

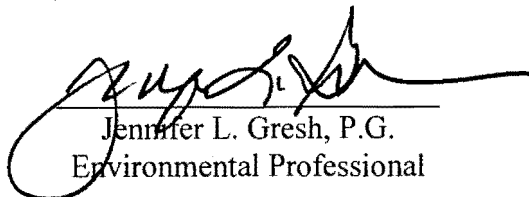
**PHASE II ENVIRONMENTAL
SITE ASSESSMENT**

**FORMER WOODLANDS GOLF PARK
SEAFORD, DELAWARE**

June 2010

Prepared for:
Sussex County
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Project No. 7864.ED

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I. INTRODUCTION

Duffield Associates, Inc. (Duffield Associates) has prepared this Phase II Environmental Site Assessment (Phase II ESA) report for the Former Woodlands Golf Park located near Seaford, Sussex County, Delaware (“the Property”). This Phase II ESA was recommended in Duffield Associates’ May 2010 Phase I ESA report prepared for the Property. The May 2010 Phase I ESA report identified that the historic use of organic and inorganic pesticides represented a recognized environmental condition. Based on the potential impact from these substances, Duffield Associates recommended sampling of locations where higher doses of substances of concern, in our experience, tend to be applied, such as the former greens, to evaluate potential pesticide impact at the site and provide an understanding of background soil conditions prior to the use for dredge material storage. Subsequent to our Phase I ESA, Sussex County also requested Duffield Associates collect a sample of surface water from the nearby stream (Turtle Branch) for laboratory analysis. This Phase II ESA report was prepared in general accordance with our proposal dated May 7, 2010, and electronic mail addendum dated May 12, 2010.

This report is intended for the exclusive use of Sussex County, the “user” of this document. The information contained in this report may not be relied upon by any parties other than Sussex County without the prior written consent of Duffield Associates.

II. SITE SETTING

The Property is approximately 41.4 acres in size and is identified as Sussex County Tax Parcel No. 53101500002101. The Property is further identified as “Lot 3.” The Property location is indicated in Figure 1 (Site Location Sketch).

The Property was developed for use as a 9-hole golf course; however, the course has not been in operation since 2006.

III. SURFACE SOIL EVALUATION

For the Phase II ESA, surface soils were evaluated through observations of ambient conditions, together with collecting, field screening, and laboratory testing of soil samples. One borehole was performed at each of the nine putting greens. Each borehole yielded two soil samples: one from 2 to 6 inches and another from 6 to 12 inches. The soil evaluation was performed using hand-auger sampling techniques by Duffield Associates’ personnel. At the completion of the hand-auger, the borehole was backfilled with soil cuttings.

A. SOIL BORING LOCATIONS, OBSERVATIONS AND ANALYSIS

On May 13, 2010, Duffield Associates’ personnel completed the soil sampling effort. During the evaluation, Duffield Associates observed soil conditions and

recorded the lithology of each boring to document apparent environmental conditions, soil textures, and types. Descriptive hand-auger soil logs are provided in Appendix A.

Hand-auger soil borings were advanced to approximately 12 inches below the ground surface (bgs). Hand-auger soil boring locations are identified in Figure 2 and designated as HA-1 through HA-9.

Two (2) soil samples were collected from each of the nine (9) soil borings. The sample collected from 0 to 6 inches was designated as "A," and the sample collected from 6 to 12 inches was designated as "B." Eighteen (18) soil samples were submitted to Accutest Laboratories of Dayton, New Jersey (Accutest) for laboratory analysis of the following:

- Arsenic and lead by EPA Method SW-846 6010B; and
- Target Compound List (TCL) pesticides by EPA Method SW-846 8081A/8082.

No apparent indications of environmental impact were observed during the field review of near surface soils.

B. LABORATORY ANALYTICAL RESULTS

A summary of the analytical detections is provided in Table 1. A copy of Accutest's analytical laboratory report is provided in Appendix B. The analytical results indicate that pesticides and arsenic were not detected in the soil samples. Low concentrations of lead were reported in all nine (9) analyzed samples; however, lead is a naturally occurring substance and the reported concentrations were less than the Typical Delaware Soil Concentration for this substance as published in the State of Delaware, Department of Natural Resources and Environmental Control, Site Investigation and Restoration Branch's (DNREC-SIRB) December 1999 document titled "Remediation Standards Guidance under the Hazardous Substance Cleanup Act" (Remediation Standards Guidance).

IV. SURFACE WATER EVALUATION

On May 13, 2010, Duffield Associates' personnel also collected a surface water sample from Turtle Branch approximately 200 feet south of the Property. Turtle Branch flows southeast toward the Nanticoke River. The surface water sample was collected in laboratory prepared bottleware for analysis of the following:

- Total phosphorous by Method 365.3;
- Total Kjeldahl Nitrogen (TKN) by Method 351.2;

- Ammonia;
- Total Suspended Solids (TSS);
- Inorganic substances (unfiltered) including: arsenic, cadmium, chromium, copper, lead, mercury, and zinc; and
- Polychlorinated biphenyls (PCB) congeners by U.S. Army Corps of Engineers Congener List, 8 through 209.

Ammonia, arsenic, cadmium, lead, and mercury were not detected in the analyzed sample. Analytical results for phosphorous, ammonia, TSS, TKN, chromium, copper, and zinc are presented on Table 2. In Table 2 analytic results are compared to the State of Delaware "Surface Water Quality Standards" (SWQS), amended July 11, 2004, for "Fresh Acute" and "Fresh Chronic" and "Marine Acute" and "Marine Chronic" Water Quality Criteria for Protection of Aquatic Life. In accordance with the SWQS, the most stringent of the fresh or marine standards are to be used in tidally influenced water bodies, like the Turtle Branch. For certain inorganic substances the Fresh Water SWQS are adjusted for hardness (CaCO_3). An average value for hardness was calculated based on information obtained for the Nanticoke River provided by the U.S. Environmental Protection Agency (EPA) on-line STORET Data Warehouse. STORET provided hardness data for 14 sampling events at the Nanticoke at Woodland Ferry monitoring station (Station ID 304021), located approximately one-quarter mile from the Property, during the period of 1999 through 2002. The STORET output is presented in Appendix C and the hardness equations and calculated SWQS for detected inorganics are summarized on Table 2. SWQS are not available for phosphorous, TKN, or TSS.

Analysis for 212 PCB congeners was performed. The result of the analysis indicates that seven congeners were detected. Table 3 lists detected congeners. As described in the State of Delaware "Surface Water Quality Standards," amended July 11, 2004, analytic results for congeners are assessed using a toxicity equivalent approach. The toxicity equivalent approach assigns toxicity equivalent factors (TEFs) to a total of 12 PCB compounds. These TEFs compare the potential toxicity of each individual congener to the relative toxicity of 2,3,7,8 tetrachlorodibenzo-*p*-dioxin (TCDD). As a means of normalizing the relative toxicities, TCDD, the most well-studied and toxic of these compounds, is assigned a TEF of 1 and the other dioxin-like compounds are assigned TEF values less than 1. With such factors, the toxicity of a sample can be expressed in terms of its toxicity equivalents (TEQs), which represents the amount of TCDD that would equal the combined toxic effect of the detected dioxin-like compounds.

TEFs are published in Delaware's Surface Water Quality Standards. The products of the concentrations and their respective TEFs are then summed in order to obtain a single TCDD TEQ value for PCBs in a sample. If no TEF is assigned a compound the unadjusted concentration was used in the calculation. The results of the calculation are presented on Table 3.

A. DISCUSSION OF RESULTS

1. NUTRIENTS (PHOSPHOROUS AND NITROGEN)

Although there are no SWQS for phosphorous and nitrogen, in stream concentrations have been established for these substances by the State of Delaware, Department of Natural Resources and Environmental Control (DNREC) for the Nanticoke River that are intended to provide criteria to evaluate compliance with Total Maximum Daily Loads (TMDLs) that have been established for the watershed under Section 303(d) of the Clean Water Act (CWA), as amended by the Water Quality Act of 1987.

In the document titled "Total Maximum Daily Load Analysis, Nanticoke River and Broad Creek, Delaware," dated December 1998, and published by DNREC, the following in stream concentrations are listed:

- 3.0 mg/L for Total Nitrogen; and
- 0.10 mg/L for Total Phosphorous.

During this assessment, nitrogen (TKN) was detected at 0.57 milligrams per liter (mg/L) and phosphorous was detected at 0.05 mg/L. These results suggest that on the date of sampling, concentrations of nitrogen and phosphorous in the Turtle Branch met nutrient target concentrations established by DNREC for the Nanticoke watershed.

TMDLs and SWQS also have been established for dissolved oxygen (DO) in the Nanticoke River. Accordingly, DO, along with nitrogen and phosphorous, should be considered in the planning for use of the Property as a dredge materials storage area.

2. TOTAL SUSPENDED SOLIDS

The reported concentration of Total Suspended Solids (TSS) was 25 mg/L. There are no SWQS or TMDLs for TSS. However, the SWQS has established a maximum turbidity level for all waters of the State that shall not exceed 10 Nephelometric Turbidity Units. TSS concentrations and turbidity both indicate the amount of solids suspended in the water. The TSS test measures an actual weight of material per volume of water, while turbidity measures the amount of light scattered from a sample (more suspended particles cause greater scattering). While there is no direct correlation between turbidity and TSS, future use of the site as a dredge materials storage area should consider the mitigation of the potential impact of sediment runoff to the Turtle Branch.

3. INORGANICS (CHROMIUM, COPPER, AND ZINC)

Chromium was reported in the grab stream sample at 1.3 micrograms per liter ($\mu\text{g/L}$). There is no Marine SWQS listed for chromium. Using the calculated freshwater standards, the reported concentration of chromium exceeds the Freshwater Acute value of $0.99 \mu\text{g/L}$, but is less than the Freshwater Chronic SWQS of $28 \mu\text{g/L}$.

Copper was reported at $18.3 \mu\text{g/L}$ in the stream sample. This result is elevated as compared to both Freshwater and Marine SWQS.

Zinc was reported at $36.2 \mu\text{g/L}$. Using the most stringent of the SWQS (Freshwater), the reported concentration of zinc exceeds the Freshwater Acute SWQS of $0.18 \mu\text{g/L}$, but is less than the Freshwater Chronic SWQS.

Duffield Associates accessed the EPA's STORET database for monitoring Station 304021 to obtain additional water quality data for these substances. No data was available for chromium, copper, or zinc.

Analytic results suggest that concentrations of chromium, copper, and zinc are elevated as compared to SWQS in the Turtle Branch. The sample was unfiltered and the analytic results may represent concentrations of chromium, copper, and zinc in the suspended sediment.

4. PCBs

Seven PCB congeners were detected. The sum of the detected congeners was $0.0002 \mu\text{g/L}$, less than the SWQS for Total PCBs of $0.014 \mu\text{g/L}$. This result suggests that on the date of sampling, concentrations of PCBs were well below the standards established by DNREC.

VI. CONCLUSIONS AND RECOMMENDATIONS

Duffield Associates has completed a Phase II ESA of the Former Woodlands Golf Park. Surface soil conditions in the vicinity of nine putting greens were reviewed. Two soil samples were collected per green to assess the potential presence of organic and inorganic (e.g., lead and arsenic) pesticides in the soils. Arsenic and organic pesticides were not detected by the laboratory. Low concentrations of lead were reported. The reported concentrations were below DNREC's published standards for typical Delaware soil concentrations. Based on the analytical results, the use of pesticides at the golf park does not appear to have adversely impacted the soils. No further assessment of the golf park with respect to the use of pesticides is recommended.

Per the request of Sussex County, a sample of surface water from the Turtle Branch also was collected for analysis of polychlorinated biphenyls, inorganics, ammonia, phosphorous, nitrogen, and total suspended solids. Ammonia and certain inorganics (arsenic, cadmium, lead, and mercury) were not detected in the analyzed sample.

Analytic results for phosphorous and nitrogen were compared to in stream concentrations established by the State of Delaware, Department of Natural Resources and Environmental Control (DNREC) for the Nanticoke River that are intended to provide criteria to evaluate compliance with Total Maximum Daily Loads (TMDLs). The results suggested that nitrogen and phosphorous in the Turtle Branch met nutrient target concentrations established by DNREC for the Nanticoke watershed. TMDLs and SWQS also have been established for dissolved oxygen (DO) in the Nanticoke River. Accordingly, DO, along with potential nitrogen and phosphorous loading on the Turtle Branch, should be considered in the planning for use of the Property as a dredge materials storage area.

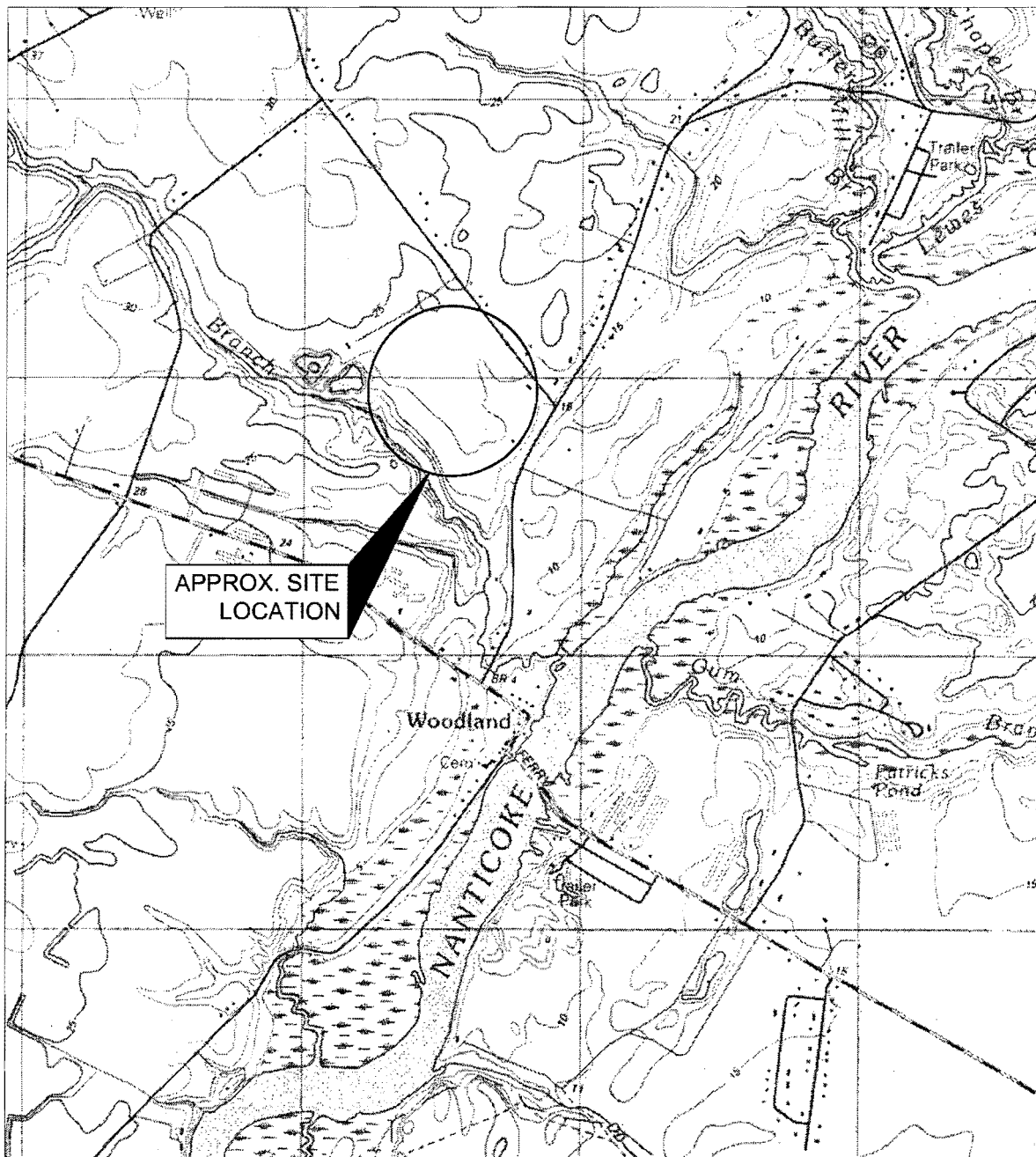
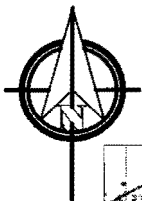
There are no State of Delaware Surface Water Quality Standards (SWQS) or TMDLs to compare the analytic results for total suspended solids (TSS). However, the SWQS has established a maximum turbidity level for all waters of the State that shall not exceed 10 Nephelometric or Formalin Turbidity Units. Turbidity and TSS are similar; however, no direct correlation can be made. As turbidity is regulated by the State of Delaware, future use of the site as a dredge materials storage area should consider the mitigation of the potential impact of sediment runoff to the Turtle Branch.

Analytic results have indicated that chromium, copper, and zinc are elevated as compared to the SWQS. Elevated concentrations of these substances may be the result of suspended sediment in the sample. Establishing background conditions for inorganics in the Turtle Branch prior to the use of the site for dredge material storage is recommended.

Analysis of 212 PCB congeners was performed. Seven congeners were detected. The sum of detected congeners, as adjusted for Total Toxic Equivalence, was less than the State of Delaware Surface Water Quality Standards. PCBs do not appear to be substances of concern in the Turtle Branch.

This report has been prepared in accordance with generally accepted geological and engineering principles and practices. The conclusions are based on our professional evaluation of indicated surface and subsurface conditions, as summarized in the report. The professional judgments and opinions stated in this report are based on current, local standards of practice and have been developed within the focus of the scope of services and budget designated for this effort. While generalized surface and subsurface conditions have been inferred through interpolation and/or extrapolation of these data, conditions beyond those observed during the investigations are, in fact, unknown.

FIGURES



NOTE: THIS SITE LOCATION SKETCH WAS ADAPTED FROM A 7.5 MINUTE SERIES, U.S.G.S. TOPOGRAPHIC MAP FOR SHARPTOWN, MARYLAND-DELAWARE, 1992.

DATE:
14 JUNE 2010

SCALE:
1" = 2000'

PROJECT NO.
7864.ED

SHEET:
FIGURE 1

SITE LOCATION SKETCH
WOODLANDS GOLF COURSE

PHASE II
ENVIRONMENTAL SITE ASSESSMENT

SEAFORD~SUSSEX COUNTY~DELAWARE

DESIGNED BY: MFP

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TABLES

Table 1
Summary of Analyses
Soils
Former Woodlands Golf Park
Seaford, Delaware

										Guidance Values
Sample ID	HA-1A	HA-2A	HA-3A	HA-4A	HA-5A	HA-6A	HA-7A	HA-8A	HA-9A	Typical Delaware Soil Concentrations ^[1]
Sample Interval (inches)	0 - 6	0 - 6	0 - 6	0 - 6	0 - 6	0 - 6	0 - 6	0 - 6	0 - 6	
Sample Date (month/day/year)	5/13/2010	5/13/2010	5/13/2010	5/13/2010	5/13/2010	5/13/2010	5/13/2010	5/13/2010	5/13/2010	
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	
Target Compound List Pesticides (EPA Method SW-846 8081A), mg/kg										
Aldrin	ND	ND	ND	ND	ND	ND	ND	ND	ND	Not Applicable
alpha-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	
beta-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	
delta-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	
gamma-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	
alpha-Chlordane	ND	ND	ND	ND	ND	ND	ND	ND	ND	
gamma-Chlordane	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Dieldrin	ND	ND	ND	ND	ND	ND	ND	ND	ND	
4,4,-DDD	ND	ND	ND	ND	ND	ND	ND	ND	ND	
4,4'-DDE	ND	ND	ND	ND	ND	ND	ND	ND	ND	
4,4'-DDT	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Endrin	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Endrin aldehyde	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Endosulfan -I	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Endosulfan -II	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Heptachlor	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Heptachlor epoxide	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Methoxychlor	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Endrin ketone	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Toxaphene	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Inorganics (EPA Method SW-846 6010B), mg/kg										
Arsenic	ND	ND	ND	ND	ND	ND	ND	ND	ND	11 ^[2]
Lead	3.90	2.90	3.60	5.30	4.20	4.60	6.00	3.80	4.60	100

										Guidance Values
Sample ID	HA-1B	HA-2B	HA-3B	HA-4B	HA-5B	HA-6B	HA-7B	HA-8B	HA-9B	Typical Delaware Soil Concentrations
Sample Interval (inches)	6 - 12	6 - 12	6 - 12	6 - 12	6 - 12	6 - 12	6 - 12	6 - 12	6 - 12	
Sample Date (month/day/year)	5/13/2010	5/13/2010	5/13/2010	5/13/2010	5/13/2010	5/13/2010	5/13/2010	5/13/2010	5/13/2010	
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	
Target Compound List Pesticides (EPA Method SW-846 8081A), mg/kg										
Aldrin	ND	ND	ND	ND	ND	ND	ND	ND	ND	Not Applicable
alpha-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	
beta-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	
delta-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	
gamma-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	
alpha-Chlordane	ND	ND	ND	ND	ND	ND	ND	ND	ND	
gamma-Chlordane	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Dieldrin	ND	ND	ND	ND	ND	ND	ND	ND	ND	
4,4,-DDD	ND	ND	ND	ND	ND	ND	ND	ND	ND	
4,4'-DDE	ND	ND	ND	ND	ND	ND	ND	ND	ND	
4,4'-DDT	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Endrin	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Endrin aldehyde	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Endosulfan -I	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Endosulfan -II	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Heptachlor	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Heptachlor epoxide	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Methoxychlor	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Endrin ketone	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Toxaphene	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Inorganics (EPA Method SW-846 6010B), mg/kg										
Arsenic	ND	ND	ND	ND	ND	ND	ND	ND	ND	11 ^[2]
Lead	4.60	3.40	4.20	5.60	5.20	4.80	4.30	4.50	5.40	100

Notes:

- [1]. The Typical Delaware Soil Concentrations as provided in the State of Delaware, Department of Natural Resources and Environmental Control- Site Investigation and Restoration Branch's (DNREC-SIRB) Environmental Control- Site Investigation and Restoration Branch's (DNREC-SIRB) December 1999, document entitled "Remediation Standards Guidance Under the Hazardous Substance Cleanup Act."
- [2]. ND = Concentration is less than the method detection limit.
- [3]. Listed guidance value is per DNREC-SIRB's "The Policy Concerning the Default Background Concentration of Arsenic and Revision to the Remediation Standards Guidance (Default Background Arsenic Policy), dated February 2007"

Table 2
Summary of Analyses
Surface Water
Former Woodlands Golf Park
Seaford, Delaware

Sample ID	Stream	Delaware Surface Water Quality Standards (SWQS)		Delaware Surface Water Quality Standards (SWQS)	
Sample Type	Grab				
Sample Date (month/day/year)	5/13/2010				
Matrix	Water	Fresh Acute	Fresh Chronic	Marine Acute	Marine Chronic
General Chemistry, milligrams per liter (mg/L)					
Ammonia	ND	----	----	----	----
Total Kjeldahl Nitrogen	0.57	Not Listed	Not Listed	Not Listed	Not Listed
Total Phosphorous	0.055	Not Listed	Not Listed	Not Listed	Not Listed
Total Suspended Solids	25	Not Listed	Not Listed	Not Listed	Not Listed
Total Metals, micrograms per liter (µg/l)					
Arsenic	ND	----	----	----	----
Cadmium	ND	----	----	----	----
Chromium	<u>1.3</u> B	0.99	28	NL	NL
Copper	<u>18.3</u>	0.01	0.01	4.80	3.10
Lead	ND	----	----	----	----
Mercury	ND	----	----	----	----
Zinc	<u>36.2</u>	0.18	43	90	81

Notes:

- [1]. — = Substance was not detected, standard is not shown.
- [2]. Delaware Surface Water Quality Standards as amended, July 11, 2004. Calculations for SWQS for inorganics are presented on Page 2 of this Table.
- [3]. Shaded and Bold = Concentration exceeds both the Fresh Water Acute and Chronic Water Quality Criteria for Protection of Aquatic Life.
- [4]. Bold and Underlined = Concentration exceeds the Fresh Water Acute Water Quality Criteria for Protection of Aquatic Life.

Table 2
Summary of Analyses
Surface Water
Former Woodlands Golf Park
Seaford, Delaware

SWQS Calculations for Detected Inorganics

Chromium

Fresh Acute

$$0.316 * \text{EXP}^{(0.819 - \text{LN}(\text{hardness}) + 3.7256)} = 0.99$$

Fresh Chronic

$$0.86 * \text{EXP}^{(0.819 * \text{LN}(\text{hardness}) + 0.6848)} = 28$$

Copper

Fresh Acute

$$0.96 * \text{EXP}^{(0.9422 - \text{LN}(\text{hardness}) - 1.7)} = 0.01$$

Fresh Chronic

$$0.96 * \text{EXP}^{(0.8545 * \text{LN}(\text{hardness}) - 1.702)} = 0.01$$

Zinc

Fresh Acute

$$0.978 * \text{EXP}^{(0.8473 - \text{LN}(\text{hardness}) + 0.884)} = 0.18$$

Fresh Chronic

$$0.986 * \text{EXP}^{(0.8473 * \text{LN}(\text{hardness}) + 0.884)} = 43$$

Where,

Hardness = 30 mg/L as CaCO₃

EXP = e = 2.71828

LN = Natural Log

Hardness value represents the average of 14 samples collected and analyzed for hardness by EPA Method 130.2 during the period of 1999 through 2002 at Station Number 304021 Nanticoke River at Woodland Ferry, West Bank, by the Delaware Department of Natural Resources and Environmental Control. Data was obtained using the EPA's on-line STORET Data Warehouse.

Table 3
Summary of Analytical Detections
Polychlorinated biphenyls-Surface Water
Former Woodlands Golf Park
Seaford, Delaware

Sample ID: Stream
Sample Type: Grab
Sample Date (month/day/year): 5/13/2010
Matrix: Water

Delaware Surface
Water Quality
Standards (SWQS),
micrograms per Liter

Polychlorinated biphenyls (PCBs) Congeners by EPA Method 1668A						
CAS No.	Name	Laboratory Identification	Result		Toxic Equivalence Factor (micrograms per liter)	Total Toxic Equivalence (micrograms per Liter)
			picograms per liter (pg/L)	micrograms per Liter (ug/L)		
2050-67-1	3,3'-Dichlorobiphenyl	11-DiCB	39.7	0.0000397	NL	0.0000397
16606-02-3	2,4',5-Trichlorobiphenyl	31-TrCB	32.8	0.000033	NL	0.000033
35693-99-3	2,2',5,5'-Tetrachlorobiphenyl	52-TeCB	62.1	0.000062	NL	0.000062
52663-58-8	1,1'-Biphenyl,2,3,4',6-tetrachloro-	64-TeCB	23.7	0.000024	NL	0.000024
32598-10-0	1,1'-Biphenyl,2,3',4,4'-tetrachloro-	66-TeCB	28.4	0.000028	NL	0.000028
38379-99-6	2,2,3,5,6-Pentachlorobiphenyl	95-PeCB	40.6	0.000041	NL	0.000041
31508-00-6	1,1'-Biphenyl,2,3',4,4',5-pentachloro-	118-PeCB	22.7	0.000023	0.0001	0.000000002
Total PCBs:			210.3	0.000210		0.0002
						0.014

- Notes:**
- [1]. CAS No. = Chemical Abstract Registry number
- [2]. Toxic Equivalence Factors (TEF) are published in the State of Delaware "Surface Water Quality Standards, as Amended, July 11, 2004."
- [3]. Total Toxic Equivalence = Total Toxic Equivalence (TEQ) to TCDD. TEQ = Sum of concentration for each congener multiplied by its associated TEF.
- [3]. NL = Not Listed
- [4]. Delaware Surface Water Quality Standards as amended, July 11, 2004.

APPENDIX A

DESCRIPTIVE HAND-AUGER SOIL BORING LOGS



**DUFFIELD
ASSOCIATES**

Consultants in the Geosciences

HAND AUGER DESCRIPTIVE LOG

PROJECT: Woodlands Golf Park Phase II ESA

PROJECT NO.: 7864.ED

CLIENT: Sussex County

DATE: 5/13/2010

LOGGED BY: MFP

<u>Hand Auger No.</u>	<u>Depth Below Ground Surface Range (ft.)</u>	<u>Generalized Soil Description</u>
HA-1	0 – 0.10	Brown silty SAND, some organics
	0.10 – 1	Light brown to gray very fine to medium SAND, trace silt

NOTES:

- (1) Sample HA-1A collected from approximately 2 to 6 inches below ground surface (bgs).
- (2) Sample HA-1B collected from approximately 6 to 12 inches bgs.
- (3) Hand auger terminated at approximately 1.0 feet bgs.



**DUFFIELD
ASSOCIATES**

Consultants in the Geosciences

HAND AUGER DESCRIPTIVE LOG

PROJECT: Woodlands Golf Park Phase II ESA

PROJECT NO.: 7864.ED

CLIENT: Sussex County

DATE: 5/13/2010

LOGGED BY: MFP

<u>Hand Auger No.</u>	<u>Depth Below Ground Surface Range (ft.)</u>	<u>Generalized Soil Description</u>
HA-2	0 – 0.10	Brown silty SAND, some organics
	0.10 – 0.5	Light brown to gray very fine to medium SAND, trace silt
	0.5 – 1.0	Off-white to tan fine SAND

NOTES:

- (1) Sample HA-2A collected from approximately 2 to 6 inches below ground surface (bgs).
- (2) Sample HA-2B collected from approximately 6 to 12 inches bgs.
- (3) Hand auger terminated at approximately 1.0 feet bgs.



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HAND AUGER DESCRIPTIVE LOG

PROJECT: Woodlands Golf Park Phase II ESA

PROJECT NO.: 7864.ED

CLIENT: Sussex County

DATE: 5/13/2010

LOGGED BY: MFP

<u>Hand Auger No.</u>	<u>Depth Below Ground Surface Range (ft.)</u>	<u>Generalized Soil Description</u>
HA-3	0 – 0.10	Brown silty SAND, some organics
	0.10 – 0.8	Light brown to gray very fine to medium SAND, trace silt
	0.8 – 1.0	Variable tan to light brown fine to medium SAND, trace silt

NOTES:

- (1) Sample HA-3A collected from approximately 2 to 6 inches below ground surface (bgs).
- (2) Sample HA-3B collected from approximately 6 to 12 inches bgs.
- (3) Hand auger terminated at approximately 1.0 feet bgs.



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HAND AUGER DESCRIPTIVE LOG

PROJECT: Woodlands Golf Park Phase II ESA

PROJECT NO.: 7864.ED

CLIENT: Sussex County

DATE: 5/13/2010

LOGGED BY: MFP

<u>Hand Auger No.</u>	<u>Depth Below Ground Surface Range (ft.)</u>	<u>Generalized Soil Description</u>
HA-4	0 – 0.10	Brown silty SAND, some organics
	0.10 – 1	Light brown to gray very fine to medium SAND, trace silt

NOTES:

- (1) Sample HA-4A collected from approximately 2 to 6 inches below ground surface (bgs).
- (2) Sample HA-4B collected from approximately 6 to 12 inches bgs.
- (3) Hand auger terminated at approximately 1.0 feet bgs.



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HAND AUGER DESCRIPTIVE LOG

PROJECT: Woodlands Golf Park Phase II ESA

PROJECT NO.: 7864.ED

CLIENT: Sussex County

DATE: 5/13/2010

LOGGED BY: MFP

<u>Hand Auger No.</u>	<u>Depth Below Ground Surface Range (ft.)</u>	<u>Generalized Soil Description</u>
HA-5	0 – 0.10	Brown fine to coarse SAND and SILT, some organics
	0.10 – 1	Light brown to tan fine to medium SAND

NOTES:

- (1) Sample HA-5A collected from approximately 2 to 6 inches below ground surface (bgs).
- (2) Sample HA-5B collected from approximately 6 to 12 inches bgs.
- (3) Hand auger terminated at approximately 1.0 feet bgs.



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HAND AUGER DESCRIPTIVE LOG

PROJECT: Woodlands Golf Park Phase II ESA

PROJECT NO.: 7864.ED

CLIENT: Sussex County

DATE: 5/13/2010

LOGGED BY: MFP

<u>Hand Auger No.</u>	<u>Depth Below Ground Surface Range (ft.)</u>	<u>Generalized Soil Description</u>
HA-6	0 – 0.10	Brown fine to coarse SAND and SILT, some organics
	0.10 – 1	Light brown to tan fine to medium SAND

NOTES:

- (1) Sample HA-6A collected from approximately 2 to 6 inches below ground surface (bgs).
- (2) Sample HA-6B collected from approximately 6 to 12 inches bgs.
- (3) Hand auger terminated at approximately 1.0 feet bgs.



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HAND AUGER DESCRIPTIVE LOG

PROJECT: Woodlands Golf Park Phase II ESA

PROJECT NO.: 7864.ED

CLIENT: Sussex County

DATE: 5/13/2010

LOGGED BY: MFP

<u>Hand Auger No.</u>	<u>Depth Below Ground Surface Range (ft.)</u>	<u>Generalized Soil Description</u>
HA-7	0 – 0.10	Brown fine to coarse SAND and SILT, some organics
	0.10 – 1	Light brown to tan fine to medium SAND

NOTES:

- (1) Sample HA-7A collected from approximately 2 to 6 inches below ground surface (bgs).
- (2) Sample HA-7B collected from approximately 6 to 12 inches bgs.
- (3) Hand auger terminated at approximately 1.0 feet bgs.



HAND AUGER DESCRIPTIVE LOG

PROJECT: Woodlands Golf Park Phase II ESA

PROJECT NO.: 7864.ED

CLIENT: Sussex County

DATE: 5/13/2010

LOGGED BY: MFP

<u>Hand Auger No.</u>	<u>Depth Below Ground Surface Range (ft.)</u>	<u>Generalized Soil Description</u>
HA-8	0 – 0.10	Brown fine to coarse SAND and SILT, some organics
	0.10 – 1	Light brown to tan fine to medium SAND

NOTES:

- (1) Sample HA-8A collected from approximately 2 to 6 inches below ground surface (bgs).
- (2) Sample HA-8B collected from approximately 6 to 12 inches bgs.
- (3) Hand auger terminated at approximately 1.0 feet bgs.



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HAND AUGER DESCRIPTIVE LOG

PROJECT: Woodlands Golf Park Phase II ESA

PROJECT NO.: 7864.ED

CLIENT: Sussex County

DATE: 5/13/2010

LOGGED BY: MFP

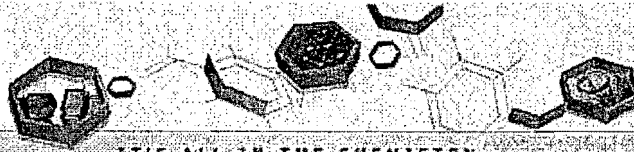
<u>Hand Auger No.</u>	<u>Depth Below Ground Surface Range (ft.)</u>	<u>Generalized Soil Description</u>
HA-9	0 – 0.10	Brown silty SAND, some organics
	0.10 – 1	Light brown to gray very fine to medium SAND, trace silt

NOTES:

- (1) Sample HA-9A collected from approximately 2 to 6 inches below ground surface (bgs).
- (2) Sample HA-9B collected from approximately 6 to 12 inches bgs.
- (3) Hand auger terminated at approximately 1.0 feet bgs.

APPENDIX B

ACCUTEST LABORATORIES ANALYTICAL RESULTS



05/28/10

Technical Report for

Duffield Associates, Inc.

Woodlands Golf Park Phase II, Woodlands, Seaford, DE

7864.ED

Accutest Job Number: JA46618

Sampling Date: 05/13/10

Report to:

Duffield Associates, Inc.
5400 Limestone Road
Wilmington, DE 19808

ATTN: Jen Gresh

RECEIVED

JUN 03 2010

DUFFIELD ASSOCIATES, INC.

David N. Speis
VP Ops, Laboratory Director



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Client Service contact: Tony Esposito 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, PA, RI, SC, TN, VA, WV

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Sample Summary

Duffield Associates, Inc.

Job No: JA46618

Woodlands Golf Park Phase II, Woodlands, Seaford, DE
Project No: 7864.ED

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
JA46618-1	05/13/10	12:15 MP	05/14/10	SO	Soil	HA-1A
JA46618-2	05/13/10	12:17 MP	05/14/10	SO	Soil	HA-1B
JA46618-3	05/13/10	12:45 MP	05/14/10	SO	Soil	HA-2A
JA46618-4	05/13/10	12:47 MP	05/14/10	SO	Soil	HA-2B
JA46618-5	05/13/10	13:00 MP	05/14/10	SO	Soil	HA-3A
JA46618-6	05/13/10	13:05 MP	05/14/10	SO	Soil	HA-3B
JA46618-7	05/13/10	12:32 MP	05/14/10	SO	Soil	HA-4A
JA46618-8	05/13/10	12:35 MP	05/14/10	SO	Soil	HA-4B
JA46618-9	05/13/10	13:10 MP	05/14/10	SO	Soil	HA-5A
JA46618-10	05/13/10	13:12 MP	05/14/10	SO	Soil	HA-5B
JA46618-11	05/13/10	13:25 MP	05/14/10	SO	Soil	HA-6A
JA46618-12	05/13/10	13:30 MP	05/14/10	SO	Soil	HA-6B
JA46618-13	05/13/10	13:35 MP	05/14/10	SO	Soil	HA-7A

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

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Sample Summary
(continued)

Duffield Associates, Inc.

Job No: JA46618

Woodlands Golf Park Phase II, Woodlands, Seaford, DE
Project No: 7864.ED

Sample Number	Collected Date	Time By	Received	Matrix Code Type	Client Sample ID
JA46618-14	05/13/10	13:38 MP	05/14/10	SO Soil	HA-7B
JA46618-15	05/13/10	13:45 MP	05/14/10	SO Soil	HA-8A
JA46618-16	05/13/10	13:48 MP	05/14/10	SO Soil	HA-8B
JA46618-17	05/13/10	13:55 MP	05/14/10	SO Soil	HA-9A
JA46618-18	05/13/10	14:00 MP	05/14/10	SO Soil	HA-9B

Soil samples reported on a dry weight basis unless otherwise indicated on result page.



IT'S ALL IN THE CHEMISTRY

Sample Results

Report of Analysis

Report of Analysis

Page 1 of 1

Client Sample ID:	HA-1A	Date Sampled:	05/13/10
Lab Sample ID:	JA46618-1	Date Received:	05/14/10
Matrix:	SO - Soil	Percent Solids:	96.8
Method:	SW846 8081A SW846 3545		
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G53455.D	1	05/27/10	OPM	05/17/10	OP43613	G1G1982
Run #2							

Run #	Initial Weight	Final Volume
Run #1	17.0 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	1.2	0.54	ug/kg	
319-84-6	alpha-BHC	ND	1.2	0.37	ug/kg	
319-85-7	beta-BHC	ND	1.2	0.59	ug/kg	
319-86-8	delta-BHC	ND	1.2	0.33	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	1.2	0.37	ug/kg	
5103-71-9	alpha-Chlordane	ND	1.2	0.41	ug/kg	
5103-74-2	gamma-Chlordane	ND	1.2	0.48	ug/kg	
60-57-1	Dieldrin	ND	1.2	0.41	ug/kg	
72-54-8	4,4'-DDD	ND	1.2	0.52	ug/kg	
72-55-9	4,4'-DDE	ND	1.2	0.42	ug/kg	
50-29-3	4,4'-DDT	ND	1.2	0.51	ug/kg	
72-20-8	Endrin	ND	1.2	0.42	ug/kg	
1031-07-8	Endosulfan sulfate	ND	1.2	0.46	ug/kg	
7421-93-4	Endrin aldehyde	ND	1.2	0.57	ug/kg	
959-98-8	Endosulfan-I	ND	1.2	0.42	ug/kg	
33213-65-9	Endosulfan-II	ND	1.2	0.46	ug/kg	
76-44-8	Heptachlor	ND	1.2	0.55	ug/kg	
1024-57-3	Heptachlor epoxide	ND	1.2	0.47	ug/kg	
72-43-5	Methoxychlor	ND	1.2	0.54	ug/kg	
53494-70-5	Endrin ketone	ND	1.2	0.43	ug/kg	
8001-35-2	Toxaphene	ND	15	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	89%		28-138%
877-09-8	Tetrachloro-m-xylene	105%		28-138%
2051-24-3	Decachlorobiphenyl	90%		22-156%
2051-24-3	Decachlorobiphenyl	106%		22-156%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	HA-1A	Date Sampled:	05/13/10
Lab Sample ID:	JA46618-1	Date Received:	05/14/10
Matrix:	SO - Soil	Percent Solids:	96.8
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 2.0	2.0	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²
Lead	3.9	2.0	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²

(1) Instrument QC Batch: MA24353

(2) Prep QC Batch: MP52845

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	HA-1B	Date Sampled:	05/13/10
Lab Sample ID:	JA46618-2	Date Received:	05/14/10
Matrix:	SO - Soil	Percent Solids:	97.1
Method:	SW846 8081A SW846 3545		
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G53456.D	1	05/27/10	OPM	05/17/10	OP43613	G1G1982
Run #2							

Run #	Initial Weight	Final Volume
Run #1	17.0 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	1.2	0.54	ug/kg	
319-84-6	alpha-BHC	ND	1.2	0.37	ug/kg	
319-85-7	beta-BHC	ND	1.2	0.59	ug/kg	
319-86-8	delta-BHC	ND	1.2	0.33	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	1.2	0.37	ug/kg	
5103-71-9	alpha-Chlordane	ND	1.2	0.41	ug/kg	
5103-74-2	gamma-Chlordane	ND	1.2	0.47	ug/kg	
60-57-1	Dieldrin	ND	1.2	0.41	ug/kg	
72-54-8	4,4'-DDD	ND	1.2	0.52	ug/kg	
72-55-9	4,4'-DDE	ND	1.2	0.42	ug/kg	
50-29-3	4,4'-DDT	ND	1.2	0.51	ug/kg	
72-20-8	Endrin	ND	1.2	0.42	ug/kg	
1031-07-8	Endosulfan sulfate	ND	1.2	0.46	ug/kg	
7421-93-4	Endrin aldehyde	ND	1.2	0.57	ug/kg	
959-98-8	Endosulfan-I	ND	1.2	0.41	ug/kg	
33213-65-9	Endosulfan-II	ND	1.2	0.46	ug/kg	
76-44-8	Heptachlor	ND	1.2	0.55	ug/kg	
1024-57-3	Heptachlor epoxide	ND	1.2	0.47	ug/kg	
72-43-5	Methoxychlor	ND	1.2	0.54	ug/kg	
53494-70-5	Endrin ketone	ND	1.2	0.43	ug/kg	
8001-35-2	Toxaphene	ND	15	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	85%		28-138%
877-09-8	Tetrachloro-m-xylene	110%		28-138%
2051-24-3	Decachlorobiphenyl	87%		22-156%
2051-24-3	Decachlorobiphenyl	104%		22-156%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	HA-1B	Date Sampled:	05/13/10
Lab Sample ID:	JA46618-2	Date Received:	05/14/10
Matrix:	SO - Soil	Percent Solids:	97.1
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 2.2	2.2	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²
Lead	4.6	2.2	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²

(1) Instrument QC Batch: MA24353

(2) Prep QC Batch: MP52845

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	HA-2A	Date Sampled:	05/13/10
Lab Sample ID:	JA46618-3	Date Received:	05/14/10
Matrix:	SO - Soil	Percent Solids:	97.8
Method:	SW846 8081A SW846 3545		
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G53457.D	1	05/27/10	OPM	05/17/10	OP43613	G1G1982
Run #2							

Run #	Initial Weight	Final Volume
Run #1	17.0 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	1.2	0.54	ug/kg	
319-84-6	alpha-BHC	ND	1.2	0.37	ug/kg	
319-85-7	beta-BHC	ND	1.2	0.58	ug/kg	
319-86-8	delta-BHC	ND	1.2	0.33	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	1.2	0.37	ug/kg	
5103-71-9	alpha-Chlordane	ND	1.2	0.40	ug/kg	
5103-74-2	gamma-Chlordane	ND	1.2	0.47	ug/kg	
60-57-1	Dieldrin	ND	1.2	0.40	ug/kg	
72-54-8	4,4'-DDD	ND	1.2	0.51	ug/kg	
72-55-9	4,4'-DDE	ND	1.2	0.42	ug/kg	
50-29-3	4,4'-DDT	ND	1.2	0.50	ug/kg	
72-20-8	Endrin	ND	1.2	0.42	ug/kg	
1031-07-8	Endosulfan sulfate	ND	1.2	0.46	ug/kg	
7421-93-4	Endrin aldehyde	ND	1.2	0.56	ug/kg	
959-98-8	Endosulfan-I	ND	1.2	0.41	ug/kg	
33213-65-9	Endosulfan-II	ND	1.2	0.46	ug/kg	
76-44-8	Heptachlor	ND	1.2	0.54	ug/kg	
1024-57-3	Heptachlor epoxide	ND	1.2	0.46	ug/kg	
72-43-5	Methoxychlor	ND	1.2	0.54	ug/kg	
53494-70-5	Endrin ketone	ND	1.2	0.43	ug/kg	
8001-35-2	Toxaphene	ND	15	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	91%		28-138%
877-09-8	Tetrachloro-m-xylene	108%		28-138%
2051-24-3	Decachlorobiphenyl	89%		22-156%
2051-24-3	Decachlorobiphenyl	89%		22-156%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	HA-2A	Date Sampled:	05/13/10
Lab Sample ID:	JA46618-3	Date Received:	05/14/10
Matrix:	SO - Soil	Percent Solids:	97.8
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 2.0	2.0	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²
Lead	2.9	2.0	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²

(1) Instrument QC Batch: MA24353

(2) Prep QC Batch: MP52845

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	HA-2B	Date Sampled:	05/13/10
Lab Sample ID:	JA46618-4	Date Received:	05/14/10
Matrix:	SO - Soil	Percent Solids:	98.4
Method:	SW846 8081A SW846 3545		
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G53458.D	1	05/27/10	OPM	05/17/10	OP43613	G1G1982
Run #2							

Run #	Initial Weight	Final Volume
Run #1	17.0 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	1.2	0.54	ug/kg	
319-84-6	alpha-BHC	ND	1.2	0.37	ug/kg	
319-85-7	beta-BHC	ND	1.2	0.58	ug/kg	
319-86-8	delta-BHC	ND	1.2	0.33	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	1.2	0.37	ug/kg	
5103-71-9	alpha-Chlordane	ND	1.2	0.40	ug/kg	
5103-74-2	gamma-Chlordane	ND	1.2	0.47	ug/kg	
60-57-1	Dieldrin	ND	1.2	0.40	ug/kg	
72-54-8	4,4'-DDD	ND	1.2	0.51	ug/kg	
72-55-9	4,4'-DDE	ND	1.2	0.41	ug/kg	
50-29-3	4,4'-DDT	ND	1.2	0.50	ug/kg	
72-20-8	Endrin	ND	1.2	0.41	ug/kg	
1031-07-8	Endosulfan sulfate	ND	1.2	0.46	ug/kg	
7421-93-4	Endrin aldehyde	ND	1.2	0.56	ug/kg	
959-98-8	Endosulfan-I	ND	1.2	0.41	ug/kg	
33213-65-9	Endosulfan-II	ND	1.2	0.46	ug/kg	
76-44-8	Heptachlor	ND	1.2	0.54	ug/kg	
1024-57-3	Heptachlor epoxide	ND	1.2	0.46	ug/kg	
72-43-5	Methoxychlor	ND	1.2	0.53	ug/kg	
53494-70-5	Endrin ketone	ND	1.2	0.42	ug/kg	
8001-35-2	Toxaphene	ND	15	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	100%		28-138%
877-09-8	Tetrachloro-m-xylene	124%		28-138%
2051-24-3	Decachlorobiphenyl	89%		22-156%
2051-24-3	Decachlorobiphenyl	103%		22-156%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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2.4
2

Client Sample ID:	HA-2B	Date Sampled:	05/13/10
Lab Sample ID:	JA46618-4	Date Received:	05/14/10
Matrix:	SO - Soil	Percent Solids:	98.4
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 2.0	2.0	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²
Lead	3.4	2.0	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²

(1) Instrument QC Batch: MA24353

(2) Prep QC Batch: MP52845

RL = Reporting Limit

Report of Analysis

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Client Sample ID:	HA-3A	Date Sampled:	05/13/10
Lab Sample ID:	JA46618-5	Date Received:	05/14/10
Matrix:	SO - Soil	Percent Solids:	98.5
Method:	SW846 8081A SW846 3545		
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G53459.D	1	05/27/10	OPM	05/17/10	OP43613	G1G1982
Run #2							

Run #	Initial Weight	Final Volume
Run #1	17.1 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	1.2	0.53	ug/kg	
319-84-6	alpha-BHC	ND	1.2	0.37	ug/kg	
319-85-7	beta-BHC	ND	1.2	0.58	ug/kg	
319-86-8	delta-BHC	ND	1.2	0.32	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	1.2	0.37	ug/kg	
5103-71-9	alpha-Chlordane	ND	1.2	0.40	ug/kg	
5103-74-2	gamma-Chlordane	ND	1.2	0.46	ug/kg	
60-57-1	Dieldrin	ND	1.2	0.40	ug/kg	
72-54-8	4,4'-DDD	ND	1.2	0.51	ug/kg	
72-55-9	4,4'-DDE	ND	1.2	0.41	ug/kg	
50-29-3	4,4'-DDT	ND	1.2	0.50	ug/kg	
72-20-8	Endrin	ND	1.2	0.41	ug/kg	
1031-07-8	Endosulfan sulfate	ND	1.2	0.45	ug/kg	
7421-93-4	Endrin aldehyde	ND	1.2	0.56	ug/kg	
959-98-8	Endosulfan-I	ND	1.2	0.41	ug/kg	
33213-65-9	Endosulfan-II	ND	1.2	0.45	ug/kg	
76-44-8	Heptachlor	ND	1.2	0.53	ug/kg	
1024-57-3	Heptachlor epoxide	ND	1.2	0.46	ug/kg	
72-43-5	Methoxychlor	ND	1.2	0.53	ug/kg	
53494-70-5	Endrin ketone	ND	1.2	0.42	ug/kg	
8001-35-2	Toxaphene	ND	15	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	92%		28-138%
877-09-8	Tetrachloro-m-xylene	115%		28-138%
2051-24-3	Decachlorobiphenyl	92%		22-156%
2051-24-3	Decachlorobiphenyl	106%		22-156%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: HA-3A
Lab Sample ID: JA46618-5
Matrix: SO - Soil
Project: Woodlands Golf Park Phase II, Woodlands, Seaford, DE

Date Sampled: 05/13/10
Date Received: 05/14/10
Percent Solids: 98.5

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 2.0	2.0	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²
Lead	3.6	2.0	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²

(1) Instrument QC Batch: MA24353

(2) Prep QC Batch: MP52845

RL = Reporting Limit

Report of Analysis

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2.6
2

Client Sample ID:	HA-3B	Date Sampled:	05/13/10
Lab Sample ID:	JA46618-6	Date Received:	05/14/10
Matrix:	SO - Soil	Percent Solids:	97.4
Method:	SW846 8081A SW846 3545		
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G53462.D	1	05/27/10	OPM	05/17/10	OP43613	G1G1982
Run #2							

Run #	Initial Weight	Final Volume
Run #1	17.1 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	1.2	0.54	ug/kg	
319-84-6	alpha-BHC	ND	1.2	0.37	ug/kg	
319-85-7	beta-BHC	ND	1.2	0.58	ug/kg	
319-86-8	delta-BHC	ND	1.2	0.33	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	1.2	0.37	ug/kg	
5103-71-9	alpha-Chlordane	ND	1.2	0.40	ug/kg	
5103-74-2	gamma-Chlordane	ND	1.2	0.47	ug/kg	
60-57-1	Dieldrin	ND	1.2	0.40	ug/kg	
72-54-8	4,4'-DDD	ND	1.2	0.51	ug/kg	
72-55-9	4,4'-DDE	ND	1.2	0.42	ug/kg	
50-29-3	4,4'-DDT	ND	1.2	0.50	ug/kg	
72-20-8	Endrin	ND	1.2	0.42	ug/kg	
1031-07-8	Endosulfan sulfate	ND	1.2	0.46	ug/kg	
7421-93-4	Endrin aldehyde	ND	1.2	0.56	ug/kg	
959-98-8	Endosulfan-I	ND	1.2	0.41	ug/kg	
33213-65-9	Endosulfan-II	ND	1.2	0.46	ug/kg	
76-44-8	Heptachlor	ND	1.2	0.54	ug/kg	
1024-57-3	Heptachlor epoxide	ND	1.2	0.46	ug/kg	
72-43-5	Methoxychlor	ND	1.2	0.53	ug/kg	
53494-70-5	Endrin ketone	ND	1.2	0.43	ug/kg	
8001-35-2	Toxaphene	ND	15	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	78%		28-138%
877-09-8	Tetrachloro-m-xylene	96%		28-138%
2051-24-3	Decachlorobiphenyl	92%		22-156%
2051-24-3	Decachlorobiphenyl	93%		22-156%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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2.6

2

Client Sample ID:	HA-3B	Date Sampled:	05/13/10
Lab Sample ID:	JA46618-6	Date Received:	05/14/10
Matrix:	SO - Soil	Percent Solids:	97.4
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	<2.0	2.0	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²
Lead	4.2	2.0	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²

(1) Instrument QC Batch: MA24353

(2) Prep QC Batch: MP52845

RL = Reporting Limit

Report of Analysis

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Client Sample ID:	HA-4A	Date Sampled:	05/13/10
Lab Sample ID:	JA46618-7	Date Received:	05/14/10
Matrix:	SO - Soil	Percent Solids:	97.6
Method:	SW846 8081A SW846 3545		
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G53463.D	1	05/27/10	OPM	05/17/10	OP43613	G1G1982
Run #2							

Run #	Initial Weight	Final Volume
Run #1	17.2 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	1.2	0.53	ug/kg	
319-84-6	alpha-BHC	ND	1.2	0.37	ug/kg	
319-85-7	beta-BHC	ND	1.2	0.58	ug/kg	
319-86-8	delta-BHC	ND	1.2	0.33	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	1.2	0.37	ug/kg	
5103-71-9	alpha-Chlordane	ND	1.2	0.40	ug/kg	
5103-74-2	gamma-Chlordane	ND	1.2	0.47	ug/kg	
60-57-1	Dieldrin	ND	1.2	0.40	ug/kg	
72-54-8	4,4'-DDD	ND	1.2	0.51	ug/kg	
72-55-9	4,4'-DDE	ND	1.2	0.41	ug/kg	
50-29-3	4,4'-DDT	ND	1.2	0.50	ug/kg	
72-20-8	Endrin	ND	1.2	0.41	ug/kg	
1031-07-8	Endosulfan sulfate	ND	1.2	0.45	ug/kg	
7421-93-4	Endrin aldehyde	ND	1.2	0.56	ug/kg	
959-98-8	Endosulfan-I	ND	1.2	0.41	ug/kg	
33213-65-9	Endosulfan-II	ND	1.2	0.45	ug/kg	
76-44-8	Heptachlor	ND	1.2	0.54	ug/kg	
1024-57-3	Heptachlor epoxide	ND	1.2	0.46	ug/kg	
72-43-5	Methoxychlor	ND	1.2	0.53	ug/kg	
53494-70-5	Endrin ketone	ND	1.2	0.42	ug/kg	
8001-35-2	Toxaphene	ND	15	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	87%		28-138%
877-09-8	Tetrachloro-m-xylene	103%		28-138%
2051-24-3	Decachlorobiphenyl	81%		22-156%
2051-24-3	Decachlorobiphenyl	90%		22-156%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	HA-4A	Date Sampled:	05/13/10
Lab Sample ID:	JA46618-7	Date Received:	05/14/10
Matrix:	SO - Soil	Percent Solids:	97.6
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 2.0	2.0	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²
Lead	5.3	2.0	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²

(1) Instrument QC Batch: MA24353

(2) Prep QC Batch: MP52845

RL = Reporting Limit



Report of Analysis

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Client Sample ID:	HA-4B	Date Sampled:	05/13/10
Lab Sample ID:	JA46618-8	Date Received:	05/14/10
Matrix:	SO - Soil	Percent Solids:	96.7
Method:	SW846 8081A SW846 3545		
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G53464.D	1	05/27/10	OPM	05/17/10	OP43613	G1G1982
Run #2							

Run #	Initial Weight	Final Volume
Run #1	17.1 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	1.2	0.54	ug/kg	
319-84-6	alpha-BHC	ND	1.2	0.37	ug/kg	
319-85-7	beta-BHC	ND	1.2	0.59	ug/kg	
319-86-8	delta-BHC	ND	1.2	0.33	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	1.2	0.37	ug/kg	
5103-71-9	alpha-Chlordane	ND	1.2	0.41	ug/kg	
5103-74-2	gamma-Chlordane	ND	1.2	0.47	ug/kg	
60-57-1	Dieldrin	ND	1.2	0.41	ug/kg	
72-54-8	4,4'-DDD	ND	1.2	0.52	ug/kg	
72-55-9	4,4'-DDE	ND	1.2	0.42	ug/kg	
50-29-3	4,4'-DDT	ND	1.2	0.51	ug/kg	
72-20-8	Endrin	ND	1.2	0.42	ug/kg	
1031-07-8	Endosulfan sulfate	ND	1.2	0.46	ug/kg	
7421-93-4	Endrin aldehyde	ND	1.2	0.57	ug/kg	
959-98-8	Endosulfan-I	ND	1.2	0.41	ug/kg	
33213-65-9	Endosulfan-II	ND	1.2	0.46	ug/kg	
76-44-8	Heptachlor	ND	1.2	0.54	ug/kg	
1024-57-3	Heptachlor epoxide	ND	1.2	0.46	ug/kg	
72-43-5	Methoxychlor	ND	1.2	0.54	ug/kg	
53494-70-5	Endrin ketone	ND	1.2	0.43	ug/kg	
8001-35-2	Toxaphene	ND	15	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	96%		28-138%
877-09-8	Tetrachloro-m-xylene	119%		28-138%
2051-24-3	Decachlorobiphenyl	95%		22-156%
2051-24-3	Decachlorobiphenyl	108%		22-156%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	HA-4B	Date Sampled:	05/13/10
Lab Sample ID:	JA46618-8	Date Received:	05/14/10
Matrix:	SO - Soil	Percent Solids:	96.7
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 2.1	2.1	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²
Lead	5.6	2.1	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²

(1) Instrument QC Batch: MA24353

(2) Prep QC Batch: MP52845

RL = Reporting Limit

Report of Analysis

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Client Sample ID:	HA-5A	Date Sampled:	05/13/10
Lab Sample ID:	JA46618-9	Date Received:	05/14/10
Matrix:	SO - Soil	Percent Solids:	97.2
Method:	SW846 8081A SW846 3545		
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G53465.D	1	05/27/10	OPM	05/17/10	OP43613	G1G1982
Run #2							

Run #	Initial Weight	Final Volume
Run #1	17.2 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	1.2	0.54	ug/kg	
319-84-6	alpha-BHC	ND	1.2	0.37	ug/kg	
319-85-7	beta-BHC	ND	1.2	0.58	ug/kg	
319-86-8	delta-BHC	ND	1.2	0.33	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	1.2	0.37	ug/kg	
5103-71-9	alpha-Chlordane	ND	1.2	0.40	ug/kg	
5103-74-2	gamma-Chlordane	ND	1.2	0.47	ug/kg	
60-57-1	Dieldrin	ND	1.2	0.40	ug/kg	
72-54-8	4,4'-DDD	ND	1.2	0.51	ug/kg	
72-55-9	4,4'-DDE	ND	1.2	0.41	ug/kg	
50-29-3	4,4'-DDT	ND	1.2	0.50	ug/kg	
72-20-8	Endrin	ND	1.2	0.41	ug/kg	
1031-07-8	Endosulfan sulfate	ND	1.2	0.46	ug/kg	
7421-93-4	Endrin aldehyde	ND	1.2	0.56	ug/kg	
959-98-8	Endosulfan-I	ND	1.2	0.41	ug/kg	
33213-65-9	Endosulfan-II	ND	1.2	0.46	ug/kg	
76-44-8	Heptachlor	ND	1.2	0.54	ug/kg	
1024-57-3	Heptachlor epoxide	ND	1.2	0.46	ug/kg	
72-43-5	Methoxychlor	ND	1.2	0.53	ug/kg	
53494-70-5	Endrin ketone	ND	1.2	0.42	ug/kg	
8001-35-2	Toxaphene	ND	15	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	80%		28-138%
877-09-8	Tetrachloro-m-xylene	107%		28-138%
2051-24-3	Decachlorobiphenyl	92%		22-156%
2051-24-3	Decachlorobiphenyl	81%		22-156%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	HA-5A	Date Sampled:	05/13/10
Lab Sample ID:	JA46618-9	Date Received:	05/14/10
Matrix:	SO - Soil	Percent Solids:	97.2
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 2.1	2.1	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²
Lead	4.2	2.1	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²

(1) Instrument QC Batch: MA24353

(2) Prep QC Batch: MP52845

RL = Reporting Limit

Report of Analysis

Client Sample ID:	HA-5B	Date Sampled:	05/13/10
Lab Sample ID:	JA46618-10	Date Received:	05/14/10
Matrix:	SO - Soil	Percent Solids:	96.9
Method:	SW846 8081A SW846 3545		
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G53466.D	1	05/27/10	OPM	05/17/10	OP43613	G1G1982
Run #2							

Run #	Initial Weight	Final Volume
Run #1	17.1 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	1.2	0.54	ug/kg	
319-84-6	alpha-BHC	ND	1.2	0.37	ug/kg	
319-85-7	beta-BHC	ND	1.2	0.59	ug/kg	
319-86-8	delta-BHC	ND	1.2	0.33	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	1.2	0.37	ug/kg	
5103-71-9	alpha-Chlordane	ND	1.2	0.41	ug/kg	
5103-74-2	gamma-Chlordane	ND	1.2	0.47	ug/kg	
60-57-1	Dieldrin	ND	1.2	0.41	ug/kg	
72-54-8	4,4'-DDD	ND	1.2	0.52	ug/kg	
72-55-9	4,4'-DDE	ND	1.2	0.42	ug/kg	
50-29-3	4,4'-DDT	ND	1.2	0.51	ug/kg	
72-20-8	Endrin	ND	1.2	0.42	ug/kg	
1031-07-8	Endosulfan sulfate	ND	1.2	0.46	ug/kg	
7421-93-4	Endrin aldehyde	ND	1.2	0.57	ug/kg	
959-98-8	Endosulfan-I	ND	1.2	0.41	ug/kg	
33213-65-9	Endosulfan-II	ND	1.2	0.46	ug/kg	
76-44-8	Heptachlor	ND	1.2	0.54	ug/kg	
1024-57-3	Heptachlor epoxide	ND	1.2	0.46	ug/kg	
72-43-5	Methoxychlor	ND	1.2	0.54	ug/kg	
53494-70-5	Endrin ketone	ND	1.2	0.43	ug/kg	
8001-35-2	Toxaphene	ND	15	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%		28-138%
877-09-8	Tetrachloro-m-xylene	105%		28-138%
2051-24-3	Decachlorobiphenyl	89%		22-156%
2051-24-3	Decachlorobiphenyl	104%		22-156%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: HA-5B
Lab Sample ID: JA46618-10
Matrix: SO - Soil
Project: Woodlands Golf Park Phase II, Woodlands, Seaford, DE

Date Sampled: 05/13/10
Date Received: 05/14/10
Percent Solids: 96.9

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	<2.0	2.0	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²
Lead	5.1	2.0	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²

(1) Instrument QC Batch: MA24353

(2) Prep QC Batch: MP52845

RL = Reporting Limit

Report of Analysis

Client Sample ID: HA-6A

Lab Sample ID: JA46618-11

Date Sampled: 05/13/10

Matrix: SO - Soil

Date Received: 05/14/10

Method: SW846 8081A SW846 3545

Percent Solids: 94.9

Project: Woodlands Golf Park Phase II, Woodlands, Seaford, DE

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G53467.D	1	05/27/10	OPM	05/17/10	OP43613	G1G1982
Run #2							

	Initial Weight	Final Volume
Run #1	17.1 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	1.2	0.55	ug/kg	
319-84-6	alpha-BHC	ND	1.2	0.38	ug/kg	
319-85-7	beta-BHC	ND	1.2	0.60	ug/kg	
319-86-8	delta-BHC	ND	1.2	0.34	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	1.2	0.38	ug/kg	
5103-71-9	alpha-Chlordane	ND	1.2	0.41	ug/kg	
5103-74-2	gamma-Chlordane	ND	1.2	0.48	ug/kg	
60-57-1	Dieldrin	ND	1.2	0.41	ug/kg	
72-54-8	4,4'-DDD	ND	1.2	0.53	ug/kg	
72-55-9	4,4'-DDE	ND	1.2	0.43	ug/kg	
50-29-3	4,4'-DDT	ND	1.2	0.52	ug/kg	
72-20-8	Endrin	ND	1.2	0.43	ug/kg	
1031-07-8	Endosulfan sulfate	ND	1.2	0.47	ug/kg	
7421-93-4	Endrin aldehyde	ND	1.2	0.58	ug/kg	
959-98-8	Endosulfan-I	ND	1.2	0.42	ug/kg	
33213-65-9	Endosulfan-II	ND	1.2	0.47	ug/kg	
76-44-8	Heptachlor	ND	1.2	0.55	ug/kg	
1024-57-3	Heptachlor epoxide	ND	1.2	0.47	ug/kg	
72-43-5	Methoxychlor	ND	1.2	0.55	ug/kg	
53494-70-5	Endrin ketone	ND	1.2	0.44	ug/kg	
8001-35-2	Toxaphene	ND	15	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	79%		28-138%
877-09-8	Tetrachloro-m-xylene	104%		28-138%
2051-24-3	Decachlorobiphenyl	95%		22-156%
2051-24-3	Decachlorobiphenyl	80%		22-156%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	HA-6A	Date Sampled:	05/13/10
Lab Sample ID:	JA46618-11	Date Received:	05/14/10
Matrix:	SO - Soil	Percent Solids:	94.9
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 2.1	2.1	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²
Lead	4.6	2.1	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²

(1) Instrument QC Batch: MA24353

(2) Prep QC Batch: MP52845

RL = Reporting Limit

Report of Analysis

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Client Sample ID: HA-6B
 Lab Sample ID: JA46618-12 Date Sampled: 05/13/10
 Matrix: SO - Soil Date Received: 05/14/10
 Method: SW846 8081A SW846 3545 Percent Solids: 95.9
 Project: Woodlands Golf Park Phase II, Woodlands, Seaford, DE

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G53468.D	1	05/27/10	OPM	05/17/10	OP43613	G1G1982
Run #2							

Run #	Initial Weight	Final Volume
Run #1	17.0 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	1.2	0.55	ug/kg	
319-84-6	alpha-BHC	ND	1.2	0.38	ug/kg	
319-85-7	beta-BHC	ND	1.2	0.59	ug/kg	
319-86-8	delta-BHC	ND	1.2	0.33	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	1.2	0.38	ug/kg	
5103-71-9	alpha-Chlordane	ND	1.2	0.41	ug/kg	
5103-74-2	gamma-Chlordane	ND	1.2	0.48	ug/kg	
60-57-1	Dieldrin	ND	1.2	0.41	ug/kg	
72-54-8	4,4'-DDD	ND	1.2	0.53	ug/kg	
72-55-9	4,4'-DDE	ND	1.2	0.42	ug/kg	
50-29-3	4,4'-DDT	ND	1.2	0.51	ug/kg	
72-20-8	Endrin	ND	1.2	0.43	ug/kg	
1031-07-8	Endosulfan sulfate	ND	1.2	0.47	ug/kg	
7421-93-4	Endrin aldehyde	ND	1.2	0.57	ug/kg	
959-98-8	Endosulfan-I	ND	1.2	0.42	ug/kg	
33213-65-9	Endosulfan-II	ND	1.2	0.47	ug/kg	
76-44-8	Heptachlor	ND	1.2	0.55	ug/kg	
1024-57-3	Heptachlor epoxide	ND	1.2	0.47	ug/kg	
72-43-5	Methoxychlor	ND	1.2	0.55	ug/kg	
53494-70-5	Endrin ketone	ND	1.2	0.43	ug/kg	
8001-35-2	Toxaphene	ND	15	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	80%		28-138%
877-09-8	Tetrachloro-m-xylene	101%		28-138%
2051-24-3	Decachlorobiphenyl	95%		22-156%
2051-24-3	Decachlorobiphenyl	108%		22-156%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	HA-6B	Date Sampled:	05/13/10
Lab Sample ID:	JA46618-12	Date Received:	05/14/10
Matrix:	SO - Soil	Percent Solids:	95.9
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 2.0	2.0	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²
Lead	4.8	2.0	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²

(1) Instrument QC Batch: MA24353

(2) Prep QC Batch: MP52845

RL = Reporting Limit

Report of Analysis

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Client Sample ID:	HA-7A	Date Sampled:	05/13/10
Lab Sample ID:	JA46618-13	Date Received:	05/14/10
Matrix:	SO - Soil	Percent Solids:	96.9
Method:	SW846 8081A SW846 3545		
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G53469.D	1	05/27/10	OPM	05/17/10	OP43613	G1G1982
Run #2							

Run #	Initial Weight	Final Volume
Run #1	17.0 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	1.2	0.54	ug/kg	
319-84-6	alpha-BHC	ND	1.2	0.37	ug/kg	
319-85-7	beta-BHC	ND	1.2	0.59	ug/kg	
319-86-8	delta-BHC	ND	1.2	0.33	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	1.2	0.37	ug/kg	
5103-71-9	alpha-Chlordane	ND	1.2	0.41	ug/kg	
5103-74-2	gamma-Chlordane	ND	1.2	0.47	ug/kg	
60-57-1	Dieldrin	ND	1.2	0.41	ug/kg	
72-54-8	4,4'-DDD	ND	1.2	0.52	ug/kg	
72-55-9	4,4'-DDE	ND	1.2	0.42	ug/kg	
50-29-3	4,4'-DDT	ND	1.2	0.51	ug/kg	
72-20-8	Endrin	ND	1.2	0.42	ug/kg	
1031-07-8	Endosulfan sulfate	ND	1.2	0.46	ug/kg	
7421-93-4	Endrin aldehyde	ND	1.2	0.57	ug/kg	
959-98-8	Endosulfan-I	ND	1.2	0.41	ug/kg	
33213-65-9	Endosulfan-II	ND	1.2	0.46	ug/kg	
76-44-8	Heptachlor	ND	1.2	0.55	ug/kg	
1024-57-3	Heptachlor epoxide	ND	1.2	0.47	ug/kg	
72-43-5	Methoxychlor	ND	1.2	0.54	ug/kg	
53494-70-5	Endrin ketone	ND	1.2	0.43	ug/kg	
8001-35-2	Toxaphene	ND	15	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	77%		28-138%
877-09-8	Tetrachloro-m-xylene	89%		28-138%
2051-24-3	Decachlorobiphenyl	82%		22-156%
2051-24-3	Decachlorobiphenyl	90%		22-156%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: HA-7A
Lab Sample ID: JA46618-13
Matrix: SO - Soil
Project: Woodlands Golf Park Phase II, Woodlands, Seaford, DE

Date Sampled: 05/13/10
Date Received: 05/14/10
Percent Solids: 96.9

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 2.0	2.0	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²
Lead	6.0	2.0	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²

(1) Instrument QC Batch: MA24353

(2) Prep QC Batch: MP52845

RL = Reporting Limit

Report of Analysis

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Client Sample ID:	HA-7B	Date Sampled:	05/13/10
Lab Sample ID:	JA46618-14	Date Received:	05/14/10
Matrix:	SO - Soil	Percent Solids:	97.1
Method:	SW846 8081A SW846 3545		
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G53470.D	1	05/27/10	OPM	05/17/10	OP43613	G1G1982
Run #2							

Run #	Initial Weight	Final Volume
Run #1	17.0 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	1.2	0.54	ug/kg	
319-84-6	alpha-BHC	ND	1.2	0.37	ug/kg	
319-85-7	beta-BHC	ND	1.2	0.59	ug/kg	
319-86-8	delta-BHC	ND	1.2	0.33	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	1.2	0.37	ug/kg	
5103-71-9	alpha-Chlordane	ND	1.2	0.41	ug/kg	
5103-74-2	gamma-Chlordane	ND	1.2	0.47	ug/kg	
60-57-1	Dieldrin	ND	1.2	0.41	ug/kg	
72-54-8	4,4'-DDD	ND	1.2	0.52	ug/kg	
72-55-9	4,4'-DDE	ND	1.2	0.42	ug/kg	
50-29-3	4,4'-DDT	ND	1.2	0.51	ug/kg	
72-20-8	Endrin	ND	1.2	0.42	ug/kg	
1031-07-8	Endosulfan sulfate	ND	1.2	0.46	ug/kg	
7421-93-4	Endrin aldehyde	ND	1.2	0.57	ug/kg	
959-98-8	Endosulfan-I	ND	1.2	0.41	ug/kg	
33213-65-9	Endosulfan-II	ND	1.2	0.46	ug/kg	
76-44-8	Heptachlor	ND	1.2	0.55	ug/kg	
1024-57-3	Heptachlor epoxide	ND	1.2	0.47	ug/kg	
72-43-5	Methoxychlor	ND	1.2	0.54	ug/kg	
53494-70-5	Endrin ketone	ND	1.2	0.43	ug/kg	
8001-35-2	Toxaphene	ND	15	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	63%		28-138%
877-09-8	Tetrachloro-m-xylene	87%		28-138%
2051-24-3	Decachlorobiphenyl	71%		22-156%
2051-24-3	Decachlorobiphenyl	83%		22-156%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: HA-7B
Lab Sample ID: JA46618-14
Matrix: SO - Soil
Project: Woodlands Golf Park Phase II, Woodlands, Seaford, DE

Date Sampled: 05/13/10
Date Received: 05/14/10
Percent Solids: 97.1

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 2.1	2.1	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²
Lead	4.3	2.1	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²

(1) Instrument QC Batch: MA24353

(2) Prep QC Batch: MP52845

RL = Reporting Limit

Report of Analysis

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Client Sample ID:	HA-8A	Date Sampled:	05/13/10
Lab Sample ID:	JA46618-15	Date Received:	05/14/10
Matrix:	SO - Soil	Percent Solids:	97.6
Method:	SW846 8081A SW846 3545		
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G53473.D	1	05/27/10	OPM	05/17/10	OP43613	G1G1982
Run #2							

Run #	Initial Weight	Final Volume
Run #1	17.2 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	1.2	0.53	ug/kg	
319-84-6	alpha-BHC	ND	1.2	0.37	ug/kg	
319-85-7	beta-BHC	ND	1.2	0.58	ug/kg	
319-86-8	delta-BHC	ND	1.2	0.33	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	1.2	0.37	ug/kg	
5103-71-9	alpha-Chlordane	ND	1.2	0.40	ug/kg	
5103-74-2	gamma-Chlordane	ND	1.2	0.47	ug/kg	
60-57-1	Dieldrin	ND	1.2	0.40	ug/kg	
72-54-8	4,4'-DDD	ND	1.2	0.51	ug/kg	
72-55-9	4,4'-DDE	ND	1.2	0.41	ug/kg	
50-29-3	4,4'-DDT	ND	1.2	0.50	ug/kg	
72-20-8	Endrin	ND	1.2	0.41	ug/kg	
1031-07-8	Endosulfan sulfate	ND	1.2	0.45	ug/kg	
7421-93-4	Endrin aldehyde	ND	1.2	0.56	ug/kg	
959-98-8	Endosulfan-I	ND	1.2	0.41	ug/kg	
33213-65-9	Endosulfan-II	ND	1.2	0.45	ug/kg	
76-44-8	Heptachlor	ND	1.2	0.54	ug/kg	
1024-57-3	Heptachlor epoxide	ND	1.2	0.46	ug/kg	
72-43-5	Methoxychlor	ND	1.2	0.53	ug/kg	
53494-70-5	Endrin ketone	ND	1.2	0.42	ug/kg	
8001-35-2	Toxaphene	ND	15	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	71%		28-138%
877-09-8	Tetrachloro-m-xylene	87%		28-138%
2051-24-3	Decachlorobiphenyl	74%		22-156%
2051-24-3	Decachlorobiphenyl	77%		22-156%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: HA-8A
Lab Sample ID: JA46618-15
Matrix: SO - Soil
Project: Woodlands Golf Park Phase II, Woodlands, Seaford, DE

Date Sampled: 05/13/10
Date Received: 05/14/10
Percent Solids: 97.6

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 2.1	2.1	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²
Lead	3.8	2.1	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²

(1) Instrument QC Batch: MA24353

(2) Prep QC Batch: MP52845

RL = Reporting Limit

Report of Analysis

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Client Sample ID: HA-8B
 Lab Sample ID: JA46618-16
 Matrix: SO - Soil
 Method: SW846 8081A SW846 3545
 Project: Woodlands Golf Park Phase II, Woodlands, Seaford, DE

Date Sampled: 05/13/10
 Date Received: 05/14/10
 Percent Solids: 97.0

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G53474.D	1	05/28/10	OPM	05/17/10	OP43613	G1G1982
Run #2							

Run #	Initial Weight	Final Volume
Run #1	17.0 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	1.2	0.54	ug/kg	
319-84-6	alpha-BHC	ND	1.2	0.37	ug/kg	
319-85-7	beta-BHC	ND	1.2	0.59	ug/kg	
319-86-8	delta-BHC	ND	1.2	0.33	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	1.2	0.37	ug/kg	
5103-71-9	alpha-Chlordane	ND	1.2	0.41	ug/kg	
5103-74-2	gamma-Chlordane	ND	1.2	0.47	ug/kg	
60-57-1	Dieldrin	ND	1.2	0.41	ug/kg	
72-54-8	4,4'-DDD	ND	1.2	0.52	ug/kg	
72-55-9	4,4'-DDE	ND	1.2	0.42	ug/kg	
50-29-3	4,4'-DDT	ND	1.2	0.51	ug/kg	
72-20-8	Endrin	ND	1.2	0.42	ug/kg	
1031-07-8	Endosulfan sulfate	ND	1.2	0.46	ug/kg	
7421-93-4	Endrin aldehyde	ND	1.2	0.57	ug/kg	
959-98-8	Endosulfan-I	ND	1.2	0.41	ug/kg	
33213-65-9	Endosulfan-II	ND	1.2	0.46	ug/kg	
76-44-8	Heptachlor	ND	1.2	0.55	ug/kg	
1024-57-3	Heptachlor epoxide	ND	1.2	0.47	ug/kg	
72-43-5	Methoxychlor	ND	1.2	0.54	ug/kg	
53494-70-5	Endrin ketone	ND	1.2	0.43	ug/kg	
8001-35-2	Toxaphene	ND	15	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	81%		28-138%
877-09-8	Tetrachloro-m-xylene	104%		28-138%
2051-24-3	Decachlorobiphenyl	90%		22-156%
2051-24-3	Decachlorobiphenyl	96%		22-156%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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2.16

2

Client Sample ID:	HA-8B	Date Sampled:	05/13/10
Lab Sample ID:	JA46618-16	Date Received:	05/14/10
Matrix:	SO - Soil	Percent Solids:	97.0
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 2.0	2.0	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²
Lead	4.5	2.0	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²

(1) Instrument QC Batch: MA24353

(2) Prep QC Batch: MP52845

RL = Reporting Limit

Report of Analysis

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Client Sample ID:	HA-9A	Date Sampled:	05/13/10
Lab Sample ID:	JA46618-17	Date Received:	05/14/10
Matrix:	SO - Soil	Percent Solids:	96.7
Method:	SW846 8081A SW846 3545		
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G53475.D	1	05/28/10	OPM	05/17/10	OP43613	G1G1982
Run #2							

Run #	Initial Weight	Final Volume
Run #1	17.0 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	1.2	0.54	ug/kg	
319-84-6	alpha-BHC	ND	1.2	0.37	ug/kg	
319-85-7	beta-BHC	ND	1.2	0.59	ug/kg	
319-86-8	delta-BHC	ND	1.2	0.33	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	1.2	0.38	ug/kg	
5103-71-9	alpha-Chlordane	ND	1.2	0.41	ug/kg	
5103-74-2	gamma-Chlordane	ND	1.2	0.48	ug/kg	
60-57-1	Dieldrin	ND	1.2	0.41	ug/kg	
72-54-8	4,4'-DDD	ND	1.2	0.52	ug/kg	
72-55-9	4,4'-DDE	ND	1.2	0.42	ug/kg	
50-29-3	4,4'-DDT	ND	1.2	0.51	ug/kg	
72-20-8	Endrin	ND	1.2	0.42	ug/kg	
1031-07-8	Endosulfan sulfate	ND	1.2	0.46	ug/kg	
7421-93-4	Endrin aldehyde	ND	1.2	0.57	ug/kg	
959-98-8	Endosulfan-I	ND	1.2	0.42	ug/kg	
33213-65-9	Endosulfan-II	ND	1.2	0.46	ug/kg	
76-44-8	Heptachlor	ND	1.2	0.55	ug/kg	
1024-57-3	Heptachlor epoxide	ND	1.2	0.47	ug/kg	
72-43-5	Methoxychlor	ND	1.2	0.54	ug/kg	
53494-70-5	Endrin ketone	ND	1.2	0.43	ug/kg	
8001-35-2	Toxaphene	ND	15	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	85%		28-138%
877-09-8	Tetrachloro-m-xylene	108%		28-138%
2051-24-3	Decachlorobiphenyl	96%		22-156%
2051-24-3	Decachlorobiphenyl	110%		22-156%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: HA-9A
Lab Sample ID: JA46618-17
Matrix: SO - Soil
Project: Woodlands Golf Park Phase II, Woodlands, Seaford, DE

Date Sampled: 05/13/10
Date Received: 05/14/10
Percent Solids: 96.7

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 2.2	2.2	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²
Lead	4.6	2.2	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²

(1) Instrument QC Batch: MA24353

(2) Prep QC Batch: MP52845

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: HA-9B
 Lab Sample ID: JA46618-18
 Matrix: SO - Soil
 Method: SW846 8081A SW846 3545
 Project: Woodlands Golf Park Phase II, Woodlands, Seaford, DE

Date Sampled: 05/13/10
 Date Received: 05/14/10
 Percent Solids: 96.2

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G53476.D	1	05/28/10	OPM	05/17/10	OP43613	G1G1982
Run #2							

Run #	Initial Weight	Final Volume
Run #1	17.0 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	1.2	0.55	ug/kg	
319-84-6	alpha-BHC	ND	1.2	0.38	ug/kg	
319-85-7	beta-BHC	ND	1.2	0.59	ug/kg	
319-86-8	delta-BHC	ND	1.2	0.33	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	1.2	0.38	ug/kg	
5103-71-9	alpha-Chlordane	ND	1.2	0.41	ug/kg	
5103-74-2	gamma-Chlordane	ND	1.2	0.48	ug/kg	
60-57-1	Dieldrin	ND	1.2	0.41	ug/kg	
72-54-8	4,4'-DDD	ND	1.2	0.52	ug/kg	
72-55-9	4,4'-DDE	ND	1.2	0.42	ug/kg	
50-29-3	4,4'-DDT	ND	1.2	0.51	ug/kg	
72-20-8	Endrin	ND	1.2	0.42	ug/kg	
1031-07-8	Endosulfan sulfate	ND	1.2	0.47	ug/kg	
7421-93-4	Endrin aldehyde	ND	1.2	0.57	ug/kg	
959-98-8	Endosulfan-I	ND	1.2	0.42	ug/kg	
33213-65-9	Endosulfan-II	ND	1.2	0.47	ug/kg	
76-44-8	Heptachlor	ND	1.2	0.55	ug/kg	
1024-57-3	Heptachlor epoxide	ND	1.2	0.47	ug/kg	
72-43-5	Methoxychlor	ND	1.2	0.54	ug/kg	
53494-70-5	Endrin ketone	ND	1.2	0.43	ug/kg	
8001-35-2	Toxaphene	ND	15	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	74%		28-138%
877-09-8	Tetrachloro-m-xylene	98%		28-138%
2051-24-3	Decachlorobiphenyl	92%		22-156%
2051-24-3	Decachlorobiphenyl	108%		22-156%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	HA-9B	Date Sampled:	05/13/10
Lab Sample ID:	JA46618-18	Date Received:	05/14/10
Matrix:	SO - Soil	Percent Solids:	96.2
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 2.0	2.0	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²
Lead	5.4	2.0	mg/kg	1	05/26/10	05/27/10 GT	SW846 6010B ¹	SW846 3050B ²

(1) Instrument QC Batch: MA24353

(2) Prep QC Batch: MP52845

RL = Reporting Limit



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

2235 Route 130, Dayton, NJ 08810
TEL: 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

FED-EX Tracking # 19895772
Accutest Quote #
Accutest Job # JA46618

Client / Reporting Information				Project Information				Requested Analysis (see TEST CODE sheet)												Matrix Codes							
Company Name Duffield Assoc. Inc				Project Name Woodlands Golf Park Phase II				<div style="display: flex; justify-content: space-between;"> <div> <p>Asenic</p> <p>Lead</p> <p>TCL Pesticides</p> </div> <div> <p>LAB USE ONLY</p> <p>EXT</p> </div> </div>												<p>DW - Drinking Water</p> <p>GW - Ground Water</p> <p>WW - Water</p> <p>SW - Surface Water</p> <p>SO - Soil</p> <p>SL - Sludge</p> <p>SED - Sediment</p> <p>OI - Oil</p> <p>LIQ - Other Liquid</p> <p>AIR - Air</p> <p>SOL - Other Solid</p> <p>WP - Wipe</p> <p>FB - Field Blank</p> <p>RB - Rinse Blank</p> <p>TB - Trip Blank</p>							
Street Address 5400 Limestone Rd				Street Woodlands																							
City State Zip Wilmington DE 19808				City State Seaford DE																							
Project Contact Jen Gresh jgresh@duffield.com				Project # 7864.ED																							
Phone # 302 239 6634				Client Purchase Order #				City State Zip																			
Fax # 239 8485				Project Manager Jen Gresh				Attention:																			
Sampler(s) Name(s) Michael Panhuise				Collection				Number of preserved bottles																			
Field ID / Point of Collection				MEDVDI Val #				Date				Time				Sampled by				Mark				# of bottles			
HA-1A -1								5/13/10				1215				MPP				Sv1				1			
HA-1B -2												1217												1			
HA-2A -3												1245												1			
HA-2B -4												1247												1			
HA-3A -5												1300												1			
HA-3B -6												1305												1			
HA-4A -7												1232												1			
HA-4B -8												1235												1			
HA-5A -9												1310												1			
HA-5B -10												1312												1			
HA-6A -11												1325												1			
HA-6B -12												1330												1			
Turnaround Time (Business days)				Approved By (Accutest Pkg. / Date)				Data Deliverable Information												Comments / Special Instructions							
<input type="checkbox"/> Std. 15 Business Days <input checked="" type="checkbox"/> Std. 10 Business Days (by Contract only) <input type="checkbox"/> 10 Day RUSH <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available via Lablink				<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLY1 (Level 3+4) <input type="checkbox"/> NJ Reduced <input type="checkbox"/> Commercial "C" Commercial "A" = Results Only Commercial "B" = Results + QC Summary NJ Reduced = Results + QC Summary + Partial Raw data				<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other																			
Sample Custody must be documented below each time samples change possession, including courier delivery.																											
1. Date Time: 5/13/10 1639 Received by: E. J. STORAGE (DAI) Date Time: 5/13/10 5410 Received by: [Signature]				2. Date Time: 5-13-10 807 Received by: A. Acavedo Date Time: [Blank] Received by: [Blank]				Custody Seal # [Blank] <input type="checkbox"/> Intact <input type="checkbox"/> Not intact Preserved where applicable <input type="checkbox"/> On ice <input checked="" type="checkbox"/> Cooler Temp: 4.2°C																			

JA46618: Chain of Custody

Page 1 of 3

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www.accutest.com

PEL-EX 14495372 Bottle Order Control #
Accutest Order # JA46618

Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)		Matrix Codes													
Company Name Deffield Assoc. Inc	Project Name Woodlands Golf Park Phase II	Billing Information (if different from Report to)		<div style="display: flex; justify-content: space-between;"> <div> Arsenic Lead TCL Pesticides </div> <div> <div style="border: 1px solid black; padding: 5px; width: 100px; height: 100px; display: flex; align-items: center; justify-content: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">3.1</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">3</div> </div> </div> </div>		DW - Drinking Water GW - Ground Water WW - Wastewater SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WIP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank													
Street Address	Street	Company Name																	
City State Zip	City State	Street Address																	
Project Contact Jen Grash	Project # 7864ED	City State Zip																	
Phone # 302 239 6634	Fax #	Client Purchase Order #																	
Sample(s) Name(s) MFP	Phone #	Project Manager Jen Grash	Attention:																
Accutest Sample #	Field ID / Point of Collection	MECHANICAL USE #	Date	Time	Sampled by	Matrix	# of bottles												
	HA-7A - 13		5/13/10	1335	MFP	Soil	1												
	HA-7B - 14			1338			1												
	HA-8A - 15			1345			1												
	HA-8B - 16			1348			1												
	HA-9A - 17			1355			1												
	HA-9B - 18			1400			1												
<table border="1"> <thead> <tr> <th colspan="2">Turnaround Time (Business days)</th> <th colspan="2">Data Deliverable Information</th> <th colspan="2">Comments / Special Instructions</th> </tr> </thead> <tbody> <tr> <td> <input type="checkbox"/> Std. 15 Business Days <input checked="" type="checkbox"/> Std. 10 Business Days (by Contract only) <input type="checkbox"/> 10 Day RUSH <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available via Lablink </td> <td> Approved By (Accutest Pkg. / Date): _____ _____ _____ _____ _____ </td> <td> <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> NJ Reduced <input type="checkbox"/> Commercial "C" Commercial "A" = Results Only Commercial "B" = Results + QC Summary NJ Reduced = Results + QC Summary + Partial Raw data </td> <td> <input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other </td> <td colspan="2"></td> </tr> </tbody> </table>								Turnaround Time (Business days)		Data Deliverable Information		Comments / Special Instructions		<input type="checkbox"/> Std. 15 Business Days <input checked="" type="checkbox"/> Std. 10 Business Days (by Contract only) <input type="checkbox"/> 10 Day RUSH <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available via Lablink	Approved By (Accutest Pkg. / Date): _____ _____ _____ _____ _____	<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> NJ Reduced <input type="checkbox"/> Commercial "C" Commercial "A" = Results Only Commercial "B" = Results + QC Summary NJ Reduced = Results + QC Summary + Partial Raw data	<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other		
Turnaround Time (Business days)		Data Deliverable Information		Comments / Special Instructions															
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Sample Custody must be documented below each time samples change possession, including courier delivery.																			
1. 179K Date Time: 5/13/10 1639 Received By: ENVIRONMENTAL (DAI) 2. 179K Date Time: 5-19-10 807 Received By: A. A. ...																			
3. A. A. ... Date Time: 1100 5-14-10 Received By: A. A. ...																			
5. A. A. ... Date Time: 1100 5-14-10 Received By: A. A. ...																			

JA46618: Chain of Custody
Page 2 of 3



Accutest Laboratories Sample Receipt Summary

Accutest Job Number: JA46618 Client: _____ Immediate Client Services Action Required: No
Date / Time Received: 5/14/2010 Delivery Method: _____ Client Service Action Required at Login: No
Project: _____ No. Coolers: 1 Airbill #'s: _____

Cooler Security Y or N Y or N
1. Custody Seals Present: ☒ ☐ 3. COC Present: ☒ ☐
2. Custody Seals Intact: ☒ ☐ 4. Smpl Dates/Time OK ☒ ☐

Cooler Temperature Y or N
1. Temp criteria achieved: ☒ ☐
2. Cooler temp verification: Infrared gun
3. Cooler media: Ice (bag)

Quality Control Preservation Y or N N/A
1. Trip Blank present / cooler: ☐ ☐ ☒
2. Trip Blank listed on COC: ☐ ☐ ☒
3. Samples preserved properly: ☒ ☐
4. VOCs headspace free: ☐ ☐ ☒

Sample Integrity - Documentation Y or N
1. Sample labels present on bottles: ☒ ☐
2. Container labeling complete: ☒ ☐
3. Sample container label / COC agree: ☒ ☐

Sample Integrity - Condition Y or N
1. Sample recvd within HT: ☒ ☐
2. All containers accounted for: ☒ ☐
3. Condition of sample: Intact

Sample Integrity - Instructions Y or N N/A
1. Analysis requested is clear: ☒ ☐
2. Bottles received for unspecified tests: ☐ ☒
3. Sufficient volume recvd for analysis: ☒ ☐
4. Compositing instructions clear: ☐ ☐ ☒
5. Filtering instructions clear: ☐ ☐ ☒

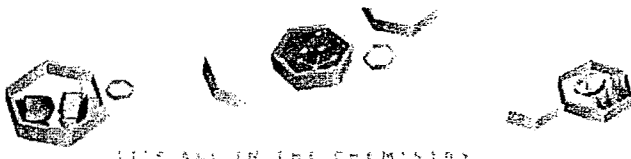
Comments

Accutest Laboratories
V: 732.329.0200

2235 US Highway 130
F: 732.329.3400

Dayton, New Jersey
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JA46618: Chain of Custody
Page 3 of 3



06/04/10

Technical Report for

Duffield Associates, Inc.

Woodlands Golf Park Phase II, Woodlands, Seaford, DE

7864.ED

Accutest Job Number: JA46619

Sampling Date: 05/13/10



Report to:

Duffield Associates, Inc.
5400 Limestone Road
Wilmington, DE 19808

ATTN: Jen Gresh

Total number of pages in report: 9



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

David N. Speis
David N. Speis
VP Ops, Laboratory Director

Client Service contact: Tony Esposito 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, PA, RI, SC, TN, VA, WV

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Test results relate only to samples analyzed.

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2.1: JA46619-1: STREAM-1	5
Section 3: Misc. Forms	7
3.1: Chain of Custody	8



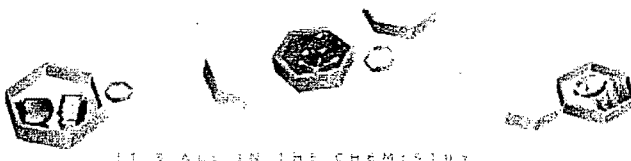
Sample Summary

Duffield Associates, Inc.

Job No: JA46619

Woodlands Golf Park Phase II, Woodlands, Seaford, DE
Project No: 7864.ED

Sample Number	Collected Date	Time By	Received	Matrix Code Type	Client Sample ID
JA46619-1	05/13/10	14:10 MP	05/14/10	AQ Surface Water	STREAM-1



IT'S ALL IN THE CHEMISTRY

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: STREAM-1

Lab Sample ID: JA46619-1

Matrix: AQ - Surface Water

Date Sampled: 05/13/10

Date Received: 05/14/10

Percent Solids: n/a

Project: Woodlands Golf Park Phase II, Woodlands, Seaford, DE

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	1.4 U	3.0	1.4	ug/l	1	05/25/10	05/26/10 GT	SW846 6010B ²	SW846 3010A ⁴
Cadmium	0.35 U	3.0	0.35	ug/l	1	05/25/10	05/26/10 VC	SW846 6010B ¹	SW846 3010A ⁴
Chromium	1.3 B	10	0.59	ug/l	1	05/25/10	05/26/10 VC	SW846 6010B ¹	SW846 3010A ⁴
Copper	18.3	10	2.5	ug/l	1	05/25/10	05/26/10 GT	SW846 6010B ²	SW846 3010A ⁴
Lead	1.9 U	3.0	1.9	ug/l	1	05/25/10	05/26/10 VC	SW846 6010B ¹	SW846 3010A ⁴
Mercury	0.082 U	0.20	0.082	ug/l	1	05/27/10	05/27/10 RP	SW846 7470A ³	SW846 7470A ⁵
Zinc	36.2	20	1.4	ug/l	1	05/25/10	05/26/10 VC	SW846 6010B ¹	SW846 3010A ⁴

(1) Instrument QC Batch: MA24347

(2) Instrument QC Batch: MA24355

(3) Instrument QC Batch: MA24361

(4) Prep QC Batch: MP52823

(5) Prep QC Batch: MP52873

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Page 1 of 1

2.1
2

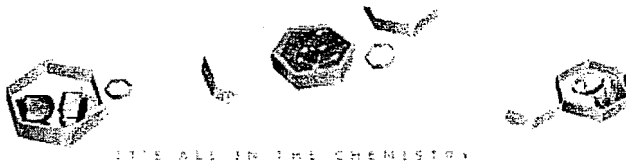
Client Sample ID:	STREAM-1	Date Sampled:	05/13/10
Lab Sample ID:	JA46619-1	Date Received:	05/14/10
Matrix:	AQ - Surface Water	Percent Solids:	n/a
Project:	Woodlands Golf Park Phase II, Woodlands, Seaford, DE		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Nitrogen, Ammonia	0.17 U	0.20	0.17	mg/l	1	05/19/10 11:26	AE	SM20 4500NH3G,LACHAT
Nitrogen, Total Kjeldahl	0.57	0.20	0.11	mg/l	1	05/28/10 11:39	NR	EPA 351.2/LACHAT
Phosphorus, Total	0.055	0.050	0.0090	mg/l	1	05/24/10	NS	EPA 365.3
Solids, Total Suspended	25.0	4.0	1.7	mg/l	1	05/18/10	DD	SM20 2540D

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL



IT'S ALL IN THE CHEMISTRY

Section 3



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



PAGE 3 OF 30

FED-EX Tracking #	Bottle Order Control #
Account Quote #	Account Job #

3.1

8 of 9
ACCUTEST.
JA46619



Accutest Laboratories Sample Receipt Summary

Accutest Job Number: JA46619 Client: _____ Immediate Client Services Action Required: No
Date / Time Received: 5/14/2010 Delivery Method: _____ Client Service Action Required at Login: No
Project: _____ No. Coolers: 1 Airbill #'s: _____

Cooler Security Y or N Y or N
1. Custody Seals Present: ☒ ☐ 3. COC Present: ☒ ☐
2. Custody Seals Intact: ☒ ☐ 4. Smpl Dates/Time OK ☒ ☐

Cooler Temperature Y or N
1. Temp criteria achieved: ☒ ☐
2. Cooler temp verification: Infrared gun
3. Cooler media: Ice (bag)

Quality Control Preservation Y or N N/A
1. Trip Blank present / cooler: ☐ ☐ ☒
2. Trip Blank listed on COC: ☐ ☐ ☒
3. Samples preserved properly: ☒ ☐
4. VOCs headspace free: ☐ ☐ ☒

Sample Integrity - Documentation Y or N
1. Sample labels present on bottles: ☒ ☐
2. Container labeling complete: ☒ ☐
3. Sample container label / COC agree: ☒ ☐

Sample Integrity - Condition Y or N
1. Sample recvd within HT: ☒ ☐
2. All containers accounted for: ☒ ☐
3. Condition of sample: Intact

Sample Integrity - Instructions Y or N N/A
1. Analysis requested is clear: ☒ ☐
2. Bottles received for unspecified tests: ☐ ☒
3. Sufficient volume recvd for analysis: ☒ ☐
4. Compositing instructions clear: ☐ ☐ ☒
5. Filtering instructions clear: ☐ ☐ ☒

Comments

Accutest Laboratories
V:732.329.0200

2235 US Highway 130
F: 732.329.3499

Dayton, New Jersey
www.accutest.com

JA46619: Chain of Custody
Page 2 of 2

Technical Report for

Duffield Associates, Inc.

Woodlands Golf Park Phase II, Woodlands, Seaford, DE

7864.ED

Accutest Job Number: JA46619X

Sampling Date: 05/13/10

Report to:


Duffield Associates, Inc.
5400 Limestone Road
Wilmington, DE 19808

ATTN: Jen Gresh

Total number of pages in report:



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.


David N. Speis
VP Ops, Laboratory Director

Client Service contact: Tony Esposito 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, PA, RI, SC, TN, VA, WV

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Test results relate only to samples analyzed.



June 08, 2010

Ms. Nadine Yakes
Accutest Laboratories
Fresh Ponds Corporate Village, Bldg B
2235 Route 130
Dayton, New Jersey 08810

Re: HRMS Subcontract
Work Order: 1358
SDG: JA46619

Dear Ms. Yakes:

Cape Fear Analytical LLC (CFA) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 18, 2010. This original data report has been prepared and reviewed in accordance with CFA's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at 910-795-0421 Ext. 0422.

Chris Cornwell
Project Manager

Enclosures



**Fresh Ponds Corporate Village, Building B
2235 Route 130, Dayton, NJ 08810
908-329-0200 FAX: 908-329-3499/3480**

Accutest Quote #:

Client Information				Facility Information				Analytical Information								
Accutest																
Name 2235 Route 130				Project Name 7864ED												
Address Dayton NJ 08810				Location												
City Tony Esposito				Project No. JA46619												
Send Report to: Phone #: (732) 329-0200 X-218				FAX #: (732) 329-3499												
Field ID / Point of Collection		Collection			Matrix	# of bottles	Preservation									
		Date	Time	Sampled By			HCL	NaOH	HNO3	H2SO4	None					
-1		5/13/10	14:10	MFP	AQ	2					X	X				
-																
-																
-																
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Turnaround Information				Data Deliverable Information				Comments / Remarks								
<input type="checkbox"/> 21 Day Standard <input type="checkbox"/> 14 Day <input type="checkbox"/> 7 Days EMERGENCY <input checked="" type="checkbox"/> Other 14 (Days) 21 Day Turnaround Hardcopy, Emergency or RUSH is FAX Data unless previously approved.				Approved By: _____ <input type="checkbox"/> NJ Reduced <input checked="" type="checkbox"/> NJ Full <input type="checkbox"/> FULL CLP <input type="checkbox"/> Disk Deliverable <input type="checkbox"/> Other (Specify) _____				<input type="checkbox"/> Commercial "A" <input type="checkbox"/> Commercial "B" <input type="checkbox"/> State Forms								
Sample Custody must be documented below each time samples change possession, including courier delivery.																
Relinquished by Sampler: 1		Date Time: 5/13/10 1700		Received By: 1		Relinquished By: 2		Date Time:		Received By: 2						
Relinquished by Sampler: 3		Date Time: 5/13/10 1000		Received By: 3		Relinquished By: 4		Date Time:		Received By: 4						
Relinquished by Sampler: 5		Date Time:		Received By: 5		Seal #		Preserved where applicable		On Ice						

WD # 1358

SAMPLE RECEIPT CHECKLIST

Client: Accutest	Work Order: 1358
Received By: Chris Cornwell	Date Received: 5/13/10

Suspected Hazard Information	Yes	NA	No
Shipped as DOT Hazardous?			<input checked="" type="checkbox"/>
Samples identified as Foreign Soil?			<input checked="" type="checkbox"/>

#	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: seals broken damaged container leaking container other(describe)
2	Samples requiring cold preservation within 0-6°C?	<input checked="" type="checkbox"/>			Preservation Method: ice bags blue ice dry ice none other (describe) 3.6
3	Chain of Custody documents included with shipment?	<input checked="" type="checkbox"/>			
4	Samples requiring chemical preservation at proper pH?		<input checked="" type="checkbox"/>		Sample IDs, containers affected and pH observed: If preservative added, Lot#:
5	VOA vials free of headspace <6mm bubble?		<input checked="" type="checkbox"/>		Sample IDs, containers affected:
6	Are Encore containers present?		<input checked="" type="checkbox"/>		(If YES, immediately deliver to volatiles laboratory)
7	Samples received within holding time?	<input checked="" type="checkbox"/>			Sample IDs, tests affected:
8	Sample IDs on COC match IDs on containers?	<input checked="" type="checkbox"/>			Sample IDs, containers affected:
9	Date & time of COC match date & time on containers?	<input checked="" type="checkbox"/>			Sample IDs, containers affected:
10	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			Sample IDs, containers affected:
11	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>			

Comments: **sample pH = 7**

No residual chlorine

PM review: Initials: **[Signature]** Date: **25 May 2010**

PCB Congeners Analysis

Case Narrative

**PCBC Case Narrative
Accutest Laboratories (ACCU)
SDG JA46619**

Method/Analysis Information

Product: PCB Congeners by EPA Method 1668A in Liquids
Analytical Method: EPA Method 1668A
Extraction Method: SW846 3520C
Analytical Batch Number: 9714
Clean Up Batch Number: 9692
Extraction Batch Number: 9653

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA Method 1668A:

Sample ID	Client ID
1358001	JA46619-1
12001226	Method Blank (MB)
12001227	Laboratory Control Sample (LCS)
12001228	Laboratory Control Sample Duplicate (LCSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by Cape Fear Analytical LLC (CFA) as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with CF-OA-E-003 REV# 1.

Raw data reports are processed and reviewed by the analyst using the TargetLynx software package.

Calibration Information

Initial Calibration

All initial calibration requirements have been met for this sample delivery group (SDG).

Continuing Calibration Verification (CCV) Requirements

All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement

The blank contained hits of some target analytes above the PQL; samples have been B-flagged accordingly.

Certification Statement

The test results presented in this document are certified to meet all requirements of the 2003 NELAC Standard. Any known exceptions are discussed in the narrative.

Surrogate Recoveries

All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

Laboratory Control Sample Duplicate (LCSD) Recovery

The LCSD spike recoveries met the acceptance limits.

LCS/LCSD Relative Percent Difference (RPD) Statement

The RPD(s) between the LCS and LCSD met the acceptance limits.

QC Sample Designation

A matrix spike and matrix spike duplicate analysis was not required for this SDG.

Technical Information

Holding Time Specifications

CFA assigns holding times based on the associated methodology, which assigns the date and time from sample collection. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification

All procedures were performed as stated in the SOP.

Sample Dilutions

The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis

Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Nonconformance (NCR) Documentation

A NCR was not required for this SDG.

Manual Integrations

Certain standards and QC samples required manual integrations to correctly position the baseline as set in the calibration standard injections. Where manual integrations were performed, copies of all manual integration peak profiles are included in the raw data section of this fraction.

System Configuration

This analysis was performed on a Waters Autospec Premier high-resolution GC/MS system.

Sample Data Summary

Cape Fear Analytical, LLC

3306 Kitty Hawk Road Suite 120, Wilmington, NC 28405 - (910) 795-0421 - www.capefearanalytical.com

Certificate of Analysis Report for

ACCU001 Accutest Laboratories

Client SDG: JA46619 CFA Work Order: 1358

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Congener has coeluters. When Cxxx, refer to congener number xxx for data
- U Analyte was analyzed for , but not detected above the specified detection limit.

Review/Validation

Cape Fear Analytical requires all analytical data to be verified by a qualified data reviewer.

The following data validator verified the information presented in this case narrative:

Signature: 

Name: Heather Patterson

Date: 08 JUN 2010

Title: Analyst III

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 1 of 8

SDG Number: JA46619
Lab Sample ID: 1358001

Client: ACCU001
Date Collected: 05/13/2010 14:10
Date Received: 05/18/2010 10:00

Project: ACCU00309
Matrix: WATER

Client ID: JA46619-1
Batch ID: 9714
Run Date: 05/27/2010 16:43
Data File: A26MAY10A_3-6
Prep Batch: 9653
Prep Date: 24-MAY-10

Method: EPA Method 1668A
Analyst: MJC
Prep Method: SW846 3520C
Aliquot: 924.3 mL

Prep Basis: As Received
Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	PQL
2051-60-7	1-MoCB	U	21.6	pg/L	21.6
2051-61-8	2-MoCB	U	21.6	pg/L	21.6
2051-62-9	3-MoCB	U	21.6	pg/L	21.6
13029-08-8	4-DiCB	U	21.6	pg/L	21.6
16605-91-7	5-DiCB	U	21.6	pg/L	21.6
25569-80-6	6-DiCB	U	21.6	pg/L	21.6
33284-50-3	7-DiCB	U	21.6	pg/L	21.6
34883-43-7	8-DiCB	U	21.6	pg/L	21.6
34883-39-1	9-DiCB	U	21.6	pg/L	21.6
33146-45-1	10-DiCB	U	21.6	pg/L	21.6
2050-67-1	11-DiCB	B	39.7	pg/L	21.6
2974-92-7	12-DiCB	CU	43.3	pg/L	43.3
2974-90-5	13-DiCB	C12			
34883-41-5	14-DiCB	U	21.6	pg/L	21.6
2050-68-2	15-DiCB	U	21.6	pg/L	21.6
38444-78-9	16-TrCB	U	21.6	pg/L	21.6
37680-66-3	17-TrCB	U	21.6	pg/L	21.6
37680-65-2	18-TrCB	CU	43.3	pg/L	43.3
38444-73-4	19-TrCB	U	21.6	pg/L	21.6
38444-84-7	20-TrCB	CU	43.3	pg/L	43.3
55702-46-0	21-TrCB	CU	43.3	pg/L	43.3
38444-85-8	22-TrCB	U	21.6	pg/L	21.6
55720-44-0	23-TrCB	U	21.6	pg/L	21.6
55702-45-9	24-TrCB	U	21.6	pg/L	21.6
55712-37-3	25-TrCB	U	21.6	pg/L	21.6
38444-81-4	26-TrCB	CU	43.3	pg/L	43.3
38444-76-7	27-TrCB	U	21.6	pg/L	21.6
7012-37-5	28-TrCB	C20			
15862-07-4	29-TrCB	C26			
35693-92-6	30-TrCB	C18			
16606-02-3	31-TrCB		32.8	pg/L	21.6
38444-77-8	32-TrCB	U	21.6	pg/L	21.6

Comments:

- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
 C Congener has coeluters. When Cxxx, refer to congener number xxx for data
 U Analyte was analyzed for , but not detected above the specified detection limit.

PCB Congeners
Certificate of Analysis
Sample Summary

Page 2 of 8

SDG Number: JA46619
Lab Sample ID: 1358001Client: ACCU001
Date Collected: 05/13/2010 14:10
Date Received: 05/18/2010 10:00Project: ACCU00309
Matrix: WATERClient ID: JA46619-1
Batch ID: 9714
Run Date: 05/27/2010 16:43
Data File: A26MAY10A_3-6
Prep Batch: 9653
Prep Date: 24-MAY-10Method: EPA Method 1668A
Analyst: MJC

Prep Basis: As Received

Instrument: HRP750
Dilution: 1Prep Method: SW846 3520C
Aliquot: 924.3 mL

CAS No.	Parmname	Qual	Result	Units	PQL
38444-86-9	33-TrCB	C21			
37680-68-5	34-TrCB	U	21.6	pg/L	21.6
37680-69-6	35-TrCB	U	21.6	pg/L	21.6
38444-87-0	36-TrCB	U	21.6	pg/L	21.6
38444-90-5	37-TrCB	U	21.6	pg/L	21.6
53555-66-1	38-TrCB	U	21.6	pg/L	21.6
38444-88-1	39-TrCB	U	21.6	pg/L	21.6
38444-93-8	40-TeCB	CU	43.3	pg/L	43.3
52663-59-9	41-TeCB	U	21.6	pg/L	21.6
36559-22-5	42-TeCB	U	21.6	pg/L	21.6
70362-46-8	43-TeCB	U	21.6	pg/L	21.6
41464-39-5	44-TeCB	CU	64.9	pg/L	64.9
70362-45-7	45-TeCB	CU	43.3	pg/L	43.3
41464-47-5	46-TeCB	U	21.6	pg/L	21.6
2437-79-8	47-TeCB	C44			
70362-47-9	48-TeCB	U	21.6	pg/L	21.6
41464-40-8	49-TeCB	CU	43.3	pg/L	43.3
62796-65-0	50-TeCB	CU	43.3	pg/L	43.3
68194-04-7	51-TeCB	C45			
35693-99-3	52-TeCB		62.1	pg/L	21.6
41464-41-9	53-TeCB	C50			
15968-05-5	54-TeCB	U	21.6	pg/L	21.6
74338-24-2	55-TeCB	U	21.6	pg/L	21.6
41464-43-1	56-TeCB	U	21.6	pg/L	21.6
70424-67-8	57-TeCB	U	21.6	pg/L	21.6
41464-49-7	58-TeCB	U	21.6	pg/L	21.6
74472-33-6	59-TeCB	CU	64.9	pg/L	64.9
33025-41-1	60-TeCB	U	21.6	pg/L	21.6
33284-53-6	61-TeCB	CU	86.6	pg/L	86.6
54230-22-7	62-TeCB	C59			
74472-34-7	63-TeCB	U	21.6	pg/L	21.6
52663-58-8	64-TeCB		23.7	pg/L	21.6

Comments:

- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
C Congener has coeluters. When Cxxx, refer to congener number xxx for data
U Analyte was analyzed for , but not detected above the specified detection limit.

PCB Congeners
Certificate of Analysis
Sample Summary

Page 3 of 8

SDG Number: JA46619
Lab Sample ID: 1358001Client: ACCU001
Date Collected: 05/13/2010 14:10
Date Received: 05/18/2010 10:00Project: ACCU00309
Matrix: WATERClient ID: JA46619-1
Batch ID: 9714
Run Date: 05/27/2010 16:43
Data File: A26MAY10A_3-6
Prep Batch: 9653
Prep Date: 24-MAY-10Method: EPA Method 1668A
Analyst: MJC

Prep Basis: As Received

Instrument: HRP750
Dilution: 1Prep Method: SW846 3520C
Aliquot: 924.3 mL

CAS No.	Parmname	Qual	Result	Units	PQL
33284-54-7	65-TeCB	C44			
32598-10-0	66-TeCB		28.4	pg/L	21.6
73575-53-8	67-TeCB	U	21.6	pg/L	21.6
73575-52-7	68-TeCB	U	21.6	pg/L	21.6
60233-24-1	69-TeCB	C49			
32598-11-1	70-TeCB	C61			
41464-46-4	71-TeCB	C40			
41464-42-0	72-TeCB	U	21.6	pg/L	21.6
74338-23-1	73-TeCB	U	21.6	pg/L	21.6
32690-93-0	74-TeCB	C61			
32598-12-2	75-TeCB	C59			
70362-48-0	76-TeCB	C61			
32598-13-3	77-TeCB	U	21.6	pg/L	21.6
70362-49-1	78-TeCB	U	21.6	pg/L	21.6
41464-48-6	79-TeCB	U	21.6	pg/L	21.6
33284-52-5	80-TeCB	U	21.6	pg/L	21.6
70362-50-4	81-TeCB	U	21.6	pg/L	21.6
52663-62-4	82-PeCB	U	21.6	pg/L	21.6
60145-20-2	83-PeCB	U	21.6	pg/L	21.6
52663-60-2	84-PeCB	U	21.6	pg/L	21.6
65510-45-4	85-PeCB	CU	64.9	pg/L	64.9
55312-69-1	86-PeCB	CU	130	pg/L	130
38380-02-8	87-PeCB	C86			
55215-17-3	88-PeCB	CU	43.3	pg/L	43.3
73575-57-2	89-PeCB	U	21.6	pg/L	21.6
68194-07-0	90-PeCB	CU	64.9	pg/L	64.9
68194-05-8	91-PeCB	C88			
52663-61-3	92-PeCB	U	21.6	pg/L	21.6
73575-56-1	93-PeCB	CU	43.3	pg/L	43.3
73575-55-0	94-PeCB	U	21.6	pg/L	21.6
38379-99-6	95-PeCB		40.6	pg/L	21.6
73575-54-9	96-PeCB	U	21.6	pg/L	21.6

Comments:

- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
C Congener has coeluters. When Cxxx, refer to congener number xxx for data
U Analyte was analyzed for , but not detected above the specified detection limit.

PCB Congeners
Certificate of Analysis
Sample Summary

Page 4 of 8

SDG Number: JA46619
 Lab Sample ID: 1358001

Client: ACCU001
 Date Collected: 05/13/2010 14:10
 Date Received: 05/18/2010 10:00

Project: ACCU00309
 Matrix: WATER

Client ID: JA46619-1
 Batch ID: 9714
 Run Date: 05/27/2010 16:43
 Data File: A26MAY10A_3-6
 Prep Batch: 9653
 Prep Date: 24-MAY-10

Method: EPA Method 1668A
 Analyst: MJC
 Prep Method: SW846 3520C
 Aliquot: 924.3 mL

Prep Basis: As Received
 Instrument: HRP750
 Dilution: 1

CAS No.	Parname	Qual	Result	Units	PQL
41464-51-1	97-PeCB	C86			
60233-25-2	98-PeCB	CU	43.3	pg/L	43.3
38380-01-7	99-PeCB	U	21.6	pg/L	21.6
39485-83-1	100-PeCB	C93			
37680-73-2	101-PeCB	C90			
68194-06-9	102-PeCB	C98			
60145-21-3	103-PeCB	U	21.6	pg/L	21.6
56558-16-8	104-PeCB	U	21.6	pg/L	21.6
32598-14-4	105-PeCB	U	21.6	pg/L	21.6
70424-69-0	106-PeCB	U	21.6	pg/L	21.6
70424-68-9	107-PeCB	U	21.6	pg/L	21.6
70362-41-3	108-PeCB	CU	43.3	pg/L	43.3
74472-35-8	109-PeCB	C86			
38380-03-9	110-PeCB	CU	43.3	pg/L	43.3
39635-32-0	111-PeCB	U	21.6	pg/L	21.6
74472-36-9	112-PeCB	U	21.6	pg/L	21.6
68194-10-5	113-PeCB	C90			
74472-37-0	114-PeCB	U	21.6	pg/L	21.6
74472-38-1	115-PeCB	C110			
18259-05-7	116-PeCB	C85			
68194-11-6	117-PeCB	C85			
31508-00-6	118-PeCB		22.7	pg/L	21.6
56558-17-9	119-PeCB	C86			
68194-12-7	120-PeCB	U	21.6	pg/L	21.6
56558-18-0	121-PeCB	U	21.6	pg/L	21.6
76842-07-4	122-PeCB	U	21.6	pg/L	21.6
65510-44-3	123-PeCB	U	21.6	pg/L	21.6
70424-70-3	124-PeCB	C108			
74472-39-2	125-PeCB	C86			
57465-28-8	126-PeCB	U	21.6	pg/L	21.6
39635-33-1	127-PeCB	U	21.6	pg/L	21.6
38380-07-3	128-HxCB	CU	43.3	pg/L	43.3

Comments:

- B** For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
C Congener has coeluters. When Cxxx, refer to congener number xxx for data
U Analyte was analyzed for, but not detected above the specified detection limit.

PCB Congeners
Certificate of Analysis
Sample Summary

Page 5 of 8

SDG Number: JA46619
Lab Sample ID: 1358001Client: ACCU001
Date Collected: 05/13/2010 14:10
Date Received: 05/18/2010 10:00Project: ACCU00309
Matrix: WATERClient ID: JA46619-1
Batch ID: 9714
Run Date: 05/27/2010 16:43
Data File: A26MAY10A_3-6
Prep Batch: 9653
Prep Date: 24-MAY-10Method: EPA Method 1668A
Analyst: MJC
Prep Method: SW846 3520C
Aliquot: 924.3 mLPrep Basis: As Received
Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	PQL
55215-18-4	129-HxCB	CU	64.9	pg/L	64.9
52663-66-8	130-HxCB	U	21.6	pg/L	21.6
61798-70-7	131-HxCB	U	21.6	pg/L	21.6
38380-05-1	132-HxCB	U	21.6	pg/L	21.6
35694-04-3	133-HxCB	U	21.6	pg/L	21.6
52704-70-8	134-HxCB	U	21.6	pg/L	21.6
52744-13-5	135-HxCB	CU	43.3	pg/L	43.3
38411-22-2	136-HxCB	U	21.6	pg/L	21.6
35694-06-5	137-HxCB	U	21.6	pg/L	21.6
35065-28-2	138-HxCB	C129			
56030-56-9	139-HxCB	CU	43.3	pg/L	43.3
59291-64-4	140-HxCB	C139			
52712-04-6	141-HxCB	U	21.6	pg/L	21.6
41411-61-4	142-HxCB	U	21.6	pg/L	21.6
68194-15-0	143-HxCB	U	21.6	pg/L	21.6
68194-14-9	144-HxCB	U	21.6	pg/L	21.6
74472-40-5	145-HxCB	U	21.6	pg/L	21.6
51908-16-8	146-HxCB	U	21.6	pg/L	21.6
68194-13-8	147-HxCB	CU	43.3	pg/L	43.3
74472-41-6	148-HxCB	U	21.6	pg/L	21.6
38380-04-0	149-HxCB	C147			
68194-08-1	150-HxCB	U	21.6	pg/L	21.6
52663-63-5	151-HxCB	C135			
68194-09-2	152-HxCB	U	21.6	pg/L	21.6
35065-27-1	153-HxCB	CU	43.3	pg/L	43.3
60145-22-4	154-HxCB	U	21.6	pg/L	21.6
33979-03-2	155-HxCB	U	21.6	pg/L	21.6
38380-08-4	156-HxCB	CU	43.3	pg/L	43.3
69782-90-7	157-HxCB	C156			
74472-42-7	158-HxCB	U	21.6	pg/L	21.6
39635-35-3	159-HxCB	U	21.6	pg/L	21.6
41411-62-5	160-HxCB	U	21.6	pg/L	21.6

Comments:

- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
C Congener has coeluters. When Cxxx, refer to congener number xxx for data
U Analyte was analyzed for , but not detected above the specified detection limit.

**PCB Congeners
Certificate of Analysis
Sample Summary**

SDG Number: JA46619
Lab Sample ID: 1358001

Client: ACCU001
Date Collected: 05/13/2010 14:10
Date Received: 05/18/2010 10:00

Project: ACCU00309
Matrix: WATER

Client ID: JA46619-1
Batch ID: 9714
Run Date: 05/27/2010 16:43
Data File: A26MAY10A_3-6
Prep Batch: 9653
Prep Date: 24-MAY-10

Method: EPA Method 1668A
Analyst: MJC
Prep Method: SW846 3520C
Aliquot: 924.3 mL

Prep Basis: As Received
Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	PQL
74472-43-8	161-HxCB	U	21.6	pg/L	21.6
39635-34-2	162-HxCB	U	21.6	pg/L	21.6
74472-44-9	163-HxCB	C129			
74472-45-0	164-HxCB	U	21.6	pg/L	21.6
74472-46-1	165-HxCB	U	21.6	pg/L	21.6
41411-63-6	166-HxCB	C128			
52663-72-6	167-HxCB	U	21.6	pg/L	21.6
59291-65-5	168-HxCB	C153			
32774-16-6	169-HxCB	U	21.6	pg/L	21.6
35065-30-6	170-HpCB	U	21.6	pg/L	21.6
52663-71-5	171-HpCB	CU	43.3	pg/L	43.3
52663-74-8	172-HpCB	U	21.6	pg/L	21.6
68194-16-1	173-HpCB	C171			
38411-25-5	174-HpCB	U	21.6	pg/L	21.6
40186-70-7	175-HpCB	U	21.6	pg/L	21.6
52663-65-7	176-HpCB	U	21.6	pg/L	21.6
52663-70-4	177-HpCB	U	21.6	pg/L	21.6
52663-67-9	178-HpCB	U	21.6	pg/L	21.6
52663-64-6	179-HpCB	U	21.6	pg/L	21.6
35065-29-3	180-HpCB	CU	43.3	pg/L	43.3
74472-47-2	181-HpCB	U	21.6	pg/L	21.6
60145-23-5	182-HpCB	U	21.6	pg/L	21.6
52663-69-1	183-HpCB	CU	43.3	pg/L	43.3
74472-48-3	184-HpCB	U	21.6	pg/L	21.6
52712-05-7	185-HpCB	C183			
74472-49-4	186-HpCB	U	21.6	pg/L	21.6
52663-68-0	187-HpCB	U	21.6	pg/L	21.6
74487-85-7	188-HpCB	U	21.6	pg/L	21.6
39635-31-9	189-HpCB	U	21.6	pg/L	21.6
41411-64-7	190-HpCB	U	21.6	pg/L	21.6
74472-50-7	191-HpCB	U	21.6	pg/L	21.6
74472-51-8	192-HpCB	U	21.6	pg/L	21.6

Comments:

- B** For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
C Congener has coeluters. When Cxxx, refer to congener number xxx for data
U Analyte was analyzed for, but not detected above the specified detection limit.

PCB Congeners
Certificate of Analysis
Sample Summary

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SDG Number: JA46619
 Lab Sample ID: 1358001

Client: ACCU001
 Date Collected: 05/13/2010 14:10
 Date Received: 05/18/2010 10:00

Project: ACCU00309
 Matrix: WATER

Client ID: JA46619-1
 Batch ID: 9714
 Run Date: 05/27/2010 16:43
 Data File: A26MAY10A_3-6
 Prep Batch: 9653
 Prep Date: 24-MAY-10

Method: EPA Method 1668A
 Analyst: MJC
 Prep Method: SW846 3520C
 Aliquot: 924.3 mL

Prep Basis: As Received
 Instrument: HRP750
 Dilution: 1

CAS No.	Parmname	Qual	Result	Units	PQL
69782-91-8	193-HpCB	C180			
35694-08-7	194-OcCB	U	21.6	pg/L	21.6
52663-78-2	195-OcCB	U	21.6	pg/L	21.6
42740-50-1	196-OcCB	U	21.6	pg/L	21.6
33091-17-7	197-OcCB	CU	43.3	pg/L	43.3
68194-17-2	198-OcCB	CU	43.3	pg/L	43.3
52663-75-9	199-OcCB	C198			
52663-73-7	200-OcCB	C197			
40186-71-8	201-OcCB	U	21.6	pg/L	21.6
2136-99-4	202-OcCB	U	21.6	pg/L	21.6
52663-76-0	203-OcCB	U	21.6	pg/L	21.6
74472-52-9	204-OcCB	U	21.6	pg/L	21.6
74472-53-0	205-OcCB	U	21.6	pg/L	21.6
40186-72-9	206-NoCB	U	21.6	pg/L	21.6
52663-79-3	207-NoCB	U	21.6	pg/L	21.6
52663-77-1	208-NoCB	U	21.6	pg/L	21.6
2051-24-3	209-DeCB	U	21.6	pg/L	21.6

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1-MoCB		836	2160	pg/L	38.6	(15%-150%)
13C-3-MoCB		938	2160	pg/L	43.3	(15%-150%)
13C-4-DiCB		879	2160	pg/L	40.6	(25%-150%)
13C-15-DiCB		1060	2160	pg/L	48.8	(25%-150%)
13C-19-TrCB		1130	2160	pg/L	52.4	(25%-150%)
13C-37-TrCB		1050	2160	pg/L	48.5	(25%-150%)
13C-54-TeCB		1150	2160	pg/L	53.4	(25%-150%)
13C-77-TeCB		1000	2160	pg/L	46.2	(25%-150%)
13C-81-TeCB		1030	2160	pg/L	47.6	(25%-150%)
13C-104-PeCB		1320	2160	pg/L	61.1	(25%-150%)
13C-105-PeCB		1190	2160	pg/L	55.1	(25%-150%)
13C-114-PeCB		1220	2160	pg/L	56.2	(25%-150%)
13C-118-PeCB		1220	2160	pg/L	56.3	(25%-150%)
13C-123-PeCB		1250	2160	pg/L	57.6	(25%-150%)
13C-126-PeCB		1090	2160	pg/L	50.5	(25%-150%)
13C-155-HxCB		1510	2160	pg/L	69.7	(25%-150%)
13C-156-HxCB	C	2350	4330	pg/L	54.3	(25%-150%)
13C-157-HxCB	C156L					
13C-167-HxCB		1080	2160	pg/L	50.1	(25%-150%)
13C-169-HxCB		1080	2160	pg/L	50.1	(25%-150%)
13C-188-HpCB		2090	2160	pg/L	96.7	(25%-150%)
13C-189-HpCB		1490	2160	pg/L	68.6	(25%-150%)
13C-202-OcCB		1840	2160	pg/L	84.9	(25%-150%)

PCB Congeners
Certificate of Analysis
Sample Summary

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SDG Number: JA46619
Lab Sample ID: 1358001Client: ACCU001
Date Collected: 05/13/2010 14:10
Date Received: 05/18/2010 10:00Project: ACCU00309
Matrix: WATERClient ID: JA46619-1
Batch ID: 9714
Run Date: 05/27/2010 16:43
Data File: A26MAY10A_3-6
Prep Batch: 9653
Prep Date: 24-MAY-10Method: EPA Method 1668A
Analyst: MJC
Prep Method: SW846 3520C
Aliquot: 924.3 mLPrep Basis: As Received
Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	PQL		
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-205-OcCB			1550	2160	pg/L	71.7	(25%-150%)
13C-206-NoCB			1700	2160	pg/L	78.5	(25%-150%)
13C-208-NoCB			1820	2160	pg/L	83.9	(25%-150%)
13C-209-DeCB			1780	2160	pg/L	82.3	(25%-150%)
13C-28-TrCB			1560	2160	pg/L	72.2	(30%-135%)
13C-111-PeCB			1460	2160	pg/L	67.3	(30%-135%)
13C-178-HpCB			1640	2160	pg/L	75.8	(30%-135%)

Comments:

- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
C Congener has coeluters. When Cxxx, refer to congener number xxx for data
U Analyte was analyzed for , but not detected above the specified detection limit.

Quality Control Summary

PCB Congeners
Quality Control Summary
Spike Recovery Report

Page 1 of 2

SDG Number: JA46619
Client ID: LCS for batch 9653
Lab Sample ID: 12001227
Instrument: HRP750
Analyst: MJC

Sample Type: Laboratory Control Sample
Matrix: WATER

Analysis Date: 05/25/2010 15:02 Dilution: 1
Prep Batch ID: 9653
Batch ID: 9714

CAS No.	Parmname	Amount Added pg/L	Spike Conc. pg/L	Recovery %	Acceptance Limits
2051-60-7	LCS 1-MoCB	500	523	105	50-150
2051-62-9	LCS 3-MoCB	500	632	126	50-150
13029-08-8	LCS 4-DiCB	500	627	125	50-150
2050-68-2	LCS 15-DiCB	500	652	130	50-150
38444-73-4	LCS 19-TrCB	500	579	116	50-150
38444-90-5	LCS 37-TrCB	500	657	131	50-150
15968-05-5	LCS 54-TeCB	1000	1320	132	50-150
32598-13-3	LCS 77-TeCB	1000	1160	116	50-150
70362-50-4	LCS 81-TeCB	1000	1170	117	50-150
56558-16-8	LCS 104-PeCB	1000	1320	132	50-150
32598-14-4	LCS 105-PeCB	1000	1270	127	50-150
74472-37-0	LCS 114-PeCB	1000	1320	132	50-150
31508-00-6	LCS 118-PeCB	1000	1220	122	50-150
65510-44-3	LCS 123-PeCB	1000	1150	115	50-150
57465-28-8	LCS 126-PeCB	1000	1230	123	50-150
33979-03-2	LCS 155-HxCB	1000	1280	128	50-150
38380-08-4	LCS 156-HxCB	2000	2620	131	50-150
69782-90-7	LCS 157-HxCB		C156		
52663-72-6	LCS 167-HxCB	1000	1340	134	50-150
32774-16-6	LCS 169-HxCB	1000	1290	129	50-150
74487-85-7	LCS 188-HpCB	1000	1290	129	50-150
39635-31-9	LCS 189-HpCB	1000	1160	116	50-150
2136-99-4	LCS 202-OcCB	1500	1700	114	50-150
74472-53-0	LCS 205-OcCB	1500	1890	126	50-150
40186-72-9	LCS 206-NoCB	1500	1720	114	50-150
52663-77-1	LCS 208-NoCB	1500	1870	124	50-150
2051-24-3	LCS 209-DeCB	1500	2020	135	50-150

PCB Congeners
Quality Control Summary
Spike Recovery Report

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SDG Number: JA46619

Sample Type: Laboratory Control Sample Duplicate

Client ID: LCSD for batch 9653

Matrix: WATER

Lab Sample ID: 12001228

Instrument: HRP750

Analysis Date: 05/25/2010 16:04

Dilution: 1

Analyst: MJC

Prep Batch ID: 9653

Batch ID: 9714

CAS No.	Parmname	Amount Added pg/L	Spike Conc. pg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
2051-60-7	LCSD 1-MoCB	500	498	99.6	50-150	4.95	0-20
2051-62-9	LCSD 3-MoCB	500	617	123	50-150	2.53	0-20
13029-08-8	LCSD 4-DiCB	500	602	120	50-150	3.96	0-20
2050-68-2	LCSD 15-DiCB	500	614	123	50-150	6.03	0-20
38444-73-4	LCSD 19-TrCB	500	570	114	50-150	1.53	0-20
38444-90-5	LCSD 37-TrCB	500	677	135	50-150	3.04	0-20
15968-05-5	LCSD 54-TeCB	1000	1280	128	50-150	2.73	0-20
32598-13-3	LCSD 77-TeCB	1000	1120	112	50-150	3.42	0-20
70362-50-4	LCSD 81-TeCB	1000	1140	114	50-150	3.08	0-20
56558-16-8	LCSD 104-PeCB	1000	1260	126	50-150	4.96	0-20
32598-14-4	LCSD 105-PeCB	1000	1200	120	50-150	5.48	0-20
74472-37-0	LCSD 114-PeCB	1000	1280	128	50-150	3.06	0-20
31508-00-6	LCSD 118-PeCB	1000	1210	121	50-150	1.02	0-20
65510-44-3	LCSD 123-PeCB	1000	1070	107	50-150	6.57	0-20
57465-28-8	LCSD 126-PeCB	1000	1210	121	50-150	1.27	0-20
33979-03-2	LCSD 155-HxCB	1000	1210	121	50-150	5.53	0-20
38380-08-4	LCSD 156-HxCB	2000	2510	126	50-150	4.32	0-20
69782-90-7	LCSD 157-HxCB						
52663-72-6	LCSD 167-HxCB	1000	1290	129	50-150	4.00	0-20
32774-16-6	LCSD 169-HxCB	1000	1290	129	50-150	0.473	0-20
74487-85-7	LCSD 188-HpCB	1000	1250	125	50-150	3.27	0-20
39635-31-9	LCSD 189-HpCB	1000	1150	115	50-150	1.24	0-20
2136-99-4	LCSD 202-OcCB	1500	1640	110	50-150	3.49	0-20
74472-53-0	LCSD 205-OcCB	1500	1880	125	50-150	0.801	0-20
40186-72-9	LCSD 206-NoCB	1500	1670	112	50-150	2.49	0-20
52663-77-1	LCSD 208-NoCB	1500	1820	121	50-150	2.65	0-20
2051-24-3	LCSD 209-DeCB	1500	1950	130	50-150	3.61	0-20

PCB Congeners **Surrogate Recovery Report**

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SDG Number: JA46619

Matrix Type: LIQUID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
12001227	LCS for batch 9653	13C-1-MoCB		47.5	(15%-140%)
		13C-3-MoCB		49.3	(15%-140%)
		13C-4-DiCB		44.2	(30%-140%)
		13C-15-DiCB		55.5	(30%-140%)
		13C-19-TrCB		58.7	(30%-140%)
		13C-37-TrCB		55.6	(30%-140%)
		13C-54-TeCB		55.7	(30%-140%)
		13C-77-TeCB		68.3	(30%-140%)
		13C-81-TeCB		68.3	(30%-140%)
		13C-104-PeCB		54.6	(30%-140%)
		13C-105-PeCB		67.9	(30%-140%)
		13C-114-PeCB		68.4	(30%-140%)
		13C-118-PeCB		68.7	(30%-140%)
		13C-123-PeCB		70.4	(30%-140%)
		13C-126-PeCB		67.5	(30%-140%)
		13C-155-HxCB		64.3	(30%-140%)
		13C-156-HxCB	C C156L	66.8	(30%-140%)
		13C-157-HxCB			
		13C-167-HxCB		58.6	(30%-140%)
		13C-169-HxCB		70.0	(30%-140%)
		13C-188-HpCB		78.3	(30%-140%)
		13C-189-HpCB		72.4	(30%-140%)
		13C-202-OcCB		80.0	(30%-140%)
		13C-205-OcCB		81.4	(30%-140%)
		13C-206-NoCB		89.1	(30%-140%)
		13C-208-NoCB		89.2	(30%-140%)
		13C-209-DeCB		80.5	(30%-140%)
		13C-28-TrCB		75.0	(40%-125%)
		13C-111-PeCB		79.3	(40%-125%)
		13C-178-HpCB		85.6	(40%-125%)
12001228	LCSD for batch 9653	13C-1-MoCB		48.2	(15%-140%)
		13C-3-MoCB		51.7	(15%-140%)
		13C-4-DiCB		46.9	(30%-140%)
		13C-15-DiCB		58.8	(30%-140%)
		13C-19-TrCB		61.7	(30%-140%)
		13C-37-TrCB		56.8	(30%-140%)
		13C-54-TeCB		57.5	(30%-140%)
		13C-77-TeCB		68.5	(30%-140%)
		13C-81-TeCB		69.0	(30%-140%)
		13C-104-PeCB		57.5	(30%-140%)
		13C-105-PeCB		71.3	(30%-140%)
		13C-114-PeCB		70.8	(30%-140%)
		13C-118-PeCB		71.7	(30%-140%)
		13C-123-PeCB		72.9	(30%-140%)
		13C-126-PeCB		70.6	(30%-140%)
		13C-155-HxCB		66.8	(30%-140%)
		13C-156-HxCB	C C156L	70.3	(30%-140%)
		13C-157-HxCB			
		13C-167-HxCB		62.7	(30%-140%)
		13C-169-HxCB		71.9	(30%-140%)
		13C-188-HpCB		82.6	(30%-140%)
		13C-189-HpCB		75.5	(30%-140%)
		13C-202-OcCB		85.2	(30%-140%)
		13C-205-OcCB		86.8	(30%-140%)
		13C-206-NoCB		94.2	(30%-140%)
		13C-208-NoCB		93.6	(30%-140%)
		13C-209-DeCB		88.1	(30%-140%)
		13C-28-TrCB		78.5	(40%-125%)
		13C-111-PeCB		83.7	(40%-125%)
		13C-178-HpCB		92.9	(40%-125%)

PCB Congeners

Surrogate Recovery Report

SDG Number: JA46619

Matrix Type: LIQUID

Sample ID	Client ID	Surrogate	Recovery (%)	Acceptance Limits
12001226	MB for batch 9653	13C-1-MoCB	42.4	(15%-150%)
		13C-3-MoCB	45.6	(15%-150%)
		13C-4-DiCB	40.2	(25%-150%)
		13C-15-DiCB	54.7	(25%-150%)
		13C-19-TrCB	56.4	(25%-150%)
		13C-37-TrCB	57.9	(25%-150%)
		13C-54-TeCB	56.3	(25%-150%)
		13C-77-TeCB	65.6	(25%-150%)
		13C-81-TeCB	66.4	(25%-150%)
		13C-104-PeCB	58.0	(25%-150%)
		13C-105-PeCB	65.8	(25%-150%)
		13C-114-PeCB	66.6	(25%-150%)
		13C-118-PeCB	67.1	(25%-150%)
		13C-123-PeCB	68.4	(25%-150%)
		13C-126-PeCB	65.2	(25%-150%)
		13C-155-HxCB	67.4	(25%-150%)
		13C-156-HxCB	64.0	(25%-150%)
		13C-157-HxCB		
		13C-167-HxCB	57.8	(25%-150%)
		13C-169-HxCB	64.7	(25%-150%)
		13C-188-HpCB	82.8	(25%-150%)
		13C-189-HpCB	70.9	(25%-150%)
		13C-202-OcCB	83.2	(25%-150%)
		13C-205-OcCB	81.6	(25%-150%)
		13C-206-NoCB	90.3	(25%-150%)
		13C-208-NoCB	87.2	(25%-150%)
		13C-209-DeCB	84.3	(25%-150%)
		13C-28-TrCB	78.4	(30%-135%)
		13C-111-PeCB	78.2	(30%-135%)
		13C-178-HpCB	86.7	(30%-135%)
1358001	JA46619-1	13C-1-MoCB	38.6	(15%-150%)
		13C-3-MoCB	43.3	(15%-150%)
		13C-4-DiCB	40.6	(25%-150%)
		13C-15-DiCB	48.8	(25%-150%)
		13C-19-TrCB	52.4	(25%-150%)
		13C-37-TrCB	48.5	(25%-150%)
		13C-54-TeCB	53.4	(25%-150%)
		13C-77-TeCB	46.2	(25%-150%)
		13C-81-TeCB	47.6	(25%-150%)
		13C-104-PeCB	61.1	(25%-150%)
		13C-105-PeCB	55.1	(25%-150%)
		13C-114-PeCB	56.2	(25%-150%)
		13C-118-PeCB	56.3	(25%-150%)
		13C-123-PeCB	57.6	(25%-150%)
		13C-126-PeCB	50.5	(25%-150%)
		13C-155-HxCB	69.7	(25%-150%)
		13C-156-HxCB	54.3	(25%-150%)
		13C-157-HxCB		
		13C-167-HxCB	50.1	(25%-150%)
		13C-169-HxCB	50.1	(25%-150%)
		13C-188-HpCB	96.7	(25%-150%)
		13C-189-HpCB	68.6	(25%-150%)
		13C-202-OcCB	84.9	(25%-150%)
		13C-205-OcCB	71.7	(25%-150%)
		13C-206-NoCB	78.5	(25%-150%)
		13C-208-NoCB	83.9	(25%-150%)
		13C-209-DeCB	82.3	(25%-150%)
		13C-28-TrCB	72.2	(30%-135%)
		13C-111-PeCB	67.3	(30%-135%)
		13C-178-HpCB	75.8	(30%-135%)

PCB Congeners
Surrogate Recovery Report

SDG Number: JA46619

Matrix Type: LIQUID

Sample ID	Client ID	Surrogate	Recovery (%)	Acceptance Limits
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* Recovery outside Acceptance Limits

Column to be used to flag recovery values

D Sample Diluted

Method Blank Summary

Page 1 of 1

SDG Number: JA46619
Client ID: MB for batch 9653
Lab Sample ID: 12001226
Column:

Client: ACCU001
Instrument ID: HRP750
Prep Date: 24-MAY-10

Matrix: WATER
Data File: A25MAY10A-5
Analyzed: 05/25/10 17:06

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 9653	12001227	A25MAY10A-3	05/25/10	1502
02 LCSD for batch 9653	12001228	A25MAY10A-4	05/25/10	1604
03 JA46619-1	1358001	A26MAY10A_3-6	05/27/10	1643

PCB Congeners
Certificate of Analysis
Sample Summary

Page 1 of 8

SDG Number: JA46619
 Lab Sample ID: 12001226
 Client Sample: QC for batch 9653
 Client ID: MB for batch 9653
 Batch ID: 9714
 Run Date: 05/25/2010 17:06
 Data File: A25MAY10A-5
 Prep Batch: 9653
 Prep Date: 24-MAY-10

Client: ACCU001

 Method: EPA Method 1668A
 Analyst: MJC

 Prep Method: SW846 3520C
 Aliquot: 1000 mL

Project: QC
 Matrix: WATER

 Prep Basis: As Received

 Instrument: HRP750
 Dilution: 1

CAS No.	Parmname	Qual	Result	Units	PQL
2051-60-7	1-MoCB	U	20	pg/L	20.0
2051-61-8	2-MoCB	U	20	pg/L	20.0
2051-62-9	3-MoCB	U	20	pg/L	20.0
13029-08-8	4-DiCB	U	20	pg/L	20.0
16605-91-7	5-DiCB	U	20	pg/L	20.0
25569-80-6	6-DiCB	U	20	pg/L	20.0
33284-50-3	7-DiCB	U	20	pg/L	20.0
34883-43-7	8-DiCB	U	20	pg/L	20.0
34883-39-1	9-DiCB	U	20	pg/L	20.0
33146-45-1	10-DiCB	U	20	pg/L	20.0
2050-67-1	11-DiCB		33.9	pg/L	20.0
2974-92-7	12-DiCB	CU	40	pg/L	40.0
2974-90-5	13-DiCB	C12			
34883-41-5	14-DiCB	U	20	pg/L	20.0
2050-68-2	15-DiCB	U	20	pg/L	20.0
38444-78-9	16-TrCB	U	20	pg/L	20.0
37680-66-3	17-TrCB	U	20	pg/L	20.0
37680-65-2	18-TrCB	CU	40	pg/L	40.0
38444-73-4	19-TrCB	U	20	pg/L	20.0
38444-84-7	20-TrCB	CU	40	pg/L	40.0
55702-46-0	21-TrCB	CU	40	pg/L	40.0
38444-85-8	22-TrCB	U	20	pg/L	20.0
55720-44-0	23-TrCB	U	20	pg/L	20.0
55702-45-9	24-TrCB	U	20	pg/L	20.0
55712-37-3	25-TrCB	U	20	pg/L	20.0
38444-81-4	26-TrCB	CU	40	pg/L	40.0
38444-76-7	27-TrCB	U	20	pg/L	20.0
7012-37-5	28-TrCB	C20			
15862-07-4	29-TrCB	C26			
35693-92-6	30-TrCB	C18			
16606-02-3	31-TrCB	U	20	pg/L	20.0
38444-77-8	32-TrCB	U	20	pg/L	20.0

Comments:

C Congener has coeluters. When Cxxx, refer to congener number xxx for data
 U Analyte was analyzed for, but not detected above the specified detection limit.

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 2 of 8

SDG Number: JA46619
Lab Sample ID: 12001226
Client Sample: QC for batch 9653
Client ID: MB for batch 9653
Batch ID: 9714
Run Date: 05/25/2010 17:06
Data File: A25MAY10A-5
Prep Batch: 9653
Prep Date: 24-MAY-10

Client: ACCU001

Method: EPA Method 1668A
Analyst: MJC

Prep Method: SW846 3520C
Aliquot: 1000 mL

Project: QC
Matrix: WATER

Prep Basis: As Received

Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	PQL
38444-86-9	33-TrCB	C21			
37680-68-5	34-TrCB	U	20	pg/L	20.0
37680-69-6	35-TrCB	U	20	pg/L	20.0
38444-87-0	36-TrCB	U	20	pg/L	20.0
38444-90-5	37-TrCB	U	20	pg/L	20.0
53555-66-1	38-TrCB	U	20	pg/L	20.0
38444-88-1	39-TrCB	U	20	pg/L	20.0
38444-93-8	40-TeCB	CU	40	pg/L	40.0
52663-59-9	41-TeCB	U	20	pg/L	20.0
36559-22-5	42-TeCB	U	20	pg/L	20.0
70362-46-8	43-TeCB	U	20	pg/L	20.0
41464-39-5	44-TeCB	CU	60	pg/L	60.0
70362-45-7	45-TeCB	CU	40	pg/L	40.0
41464-47-5	46-TeCB	U	20	pg/L	20.0
2437-79-8	47-TeCB	C44			
70362-47-9	48-TeCB	U	20	pg/L	20.0
41464-40-8	49-TeCB	CU	40	pg/L	40.0
62796-65-0	50-TeCB	CU	40	pg/L	40.0
68194-04-7	51-TeCB	C45			
35693-99-3	52-TeCB	U	20	pg/L	20.0
41464-41-9	53-TeCB	C50			
15968-05-5	54-TeCB	U	20	pg/L	20.0
74338-24-2	55-TeCB	U	20	pg/L	20.0
41464-43-1	56-TeCB	U	20	pg/L	20.0
70424-67-8	57-TeCB	U	20	pg/L	20.0
41464-49-7	58-TeCB	U	20	pg/L	20.0
74472-33-6	59-TeCB	CU	60	pg/L	60.0
33025-41-1	60-TeCB	U	20	pg/L	20.0
33284-53-6	61-TeCB	CU	80	pg/L	80.0
54230-22-7	62-TeCB	C59			
74472-34-7	63-TeCB	U	20	pg/L	20.0
52663-58-8	64-TeCB	U	20	pg/L	20.0

Comments:

- C Congener has coeluters. When Cxxx, refer to congener number xxx for data
U Analyte was analyzed for , but not detected above the specified detection limit.

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 3 of 8

SDG Number: JA46619
Lab Sample ID: 12001226
Client Sample: QC for batch 9653
Client ID: MB for batch 9653
Batch ID: 9714
Run Date: 05/25/2010 17:06
Data File: A25MAY10A-5
Prep Batch: 9653
Prep Date: 24-MAY-10

Client: ACCU001

Method: EPA Method 1668A
Analyst: MJC

Prep Method: SW846 3520C
Aliquot: 1000 mL

Project: QC
Matrix: WATER

Prep Basis: As Received

Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	PQL
33284-54-7	65-TeCB	C44			
32598-10-0	66-TeCB	U	20	pg/L	20.0
73575-53-8	67-TeCB	U	20	pg/L	20.0
73575-52-7	68-TeCB	U	20	pg/L	20.0
60233-24-1	69-TeCB	C49			
32598-11-1	70-TeCB	C61			
41464-46-4	71-TeCB	C40			
41464-42-0	72-TeCB	U	20	pg/L	20.0
74338-23-1	73-TeCB	U	20	pg/L	20.0
32690-93-0	74-TeCB	C61			
32598-12-2	75-TeCB	C59			
70362-48-0	76-TeCB	C61			
32598-13-3	77-TeCB	U	20	pg/L	20.0
70362-49-1	78-TeCB	U	20	pg/L	20.0
41464-48-6	79-TeCB	U	20	pg/L	20.0
33284-52-5	80-TeCB	U	20	pg/L	20.0
70362-50-4	81-TeCB	U	20	pg/L	20.0
52663-62-4	82-PeCB	U	20	pg/L	20.0
60145-20-2	83-PeCB	U	20	pg/L	20.0
52663-60-2	84-PeCB	U	20	pg/L	20.0
65510-45-4	85-PeCB	CU	60	pg/L	60.0
55312-69-1	86-PeCB	CU	120	pg/L	120
38380-02-8	87-PeCB	C86			
55215-17-3	88-PeCB	CU	40	pg/L	40.0
73575-57-2	89-PeCB	U	20	pg/L	20.0
68194-07-0	90-PeCB	CU	60	pg/L	60.0
68194-05-8	91-PeCB	C88			
52663-61-3	92-PeCB	U	20	pg/L	20.0
73575-56-1	93-PeCB	CU	40	pg/L	40.0
73575-55-0	94-PeCB	U	20	pg/L	20.0
38379-99-6	95-PeCB	U	20	pg/L	20.0
73575-54-9	96-PeCB	U	20	pg/L	20.0

Comments:

C Congener has coeluters. When Cxxx, refer to congener number xxx for data
U Analyte was analyzed for, but not detected above the specified detection limit.

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 4 of 8

SDG Number: JA46619
Lab Sample ID: 12001226
Client Sample: QC for batch 9653
Client ID: MB for batch 9653
Batch ID: 9714
Run Date: 05/25/2010 17:06
Data File: A25MAY10A-5
Prep Batch: 9653
Prep Date: 24-MAY-10

Client: ACCU001

Method: EPA Method 1668A
Analyst: MJC

Prep Method: SW846 3520C
Aliquot: 1000 mL

Project: QC
Matrix: WATER

Prep Basis: As Received

Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	PQL
41464-51-1	97-PeCB	C86			
60233-25-2	98-PeCB	CU	40	pg/L	40.0
38380-01-7	99-PeCB	U	20	pg/L	20.0
39485-83-1	100-PeCB	C93			
37680-73-2	101-PeCB	C90			
68194-06-9	102-PeCB	C98			
60145-21-3	103-PeCB	U	20	pg/L	20.0
56558-16-8	104-PeCB	U	20	pg/L	20.0
32598-14-4	105-PeCB	U	20	pg/L	20.0
70424-69-0	106-PeCB	U	20	pg/L	20.0
70424-68-9	107-PeCB	U	20	pg/L	20.0
70362-41-3	108-PeCB	CU	40	pg/L	40.0
74472-35-8	109-PeCB	C86			
38380-03-9	110-PeCB	CU	40	pg/L	40.0
39635-32-0	111-PeCB	U	20	pg/L	20.0
74472-36-9	112-PeCB	U	20	pg/L	20.0
68194-10-5	113-PeCB	C90			
74472-37-0	114-PeCB	U	20	pg/L	20.0
74472-38-1	115-PeCB	C110			
18259-05-7	116-PeCB	C85			
68194-11-6	117-PeCB	C85			
31508-00-6	118-PeCB	U	20	pg/L	20.0
56558-17-9	119-PeCB	C86			
68194-12-7	120-PeCB	U	20	pg/L	20.0
56558-18-0	121-PeCB	U	20	pg/L	20.0
76842-07-4	122-PeCB	U	20	pg/L	20.0
65510-44-3	123-PeCB	U	20	pg/L	20.0
70424-70-3	124-PeCB	C108			
74472-39-2	125-PeCB	C86			
57465-28-8	126-PeCB	U	20	pg/L	20.0
39635-33-1	127-PeCB	U	20	pg/L	20.0
38380-07-3	128-HxCB	CU	40	pg/L	40.0

Comments:

C Congener has coeluters. When Cxxx, refer to congener number xxx for data
U Analyte was analyzed for, but not detected above the specified detection limit.

PCB Congeners
Certificate of Analysis
Sample Summary

Page 5 of 8

SDG Number: JA46619
 Lab Sample ID: 12001226
 Client Sample: QC for batch 9653
 Client ID: MB for batch 9653
 Batch ID: 9714
 Run Date: 05/25/2010 17:06
 Data File: A25MAY10A-5
 Prep Batch: 9653
 Prep Date: 24-MAY-10

Client: ACCU001

 Method: EPA Method 1668A
 Analyst: MJC

 Prep Method: SW846 3520C
 Aliquot: 1000 mL

Project: QC
 Matrix: WATER

 Prep Basis: As Received

 Instrument: HRP750
 Dilution: 1

CAS No.	Parmname	Qual	Result	Units	PQL
55215-18-4	129-HxCB	CU	60	pg/L	60.0
52663-66-8	130-HxCB	U	20	pg/L	20.0
61798-70-7	131-HxCB	U	20	pg/L	20.0
38380-05-1	132-HxCB	U	20	pg/L	20.0
35694-04-3	133-HxCB	U	20	pg/L	20.0
52704-70-8	134-HxCB	U	20	pg/L	20.0
52744-13-5	135-HxCB	CU	40	pg/L	40.0
38411-22-2	136-HxCB	U	20	pg/L	20.0
35694-06-5	137-HxCB	U	20	pg/L	20.0
35065-28-2	138-HxCB	C129			
56030-56-9	139-HxCB	CU	40	pg/L	40.0
59291-64-4	140-HxCB	C139			
52712-04-6	141-HxCB	U	20	pg/L	20.0
41411-61-4	142-HxCB	U	20	pg/L	20.0
68194-15-0	143-HxCB	U	20	pg/L	20.0
68194-14-9	144-HxCB	U	20	pg/L	20.0
74472-40-5	145-HxCB	U	20	pg/L	20.0
51908-16-8	146-HxCB	U	20	pg/L	20.0
68194-13-8	147-HxCB	CU	40	pg/L	40.0
74472-41-6	148-HxCB	U	20	pg/L	20.0
38380-04-0	149-HxCB	C147			
68194-08-1	150-HxCB	U	20	pg/L	20.0
52663-63-5	151-HxCB	C135			
68194-09-2	152-HxCB	U	20	pg/L	20.0
35065-27-1	153-HxCB	CU	40	pg/L	40.0
60145-22-4	154-HxCB	U	20	pg/L	20.0
33979-03-2	155-HxCB	U	20	pg/L	20.0
38380-08-4	156-HxCB	CU	40	pg/L	40.0
69782-90-7	157-HxCB	C156			
74472-42-7	158-HxCB	U	20	pg/L	20.0
39635-35-3	159-HxCB	U	20	pg/L	20.0
41411-62-5	160-HxCB	U	20	pg/L	20.0

Comments:

C Congener has coeluters. When Cxxx, refer to congener number xxx for data
 U Analyte was analyzed for, but not detected above the specified detection limit.

PCB Congeners
Certificate of Analysis
Sample Summary

Page 6 of 8

SDG Number: JA46619
 Lab Sample ID: 12001226
 Client Sample: QC for batch 9653
 Client ID: MB for batch 9653
 Batch ID: 9714
 Run Date: 05/25/2010 17:06
 Data File: A25MAY10A-5
 Prep Batch: 9653
 Prep Date: 24-MAY-10

Client: ACCU001

 Method: EPA Method 1668A
 Analyst: MJC

 Prep Method: SW846 3520C
 Aliquot: 1000 mL

Project: QC
 Matrix: WATER

 Prep Basis: As Received
 Instrument: HRP750
 Dilution: 1

CAS No.	Parmname	Qual	Result	Units	PQL
74472-43-8	161-HxCB	U	20	pg/L	20.0
39635-34-2	162-HxCB	U	20	pg/L	20.0
74472-44-9	163-HxCB	C129			
74472-45-0	164-HxCB	U	20	pg/L	20.0
74472-46-1	165-HxCB	U	20	pg/L	20.0
41411-63-6	166-HxCB	C128			
52663-72-6	167-HxCB	U	20	pg/L	20.0
59291-65-5	168-HxCB	C153			
32774-16-6	169-HxCB	U	20	pg/L	20.0
35065-30-6	170-HpCB	U	20	pg/L	20.0
52663-71-5	171-HpCB	CU	40	pg/L	40.0
52663-74-8	172-HpCB	U	20	pg/L	20.0
68194-16-1	173-HpCB	C171			
38411-25-5	174-HpCB	U	20	pg/L	20.0
40186-70-7	175-HpCB	U	20	pg/L	20.0
52663-65-7	176-HpCB	U	20	pg/L	20.0
52663-70-4	177-HpCB	U	20	pg/L	20.0
52663-67-9	178-HpCB	U	20	pg/L	20.0
52663-64-6	179-HpCB	U	20	pg/L	20.0
35065-29-3	180-HpCB	CU	40	pg/L	40.0
74472-47-2	181-HpCB	U	20	pg/L	20.0
60145-23-5	182-HpCB	U	20	pg/L	20.0
52663-69-1	183-HpCB	CU	40	pg/L	40.0
74472-48-3	184-HpCB	U	20	pg/L	20.0
52712-05-7	185-HpCB	C183			
74472-49-4	186-HpCB	U	20	pg/L	20.0
52663-68-0	187-HpCB	U	20	pg/L	20.0
74487-85-7	188-HpCB	U	20	pg/L	20.0
39635-31-9	189-HpCB	U	20	pg/L	20.0
41411-64-7	190-HpCB	U	20	pg/L	20.0
74472-50-7	191-HpCB	U	20	pg/L	20.0
74472-51-8	192-HpCB	U	20	pg/L	20.0

Comments:

C Congener has coeluters. When Cxxx, refer to congener number xxx for data
 U Analyte was analyzed for , but not detected above the specified detection limit.

**PCB Congeners
Certificate of Analysis
Sample Summary**

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SDG Number: JA46619
Lab Sample ID: 12001226
Client Sample: QC for batch 9653
Client ID: MB for batch 9653
Batch ID: 9714
Run Date: 05/25/2010 17:06
Data File: A25MAY10A-5
Prep Batch: 9653
Prep Date: 24-MAY-10

Client: ACCU001

Method: EPA Method 1668A
Analyst: MJC

Prep Method: SW846 3520C
Aliquot: 1000 mL

Project: QC
Matrix: WATER

Prep Basis: As Received

Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	PQL
69782-91-8	193-HpCB	C180			
35694-08-7	194-OcCB	U	20	pg/L	20.0
52663-78-2	195-OcCB	U	20	pg/L	20.0
42740-50-1	196-OcCB	U	20	pg/L	20.0
33091-17-7	197-OcCB	CU	40	pg/L	40.0
68194-17-2	198-OcCB	CU	40	pg/L	40.0
52663-75-9	199-OcCB	C198			
52663-73-7	200-OcCB	C197			
40186-71-8	201-OcCB	U	20	pg/L	20.0
2136-99-4	202-OcCB	U	20	pg/L	20.0
52663-76-0	203-OcCB	U	20	pg/L	20.0
74472-52-9	204-OcCB	U	20	pg/L	20.0
74472-53-0	205-OcCB	U	20	pg/L	20.0
40186-72-9	206-NoCB	U	20	pg/L	20.0
52663-79-3	207-NoCB	U	20	pg/L	20.0
52663-77-1	208-NoCB	U	20	pg/L	20.0
2051-24-3	209-DeCB	U	20	pg/L	20.0

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1-MoCB		848	2000	pg/L	42.4	(15%-150%)
13C-3-MoCB		912	2000	pg/L	45.6	(15%-150%)
13C-4-DiCB		804	2000	pg/L	40.2	(25%-150%)
13C-15-DiCB		1090	2000	pg/L	54.7	(25%-150%)
13C-19-TrCB		1130	2000	pg/L	56.4	(25%-150%)
13C-37-TrCB		1160	2000	pg/L	57.9	(25%-150%)
13C-54-TeCB		1130	2000	pg/L	56.3	(25%-150%)
13C-77-TeCB		1310	2000	pg/L	65.6	(25%-150%)
13C-81-TeCB		1330	2000	pg/L	66.4	(25%-150%)
13C-104-PeCB		1160	2000	pg/L	58.0	(25%-150%)
13C-105-PeCB		1320	2000	pg/L	65.8	(25%-150%)
13C-114-PeCB		1330	2000	pg/L	66.6	(25%-150%)
13C-118-PeCB		1340	2000	pg/L	67.1	(25%-150%)
13C-123-PeCB		1370	2000	pg/L	68.4	(25%-150%)
13C-126-PeCB		1300	2000	pg/L	65.2	(25%-150%)
13C-155-HxCB		1350	2000	pg/L	67.4	(25%-150%)
13C-156-HxCB	C	2560	4000	pg/L	64.0	(25%-150%)
13C-157-HxCB	C156L					
13C-167-HxCB		1160	2000	pg/L	57.8	(25%-150%)
13C-169-HxCB		1290	2000	pg/L	64.7	(25%-150%)
13C-188-HpCB		1660	2000	pg/L	82.8	(25%-150%)
13C-189-HpCB		1420	2000	pg/L	70.9	(25%-150%)
13C-202-OcCB		1660	2000	pg/L	83.2	(25%-150%)

PCB Congeners
Certificate of Analysis
Sample Summary

Page 8 of 8

SDG Number: JA46619
Lab Sample ID: 12001226
Client Sample: QC for batch 9653
Client ID: MB for batch 9653
Batch ID: 9714
Run Date: 05/25/2010 17:06
Data File: A25MAY10A-5
Prep Batch: 9653
Prep Date: 24-MAY-10

Client: ACCU001

Method: EPA Method 1668A
Analyst: MJC

Prep Method: SW846 3520C
Aliquot: 1000 mL

Project: QC
Matrix: WATER

Prep Basis: As Received

Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	PQL		
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-205-OcCB			1630	2000	pg/L	81.6	(25%-150%)
13C-206-NoCB			1810	2000	pg/L	90.3	(25%-150%)
13C-208-NoCB			1740	2000	pg/L	87.2	(25%-150%)
13C-209-DeCB			1690	2000	pg/L	84.3	(25%-150%)
13C-28-TrCB			1570	2000	pg/L	78.4	(30%-135%)
13C-111-PeCB			1560	2000	pg/L	78.2	(30%-135%)
13C-178-HpCB			1730	2000	pg/L	86.7	(30%-135%)

Comments:

- C Congener has coeluters. When Cxxx, refer to congener number xxx for data
U Analyte was analyzed for, but not detected above the specified detection limit.

**PCB Congeners
Certificate of Analysis
Sample Summary**

SDG Number: JA46619
Lab Sample ID: 12001227
Client Sample: QC for batch 9653
Client ID: LCS for batch 9653
Batch ID: 9714
Run Date: 05/25/2010 15:02
Data File: A25MAY10A-3
Prep Batch: 9653-
Prep Date: 24-MAY-10

Client: ACCU001

Method: EPA Method 1668A
Analyst: MJC

Prep Method: SW846 3520C
Aliquot: 1000 mL

Project: QC
Matrix: WATER

Prep Basis: As Received

Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	PQL
2051-60-7	1-MoCB		523	pg/L	20.0
2051-62-9	3-MoCB		632	pg/L	20.0
13029-08-8	4-DiCB		627	pg/L	20.0
2050-68-2	15-DiCB		652	pg/L	20.0
38444-73-4	19-TrCB		579	pg/L	20.0
38444-90-5	37-TrCB		657	pg/L	20.0
15968-05-5	54-TeCB		1320	pg/L	20.0
32598-13-3	77-TeCB		1160	pg/L	20.0
70362-50-4	81-TeCB		1170	pg/L	20.0
56558-16-8	104-PeCB		1320	pg/L	20.0
32598-14-4	105-PeCB		1270	pg/L	20.0
74472-37-0	114-PeCB		1320	pg/L	20.0
31508-00-6	118-PeCB		1220	pg/L	20.0
65510-44-3	123-PeCB		1150	pg/L	20.0
57465-28-8	126-PeCB		1230	pg/L	20.0
33979-03-2	155-HxCB		1280	pg/L	20.0
38380-08-4	156-HxCB	C	2620	pg/L	40.0
69782-90-7	157-HxCB	C156			
52663-72-6	167-HxCB		1340	pg/L	20.0
32774-16-6	169-HxCB		1290	pg/L	20.0
74487-85-7	188-HpCB		1290	pg/L	20.0
39635-31-9	189-HpCB		1160	pg/L	20.0
2136-99-4	202-OcCB		1700	pg/L	20.0
74472-53-0	205-OcCB		1890	pg/L	20.0
40186-72-9	206-NoCB		1720	pg/L	20.0
52663-77-1	208-NoCB		1870	pg/L	20.0
2051-24-3	209-DeCB		2020	pg/L	20.0

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1-MoCB		950	2000	pg/L	47.5	(15%-140%)
13C-3-MoCB		985	2000	pg/L	49.3	(15%-140%)
13C-4-DiCB		884	2000	pg/L	44.2	(30%-140%)
13C-15-DiCB		1110	2000	pg/L	55.5	(30%-140%)
13C-19-TrCB		1170	2000	pg/L	58.7	(30%-140%)
13C-37-TrCB		1110	2000	pg/L	55.6	(30%-140%)
13C-54-TeCB		1110	2000	pg/L	55.7	(30%-140%)
13C-77-TeCB		1370	2000	pg/L	68.3	(30%-140%)
13C-81-TeCB		1370	2000	pg/L	68.3	(30%-140%)
13C-104-PeCB		1090	2000	pg/L	54.6	(30%-140%)
13C-105-PeCB		1360	2000	pg/L	67.9	(30%-140%)
13C-114-PeCB		1370	2000	pg/L	68.4	(30%-140%)
13C-118-PeCB		1370	2000	pg/L	68.7	(30%-140%)

PCB Congeners
Certificate of Analysis
Sample Summary

Page 2 of 2

SDG Number: JA46619
 Lab Sample ID: 12001227
 Client Sample: QC for batch 9653
 Client ID: LCS for batch 9653
 Batch ID: 9714
 Run Date: 05/25/2010 15:02
 Data File: A25MAY10A-3
 Prep Batch: 9653
 Prep Date: 24-MAY-10

Client: ACCU001

 Method: EPA Method 1668A
 Analyst: MJC

 Prep Method: SW846 3520C
 Aliquot: 1000 mL

Project: QC
 Matrix: WATER

 Prep Basis: As Received

 Instrument: HRP750
 Dilution: 1

CAS No.	Parmname	Qual	Result	Units	PQL		
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-123-PeCB			1410	2000	pg/L	70.4	(30%-140%)
13C-126-PeCB			1350	2000	pg/L	67.5	(30%-140%)
13C-155-HxCB			1290	2000	pg/L	64.3	(30%-140%)
13C-156-HxCB	C		2670	4000	pg/L	66.8	(30%-140%)
13C-157-HxCB	C156L						
13C-167-HxCB			1170	2000	pg/L	58.6	(30%-140%)
13C-169-HxCB			1400	2000	pg/L	70.0	(30%-140%)
13C-188-HpCB			1570	2000	pg/L	78.3	(30%-140%)
13C-189-HpCB			1450	2000	pg/L	72.4	(30%-140%)
13C-202-OcCB			1600	2000	pg/L	80.0	(30%-140%)
13C-205-OcCB			1630	2000	pg/L	81.4	(30%-140%)
13C-206-NoCB			1780	2000	pg/L	89.1	(30%-140%)
13C-208-NoCB			1780	2000	pg/L	89.2	(30%-140%)
13C-209-DeCB			1610	2000	pg/L	80.5	(30%-140%)
13C-28-TrCB			1500	2000	pg/L	75.0	(40%-125%)
13C-111-PeCB			1590	2000	pg/L	79.3	(40%-125%)
13C-178-HpCB			1710	2000	pg/L	85.6	(40%-125%)

Comments:

C Congener has coeluters. When Cxxx, refer to congener number xxx for data

**PCB Congeners
Certificate of Analysis
Sample Summary**

SDG Number: JA46619
Lab Sample ID: 12001228
Client Sample: QC for batch 9653
Client ID: LCSO for batch 9653
Batch ID: 9714
Run Date: 05/25/2010 16:04
Data File: A25MAY10A-4
Prep Batch: 9653
Prep Date: 24-MAY-10

Client: ACCU001
Method: EPA Method 1668A
Analyst: MJC
Prep Method: SW846 3520C
Aliquot: 1000 mL

Project: QC
Matrix: WATER
Prep Basis: As Received
Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	PQL
2051-60-7	1-MoCB		498	pg/L	20.0
2051-62-9	3-MoCB		617	pg/L	20.0
13029-08-8	4-DiCB		602	pg/L	20.0
2050-68-2	15-DiCB		614	pg/L	20.0
38444-73-4	19-TrCB		570	pg/L	20.0
38444-90-5	37-TrCB		677	pg/L	20.0
15968-05-5	54-TeCB		1280	pg/L	20.0
32598-13-3	77-TeCB		1120	pg/L	20.0
70362-50-4	81-TeCB		1140	pg/L	20.0
56558-16-8	104-PeCB		1260	pg/L	20.0
32598-14-4	105-PeCB		1200	pg/L	20.0
74472-37-0	114-PeCB		1280	pg/L	20.0
31508-00-6	118-PeCB		1210	pg/L	20.0
65510-44-3	123-PeCB		1070	pg/L	20.0
57465-28-8	126-PeCB		1210	pg/L	20.0
33979-03-2	155-HxCB		1210	pg/L	20.0
38380-08-4	156-HxCB	C	2510	pg/L	40.0
69782-90-7	157-HxCB	C156			
52663-72-6	167-HxCB		1290	pg/L	20.0
32774-16-6	169-HxCB		1290	pg/L	20.0
74487-85-7	188-HpCB		1250	pg/L	20.0
39635-31-9	189-HpCB		1150	pg/L	20.0
2136-99-4	202-OcCB		1640	pg/L	20.0
74472-53-0	205-OcCB		1880	pg/L	20.0
40186-72-9	206-NoCB		1670	pg/L	20.0
52663-77-1	208-NoCB		1820	pg/L	20.0
2051-24-3	209-DeCB		1950	pg/L	20.0

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1-MoCB		964	2000	pg/L	48.2	(15%-140%)
13C-3-MoCB		1030	2000	pg/L	51.7	(15%-140%)
13C-4-DiCB		939	2000	pg/L	46.9	(30%-140%)
13C-15-DiCB		1180	2000	pg/L	58.8	(30%-140%)
13C-19-TrCB		1230	2000	pg/L	61.7	(30%-140%)
13C-37-TrCB		1140	2000	pg/L	56.8	(30%-140%)
13C-54-TeCB		1150	2000	pg/L	57.5	(30%-140%)
13C-77-TeCB		1370	2000	pg/L	68.5	(30%-140%)
13C-81-TeCB		1380	2000	pg/L	69.0	(30%-140%)
13C-104-PeCB		1150	2000	pg/L	57.5	(30%-140%)
13C-105-PeCB		1430	2000	pg/L	71.3	(30%-140%)
13C-114-PeCB		1420	2000	pg/L	70.8	(30%-140%)
13C-118-PeCB		1430	2000	pg/L	71.7	(30%-140%)

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 2 of 2

SDG Number: JA46619
Lab Sample ID: 12001228
Client Sample: QC for batch 9653
Client ID: LCSD for batch 9653
Batch ID: 9714
Run Date: 05/25/2010 16:04
Data File: A25MAY10A-4
Prep Batch: 9653
Prep Date: 24-MAY-10

Client: ACCU001

Method: EPA Method 1668A
Analyst: MJC
Prep Method: SW846 3520C
Aliquot: 1000 mL

Project: QC
Matrix: WATER

Prep Basis: As Received
Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	PQL		
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-123-PeCB			1460	2000	pg/L	72.9	(30%-140%)
13C-126-PeCB			1410	2000	pg/L	70.6	(30%-140%)
13C-155-HxCB			1340	2000	pg/L	66.8	(30%-140%)
13C-156-HxCB	C		2810	4000	pg/L	70.3	(30%-140%)
13C-157-HxCB	C156L						
13C-167-HxCB			1250	2000	pg/L	62.7	(30%-140%)
13C-169-HxCB			1440	2000	pg/L	71.9	(30%-140%)
13C-188-HpCB			1650	2000	pg/L	82.6	(30%-140%)
13C-189-HpCB			1510	2000	pg/L	75.5	(30%-140%)
13C-202-OcCB			1700	2000	pg/L	85.2	(30%-140%)
13C-205-OcCB			1740	2000	pg/L	86.8	(30%-140%)
13C-206-NoCB			1880	2000	pg/L	94.2	(30%-140%)
13C-208-NoCB			1870	2000	pg/L	93.6	(30%-140%)
13C-209-DeCB			1760	2000	pg/L	88.1	(30%-140%)
13C-28-TrCB			1570	2000	pg/L	78.5	(40%-125%)
13C-111-PeCB			1670	2000	pg/L	83.7	(40%-125%)
13C-178-HpCB			1860	2000	pg/L	92.9	(40%-125%)

Comments:

C Congener has coeluters. When Cxxx, refer to congener number xxx for data

June 08, 2010

Ms. Nadine Yakes
Accutest Laboratories
Fresh Ponds Corporate Village, Bldg B
2235 Route 130
Dayton, New Jersey 08810

Re: HRMS Subcontract
Work Order: 1358
SDG: JA46619

Dear Ms. Yakes:

Cape Fear Analytical LLC (CFA) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 18, 2010. This original data report has been prepared and reviewed in accordance with CFA's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at 910-795-0421 Ext. 0422.



Chris Cornwell
Project Manager

Enclosures



Fresh Ponds Corporate Village, Building B
2235 Route 130, Dayton, NJ 08810
908-329-0200 FAX: 908-329-3499/3480

Accutest Quote #:

Client Information						Facility Information							Analytical Information								
Name 2235 Route 130 Address Dayton NJ 08810 City Tony Esposito Send Report to: Phone #: (732) 329-0200 X-218						Project Name 7864ED Location Project No. JA46619 FAX #: (732) 329-3499															
Field ID / Point of Collection						Collection			Matrix	# of bottles	Preservation										
						Date	Time	Sampled By			HCL	NaOH	HNO3	H2SO4	None						
-1	5/13/10	14:10	MFP	AQ	2						X										
-																					
-																					
-																					
-																					
-																					
-																					
-																					
-																					
-																					
-																					
Turnaround Information						Data Deliverable Information						Comments / Remarks									
<input type="checkbox"/> 21 Day Standard Approved By:						<input type="checkbox"/> NJ Reduced <input type="checkbox"/> Commercial "A"															
<input type="checkbox"/> 14 Day						<input checked="" type="checkbox"/> NJ Full <input type="checkbox"/> Commercial "B"															
<input type="checkbox"/> 7 Days EMERGENCY						<input type="checkbox"/> FULL CLP <input type="checkbox"/> State Forms															
<input checked="" type="checkbox"/> Other 14 (Days)						<input type="checkbox"/> Disk Deliverable															
21 Day Turnaround Hardcopy, Emergency or RUSH Is FAX Data unless previously approved.						<input type="checkbox"/> Other (Specify)															
Sample Custody must be documented below each time samples change possession, including courier delivery.																					
Relinquished by Sampler:		Date Time:		Received By:		Relinquished By:		Date Time:		Received By:											
1		5/13/10 1700		1		2				2											
Relinquished by Sampler:		Date Time:		Received By:		Relinquished By:		Date Time:		Received By:											
3		5/13/10 1000		3		4				4											
Relinquished by Sampler:		Date Time:		Received By:		Seal #		Preserved where applicable		On Ice											
5				5				<input type="checkbox"/>		<input checked="" type="checkbox"/>		3.6									

WD # 1358

SAMPLE RECEIPT CHECKLIST

Client: Accutest	Work Order: 1358
Received By: Chris Connel	Date Received: 5/13/10

Suspected Hazard Information	Yes	NA	No
Shipped as DOT Hazardous?			<input checked="" type="checkbox"/>
Samples identified as Foreign Soil?			<input checked="" type="checkbox"/>

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: seals broken damaged container leaking container other(describe)
2 Samples requiring cold preservation within 0-6°C?	<input checked="" type="checkbox"/>			Preservation Method: ice bags blue ice dry ice none other(describe) 3.6
3 Chain of Custody documents included with shipment?	<input checked="" type="checkbox"/>			
4 Samples requiring chemical preservation at proper pH?		<input checked="" type="checkbox"/>		Sample IDs, containers affected and pH observed: If preservative added, Lot#:
5 VOA vials free of headspace <6mm bubble?		<input checked="" type="checkbox"/>		Sample IDs, containers affected:
6 Are Encore containers present?		<input checked="" type="checkbox"/>		(If YES, immediately deliver to volatiles laboratory)
7 Samples received within holding time?	<input checked="" type="checkbox"/>			Sample IDs, tests affected:
8 Sample IDs on COC match IDs on containers?	<input checked="" type="checkbox"/>			Sample IDs, containers affected:
9 Date & time of COC match date & time on containers?	<input checked="" type="checkbox"/>			Sample IDs, containers affected:
10 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			Sample IDs, containers affected:
11 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>			

Comments: **sample pH = 7**

No residual chlorine

PM review: Initials: **[Signature]** Date: **25 May 2010**

PCB Congeners Analysis

APPENDIX C

STORET DATA OUTPUT

STORET-Nanticoke at Woodland Ferry

Org Name	Station ID	State	County	HUC	Generated HUC	Station	Latitude	Station
Longitude	Station Horizontal Datum	Visit Num	Activity ID	Activity Start	Activity			
Start Zone	Activity Medium	Activity Type	Activity Category-Rep Num	Activity Depth	Activity			
Depth Unit	Characteristic Name	Sample Fraction	Value Type	Statistic Type	Result Value	Status		
Result Value as Text	Units	Analytical Proc ID						
Delaware Department Of Natural Resources And Environmental Control					304021	DELAWARE		
SUSSEX 02060008	02060008	38.600359	-75.656878	NAD83				
99004850-SMP-Water	1999-03-11 10:08:00	EST	Water	Sample-Routine	Sample-Routine			
Hardness, Ca, Mg	Actual	F	29	mg/l CaCO3	USEPA 130.2			
Delaware Department Of Natural Resources And Environmental Control					304021	DELAWARE		
SUSSEX 02060008	02060008	38.600359	-75.656878	NAD83				
99018570-SMP-Water	1999-06-10 09:54:00	EDT	Water	Sample-Routine	Sample-Routine			
Hardness, Ca, Mg	Actual	F	30	mg/l CaCO3	USEPA 130.2			
Delaware Department Of Natural Resources And Environmental Control					304021	DELAWARE		
SUSSEX 02060008	02060008	38.600359	-75.656878	NAD83				
00006480-SMP-Water	2000-03-21 09:41:00	EST	Water	Sample-Routine	Sample-Routine			
Hardness, Ca, Mg	Actual	F	28	mg/l CaCO3	USEPA 130.2			
Delaware Department Of Natural Resources And Environmental Control					304021	DELAWARE		
SUSSEX 02060008	02060008	38.600359	-75.656878	NAD83				
00017810-SMP-Water	2000-06-27 09:18:00	EDT	Water	Sample-Routine	Sample-Routine			
Hardness, Ca, Mg	Actual	F	29	mg/l CaCO3	USEPA 130.2			
Delaware Department Of Natural Resources And Environmental Control					304021	DELAWARE		
SUSSEX 02060008	02060008	38.600359	-75.656878	NAD83				
00022320-SMP-Water	2000-07-27 08:52:00	EDT	Water	Sample-Routine	Sample-Routine			
Hardness, Ca, Mg	Actual	F	29	mg/l CaCO3	USEPA 130.2			
Delaware Department Of Natural Resources And Environmental Control					304021	DELAWARE		
SUSSEX 02060008	02060008	38.600359	-75.656878	NAD83				
00031780-SMP-Water	2000-10-17 09:58:00	EDT	Water	Sample-Routine	Sample-Routine			
Hardness, Ca, Mg	Actual	F	32	mg/l CaCO3	USEPA 130.2			
Delaware Department Of Natural Resources And Environmental Control					304021	DELAWARE		
SUSSEX 02060008	02060008	38.600359	-75.656878	NAD83				
01010600-SMP-Water	2001-04-25 09:39:00	EDT	Water	Sample-Routine	Sample-Routine			
Hardness, Ca, Mg	Actual	F	29	mg/l CaCO3	USEPA 130.2			
Delaware Department Of Natural Resources And Environmental Control					304021	DELAWARE		
SUSSEX 02060008	02060008	38.600359	-75.656878	NAD83				
01019690-SMP-Water	2001-06-20 10:04:00	EDT	Water	Sample-Routine	Sample-Routine			
Hardness, Ca, Mg	Actual	F	21	mg/l CaCO3	USEPA 130.2			
Delaware Department Of Natural Resources And Environmental Control					304021	DELAWARE		
SUSSEX 02060008	02060008	38.600359	-75.656878	NAD83				
01023200-SMP-Water	2001-07-11 07:50:00	EDT	Water	Sample-Routine	Sample-Routine			
Hardness, Ca, Mg	Actual	F	28	mg/l CaCO3	USEPA 130.2			
Delaware Department Of Natural Resources And Environmental Control					304021	DELAWARE		
SUSSEX 02060008	02060008	38.600359	-75.656878	NAD83				
01035010-SMP-Water	2001-09-12 10:29:00	EDT	Water	Sample-Routine	Sample-Routine			
Hardness, Ca, Mg	Actual	F	29	mg/l CaCO3	USEPA 130.2			
Delaware Department Of Natural Resources And Environmental Control					304021	DELAWARE		
SUSSEX 02060008	02060008	38.600359	-75.656878	NAD83				
02005610-SMP-Water	2002-03-20 10:01:00	EST	Water	Sample-Routine	Sample-Routine			

Duffield Associates, Inc.

STORET-Nanticoke at Woodland Ferry							
Hardness, Ca, Mg	Actual	F	30	mg/l	CaCO3	USEPA 130.2	
Delaware Department Of Natural Resources And Environmental Control					304021	DELAWARE	
SUSSEX 02060008	02060008		38.600359	-75.656878	NAD83		
02015000-SMP-Water	2002-05-22 09:10:00	EDT	Water	Sample-Routine	Sample-Routine		
Hardness, Ca, Mg	Actual	F	26	mg/l	CaCO3	USEPA 130.2	
Delaware Department Of Natural Resources And Environmental Control					304021	DELAWARE	
SUSSEX 02060008	02060008		38.600359	-75.656878	NAD83		
0207015-017-SPM-002-Water	2002-07-17 09:43:00	EDT	Water	Sample-Routine	Sample-Routine		
Hardness, Ca, Mg	Actual	Final	42.7	mg/l	CaCO3	USEPA 130.2	
Delaware Department Of Natural Resources And Environmental Control					304021	DELAWARE	
SUSSEX 02060008	02060008		38.600359	-75.656878	NAD83		
0209048-017-SPM-002-Water	2002-09-25 09:48:00	EDT	Water	Sample-Routine	Sample-Routine		
Hardness, Ca, Mg	Actual	Final	29.2	mg/l	CaCO3	USEPA 130.2	