30 sec) 2) IS>100% J-detects 3) IS<20%CCV NDs – R 4) IS>20%CCV <50%CCV NDs – UJ 5) *check for IS transcription errors	Internal standards are within MPC. No samples qualified.	X	-	
Compound Quantitation	1) Check sensitivy (MDL< 1/3 PQL or per QAPP	Sensitivity; supports PALs in O&M manual.	X	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	The laboratory accuracy for compound identification is acceptable. Laboratory precision is acceptable. No apparent sample bias. Data are usable for project decisions. ICAL is linear. CCV; within MPC, except for 2-methylnaphthatlene Sampling error- FD pair not analyzed with this SDG.	X	-	

(*Tier III criteria)

Completeness Check: Inventory Check Sheet_____X__ Sample Quantitation Calculations (TIER III ONLY):

ECC Region I Data Review Worksheet (rv 2) **SVOCs 8270C**
Project: New London ECC Job No. 5700 **Review Criteria: Region I Tier II Guidance & OM Manual**

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	Aqueous	-	2.1 C (1-cooler)	Alpha Laboratory Westborough, MA	0303029

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
2-GW38DS-01	L0303029-01
2-GW39DS-01	L0303029-02
2-GW40DS-01	L0303029-03
2-SP01-01	L0303029-04

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No samples qualified.	X	-	
Holding Time	1) 7 Days aqueous – 14 days soil (extract 40 days) 2) J –detects, UJ or R –nondetects (function of time)	None	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made (no USACE) 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	Not applicable	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	Lab does not report results <SQL	X	-	
TICs (if reported)	1) *verify library search for samples and blanks	None Reported	X	-	
Internal Stds	1) IS are –50% to 200% of CCV 1) RRT<0.06 (30 sec) 2) IS>100% J-detects 3) IS<20%CCV NDs – R 4) IS>20%CCV <50%CCV NDs – UJ 5) *check for IS transcription errors	Internal standards are within MPC. No samples qualified.	X	-	
Equip Blank	< 5x (<10x common) contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not collected/anlayzed with this SDG	x	-	

ECC Region I Data Review Worksheet (rv 2) **SVOCs 8270C**
Project: New London ECC Job No. 5700 **Review Criteria: Region I Tier II Guidance & OM Manual**

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Surrogates	Within historical laboratory limits Qualification: >UCL J –detects, %R<10% J –detects, R –NDs, %R >10% but <39% J-detects, UJ NDs	Surrogate phenol-d6 is low (ca. 33%) in 01, 02, 03, & 04, but there are no Navy crteria for this surrogate in aqueous SVOCs. No action taken. Other surrogate %R's within MPC. No samples qualified.	X	-	
Lab Blanks (method	1) < 5x (<10x common) contaminants – U 2) analytes <lab PQL (contract lab) 3) no phthalates >5X QL (QAPP)	Lab blank is non-detect for all reported SVOCs. No samples qualified.	x		
LCS Recovery	1) Within historical laboratory limits listed in (QAPP) 10% and <LCL% J detects, UJ –NDs >UCL% J detects <10% R NDs, J-detects	Phenol LCS %R = 35%. No lab criteria. Soil lab criteria of 40% LCL used. All samples results qualified.	X	UJ In all samples	
MS/MSD Recovery	1) Within historical laboratory limits (QAPP) (if MS > 4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <70% J detects, UJ -NDs >130% J detects	Native sample; 2-GW39DS-01.This MS/MSD use to evaluate GW samples. Other SW MS/MSD used to evaluate SW matrix.. MS %R's within limits. No samples qualified. No apparent matrix bias.	x		
Cleanup . erformance Check (if performed)	%R< 10% NDs-R detections J %R>10% <LCL (80%GPC) –detections J, NDs UJ %R>UCL (120%) – detections J Retention Time shift <5% symmetrical	NA	-	-	
MS/MSD RPD	RPD ≤40% aq, <50% (S) J –detects in MS sample UJ-non detects	Native sample; 2-GW39DS-01 Within MPC limits. No samples qualified. Laboratory precision acceptable.	X	-	
Tune Check	Tune check within method parameters for DFTPP	All tunes checks within limits.	X	-	
DDT degradation Instrument performance check	1) Breakdown <20% DDT 2) benzidine and pentachlorophenol at normal response - no peak trailing (<3.0 benz. , <5.0 penta.) Detections – J	ICAL Tunes; degradation check within limits. Degradation checks associated with samples not analyzed.	x	-	
Field Dup RPD	1) RPD ≤ 100% water; ≤ 100% soil for Results > PQL (FD pair only) J-detects (both > PQL) 2) If one > PQL, other ND, J-detections, UJ non-detect 3) Other conditions use judgement	FD pair not analyzed/collected with this SDG.	-	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Initial Cal (Linearity)	Correct calibration stds %RSD < 15% use average RF for calibration %RSD> 15% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 or alternatively mean %RSD <15% for all target analytes, with no analyte %RSD>30% or %RSD<30% each target analyte 1) CCCs %RSD: <30% (acenatphthene, 1,4 dichlorobenzene, hexachlorobutadiene, dipheynlamin, di-n-octyl phthalate, fluoranthene, benzo(a)pyrene, 4-chloro-3-methylphenol, 2,4, dichlorophenol, 2-nitrophenol, phenol, pentachlorophenol, 2,4,6 trichlorophenol) J –detects, R or UJ NDs all samples associated with Ical) 2) SPCCs Average RRF > 0.05: SPCCs n-nitroso-di-n-propylamine, hexachlorcyclopentdiene, 2,4 dinitrophenol, 4-nitrophenol. (J –detects, R NDs) 3) RRF>0.05 all target compounds RRT < 0.06 units (all stds within 30 sec) 4) *verify that instrument parameters met method and that Ical and analysis used the same parameters 5) *recalculate RRF one tgt compound associated with each IS. Recalculated values within 10% of lab values. 6) *recalculate one tgt compound associated with each IS. Recalculated values within 10% 7) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 8) *option-recalculate cal std concentration	Instrument: Buffy Date:29 Jan 03 RRF>0.05 all SVOCs. Average RSD<15% - no %RSD>30% criteria used for linearity of SVOC Ical. No samples qualified based on ICAL.	X	-	
2nd Source ICV	%R (between ICV and Ical) analytes 80%--120% (USACE) %D ≤ 25%, (+ or -) once per 5 pt cal Qualification: J detects, R or UJ NDs	ICV analyzed after ICAL. Complete SVOC list not analyzed nor SPCC compound. Reported SVOCs are within limits. No action taken other than notation here.	X	-	
CCV	1) SPCCs Average RRF: SPCCs n-nitroso-di-n-propylamine, hexachlorcyclopentdiene, 2,4 dinitrophenol, 4-nitrophenol. 2) RRF all compounds > 0.05 3) CCC: (acenatphthene, 1,4 dichlorobenzene, hexachlorobutadiene, dipheynlamin, di-n-octyl phthalate, fluoranthene, benzo(a)pyrene, 4-chloro-3-methylphenol, 2,4, dichlorophenol, 2-nitrophenol, phenol, pentachlorophenol, 2,4,6 trichlorophenol) 4) %D<20%. CCCs (QAPP -except surrogates). 5) Qualification-J detects, R or UJ Nods 6) %D<25% all compounds (Tier I). 7) RRF exclusions: surrogates,	CCV (pre sample). %D<MPC for all SVOCs except 2-methylnaphtalene.	X	UJ 2-Mnap.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
	8) *verify same instrument and parameters 9) *Recalculate RRF for one tgt cmpd associated with each IS. (within 10%) 10) *Recalculate %D for one tgt cmpd associated with each IS (within 10%) 11) *IS RRT<0.06 units (30 sec) 12) * IS area -50 % to 100 % of last ICAL 13) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 14) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)				
Compound Quantitation	1) Check sensitivy (MDL< 1/3 PQL or per QAPP	COCs within O&M limits.	X	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	The laboratory accuracy and precision are acceptable for all compounds. No apparent sample matrix bias. Results are usable for making project decisions and have been reconciled with project objectives. Method blank; non-detect for all SVOCs. BEHP main SVOC COC was non-detect in the MB and samples. ICAL; linear. CCV exceedence for 2-methylnaphthalene (non-COC) compounds. These were non-detect in the samples and these are not site COCs. ICV; within limits for analyzed/reported SVOCs. Sampling error-FD not collected/analyzed with this SDG.	x	-	

*Tier III criteria.

Completeness Check: Inventory Check Sheet____X__ Sample Quantitation Calculations (TIER III ONLY):

Lab correspondence/telephone: 19 June 2003. Lab asked to provide ICV and DDT IPC.
25 July 2003 lab response: ICV provided. DDT IPC not provided for sample analysis tunes.
30 July 2003: phone conversation with lab; this information was requested.

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	Aqueous	Nitric Acid (field filtered) Unpreserved (dissolved metals)	2.1 C (1-cooler)	Alpha Laboratory Westborough , MA	0303029

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
2-GW38DS-01 (2-WMW-38-DS)	L0303029-01
2-GW39DS-01 (2-WMW-39-DS)	L0303029-02
2-GW40DS-01 (2-WMW-40-DS)	L0303029-03
2-SP01-01	L0303029-04

**sample numbers in brackets as submitted to lab. Other sample number is per O/M plan.*

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No samples qualified.	X	-	
Holding Time	1) 180 days (6010), Hg 28 Days to analysis 2) J –detects, UJ or R –nondetects (function of time)	None	X	-	
Lab Duplicate	1) RPD < 20% 1) If both values > PQL 2) Qualify samples in batch: detects J, NDs UJ	Native sample: 2-SP01-01 native sample for total metals. Native sample: 2-GW39DS-01 (dissolved metals) Lab duplicate RPDs<MPC for both total and dissolved metals. Laboratory precision adequate. No samples qualified.	X	-	
LCS Recovery	1) once per sample batch 2) 75-125% water, soil, QAPP limits. 3) <LCL% Reject 4) >UCL% detects J	LCS %R's acceptable. No samples qualified.	X	-	
Field Dup RPD	1) RPD ≤ 100% water & soil for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect	FD not analyzed with this SDG	-	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	Not applicable	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	Lab did not report qualitative detections.	-	-	
Lab Blanks (method blank or p reparation blank)	1) Once per sample batch 2) Results > QL; sample results <5X ; sample result U (nd) 3) Sample results >5X blank level; no action	Non-detect for target metals. Prep blank and CCB's are non-detect for target metals	X	-	
MS Recovery	1) 75-125% GFAA/ICP if MS > 4X native levels) Qualification of MS sample: 2) <30% J detects, R NDs 3) 30%--74%, detects J, NDs UJ 4) >125% J detects	2-SP01-01 native sample (surface water) dissolved 2-WMW-39DS native sample (GW matrix) Totals and dissolved MS %R's within limits. Fe and Na metal MS %R's are <LCL respectively in the total and dissolved metals analysis. The MS was not greater than 4X the native Na or Fe concentration in the sample. No samples qualified. Neither matrix exhibits an apparent matrix bias	X	-	
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %R 80-120%, 1) %R <10 ND- (R) , J- detects 2) 10%> but <80% , judgement 3) %R>120% J-detects 4) QC, IS, RRT meet criteria, 5) %RSD < 20% 6) MDL< MQL (3x less ideal) 7) Lab fortified blank (see VOA/SV Part II – section X). 8) *Check and recalculate %RSDs and %R fir three compounds (with 10% of lab)	QL<O&M plan RL, but <groundwater criterion for all COC elements. Lead > RL and groundwater criterion. Lead IDL = 1.1 ug/L. No qualitative lead detections. Cadmium. > criterion, but meets RLs. Sample 03 diluted 20X due to high common cation (Na, Ca, Mg) present in samples	X	-	
Equip Blank	< 5x contaminants for aq samples – for soil indicate EB (X rules don't apply)	Equipment blank not collected/analyzed with this SDG.	-	-	
Negative blanks	If negative values are reported for an analyte with absolute value >DL and sample value is <5X the absolute value of the blank or is nondetect Qualify detects as estimated (J) Nondetects as estimated (UJ	None	X	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Initial Cal Multipoint	1) 6010: 1 std and blank and low-level check at MQL – check std 20% 2) 3 stds and a blank- R = 0.995 3) %RSD <5%	ICAL performed according to method.	X	-	
Initial and Continuing Calibration Blanks	1) Ical blank after Ical 2) CCB every 10 samples end of run 3) Results > QL; sample results <5X ; sample result U (nd) 4) Sample results >5X blank level; no action	Detected elements <QL. No samples qualified.	X	-	
Serial Dilution	1) once per digestion batch 2) Meets method limits.	2-SP01-01 (this is a surface water sample). This QC check only used to qualify SW seep samples. SD low %D for Fe and Na, which are common cations in surface water. These elements are not COCs, but can contribute to matrix interference. J qualify Fe and Na detections in surface water	x	J	
Interelement checks ICS-A, ICS-AB Instrument performance check	1) start of sequence 2) 80-120% target analytes 3) >120% ; detects J (ICS-AB) 4) 50%-79% R ICS-AB; detects J, NDs – UJ 5) <50% R – reject data 6) ICS-A response > DL and samples have <5X ICS-A response: detects J	ICS's within limits. No samples qualified.	X	-	
2nd Source ICV	1) following calibration 2) 90- 110% Recovery (6010/7000) 3) 75%-89% R – detects J, NDs – UJ 4) 111-125% R – detects J 5) outside 75-125% R – reject data (R)	Within QC limits. No samples qualified.	X	-	
CCV	1) every 10 samples and end of run 2) 90- 110% Recovery (6010) Hg; 80-120% 3) 6010: 75%-89% R Hg, 65-79% R; – detects J, NDs – UJ. 4) 6010: 111-125%, Hg: 121-135% detects J 5) 6010: outside 75-125%, Hg; outside 65-135%; R – reject data (R)	Within QC limits. No samples qualified.	X	-	
Post Digestion Spike	1) 75- 125% R	PDS on 2-SP01-01 (this is a surface water sample). Silver %R<LCL Potential low bias for this element. Qualify only the surface water matrix samples in this SDG (not the GW	x	UJ silver	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
		matrix)			
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 3) * performed annually 4) *MDL is at least ½ of PQL *tgt and surrogate 80-120% R	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 3) *Matrix effects- MS/MSD, surrogated, PDS. 4) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 5) PES > acceptance criteria – Detects in samples J, 6) PES<acceptance criteria – Detects J, NDs –R 7) VOA/SV-XI14 other criteria 8) *% of PES sample above and below criteria 9) *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Laboratory accuracy and precision is acceptable. Accuracy is shown by the LCS being within limits. Further the ICS-A, and ICS-AB were within limits for all elements. No apparent sample bias, except for silver. The PDS for silver had a low recovery, but silver was non-detect in all samples. Silver is not a site COC.. Sample results are usable for project decision making. Quantitative sensitivity Sampling error- FD not analyzed with this SDG.	X	-	

*TIER III DATA VALIDATION ONLY Completeness Check: Inventory Check Sheet___X_Sample Quantitation Calculations (TIER III DATA VALIDATION ONLY):

CHAIN OF CUSTODY

PAGE ____ OF ____

ALPHA Job #: L0863

Eight Walkup Drive Westborough, MA 01581
TEL: 508-898-9220 FAX: 508-898-9193

Client Information

Client: ECC

Address: 50 D'ANGELO DR. MARLBOROUGH, MA

Phone: X 508 229 2270

Fax:

Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: NSB-NL

Project Location: AREA A LANDFILL

Project #:

Project Manager: DARREN GAINER

ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: 4/17/03 Time:

Report Information - Data Deliverables

☐ FAX
☐ ADEx
Criteria Checker: ____
(Default based on Regulatory Criteria Indicated)
Other Formats: ____
☐ EMAIL (standard pdf report)
☐ Additional Deliverables: ____

Report to: (if different than Project Manager)

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed	Program	Criteria

Other Project Specific Requirements/Comments:
DISSOLVED METALS FIELD FILTERED W/ 0.45M FILTER

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	SVOC (W/O PAH)	PAH SIM	TOTAL METALS	⊗ DISSOLVED METALS	TOC	COD	TDS, ALK, CL, SO_4	HARDNESS	TSS				Sample Specific Comments	TOTAL # BOTTLES
	2WMW 38 DS	4/3	0940	W	DC	X		X		X								NOT Fully SAMPLED	
	2MW 39 DS	|	1130	|	DC	X	X	X	X	X	X	X	X	X	X	X			
	2WMW 40 DS	|	1458	|	DG	X	X	X	X	X	X	X	X	X				high SP / ODOR	
	2SP01-01	|	1450	W	DG	X	X	X	X	X	X	X	X	X					

Container Type: A A P P V P
Preservative: A A C C D A

Relinquished By: Darren M. Gainer 4/3/03; L Edmonds 4/3 1915
Date/Time
Received By: L Edmonds 4/3/03 1725; Adam Desert 4/3 1915
Date/Time

Form No: 02-02 STD

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DATA VALIDATION MEMORANDUM
O&M MONITORING SITES – NEW LONDON NSB
APRIL 2003 SAMPLING ROUND (SDG 0303053 ALPHA LAB)

TO: ENGINEERING FIELD ACTIVITY NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NEW LONDON NSB – IRP O&M MONITORING SITES - SAMPLING ROUND APRIL 2003

DATE: 23 JUNE 2003

Project data were validated using the following Validation Functional Guideline, as modified for non-CLP methods.

1. Region I, EPA-NE Data Validation Functional Guidelines for Evaluation of Environmental Analyses (Dec, 1996).

The validation guideline exceedences are assessed and documented on the method specific data validation worksheet. On the data validation worksheet, the data quality acceptance criteria are presented, analytes requiring qualification based on laboratory historical control limits and/or validation guidance criteria exceedences are listed, assigned qualifiers, qualifying rationale is documented, and any potential bias noted. The overall evaluation of the data generated is presented in the data validation worksheet.

Standard EPA Region I data qualifiers are used to denote the assessment of data quality. The final and ranking assigned data qualifier for an analyte is presented in the data summary table. Ancillary qualifiers are noted on the data validation worksheets.

As an exception to the USEPA Region I data validation guidance, non-target ketone VOC data with response factors (RFs) less than the 0.05 were not qualified, as the Tier guidance allows for exceptions to the RF guidance.

The USEPA Region I Organic Regional Data Assessment (ORDA) sheet displays the summarized results of the data validation assessment for all analytical methods reported in the SDG.

Region I, EPA-NE ORGANIC REGIONAL DATA ASSESSMENT

LAB NAME: Alpha Lab
SDG #: 0303053
EPA-NE DV TIER LEVEL: II
SITE NAME: New London NSB – O&M

# of SAMPLES/MATRIX: 1 GW
VALIDATION CONTRACTOR: ECC
VALIDATOR'S NAME: Jackson Kiker
DV Completion Date: 23 June 2003
Date Sampled 4/4/03

ANALYTICAL DATA QUALITY SUMMARY

		PAH	SVOC	Metals
1	Preservation and HT	O	O	O
2	Instrument Performance Check	O	O	O
3	Initial Calibration:	M	M	O
4	Continuing Calibration:	O	O	O
5	Blanks:	O	O	O
6	Surrogate Compounds:	O	O	-
7	Internal Standards	O	O	-
8	Matrix Spike/Matrix Spike Duplicate:	O	O	M
9	Sensitivity Check:	O	O	O
10	PE Samples- Accuracy Check	O	M	O
11	Target Compound Identification:	-	-	-
12	Compound Quantitation and Reported QLs	O	O	O
13	Tentatively Identified Compounds:	-	-	-
14	Semivolatile/Pesticide/PCB Cleanup:	-	-	O
15	Data Completeness	M	M	O
16	Overall Evaluation of Data:	O	O	O

O = Data had no problems or were qualified due to minor contractual problems; M = Data were qualified due to major/systemic MPC exceedences: Z = Data were rejected as unusable due to major contractual problems.

ACTION ITEMS: (Z items): ____

AREAS OF CONCERN: (M items): Metals: MS %R >UCL for Al. PDS %R within limits – no apparent bias. PAHs: ICV not analyzed., SVOC; LCS phenol %R<LCL for soils (no applicable water limit).

COMMENTS. SVOC degradation check not provided for sample analysis SVOC. Water quality parameters included. Results and QC included in package.

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

PAH 8270C - SIM
Review Criteria: Region I Tier II Guidance & OM Manual

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	Aqueous	-	0.5 C (1-cooler)	Alpha Laboratory Westborough, MA	0303053

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
2-GW41DS-01 (2-WMW-41-DS)	L0303053-01

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No samples qualified.	X	-	
Holding Time	1) 7 Days water, 40 to analysis 2) J –detects, UJ or R –nondetects (function of time)	All analysis within hold times	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made (no USACE) 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	Not applicable	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	Lab did not report qualitative detections.	-	-	
Equip Blank	< 5x (<10x common) contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not applicable	-	-	
Surrogates	1) Surrogate acceptance limits Carbazole & p-Terphenly-d14 within QAPP limits. Qualification: >UCL J –detects, %R<10% J –detects, R –NDs, %R >10% but <60% J-detects, UJ NDs	Surrogates within QC limits. No samples qualified.	x	-.	
Lab Blanks (method	1) < 5x (<10x common) contaminants – U 2) analytes <lab PQL (contract lab)	All method blanks were non-detects for COCs. No samples qualified.	X	-	
LCS Recovery	1) QAPP limits 10% and <LCL% J detects, UJ -NDs >UCL% J detects <10% R NDs, J-detects	LCS %R within method limits. No samples qualified	X	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

PAH 8270C - SIM
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
MS/MSD Recovery	1) QAPP limits (if MS > 4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <70% J detects, UJ -NDs >130% J detects	Native sample; 2-WMW-41-DS (lab ID 01) MS %R's within limits. No samples qualified	X	-	
MS/MSD RPD	RPD ≤40% solid, 30% aq per QAPP Table 7-3. J –detects in MS sample UJ-non detects	Native sample2-GW39DS-01 MS/MSD RPD <MPC. No samples qualified. Laboratory precision acceptable.	x		
Cleanup Performance Check (if performed)	%R< 10% NDs-R detections J %R>10% <LCL (80%GPC) –detections J, NDs UJ %R>UCL (120%) – detections J	NA	-	-	
Retention times	Within 3X standard deviation for each analyte from 72-hour study Exceeds: R qualify data	Retention times within limits.	X	-	
Field Dup RPD	1) RPD ≤ 100% water & soil for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect 3) Other conditions use judgement	FD pair not analyzed with this SDG.	-		
Initial Cal (Linearity)	Correct calibration stds %RSD < 15% use average RF for calibration %RSD> 15% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 or alternatively mean %RSD <20% for all target analytes, with no analyte %RSD>40% Resolution check mix –valley 60% hgt of shortest peak (CLP criteria only) Performance check mix - >90% (PEM) (CLP criteria only) SW-846 PEM –endirn/DDT breakdown evaluation. Blank and Performance Evaluation Mix (PEM) at start, and blank and midpoint Individual Standard Mix A (ISMA) and ISMB at end or samples(CLP only)	12 Mar 02 Instrument HPLows – Mindy %RSD<20% ICAl linear. No samples qualified RRF>0.05 SPCC compounds not analyzed for this method. No action taken.	X	-	
Degradation Check	Within method limits.	All associated degradation checks are within limits.	X	-	
Tune Check	Tune check within method parameters for DFTPP	All tunes checks within limits.	X	-	
CCV	1) QAPP: 15% of initial calib. Curve (85%-115%). I f low re-calibrate. If high no recalibration needed. J qualify data. 2) 15% D 3) Qualification-J detects, R or UJ NDs	%D<15% for all CCV (pre analysis provided). Post CCV not in package, lab called for information.	X	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

PAH 8270C - SIM
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
2nd Source ICV	%R (between ICV and Ical) analytes %D ≤ 15%, (+ or -) once per 5 pt cal Qualification: J detects, R or UJ NDs	ICV not analyzed. Lab requested to perform ICV for future analysis per the method.	-	-	
Internal Stds	1) IS are –50% to 200% of CCV 1) RRT<0.06 (30 sec) 2) IS>100% J-detects 3) IS<20%CCV NDs – R 4) IS>20%CCV <50%CCV NDs – UJ 5) *check for IS transcription errors	Internal standards are within MPC. No samples qualified.	X	-	
Compound Quantitation	1) Check sensitivy (MDL< 1/3 PQL or per QAPP	Sensitivity; supports PALs in O&M manual.	X	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	The laboratory accuracy for compound identification is acceptable. Laboratory precision is acceptable. No apparent sample bias. Data are usable for project decisions. ICAL is linear. CCV; in limits. ICV: not analyzed. Sampling error- FD pair not analyzed with this SDG.	X	-	

(*Tier III criteria)

Completeness Check: Inventory Check Sheet____X__ Sample Quantitation Calculations (TIER III ONLY):

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

SVOCs 8270C
Review Criteria: Region I Tier II Guidance & OM Manual

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	Aqueous	-	2.1 C (1-cooler)	Alpha Laboratory Westborough, MA	0303029

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
2-GW41DS-01 (2-WMW-41-DS)	L0303053-01

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No samples qualified.	X	-	
Holding Time	1) 7 Days aqueous – 14 days soil (extract 40 days) 2) J –detects, UJ or R –nondetects (function of time)	None	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made (no USACE) 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	Not applicable	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	Lab does not report results <SQL	X	-	
TICs (if reported)	1) *verify library search for samples and blanks	None Reported	X	-	
Internal Stds	1) IS are –50% to 200% of CCV 1) RRT<0.06 (30 sec) 2) IS>100% J-detects 3) IS<20%CCV NDs – R 4) IS>20%CCV <50%CCV NDs – UJ 5) *check for IS transcription errors	Internal standards are within MPC. No samples qualified.	X	-	
Equip Blank	< 5x (<10x common) contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not collected/anlayzed with this SDG	x	-	
Surrogates	Within historical laboratory limits Qualification: >UCL J –detects, %R<10% J –detects, R –NDs, %R >10% but <39% J-detects, UJ NDs	Surrogate phenol-d6 is low (ca. 33%) in 01, 02, but there are no Navy crteria for this surrogate in aqueous SVOCs. No action taken. Other surrogate %R's within MPC. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 2) **SVOCs 8270C**
Project: New London ECC Job No. 5700 **Review Criteria: Region I Tier II Guidance & OM Manual**

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Lab Blanks (method	1) < 5x (<10x common) contaminants – U 2) analytes <lab PQL (contract lab) 3) no phthalates >5X QL (QAPP)	Lab blank is non-detect for all reported SVOCs. No samples qualified.	x		
LCS Recovery	1) Within historical laboratory limits listed in (QAPP) 10% and <LCL% J detects, UJ –NDs >UCL% J detects <10% R NDs, J-detects	Phenol LCS %R = 35%. No lab criteria. Soil lab criteria of 40% LCL used. All samples results qualified.	X	UJ In all samples	
MS/MSD Recovery	1) Within historical laboratory limits (QAPP) (if MS > 4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <70% J detects, UJ -NDs >130% J detects	Native sample; 2-GW41S-01.This MS/MSD use to evaluate GW samples. MS %R's within limits. No samples qualified. No apparent matrix bias.	x		
Cleanup Performance Check (if performed)	%R< 10% NDs-R detections J %R>10% <LCL (80%GPC) –detections J, NDs UJ %R>UCL (120%) – detections J Retention Time shift <5%, symmetrical	NA	-	-	
MS/MSD RPD	RPD ≤40% aq, <50% (S) J –detects in MS sample UJ-non detects	Within MPC limits. No samples qualified. Laboratory precision acceptable.	X	-	
Tune Check	Tune check within method parameters for DFTPP	All tunes checks within limits.	X	-	
DDT degradation Instrument performance check	1) Breakdown <20% DDT 2) benzidine and pentachlorophenol at normal response - no peak trailing (<3.0 benz. , <5.0 penta.) Detections – J	ICAL degradation check acceptable. Degradation check associated with samples not provided.	X	-	
Field Dup RPD	1) RPD ≤ 100% water; ≤ 100% soil for Results > PQL (FD pair only) J-detects (both > PQL) 2) If one > PQL, other ND, J-detections, UJ non-detect 3) Other conditions use judgement	FD pair not analyzed/collected with this SDG.	-	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

SVOCs 8270C
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Initial Cal (Linearity)	Correct calibration stds %RSD < 15% use average RF for calibration %RSD> 15% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 or alternatively mean %RSD <15% for all target analytes, with no analyte %RSD>30% or %RSD<30% each target analyte 1) CCCs %RSD: <30% (acenatphthene, 1,4 dichlorobenzene, hexachlorobutadiene, dipheynlamin, di-n-octyl phthalate, fluoranthene, benzo(a)pyrene, 4-chloro-3-methylphenol, 2,4, dichlorophenol, 2-nitrophenol, phenol, pentachlorophenol, 2,4,6 trichlorophenol) J –detects, R or UJ NDs all samples associated with Ical) 2) SPCCs Average RRF > 0.05: SPCCs n-nitroso-di-n-propylamine, hexachlorcyclopentdiene, 2,4 dinitrophenol, 4-nitrophenol. (J –detects, R NDs) 3) RRF>0.05 all target compounds RRT < 0.06 units (all stds within 30 sec) 4) *verify that instrument parameters met method and that Ical and analysis used the same parameters 5) *recalculate RRF one tgt compound associated with each IS. Recalculated values within 10% of lab values. 6) *recalculate one tgt compound associated with each IS. Recalculated values within 10% 7) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 8) *option-recalculate cal std concentration	Instrument: Buffy Date:29 Jan 03 RRF>0.05 all SVOCs. Average RSD<15% - no %RSD>30% criteria used for linearity of SVOC Ical. No samples qualified based on ICAL.	X	-	
2nd Source ICV	%R (between ICV and Ical) analytes 80%--120% (USACE) %D ≤ 25%, (+ or -) once per 5 pt cal Qualification: J detects, R or UJ NDs	ICV; instrument buffy 30 June 03. Within limits for all reported/analyzed SVOCS. Complete COC list not analyzed.	-	-	
CCV	1) SPCCs Average RRF: SPCCs n-nitroso-di-n-propylamine, hexachlorcyclopentdiene, 2,4 dinitrophenol, 4-nitrophenol. 2) RRF all compounds > 0.05 3) CCC: (acenatphthene, 1,4 dichlorobenzene, hexachlorobutadiene, dipheynlamin, di-n-octyl phthalate, fluoranthene, benzo(a)pyrene, 4-chloro-3-methylphenol, 2,4, dichlorophenol, 2-nitrophenol, phenol, pentachlorophenol, 2,4,6 trichlorophenol) 4) %D<20%. CCCs (QAPP -except surrogates). 5) Qualification-J detects, R or UJ Nods 6) %D<25% all compounds (Tier I). 7) RRF exclusions: surrogates,	CCV (pre sample). %D<MPC for all SVOCs	X	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

SVOCs 8270C
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
	8) *verify same instrument and parameters 9) *Recalculate RRF for one tgt cmpd associated with each IS. (within 10%) 10) *Recalculate %D for one tgt cmpd associated with each IS (within 10%) 11) *IS RRT<0.06 units (30 sec) 12) * IS area -50 % to 100 % of last ICAL 13) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 14) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)				
Compound Quantitation	1) Check sensitivy (MDL< 1/3 PQL or per QAPP	COCs within O&M limits.	X	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	The laboratory accuracy and precision are acceptable for all compounds. No apparent sample matrix bias. Results are usable for making project decisions and have been reconciled with project objectives. Method blank; non-detect for all SVOCs. BEHP main SVOC COC was non-detect in the MB and samples. ICAL; linear. CCV : in limits ICV; not analyzed. Sampling error-FD not collected/analyzed with this SDG.	x	-	

*Tier III criteria.

Completeness Check: Inventory Check Sheet_____X__ Sample Quantitation Calculations (TIER III ONLY):

Lab correspondence/telephone: 19 June 2003. DDT IPC.

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	Aqueous	Nitric Acid (field filtered) Unpreserved (dissolved metals)	0.05 C (1-cooler)	Alpha Laboratory Westborough , MA	0303053

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
2-GW41DS-01 (2-WMW-41-DS)	L0303053-01

**sample numbers in brackets as submitted to lab. Other sample number is per O/M plan.*

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No samples qualified.	X	-	
Holding Time	1) 180 days (6010), Hg 28 Days to analysis 2) J –detects, UJ or R –nondetects (function of time)	None	X	-	
Lab Duplicate	1) RPD < 20% 1) If both values > PQL 2) Qualify samples in batch: detects J, NDs UJ	Native sample: 2-WMW-41-DS (lab ID 01) for total metals and dissolved metals Lab duplicate RPDs<MPC for both total and dissolved metals. Laboratory precision adequate. No samples qualified.	X	-	
LCS Recovery	1) once per sample batch 2) 75-125% water, soil, QAPP limits. 3) <LCL% Reject 4) >UCL% detects J	LCS %R's acceptable. No samples qualified.	X	-	
Field Dup RPD	1) RPD ≤ 100% water & soil for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect	FD not analyzed with this SDG	-	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	Not applicable	-	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	Lab did not report qualitative detections.	-	-	
Lab Blanks (method blank or p reparation blank)	1) Once per sample batch 2) Results > QL; sample results <5X ; sample result U (nd) 3) Sample results >5X blank level; no action	Non-detect for target metals. Prep blank and CCB's are non-detect for target metals	X	-	
MS Recovery	1) 75-125% GFAA/ICP if MS > 4X native levels) Qualification of MS sample: 2) <30% J detects, R NDs 3) 30%--74%, detects J, NDs UJ 4) >125% J detects	2-WMW-41-DS (lab ID 01) Al MS %R>MPC. All samples qualified J due to MS %R>UCL. No apparent matrix bias, as PDS is within limits.	X	J Al Detect in total metal sample	
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %R 80-120%, 1) %R <10 ND- (R) , J- detects 2) 10%> but <80% , judgement 3) %R>120% J-detects 4) QC, IS, RRT meet criteria, 5) %RSD < 20% 6) MDL< MQL (3x less ideal) 7) Lab fortitied blank (see VOA/SV Part II – section X). 8) *Check and recalculate %RSDs and %R fir three compounds (with 10% of lab)	10X dilution due to high salt content for Ca, Mg, Na reporting. QL<O&M plan RL, but <groundwater criterion for all COC elements. Lead > RL and groundwater criterion. Lead IDL = 1.1 ug/L. No qualitative lead detections. Cadmium. > criterion, but meets RLs.	X	-	
Equip Blank	< 5x contaminants for aq samples – for soil indicate EB (X rules don't apply)	Equipment blank not collected/analyzed with this SDG.	-	-	
Negative blanks	If negative values are reported for an analyte with absolute value >DL and sample value is <5X the absolute value of the blank or is nondetect Qualify detects as estimated (J) Nondetects as estimated (UJ	None	X	-	
Initial Cal Multipoint	1) 6010: 1 std and blank and low-level check at MQL – check std 20% 2) 3 stds and a blank- R = 0.995 3) %RSD <5%	ICAL performed according to method.	X	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Initial and Continuing Calibration Blanks	1) Ical blank after Ical 2) CCB every 10 samples end of run 3) Results > QL; sample results <5X ; sample result U (nd) 4) Sample results >5X blank level; no action	Detected elements <QL. No samples qualified.	X	-	
Serial Dilution	1) once per digestion batch 2) Meets method limits.	SD on native sample within limits for site COC elements.	x	-	
Interelement checks ICS-A, ICS-AB Instrument performance check	1) start of sequence 2) 80-120% target analytes 3) >120% ; detects J (ICS-AB) 4) 50%-79% R ICS-AB; detects J, NDs – UJ 5) <50% R – reject data 6) ICS-A response > DL and samples have <5X ICS-A response: detects J	ICS's within limits. No samples qualified.	X	-	
2nd Source ICV	1) following calibration 2) 90- 110% Recovery (6010/7000) 3) 75%-89% R – detects J, NDs – UJ 4) 111-125% R – detects J 5) outside 75-125% R – reject data (R)	Within QC limits. No samples qualified.	X	-	
CCV	1) every 10 samples and end of run 2) 90- 110% Recovery (6010) Hg; 80-120% 3) 6010: 75%-89% R Hg, 65-79% R; – detects J, NDs – UJ. 4) 6010: 111-125%, Hg: 121-135% detects J 5) 6010: outside 75-125%, Hg; outside 65-135%; R – reject data (R)	Within QC limits. No samples qualified.	X	-	
Post Digestion Spike	1) 75- 125% R	PDS on native sample. PDS %R's within limits for Site COCs. Al PDS %R within limits. No apparent sample bias.	x	-	
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 3) * performed annually 4) *MDL is at least ½ of PQL *tgt and surrogate 80-120% R	NA	-	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 3) *Matrix effects- MS/MSD, surrogated, PDS. 4) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 5) PES > acceptance criteria – Detects in samples J, 6) PES<acceptance criteria – Detects J, NDs –R 7) VOA/SV-XI14 other criteria 8) *% of PES sample above and below criteria 9) *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Laboratory accuracy and precision is acceptable. Accuracy is shown by the LCS being within limits. Further the ICS-A, and ICS-AB were within limits for all elements. Al MS %R>MPC, but the PDS was within limits. More than likely sporadic result. No apparent matrix bias. Sample results are usable for project decision making. Quantitative sensitivity Sampling error- FD not analyzed with this SDG.	X	-	

*TIER III DATA VALIDATION ONLY Completeness Check: Inventory Check Sheet___X_Sample Quantitation Calculations (TIER III DATA VALIDATION ONLY):

CHAIN OF CUSTODY

PAGE ____ OF ____

Date Rec'd in Lab: 4/4/03

ALPHA Job #: L0303053

Eight Walkup Drive Westborough, MA 01581
TEL: 508-898-9220 FAX: 508-898-9193

Client Information

Client: ECC

Address: 50 D'Angelo Dr. Marlborough Ma.

Phone: (508) 229-2270

Fax:

Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: USB - NL

Project Location: Area A Landfill

Project #:

Project Manager: Darren Gaines

ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)

Date Due: 4/18/03 Time:

Report Information - Data Deliverables

☐ FAX
☐ ADEx
Criteria Checker: ____
(Default based on Regulatory Criteria Indicated)
Other Formats: ____
☐ EMAIL (standard pdf report)
☐ Additional Deliverables: ____

Report to: (if different than Project Manager)

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed	Program	Criteria

Other Project Specific Requirements/Comments:
Dissolved Metals field filtered w/ 0.45 m filter

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	SVOC (w/o PAH)	PAH SIM	Total Metals	Dissolved Metals	TOC	COD	TDS, Alk, Cl, SO4	Hardness	TSS				Sample Specific Comments	TOTAL # BOTTLES
02053	JWMW 41 D5	4/4/03	9:25	W	DG	X	X	X	X	X	X	X	X	X					

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Shaded Grey Areas For Lab Use Only

Container Type	A	A	P	P	V		P					
Preservative												

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	4/4/03	Glen Brelanc Alpha	4/4/03 3:10 pm
Glen Ellin	4/4/03 4:20 pm	[signature]	4/4/03 10:45

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

Form No: 02-02 STD

DATA VALIDATION MEMORANDUM
O&M MONITORING SITES – NEW LONDON NSB
APRIL 2003 SAMPLING ROUND (SDG 0303151 ALPHA LAB)

TO: ENGINEERING FIELD ACTIVITY NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NEW LONDON NSB – IRP O&M MONITORING SITES - SAMPLING ROUND APRIL 2003

DATE: 25 JUNE 2003

Project data were validated using the following Validation Functional Guideline, as modified for non-CLP methods.

1. Region I, EPA-NE Data Validation Functional Guidelines for Evaluation of Environmental Analyses (Dec, 1996).

The validation guideline exceedences are assessed and documented on the method specific data validation worksheet. On the data validation worksheet, the data quality acceptance criteria are presented, analytes requiring qualification based on laboratory historical control limits and/or validation guidance criteria exceedences are listed, assigned qualifiers, qualifying rationale is documented, and any potential bias noted. The overall evaluation of the data generated is presented in the data validation worksheet.

Standard EPA Region I data qualifiers are used to denote the assessment of data quality. The final and ranking assigned data qualifier for an analyte is presented in the data summary table. Ancillary qualifiers are noted on the data validation worksheets.

As an exception to the USEPA Region I data validation guidance, non-target ketone VOC data with response factors (RFs) less than the 0.05 were not qualified, as the Tier guidance allows for exceptions to the RF guidance.

The USEPA Region I Organic Regional Data Assessment (ORDA) sheet displays the summarized results of the data validation assessment for all analytical methods reported in the SDG.

Region I, EPA-NE ORGANIC REGIONAL DATA ASSESSMENT

LAB NAME: Alpha Lab
SDG #: 0303151
EPA-NE DV TIER LEVEL: II
SITE NAME: New London NSB – O&M

# of SAMPLES/MATRIX: 2 Gw and 1 SW
VALIDATION CONTRACTOR: ECC
VALIDATOR'S NAME: Jackson Kiker
DV Completion Date: 25 June 2003
Date Sampled 4/8/03

ANALYTICAL DATA QUALITY SUMMARY

		PAH	SVOC	Metals
1	Preservation and HT	O	O	O
2	Instrument Performance Check	O	O	O
3	Initial Calibration:	M	M	O
4	Continuing Calibration:	M	M	O
5	Blanks:	O	O	O
6	Surrogate Compounds:	O	M	-
7	Internal Standards	O	O	-
8	Matrix Spike/Matrix Spike Duplicate:	O	O	O
9	Sensitivity Check:	O	O	O
10	PE Samples- Accuracy Check	O	O	O
11	Target Compound Identification:	-	-	-
12	Compound Quantitation and Reported QLs	O	O	O
13	Tentatively Identified Compounds:	-	-	-
14	Semivolatile/Pesticide/PCB Cleanup:	-	-	-
15	Data Completeness	M	M	O
16	Overall Evaluation of Data:	O	O	O

O = Data had no problems or were qualified due to minor contractual problems; M = Data were qualified due to major/systemic MPC exceedences: Z = Data were rejected as unusable due to major contractual problems.

ACTION ITEMS: (Z items): ____

AREAS OF CONCERN: (M items): SVOC; DDT degradation check not provided by laboratory. PAH ICV not analyzed. SVOC CCV hexachlorocyclopentadiene %D>MPC (not a COC).. surrogate 2-fluorohenol %R<LCL in all samples. PAHs; CCV %D>15% for 2-methynaphthalene and fluroanthene. PAH ICV not analyzed.

COMMENTS:. Data less than the RL but greater than the MDL was not reported by the laboratory. Water quality parameters are not validated, but all Tier I items are included, as applicable.

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

PAH 8270C - SIM
Review Criteria: Region I Tier II Guidance & OM Manual

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	Aqueous	-	1.9 C (1-cooler)	Alpha Laboratory Westborough, MA	03030151

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
2WMW38DS	L0303151-01
2WMW43DS	L0303151-02
SG-20	L0303151-03

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No samples qualified.	X	-	
Holding Time	1) 7 Days water, 40 to analysis 2) J –detects, UJ or R –nondetects (function of time)	All analysis within hold times	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made (no USACE) 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	Not applicable	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	Lab did not report qualitative detections.	-	-	
Equip Blank	< 5x (<10x common) contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not applicable	-	-	
Surrogates	1) Surrogate acceptance limits Carbazole & p-Terphenly-d14 within QAPP limits. Qualification: >UCL J –detects, %R<10% J –detects, R –NDs, %R >10% but <60% J-detects, UJ NDs	Surrogates within QC limits. No samples qualified.	x	-	
Lab Blanks (method	1) < 5x (<10x common) contaminants – U 2) analytes <lab PQL (contract lab)	All method blanks were non-detects for COCs. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

PAH 8270C - SIM
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
LCS Recovery	1) QAPP limits 10% and <LCL% J detects, UJ -NDs >UCL% J detects <10% R NDs, J-detects	LCS %R within method limits. No samples qualified	X	-	
MS/MSD Recovery	1) QAPP limits (if MS > 4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <70% J detects, UJ -NDs >130% J detects	Native sample; 8-MW6D-01 (lab ID 01) MS %R's within limits. No samples qualified	X	-	
MS/MSD RPD	RPD ≤40% solid, 30% aq per QAPP Table 7-3. J –detects in MS sample UJ-non detects	Native sample 8-MW6D-01 MS/MSD RPD <MPC. No samples qualified. Laboratory precision acceptable.	x		
Cleanup Performance Check (if performed)	%R< 10% NDs-R detections J %R>10% <LCL (80%GPC) –detections J, NDs UJ %R>UCL (120%) – detections J	NA	-	-	
Retention times	Within 3X standard deviation for each analyte from 72-hour study Exceeds: R qualify data	Retention times within limits.	X	-	
Field Dup RPD	1) RPD ≤ 100% water & soil for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect 3) Other conditions use judgement	Field sample 01; FD sample 02. RPDs calculated for all detects.	X		
Initial Cal (Linearity)	Correct calibration stds %RSD < 15% use average RF for calibration %RSD> 15% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 or alternatively mean %RSD <20% for all target analytes, with no analyte %RSD>40% Resolution check mix –valley 60% hgt of shortest peak (CLP criteria only) Performance check mix - >90% (PEM) (CLP criteria only) SW-846 PEM –endrn/DDT breakdown evaluation. Blank and Performance Evaluation Mix (PEM) at start, and blank and midpoint Individual Standard Mix A (ISMA) and ISMB at end or samples(CLP only)	12 Mar 02 Instrument HPLows – Mindy %RSD<20% ICAl linear. No samples qualified RRF>0.05 SPCC compounds not analyzed for this method. No action taken.	X	-	
Degradation Check	Within method limits.	ICAL and sample tune check degradation checks within limits. No samples qualified.	X	-	
Tune Check	Tune check within method parameters for DFTPP	All tunes checks within limits.	X	-	
CCV	1) 15% of initial calib. Curve (85%-115%) . If low re-calibrate. If high no recalibration needed. J qualify data. 2) 15% D 3) Qualification-J detects, R or UJ NDs	%D<15% for all CCV (pre analysis provided). %D>15% for 2-methylnaphthalene (UJ) fluoranthene (J)	X	UJ - NDs J – detects	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

PAH 8270C - SIM
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
2nd Source ICV	%R (between ICV and Ical) analytes %D ≤ 15%, (+ or -) once per 5 pt cal Qualification: J detects, R or UJ NDs	ICV not analyzed. Lab requested to perform ICV. No action taken.	-	-	
Internal Stds	1) IS are –50% to 200% of CCV 1) RRT<0.06 (30 sec) 2) IS>100% J-detects 3) IS<20%CCV NDs – R 4) IS>20%CCV <50%CCV NDs – UJ 5) *check for IS transcription errors	Internal standards are within MPC. No samples qualified.	X	-	
Compound Quantitation	1) Check sensitivy (MDL< 1/3 PQL or per QAPP	Sensitivity; supports PALs in O&M manual.	X	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	The laboratory accuracy for compound identification is acceptable. Laboratory precision is acceptable. No apparent sample bias. Data are usable for project decisions. ICAL is linear. CCV; in limits, except for 2-MNP, and Fluoranthene Sampling error- FD RPDs within limits for all detected PAHs. Overall precision is acceptable.	X	-	

(*Tier III criteria)

Completeness Check: Inventory Check Sheet_____X__ Sample Quantitation Calculations (TIER III ONLY):

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

SVOCs 8270C
Review Criteria: Region I Tier II Guidance & OM Manual

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	Aqueous	-	1.9 C (1-cooler)	Alpha Laboratory Westborough, MA	03030151

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
2WMW43DS	L0303151-02
SG-20	L0303151-03

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No samples qualified.	X	-	
Holding Time	1) 7 Days aqueous – 14 days soil (extract 40 days) 2) J –detects, UJ or R –nondetects (function of time)	None	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made (no USACE) 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	Not applicable	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	Lab does not report results <SQL	-	-	
TICs (if reported)	1) *verify library search for samples and blanks	None Reported	X	-	
Internal Stds	1) IS are –50% to 200% of CCV 1) RRT<0.06 (30 sec) 2) IS>100% J-detects 3) IS<20%CCV NDs – R 4) IS>20%CCV <50%CCV NDs – UJ 5) *check for IS transcription errors	Internal standards are within MPC. No samples qualified.	X	-	
Equip Blank	< 5x (<10x common) contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not collected/anlayzed with this SDG	x	-	
Surrogates	Within historical laboratory limits Qualification: >UCL J –detects, %R<10% J –detects, R –NDs, %R >10% but <LCL% J-detects, UJ NDs	Surrogate phenol-d6 is low (ca. 20%) in 01, 02, but there are no Navy crteria for this surrogate in aqueous SVOCs. No action taken. Surrogate 2-fluorophenol %R<LCL for samples 01,02. All non-detects –Qualify all results UJ,	X	UJ – Nd	

ECC Region I Data Review Worksheet (rv 2) **SVOCs 8270C**
Project: New London ECC Job No. 5700 **Review Criteria: Region I Tier II Guidance & OM Manual**

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Lab Blanks (method	1) < 5x (<10x common) contaminants – U 2) analytes <lab PQL (contract lab) 3) no phthalates >5X QL (QAPP)	Lab blank is non-detect for all reported SVOCs. No samples qualified.	x		
LCS Recovery	1) Within historical laboratory limits listed in (QAPP) 10% and <LCL% J detects, UJ –NDs >UCL% J detects <10% R NDs, J-detects	Phenol LCS %R = 35%. No lab criteria. Soil lab criteria of 40% LCL used. 2,4 dinitrotoluene %R>UCL. ND in all samples. No sample results qualified.	X	-	
MS/MSD Recovery	1) Within historical laboratory limits (QAPP) (if MS > 4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <70% J detects, UJ -NDs >130% J detects	Native sample; Lab ID 0303151-03. Surface water sample. MS %R's within limits. No samples qualified. No apparent matrix bias for surface water. Ground water MS/MSD for this matrix reported in other SDGs. No apparent matrix bias noted. No samples qualified.	x		
Cleanup Performance Check (if performed)	%R< 10% NDs-R detections J %R>10% <LCL (80%GPC) –detections J, NDs UJ %R>UCL (120%) – detections J Retention Time shift <5% symmetrical	NA	-	-	
MS/MSD RPD	RPD ≤40% aq, <50% (S) J –detects in MS sample UJ-non detects	Within MPC limits. No samples qualified. Laboratory precision acceptable.	X	-	
Tune Check	Tune check within method parameters for DFTPP	All tunes checks within limits.	X	-	
DDT degradation Instrument performance check	1) Breakdown <20% DDT 2) benzidine and pentachlorophenol at normal response - no peak trailing (<3.0 benz. , <5.0 penta.) Detections – J	Degradation checks associated with ICAL tune checks provided. Sample associated degradation checks not provided.	X	-	
Field Dup RPD	1) RPD ≤ 100% water; ≤ 100% soil for Results > PQL (FD pair only) J-detects (both > PQL) 2) If one > PQL, other ND, J-detections, UJ non-detect 3) Other conditions use judgement	FD not collected/analyzed as part of this SDG.	-	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

SVOCs 8270C
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Initial Cal (Linearity)	Correct calibration stds %RSD < 15% use average RF for calibration %RSD> 15% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 or alternatively mean %RSD <15% for all target analytes, with no analyte %RSD>30% or %RSD<30% each target analyte 1) CCCs %RSD: <30% (acenatphthene, 1,4 dichlorobenzene, hexachlorobutadiene, dipheynlamin, di-n-octyl phthalate, fluoranthene, benzo(a)pyrene, 4-chloro-3-methylphenol, 2,4, dichlorophenol, 2-nitrophenol, phenol, pentachlorophenol, 2,4,6 trichlorophenol) J –detects, R or UJ NDs all samples associated with Ical) 2) SPCCs Average RRF > 0.05: SPCCs n-nitroso-di-n-propylamine, hexachlorcyclopentdiene, 2,4 dinitrophenol, 4-nitrophenol. (J –detects, R NDs) 3) RRF>0.05 all target compounds RRT < 0.06 units (all stds within 30 sec) 4) *verify that instrument parameters met method and that Ical and analysis used the same parameters 5) *recalculate RRF one tgt compound associated with each IS. Recalculated values within 10% of lab values. 6) *recalculate one tgt compound associated with each IS. Recalculated values within 10% 7) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 8) *option-recalculate cal std concentration	Instrument: Buffy Date:29 Jan 03 RRF>0.05 all SVOCs. Average RSD<15% - no %RSD>30% criteria used for linearity of SVOC Ical. No samples qualified based on ICAL.	X	-	
2nd Source ICV	%R (between ICV and Ical) analytes 80%--120% (USACE) %D ≤ 25%, (+ or -) once per 5 pt cal Qualification: J detects, R or UJ NDs	30 Jan 2003 ICV Instrument Buffy. Within limits for analyzed SVOCs. Complete COC list not analyzed.	X	-	
CCV	1) SPCCs Average RRF: SPCCs n-nitroso-di-n-propylamine, hexachlorcyclopentdiene, 2,4 dinitrophenol, 4-nitrophenol. 2) RRF all compounds > 0.05 3) CCC: (acenatphthene, 1,4 dichlorobenzene, hexachlorobutadiene, dipheynlamin, di-n-octyl phthalate, fluoranthene, benzo(a)pyrene, 4-chloro-3-methylphenol, 2,4, dichlorophenol, 2-nitrophenol, phenol, pentachlorophenol, 2,4,6 trichlorophenol) 4) %D<20%. CCCs (QAPP -except surrogates). 5) Qualification-J detects, R or UJ Nods 6) %D<25% all compounds (Tier I). 7) RRF exclusions: surrogates,	CCV (pre sample). %D>MPC for all SVOCs, except hexachlorocyclopentadiene (UJ)	X	UJ all samples	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

SVOCs 8270C
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
	8) *verify same instrument and parameters 9) *Recalculate RRF for one tgt cmpd associated with each IS. (within 10%) 10) *Recalculate %D for one tgt cmpd associated with each IS (within 10%) 11) *IS RRT<0.06 units (30 sec) 12) * IS area -50 % to 100 % of last ICAL 13) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 14) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)				
Compound Quantitation	1) Check sensitivy (MDL< 1/3 PQL or per QAPP	COCs within O&M limits.	X	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	The laboratory accuracy and precision are acceptable for all compounds. No apparent sample matrix bias. Results are usable for making project decisions and have been reconciled with project objectives. Method blank; non-detect for all SVOCs. BEHP main SVOC COC was non-detect in the MB and samples. ICAL; linear. CCV : in limits, 1 non-COC SVOC %D>MPC. Sampling error-FD pair not collected/analyzed with this SDG..	x	-	

*Tier III criteria.

Completeness Check: Inventory Check Sheet_____X__ Sample Quantitation Calculations (TIER III ONLY):

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	**Aqueous**	**Nitric Acid (field filtered) Unpreserved (dissolved metals)**	**1.9 C (1-cooler)**	**Alpha Laboratory Westborough, MA**	**03030151**

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
2-GW38-DS (2WMW38DS) (dissolved)	L0303151-01
2-GW43-DS (2WMW43DS) (totals/dissolved)	L0303151-02
2-SW20-01 (SG-20) (totals/dissolved)	L0303151-03

**sample numbers in brackets as submitted to lab. Other sample number is per O/M plan.*

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No samples qualified.	X	-	
Holding Time	1) 180 days (6010), Hg 28 Days to analysis 2) J –detects, UJ or R –nondetects (function of time)	None	X	-	
Lab Duplicate	1) RPD < 20% 1) If both values > PQL 2) Qualify samples in batch: detects J, NDs UJ	Native sample: 8-GW06D-01 (lab ID 01 from SDF 0303150 [not part of this SDG]) for total metals and dissolved metals Lab duplicate RPDs<MPC for both total and dissolved metals. Laboratory precision adequate. No samples qualified.	X	-	
LCS Recovery	1) once per sample batch 2) 75-125% water, soil, QAPP limits. 3) <LCL% Reject 4) >UCL% detects J	LCS %R's acceptable. No samples qualified.	X	-	
Field Dup RPD	1) RPD ≤ 50% water & soil for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect	FD pair not collected/analyzed with this SDG.	-	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	Not applicable	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	Lab did not report qualitative detections. Lead raw data examined for detections<RL. All non-detects.	-	-	
Lab Blanks (method blank or p reparation blank)	1) Once per sample batch 2) Results > QL; sample results <5X ; sample result U (nd) 3) Sample results >5X blank level; no action	Non-detect for target metals. Prep blank and CCB's are non-detect for target metals	X	-	
MS Recovery	1) 75-125% GFAA/ICP if MS > 4X native levels) Qualification of MS sample: 2) <30% J detects, R NDs 3) 30%--74%, detects J, NDs UJ 4) >125% J detects	2-SW20-01 (SG-20 (lab ID 03)) 0%R for Ca, Mg due to native element levels >4X MS level. No sample qualification. Na and K MS %R>UCL. MS not greater than 4X native element levels. No samples qualified. No apparent matrix bias, as PDS is within limits.	X	-	
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %R 80-120%, 1) %R <10 ND- (R) , J- detects 2) 10%> but <80% , judgement 3) %R>120% J-detects 4) QC, IS, RRT meet criteria, 5) %RSD < 20% 6) MDL< MQL (3x less ideal) 7) Lab fortitied blank (see VOA/SV Part II – section X). 8) *Check and recalculate %RSDs and %R fir three compounds (with 10% of lab)	QL<O&M plan RL, but <groundwater criterion for all COC elements. Lead > RL and groundwater criterion. Lead IDL = 1.1 ug/L. No qualitative lead detections reported by laboratory. Cadmium. > criterion, but meets RLs.	X	-	
Equip Blank	< 5x contaminants for aq samples – for soil indicate EB (X rules don't apply)	Equipment blank not collected/analyzed with this SDG.	-	-	
Negative blanks	If negative values are reported for an analyte with absolute value >DL and sample value is <5X the absolute value of the blank or is nondetect Qualify detects as estimated (J) Nondetects as estimated (UJ	None	X	-	
Initial Cal Multipoint	1) 6010: 1 std and blank and low-level check at MQL – check std 20% 2) 3 stds and a blank- R = 0.995 3) %RSD <5%	ICAL performed according to method.	X	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Initial and Continuing Calibration Blanks	1) Ical blank after Ical 2) CCB every 10 samples end of run 3) Results > QL; sample results <5X ; sample result U (nd) 4) Sample results >5X blank level; no action	Detected elements <QL. No samples qualified.	X	-	
Serial Dilution	1) once per digestion batch 2) Meets method limits.	SD on native sample 8-GW43-DS-01 (02). Serial Dilution within limits for site COC elements. No apparent matrix bias.	x	-	
Interelement checks ICS-A, ICS-AB Instrument performance check	1) start of sequence 2) 80-120% target analytes 3) >120% ; detects J (ICS-AB) 4) 50%-79% R ICS-AB; detects J, NDs – UJ 5) <50% R – reject data 6) ICS-A response > DL and samples have <5X ICS-A response: detects J	ICS's within limits for COC elements. No samples qualified.	X	-	
2nd Source ICV	1) following calibration 2) 90- 110% Recovery (6010/7000) 3) 75%-89% R – detects J, NDs – UJ 4) 111-125% R – detects J 5) outside 75-125% R – reject data (R)	Within QC limits. No samples qualified.	X	-	
CCV	1) every 10 samples and end of run 2) 90- 110% Recovery (6010) Hg; 80-120% 3) 6010: 75%-89% R Hg, 65-79% R; – detects J, NDs – UJ. 4) 6010: 111-125%, Hg: 121-135% detects J 5) 6010: outside 75-125%, Hg; outside 65-135%; R – reject data (R)	Within QC limits. No samples qualified.	X	-	
Post Digestion Spike	1) 75- 125% R	PDS on native sample 8-GW43-DS-01 (02).. PDS %R's within limits for Site COCs. No apparent sample bias.	x	-	
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 3) * performed annually 4) *MDL is at least ½ of PQL *tgt and surrogate 80-120% R	NA	-	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 3) *Matrix effects- MS/MSD, surrogated, PDS. 4) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 5) PES > acceptance criteria – Detects in samples J, 6) PES<acceptance criteria – Detects J, NDs –R 7) VOA/SV-XI14 other criteria 8) *% of PES sample above and below criteria 9) *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Laboratory accuracy and precision is acceptable. Accuracy is shown by the LCS being within limits. Further the ICS-A, and ICS-AB were within limits for all elements. MS/MSD RPDs and %R's are within limits. PDS and SD in limits. No apparent matrix bias. Sample results are usable for project decision making. Sampling error- FD pair not collected/analyzed with this SDG.	X	-	

*TIER III DATA VALIDATION ONLY Completeness Check: Inventory Check Sheet___X_Sample Quantitation Calculations (TIER III DATA VALIDATION ONLY):

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 4/8

ALPHA Job #: L0301

Eight Walkup Drive Westborough, MA 01581
TEL: 508-898-9220 FAX: 508-898-9193

Client Information

Client: ECC
Address: 50 D'Angelo Drive
Marlborough, MA 01752
Phone: 508 227 2270
Fax:
Email:
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: NSB-NL
Project Location: Area A / ~~Good Cove~~
Project #:
Project Manager: Darren Gaine
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due: 4/22 Time:

Report Information - Data Deliverables

☐ FAX
☐ ADEx
Criteria Checker:
(Default based on Regulatory Criteria indicated)
Other Formats:
☐ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☐ Same as Client Info PO #:

Regulatory Requirements/Report Limits

State /Fed	Program	Criteria

Other Project Specific Requirements/Comments: Dissolved Metals Field Filtered (0.45u filter)

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	SVOC w/ PAH	PAH SIM	Total Metals	Dissolved Metals	TOC	COD	TDS, Alk, Cl, SO4	Hardness	TSS				Sample Specific Comments
9/17 1	2WMW35DS	4/8-03	0740	GW	DC	X	X	X	X	X	X	X	X	X				
2	2WMW43DS	4-8-03	1430	GW	DC	X	X	X	X	X	X	X	X	X				
3	SG20	4-8-03	1450	SW	DC	X	X	X	X	X	X	X	X	X				

Container Type
Preservative

Shaded Gray Areas For Lab Use Only

Relinquished By:	Date/Time	Received By:	Date/Time
[illegible]	1700 / 4/8/03	L Edmonds	4/8/03 1715
L Edmonds	4/8 1900	[illegible]	4/8 1900

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

Form No: 02-02 STD

DATA VALIDATION MEMORANDUM
O&M MONITORING SITES – NEW LONDON NSB
APRIL 2003 SAMPLING ROUND (SDG 0303197 ALPHA LAB)

TO: ENGINEERING FIELD ACTIVITY NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NEW LONDON NSB – IRP O&M MONITORING SITES - SAMPLING ROUND APRIL 2003

DATE: 25 JUNE 2003

Project data were validated using the following Validation Functional Guideline, as modified for non-CLP methods.

1. Region I, EPA-NE Data Validation Functional Guidelines for Evaluation of Environmental Analyses (Dec, 1996).

The validation guideline exceedences are assessed and documented on the method specific data validation worksheet. On the data validation worksheet, the data quality acceptance criteria are presented, analytes requiring qualification based on laboratory historical control limits and/or validation guidance criteria exceedences are listed, assigned qualifiers, qualifying rationale is documented, and any potential bias noted. The overall evaluation of the data generated is presented in the data validation worksheet.

Standard EPA Region I data qualifiers are used to denote the assessment of data quality. The final and ranking assigned data qualifier for an analyte is presented in the data summary table. Ancillary qualifiers are noted on the data validation worksheets.

As an exception to the USEPA Region I data validation guidance, non-target ketone VOC data with response factors (RFs) less than the 0.05 were not qualified, as the Tier guidance allows for exceptions to the RF guidance.

The USEPA Region I Organic Regional Data Assessment (ORDA) sheet displays the summarized results of the data validation assessment for all analytical methods reported in the SDG.

Region I, EPA-NE ORGANIC REGIONAL DATA ASSESSMENT

LAB NAME: Alpha Lab
SDG #:__0303197_____
EPA-NE DV TIER LEVEL:___II___
SITE NAME: New London NSB – O&M

# of SAMPLES/MATRIX:___2 GW & 1 SW –Area A
VALIDATION CONTRACTOR:__ECC
VALIDATOR'S NAME: Jackson Kiker
DV Completion Date:__25 June 2003
Date Sampled__4/8/03 _____

ANALYTICAL DATA QUALITY SUMMARY

		PAH	SVOC	Metals
1	Preservation and HT	O	O	O
2	Instrument Performance Check	M	O	O
3	Initial Calibration:	O	O	O
4	Continuing Calibration:	O	O	O
5	Blanks:	O	O	O
6	Surrogate Compounds:	O	M	-
7	Internal Standards	O	O	-
8	Matrix Spike/Matrix Spike Duplicate:	O	M	O
9	Sensitivity Check:	O	O	O
10	PE Samples- Accuracy Check	O	O	O
11	Target Compound Identification:	-	-	-
12	Compound Quantitation and Reported QLs	O	O	O
13	Tentatively Identified Compounds:	-	-	-
14	Semivolatile/Pesticide/PCB Cleanup:	-	-	-
15	Data Completeness	M	M	O
16	Overall Evaluation of Data:	O	O	O

O = Data had no problems or were qualified due to minor contractual problems; M = Data were qualified due to major/systemic MPC exceedences: Z = Data were rejected as unusable due to major contractual problems.

ACTION ITEMS: (Z items): ____.

AREAS OF CONCERN: (M items): _SVOC; DDT degradation check provided by laboratory. SVOC surrogate low in surface water sample- all results qualified. MS %R(surface water) <LCL for anthracene. PAH analysis results for this compound indicate no matrix bias. PAH: CCV Tune checkk m/z 441 ion abundance does not meet criteria. Detected PAH ion abundances are within limits. Benzo(a)pyrene co-elution with IS has ion-abundance >20%. Metals Hg MS %R>UCL.

COMMENTS: PAH no ICV analysis. SVOC ICV not analyzed. Water quality parameters in package.

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

PAH 8270C - SIM
Review Criteria: Region I Tier II Guidance & OM Manual

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	Aqueous	-	1.2 & 0.9 C (2-coolers)	Alpha Laboratory Westborough, MA	0303197

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
2WMW42DS 4/9/03, 4/8/03 (2-GW42DS-01) (note sample location same; COC different dates entered)	L0303197-01 L0303197-02
2-SW19-01 (2-SW19-01)	L0303197-03

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. Lab ID Samples 01 and 02 are the same sample. They were logged in as different dates due to the COC documentation. No samples qualified.	X	-	
Holding Time	1) 7 Days water, 40 to analysis 2) J –detects, UJ or R –nondetects (function of time)	All analysis within hold times	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made (no USACE) 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	Not applicable	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	Lab did not report qualitative detections.	-	-	
Equip Blank	< 5x (<10x common) contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not applicable	-	-	
Surrogates	1) Surrogate acceptance limits Carbazole & p-Terphenly-d14 within QAPP limits. Qualification: >UCL J –detects, %R<10% J –detects, R –NDs, %R >10% but <60% J-detects, UJ NDs	Surrogates within QC limits. No samples qualified.	x	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

PAH 8270C - SIM
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
Lab Blanks (method	1) < 5x (<10x common) contaminants – U 2) analytes <lab PQL (contract lab)	All method blanks were non-detects for COCs. No samples qualified.	X	-	
LCS Recovery	1) QAPP limits 10% and <LCL% J detects, UJ -NDs >UCL% J detects <10% R NDs, J-detects	LCS %R within method limits. No samples qualified	X	-	
MS/MSD Recovery	1) QAPP limits (if MS > 4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <70% J detects, UJ -NDs >130% J detects	Native sample; Lab ID 0303197-02 (not part of this SDG). This is a ground water matrix. MS %R's within limits.	X	-	
MS/MSD RPD	RPD ≤40% solid, 30% aq per QAPP Table 7-3. J –detects in MS sample UJ-non detects	MS/MSD RPD <MPC. No samples qualified. Laboratory precision acceptable.	x		
Cleanup Performance Check (if performed)	%R< 10% NDs-R detections J %R>10% <LCL (80%GPC) –detections J, NDs UJ %R>UCL (120%) – detections J	NA	-	-	
Retention times	Within 3X standard deviation for each analyte from 72-hour study Exceeds: R qualify data	Retention times within limits.	X	-	
Field Dup RPD	1) RPD ≤ 100% water & soil for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect 3) Other conditions use judgement	Field sample pair not collected/analyzed for this SDG.	-		
Initial Cal (Linearity)	Correct calibration stds %RSD < 15% use average RF for calibration %RSD> 15% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 or alternatively mean %RSD <20% for all target analytes, with no analyte %RSD>40% Resolution check mix –valley 60% hgt of shortest peak (CLP criteria only) Performance check mix - >90% (PEM) (CLP criteria only) SW-846 PEM –endirn/DDT breakdown evaluation. Blank and Performance Evaluation Mix (PEM) at start, and blank and midpoint Individual Standard Mix A (ISMA) and ISMB at end or samples(CLP only)	11 april 03 Instrument HPLows – Mindy %RSD<20% ICAl linear. No samples qualified RRF>0.05 SPCC compounds not analyzed for this method. No action taken.	X	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

PAH 8270C - SIM
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
Tune Check	Tune check within method parameters for DFTPP	Ical tune check within limits. CCV tune check; m/z 441 ion abundance > m/z 443 exceedence in CCV tune check. M/z 441 is not a critical ion abundance. All detects were verified by examining the mas spectrums. All were within ion abundance limits in all samples except for benzo(a)anthracene in samples 02,03. The ion abundance exceeded the 20% diference criteria (Section XII Tier guidance). However this is more than likely attributable to minor co-elution/overlap of the b(A)p peak with internal standard chrysene-d12. No samples qualified.	X	-	
Degradation Check	Within method parameters	Within limits. Degradation checks associated with tune checks and samples were within limits. No samples qualified	X		
CCV	1) 15% of initial calib. Curve (85%-115%) If low re-calibrate per method. If high no recalibration needed. J qualify data. 2) 15% D 3) Qualification-J detects, R or UJ NDs	%D<15% for all CCV (pre analysis provided) PAHs. No samples qualified.	X	-	
2nd Source ICV	%R (between ICV and Ical) analytes %D ≤ 15%, (+ or -) once per 5 pt cal Qualification: J detects, R or UJ NDs	ICV not analyzed. No action taken. Lab notified of need to perform analysis per method.	-	-	
Internal Stds	1) IS are –50% to 200% of CCV 1) RRT<0.06 (30 sec) 2) IS>100% J-detects 3) IS<20%CCV NDs – R 4) IS>20%CCV <50%CCV NDs – UJ 5) *check for IS transcription errors	Internal standards are within MPC. No samples qualified.	X	-	
Compound Quantitation	1) Check sensitivy (MDL< 1/3 PQL or per QAPP	Sensitivity; supports PALs in O&M manual.	X	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	The laboratory accuracy and precision are acceptable. No apparent sample bias. Data are usable for project decisions. ICAL is linear. CCV; in limits.- tune check m/z 441 to 443 ratio is out of tune criteria. This check is for MS resolution. Excedence did not impact determinations. Sampling error- FD not collected/analzyed with this SDG.	X	-	

(*Tier III criteria) Completeness Check: Inventory Check Sheet_____X__ Sample Quantitation Calculations (TIER III ONLY):

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

SVOCs 8270C
Review Criteria: Region I Tier II Guidance & OM Manual

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	Aqueous	-	1.2 & 0.9 C (2-coolers)	Alpha Laboratory Westborough, MA	03030197

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
2WMW42DS 4/9/03, 4/8/03 (2-GW42DS-01) (note sample location same; COC different dates entered)	L0303197-01 L0303197-02
2-SW19-01 (2-SW19-01)	L0303197-03

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. Lab ID Samples 01 and 02 are the same sample. They were logged in as different dates due to the COC documentation. No samples qualified..	X	-	
Holding Time	1) 7 Days aqueous – 14 days soil (extract 40 days) 2) J –detects, UJ or R –nondetects (function of time)	None	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made (no USACE) 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	Not applicable	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	Lab does not report results <SQL	-	-	
TICs (if reported)	1) *verify library search for samples and blanks	None Reported	X	-	
Internal Stds	1) IS are –50% to 200% of CCV 1) RRT<0.06 (30 sec) 2) IS>100% J-detects 3) IS<20%CCV NDs – R 4) IS>20%CCV <50%CCV NDs – UJ 5) *check for IS transcription errors	Internal standards are within MPC. No samples qualified.	X	-	
Equip Blank	< 5x (<10x common) contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not collected/anlayzed with this SDG	x	-	

ECC Region I Data Review Worksheet (rv 2) **SVOCs 8270C**
Project: New London ECC Job No. 5700 **Review Criteria: Region I Tier II Guidance & OM Manual**

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Surrogates	Within historical laboratory limits Qualification: >UCL J –detects, %R<10% J –detects, R –NDs, %R >10% but <LCL% J-detects, UJ NDs	Surrogate phenol-d6 is low (ca. 20%) in 02, 03, but there are no Navy crteria for this surrogate in aqueous SVOCs. No action taken. Surrogate 2,4,6 tribromophenol %R<LCL for samples 03. All non-detects –Qualify all results UJ.	X	UJ – All NDs	
Lab Blanks (method	1) < 5x (<10x common) contaminants – U 2) analytes <lab PQL (contract lab) 3) no phthalates >5X QL (QAPP)	Lab blank is non-detect for all reported SVOCs. No samples qualified.	x	-	
LCS Recovery	1) Within historical laboratory limits listed in (QAPP) 10% and <LCL% J detects, UJ –NDs >UCL% J detects <10% R NDs, J-detects	Phenol LCS %R = 35%. No lab criteria. Soil lab criteria of 40% LCL used. No samples qualified. 35% within lab limits.	X	-	
MS/MSD Recovery	1) Within historical laboratory limits (QAPP) (if MS > 4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <70% J detects, UJ -NDs >130% J detects	Native sample; Lab ID 0303197-03. (part of this SDG, surface water matrix) MS %R's within limits, except for anthracene (%R<LCL) No groundwater samples (02) qualified only the surface water sample. Low surrogate %R and matrix interference for anthracene. Potential matrix bias.	x	Anthracene In 03	
Cleanup Performance Check (if performed)	%R< 10% NDs-R detections J %R>10% <LCL (80%GPC) –detections J, NDs UJ %R>UCL (120%) – detections J Retention Time shift <5% symmetrical	NA	-	-	
MS/MSD RPD	RPD ≤40% aq, <50% (S) J –detects in MS sample UJ-non detects	Within MPC limits. No samples qualified. Laboratory precision acceptable.	X	-	
Tune Check	Tune check within method parameters for DFTPP	Ical tune check within limits. CCV tune check within limits.	X	-	
DDT degradation Instrument performance check	1) Breakdown <20% DDT 2) benzidine and pentachlorophenol at normal response - no peak trailing (<3.0 benz. , <5.0 penta.) Detections – J	Within limits. Degradation checks associated with ICAL and sample analysis	X	-	
Field Dup RPD	1) RPD ≤ 100% water; ≤ 100% soil for Results > PQL (FD pair only) J-detects (both > PQL) 2) If one > PQL, other ND, J-detections, UJ non-detect 3) Other conditions use judgement	FD not collected/analyzed as part of this SDG.	-	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

SVOCs 8270C
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Initial Cal (Linearity)	Correct calibration stds %RSD < 15% use average RF for calibration %RSD> 15% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 or alternatively mean %RSD <15% for all target analytes, with no analyte %RSD>30% or %RSD<30% each target analyte 1) CCCs %RSD: <30% (acenatphthene, 1,4 dichlorobenzene, hexachlorobutadiene, dipheynlamin, di-n-octyl phthalate, fluoranthene, benzo(a)pyrene, 4-chloro-3-methylphenol, 2,4, dichlorophenol, 2-nitrophenol, phenol, pentachlorophenol, 2,4,6 trichlorophenol) J –detects, R or UJ NDs all samples associated with Ical) 2) SPCCs Average RRF > 0.05: SPCCs n-nitroso-di-n-propylamine, hexachlorcyclopentdiene, 2,4 dinitrophenol, 4-nitrophenol. (J –detects, R NDs) 3) RRF>0.05 all target compounds RRT < 0.06 units (all stds within 30 sec) 4) *verify that instrument parameters met method and that Ical and analysis used the same parameters 5) *recalculate RRF one tgt compound associated with each IS. Recalculated values within 10% of lab values. 6) *recalculate one tgt compound associated with each IS. Recalculated values within 10% 7) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 8) *option-recalculate cal std concentration	Instrument: GCMS-5 Date: 11 april 03 RRF>0.05 all SVOCs. Average RSD<15% - no %RSD>30% criteria used for linearity of SVOC Ical. No samples qualified based on ICAL.	X	-	
2nd Source ICV	%R (between ICV and Ical) analytes 80%--120% (USACE) %D ≤ 25%, (+ or -) once per 5 pt cal Qualification: J detects, R or UJ NDs	Not provided by the laboratory. Lab notified of ICV requirement per method. No further action taken	-	-	
CCV	1) SPCCs Average RRF: SPCCs n-nitroso-di-n-propylamine, hexachlorcyclopentdiene, 2,4 dinitrophenol, 4-nitrophenol. 2) RRF all compounds > 0.05 3) CCC: (acenatphthene, 1,4 dichlorobenzene, hexachlorobutadiene, dipheynlamin, di-n-octyl phthalate, fluoranthene, benzo(a)pyrene, 4-chloro-3-methylphenol, 2,4, dichlorophenol, 2-nitrophenol, phenol, pentachlorophenol, 2,4,6 trichlorophenol) 4) %D<20%. CCCs (QAPP -except surrogates). 5) Qualification-J detects, R or UJ Nods 6) %D<25% all compounds (Tier I). 7) RRF exclusions: surrogates,	CCV (pre sample). %D<MPC for all SVOCs. No samples qualified.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
	8) *verify same instrument and parameters 9) *Recalculate RRF for one tgt cmpd associated with each IS. (within 10%) 10) *Recalculate %D for one tgt cmpd associated with each IS (within 10%) 11) *IS RRT<0.06 units (30 sec) 12) * IS area -50 % to 100 % of last ICAL 13) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 14) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)				
Compound Quantitation	1) Check sensitivy (MDL< 1/3 PQL or per QAPP	COCs within O&M limits.	X	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	The laboratory accuracy and precision are acceptable for all compounds. Results are usable for making project decisions and have been reconciled with project objectives. Method blank; non-detect for all SVOCs. BEHP main SVOC COC was non-detect in the MB and samples. Low surrogate %R; All surface water results qualified UJ. LCS in control. MS/MSD in control, except for anthracene %R<LCL. Potential matrix bias for anthracene in the surface water matrix. ICAL; linear. CCV : in limits. CCV tune check one exceedence m/z 441>m/z 443. This criteria applies to resolution. As all sample results are non-detect; resolution sensitivity is not critical. All results accepted. Sampling error-FD pair not collected/analyzed with this SDG..	x	-	

*Tier III criteria.

Completeness Check: Inventory Check Sheet_____X__ Sample Quantitation Calculations (TIER III ONLY):

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	Aqueous	Nitric Acid	1.2 & 0.9 C (2-coolers)	Alpha Laboratory Westborough , MA	03030197

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
2WMW42DS 4/9/03, 4/8/03 (2-GW42DS-01) (note sample location same; COC different dates entered. Lab logged this in as two samples).	L0303197-01 L0303197-02
2-SW19-01 (2-SW19-01)	L0303197-03

**sample numbers in brackets as submitted to lab. Other sample number is per O/M plan.*

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. Lab ID Samples 01 and 02 are the same sample. They were logged in as different dates due to the COC documentation. No samples qualified.	X	-	
Holding Time	1) 180 days (6010), Hg 28 Days to analysis 2) J -detects, UJ or R –nondetects (function of time)	None	X	-	
Lab Duplicate	1) RPD < 20% 1) If both values > PQL 2) Qualify samples in batch: detects J, NDs UJ	Native sample: (lab ID 303267-05 Not part of this SDG)for total metals and dissolved metals Lab duplicate RPDs<MPC for both total and dissolved metals. Laboratory precision adequate. No samples qualified.	X	-	
LCS Recovery	1) once per sample batch 2) 75-125% water, soil, QAPP limits. 3) <LCL% Reject 4) >UCL% detects J	LCS %R's acceptable. No samples qualified.	X	-	
Field Dup RPD	1) RPD ≤ 50% water & soil for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect	FD pair not collected/analyzed with this SDG.	-	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	Not applicable	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	Lab did not report qualitative detections. Lead, Cd, Cu, and Zn raw data examined for detections<RL. All non-detects for Cd, Cu, and Pb. Zinc detected	x	-	
Lab Blanks (method blank or p reparation blank)	1) Once per sample batch 2) Results > QL; sample results <5X ; sample result U (nd) 3) Sample results >5X blank level; no action	Non-detect for target metals. Prep blank and CCB's are non-detect for target metals	X	-	
MS Recovery	1) 75-125% GFAA/ICP if MS > 4X native levels) Qualification of MS sample: 2) <30% J detects, R NDs 3) 30%--74%, detects J, NDs UJ 4) >125% J detects	Lab ID 0303267-05 (not part of this SDG – part of Goss Cove GW matrix) Fe %R>UCL due to matrix spike being less than 4X the native Fe level. No apparent matrix bia. ICP metals: Dissolved Ag low %R No apparent matrix bias, as PDS and SD are within limits. MS/MSD sample is not part of this SDG nor site. Silver non-detect in these samples, so no samples qualified. Silver is not a site COC. Mercury: Hg MS %R>UCL (Lab ID for MS – 0303197-03). MS is into native sample from Area A. %R >UCL – results non-detect so no sample qualification.	X	-	
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %R 80-120%, 1) %R <10 ND- (R) , J- detects 2) 10%> but <80% , judgement 3) %R>120% J-detects 4) QC, IS, RRT meet criteria, 5) %RSD < 20% 6) MDL< MQL (3x less ideal) 7) Lab fortitied blank (see VOA/SV Part II – section X). 8) *Check and recalculate %RSDs and %R fir three compounds (with 10% of lab)	Lab SQL <groundwater criterion for all COC elements. Common cations- Na, K, Mg analyzed at 10X dilution These elements are not COCs.	X	-	
Equip Blank	< 5x contaminants for aq samples – for soil indicate EB (X rules don't apply)	Equipment blank not collected/analyzed with this SDG.	-	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Negative blanks	If negative values are reported for an analyte with absolute value >DL and sample value is <5X the absolute value of the blank or is nondetect Qualify detects as estimated (J) Nondetects as estimated (UJ	None	X	-	
Initial Cal Multipoint	1) 6010: 1 std and blank and low-level check at MQL – check std 20% 2) 3 stds and a blank- R = 0.995 3) %RSD <5%	ICAL performed according to method.	X	-	
Initial and Continuing Calibration Blanks	1) Ical blank after Ical 2) CCB every 10 samples end of run 3) Results > QL; sample results <5X ; sample result U (nd) 4) Sample results >5X blank level; no action	Detected elements <QL. No samples qualified.	X	-	
Serial Dilution	1) once per digestion batch 2) Meets method limits.	SD on native sample lab ID 0303267-05 (not part of this SDG – part of Goss Cove water samples) . Serial Dilution within limits for site COC elements. No apparent matrix bias.	x	-	
Interelement checks ICS-A, ICS-AB Instrument performance check	1) start of sequence 2) 80-120% target analytes 3) >120% ; detects J (ICS-AB) 4) 50%-79% R ICS-AB; detects J, NDs – UJ 5) <50% R – reject data 6) ICS-A response > DL and samples have <5X ICS-A response: detects J	ICS's within limits for COC elements. No samples qualified.	X	-	
2nd Source ICV	1) following calibration 2) 90- 110% Recovery (6010/7000) 3) 75%-89% R – detects J, NDs – UJ 4) 111-125% R – detects J 5) outside 75-125% R – reject data (R)	Within QC limits. No samples qualified.	X	-	
CCV	1) every 10 samples and end of run 2) 90- 110% Recovery (6010) Hg; 80-120% 3) 6010: 75%-89% R Hg, 65-79% R; – detects J, NDs – UJ. 4) 6010: 111-125%, Hg: 121-135% detects J 5) 6010: outside 75-125%, Hg; outside 65-135%; R – reject data (R)	Within QC limits. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Post Digestion Spike	1) 75- 125% R	PDS on native sample lab ID 0303267 PDS %R's within limits for Site COCs. No apparent sample bias.	x	-	
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 3) * performed annually 4) *MDL is at least ½ of PQL *tgt and surrogate 80-120% R	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 3) *Matrix effects- MS/MSD, surrogated, PDS. 4) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 5) PES > acceptance criteria – Detects in samples J, 6) PES<acceptance criteria – Detects J, NDs –R 7) VOA/SV-XI14 other criteria 8) *% of PES sample above and below criteria 9) *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Laboratory accuracy and precision is acceptable. Accuracy is shown by the LCS being within limits. The ICS-A, and ICS-AB were within limits for all elements. MS/MSD Ag %R<LCL. MS native sample from Goss Cove. Hg %R>UCL (MS native sample part of SDG). RPDs and %R's are within limits. Sample results are usable for project decision making. Sampling error- FD pair not collected/analyzed with this SDG.	X	-	

TIER III DATA VALIDATION ONLY Completeness Check: Inventory Check Sheet___X_Sample Quantitation Calculations (TIER III DATA VALIDATION ONLY):

CHAIN OF CUSTODY

PAGE ____ OF ____

Date Rec'd in Lab: 4/9/03

ALPHA Job #: L0303197

Eight Walkup Drive Westborough, MA 01581
TEL: 508-898-9220 FAX: 508-898-9193

Client Information

Client: ECC
Address: 50 D'Angelo Drive
Marlborough, MA 01752
Phone: 508 777 7770
Fax:
Email:
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: NSB-NL
Project Location: Area A Landfill
Project #:
Project Manager: Dawn Gaine
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due: 4/23/03 Time:

Report Information - Data Deliverables

☐ FAX
☐ ADEx
Criteria Checker: ____
(Default based on Regulatory Criteria indicated)
Other Formats: ____
☐ EMAIL (standard pdf report)
☐ Additional Deliverables: ____
Report to: (if different than Project Manager)

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed	Program	Criteria

Other Project Specific Requirements/Comments:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	SVOC w/ PAH	VOC SIM	Total Metals	(FP) Dissolved Metals	TOC	COD	TDS, Alk, Cl, SO4	Hardness	TSS				Sample Specific Comments	TOTAL # BOTTLES
03197-1	2WMW42DS	4-8-03	1654	GW	JD	X	X	X	X	X	X	X	X	X					
-2	2WMW43DS	4-9-03	1610	GW	JD	X	X		X			X							
-3	2-SW19-01	4-8-03	1700	SW	JD	X	X	X	X	X	X	X	X	X					

Container Type: A A P P V P
Preservative:

Shaded Gray Areas For Lab Use Only

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Relinquished By:	Date/Time	Received By:	Date/Time
[illegible]	4/9/03 1630	L Edmondo	4/9/03 1705
L Edmondo	4/9 1835	[illegible]	4/9 1835

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

Form No: 02-02 STD

DATA VALIDATION MEMORANDUM
O&M MONITORING SITES – NEW LONDON NSB
APRIL 2003 SAMPLING ROUND (SDG 0303295ALPHA LAB)

TO: ENGINEERING FIELD ACTIVITY NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NEW LONDON NSB – IRP O&M MONITORING SITES - SAMPLING ROUND APRIL 2003

DATE: 27 JUNE 2003

Project data were validated using the following Validation Functional Guideline, as modified for non-CLP methods.

1. Region I, EPA-NE Data Validation Functional Guidelines for Evaluation of Environmental Analyses (Dec, 1996).

The validation guideline exceedences are assessed and documented on the method specific data validation worksheet. On the data validation worksheet, the data quality acceptance criteria are presented, analytes requiring qualification based on laboratory historical control limits and/or validation guidance criteria exceedences are listed, assigned qualifiers, qualifying rationale is documented, and any potential bias noted. The overall evaluation of the data generated is presented in the data validation worksheet.

Standard EPA Region I data qualifiers are used to denote the assessment of data quality. The final and ranking assigned data qualifier for an analyte is presented in the data summary table. Ancillary qualifiers are noted on the data validation worksheets.

As an exception to the USEPA Region I data validation guidance, non-target ketone VOC data with response factors (RFs) less than the 0.05 were not qualified, as the Tier guidance allows for exceptions to the RF guidance.

The USEPA Region I Organic Regional Data Assessment (ORDA) sheet displays the summarized results of the data validation assessment for all analytical methods reported in the SDG.

Region I, EPA-NE ORGANIC REGIONAL DATA ASSESSMENT

LAB NAME: Alpha Lab
SDG #: 0303295
EPA-NE DV TIER LEVEL: II
SITE NAME: New London NSB – O&M

# of SAMPLES/MATRIX: 4 SW and 1FD
VALIDATION CONTRACTOR: ECC
VALIDATOR'S NAME: Jackson Kiker
DV Completion Date: 27 June 2003
Date Sampled 4/11/03

ANALYTICAL DATA QUALITY SUMMARY

		PAH	SVOC	Metals
1	Preservation and HT	O	O	O
2	Instrument Performance Check	O	O	O
3	Initial Calibration:	O	O	O
4	Continuing Calibration:	O	M	O
5	Blanks:	O	M	O
6	Surrogate Compounds:	O	M	-
7	Internal Standards	O	O	-
8	Matrix Spike/Matrix Spike Duplicate:	O	M	O
9	Sensitivity Check:	O	O	O
10	PE Samples- Accuracy Check	O	O	O
11	Target Compound Identification:	-	-	-
12	Compound Quantitation and Reported QLs	O	O	M
13	Tentatively Identified Compounds:	-	-	-
14	Semivolatile/Pesticide/PCB Cleanup:	-	-	-
15	Data Completeness	M	M	O
16	Overall Evaluation of Data:	O	O	O

O = Data had no problems or were qualified due to minor contractual problems; M = Data were qualified due to major/systemic MPC exceedences: Z = Data were rejected as unusable due to major contractual problems.

ACTION ITEMS: (Z items): VOC MS/MSD ketones (not site COCs) <10%MS recovery – qualified as R. VOC CCV RRF bromomethane <0.05 qualified as R. Not a site COC.

AREAS OF CONCERN: (M items): SVOC; DDT degradation check provided by laboratory. SVOC surrogates low- all results qualified. MS %R<LCL for three SVOCs (not site COCs) .Method blank results for bis(2-ethylhexyl)phthalate – all reults qualified., CCV –3 non-COCs qualified. Metals FD RPD within limits for dissolved phase samples. Total metals, Al, As, Zn detects in one of the FD pair but ND in other sample. Most likely attributable to disparate turbidity levels.

COMMENTS: PAH and SVOC ICV not analyzed.

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

PAH 8270C - SIM
Review Criteria: Region I Tier II Guidance & OM Manual

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	Aqueous	-	0.6, 0.8, 1.2 C (3-coolers)	Alpha Laboratory Westborough, MA	0303295

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
2-SW21-01 MS/MSD	L0303295-01
2-SW22-01	L0303295-02
2-SW23-01	L0303295-03
2-SW24-01	L0303295-04
2-SW24-01D (field duplicate of 2-SW24-01)	L0303295-05
2-SW18-01	L0303295-06

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No samples qualified.	X	-	
Holding Time	1) 7 Days water, 40 to analysis 2) J –detects, UJ or R –nondetects (function of time)	All analysis within hold times	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made (no USACE) 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	Not applicable	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	Lab did not report qualitative detections.	-	-	
Equip Blank	< 5x (<10x common) contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not applicable	-	-	
Surrogates	1) Surrogate acceptance limits Carbazole & p-Terphenly-d14 within QAPP limits. Qualification: >UCL J –detects, %R<10% J –detects, R –NDs, %R >10% but <60% J-detects, UJ NDs	Surrogates within QC limits. No samples qualified.	x	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

PAH 8270C - SIM
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
Lab Blanks (method	1) < 5x (<10x common) contaminants – U 2) analytes <lab PQL (contract lab)	All method blanks were non-detects for COCs. No samples qualified.	X	-	
LCS Recovery	1) QAPP limits 10% and <LCL% J detects, UJ -NDs >UCL% J detects <10% R NDs, J-detects	LCS %R within method limits. No samples qualified	X	-	
MS/MSD Recovery	1) QAPP limits (if MS > 4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <70% J detects, UJ -NDs >130% J detects	Native sample; Lab ID 0303295-01. MS %R's within limits. No apparent matrix bias.	X	-	
MS/MSD RPD	RPD ≤40% solid, 30% aq per QAPP Table 7-3. J – detects in MS sample UJ-non detects	MS/MSD RPD <MPC. No samples qualified. Laboratory precision acceptable.	x		
Cleanup Performance Check (if performed)	%R< 10% NDs-R detections J %R>10% <LCL (80%GPC) –detections J, NDs UJ %R>UCL (120%) – detections J Retention Time shift <5%, symmetrical peakshape. GPC	NA	-	-	
Retention times	Within 3X standard deviation for each analyte from 72-hour study Exceeds: R qualify data	Retention times within limits.	X	-	
Field Dup RPD	1) RPD ≤ 100% water & soil for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect 3) Other conditions use judgement	Field Duplicate pair; 04 field sample, 05 FD sample. All FD pair results were non-detect. RPDs not calculated. Overall precision is acceptable.	x		
Initial Cal (Linearity)	Correct calibration stds %RSD < 15% use average RF for calibration %RSD> 15% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 or alternatively mean %RSD <20% for all target analytes, with no analyte %RSD>40% Resolution check mix –valley 60% hgt of shortest peak (CLP criteria only) Performance check mix - >90% (PEM) (CLP criteria only) SW-846 PEM –endirn/DDT breakdown evaluation. Blank and Performance Evaluation Mix (PEM) at start, and blank and midpoint Individual Standard Mix A (ISMA) and ISMB at end or samples(CLP only)	11 april 03 Instrument HPLows – Mindy %RSD<20% ICAl linear. No samples qualified RRF>0.05 SPCC compounds not analyzed for this method. No action taken.	X	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

PAH 8270C - SIM
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
Degradation Check	Within method limits.	All associated degradation checks within limits. No samples qualified	X	-	
Tune Check	Tune check within method parameters for DFTPP	Ical tune check within limits. And CCV tune check within limits. No samples qualified.	X	-	
CCV	1) 20% of initial calib. Curve (85%-115%) If low re-calibrate per method. If high no recalibration needed. J qualify data. 2) 20% D 3) Qualification-J detects, R or UJ NDs	%D<20% for all CCV (pre analysis provided) PAHs. No samples qualified.	X	-	
2nd Source ICV	%R (between ICV and Ical) analytes %D ≤ 15%, (+ or -) once per 5 pt cal Qualification: J detects, R or UJ NDs	ICV not performed for SIM. 8270C requires ICV. Lab requested to perform ICV for future analysis.	X	-	
Internal Stds	1) IS are –50% to 200% of CCV 1) RRT<0.06 (30 sec) 2) IS>100% J-detects 3) IS<20%CCV NDs – R 4) IS>20%CCV <50%CCV NDs – UJ 5) *check for IS transcription errors	Internal standards are within MPC. No samples qualified.	X	-	
Compound Quantitation	1) Check sensitivy (MDL< 1/3 PQL or per QAPP	Note surface water criteria are not listed.	X	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	The laboratory accuracy and precision are acceptable. No apparent sample bias. Data are usable for project decisions. ICAL is linear. CCV; in limits. Anthracene with MS %R limits. Sampling error- FD pair 04/06. RPDs not calculated – all results were ND. Overall precision is acceptable.	X	-	

(*Tier III criteria)

Completeness Check: Inventory Check Sheet_____X__ Sample Quantitation Calculations (TIER III ONLY):

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

SVOCs 8270C
Review Criteria: Region I Tier II Guidance & OM Manual

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	Aqueous	-	0.6, 0.8, 1.2 C (3-coolers)	Alpha Laboratory Westborough, MA	0303295

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
2-SW21-01 MS/MSD	L0303295-01
2-SW22-01	L0303295-02
2-SW23-01	L0303295-03
2-SW24-01	L0303295-04
2-SW24-01D (field duplicate of 2-SW24-01)	L0303295-05
2-SW18-01	L0303295-06

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No samples qualified..	X	-	
Holding Time	1) 7 Days aqueous – 14 days soil (extract 40 days) 2) J –detects, UJ or R –nondetects (function of time)	None	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made (no USACE) 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	Not applicable	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	Lab does not report results <SQL	-	-	
TICs (if reported)	1) *verify library search for samples and blanks	None Reported	X	-	
Internal Stds	1) IS are –50% to 200% of CCV 1) RRT<0.06 (30 sec) 2) IS>100% J-detects 3) IS<20%CCV NDs – R 4) IS>20%CCV <50%CCV NDs – UJ 5) *check for IS transcription errors	Internal standards are within MPC. No samples qualified.	X	-	
Equip Blank	< 5x (<10x common) contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not collected/anlayzed with this SDG	x	-	

ECC Region I Data Review Worksheet (rv 2) **SVOCs 8270C**
Project: New London ECC Job No. 5700 **Review Criteria: Region I Tier II Guidance & OM Manual**

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Surrogates	Within historical laboratory limits Qualification: >UCL J detects, %R<10% J –detects, R –NDs, %R >10% but <LCL% J-detects, UJ NDs	Surrogate phenol-d6 is low (ca. 20%) in 01 through 06, but there are no Navy criteria for this surrogate in aqueous SVOCs. No action taken. Surrogate 2,4,6 tribromophenol %R<LCL for samples 01 -06. All SVOC results were non-detects –Qualify all ND results UJ. Generally the impact MWs are tidal influenced. The low surrogates more than likely is attributable to instrument performance.	X	UJ – All NDs	
Lab Blanks (method	1) < 5x (<10x common) contaminants – U 2) analytes <lab PQL (contract lab) 3) no phthalates >5X QL (QAPP)	Lab blank is non-detect for all reported SVOCS, excpet 2-bis(ethylhexly)phthalate, which is a site COC. All sample results qualified as U, because the reported values were <10X the method blank 2-BEHP level. RL raised to MB level. 2-BEHP does not have an O&M surface water criteria. Raised RLs are less than the GW criterion.	x	U 2-BEHP in all samples.	
LCS Recovery	1) Within historical laboratory limits listed in (QAPP) 10% and <LCL% J detects, UJ –NDs >UCL% J detects <10% R NDs, J-detects	Phenol LCS %R = 35%. No lab criteria. Soil lab criteria of 40% LCL used. No samples qualified. 35% within lab limits. 2,4 dinitrotoluene %R>UCL. All samples ND for this SVOC. No samples qualified.	X	-	
MS/MSD Recovery	1) Within historical laboratory limits (QAPP) (if MS > 4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <70% J detects, UJ -NDs >130% J detects	Native sample; Lab ID 0303295-01 (surface water) MS %R's within limits, except for phenol and anthracene (%R<LCL). These SVOCs qualified UJ. PAH method used to determine anthracene. In that method no matrix bias apparent. 2,4 Dinitrotoluene, 2,6 dinitrotoluene>UCL. All samples non-detect for 2,4 DNT and 2,6 DNT.	x	UJ Phenol Anthracene all samples.	
Cleanup Performance Check (if performed)	%R< 10% NDs-R detections J %R>10% <LCL (80%GPC) –detections J, NDs UJ %R>UCL (120%) – detections J Retention Time shift <5% symmetrical	NA	-	-	
MS/MSD RPD	RPD ≤40% aq, <50% (S) J –detects in MS sample UJ-non detects	Within MPC limits. No samples qualified. Laboratory precision acceptable.	X	-	
Tune Check	Tune check within method parameters for DFTPP	Ical tune check within limits. CCV tune check within limits.	X	-	
DDT degradation Instrument performance check	1) Breakdown <20% DDT 2) benzidine and pentachlorophenol at normal response - no peak trailing (<3.0 benz. , <5.0 penta.) Detections – J	Within method limits for all associated degradation checks. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

SVOCs 8270C
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Field Dup RPD	1) RPD ≤ 100% water; ≤ 100% soil for Results > PQL (FD pair only) J-detects (both > PQL) 2) If one > PQL, other ND, J-detections, UJ non-detect 3) Other conditions use judgement	Field Duplicate pair; 04 field sample, 05 FD sample. All FD pair results were non-detect. RPDs not calculated. Overall precision is acceptable..	x	-	
Initial Cal (Linearity)	Correct calibration stds %RSD < 15% use average RF for calibration %RSD> 15% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 or alternatively mean %RSD <15% for all target analytes, with no analyte %RSD>30% or %RSD<30% each target analyte 1) CCCs %RSD: <30% (acenatphthene, 1,4 dichlorobenzene, hexachlorobutadiene, dipheynlamin, di-n-octyl phthalate, fluoranthene, benzo(a)pyrene, 4-chloro-3-methylphenol, 2,4, dichlorophenol, 2-nitrophenol, phenol, pentachlorophenol, 2,4,6 trichlorophenol) J –detects, R or UJ NDs all samples associated with Ical)	Instrument: GCMS-5 Date: 11 april 03 RRF>0.05 all SVOCs. Average RSD<15% - no %RSD>30% criteria used for linearity of SVOC Ical. No samples qualified based on ICAL.	X	-	
2nd Source ICV	%R (between ICV and Ical) analytes 80%--120% (USACE) %D ≤ 25%, (+ or -) once per 5 pt cal Qualification: J detects, R or UJ NDs	Not analyzed/provided by the laboratory. Lab notified that ICV is a method requirement	-	-	
CCV	1) SPCCs Average RRF: SPCCs n-nitroso-di-n-propylamine, hexachlorcyclopentdiene, 2,4 dinitrophenol, 4-nitrophenol. 2) RRF all compounds > 0.05 3) CCC: (acenatphthene, 1,4 dichlorobenzene, hexachlorobutadiene, dipheynlamin, di-n-octyl phthalate, fluoranthene, benzo(a)pyrene, 4-chloro-3-methylphenol, 2,4, dichlorophenol, 2-nitrophenol, phenol, pentachlorophenol, 2,4,6 trichlorophenol) 4) %D<20%. CCCs (QAPP -except surrogates). 5) Qualification-J detects, R or UJ Nods 6) %D<25% all compounds (Tier I). 7) RRF exclusions: surrogates, 8) *verify same instrument and parameters 9) *Recalculate RRF for one tgt cmpd associated with each IS. (within 10%) 10) *Recalculate %D for one tgt cmpd associated with each IS (within 10%) 11) *IS RRT<0.06 units (30 sec) 12) * IS area -50 % to 100 % of last ICAL 13) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 14) *option-recalculate cal std concentration of one std. Must agree within 10% of lab	CCV (pre sample) –applies to lab ID's 02-06. %D<MPC for all SVOCs, except 2,4 DNT and 2,6 DNT %R>UCL. These compounds also had LCS %R exceedences. High insturment performance for these non-COC SVOCS.. Qualify UJ CCV (pre analysis) for sample ID; 01. CCV %D within MPC for all SVOCs except bis(2-chloroisopropyl)ether, 2,4 DNT. Surrogate Nitrobenzene D-5 %D>MPC. No surrogate impact.	X	UJ, 2,4 DNT, 2,6 DNT UJ 2,4 DNT, bis(2-chloroisopropyl)ether	

ECC Region I Data Review Worksheet (rv 2) **SVOCs 8270C**
Project: New London ECC Job No. 5700 **Review Criteria: Region I Tier II Guidance & OM Manual**

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
	(option if information is in data package)				
Compound Quantitation	1) Check sensitivy (MDL< 1/3 PQL or per QAPP	Surface water samples do not have reported O&M criteria.	X	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	The laboratory accuracy and precision are acceptable for all compounds. Results are usable for making project decisions and have been reconciled with project objectives. Method blank; 2-BEHP in the MB and samples. All sample results qualified as U and the RL raised to the MB level. 2-BEHP is a site COC. The U qualification did not impact sensitivity at the groundwater criteria. 2-BEHP does not have SW criteria. Low surrogate %R; All samples results qualified UJ in all samples. LCS in control for site COCs. MS/MSD in control, except for phenol and anthracene %R<LCL Navy limits, but in control for lab limits. ICAL; linear. CCV : in limits except 2,4 DNT, 2,6 DNT, and bis(2-chloroisoproply)ether (not site COCs). Sampling error-FD 04/06. RPD's not calculated as all results were non-detect. Overall precision is acceptable.	x	-	

*Tier III criteria.

Completeness Check: Inventory Check Sheet_____X__ Sample Quantitation Calculations (TIER III ONLY):

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	Aqueous	Nitric acid	0.6, 0.8, 1.2 C (3-coolers)	Alpha Laboratory Westborough , MA	0303295

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
2-SW21-01 MS/MSD	L0303295-01
2-SW22-01	L0303295-02
2-SW23-01	L0303295-03
2-SW24-01	L0303295-04
2-SW24-01D (field duplicate of 2-SW24-01)	L0303295-05
2-SW18-01	L0303295-06

**sample numbers in brackets as submitted to lab. Other sample number is per O/M plan.*

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample refrigeration within limits. Sample pH listed on sample receipt as 2.7 (method criteria and O&M manual requirements. pH<2.0). This is discrepancy is noted herein. Acid preservative was used. No samples qualified.	X	-	
Holding Time	1) 180 days (6010), Hg 28 Days to analysis 2) J –detects, UJ or R –nondetects (function of time)	None	X	-	
Lab Duplicate	1) RPD < 20% 1) If both values > PQL 2) Qualify samples in batch: detects J, NDs UJ	Native sample: (lab ID 303295-01) for total metals and dissolved metals Lab duplicate RPDs<MPC for both total and dissolved metals. Laboratory precision adequate. No samples qualified.	X	-	
LCS Recovery	1) once per sample batch 2) 75-125% water, soil, QAPP limits. 3) <LCL% Reject 4) >UCL% detects J	LCS %R's acceptable. No samples qualified.	X	-	
Field Dup RPD	1) RPD ≤ 50% water & soil for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ	Field Duplicate pair; 04 field sample, 05 FD sample. RPDs were calculated for detects. See attached sheet. FD RPD	x	J detects UJ non-detects for	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
	non-detect	acceptable for all elements, except Al, As, & Zn. For these metals, detects were only found in one sample of the FD pair. All detects were >QL. Lab duplicate is acceptable, so laboratory precision is acceptable. The FD RPDs were acceptable, but the lack of similar detections may be attributed to the turbid samples, as the dissolved phase results were non-detect for these elements. Dissolved phase results had acceptable RPDs. Overall precision is acceptable for all elements except Al, (Zn and As – these are site COCs).		Al, Zn, and As in the FD pair	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	Not applicable	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	Lab did not report qualitative detections. Lead, Cu, Cd, and Zn raw data examined for detections<RL. All non-detects for Cd, Cu, and Pb. Zinc detected in samples. Lab requested to confirm non-detects below RL to IDL	-	-	
Lab Blanks (method blank or p reparation blank)	1) Once per sample batch 2) Results > QL; sample results <5X ; sample result U (nd) 3) Sample results >5X blank level; no action	Non-detect for target metals. Prep blank and CCB's are non-detect for target metals	X	-	
MS Recovery	1) 75-125% GFAA/ICP if MS > 4X native levels) Qualification of MS sample: 2) <30% J detects, R NDs 3) 30%--74%, detects J, NDs UJ 4) >125% J detects	Lab ID 0303295-01 (surface water matrix) All elemental MS %R's are within limits. No samples qualified. No apparent matrix bias.	X	-	
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %R 80-120%, 1) %R <10 ND- (R) , J- detects 2) 10%> but <80% , judgement 3) %R>120% J-detects 4) QC, IS, RRT meet criteria, 5) %RSD < 20% 6) MDL< MQL (3x less ideal) 7) Lab fortified blank (see VOA/SV Part II – section X). 8) *Check and recalculate %RSDs and %R fir three compounds (with 10% of lab)	Lab RL for Cu, Pb & Zn >O&M limits. Cd at O&M limit, but greater than SW criteria. The IDL<O&M limits for all these elements. Raw data examined for detections down to the IDL.	X	-	
Equip Blank	< 5x contaminants for aq samples – for soil indicate EB (X rules don't apply)	Equipment blank not collected/analyzed with this SDG.	-	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Negative blanks	If negative values are reported for an analyte with absolute value >DL and sample value is <5X the absolute value of the blank or is nondetect Qualify detects as estimated (J) Nondetects as estimated (UJ	None	X	-	
Initial Cal Multipoint	1) 6010: 1 std and blank and low-level check at MQL – check std 20% 2) 3 stds and a blank- R = 0.995 3) %RSD <5%	ICAL performed according to method.	X	-	
Initial and Continuing Calibration Blanks	1) Ical blank after Ical 2) CCB every 10 samples end of run 3) Results > QL; sample results <5X ; sample result U (nd) 4) Sample results >5X blank level; no action	Detected elements <QL. No samples qualified.	X	-	
Serial Dilution	1) once per digestion batch 2) Meets method limits.	SD on native sample lab ID 0303295-01 Serial Dilution within limits for site COC elements. No apparent matrix bias.	x	-	
Interelement checks ICS-A, ICS-AB Instrument performance check	1) start of sequence 2) 80-120% target analytes 3) >120% ; detects J (ICS-AB) 4) 50%-79% R ICS-AB; detects J, NDs – UJ 5) <50% R – reject data 6) ICS-A response > DL and samples have <5X ICS-A response: detects J	ICS's within limits for COC elements. No samples qualified.	X	-	
2nd Source ICV	1) following calibration 2) 90- 110% Recovery (6010/7000) 3) 75%-89% R – detects J, NDs – UJ 4) 111-125% R – detects J 5) outside 75-125% R – reject data (R)	Within QC limits. No samples qualified.	X	-	
CCV	1) every 10 samples and end of run 2) 90- 110% Recovery (6010) Hg; 80-120% 3) 6010: 75%-89% R Hg, 65-79% R; – detects J, NDs – UJ. 4) 6010: 111-125%, Hg: 121-135% detects J 5) 6010: outside 75-125%, Hg; outside 65-135%; R – reject data (R)	Within QC limits. No samples qualified.	X	-	
Post Digestion Spike	1) 75- 125% R	PDS on native sample lab ID 0303295-015 %R's within limits for Site COCs. No apparent sample bias.	x	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 3) * performed annually 4) *MDL is at least ½ of PQL *tgt and surrogate 80-120% R	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 3) *Matrix effects- MS/MSD, surrogated, PDS. 4) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 5) PES > acceptance criteria – Detects in samples J, 6) PES<acceptance criteria – Detects J, NDs –R 7) VOA/SV-XI14 other criteria 8) *% of PES sample above and below criteria 9) *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Laboratory accuracy and precision is acceptable. Accuracy is shown by the LCS being within limits. The ICS-A, and ICS-AB were within limits for all elements. MS/MSD %R within limits. PDS and SD in limits. No apparent matrix bias. Sample results are usable for project decision making. Sampling error- FD pair RPDs within limits. Overall precision is acceptable for all elements except As, Zn, Al (total metals results). For these elements in the total metal samples, the respective elements were only detected in one sample of the FD pair. The dissolved phase results for these elements were non-detect. The sampling imprecision is attributable to disparate turbidity levels.	X	-	

*TIER III DATA VALIDATION ONLY Completeness Check: Inventory Check Sheet___X_Sample Quantitation Calculations (TIER III DATA VALIDATION ONLY):

Field Duplicate RPDs
for all Sample Results with Detections.

Field Sample	Method	Analyte	Field Result	Field Duplicate	Analyte	FD Results	FD RPD (100%)	FD Assigned Data Qualifier
Metals Detected								
2-SW24-01	6010B	Barium, Dissolved	0.14	2-SW24-01D	Barium, Dissolved	0.14	0.00	
2-SW24-01	6010B	Calcium, Dissolved	18	2-SW24-01D	Calcium, Dissolved	18	0.00	
2-SW24-01	6010B	Iron, Dissolved	22	2-SW24-01D	Iron, Dissolved	22	0.00	
2-SW24-01	6010B	Magnesium, Dissolved	16	2-SW24-01D	Magnesium, Dissolved	16	0.00	
2-SW24-01	6010B	Manganese, Dissolved	1.1	2-SW24-01D	Manganese, Dissolved	1.2	2.17	
2-SW24-01	6010B	Potassium, Dissolved	7.4	2-SW24-01D	Potassium, Dissolved	7.2	0.68	
2-SW24-01	6010B	Sodium, Dissolved	170	2-SW24-01D	Sodium, Dissolved	170	0.00	
2-SW24-01	6010B	Aluminum, Total	0.14	2-SW24-01D	Aluminum, Total	ND	Not calculated.	J.UJ
2-SW24-01	6010B	Arsenic, Total	0.004	2-SW24-01D	Arsenic, Total	ND	Not calculated.	J/UJ
2-SW24-01	6010B	Barium, Total	0.16	2-SW24-01D	Barium, Total	0.11	9.26	
2-SW24-01	6010B	Calcium, Total	18	2-SW24-01D	Calcium, Total	16	2.94	
2-SW24-01	6010B	Iron, Total	28	2-SW24-01D	Iron, Total	17	12.22	
2-SW24-01	6010B	Magnesium, Total	17	2-SW24-01D	Magnesium, Total	12	8.62	
2-SW24-01	6010B	Manganese, Total	1.2	2-SW24-01D	Manganese, Total	0.9	7.14	
2-SW24-01	6010B	Potassium, Total	7.7	2-SW24-01D	Potassium, Total	5.6	7.89	
2-SW24-01	6010B	Sodium, Total	190	2-SW24-01D	Sodium, Total	120	11.29	
2-SW24-01	6010B	Zinc, Total	ND	2-SW24-01D	Zinc, Total	0.1	Not calculated.	UJ/J

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 4/11

ALPHA Job #: L0303495

Eight Walkup Drive Westborough, MA 01581
TEL: 508-898-9220 FAX: 508-898-9193

Client Information

Client: ECC
Address: 50 D Angelo Drive
Marlborough, MA
Phone: 508 229 3070
Fax:
Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: NSB NL
Project Location: Area A Landfill
Project #
Project Manager: Darren Gauvin
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due: 4/25 Time:

Report Information - Data Deliverables

☐ FAX
☐ ADEx
Criteria Checker:
(Default based on Regulatory Criteria indicated)
Other Formats:
☐ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed	Program	Criteria

Other Project Specific Requirements/Comments:

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	SVOC w/ PAH	PAH SIM	Total Metals	Dissolved Metals	TOC	COD	TDS, Alk, Cl, SO4	Hardness	TSS				Sample Specific Comments
8845.1	2-SW18-01	4/11/01	0840	SW	FJ	X	X	X	X	X	X	X	X	X				
1	2-SW21-01 MS/MSD	4/11/01	0700	SW	FJ	X	X	X	X	X	X	X	X	X				
2	2-SW22-01	4/11/01	0935	SW	FJ	X	X	X	X	X	X	X	X	X				
3	2-SW-23-01	4/11/01	0935	SW	FJ	X	X	X	X	X	X	X	X	X				
4	2-SW24-01	4/11/01	0950	SW	FJ	X	X	X	X	X	X	X	X	X				
5	2-SW24-01D	4/11/01	0950	SW	FJ	X	X	X	X	X	X	X	X	X				
	Shaded Grey Areas For Lab Use Only				Container Type	A	A	P	P	V		P						
					Preservative													

Relinquished By:	Date/Time	Received By:	Date/Time
[illegible]	4/11/01 1600	[illegible]	4/11 4:40
[illegible]	4/11 5:10	[illegible]	4/11 5:10

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

Form No. 02-02 STD

DATA VALIDATION MEMORANDUM
O&M MONITORING SITES – NEW LONDON NSB
APRIL 2003 SAMPLING ROUND (SDG 0303359ALPHA LAB)

TO: ENGINEERING FIELD ACTIVITY NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NEW LONDON NSB – IRP O&M MONITORING SITES - SAMPLING ROUND APRIL 2003

DATE: 5 AUGUST 2003

Project data were validated using the following Validation Functional Guideline, as modified for non-CLP methods.

1. Region I, EPA-NE Data Validation Functional Guidelines for Evaluation of Environmental Analyses (Dec, 1996).

The validation guideline exceedences are assessed and documented on the method specific data validation worksheet. On the data validation worksheet, the data quality acceptance criteria are presented, analytes requiring qualification based on laboratory historical control limits and/or validation guidance criteria exceedences are listed, assigned qualifiers, qualifying rationale is documented, and any potential bias noted. The overall evaluation of the data generated is presented in the data validation worksheet.

Standard EPA Region I data qualifiers are used to denote the assessment of data quality. The final and ranking assigned data qualifier for an analyte is presented in the data summary table. Ancillary qualifiers are noted on the data validation worksheets.

As an exception to the USEPA Region I data validation guidance, non-target ketone VOC data with response factors (RFs) less than the 0.05 were not qualified, as the Tier guidance allows for exceptions to the RF guidance.

The USEPA Region I Organic Regional Data Assessment (ORDA) sheet displays the summarized results of the data validation assessment for all analytical methods reported in the SDG.

Region I, EPA-NE ORGANIC REGIONAL DATA ASSESSMENT

LAB NAME: Alpha Lab
SDG #: 0303359
EPA-NE DV TIER LEVEL: II
SITE NAME: New London NSB – O&M

# of SAMPLES/MATRIX: 2GW
VALIDATION CONTRACTOR: ECC
VALIDATOR'S NAME: Jackson Kiker
DV Completion Date: 5 Aug 2003
Date Sampled 4/14/03

ANALYTICAL DATA QUALITY SUMMARY

		PAH	SVOC	Metals
1	Preservation and HT	O	O	O
2	Instrument Performance Check	O	O	O
3	Initial Calibration:	O	O	O
4	Continuing Calibration:	M	O	O
5	Blanks:	O	M	O
6	Surrogate Compounds:	O	M	-
7	Internal Standards	O	O	-
8	Matrix Spike/Matrix Spike Duplicate:	O	M	O
9	Sensitivity Check:	O	O	O
10	PE Samples- Accuracy Check	O	M	O
11	Target Compound Identification:	-	-	-
12	Compound Quantitation and Reported QLs	O	O	O
13	Tentatively Identified Compounds:	-	-	-
14	Semivolatile/Pesticide/PCB Cleanup:	-	-	-
15	Data Completeness	O	O	O
16	Overall Evaluation of Data:	O	O	O

O = Data had no problems or were qualified due to minor contractual problems; M = Data were qualified due to major/systemic MPC exceedences: Z = Data were rejected as unusable due to major contractual problems.

ACTION ITEMS: (Z items):

AREAS OF CONCERN: (M items): SVOC; DDT degradation check not provided by laboratory. SVOC surrogates low- all results qualified. MS %R<LCL for three SVOCs (not site COCs) . MS/MSD RPD >30% 2,4 dinitrophenol. Method blank results for bis(2-ethylhexyl)phthalate – all results qualified., CCV not provided. SVOC LCS anthracene and phenol low %R.

COMMENTS: Metals QC data supplied 5 Aug 2003

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

PAH 8270C - SIM
Review Criteria: Region I Tier II Guidance & OM Manual

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	Aqueous	-	0.9C (1-coolers)	Alpha Laboratory Westborough, MA	0303359

Field Identification of Samples Evaluated:

Field ID		Lab Sample Number
2WMW44DS	(2-GW44DS-01)	L0303359-01
2WMW45DS-01	(2-GW45DS-01)	L0303359-02

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No samples qualified.	X	-	
Holding Time	1) 7 Days water, 40 to analysis 2) J –detects, UJ or R –nondetects (function of time)	All analysis within hold times	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made (no USACE) 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	Not applicable	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	Lab did not report qualitative detections.	-	-	
Equip Blank	< 5x (<10x common) contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not applicable	-	-	
Surrogates	1) Surrogate acceptance limits Carbazole & p-Terphenly-d14 within QAPP limits. Qualification: >UCL J –detects, %R<10% J –detects, R –NDs, %R >10% but <60% J-detects, UJ NDs	Surrogates in sample 01 are within limits. Surrogates in sample 02 (2-fluorobiphenly & nitrobenzene d-5) are <LCL. UJ all non-detects	x	UJ all non-detects in Sample 02	
Lab Blanks (method	1) < 5x (<10x common) contaminants – U 2) analytes <lab PQL (contract lab)	All method blanks were non-detects for COCs. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

PAH 8270C - SIM
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
LCS Recovery	1) QAPP limits 10% and <LCL% J detects, UJ -NDs >UCL% J detects <10% R NDs, J-detects	LCS %R within method limits. No samples qualified	X	-	
MS/MSD Recovery	1) QAPP limits (if MS > 4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <70% J detects, UJ -NDs >130% J detects	Native sample; Lab ID 0303295-01. MS %R's within limits. No apparent matrix bias.	X	-	
MS/MSD RPD	RPD ≤40% solid, 30% aq per QAPP Table 7-3. J –detects in MS sample UJ-non detects	MS/MSD RPD <MPC. No samples qualified. Laboratory precision acceptable.	x		
Cleanup Performance Check (if performed)	%R< 10% NDs-R detections J %R>10% <LCL (80%GPC) –detections J, NDs UJ %R>UCL (120%) – detections J	NA	-	-	
Retention times	Within 3X standard deviation for each analyte from 72-hour study Exceeds: R qualify data	Retention times within limits.	X	-	
Field Dup RPD	1) RPD ≤ 100% water & soil for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect 3) Other conditions use judgement	Field Duplicate pair not collected/analyzed with this SDG.	-		
Initial Cal (Linearity)	Correct calibration stds %RSD < 15% use average RF for calibration %RSD> 15% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 or alternatively mean %RSD <20% for all target analytes, with no analyte %RSD>40% Resolution check mix –valley 60% hgt of shortest peak (CLP criteria only) Performance check mix - >90% (PEM) (CLP criteria only) SW-846 PEM –endrin/DDT breakdown evaluation. Blank and Performance Evaluation Mix (PEM) at start, and blank and midpoint Individual Standard Mix A (ISMA) and ISMB at end or samples(CLP only)	11 April 03 Instrument HPLows – Mindy %RSD<20% ICAl linear. No samples qualified RRF>0.05 SPCC compounds not analyzed for this method. No action taken.	X	-	
Degradation Check	Within method limits for DDT breakdown and SVOC tailing factors.	All degradation checks within method limits. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

PAH 8270C - SIM
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
Tune Check	Tune check within method parameters for DFTPP	Ical tune check within limits. And CCV tune check within limits. No samples qualified.	X	-	
CCV	1) 20% of initial calib. Curve (85%-115%) If low re-calibrate per method. If high no recalibration needed. J qualify data. 2) 20% D 3) Qualification-J detects, R or UJ NDs	%D<20% for all CCV (pre analysis provided) PAHs. No samples qualified.	X	-	
2nd Source ICV	%R (between ICV and Ical) analytes %D ≤ 15%, (+ or -) once per 5 pt cal Qualification: J detects, R or UJ NDs	ICV not performed for PAH method. Lab notified that ICV is required per the method. No further action taken.	-	-	
Internal Stds	1) IS are –50% to 200% of CCV 1) RRT<0.06 (30 sec) 2) IS>100% J-detects 3) IS<20%CCV NDs – R 4) IS>20%CCV <50%CCV NDs – UJ 5) *check for IS transcription errors	Internal standards are within MPC. No samples qualified.	X	-	
Compound Quantitation	1) Check sensitivy (MDL< 1/3 PQL or per QAPP	Acceptable sensitivity	X	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	The laboratory accuracy and precision are acceptable. No apparent sample bias. Data are usable for project decisions. ICAL is linear. CCV; pre-analysis CCV within limits. Sampling error- FD pair not collected/analyzed with this SDG. Overall precision is acceptable.	X	-	

(*Tier III criteria)

Completeness Check: Inventory Check Sheet____X__ Sample Quantitation Calculations (TIER III ONLY):

Lab correspondence: Post CCV summary sheet not provided - lab called 30 June 2003. Not provided by lab. Pre-CCV used for data validation.

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

SVOCs 8270C
Review Criteria: Region I Tier II Guidance & OM Manual

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	Aqueous	-	0.9 C (1-coolers)	Alpha Laboratory Westborough, MA	0303359

Field Identification of Samples Evaluated:

Field ID		Lab Sample Number
2WMW44DS	(2-GW44DS-01)	L0303359-01
2WMW45DS-01	(2-GW45DS-01)	L0303359-02

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No samples qualified..	X	-	
Holding Time	1) 7 Days aqueous – 14 days soil (extract 40 days) 2) J –detects, UJ or R –nondetects (function of time)	None	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made (no USACE) 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	Not applicable	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	Lab does not report results <SQL	-	-	
TICs (if reported)	1) *verify library search for samples and blanks	None Reported	X	-	
Internal Stds	1) IS are –50% to 200% of CCV 1) RRT<0.06 (30 sec) 2) IS>100% J-detects 3) IS<20%CCV NDs – R 4) IS>20%CCV <50%CCV NDs – UJ 5) *check for IS transcription errors	Internal standards are within MPC. No samples qualified.	X	-	
Equip Blank	< 5x (<10x common) contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not collected/analyzed with this SDG	x	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

SVOCs 8270C
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Surrogates	Within historical laboratory limits Qualification: >UCL J –detects, %R<10% J –detects, R –NDs, %R >10% but <LCL% J-detects, UJ NDs	Low %R in both samples 01 & 02. 01: surrogates %R for phenol –d6 and 2-fluorophenol <LCL 02: surrogates %R for phenol –d6, 2-fluorophenol, nitrobenzene-d5, 2,4,6 tribromophenol, 2-fluorbiphenly <LCL	X	UJ non-detects J detects in 01,02	
Lab Blanks (method	1) < 5x (<10x common) contaminants – U 2) analytes <lab PQL (contract lab) 3) no phthalates >5X QL (QAPP)	Lab blank is non-detect for all reported SVOCS, except 2-bis(ethylhexly)phthalate, which is a site COC. All sample results qualified as U, because the reported values were <10X the method blank 2-BEHP level. RL raised to reported SVOC level. 2-BEHP does have an O&M ground water criteria. Raised RLs are less than the GW criterion.	x	U 2-BEHP in all samples (01, 02)	
LCS Recovery	1) Within historical laboratory limits listed in (QAPP) 10% and <LCL% J detects, UJ –NDs >UCL% J detects <10% R NDs, J-detects	LCS %R<LCL for the following spikes: Anthracene, phenol, and hexachloropropene %R=0% (This SVOC is not reported)	X	Anthracene and phenol UJ in all samples.	
MS/MSD Recovery	1) Within historical laboratory limits (QAPP) (if MS > 4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <70% J detects, UJ -NDs >130% J detects	Native sample; Lab ID 0303-295-01 MS %R's within limits, except for 1,2,4 trichlorobenzene, 2,4 dinitrophenol, phenol, which have %R<LCL. These SVOCs are qualified UJ. All samples non-detect for these SVOCs. These SVOCS are not site COCs. Potential low bias for these SVOCs, as indicated by the low MS %R and the low surrogate %R.	x	UJ 1,2,4 trichlorobenzene, 2,4 dinitrophenol, phenol all samples.	
Cleanup Performance Check (if performed)	%R< 10% NDs-R detections J %R>10% <LCL (80%GPC) –detections J, NDs UJ %R>UCL (120%) – detections J Retention Time shift <5% symmetrical	NA	-	-	
MS/MSD RPD	RPD ≤40% aq, <50% (S) J –detects in MS sample UJ-non detects	Within MPC limits, for all reported SVOCs except 2,4 dinitrophenol. Precision impacted by potential low bias for this compound, as the MS% R was highly variable. 2,4 dinitrophenol qualified UJ. Laboratory precision acceptable for other SVOCs.	X	UJ 2,4 dinitrophenol in samples 01 & 02.	
Tune Check	Tune check within method parameters for DFTPP	Ical tune check within limits. CCV tune check not provided.	X	-	

ECC Region I Data Review Worksheet (rv 2) **SVOCs 8270C**
Project: New London ECC Job No. 5700 **Review Criteria: Region I Tier II Guidance & OM Manual**

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
DDT degradation Instrument performance check	1) Breakdown <20% DDT 2) benzidine and pentachlorophenol at normal response - no peak trailing (<3.0 benz. , <5.0 penta.) Detections – J	All associated degradation checks are within limits.	X	-	
Field Dup RPD	1) RPD ≤ 100% water; ≤ 100% soil for Results > PQL (FD pair only) J-detects (both > PQL) 2) If one > PQL, other ND, J-detections, UJ non-detect 3) Other conditions use judgement	Field Duplicate pair not collected/analyzed with this SDG.	-	-	
Initial Cal (Linearity)	Correct calibration stds %RSD < 15% use average RF for calibration %RSD> 15% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 or alternatively mean %RSD <15% for all target analytes, with no analyte %RSD>30% or %RSD<30% each target analyte 1) CCCs %RSD: <30% (acenatphthene, 1,4 dichlorobenzene, hexachlorobutadiene, dipheynlamin, di-n-octyl phthalate, fluoranthene, benzo(a)pyrene, 4-chloro-3-methylphenol, 2,4, dichlorophenol, 2-nitrophenol, phenol, pentachlorophenol, 2,4,6 trichlorophenol) J –detects, R or UJ NDs all samples associated with Ical)	Instrument: GCMS-5 Date: 11 april 03 RRF>0.05 all SVOCs. Average RSD<15% - no %RSD>30% criteria used for linearity of SVOC Ical. No samples qualified based on ICAL.	X	-	
2nd Source ICV	%R (between ICV and Ical) analytes 80%--120% (USACE) %D ≤ 25%, (+ or -) once per 5 pt cal Qualification: J detects, R or UJ NDs	ICV within limits. No samples qualified. ICV	-	-	
CCV	1) SPCCs Average RRF: SPCCs n-nitroso-di-n-propylamine, hexachlorcyclopentdiene, 2,4 dinitrophenol, 4-nitrophenol. 2) RRF all compounds > 0.05 3) CCC: (acenatphthene, 1,4 dichlorobenzene, hexachlorobutadiene, dipheynlamin, di-n-octyl phthalate, fluoranthene, benzo(a)pyrene, 4-chloro-3-methylphenol, 2,4, dichlorophenol, 2-nitrophenol, phenol, pentachlorophenol, 2,4,6 trichlorophenol) 4) %D<20%. CCCs (QAPP -except surrogates). 5) Qualification-J detects, R or UJ Nods 6) %D<25% all compounds (Tier I). 7) RRF exclusions: surrogates, 8) *verify same instrument and parameters 9) *Recalculate RRF for one tgt cmpd associated with each IS. (within 10%) 10) *Recalculate %D for one tgt cmpd associated with each IS (within 10%)	Pre-analysis CCV %D within limits. No sample qualified.	X	-	

ECC Region I Data Review Worksheet (rv 2) **SVOCs 8270C**
Project: New London ECC Job No. 5700 **Review Criteria: Region I Tier II Guidance & OM Manual**

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
	11) *IS RRT<0.06 units (30 sec) 12) * IS area -50 % to 100 % of last ICAL 13) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 14) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)				
Compound Quantitation	1) Check sensitivy (MDL< 1/3 PQL or per QAPP	Surface water samples do not have reported O&M criteria.	X	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	The laboratory accuracy and precision are acceptable for all compounds. Results are usable for making project decisions and have been reconciled with project objectives. Method blank; 2-BEHP in the MB and samples. All sample results qualified as U and the RL raised to the MB level. 2-BEHP is a site COC. The U qualification did not impact sensitivity at the groundwater criteria. 2-BEHP does not have SW criteria. Low surrogate %R; All samples results qualified UJ in all samples. LCS in control for site COCs. MS/MSD in control, except for phenol and anthracene %R<LCL Navy limits, but in control for lab limits. ICAL; linear. ICV; not provided. CCV: not provided. Sampling error-FD pair not collected/analyzed with this SDG.	x	-	

*Tier III criteria.

Completeness Check: Inventory Check Sheet_____X__ Sample Quantitation Calculations (TIER III ONLY):

Lab correspondence: 30 June 2003: CCV tune check not provided – lab called.
CCV not provided – lab called.
Re-requested 24 July 2003. not provided. Re-requested 1 August 2003. JK note; CCV Instrument mis-labelled on the PDF.

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	Aqueous	Nitric Acid	0.9C (1-coolers)	Alpha Laboratory Westborough, MA	0303359

Field Identification of Samples Evaluated:

Field ID		Lab Sample Number
2WMW44DS	(2-GW44DS-01)	L0303359-01
2WMW45DS-01	(2-GW45DS-01)	L0303359-02

**sample numbers in brackets as submitted to lab. Other sample number is per O/M plan.*

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. No samples qualified.	X	-	
Holding Time	1) 180 days (6010), Hg 28 Days to analysis 2) J -detects, UJ or R -nondetects (function of time)	None	X	-	
Lab Duplicate	1) RPD < 20% 1) If both values > PQL 2) Qualify samples in batch: detects J, NDs UJ	Native sample: (lab ID 303360-01 not part of this SDG) for total metals and dissolved metals Lab duplicate RPDs<MPC for both total and dissolved metals. Laboratory precision adequate. No samples qualified.	X	-	
LCS Recovery	1) once per sample batch 2) 75-125% water, soil, QAPP limits. 3) <LCL% Reject 4) >UCL% detects J	LCS %R's acceptable. No samples qualified.	X	-	
Field Dup RPD	1) RPD ≤ 50% water & soil for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect	Field Duplicate pair; not collected/analyzed with this SDG.	-	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	Not applicable	-	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	Lab did not report qualitative detections. Pb >RL but <site action criteria.	x	-	
Lab Blanks (method blank or p reparation blank)	1) Once per sample batch 2) Results > QL; sample results <5X ; sample result U (nd) 3) Sample results >5X blank level; no action	Non-detect for target metals. Prep blank and CCB's are non-detect for target metals	X	-	
MS Recovery	1) 75-125% GFAA/ICP if MS > 4X native levels) Qualification of MS sample: 2) <30% J detects, R NDs 3) 30%--74%, detects J, NDs UJ 4) >125% J detects	Lab ID 0303360-01 (not part of this SDG)All elemental MS %R's are within limits. No samples qualified. No apparent matrix bias.	X	-	
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %R 80-120%, 1) %R <10 ND- (R) , J- detects 2) 10%> but <80% , judgement 3) %R>120% J-detects 4) QC, IS, RRT meet criteria, 5) %RSD < 20% 6) MDL< MQL (3x less ideal) 7) Lab fortified blank (see VOA/SV Part II – section X). 8) *Check and recalculate %RSDs and %R fir three compounds (with 10% of lab)	Lab did not report qualitative detections. Pb >RL but <site action criteria	X	-	
Equip Blank	< 5x contaminants for aq samples – for soil indicate EB (X rules don't apply)	Equipment blank not collected/analyzed with this SDG.	-	-	
Negative blanks	If negative values are reported for an analyte with absolute value >DL and sample value is <5X the absolute value of the blank or is nondetect Qualify detects as estimated (J) Nondetects as estimated (UJ	No detections in the associated blanks. No samples qualified.	X	-	
Initial Cal Multipoint	1) 6010: 1 std and blank and low-level check at MQL – check std 20% 2) 3 stds and a blank- R = 0.995 3) %RSD <5%	ICAL performed according to method.	X	-	
Initial and Continuing Calibration Blanks	1) Ical blank after Ical 2) CCB every 10 samples end of run 3) Results > QL; sample results <5X ; sample result U (nd) 4) Sample results >5X blank level; no action	No detections in the associated blanks. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Serial Dilution	1) once per digestion batch 2) Meets method limits.	SD on native sample lab ID 0303360-01 (not part of this SD nor this matrix). Not used to evaluate samples.	x	-	
Interelement checks ICS-A, ICS-AB Instrument performance check	1) start of sequence 2) 80-120% target analytes 3) >120% ; detects J (ICS-AB) 4) 50%-79% R ICS-AB; detects J, NDs – UJ 5) <50% R – reject data 6) ICS-A response > DL and samples have <5X ICS-A response: detects J	ICS's within limits for COC elements. No samples qualified.	X	-	
2nd Source ICV	1) following calibration 2) 90- 110% Recovery (6010/7000) 3) 75%-89% R – detects J, NDs – UJ 4) 111-125% R – detects J 5) outside 75-125% R – reject data (R)	Within QC limits. No samples qualified.	X	-	
CCV	1) every 10 samples and end of run 2) 90- 110% Recovery (6010) Hg; 80-120% 3) 6010: 75%-89% R Hg, 65-79% R; – detects J, NDs – UJ. 4) 6010: 111-125%, Hg: 121-135% detects J 5) 6010: outside 75-125%, Hg; outside 65-135%; R – reject data (R)	Within QC limits. No samples qualified.	X	-	
Post Digestion Spike	1) 75- 125% R	PDS on native sample lab ID 0303360-01 (not part of this SDG). Sample is from a different Not used to evaluate samples.	x	-	
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 3) * performed annually 4) *MDL is at least ½ of PQL *tgt and surrogate 80-120% R	NA	-	-	
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 3) *Matrix effects- MS/MSD, surrogated, PDS. 4) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 5) PES > acceptance criteria – Detects in samples J, 6) PES<acceptance criteria – Detects J, NDs –R 7) VOA/SV-XI14 other criteria	NA	-	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
	8) *% of PES sample above and below criteria 9) *Recalculate concentrations for one tgt compound per PES (10% of lab)				
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Laboratory accuracy and precision is acceptable. Accuracy is shown by the LCS being within limits. The ICS-A, and ICS-AB were within limits for all elements. MS %R within limits. PDS and SD not performed on samples from the site matrix. Not evaluated. No apparent matrix bias based on MS %R. Sample results are usable for project decision making. Sampling error- FD not collected/analyzed with this SDG.	X	-	

*TIER III DATA VALIDATION ONLY Completeness Check: Inventory Check Sheet__X_Sample)uantitation Calculations (TIER III DATA VALIDATION ONLY):

Lab correspondence: 27 June 2003; Confirm non-detect for Pb, Cd, Zn, and As in water samples. Requested QC data on PDF. QC data on PDF sent 5-Aug-2003.

CHAIN OF CUSTODY

PAGE ____ OF ____

Eight Walkup Drive Westborough, MA 01581
TEL: 508-898-9220 FAX: 508-898-9193

Date Rec'd in Lab: 4/14

ALPHA Job #: L0300059

Client Information

Client: ECC
Address: 30 Dunstable Rd
Marlborough, MA
Phone: 508 229 2270
Fax:
Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: NSB-NL
Project Location: Area A Landfill
Project #:
Project Manager: Darren Gomer
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due: 4/28 Time:

Report Information - Data Deliverables

☐ FAX
☐ ADEx
Criteria Checker:
(Default based on Regulatory Criteria indicated)
Other Formats:
☐ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed	Program	Criteria

Other Project Specific Requirements/Comments:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	SVOC w/ PAH	PAH SIM	Total Metals	Dissolved Metals (F)	TOC	COD	TDS, Alk, Cl, SO4	Hardness	TSS				Sample Specific Comments	TOTAL # BOTTLES
23571	2WMW44DS	4/14/03	1317	GW	DC	X	X	X	X	X	X	X	X	X					
2	2WMW45DS-01	4/14/03	1540	GW	FJ	X	X	X	X	X	X	X	X	X					

SAMPLE HANDLING

Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Shaded Gray Areas For Lab Use Only

Container Type															
Preservative															

Relinquished By:	Date/Time	Received By:	Date/Time
L Edmonds	4/14/03 1700	L Edmonds	4/14/03 1700
	4/14 1830		4/14 1830

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

Form No. 02-02 STD

DATA VALIDATION MEMORANDUM
O&M MONITORING SITES – NEW LONDON NSB
APRIL 2003 SAMPLING ROUND (SDG 0303389ALPHA LAB)

TO: ENGINEERING FIELD ACTIVITY NORTHEAST

FROM: JACKSON KIKER, ECC SENIOR CHEMIST, MARLBOROUGH, MA

SUBJECT: NEW LONDON NSB – IRP O&M MONITORING SITES - SAMPLING ROUND APRIL 2003

DATE: 23 JULY 2003

Project data were validated using the following Validation Functional Guideline, as modified for non-CLP methods.

1. Region I, EPA-NE Data Validation Functional Guidelines for Evaluation of Environmental Analyses (Dec, 1996).

The validation guideline exceedences are assessed and documented on the method specific data validation worksheet. On the data validation worksheet, the data quality acceptance criteria are presented, analytes requiring qualification based on laboratory historical control limits and/or validation guidance criteria exceedences are listed, assigned qualifiers, qualifying rationale is documented, and any potential bias noted. The overall evaluation of the data generated is presented in the data validation worksheet.

Standard EPA Region I data qualifiers are used to denote the assessment of data quality. The final and ranking assigned data qualifier for an analyte is presented in the data summary table. Ancillary qualifiers are noted on the data validation worksheets.

As an exception to the USEPA Region I data validation guidance, non-target ketone VOC data with response factors (RFs) less than the 0.05 were not qualified, as the Tier guidance allows for exceptions to the RF guidance.

The USEPA Region I Organic Regional Data Assessment (ORDA) sheet displays the summarized results of the data validation assessment for all analytical methods reported in the SDG.

Region I, EPA-NE ORGANIC REGIONAL DATA ASSESSMENT

LAB NAME: Alpha Lab
SDG #:__0303389_____
EPA-NE DV TIER LEVEL:___II___
SITE NAME: New London NSB – O&M

# of SAMPLES/MATRIX:___5GW- 1FD
VALIDATION CONTRACTOR:__ECC
VALIDATOR'S NAME: Jackson Kiker
DV Completion Date:__23 July 2003
Date Sampled__4/15/03 _____

ANALYTICAL DATA QUALITY SUMMARY

		PAH	SVOC	Metals
1	Preservation and HT	O	O	M
2	Instrument Performance Check	O	O	O
3	Initial Calibration:	O	O	O
4	Continuing Calibration:	O	M	O
5	Blanks:	O	M	O
6	Surrogate Compounds:	O	M	-
7	Internal Standards	O	O	-
8	Matrix Spike/Matrix Spike Duplicate:	O	M	O
9	Sensitivity Check:	O	O	O
10	PE Samples- Accuracy Check	O	M	O
11	Target Compound Identification:	-	-	-
12	Compound Quantitation and Reported QLs	O	O	O
13	Tentatively Identified Compounds:	-	-	-
14	Semivolatile/Pesticide/PCB Cleanup:	-	-	-
15	Data Completeness	M	M	O
16	Overall Evaluation of Data:	O	O	O

O = Data had no problems or were qualified due to minor contractual problems; M = Data were qualified due to major/systemic MPC exceedences: Z = Data were rejected as unusable due to major contractual problems.

ACTION ITEMS: (Z items): None

AREAS OF CONCERN: (M items): _SVOC; DDT degradation check not provided by laboratory. SVOC surrogates 2-fluorophenol, 2,4,6 tribromopheonl, and phenol %R<LCL - all results qualified. SVOC Method blank results for bis(2-ethylhexyl) phthalate – all results qualified in 4 samples. SVOC MS %R and RPD criteria exceeded for phenol. SVOC LCS %R<LCL for phenol. Metals preservation – one sample not field preserved. CCV – 3 non-COCs qualified. . PAH ICV not analyzed.

COMMENTS SVOC ICV not provided. PAH ICV not analyzed.

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

PAH 8270C - SIM
Review Criteria: Region I Tier II Guidance & OM Manual

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	Aqueous	-	5.0 C (1-coolers)	Alpha Laboratory Westborough, MA	0303389

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
4MW1S	L0303389-01
2LMW20S	L0303389-02
2WMW47DS	L0303389-03
2WMW21S	L0303389-04
2-WMW45DS-01D	L0303389-05
2-WMW46DS-01	L0303389-06

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
COC	*1)Unbroken custody (accept or if broken R)* *2) Temp≤6° (Soil-J detects, R -nondetects* *3) Preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)*	Cooler temperatures <6C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. Sample preservation within limits. No samples qualified.	X	-	
Holding Time	*1) 7 Days water, 40 to analysis* *2) J –detects, UJ or R –nondetects (function of time)*	All analyses within hold times.	X	-	
% Solids Check (SOLIDS)	*30%<Solids: if no sample weight adjustment made (no USACE)* *1) <10% R entire sample* *2) 10%.> and <30%; J-detects, NDs -R*	Not applicable	-	-	
Results > Cal Range or <Cal Range	*1) >Upper Cal Range J-detects - ensure instrument blank performed* *2) <PQL but >MDL – J –detects (estimated)*	No results outside the calibration range.	-	-	
Equip Blank	*< 5x (< 10x common) contaminants for aqueous samples* *– for soil indicate EB (X rules don't apply)*	Equipment Blank not collected/analyzed for this SDG.	-	-	
Surrogates	*1) Surrogate acceptance limits Carbazole & p-Terphenly-d14 within QAPP limits.* *Qualification: >UCL J –detects,* *%R< 10% J –detects, R –NDs,* *%R >10% but <60% J-detects, UJ NDs*	Surrogates in all samples are within limits.	X	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

PAH 8270C - SIM
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
Lab Blanks (method	*1) < 5x (<10x common) contaminants – U* *2) analytes <lab PQL (contract lab)*	All method blanks were non-detects for COCs. No samples qualified.	X	-	
LCS Recovery	*1) QAPP limits* *10% and <LCL% J detects, UJ -NDs* *>UCL% J detects <10% R NDs, J-detects*	LCS %R within method limits. No samples qualified	X	-	
MS/MSD Recovery	*1) QAPP limits (if MS > 4X native levels)* *Qualification of MS sample: <10% J detects, R NDs* *>10% and <70% J detects, UJ -NDs* *>130% J detects*	Native sample; Lab ID 0303389-01 Native sample Lab ID 03033890-05 MS %R's within limits. No samples qualified.	X	-	
MS/MSD RPD	*RPD ≤40% solid, 30% aq per QAPP Table 7-3. J –detects in MS sample* *UJ-non detects*	MS/MSD RPD <MPC. No samples qualified. Laboratory precision acceptable.	X	-	
Cleanup Performance Check (if performed)	*%R< 10% NDs-R detections J* *%R>10% <LCL (80%GPC) –detections J, NDs UJ* *%R>UCL (120%) – detections J*	NA	-	-	
Retention times	*Within 3X standard deviation for each analyte from 72-hour study* *Exceeds: R qualify data*	Retention times within limits.	X	-	
Field Dup RPD	*1) RPD ≤ 100% water & soil for Results > X PQL (FD pair only) J-detects (both > X PQL)* *2) If one >X PQL, other ND, J-detections, UJ non-detect* *3) Other conditions use judgement*	Field Duplicate pair collected (sample 05 for 0303359-02) and analyzed with this SDG. All non-detects in both SDGs.	X	-	
Initial Cal (Linearity)	*Correct calibration stds* *%RSD < 15% use average RF for calibration* *%RSD> 15% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995* *or alternatively mean %RSD <20% for all target analytes, with no analyte %RSD>40%* *Resolution check mix –valley 60% hgt of shortest peak (CLP criteria only)* *Performance check mix - >90% (PEM) (CLP criteria only)* *SW-846 PEM –endirn/DDT breakdown*	11 April 03 Instrument Mindy. %RSD<20% ICAl linear. No samples qualified RRF>0.05	X	-	
Degradation Check	*Within Method limits.*	All associated degradation checks are within method limits. No samples qualified.	X		
une Check	*Tune check within method parameters for DFTPP*	Ical tune check within limits. And CCV tune check within limits. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

PAH 8270C - SIM
Review Criteria: Region I Tier II
Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inven-tory	QUAL	BIAS
CCV	*1) 20% of initial calibration. Curve (85%-115%) If low re-calibrate per method. If high no recalibration needed - J qualify data.* *20% D Qualification-J detects, R or UJ NDs*	%D<20% for all CCV (pre analysis provided) PAHs. No samples qualified.	X	-	
2nd Source ICV	*%R (between ICV and Ical) analytes* *%D ≤15%, (+ or -) once per 5 pt cal* *Qualification: J detects, R or UJ NDs*	ICV not performed. Lab notified that ICV is requirement of the method. No further action.	X	-	
Internal Stds	*1) IS are –50% to 200% of CCV* *1) RRT<0.06 (30 sec)* *2) IS>100% J-detects* *3) IS<20%CCV NDs – R* *4) IS>20%CCV <50%CCV NDs – UJ* *5) *check for IS transcription errors*	Internal standards are within MPC. No samples qualified.	X	-	
Compound Quantitation	*1) Check sensitivy (MDL< 1/3 PQL or per QAPP*	Acceptable sensitivity.	X	-	
Overall Evaluation of Data	*1) Appropriate method* *2) Evaluate any analytical problems* *3) Evaluate sampling errors – field contamination, sample hold times*	The laboratory accuracy and precision are acceptable. No apparent sample bias. Data are usable for project decisions. ICAL is linear. CCV within QC limits. Sampling error: FD RPDs are not calculated, as the field and FD sample results were all non-detect for PAHs.	X	-	

(*Tier III criteria)
Completeness Check: Inventory Check Sheet_____X__ Sample Quantitation Calculations (TIER III ONLY):

Lab correspondence: 2nd source ICV not provided.

ECC Region I Data Review Worksheet (rv 2)
Project: New London ECC Job No. 5700

SVOCs 8270C
Review Criteria: Region I Tier II Guidance & OM Manual

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	Aqueous	-	5.0 C (1-coolers)	Alpha Laboratory Westborough, MA	0303389

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
4MW1S	L0303389-01
2LMW20S	L0303389-02
2WMW47DS	L0303389-03
2WMW21S	L0303389-04
2-WMW45DS-01D	L0303389-05
2-WMW46DS-01	L0303389-06

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) Preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6C. Sample preservation adequate. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. No samples qualified.	X	-	
Holding Time	1) 7 Days aqueous – 14 days soil (extract 40 days) 2) J –detects, UJ or R –nondetects (function of time)	Samples analyzed within holding times. No samples qualified.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made (no USACE) 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	Not applicable.	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	Lab does not report results <SQL.	-	-	
TICs (if reported)	1) *verify library search for samples and blanks	None Reported.	X	-	
Internal Stds	1) IS are –50% to 200% of CCV 1) RRT<0.06 (30 sec) 2) IS>100% J-detects 3) IS<20%CCV NDs – R 4) IS>20%CCV <50%CCV NDs – UJ 5) *check for IS transcription errors	Internal standards are within MPC. No samples qualified.	X	-	
Equip Blank	< 5x (<10x common) contaminants for aq samples – for soil indicate EB (X rules don't apply)	Not collected/analyzed with this SDG.	X	-	

ECC Region I Data Review Worksheet (rv 2) **SVOCs 8270C**
Project: New London ECC Job No. 5700 **Review Criteria: Region I Tier II Guidance & OM Manual**

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Surrogates	Within historical laboratory limits Qualification: >UCL J –detects, %R<10% J –detects, R –NDs, %R >10% but <LCL% J-detects, UJ NDs	Low %R for 2, 4, 6 Tribromophenol in samples 01, 02, 05 & 06. Low %R for 2-fluorophenol in all samples. Low %R for phenol –D5 in all samples. LCS has low surrogate %R's. Overall method performance is poor.	X	UJ non-detects J detects in all samples	
Lab Blanks (method	1) < 5x (<10x common) contaminants – U 2) analytes <lab PQL (contract lab) 3) no phthalates >5X QL (QAPP)	Lab blank is non-detect for all reported SVOCS, except 2-bis (ethylhexyl)phthalate in samples 01,02,03 &04. All sample results qualified as U, because the reported values were <10X the method blank (13 ug/L) 2-BEHP level. RL raised to reported SVOC level.	x	U 2-BEHP in samples (01, 02, 03 & 04)	
LCS Recovery	1) Within historical laboratory limits listed in (QAPP) 10% and <LCL% J detects, UJ –NDs >UCL% J detects <10% R NDs, J-detects	LCS %R<LCL for the following SVOCs; Phenol (16%) samples 01-04 and in sample 05-06 . Phenol LCS is low, but surrogate phenol-D5 also is correspondingly low.	X	Phenol UJ non-detects.	
MS/MSD Recovery	1) Within historical laboratory limits (QAPP) (if MS > 4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <70% J detects, UJ -NDs >130% J detects	Native sample; Lab ID 0303389-01 (samples 01-04) Phenol MS %R<LCL. Low phenol MS %R attributable to instrument instead of matrix, as the LCS and deuterated phenol surrogate have low %R. Native sample; 0303389-05 associated samples (05-06). 2,4 dinitrotoluene MSD %R>UCL.- all associated sample results non-detect for this SVOC. No sample qualification. MS %R's within limits for all compounds. No samples qualified.	X	Phenol UJ non-detects in samples. 01-04	
Cleanup Performance Check (if performed)	%R< 10% NDs-R detections J %R>10% <LCL (80%GPC) –detections J, NDs UJ %R>UCL (120%) – detections J Retention Time shift <5% symmetrical	NA	-	-	
MS/MSD RPD	RPD ≤40% aq, <50% (S) J –detects in MS sample UJ-non detects	Native sample; Lab ID 0303389-01 (samples 01-04). MS/MSD RPD is acceptable. Native sample; 0303389-05 MS %R's within limits for all compounds. No samples qualified.	X	-	
Tune Check	Tune check within method parameters for DFTPP	Tune checks for Ical and CCV within limits.	X	-	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
DDT degradation Instrument performance check	1) Breakdown <20% DDT 2) benzidine and pentachlorophenol at normal response - no peak trailing (<3.0 benz. , <5.0 penta.) Detections – J	Within limits for all associated degradation checks. No samples qualified.	X	-	
Field Dup RPD	1) RPD ≤ 100% water; ≤ 100% soil for Results > PQL (FD pair only) J-detects (both > PQL) 2) If one > PQL, other ND, J-detections, UJ non-detect 3) Other conditions use judgement	Field Duplicate sample 05) was collected/analyzed for field sample 0303359-02 (reported in another SDG). All SVOC results were non-detects except 2-BEHP, which is attributed to blank contaminant. FD RPDs not calculatd. No samples qualified.	x	-	
Initial Cal (Linearity)	Correct calibration stds %RSD < 15% use average RF for calibration %RSD> 15% use least squares COD (r2) > 0.990 or correlation coefficient r> 0.995 or alternatively mean %RSD <15% for all target analytes, with no analyte %RSD>30% or %RSD<30% each target analyte 1) CCCs %RSD: <30% (acenatphthene, 1,4 dichlorobenzene, hexachlorobutadiene, dipheynlamin, di-n-octyl phthalate, fluoranthene, benzo(a)pyrene, 4-chloro-3-methylphenol, 2,4, dichlorophenol, 2-nitrophenol, phenol, pentachlorophenol, 2,4,6 trichlorophenol) J –detects, R or UJ NDs all samples associated with Ical)	Instrument: GCMS-5 Date:12 April 03 RRF>0.05 all SVOCs. Average RSD<15% - no %RSD>30% criteria used for linearity of SVOC Ical. No samples qualified based on ICAL.	X	-	
2nd Source ICV	%R (between ICV and Ical) analytes 80%--120% (USACE) %D ≤ 25%, (+ or -) once per 5 pt cal Qualification: J detects, R or UJ NDs	Not analyzed. Lab notified that ICV is a method requirement. No further action taken.	-	-	
CCV	1) SPCCs Average RRF: SPCCs n-nitroso-di-n-propylamine, hexachlorcyclopentdiene, 2,4 dinitrophenol, 4-nitrophenol. 2) RRF all compounds > 0.05 3) CCC: (acenatphthene, 1,4 dichlorobenzene, hexachlorobutadiene, dipheynlamin, di-n-octyl phthalate, fluoranthene, benzo(a)pyrene, 4-chloro-3-methylphenol, 2,4, dichlorophenol, 2-nitrophenol, phenol, pentachlorophenol, 2,4,6 trichlorophenol) 4) %D<20%. CCCs (QAPP -except surrogates). 5) Qualification-J detects, R or UJ Nods 6) RRF exclusions: surrogates, 7) *verify same instrument and parameters 8) *Recalculate RRF for one tgt cmpd associated with each IS. (within 10%) 9) *Recalculate %D for one tgt cmpd associated with each IS (within 10%) 10) *IS RRT<0.06 units (30 sec)	CCV (17 April 03) for samples 01-04: %D<MPC for all SVOCs, except 3-Nitroaniline and 2, 6 DNT. CCV (18 April 03) for samples 05 & 06: %D<MPC for all SVOCs except 2, 4 DNT and 2, 6 DNT. These compounds are qualified UJ.	X	UJ qualifiers for 3-nitroaniline and 2, 6 DNT in samples 01-04 and for 2,4 DNT and 2, 6 DNT in samples 05 and 06.	

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
	11) * IS area -50 % to 100 % of last ICAL 12) *option-review preparation logs to ensure cal stds are traceable to NIST stds. 13) *option-recalculate cal std concentration of one std. Must agree within 10% of lab (option if information is in data package)				
Compound Quantitation	1) Check sensitivy (MDL< 1/3 PQL or per QAPP	Acceptable sensitivity.	X	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	The laboratory accuracy and precision are acceptable for all compounds. Results are usable for making project decisions and have been reconciled with project objectives. Method blank; 2-BEHP in the MB and samples. All sample results qualified as U and the RL raised to the MB level. 2-BEHP is a site COC. The U qualification did not impact sensitivity at the groundwater criteria. 2-BEHP does not have SW criteria. Low surrogate %R; All samples results qualified UJ in all samples. LCS in control for all SVOCs, except phenol. MS/MSD within control limits, except for phenol and 2,4 DNT. ICAL; linear. CCV: in limits except 3 Nitro-aniline and 2,6 DNT in samples 01-04 and 2, 4 DNT, 2,6 DNT in 05 & 06. UJ qualified. Sampling error for field duplicate - all results were non-detect except 2-BEHP which has blank contamination. Hence it was not necessary to calculate RPDs. Overall precision is acceptable.	X	-	

*Tier III criteria.

Completeness Check: Inventory Check Sheet_____X__ Sample Quantitation Calculations (TIER III ONLY):

Lab correspondence: 2nd source ICV not provided. Also, data on DDT check required. DDT check provided 25 July 2003. SVOC ICV not analyzed/reported.

ECC Region I Data Review Worksheet (rv 2)
New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier II	Aqueous	Nitric Acid	5.0 C (1-coolers)	Alpha Laboratory Westborough, MA	0303389

Field Identification of Samples Evaluated:

Field ID	Lab Sample Number
4MW1S	L0303389-01
2LMW20S	L0303389-02
2WMW47DS	L0303389-03
2WMW21S	L0303389-04
2-WMW45DS-01D	L0303389-05
2-WMW46DS-01	L0303389-06

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R -nondetects 3) preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound)	Cooler temperatures <6C. Sample preservation adequate, except for sample 2WMW47DS sample preserved in laboratory (not in the field). Addition of Nitric acid lowered pH for dissolved metals, but total metals had a pH of 4. Sample results not qualified, as loss of elemental contaminants due to inadequate pH preservation more than likely will not result in biodegradation losses or significant biological growth. Sample custody transferred from Field Team Leader to lab sample courier. Unbroken Chain of Custody. No samples qualified.	X	-	
Holding Time	1) 180 days (6010), Hg 28 Days to analysis 2) J –detects, UJ or R –nondetects (function of time)	Sample analyzed within holding time. No samples qualified.	X	-	
Lab Duplicate	1) RPD < 20% 1) If both values > PQL 2) Qualify samples in batch: detects J, NDs UJ	Native sample: lab ID 303389-01 for total metals and dissolved metals Lab duplicate RPDs<MPC for both total and dissolved metals. Laboratory precision adequate. No samples qualified.	X	-	
LCS Recovery	1) once per sample batch 2) 75-125% water, soil, QAPP limits. 3) <LCL% Reject 4) >UCL% detects J	LCS %R's acceptable. No samples qualified.	X	-	

ECC Region I Data Review Worksheet (rv 2)
New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Field Dup RPD	1) RPD ≤ 50% water & soil for Results > X PQL (FD pair only) J-detects (both > X PQL) 2) If one >X PQL, other ND, J-detections, UJ non-detect	Sample 05 is the Field Duplicate for sample 0303359-02. All compounds within QC limits. See attached sheet.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	Not applicable	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <PQL but >MDL – J –detects (estimated)	No results outside the calibration range. Sample dilutions performed to quantitate common groundwater cations.	x	-	
Lab Blanks (method blank or p reparation blank)	1) Once per sample batch 2) Results > QL; sample results <5X ; sample result U (nd) 3) Sample results >5X blank level; no action	Non-detect for target metals. Prep blank and CCB's are non-detect for target metals.	X	-	
MS Recovery	1) 75-125% GFAA/ICP if MS > 4X native levels) Qualification of MS sample: 2) <30% J detects, R NDs 3) 30%--74%, detects J, NDs UJ 4) >125% J detects	Native sample: 2LMW20S (02). MS %R's within QC limits. No samples qualified.	X	-	
Sensitivity*	1) MDL study – 7 replicates (40 CFR) 2) Surrogates %R 80-120%, 1) %R <10 ND- (R) , J- detects 2) 10%> but <80% , judgement 3) %R>120% J-detects 4) QC, IS, RRT meet criteria, 5) %RSD < 20% 6) MDL< MQL (3x less ideal) 7) Lab fortitied blank (see VOA/SV Part II – section X). 8) *Check and recalculate %RSDs and %R fir three compounds (with 10% of lab)	Lab RL for Cr dissolved metals >OM limits. The IDL<O&M limits for all these elements. Raw data examined for detections down to the IDL. Samples 04-06 diluted 10X and 20X to determine common water cations, Ca, Mg, K, NA for the total metals analysis.	X	-	
Equip Blank	< 5x contaminants for aq samples – for soil indicate EB (X rules don't apply)	Equipment blank not collected/analyzed with this SDG.	-	-	
Negative blanks	If negative values are reported for an analyte with absolute value >DL and sample value is <5X the absolute value of the blank or is nondetect Qualify detects as estimated (J) Nondetects as estimated (UJ	None	X	-	

ECC Region I Data Review Worksheet (rv 2)
New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
Initial Cal Multipoint	1) 6010: 1 std and blank and low-level check at MQL – check std 20% 2) 3 stds and a blank- R = 0.995 3) %RSD <5%	ICAL – 2 point criteria used with check at low and high level. No samples qualified.	X	-	
Initial and Continuing Calibration Blanks	1) Ical blank after Ical 2) CCB every 10 samples end of run 3) Results > QL; sample results <5X ; sample result U (nd) 4) Sample results >5X blank level; no action	No metals detected in the blanks. No samples qualified.	X	-	
Serial Dilution	1) once per digestion batch 2) Meets method limits.	SD on native sample lab ID 0303389-02. Serial Dilution within limits for site COC elements. No apparent matrix bias.	x	-	
Interelement checks ICS-A, ICS-AB Instrument performance check	1) start of sequence 2) 80-120% target analytes 3) >120% ; detects J (ICS-AB) 4) 50%-79% R ICS-AB; detects J, NDs – UJ 5) <50% R – reject data 6) ICS-A response > DL and samples have <5X ICS-A response: detects J	ICS's within limits for COC elements. No samples qualified.	X	-	
2nd Source ICV	1) following calibration 2) 90- 110% Recovery (6010/7000) 3) 75%-89% R – detects J, NDs – UJ 4) 111-125% R – detects J 5) outside 75-125% R – reject data (R)	Within QC limits. No samples qualified.	X	-	
CCV	1) every 10 samples and end of run 2) 90- 110% Recovery (6010) Hg; 80-120% 3) 6010: 75%-89% R Hg, 65-79% R; – detects J, NDs – UJ. 4) 6010: 111-125%, Hg: 121-135% detects J 5) 6010: outside 75-125%, Hg; outside 65-135%; R – reject data (R)	Within QC limits. No samples qualified.	X	-	
Post Digestion Spike	1) 75- 125% R	PDS on native sample lab ID 0303389-02. %R's within limits for Site COCs. No apparent sample bias.	x	-	
*MDL Study	1) *In accordance with 40CFR – seven replicates %RSD < 20% 2) * IS and retention times within method requirements 3) * performed annually 4) *MDL is at least ½ of PQL *tgt and surrogate 80-120% R	NA	-	-	

ECC Region I Data Review Worksheet (rv 2)
New London ECC Job No. 5700

Metals 6010B/7000
Review Criteria: Region I Tier II Guidance & OM Manual

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED Narrative (samples listed on attached sheets)	Inven-tory	QUAL	BIAS
*System Performance	1)* evaluate PES, MS//MSD, cal STDs, MDS study, and surrogates for systemic bias – high or low and access system accuracy 3) *Matrix effects- MS/MSD, surrogated, PDS. 4) *overall system contamination-review all blanks for systemic or sporadic contamination	NA	-	-	
*Single Blind PE	1) Qualify associated samples in PES batch PES = ND, Detects J – ND PE analytes in samples, NDs – R 5) PES > acceptance criteria – Detects in samples J, 6) PES<acceptance criteria – Detects J, NDs –R 7) VOA/SV-XI14 other criteria 8) *% of PES sample above and below criteria 9) *Recalculate concentrations for one tgt compound per PES (10% of lab)	NA	-	-	
Overall Evaluation of Data	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Laboratory accuracy and precision is acceptable. Accuracy is shown by the LCS being within limits. The ICS-A, and ICS-AB were within limits for all elements. MS/MSD %R within limits. PDS and SD in limits. No apparent matrix bias. Lab narrative states samples 05/06 matrix bias, but these samples were not MS, SD, or PDS samples. Sampling error: FD RPDs within limits for all metals (dissolved and totals).	X	-	

*TIER III DATA VALIDATION ONLY Completeness Check: Inventory Check Sheet___X_Sample Quantitation Calculations (TIER III DATA VALIDATION ONLY):

Lab correspondence: Initial calibration data to be provided by the lab for Hg. Provided 25 July 2003.

Field Duplicate RPD Table

Field Duplicate Sample	Method	Analyte	FD Result	Units	FD Qualifier	Field Sample	Analyte	Field Sample Result	Units	Field Sample Qualifer	RPD (%)
2-WMW45DS-01D	9060	Total Organic Carbon	24	mg/l		2WMW45DS-01	Total Organic Carbon	22	mg/l		8.7
2-WMW45DS-01D	9251	Chloride	8200	mg/l		2WMW45DS-01	Chloride	8500	mg/l		3.6
2-WMW45DS-01D	2320B	Alkalinity, Total	1200	mg CaCO3/L		2WMW45DS-01	Alkalinity, Total	1100	mg CaCO3/L		8.7
2-WMW45DS-01D	2340B	Hardness	1700	mg CaCO3/L		2WMW45DS-01	Hardness	3900	mg CaCO3/L		78.6
2-WMW45DS-01D	2540C	Solids, Total Dissolved	14000	mg/l		2WMW45DS-01	Solids, Total Dissolved	14000	mg/l		0.0
2-WMW45DS-01D	2540D	Solids, Total Suspended	14	mg/l		2WMW45DS-01	Solids, Total Suspended	16	mg/l		13.3
2-WMW45DS-01D	5220D	Chemical Oxygen Demand	400	mg/l		2WMW45DS-01	Chemical Oxygen Demand	480	mg/l		18.2
2-WMW45DS-01D	6010B	Barium, Dissolved	0.04	mg/l		2WMW45DS-01	Barium, Dissolved	0.04	mg/l		0.0
2-WMW45DS-01D	6010B	Manganese, Dissolved	0.03	mg/l		2WMW45DS-01	Manganese, Dissolved	0.05	mg/l		50.0
2-WMW45DS-01D	6010B	Arsenic, Dissolved	0.006	mg/l		2WMW45DS-01	Arsenic, Dissolved	0.005	mg/l		18.2
2-WMW45DS-01D	6010B	Calcium, Dissolved	130	mg/l		2WMW45DS-01	Calcium, Dissolved	150	mg/l		14.3
2-WMW45DS-01D	6010B	Magnesium, Dissolved	390	mg/l		2WMW45DS-01	Magnesium, Dissolved	440	mg/l		12.0
2-WMW45DS-01D	6010B	Potassium, Dissolved	140	mg/l		2WMW45DS-01	Potassium, Dissolved	150	mg/l		6.9
2-WMW45DS-01D	6010B	Sodium, Dissolved	3400	mg/l		2WMW45DS-01	Sodium, Dissolved	3800	mg/l		11.1
2-WMW45DS-01D	6010B	Aluminum, Total	0.12	mg/l		2WMW45DS-01	Aluminum, Total	0.16	mg/l		28.6
2-WMW45DS-01D	6010B	Arsenic, Total	0.005	mg/l		2WMW45DS-01	Arsenic, Total	0.012	mg/l		82.4
2-WMW45DS-01D	6010B	Barium, Total	0.03	mg/l		2WMW45DS-01	Barium, Total	0.09	mg/l		100.0
2-WMW45DS-01D	6010B	Iron, Total	1.3	mg/l		2WMW45DS-01	Iron, Total	1.2	mg/l		8.0
2-WMW45DS-01D	6010B	Manganese, Total	0.04	mg/l		2WMW45DS-01	Manganese, Total	0.02	mg/l		66.7
2-WMW45DS-01D	6010B	Calcium, Total	110	mg/l		2WMW45DS-01	Calcium, Total	260	mg/l		81.1
2-WMW45DS-01D	6010B	Magnesium, Total	340	mg/l		2WMW45DS-01	Magnesium, Total	790	mg/l		79.6
2-WMW45DS-01D	6010B	Potassium, Total	120	mg/l		2WMW45DS-01	Potassium, Total	280	mg/l		80.0
2-WMW45DS-01D	9038	Sulfate	100			2WMW45DS-01	Sulfate				Not calculated

CHAIN OF CUSTODY

PAGE ____ OF ____

Date Rec'd in Lab: 4/15/03

ALPHA Job #: L0303389

Eight Walkup Drive Westborough, MA 01581
TEL: 508-898-9220 FAX: 508-898-9193

Client Information

Client: ECC
Address: 50 O'Neill Ave
Marlborough, MA
Phone: 508 370 3770
Fax:
Email:
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: NSB-NL
Project Location: Area A Landfill
Project #:
Project Manager: Dennis Grant
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 4/21/03 Time:

Report Information - Data Deliverables

☐ FAX
☐ ADEx
Criteria Checker: ____
(Default based on Regulatory Criteria indicated)
Other Formats: ____
☐ EMAIL (standard pdf report)
☐ Additional Deliverables: ____
Report to: (if different than Project Manager)

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed	Program	Criteria

Other Project Specific Requirements/Comments:

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOC w/ pH	Fatty Syn	Total Metals	Dissolved Metals (FF)	TOC	COD	TDS, Alk, Cl, SO4	Hardness	TSS				Sample Specific Comments	TOTAL # BOTTLES
3389.1	4MW1S	4/15/03	0837	GW	DC	X	X	X	X	X	X	X	X	X					
2	2LMW30S	4/15/03	0940	GW	FS	X	X	X	X	X	X	X	X	X					
3	2WMW47DS	4/15/03	1037	GW	DC	X	X	X	X	X	X	X	X	X					
4	2WMW21S	4/15/03	1240	GW	FS	X	X	X	X	X	X	X	X	X					
5	2-WMW45DS-01D	KB-Alpha																	
6	2-WMW46DS-01																		

Shaded Gray Areas For Lab Use Only

Container Type											
Preservative											

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	4/15/03 1430	[signature]	4/15/03 1433
[signature]	4/15/03 1650	[signature]	4/15/03 1650

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

Form No: 02-02 STD