

Site Characterization and
Remedial Investigation Summary Report
Former A.C. Dutton Lumber Facility
2 Hoffman Street
Poughkeepsie, New York
NYSDEC BCP Site No. C314081

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For Submittal to:
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SITE CHARACTERIZATION AND REMEDIAL INVESTIGATION SUMMARY REPORT

FORMER A.C. DUTTON LUMBER FACILITY

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AND REMEDIAL INVESTIGATION
SUMMARY REPORT

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1.0 INTRODUCTION

This report presents a summary of the Remedial Investigation (RI) conducted at the former A.C. Dutton Lumber Facility situated in both the Town and City of Poughkeepsie, Dutchess County, New York ([Figure 1](#)). The site is currently owned by The O'Neill Group – Dutton, LLC. The O'Neill Group - Dutton, LLC has entered the BCP Program as a Volunteer. The new owner of the property wishes to remediate the site in accordance with the requirements outlined in the NYSDEC Brownfield Cleanup Program (BCP) and restore the site to restricted residential use.

The physical address of the site is 2 Hoffman Street; however, access to the site is currently via Dutchess Avenue. The site consists of approximately 15.0 acres of land, and is identified as two separate tax parcels, as shown on [Figure 2](#).

Parcel	Tax I.D.
City of Poughkeepsie (11.35 acres)	31-6062-59-766443-00
Town of Poughkeepsie (3.65 acres)	14-6062-02-763508-00

2.0 SITE DESCRIPTION

2.1 Site History

According to a 1987 Phase I Investigation report prepared by EnviroPlan Associates, Inc. of Poughkeepsie, NY, the parcel has been in industrial use since the mid-1800s. The A.C. Dutton Lumber Corporation operated a wholesale lumber company at the site beginning in 1913 and the on-site pressure treatment of lumber using chromated copper arsenate (CCA) reportedly began in 1966. The former owner, A.C. Dutton Corporation, was owned in part or in subsidiary by Miron Building Products Co., Inc.

Prior to 1913, site uses included an iron works and a glass works plant. The former glass works plant was reportedly located at the southern end of the parcel. As part of the glass works, there were several kilns at the site in which glass was fired. Historical and empirical data suggest that solidified kiln ash, periodically cleaned out of the kilns, was used as fill material at the site. Additionally, when the glass works building and loading dock were dismantled, this demolition debris was also utilized as fill.

At the A.C. Dutton facility, raw lumber material was brought into the site by truck, boat, and rail. Lumber was processed in either of the two on-site treatment plants, known as the northern and southern treatment plants. The lumber stock was then temporarily stored in a sheltered drip pad area and allowed to partially drip dry, and then transferred outside to large, open storage yards for additional drying. Much of the site is covered with concrete or asphalt pavement, however it is likely that storage of treated lumber did not always occurred on impervious surfaces.



2.2 Adjacent Land Use

The Hudson River forms the western border of the site and Dutchess Avenue forms the southern border. Across Dutchess Avenue is a former manufactured gas plant (MGP) site now owned by Central Hudson Gas and Electric Corporation (Central Hudson) and operated as a gas regulating station. Vassar College owns the land to the north of the site and the property is occupied by a boat house and associated facilities for the College's crew team. There is a chain-link fence along the northern site property boundary. The site is bounded on the east by North Water Street, which extends along the top of a steep bedrock outcrop ridge along most of the length of the site. The ridge rises toward the south, and in the central and southern areas of the site, the road is approximately 15-20 feet above the site.

2.3 Current Conditions

The existing site conditions are shown on [Figure 3](#). Eight abandoned buildings are located across the property, some of which contain equipment associated with the wood treatment process. The site has been abandoned since the mid-1990's; the buildings and treatment equipment are in significant states of disrepair.

The majority of the site is covered with a 2-4 inch layer of concrete and/or asphalt pavement. This concrete/asphalt groundcover is in fairly good condition in the eastern portion of the property; however, the condition declines westward as the site approaches the Hudson River. The old railroad spur that crossed the site is significantly degraded, and only the rails and a few wooden ties remain. The fence along the northern border of the site was installed recently during construction of the Vassar College boathouse.

The westernmost portions of the site occasionally floods during high tides, especially when water levels are elevated due to weather events. The river was observed to overflow onto approximately 50-75 feet of the property in some locations at high tide during a site visit prior to the remedial investigation. Due to the flooding, western portions of the property are scattered with debris that floated in from the river.

2.4 Petroleum and Chemical Bulk Storage

The facility has several above-ground and underground fuel storage tanks. The facility's Petroleum Bulk Storage (PBS) registration (#3-175935) expired on June 30, 2002, but was updated and submitted to the NYSDEC in August 2005. The updated PBS Registration, valid 5 years from the issue date, is provided in [Appendix A](#). Information from site investigations performed by Ecosystem Strategies, Inc. (ESI) in 2002 was used to update the registration.

The last known Hazardous Substance Bulk Storage (HSBS) registration (#3-000170) expired on August 9, 2003. The tanks are registered as containing arsenic acid (CAS No. 07778-39-4), which accounts for the largest percentage of hazardous components in the CCA liquid used during the former wood treatment processes.

The HSBS was updated by Fuss & O'Neill as part of the remedial investigation. Registered tanks are identified by their location with acronyms NTP (New Treatment Process) and OTP

(Old Treatment Process). These tanks are indicated on [Figure 3](#). A summary of all known tanks at the site is as follows:

Tank #	Size (gal)	Type/Contents	Location
1	3000	AST - Diesel	Adjacent to northern pressure treatment plant
2	1500	AST - No. 2 fuel oil	Beneath main office building
3	3000	AST - No. 2 fuel oil	Inside concrete enclosure south of main office building
4	2 @ 275 (manifold)	AST - No. 2 fuel oil	Inside brick warehouse building at southern end of parcel
5	275	UST - No. 2 fuel oil	Unknown
NR*	1,000**	UST - Unknown	Beneath western brick building
NR*	20,000**	UST - Unknown	Adjacent to northeastern corner of southern pressure treatment plant
NR*	Unknown	UST - Unknown	Beneath concrete slab west of brick warehouse building
NTP01	25,000	AST - CCA	Southern treatment plant
NTP02	25,000	AST - CCA	Southern treatment plant
NTP03	7000	AST - CCA	Southern treatment plant
OTP01	15,000	AST - CCA	Northern treatment plant
OTP02	12,500	AST - CCA	Northern treatment plant
OTP03	12,500	AST - CCA	Northern treatment plant
OTP04	5,600	AST - CCA	Northern treatment plant

* These tanks are not currently registered.

** Identified via ground penetrating radar (GPR) survey performed by ESI.

2.5 Site Geology

Surficial geology consists of unconsolidated deposits in the vicinity of the site as fluvial sand and gravel deposits (adjacent to the Hudson River) and glacial till consisting of sand, silt and gravel and exhibiting variable texture. The Dutchess County Soil Conservation Survey (2002) depicts the soils as being Urban Lands, which typically consist of reworked native material or fill covered extensively by impervious surface. Overall, material encountered during the various site investigations is consistent with the soil survey findings. In those instances when native soils were encountered, the material was described as silty-sand with gravel.

Bedrock in the vicinity of the site consists of the Taconic Melange Formation and the Austin Glen Formation. The Taconic Melange is described as a mix of pebble to block sized Cambrian to Middle Ordovician Age rocks in a pelitic matrix. The Austin Glen formation consists of interbedded layers of greywacke and shale. Outcrops observed on the eastern margin of the site contain siltstone layers interbedded with less competent shale.

The irregularly shaped bedrock outcrop forming the shoreline of the river was likely alternately cut and filled in order to create the straight, flat railroad bed. In addition to rising markedly toward the east, bedrock in the area is gently sloped upward toward the north. The site occupies a relatively narrow margin along the bedrock ridge forming the riverbank. Bedrock



was noted at very shallow depths along the full length of the eastern side of the property, sometimes immediately below the surface, and dropped off toward the river.

Historically, areas of the site received fill that was placed along western portions of the property to level and extend the shoreline of the Hudson River westward. Subsurface material encountered at the site consisted of kiln slag from the glass works which was sometimes combined with sand and gravel, demolition debris including bricks and cinder block fragments, large fragments of anthracite coal, ash, sand, silt and large gravel. Native material, consisting of light brown silty sand, was rarely encountered in the eastern and central portions of the site, but near the river was encountered at approximately 5 feet below the surface.

2.6 Site Hydrogeology

Groundwater was typically encountered at depths of four to six feet below the ground surface across the site. Given regional topography and the proximity to surface water bodies, it is assumed that shallow groundwater flows from east to west across the site and discharges to the Hudson River. Because the Hudson River adjacent to the site is tidally influenced, it is likely that groundwater flow at the site is, in part, influenced by tides.

The westernmost portions of the site occasionally floods during high tide, especially when water levels are elevated due to weather events. At times, the river has overflowed onto approximately 50-75 feet of the property in some locations during high tide. Due to the flooding, western portions of the property are scattered with debris that floated in from the river.

3.0 PREVIOUS INVESTIGATIONS

Subsurface investigations were undertaken at the site by ESI in 2002 on behalf of Scenic Hudson Land Trust, Inc. Results of these investigations were summarized in two reports:

- Summary Report of Subsurface Investigation dated October 3, 2002
- Summary Report of Supplemental Subsurface Investigation dated November 25, 2002

An overview of sampling results from the ESI investigations is provided below. Sampling locations from the 2002 ESI investigations are identified on Figure 4. Specific references to the ESI investigation results are included within the text.

3.1 Metals in Soils

ESI investigations documented metals impacts to shallow soil that are consistent with the use of CCA wood preservative at the site. Data indicate that the highest metals concentrations are present in surficial material and shallow soils (e.g., 0-0.5 feet) immediately below pavement and that metal concentrations decrease with depth.

The ESI investigation included collection of samples of surficial dust, sand or silt present immediately at the ground surface or upon floor surfaces within the treatment plant buildings. Some of these samples likely consisted of silt or sand that at one time was completely saturated



with CCA fluid. These samples exhibited the maximum arsenic, chromium and copper impacts identified at the site. Arsenic concentrations in these samples were found as high as 138,000 ppm, in sample SS-1, collected from the secondary containment pit for the CCA tanks in the northern treatment plant. Similar results were observed in samples from sump pits and floor surfaces in both treatment plant buildings.

ESI also obtained soil samples from shallow depth intervals, typically from 0.0 to 0.5 feet below ground surface. While not exhibiting the extremely elevated arsenic and chromium concentrations found in surficial material, these soil samples contained significantly elevated levels of these metals, and many exceeded the action levels defined by ESI and described in Section 4.3 of this report.

Supplemental investigations by ESI as well as the Remedial Investigation included the collection of soil samples from greater depth intervals, extending to approximately 8.0 to 12.0 feet below the surface. Arsenic and chromium concentrations in deeper samples exceeded action levels to a much lesser degree, and were mostly observed in the immediate area surrounding the treatment plant buildings, as well as the central and northwestern sections of the site.

Samples from soil borings 3B-14 and 3HB-4 were collected during the ESI investigation and submitted for analysis by Toxic Characteristic Leaching Procedure (TCLP). One sample, 3B-14 (0-2 feet) indicated an arsenic concentration of 16.5 mg/L, which exceeds the standard of 0.5 mg/L for arsenic. This sample location is inside the northern treatment plant building approximately 6 inches from the easternmost floor drain. The 0-2 foot sample was characterized as green/gray silty soil with shale fragments.

3.2 VOCs and SVOCs in Soils

Petroleum hydrocarbon impacts were identified in four areas at the site. These areas included the area near a 3,000-gallon AST located adjacent to the northern pressure treatment plant (near boring B-6/MW-1); the area in the vicinity of a 1,000-gallon UST located beneath the small brick building west of the northern pressure treatment plant (near boring 3B-9); and in the vicinity of the brick warehouse building and suspected UST at the southern end of the property (near boring B-31/MW-5).

During the initial investigations by ESI, SVOCs were detected at location B-6 and at the southwest corner of the northern treatment plant that exceed action levels. Based on these results, and field observations made at that time, the NYSDEC was informed and Spill No. 0206848 was issued for the site. The spill number is currently open.

3.3 Metals in Groundwater

Groundwater samples from wells MW-01, located adjacent to the northern treatment plant building, and MW-02, located in the northwestern lumber storage yard, each exhibited arsenic concentrations exceeding TOGS 1.1.1 standards. None of the groundwater samples collected contained chromium or copper that exceeded standards.



3.4 VOCs and SVOCs in Groundwater

The ESI investigation included sampling of shallow groundwater at five (5) temporary wells at the site. The ESI monitoring well locations are shown in [Figure 4](#). Temporary well points were constructed from 1.25-inch diameter poly vinyl chloride (PVC) wells placed in Geoprobe® boreholes. Groundwater samples were analyzed for volatile and semi volatile organic compounds (VOCs/SVOCs), and for total arsenic, chromium and copper.

Monitoring well MW-01 was located in the vicinity of a 3,000-gallon AST on the south side of the northern treatment plant. The soil samples from the well boring exhibited concentrations of SVOCs exceeding TAGM 4046 levels, constituting a reportable petroleum release. Groundwater samples from this well, although exhibiting significant petroleum odors, contained no VOCs or SVOCs above NYSDEC groundwater quality standards (TOGS 1.1.1).

Monitoring well MW-05 was located within the footprint of the former glass works facility, near an identified UST at the southeast corner of the glass works. Groundwater samples from this well contained visible free petroleum product, however exhibited no VOCs or SVOCs that exceeded groundwater quality standards. Field observation of free product, and high laboratory detection limits suggest that soils and groundwater in this area are impacted with highly weathered waste oil.

Groundwater samples from monitoring wells MW-02, located in the northwestern lumber storage yard; and well MW-04, located near the railroad tracks in the southern section of the site, did not exhibit concentrations of VOCs or SVOCs above minimum detection limits.

Monitoring well MW-03 is located near the northeastern corner of the southern treatment plant. There is a reported 20,000-gallon UST in this immediate area; however, neither the soil boring nor the well did not contain evidence of petroleum impacts.

3.5 Sediment Sampling

Sampling of sediment near the outfall of Kidney Creek and the shoreline of the Hudson River was performed by ESI. Samples were analyzed for metals, total petroleum hydrocarbons (TPH) and for polychlorinated biphenyls (PCBs). Low levels of arsenic, chromium and copper were detected. These levels were below NYSDEC action levels.

3.6 Floor Drains and Sump Pits

The supplemental ESI investigation included sampling within the culverted sections of Kidney Creek and several floor drains and sump pits found in the northern pressure treatment plant. Dye testing was performed by ESI to determine whether the floor drains in the Northern Treatment Plant are connected to Kidney Creek. Dye was introduced to each of the floor drains, where it was noted to have traveled to a metal-lined sump beneath the end of the pressure treatment vessel. These floor drains, and two additional drains in the former timber-drying kiln were noted to enter metal-lined sumps. No trace of dye was observed in Kidney Creek during the test.



No information is available regarding how liquids were managed once they entered the sumps. Toxic Release Inventory (TRI) reporting information for the years 1987-1996 was reviewed for the A.C. Dutton site on EPA's Envirofacts Warehouse website. The database shows that arsenic compounds (TRI ID N020), chromium compounds (TRI ID N090) and copper compounds (TRI ID N100) were each disposed of to a landfill or disposal to surface impoundment. Although it is unknown how the disposed material was generated, it is possible that it originated as a result of cleaning out the on-site sumps.

4.0 REMEDIAL INVESTIGATION

4.1 Conceptual Site Model

The redevelopment of the former A. C. Dutton site is intended for residential, recreational, and commercial use. The history of property usage in the area of the site has been generally commercial and industrial in nature. The adjacent parcel to the north is currently occupied by the Vassar College Boathouse, which is a training and rowing center for crew teams. The properties to the east are either commercial or residential and to the south, beyond Dutchess Avenue, is the Central Hudson Gas Regulating Station, a manufactured gas plant. The Hudson River abuts to the west. Existing residential areas are upgradient from the site and are not likely to be impacted by contaminants at the site based on topography and groundwater flow direction. Additionally, the region surrounding the site is provided with potable water by the Poughkeepsie Water District; therefore, a human exposure pathway has not been identified with respect to groundwater.

Sampling results obtained are consistent with the historic use of CCA wood preservative at the property. In many areas, green staining indicative of oxidized copper is visible on exposed surfaces. Analytical data indicate that shallow soil underlying the former pressure treatment plants (northern and southern) as well as soil located beneath paved surfaces throughout property has been impacted by metals, particularly copper, chromium, and arsenic. Mercury and silver were detected infrequently in samples obtained by ESI; however, metals impacts are dominated by the three CCA constituents. Vertically, soil analytical results indicate that the metals impacts decrease with depth, supporting the model of surficial release of CCA wood preservative.

Sampling results and field observations indicate that surfaces across the site (e.g., concrete and paved surfaces) have been impacted by metals released through the use of CCA preservative inside the pressure treatment plants and in exterior areas where treated wood was managed and staged pending transport off site. In places, it is apparent that CCA preservative has penetrated highly weathered areas on the floor of the pressure treatment buildings and in exterior paved areas. Aerial photographs indicate that storage and handling of wood occurred across the site (See [Figure 2](#)).

Petroleum impacted soil also has been identified in four areas on the site. Sources of petroleum releases at the site are attributed to underground or above-ground petroleum storage tanks. It is possible that petroleum impacts observed at the southwestern section of the site may in part be attributed to the existing MGP site south of Dutchess Avenue.

Areas of observed petroleum impacts have been designated as Areas of Concern (AOCs). Releases of petroleum have been identified in the following areas:

- AOC-1: The south side of the northern treatment plant building in the vicinity of a 3,000-gallon AST,
- AOC-2: Vicinity of a 1,000-gallon UST located beneath the western brick building
- AOC-3: Vicinity of the southern treatment plant building and former masonry office building. There are several UST locations in this area,
- AOC-4: Vicinity of the southwest corner of the former glassworks building and loading dock, near the location of a former 1,000-gallon UST.

There is also a reported 20,000-gallon UST located near sample point P2, near the northeast corner of the southern treatment plant building. The exact location of the UST is not known, however no petroleum impacts were observed in soils in test pits and soil borings advanced in this area. This area was not designated as an AOC.

4.2 Investigation Objectives

The scope of work for the Remedial Investigation Work Plan (RIWP) is consistent with NYSDEC DER-10 Technical Guidance for Remedial Investigation and Remediation. Since the publication of the Draft Remedial Investigation Report, the NYSDEC has added to the regulations in 6 NYCRR Part 375-6. The updated *Remedial Program Soil Cleanup Objectives* have replaced the standards and guidelines outlined in TAGM 4046. As such, data tables and text in this report have been revised to reflect the new soil cleanup objectives for restricted residential use under the Part 375 regulation.

The Remedial Investigation field work was accomplished in compliance with additional existing regulatory rules, technical guidance and historical reports including in the following:

- The USEPA Guidance for conducting RI/FS investigations under CERCLA.
- Remedial Investigation Work Plan, Fuss & O'Neill of N. Y., October 2005
- Summary Report of Subsurface Investigation, Ecosystems Strategies, Inc., October 2002
- Summary Report of Supplemental Subsurface Investigation, Ecosystems Strategies, Inc., November 2002
- Site-Specific Quality Assurance Project Plan (QAPP)
- Site-Specific Health and Safety Plan (HASP)

All samples were analyzed in accordance with ASP Level B analytical protocols by an ELAP certified laboratory. The soil data have been reviewed by Fuss & O'Neill's quality assurance officer following the protocols outlined in Draft DER-10. A data usability summary report (DUSR) has been completed in accordance with the protocols outlined in draft document DER-10. The DUSR is attached as [Appendix D](#). Field and laboratory data collected during the investigation was entered into the GIS/KeyTM environmental data management system. Output from GIS/KeyTM will be used to refine the remedial approach for the site. This information may be obtained in tabular form and presented on maps and cross-sections.



Throughout this report, reference is made to the results of previous investigations performed at the site by ESI. It must be noted that although the ESI investigation results are considered highly dependable, data collected during that work has not undergone full laboratory QA/QC reporting protocols.

4.3 Action Levels and Background Samples

Action levels are concentrations of a particular contaminant above which remedial actions are considered more likely to occur. Action levels for many metals and organic compounds in soils have been based on the values presented in 6 NYCRR Part 375-6 *Remedial Program Soil Cleanup Objectives* (Part 375-6). In that document, the action level for arsenic has been set at 16 mg/kg, and for chromium (Cr VI) at 110 mg/kg.

In the previous investigations at this site, action levels for soils were determined based on TAGM 4046, as modified by subsequent and relevant NYSDEC Records of Decision (ROD) for sites with comparative re-use scenarios. ESI presented as an example a ROD for the BB&S Treated Lumber Corporation Site (NYSDEC Site No. 1-52-123), wherein action levels of 30 mg/kg for arsenic and 50 mg/kg for chromium were established. These action levels will not be considered in this report because the intended use of the property is restricted residential, while the BB&S site was an active lumberyard.

Action levels for the determination of groundwater quality are based on the NYSDEC Technical and Operation Guidance Series Memorandum 1.1.1 (TOGS 1.1.1). The document provides standards for groundwater, and guidance values if no standards are specified.

Sediment analytical results are compared to guidance values presented in the NYSDEC § Technical Guidance for Screening Contaminated Sediments (1993, rev. 1999). Screening criteria for metals in sediments are broken into two categories – Lowest Effect Level (LEL) and Severe Effect Level (SEL). The LEL indicates a level of sediment contamination that is tolerated by the majority of benthic organisms, but still may cause toxicity to a few species. The SEL indicates a concentration at which pronounced disturbance of the sediment community can be expected. Results for the analysis of SVOCs are compared to all four screening criteria presented in the guidance document.

Soil samples were collected in areas of the subject site that were considered to be background areas. The background soil sample locations are shown in [Figure 4](#), and results are summarized in [Table 9](#). The primary sources of contaminant release at this site were the pressure treatment processes and CCA storage tanks, and the temporary storage of freshly-treated lumber in the open spaces across the site (described more fully in Section 6.0). Therefore, background soil samples were collected from the far eastern edge of the property, above the steep bank between the site and North Water Street. Of the five background samples collected, the average concentration of arsenic detected was approximately 32 mg/kg, and chromium was 34 mg/kg.

4.4 Soils Investigation - Test Pits and Soil Borings

In order to provide adequate horizontal sampling coverage of soils at the site, a 100-foot on center regularly spaced grid designated with an alpha-numeric identification system was

established over the site (See [Figure 4](#)). Surficial geologic and chemical data was collected at the 100-foot grid node locations by either digging a test pit using a small excavator, or advancing a soil boring using a GeoProbe direct push sampling system. A total of 66 test pits and 44 soil borings were advanced at the site.

At each grid location, soil samples were obtained at the surface or immediately beneath pavement or concrete. Attempts were made to limit the shallow soil sampling interval to the top 1.0 feet of surface soil. In areas where there are concrete slabs, foundations or paved drying areas on the ground surface, the surficial interval was determined immediately beneath the pavement or concrete.

Samples were collected at ranging depths in areas surrounding the impacted areas identified in previous investigations in order to delineate the extent and magnitude of contamination with as much confidence as possible. To characterize vertical conditions, samples were collected at approximately 1-2 foot interval depths down to and including the saturated zone.

Soil cores or test pits were logged in the field and evidence of soil staining, odor, changes in lithology, moisture content, etc. were recorded. If evidence of soil contamination was observed in the saturated zone (e.g. at petroleum impacted areas), the boring was extended to document the vertical extent of impacts through visual, olfactory, and/or field screening methods. Specific notes relating to sampling conditions are noted on the boring logs, provided in [Appendix B](#).

The locations of several sample points were altered slightly due to field conditions or obstructions or to resample locations that were obtained during the ESI investigation. In the event that refusal was encountered at a given sample point, the boring was off-set approximately 1 meter and reasonable attempts to advance a replacement boring were made. The actual locations of test pits and soil borings are shown on [Figure 4](#).

A total of eighty (80) soil samples were obtained and submitted for metals analysis, including thirty one (31) surficial (less than 1.0 foot), twenty five (25) samples from approximately 1.0 to 3.0 feet deep, twenty (20) samples from between approximately 3.0 and 8.0 feet deep and four (4) samples from between 8.0 and 12.0 feet deep.

Upon review of initial analytical metals results, eight (8) samples were selected for analysis using the Toxicity Characteristic Leaching Procedure (TCLP) to determine the relative leachability of the detected metals. A total of six (6) soil samples were submitted for analysis for volatile and semi-volatile organic compounds (VOC/SVOC). A repeat sample was collected at ESI location B8 (4-6 ft) for comparison purposes.

4.5 [Groundwater and Monitoring Wells](#)

Following the advancement of soil borings, nine (9) of the bore holes were completed as shallow monitoring wells. Monitoring wells were constructed with 10-foot long well screens set between approximately 2-12 feet below the ground surface, intersecting the groundwater table. The annular space around the well screens were backfilled with size-appropriate filter pack sand to a height of approximately 1 foot above the screen. Bentonite chips were placed

within the remaining annular space to prevent vertical migration of surface water. Monitoring wells were constructed as PVC stick-ups.

The RIWP proposed eight monitoring wells; however based on field conditions, the locations and number of wells were revised during the investigation. The following narrative describes these revisions to the work plan.

- Monitoring well I-5 was placed near the location of ESI § MW-01 (proposed well MW-1R). The well is located on the south side of the northern treatment plant, in the vicinity of a 3,000-gallon AST.
- Proposed monitoring well MW-02R was substituted by two (2) wells, installed at grid locations ACD-A6 and ACD-E8.
- Monitoring well MW-5R was proposed to be installed near the former location of the ESI well MW-05. Multiple attempts were made to establish a well in this area; however, subsurface obstructions including large concrete blocks, significant void spaces and subsurface demolition debris prevented proper construction of a well at this location. A well was installed at grid location AA10 to assess conditions in this area.
- Monitoring wells MW-6, MW-7, MW-8 and MW-10 were proposed to be installed along the eastern edge of the property, adjacent to the bedrock outcrop wall, in order to monitor groundwater quality upgradient of the site. Shallow bedrock prevented the installation of these wells at the proposed locations.
 - o Proposed well MW-7 was relocated approximately 150 feet south to grid location ACD-K2;
 - o Proposed monitoring well MW-10 was relocated approximately 120 feet northwest to grid location ACD-X7;
 - o Proposed monitoring well MW-8 was relocated approximately 250 feet west to grid location ACD-U8 and supplemented with a well at ACD-W8;
 - o Conditions near proposed monitoring well MW-6 were assessed based on downgradient wells at grid locations ACD-A6 and ACD-E8.
- Based on field observations, conditions near the proposed MW-9 were assessed by wells at grid locations ACD-U8 and ACD-W8.
- An additional monitoring well was installed at grid location ACD-J9 in response to field observations of petroleum impacts to soils and groundwater observed at this location.

Groundwater samples collected were analyzed using ASP Category B protocols for VOCs by Method 8260B and SVOCs by Method 8270C each modified by the STARS list of contaminants. Well completion logs are included in [Appendix B](#).

4.6 Sediment Sampling

To further assess the off-site migration potential and provide information for a qualitative risk assessment, sediment samples were collected at the locations identified on [Figure 4](#). The sediment samples were obtained from the river bank bottom adjacent to the site from within the upper 1-foot of material.



4.7 Off-Site and Human Health Exposure Assessments

To evaluate the potential contamination of properties adjacent to the subject property, or potential impacts to future users of the property, data collected during the RI was used to evaluate off-site and human health exposure potential. This included collection of soil and sediment samples at the site boundaries, placement of monitoring wells such that off-site migration of groundwater can be assessed, and review of historic and ecological information. Off-site exposures were evaluated through a Fish and Wildlife Resource Impact Analysis (FWRIA) prepared in accordance with Section 3.10.1 of DER-10. The FWRIA report is included as Appendix E.

4.8 Tidal Assessments

The Hudson River at Poughkeepsie is tidally influenced. Therefore, water table elevations and groundwater flow potentials at the site are likely affected by tidal changes. Periodic water level measurements were recorded from the newly installed monitoring wells, and were compared to tide schedules published by the U. S. Coast Guard.

Based on observed depth variations, groundwater at the site appears to be somewhat influenced by tidal fluctuations. Depth to water fluctuated over 0.5-1.0 feet in each well; however, the changes in depth did not correspond exactly with times of high and low tides in the Hudson River. For this reason, it is assumed that while groundwater elevations are affected, the effects are on a time lag from surface water elevation level changes.

5.0 INVESTIGATION RESULTS

5.1 Metals in Soils

A summary of metals results for soil samples are presented in Table 1. Of the eighty (80) soil samples analyzed, fifty-three (53) samples (approximately 66%) exhibited concentrations of arsenic exceeding the action levels based on the restricted residential cleanup objectives in Part 375-6. Only two (2) samples (<1%) exceed the chromium action level. The distribution of elevated levels of arsenic is widespread across the site, but is most significant in the vicinity of the CCA storage tanks and pressure treatment chambers in the treatment plant buildings, and near the rail track along the western and northern sections of the property. Exceedances of action levels at varying depths are shown on Figures 5A, 5B and 5C. These areas are described in the following subsections.

5.1.1 Northern Treatment Plant Building

Arsenic concentrations exceeding action levels were found in surface or near-surface soils. Surface samples from ACD-D4 and ACD-G6, located near the exterior of the building, exhibited arsenic levels of 70 mg/kg and 95.8 mg/kg, respectively. Samples from locations ACD-SS-7R and ACD-B2R collected from within the treatment building exhibited arsenic levels of 212 mg/kg and 77.4 mg/kg, respectively.



The 0.5-3 ft sample from ACD-G2 was the most heavily impacted at the site, exhibiting arsenic at 811 ppm. In addition, concentrations of 469 ppm chromium and 876 ppm copper were detected. Each of these concentrations far exceeds their respective cleanup objectives of 16 ppm, 110 ppm, and 270 ppm. This is one of two locations exhibiting chromium exceedances; the other being the repeated sample at ESI § SS-7R (171 ppm, 0-0.2 ft).

Surficial soil impacts continue to appear in the northwestern storage yard, where location ACD-E8 exhibited an arsenic concentration of 37.1 mg/kg at 0-1 feet. Slight arsenic exceedances were found in the eastern section of the property, between the two treatment plant buildings. Samples from locations ACD-K2, ACD-M2 and ACD-L4, all from the 0-1 ft interval, exhibited concentrations of arsenic exceeding the action level.

5.1.2 Southern Treatment Plant Building

In the vicinity of the southern treatment building, location ACD-S2 (1-3 ft) exhibited an arsenic concentration of 40.4 ppm, while a sample from ACD-S4 (2-3 ft) inside the building had no exceedances for any metals. Other slight exceedances for arsenic occurred in this area at sample locations ACD-Q3 (19.1 ppm) and ACD-U6 (21.2 ppm). In general, soils in the vicinity of the southern treatment plant building are generally less contaminated than those in the vicinity of the northern treatment plant building.

5.1.3 Railroad Spur

Elevated arsenic concentrations were observed at locations ACD-L9 (56.8 mg/kg), ACD-O8 (59.3 mg/kg) and ACD-T10 (36.1 mg/kg), which lie near the railroad track along the western side of the property. Also, location ACD-E8, located in the reported storage area for freshly-treated lumber, exhibited elevated levels of arsenic (37.1 mg/kg). All of these samples were collected from the 0-0.5 ft interval.

Exceedances of arsenic continue to appear in the same general pattern at the 1.0-3.0 ft interval. Location ACD SS-7R (0.8-1.4 ft) exhibited 129 mg/kg arsenic. Location ACD-E5, at the western side of the northern treatment building, exhibited an arsenic level of 94.5 mg/kg, although chromium was not detected. Slight to moderate exceedances of arsenic were also observed at the central and southern areas of the site, at locations ACD-N5 (32.1 mg/kg), ACD-Q6 (44.5 mg/kg), ACD-Z9 (65.4 mg/kg) and ACD-Y12 (31.4 mg/kg).

Data obtained from the 3-6 ft depth interval indicates a significant drop off in arsenic and chromium exceedances occurring through this interval. Samples collected from intervals within approximately 3.0-5.0 ft exhibit an average arsenic concentration of 54 mg/kg; however, samples collected from 3.0-6.0 ft, including the full range of depth, only show an average arsenic level of 21 mg/kg. This data suggests that arsenic concentrations are decreasing, to varying degrees, with increasing depths in the 3.0-6.0 ft interval.

Locations ACD-E4 and ACD-B8R exhibited levels of arsenic of 44.2 mg/kg (3.0-6.0 ft) and 105 mg/kg (4.0-4.5 ft) respectively. ACD-M2 exhibited an arsenic level of 148 mg/kg at the 2.0-5.0 ft depth; however, locations ACD-B3, ACD-V9 and ACD-Y7 exhibited arsenic and chromium levels below action levels.

Samples collected from below 6.0 ft bgs exhibit arsenic and chromium concentrations that were mostly below action levels. The nine (9) samples were collected from varying depths between 6.0 and 12.0 feet averaged arsenic concentrations of approximately 12 mg/kg. The highest reading came from location ACD-T7 (24.4 mg/kg) from the 6.0-8.0 ft depth interval.

5.2 TCLP Results

A total of eight (8) soil samples were submitted for the determination of leachable concentrations of arsenic and chromium. A summary of TCLP results is presented in [Table 2](#). TCLP analyses were selected from the most significantly impacted soil samples as determined by laboratory analysis. Samples from locations ACD-G2 (811 mg/kg As; 469 mg/kg Cr), ACD-B-8R (105 mg/kg As) and ACD-M2 (148 mg/kg As) were submitted for TCLP analysis. Only low levels of arsenic (ACD-G2, 1.59 mg/L) and barium were detected in the TCLP samples. These concentrations are below the TCLP threshold for hazardous waste.

5.3 Volatile and Semi-Volatile Organic Compounds in Soils

Soil VOC laboratory results are summarized in [Table 3](#) and SVOCs are summarized in [Table 4](#). Visual evidence of petroleum-impacted soils was observed in several areas at the site. Areas of petroleum impacts based on visual observations have been designated as Areas of Concern (AOCs). These observations included moderate to strong petroleum-type odors, visible sheens or visible product within the soil core. The four AOCs are depicted in [Figure 6](#). Samples were submitted from locations where the most significant petroleum impacts were observed based on visual and olfactory evidence.

As discussed in Section 2.4, there are possibly eight (8) above-ground or underground petroleum storage tanks located on this property. Most of these tanks have been located by ground-penetrating radar with the exception of one 275-gallon AST. Although indicated in the PBS registration, this tank has not been located on the site.

A low level of benzene (0.9 ppb) was detected in a sample from location ACD-AA11 (12-13 ft). The sample from ACD-AA10 (12-14 ft) exhibited low concentrations of benzene (36 ppb), toluene (1.8 ppb), fluoranthene (400 ppb) and pyrene (990 ppb). None of these detected concentrations exceeds the applicable standards. Other compounds including acetone, methylene chloride and carbon disulfide were detected in several samples. These compounds typically result from laboratory processing and are not considered indicative of site activities.

A repeated sample at ESI location B8 (4-6 ft) had low levels of phenanthrene (5000 ppb). These results are slightly different than the ESI findings (570 ppb phenanthrene, 390 ppb fluorene, and 520 ppb acenaphthene). Analytical results of location ACD-B-6R, a repeat of the ESI boring near the northern treatment building, exhibited concentrations of organic compounds below action levels; however, field evidence of petroleum-contaminated soils support the conclusion that this area has been impacted by releases associated with the adjacent 3,000 gallon AST.

Visual evidence of petroleum impacts were observed at location 3B-5, near the small brick office building on the west side of the property, and evidence of petroleum impacts were also



observed in the vicinity of the southern treatment building and the main office building, at locations ACD-U5, ACD-V5, ACD-U6, ACD-W6, ACD-X7 and ACD -W8.

Petroleum impacts were also observed at locations ACD-AA10, ACD-AB10 and ACD-AA11, which are generally downgradient from the UST located at the southwestern corner of the brick warehouse building. No impacts were observed at locations ACD-Y10, ACD-Z9 or ACD-Z10. The evidence of petroleum seen near the USTs and the absence of petroleum impacts in surrounding locations indicates that petroleum impacts are generally confined to the areas indicated on [Figure 4](#).

5.4 Metals in Groundwater

Metals data for groundwater is summarized in [Table 5](#). Groundwater from monitoring well MW-15 exhibited an arsenic concentration (63.8 µg/L) similar to the adjacent MW-1 installed by ESI (45 µg/L). The TOGS 1.1.1 standard for arsenic is 25 µg/L. This monitoring well is in close proximity to a collection sump described in Section 3.6. Groundwater from monitoring well MW-U8 contained 53.1 µg/L of arsenic. Each of the remaining RCRA8 metals were either not detected, or detected at low levels in samples collected from the remaining monitoring wells.

5.5 Volatile and Semi-Volatile Organic Compounds in Groundwater

A summary of VOC and SVOC data for groundwater is presented in [Table 6](#). The only organic compounds detected in groundwater came from monitoring well MW-E8. SVOCs that were observed in this well include benzo(b)fluoranthene (0.69 J µg/L), benzo(k)fluoranthene (0.75 J µg/L), and chrysene (0.53 J µg/L). Each of these concentrations exceeded the TOGS 1.1.1 guidance values. The MW-E8 well location is approximately 200 feet west of observed petroleum impacts at AOC-1, near the northern treatment plant building. Test pits were advanced in the area between AOC-1 and well MW-E8, at locations F6, F7, G6, G8 and H7, however no evidence of petroleum impacts were observed in these test pits. No visual or olfactory evidence of petroleum impacts are noted on the test pit log for location E8, and the fill material in this area appeared similar to other locations at the site, consisting of coal slag, furnace brick, and glass fragments. The source of petroleum impacts in groundwater at monitoring well MW-E8 are not determined.

No other VOC or SVOCs were detected in groundwater samples from any other monitoring well. Field observations in test pits and soil borings indicated that petroleum product present in soils was likely significantly degraded or "weathered". During typical laboratory procedures, the instrument analyzes the sample, and compares the result against a library of known chromatographic patterns. Over time, organic compounds in soil or groundwater become oxidized, combined with other chemicals or exist as break-down products. In these cases, petroleum contaminants are not detectable using standard laboratory instrumentation because the chromatographic patterns no longer exactly match.

5.6 Metals in Sediments

Results of sediment sample metals analysis are summarized in [Table 7](#). Analytical results indicate that all samples exhibited concentrations of arsenic, cadmium, copper and lead slightly



exceeding the lowest effect level screening criteria outlined in the guidance. Four out of the five samples exceed the lowest effect level criteria for chromium and mercury. No results exceeded the severe effect level criteria, or even reach 50% of the severe effect level.

Based on the extent of exceedances of screening criteria for multiple metals, it is possible that background concentrations of these metals in the Hudson River are at elevated levels. The waterfront including and surrounding the site has been used for industrial purposes since its development, which over the long term may have resulted in generally elevated sediment metal concentrations over the length of the Poughkeepsie waterfront.

5.7 Volatile and Semi-Volatile Organic Compounds in Sediments

Results of sediment sample organic data are presented in Table 8.

One or more PAHs were detected at concentrations above screening values in all of the sediment samples. A number of SVOCs were detected in sediment samples, including polycyclic aromatic hydrocarbons (PAHs) that are greater than one or more of the indicated screening criteria. In four out of five samples, the concentration of benzo(a)anthracene is in exceedances of the acute toxicity screening criteria.

Sediment samples were collected at a shallow interval (0-1 ft). It is likely that PAHs observed in these samples are from continuous commercial and recreational boating in the Hudson River. Other possible sources include the existing MGP site adjacent to the A.C. Dutton property.

5.8 Off-Site and Human Health Exposure Assessments

The contaminants of concern at this site are arsenic, copper and chromium (breakdown products from copper chromated arsenate, or CCA). This substance is a formulation of the salts copper arsenate and chromium arsenate. The primary sources of contamination include the CCA storage tanks and pressure treatment vessels located in the northern and southern treatment facility buildings, as well as the former open lumber yard where freshly-treated lumber was reportedly set out to drip dry.

According to EPA's website, 'Information on Toxic Effects of Various Chemical and Chemical Compounds', arsenic is a carcinogen (cancer-causing), teratogenic, and possible mutagen. Aquatic bottom feeders are more susceptible to arsenic, however, birds' tolerance to arsenic varies among species. The toxic effects of chromium are primarily found at the lower trophic levels. Chromium may bioaccumulate in algae and other aquatic vegetation, but it does not biomagnify. It is cancer-causing, mutation-causing, and teratogenic.

Human exposure to arsenic present at this site would likely result from direct contact with contaminated media (dermal absorption), ingestion of contaminated media, or inhalation of contaminated dust. The future intended use of the site is as a restricted residential property. Under this redevelopment scenario, contact with site soils is possible by site workers, future residents or visitors/transients.

Notice of site conditions should be provided to any person accessing the site so that any construction activities are conducted in accordance with applicable regulations and site-specific



health and safety plans. Contaminated soils will be addressed prior to implementing the intended use.

6.0 CONCLUSIONS

6.1 Site Model

The conventional understanding of this site is that arsenic, copper and chromium, contained in the CCA fluid, was discharged to ground surface as part of the drying process. The CCA liquid was injected into the untreated lumber under pressure in a vessel containing the CCA liquid. The vessel was evacuated after sufficient time had passed to treat the lumber. The treated lumber was "wet" with the liquid CCA. The excess dripped to the floor and was recycled by means of the floor drain and sump system. It has been reported that the large open lumber yard was used to temporarily store freshly treated lumber during drying. While in the yard, CCA fluid likely dripped off the lumber directly to the concrete or asphalt pavement. Collection systems were not in place. The residual liquid collected on the ground surface and was transported via overland flow to low spots in the site.

The floors in the treatment buildings, and most of the exterior areas of the site, are covered with approximately three inches of concrete and/or asphalt. CCA fluid came into contact with incidental soil and dust on the concrete surfaces, the liquid portion eventually evaporated and residual metals and dust accumulated on the concrete surface. In the treatment buildings, CCA fluid flowed or was swept into floor drains or out onto soil immediately adjacent to the treatment buildings.

Over time, CCA fluids likely absorbed into porous surfaces through cracks or breaks in the asphalt or concrete paving, and have impacted surface and near-surface soils under the concrete. Rainfall, surficial run-off and tide cycles that regularly flood portions of the site, all played roles in the accumulation, transport and leaching of metals from surface and near-surface soils.

Remedial investigations at this site have resulted in a data set that can be relied upon. It can be concluded from the results of the investigations that the most significant concentrations of arsenic and chromium are present in the interiors of the treatment buildings where CCA fluid collected in the sumps and floor drain systems and on the floors; and outside the facilities on exposed soil or near cracks, pavement breaches or depressional areas around the site in areas where the treated lumber was allowed to drip dry. Impacts in these areas may have been transported by surface runoff.

6.2 Trends in Metals Contamination

Investigations have found arsenic and chromium in incidental dust and soil on the concrete surfaces at extraordinarily high concentrations. For example, location SS-1, collected from the northern treatment plant building, consisted of material collected from 0-0.5 inches, and exhibited an arsenic concentration of 138,000 mg/kg. Sample SS-8, consisting of "gray-green sawdust and very fine sand", exhibited an arsenic concentration of 96,700 mg/kg. The results of numerous other samples, collected at less than 1 inch depth from locations within and immediately adjacent to the treatment buildings, exhibit similar concentrations.



Samples were also collected from surficial soils adjacent to the treatment buildings. These samples came from locations where surficial soils were openly exposed to runoff and deposition of CCA fluid or dust, and not covered with asphalt or concrete. These samples generally consisted of material from approximately 0-0.5 feet deep. Samples from these areas also exhibited high levels of arsenic and chromium, but these concentrations were less than what was observed in the dust and surface material from within the buildings. Samples 3SS-13, 3SS-14 and 3SS-15, all collected from approximately 6 inches from the edge of the southern treatment building, exhibited arsenic concentrations of 2480 mg/kg, 2350 mg/kg and 2660 mg/kg, respectively.

Soil samples have also been collected from various depths from directly under the concrete or asphalt surface. These samples came from areas that were not openly exposed to the surface, but were covered with significant layers of concrete. In many locations, a 2-6 inch layer of anthracite coal was present under the concrete or asphalt. At these locations, samples were collected from the first available material under the coal layer. Data indicate that arsenic and chromium concentrations are significantly lower overall in these samples than in exposed surface soil areas, and even more so than surficial dust samples.

Soils exhibiting exceedances of arsenic or chromium action levels at greater depths (up to 6 feet) were found in the vicinity of the two main pressure treatment buildings. These findings are illustrated in [Figures 5B and 5C](#). The most significant exceedances of action levels in the deeper samples occur in locations where the highest surficial concentrations were found, indicating that these areas received the most substantial impacts from CCA fluids; however, the range of exceedances at these depths is limited and found within a smaller area than the surficial results.

The site is immediately adjacent to the Hudson River, and is regularly inundated by tide waters extending over approximately 40% of the site along the riverbank at the western edge of the property. The pattern of detections of arsenic and chromium at the site indicates higher concentrations of contaminants on the upper, eastern section of the property than nearer the river, suggesting that the continuous, regular tidal flow has leached metals out of the soils closer to the river.

Analytical results indicate that groundwater resources may be impacted by arsenic from historical uses of the site; however, only two groundwater samples exhibited arsenic concentrations that exceed the applicable action level. Arsenic concentrations exceeding the TOGS 1.1.1 standards were detected in two (2) groundwater monitoring wells, from locations MW-15 and MW-U8. No other metals were detected at concentrations exceeding standards in any other sample. Monitoring well MW-15 is located at the south side of the northern treatment plant building, and soils in this area exhibited elevated concentrations of arsenic. Groundwater samples from well MW-U8, located approximately 100 feet west of the former office building and southern treatment plant building, generally do not correspond with arsenic concentrations found in soils from this area.

Samples from soil borings 3B-14, collected during the ESI investigation and submitted for analysis by Toxic Characteristic Leaching Procedure (TCLP), indicated an arsenic concentration of 16.5 mg/L, which exceeds the TCLP standard of 0.5 mg/L for arsenic. This sample location is inside the northern treatment plant building, approximately 150 feet to the



east of monitoring well MW-15. The 0-2 foot sample was characterized as green/gray silty soil with shale fragments.

Elevated arsenic concentrations in groundwater, and a TCLP exceedance in soils from the southern treatment plant area, indicate that elevated heavy metal concentrations in soil may be affecting groundwater quality in these portions of the site. Anticipated remedial actions at the site, which will be described in the Remedial Alternatives Analysis, will likely include removal of significantly impacted soils. This measure would eliminate or substantially reduce the source of arsenic in soils that is potentially leaching into groundwater.

6.3 Petroleum Impacts

Visual evidence of petroleum-impacted soils was observed in several areas at the site. These areas are identified as Areas of Concern (AOCs) on [Figure 6](#). As described in Section 5.5, the extent of the AOCs are based on visual as well as analytical results. Only one groundwater sample exhibited SVOC concentrations that exceeded the TOGS 1.1.1 standards, however, based on field observations of petroleum product in soils and on the groundwater surface in test pits, it is likely that petroleum is highly degraded and not detectable using laboratory analysis.

Location ACD-B6R, a repeat of an ESI boring near the northern treatment building, exhibited concentrations of organic compounds below action levels, however, field evidence of petroleum-contaminated soils support the conclusion that this area has been impacted by the 3,000 gallon AST in the vicinity.

Evidence of petroleum impacts were observed at location 3B-5, near the small brick office building on the west side of the property. Test pits were advanced at locations ACD-I9, ACD-J9, ACD-K8 and ACD-K10, and no further evidence of petroleum was observed in these test pits. It is believed that the petroleum impacts observed by ESI are localized in a relatively small area very near the UST under the building.

Field evidence of petroleum impacts were also observed in the vicinity of the southern treatment building and the main office building. As indicated in [Figure 6](#), field observations of petroleum impacts were seen at locations ACD-U5, ACD-V5, ACD-U6, ACD-W6, ACD-X7 and ACD -W8. Impacts were observed down to a maximum depth of approximately 8.0 feet.

Petroleum impacts were also observed at locations ACD-AA10, ACD-AB-10 and ACD-AA11, which are generally downgradient from the UST located at the southwestern corner of the brick warehouse building. Petroleum impacts were seen down to a depth of approximately 7.0-8.0 feet; however, petroleum impacts were not observed at locations ACD-Y9, ACD-Y10 or ACD-X10. The evidence of petroleum seen near the USTs, and the absence of petroleum impacts in surrounding locations indicates that petroleum impacts are generally confined to the areas indicated on [Figure 6](#).

Groundwater is not currently used to supply water to the site and it is not likely that groundwater will be used for potable purposes as part of future development. Soil removal in areas containing elevated concentrations of metals and petroleum hydrocarbons is likely to reduce groundwater contamination.



6.4 Data Usability

A Data Usability Summary Report (DUSR) is presented in Appendix D. The remedial investigation conducted by Fuss & O'Neill included the collection of quality assurance/quality control (QA/QC) samples in accordance with the NYSDEC DER-10 and the BCP guidance documents. QA/QC samples included field duplicate samples, matrix spike and matrix spike (MS/MSD) samples, trip blanks and equipment blanks. QA/QC samples were collected at appropriate frequency to provide adequate control for all requested analyses.



7.0 REFERENCES

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TABLES

FORMER A.C. DUTTON LUMBER FACILITY REMEDIAL INVESTIGATION REPORT

Former A. C. Dutton Lumber Facility
Remedial Investigation Report
TABLE 1
Soils Data Summary - Metals

		Aluminum (ppm)	Barium (ppm)	Cadmium (ppm)	Chromium (ppm)	Copper (ppm)	Lead (ppm)	Mercury (ppm)	Selenium (ppm)	Silver (ppm)
Part 375 Soil Cleanup Objectives		16	400	4.3	110	270	400	0.81	180	180
Sample ID	Depth									
ACD-SS-SS7R	0.0-0.2'	212.00	52.70	0.571	171.00	109.00	11.80	ND < 0.0355	ND < 2.67	ND < 1.07
ACD-SS-C2	0.0-0.5'	24.20	77.00	ND < 2.24	21.70	37.80	29.00	0.0866	ND < 1.12	ND < 1.12
ACD-SS-K2	0.0-0.5'	39.50	199.00	ND < 23.7	26.40	86.40	161.00	0.2440	64.70	ND 11.8
ACD-SS-K6	0.0-0.5'	14.10	15.40	ND < 2.01	7.76	12.80	23.20	ND < 0.0502	ND < 1.00	ND < 1.00
ACD-SS-M2	0.0-0.5'	35.50	93.70	ND < 21.5	12.10	37.80	ND < 53.6	0.1060	115.00	ND < 10.7
ACD-SS-Q2	0.0-0.5'	17.10	57.80	ND < 2.08	18.60	42.00	76.80	0.1520	ND < 1.04	ND < 1.04
ACD-SS-U6	0.0-0.5'	8.60	8.54	ND < 2.00	10.00	9.24	28.20	ND < 0.0501	ND < 1.00	ND < 1.00
ACD-SS-AA10	0.0-0.5'	83.80	50.60	ND < 2.12	23.20	53.30	130.00	0.1360	ND < 1.06	ND < 1.06
ACD-SS-B3	0.0-0.5'	18.20	63.00	ND < 1.12	13.90	20.30	19.60	0.0488	ND < 4.48	ND < 2.24
ACD-SS-Y6	0.0-0.5'	13.70	42.00	1.13	20.90	42.00	54.30	ND < 0.0600	ND < 3.00	2.23
ACD-SS-X9	0.0-0.5'	28.40	45.50	ND < 0.543	19.40	24.80	34.70	ND < 0.0543	ND < 2.71	ND < 1.09
ACD-SS-O5	0.0-0.5'	55.00	94.20	ND < 2.88	13.80	19.80	ND < 57.5	0.1140	ND < 14.4	ND < 5.75
ACD-SS-D4	0.0-0.5'	70.00	54.10	1.060	70.60	83.60	42.50	0.1170	ND < 2.74	1.58
ACD-SS-A8	0.0-0.5'	24.20	123.00	0.811	25.40	46.20	44.20	0.3230	ND < 2.92	1.24
ACD-SS-L4	0.0-0.5'	33.10	88.40	ND < 2.81	17.60	54.20	28.40	ND < 0.0374	ND < 140	ND < 5.61
ACD-SS-L9	0.0-0.5'	56.80	255.00	ND < 17.6	ND < 35.5	ND < 70.5	ND < 176	ND < 0.0391	ND < 88.1	ND < 35.3
ACD-SS-G6	0.0-0.5'	95.80	11.70	ND < 0.520	80.70	72.10	21.80	ND < 0.0346	ND < 2.60	ND < 1.04
ACD-SS-G4	0.0-0.5'	20.20	27.10	ND < 0.535	24.10	21.10	9.88	ND < 0.0356	ND < 2.67	ND < 1.07
ACD-SS-E8	0.0-0.5'	37.10	70.90	ND < 0.543	40.20	46.00	64.20	0.2610	ND < 2.71	ND < 1.09
ACD-SS-I8	0.0-0.5'	8.32	32.40	ND < 0.518	16.70	36.50	23.80	ND < 0.0345	ND < 2.59	ND < 1.04
ACD-SS-C6	0.0-0.5'	23.50	63.40	ND < 0.543	25.80	41.90	19.50	ND < 0.0362	ND < 2.71	ND < 1.09
ACD-SS-SSS13R	0.0-0.7'	19.60	54.20	2.000	24.10	108.00	64.20	ND < 0.0556	ND < 2.78	2.09
ACD-SS-SSS14R	0.0-0.7'	31.90	68.90	0.846	29.10	34.20	70.00	0.0857	ND < 2.98	ND < 1.19
ACD-SS-3HB8R	0.0-0.7'	7.94	63.10	0.734	33.90	32.10	16.80	ND < 0.0359	ND < 2.70	1.59
ACD-SS-A6	0.0-1.0'	9.50	47.60	ND < 2.17	15.90	33.40	40.30	ND < 0.0543	ND < 1.09	ND < 1.09
ACD-SS-E6	0.0-1.0'	ND < 10.6	103.00	ND < 21.2	18.00	46.70	ND < 53.0	0.3280	ND < 5.3	ND < 10.6
ACD-SS-M6	0.0-1.0'	15.80	275.00	ND < 21.9	17.90	ND < 21.9	1350.00	0.0942	ND < 5.48	ND < 11.0
ACD-SS-U8	0.0-1.0'	23.20	57.90	2.69	18.70	42.50	72.50	1.6600	ND < 1.14	ND < 1.14
ACD-SS-Z12	0.0-1.0'	17.00	68.00	ND < 2.12	12.20	22.20	52.20	ND < 0.0529	ND < 1.06	ND < 1.06
ACD-SS-Q8	0.0-1.0'	48.50	113.00	ND < 2.91	18.90	38.10	46.00	0.1540	ND < 14.6	ND < 5.82
ACD-SS-S10	0.0-1.0'	14.20	69.80	0.607	12.20	77.90	27.10	0.0788	ND < 2.82	1.24
ACD-SS-O8	0.0-3.0'	59.30	117.00	ND < 11.7	ND < 23.4	ND < 46.8	ND < 117	ND < 0.0390	ND < 58.5	ND < 23.4
ACD-SS-B2R	0.2-1.3'	77.40	224.00	ND < 17.0	ND < 34.1	ND < 68.2	ND < 170	ND < 0.0378	ND < 85.2	ND < 34.1
ACD-SS-3HB6R	0.3-1.4'	7.87	55.50	0.740	21.40	32.40	14.00	ND < 0.0346	ND < 2.60	1.89
ACD-SS-A3	0.5-2.5'	7.24	20.40	1.22	15.50	40.30	20.50	0.1090	ND < 2.12	ND < 1.06
ACD-SS-L9	0.5-2.5'	15.90	52.80	ND < 1.04	12.70	15.80	26.60	0.1170	ND < 5.19	ND < 2.08
ACD-SS-G2	0.5-3.0'	811.00	33.90	0.878	469.00	876.00	30.50	0.1260	ND < 2.23	ND < 1.12
ACD-SS-T10	0.5-3.0'	36.10	121.00	ND < 1.37	9.23	33.70	40.30	0.1840	ND < 5.46	ND < 2.73
ACD-SS-C4	0.5-3.0'	7.79	32.80	1.13	8.47	50.20	33.00	0.1230	ND < 2.18	ND < 1.09
ACD-SS-L4	0.5-3.0'	21.50	93.00	ND < 2.82	12.80	44.20	55.10	0.0443	ND < 5.65	ND < 5.65
ACD-SS-H7	0.5-3.0'	19.50	59.00	ND < 5.56	16.70	28.70	ND < 55.6	0.1210	ND < 2.22	ND < 1.11
ACD-SS-Z9	0.5-3.0'	65.40	63.00	0.603	29.50	50.20	67.10	0.0624	ND < 2.90	ND < 1.16
ACD-SS-P3	0.5-3.0'	15.80	94.30	1.320	16.50	26.20	31.30	0.1030	ND < 5.82	ND < 2.33
ACD-SS-J2	0.5-3.0'	48.00	184.00	ND < 11.9	ND < 23.8	ND < 47.6	ND < 119	ND < 0.0396	ND < 59.5	ND < 23.8
ACD-SS-N5	0.5-3.0'	32.10	111.00	ND < 2.82	10.60	29.40	1820.00	0.0628	ND < 14.1	ND < 5.64
ACD-SS-K6	0.5-3.0'	46.90	73.00	0.762	20.80	32.50	44.00	0.1120	ND < 2.99	ND < 1.20
ACD-SS-Y12	0.5-4.0'	31.40	107.00	2.06	25.90	60.30	328.0	0.2180	ND < 2.82	ND < 1.41
ACD-SS-SS7R	0.8-1.4'	129.00	248.00	ND < 11.2	53.00	61.70	ND < 112	ND < 0.0373	ND < 56.1	ND < 22.4
ACD-SS-AB10	0.8-1.5'	20.50	117.00	ND < 0.543	19.20	45.50	140.00	0.1300	ND < 2.71	ND < 1.09
ACD-SS-L8	1.0-2.0'	22.10	77.30	0.805	14.00	47.60	76.00	0.5570	ND < 3.11	1.38
ACD-SS-Q6	1.0-3.0'	44.50	142.00	ND < 12.2	ND < 24.3	81.90	ND < 122	1.0000	ND < 48.6	ND < 24.3
ACD-SS-S2	1.0-3.0'	40.40	69.30	1.360	29.00	58.70	73.80	0.1290	ND < 2.91	1.57
ACD-SS-V8	1.0-3.0'	21.80	65.80	1.700	15.60	27.80	40.90	ND < 0.0562	ND < 2.81	1.60
ACD-SS-X7	1.0-3.0'	10.60	87.10	0.801	22.00	58.50	63.00	0.0743	ND < 2.84	1.95
ACD-SS-E5	1.0-3.0'	94.50	255.00	ND < 18.0	ND < 36.0	ND < 71.9	ND < 180	0.5200	ND < 89.9	ND < 36.0
ACD-SS-S4	2.0-3.0'	11.00	22.10	1.87	20.30	56.30	19.10	0.0840	ND < 2.25	ND < 1.13
ACD-SS-I9	2.0-5.0'	66.70	175.00	ND < 13.9	ND < 25.9	ND < 51.9	ND < 130	ND < 0.0432	ND < 25.9	ND < 25.9
ACD-SS-M2	2.0-5.0'	148.00	40.70	ND < 5.81	ND < 11.6	ND < 23.3	ND < 58.1	ND < 0.0581	ND < 29.1	ND < 11.6
ACD-SS-E8	3.0-3.5'	36.30	62.90	1.230	29.60	47.70	97.10	0.1740	ND < 2.74	2.62
ACD-SS-B3	3.0-5.5'	10.50	88.10	ND < 0.539	16.30	39.30	17.30	0.1000	ND < 2.69	ND < 1.08
ACD-SS-E4	3.0-6.0'	44.20	106.00	ND < 6.14	19.70	ND < 24.6	77.10	ND < 0.0409	ND < 24.6	ND < 12.3
ACD-SS-E5	3.0-6.0'	ND < 121	383.00	ND < 60.5	ND < 121	ND < 242	ND < 605	ND < 0.0403	ND < 242	ND < 121
ACD-SS-V9	3.0-6.0'	6.15	34.00	5.02	9.87	46.80	26.50	0.0392	ND < 2.24	1.23
ACD-SS-Z9	3.0-6.0'	24.50	117.00	1.20	13.60	35.00	125.00	0.1970	ND < 2.47	ND < 1.24
ACD-SS-Q3	3.0-6.0'	19.10	60.70	1.19	12.70	28.50	ND < 28.3	ND < 0.0566	ND < 2.83	1.19
ACD-SS-M6	3.0-6.0'	34.60	130.00	ND < 5.75	ND < 11.5	28.40	110.00	ND < 0.0575	ND < 28.7	ND < 11.5
ACD-SS-U6	3.0-6.0'	21.90	97.90	ND < 2.55	21.20	47.90	ND < 25.5	ND < 0.0339	ND < 12.7	ND < 5.10
ACD-SS-Y7	3.0-8.0'	8.73	715.00	0.655	18.60	34.90	650.00	ND < 0.0561	ND < 2.81	1.57
ACD-SS-AA11	3.0-8.0'	21.20	695.00	1.780	17.70	47.20	431.00	0.8650	ND < 3.08	ND < 1.23
ACD-SS-B8R	4.0-4.5'	105.00	189.00	ND < 11.8	69.70	ND < 47.3	ND < 118	0.1210	ND < 59.1	ND < 23.6
ACD-SS-SS9R	4.0-5.3'	14.60	23.30	ND < 0.548	28.30	52.20	14.60	0.0597	ND < 2.74	ND < 1.10
ACD-SS-D2	6.0-8.0'	6.04	22.20	1.35	15.90	33.20	13.80	ND < 0.0386	ND < 2.32	ND < 1.16
ACD-SS-V9	6.0-8.0'	11.30	45.20	2.27	31.50	43.00	17.30	0.0389	ND < 13.9	3.19
ACD-SS-Q3	6.0-8.0'	7.71	42.20	0.710	20.60	34.90	11.70	ND < 0.0596	ND < 2.98	1.82
ACD-SS-T7	6.0-8.0'	24.40	54.80	0.701	20.30	321.00	61.40	ND < 0.0412	ND < 3.09	2.32
ACD-SS-X7	6.0-8.0'	21.10	56.10	1.370	27.80	63.70	35.20	0.0717	ND < 2.78	2.49
ACD-SS-AA10	8.0-10.0'	7.10	45.50	1.50	20.40	44.20	18.40	0.0595	ND < 2.30	ND < 1.15
ACD-SS-F2	8.0-10.0'	10.60	31.10	0.927	24.40	40.30	18.70	0.0512	ND < 2.96	2.27
ACD-SS-3HB6R	8.0-10.1'	12.10	24.90	0.893	33.60	39.00	7.13	ND < 0.0571	ND < 2.86	2.32
ACD-SS-G4	10.0-11.0'	9.16	87.20	1.15	21.20	30.60	78.60	0.6590	ND < 2.76	ND < 1.38

Bold shaded values indicate results that exceed the Part 375-6 soil cleanup objectives.

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TABLE 2
Soils Data Summary - TCLP Analysis

		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Silver (mg/L)
TCLP Standards (mg/L):		5	100	1	5	5	0.2	1	5
ACD-SS-E4	3.0-6.0'	ND < 0.500	ND < 1	ND < 0.1	ND < 0.1	ND < 0.1	ND < 0.003	ND < 0.5	ND < 0.1
ACD-SS-G2	0.5-3.0'	1.59	ND < 1	ND < 0.1	ND < 0.1	ND < 0.1	ND < 0.003	ND < 0.5	ND < 0.1
ACD-SS-T10	0.5-3.0'	ND < 0.5	1.09	ND < 0.1	ND < 0.1	ND < 0.1	ND < 0.003	ND < 0.5	ND < 0.1
ACD-SS-B3	0.5-3.0'	ND < 0.5	1.48	ND < 0.1	ND < 0.1	ND < 0.1	ND < 0.003	ND < 0.5	ND < 0.1
ACD-SS-D2	6.0-8.0'	ND < 0.5	ND < 1	ND < 0.1	ND < 0.1	ND < 0.1	ND < 0.003	ND < 0.5	ND < 0.1
ACD-SS-AA10	8.0-10.0'	ND < 0.5	ND < 1	ND < 0.1	ND < 0.1	ND < 0.1	ND < 0.003	ND < 0.5	ND < 0.1
ACD-SS-M2	2.0-5.0'	ND < 0.5	--	--	ND < 0.1	--	--	--	--
ACD-SS-B8R	4.0-4.5'	ND < 0.5	--	--	ND < 0.1	--	--	--	--

TCLP Standards taken from the NYSDEC Spills Technology and Remediation Series (STARS) Memo No. 1,
Hazardous Waste Regulatory Levels for Toxicity Characteristics

TABLE 3
Soils Data Summary - Volatile Organic Compounds

Compound (µg / kg)	ACD-SS-X7	ACD-SS-B8-R	ACD-SS-AA11	ACD-SS-AA10	ACD-SS-U5	ACD-SS-U6	Part 375-6 Soil Cleanup Objectives (µg/kg)
(depth, ft. bgs)	8.0-10.0'	4.5-5.2'	12.0-13.0'	12.0-14.0'	4.0-8.0'	6.0-8.0'	
Acetone	ND	ND	5.7 *	32.0 *	--	--	100000
Benzene	ND	ND	0.9 *	36.0	ND	ND	4800
Bromodichloromethane	ND	ND	ND	ND	--	--	NS
Bromophorm	ND	ND	ND	ND	--	--	NS
Bromomethane	ND	ND	ND	ND	--	--	NS
2-butanone (MEK)	ND	ND	ND	ND	--	--	NS
sec-Butylbenzene	--	--	ND	ND	ND	ND	100000
n-Butylbenzene	--	--	ND	ND	ND	ND	NS
tert-Butylbenzene	--	--	ND	ND	ND	ND	100000
Carbon disulfide	ND	ND	1.0 *	4.2 *	--	--	NS
Carbon tetrachloride	ND	ND	ND	ND	--	--	2400
Chlorobenzene	ND	ND	ND	ND	--	--	100000
Chloroethane	ND	ND	ND	ND	--	--	NS
Chloroform	--	--	ND	ND	--	--	49000
Chloromethane	ND	ND	ND	ND	--	--	NS
Dibromochloromethane	ND	ND	ND	ND	--	--	NS
1,1-dichloroethane	ND	ND	ND	ND	--	--	NS
1,2-dichloroethane	ND	ND	ND	ND	--	--	NS
1,1-dichloroethene	ND	ND	ND	ND	--	--	NS
cis-1,2-dichloroethene	ND	ND	ND	ND	--	--	NS
trans-1,2-dichloroethene	ND	ND	ND	ND	--	--	NS
1,2-dichloropropane	ND	ND	ND	ND	--	--	NS
cis-1,3-dichloropropene	ND	ND	ND	ND	--	--	NS
trans-1,3-dichloropropene	ND	ND	ND	ND	--	--	NS
Methyl-tert-butyl-ether (MTBE)	--	--	ND	ND	ND	ND	100000
Ethylbenzene	ND	ND	ND	ND	ND	ND	41000
2-hexanone	ND	ND	ND	ND	--	--	NS
Isopropyl benzene	--	--	ND	ND	ND	ND	NS
p-Isopropyltoluene	--	--	ND	ND	--	--	NS
Methylene chloride	ND	ND	9.9	110.0	--	--	100000
Naphthalene			ND	ND	ND	ND	NS
4-methyl-2-pentanone (MIBK)	ND	ND	ND	ND	--	--	NS
n-Propylbenzene	--	--	ND	ND	ND	ND	100000
Styrene	ND	ND	ND	ND	--	--	NS
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	--	--	NS
Tetrachloroethene	ND	ND	ND	ND	--	--	19000
Toluene	ND	ND	ND	1.8 *	ND	ND	100000
1,1,1-trichloroethane	ND	ND	ND	ND	--	--	NS
1,1,2-trichloroethane	ND	ND	ND	ND	--	--	NS
Trichloroethene	ND	ND	ND	ND	--	--	21000
1,3,5-Trimethylbenzene	--	--	ND	ND	ND	ND	52000
2,4,6-Trimethylbenzene	--	--	ND	ND	ND	ND	52000
Vinyl Chloride	ND	ND	ND	ND	--	--	900
o-xylene	ND	ND	ND	ND	ND	ND	100000
m-xylene, p-xylene	ND	ND	ND	ND	ND	ND	

NS - Not Specified

* - Value is estimated by the laboratory.

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TABLE 4
Soils Data Summary - Semi-volatile Organic Compounds

Compound (µg/kg)	ACD-SS-X7 8270C STARS	ACD-SS-B8-R 8270C STARS	ACD-SS-AA11 8270C STARS	ACD-SS-AA10 8270C STARS	ACD-SS-U5 8270C STARS	ACD-SS-U6 8270C STARS	Part 375-6 Soil Cleanup Objectives (µg/kg)
(depth, ft. bgs)	8.0-10.0'	4.5-5.2'	12.0-13.0'	12.0-14.0'	4.0-8.0'	6.0-8.0'	
Acenaphthene	ND	ND	ND	ND	ND	ND	100000
Anthracene	ND	ND	ND	ND	ND	ND	100000
Benzo(a)anthracene	ND	ND	ND	ND	ND	ND	1000
Benzo(a)pyrene	ND	ND	ND	ND	ND	ND	1000
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	ND	1000
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	ND	100000
Benzo(k)fluoranthene	ND	ND	ND	ND	ND	ND	3900
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	ND	500
Chrysene	ND	ND	ND	ND	ND	ND	3900
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	330
Fluoranthene	ND	ND	ND	400	ND	ND	100000
Fluorene	ND	ND	ND	ND	ND	ND	100000
Naphthalene	ND	ND	ND	ND	ND	ND	100000
Phenanthrene	ND	5000	ND	ND	ND	ND	100000
Pyrene	ND	ND	ND	990	ND	ND	100000

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TABLE 5
Groundwater Data Summary - Metals

Compound (µg/L)	MW-A6 788070720-06	MW-E8 788070720-05	MW-I5 329060113-03	MW-J10 788070720-03	MW-K2 788070720-04	MW-K2 788070720-04 DUP	MW-U8 788070720-02	MW-W8 788070720-01	MW-X7 329060113-01	MW-AA10 329060113-02	MW-AA10 329060113-DUP	329060113-FB	TOGS 1.1.1 NYS Ambient Water Groundwater Standard (µg/L)
Date:	7/20/2007	7/20/2007	1/13/2006	7/20/2007	7/20/2007	7/20/2007	7/20/2007	7/20/2007	1/13/2006	1/13/2006	1/13/2006	1/13/2006	
Arsenic	ND < 10	ND < 10	63.8	ND < 10	ND < 10	ND < 10	53.1	ND < 10	ND < 10	14.8	16.1	ND < 10	25
Barium	25.3	34.4	38.5	22.7	46.0	45.5	ND < 20	24.7	ND < 20	36.6	35.2	ND < 20	1000
Cadmium	ND < 5	ND < 5	ND < 5	ND < 5	ND < 5	ND < 5	ND < 5	ND < 5	ND < 5	ND < 5	ND < 5	ND < 5	5
Chromium	ND < 10	ND < 10	ND < 10	ND < 10	ND < 10	ND < 10	ND < 10	ND < 10	ND < 10	ND < 10	ND < 10	ND < 10	50
Copper	ND < 20	ND < 20	ND < 20	ND < 20	ND < 20	ND < 20	ND < 20	ND < 20	ND < 20	ND < 20	ND < 20	ND < 20	200
Lead	ND < 5	10.5	ND < 50	ND < 5	ND < 5	ND < 5	ND < 5	5.4	ND < 50	ND < 50	ND < 50	ND < 50	25
Mercury	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	0.7
Selenium	ND < 10	ND < 10	ND < 10	ND < 10	ND < 10	ND < 10	ND < 10	ND < 10	ND < 10	ND < 10	ND < 10	ND < 10	10
Silver	ND < 10	ND < 10	ND < 10	ND < 10	ND < 10	ND < 10	ND < 10	ND < 10	ND < 10	ND < 10	ND < 10	ND < 10	50

Bold shaded values indicate results that exceed the TOGS 1.1.1 Guidance values.

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TABLE 6
Groundwater Data Summary - Volatile and Semi-volatile Organic Compounds

Compound (µg/L)	MW-A6 788070720-06	MW-E8 788070720-05	MW-I5 329060113-03	MW-J10 788070720-03	MW-K2 788070720-04	MW-K2 788070720-04 DUP	MW-U8 788070720-02	MW-W8 788070720-01	MW-X7 329060113-01	MW-AA10 329060113-02	MW-AA10 329060113- DUP	329060113- FB	329060113- TB	TOGS 1.1.1 Ambient Groundwater Standard (µg/L)	TOGS 1.1.1 Ambient Groundwater Guidance Value (µg/L)
Date:	7/20/2007	7/20/2007	1/13/2006	7/20/2007	7/20/2007	7/20/2007	7/20/2007	7/20/2007	1/13/2006	1/13/2006	1/13/2006	1/13/2006	1/13/2006		
Volatile Organic Compounds															
Benzene	ND < 5.0	ND < 5.0	ND < 1.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 1.0	ND < 1.0	ND < 1.0	ND < 1.0	ND < 1.0	1	--
sec-Butylbenzene	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	5	--
n-Butylbenzene	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	5	--
tert-Butylbenzene	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	5	--
Methyl-tert-butyl-ether (MTBE)	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	NR	NR
Ethylbenzene	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	5	--
Isopropyl benzene	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	5	--
p-Isopropyltoluene	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	5	--
Naphthalene	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	--	10
n-Propylbenzene	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	5	--
Toluene	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	5	--
2,4,6-Trimethylbenzene	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	NR	NR
1,3,5-Trimethylbenzene	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	5	--
o-xylene	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	5	--
m-xylene, p-xylene	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	ND < 5.0	5	--
Semi-volatile Organic Compounds															
Acenaphthene	ND < 9.4	ND < 9.8	ND < 11	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 11	ND < 11	ND < 11	ND < 11	NA	--	20
Anthracene	ND < 9.4	ND < 9.8	ND < 11	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 11	ND < 11	ND < 11	ND < 11	NA	--	50
Benzo(a)anthracene	ND < 9.4	0.54 J	ND < 11	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 11	ND < 11	ND < 11	ND < 11	NA	NR	NR
Benzo(a)pyrene	ND < 9.4	0.69 J	ND < 11	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 11	ND < 11	ND < 11	ND < 11	NA	ND	--
Benzo(b)fluoranthene	ND < 9.4	0.69 J	ND < 11	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 11	ND < 11	ND < 11	ND < 11	NA	--	0.002
Benzo(g,h,i)perylene	ND < 9.4	0.65 J	ND < 11	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 11	ND < 11	ND < 11	ND < 11	NA	NR	NR
Benzo(k)fluoranthene	ND < 9.4	0.75 J	ND < 11	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 11	ND < 11	ND < 11	ND < 11	NA	--	0.002
Indeno(1,2,3-cd)pyrene	ND < 9.4	ND < 9.8	ND < 11	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 11	ND < 11	ND < 11	ND < 11	NA	--	0.002
Chrysene	ND < 9.4	0.53 J	ND < 11	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 11	ND < 11	ND < 11	ND < 11	NA	--	0.002
Dibenzo(a,h)anthracene	ND < 9.4	ND < 9.8	ND < 11	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 11	ND < 11	ND < 11	ND < 11	NA	NR	NR
Fluoranthene	ND < 9.4	0.62 J	ND < 11	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 11	ND < 11	ND < 11	ND < 11	NA	--	50
Fluorene	ND < 9.4	ND < 9.8	ND < 11	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 11	ND < 11	ND < 11	ND < 11	NA	--	50
Naphthalene	ND < 9.4	ND < 9.8	ND < 11	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 11	ND < 11	ND < 11	ND < 11	NA	--	10
Phenanthrene	ND < 9.4	0.37 J	ND < 11	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 11	ND < 11	ND < 11	ND < 11	NA	--	50
Pyrene	ND < 9.4	0.63 J	ND < 11	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 9.4	ND < 11	ND < 11	ND < 11	ND < 11	NA	--	50

Former A. C. Dutton Lumber Facility
 Remedial Investigation Report

 TABLE 7
 Sediment Data Summary - Metals

Compound (mg / kg)	SED-14 329060120-04	SED-13 329060120-05	SED-12 329060120-06	SED-11 329060120-07	SED-10 329060120-08	Sediment SCGs Lowest Effect Level (mg / kg)	Sediment SCGs Severe Effect Level (mg / kg)
Arsenic	9.8	9.4	10.4	10.2	14.4	6.0	33.0
Barium	153.0	150.0	39.4	119.0	111.0	N/A	N/A
Cadmium	1.8	1.7	1.6	1.7	1.8	0.6	9.0
Chromium	40.7	39.8	17.2	40.6	30.4	26.0	110.0
Copper	49.3	47.6	28.8	46.6	43.4	16.0	110.0
Lead	43.6	44.3	47.3	57.5	41.6	31.0	110.0
Mercury	0.19	0.19	ND < 0.04	0.18	0.15	0.15	1.3
Selenium	ND < 2.9	4.3	2.1	ND < 2.4	3.2	N/A	N/A
Silver	ND < 2.9	ND < 3.0	ND < 1.3	ND < 2.4	ND < 2.4	1.0	2.2

Bold values indicate results that exceed the Lowest Effect Level criteria.
 N/A - no guidance available.

Former A. C. Dutton Lumber Facility
Remedial Investigation Report
TABLE 8
Sediment Data Summary - Semi-volatile Organic Compounds

Compound (µg/kg)	SED-14 329060120-04	SED-13 329060120-05	SED-12 329060120-06	SED-11 329060120-07	SED-10 329060120-08	Organic Carbon (gOC/kg)	Human Health Bioaccumulation (µg/kg)**	Benthic Aquatic Life Acute Toxicity (µg/kg)**	Benthic Aquatic Life Chronic Toxicity (µg/kg)**	Wildlife Bioaccumulation (µg/kg)**
Acenaphthene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91			407.4	
Acenaphthylene	ND < 2900	ND < 3000	ND < 8800	650*	280*	2.91				
Anthracene	ND < 2900	520*	ND < 8800	690*	360*	2.91		2869.3	311.4	
Benzo(a)anthracene	470*	1900*	ND < 8800	1800*	1000*	2.91		273.5	34.9	
Benzo(a)pyrene	490*	1800*	ND < 8800	2100*	960*	2.91	3.8			
Benzo(b)fluoranthene	410*	1500*	ND < 8800	1300*	740*	2.91				
Benzo(g,h,i)perylene	370*	1100*	ND < 8800	1400*	650*	2.91				
Benzo(k)fluoranthene	390*	1500*	ND < 8800	1500*	840*	2.91				
Benzyl alcohol	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
butyl benzyl phthalate	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
Di-n-Butylphthalate	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
Carbazole	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
Indeno(1,2,3-cd)pyrene	320*	1000*	ND < 8800	1100*	540*	2.91				
4-chloroaniline	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
Bis(-2-chloroethoxy)methane	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
Bis(2-chloroethyl)ether	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
2-chloronaphthalene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
2-chlorophenol	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91			1.7	
2,2'-oxybis(1-chloropropane)	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
Chrysene	660*	1900*	ND < 8800	2100*	1300*	2.91				
Dibenzo(a,h)anthracene	ND < 2900	400*	ND < 8800	ND < 4200	ND < 2400	2.91				
Dibenzofuran	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
1,3-dichlorobenzene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91		349.2	34.9	
1,2-dichlorobenzene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91		349.2	34.9	
1,4-dichlorobenzene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91		349.2	34.9	
3,3'-dichlorobenzidine	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
2,4-dichlorophenol	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91			1.7	
Diethylphthalate	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
Dimethyl phthalate	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
2,4-dimethylphenol	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
2,4-dinitrophenol	ND < 15000	ND < 16000	ND < 45000	ND < 22000	ND < 12000	2.91				
2,4-dinitrotoluene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
2,6-dinitrotoluene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
Bis(2-ethylhexyl)phthalate	400*	400*	ND < 8800	ND < 4200	310*	2.91			580.5	
Fluoranthene	870*	3600	1200*	3300*	2100*	2.91			2968.2	
Fluorene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91		212.4	23.3	
Hexachlorobenzene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91	0.4	26425.7	16208.7	
Hexachlorobutadiene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91	0.9	160.1	16.0	
Hexachlorocyclopentadiene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91		128.0	12.8	
Hexachloroethane	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
Isophorone	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
2-methylnaphthalene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91		884.6	98.9	
4,6-dinitro-2-methylphenol	ND < 15000	ND < 16000	ND < 45000	ND < 22000	ND < 12000	2.91				
4-chloro-3-methylphenol	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
2-methylphenol	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
4-methylphenol	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
Naphthalene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91		750.8	87.3	
2-nitroaniline	ND < 15000	ND < 16000	ND < 45000	ND < 22000	ND < 12000	2.91				
3-nitroaniline	ND < 15000	ND < 16000	ND < 45000	ND < 22000	ND < 12000	2.91				
4-nitroaniline	ND < 15000	ND < 16000	ND < 45000	ND < 22000	ND < 12000	2.91				
nitrobenzene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
2-nitrophenol	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
4-nitrophenol	ND < 15000	ND < 16000	ND < 45000	ND < 22000	ND < 12000	2.91				
N-nitrosodimethylamine	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
N-nitrosodiphenylamine	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
Di-N-octyl phthalate	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
Pentachlorophenol	ND < 15000	ND < 16000	ND < 45000	ND < 22000	ND < 12000	2.91		291.0	116.4	
Phenanthrene	540*	1700*	980*	2000*	1500*	2.91			349.2	
Phenol	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91			1.5	
4-bromophenyl-phenylether	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
4-chlorophenyl-phenylether	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
N-nitroso-Di-N-propylamine	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91				
Pyrene	930*	3300	1100*	3400*	2100*	2.91		25535.3	2796.5	
1,2,4-trichlorobenzene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91		2648.1	264.8	
2,4,6-trichlorophenol	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91			1.7	
2,4,5-trichlorophenol	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	2.91			1.7	

Bold Shaded values are in exceedance of the most stringent screening criteria

* Values are estimated by the laboratory.

** Screening criteria is provided per gram of organic carbon. The values listed have been multiplied by the concentration of OC in the sample.

Former A. C. Dutton Lumber Facility
 Remedial Investigation Report
TABLE 9
 Soils Data Summary - Background Areas On Site

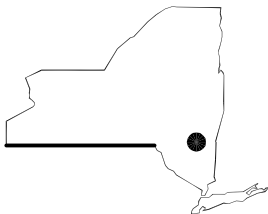
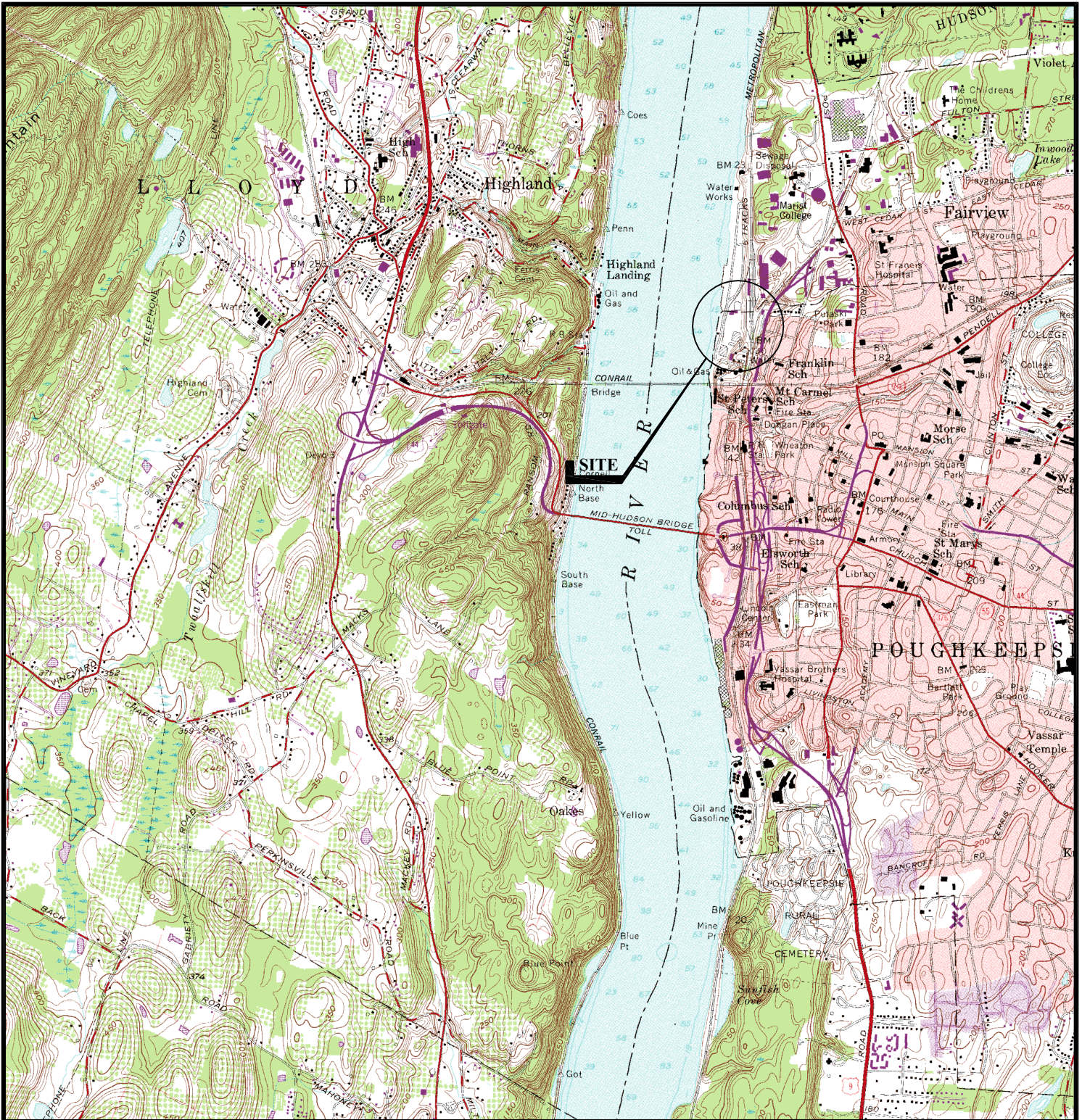
Compound (mg / kg)	BKGRD-01 329060120-01	BKGRD-02 329060120-02	BKGRD-03 329060120-03	BKGRD-04 804060320-01	BKGRD-05 804060320-02	Part 375-6 Restricted Residential Cleanup Objectives (mg / kg)
Arsenic	25.9	60.7	18.2	23.4	32.5	16
Barium	144.0	91.6	57.4	45.2	160.0	400
Cadmium	1.6	2.3	2.9	ND < 0.571	ND < 0.709	4.3
Chromium	36.9	51.6	23.7	26.0	30.6	110
Copper	45.7	103.0	99.1	45.8	67.7	270
Lead	89.8	293.0	192.0	139.0	704.0	400
Mercury	0.13	0.13	0.09	0.08	1.34	0.81
Selenium	2.80	3.80	2.40	2.19	4.64	180
Silver	ND < 1.3	ND < 1.3	ND < 1.1	ND < 1.14	ND < 1.42	180

Bold shaded values indicate results that exceed the Part 375-6 soil cleanup objectives for future restricted residential use.



FIGURES

FORMER A.C. DUTTON LUMBER FACILITY REMEDIAL INVESTIGATION REPORT



MAP REFERENCE

THIS MAP WAS PREPARED FROM THE FOLLOWING 7.5 MINUTE USGS MAP:
Poughkeepsie, 1957 Photorevised 1982.

SCALE:	
HORZ.: 1" = 2000'	
VERT.:	
DATUM:	
HORZ.:	
VERT.:	
GRAPHIC SCALE	



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USGS LOCATION MAP

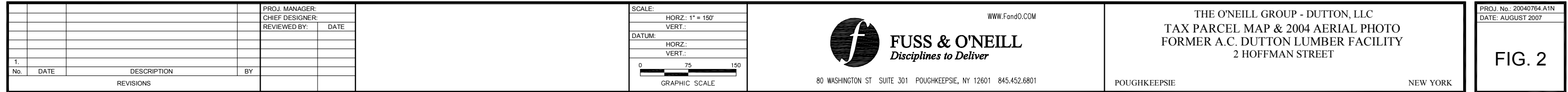
2 HOFFMAN STREET

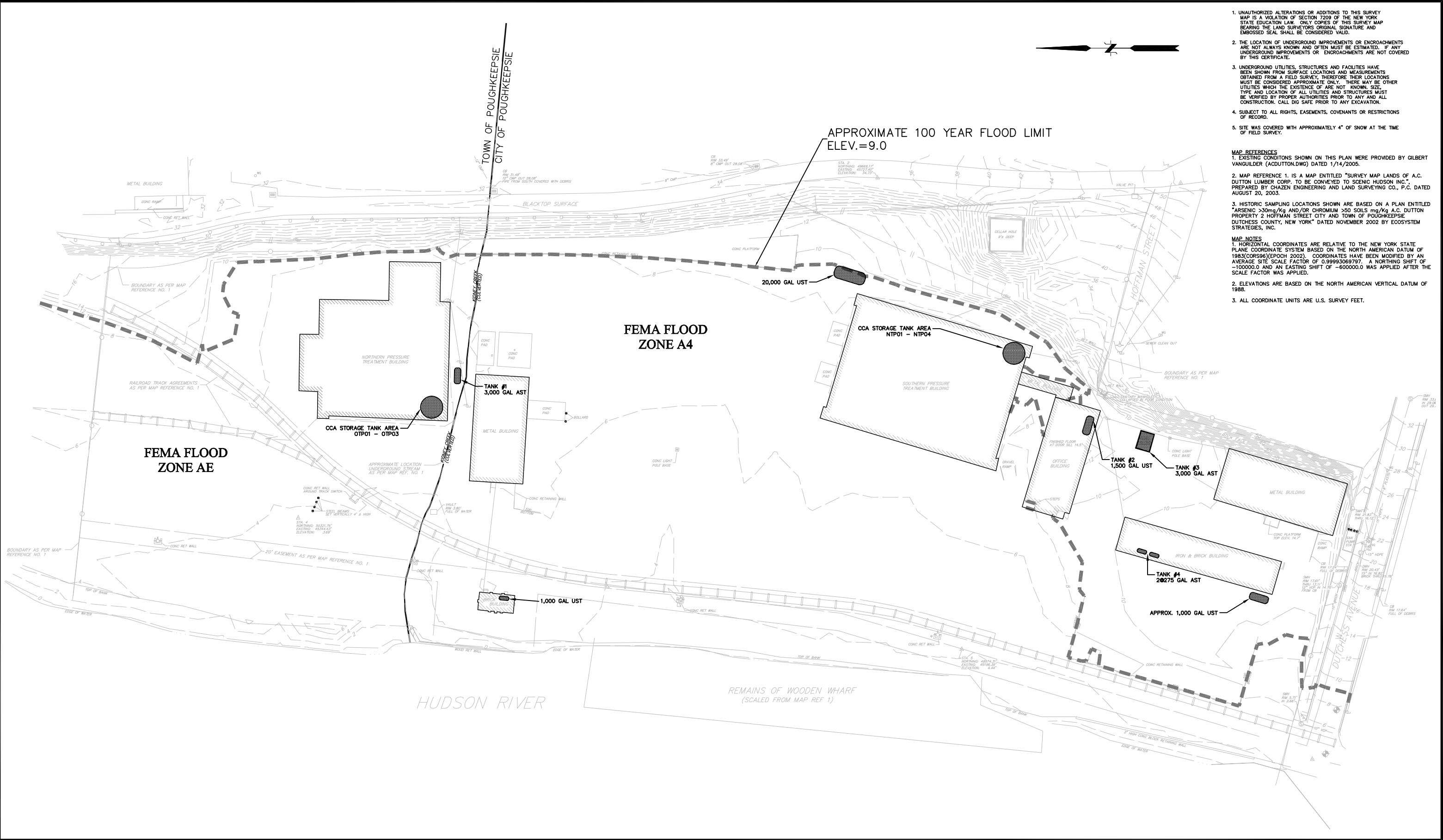
CITY OF POUGHKEEPSIE

DUTCHESS COUNTY, NEW YORK

PROJ. No.: 20040764.A1N
DATE: JUNE 2005

FIG. 1





		PROJ. MANAGER:	
		CHIEF DESIGNER:	
		REVIEWED BY:	DATE
1.	DATE	DESCRIPTION	BY
No.			
REVISIONS			

SCALE:	
HORZ.:	1" = 100'
VERT.:	
DATUM:	
HORZ.:	
VERT.:	
0 50 100	
GRAPHIC SCALE	

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EXISTING CONDITIONS
FORMER A.C. DUTTON LUMBER FACILITY
2 HOFFMAN STREET

POUGHKEEPSIE NEW YORK

PROJ. No.: 20040764.A1N
DATE: JANUARY 2005

FIG. 3

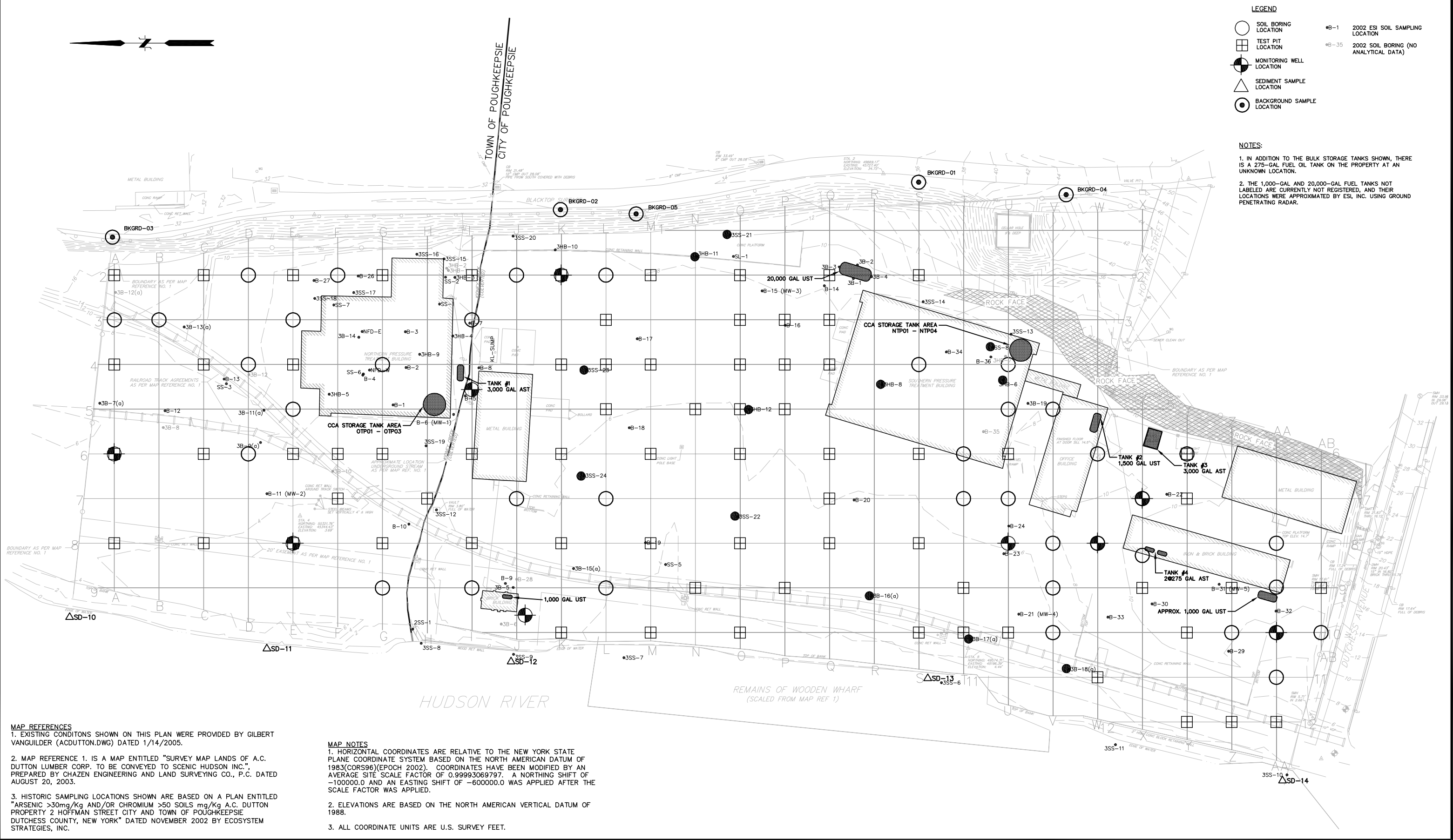
File Path: F:\P20040764A1\NDWG from POK040764A1\NSTP002.dwg, Layout: FIG. 4 RI SUMMARY Thu, Aug 16, 2007 - 11:41 AM User: Lchwastowski

CTB:

LMAN:

MS VIEW:

UCS: WORLD



PROJ. MANAGER:			
CHIEF DESIGNER:			
REVIEWED BY:		DATE	
1.	DATE	DESCRIPTION	BY
REVISIONS			

SCALE:	
HORIZ.: 1" = 100'	
VERT.:	
DATUM:	
HORIZ.:	
VERT.:	
0 50 100	
GRAPHIC SCALE	

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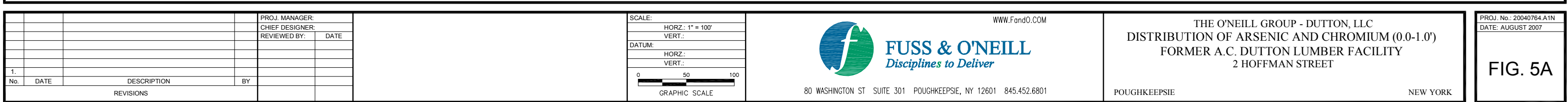
80 WASHINGTON ST. SUITE 301 POUGHKEEPSIE, NY 12601 845.452.6801

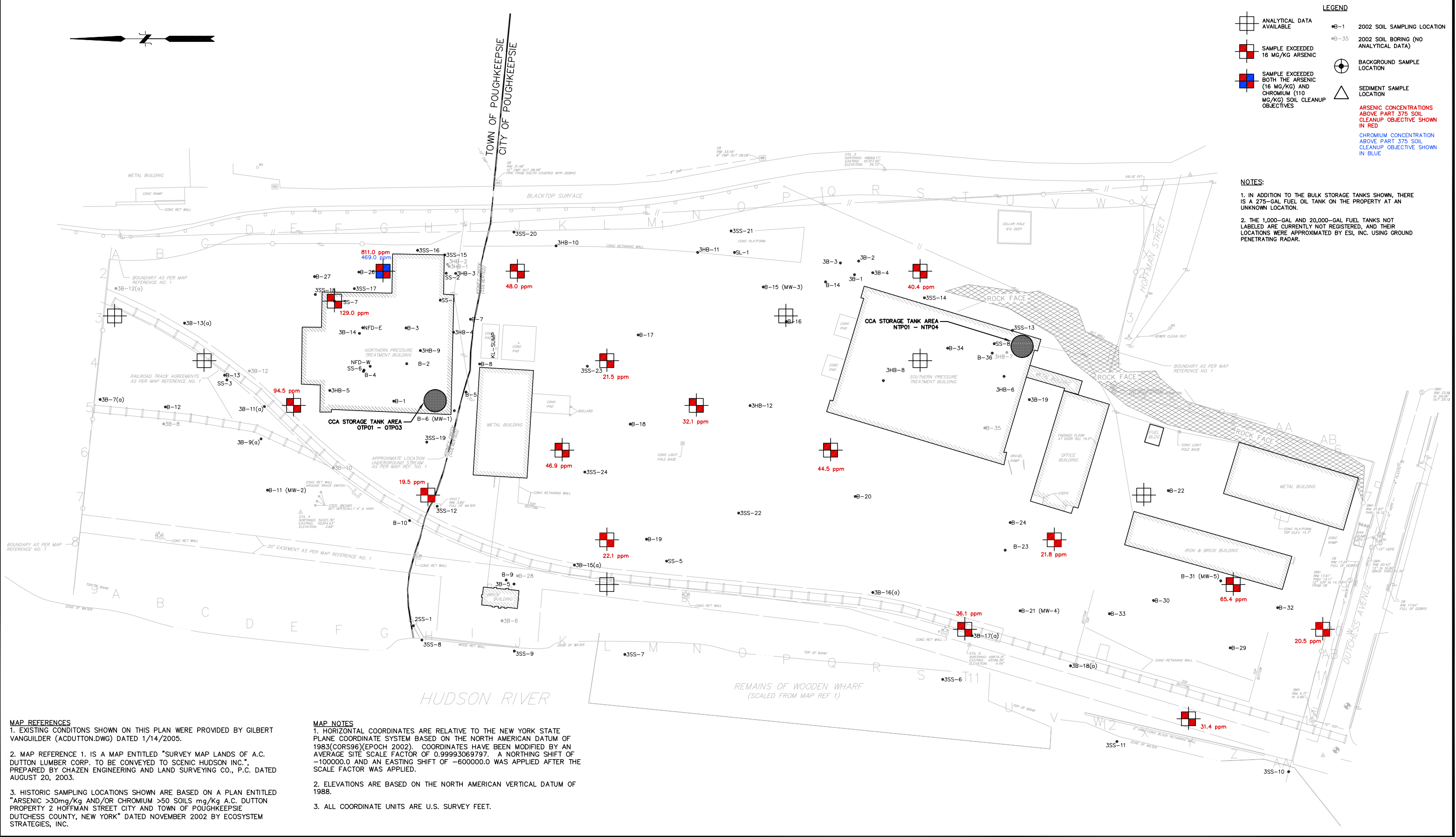
THE O'NEILL GROUP - DUTTON, LLC
FORMER A.C. DUTTON FACILITY
REMEDIAL INVESTIGATION FIELD WORK SUMMARY
2 HOFFMAN STREET

POUGHKEEPSIE NEW YORK

PROJ. No.: 20040764.A1N
DATE: AUGUST 2007

FIG. 4





					PROJ. MANAGER:	
					CHIEF DESIGNER:	
					REVIEWED BY:	DATE
1.						
No.	DATE		DESCRIPTION	BY		
REVISIONS						

SCALE:		HORIZ.: 1" = 100'	
VERT.:		DATUM:	
HORIZ.:		VERT.:	
0		50	
100		GRAPHIC SCALE	

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FORMER A.C. DUTTON LUMBER FACILITY
2 HOFFMAN STREET

POUGHKEEPSIE NEW YORK

PROJ. No.: 20040764.A1N
DATE: AUGUST 2007

FIG. 5B

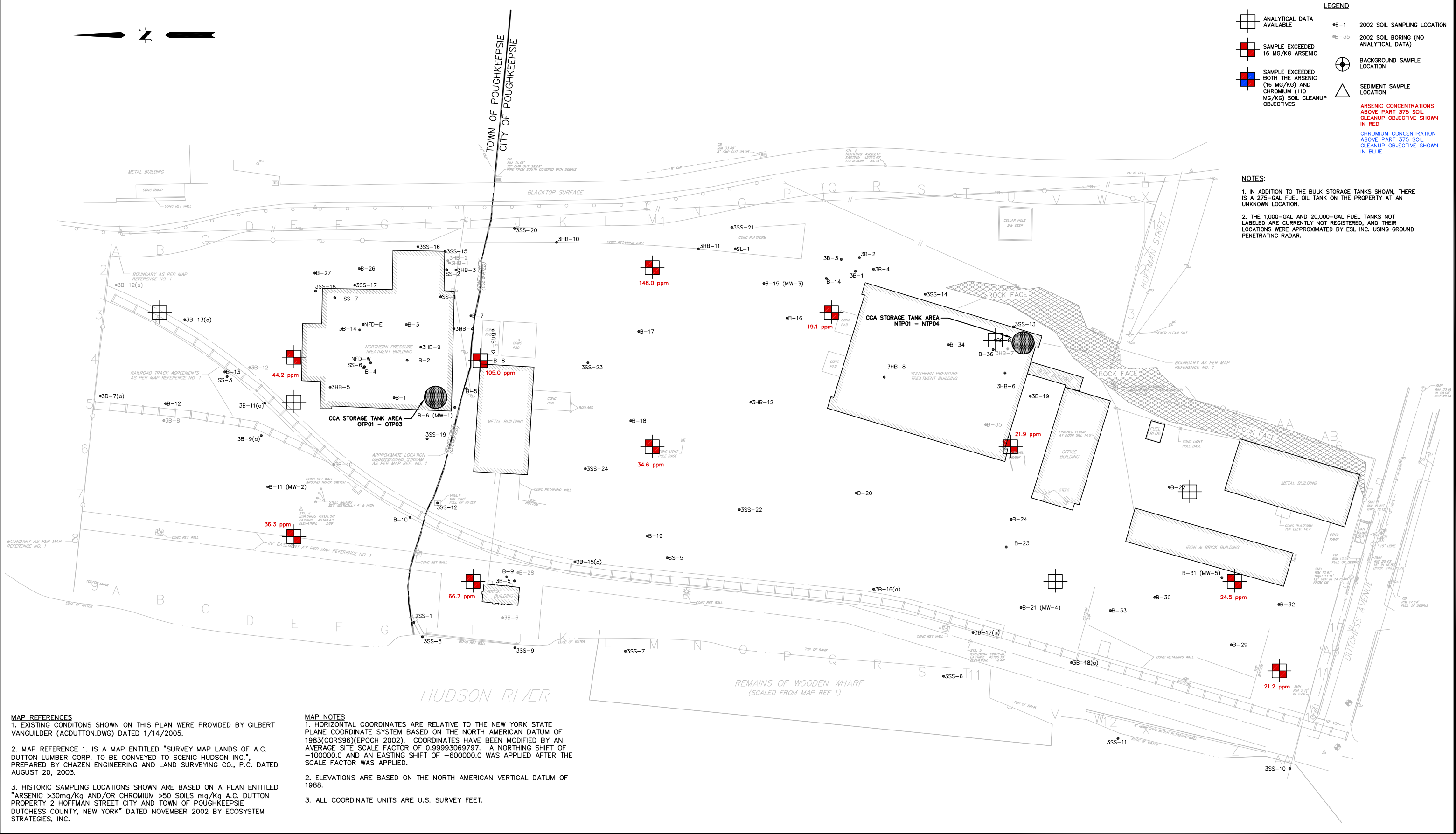
File Path: F:\P20040764A\INDWG from POK040764A\INSTP002.dwg, Layout: FIG 5C METALS 3-6, Thu, Aug 16, 2007 - 2:42 PM User: Lowiazowski

CTB:

LMAN:

MS VIEW:

UCS: WORLD



		PROJ. MANAGER:	
		CHIEF DESIGNER:	
		REVIEWED BY:	DATE
1.			
No.	DATE	DESCRIPTION	BY
REVISIONS			

SCALE:	
HORZ.:	1" = 100'
VERT.:	
DATUM:	
HORZ.:	
VERT.:	
0 50 100	
GRAPHIC SCALE	

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POUGHKEEPSIE NEW YORK

PROJ. No.: 20040764.A1N
DATE: AUGUST 2007

FIG. 5C

File Path: F:\P20040764A\INDWG from POK\40764A\INSTP002.dwg, Layout: FIG. 6 AOC'S PETROL, Mon, Aug 27, 2007 - 2:38 PM, User: LGwiazdowski

CTB: F&O COLOR STANDARD (HALF)

LMAN: SOIL RAP

MS VIEW:

UCS WORLD

- LEGEND
- SOIL BORING LOCATION
 - TEST PIT LOCATION
 - MONITORING WELL LOCATION
 - SEDIMENT SAMPLE LOCATION

- NOTES:
- IN ADDITION TO THE BULK STORAGE TANKS SHOWN, THERE IS A 275-GAL FUEL OIL TANK ON THE PROPERTY AT AN UNKNOWN LOCATION.
 - THE 1,000-GAL AND 20,000-GAL FUEL TANKS NOT LABELED ARE CURRENTLY NOT REGISTERED, AND THEIR LOCATIONS WERE APPROXIMATED BY ESI, INC. USING GROUND PENETRATING RADAR.

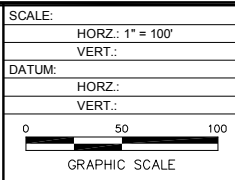


PETROLEUM-IMPACTED AREA OF CONCERN

- MAP REFERENCES
- EXISTING CONDITIONS SHOWN ON THIS PLAN WERE PROVIDED BY GILBERT VANGILDER (ACDUTTON.DWG) DATED 1/14/2005.
 - MAP REFERENCE 1. IS A MAP ENTITLED "SURVEY MAP LANDS OF A.C. DUTTON LUMBER CORP. TO BE CONVEYED TO SCENIC HUDSON INC.", PREPARED BY CHAZEN ENGINEERING AND LAND SURVEYING CO., P.C. DATED AUGUST 20, 2003.
 - HISTORIC SAMPLING LOCATIONS SHOWN ARE BASED ON A PLAN ENTITLED "ARSENIC >30mg/Kg AND/OR CHROMIUM >50 SOILS mg/Kg A.C. DUTTON PROPERTY 2 HOFFMAN STREET CITY AND TOWN OF POUGHKEEPSIE DUTCHESS COUNTY, NEW YORK" DATED NOVEMBER 2002 BY ECOSYSTEM STRATEGIES, INC.

- MAP NOTES
- HORIZONTAL COORDINATES ARE RELATIVE TO THE NEW YORK STATE PLANE COORDINATE SYSTEM BASED ON THE NORTH AMERICAN DATUM OF 1983(CORS96)(EPOCH 2002). COORDINATES HAVE BEEN MODIFIED BY AN AVERAGE SITE SCALE FACTOR OF 0.99993069797. A NORTHING SHIFT OF -100000.0 AND AN EASTING SHIFT OF -600000.0 WAS APPLIED AFTER THE SCALE FACTOR WAS APPLIED.
 - ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988.
 - ALL COORDINATE UNITS ARE U.S. SURVEY FEET.

PROJ. MANAGER:			
CHIEF DESIGNER:			
REVIEWED BY:		DATE	
1.	DATE	DESCRIPTION	BY
REVISIONS			



WWW.FandO.COM

FUSS & O'NEILL

Disciplines to Deliver

80 WASHINGTON ST SUITE 301 POUGHKEEPSIE, NY 12601 845.452.6801

THE O'NEILL GROUP - DUTTON, LLC

ESTIMATED PETROLEUM AOC'S

FORMER A.C. DUTTON LUMBER FACILITY

2 HOFFMAN STREET

POUGHKEEPSIE

NEW YORK

PROJ. No.: 20040764.A1N

DATE: AUGUST 2007

FIG. 6



APPENDIX A

FORMER A.C. DUTTON LUMBER FACILITY REMEDIAL INVESTIGATION REPORT

BULK STORAGE CERTIFICATES

Expiration Date: 08/09/2003

Section A

Please Type or Print Clearly
and Complete All Items

(See enclosed instructions and please be sure to complete Sections A & B)

FACILITY		OWNER		CORRESPONDENCE	
CBS Number 3-000170	DEC PBS Number: (if applicable)	DEC MOSF Number: (if applicable)	DEC SPDES Number: (if applicable)	Transaction Type (Check all that apply) NOTE: Transaction Types 1, 2 and 3 require a fee	Spill Prevention Report In addition, a copy of the Spill Prevention Report (SPR)'s cover page, table of contents and signature page is submitted.
Facility Name: Former A.C. Dutton Lumber Co.		Owner Name: The O'Neill Group - Dutton, LLC		Attention: Richard Totino	
Location (Not P.O. Boxes) 214 OFFMAN STREET		Address (Street and/or P.O.): 218 Route 17 North, Suite 301		Name of Company: Fuss & O'Neill of NY, P.C.	
Location (cont):		City: Rochelle Park		Address: 80 Washington Street, Suite 301	
City: POUGHKEEPSIE		State: NY		Address: POUGHKEEPSIE NY 12601	
County: Dutchess		Zip Code: 12601		City/State/Zip Code:	
Township or City: Poughkeepsie (c)		Facility Telephone Number:		Telephone Number: 845-452-6801	
Name of Operator at Facility:		Emergency Telephone Number:		E-Mail Address: rtotino@fando.com	
Emergency Contact Name:		Owner Telephone Number: 201-845-5552		Telephone Number: 845-452-6801	
Type of Owner: 1 ☐ Private Resident 2 ☐ State Government 3 ☐ Local Government 4 ☐ Federal Government 5 ☒ Corporate/Commercial		Type of Owner: 1 ☐ Private Resident 2 ☐ State Government 3 ☐ Local Government 4 ☐ Federal Government 5 ☒ Corporate/Commercial		Type of Owner: 1 ☐ Private Resident 2 ☐ State Government 3 ☐ Local Government 4 ☐ Federal Government 5 ☒ Corporate/Commercial	
Type of Chemical Facility (Check only one) ☐ 01-Storage Terminal ☐ 02-Retail Gasoline Sales ☒ 03-Other Wholesale/Retail Sales ☐ 04-Manufacturing/Other Than Chemical/Processing ☐ 05-Utility (Other Than Municipal) ☐ 06-Trucking/Transportation ☐ 07-Apartment Building ☐ 08-School ☐ 09-Farm ☐ 10-Private Residence ☐ 11-Airline/Air Taxi ☐ 12-Chemical Distributor ☐ 13-Municipality (Incl. Waste Water Treatment Plants, Utilities, Swimming Pools, etc.) ☐ 14-Railroad ☐ 15-Swimming Pools (Other than Municipal) ☐ 16-Chemical Manufacturing ☐ 17-Other (Specify):		Type of Chemical Facility (Check only one) ☐ 01-Storage Terminal ☐ 02-Retail Gasoline Sales ☒ 03-Other Wholesale/Retail Sales ☐ 04-Manufacturing/Other Than Chemical/Processing ☐ 05-Utility (Other Than Municipal) ☐ 06-Trucking/Transportation ☐ 07-Apartment Building ☐ 08-School ☐ 09-Farm ☐ 10-Private Residence ☐ 11-Airline/Air Taxi ☐ 12-Chemical Distributor ☐ 13-Municipality (Incl. Waste Water Treatment Plants, Utilities, Swimming Pools, etc.) ☐ 14-Railroad ☐ 15-Swimming Pools (Other than Municipal) ☐ 16-Chemical Manufacturing ☐ 17-Other (Specify):		Type of Chemical Facility (Check only one) ☐ 01-Storage Terminal ☐ 02-Retail Gasoline Sales ☒ 03-Other Wholesale/Retail Sales ☐ 04-Manufacturing/Other Than Chemical/Processing ☐ 05-Utility (Other Than Municipal) ☐ 06-Trucking/Transportation ☐ 07-Apartment Building ☐ 08-School ☐ 09-Farm ☐ 10-Private Residence ☐ 11-Airline/Air Taxi ☐ 12-Chemical Distributor ☐ 13-Municipality (Incl. Waste Water Treatment Plants, Utilities, Swimming Pools, etc.) ☐ 14-Railroad ☐ 15-Swimming Pools (Other than Municipal) ☐ 16-Chemical Manufacturing ☐ 17-Other (Specify):	
I hereby certify that the information on this form is true and correct. False statements made herein may be punishable as a criminal offense in accordance with applicable State and federal law. The facility has maintained its requirements relating to daily, monthly, annual and five year inspections as required by Part 598.7 and has had its SPR annually updated as required by Part 598.1(k).		Name of Owner or Authorized Representative: James D McIver		Amount Enclosed: \$	
Title: Associate		Signature: James D McIver		Date: 8/12/05	
OFFICIAL USE ONLY		Page _____ of _____		Date Received _____	
Date Processed _____		Amount Received \$ _____		Reviewed by _____	

Section B - Tank Information

(See enclosed instructions and use the key located on the bottom of this sheet to complete each item/column)

Registration Expiration Date:

8/9/2003

CBS No. 3-000170

(1) Action	(2) Tank Piping Model/Number	(3) Tank Location	(4) Status	(5) Installation or Permanent Closure Date (Month/Day/Year)	(6) Capacity (Gallons)	(7) Tank Internal Protection	(8) Tank Leak Detection	(9) Tank Overfill Prevention	(10) Spill Prevention	(11) Piping Location	(12) Piping Leak Detection	(13) Hazardous Substance Name (List all Part 597 Substances, if more than 3 please list on separate sheet)	(14) CAS Number	(15) % of Haz Sub	(16) Tank Fee \$
1. Initial Listing	OTF01	1	1	5/1/1985	25,000	01 00	01 05	01 03	01 01	01 01	01 01	Asenic acid	7778-39-4	50	
2. Add Tank	OTF02	1	3	2/001	25,000	01 00	01 05	01 03	01 01	01 01	01 01	Asenic acid	7778-39-4	50	
3. Close/Remove Tank	OTF03	1	3	2/001	7,000	01 00	01 05	01 03	01 01	01 01	01 01	Asenic acid	7778-39-4	50	
4. Information	OTF01	1	2	1/1/1985	15,000	03 00	01 05	01 03	01 01	01 01	01 01	Asenic acid	7778-39-4	50	
5. Recondition/Repair/ Non-Regulated use	OTF02	1	2	1/1/1985	12,500	03 00	01 05	01 03	01 01	01 01	01 01	Asenic acid	7778-39-4	50	
6. Close/ In Place	OTF03	1	2	1/1/1985	12,500	03 00	01 05	01 03	01 01	01 01	01 01	Asenic acid	7778-39-4	50	
7. Close/ In Place	OTF04	1	2	1/1/1985	5,800	03 00	01 05	01 03	01 01	01 01	01 01	Asenic acid	7778-39-4	50	

Action (1)	Status (2)	Tank Type (3)	External Protection (10/15)	Primary Containment (11/19)	Piping Location (16)
1. Initial Listing	1. In-service	01. Steel/Carbon Steel/Inconel	00. None	00. None	00. No Piping
2. Add Tank	2. Temporarily out-of-service	02. Galvanized Steel Alloy	01. Painted/Asphalt Coating	01. Steel/Carbon Steel/Inconel	01. Aboveground
3. Close/Remove Tank	3. Closed/Removed	03. Stainless Steel Alloy	02. Galvanized Steel	02. Dipping (A/G)	02. Underground/On-ground
4. Information	4. Closed- In Place	04. Fiber Glass Coated Steel	03. Original Sacrificial Anode	03. Vault (w/o access)	03. Aboveground/Underground Combination
5. Recondition/Repair/ Non-Regulated use	5. Tank converted to Refine Tank	05. Steel Tank in Concrete	04. Original Impressed Current	04. Double-Walled (U/G)	
		06. Fiber Glass Reinforced Plastic (FRP)	05. Fiber Glass	05. Synthetic Liner	Pipe Leak Detection (22)
		07. Plastic	06. Jacketed	06. Remote Impounding Area	00. None
		08. Equivalent Technology	07. Wrapped (Piping)	07. Excavation/Trench Liner	01. Interstitial Electronic Monitoring
		09. Concrete	08. Retrofitted Sacrificial Anode	08. Flexible Internal Liner	02. Interstitial Manual Monitoring
		10. Urethane Clad Steel	09. Retrofitted Impressed Current	09. Bladder	03. Vapor Well
		99. Other-please list*	99. Other-please list*	10. Modified Double-Walled (A/G)	04. Groundwater Well
				11. Impermeous Underlayment	07. Pressurized Piping Leak Detector
				12. Double Bottom (A/G)	08. Tank Top Sump (Piping)
				99. Other-please list*	09. Exempt Suction Piping
				00. None	99. Other-please list*
				01. Interstitial Electronic Monitoring	
				02. Interstitial Manual Monitoring	
				03. Vapor Well	
				04. Groundwater Well	
				05. In-Tank System (A/G)	
				99. Other-please list*	
				00. None	
				01. Float Vent Valve	
				02. High Level Alarm	
				03. Automatic Shut-off	
				04. Product Level Gauge (A/G)	
				05. Vent Whistle	
				99. Other-please list*	

* If other, please list on a separate sheet including Tank Number

Petroleum Bulk Storage Application
Pursuant to the Petroleum Bulk Storage Law,
Article 17, Title 10 of ECL, 6 NYCRR 612-6.14 and 6 NYCRR Subpart 360-14

Section A

(See enclosed instructions and please be sure to complete Sections A & B)

Return Completed Form & Fees To:
NYSDEC - PBS Unit
Region 3 21 South Pult Corners Road
New Paltz, NY 12561-1696
(845) 256-3121



Please Type or Print Clearly
and Complete All Items

FACILITY INFORMATION		TYPE OF PETROLEUM FACILITY (Check only one)	
PBS Number 3-175935	Facility Name: Former A.C. Dutton Lumber Co.	☐ 01=Storage Terminal/Petroleum Distributor	☐ 03=Other Retail Sales
DEC CBS Number (If applicable)	Location (Not P.D. Boxes) 2 Hoffman Street	☐ 02=Retail Gasoline Sales	☐ 05=Utility
DEC SPDES Number (If applicable)	City: Poughkeepsie	☒ 04=Manufacturing	☐ 07=Apartment Building
Transaction Type (Check all that apply) NOTE: Transaction Types 1, 2 and 3 may require a fee	County: Dutchess	☐ 06=Trucking/Transportation	☐ 09=Farm
☐ 1)Initial/ New Facility	Township or City: Poughkeepsie	☐ 08=School	☐ 11=Airline/Air Taxi
☒ 2)Change of Ownership	Name of Operator at Facility: NA	☐ 10=Private Residence	☐ 13=Municipality
☐ 3)Substantial Tank Modification	Facility Telephone Number: NA	☐ 12=Chemical Distributor	☐ 15=Railroad
☒ 4)Information Correction	Emergency Contact Name: OF	☐ 14=Refinery Residence	☐ 99=Other (Specify):
☒ 5)Renewal	Emergency Telephone Number:	I hereby certify under penalty of perjury that the information provided on this form is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.	
Owner Name: The O'Neill Group - Dutton, LLC		Name of Owner or Authorized Representative: James D McIver	
Address (Street and/or P.O.): 218 Route 17 North, Suite 301		Title: Associate Fuss & O'Neill NY PC	
City: Rochelle Park		Signature: <i>James D McIver</i>	
State: NJ		Date: 8/12/05	
Zip Code: 07062		Amount Enclosed: \$	
Federal Tax ID Number: 201-845-5552		Owner Telephone Number: 201-845-5552	
Type of Owner: (Check only one) ☐ Private Resident ☐ State Government ☐ Local Government ☒ Federal Government ☐ Corporate/Commercial		Official Use Only Page <u>1</u> of <u>1</u> Date Received <u>1/1</u> Date Processed <u>1/1</u> Amount Received \$ <u> </u> Reviewed by <u> </u>	

Section B - Tank Information

(See enclosed instructions and use the key located on the bottom of this sheet to complete each item/column)

Registration Expiration Date:
6/30/2002

PBS Number:
3-175935

(1) Action	(2) Tank Model, Piping, Tank Number	(3) Tank Location	(4) Status	(5) Installation or Permanent Closure Date (Month/Day/Year)	(6) Capacity (Gallons)	(7) Product Stored	(8) Tank Internal Protection	(9) Tank External Protection	(10) Tank Leak Detection	(11) Tank Overfill Prevention	(12) Tank Spill Prevention	(13) Piping Location	(14) Piping Leak Detection	(15) Piping Leak Detection	(16) Piping Leak Detection	(17) Piping Leak Detection	(18) Piping Leak Detection	(19) Piping Leak Detection	(20) Piping Leak Detection	(21) Last Test Date/ Testing Due Date (Underground Tanks)	
4	1	3	2		3,000	0008	01	00	01	99	04	02	01	01	01	01	01	01	01	ZZ	
4	2	6	2		1,500	0001	01	00	01	03	04	02	03	01	01	01	01	01	09		
4	3	3	2		3,000	0001	01	00	01	00	04	02	03	01	01	01	01	01	09		
4	4	3	2		275	0001	01	00	01	00	04	02	01	01	01	01	01	01	09		
4	5	3	2		275	0001	01	00	01	00	04	02	03	01	01	01	01	01	09		

Action (1)	Status (2)	Tank Type (3)	External Protection (10/18)	Pipeline Type (17)	Secondary Containment (11/19)	Pipeline Location (16)
1. Initial Listing	1. In-service	01. Steel/Carbon Steel/iron	00. None	00. None	00. None	00. No Piping
2. Add Tank	2. Temporarily out-of-service	02. Galvanized Steel Alloy	01. Painted/Asphalt Coating	01. Steel/Carbon Steel/iron	01. Diking (AG)	01. Aboveground
3. Close/Remove Tank	3. Closed-Removed	03. Stainless Steel Alloy	02. Original Sacrificial Anode	02. Galvanized Steel	02. Vault (w/o access)	02. Underground/On-ground
4. Information	4. Closed-In Place	04. Fiberglass Coated Steel	03. Original Impressed Current	03. Stainless Steel Alloy	03. Vault (w/o access)	03. Underground/Underground
5. Recondition/Repair/ Reline Tank	5. Tank converted to Non-Regulated use	05. Steel Tank in Concrete	04. Fiberglass	04. Fiberglass Coated Steel	04. Double-Walled (U/G)	Combination
		06. Fiberglass Reinforced Plastic (FRP)	05. Jacketed	05. Steel Exposed in Concrete	05. Synthetic Liner	Pipe Leak Detection (20)
		07. Plastic	06. Wrapped (Pigging)	06. Fiberglass Reinforced Plastic (FRP)	06. Remote Impounding Area	00. None
		08. Equivalent Technology	07. Retrofitted Sacrificial Anode	07. Plastic	07. Extension/Trench Liner System	01. Interstitial Electronic Monitoring
		09. Concrete	08. Retrofitted Impressed Current	08. Equivalent Technology	08. Flexible Internal Liner (Bladder)	02. Interstitial Manual Monitoring
		10. Urethane Clad Steel	09. Urethane	09. Concrete	09. Modified Double-Walled (AG)	03. Vapor Well
		11. Other-please list *	10. Other-please list *	10. Copper	10. Imperious Underlayment	04. Groundwater Well
			11. Tank Leak Detection (12)	11. Flexible Piping	11. Double Bottom (AG)	07. Pressurized Piping Leak Detector
			00. None	00. None	11. Other-please list *	08. Tank Top Sump (Piping)
			01. Interstitial Electronic Monitoring	01. Interstitial Electronic Monitoring	11. Other-please list *	09. Exempt Suction Piping
			02. Interstitial Manual Monitoring	02. Interstitial Manual Monitoring	11. Other-please list *	99. Other-please list *
			03. Vapor Well	03. Vapor Well	11. Other-please list *	00. None
			04. Groundwater Well	04. Groundwater Well	11. Other-please list *	01. Submersible
			05. In-Tank System (ATG)	05. In-Tank System (ATG)	11. Other-please list *	02. Suction
			06. Imperious Barrier/Concrete Pad (AG)	06. Imperious Barrier/Concrete Pad (AG)	11. Other-please list *	03. Gravity
			99. Other-please list *	99. Other-please list *	11. Other-please list *	
			00. None	00. None	11. Other-please list *	
			01. Epoxy Liner	01. Epoxy Liner	11. Other-please list *	
			02. Rubber Liner	02. Rubber Liner	11. Other-please list *	
			03. Fiberglass Liner (FRP)	03. Fiberglass Liner (FRP)	11. Other-please list *	
			04. Glass Liner	04. Glass Liner	11. Other-please list *	
			99. Other-please list *	99. Other-please list *	11. Other-please list *	
			00. None	00. None	11. Other-please list *	
			01. Epoxy Liner	01. Epoxy Liner	11. Other-please list *	
			02. Rubber Liner	02. Rubber Liner	11. Other-please list *	
			03. Fiberglass Liner (FRP)	03. Fiberglass Liner (FRP)	11. Other-please list *	
			04. Glass Liner	04. Glass Liner	11. Other-please list *	
			99. Other-please list *	99. Other-please list *	11. Other-please list *	
			00. None	00. None	11. Other-please list *	
			01. Epoxy Liner	01. Epoxy Liner	11. Other-please list *	
			02. Rubber Liner	02. Rubber Liner	11. Other-please list *	
			03. Fiberglass Liner (FRP)	03. Fiberglass Liner (FRP)	11. Other-please list *	
			04. Glass Liner	04. Glass Liner	11. Other-please list *	
			99. Other-please list *	99. Other-please list *	11. Other-please list *	
			00. None	00. None	11. Other-please list *	
			01. Epoxy Liner	01. Epoxy Liner	11. Other-please list *	
			02. Rubber Liner	02. Rubber Liner	11. Other-please list *	
			03. Fiberglass Liner (FRP)	03. Fiberglass Liner (FRP)	11. Other-please list *	
			04. Glass Liner	04. Glass Liner	11. Other-please list *	
			99. Other-please list *	99. Other-please list *	11. Other-please list *	
			00. None	00. None	11. Other-please list *	
			01. Epoxy Liner	01. Epoxy Liner	11. Other-please list *	
			02. Rubber Liner	02. Rubber Liner	11. Other-please list *	
			03. Fiberglass Liner (FRP)	03. Fiberglass Liner (FRP)	11. Other-please list *	
			04. Glass Liner	04. Glass Liner	11. Other-please list *	
			99. Other-please list *	99. Other-please list *	11. Other-please list *	
			00. None	00. None	11. Other-please list *	
			01. Epoxy Liner	01. Epoxy Liner	11. Other-please list *	
			02. Rubber Liner	02. Rubber Liner	11. Other-please list *	
			03. Fiberglass Liner (FRP)	03. Fiberglass Liner (FRP)	11. Other-please list *	
			04. Glass Liner	04. Glass Liner	11. Other-please list *	
			99. Other-please list *	99. Other-please list *	11. Other-please list *	
			00. None	00. None	11. Other-please list *	
			01. Epoxy Liner	01. Epoxy Liner	11. Other-please list *	
			02. Rubber Liner	02. Rubber Liner	11. Other-please list *	
			03. Fiberglass Liner (FRP)	03. Fiberglass Liner (FRP)	11. Other-please list *	
			04. Glass Liner	04. Glass Liner	11. Other-please list *	
			99. Other-please list *	99. Other-please list *	11. Other-please list *	
			00. None	00. None	11. Other-please list *	
			01. Epoxy Liner	01. Epoxy Liner	11. Other-please list *	
			02. Rubber Liner	02. Rubber Liner	11. Other-please list *	
			03. Fiberglass Liner (FRP)	03. Fiberglass Liner (FRP)	11. Other-please list *	
			04. Glass Liner	04. Glass Liner	11. Other-please list *	
			99. Other-please list *	99. Other-please list *	11. Other-please list *	
			00. None	00. None	11. Other-please list *	
			01. Epoxy Liner	01. Epoxy Liner	11. Other-please list *	
			02. Rubber Liner	02. Rubber Liner	11. Other-please list *	
			03. Fiberglass Liner (FRP)	03. Fiberglass Liner (FRP)	11. Other-please list *	
			04. Glass Liner	04. Glass Liner	11. Other-please list *	
			99. Other-please list *	99. Other-please list *	11. Other-please list *	
			00. None	00. None	11. Other-please list *	
			01. Epoxy Liner	01. Epoxy Liner	11. Other-please list *	
			02. Rubber Liner	02. Rubber Liner	11. Other-please list *	
			03. Fiberglass Liner (FRP)	03. Fiberglass Liner (FRP)	11. Other-please list *	
			04. Glass Liner	04. Glass Liner	11. Other-please list *	
			99. Other-please list *	99. Other-please list *	11. Other-please list *	
			00. None	00. None	11. Other-please list *	
			01. Epoxy Liner	01. Epoxy Liner	11. Other-please list *	
			02. Rubber Liner	02. Rubber Liner	11. Other-please list *	
			03. Fiberglass Liner (FRP)	03. Fiberglass Liner (FRP)	11. Other-please list *	
			04. Glass Liner	04. Glass Liner	11. Other-please list *	
			99. Other-please list *	99. Other-please list *	11. Other-please list *	
			00. None	00. None	11. Other-please list *	
			01. Epoxy Liner	01. Epoxy Liner	11. Other-please list *	
			02. Rubber Liner	02. Rubber Liner	11. Other-please list *	
			03. Fiberglass Liner (FRP)	03. Fiberglass Liner (FRP)	11. Other-please list *	
			04. Glass Liner	04. Glass Liner	11. Other-please list *	
			99. Other-please list *	99. Other-please list *	11. Other-please list *	
			00. None	00. None	11. Other-please list *	
			01. Epoxy Liner	01. Epoxy Liner	11. Other-please list *	
			02. Rubber Liner	02. Rubber Liner	11. Other-please list *	
			03. Fiberglass Liner (FRP)	03. Fiberglass Liner (FRP)	11. Other-please list *	
			04. Glass Liner	04. Glass Liner	11. Other-please list *	
			99. Other-please list *	99. Other-please list *	11. Other-please list *	
			00. None	00. None	11. Other-please list *	
			01. Epoxy Liner	01. Epoxy Liner	11. Other-please list *	
			02. Rubber Liner	02. Rubber Liner	11. Other-please list *	
			03. Fiberglass Liner (FRP)	03. Fiberglass Liner (FRP)	11. Other-please list *	
			04. Glass Liner	04. Glass Liner	11. Other-please list *	
			99. Other-please list *	99. Other-please list *	11. Other-please list *	
			00. None	00. None	11. Other-please list *	
			01. Epoxy Liner	01. Epoxy Liner	11. Other-please list *	
			02. Rubber Liner	02. Rubber Liner	11. Other-please list *	
			03. Fiberglass Liner (FRP)	03. Fiberglass Liner (FRP)	11. Other-please list *	
			04. Glass Liner	04. Glass Liner	11. Other-please list *	
			99. Other-please list *	99. Other-please list *	11. Other-please list *	
			00. None	00. None	11. Other-please list *	
			01. Epoxy Liner	01. Epoxy Liner	11. Other-please list *	
			02. Rubber Liner	02. Rubber Liner	11. Other-please list *	
			03. Fiberglass Liner (FRP)	03. Fiberglass Liner (FRP)	11. Other-please list *	
			04. Glass Liner	04. Glass Liner	11. Other-please list *	
			99. Other-please list *	99. Other-please list *	11. Other-please list *	
			00. None	00. None	11. Other-please list *	
			01. Epoxy Liner	01. Epoxy Liner	11. Other-please list *	
			02. Rubber Liner	02. Rubber Liner	11. Other-please list *	
			03. Fiberglass Liner (FRP)	03. Fiberglass Liner (FRP)	11. Other-please list *	
			04. Glass Liner	04. Glass Liner	11. Other-please list *	
			99. Other-please list *	99. Other-please list *	11. Other-please list *	
			00. None	00. None	11. Other-please list *	
			01. Epoxy Liner	01. Epoxy Liner	11. Other-please list *	
			02. Rubber Liner	02. Rubber Liner	11. Other-please list *	
			03. Fiberglass Liner (FRP)	03. Fiberglass Liner (FRP)	11. Other-please list *	
			04. Glass Liner	04. Glass Liner	11. Other-please list *	
			99. Other-please list *	99. Other-please list *	11. Other-please list *	
			00. None	00. None	11. Other-please list *	
			01. Epoxy Liner	01. Epoxy Liner	11. Other-please list *	
			02. Rubber Liner	02. Rubber Liner	11. Other-please list *	
			03. Fiberglass Liner (FRP)	03. Fiberglass Liner (FRP)	11. Other-please list *	
			04. Glass Liner	04. Glass Liner	11. Other-please list *	
			99. Other-please list *	99. Other-please list *	11. Other-please list *	
			00. None	00. None	11. Other-please list *	
			01. Epoxy Liner	01. Epoxy Liner	11. Other-please list *	
			02. Rubber Liner	02. Rubber Liner	11. Other-please list *	
			03. Fiberglass Liner (FRP)	03. Fiberglass Liner (FRP)	11. Other-please list *	
			04. Glass Liner	04. Glass Liner	11. Other-please list *	
			99. Other-please list *	99. Other-please list *	11. Other-please list *	
			00. None	00. None	11. Other-please list *	
			01. Epoxy Liner	01. Epoxy Liner	11. Other-please list *	
			02. Rubber Liner	02. Rubber Liner	11. Other-please list *	
			03. Fiberglass Liner (FRP)	03. Fiberglass Liner (FRP)	11. Other-please list *	
			04. Glass Liner	04. Glass Liner	11. Other-please list *	
			99. Other-please list *	99. Other-please list *	11. Other-please list *	
			00. None	00. None	11. Other-please list *	
			01. Epoxy Liner	01. Epoxy Liner	11. Other-please list *	
			02. Rubber Liner	02. Rubber Liner	11. Other-please list *	
			03. Fiberglass Liner (FRP)	03. Fiberglass Liner (FRP)	11. Other-please list *	
			04. Glass Liner	04. Glass Liner	11. Other-please list *	
			99. Other-please list *	99. Other-please list *	11. Other-please list *	
			00. None	00. None	11. Other-please list *	
			01. Epoxy Liner	01. Epoxy Liner	11. Other-please list *	
			02. Rubber Liner	02. Rubber Liner	11. Other-please list *	
			03. Fiberglass Liner (FRP)	03. Fiberglass Liner (FRP)	11. Other-please list *	
			04. Glass Liner	04. Glass Liner	11. Other-please list *	
			99. Other-please list *	99. Other-please list *	11. Other-please list *	
			00. None	00. None	11. Other-please list *	
			01. Epoxy Liner	01. Epoxy Liner	11. Other-please list *	
			02. Rubber Liner	02. Rubber Liner	11. Other-please list *	
			03. Fiberglass Liner			



APPENDIX B

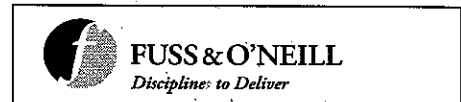
FORMER A.C. DUTTON LUMBER FACILITY
REMEDIAL INVESTIGATION REPORT

TEST PIT LOGS
SOIL BORING LOGS
MONITORING WELL COMPLETION FORMS

Test Pit # A2
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/6/2005
Time:	10:15
Sample Prefix:	804051206- / ACD-SS- A2
Logged By:	BT

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 3.0'			weathered shale grass/roots		
-			litt f-c calgr (tr-litt org		
-			in top 0.2) Photos shows		
-			striated shale (almost vert)		
-			bucket able to pen to 3.0		
3.0' -			refusal - hard rock, water.		
-					
0 - 0.5'	006	10:30			
0.5 - 2.0'	007	10:35			
-					
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS:

**FUSS & O'NEILL***Disciplines to Deliver***BORING LOG**

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: A3

SHEET: _____ of _____

PROJECT NO: 20040764.AIN

WEATHER: 2 deg. F, 2-4" snow

CONTRACTOR: _____

OPERATOR: _____

F&O REPRESENTATIVE: _____

DRILLING METHOD: mlp

SAMPLING METHOD: sleeve

HAMMER WT: na HAMMER FALL (IN) na

BORING LOCATION: _____

GROUND ELEVATION: na

DATE STARTED: _____

SAMPLE PREFIX: 767051215- / ACD-SS-

WATER LEVEL MEASUREMENTS

DATE

MS. PT.

WATER AT

TIME

TIME AND DATE OF COMPLETION: 12/15/05 9:50

DEPTH (FT)	REC/ PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO- LOGIC CODE	FIELD TESTING
0-0.5	2.5/4.0	0-0.5	007/A3(0-0.5) 9:48	Asphalt, gravel			
0.5-2.5		0.5-2.5	008/A3(0.5-2.5) 9:50	some m-c dk brown sand, small gravel, no noticeable ash or organics BR			
2.5							

**BORING
DIAMETER****BORING METHOD****DEPTH****REMARKS**

Field Instrument=

If refusal is encountered, describe all efforts used to confirm.

Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED:

Trace	0 to 10%	Some	20 to 35%
Little	10 to 20%	And	35 to 50%

EXAMPLE DESCRIPTION:SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4)
Moist. Loose. No odor.

Reviewed by Staff: _____

BACKFILL

Native Material

Bentonite Grout/Chips

Concrete/Asphalt

Other _____

To _____

To _____

To _____

To _____

See Monitoring Well

Completion Report

Test Pit # A4
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/6/2005
Time:	8:30
Sample Prefix:	804051206 / ACD-SS-
Logged By:	PT

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 0.3'			Asp/glass slag (lt glassy molten slag)		
0.3 - 2.5'			bl-br f-c SA + f-c GR/cr shale. layers of const. fill about 0.3 thick. br st/ark alternates w/ bl ct shale + stones		
2.5' -			water		
0 - 0.5'	001	8:30			
0.5 - 2.5'	002	8:35			
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS:

Test Pit # Ab
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/5/2005
Time:	1455
Sample Prefix:	804051205- / ACD-SS-
Logged By:	LMG

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 2"			Asphalt		
2" - 0.5'			med brown f-m sand. trace organics little gravel.		
0.5' - 2'			dk brown m-c sand, trace organics, some gravel, some pulverized shale		
2' - 2.5'			med brown c-vc sand mostly shale		
2.5' - 4'			crushed (4") fine brick, trace sand - no sample. glass shards		
4' - 6'			dark m-c sand, mostly gravel, glass pieces. some fine brick pulverized		
6' -			GW		
-					
0 - 1'	011	1500			
4 - 6'	012	1505			
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS:

MONITORING WELL COMPLETION REPORT
GENERAL INFORMATION

GENERAL INFORMATION

Project Name: AC DuttonProject Location: POK, NYF&O Engineer/Geologist: NJL

Date of Completion: _____

Boring Location: ACP-AL6Drilling Contractor: Todd Syska, Inc.Drilling Method: GeoprobeSite ID (Boring/Well ID): MW-AL6Project No.: 20040764

Ground Surface Elevation: _____

Permit #: _____

E1 Top of Steel Casing: _____

E1 Top of PVC Casing: _____

Measuring Point: TPS / PVC

Well Cover (see codes): TOP PVC

WELL CONSTRUCTION

Well Casing/Riser

Diameter: 1" in.Type: PVCStick-up: 2.3' ft.

Sump (below screen)

Diameter: N/A in.

Type: _____

Length: _____ in.

Protective Casing

Diameter: N/A in. Type: _____

Stick-up: _____ ft Depth to Bottom: _____ ft

Seal Material: _____

Screen Intervals

Screen Interval: 5' (10'-5') ft Diameter: 1" in. Slot Size: 0.010" in.Description: (PVC) Other: _____Type: Perforated / (Slotted) / Wire-Wrap / Other: _____

ANNULAR FILL

Surface Seal

(Approximate volumes if available)

Interval: 4'-0' ft Tremied: Y / N Volume: _____ bagsDescription: Concrete / Other: bentonite

Backfill

Interval: 10'-5' ft Tremied: Y / N Volume: _____ bagsDescription: Bentonite Grout / (Fill) / Other: _____

Lower Seal

Interval: _____ ft Tremied: Y / N Volume: _____ bags

Description: Bentonite / Bentonite Pellets / Grout / Other: _____

Filter

Interval: 5'-4' ft Tremied: Y / N Volume: _____ bagsDescription: (Sand) / Filter (type: _____) / Other: _____

Lower Backfill

Interval: _____ ft Tremied: Y / N Volume: _____ bags

Description: Bentonite Grout / Fill / Other: _____

Monitoring Well Field Data Sheet

Client/Project Name: Project Location:	PROJECT #:	 FUSS & O'NEILL <i>Disciplines to Deliver</i>
Sample#: 788070720-06	Well ID MW A6	

Elevation Data

Date: 7/20/07	Time: 16:20	Well Diameter (inches): 1												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 30%;">Depth (feet)</th> <th style="width: 10%;">+ Correction</th> <th style="width: 60%;">= True Depth</th> </tr> <tr> <td>Water Level PVC: 7.96</td> <td>+</td> <td>=</td> </tr> <tr> <td>Water Level TPS:</td> <td>+</td> <td>=</td> </tr> <tr> <td>Bottom of Well: 9.75</td> <td>+</td> <td>=</td> </tr> </table>		Depth (feet)	+ Correction	= True Depth	Water Level PVC: 7.96	+	=	Water Level TPS:	+	=	Bottom of Well: 9.75	+	=	Water Column Height: _____ (feet) Gal/foot x 3 factor: x _____ Volume to be Purged: _____ (gal)
Depth (feet)	+ Correction	= True Depth												
Water Level PVC: 7.96	+	=												
Water Level TPS:	+	=												
Bottom of Well: 9.75	+	=												
Measuring Device ID#: _____ Comments: _____		Sampler: GAT Weather: 80°F partly cloudy												

Well Condition Checklist

[circle appropriate item(s); cross out if not applicable]

General Condition: <u>Good</u> / Needs Repair Protective Steel: <u>OK</u> / Cracked / Leaking / Bent / Loose / <u>None</u> Well # Visible?: <u>Y</u> / N Well Cap: <u>Good</u> / Broken / None Evidence of rain water between steel and PVC?: <u>Y</u> / N Evidence of ponding around well?: <u>Y</u> / <u>N</u> Gopher-type holes around collar?: <u>Y</u> / <u>N</u> Comments: _____	Is well plumb?: <u>Y</u> / N Lock: <u>Good</u> / Broken / <u>None</u> Rust around cap?: <u>Y</u> / N PVC Riser: <u>Good</u> / Damaged / None Concrete collar: <u>OK</u> / Cracked / Leaking / <u>None</u> Other Evidence: <u>Rodents</u> / Insects / <u>None</u> Curb Box: <u>Y</u> / <u>N</u> (key is: Hex/Pent/Other) Curb Box Gasket: <u>OK</u> / Replace / Other _____

Purge Data

Start Time: 16:25 Stop Time: 16:40 Total Time Purged: 25 min Pump Rate: _____ (gpm) Volume Purged: 4.25 gal (gallons)	Purge Device: <u>Dedicated</u> / Nondedicated Device type: <u>Bailer</u> / <u>Peristaltic</u> / Submersible / Bladder Comments: _____ Well Yield: <u>High</u> / Moderate / Low / Dry

Sample Data

Date: 7/20/07 Time: 16:40 Sampler: GAT Approx. sample depth: _____ (ft) Weather: _____ Sampling method: Bailer / Peristaltic / Bladder Bailer type: SS 2" / SS 1.25" / SS Short / PVC 2" / Other _____ Bailer Cord: <u>Dedicated</u> / Nondedicated Filtered in Field?: <u>No</u> / @ Well / @ Lab Method of Filtration: <u>Pressure</u> / Vacuum / Syringe Pump ID # _____ Filter: 10u / 0.45u Field Decon: Bailer / Tubing / Other _____ Appearance: _____	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Container</th> <th>Quantity</th> <th>Preservative</th> </tr> </thead> <tbody> <tr> <td>Amber</td> <td>1</td> <td>-</td> </tr> <tr> <td>Plastic</td> <td>1</td> <td>HNO₃</td> </tr> <tr> <td>Plastic</td> <td>1</td> <td>NaOH</td> </tr> <tr> <td>Plastic</td> <td>1</td> <td>HCl</td> </tr> <tr> <td>VOA Vial</td> <td>3</td> <td></td> </tr> </tbody> </table>	Container	Quantity	Preservative	Amber	1	-	Plastic	1	HNO ₃	Plastic	1	NaOH	Plastic	1	HCl	VOA Vial	3	
Container	Quantity	Preservative																	
Amber	1	-																	
Plastic	1	HNO ₃																	
Plastic	1	NaOH																	
Plastic	1	HCl																	
VOA Vial	3																		

Field Parameters

Note: SC calculation based on (temp) at time of SC measurement.

Instrument ID#

Instrument ID#

pH	Temp	DO	Spec. Cond.
7.49	22.3°C	43.4%	326

Test Pit # 19
 Location: A8

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/2/2005
Time:	13:20
Sample Prefix:	804051202- / ACD-SS- A8-
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
2 (or 6) 0			Asphalt		
0 - 18"			clay c. sand + gravel, loose, dry layer of large ~5' gravel at 7-10"		
18"-			water. rocks 4"-1.5' below water.		
0 - 0.5'	038 / (0-5)	1336			
0.5 - 3	039 / (0.5-3)	1330			
--					
--					
--					
--					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: NW corner of site prc 25 + 31

**FUSS & O'NEILL***Disciplines to Deliver***BORING LOG**

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: B3

SHEET: _____ of _____

PROJECT NO: 20040764.A1N

WEATHER: 2 deg. F, 2-4" snow

CONTRACTOR: _____

OPERATOR: _____

F&O REPRESENTATIVE: _____

DRILLING METHOD: mlp

SAMPLING METHOD: sleeve

HAMMER WT: na HAMMER FALL (IN) na

BORING LOCATION: _____

GROUND ELEVATION: na

DATE STARTED: _____

SAMPLE PREFIX: 767051215- / ACD-SS-

WATER LEVEL MEASUREMENTS

DATE

MS. PT.

WATER AT

TIME

TIME AND DATE OF COMPLETION: 12/15/05 9:05

DEPTH (FT)	REC/PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0-2"	3.0/4.0	0-.5'	001/B3(0-0.5) 9:00	dk brown f-m sand frozen, some gravel, little organics			
2"-4"				shale			
4"-6"				concrete, some gravel			
6"-8"		0.5-3.0'	002/B3(0.5-3.0) 9:03	f-m dk brown sand, some gravel, dry			
8"-1.5'				dk brown, f-m sand, possible coal and ash. pulverized brick, some small gravel			
1.5'-2.0'				med brown f-m sand			
2.0-3.0'		3.0-5.5'	003/B3(3.0-5.5) 9:05	mostly large gravel.			
4-4.5'	1.0/4.0			med brown f. sand, some gravel, some silt. Seems dry to lightly moist.			
4.5-5.5'				BR at 5.5'			

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS
			Field Instrument - _____ If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED: Trace 0 to 10% Some 20 to 35% Little 10 to 20% And 35 to 50%			
EXAMPLE DESCRIPTION: SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4) Moist. Loose. No odor.			
Reviewed by Staff: _____			

BACKFILL			
Native Material	_____	To _____	See Monitoring Well Completion Report
Bentonite Grout/Chips	_____	To _____	
Concrete/Asphalt	_____	To _____	
Other	_____	To _____	

Test Pit # 21
 Location: CJ

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/2/2005
Time:	14:30
Sample Prefix:	804051202- / ACD-SS-CJ-
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-2" - 0"			Asphalt		
0 - 1"			Angular rock		
1 - 6"			c. sand trace clay. gray loose, dry.		
6" - 19"			brick (mostly) + silt & fine sand roots. lt brown base dry		
19" -			bedrock - dry		
--					
0 - 0.5'	043 / 10.5	14:50			
0.5 - 3'	044 / 15.3	14:40			
--					
--					
--					
--					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTLING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: NE end of site.

Test Pit # C4
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/6/2005
Time:	850
Sample Prefix:	804051206- / ACD-SS- C4
Logged By:	RT

Contractor:	
Operator:	
Backfill:	



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 0.8'			2" RRb w/ sat gr + cr. asph or shale/rock, dry, loose/ compacted (non-cohesive).		
0.8 - 2.0'			or / reworked shale mostly rock little sa/gr in spaces d/c gr sl irred ("oily" looking)		
2.0 - 5.0'			dk br SA/cr shale/grau fill. Frag of iron steel, glass, brick, very hard/compacted		
5.0 -			Refusal. no water		
0 - 0.5'	003	9:05			
0.5 - 3.0'	004	9:16			
3.0 - 5.0'	005	9:00			

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS:

Test Pit # 20
 Location: C6

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/2/2005
Time:	13:55
Sample Prefix:	804051202- / ACD-SS- C6
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-2" - 0			Asphalt		
0 - 3"			c. sand clay + gravel. loose dry		
3" - 12"			layer of rock		
12 - 16"			silt + some gravel dark brown dry loose		
16 - 23"			rocks (1-5") blue/green		
23 - 47"			gravel, some coarse sand + silt. brown trace brick + wire		
47" -			water. gravel trace c. sand + silt.		
-					
-					
0 - 0.5'	040 / (0-5)	14:20			
0.5 - 3'	041 / (1.5-3)	14:00			
3 - 4'	042 / (3-4)	14:10			

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTLING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: N end of site. pic 32-33

Test Pit # C8
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/5/2005
Time:	
Sample Prefix:	804051205- / ACD-SS-
Logged By:	IMG

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 2'			Asphalt		
2" - 10"			Concrete w/ lg stones		
10" - 3'			C-vc sand, some gravel, glass pieces, slight trace organics		
① 1 - 1.5'			dk brown		
1 - 1.5'			slight ① trace ash.		
-					
-					
1' - 2'	010				
-					
-					
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS:



FUSS & O'NEILL
Disciplines to Deliver

BORING LOG

PROJECT: AC Dutton
LOCATION: Poughkeepsie, NY

SITE ID: D2
SHEET: of
PROJECT NO: 20040764.A1N
WEATHER:

CONTRACTOR:
OPERATOR:
F&O REPRESENTATIVE:
DRILLING METHOD: mlp
SAMPLING METHOD: sleeve
HAMMER WT: na HAMMER FALL (IN) na
BORING LOCATION:
GROUND ELEVATION: na
DATE STARTED: 12/19/05
SAMPLE PREFIX: 804051219- / ACD-SS-

WATER LEVEL MEASUREMENTS

DATE	MS. PT.	WATER AT	TIME

TIME AND DATE OF COMPLETION: 14:15

DEPTH (FT)	REC/ PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0-4 0-03 0.3-2.6 4-8 8-12	2.6/4.0 2.6/4.0 2.9/4.0		6-8' 804051219-D2 @ 14:15 (6-8)	cr asph br f-m sa/gr/si full cr shale frag, some sub-rnd stones, coal slag (pl) SAA. wet 4.6-5.1 and 6.0-6.6. lg stone 5.2-5.4 br SI and v coarse sa fg grav (appears to be v small (1-3mm) shale gravel, very sat-sieve full of water.			

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS Field Instrument = If refusal is encountered, describe all efforts used to confirm.
Field Decon: Yes / No / Dedicated Device			
PROPORTIONS USED: Trace 0 to 10% Little 10 to 20% Some 20 to 35% And 35 to 50%			BACKFILL Native Material To Bentonite Grout/Chips To Concrete/Asphalt To Other To
EXAMPLE DESCRIPTION: SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4) Moist. Loose. No odor.			See Monitoring Well Completion Report
Reviewed by Staff:			



FUSS & O'NEILL

Disciplines to Deliver

BORING LOG

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: D4

SHEET: _____ of _____

PROJECT NO: 20040764.A1N

WEATHER: 2 deg. F, 2-4" snow

CONTRACTOR: _____
 OPERATOR: _____
 F&O REPRESENTATIVE: _____
 DRILLING METHOD: mlp
 SAMPLING METHOD: sleeve
 HAMMER WT: na HAMMER FALL (IN) na
 BORING LOCATION: _____
 GROUND ELEVATION: na
 DATE STARTED: _____
 SAMPLE PREFIX: 767051215- / ACD-SS-

WATER LEVEL MEASUREMENTS

DATE	MS. PT.	WATER AT	TIME
TIME AND DATE OF COMPLETION: 12/15/05 9:25			

DEPTH (FT)	REC/ PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0-2"	25/4.0	0-0.5'	004 / D4(0-5) 9:20	Asphalt			
2"-0.5'				dk brown slightly moist m-c sand. little gravel			
0.5-1.5'		0.5-3'	005 / D4(1.5-3) 9:23	pulverized coal, ash, kiln slag, little gravel, trace sand.			
1.5-2.5'		3-6.0'	006 / D4(3-6) 9:25	med brown f-m sand little med brown silt some ang. gravel. trace ash and kiln slag.			
4-4.5'	30/4.0			m-c dk brown sand, pulverized coal, trace small gravel.			
4.5'-4.8'				ash, pulverized kiln ash			
4.8-7.0'				chunks of kiln slag, trace of f-m sand, little gravel wet			
6.5'				GW			

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS
			Field Instrument = _____ If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED:

Trace	0 to 10%	Some	20 to 35%
Little	10 to 20%	And	35 to 50%

EXAMPLE DESCRIPTION:
 SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4)
 Moist. Loose. No odor.

Reviewed by Staff: _____

BACKFILL

Native Material	_____	To _____	See Monitoring Well
Bentonite Grout/Chips	_____	To _____	Completion Report
Concrete/Asphalt	_____	To _____	
Other	_____	To _____	

**FUSS & O'NEILL***Disciplines to Deliver***BORING LOG**

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: D6

SHEET: of

PROJECT NO: 20040764.A1N

WEATHER: 2 deg. F, 2-4" snow

CONTRACTOR:

OPERATOR:

F&O REPRESENTATIVE:

DRILLING METHOD: mlp

SAMPLING METHOD: sleeve

HAMMER WT: na HAMMER FALL (IN) na

BORING LOCATION:

GROUND ELEVATION: na

DATE STARTED:

SAMPLE PREFIX: 767051215- / ACD-SS-

WATER LEVEL MEASUREMENTS

DATE

MS. PT.

WATER AT

TIME

TIME AND DATE OF COMPLETION: 12/15/05 10:45

DEPTH (FT)	REC/ PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO- LOGIC CODE	FIELD TESTING
0-2"	3.0/4.0	0-0.5'	009/D6(0-0.5) 10:35	Asphalt, little organics			
2"-0.5'				gravel, little organics			
0.5-0.7		0.5-3.0'	010/D6(0.5-3.0) 10:40	med brown f-m sand			
0.7-0.8				graywacke			
0.8-1.0	2.5/4.0			dk. brown/black f-m			
1.0-2.0'				sand. coal pulverized			
				ash, gravel			
				dk brown f-m sand			
2.0-3.0'	2.5/4.0	3.0-6.0'	011/D6(3.0-6.0) 10:45	little gravel, some ash			
				at 1.0'			
				fill, ash, gravel, trace			
				med brown f-m sand			
4-5'	2.5/4.0			fill, pulverized brick,			
				gravel.			
5-5.5				GW. med brown, wet			
				f-m sand. some silt			
				some small gravel.			

BORING
DIAMETER

BORING METHOD

DEPTH

REMARKS

Field Instrument =

If refusal is encountered, describe all efforts used to confirm.

Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED:

Trace	0 to 10%	Some	20 to 35%
Little	10 to 20%	And	35 to 50%

EXAMPLE DESCRIPTION:

SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4)

Moist. Loose. No odor.

Reviewed by Staff:

BACKFILL

Native Material

To

See Monitoring Well

Bentonite Grout/Chips

To

Completion Report

Concrete/Asphalt

To

Other

To

Test Pit # E2
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/6/2005
Time:	11:05
Sample Prefix:	804051206- / ACD-SS-
Logged By:	RT

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 0.5'			3" asphalt		
0 - 0.5'			lt br f c sa/gr (round ^{stone} ~~frag~~) ¹ / ₄ " litt		
-			cr. stone/silt		
0.5 - 2.0'			dk br-bl sa/gr and cr shale		
-			tr br/frag highly compacted		
-			some slag. (as descr. before)		
2.0 - 3.5'			lt br v f sand + weathered		
-			rock + silt, highly compacted		
-			stiff/hard, shale occurs		
-			adjacent to fine s.		
3.5' -			refusal - rock, no water.		
0 - 0.5'	008				
0.5 - 3.0'	009				

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS:

**FUSS & O'NEILL***Disciplines to Deliver***BORING LOG**

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: E3SHEET: ofPROJECT NO: 20040764.A1N

WEATHER:

CONTRACTOR:

OPERATOR:

F&O REPRESENTATIVE:

DRILLING METHOD: mlpSAMPLING METHOD: sleeveHAMMER WT: na HAMMER FALL (IN) na

BORING LOCATION:

GROUND ELEVATION: naDATE STARTED: 12/19/05SAMPLE PREFIX: 804051219- / ACD-SS-**WATER LEVEL MEASUREMENTS**

DATE

MS. PT.

WATER AT

TIME

TIME AND DATE OF COMPLETION: 13:50

DEPTH (FT)	REC/ PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0-4	2.7/4.0			0.3' cr/plv asph.			
0-2.5				br-bl stained f-c SA/gr			
				Some cr stone/shale +			
				br frag/conc, mod stiff			
				dense dry			
2.5-2.7				blue-gr kln ash. wet			
4-8	1.0/4.0			SAA mat			
4-5				f-c SA + cr shale shards			
5-5.6				+ glass chips. sat.			
8-12	2.8/4.0			mod st fm br sa and			
8-8.8				cr/plv shale frag			
8.8-9.4				SAA grading to mod dense			
				stiff silt w/ small ang chips			
				of shale			
9.4-10.8				SAA to lt gray - dry			
				material - poss getting till-			
				ish silt powdery w/ 40% htly			
				packed shale shards (2mm-1cm)			
BORING DIAMETER	BORING METHOD	DEPTH	REMARKS				
			Field Instrument - <u> </u> If refusal is encountered, describe all efforts used to confirm.				
			Field Decon: Yes / No / Dedicated Device				
PROPORTIONS USED:			BACKFILL				
Trace	0 to 10%	Some	20 to 35%	Native Material <u> </u> To <u> </u> See Monitoring Well			
Little	10 to 20%	And	35 to 50%	Bentonite Grout/Chips <u> </u> To <u> </u> Completion Report			
EXAMPLE DESCRIPTION:			Concrete/Asphalt <u> </u> To <u> </u>				
SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4)			Other <u> </u> To <u> </u>				
Moist. Loose. No odor.							
Reviewed by Staff:							

Test Pit # EH
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/6/2005
Time:	9:30
Sample Prefix:	804051206- / ACD-SS-
Logged By:	RT

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 1.0'			br-dk br f-c SA w/ cr stone/		
-			graw, little rgs/roots dry		
-			loose/compacted		
1.0 - 3.0'			cr concrete/slag- poss kiln		
-			brick, sand + grav. mostly		
-			solid - lit sal/gr in spaces		
3.0' -			br f-c SA, some graw/cr		
-			stone/shale		
-	020				
-	021				
-	022				
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTLING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS:



FUSS & O'NEILL
Disciplines to Deliver

BORING LOG

PROJECT: AC Dutton
LOCATION: Poughkeepsie, NY

SITE ID: E5
SHEET: of
PROJECT NO: 20040764.A1N
WEATHER:

CONTRACTOR:
OPERATOR:
F&O REPRESENTATIVE:
DRILLING METHOD: mlp
SAMPLING METHOD: sleeve
HAMMER WT: na HAMMER FALL (IN): na
BORING LOCATION:
GROUND ELEVATION: na
DATE STARTED: 12/19/05
SAMPLE PREFIX: 804051219- / ACD-SS-

WATER LEVEL MEASUREMENTS

DATE	MS. PT.	WATER AT	TIME

TIME AND DATE OF COMPLETION: _____

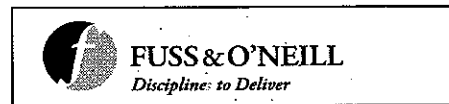
DEPTH (FT)	REC/PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0-4	3.0/4.0			cr/plu asph			
0-0.4				" Concrete			
0.4-1.1				br-bl stained f-c SA			
1.1-2.8				w/silt + grav/cr stone			
				cr shale, plu br frag/core			
2.8-3.0				ct stone / kiln ash			
4-8'	1.5/4.0	3-6'	804051219-E5(3-6) 13:10	SAA. coarse gravelly cr kiln ash - blu-green color lilt coal slag + ash wet at 5.0 +/- 0.3'			
8-12'	1.8/4.0			lost bottom 0.8			
8-8.8				SAA saturated			
8.8-9.8				bl org - v sat/loose			
8.8-8.9				peaty silt + f-c sand sat			
				sig org mat. Also kiln			
				ash + porcelain chips, cr			
				plu shale chunks			
9.8 hole caves. - EOB							

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS
			Field Instrument = _____ If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device
PROPORTIONS USED: Trace 0 to 10% Some 20 to 35% Little 10 to 20% And 35 to 50%			BACKFILL Native Material _____ To _____ See Monitoring Well Bentonite Grout/Chips _____ To _____ Completion Report Concrete/Asphalt _____ To _____ Other _____ To _____
EXAMPLE DESCRIPTION: SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4) Moist. Loose. No odor. Reviewed by Staff: _____			

Test Pit # E6
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/5/2005
Time:	15:15
Sample Prefix:	804051205- / ACD-SS-
Logged By:	LMG

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 2"			Asphalt		
2" - 1.5'			Some c-vc sand, large gravel trace organics		
1.5' - 2'			coarse gravel. trace ash.		
2' - 2.5'			light-mod brown f-m sand		
2.5' - 4.5'			crushed fire brick, trace f-m sand, little gravel		
4.5' -			b/w		
-					
nd -	013	1520			
nd -	014	1525			
-					
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS:

Test Pit # E8
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/5/2005
Time:	
Sample Prefix:	804051205- / ACD-SS-
Logged By:	LMG

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 2"			Asphalt		
2" - 6"			concrete w/ re bar		
6" - 3'			dk brown f-c sand + vt gravel, pulverized shale, crushed stone, very wet/moist, trace silt		
3' -			GW		
-					
-					
0 - 0.5'	008				
~3 - 3.5'	009				
-					
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTLING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: brick down to water table ^{glass fragments}
 coal slag, furnace brick, 008 obtained as high as possible -
 ballast up to 8-12" most spaces. 009 from bottom of pit.

MONITORING WELL COMPLETION REPORT **GENERAL INFORMATION**

GENERAL INFORMATION

Project Name: AC Dutton BCP Site
 Project Location: POK, NY
 F&O Engineer/Geologist: NJL
 Date of Completion: _____
 Boring Location: ACD-EB
 Drilling Contractor: Todd Syska, Inc.
 Drilling Method: Geoprobe

Site ID (Boring/Well ID): MW-ES
 Project No.: 20040764.XIN
 Ground Surface Elevation: _____
 Permit #: _____
 E1 Top of Steel Casing: —
 E1 Top of PVC Casing: —
 Measuring Point: TPS / PVC
 Well Cover (see codes): Top PVC

WELL CONSTRUCTION

<u>Well Casing/Riser</u>	<u>Sump (below screen)</u>	<u>Protective Casing</u>
Diameter: <u>1"</u> in.	Diameter: <u>N/A</u> in.	Diameter: <u>N/A</u> in.
Type: <u>PVC</u>	Type: _____	Type: _____
Stick-up: <u>2.3'</u> ft.	Length: _____ in.	Stick-up: _____ ft
		Depth to Bottom: _____ ft
		Seal Material: _____

Screen Intervals

Screen Interval: 5' (10'-5') ft Diameter: 1" in. Slot Size: 0.010" in.
 Description: PVC Other: _____
 Type: Perforated / Slotted / Wire-Wrap / Other: _____

ANNULAR FILLSurface Seal

(Approximate volumes if available)

Interval: 4'-0' ft. Tremied: Y / N Volume: _____ bags
 Description: Concrete Other: bentonite

Backfill

Interval: 10'-5' ft. Tremied: Y / N Volume: _____ bags
 Description: Bentonite Grout / Fill Other: _____

Lower Seal

Interval: _____ ft. Tremied: Y / N Volume: _____ bags
 Description: Bentonite / Bentonite Pellets / Grout / Other: _____

Filter

Interval: 5'-4' ft. Tremied: Y / N Volume: _____ bags
 Description: Sand Filter (type: _____) / Other: _____

Lower Backfill

Interval: _____ ft. Tremied: Y / N Volume: _____ bags
 Description: Bentonite Grout / Fill / Other: _____

Monitoring Well Field Data Sheet

Client/Project Name: _____ Project Location: _____	PROJECT #:	 FUSS & O'NEILL <i>Disciplines to Deliver</i>
Sample#: 788070720-05	Well ID MWES	

Elevation Data

Date: 7/20/2007	Time: 15:45	Well Diameter (inches): _____
Depth (feet) + Correction = True Depth		Water Column Height: _____ (feet) Gal/foot x 3 factor: x _____
Water Level PVC	5.23	+
Water Level TPS		+
Bottom of Well	9.8	+
Measuring Device ID#: _____		Sampler: GAT Weather: 80°F partly cloudy
Comments: _____		

Well Condition Checklist

[circle appropriate item(s); cross out if not applicable]

General Condition: <u>Good</u> / Needs Repair Protective Steel: <u>OK</u> / Cracked / Leaking / Bent / Loose / <u>None</u> Well # Visible?: <u>Y</u> / N Well Cap: <u>Good</u> / Broken / <u>None</u> Evidence of rain water between steel and PVC?: <u>Y</u> / N Evidence of ponding around well?: <u>Y</u> / <u>N</u> Gopher-type holes around collar?: <u>Y</u> / <u>N</u> Comments: _____	Is well plumb?: <u>Y</u> / N Lock: <u>Good</u> / Broken / <u>None</u> ~~Rust around cap?~~ <u>Y</u> / N PVC Riser: <u>Good</u> / Damaged / None Concrete collar: <u>OK</u> / Cracked / Leaking / <u>None</u> Other Evidence: <u>Rodents</u> / Insects / <u>None</u> Curb Box: <u>Y</u> / <u>N</u> (key is: Hex/Pent/Other) Curb Box Gasket: <u>OK</u> / Replace / Other _____

Purge Data

Start Time: 15:45 Stop Time: 16:05 Total Time Purged: _____ Pump Rate: _____ (gpm) Volume Purged: 4.5 gal (gallons)	Purge Device: <u>Dedicated</u> / Nondedicated Device type: <u>Bailer</u> / <u>Peristaltic</u> / Submersible / Bladder Comments: _____ Well Yield: <u>High</u> / Moderate / Low / Dry

Sample Data

Date: 7/20/07 Time: 16:05 Sampler: GAT Approx. sample depth: _____ (ft) Weather: 80°F partly cloudy Sampling method: Bailer / Peristaltic / Bladder Bailer type: SS 2" / SS 1.25" / SS Short / PVC 2" / Other _____ Bailer Cord: Dedicated / Nondedicated Filtered in Field?: <u>No</u> / @ Well / @ Lab Method of Filtration: Pressure / Vacuum / Syringe Pump ID # _____ Filter: 10u / 0.45u Field Decon: Bailer / Tubing / Other _____ Appearance: _____	<table style="width: 100%;"> <tr> <th>Container</th> <th>Quantity</th> <th>Preservative</th> </tr> <tr> <td>plastic</td> <td>1</td> <td>NaOH</td> </tr> <tr> <td>plastic</td> <td>1</td> <td>HNO₃</td> </tr> <tr> <td>plastic</td> <td>1</td> <td>—</td> </tr> <tr> <td>amber</td> <td>1</td> <td>—</td> </tr> <tr> <td>VOA vial</td> <td>3</td> <td>HCl</td> </tr> </table>	Container	Quantity	Preservative	plastic	1	NaOH	plastic	1	HNO ₃	plastic	1	—	amber	1	—	VOA vial	3	HCl
Container	Quantity	Preservative																	
plastic	1	NaOH																	
plastic	1	HNO ₃																	
plastic	1	—																	
amber	1	—																	
VOA vial	3	HCl																	

Field Parameters

Note: SC calculation based on (temp) at time of SC measurement.

Instrument ID#	Instrument ID#	Spec. Cond.
pH	Temp	
7.71	25.7°C	26.36
		319



FUSS & O'NEILL

Disciplines to Deliver

BORING LOG

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: F2

SHEET: of

PROJECT NO: 20040764.A1N

WEATHER:

CONTRACTOR:
OPERATOR:
F&O REPRESENTATIVE:
DRILLING METHOD: mlp
SAMPLING METHOD: sleeve
HAMMER WT: na HAMMER FALL (IN) na
BORING LOCATION:
GROUND ELEVATION: na
DATE STARTED: 12/19/05
SAMPLE PREFIX: 804051219- / ACD-SS-

WATER LEVEL MEASUREMENTS

DATE	MS. PT.	WATER AT	TIME

TIME AND DATE OF COMPLETION: 14:45

DEPTH (FT)	REC/ PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0-4	2.8/4.0			cr/plv asph			
0-0.7				SAA w/ dk br f-m sals/			
0.7-1.4				grav.			
1.4-2.8				br f-m sa-sil cr stone			
				and kiln ash. lg stones			
				avg 1-3cm mod dense/			
				sh ft, sl mat			
4.8	2.0/4.0						
4-5.6				V coarse kiln-ash sat			
				free water-matly lg spcs.			
				Some finer mat also-			
				cr/plv kilnash some grav/			
				cr stone			
				4-4.5+5.6-6 SAA w br si ft			
				+ f-c st/f grav (shale chips)			
				Sat.			
8-12	4.0/4.0			rep. at 12.0			
8-10.5				SAA			
10.5-12				grading sl to br. gr si ft w			

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS
			Field Instrument - Shale log mod dense gravel (Chillup)
			Field Decon: Yes / No / Dedicated Device
PROPORTIONS USED: Trace 0 to 10% Some 20 to 35% Little 10 to 20% And 35 to 50%			BACKFILL Native Material _____ To _____ See Monitoring Well Bentonite Grout/Chips _____ To _____ Completion Report Concrete/Asphalt _____ To _____ Other _____ To _____
EXAMPLE DESCRIPTION: SAND, F-C, Some F-C gravel; Little silt; Trace clay, (10R5/4) Moist. Loose. No odor. Reviewed by Staff:			

Test Pit # F6
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/14/2005
Time:	10:30
Sample Prefix:	804051214 / ACD-SS- F6
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-3" - 0			Asphalt cracked		
0 - 11"			angular gravel, gravel c. sand trace silt + clay + roots		
-			1 brown dry porous rock layer - 1. gray trace silt		
11" - 20"			porous rock layer 1. gray trace silt.		
20 - 46"			gravel, clay, little sand, dry trace brick		
46" -			water, gravel + trace sand.		
-					
0 - 0.5'	007 / 10-5	11:58			
0.5 - 3'	008 / 153	11:03			
3 - 6'	009 / 18-6	11:06			
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: pic 5-6

Test Pit # F7
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/14/2005
Time:	9:30
Sample Prefix:	804051214- / ACD-SS- F7
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
4" - 0			Asphalt		
0 - 34"			Angular gravel c. sand & trace		
--			clay d. brown dry loose trace		
-			nails brick and glass		
34" -			water, same as above		
--					
0 - 0.5'	004/10.5	10:10			
0.5 - 3'	005/15.5	10:13			
3 - 6'	006/16.6	10:15			
--					
--					
--					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: pic # 3-4

Test Pit # 62
Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/6/2005
Time:	11:30 (LMB)
Sample Prefix:	804051206- / ACD-SS-
Logged By:	RT

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 1.8'			br f-c SA, some gr/asph		
1.8 - 2.5'			coal + cr shale		
2.5 - 5.0'			coal ash (solidified) "kiln		
-			brick" porous (like pumice)		
-			blast pockets some		
-			sand & grav		
9.0'			water		
-					
-	023				
-	024				
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS:

**FUSS & O'NEILL***Disciplines to Deliver***BORING LOG**

PROJECT: AC Dutton

LOCATION: Poughkeepsie, ny

SITE ID: 614SHEET: 1 of 1PROJECT NO: 20040764A1/NWEATHER: clear 10s

CONTRACTOR:

OPERATOR: ToddF&O REPRESENTATIVE: mlpDRILLING METHOD: geoprobeSAMPLING METHOD: sleeveHAMMER WT: na HAMMER FALL (IN) naBORING LOCATION: G4 - inside N Main BuildingGROUND ELEVATION: naDATE STARTED: 12/13/05SAMPLE PREFIX: 768051213-ACD-SS-G4

WATER LEVEL MEASUREMENTS

DATE

MS. PT.

WATER AT

TIME

TIME AND DATE OF COMPLETION: _____

DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DEPTH (FT)	SAMPLE JARS/ PRE-SERVATIVE	REC/ PEN	BLOWS 6"	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0-4	001 12/11	(0-6")	402	17/148	na	8. sand, crushed rock, crushed asphalt loose dry no odor			
						crush d rock (porous light gray) dry	9"		
4-8				16/148		wet crushed rock trace coarse sand + silt possible odor			
8-12				26/148		same as above	8"		
	002 12/28	(10-11")				clay, wet, high plasticity dark br./gray no odor			

BORING DIAMETER

BORING METHOD

DEPTH

REMARKS

Field Instrumentation

If refusal is encountered, describe all efforts used to confirm.

Begin boring near asphalt (~10")

Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED:

Trace 0 to 10% Some 20 to 35%
Little 10 to 20% And 35 to 50%

EXAMPLE DESCRIPTION:

SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4)

Moist. Loose. No odor.

Reviewed by Staff:

BACKFILL

Native Material

Bentonite Grout/Chips

Concrete/Asphalt

Other

To 12"

To _____

To _____

To _____

See Monitoring Well

Completion Report

Test Pit # 17
 Location: 46

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/2/2005
Time:	1240
Sample Prefix:	804051202- / ACD-SS-
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
~~3-0~~					
-10 -- -7"			Asphalt		
-7 -- -6"			small angular gravel		
-6 -- -3"			Asphalt		
-3" - 0			gravel Angular rock		
0 - 18"			gravel - trace clay, loose trace		
-			brick + fine brick		
18" -			water		
-					
0 - 0.5	031/46 10-12	13:00			
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTLING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

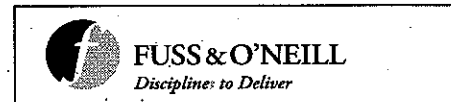
TEST PIT SKETCH:

COMMENTS: N end of site, between building and L shaped retaining wall, pic 15-17 encountered 2 pipes

Test Pit # 18
 Location: G8

Project Name:	ACDutton
Project Number:	20040764.A1N
Date:	12/2/2005
Time:	13:10
Sample Prefix:	804051202- / ACD-SS-
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-2" - 0			Asphalt		
0 - 8"			Angular gravel		
8" -			Foundation or slab with 2		
-			~4" pipes sticking out of it		
-					
NO SAMPLES					
-					
-					
-					
-					
-					
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: NW of site pic 18-22
no samples



FUSS & O'NEILL

Disciplines to Deliver

BORING LOG

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: 69

SHEET: of

PROJECT NO: 20040764.A1N

WEATHER:

CONTRACTOR:

OPERATOR:

F&O REPRESENTATIVE:

DRILLING METHOD: mlp

SAMPLING METHOD: sleeve

HAMMER WT: na HAMMER FALL (IN) na

BORING LOCATION:

GROUND ELEVATION: na

DATE STARTED: 12/19/05

SAMPLE PREFIX: 804051219- / ACD-SS-

WATER LEVEL MEASUREMENTS

DATE

MS. PT.

WATER AT

TIME

TIME AND DATE OF COMPLETION: 12:50

DEPTH (FT)	REC/ PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO- LOGIC CODE	FIELD TESTING
				Refusal at 0.2'			

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS
			Field Instrument = If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED:

Trace	0 to 10%	Some	20 to 35%
Little	10 to 20%	And	35 to 50%

EXAMPLE DESCRIPTION:

SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4)

Moist. Loose. No odor.

Reviewed by Staff:

BACKFILL

Native Material	_____	To _____	See Monitoring Well Completion Report
Bentonite Grout/Chips	_____	To _____	
Concrete/Asphalt	_____	To _____	
Other	_____	To _____	

Test Pit # H7
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/14/2005
Time:	8:00
Sample Prefix:	84051214- / ACD-SS- H7
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-4" - 0			Asphalt		
0 - 14"			C Sand & gravel, trace clay, d brown, dry loose		
14" - 41"			cobbles, gravel trace sand & clay		
41" -			water, gravel below water		
--			table - slight petroleum odor, slight sheen on rocks and water		
--					
0 - 0.5	001/0-5	9:00			
0.5 - 3'	002/5-3	9:10			
3 - 6'	003/3-6	9:13			
--					
--					
--					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTLING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS:

Test Pit # I2
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/7/2005
Time:	8:30
Sample Prefix:	767051207- / ACD-SS- I2
Logged By:	IMG

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 2"			Asphalt		
2 - 1.5'			large crushed stone little m-c sand dark brown trace organics		
1.5' - 4.5'			some f-m dark brown sand, trace silt, large crushed stone, broken concrete chunks. some kiln slag as seen elsewhere		
4' -			GW		
0 - 0.5'	001	8:35			
0.5 - 3'	002	8:40			
3 - 4.5'	003	8:45			
-					
-					
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS:

**FUSS & O'NEILL***Disciplines to Deliver***BORING LOG**

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: I3SHEET: ofPROJECT NO: 20040764.AINWEATHER: 2 deg. F, 2-4" snow

CONTRACTOR: _____
 OPERATOR: _____
 F&O REPRESENTATIVE: _____
 DRILLING METHOD: mlp
 SAMPLING METHOD: sleeve
 HAMMER WT: na HAMMER FALL (IN) na
 BORING LOCATION: _____
 GROUND ELEVATION: na
 DATE STARTED: _____
 SAMPLE PREFIX: 767051215- / ACD-SS-

WATER LEVEL MEASUREMENTS

DATE	MS. PT.	WATER AT	TIME

TIME AND DATE OF COMPLETION: 12/15/05 14:43

DEPTH (FT)	REC/ PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0-2"	0.67/4.0	0-0.9'	025/I3(0-0.9') 14:24	organics, dk brown f sand			
2"-8"		0.9-3.0'	026/I3(0.9-3.0') 14:40	crushed coal: some dk brown f sand, little gravel			
8"-13"				large gravel, some med brown m-c sand.			
18"-2'				kiln slag			
2'-2.5'				med brown fine sand moist, some silt, little gravel.			
4-4.2'	20"/4.0'	3.0-5.8'	027/I3(3.0-5.8') 14:43	kiln slag			
4.2-5.5'				wet fine med brown sand some silt, some kiln slag (layers)			
5.5-5.8'				petrol or coal (desintegrated) wet, mostly gravel and wet sand/silt			

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS
			Field Instrument = _____ If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED:
 Trace 0 to 10% Some 20 to 35%
 Little 10 to 20% And 35 to 50%

EXAMPLE DESCRIPTION:
 SAND, F-C, Some F-C gravel; Little silt; Trace clay; (10R5/4)
 Moist. Loose. No odor.

Reviewed by Staff: _____

BACKFILL

Native Material	_____	To _____	See Monitoring Well
Bentonite Grout/Chips	_____	To _____	Completion Report
Concrete/Asphalt	_____	To _____	
Other	_____	To _____	



FUSS & O'NEILL

Disciplines to Deliver

**MONITORING WELL COMPLETION REPORT
GENERAL INFORMATION**

GENERAL INFORMATION

Project Name: AC Dutton

Project Location: Poughkeepsie, NY

F&O Engineer/Geologist: mlp

Date of Completion: 12/13/05

Boring Location: Just W of AST Drwn building near MW 1R

Drilling Contractor: Ted

Drilling Method: geoprobe

Site ID (Boring/Well ID): PZ-14.5

Project No.: 20040764A1N

Ground Surface Elevation: NA

Permit #: NA

E1 Top of Steel Casing: NA

E1 Top of PVC Casing: NA

Measuring Point: TPS / PVC

Well Cover (see codes): NA

WELL CONSTRUCTION

Well Casing/Riser

Diameter: 1 in.

Type: PVC

Stick-up: 1 ft.

Sump (below screen)

Diameter: 1 in.

Type: PVC

Length: 2 in.

Protective Casing

Diameter: none in. Type: _____

Stick-up: _____ ft Depth to Bottom: _____ ft

Seal Material: _____

Screen Intervals

Screen Interval: 4-9 ft Diameter: 1 in. Slot Size: 0.010 in.

Description: PVC / Other: _____

Type: Perforated / Slotted / Wire-Wrap / Other: _____

ANNULAR FILL

Surface Seal

(Approximate volumes if available)

Interval: _____ ft. Tremied: Y / N Volume: _____ bags

Description: Concrete / Other: _____

Backfill

Interval: 0-2 ft. Tremied: Y / N Volume: _____ bags

Description: Bentonite Grout / Fill / Other: native

Lower Seal

Interval: 2-3 ft. Tremied: Y / N Volume: _____ bags

Description: Bentonite / Bentonite Pellets / Grout / Other: _____

Filter

Interval: 3-9 ft. Tremied: Y / N Volume: _____ bags

Description: Sand Filter (type: _____) / Other: _____

Lower Backfill

Interval: _____ ft. Tremied: Y / N Volume: _____ bags

Description: Bentonite Grout / Fill / Other: _____

Test Pit # 16
Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/5/2005
Time:	
Sample Prefix:	804051205- / ACD-SS-
Logged By:	IMG

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 2"			organics moss, some - mostly roots then blacktop		
2" - 8"			crushed rock - like RR bed.		
8" - 1.5'			dk brown some sand, trace silt some stone		
1.5' -			bedrock		
-					
-					
6" - 7"	006				
1' - 2'	007				
-					
-					
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

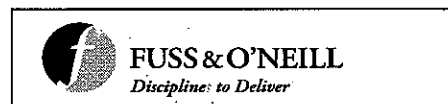
TEST PIT SKETCH:

COMMENTS: rock at surface under blacktop is coated with
black shiny material. no notice of contamination.

Test Pit # I8
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/8/2005
Time:	10:45
Sample Prefix:	767051208- / ACD-SS-
Logged By:	LMG

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 2"			Asphalt		
2" - 0.5'			tar coated large gravel Subbase, black.		
0.5' - 1'			gravel fill, little med brown f-m sand, mostly lg gravel, dry		
1' -			first line		
1' - 2'			dk brown m-f sand, some gravel, slightly moist ash + pulverized brick		
2' - 3'			some med dk brown sand, trace silt, little gravel		
3' - 5.5'			med brown f-m sand little clay, little small gravel, very moist, no visible		
-			GW strange due to proximity to river		
-					
0 - 0.5'	054	11:00			
0.5' - 3'	055	11:05			
3' - 5.5'	056	11:16			

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: RR tie nail/pins found throughout no ties,
 wood through.



FUSS & O'NEILL
Disciplines to Deliver

BORING LOG

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: I9

SHEET: of

PROJECT NO: 20040764.A1N

WEATHER: _____

CONTRACTOR: _____

OPERATOR: _____

F&O REPRESENTATIVE: _____

DRILLING METHOD: mlp

SAMPLING METHOD: sleeve

HAMMER WT: na HAMMER FALL (IN) na

BORING LOCATION: _____

GROUND ELEVATION: na

DATE STARTED: 12/19/05

SAMPLE PREFIX: 804051219- / ACD-SS-

WATER LEVEL MEASUREMENTS

DATE

MS. PT.

WATER AT

TIME

TIME AND DATE OF COMPLETION: 11:30

DEPTH (FT)	REC/ PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO- LOGIC CODE	FIELD TESTING
0-4 0-0.6 0.6-2.2	2.2/4.0			plv asph/concrete sa/gr fill w/ slag, kiln ash, brick/coal frag ash mod dense/stiff-dry			
4-8 4-5.5	1.5/4.0	2.5'	804051219-I9(25) 11:45	Sample 2-5, brf-c SA/gr or stone/ shale wet at 0.7 (4.7-5.0)-sat			

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS
			Field Instrument = _____ If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED: Trace 0 to 10% Some 20 to 35% Little 10 to 20% And 35 to 50%	BACKFILL Native Material _____ To _____ See Monitoring Well Bentonite Grout/Chips _____ To _____ Completion Report Concrete/Asphalt _____ To _____ Other _____ To _____

EXAMPLE DESCRIPTION:
SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4)
Moist. Loose. No odor.

Reviewed by Staff: _____

**FUSS & O'NEILL***Disciplines to Deliver***BORING LOG**

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: J2

SHEET: _____ of _____

PROJECT NO: 20040764.A1N

WEATHER: 2 deg. F, 2-4" snow

CONTRACTOR:

OPERATOR:

F&O REPRESENTATIVE:

DRILLING METHOD: mlp

SAMPLING METHOD: sleeve

HAMMER WT: na HAMMER FALL (IN) na

BORING LOCATION:

GROUND ELEVATION: na

DATE STARTED:

SAMPLE PREFIX: 767051215- / ACD-SS-

WATER LEVEL MEASUREMENTS

DATE

MS. PT.

WATER AT

TIME

TIME AND DATE OF COMPLETION: 12/15/05 14:13

DEPTH (FT)	REC/PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0-5"	3.0/4.0	0-0.5'	022/J2 (0-0.5) 14:08	Asphalt			
5'-8"		0.5-3.0'	023/J2 (0.5-3.0) 14:10	dk brown f-m sand, some gravel little ash.			
8"-33"				ash, coal (little) moist			
33'-36"				coal - petroleum odor, moist.			
36-42"	2.0/4.0	3.0-5.0'	024/J2 (3.0-5.0) 14:13	ash, coal, no sand			
42-48"				kiln slag chunks			
48-55'				wet, f-m sand, gravel, ash, coal.			
55-60"				petroleum soaked gravel, coal pieces, (possibly water soaked)			

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS
			Field Instrument = _____ If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED: Trace 0 to 10% Some 20 to 35% Little 10 to 20% And 35 to 50%		BACKFILL Native Material _____ To _____ See Monitoring Well Bentonite Grout/Chips _____ To _____ Completion Report Concrete/Asphalt _____ To _____ Other _____ To _____
EXAMPLE DESCRIPTION: SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4) Moist. Loose. No odor.		
Reviewed by Staff:		

**FUSS & O'NEILL***Disciplines to Deliver***BORING LOG**

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: J7

SHEET: of

PROJECT NO: 20040764.A1N

WEATHER: 2 deg. F, 2-4" snow

CONTRACTOR:

OPERATOR:

F&O REPRESENTATIVE:

DRILLING METHOD: mlp

SAMPLING METHOD: sleeve

HAMMER WT: na HAMMER FALL (IN) na

BORING LOCATION:

GROUND ELEVATION: na

DATE STARTED:

SAMPLE PREFIX: 767051215- / ACD-SS-

WATER LEVEL MEASUREMENTS

DATE

MS. PT.

WATER AT

TIME

TIME AND DATE OF COMPLETION: 12/15/05 11:17

DEPTH (FT)	REC/ PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO- LOGIC CODE	FIELD TESTING
		0-2'	012/J7(0-2) 11:17	Use hand auger to 4'. After 4' auger binds up. Likely a layer at ~2' below grade of jagged rock or concrete. Generally seems similar to surrounding areas.			
		2-4'	013/J7(2-4) 11:17				

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS
			Field Instrument= _____ If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED: Trace 0 to 10% Some 20 to 35% Little 10 to 20% And 35 to 50%			
EXAMPLE DESCRIPTION: SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4) Moist. Loose. No odor.			
Reviewed by Staff: _____			

BACKFILL Native Material _____ To _____ See Monitoring Well Bentonite Grout/Chips _____ To _____ Completion Report Concrete/Asphalt _____ To _____ Other _____ To _____	



FUSS & O'NEILL

Discipline to Deliver

**MONITORING WELL COMPLETION REPORT
GENERAL INFORMATION**

GENERAL INFORMATION

Project Name: AC Dutton

Project Location: Poughkeepsie, NY

F&O Engineer/Geologist: mlp

Date of Completion: 12/13/05

Boring Location: off SW corner of Brick Building by H&O

Drilling Contractor: Todd

Drilling Method: geoprobe

Site ID (Boring/Well ID): MW-~~111~~ J10 (LNG)

Project No.: 20040764A1N

Ground Surface Elevation: NA

Permit #: NA

E1 Top of Steel Casing: NA

E1 Top of PVC Casing: NA

Measuring Point: TPS / PVC

Well Cover (see codes): NA

WELL CONSTRUCTION

<u>Well Casing/Riser</u>	<u>Sump (below screen)</u>	<u>Protective Casing</u>
Diameter: <u>1</u> in.	Diameter: <u>1</u> in.	Diameter: <u>none</u> in.
Type: <u>PVC</u>	Type: <u>PVC</u>	Type: _____
Stick-up: <u>2</u> ft.	Length: <u>~2</u> in.	Stick-up: _____ ft
		Depth to Bottom: _____ ft
		Seal Material: _____

Screen Intervals

Screen Interval: 3-8 ft Diameter: 1 in. Slot Size: 0.010 in.

Description: PVC / Other: _____

Type: Perforated / Slotted / Wire-Wrap / Other: _____

ANNULAR FILL

Surface Seal

(Approximate volumes if available)

Interval: _____ ft. Tremied: Y / N Volume: _____ bags

Description: Concrete / Other: _____

Backfill

Interval: 0-2 ft. Tremied: Y / N Volume: _____ bags

Description: Bentonite Grout / Fill / Other: native

Lower Seal

Interval: 2-3 ft. Tremied: Y / N Volume: _____ bags

Description: Bentonite / Bentonite Pellets / Grout / Other: _____

Filter

Interval: 2-8 ft. Tremied: Y / N Volume: _____ bags

Description: Sand Filter (type: _____) / Other: _____

Lower Backfill

Interval: _____ ft. Tremied: Y / N Volume: _____ bags

Description: Bentonite Grout / Fill / Other: _____

Monitoring Well Field Data Sheet

Client/Project Name: Project Location:	PROJECT #:	FUSS & O'NEILL <i>Disciplines to Deliver</i>
Sample#: 788070720-03	Well ID MW 110 J10 (LMB)	

Elevation Data

Date: 7/20/2007	Time: 13:40	Well Diameter (inches): 1
Depth (feet) + Correction = True Depth		Water Column Height: _____ (feet) Gal/foot x 3 factor: x _____
Water Level PVC	7.02	+
Water Level TPS		+
Bottom of Well	9.75	+
Measuring Device ID#: _____		Sampler: GAT Weather: 80s°F partly cloudy
Comments: _____		

Well Condition Checklist

[circle appropriate item(s); cross out if not applicable]

General Condition: <u>Good</u> / Needs Repair Protective Steel: <u>OK</u> / Cracked / Leaking / Bent / Loose / <u>None</u> Well # Visible?: <u>Y</u> / N Well Cap: <u>Good</u> / Broken / <u>None</u> Evidence of rain water between steel and PVC?: <u>Y</u> / N / N/A Evidence of ponding around well?: <u>Y</u> / N Gopher-type holes around collar?: <u>Y</u> / N Comments: _____	Is well plumb?: <u>Y</u> / N Lock: <u>Good</u> / Broken / <u>None</u> Rust around cap?: <u>Y</u> / N / N/A PVC Riser: <u>Good</u> / Damaged / None Concrete collar: <u>OK</u> / Cracked / Leaking / <u>None</u> Other Evidence: <u>Rodents</u> / Insects / <u>None</u> Curb Box: <u>Y</u> / N (key is: Hex/Pent/Other) Curb Box Gasket: <u>OK</u> / Replace / Other _____

Purge Data

Start Time: 13:45 Stop Time: 14:05 Total Time Purged: 20 min Pump Rate: _____ (gpm) Volume Purged: 5 gal. (gallons)	Purge Device: <u>Dedicated</u> / Nondedicated Device type: <u>Bailer</u> / Peristaltic / Submersible / Bladder Comments: _____ Well Yield: <u>High</u> / Moderate / Low / Dry

Sample Data

Date: 7/20/07 Time: 14:05 Sampler: GAT Approx. sample depth: _____ (ft) Weather: _____ Sampling method: Bailer / <u>Peristaltic</u> / Bladder Bailer type: SS 2" / SS 1.25" / SS Short / PVC 2" / Other _____ Bailer Cord: <u>Dedicated</u> / Nondedicated Filtered in Field?: <u>No</u> / @ Well / @ Lab Method of Filtration: Pressure / Vacuum / Syringe Pump ID # _____ Filter: 10u / 0.45u Field Decon: Bailer / Tubing / Other _____ Appearance: _____	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Container</th> <th>Quantity</th> <th>Preservative</th> </tr> </thead> <tbody> <tr> <td>Amber</td> <td>2</td> <td></td> </tr> <tr> <td>plastic</td> <td>1</td> <td></td> </tr> <tr> <td>VOA vial</td> <td>2</td> <td>HCl</td> </tr> </tbody> </table>	Container	Quantity	Preservative	Amber	2		plastic	1		VOA vial	2	HCl
Container	Quantity	Preservative											
Amber	2												
plastic	1												
VOA vial	2	HCl											

Field Parameters

Note: SC calculation based on (temp) at time of SC measurement.

Instrument ID#	Instrument ID#
pH 7.96	Spec. Cond. 24.8%
Temp 23.41	313

Test Pit # 16

Location: K2

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/2/2005
Time:	11:19
Sample Prefix:	804051202- / ACD-SS-
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-3" - 0			Asphalt		
0 - 7"			silt some coarse sand + gravel loose dry. trace organic det + roots		
7 - 21"			porous stone - blue/green, some orange red (oxidized) trace brick + fine brick.		
-					
21" - 68"			gravel trace fine sand		
-					
0 - 0.5'	034/K2 (10-5)	11:35			
0.5 - 3'	035/K2 (15-3)	11:22			
3 - 6'	036/K2 (36)	11:27			
-					
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: C of site in parking lot. just w of active RR.

MONITORING WELL COMPLETION REPORT
GENERAL INFORMATION

GENERAL INFORMATION

Project Name: AC Dutton BCP
Project Location: POK, NY
F&O Engineer/Geologist: NL
Date of Completion: _____
Boring Location: ACD-K2
Drilling Contractor: Todd Syska, Inc.
Drilling Method: Geoprobe

Site ID (Boring/Well ID): MW-K2
Project No.: 20040761.AIN
Ground Surface Elevation: _____
Permit #: _____
EI Top of Steel Casing: _____
EI Top of PVC Casing: _____
Measuring Point: TPS (PVC)
Well Cover (see codes): _____

WELL CONSTRUCTION

Well Casing/Riser	Sump (below screen)	Protective Casing
Diameter: <u>1"</u> in.	Diameter: <u>N/A</u> in.	Diameter: <u>N/A</u> in.
Type: <u>PVC</u>	Type: _____	Type: _____
Stick-up: <u>2.4'</u> ft.	Length: _____ in.	Stick-up: _____ ft
		Depth to Bottom: _____ ft
		Seal Material: _____

Screen Intervals

Screen Interval: 12-7' ft Diameter: 1" in. Slot Size: 0.010 in.
Description: (PVC) Other: _____
Type: Perforated (Slotted) Wire-Wrap / Other: _____
* water @ ~ 5.6' bgs

ANNULAR FILL

Surface Seal

(Approximate volumes if available)
Interval: 6'-0' ft. Tremied: Y / N Volume: _____ bags
Description: Concrete / Other: bentonite

Backfill

Interval: 12'-7' ft. Tremied: Y / N Volume: _____ bags
Description: Bentonite Grout / (Fill) / Other: _____

Lower Seal

Interval: _____ ft. Tremied: Y / N Volume: _____ bags
Description: Bentonite / Bentonite Pellets / Grout / Other: _____

Filter

Interval: 7'-6' ft. Tremied: Y / N Volume: _____ bags
Description: (Sand Filter) (type: _____) / Other: _____

Lower Backfill

Interval: _____ ft. Tremied: Y / N Volume: _____ bags
Description: Bentonite Grout / Fill / Other: _____

Monitoring Well Field Data Sheet

Client/Project Name: Project Location:	PROJECT #:	 FUSS & O'NEILL <i>Disciplines to Deliver</i>
Sample#: 788070720-04	Well ID MW K2	

Elevation Data

Date: 7/20/2007	Time: 14:57	Well Diameter (inches): 1
Depth (feet) + Correction = True Depth		Water Column Height: _____ (feet) Gal/foot x 3 factor: x _____
Water Level PVC	9.08 + =	Volume to be Purged: _____ (gal)
Water Level TPS	+ =	
Bottom of Well	9.75 + =	
Measuring Device ID#: _____		Sampler: CAT Weather: 80°F Partly Cloudy
Comments: _____		

Well Condition Checklist

[circle appropriate item(s); cross out if not applicable]

General Condition: <u>Good</u> / Needs Repair Protective Steel: <u>OK</u> / Cracked / Leaking / Bent / Loose / <u>None</u> Well # Visible?: <u>Y</u> / N Well Cap: <u>Good</u> / Broken / None Evidence of rain water between steel and PVC?: Y / <u>N</u> Evidence of ponding around well?: Y / <u>N</u> Gopher-type holes around collar?: Y / <u>N</u> Comments: _____	Is well plumb?: <u>Y</u> / N Lock: <u>Good</u> / Broken / <u>None</u> Rust around cap?: <u>Y</u> / N / <u>N/A</u> PVC Riser: <u>Good</u> / Damaged / None Concrete collar: <u>OK</u> / Cracked / Leaking / <u>None</u> Other Evidence: Rodents / Insects / <u>None</u> Curb Box: Y / <u>N</u> (key is: Hex/Pent/Other) Curb Box Gasket: OK / Replace / Other _____

Purge Data

Start Time: 15:00 Stop Time: 15:20 Total Time Purged: _____ Pump Rate: _____ (gpm) Volume Purged: 4.25 gal (gallons)	Purge Device: <u>Dedicated</u> / Nondedicated Device type: Bailer / <u>Peristaltic</u> / Submersible / Bladder Comments: _____ Well Yield: High / Moderate / Low / Dry

Sample Data

Date: 7/20/07 Time: 15:25 Sampler: CAT Approx. sample depth: _____ (ft) Weather: 80°F Partly Cloudy Sampling method: Bailer / <u>Peristaltic</u> / Bladder Bailer type: SS 2" / SS 1.25" / SS Short / PVC 2" / Other _____ Bailer Cord: Dedicated / Nondedicated Filtered in Field?: <u>No</u> / @ Well / @ Lab Method of Filtration: Pressure / Vacuum / Syringe Pump ID # _____ Filter: 10u / 0.45u Field Decon: Bailer / Tubing / Other _____ Appearance: _____	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Container</th> <th>Quantity</th> <th>Preservative</th> </tr> </thead> <tbody> <tr> <td>Amber</td> <td>2</td> <td>—</td> </tr> <tr> <td>Plastic</td> <td>2</td> <td>—</td> </tr> <tr> <td>Plastic</td> <td>~~2~~ 2</td> <td>NaOH</td> </tr> <tr> <td>Plastic</td> <td>~~2~~ 2</td> <td>#NO3</td> </tr> <tr> <td>VOA Vial</td> <td>6</td> <td>HCl</td> </tr> </tbody> </table>	Container	Quantity	Preservative	Amber	2	—	Plastic	2	—	Plastic	~~2~~ 2	NaOH	Plastic	~~2~~ 2	#NO3	VOA Vial	6	HCl
Container	Quantity	Preservative																	
Amber	2	—																	
Plastic	2	—																	
Plastic	~~2~~ 2	NaOH																	
Plastic	~~2~~ 2	#NO3																	
VOA Vial	6	HCl																	

Field Parameters

Note: SC calculation based on (temp) at time of SC measurement.

Instrument ID#	Instrument ID#	Spec. Cond.
pH	Temp	DO
7.49	20.23°C	45.5
		776.05/cm ²

Test Pit # 11
 Location: K4

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/2/2005
Time:	8:20
Sample Prefix:	804051202- / ACD-SS-
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
3 - 0"			Asphalt (E side) 4" concrete (W side)		
0 - 8"			f. sands trace gravel dark brown loose, dry		
8" - 29"			porous rock layer mostly blue green. some reddish orange spots (oxidized)		
--					
29" -			bedrock		
--					
0 - 1'	023/K4 (0-1)	8:30			
--					
--					
--					
--					
--					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: pic 4+5

Test Pit # K6
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/8/2005
Time:	1020
Sample Prefix:	767051208- / ACD-SS-
Logged By:	IMG

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 2"			Asphalt		
2" - 0.5'			crushed stone (1/2") subbase, some asphalt tar.		
0.5' - 1'			some m-f sand dark brown some gravel. no organics, dry.		
1' -			frost line		
1' - 2.5'			dark brown m-f sand, trace kiln ash, slag, trace brick. some large gravel		
-			at 1' + 1.5' there was a 1" line of very dark sand possibly organic kpr. slightly moist.		
2.5' - 3.5'			long 0-4" pieces of crushed kiln slag little gravel		
3.5' - 3.7'			dark brown m-f sand, little gravel slightly moist. no GW, refuse at 3.7'		
-					
0 - 0.9	052	10:30			
0.5 - 3	053	10:35			
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS:

Test Pit # 12
 Location: K8

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/2/2005
Time:	850
Sample Prefix:	804051202- / ACD-SS-
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-2" - 0			Asphalt		
0 - 16"			gravel trace c sand + clay base dry dark brown		
16 - 30"			rock layer-hard		
30" - 38"			porous rock		
38"-			bedrock - dry		
-					
0 - 1'	003/K8 (6-1)	9:20			
-					
-					
-					
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: 0 ft SE corner of brick building, pic 6-8

Test Pit # K10
Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/5/2005
Time:	
Sample Prefix:	804051205- / ACD-SS-
Logged By:	RT

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 1.0'			rr ballast + cr. rock. lit + br sa/gr slightly moist.		
1.0 - 1.5'			dk br/dk gr f-m sa, rts, lit grav sl mst.		
1.5 - 2.0'			br f-c SA, some RRB + f-m ang rocks.		
2.0' -			refused - unknown surface.		
-			probably rock. some matlooks		
-			like coal or asph slag, other frags		
-			are dk bl glassy slag.		
1.0 - 1.2'			rock either coal w/ bl glassy		
-			tarry subst or this is solid thru		
-			(slag) see photo, photos land 2		
-					
1.0 - 2.0	005	12:30			

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: + sample collected at ~~1.0-2.0~~ ^{1.0} 0.0-1.0' is all
rock/gravel.

**FUSS & O'NEILL***Disciplines to Deliver***BORING LOG**

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: L2

SHEET: of

PROJECT NO: 20040764.AIN

WEATHER: 2 deg. F, 2-4" snow

CONTRACTOR:

OPERATOR:

F&O REPRESENTATIVE:

DRILLING METHOD: mlp

SAMPLING METHOD: sleeve

HAMMER WT: na HAMMER FALL (IN) na

BORING LOCATION:

GROUND ELEVATION: na

DATE STARTED:

SAMPLE PREFIX: 767051215- / ACD-SS-

WATER LEVEL MEASUREMENTS

DATE

MS. PT.

WATER AT

TIME

TIME AND DATE OF COMPLETION: 12/15/05 13:53

DEPTH (FT)	REC/PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0-3"	3.0/4.0	0-0.5'	019/L2(0-0.5) 13:48	Asphalt, gravel/stone subbase			
3"-7"		0.5-3.0'	020/L2(0.5-3.0) 13:50	dk brown m-c sand, little crushed brick, orange staining. some crushed coal.			
7"-20"				crushed/pulverized coal, little glass shards, ash at 20"			
20"-28"				coal pieces, little f m sand. wet. some gravel			
28"-36"				large + small coal pieces trace brick, trace med brown f. sand.			
36-43"	2.3/4.0	3.0-6.0'	021/L2(3.0-6.0) 13:53	some same coal ash.			
43-44"				coal, little ash, stone at 50"			
44-50"				hardened ash.			
50-55"				lt gray clay, wet not natural			
55-60"				little gravel, hardened ash.			
60"-65"							

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS
			Field Instrument = _____ If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

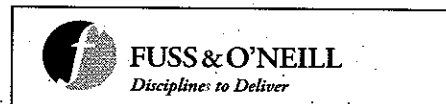
PROPORTIONS USED: Trace 0 to 10% Some 20 to 35% Little 10 to 20% And 35 to 50%			
EXAMPLE DESCRIPTION: SAND, F-C, Some F-C gravel; Little silt; Trace clay; (10R5/4) Moist. Loose. No odor.			
Reviewed by Staff: _____			

BACKFILL Native Material _____ To _____ See Monitoring Well Bentonite Grout/Chips _____ To _____ Completion Report Concrete/Asphalt _____ To _____ Other _____ To _____	

Test Pit # L3
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/13/2005
Time:	11:50
Sample Prefix:	379051213- / ACD-SS-
Logged By:	NJL

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-3" - 0			Asphalt		
0 - 6"			Angular gravel, little medium-fine grained sand dry.		
6" - 36"			porous rock, mostly gray, little blue green little oxidized some		
-			brick medium to fine grained		
-			fairly loose sand, dark brown		
-			some black mixed in, dry		
36' -			rock too hard for excavator to		
-			penetrate, dry.		
-					
0 - 0.5'	005	1250			
0.5 - 3'	006	12:55			
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS:

Test Pit # L4
Location: _____

Project Name:	ACDutton
Project Number:	20040764.A1N
Date:	12/13/2005
Time:	13:00
Sample Prefix:	379051213- / ACD-SS- L4
Logged By:	NJL

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-5" - -2"			Asphalt		
-2" - 0			item 4		
0 - 4"			Angular gravel, dark brown, med - fine grain sand, dry.		
4 - 13"			light gray porous rock, dry.		
13 - 26"			light gray porous rock + dark brown med - fine grain sand, dry.		
26 - 33"			gray porous rock, + red and fire brick, dry.		
33 - 44"			bluish gray partly metamorphosed rock, dry.		
44 - 64"			dark brown fine grained soil porous rock, red brick, meta-		
-			morphosed rock, dark gravel/clay, wet.		
64" -			water		
0 - 0.5'	009	14:16			
0.5 - 3'	008	14:12			
3 - 6'	007	14:05			

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTLING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: pic #3

Test Pit # L5
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/13/2005
Time:	14:00
Sample Prefix:	379051213- / ACD-SS- L5
Logged By:	NJL

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-6 - -4"			Asphalt		
-4" - 0			Item 4		
0 - 19"			angular gravel, littered brick, little fine brick, dark med-fine grained sand, gray porous rock, loose, dry.		
-					
19" -			rock too hard for excavator to penetrate, dry.		
-					
-					
0 - 0.5	010	14:36			
0.5 - 3	011	14:40			
-					
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTLING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: pic #2



FUSS & O'NEILL

Disciplines to Deliver

BORING LOG

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: L7

SHEET: of

PROJECT NO: 20040764.AIN

WEATHER: 2 deg. F, 2-4" snow

CONTRACTOR: _____
 OPERATOR: _____
 F&O REPRESENTATIVE: _____
 DRILLING METHOD: mlp
 SAMPLING METHOD: sleeve
 HAMMER WT: na HAMMER FALL (IN) na
 BORING LOCATION: _____
 GROUND ELEVATION: na
 DATE STARTED: _____
 SAMPLE PREFIX: 767051215- / ACD-SS-

WATER LEVEL MEASUREMENTS

DATE	MS. PT.	WATER AT	TIME
TIME AND DATE OF COMPLETION: <u>12/15/05 11:32</u>			

DEPTH (FT)	REC/ PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0-3"	3.0/4.0	0.0-0.5	014/L7(0-0.5) 11:26	Asphalt, gravel			
3"-1.0'		0.5-3.0'	015/L7(0.5-3.0) 11:30	med brown f-m sand, some sm. gravel. dry/frozen.			
1.0-1.5'				dk brown/black coal, trace rusty metal. trace gravel			
1.5-2.0'				ash, fire brick, general fill.			
2.0-3.0'		3.0-6.5'	016/L7(3.0-6.5) 11:32	med/dk brown f sand, some silt. Trace gravel or slag within. Little ash at 3'			
4-4.5'	2.5/4.0			coal, brick, ash, little fine sand.			
4.5-6.5'				fill med size gravel, little ash. some fine dk brown sand. little silt. coal pulverized 5'-6W.			

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS Field Instrument = _____ If refusal is encountered, describe all efforts used to confirm. Field Decon: Yes / No / Dedicated Device
PROPORTIONS USED: Trace 0 to 10% Some 20 to 35% Little 10 to 20% And 35 to 50%			BACKFILL Native Material _____ To _____ See Monitoring Well Bentonite Grout/Chips _____ To _____ Completion Report Concrete/Asphalt _____ To _____ Other _____ To _____
EXAMPLE DESCRIPTION: SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4) Moist. Loose. No odor. Reviewed by Staff: _____			



FUSS & O'NEILL

Disciplines to Deliver

BORING LOG

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: L9

SHEET: of

PROJECT NO: 20040764.A1N

WEATHER: 2 deg. F, 2-4" snow

CONTRACTOR:
OPERATOR:
F&O REPRESENTATIVE:
DRILLING METHOD: mlp
SAMPLING METHOD: sleeve
HAMMER WT: na HAMMER FALL (IN) na
BORING LOCATION:
GROUND ELEVATION: na
DATE STARTED:
SAMPLE PREFIX: 767051215- / ACD-SS-

WATER LEVEL MEASUREMENTS

DATE	MS. PT.	WATER AT	TIME

TIME AND DATE OF COMPLETION: 12/15/05 13:15

DEPTH (FT)	REC/ PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0-2"	2.5/4.0	0-0.5'	017/L9(0-0.5)	Asphalt, little organics			
2"-0.5'			13:12	stone sub base, partially pulverized concrete			
0.5-15'		0.5-2.5'	018/L9(0.5-2.5)	med + dk brown f-m sand			
1.5-2.5'			13:15	gravel (small), coal broken gravel, little f-m sand, trace silt.			
				GW-35-4.0'			

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS
			Field Instrument = If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED:

Trace	0 to 10%	Some	20 to 35%
Little	10 to 20%	And	35 to 50%

EXAMPLE DESCRIPTION:
SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4)
Moist. Loose. No odor.

Reviewed by Staff:

BACKFILL

Native Material	_____	To _____	See Monitoring Well Completion Report
Bentonite Grout/Chips	_____	To _____	
Concrete/Asphalt	_____	To _____	
Other	_____	To _____	

Test Pit # M2
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/6/2005
Time:	
Sample Prefix:	804051206- / ACD-SS-
Logged By:	RT

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
~~0 - 0.5'~~ ^{0.5'}					
0 - 5.0'			cr. stone + sa/gr with solid		
-			kiln ash/slag. dry, loose,		
f -			very compacted		
5.0' -			refusal no water		
-					
0.0 - 0.5'	012				
0.5 - 2.0'	013				
2.0 - 5.0'	014				
-					
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS:

Test Pit # M4
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/6/2005
Time:	
Sample Prefix:	804051206- / ACD-SS-
Logged By:	RET

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 0.3'			coal + asph.		
0.3 - 3.0'			br f-c SA, cr shale + stones,		
-			some kiln ash (solid) dry.		
-			loose/ compacted.		
3.0'			Solid kiln ash, tr sa/g/s		
-			very hard/ compacted		
3.0' -			refusal		
-					
0 - 0.5'	010				
1.0 - 2.5'	011				
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS:

Test Pit # 10
Location: M6

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/2/2005
Time:	7:45
Sample Prefix:	804051202- / ACD-SS-
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-3" - 0"			Asphalt		
0 - 2"			gravel + f sand loose, dry, lt brown.		
2 - 48"			gravel some c sand little clay		
14 - 19"			on N wall blue/green rock, smells like sulfur. also trace brick		
-			+ fine brick		
48" -			bedrock - no water		
-					
0 - 1'	019/M6 (10-1)	8:07			
1 - 3'	020/M6 (1-3)	7:57			
3 - 4'	021/M6 (3-4)	8:00			
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: center of site. pic #1-3

Test Pit # M8

Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/7/2005
Time:	9:10
Sample Prefix:	767051207- / ACD-SS- M8
Logged By:	LMG

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 2"			Asphalt		
2" - 0.5'			large crushed stone base, trace m-c sand, trace organics		
0.5 - 2.5'			dark brown m-c sand, large stone (2-3") little kiln slag		
-			trace brick.		
2.5 - 3.5'			kiln slag, trace m. sand dark brown		
3.5 - 4.5'			m. dk brown sand, some gravel, trace lt brown f-m sand trace silt		
4.5 - 5'			lt brown clay, w/ silt, likely ~~native~~ material. little gravel		
5' -			GW		
-					
0 - 0.5'	004	9:20			
0.5 - 3'	005	9:25			
3 - 5'	006	9:30			

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS:

Test Pit # M10

Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/5/2005
Time:	
Sample Prefix:	804051205- / ACD-SS-
Logged By:	LMC RT

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 1.0			dk br f-c ^{round} ~~gr + sa~~ gr + sa		
-			asph/shale frag, glass/br frag		
-			moist-wet		
1.0 - 3.0			SAA w/ more f-m gr very little		
-			sand bit, very sat *		
3.0 -			water		
-					
0 - 1.0	003	12:10			
1.0 - 3.0	004	12:15			
-					
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: * little matrix to sample - mostly rocks + pulv. shale
 some R2 ballast, furnace brick frag. possible slag.

Test Pit # N5
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/12/2005
Time:	1320
Sample Prefix:	804051212- / ACD-SS-N5
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-3" - 0			Asphalt		
0 - 1"			layer of neatly laid brick (red + fine) silt + dry loose brown.		
1" - 4"			gravel + c. sand tight dry black		
4" - 36"			porous gray rock some brick trace bl/gr porous rock. some sand loose brown.		
36" - 49"			Porous bl/gr rock. some light gray rock. dry		
49" -			bedrock. dry.		
0 - 0.5'	005 / (0-5)	14:14			
0.5 - 3'	006 / (5-3)	14:20			
--					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: ~30' east of light pole in center of prop. pic 13-15

Test Pit # N9
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/14/2005
Time:	11:30
Sample Prefix:	108 204051214 / ACD-SS- N9
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-6" - 0			concrete & wire		
0 - 6"			c. sand some clay. dry d. brown trace brick		
6" - 18"			brick & gravel trace c. sand + clay		
18" - 28"			f. sand trace gravel. 1 brown dry		
28" -			hard rock layer - cannot penetrate		
--					
--					
0 - 0.5'	010 / (0.5)	12:07			
0.5 - 2'	011 / (1.5-2)	12:10			
--					
--					
--					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: pic 7-8

Test Pit # 02
Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/6/2005
Time:	
Sample Prefix:	804051206- / ACD-SS-
Logged By:	RT

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
--			8" asph / coal		
0 - 5.0'			br f-m sa, some f-m cr		
--			st / gravel (ang)		
--			litt kiln ash (solid), dry-mst		
5.0' -			refusal, no water		
--					
0 - 0.5'	015				
0.5 - 3.0'	016				
3.0 - 5.0'	017				
--					
--					
--					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS:

Test Pit # 03

Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/12/2005
Time:	1430
Sample Prefix:	804051212- / ACD-SS- 03
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-4" - 0			Asphalt		
0 - 1"			Angular gravel		
1 - 5"			gravel some clay dry tight		
5 - 17"			hard rock layer porous, light gray bl/gr rock - trace reddish (oxidized) rock		
17" - 46"			clay trace sand + gravel - dry lt. brown.		
46 - 56"			hard rock layer, porous, light gray - bl/green		
56 - 76"			gravel trace clay + sand.		
76" -			water, same as above.		
-					
0 - 0.5'	004 / (0-5)	19:25			
0.5 - 3'	008 / (5-3)	15:31			
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTLING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: pic 16-18.

SW corner - stone wall - foundation?

Test Pit # 09
 Location: 04

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/1/2005
Time:	15:15
Sample Prefix:	804051201- /ACD-
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
3" - 0			Asphalt		
0 - 9"			bedrock + loose sand / brown clay		
9" - 19"			bedrock - no water		
-					
0 - 1'	017/SS04 (0-1)	15:32			
1 - 3'	018/SS04 (1-3)	15:40			
-					
-					
-					
-					
-					
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: C of site. N of Southern metal bldg.
pic # 31-33

Test Pit # 05
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/14/2005
Time:	14:00
Sample Prefix:	163 804051214 / ACD-SS- 05
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-2" - 0			Asphalt, brick layer		
0 - 8"			gravel sand trace clay + brick		
8" - 18"			porous rock layer		
18" - 31"			sand + gravel - brick dry		
31" -			rock layer too hard to		
-			penetrate. dry.		
-					
0 - 0.5	014 / (0.5)	14:45			
0.5 - 3	014 / (3.3)	14:51			
-					
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS:

Test Pit # 06
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/7/2005
Time:	10:05
Sample Prefix:	767051207- / ACD-SS-06
Logged By:	LMG

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 3"			red brick layer at surface. Some organics		
3" - 0.5'			m brown f-m sand some organics		
0.5' - 2.5'			little dk brown f-m sand, large gravel and crushed concrete + brick		
2.5' - 3'			dk brown f-m sand 2" very dark organic layer, some gravel trace organics		
3' - 3.5'			concrete layer, could not break through, no GW.		
-					
0 - 0.5	010	10:10			
0.5 - 3	011	10:20			
-					
-					
-					
-					

APPROX. SURFACE ELE. (FT.-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS:

Test Pit # 08

Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/7/2005
Time:	9:40
Sample Prefix:	767051207- / ACD-SS-
Logged By:	LMG

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 2"			brick, organics		
3" - 0.5'			med brown f-m sand little organics little gravel, some brick		
0.5' - 3'			little dk brown m-c sand. kiln slag, large gravel, brick		
3' - 4'			f-m dk brown sand. some large gravel (mostly)		
4' - 5.5'			lt brown silt. trace clay. some gravel		
5.5' -			GW		
-					
0 - 0.5'	007	9:45			
0.5' - 3'	008	9:50			
3' - 5.5'	009	9:55			
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS:

Test Pit # 13
 Location: 010

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/2/2005
Time:	9:30
Sample Prefix:	804051202- / ACD-SS-
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-2" - 0			Asphalt		
0 - 4"			Angular gravel dark gray-black		
4" - 23"			clay, c sand, trace gravel + organics (roots). dark brown		
--			loose moist		
23 - 33"			Angular gravel some clay wet		
33" -			water		
--					
0 - 1'	024/010 (8-1)	9:35			
1 - 3'	025/010 (1-3)	9:40			
--					
--					
--					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTLING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: Center of site adjacent to river. pic #9

Test Pit # P3
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/14/2005
Time:	19:00
Sample Prefix:	16-884051214 / ACD-SS- <u>P3</u>
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-2" - 0			asphalt, brick layer		
0 - 1"			silt + l. brown dry.		
1" - 2"			c. sand gravel trace clay.		
2" - 11"			porous rock layer		
11" - 45"			sand, gravel, brick wood, dry.		
45" -			rock layer too hard to penetrate		
--					
--					
0 - 0.5'	016/(0-5)	19:30			
0.3 - 2'	017/(5-2)	19:33			
--					
--					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS:

Test Pit # P4
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/13/2005
Time:	1105
Sample Prefix:	379051213- / ACD-SS-
Logged By:	NJL

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-4" - 0			Asphalt - dry		
0 - 4"			layer of brick - dry		
4" - 6"			Fine sand - light brown tight soil dry		
6" - 30"			gray porous rock dry little oxidized.		
30" - 36"			gray porous rock - dark brown. some fine sand-silt. soil tight dry.		
36" -			rock too hard for excavator to penetrate. dry.		
-					
-					
0.5 - 3'	004	11:35			
-					
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: pic #3. sand from 4-6" too hard to collect.

Test Pit # P5
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/15/2005
Time:	14:00
Sample Prefix:	768051215- / ACD-SS- P5
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-18" -- -16"			Asphalt		
-16" -- 0			concrete + wire mesh		
0 -- 45"			gravel, brick - top foots		
-			c.sand trace clay. dry		
-			loose porous rock -		
45" --			mostly gravel.		
-					
1 - 4'	013/(1-4)	14:55			
-					
-					
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTLING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS:

Test Pit # P9
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/14/2005
Time:	13:00
Sample Prefix:	804051214 / ACD-SS- P9
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-10" - 0			concrete + wire mesh.		
0 - 29"			gravel f. sand clay + brick		
29" - 29"			Water. sand + gravel below		
--					
0 - 0.5'	012 / (0.5)	1340			
0.5 - 2'	012 / (3-2)	1350			
--					
--					
--					
--					
--					
--					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: pic 910

Test Pit # Q2
Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/6/2005
Time:	
Sample Prefix:	804051206- / ACD-SS-
Logged By:	<u>RT</u>

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-			3" asph, 8" coal/slag		
0 - 1.0'			br f-c sa/gr with some		
-			kiln ash (solid pieces 4-6")		
-			wood frag / lumber at top 1.0'		
-			dry- mst, some lg cr stone		
1.0 - 6.0'			solid kiln ash chunks mostly		
-			hard material no sig sa/gr		
6.0 - 8.0'			cr/plu kiln ash and glass		
-			chips, litt sa/si gr sample		
-			coll, but may not be usable.		
0.0 - 6.5'	018				
6.0 - 8.0'	019				

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: not sampled : 1.0-6.0'

Test Pit # Q3
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/13/2005
Time:	10:40
Sample Prefix:	379051213- / ACD-SS-Q3. .
Logged By:	NJL

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-4" - 0			Asphalt		
0 - 7"			angular gravel		
7 - 27"			porous rock, mostly gray, some blue green. yellowish orange fine sand-silt		
-			some red brick. dry.		
27" - 43"			porous rock. dark brown fine sand, silt, trace clay. dry.		
43" - 93"			light-dark brown clay. some fine sand, trace rock. dry.		
93" -			excavator cant go deeper. dry.		
-					
0.5 - 3'	002	10:53			
3 - 6'	001	10:47			
6 - 8'	003	11:00			
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

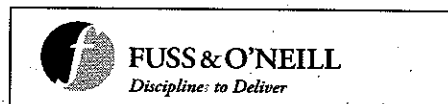
TEST PIT SKETCH:

COMMENTS: pic #3, electrical conduit on SW side of test
 pit at 20". Some scrap metal ~4".

Test Pit # Q4
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/8/2005
Time:	11:40
Sample Prefix:	767051208- / ACD-SS-
Logged By:	LMG

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 2"			Asphalt		
2" - 0.5'			concrete w/ reinforcement		
0.5' - 1'			dk brown m-f sand, mostly gravel		
1' - 3.5'			ash kiln slag trace m-f med brown sand little coal, basically all full w/ ash that is hardened.		
-					
3.5' -			no GW refusal - bedrock		
-					
0.0 - 0.5'	057	11:50			
0.5' - 3'	058	11:55			
-					
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

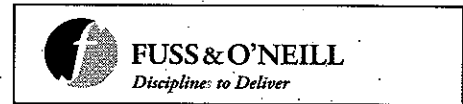
TEST PIT SKETCH:

COMMENTS: TP falls on ramp to S. quonset hut. form for ramp runs right through center of pit. we moved it to dig.

Test Pit # 26
 Location: Q6

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/1/2005
Time:	4:15
Sample Prefix:	804051201- ACD-
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-3" - 0			Asphalt		
0 - 7"			Angular gravel. little c. sand + clay. trace red bricks		
7" - 39"			gravel (some porous, some green smells like sulfur) little		
39" - 41"			coarse sand + clay		
39" - 41"			layer of bl/gr rock smells like sulfur		
49" -			water		
--					
0 - 1'	011 / 506 (0-1)	14:30			
1 - 3'	012 / 506 (1-3)	14:20			
3 - 4'	013 / 506 (3-4)	14:23			
--					
--					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: SC portion of site. W of Southern Metal building. pic #25-28. NO VOC jar for 013 because not enough soil

Test Pit # Q7
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/15/2005
Time:	13:30
Sample Prefix:	768051215- / ACD-SS- Q7
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-2" - 0			Asphalt		
0 - 2"			Angular gravel.		
2" - 43"			gravel c. sand trace clay porous rock. wood. dry loose		
43" -			bedrock - dry.		
-					
0 - 0.5'	011 / 10-5	13:50			
0.5 - 3'	012 / 15-3	13:53			
-					
-					
-					
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: pic 26-27

Test Pit # 08
 Location: Q8

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/1/2005
Time:	14:50
Sample Prefix:	804051201- /ACD-
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-2" - 0			Asphalt		
0 - 4"			angular gray gravel		
4" - 31"			gravel, c. sand + trace clay trace bl/gr rock, dry, loose		
-			red + orange brick layer at 28"		
31" -			water		
-					
0 - 1'	014/5508 (D-1)	14:54			
1 - 3'	015/5508 (T-3)	14:48			
-					
-					
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

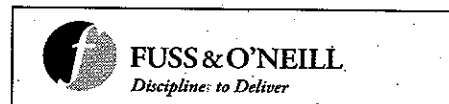
TEST PIT SKETCH:

COMMENTS: SC of site between metal building + river
 pic #29-31 - Purple rock showed up in pile of excavated
 material.

Test Pit # 15
 Location: 52

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/2/2005
Time:	10:15
Sample Prefix:	804051202- / ACD-SS-
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 105"			Silt & roots trace gravel		
--			loose dry organic debris -		
--			including red brick & fire brick		
--			wire metal wood - top 4"		
--			lenses of clay about 1" throughout		
105" -			bottom of TP		
--					
0 - 1.5'	029 / 52 (0-5)	10:41			
1.5 - 3'	030 / 52 (1.5-3)	10:24			
3 - 6'	031 / 52 (3-6)	10:46			
6 - 8'	032 / 52 (6-8)	10:57			
8 - 10'	033 / 52 (8-10)	11:00			

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: SE of site - behind Hdq on raised earth pic 12-14
 on S side - bottom at 54" cobbles, trace sand

Test Pit # Sb
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/7/2005
Time:	11:00
Sample Prefix:	767051207- / ACD-SS-
Logged By:	LMG

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 2"			Asphalt		
2" - 0.5'			large gravel sub-base, trace m-c sand dk brown		
0.5' - 1'			2nd tar/asphalt layer, ~~large~~ layer w/ some large gravel sub-base		
-			some m-c sand in between		
1' - 2.5'			large pieces of crushed kiln slag, little m-c sand. dk brown.		
-			pieces of brick		
2.5' - 4'			some dark brown m-f sand, gravel some large rocks (6"). All fill material		
4' -			refusal. no gw		
-					
0 - 0.5'	014	11:20			
0.5' - 4'	015	11:25			
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

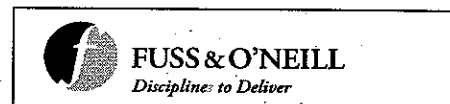
TEST PIT SKETCH:

COMMENTS:

Test Pit # 38
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/7/2005
Time:	10:40
Sample Prefix:	767051207- / ACD-SS-38
Logged By:	LMG

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 2"			Asphalt		
2" - 1'			large rock base, trace m-c. sand dark brown.		
1 - 1.5'			little dk brown f-m sand mostly large gravel.		
1.5 - 2.5'			large pieces crushed kiln slag some pulverized too. trace m dk brown sand little gravel.		
-					
2.5 - 3'			f-m dk brown sand, some gravel, little, at top, kiln slag. dense likely native		
-			no GW.		
-					
0 - 0.5'	012	10:45			
0.5 - 3'	013	10:50			
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS:

Test Pit # 14
 Location: S10

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/2/2005
Time:	9:58
Sample Prefix:	804051202- / ACD-SS-
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
- 2" - 0			Asphalt		
0 - 2"			Angular gravel		
2" - 11"			silt + trace c sand + gravel organics dark brown - high plasticity		
11" - 45"			clay trace gravel + sand moist high plasticity / brown, dark brown (17" - 20")		
-					
45" -			water. gravel below.		
-					
0 - 1'	026/S10 (0-1)	9:58			
1 - 3'	027/S10 (1-3)	10:02			
3 - 4'	028/S10 (3-4)	10:05			
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTLING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: SC of site adjacent to RR + river pic # 10-11, for
 028 - no voc jar because not enough soil.



FUSS & O'NEILL

Discipline: to Deliver

BORING LOG

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: T6

SHEET: of

PROJECT NO: 20040764.A1N

WEATHER: 15 deg. clear

CONTRACTOR:

OPERATOR:

F&O REPRESENTATIVE:

DRILLING METHOD: mlp

SAMPLING METHOD: sleeve

HAMMER WT: na HAMMER FALL (IN) na

BORING LOCATION:

GROUND ELEVATION: na

DATE STARTED:

SAMPLE PREFIX: 153051208- / 8 ACD-SS-

WATER LEVEL MEASUREMENTS

DATE

MS. PT.

WATER AT

TIME

TIME AND DATE OF COMPLETION: 12/8/05 12:18

DEPTH (FT)	REC/ PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0.0-0.4	3.0/4.0	0-0.5	023/T6(0-.5) 12:05	Asphalt			
0.4-4.0		0.5-3.0	024/T6(.5-3) 12:08	Fill, sand F-C, some gravel. trace silt, brick. dry, no odor 5 YR 211			
4.0-4.8	2.8/4.0	3.0-6.0	025/T6(3-6) 12:10	Same as above. dry no odor			
4.8-8.0		6.0-8.0	026/T6(6-8) 12:15	sand R-M, some silt, little gravel. wet at 6.0 only odor. stronger at 8' level SM LO. YR			
8.0-9.2	1.2/1.2	8.0-9.2	027/T6(8-9.2) 12:18	Same as above refusal at 9.2'			

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS
			Field Instrument = If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED:

Trace	0 to 10%	Some	20 to 35%
Little	10 to 20%	And	35 to 50%

EXAMPLE DESCRIPTION:

SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4)

Moist. Loose. No odor.

Reviewed by Staff:

BACKFILL

Native Material	_____	To _____	See Monitoring Well
Bentonite Grout/Chips	_____	To _____	Completion Report
Concrete/Asphalt	_____	To _____	
Other	_____	To _____	

**FUSS & O'NEILL***Disciplines to Deliver***BORING LOG**

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: T7

SHEET: of

PROJECT NO: 20040764.A1N

WEATHER: 15 deg. clear

CONTRACTOR:

OPERATOR:

F&O REPRESENTATIVE:

DRILLING METHOD: mlp

SAMPLING METHOD: sleeve

HAMMER WT: na HAMMER FALL (IN) na

BORING LOCATION:

GROUND ELEVATION: na

DATE STARTED:

SAMPLE PREFIX: 753051 208- / ACD-SS-

WATER LEVEL MEASUREMENTS

DATE

MS. PT.

WATER AT

TIME

TIME AND DATE OF COMPLETION: 12/8/05 11:40

DEPTH (FT)	REC/PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0-0.3	2.9/4.0	0-0.5	016 / T7 (0-0.5) 11:10	Asphalt			
0.3-4.0		0.5-3.0	017 / T7 (0.5-3.0) 11:12	Fill, sand F-C, some gravel. some slag. trace brick. Slag has sulfur smell. moist			
		3.0-6.0	018 / T7 (3.0-6.0) 11:15	same as above.			
4.0-8.0	2.5/4.0	6.0-8.0	019 / T7 (6.0-8.0) 11:20	Wet at 6.5' no odor			
8.0-9.5	2.9/4.0	8.0-10.0	020 / T7 (8.0-10.0) 11:30	Same as above. wet, no odor			
9.5-12.0		10-12.0	021 / T7 (10.0-12.0) 11:35	Shale fragments and silt, wet no odor 10 YR 4/2			
12.0-15.8	1.8/4.0	12.0-16.0	022 / T7 (12.0-16.0) 11:40	Same as above. no odor			
15.8-16.6				silt			

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS
			Field Instrument— If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED: Trace 0 to 10% Some 20 to 35% Little 10 to 20% And 35 to 50%		BACKFILL Native Material _____ To _____ See Monitoring Well Bentonite Grout/Chips _____ To _____ Completion Report Concrete/Asphalt _____ To _____ Other _____ To _____	

EXAMPLE DESCRIPTION:
SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4)
Moist. Loose. No odor.

Reviewed by Staff:

Test Pit #

Location:



Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/15/2005
Time:	1000
Sample Prefix:	768051215- / ACD-SS-79
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-5" - 0			Asphalt		
0 - 2"			Angular gravel		
2" - 42"			gravel c. sand, clay wood (Kettles) below, brick, wet, odor		
-			concrete wall on S. side		
-			Sheen on water		
42" -			water		
-					
0 - 0.5'	007/10-5	11:50			
0.5 - 3'	008/10-5	11:59			
-					
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

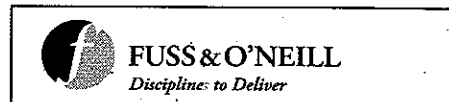
COMMENTS:

Test Pit # T10

Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/15/2005
Time:	15:05 12:40 (A)
Sample Prefix:	768051215- / ACD-SS-T10
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-3" - 0			Asphalt		
0 - 2"			Angular gravel		
2" - 16"			c sand clay + gravel dry, loose porous rock. coal (?) dry.		
16" - 18"			light brown of material		
18" - 22"			same as 2-16"		
22" -			water. gravel + c sand trace		
-					
0 - 0.5'	009/10-5	13:10			
0.5 - 3'	010/10-5	13:14			
-					
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTLING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: pic 24-25

**FUSS & O'NEILL**

Discipline to Deliver

BORING LOG

PROJECT: AC Dutton

LOCATION: Poughkeepsie, ny

SITE ID: U4SHEET: ofPROJECT NO: 20040764A1/NWEATHER: clear 10's

CONTRACTOR:

OPERATOR: T600F&O REPRESENTATIVE: mlpDRILLING METHOD: geoprobeSAMPLING METHOD: sleeveHAMMER WT: na HAMMER FALL (IN) naBORING LOCATION: U4GROUND ELEVATION: naDATE STARTED: 12/13/05SAMPLE PREFIX: 768051213- ACD-SS-U4

WATER LEVEL MEASUREMENTS

DATE

MS. PT.

WATER AT

TIME

TIME AND DATE OF COMPLETION: 12-13-05

DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DEPTH (FT)	SAMPLE JARS/ PRE- SERVATIVE	REC/ PEN	BLOWS 6"	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO- LOGIC CODE	FIELD TESTING
0-4					na	refusal @ 2ft - 8 times			
	006 1425	(06")	42	28/48		clay trace gravel + brick 1. brown dry tight			
4-6	007 1433	(28-32")		39/48		clay + gravel dry tight			
	008 1440	water table (7.5-55')				rock layer	11"		
						clay some gravel tight wet @ 26" 1. brown	14"		
8-12				35/48		gravel trace silt wet			
						gravel + clay high plasticity wet	6"		
						clay tight + dry → cold brick - extremely hard	24"		
						clay 1. brown high plasticity	32"		
MW - installed									

BORING
DIAMETER

BORING METHOD

DEPTH

REMARKS

Field Instrument -

If refusal is encountered, describe all efforts used to confirm.

Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED:

Trace 0 to 10%
Little 10 to 20%Some 20 to 35%
And 35 to 50%

EXAMPLE DESCRIPTION:

SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4)
Moist. Loose. No odor.

Reviewed by Staff:

WM

BACKFILL

Native Material

Bentonite Grout/Chips

Concrete/Asphalt

Other

To _____
To _____
To _____
To _____See Monitoring Well
Completion Report



FUSS & O'NEILL

Discipline: to Deliver

BORING LOG

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: U5

SHEET: of

PROJECT NO: 20040764.A1N

WEATHER: 15 deg. clear

CONTRACTOR:

OPERATOR:

F&O REPRESENTATIVE:

DRILLING METHOD: mlp

SAMPLING METHOD: sleeve

HAMMER WT: na HAMMER FALL (IN) na

BORING LOCATION:

GROUND ELEVATION: na

DATE STARTED:

SAMPLE PREFIX: 753051208 - / ACDS -

WATER LEVEL MEASUREMENTS

DATE

MS. PT.

WATER AT

TIME

TIME AND DATE OF COMPLETION: 12/8/05 10:08

DEPTH (FT)	REC/ PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0.0-0.3	3.0/4.0	0.0-0.5	008 / U5(0-0.5) 10:07	Asphalt			
0.3-4.0		0.5-4.0	009 / U5(.5-4.0) 10:05	Fill, sand F-C, some gravel, trace brick and ash, dry, no odor SYR 3/2			
4.0-8.0	1.6/4.0	4.0-8.0	010 / U5(4-8) 10:08	Core stuck in bent sampler bottom tip of sample contains blackish fill material with slight petroleum odor. Fill, sand, F-C, some gravel little silt trace brick and coal slight odor OXR 3/2			

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS
			Field Instrument = _____ If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED:

Trace	0 to 10%	Some	20 to 35%
Little	10 to 20%	And	35 to 50%

EXAMPLE DESCRIPTION:

SAND, F-C, Some F-C gravel; Little silt; Trace clay; (10R5/4)

Moist. Loose. No odor.

Reviewed by Staff: _____

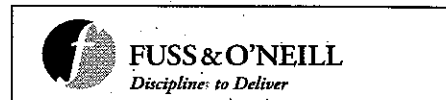
BACKFILL

Native Material	_____	To _____	See Monitoring Well Completion Report
Bentonite Grout/Chips	_____	To _____	
Concrete/Asphalt	_____	To _____	
Other	_____	To _____	

Test Pit # U6
Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/7/2005
Time:	13:08
Sample Prefix:	767051207- / ACD-SS-U6
Logged By:	IMG

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 3"			Asphalt		
2 - 6"			subbase - crushed (small) stone gray.		
6" - 7"			Asphalt		
7" - 1.5'			same subbase		
1.5' - 2.5'			little f-m dk brown sand, some mostly large gravel. trace organics (free roots)		
2.5' - 7.5'			med brown f-m sand silt. trace organics, trace gravel *likely native*		
7.5' -			petroleum impacts same sandy silt impacts seen ~ 3' thick		
-			trace shale. GW, rocks impacted - could be seen from soil		
0 - 0.5'	016	13:20			
0.5 - 3'	017	13:25			
3' - 6'	018	13:30			
6' - 8'	019	13:35			

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS:



FUSS & O'NEILL

Discipline to Deliver

BORING LOG

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: U7

SHEET: of

PROJECT NO: 20040764.A1N

WEATHER: 15 deg. clear

CONTRACTOR: _____
 OPERATOR: _____
 F&O REPRESENTATIVE: _____
 DRILLING METHOD: mlp
 SAMPLING METHOD: sleeve
 HAMMER WT: na HAMMER FALL (IN) na
 BORING LOCATION: _____
 GROUND ELEVATION: na
 DATE STARTED: _____
 SAMPLE PREFIX: 753 051208 - / ACD-SS-

WATER LEVEL MEASUREMENTS

DATE	MS. PT.	WATER AT	TIME

TIME AND DATE OF COMPLETION: 12/8/05 9:20

DEPTH (FT)	REC/ PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0-0.4	3.0/4.0	0-0.5	-001/-U7(0-.5) 9:00	Asphalt			
0.4-4.0		0.5-3.0	002/U7(.5-3) 9:03	Fill, sand FC some gravel, trace silt, coal, slag. dry no odor			
4.0-8.0	1.4/4.0	3.0-8.0	003 /U7(3-8) 9:05	same as above. wet at 7.0'. trace brick. no odor			
8.0-12.0	3.0/4.0	8.0-10.0	004/U7(8-10) 9:07	gravel (shale) little			
		10.0-12.0	005/U7(10-12) 9:10	Silt. trace sand. wet no odor			
12.0-14.7	3.0/4.0	12.0-14.0	006/U7(12-14) 9:15	same			
14.7-16.0		14.0-16.0	007/U7(14-16) 9:20	Silt tight			
16.0				ETB			

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS
			Field Instrument = _____ If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED:

Trace	0 to 10%	Some	20 to 35%
Little	10 to 20%	And	35 to 50%

EXAMPLE DESCRIPTION:

SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4)

Moist. Loose. No odor.

Reviewed by Staff: _____

BACKFILL

Native Material	_____	To _____	See Monitoring Well
Bentonite Grout/Chips	_____	To _____	Completion Report
Concrete/Asphalt	_____	To _____	
Other	_____	To _____	

MONITORING WELL COMPLETION REPORT **GENERAL INFORMATION**

GENERAL INFORMATIONProject Name: AC DuttonSite ID (Boring/Well ID): MW - U8Project Location: POK, NYProject No.: 20040764-A1NF&O Engineer/Geologist: NJL

Ground Surface Elevation: _____

Date of Completion: _____

Permit #: _____

Boring Location: ACD - U8E1 Top of Steel Casing: —Drilling Contractor: Todd Syska, Inc.E1 Top of PVC Casing: —Drilling Method: GeoprobeMeasuring Point: TPS / PVC

Well Cover (see codes): _____

WELL CONSTRUCTIONWell Casing/RiserSump (below screen)Protective CasingDiameter: 1" in.Diameter: N/A in.Diameter: N/A in. Type: _____Type: PVC

Type: _____

Stick-up: _____ ft Depth to Bottom: _____ ft

Stick-up: 2.3' ft.

Length: _____ in.

Seal Material: _____

Screen IntervalsScreen Interval: 5' (10'-5') ft Diameter: 1" in. Slot Size: 0.010 in.Description: PVC / Other: _____Type: Perforated / Slotted / Wire-Wrap / Other: _____**ANNULAR FILL**Surface Seal

(Approximate volumes if available)

Interval: 4'-0' ft. Tremied: Y / N Volume: _____ bagsDescription: Concrete / Other: bentoniteBackfillInterval: 10'-5' ft. Tremied: Y / N Volume: _____ bagsDescription: Bentonite Grout / Fill / Other: _____Lower Seal

Interval: _____ ft. Tremied: Y / N Volume: _____ bags

Description: Bentonite / Bentonite Pellets / Grout / Other: _____

FilterInterval: 5'-4' ft. Tremied: Y / N Volume: _____ bagsDescription: Sand Filter (type: _____) / Other: _____Lower Backfill

Interval: _____ ft. Tremied: Y / N Volume: _____ bags

Description: Bentonite Grout / Fill / Other: _____

Monitoring Well Field Data Sheet

Client/Project Name: Project Location:	PROJECT #:	 FUSS & O'NEILL <i>Disciplines to Deliver</i>
Sample#: <u>788070720-02</u>	Well ID <u>MWU8</u>	

Elevation Data

Date: <u>7/20/2007</u>	Time: <u>12:05</u>	Well Diameter (inches): <u>1</u>												
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;">Depth (feet)</th> <th style="width: 10%;">+ Correction</th> <th style="width: 10%;">= True Depth</th> </tr> </thead> <tbody> <tr> <td>Water Level PVC <u>9.69</u></td> <td>+</td> <td>=</td> </tr> <tr> <td>Water Level TPS</td> <td>+</td> <td>=</td> </tr> <tr> <td>Bottom of Well <u>9.76</u></td> <td>+</td> <td>=</td> </tr> </tbody> </table>		Depth (feet)	+ Correction	= True Depth	Water Level PVC <u>9.69</u>	+	=	Water Level TPS	+	=	Bottom of Well <u>9.76</u>	+	=	Water Column Height: _____ (feet) Gal/foot x 3 factor: x _____ Volume to be Purged: _____ (gal)
Depth (feet)	+ Correction	= True Depth												
Water Level PVC <u>9.69</u>	+	=												
Water Level TPS	+	=												
Bottom of Well <u>9.76</u>	+	=												
Measuring Device ID#: _____ Comments: _____		Sampler: _____ Weather: <u>80° F partly cloudy</u>												

Well Condition Checklist

[circle appropriate item(s); cross out if not applicable]

General Condition: <u>Good</u> / Needs Repair Protective Steel: <u>OK</u> / Cracked / Leaking / Bent / Loose <u>None</u> Well # Visible?: <u>Y</u> / N Well Cap: <u>Good</u> / Broken / None Evidence of rain water between steel and PVC?: Y / <u>N</u> Evidence of ponding around well?: Y / <u>N</u> Gopher-type holes around collar?: Y / <u>N</u> Comments: _____	Is well plumb?: <u>Y</u> / N Lock: <u>Good</u> / Broken / <u>None</u> Rust around cap?: Y / <u>N</u> PVC Riser: <u>Good</u> / Damaged / None Concrete collar: <u>OK</u> / Cracked / Leaking <u>None</u> Other Evidence: <u>Rodents</u> / Insects / <u>None</u> Curb Box: Y / <u>N</u> (key is: Hex/Pent/Other) Curb Box Gasket: <u>OK</u> / Replace / Other _____

Purge Data

Start Time: <u>12:10</u> Stop Time: <u>12:25</u> Total Time Purged: <u>15 min</u> Pump Rate: _____ (gpm) Volume Purged: <u>4.2 gal</u> (gallons)	Purge Device: <u>Dedicated</u> / Nondedicated Device type: <u>Bailer</u> / Peristaltic / Submersible / Bladder Comments: _____ Well Yield: <u>High</u> / Moderate / Low / Dry

Sample Data

Date: <u>7/20/2007</u> Time: <u>12:25</u> Sampler: <u>CAI</u> Approx. sample depth: _____ (ft) Weather: _____ Sampling method: Bailer / Peristaltic / Bladder Bailer type: SS 2" / SS 1.25" / SS Short / PVC 2" / Other _____ Bailer Cord: <u>Dedicated</u> / Nondedicated Filtered in Field?: <u>No</u> / @ Well / @ Lab Method of Filtration: Pressure / Vacuum / Syringe Pump ID # _____ Filter: 10u / 0.45u Field Decon: Bailer / Tubing / Other _____ Appearance: _____	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Container</th> <th>Quantity</th> <th>Preservative</th> </tr> </thead> <tbody> <tr> <td>VOA Vial</td> <td>2</td> <td>HCl</td> </tr> <tr> <td>Amber plastic</td> <td>1</td> <td></td> </tr> </tbody> </table>	Container	Quantity	Preservative	VOA Vial	2	HCl	Amber plastic	1	
Container	Quantity	Preservative								
VOA Vial	2	HCl								
Amber plastic	1									

Field Parameters

Note: SC calculation based on (temp) at time of SC measurement.

Instrument ID#	pH	Temp	Instrument ID#
	<u>7.75</u>	<u>19.54°C</u>	<u>505</u>
		<u>50.5</u>	Spec. Cond. <u>350</u>

Test Pit # U10
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/8/2005
Time:	2:05 pm
Sample Prefix:	767051208 / ACD-SS-
Logged By:	LMG

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 2"			Asphalt		
2" - 8"			Concrete w/ large gravel		
8" - 1.5'			dark brown f-m sand, little silt likely organic (very dark) trace gravel		
1.5' - 2.5'			lt brown/white sand, possible water line		
2.5' - 4.5'			near by, pure sand, silt dk brown f-m sand, little silt, some gravel		
-			(fine and large) same fill as across the site		
4.5' -			GW, pit caving in		
-		Ⓢ			
0 - 0.5'	059	14:20			
0.5 - 3'	060	14:35			
3 - 4.5'	061	14:30			
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTLING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS:

**FUSS & O'NEILL***Disciplines to Deliver***BORING LOG**

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: V5SHEET: of PROJECT NO: 20040764.A1NWEATHER: 15 deg. clearCONTRACTOR: OPERATOR: F&O REPRESENTATIVE: DRILLING METHOD: mlpSAMPLING METHOD: sleeveHAMMER WT: na HAMMER FALL (IN) naBORING LOCATION: GROUND ELEVATION: naDATE STARTED: SAMPLE PREFIX: 153051208 EWM / ACD-SS**WATER LEVEL MEASUREMENTS**

DATE

MS. PT.

WATER AT

TIME

TIME AND DATE OF COMPLETION: 12/8/05 10:46

DEPTH (FT)	REC/ PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO- LOGIC CODE	FIELD TESTING
0-0.2	28/4.0	0-0.5	011/V5(0-.5) 10:28	Asphalt			
0.2-4.0		0.5-3.0	012/V5(.5-3) 10:30	Fill, sand F-C, some gravel trace concrete, brick, slag, dry. no odor 1.5 yr 2/3			
4.0-5.0	28/4.0	3.0-6.0	013/V5(3-6) 10:40	same as above			
5.0-6.3		6.0-8.0	014/V5(6-8) 10:44	~~fractured shale N3~~ gravel some silt, moist no odor 10 yr 54 GM			
6.3-7.0				fractured shale N3			
7.0-8.0				fractured shale and silt. wet at 7.2'			
8.0-8.4	0.4/4	8.0-8.4	015/V5(8-8.4) 10:46	same as above strong oily smell N4 wet refusal			
8.4							

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS
			Field Instrument = <u> </u> If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED: Trace 0 to 10% Some 20 to 35% Little 10 to 20% And 35 to 50%			
EXAMPLE DESCRIPTION: SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4) Moist. Loose. No odor.			
Reviewed by Staff: <u> </u>			

BACKFILL			
Native Material	<u> </u>	To <u> </u>	See Monitoring Well Completion Report
Bentonite Grout/Chips	<u> </u>	To <u> </u>	
Concrete/Asphalt	<u> </u>	To <u> </u>	
Other <u> </u>	<u> </u>	To <u> </u>	

**FUSS & O'NEILL***Disciplines to Deliver***BORING LOG**

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: V8

SHEET: of

PROJECT NO: 20040764.A1N

WEATHER: 15 deg. clear

CONTRACTOR:

OPERATOR:

F&O REPRESENTATIVE:

DRILLING METHOD: mlp

SAMPLING METHOD: sleeve

HAMMER WT: na HAMMER FALL (IN) na

BORING LOCATION:

GROUND ELEVATION: na

DATE STARTED:

SAMPLE PREFIX: 753051207- / ACD-SS-

WATER LEVEL MEASUREMENTS

DATE

MS. PT.

WATER AT

TIME

TIME AND DATE OF COMPLETION: 12/7/05 16:15

DEPTH (FT)	REC/ PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0-0.3	3.0/4.0	0-0.5	053/V8 (0-.5) 15:30	Asphalt			
0.3-4.0		0.5-3.0	054/V8 (0.5-3) 15:32	Fill, brick, sand, some gravel, moist at 3.8' no odor.			
4.0-5.5	2.8/4.0	3.0-6.0	055/V8 (3-6) 15:34	Same as above			
5.5-8.0		6.0-8.0	056/V8 (6-8) 15:36	Sand F-C and gravel little silt, wet at 7.0' no odor 10YR 4/2 SW			
8.0-12.0	1.2/4.0	8.0-12.0	057/V8 (8-12)	Same as above			
12.0-15.0	1.3/4.0	12.0-15.0	058/V8 (12-15) 15:44	gravel (shale) little silt SW wet no odor 10YR 4/2			
15.0-19.0	4.0/4.0	15.0-17.0	059/V8 (15-17) 16:00	silt, tight wet NYCL no odor			
		17.0-19.0	060/V8 (17-19) 16:15				

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS
			Field Instrument = _____ If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED: Trace 0 to 10% Some 20 to 35% Little 10 to 20% And 35 to 50%			
EXAMPLE DESCRIPTION: SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4) Moist. Loose. No odor.			
Reviewed by Staff: _____			

BACKFILL Native Material _____ To _____ See Monitoring Well Bentonite Grout/Chips _____ To _____ Completion Report Concrete/Asphalt _____ To _____ Other _____ To _____			



FUSS & O'NEILL

Disciplines to Deliver

BORING LOG

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: V9

SHEET: _____ of _____

PROJECT NO: 20040764.A1N

WEATHER: _____

CONTRACTOR: _____

OPERATOR: _____

F&O REPRESENTATIVE: _____

DRILLING METHOD: mlp

SAMPLING METHOD: sleeve

HAMMER WT: na HAMMER FALL (IN) na

BORING LOCATION: _____

GROUND ELEVATION: na

DATE STARTED: 12/19/05

SAMPLE PREFIX: 804051219- / ACD-SS-

WATER LEVEL MEASUREMENTS

DATE

MS. PT.

WATER AT

TIME

TIME AND DATE OF COMPLETION: _____

DEPTH (FT)	REC/PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0-0.2	2.6/4.0			0.8-1.0 asph/concrete			
0.2-1.3				br f-m SA, 1.4 f-m med grav			
1.3-2.6				bl stained SA/gr			
				Some coal slag (p/w)			
				br f-m SA w/ grav pulv			
				slag/brick, kiln ash.			
0-2.2	2.6/4.0	3-6	804051219-V9(3-6) 8:30	SAA(0-6.2) wet at 1.3-1.5 (5.3-5.5) bgs			
2.2-2.6				cr concrete/kiln ash			
				Wet to 6.6			
8-8.4	2.5/4.0			SAA, met			
8.4-10.5				cr shale chunks cr grav			
				litt sand lt-med gray			
				Silt Sat. loose sat at			
				8.4 bgs			
				EOR			

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS
			Field Instrument= _____ If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED:

Trace	0 to 10%	Some	20 to 35%
Little	10 to 20%	And	35 to 50%

EXAMPLE DESCRIPTION:

SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4)

Moist. Loose. No odor.

Reviewed by Staff: _____

BACKFILL

Native Material	_____	To _____	See Monitoring Well
Bentonite Grout/Chips	_____	To _____	Completion Report
Concrete/Asphalt	_____	To _____	
Other	_____	To _____	

**FUSS & O'NEILL***Discipline to Deliver***BORING LOG**

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: V10

SHEET: of

PROJECT NO: 20040764.A1N

WEATHER:

CONTRACTOR:

OPERATOR:

F&O REPRESENTATIVE:

DRILLING METHOD: mlp

SAMPLING METHOD: sleeve

HAMMER WT: na HAMMER FALL (IN) na

BORING LOCATION:

GROUND ELEVATION: na

DATE STARTED: 12/19/05

SAMPLE PREFIX: 804051219- / ACD-SS-

WATER LEVEL MEASUREMENTS

DATE

MS. PT.

WATER AT

TIME

TIME AND DATE OF COMPLETION:

DEPTH (FT)	REC/ PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0-4	1.8/4.0			pulu conc/asph			
0-0.6				SAA w cr/pulu shale			
0.6-1.0				b F-m SA and grav tr-			
1.0-1.8				litt coal, slag/brick			
				frag loose, dry			
4-8	1.7/4.0			SAA			
4-4.8				cr/plv shale, sand, grav.			
4.8-5.5				litt-trsilt wet-sat at			
				5.0 bgs.			
5.5-5.7				SAA w cr shale			
8-12	2.7/4.0			SAA			
8-9				cr shale chunks Sat			
9-10.7				and silt v loose			

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS
			Field Instrument = _____ If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED: Trace 0 to 10% Some 20 to 35% Little 10 to 20% And 35 to 50%			
EXAMPLE DESCRIPTION: SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4) Moist. Loose. No odor.			
Reviewed by Staff: _____			

BACKFILL Native Material _____ To _____ See Monitoring Well Bentonite Grout/Chips _____ To _____ Completion Report Concrete/Asphalt _____ To _____ Other _____ To _____			

**FUSS & O'NEILL***Disciplines to Deliver***BORING LOG**

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: W6

SHEET: of

PROJECT NO: 20040764.A1N

WEATHER: 15 deg. clear

CONTRACTOR:

OPERATOR:

F&O REPRESENTATIVE:

DRILLING METHOD: mlp

SAMPLING METHOD: sleeve

HAMMER WT: na HAMMER FALL (IN) na

BORING LOCATION:

GROUND ELEVATION: na

DATE STARTED:

SAMPLE PREFIX: 793051207- /ACD-SS-

WATER LEVEL MEASUREMENTS

DATE

MS. PT.

WATER AT

TIME

TIME AND DATE OF COMPLETION: 12/7/05 15:08

DEPTH (FT)	REC/ PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO- LOGIC CODE	FIELD TESTING
0-0.4	3.0/4.0	0-0.5	048/W6(0-.5) 15:00	Asphalt			
0.4-4.0		0.5-3.0	049/W6(1.5-3) 15:02	Fill, sand F-C; some gravel trace silt, coal, rock flour dry no odor 10YR 4/2			
4.0-4.5	2.8/4.0	3.0-6.0	050/W6(3-6) 15:04	Same as above			
4.5-7.0		6.0-8.0	051/W6(6-8) 15:06	Shale and rock flour			
7.0-8.0		8.0-9.2	052/W6(8-9.2) 15:08	Sand F-C and gravel. Some silt, moist no odor SW 10YR 4/2			
8.0-9.2	1.2/1.2			Same as above wet at 8.5' petroleum odor 5Y 4/1 refusal at 9.2'			

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS
			Field Instrument = _____ If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED: Trace 0 to 10% Some 20 to 35% Little 10 to 20% And 35 to 50%		BACKFILL Native Material _____ To _____ See Monitoring Well Bentonite Grout/Chips _____ To _____ Completion Report Concrete/Asphalt _____ To _____ Other _____ To _____	
EXAMPLE DESCRIPTION: SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4) Moist. Loose. No odor.			
Reviewed by Staff: _____			

**FUSS & O'NEILL***Disciplines to Deliver***BORING LOG**

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: W8

SHEET: of

PROJECT NO: 20040764.A1N

WEATHER: 15 deg. clear

CONTRACTOR: _____
 OPERATOR: _____
 F&O REPRESENTATIVE: _____
 DRILLING METHOD: mlp
 SAMPLING METHOD: sleeve
 HAMMER WT: na HAMMER FALL (IN) na
 BORING LOCATION: _____
 GROUND ELEVATION: na
 DATE STARTED: _____
 SAMPLE PREFIX: 153051207- /ACD-SS-

WATER LEVEL MEASUREMENTS

DATE	MS. PT.	WATER AT	TIME

TIME AND DATE OF COMPLETION: 12/7/05 13:52

DEPTH (FT)	REC/PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0-0.3	3.0/4.0	0-0.5	041/W8(0-5) 13:40	Asphalt			
0.3-4.0		0.5-3.0	042/W8(5-3) 13:42	Fill, sand F-C some gravel little brick, rock flour			
4.0-8.0	0.8/4.0	3.0-8.0	043/W8(3-8) 13:44	dry no odor NY			
8.0-8.3	2.9/4.0	8.0-10.0	044/W8(8-10) 13:46	same as above dry no odor, poor recovery.			
8.3-12.0		10.0-12.0	045/W8(10-12) 13:48	same as above			
12.0-15.0	3.0/4.0	12.0-14.0	046/W8(12-14) 13:50	gravel (shale frag) little silt wet at 8.5'			
15.0-16.0		14.0-16.0	047/W8(14-16) 13:52	strong petroleum odor NA same as above strong odor			
				silt 5/4/1 wet slight odor, tight.			

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS
			Field Instrument = _____ If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED: Trace 0 to 10% Some 20 to 35% Little 10 to 20% And 35 to 50%				BACKFILL Native Material _____ To _____ See Monitoring Well Bentonite Grout/Chips _____ To _____ Completion Report Concrete/Asphalt _____ To _____ Other _____ To _____			
EXAMPLE DESCRIPTION: SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4) Moist. Loose. No odor.							
Reviewed by Staff: _____							

MONITORING WELL COMPLETION REPORT **GENERAL INFORMATION**

GENERAL INFORMATION

Project Name: AC Dutton
 Project Location: POK, NY
 F&O Engineer/Geologist: CS
 Date of Completion: 12/7
 Boring Location: ACD - W8
 Drilling Contractor: Todd Syska, Inc.
 Drilling Method: Geoprobe

Site ID (Boring/Well ID): MW - W8
 Project No.: 20040764AIN
 Ground Surface Elevation: _____
 Permit #: _____
 E1 Top of Steel Casing: _____
 E1 Top of PVC Casing: _____
 Measuring Point: TPS / PVC
 Well Cover (see codes): _____

WELL CONSTRUCTION

<u>Well Casing/Riser</u>	<u>Sump (below screen)</u>	<u>Protective Casing</u>
Diameter: <u>1"</u> in.	Diameter: <u>N/A</u> in.	Diameter: <u>N/A</u> in.
Type: <u>PVC</u>	Type: _____	Type: _____
Stick-up: <u>2.9'</u> ft.	Length: _____ in.	Stick-up: _____ ft
		Depth to Bottom: _____ ft
		Seal Material: _____

Screen Intervals

Screen Interval: 17'-7' ft Diameter: 1" in. Slot Size: 0.010 in.
 Description: PVC / Other: PVC
 Type: Perforated / Slotted / Wire-Wrap / Other: Slotted * wet @ ~ 8.5' bgs

ANNULAR FILLSurface Seal

(Approximate volumes if available)

Interval: 6'-0' ft. Tremied: Y / N Volume: _____ bags
 Description: Concrete / Other: bentonite

Backfill

Interval: _____ ft. Tremied: Y / N Volume: _____ bags
 Description: Bentonite Grout / Fill / Other: _____

Lower Seal

Interval: _____ ft. Tremied: Y / N Volume: _____ bags
 Description: Bentonite / Bentonite Pellets / Grout / Other: _____

Filter

Interval: 7'-6' ft. Tremied: Y / N Volume: _____ bags
 Description: Sand Filter (type: _____) / Other: _____

Lower Backfill

Interval: _____ ft. Tremied: Y / N Volume: _____ bags
 Description: Bentonite Grout / Fill / Other: _____

Monitoring Well Field Data Sheet

Client/Project Name: Project Location:	PROJECT #:	 FUSS & O'NEILL <i>Disciplines to Deliver</i>
Sample#: 788070720-01	Well ID w8	

Elevation Data

Date: 7/28/2007	Time: 11:05	Well Diameter (inches):
Depth (feet)	+ Correction	= True Depth
Water Level PVC	11.06	+
Water Level TPS		+
Bottom of Well		+
Measuring Device ID#:		Sampler: GAT Weather: 80s°F partly cloudy
Comments:		

Well Condition Checklist

[circle appropriate item(s); cross out if not applicable]

General Condition: <u>Good</u> / Needs Repair Protective Steel: <u>OK</u> / Cracked / Leaking / Bent / Loose / <u>None</u> Well # Visible?: <u>Y</u> / N Well Cap: <u>Good</u> / Broken / None Evidence of rain water between steel and PVC?: Y / N Evidence of ponding around well?: Y / <u>N</u> Gopher-type holes around collar?: Y / <u>N</u> Comments:	Is well plumb?: <u>Y</u> / N Lock: <u>Good</u> / Broken / <u>None</u> Rust around cap?: Y / N / <u>NA</u> PVC Riser: <u>Good</u> / Damaged / None Concrete collar: <u>OK</u> / Cracked / Leaking / <u>None</u> Other Evidence: Rodents / Insects / <u>None</u> Curb Box: Y / <u>N</u> (key is: Hex/Pent/Other) Curb Box Gasket: <u>OK</u> / Replace / Other

Purge Data

Start Time: 11:30 Stop Time: 11:55 Total Time Purged: 35 min Pump Rate: _____ (gpm) Volume Purged: 5 _____ (gallons)	Purge Device: <u>Dedicated</u> / Nondedicated Device type: <u>Bailer</u> / Peristaltic / Submersible / Bladder Comments: Well Yield: High / <u>Moderate</u> / Low / Dry

Sample Data

Date: 7/20/2007 Time: 12:00 Sampler: GAT Approx. sample depth: _____ (ft) Weather: _____ Sampling method: Bailer / <u>Peristaltic</u> / Bladder Bailer type: SS 2" / SS 1.25" / SS Short / PVC 2" / Other _____ Bailer Cord: <u>Dedicated</u> / Nondedicated Filtered in Field?: <u>No</u> / @ Well / @ Lab Method of Filtration: Pressure / Vacuum / Syringe Pump ID # _____ Filter: 10u / 0.45u Field Decon: Bailer / Tubing / Other _____ Appearance:	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Container</th> <th>Quantity</th> <th>Preservative</th> </tr> </thead> <tbody> <tr> <td>500ml Amber</td> <td>2</td> <td rowspan="3">HCl</td> </tr> <tr> <td>vsa via</td> <td>2</td> </tr> <tr> <td>150ml Plastic</td> <td>1</td> </tr> </tbody> </table>	Container	Quantity	Preservative	500ml Amber	2	HCl	vsa via	2	150ml Plastic	1
Container	Quantity	Preservative									
500ml Amber	2	HCl									
vsa via	2										
150ml Plastic	1										

Field Parameters

Note: SC calculation based on (temp) at time of SC measurement.

Instrument ID#	Instrument ID#								
<table style="width: 100%;"> <tr> <td>pH</td> <td>Temp</td> <td>DO</td> </tr> <tr> <td>8.51</td> <td>15.97°C</td> <td>10.4%</td> </tr> </table>	pH	Temp	DO	8.51	15.97°C	10.4%	<table style="width: 100%;"> <tr> <td>Spec. Cond.</td> </tr> <tr> <td>472 µS/cm</td> </tr> </table>	Spec. Cond.	472 µS/cm
pH	Temp	DO							
8.51	15.97°C	10.4%							
Spec. Cond.									
472 µS/cm									

Test Pit # 02
 Location: W11

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/1/2005
Time:	11:06
Sample Prefix:	804051201- / ACD-SS-
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 5"			Asphalt		
5" - 24"			Trace organics and roots top 6" sand c, + gravel, some clay, loose, moist, 1 brown. trace brick fragments		
-					
24" -			water		
-					
0 - 1'	003/ #02 (1-1)	10:55			
1 - 2'	004/ #02 (1-2)	11:05			
-					
-					
-					
-					
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTLING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: very edge of RR ties
pic # 4-5



FUSS & O'NEILL

Discipline to Deliver

BORING LOG

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: X7

SHEET: _____ of _____

PROJECT NO: 20040764.A1N

WEATHER: _____

CONTRACTOR: _____

OPERATOR: _____

F&O REPRESENTATIVE: _____

DRILLING METHOD: mlp

SAMPLING METHOD: sleeve

HAMMER WT: na HAMMER FALL (IN) na

BORING LOCATION: _____

GROUND ELEVATION: na

DATE STARTED: 12/19/09

SAMPLE PREFIX: 804051219- / ACD-SS-

WATER LEVEL MEASUREMENTS

DATE

MS. PT.

WATER AT

TIME

TIME AND DATE OF COMPLETION: _____

DEPTH (FT)	REC/PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0-4'	2.4/4.0			cr/plv concrete/asph			
0-1.3							
1.3-2.4				sand, grav. plv slag fill litt br silt dry mod loose			
4-8'	2.6/4.0						
5-6.5				SAT			
4-5							
5-6.5				cr shale shards/chunks with br f-m sa/silt si mst at 5.0 loose			
8-12'	2.4/4.0						
8-9				br-bl f-c SA, grav cr shale tr br fragl silt loose			
9-10				br/plv shale w f-m sa litt grav, silt-appears to be broken up by macro-core			
10-10.4				cr shale shards/chunks			
BORING DIAMETER	BORING METHOD	DEPTH	REMARKS Field Instrument = <u>litt silt - dk br dk gray - sand</u> <u>pet prod obvious sheen - oil blobs (1-2mm)</u> <u>prob. weathered diesel.</u>				
PROPORTIONS USED:			Field Decon: Yes / No / Dedicated Device				
Trace	0 to 10%	Some	20 to 35%	BACKFILL			
Little	10 to 20%	And	35 to 50%	Native Material _____ To _____ See Monitoring Well			
EXAMPLE DESCRIPTION:				Bentonite Grout/Chips _____ To _____ Completion Report			
SAND, F-C, Some F-C gravel; Little silt; Trace clay; (10R5/4)				Concrete/Asphalt _____ To _____			
Moist. Loose. No odor.				Other _____ To _____			
Reviewed by Staff: _____							

MONITORING WELL COMPLETION REPORT
GENERAL INFORMATION

GENERAL INFORMATION

Project Name: AC Dutton
 Project Location: POK, NY
 F&O Engineer/Geologist: RST
 Date of Completion: 12/19/05
 Boring Location: X7 (ACD-X7)
 Drilling Contractor: Todd Syska Inc.
 Drilling Method: Geoprobe

Site ID (Boring/Well ID): MW-X7
 Project No.: 2004076441N
 Ground Surface Elevation: _____
 Permit #: _____
 E1 Top of Steel Casing: _____
 E1 Top of PVC Casing: _____
 Measuring Point: TPS (PVC)
 Well Cover (see codes): _____

WELL CONSTRUCTION

Well Casing/Riser Sump (below screen) Protective Casing
 Diameter: 1 in. Diameter: _____ in. Diameter: N/A in. Type: N/A
 Type: PVC Type: _____ Stick-up: _____ ft Depth to Bottom: _____ ft
 Stick-up: 1.07' Length: N/A in. Seal Material: _____
Screen Intervals (Bedrock @ 13.9')
 Screen Interval: 8.9-13.9 (ft+bgs) ft Diameter: 1 in. Slot Size: 0.010 in.
 Description: PVC / Other: PVC
 Type: Perforated / Slotted / Wire-Wrap / Other: slotted

ANNULAR FILL

Surface Seal (Approximate volumes if available)
 Interval: 7.0-surface ft. Tremied: Y / N Volume: _____ bags
 Description: Concrete / Other: bentonite
Backfill
 Interval: 6.9-7.0' ft. Tremied: Y / N Volume: _____ bags
 Description: Bentonite Grout / (Fill) / Other: sand
Lower Seal
 Interval: _____ ft. Tremied: Y / N Volume: _____ bags
 Description: Bentonite / Bentonite Pellets / Grout / Other: _____
Filter
 Interval: 6.9-13.9' ft. Tremied: Y / N Volume: _____ bags
 Description: (Sand Filter) (type: _____) / Other: _____
Lower Backfill
 Interval: N/A ft. Tremied: Y / N Volume: _____ bags
 Description: Bentonite Grout / Fill / Other: _____

**FUSS & O'NEILL***Disciplines to Deliver***BORING LOG**

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: X8

SHEET: _____ of _____

PROJECT NO: 20040764.A1N

WEATHER: 15 deg. clear

CONTRACTOR: _____

OPERATOR: _____

F&O REPRESENTATIVE: _____

DRILLING METHOD: mlp

SAMPLING METHOD: sleeve

HAMMER WT: na HAMMER FALL (IN) na

BORING LOCATION: _____

GROUND ELEVATION: na

DATE STARTED: _____

SAMPLE PREFIX: 953051201- /ACD-SS-

WATER LEVEL MEASUREMENTS

DATE

MS. PT.

WATER AT

TIME

TIME AND DATE OF COMPLETION: 12/7/05 10:59

DEPTH (FT)	REC/ PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO- LOGIC CODE	FIELD TESTING
0-0.5	2.2/4.0	0-0.5	036 / X8 (0-0.5) 10:55	Asphalt			
0.5-4.0		0.5-3.0	037 / X8 (1.5-3.0) 10:57	Fill sand F-C and gravel (shale) trace brick and chbl slag			
		3.0-6.2	038 / X8 (3.0-6.2) 10:59	dry no odor N3			
4.0-6.2	2.0/4.0			Same as above			
				refusal at 6.2'			

BORING
DIAMETER

BORING METHOD

DEPTH

REMARKS

Field Instrument =

If refusal is encountered, describe all efforts used to confirm.

Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED:

Trace	0 to 10%	Some	20 to 35%
Little	10 to 20%	And	35 to 50%

EXAMPLE DESCRIPTION:

SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4)
Moist. Loose. No odor.

Reviewed by Staff: _____

BACKFILL

Native Material

Bentonite Grout/Chips

Concrete/Asphalt

Other _____

To _____

To _____

To _____

To _____

See Monitoring Well

Completion Report

Test Pit # X9
Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/12/2005
Time:	9:30
Sample Prefix:	804051212- / ACD-SS-X9
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-2" - 0			Asphalt		
0 - 4"			Angular gravel, trace clay and sand gray - tight dry		
4" - 5"			Angular gravel		
5" - 7"			Silt dry mod. brown		
7" - 9			West East		
-			W. face = cement red brick +		
-			Wall, W. side = red trace fine brick		
-			brick + fine brick nicely laid		
-			trace sand + + cemented		
-			gravel together		
9 -			bottom - cement. no water		
-					
0 - 1'	001/6-1)	1046			
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTLING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: ~20 ft W of brick/concrete building at S end of site. pic 3-6

Test Pit # 05
 Location: 76

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/1/2005
Time:	13:00
Sample Prefix:	804051201- /ACD-
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 3"			Asphalt		
0 - 12"			Sand c + angular gravel, some gravel, trace wood, wet loose		
12" -			bedrock		
0 - 1'	007/5546 (0-1)	13:20			
-	~~008/5546~~				
-					
-					
-					
-					
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: SE corner of site. S of fuel building
 water table just beneath asphalt
 pic # 18-21

**FUSS & O'NEILL***Disciplines to Deliver***BORING LOG**

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: 46

SHEET: _____ of _____

PROJECT NO: 20040764.A1N

WEATHER: 15 deg. clear

CONTRACTOR: _____
 OPERATOR: _____
 F&O REPRESENTATIVE: _____
 DRILLING METHOD: mlp
 SAMPLING METHOD: sleeve
 HAMMER WT: na HAMMER FALL (IN) na
 BORING LOCATION: _____
 GROUND ELEVATION: na
 DATE STARTED: _____
 SAMPLE PREFIX: 753051207-4 / ACD-SS-

WATER LEVEL MEASUREMENTS

DATE	MS. PT.	WATER AT	TIME

TIME AND DATE OF COMPLETION: 12/7/05 11:07

DEPTH (FT)	REC/ PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0-0.5	2.2/2.2	0-0.5	039/46(0-.5) 11:05	Asphalt			
0.5-2.2		0.5-2.2	040/46(1.5-2.2) 11:07	(shale) rock floor. dry no odor N6 Refusal at 2.2'			

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS
			Field Instrument= _____ If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED: Trace 0 to 10% Some 20 to 35% Little 10 to 20% And 35 to 50%		BACKFILL Native Material _____ To _____ See Monitoring Well Bentonite Grout/Chips _____ To _____ Completion Report Concrete/Asphalt _____ To _____ Other _____ To _____	
EXAMPLE DESCRIPTION: SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4) Moist. Loose. No odor.		Reviewed by Staff: _____	

Test Pit # ~47
Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/12/2005
Time:	11:00
Sample Prefix:	804051212- / ACD-SS-47
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-2" - 0			Asphalt		
0 - 2"			gravel, e sand trace clay wet, loose		
2" - 10"			clay trace gravel, tight dry gray		
10" - 16"			rock layer		
16" - 29"			brick sand + trace gravel, 1 brown dry loose, trace plastic		
29" - 30"			sand, trace clay + gravel. black-wet, no odor.		
30" - 51"			clay r gravel dry tight l. brown		
51" -			bedrock		
0 - 0.5'	003/(0.5)	1210			
0.5 - 3'	003/(0.53)	1203			
3 - 6'	004/(36)	1207			

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTLING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: ~10' off in direction of 46, pic #7-12
edge of bedrock - bedrock to F+W, gradually sloping W.

Test Pit # 03
 Location: Y10

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/1/2005
Time:	11:17
Sample Prefix:	804051201- /ACD-SS-
Logged By:	

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 3"			Asphalt		
3" - 6"			sand c., gravel some clay, loose so moist, gray		
6" - 9"			Asphalt		
9" - 9 1/2"			yellow fine brick, nicely layered 1 brown silt (1")		
-			layered brick (red) on portion of W+E side wall - rest is layered w/		
-			clay gravel mixture		
-			crushed gray porous stone (5 1/2")		
-			large (~1") chunks of gray slate		
9 1/2" -			bottom. no water		
-					
0 - 1'	005/SS/10 (0-1)	11:15			
1 - 2'	006/SS/10 (1-2)	12:12			
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: Portion of northern wall is possible foundation -
 rock is very neatly layered and is flush. Took sample 006
 from pile. no real visible sand in the TP - maybe soil came
 from top and fell in.
 pic # 6-14

Test Pit # Y12
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/7/2005
Time:	2:35
Sample Prefix:	767051207- / ACD-SS-Y12
Logged By:	LMG

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 2"			Asphalt, organics		
2" - 0.5'			med brown, m-f sand. little silt, organics, brick.		
0.5' - 1'			dk brown m-f sand. little silt, little organics, large (6"-1') fill rock.		
1' - 4'			med-lt brown f sand. silt, to large rock, shale		
4' -			GW		
--					
--					
0 - 0.5'	020	2:45			
0.5' - 4'	021	2:50			
--					
--					
--					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: Foundation to the E. pit @ 3' bgs (RR side)

Test Pit # 79
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/15/2005
Time:	8:00
Sample Prefix:	768051215- / ACD-SS- 79
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-2" - 0			Asphalt		
0 - 10"			gravel some clay, hard (frozen) gravelly + c. sand.		
10" - 12"			E: concrete wall N+S: asphalt		
12" - 32"			brick, c. sand, gravel trace clay dry loose		
32" - 54"			concrete footing		
48" -			ash layer		
54" -			pipe		
54" - 93"			clay some gravel. c. sand. brick ash		
- 93"			bedrock dry.		
0.5 - 3'	001 (1.5-3)	8:33			
3 - 6'	002 (3-6)	9:12			
6 - 8'	003 (6-8)	9:15			
8 - 9'	004 (8-9)	9:20			

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: pic 15-18
 brick wall w running N-S through TP.

**FUSS & O'NEILL***Disciplines to Deliver***BORING LOG**

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: 210

SHEET: of

PROJECT NO: 20040764.A1N

WEATHER: 15 deg. clear

CONTRACTOR:

OPERATOR:

F&O REPRESENTATIVE:

DRILLING METHOD: mlp

SAMPLING METHOD: sleeve

HAMMER WT: na HAMMER FALL (IN) na

BORING LOCATION:

GROUND ELEVATION: na

DATE STARTED:

SAMPLE PREFIX: 753061208 - /ACD-SS-

WATER LEVEL MEASUREMENTS

DATE

MS. PT.

WATER AT

TIME

TIME AND DATE OF COMPLETION: 12/8/05 13:35

DEPTH (FT)	REC/PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0-0.7	2.4/4.0			Asphalt			
0.7-1.0				Concrete			
1.0-4.0		1.0-1.5	028/210(1-1.5) 13:20	Fill, sand F-C, some gravel			
		1.5-4.0	029/210(1.5-4.0) 13:24	trace glass, brick, coal dry, no odor SYR 2/2			
4.0-8.0	NO			no recovery			
8.0-8.4	28/4.0			same as above			
8.4-9.0		8-10.0	030/210(8-10) 13:30	fractured shale, dry no odor			
9.0-12.0		10-12.0	031/210(10-12) 13:35	sand F-M little gravel (shale) trace silt wet at 10' no odor SYR 411 SW			
12.0-13.1	0.3/1.1			same as above 13.1 refusal			

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS
			Field Instrument - If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED: Trace 0 to 10% Some 20 to 35% Little 10 to 20% And 35 to 50%			
EXAMPLE DESCRIPTION: SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4) Moist. Loose. No odor.			
Reviewed by Staff:			

BACKFILL Native Material _____ To _____ See Monitoring Well Bentonite Grout/Chips _____ To _____ Completion Report Concrete/Asphalt _____ To _____ Other _____ To _____			

Test Pit # 01
 Location: Z10

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/1/2005
Time:	10:35
Sample Prefix:	804051201- / ACD-SS-
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 3"			asphalt		
3" - 7"			loose gravel with f-c sand trace organics roots		
7" - 11"			crushed concrete		
11" - ~20"			dark brown coarse sands gravel trace clay		
~20" - 39"			brick + trace fine brick		
39" -			water		
-					
0 - 1'	001/ Z12(01)	10:30			
1 - 3'	002/ Z12(03)	10:35			
-					
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: SW corner of site adjacent to loading dock
 and train track
 Pic # 1-3

**FUSS & O'NEILL***Disciplines to Deliver***BORING LOG**

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: AA8

SHEET: _____ of _____

PROJECT NO: 20040764.A1N

WEATHER: 15 deg. clear

CONTRACTOR: _____

OPERATOR: _____

F&O REPRESENTATIVE: _____

DRILLING METHOD: mlp

SAMPLING METHOD: sleeve

HAMMER WT: na HAMMER FALL (IN) na

BORING LOCATION: _____

GROUND ELEVATION: na

DATE STARTED: _____

SAMPLE PREFIX: 753051207- /ACD-SS-

WATER LEVEL MEASUREMENTS

DATE

MS. PT.

WATER AT

TIME

TIME AND DATE OF COMPLETION: 12/7/05

DEPTH (FT)	REC/ PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO- LOGIC CODE	FIELD TESTING
0-0.3	3.7/4.0	0.0-0.5	033/AA8 (0-.5) 10:05	Asphalt			
0.3-2.5		0.5-3.0	034/AA8 (.5-3) 10:08	Fill, sand F-C. Some gravel. trace silt, muck rock flour			
2.5-4.2	1.9/1.0	3.0-5.0	035/AA8 (3-5) 10:18	dry no odor N55W gravel, some silt, shale fragments. moist GM 10 Yr 5/4 no odor			
4.2-5.0				shale dry no odor N3 refusal at 5.0'			

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS
			Field Instrument = _____ If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED: Trace 0 to 10% Some 20 to 35% Little 10 to 20% And 35 to 50%		BACKFILL Native Material _____ To _____ See Monitoring Well Bentonite Grout/Chips _____ To _____ Completion Report Concrete/Asphalt _____ To _____ Other _____ To _____

EXAMPLE DESCRIPTION:
SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4)
Moist. Loose. No odor.

Reviewed by Staff: _____

**FUSS & O'NEILL***Disciplines to Deliver***BORING LOG**

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: AA9

SHEET: _____ of _____

PROJECT NO: 20040764.A1N

WEATHER: 15 deg. clear

CONTRACTOR: _____
 OPERATOR: _____
 F&O REPRESENTATIVE: _____
 DRILLING METHOD: mlp
 SAMPLING METHOD: sleeve
 HAMMER WT: na HAMMER FALL (IN) na
 BORING LOCATION: _____
 GROUND ELEVATION: na
 DATE STARTED: _____
 SAMPLE PREFIX: 753051208- /ACD-SS-

WATER LEVEL MEASUREMENTS

DATE	MS. PT.	WATER AT	TIME
TIME AND DATE OF COMPLETION: 12/8/05 16:20			

DEPTH (FT)	REC/ PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0-0.3	2.5/4.0	0-0.5	046/AA9 (0-5) 16:00	Asphalt			
0.3-4.0		0.5-3.0	047/AA9 (1.5-3) 16:03	Fill, sand F-C, some gravel (shale frag)			
4.0-5.0	3.6/4.0	3.0-6.0	048/AA9 (3-6) 16:06	trace silt, slag, brick, dry no odor			
5.0-8.0		6.0-8.0	049/AA9 (6-8) 16:10	same as above			
8.0-11.0	3.0/4.0	8.0-10.0	050/AA9 (8-10) 0:00	shale frag and silt trace sand, no odor			
11.0-11.7		10.0-11.7	051/AA9 (10-11.7) 16:20	same as above wet at 10.8			
				Shale frag wet odor NB			
				refusal at 11.7'			

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS
			Field Instrument = _____ If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED: Trace 0 to 10% Some 20 to 35% Little 10 to 20% And 35 to 50%		BACKFILL Native Material _____ To _____ See Monitoring Well Bentonite Grout/Chips _____ To _____ Completion Report Concrete/Asphalt _____ To _____ Other _____ To _____
EXAMPLE DESCRIPTION: SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4) Moist. Loose. No odor.		
Reviewed by Staff: _____		

**FUSS & O'NEILL***Disciplines to Deliver***BORING LOG**

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: AA10

SHEET: _____ of _____

PROJECT NO: 20040764.A1N

WEATHER: 15 deg. clear

CONTRACTOR: _____

OPERATOR: _____

F&O REPRESENTATIVE: _____

DRILLING METHOD: mlp

SAMPLING METHOD: sleeve

HAMMER WT: na HAMMER FALL (IN) na

BORING LOCATION: _____

GROUND ELEVATION: na

DATE STARTED: _____

SAMPLE PREFIX: 153051207 - /ACD-SS-

WATER LEVEL MEASUREMENTS

DATE

MS. PT.

WATER AT

TIME

TIME AND DATE OF COMPLETION: 12/7/05 9:48

DEPTH (FT)	REC/ PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0-0.3	25/4.0	0-0.5	025/AA10(0-.5) 9:28	Asphalt			
0.3-3.8		0.5-3.0	026/AA10(0.5-3) 9:30	Fill, sand F-C and gravel trace silt, trace brick and ash, no odor SW, N3 dry			
3.8-5.0	1.8/4.0	3.0-6.0	027/AA10(3-6) 9:32	Brick			
5.0-7.6		6.0-8.0	028/AA10(6-8) 9:33				
7.6-9.8	25/4.0	8.0-10.0	029/AA10(8-10) 9:38	Fill sand F-C and gravel trace silt, trace brick, ash SW N5			
9.8-14.5	3.0/4.0	10.0-12.0	030/AA10(10-12) 9:40	Sand F-M, some gravel, trace silt, no odor			
14.5-16.0		12.0-14.0	031/AA10(12-14) 9:45	10YR 5/4 dry SW gravel (shale) trace silt wet at 11.5' strong petroleum odor N2 GW visible product at 4.5 ft lying on top of silt layer			
		14.0-16.0	032/AA10(14-16) 9:48	Silt, tight, N5, wet CL			

BORING DIAMETER**BORING METHOD****DEPTH****REMARKS**

Field Instrument=

If refusal is encountered, describe all efforts used to confirm.

Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED:

Trace	0 to 10%	Some	20 to 35%
Little	10 to 20%	And	35 to 50%

EXAMPLE DESCRIPTION:SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4)
Moist. Loose. No odor.

Reviewed by Staff: _____

BACKFILL

Native Material

To _____

See Monitoring Well

Bentonite Grout/Chips

To _____

Completion Report

Concrete/Asphalt

To _____

Other _____

To _____

MONITORING WELL COMPLETION REPORT **GENERAL INFORMATION**

GENERAL INFORMATION

Project Name: AC Dutton
 Project Location: Poughkeepsie NY
 F&O Engineer/Geologist: CS
 Date of Completion: 12/7
 Boring Location: ACD-AA10
 Drilling Contractor: Todd Syska Inc.
 Drilling Method: Geoprobe

Site ID (Boring/Well ID): MW-AA10
 Project No.: 20040764AIN
 Ground Surface Elevation: _____
 Permit #: _____
 El Top of Steel Casing: X
 El Top of PVC Casing: X
 Measuring Point: TPS / PVC
 Well Cover (see codes): TOP PVC

WELL CONSTRUCTION

<u>Well Casing/Riser</u>	<u>Sump (below screen)</u>	<u>Protective Casing</u>
Diameter: <u>1</u> in.	Diameter: <u>1</u> in.	Diameter: <u>none</u> in.
Type: <u>PVC</u>	Type: <u>PVC</u>	Type: <u>—</u>
Stick-up: <u>2.5 ft</u>	Length: <u>440</u> in.	Stick-up: <u>—</u> ft
Screen Intervals: <u>3.1'</u>		Depth to Bottom: <u>—</u> ft
Screen Interval: <u>17'-7'</u> ft	Diameter: <u>1</u> in.	Slot Size: <u>0.010</u> in.
Description: <u>PVC</u> Other: <u>boring visibly wet @ approx. 11.5' bgs</u>		
Type: <u>Perforated / Slotted</u> / Wire-Wrap / Other: _____		

ANNULAR FILL

<u>Surface Seal</u>	(Approximate volumes if available)	
Interval: <u>6'-surface (0)</u> ft.	Tremied: Y / N	Volume: _____ bags
Description: Concrete / Other: <u>bentonite</u>		
<u>Backfill</u>		
Interval: <u>17-7</u> ft.	Tremied: Y / N	Volume: _____ bags
Description: Bentonite Grout / <u>Fill</u> / Other: <u>native</u>		
<u>Lower Seal</u>		
Interval: <u>17-7</u> ft.	Tremied: Y / N	Volume: _____ bags
Description: <u>Bentonite</u> / Bentonite Pellets / Grout / Other: _____		
<u>Filter</u>		
Interval: <u>7-6</u> ft.	Tremied: Y / N	Volume: _____ bags
Description: <u>Sand Filter</u> (type: _____) / Other: _____		
<u>Lower Backfill</u>		
Interval: _____ ft.	Tremied: Y / N	Volume: _____ bags
Description: Bentonite Grout / Fill / Other: _____		

**FUSS & O'NEILL***Discipline: to Deliver***BORING LOG**

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: AA11

SHEET: _____ of _____

PROJECT NO: 20040764.A1N

WEATHER: 15 deg. clear

CONTRACTOR: _____

OPERATOR: _____

F&O REPRESENTATIVE: _____

DRILLING METHOD: mlp

SAMPLING METHOD: sleeve

HAMMER WT: na HAMMER FALL (IN) na

BORING LOCATION: _____

GROUND ELEVATION: na

DATE STARTED: _____

SAMPLE PREFIX: 793051208- / ACD-SS-

WATER LEVEL MEASUREMENTS

DATE

MS. PT.

WATER AT

TIME

TIME AND DATE OF COMPLETION: 12/8/05 14:30

DEPTH (FT)	REC/ PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0-0.4	2.5/4.0	0-0.5	032/AA11 (0-0.5) 14:15	Asphalt			
0.4-8.0	0.8/4.0	0.5-3.0	033/AA11 (0.5-3.0) 14:18	Fill, sand F-C, some gravel, trace brick, slag coal. wet at 3.8'			
		3.0-8.0	034/AA11 (3.0-8.0) 14:20	no odor			
8.0-12.0	3.8/4.0	8.0-10.0	035/AA11 (8.0-10.0) 14:25	gravel (shale frag) and silt. wet petroleum			
		10.0-12.0	036/AA11 (10.0-12.0) 14:26	odor			
12.0-13.0	3.9/4.0	12.0-13.0	037/AA11 (12.0-13.0) 14:28	same as above			
13.0-16.0		14.0-16.0	038/AA11 (14.0-16.0) 14:30	Silt tight wet CL N3			

BORING DIAMETER

BORING METHOD

DEPTH

REMARKS

Field Instrument—

If refusal is encountered, describe all efforts used to confirm.

Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED:

Trace 0 to 10% Some 20 to 35%
 Little 10 to 20% And 35 to 50%

EXAMPLE DESCRIPTION:

SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4)
 Moist. Loose. No odor.

Reviewed by Staff: _____

BACKFILL

Native Material

To _____

See Monitoring Well

Bentonite Grout/Chips

To _____

Completion Report

Concrete/Asphalt

To _____

Other _____

To _____

Test Pit # AA12
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/7/2005
Time:	3:00
Sample Prefix:	767051207- / ACD-SS- AA12
Logged By:	LMG

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
0 - 2"			Asphalt, some organics		
2" - 1'			broken up concrete pieces (~ 2") clearly used as fill on subbase for road		
1' - 2'			f m dk brown sand, little organics ~~some~~ some crushed brick, little shale		
2' - 5.5'			little f m sand dk brown, mostly shale, little gravel. trace kiln slag		
-			at ~ 3.5', trace brick		
5.5' - 6.5'			med brown f m sand, little brick. GW.		
6.5' -			GW fillshole		
-					
0 - 0.5	022	3:10			
0.5 - 3	023	3:15			
3 - 6	024	3:20			
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTLING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS:

Test Pit # AB9
 Location: _____

Project Name:	AC Dutton
Project Number:	20040764.A1N
Date:	12/15/2005
Time:	9:30
Sample Prefix:	768051215- / ACD-SS- AB9
Logged By:	MP

Contractor:
Operator:
Backfill:



DEPTH from -- to	SAMPLE NUMBER	TIME	SOIL DESCRIPTION	USCS CODE	FIELD TESTING
-2' - 0			Asphalt		
0 - 1"			angular gravel		
1" - 42"			clay, c. sand & gravel trace bricks & roots		
42" -			bedrock, no water		
-					
0 - 0.5'	005/ 0-5)	9:50			
1 - 4'	006/ (1-4)	9:55			
-					
-					
-					
-					
-					

APPROX. SURFACE ELE. (FT-MSL)
DIMENSIONS OF PIT:
TOTAL DEPTH
DEPTH TO BEDROCK
DEPTH TO MOTTILING
DEPTH TO ROOTS
DEPTH TO WATER
WERE PHOTOS TAKEN?
METHOD OF SAMPLE COLLECTION

TEST PIT SKETCH:

COMMENTS: pic 19-20

**FUSS & O'NEILL***Disciplines to Deliver***BORING LOG**

PROJECT: AC Dutton

LOCATION: Poughkeepsie, NY

SITE ID: AB-10

SHEET: _____ of _____

PROJECT NO: 20040764.AIN

WEATHER: 15 deg. clear

CONTRACTOR: _____

OPERATOR: _____

F&O REPRESENTATIVE: _____

DRILLING METHOD: mlp

SAMPLING METHOD: sleeve

HAMMER WT: na HAMMER FALL (IN) na

BORING LOCATION: _____

GROUND ELEVATION: na

DATE STARTED: _____

SAMPLE PREFIX: 753051208- / ACD-SS-

WATER LEVEL MEASUREMENTS

DATE

MS. PT.

WATER AT

TIME

TIME AND DATE OF COMPLETION: 12/8/05 15:30

DEPTH (FT)	REC/ PEN	SAMPLE DEPTH (FT)	SAMPLE No. AND TIME	SAMPLE DESCRIPTION	STRATA CHANGE	LITHO-LOGIC CODE	FIELD TESTING
0-0.4	2.8/4.0	0.8-1.5	039/AB10 (1.8-1.5) 15:00	Asphalt			
0.4-0.8				Gravel coarse angular			
0.8-4.0	15:10	1.5-3.0	040/AB10 (1.5-3) 15:05	fill, sand F-C, some gravel (shale frag) some silt. trace brick.			
		3.0-6.0	041/AB10 (3-6) 15:08	moist at 3.8' no odor			
4.0-8.0	2.9/4.0	6.0-8.0	042/AB10 (6-8) 15:12	same as above. wet at 5.0' trace ash no odor			
8.0-9.5	2.3/4.0	8.0-10.0	043/AB10 (8-10) 15:20	same as above			
9.5-12.0		10.0-12.0	044/AB10 (10-12) 15:25	fragmental shale and silt strong odor from 10.5-13.5. wet 5/4/1			
12.0-14.6		12.0-14.6	045/AB10 (12-14.6) 15:30	same as above. odor less strong. refusal at 14.6'			

BORING DIAMETER	BORING METHOD	DEPTH	REMARKS
			Field Instrument = _____ If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED: Trace 0 to 10% Some 20 to 35% Little 10 to 20% And 35 to 50%			
EXAMPLE DESCRIPTION: SAND, F-C; Some F-C gravel; Little silt; Trace clay; (10R5/4) Moist. Loose. No odor.			
Reviewed by Staff: _____			

BACKFILL Native Material _____ To _____ See Monitoring Well Bentonite Grout/Chips _____ To _____ Completion Report Concrete/Asphalt _____ To _____ Other _____ To _____			



APPENDIX C

FORMER A.C. DUTTON LUMBER FACILITY REMEDIAL INVESTIGATION REPORT

LABORATORY ANALYTICAL RESULTS



A FULL SERVICE ENVIRONMENTAL LABORATORY

March 2, 2006

Mr. Noah Livingston
Fuss & O'Neill, Inc
80 Washington St.
Suite 301
Poughkeepsie, NY 12601

PROJECT: AC DUTTON
Submission #: R2629942

Dear Mr. Livingston

Enclosed are the analytical results of the analyses requested. All data has been reviewed prior to report submission. Should you have any questions please contact me at (585) 288-5380.

Thank you for letting us provide this service.

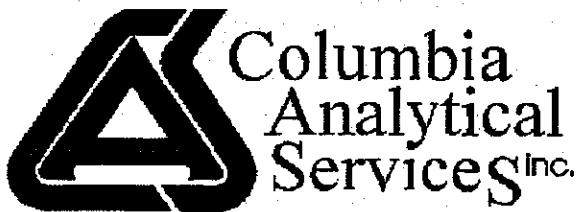
Sincerely,

COLUMBIA ANALYTICAL SERVICES


Michael Perry
Laboratory Director

Enc.

* 5 Sediment Samples (metals, svocs)
* 3 Background Samples (metals)



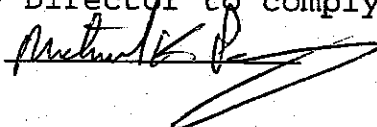
1 Mustard ST.
Suite 250
Rochester, NY 14609
(585) 288-5380

THIS IS AN ANALYTICAL TEST REPORT FOR:

Client : Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Lab Submission # : R2629942
Project Manager : Michael Perry
Reported : 03/02/06

Report Contains a total of 34 pages

The results reported herein relate only to the samples received by the laboratory. This report may not be reproduced except in full, without the approval of Columbia Analytical Services.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal. 

CASE NARRATIVE

Company: Fuss & O'Neill, Inc.
Project: AC Dutton
Submission #: R2629942

Soil samples were collected on 1/20/06 and received at CAS on 1/21/06 in good condition at a cooler temperature of 2 °C. A NY DEC ASP-B report has been provided.

SEMIVOLATILE ORGANIC ANALYSIS - 8270

Five soil samples were analyzed for TCL list of SVOA by SW-846 method 8270C. Values detected between the PQL and the MDL have been reported flagged with a "J" as estimated.

These samples were analyzed at dilutions due to matrix interference in the sample extracts.

All the initial and continuing calibration criteria were met for all analytes.

All Internal Standard Areas and surrogate standard recoveries were within QC limits.

The surrogate standard recoveries were all with QC limits.

The Blank Spike (LCS) recoveries were all within QC limits. The matrix spike/matrix spike duplicate were not requested.

The Method Blanks associated with these samples are free of contamination.

No other analytical or QC problems were encountered.

METALS ANALYSIS

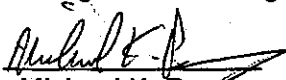
Eight soil samples were analyzed for the RCRA list of Total Metals plus Copper using SW-846 methods 6010B/7471A.

The initial and continuing calibration criteria were met for all analytes.

The Blank Spike (LCS) recoveries were all within QC limits. The matrix spike and duplicate analysis was not requested.

No other analytical or QC problems were encountered.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package, has been authorized by the Laboratory Manager or his designee, as verified by the following signature.


Michael K. Perry
Laboratory Manager

3/7/06
Date

CAS ASP/CLP BATCHING FORM / LOGIN SHEET

[illegible]



ORGANIC QUALIFIERS

- U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J - Indicates an estimated value. The flag is used either when estimating a concentration for tentatively identified compounds, or when the data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit and greater than the MDL.
- N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search.
- P - This flag is used for a pesticide/Aroclor target analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. The concentration is reported on the Form I and flagged with a "P".
- C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B - This flag is used when the analyte is found in the associated blank as well as in the sample.
- E - This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and ALL concentration values reported on that Form I are flagged with the "D" flag.
- A - This flag indicates that a TIC is a suspected aldol-condensation product.
- X - As specified in Case Narrative.
- * - This flag identifies compounds associated with a quality control parameter which exceeds laboratory limits.

CAS/Rochester Lab ID # for State Certifications

NELAP Accredited
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Illinois ID #200047
Maine ID #NY0032
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved

Nebraska Accredited
New Jersey ID # NY004
New York ID # 10145
New Hampshire ID # 294100 A/B
Pennsylvania Registration 68-786
Rhode Island ID # 158
West Virginia ID # 292



INORGANIC QUALIFIERS

C (Concentration) qualifier –

- B - if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but was greater than or equal to the Instrument Detection Limit (IDL). This qualifier may also be used to indicate that there was contamination above the reporting limit in the associated blank. See Narrative for details.
- U - if the analyte was analyzed for, but not detected

Q qualifier - Specified entries and their meanings are as follows:

- D - Spike was diluted out
- E - The reported value is estimated because the serial dilution did not meet criteria.
- J - Estimated Value
- M - Duplicate injection precision not met.
- N - Spiked sample recovery not within control limits.
- S - The reported value was determined by the Method of Standard Additions (MSA).
- W - Post-digestion spike for Furnace AA Analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
- * - Duplicate analysis not within control limits.
- + - Correlation coefficient for the MSA is less than 0.995.

M (Method) qualifier:

- "P" for ICP
- "A" for Flame AA
- "F" for Furnace AA
- "PM" for ICP when Microwave Digestion is used
- "AM" for Flame AA when Microwave Digestion is used
- "FM" for Furnace M when Microwave Digestion is used
- "CV" for Manual Cold Vapor AA
- "AV" for Automated Cold Vapor AA
- "CA" for Midi-Distillation Spectrophotometric
- "AS" for Semi-Automated Spectrophotometric
- "C" for Manual Spectrophotometric
- "T" for Titrimetric
- " " where no data has been entered
- "NR" if the analyte is not required to be analyzed.

CAS/Rochester Lab ID # for State Certifications

NELAP Accredited
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Illinois ID #200047
Maine ID #NY0032
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved

Nebraska Accredited
New Jersey ID # NY004
New York ID # 10145
New Hampshire ID # 294100 A/B
Pennsylvania Registration 68-786
Rhode Island ID # 158
West Virginia ID # 292



FUSS & O'NEILL, INC.
146 HARTFORD ROAD
MANCHESTER, CT 06040
(860) 646-2469

CHAIN-OF-CUSTODY RECORD N^o 60866

REPORT TO:	Norah Livingston	Source Codes:	B=Bottom Sediment	L=Lake/Pond/Ocean	LF=Landfill
INVOICE TO:	80 Washington St. Poughkeepsie, NY 12601	MW=Monitor Well	O=Outfall	PW=Potable Water	R=River/Stream
P.O.#:	845 452 6801	RO=Run Off	S=Soil	SG=Sludge	ST=Septic Tank
		T=Treatment Facility	W=Well		
		X=Other, Specify			

[illegible]

Container Code :	P=Plastic	V=VOA Vial	C=Cube	G=Glass	A=Amber Glass	T=Teflon Lid	B=Bacteria Bottle
Preservative Code :	I=Iced	F=Filtered	N=Nitric Acid	[HNO ₃]	H=Hydrochloric Acid	[HCl]	S=Sodium Hydroxide [NaOH]
							T=Sodium Thiosulfate [Na ₂ S ₂ O ₃]

Sampler's Signature	Affiliation	Date	Time	TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	ACCEPTED BY	DATE	TIME							
<i>Wade J. Foster</i>	GUSSE & ONEILL	1/20/06	1340	1			<i>Wade J. Foster</i>	1/21/06	1110							
ADDITIONAL COMMENTS: ASP-B please return cooler 2000 236 29942																
										2						
										3						
										4						

Cooler Receipt And Preservation Check Form

Project/Client Fuss@O'Neill Submission Number R2629942

Cooler received on 1/21/06 by NO COURIER: CAS UPS FEDEX VELOCITY CLIENT

1. Were custody seals on outside of cooler? YES NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did any VOA vials have significant air bubbles? YES NO N/A
5. Were Ice or Ice packs present? YES NO
6. Where did the bottles originate? CAS/ROC, CLIENT
7. Temperature of cooler(s) upon receipt: 2

Is the temperature within 0° - 6° C?: Yes Yes Yes Yes Yes

If No, Explain Below No No No No No

Date/Time Temperatures Taken: 1/21/06 1120

Thermometer ID: 161 or IR GUN Reading From: Temp Blank or Sample Bottle

If out of Temperature, Client Approval to Run Samples _____

PC Secondary Review: MP 1/23/06

Cooler Breakdown: Date: 1/23/06 by: cmk

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies: _____

		YES	NO	Sample I.D.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO ₃					
2	H ₂ SO ₄					
Residual Chlorine (+/-)	for TCN & Phenol					
5-9**	P/PCBs (608 only)					

YES = All samples OK

NO = Samples were preserved at lab as listed

PC OK to adjust pH _____

**If pH adjustment is required, use NaOH and/or H₂SO₄

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2		

Other Comments:

PC Secondary Review: _____

COLUMBIA ANALYTICAL SERVICES**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 03/03/06Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : 379060120-04Date Sampled : 01/20/06 Order #: 876718 Sample Matrix: SOIL/SEDIMENT
Date Received: 01/21/06 Submission #: R2629942 Percent Solid: 34.2

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 01/25/06			
DATE ANALYZED : 02/17/06			
ANALYTICAL DILUTION: 3.00			Dry Weight
ACENAPHTHENE	330	2900 U	UG/KG
ACENAPHTHYLENE	330	2900 U	UG/KG
ANTHRACENE	330	2900 U	UG/KG
BENZO (A) ANTHRACENE	330	470 J	UG/KG
BENZO (A) PYRENE	330	490 J	UG/KG
BENZO (B) FLUORANTHENE	330	410 J	UG/KG
BENZO (G, H, I) PERYLENE	330	370 J	UG/KG
BENZO (K) FLUORANTHENE	330	390 J	UG/KG
BENZYL ALCOHOL	330	2900 U	UG/KG
BUTYL BENZYL PHTHALATE	330	2900 U	UG/KG
DI-N-BUTYLPHTHALATE	330	2900 U	UG/KG
CARBAZOLE	330	2900 U	UG/KG
INDENO (1, 2, 3-CD) PYRENE	330	320 J	UG/KG
4-CHLOROANILINE	330	2900 U	UG/KG
BIS (-2-CHLOROETHOXY) METHANE	330	2900 U	UG/KG
BIS (2-CHLOROETHYL) ETHER	330	2900 U	UG/KG
2-CHLORONAPHTHALENE	330	2900 U	UG/KG
2-CHLOROPHENOL	330	2900 U	UG/KG
2, 2'-OXYBIS (1-CHLOROPROPANE)	330	2900 U	UG/KG
CHRYSENE	330	660 J	UG/KG
DIBENZO (A, H) ANTHRACENE	330	2900 U	UG/KG
DIBENZOFURAN	330	2900 U	UG/KG
1, 3-DICHLOROBENZENE	330	2900 U	UG/KG
1, 2-DICHLOROBENZENE	330	2900 U	UG/KG
1, 4-DICHLOROBENZENE	330	2900 U	UG/KG
3, 3'-DICHLOROBENZIDINE	330	2900 U	UG/KG
2, 4-DICHLOROPHENOL	330	2900 U	UG/KG
DIETHYLPHTHALATE	330	2900 U	UG/KG
DIMETHYL PHTHALATE	330	2900 U	UG/KG
2, 4-DIMETHYLPHENOL	330	2900 U	UG/KG
2, 4-DINITROPHENOL	1700	15000 U	UG/KG
2, 4-DINITROTOLUENE	330	2900 U	UG/KG
2, 6-DINITROTOLUENE	330	2900 U	UG/KG
BIS (2-ETHYLHEXYL) PHTHALATE	330	400 J	UG/KG
FLUORANTHENE	330	870 J	UG/KG
FLUORENE	330	2900 U	UG/KG
HEXACHLOROBENZENE	330	2900 U	UG/KG
HEXACHLOROBUTADIENE	330	2900 U	UG/KG
HEXACHLOROCYCLOPENTADIENE	330	2900 U	UG/KG
HEXACHLOROETHANE	330	2900 U	UG/KG
ISOPHORONE	330	2900 U	UG/KG
2-METHYLNAPHTHALENE	330	2900 U	UG/KG
4, 6-DINITRO-2-METHYLPHENOL	1700	15000 U	UG/KG

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 03/03/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : 379060120-04

Date Sampled : 01/20/06 Order #: 876718 Sample Matrix: SOIL/SEDIMENT
Date Received: 01/21/06 Submission #: R2629942 Percent Solid: 34.2

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 01/25/06			
DATE ANALYZED : 02/17/06			
ANALYTICAL DILUTION: 3.00			Dry Weight
4-CHLORO-3-METHYLPHENOL	330	2900 U	UG/KG
2-METHYLPHENOL	330	2900 U	UG/KG
3+4-METHYLPHENOL	330	2900 U	UG/KG
NAPHTHALENE	330	2900 U	UG/KG
2-NITROANILINE	1700	15000 U	UG/KG
3-NITROANILINE	1700	15000 U	UG/KG
4-NITROANILINE	1700	15000 U	UG/KG
NITROBENZENE	330	2900 U	UG/KG
2-NITROPHENOL	330	2900 U	UG/KG
4-NITROPHENOL	1700	15000 U	UG/KG
N-NITROSODIMETHYLAMINE	330	2900 U	UG/KG
N-NITROSODIPHENYLAMINE	330	2900 U	UG/KG
DI-N-OCTYL PHTHALATE	330	2900 U	UG/KG
PENTACHLOROPHENOL	1700	15000 U	UG/KG
PHENANTHRENE	330	540 J	UG/KG
PHENOL	330	2900 U	UG/KG
4-BROMOPHENYL-PHENYLETHER	330	2900 U	UG/KG
4-CHLOROPHENYL-PHENYLETHER	330	2900 U	UG/KG
N-NITROSO-DI-N-PROPYLAMINE	330	2900 U	UG/KG
PYRENE	330	930 J	UG/KG
1,2,4-TRICHLOROBENZENE	330	2900 U	UG/KG
2,4,6-TRICHLOROPHENOL	330	2900 U	UG/KG
2,4,5-TRICHLOROPHENOL	330	2900 U	UG/KG

SURROGATE RECOVERIES	QC LIMITS		
TERPHENYL-d14	(48 - 131 %)	96	%
NITROBENZENE-d5	(27 - 130 %)	81	%
PHENOL-d6	(10 - 133 %)	80	%
2-FLUOROBIPHENYL	(32 - 130 %)	95	%
2-FLUOROPHENOL	(10 - 130 %)	68	%
2,4,6-TRIBROMOPHENOL	(33 - 139 %)	86	%

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 03/03/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : 379060120-05

Date Sampled : 01/20/06 Order #: 876719 Sample Matrix: SOIL/SEDIMENT
Date Received: 01/21/06 Submission #: R2629942 Percent Solid: 32.6

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 01/25/06			
DATE ANALYZED : 02/17/06			
ANALYTICAL DILUTION: 3.00			Dry Weight
ACENAPHTHENE	330	3000 U	UG/KG
ACENAPHTHYLENE	330	3000 U	UG/KG
ANTHRACENE	330	520 J	UG/KG
BENZO (A) ANTHRACENE	330	1900 J	UG/KG
BENZO (A) PYRENE	330	1800 J	UG/KG
BENZO (B) FLUORANTHENE	330	1500 J	UG/KG
BENZO (G, H, I) PERYLENE	330	1100 J	UG/KG
BENZO (K) FLUORANTHENE	330	1500 J	UG/KG
BENZYL ALCOHOL	330	3000 U	UG/KG
BUTYL BENZYL PHTHALATE	330	3000 U	UG/KG
DI-N-BUTYLPHTHALATE	330	3000 U	UG/KG
CARBAZOLE	330	3000 U	UG/KG
INDENO (1, 2, 3-CD) PYRENE	330	1000 J	UG/KG
4-CHLOROANILINE	330	3000 U	UG/KG
BIS (-2-CHLOROETHOXY) METHANE	330	3000 U	UG/KG
BIS (2-CHLOROETHYL) ETHER	330	3000 U	UG/KG
2-CHLORONAPHTHALENE	330	3000 U	UG/KG
2-CHLOROPHENOL	330	3000 U	UG/KG
2, 2'-OXYBIS (1-CHLOROPROPANE)	330	3000 U	UG/KG
CHRYSENE	330	1900 J	UG/KG
DIBENZO (A, H) ANTHRACENE	330	400 J	UG/KG
DIBENZOFURAN	330	3000 U	UG/KG
1, 3-DICHLOROBENZENE	330	3000 U	UG/KG
1, 2-DICHLOROBENZENE	330	3000 U	UG/KG
1, 4-DICHLOROBENZENE	330	3000 U	UG/KG
3, 3'-DICHLOROBENZIDINE	330	3000 U	UG/KG
2, 4-DICHLOROPHENOL	330	3000 U	UG/KG
DIETHYLPHTHALATE	330	3000 U	UG/KG
DIMETHYL PHTHALATE	330	3000 U	UG/KG
2, 4-DIMETHYLPHENOL	330	3000 U	UG/KG
2, 4-DINITROPHENOL	1700	16000 U	UG/KG
2, 4-DINITROTOLUENE	330	3000 U	UG/KG
2, 6-DINITROTOLUENE	330	3000 U	UG/KG
BIS (2-ETHYLHEXYL) PHTHALATE	330	400 J	UG/KG
FLUORANTHENE	330	3600	UG/KG
FLUORENE	330	3000 U	UG/KG
HEXACHLOROBENZENE	330	3000 U	UG/KG
HEXACHLOROBUTADIENE	330	3000 U	UG/KG
HEXACHLOROCYCLOPENTADIENE	330	3000 U	UG/KG
HEXACHLOROETHANE	330	3000 U	UG/KG
ISOPHORONE	330	3000 U	UG/KG
2-METHYLNAPHTHALENE	330	3000 U	UG/KG
4, 6-DINITRO-2-METHYLPHENOL	1700	16000 U	UG/KG

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 03/03/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : 379060120-05

Date Sampled : 01/20/06 Order #: 876719 Sample Matrix: SOIL/SEDIMENT
Date Received: 01/21/06 Submission #: R2629942 Percent Solid: 32.6

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 01/25/06			
DATE ANALYZED : 02/17/06			
ANALYTICAL DILUTION: 3.00			Dry Weight
4-CHLORO-3-METHYLPHENOL	330	3000 U	UG/KG
2-METHYLPHENOL	330	3000 U	UG/KG
3+4-METHYLPHENOL	330	3000 U	UG/KG
NAPHTHALENE	330	3000 U	UG/KG
2-NITROANILINE	1700	16000 U	UG/KG
3-NITROANILINE	1700	16000 U	UG/KG
4-NITROANILINE	1700	16000 U	UG/KG
NITROBENZENE	330	3000 U	UG/KG
2-NITROPHENOL	330	3000 U	UG/KG
4-NITROPHENOL	1700	16000 U	UG/KG
N-NITROSODIMETHYLAMINE	330	3000 U	UG/KG
N-NITROSODIPHENYLAMINE	330	3000 U	UG/KG
DI-N-OCTYL PHTHALATE	330	3000 U	UG/KG
PENTACHLOROPHENOL	1700	16000 U	UG/KG
PHENANTHRENE	330	1700 J	UG/KG
PHENOL	330	3000 U	UG/KG
4-BROMOPHENYL-PHENYLETHER	330	3000 U	UG/KG
4-CHLOROPHENYL-PHENYLETHER	330	3000 U	UG/KG
N-NITROSO-DI-N-PROPYLAMINE	330	3000 U	UG/KG
PYRENE	330	3300	UG/KG
1,2,4-TRICHLOROBENZENE	330	3000 U	UG/KG
2,4,6-TRICHLOROPHENOL	330	3000 U	UG/KG
2,4,5-TRICHLOROPHENOL	330	3000 U	UG/KG

SURROGATE RECOVERIES	QC LIMITS		
TERPHENYL-d14	(48 - 131 %)	92	%
NITROBENZENE-d5	(27 - 130 %)	71	%
PHENOL-d6	(10 - 133 %)	74	%
2-FLUOROBIPHENYL	(32 - 130 %)	85	%
2-FLUOROPHENOL	(10 - 130 %)	61	%
2,4,6-TRIBROMOPHENOL	(33 - 139 %)	82	%

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 03/03/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : 379060120-06

Date Sampled : 01/20/06 Order #: 876720 Sample Matrix: SOIL/SEDIMENT
Date Received: 01/21/06 Submission #: R2629942 Percent Solid: 74.8

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 01/25/06			
DATE ANALYZED : 02/17/06			
ANALYTICAL DILUTION: 20.00			Dry Weight
ACENAPHTHENE	330	8800 U	UG/KG
ACENAPHTHYLENE	330	8800 U	UG/KG
ANTHRACENE	330	8800 U	UG/KG
BENZO (A) ANTHRACENE	330	8800 U	UG/KG
BENZO (A) PYRENE	330	8800 U	UG/KG
BENZO (B) FLUORANTHENE	330	8800 U	UG/KG
BENZO (G, H, I) PERYLENE	330	8800 U	UG/KG
BENZO (K) FLUORANTHENE	330	8800 U	UG/KG
BENZYL ALCOHOL	330	8800 U	UG/KG
BUTYL BENZYL PHTHALATE	330	8800 U	UG/KG
DI-N-BUTYLPHTHALATE	330	8800 U	UG/KG
CARBAZOLE	330	8800 U	UG/KG
INDENO (1, 2, 3-CD) PYRENE	330	8800 U	UG/KG
4-CHLOROANILINE	330	8800 U	UG/KG
BIS (-2-CHLOROETHOXY) METHANE	330	8800 U	UG/KG
BIS (2-CHLOROETHYL) ETHER	330	8800 U	UG/KG
2-CHLORONAPHTHALENE	330	8800 U	UG/KG
2-CHLOROPHENOL	330	8800 U	UG/KG
2,2'-OXYBIS (1-CHLOROPROPANE)	330	8800 U	UG/KG
CHRYSENE	330	8800 U	UG/KG
DIBENZO (A, H) ANTHRACENE	330	8800 U	UG/KG
DIBENZOFURAN	330	8800 U	UG/KG
1,3-DICHLOROBENZENE	330	8800 U	UG/KG
1,2-DICHLOROBENZENE	330	8800 U	UG/KG
1,4-DICHLOROBENZENE	330	8800 U	UG/KG
3,3'-DICHLOROBENZIDINE	330	8800 U	UG/KG
2,4-DICHLOROPHENOL	330	8800 U	UG/KG
DIETHYLPHTHALATE	330	8800 U	UG/KG
DIMETHYL PHTHALATE	330	8800 U	UG/KG
2,4-DIMETHYLPHENOL	330	8800 U	UG/KG
2,4-DINITROPHENOL	1700	45000 U	UG/KG
2,4-DINITROTOLUENE	330	8800 U	UG/KG
2,6-DINITROTOLUENE	330	8800 U	UG/KG
BIS (2-ETHYLHEXYL) PHTHALATE	330	8800 U	UG/KG
FLUORANTHENE	330	1200 J	UG/KG
FLUORENE	330	8800 U	UG/KG
HEXACHLOROBENZENE	330	8800 U	UG/KG
HEXACHLOROBUTADIENE	330	8800 U	UG/KG
HEXACHLOROCYCLOPENTADIENE	330	8800 U	UG/KG
HEXACHLOROETHANE	330	8800 U	UG/KG
ISOPHORONE	330	8800 U	UG/KG
2-METHYLNAPHTHALENE	330	8800 U	UG/KG
4,6-DINITRO-2-METHYLPHENOL	1700	45000 U	UG/KG

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 03/03/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : 379060120-06

Date Sampled : 01/20/06 Order #: 876720 Sample Matrix: SOIL/SEDIMENT
Date Received: 01/21/06 Submission #: R2629942 Percent Solid: 74.8

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 01/25/06			
DATE ANALYZED : 02/17/06			
ANALYTICAL DILUTION: 20.00			Dry Weight
4-CHLORO-3-METHYLPHENOL	330	8800 U	UG/KG
2-METHYLPHENOL	330	8800 U	UG/KG
3+4-METHYLPHENOL	330	8800 U	UG/KG
NAPHTHALENE	330	8800 U	UG/KG
2-NITROANILINE	1700	45000 U	UG/KG
3-NITROANILINE	1700	45000 U	UG/KG
4-NITROANILINE	1700	45000 U	UG/KG
NITROBENZENE	330	8800 U	UG/KG
2-NITROPHENOL	330	8800 U	UG/KG
4-NITROPHENOL	1700	45000 U	UG/KG
N-NITROSODIMETHYLAMINE	330	8800 U	UG/KG
N-NITROSODIPHENYLAMINE	330	8800 U	UG/KG
DI-N-OCTYL PHTHALATE	330	8800 U	UG/KG
PENTACHLOROPHENOL	1700	45000 U	UG/KG
PHENANTHRENE	330	980 J	UG/KG
PHENOL	330	8800 U	UG/KG
4-BROMOPHENYL-PHENYLETHER	330	8800 U	UG/KG
4-CHLOROPHENYL-PHENYLETHER	330	8800 U	UG/KG
N-NITROSO-DI-N-PROPYLAMINE	330	8800 U	UG/KG
PYRENE	330	1100 J	UG/KG
1,2,4-TRICHLOROBENZENE	330	8800 U	UG/KG
2,4,6-TRICHLOROPHENOL	330	8800 U	UG/KG
2,4,5-TRICHLOROPHENOL	330	8800 U	UG/KG

SURROGATE RECOVERIES	QC LIMITS		
TERPHENYL-d14	(48 - 131 %)	D	%
NITROBENZENE-d5	(27 - 130 %)	D	%
PHENOL-d6	(10 - 133 %)	D	%
2-FLUOROBIPHENYL	(32 - 130 %)	D	%
2-FLUOROPHENOL	(10 - 130 %)	D	%
2,4,6-TRIBROMOPHENOL	(33 - 139 %)	D	%

COLUMBIA ANALYTICAL SERVICES**EXTRACTABLE ORGANICS**

METHOD 8270C SEMIVOLATILES

Reported: 03/03/06

Fuss & O'Neill, Inc

Project Reference: AC DUTTON

Client Sample ID : 379060120-07

Date Sampled : 01/20/06

Order #: 876721

Sample Matrix: SOIL/SEDIMENT

Date Received: 01/21/06

Submission #: R2629942

Percent Solid: 39.2

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 01/25/06			
DATE ANALYZED : 02/21/06			
ANALYTICAL DILUTION: 5.00			Dry Weight
ACENAPHTHENE	330	4200 U	UG/KG
ACENAPHTHYLENE	330	650 J	UG/KG
ANTHRACENE	330	690 J	UG/KG
BENZO (A) ANTHRACENE	330	1800 J	UG/KG
BENZO (A) PYRENE	330	2100 J	UG/KG
BENZO (B) FLUORANTHENE	330	1300 J	UG/KG
BENZO (G, H, I) PERYLENE	330	1400 J	UG/KG
BENZO (K) FLUORANTHENE	330	1500 J	UG/KG
BENZYL ALCOHOL	330	4200 U	UG/KG
BUTYL BENZYL PHTHALATE	330	4200 U	UG/KG
DI-N-BUTYLPHTHALATE	330	4200 U	UG/KG
CARBAZOLE	330	4200 U	UG/KG
INDENO (1, 2, 3-CD) PYRENE	330	1100 J	UG/KG
4-CHLOROANILINE	330	4200 U	UG/KG
BIS (-2-CHLOROETHOXY) METHANE	330	4200 U	UG/KG
BIS (2-CHLOROETHYL) ETHER	330	4200 U	UG/KG
2-CHLORONAPHTHALENE	330	4200 U	UG/KG
2-CHLOROPHENOL	330	4200 U	UG/KG
2,2'-OXYBIS (1-CHLOROPROPANE)	330	4200 U	UG/KG
CHRYSENE	330	2100 J	UG/KG
DIBENZO (A, H) ANTHRACENE	330	4200 U	UG/KG
DIBENZOFURAN	330	4200 U	UG/KG
1,3-DICHLOROBENZENE	330	4200 U	UG/KG
1,2-DICHLOROBENZENE	330	4200 U	UG/KG
1,4-DICHLOROBENZENE	330	4200 U	UG/KG
3,3'-DICHLOROBENZIDINE	330	4200 U	UG/KG
2,4-DICHLOROPHENOL	330	4200 U	UG/KG
DIETHYLPHTHALATE	330	4200 U	UG/KG
DIMETHYL PHTHALATE	330	4200 U	UG/KG
2,4-DIMETHYLPHENOL	330	4200 U	UG/KG
2,4-DINITROPHENOL	1700	22000 U	UG/KG
2,4-DINITROTOLUENE	330	4200 U	UG/KG
2,6-DINITROTOLUENE	330	4200 U	UG/KG
BIS (2-ETHYLHEXYL) PHTHALATE	330	4200 U	UG/KG
FLUORANTHENE	330	3300 J	UG/KG
FLUORENE	330	4200 U	UG/KG
HEXACHLOROBENZENE	330	4200 U	UG/KG
HEXACHLOROBUTADIENE	330	4200 U	UG/KG
HEXACHLOROCYCLOPENTADIENE	330	4200 U	UG/KG
HEXACHLOROETHANE	330	4200 U	UG/KG
ISOPHORONE	330	4200 U	UG/KG
2-METHYLNAPHTHALENE	330	4200 U	UG/KG
4,6-DINITRO-2-METHYLPHENOL	1700	22000 U	UG/KG

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 03/03/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : 379060120-07

Date Sampled : 01/20/06 Order #: 876721 Sample Matrix: SOIL/SEDIMENT
Date Received: 01/21/06 Submission #: R2629942 Percent Solid: 39.2

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 01/25/06			
DATE ANALYZED : 02/21/06			
ANALYTICAL DILUTION: 5.00			Dry Weight
4-CHLORO-3-METHYLPHENOL	330	4200 U	UG/KG
2-METHYLPHENOL	330	4200 U	UG/KG
3+4-METHYLPHENOL	330	4200 U	UG/KG
NAPHTHALENE	330	4200 U	UG/KG
2-NITROANILINE	1700	22000 U	UG/KG
3-NITROANILINE	1700	22000 U	UG/KG
4-NITROANILINE	1700	22000 U	UG/KG
NITROBENZENE	330	4200 U	UG/KG
2-NITROPHENOL	330	4200 U	UG/KG
4-NITROPHENOL	1700	22000 U	UG/KG
N-NITROSODIMETHYLAMINE	330	4200 U	UG/KG
N-NITROSODIPHENYLAMINE	330	4200 U	UG/KG
DI-N-OCTYL PHTHALATE	330	4200 U	UG/KG
PENTACHLOROPHENOL	1700	22000 U	UG/KG
PHENANTHRENE	330	2000 J	UG/KG
PHENOL	330	4200 U	UG/KG
4-BROMOPHENYL-PHENYLETHER	330	4200 U	UG/KG
4-CHLOROPHENYL-PHENYLETHER	330	4200 U	UG/KG
N-NITROSO-DI-N-PROPYLAMINE	330	4200 U	UG/KG
PYRENE	330	3400 J	UG/KG
1,2,4-TRICHLOROBENZENE	330	4200 U	UG/KG
2,4,6-TRICHLOROPHENOL	330	4200 U	UG/KG
2,4,5-TRICHLOROPHENOL	330	4200 U	UG/KG

SURROGATE RECOVERIES**QC LIMITS**

TERPHENYL-d14	(48 - 131 %)	103	%
NITROBENZENE-d5	(27 - 130 %)	82	%
PHENOL-d6	(10 - 133 %)	81	%
2-FLUOROBIPHENYL	(32 - 130 %)	100	%
2-FLUOROPHENOL	(10 - 130 %)	71	%
2,4,6-TRIBROMOPHENOL	(33 - 139 %)	89	%

COLUMBIA ANALYTICAL SERVICES**EXTRACTABLE ORGANICS**

METHOD 8270C SEMIVOLATILES

Reported: 03/03/06

Fuss & O'Neill, Inc

Project Reference: AC DUTTON

Client Sample ID : 379060120-08

Date Sampled : 01/20/06

Order #: 876722

Sample Matrix: SOIL/SEDIMENT

Date Received: 01/21/06

Submission #: R2629942

Percent Solid: 41.4

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 01/25/06			
DATE ANALYZED : 02/21/06			
ANALYTICAL DILUTION: 3.00			Dry Weight
ACENAPHTHENE	330	2400 U	UG/KG
ACENAPHTHYLENE	330	280 J	UG/KG
ANTHRACENE	330	360 J	UG/KG
BENZO (A) ANTHRACENE	330	1000 J	UG/KG
BENZO (A) PYRENE	330	960 J	UG/KG
BENZO (B) FLUORANTHENE	330	740 J	UG/KG
BENZO (G, H, I) PERYLENE	330	650 J	UG/KG
BENZO (K) FLUORANTHENE	330	840 J	UG/KG
BENZYL ALCOHOL	330	2400 U	UG/KG
BUTYL BENZYL PHTHALATE	330	2400 U	UG/KG
DI-N-BUTYLPHTHALATE	330	2400 U	UG/KG
CARBAZOLE	330	2400 U	UG/KG
INDENO (1, 2, 3-CD) PYRENE	330	540 J	UG/KG
4-CHLOROANILINE	330	2400 U	UG/KG
BIS (-2-CHLOROETHOXY) METHANE	330	2400 U	UG/KG
BIS (2-CHLOROETHYL) ETHER	330	2400 U	UG/KG
2-CHLORONAPHTHALENE	330	2400 U	UG/KG
2-CHLOROPHENOL	330	2400 U	UG/KG
2,2'-OXYBIS (1-CHLOROPROPANE)	330	2400 U	UG/KG
CHRYSENE	330	1300 J	UG/KG
DIBENZO (A, H) ANTHRACENE	330	2400 U	UG/KG
DIBENZOFURAN	330	2400 U	UG/KG
1,3-DICHLOROBENZENE	330	2400 U	UG/KG
1,2-DICHLOROBENZENE	330	2400 U	UG/KG
1,4-DICHLOROBENZENE	330	2400 U	UG/KG
3,3'-DICHLOROBENZIDINE	330	2400 U	UG/KG
2,4-DICHLOROPHENOL	330	2400 U	UG/KG
DIETHYLPHTHALATE	330	2400 U	UG/KG
DIMETHYL PHTHALATE	330	2400 U	UG/KG
2,4-DIMETHYLPHENOL	330	2400 U	UG/KG
2,4-DINITROPHENOL	1700	12000 U	UG/KG
2,4-DINITROTOLUENE	330	2400 U	UG/KG
2,6-DINITROTOLUENE	330	2400 U	UG/KG
BIS (2-ETHYLHEXYL) PHTHALATE	330	310 J	UG/KG
FLUORANTHENE	330	2100 J	UG/KG
FLUORENE	330	2400 U	UG/KG
HEXACHLOROBENZENE	330	2400 U	UG/KG
HEXACHLOROBUTADIENE	330	2400 U	UG/KG
HEXACHLOROCYCLOPENTADIENE	330	2400 U	UG/KG
HEXACHLOROETHANE	330	2400 U	UG/KG
ISOPHORONE	330	2400 U	UG/KG
2-METHYLNAPHTHALENE	330	2400 U	UG/KG
4,6-DINITRO-2-METHYLPHENOL	1700	12000 U	UG/KG

COLUMBIA ANALYTICAL SERVICES**EXTRACTABLE ORGANICS**

METHOD 8270C SEMIVOLATILES

Reported: 03/03/06

Fuss & O'Neill, Inc

Project Reference: AC DUTTON

Client Sample ID : 379060120-08

Date Sampled : 01/20/06

Order #: 876722

Sample Matrix: SOIL/SEDIMENT

Date Received: 01/21/06

Submission #: R2629942

Percent Solid: 41.4

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 01/25/06			
DATE ANALYZED : 02/21/06			
ANALYTICAL DILUTION: 3.00			Dry Weight
4-CHLORO-3-METHYLPHENOL	330	2400 U	UG/KG
2-METHYLPHENOL	330	2400 U	UG/KG
3+4-METHYLPHENOL	330	2400 U	UG/KG
NAPHTHALENE	330	2400 U	UG/KG
2-NITROANILINE	1700	12000 U	UG/KG
3-NITROANILINE	1700	12000 U	UG/KG
4-NITROANILINE	1700	12000 U	UG/KG
NITROBENZENE	330	2400 U	UG/KG
2-NITROPHENOL	330	2400 U	UG/KG
4-NITROPHENOL	1700	12000 U	UG/KG
N-NITROSODIMETHYLAMINE	330	2400 U	UG/KG
N-NITROSODIPHENYLAMINE	330	2400 U	UG/KG
DI-N-OCTYL PHTHALATE	330	2400 U	UG/KG
PENTACHLOROPHENOL	1700	12000 U	UG/KG
PHENANTHRENE	330	1500 J	UG/KG
PHENOL	330	2400 U	UG/KG
4-BROMOPHENYL-PHENYLETHER	330	2400 U	UG/KG
4-CHLOROPHENYL-PHENYLETHER	330	2400 U	UG/KG
N-NITROSO-DI-N-PROPYLAMINE	330	2400 U	UG/KG
PYRENE	330	2100 J	UG/KG
1,2,4-TRICHLOROBENZENE	330	2400 U	UG/KG
2,4,6-TRICHLOROPHENOL	330	2400 U	UG/KG
2,4,5-TRICHLOROPHENOL	330	2400 U	UG/KG

SURROGATE RECOVERIES**QC LIMITS**

TERPHENYL-d14	(48 - 131 %)	88	%
NITROBENZENE-d5	(27 - 130 %)	81	%
PHENOL-d6	(10 - 133 %)	75	%
2-FLUOROBIPHENYL	(32 - 130 %)	87	%
2-FLUOROPHENOL	(10 - 130 %)	64	%
2,4,6-TRIBROMOPHENOL	(33 - 139 %)	82	%

COLUMBIA ANALYTICAL SERVICESEXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 03/03/06Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled :	Order #: 877840	Sample Matrix: SOIL/SEDIMENT
Date Received:	Submission #:	Percent Solid: 100

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 01/25/06			
DATE ANALYZED : 01/26/06			
ANALYTICAL DILUTION: 1.00			Dry Weight
ACENAPHTHENE	330	330 U	UG/KG
ACENAPHTHYLENE	330	330 U	UG/KG
ANTHRACENE	330	330 U	UG/KG
BENZO (A) ANTHRACENE	330	330 U	UG/KG
BENZO (A) PYRENE	330	330 U	UG/KG
BENZO (B) FLUORANTHENE	330	330 U	UG/KG
BENZO (G, H, I) PERYLENE	330	330 U	UG/KG
BENZO (K) FLUORANTHENE	330	330 U	UG/KG
BENZYL ALCOHOL	330	330 U	UG/KG
BUTYL BENZYL PHTHALATE	330	330 U	UG/KG
DI-N-BUTYLPHTHALATE	330	330 U	UG/KG
CARBAZOLE	330	330 U	UG/KG
INDENO (1, 2, 3-CD) PYRENE	330	330 U	UG/KG
4-CHLOROANILINE	330	330 U	UG/KG
BIS (-2-CHLOROETHOXY) METHANE	330	330 U	UG/KG
BIS (2-CHLOROETHYL) ETHER	330	330 U	UG/KG
2-CHLORONAPHTHALENE	330	330 U	UG/KG
2-CHLOROPHENOL	330	330 U	UG/KG
2, 2'-OXYBIS (1-CHLOROPROPANE)	330	330 U	UG/KG
CHRYSENE	330	330 U	UG/KG
DIBENZO (A, H) ANTHRACENE	330	330 U	UG/KG
DIBENZOFURAN	330	330 U	UG/KG
1, 3-DICHLOROBENZENE	330	330 U	UG/KG
1, 2-DICHLOROBENZENE	330	330 U	UG/KG
1, 4-DICHLOROBENZENE	330	330 U	UG/KG
3, 3'-DICHLOROBENZIDINE	330	330 U	UG/KG
2, 4-DICHLOROPHENOL	330	330 U	UG/KG
DIETHYLPHTHALATE	330	330 U	UG/KG
DIMETHYL PHTHALATE	330	330 U	UG/KG
2, 4-DIMETHYLPHENOL	330	330 U	UG/KG
2, 4-DINITROPHENOL	1700	1700 U	UG/KG
2, 4-DINITROTOLUENE	330	330 U	UG/KG
2, 6-DINITROTOLUENE	330	330 U	UG/KG
BIS (2-ETHYLHEXYL) PHTHALATE	330	330 U	UG/KG
FLUORANTHENE	330	330 U	UG/KG
FLUORENE	330	330 U	UG/KG
HEXACHLOROBENZENE	330	330 U	UG/KG
HEXACHLOROBUTADIENE	330	330 U	UG/KG
HEXACHLOROCYCLOPENTADIENE	330	330 U	UG/KG
HEXACHLOROETHANE	330	330 U	UG/KG
ISOPHORONE	330	330 U	UG/KG
2-METHYLNAPHTHALENE	330	330 U	UG/KG
4, 6-DINITRO-2-METHYLPHENOL	1700	1700 U	UG/KG
4-CHLORO-3-METHYLPHENOL	330	330 U	UG/KG

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
 METHOD 8270C SEMIVOLATILES
 Reported: 03/03/06

Project Reference:
 Client Sample ID : METHOD BLANK

Date Sampled : Order #: 877840 Sample Matrix: SOIL/SEDIMENT
 Date Received: Submission #: Percent Solid: 100

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 01/25/06			
DATE ANALYZED : 01/26/06			
ANALYTICAL DILUTION: 1.00			Dry Weight
2-METHYLPHENOL	330	330 U	UG/KG
3+4-METHYLPHENOL	330	330 U	UG/KG
NAPHTHALENE	330	330 U	UG/KG
2-NITROANILINE	1700	1700 U	UG/KG
3-NITROANILINE	1700	1700 U	UG/KG
4-NITROANILINE	1700	1700 U	UG/KG
NITROBENZENE	330	330 U	UG/KG
2-NITROPHENOL	330	330 U	UG/KG
4-NITROPHENOL	1700	1700 U	UG/KG
N-NITROSODIMETHYLAMINE	330	330 U	UG/KG
N-NITROSODIPHENYLAMINE	330	330 U	UG/KG
DI-N-OCTYL PHTHALATE	330	330 U	UG/KG
PENTACHLOROPHENOL	1700	1700 U	UG/KG
PHENANTHRENE	330	330 U	UG/KG
PHENOL	330	330 U	UG/KG
4-BROMOPHENYL-PHENYLETHER	330	330 U	UG/KG
4-CHLOROPHENYL-PHENYLETHER	330	330 U	UG/KG
N-NITROSO-DI-N-PROPYLAMINE	330	330 U	UG/KG
PYRENE	330	330 U	UG/KG
1,2,4-TRICHLOROBNZENE	330	330 U	UG/KG
2,4,6-TRICHLOROPHENOL	330	330 U	UG/KG
2,4,5-TRICHLOROPHENOL	330	330 U	UG/KG

SURROGATE RECOVERIES

QC LIMITS

TERPHENYL-d14	(48 - 131 %)	91	%
NITROBENZENE-d5	(27 - 130 %)	72	%
PHENOL-d6	(10 - 133 %)	69	%
2-FLUOROBIPHENYL	(32 - 130 %)	81	%
2-FLUOROPHENOL	(10 - 130 %)	61	%
2,4,6-TRIBROMOPHENOL	(33 - 139 %)	80	%

COLUMBIA ANALYTICAL SERVICES

QUALITY CONTROL SUMMARY: LABORATORY CONTROL SAMPLE
SOIL/SEDIMENT

Spiked Order No. : 877841

Dup Spiked Order No. : 877843

Client ID:

Test: 8270C SEMIVOLATILES

Analytical Units: UG/KG

Run Number : 125747

ANALYTE	SPIKE ADDED	SAMPLE CONCENT.	BLANK SPIKE		BLANK SPIKE DUP.			QC LIMITS	
			FOUND	% REC.	FOUND	% REC.	RPD	RPD	REC.
ACENAPHTHENE	3300	0	2860	86	3040	91	6	30	47 - 123
2-CHLOROPHENOL	3300	0	2530	76	2720	82	7	30	36 - 116
1,4-DICHLOROBENZENE	3300	0	2420	73	2580	77	6	30	20 - 112
2,4-DINITROTOLUENE	3300	0	3090	93	3250	98	5	30	46 - 124
4-CHLORO-3-METHYLPHENO	3300	0	2920	88	3080	92	5	30	40 - 125
4-NITROPHENOL	3300	0	2600	78	2620	79	1	30	25 - 132
PENTACHLOROPHENOL	3300	0	2750	83	2990	90	8	30	21 - 131
PHENOL	3300	0	2500	75	2740	82	9	30	34 - 118
N-NITROSO-DI-N-PROPYLA	3300	0	2720	82	2960	89	8	30	45 - 117
PYRENE	3300	0	3170	95	3350	101	6	30	53 - 130
1,2,4-TRICHLOROBENZENE	3300	0	2570	77	2700	81	5	30	42 - 130

METALS
COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Contract: R2629942 SDG No.: 379060120-0
Lab Code: _____ Case No.: _____ SAS No.: _____
SOW No.: SW846 CLP-M Client: Fuss & O'Neill, Inc

<u>Sample No.</u>	<u>Lab Sample ID.</u>
<u>379060120-01</u>	<u>876715</u>
<u>379060120-02</u>	<u>876716</u>
<u>379060120-03</u>	<u>876717</u>
<u>379060120-04</u>	<u>876718</u>
<u>379060120-05</u>	<u>876719</u>
<u>379060120-06</u>	<u>876720</u>
<u>379060120-07</u>	<u>876721</u>
<u>379060120-08</u>	<u>876722</u>

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

Comments: See Attached Case Narrative

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Michael K. Perry Name: Michael K. Perry
Date: 3/3/06 Title: Laboratory Manager

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

379060120-01

Contract: R2629942

Lab Code:

Case No.:

SAS No.:

SDG NO.: 379060120-01

Matrix (soil/water): SOIL/SEDIMENT

Lab Sample ID: 876715

Level (low/med): LOW

Date Received: 01/21/06

% Solids: 72.6

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

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	25.9			P
7440-39-3	Barium	144			P
7440-43-9	Cadmium	1.6			P
7440-47-3	Chromium	36.9			P
7440-50-8	Copper	45.7			P
7439-92-1	Lead	89.8			P
7439-97-6	Mercury	0.13			CV
7782-49-2	Selenium	2.8			P
7440-22-4	Silver	1.3	U		P

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

379060120-02

Contract: R2629942

Lab Code:

Case No.:

SAS No.:

SDG NO.: 379060120-01

Matrix (soil/water): SOIL/SEDIMENT

Lab Sample ID: 876716

Level (low/med): LOW

Date Received: 01/21/06

% Solids: 75.1

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

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	60.7			P
7440-39-3	Barium	91.6			P
7440-43-9	Cadmium	2.3			P
7440-47-3	Chromium	51.6			P
7440-50-8	Copper	103			P
7439-92-1	Lead	293			P
7439-97-6	Mercury	0.13			CV
7782-49-2	Selenium	3.8			P
7440-22-4	Silver	1.3	U		P

Color Before: BLACK

Clarity Before:

Texture: MEDIUM

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

379060120-03

Contract: R2629942

Lab Code:

Case No.:

SAS No.:

SDG NO.: 379060120-01

Matrix (soil/water): SOIL/SEDIMENT

Lab Sample ID: 876717

Level (low/med): LOW

Date Received: 01/21/06

% Solids: 85.9

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

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	18.2			P
7440-39-3	Barium	57.4			P
7440-43-9	Cadmium	2.9			P
7440-47-3	Chromium	23.7			P
7440-50-8	Copper	99.1			P
7439-92-1	Lead	192			P
7439-97-6	Mercury	0.09			CV
7782-49-2	Selenium	2.4			P
7440-22-4	Silver	1.1	U		P

Color Before: BLACK

Clarity Before:

Texture: MEDIUM

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

379060120-04

Contract: R2629942

Lab Code:

Case No.:

SAS No.:

SDG NO.: 379060120-01

Matrix (soil/water): SOIL/SEDIMENT

Lab Sample ID: 876718

Level (low/med): LOW

Date Received: 01/21/06

% Solids: 34.2

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

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	9.8			P
7440-39-3	Barium	153			P
7440-43-9	Cadmium	1.8			P
7440-47-3	Chromium	40.7			P
7440-50-8	Copper	49.3			P
7439-92-1	Lead	43.6			P
7439-97-6	Mercury	0.19			CV
7782-49-2	Selenium	2.9	U		P
7440-22-4	Silver	2.9	U		P

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

379060120-05

Contract: R2629942

Lab Code:

Case No.:

SAS No.:

SDG NO.: 379060120-01

Matrix (soil/water): SOIL/SEDIMENT

Lab Sample ID: 876719

Level (low/med): LOW

Date Received: 01/21/06

% Solids: 32.6

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

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	9.4			P
7440-39-3	Barium	150			P
7440-43-9	Cadmium	1.7			P
7440-47-3	Chromium	39.8			P
7440-50-8	Copper	47.6			P
7439-92-1	Lead	44.3			P
7439-97-6	Mercury	0.19			CV
7782-49-2	Selenium	4.3			P
7440-22-4	Silver	3.0	U		P

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

379060120-06

Contract: R2629942

Lab Code:

Case No.:

SAS No.:

SDG NO.: 379060120-01

Matrix (soil/water): SOIL/SEDIMENT

Lab Sample ID: 876720

Level (low/med): LOW

Date Received: 01/21/06

% Solids: 74.8

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

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	10.4			P
7440-39-3	Barium	39.4			P
7440-43-9	Cadmium	1.6			P
7440-47-3	Chromium	17.2			P
7440-50-8	Copper	28.8			P
7439-92-1	Lead	47.3			P
7439-97-6	Mercury	0.04	U		CV
7782-49-2	Selenium	2.1			P
7440-22-4	Silver	1.3	U		P

Color Before: BROWN

Clarity Before:

Texture: COARSE

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

379060120-07

Contract: R2629942

Lab Code:

Case No.:

SAS No.:

SDG NO.: 379060120-01

Matrix (soil/water): SOIL/SEDIMENT

Lab Sample ID: 876721

Level (low/med): LOW

Date Received: 01/21/06

% Solids: 39.2

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

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	10.2			P
7440-39-3	Barium	119			P
7440-43-9	Cadmium	1.7			P
7440-47-3	Chromium	40.6			P
7440-50-8	Copper	46.6			P
7439-92-1	Lead	57.5			P
7439-97-6	Mercury	0.18			CV
7782-49-2	Selenium	2.4	U		P
7440-22-4	Silver	2.4	U		P

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

379060120-08

Contract: R2629942

Lab Code:

Case No.:

SAS No.:

SDG NO.: 379060120-01

Matrix (soil/water): SOIL/SEDIMENT

Lab Sample ID: 876722

Level (low/med): LOW

Date Received: 01/21/06

% Solids: 41.4

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

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	14.4			P
7440-39-3	Barium	111			P
7440-43-9	Cadmium	1.8			P
7440-47-3	Chromium	30.4			P
7440-50-8	Copper	43.4			P
7439-92-1	Lead	41.6			P
7439-97-6	Mercury	0.15			CV
7782-49-2	Selenium	3.2			P
7440-22-4	Silver	2.4	U		P

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

METALS

-3-

BLANKS

Contract: R2629942

Lab Code:

Case No.:

SAS No.:

SDG NO.: 379060120-01

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
Arsenic	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Barium	20.0	U	20.0	U	20.0	U	20.0	U	2.000	U	P
Cadmium	5.0	U	5.0	U	5.0	U	5.0	U	0.500	U	P
Chromium	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Copper	20.0	U	20.0	U	20.0	U	20.0	U	2.000	U	P
Lead	50.0	U	50.0	U	50.0	U	50.0	U	5.000	U	P
Mercury	0.20	U	0.20	U	0.20	U	0.20	U	0.033	U	CV
Selenium	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Silver	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P

METALS

-3-

BLANKS

Contract: R2629942

Lab Code:

Case No.:

SAS No.:

SDG NO.: 379060120-01

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C	C	
Arsenic			10.0	U	10.0	U	10.0	U		P
Barium			20.0	U	20.0	U	20.0	U		P
Cadmium			5.0	U	5.0	U	5.0	U		P
Chromium			10.0	U	10.0	U	10.0	U		P
Copper			20.0	U	20.0	U	20.0	U		P
Lead			50.0	U	50.0	U	50.0	U		P
Mercury			0.20	U	0.20	U	0.20	U		CV
Selenium			10.0	U	10.0	U	10.0	U		P
Silver			10.0	U	10.0	U	10.0	U		P

METALS

-3-

BLANKS

Contract: R2629942

Lab Code:

Case No.:

SAS No.:

SDG NO.: 379060120-01Preparation Blank Matrix (soil/water): WATERPreparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
		1	C	2	C	3	C			
Arsenic		10.0	U	10.0	U	10.0	U			P
Barium		20.0	U	20.0	U	20.0	U			P
Cadmium		5.0	U	5.0	U	5.0	U			P
Chromium		10.0	U	10.0	U	10.0	U			P
Copper		20.0	U	20.0	U	20.0	U			P
Lead		50.0	U	50.0	U	50.0	U			P
Mercury		0.20	U	0.20	U	0.20	U			CV
Selenium		10.0	U	10.0	U	10.0	U			P
Silver		10.0	U	10.0	U	10.0	U			P

METALS

-3-

BLANKS

Contract: R2629942

Lab Code:

Case No.:

SAS No.:

SDG NO.: 379060120-01

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank			M
		1	2	3							
		C	C	C	C			C			
Selenium	10.0	U	10.0	U	10.0	U	10.0	U			P

METALS

-3-

BLANKS

Contract: R2629942

Lab Code:

Case No.:

SAS No.:

SDG NO.: 379060120-01

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank		
		1	C	2	C	3	C			
Selenium		10.0	U	10.0	U					P



1 Mustard St., Suite 250
Rochester, NY 14609

Date: March 14, 2006
Number of pages: 31

To:

(Rich Totino)
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CC:

From:

Michael Perry

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RUSH REPORT

Submission #: R2630201
Project Reference: AC DUTTON

preliminary results

thanks, mike

IMPORTANT NOTICE:

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COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-Y6(0-0.05)

Sample Matrix: SOIL/SEDIMENT

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880055
Submission #: R2630201

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	13.7	MG/KG	03/07/06	1.00
BARIUM	2.00	42.0	MG/KG	03/07/06	1.00
CADMIUM	0.500	1.13	MG/KG	03/07/06	1.00
CHROMIUM	1.00	20.9	MG/KG	03/07/06	1.00
COPPER	2.00	42.0	MG/KG	03/09/06	1.00
LEAD	5.00	54.3	MG/KG	02/10/06	1.00
MERCURY	0.0500	0.0600 U	MG/KG	03/07/06	1.00
SELENIUM	2.50	3.00 U	MG/KG	03/07/06	1.00
SILVER	1.00	2.23	MG/KG		
WET CHEMISTRY			%	02/17/06	1.00
PERCENT SOLIDS	1.0	83.4			

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-Q8(0-1)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880056
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	~~8.00000000~~	MG/KG		0.0000000
BARIIUM	2.00	~~0.00000000~~	MG/KG		0.0000000
CADMIUM	0.500	~~0.00000000~~	MG/KG		0.0000000
CHROMIUM	1.00	~~8.00000000~~	MG/KG		0.0000000
COPPER	2.00	~~0.00000000~~	MG/KG		0.0000000
LEAD	5.00	46.0	MG/KG	03/09/06	5.00
MERCURY	0.0500	0.154	MG/KG	02/10/06	1.00
SELENIUM	2.50	~~0.00000000~~	MG/KG		0.0000000
SILVER	1.00	~~0.00000000~~	MG/KG		0.0000000
WET CHEMISTRY					
PERCENT SOLIDS	1.0	85.9	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-X9 (0-0.5)

Sample Matrix: SOIL/SEDIMENT

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 980057
Submission #: R2630201

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	28.4	MG/KG	03/07/06	1.00
BARIUM	2.00	45.5	MG/KG	03/07/06	1.00
CADMIUM	0.500	0.543 U	MG/KG	03/07/06	1.00
CHROMIUM	1.00	19.4	MG/KG	03/07/06	1.00
COPPER	2.00	24.8	MG/KG	03/09/06	1.00
LEAD	5.00	34.7	MG/KG	02/10/06	1.00
MERCURY	0.0500	0.0543 U	MG/KG	03/07/06	1.00
SELENIUM	2.50	2.71 U	MG/KG	03/07/06	1.00
SILVER	1.00	1.09 U	MG/KG	03/07/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	92.1	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-3HB6R(8-10.1)

Sample Matrix: SOIL/SEDIMENT

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880058
Submission #: R2630201

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	12.1	MG/KG	03/07/06	1.00
BARIUM	2.00	24.9	MG/KG	03/07/06	1.00
CADMIUM	0.500	0.893	MG/KG	03/07/06	1.00
CHROMIUM	1.00	33.6	MG/KG	03/07/06	1.00
COPPER	2.00	39.0	MG/KG	03/09/06	1.00
LEAD	5.00	7.13	MG/KG	02/10/06	1.00
MERCURY	0.0500	0.0571 U	MG/KG	03/07/06	1.00
SELENIUM	2.50	2.86 U	MG/KG	03/07/06	1.00
SILVER	1.00	2.32	MG/KG		
WET CHEMISTRY					
PERCENT SOLIDS	1.0	87.5	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-Z9(0.5-3)

Sample Matrix: SOIL/SEDIMENT

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880059
Submission #: R2630201

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	65.4	MG/KG	03/07/06	1.00
BARIUM	2.00	63.0	MG/KG	03/07/06	1.00
CADMIUM	0.500	0.603	MG/KG	03/07/06	1.00
CHROMIUM	1.00	29.5	MG/KG	03/07/06	1.00
COPPER	2.00	50.2	MG/KG	03/09/06	1.00
LEAD	5.00	67.1	MG/KG	02/10/06	1.00
MERCURY	0.0500	0.0624	MG/KG	03/07/06	1.00
SELENIUM	2.50	2.90 U	MG/KG	03/07/06	1.00
SILVER	1.00	1.16 U	MG/KG		
WET CHEMISTRY					
PERCENT SOLIDS	1.0	86.1	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-L8 (1-2)

Date Sampled : 02/03/06 Order #: 880060 Sample Matrix: SOIL/SEDIMENT
Date Received: 02/04/06 Submission #: R2630201

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	22.1	MG/KG	03/07/06	1.00
BARIUM	2.00	77.3	MG/KG	03/07/06	1.00
CADMIUM	0.500	0.805	MG/KG	03/07/06	1.00
CHROMIUM	1.00	14.0	MG/KG	03/07/06	1.00
COPPER	2.00	47.6	MG/KG	03/07/06	1.00
LEAD	5.00	76.0	MG/KG	03/09/06	1.00
MERCURY	0.0500	0.557	MG/KG	02/10/06	1.00
SELENIUM	2.50	3.11 U	MG/KG	03/07/06	1.00
SILVER	1.00	1.38	MG/KG	03/07/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	80.5	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
 Project Reference: AC DUTTON
 Client Sample ID : ACDSS-P3 (0.5-3)

Date Sampled : 02/03/06
 Date Received: 02/04/06

Order #: 880061
 Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	~~0.00000000~~	MG/KG		0.00000000
BARIUM	2.00	~~0.00000000~~	MG/KG		0.00000000
CADMIUM	0.500	~~0.00000000~~	MG/KG		0.00000000
CHROMIUM	1.00	~~0.00000000~~	MG/KG		0.00000000
COPPER	2.00	~~0.00000000~~	MG/KG		0.00000000
LEAD	5.00	~~0.00000000~~	MG/KG		0.00000000
MERCURY	0.0500	0.103	MG/KG	02/10/06	1.00
SELENIUM	2.50	~~0.00000000~~	MG/KG		0.00000000
SILVER	1.00	~~0.00000000~~	MG/KG		0.00000000
WET CHEMISTRY					
PERCENT SOLIDS	1.0	85.9	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-E8 (3-3.5)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880062
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	36.3	MG/KG	03/07/06	1.00
BARIUM	2.00	62.9	MG/KG	03/07/06	1.00
CADMIUM	0.500	1.23	MG/KG	03/07/06	1.00
CHROMIUM	1.00	29.6	MG/KG	03/07/06	1.00
COPPER	2.00	47.7	MG/KG	03/07/06	1.00
LEAD	5.00	97.1	MG/KG	03/09/06	1.00
MERCURY	0.0500	0.174	MG/KG	02/10/06	1.00
SELENIUM	2.50	2.74 U	MG/KG	03/07/06	1.00
SILVER	1.00	2.62	MG/KG	03/07/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	91.2	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
 Project Reference: AC DUTTON
 Client Sample ID : ACDSS-05(0-0.5)

Date Sampled : 02/03/06 Order #: 880063 Sample Matrix: SOIL/SEDIMENT
 Date Received: 02/04/06 Submission #: R2630201

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	~~0.00000000~~	MG/KG		0.00000000
BARIUM	2.00	~~0.00000000~~	MG/KG		0.00000000
CADMIUM	0.500	~~0.00000000~~	MG/KG		0.00000000
CHROMIUM	1.00	~~0.00000000~~	MG/KG		0.00000000
COPPER	2.00	~~0.00000000~~	MG/KG		0.00000000
LEAD	5.00	~~0.00000000~~	MG/KG		0.00000000
MERCURY	0.0500	0.114	MG/KG	02/10/06	1.00
SELENIUM	2.50	~~0.00000000~~	MG/KG		0.00000000
SILVER	1.00	~~0.00000000~~	MG/KG		0.00000000
WET CHEMISTRY					
PERCENT SOLIDS	1.0	86.9	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-3SS13R(0-0.7)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880064
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	19.6	MG/KG	03/07/06	1.00
BARIUM	2.00	54.2	MG/KG	03/07/06	1.00
CADMIUM	0.500	2.00	MG/KG	03/07/06	1.00
CHROMIUM	1.00	24.1	MG/KG	03/07/06	1.00
COPPER	2.00	108	MG/KG	03/07/06	1.00
LEAD	5.00	64.2	MG/KG	03/09/06	1.00
MERCURY	0.0500	0.0556 U	MG/KG	02/10/06	1.00
SELENIUM	2.50	2.78 U	MG/KG	03/07/06	1.00
SILVER	1.00	2.09	MG/KG	03/07/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	90.0	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-Q3 (3-6)

Date Sampled : 02/03/06 Order #: 880065 Sample Matrix: SOIL/SEDIMENT
Date Received: 02/04/06 Submission #: R2630201

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	19.1	MG/KG	03/07/06	1.00
BARIUM	2.00	60.7	MG/KG	03/07/06	1.00
CADMIUM	0.500	1.19	MG/KG	03/07/06	1.00
CHROMIUM	1.00	12.7	MG/KG	03/07/06	1.00
COPPER	2.00	28.5	MG/KG	03/07/06	1.00
LEAD	5.00	0.0566 U	MG/KG	02/10/06	1.00
MERCURY	0.0500	0.0566 U	MG/KG	03/07/06	1.00
SELENIUM	2.50	1.19	MG/KG	03/07/06	1.00
SILVER	1.00				
WET CHEMISTRY					
PERCENT SOLIDS	1.0	88.4	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-3SS14R(0-0.7)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880066
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	31.9	MG/KG	03/07/06	1.00
BARIUM	2.00	68.9	MG/KG	03/07/06	1.00
CADMIUM	0.500	0.846	MG/KG	03/07/06	1.00
CHROMIUM	1.00	29.1	MG/KG	03/07/06	1.00
COPPER	2.00	34.2	MG/KG	03/07/06	1.00
LEAD	5.00	70.0	MG/KG	03/09/06	1.00
MERCURY	0.0500	0.0857	MG/KG	02/10/06	1.00
SELENIUM	2.50	2.98 U	MG/KG	03/07/06	1.00
SILVER	1.00	1.19 U	MG/KG	03/07/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	83.9	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-S2 (1-3)

Date Sampled : 02/03/06 Order #: 880067 Sample Matrix: SOIL/SEDIMENT
Date Received: 02/04/06 Submission #: R2630201

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	40.4	MG/KG	03/07/06	1.00
BARIUM	2.00	69.3	MG/KG	03/07/06	1.00
CADMIUM	0.500	1.36	MG/KG	03/07/06	1.00
CHROMIUM	1.00	29.0	MG/KG	03/07/06	1.00
COPPER	2.00	58.7	MG/KG	03/07/06	1.00
LEAD	5.00	73.8	MG/KG	03/09/06	1.00
MERCURY	0.0500	0.129	MG/KG	02/10/06	1.00
SELENIUM	2.50	2.91 U	MG/KG	03/07/06	1.00
SILVER	1.00	1.57	MG/KG	03/07/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	85.9	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-V9(6-8)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880068
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	11.3	MG/KG	03/07/06	1.00
BARIUM	2.00	45.2	MG/KG	03/07/06	1.00
CADMIUM	0.500	2.27	MG/KG	03/07/06	1.00
CHROMIUM	1.00	31.5	MG/KG	03/07/06	1.00
COPPER	2.00	43.0	MG/KG	03/07/06	1.00
LEAD	5.00	17.3	MG/KG	03/09/06	1.00
MERCURY	0.0333	0.0389	MG/KG	02/15/06	1.00
SELENIUM	0.500	~~0.00000000~~	MG/KG		0.0000000
SILVER	1.00	3.19	MG/KG	03/07/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	89.7	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-V8(1-3)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880069
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	21.8	MG/KG	03/07/06	1.00
BARIUM	2.00	65.8	MG/KG	03/07/06	1.00
CADMIUM	0.500	1.70	MG/KG	03/07/06	1.00
CHROMIUM	1.00	15.6	MG/KG	03/07/06	1.00
COPPER	2.00	27.8	MG/KG	03/07/06	1.00
LEAD	5.00	40.9	MG/KG	03/09/06	1.00
MERCURY	0.0500	0.0562 U	MG/KG	02/10/06	1.00
SELENIUM	2.50	2.81 U	MG/KG	03/07/06	1.00
SILVER	1.00	1.60	MG/KG	03/07/06	1.00
WET CHEMISTRY PERCENT SOLIDS	1.0	88.9	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-M2 (2-5)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880070
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	~~0.00000000~~	MG/KG		0.00000000
BARIUM	2.00	~~0.00000000~~	MG/KG		0.00000000
CADMIUM	0.500	~~0.00000000~~	MG/KG		0.00000000
CHROMIUM	1.00	~~0.00000000~~	MG/KG		0.00000000
COPPER	2.00	~~0.00000000~~	MG/KG		0.00000000
LEAD	5.00	58.1 U	MG/KG	03/09/06	10.0
MERCURY	0.0500	0.0581 U	MG/KG	02/10/06	1.00
SELENIUM	2.50	~~0.00000000~~	MG/KG		0.00000000
SILVER	1.00	~~0.00000000~~	MG/KG		0.00000000
WET CHEMISTRY					
PERCENT SOLIDS	1.0	86.0	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
 Project Reference: AC DUTTON
 Client Sample ID : ACDSS-M6(3-6)

Date Sampled : 02/03/06
 Date Received: 02/04/06

Order #: 880071
 Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	~~0.00000000~~	MG/KG		0.00000000
BARIUM	2.00	~~0.00000000~~	MG/KG		0.00000000
CADMIUM	0.500	~~0.00000000~~	MG/KG		0.00000000
CHROMIUM	1.00	~~0.00000000~~	MG/KG		0.00000000
COPPER	2.00	~~0.00000000~~	MG/KG		0.00000000
LEAD	5.00	~~0.00000000~~	MG/KG		0.00000000
MERCURY	0.0500	0.0575 U	MG/KG	02/10/06	1.00
SELENIUM	2.50	~~0.00000000~~	MG/KG		0.00000000
SILVER	1.00	~~0.00000000~~	MG/KG		0.00000000
WET CHEMISTRY					
PERCENT SOLIDS	1.0	87.0	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-X7(1-3)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 890072
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	10.6	MG/KG	03/07/06	1.00
BARIUM	2.00	87.1	MG/KG	03/07/06	1.00
CADMIUM	0.500	0.801	MG/KG	03/07/06	1.00
CHROMIUM	1.00	22.0	MG/KG	03/07/06	1.00
COPPER	2.00	58.5	MG/KG	03/07/06	1.00
LEAD	5.00	63.0	MG/KG	03/09/06	1.00
MERCURY	0.0500	0.0743	MG/KG	02/10/06	1.00
SELENIUM	2.50	2.84 U	MG/KG	03/07/06	1.00
SILVER	1.00	1.95	MG/KG	03/07/06	1.00
WBT CHEMISTRY					
PERCENT SOLIDS	1.0	88.1	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-Q3(6-8)

Date Sampled : 02/03/06 Order #: 880073 Sample Matrix: SOIL/SEDIMENT
Date Received: 02/04/06 Submission #: R2630201

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	7.71	MG/KG	03/07/06	1.00
BARIUM	2.00	42.2	MG/KG	03/07/06	1.00
CADMIUM	0.500	0.710	MG/KG	03/07/06	1.00
CHROMIUM	1.00	20.6	MG/KG	03/07/06	1.00
COPPER	2.00	34.9	MG/KG	03/07/06	1.00
LEAD	5.00	~~0.00000000~~	MG/KG		0.0000000
MERCURY	0.0500	0.0596 U	MG/KG	02/10/06	1.00
SELENIUM	2.50	2.98 U	MG/KG	03/07/06	1.00
SILVER	1.00	1.82	MG/KG	03/07/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	83.9	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-E5(1-3)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880074
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	~~0.00000000~~	MG/KG		0.00000000
BARIUM	2.00	~~0.00000000~~	MG/KG		0.00000000
CADMIUM	0.500	~~0.00000000~~	MG/KG		0.00000000
CHROMIUM	1.00	~~0.00000000~~	MG/KG		0.00000000
COPPER	2.00	~~0.00000000~~	MG/KG		0.00000000
LEAD	5.00	~~0.00000000~~	MG/KG		0.00000000
MERCURY	0.0500	0.520	MG/KG	02/10/06	1.00
SELENIUM	2.50	~~0.00000000~~	MG/KG		0.00000000
SILVER	1.00	~~0.00000000~~	MG/KG		0.00000000
WET CHEMISTRY					
PERCENT SOLIDS	1.0	83.4	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-Y7(3-8)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880075
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	8.73	MG/KG	03/07/06	1.00
BARIUM	2.00	715	MG/KG	03/07/06	1.00
CADMIUM	0.500	0.655	MG/KG	03/07/06	1.00
CHROMIUM	1.00	18.6	MG/KG	03/07/06	1.00
COPPER	2.00	34.9	MG/KG	03/07/06	1.00
LEAD	5.00	650	MG/KG	03/09/06	10.0
MERCURY	0.0500	0.0561 U	MG/KG	02/10/06	1.00
SELENIUM	2.50	2.81 U	MG/KG	03/07/06	1.00
SILVER	1.00	1.57	MG/KG	03/07/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	89.1	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-F2(8-10)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880076
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	10.6	MG/KG	03/07/06	1.00
BARIUM	2.00	31.3	MG/KG	03/07/06	1.00
CADMIUM	0.500	0.927	MG/KG	03/07/06	1.00
CHROMIUM	1.00	24.4	MG/KG	03/07/06	1.00
COPPER	2.00	40.3	MG/KG	03/07/06	1.00
LEAD	5.00	~~0.00000000~~	MG/KG		0.00000000
MERCURY	0.0333	0.0512	MG/KG	02/15/06	1.00
SELENIUM	2.50	2.96 U	MG/KG	03/07/06	1.00
SILVER	1.00	2.27	MG/KG	03/07/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	84.4	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-T7(6-8)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880077
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	24.4	MG/KG	03/07/06	1.00
BARIUM	2.00	54.8	MG/KG	03/07/06	1.00
CADMIUM	0.500	0.701	MG/KG	03/07/06	1.00
CHROMIUM	1.00	20.3	MG/KG	03/07/06	1.00
COPPER	2.00	321	MG/KG	03/07/06	1.00
LEAD	5.00	61.4	MG/KG	03/09/06	1.00
MERCURY	0.0333	0.0412 U	MG/KG	02/15/06	1.00
SELENIUM	0.500	~~0.00000000~~	MG/KG		0.0000000
SILVER	1.00	2.32	MG/KG	03/07/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	80.9	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
 Project Reference: AC DUTTON
 Client Sample ID : ACDSS-U6(3-6)

Date Sampled : 02/03/06 Order #: 880078 Sample Matrix: SOIL/SEDIMENT
 Date Received: 02/04/06 Submission #: R2630201

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	~~0.00000000~~	MG/KG		0.00000000
BARIUM	2.00	~~0.00000000~~	MG/KG		0.00000000
CADMIUM	0.500	~~0.00000000~~	MG/KG		0.00000000
CHROMIUM	1.00	~~0.00000000~~	MG/KG		0.00000000
COPPER	2.00	~~0.00000000~~	MG/KG		0.00000000
LEAD	5.00	25.5 U	MG/KG	03/09/06	5.00
MERCURY	0.0333	0.0339 U	MG/KG	02/15/06	1.00
SELENIUM	2.50	~~0.00000000~~	MG/KG		0.00000000
SILVER	1.00	~~0.00000000~~	MG/KG		0.00000000
WET CHEMISTRY					
PERCENT SOLIDS	1.0	98.1	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-D4 (0-0.5)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880079
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	70.0	MG/KG	03/07/06	1.00
BARIUM	2.00	54.1	MG/KG	03/07/06	1.00
CADMIUM	0.500	1.06	MG/KG	03/07/06	1.00
CHROMIUM	1.00	70.6	MG/KG	03/07/06	1.00
COPPER	2.00	83.6	MG/KG	03/07/06	1.00
LEAD	5.00	42.5	MG/KG	03/09/06	1.00
MERCURY	0.0333	0.117	MG/KG	02/15/06	1.00
SELENIUM	2.50	2.74 U	MG/KG	03/07/06	1.00
SILVER	1.00	1.58	MG/KG	03/07/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	91.1	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-SS7R(0.8-1.4)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880080
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	~~0.00000000~~	MG/KG		0.00000000
BARIUM	2.00	~~0.00000000~~	MG/KG		0.00000000
CADMIUM	0.500	~~0.00000000~~	MG/KG		0.00000000
CHROMIUM	1.00	~~0.00000000~~	MG/KG		0.00000000
COPPER	2.00	~~0.00000000~~	MG/KG		0.00000000
LEAD	5.00	112 U	MG/KG	03/09/06	20.0
MERCURY	0.0333	0.0373 U	MG/KG	02/15/06	1.00
SELENIUM	2.50	~~0.00000000~~	MG/KG		0.00000000
SILVER	1.00	~~0.00000000~~	MG/KG		0.00000000
WET CHEMISTRY					
PERCENT SOLIDS	1.0	89.2	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-A8(0-0.5)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880081
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	24.2	MG/KG	03/07/06	1.00
BARIUM	2.00	123	MG/KG	03/07/06	1.00
CADMIUM	0.500	0.811	MG/KG	03/07/06	1.00
CHROMIUM	1.00	25.4	MG/KG	03/07/06	1.00
COPPER	2.00	46.2	MG/KG	03/07/06	1.00
LEAD	5.00	44.2	MG/KG	03/09/06	1.00
MERCURY	0.0333	0.323	MG/KG	02/15/06	1.00
SELENIUM	2.50	2.92 U	MG/KG	03/07/06	1.00
SILVER	1.00	1.24	MG/KG	03/07/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	85.7	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-S10 (0-1)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880082
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	14.2	MG/KG	03/07/06	1.00
BARIUM	2.00	69.8	MG/KG	03/07/06	1.00
CADMIUM	0.500	0.607	MG/KG	03/07/06	1.00
CHROMIUM	1.00	12.2	MG/KG	03/07/06	1.00
COPPER	2.00	77.9	MG/KG	03/07/06	1.00
LEAD	5.00	27.1	MG/KG	03/09/06	1.00
MERCURY	0.0333	0.0788	MG/KG	02/15/06	1.00
SELENIUM	2.50	2.82 U	MG/KG	03/07/06	1.00
SILVER	1.00	1.24	MG/KG	03/07/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	88.8	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
 Project Reference: AC DUTTON
 Client Sample ID : ACDSS-B2R(0.2-1.3)

Date Sampled : 02/03/06
 Date Received: 02/04/06

Order #: 880083
 Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	0.00000000	MG/KG		0.0000000
BARIUM	2.00	0.00000000	MG/KG		0.0000000
CADMIUM	0.500	0.00000000	MG/KG		0.0000000
CHROMIUM	1.00	0.00000000	MG/KG		0.0000000
COPPER	2.00	0.00000000	MG/KG		0.0000000
LEAD	5.00	170 U	MG/KG	03/09/06	30.0
MERCURY	0.0333	0.0378 U	MG/KG	02/15/06	1.00
SELENIUM	2.50	0.00000000	MG/KG		0.0000000
SILVER	1.00	0.00000000	MG/KG		0.0000000
WET CHEMISTRY					
PERCENT SOLIDS	1.0	88.0	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-L4(0-0.5)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880084
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	~~0.00000000~~	MG/KG		0.0000000
BARIUM	2.00	~~0.00000000~~	MG/KG		0.0000000
CADMIUM	0.500	~~0.00000000~~	MG/KG		0.0000000
CHROMIUM	1.00	~~0.00000000~~	MG/KG		0.0000000
COPPER	2.00	~~0.00000000~~	MG/KG		0.0000000
LEAD	5.00	28.2	MG/KG	03/09/06	5.00
MERCURY	0.0333	0.0374 U	MG/KG	02/15/06	1.00
SELENIUM	2.50	~~0.00000000~~	MG/KG		0.0000000
SILVER	1.00	~~0.00000000~~	MG/KG		0.0000000
WET CHEMISTRY					
PERCENT SOLIDS	1.0	89.1	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-3HB6R(0.3-1.4)

Date Sampled : 02/03/06 Order #: 880085 Sample Matrix: SOIL/SEDIMENT
Date Received: 02/04/06 Submission #: R2630201

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	7.87	MG/KG	03/07/06	1.00
BARIUM	2.00	55.5	MG/KG	03/07/06	1.00
CADMIUM	0.500	0.740	MG/KG	03/07/06	1.00
CHROMIUM	1.00	21.4	MG/KG	03/07/06	1.00
COPPER	2.00	32.4	MG/KG	03/07/06	1.00
LEAD	5.00	14.0	MG/KG	03/09/06	1.00
MERCURY	0.0333	0.0346 U	MG/KG	02/15/06	1.00
SELENIUM	2.50	2.60 U	MG/KG	03/07/06	1.00
SILVER	1.00	1.89	MG/KG	03/07/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	96.3	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-3HB&R(0-0.7)

Date Sampled : 02/03/06 Order #: 880086 Sample Matrix: SOIL/SEDIMENT
Date Received: 02/04/06 Submission #: R2630201

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	7.94	MG/KG	03/07/06	1.00
BARIUM	2.00	63.1	MG/KG	03/07/06	1.00
CADMIUM	0.500	0.734	MG/KG	03/07/06	1.00
CHROMIUM	1.00	33.9	MG/KG	03/07/06	1.00
COPPER	2.00	32.1	MG/KG	03/07/06	1.00
LEAD	5.00	~~0.00000000~~	MG/KG		0.00000000
MERCURY	0.0333	0.0359 U	MG/KG	02/15/06	1.00
SELENIUM	2.50	2.70 U	MG/KG	03/07/06	1.00
SILVER	1.00	1.59	MG/KG	03/07/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	92.7	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-X7(6-8)

Date Sampled : 02/03/06	Order #: 880087	Sample Matrix: SOIL/SEDIMENT
Date Received: 02/04/06	Submission #: R2630201	

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	21.1	MG/KG	03/08/06	1.00
BARIUM	2.00	56.1	MG/KG	03/08/06	1.00
CADMIUM	0.500	1.37	MG/KG	03/08/06	1.00
CHROMIUM	1.00	27.8	MG/KG	03/08/06	1.00
COPPER	2.00	63.7	MG/KG	03/08/06	1.00
LEAD	5.00	35.2	MG/KG	03/09/06	1.00
MERCURY	0.0333	0.0717	MG/KG	02/15/06	1.00
SELENIUM	2.50	2.78 U	MG/KG	03/08/06	1.00
SILVER	1.00	2.49	MG/KG	03/08/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	89.9	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-J2 (0.5-3)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880088
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	~~0.00000000~~	MG/KG		0.00000000
BARIUM	2.00	~~0.00000000~~	MG/KG		0.00000000
CADMIUM	0.500	~~0.00000000~~	MG/KG		0.00000000
CHROMIUM	1.00	~~0.00000000~~	MG/KG		0.00000000
COPPER	2.00	~~0.00000000~~	MG/KG		0.00000000
LEAD	5.00	119 U	MG/KG	03/09/06	20.0
MERCURY	0.0333	0.0396 U	MG/KG	02/15/06	1.00
SELENIUM	2.50	~~0.00000000~~	MG/KG		0.00000000
SILVER	1.00	~~0.00000000~~	MG/KG		0.00000000
WET CHEMISTRY					
PERCENT SOLIDS	1.0	84.1	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-L9(0.5-2.5)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880089
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	~~0.00000000~~	MG/KG		0.00000000
BARIUM	2.00	~~0.00000000~~	MG/KG		0.00000000
CADMIUM	0.500	~~0.00000000~~	MG/KG		0.00000000
CHROMIUM	1.00	~~0.00000000~~	MG/KG		0.00000000
COPPER	2.00	~~0.00000000~~	MG/KG		0.00000000
LEAD	5.00	~~0.00000000~~	MG/KG		0.00000000
MERCURY	0.0333	0.117	MG/KG	02/15/06	1.00
SELENIUM	2.50	~~0.00000000~~	MG/KG		0.00000000
SILVER	1.00	~~0.00000000~~	MG/KG		0.00000000
WET CHEMISTRY					
PERCENT SOLIDS	1.0	96.3	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-B8R(4-4.5)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880090
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	~~0.00000000~~	MG/KG		0.00000000
BARIUM	2.00	~~0.00000000~~	MG/KG		0.00000000
CADMIUM	0.500	~~0.00000000~~	MG/KG		0.00000000
CHROMIUM	1.00	~~0.00000000~~	MG/KG		0.00000000
COPPER	2.00	~~0.00000000~~	MG/KG		0.00000000
LEAD	5.00	118 U	MG/KG	03/09/06	20.0
MERCURY	0.0333	0.121	MG/KG	02/15/06	1.00
SELENIUM	2.50	~~0.00000000~~	MG/KG		0.00000000
SILVER	1.00	~~0.00000000~~	MG/KG		0.00000000
WET CHEMISTRY					
PERCENT SOLIDS	1.0	84.6	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
 Project Reference: AC DUTTON
 Client Sample ID : ACDSS-L9(0-0.5)

Date Sampled : 02/03/06 Order #: 880091 Sample Matrix: SOIL/SEDIMENT
 Date Received: 02/04/06 Submission #: R2630201

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	~~0.00000000~~	MG/KG		0.00000000
BARIUM	2.00	~~0.00000000~~	MG/KG		0.00000000
CADMIUM	0.500	~~0.00000000~~	MG/KG		0.00000000
CHROMIUM	1.00	~~0.00000000~~	MG/KG		0.00000000
COPPER	2.00	~~0.00000000~~	MG/KG		0.00000000
LEAD	5.00	176 U	MG/KG	03/09/06	30.0
MERCURY	0.0333	0.0391 U	MG/KG	02/15/06	1.00
SELENIUM	2.50	~~0.00000000~~	MG/KG		0.00000000
SILVER	1.00	~~0.00000000~~	MG/KG		0.00000000
WET CHEMISTRY					
PERCENT SOLIDS	1.0	85.1	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-SS7R(0-0.2)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880092
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	212	MG/KG	03/08/06	1.00
BARIUM	2.00	52.7	MG/KG	03/08/06	1.00
CADMIUM	0.500	0.571	MG/KG	03/08/06	1.00
CHROMIUM	1.00	171	MG/KG	03/08/06	1.00
COPPER	2.00	109	MG/KG	03/08/06	1.00
LEAD	5.00	11.8	MG/KG	03/09/06	1.00
MERCURY	0.0333	0.0355 U	MG/KG	02/15/06	1.00
SELENIUM	2.50	2.67 U	MG/KG	03/08/06	1.00
SILVER	1.00	1.07 U	MG/KG	03/08/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	93.7	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
 Project Reference: AC DUTTON
 Client Sample ID : ACDSS-N5(0.5-3)

Date Sampled : 02/03/06
 Date Received: 02/04/06

Order #: 880093
 Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	~~0.00000000~~	MG/KG		0.0000000
BARIUM	2.00	~~0.00000000~~	MG/KG		0.0000000
CADMIUM	0.500	~~0.00000000~~	MG/KG		0.0000000
CHROMIUM	1.00	~~0.00000000~~	MG/KG		0.0000000
COPPER	2.00	~~0.00000000~~	MG/KG		0.0000000
LEAD	5.00	1820	MG/KG	03/09/06	5.00
MERCURY	0.0333	0.0628	MG/KG	02/15/06	1.00
SELENIUM	2.50	~~0.00000000~~	MG/KG		0.0000000
SILVER	1.00	~~0.00000000~~	MG/KG		0.0000000
WET CHEMISTRY					
PERCENT SOLIDS	1.0	88.7	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-G6 (0-0.5)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880094
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					0.0000000
ARSENIC	1.00	~~0.00000000~~	MG/KG		
	2.00	11.7	MG/KG	03/08/06	1.00
BARIUM	0.500	0.520 U	MG/KG	03/08/06	1.00
CADMIUM	1.00	80.7	MG/KG	03/08/06	1.00
CHROMIUM	2.00	72.1	MG/KG	03/08/06	1.00
COPPER	5.00	21.8	MG/KG	03/09/06	1.00
LEAD	0.0333	0.0346 U	MG/KG	02/15/06	1.00
MERCURY	2.50	2.60 U	MG/KG	03/08/06	1.00
SELENIUM	1.00	1.04 U	MG/KG	03/08/06	1.00
SILVER					
WET CHEMISTRY					
PERCENT SOLIDS	1.0	96.2	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-SS9R(4-5.3)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880095
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	14.6	MG/KG	02/13/06	1.00
BARIUM	2.00	23.3	MG/KG	02/13/06	1.00
CADMIUM	0.500	0.548 U	MG/KG	02/13/06	1.00
CHROMIUM	1.00	28.3	MG/KG	02/13/06	1.00
COPPER	2.00	52.2	MG/KG	02/13/06	1.00
LEAD	5.00	14.6	MG/KG	02/15/06	1.00
MERCURY	0.0333	0.0597	MG/KG	02/24/06	1.00
SELENIUM	2.50	2.74 U	MG/KG	02/13/06	1.00
SILVER	1.00	1.10 U	MG/KG	02/13/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	91.3	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-AA11(3-8)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880096
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	21.2	MG/KG	02/13/06	1.00
BARIUM	2.00	695	MG/KG	02/13/06	1.00
CADMIUM	0.500	1.78	MG/KG	02/13/06	1.00
CHROMIUM	1.00	17.7	MG/KG	02/13/06	1.00
COPPER	2.00	47.2	MG/KG	02/13/06	1.00
LEAD	5.00	431	MG/KG	02/15/06	1.00
MERCURY	0.0333	0.865	MG/KG	02/24/06	1.00
SELENIUM	2.50	3.08 U	MG/KG	02/13/06	1.00
SILVER	1.00	1.23 U	MG/KG	02/13/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	81.3	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-B3 (3-5.5)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880097
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	10.5	MG/KG	02/13/06	1.00
BARIUM	2.00	88.1	MG/KG	02/13/06	1.00
CADMIUM	0.500	0.539 U	MG/KG	02/13/06	1.00
CHROMIUM	1.00	16.3	MG/KG	02/13/06	1.00
COPPER	2.00	39.3	MG/KG	02/13/06	1.00
LEAD	5.00	17.3	MG/KG	02/15/06	1.00
MERCURY	0.0333	0.100	MG/KG	02/24/06	1.00
SELENIUM	2.50	2.69 U	MG/KG	02/13/06	1.00
SILVER	1.00	1.08 U	MG/KG	02/13/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	92.8	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-G4 (0-0.5)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880098
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	20.2	MG/KG	02/13/06	1.00
BARIUM	2.00	27.1	MG/KG	02/13/06	1.00
CADMIUM	0.500	0.535 U	MG/KG	02/13/06	1.00
CHROMIUM	1.00	24.1	MG/KG	02/13/06	1.00
COPPER	2.00	21.1	MG/KG	02/13/06	1.00
LEAD	5.00	9.88	MG/KG	02/15/06	1.00
MERCURY	0.0333	0.0356 U	MG/KG	02/24/06	1.00
SELENIUM	2.50	2.67 U	MG/KG	02/13/06	1.00
SILVER	1.00	1.07 U	MG/KG	02/13/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	93.5	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-K6 (0.5-3)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880099
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	46.9	MG/KG	02/13/06	1.00
BARIUM	2.00	73.0	MG/KG	02/13/06	1.00
CADMIUM	0.500	0.762	MG/KG	02/13/06	1.00
CHROMIUM	1.00	20.8	MG/KG	02/13/06	1.00
COPPER	2.00	32.5	MG/KG	02/13/06	1.00
LEAD	5.00	44.0	MG/KG	02/15/06	1.00
MERCURY	0.0333	0.112	MG/KG	02/24/06	1.00
SELENIUM	2.50	2.99 U	MG/KG	02/13/06	1.00
SILVER	1.00	1.20 U	MG/KG	02/13/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	83.6	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-AB10 (0.8-1.5)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880100
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	20.5	MG/KG	02/13/06	1.00
BARIUM	2.00	117	MG/KG	02/13/06	1.00
CADMIUM	0.500	0.543 U	MG/KG	02/13/06	1.00
CHROMIUM	1.00	19.2	MG/KG	02/13/06	1.00
COPPER	2.00	45.5	MG/KG	02/13/06	1.00
LEAD	5.00	140	MG/KG	02/15/06	1.00
MERCURY	0.0333	0.130	MG/KG	02/24/06	1.00
SELENIUM	2.50	2.71 U	MG/KG	02/13/06	1.00
SILVER	1.00	1.09 U	MG/KG	02/13/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	92.1	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-E8(0-0.5)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880101
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	37.1	MG/KG	02/13/06	1.00
BARIUM	2.00	70.9	MG/KG	02/13/06	1.00
CADMIUM	0.500	0.543 U	MG/KG	02/13/06	1.00
CHROMIUM	1.00	40.2	MG/KG	02/13/06	1.00
COPPER	2.00	46.0	MG/KG	02/13/06	1.00
LEAD	5.00	64.2	MG/KG	02/15/06	1.00
MERCURY	0.0333	0.261	MG/KG	02/24/06	1.00
SELENIUM	2.50	2.71 U	MG/KG	02/13/06	1.00
SILVER	1.00	1.09 U	MG/KG	02/13/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	92.1	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-18 (0-0.5)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880102
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS	1.00	8.32	MG/KG	02/13/06	1.00
ARSENIC	2.00	32.4	MG/KG	02/13/06	1.00
BARIUM	0.500	0.518 U	MG/KG	02/13/06	1.00
CADMIUM	1.00	16.7	MG/KG	02/13/06	1.00
CHROMIUM	2.00	36.5	MG/KG	02/13/06	1.00
COPPER	5.00	23.8	MG/KG	02/15/06	1.00
LEAD	0.0333	0.0345 U	MG/KG	02/24/06	1.00
MERCURY	2.50	2.59 U	MG/KG	02/13/06	1.00
SELENIUM	1.00	1.04 U	MG/KG	02/13/06	1.00
SILVER					
WET CHEMISTRY					
PERCENT SOLIDS	1.0	96.6	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-08 (0-3)

Sample Matrix: SOIL/SEDIMENT

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880103
Submission #: R2630201

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	59.3	MG/KG	02/14/06	20.0
BARIUM	2.00	117	MG/KG	02/14/06	20.0
CADMIUM	0.500	11.7 U	MG/KG	02/14/06	20.0
CHROMIUM	1.00	23.4 U	MG/KG	02/14/06	20.0
COPPER	2.00	46.8 U	MG/KG	02/14/06	20.0
LEAD	5.00	117 U	MG/KG	02/14/06	20.0
MERCURY	0.0333	0.0390 U	MG/KG	02/24/06	1.00
SELENIUM	2.50	58.5 U	MG/KG	02/14/06	20.0
SILVER	1.00	23.4 U	MG/KG	02/14/06	20.0
WET CHEMISTRY					
PERCENT SOLIDS	1.0	85.4	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/14/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-C6(0-0.5)

Sample Matrix: SOIL/SEDIMENT

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880104
Submission #: R2630201

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	23.5	MG/KG	02/13/06	1.00
BARIUM	2.00	63.4	MG/KG	02/13/06	1.00
CADMIUM	0.500	0.543 U	MG/KG	02/13/06	1.00
CHROMIUM	1.00	25.8	MG/KG	02/13/06	1.00
COPPER	2.00	41.9	MG/KG	02/13/06	1.00
LEAD	5.00	19.5	MG/KG	02/15/06	1.00
MERCURY	0.0333	0.0362 U	MG/KG	02/24/06	1.00
SELENIUM	2.50	2.71 U	MG/KG	02/13/06	1.00
SILVER	1.00	1.09 U	MG/KG	02/13/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	92.1	%	02/17/06	1.00



1 Mustard ST.
Suite 250
Rochester, NY 14609
(585) 288-5380

THIS IS AN ANALYTICAL TEST REPORT FOR:

Client : Fuss & O'Neill, Inc
Project Reference: A. C. DUTTON
Lab Submission # : R2630821
Project Manager : Michael Perry
Reported : 04/25/06

Report Contains a total of 13 pages

The results reported herein relate only to the samples received by the laboratory. This report may not be reproduced except in full, without the approval of Columbia Analytical Services.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal. *Michael E. Perry*



A FULL SERVICE ENVIRONMENTAL LABORATORY

April 26, 2006

Mr. Richard Totino
Fuss & O'Neill, Inc
24 Madison Ave. Extension
Albany, NY 12203

PROJECT: A. C. DUTTON
Submission #: R2630821

Dear Mr. Totino:

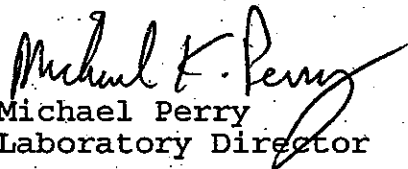
Enclosed are the analytical results of the analyses requested. The analytical data was provided to you on 04/05/06 per a Facsimile transmittal. All data has been reviewed prior to report submission.

Should you have any questions please contact me at (585) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES


Michael Perry
Laboratory Director

Enc.

Background #4, 5

Cooler Receipt And Preservation Check Form

Project/Client Fuss+O'Neill Submission Number 22630821

Cooler received on 3-22-06 by: HE COURIER: CAS UPS FEDEX VELOCITY CLIENT

1. Were custody seals on outside of cooler? YES YES NO NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES YES NO NO
3. Did all bottles arrive in good condition (unbroken)? YES YES NO NO
4. Did any VOA vials have significant air bubbles? YES YES NO N/A
5. Were Ice or Ice packs present? YES YES NO NO
6. Where did the bottles originate? CAS/ROC, CLIENT
7. Temperature of cooler(s) upon receipt: 4°

Is the temperature within 0° - 6° C?: Yes Yes Yes Yes Yes

If No, Explain Below No No No No No

Date/Time Temperatures Taken: 3-22-06 @ 9:38

Thermometer ID: 161 of IR GUN Reading From: Temp Blank or Sample Bottle

If out of Temperature, Client Approval to Run Samples

PC Secondary Review: MM 3/22/06

Cooler Breakdown: Date: 3/22/06 by: cmk

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES YES NO NO
2. Did all bottle labels and tags agree with custody papers? YES YES NO NO
3. Were correct containers used for the tests indicated? YES YES NO NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies:

		YES	NO	Sample I.D.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO ₃					
2	H ₂ SO ₄					
Residual Chlorine (+/-)	for TCN & Phenol					
5-9**	P/PCBs (608 only)					

YES = All samples OK

NO = Samples were preserved at lab as listed

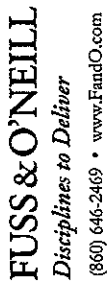
PC OK to adjust pH

**If pH adjustment is required, use NaOH and/or H₂SO₄

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2		

Other Comments:

PC Secondary Review:



☐ 275 Promenade Street, Suite 350, Providence, RI 02908
☐ 80 Washington Street, Suite 301, Poughkeepsie, NY 12601
☐ Other _____

CHAIN-OF-CUSTODY RECORD 10133

WATERBURY

☐ 1 Day*
☐ 2 Days*
☒ 3 Days*
☐ Other _____ (days)

*Surcharge Applies

PROJECT NUMBER

LABORATORY

PROJECT NUMBER
20040764-A1N

Analysis Request

SAME

Sampler's Signature:

Date:

Source Codes:

DIW=Detachable Water

$$W = W_{\text{cte}}$$

SW=Surface Water

FW=Potable Water
T=Treatment Facility

B=Bottom Sediment

A=Air

X=Other

[illegible]Transfer
Number

Relinquished By

Accepted By

Time

Reporting and Detection Limit Requirements:

1

7:35

Additional Comments:

cut Boko

9

100

07/2007

COLUMBIA ANALYTICAL SERVICES

INORGANIC BLANK SPIKE SUMMARY

CAS Submission #: R2630821
Client: Fuss & O'Neill, Inc
A. C. DUTTON

BLANK SPIKES

	BLANK	FOUND	ADDED	% REC	LIMITS	RUN	UNITS
ARSENIC	1.00 U	148	146	101	74 - 126	128267	MG/KG
BARIUM	2.00 U	382	351	109	77 - 123	128267	MG/KG
CADMIUM	0.500 U	91.6	91.9	100	77 - 123	128267	MG/KG
CHROMIUM	1.00 U	182	176	103	80 - 120	128267	MG/KG
COPPER	2.00 U	73.3	70.0	105	82 - 118	128267	MG/KG
LEAD	5.00 U	70.0	68.1	103	76 - 124	128267	MG/KG
SILVER	1.00 U	93.1	93.0	100	74 - 126	128267	MG/KG
MERCURY	0.0333 U	1.64	1.77	92	57 - 142	128301	MG/KG
SELENIUM	0.500 U	71.5	73.0	98	74 - 125	128306	MG/KG

COLUMBIA ANALYTICAL SERVICES

Reported: 04/06/06

Fuss & O'Neill, Inc
Project Reference: A. C. DUTTON
Client Sample ID : ACD-SS-BKGRD-5

Date Sampled : 03/20/06 08:10
Date Received: 03/22/06

Order #: 890509
Submission #: R2630821

Sample Matrix: SOIL/SEDIMENT

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	DILUTION
ARSENIC	6010B	1.00	32.5	MG/KG	04/03/06	1.0
BARIUM	6010B	2.00	160	MG/KG	04/03/06	1.0
CADMIUM	6010B	0.500	0.709 U	MG/KG	04/03/06	1.0
CHROMIUM	6010B	1.00	30.6	MG/KG	04/03/06	1.0
COPPER	6010B	2.00	67.7	MG/KG	04/03/06	1.0
LEAD	6010B	5.00	704	MG/KG	04/03/06	1.0
MERCURY	7471A	0.0333	1.34	MG/KG	04/04/06	1.0
SELENIUM	6010B	0.500	4.64	MG/KG	04/04/06	1.0
SILVER	6010B	1.00	1.42 U	MG/KG	04/03/06	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 04/06/06

Fuss & O'Neill, Inc
Project Reference: A. C. DUTTON
Client Sample ID : ACD-SS-BKGRD-5

Date Sampled : 03/20/06 08:10 Order #: 890509 Sample Matrix: SOIL/SEDIMENT
Date Received: 03/22/06 Submission #: R2630821

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.3M	1.0	70.5	%	03/28/06	15:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 04/06/06

Fuss & O'Neill, Inc
Project Reference: A. C. DUTTON
Client Sample ID : ACD-SS-BKGRD-4

Date Sampled : 03/20/06 08:00 Order #: 890508 Sample Matrix: SOIL/SEDIMENT
Date Received: 03/22/06 Submission #: R2630821

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	DILUTION
ARSENIC	6010B	1.00	23.4	MG/KG	04/03/06	1.0
BARIUM	6010B	2.00	45.2	MG/KG	04/03/06	1.0
CADMIUM	6010B	0.500	0.571 U	MG/KG	04/03/06	1.0
CHROMIUM	6010B	1.00	26.0	MG/KG	04/03/06	1.0
COPPER	6010B	2.00	45.8	MG/KG	04/03/06	1.0
LEAD	6010B	5.00	139	MG/KG	04/03/06	1.0
MERCURY	7471A	0.0333	0.0797	MG/KG	04/04/06	1.0
SELENIUM	6010B	0.500	2.19	MG/KG	04/04/06	1.0
SILVER	6010B	1.00	1.14 U	MG/KG	04/03/06	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 04/06/06

Fuss & O'Neill, Inc
Project Reference: A. C. DUTTON
Client Sample ID : ACD-SS-BKGRD-4

Date Sampled : 03/20/06 08:00	Order #: 890508	Sample Matrix: SOIL/SEDIMENT
Date Received: 03/22/06	Submission #: R2630821	

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.3M	1.0	87.6	%	03/28/06	15:30	1.0



INORGANIC QUALIFIERS

C (Concentration) qualifier –

- B - if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but was greater than or equal to the Instrument Detection Limit (IDL). This qualifier may also be used to indicate that there was contamination above the reporting limit in the associated blank. See Narrative for details.
- U - if the analyte was analyzed for, but not detected

Q qualifier - Specified entries and their meanings are as follows:

- D - Spike was diluted out
- E - The reported value is estimated because the serial dilution did not meet criteria.
- J - Estimated Value
- M - Duplicate injection precision not met.
- N - Spiked sample recovery not within control limits.
- S - The reported value was determined by the Method of Standard Additions (MSA).
- W - Post-digestion spike for Furnace AA Analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
- * - Duplicate analysis not within control limits.
- + - Correlation coefficient for the MSA is less than 0.995.

M (Method) qualifier:

- "P" for ICP
- "A" for Flame AA
- "F" for Furnace AA
- "PM" for ICP when Microwave Digestion is used
- "AM" for Flame AA when Microwave Digestion is used
- "FM" for Furnace M when Microwave Digestion is used
- "CV" for Manual Cold Vapor AA
- "AV" for Automated Cold Vapor AA
- "CA" for Midi-Distillation Spectrophotometric
- "AS" for Semi-Automated Spectrophotometric
- "C" for Manual Spectrophotometric
- "T" for Titrimetric
- " " where no data has been entered
- "NR" if the analyte is not required to be analyzed.

CAS/Rochester Lab ID # for State Certifications

NELAP Accredited
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Illinois ID #200047
Maine ID #NY0032
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved

Nebraska Accredited
New Jersey ID # NY004
New York ID # 10145
New Hampshire ID # 294100 A/B
Pennsylvania Registration 68-786
Rhode Island ID # 158
West Virginia ID # 292



CASE NARRATIVE

This report contains analytical results for the following samples:

Submission #: R2630821

Lab ID

890508

890509

Client ID

ACD-SS-BKGRD-4

ACD-SS-BKGRD-5

All samples were received in good condition unless otherwise noted on the cooler receipt and preservation check form located at the end of this report.

All samples were preserved in accordance with approved analytical methods.

All samples have been analyzed by the approved methods cited on the analytical results pages.

All holding times and associated QC were within limits.

No analytical or QC problems were encountered.

All sampling activities performed by CAS personnel have been in accordance with "CAS Field Procedures and Measurements Manual" or by client specifications.



1 Mustard ST.
Suite 250
Rochester, NY 14609
(585) 288-5380

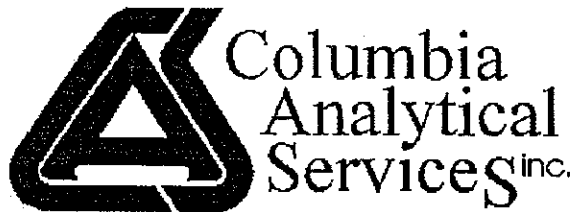
THIS IS AN ANALYTICAL TEST REPORT FOR:

Client : Fuss & O'Neill, Inc
Project Reference: A. C. DUTTON
Lab Submission # : R2630821
Project Manager : Michael Perry
Reported : 04/06/06

Report Contains a total of 10 pages

The results reported herein relate only to the samples received by the laboratory. This report may not be reproduced except in full, without the approval of Columbia Analytical Services.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal. Reyes



A FULL SERVICE ENVIRONMENTAL LABORATORY

April 6, 2006

Mr. Richard Totino
Fuss & O'Neill, Inc
24 Madison Ave. Extension
Albany, NY 12203

PROJECT: A. C. DUTTON
Submission #: R2630821

Dear Mr. Totino:

Enclosed are the analytical results of the analyses requested. The analytical data was provided to you on 04/05/06 per a Facsimile transmittal. All data has been reviewed prior to report submission.

Should you have any questions please contact me at (585) 288-5380.

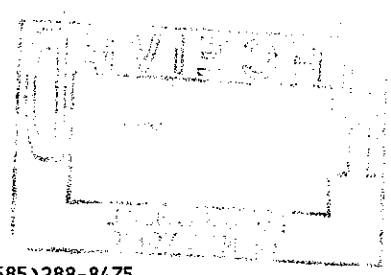
Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES


Michael Perry
Laboratory Director

Enc.



COLUMBIA ANALYTICAL SERVICES

Reported: 03/22/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-G6(0-0.5)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880094
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	95.8	MG/KG	03/15/06	2.00
BARIUM	2.00	11.7	MG/KG	03/08/06	1.00
CADMIUM	0.500	0.520 U	MG/KG	03/08/06	1.00
CHROMIUM	1.00	80.7	MG/KG	03/08/06	1.00
COPPER	2.00	72.1	MG/KG	03/08/06	1.00
LEAD	5.00	21.8	MG/KG	03/09/06	1.00
MERCURY	0.0333	0.0346 U	MG/KG	02/15/06	1.00
SELENIUM	2.50	2.60 U	MG/KG	03/08/06	1.00
SILVER	1.00	1.04 U	MG/KG	03/08/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	96.2	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/22/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-N5(0.5-3)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880093
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	32.1	MG/KG	03/15/06	5.00
BARIUM	2.00	111	MG/KG	03/15/06	5.00
CADMIUM	0.500	2.82 U	MG/KG	03/15/06	5.00
CHROMIUM	1.00	10.6	MG/KG	03/15/06	5.00
COPPER	2.00	29.4	MG/KG	03/15/06	5.00
LEAD	5.00	1820	MG/KG	03/09/06	5.00
MERCURY	0.0333	0.0628	MG/KG	02/15/06	1.00
SELENIUM	2.50	14.1 U	MG/KG	03/15/06	5.00
SILVER	1.00	5.64 U	MG/KG	03/15/06	5.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	88.7	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/22/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-L9(0-0.5)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880091
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	56.8	MG/KG	03/15/06	30.0
BARIUM	2.00	255	MG/KG	03/15/06	30.0
CADMIUM	0.500	17.6 U	MG/KG	03/15/06	30.0
CHROMIUM	1.00	35.3 U	MG/KG	03/15/06	30.0
COPPER	2.00	70.5 U	MG/KG	03/15/06	30.0
LEAD	5.00	176 U	MG/KG	03/09/06	30.0
MERCURY	0.0333	0.0391 U	MG/KG	02/15/06	1.00
SELENIUM	2.50	88.1 U	MG/KG	03/15/06	30.0
SILVER	1.00	35.3 U	MG/KG	03/15/06	30.0
WET CHEMISTRY					
PERCENT SOLIDS	1.0	85.1	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/22/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-B8R(4-4.5)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880090
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	105	MG/KG	03/15/06	20.0
BARIUM	2.00	189	MG/KG	03/15/06	20.0
CADMIUM	0.500	11.8 U	MG/KG	03/15/06	20.0
CHROMIUM	1.00	69.7	MG/KG	03/15/06	20.0
COPPER	2.00	47.3 U	MG/KG	03/15/06	20.0
LEAD	5.00	118 U	MG/KG	03/09/06	20.0
MERCURY	0.0333	0.121	MG/KG	02/15/06	1.00
SELENIUM	2.50	59.1 U	MG/KG	03/15/06	20.0
SILVER	1.00	23.6 U	MG/KG	03/15/06	20.0
WET CHEMISTRY					
PERCENT SOLIDS	1.0	84.6	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/22/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-L9(0.5-2.5)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880089
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	15.9	MG/KG	03/15/06	2.00
BARIUM	2.00	52.8	MG/KG	03/15/06	2.00
CADMIUM	0.500	1.04 U	MG/KG	03/15/06	2.00
CHROMIUM	1.00	12.7	MG/KG	03/15/06	2.00
COPPER	2.00	15.8	MG/KG	03/15/06	2.00
LEAD	5.00	26.6	MG/KG	03/10/06	5.00
MERCURY	0.0333	0.117	MG/KG	02/15/06	1.00
SELENIUM	2.50	5.19 U	MG/KG	03/15/06	2.00
SILVER	1.00	2.08 U	MG/KG	03/15/06	2.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	96.3	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/22/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-J2(0.5-3)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880088
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	48.0			
BARIUM	2.00	184	MG/KG	03/15/06	20.0
CADMIUM	0.500	11.9 U	MG/KG	03/15/06	20.0
CHROMIUM	1.00	23.8 U	MG/KG	03/15/06	20.0
COPPER	2.00	47.6 U	MG/KG	03/15/06	20.0
LEAD	5.00	119 U	MG/KG	03/15/06	20.0
MERCURY	0.0333	0.0396 U	MG/KG	03/09/06	20.0
SELENIUM	2.50	59.5 U	MG/KG	02/15/06	1.00
SILVER	1.00	23.8 U	MG/KG	03/15/06	20.0
WET CHEMISTRY					
PERCENT SOLIDS	1.0	84.1	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/22/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-3HB8R(0-0.7)

Date Sampled : 02/03/06 Order #: 880086 Sample Matrix: SOIL/SEDIMENT
Date Received: 02/04/06 Submission #: R2630201

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	7.94	MG/KG	03/07/06	1.00
BARIUM	2.00	63.1	MG/KG	03/07/06	1.00
CADMIUM	0.500	0.734	MG/KG	03/07/06	1.00
CHROMIUM	1.00	33.9	MG/KG	03/07/06	1.00
COPPER	2.00	32.1	MG/KG	03/07/06	1.00
LEAD	5.00	16.8	MG/KG	03/10/06	1.00
MERCURY	0.0333	0.0359 U	MG/KG	02/15/06	1.00
SELENIUM	2.50	2.70 U	MG/KG	03/07/06	1.00
SILVER	1.00	1.59	MG/KG	03/07/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	92.7	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/22/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-L4(0-0.5)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880084
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	33.1	MG/KG	03/15/06	5.00
BARIUM	2.00	88.4	MG/KG	03/15/06	5.00
CADMIUM	0.500	2.81 U	MG/KG	03/15/06	5.00
CHROMIUM	1.00	17.6	MG/KG	03/15/06	5.00
COPPER	2.00	54.2	MG/KG	03/15/06	5.00
LEAD	5.00	28.2	MG/KG	03/09/06	5.00
MERCURY	0.0333	0.0374 U	MG/KG	02/15/06	1.00
SELENIUM	2.50	14.0 U	MG/KG	03/15/06	5.00
SILVER	1.00	5.61 U	MG/KG	03/15/06	5.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	89.1	%	02/17/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 03/22/06

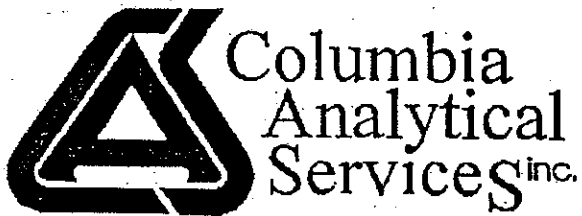
Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-B2R(0.2-1.3)

Date Sampled : 02/03/06
Date Received: 02/04/06

Order #: 880083
Submission #: R2630201

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	77.4	MG/KG	03/15/06	30.0
BARIUM	2.00	224	MG/KG	03/15/06	30.0
CADMIUM	0.500	17.0 U	MG/KG	03/15/06	30.0
CHROMIUM	1.00	34.1 U	MG/KG	03/15/06	30.0
COPPER	2.00	68.2 U	MG/KG	03/15/06	30.0
LEAD	5.00	170 U	MG/KG	03/09/06	30.0
MERCURY	0.0333	0.0378 U	MG/KG	02/15/06	1.00
SELENIUM	2.50	85.2 U	MG/KG	03/15/06	30.0
SILVER	1.00	34.1 U	MG/KG	03/15/06	30.0
WET CHEMISTRY					
PERCENT SOLIDS	1.0	88.0	%	02/17/06	1.00



A FULL SERVICE ENVIRONMENTAL LABORATORY

January 24, 2006

Mr. Noah Livingston
Fuss & O'Neill, Inc
80 Washington St.
Suite 301
Poughkeepsie, NY 12601

PROJECT: AC DUTTON
Submission #: R2529204

Dear Mr. Livingston

Enclosed are the analytical results of the analyses requested. All data has been reviewed prior to report submission. Should you have any questions please contact me at (585) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES

Michael Perry
Laboratory Director

Enc.

* Organics for
U5
U6
AA10
AA11



1 Mustard ST.
Suite 250
Rochester, NY 14609
(585) 288-5380

THIS IS AN ANALYTICAL TEST REPORT FOR:

Client : Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Lab Submission # : R2529204
Project Manager : Michael Perry
Reported : 01/24/06

Report Contains a total of 33 pages

The results reported herein relate only to the samples received by the laboratory. This report may not be reproduced except in full, without the approval of Columbia Analytical Services.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal. *Michael Perry*

CASE NARRATIVE

Company: Fuss & O'Neill, Inc.
Project: AC Dutton
Submission #: R2529204

Soil samples were collected on 12/09/05 and received at CAS on 12/10/05 in good condition at a cooler temperature of 4 °C. A NY DEC ASP-B report has been provided.

VOLATILE ORGANICS - 8260

Four soil samples were analyzed for a TCL list and/or TCL/STARs list of Volatile Organics by method 8260B from SW-846. Any analyte detected between the PQL and MDL has been flagged with a "J" as estimated.

All Tuning criteria for BFB were and Internal Standard Areas within QC limits.

All the initial and continuing calibration criteria were met for all analytes.

All Internal Standard Areas were within acceptance limits for all samples.

The surrogate standard recoveries were all with QC limits.

The Blank Spike (LCS) recoveries were all within QC limits. The matrix spike/matrix spike duplicate analysis was performed on sample ACD-SL-AA11 (12-13'). All Matrix Spike Recoveries were within QC limits of 75 – 125 %. The RPD from the duplicate analyses were all within QC limits.

Sample ACD-SL-AA10 (12-14') was analyzed at a 1/5 dilution due to the level of target/non-target analytes present.

The Method Blanks associated with these samples were free of contamination.

No other analytical or QC problems were encountered.

SEMIVOLATILE ORGANIC ANALYSIS - 8270

Four soil samples were analyzed for STARs list of SVOA by SW-846 method 8270C. Values detected between the PQL and the MDL have been reported flagged with a "J" as estimated.

All the initial and continuing calibration criteria were met for all analytes.

All Internal Standard Areas and surrogate standard recoveries were within QC limits.

The surrogate standard recoveries were all with QC limits.

Job specific QC was not requested. The Blank Spike (Reference Check) recoveries were acceptable.

The Method Blanks associated with these samples are free of contamination.

No other analytical or QC problems were encountered.

Company: Fuss & O'Neill, Inc.
Project: AC Dutton
Submission #: R2529204
Page 2

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package, has been authorized by the Laboratory Manager or his designee, as verified by the following signature.


Michael K. Perry
Laboratory Manager

1/25/06
Date

[illegible]



ORGANIC QUALIFIERS

- U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J - Indicates an estimated value. The flag is used either when estimating a concentration for tentatively identified compounds, or when the data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit and greater than the MDL.
- N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search.
- P - This flag is used for a pesticide/Aroclor target analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. The concentration is reported on the Form I and flagged with a "P".
- C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B - This flag is used when the analyte is found in the associated blank as well as in the sample.
- E - This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and ALL concentration values reported on that Form I are flagged with the "D" flag.
- A - This flag indicates that a TIC is a suspected aldol-condensation product.
- X - As specified in Case Narrative.
- * - This flag identifies compounds associated with a quality control parameter which exceeds laboratory limits.

CAS/Rochester Lab ID # for State Certifications

NELAP Accredited
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Illinois ID #200047
Maine ID #NY0032
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved

Nebraska Accredited
New Jersey ID # NY004
New York ID # 10145
New Hampshire ID # 294100 A/B
Pennsylvania Registration 68-786
Rhode Island ID # 158
West Virginia ID # 292



INORGANIC QUALIFIERS

C (Concentration) qualifier --

- B - if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but was greater than or equal to the Instrument Detection Limit (IDL). This qualifier may also be used to indicate that there was contamination above the reporting limit in the associated blank. See Narrative for details.
- U - if the analyte was analyzed for, but not detected

Q qualifier - Specified entries and their meanings are as follows:

- D - Spike was diluted out
- E - The reported value is estimated because the serial dilution did not meet criteria.
- J - Estimated Value
- M - Duplicate injection precision not met.
- N - Spiked sample recovery not within control limits.
- S - The reported value was determined by the Method of Standard Additions (MSA).
- W - Post-digestion spike for Furnace AA Analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
- * - Duplicate analysis not within control limits.
- + - Correlation coefficient for the MSA is less than 0.995.

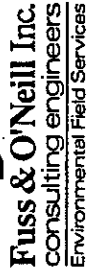
M (Method) qualifier:

- "P" for ICP
- "A" for Flame AA
- "F" for Furnace AA
- "PM" for ICP when Microwave Digestion is used
- "AM" for Flame AA when Microwave Digestion is used
- "FM" for Furnace M when Microwave Digestion is used
- "CV" for Manual Cold Vapor AA
- "AV" for Automated Cold Vapor AA
- "CA" for Midi-Distillation Spectrophotometric
- "AS" for Semi-Automated Spectrophotometric
- "C" for Manual Spectrophotometric
- "T" for Titrimetric
- " " where no data has been entered
- "NR" if the analyte is not required to be analyzed.

CAS/Rochester Lab ID # for State Certifications

NELAP Accredited
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Illinois ID #200047
Maine ID #NY0032
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved

Nebraska Accredited
New Jersey ID # NY004
New York ID # 10145
New Hampshire ID # 294100 A/B
Pennsylvania Registration 68-786
Rhode Island ID # 158
West Virginia ID # 292



400

CHAIN-OF-CUSTODY RECORD **Nº: 60889**

LABORATORY

AC Dutton

L=Lake/Pond/Ocean
PW=Potable Water
SG=Sludge
LF=Landfill
R=River/Stream
ST=Septic Tank

I = Treatment Facility W = Well
X = Other, Specify _____

[illegible]

Container Code :	P=Plastic	V=VOA Vial	C=Cube	G=Glass	A=Amber Glass	T=Teflon Lid	B=Bacteria Bottle
Preservative Code :	I=Icad	F=Filtered	N=Nitric Acid [HNO ₃]	H=Hydrochloric Acid [HCl]	S=Sodium Hydroxide [NaOH]	T=Sodium Thiosulfate [Na ₂ S ₂ O ₃]	
	R=Sodium Bisulfate [NaHSO ₄]			Q=Sulfuric Acid [H ₂ SO ₄]	A=Ascorbic Acid [C ₆ H ₈ O ₆]	X=Other, Specify	

Sampler's Signature		Affiliation	Date	Time	TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	ACCEPTED BY	DATE	TIME
Neal J. Fisher		FUSSCORNALL	12/9/2005		1			Neal J. Fisher	12/10/05	930
ADDITIONAL COMMENTS: PLEASE RETURN COOLER w/ ICE + temp.					2					
					3					
					4					

Cooler Receipt And Preservation Check Form

Project/Client FUSS: O'Neill Submission Number R2-29204

Cooler received on 12/10/05 by NRL COURIER: CAS UPS ~~FEDEX~~ VELOCITY CLIENT

1. Were custody seals on outside of cooler? YES ~~NO~~ *No Reling. signature*
2. Were custody papers properly filled out (ink, signed, etc.)? YES ~~NO~~
3. Did all bottles arrive in good condition (unbroken)? ~~YES~~ NO ~~N/A~~
4. Did any VOA vials have significant air bubbles? YES NO ~~N/A~~
5. Were Ice or Ice packs present? ~~YES~~ NO
6. Where did the bottles originate? CAS/ROC, ~~CLIENT~~
7. Temperature of cooler(s) upon receipt: 4

Is the temperature within 0° - 6° C?: ~~Yes~~ Yes Yes Yes Yes

If No, Explain Below No No No No No

Date/Time Temperatures Taken: 12/10/05 620

Thermometer ID: 161 or ~~IR GUN~~ Reading From: Temp Blank or ~~Sample Bottle~~

If out of Temperature, Client Approval to Run Samples

PC Secondary Review: MWP 12/11/05

Cooler Breakdown: Date: 12-12-05

by: KE

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? ~~YES~~ NO
2. Did all bottle labels and tags agree with custody papers? ~~YES~~ NO
3. Were correct containers used for the tests indicated? ~~YES~~ NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated ~~N/A~~

Explain any discrepancies:

		YES	NO	Sample I.D.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO ₃					
2	H ₂ SO ₄					
Residual Chlorine (+/-)	for TCN & Phenol					
5-9**	P/PCBs (608 only)					

YES = All samples OK

NO = Samples were preserved at lab as listed

PC OK to adjust pH

**If pH adjustment is required, use NaOH and/or H₂SO₄

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2		

Other Comments:

PC Secondary Review: _____

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL/TANK
Reported: 01/24/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-AA11 (12-13')

Date Sampled : 12/09/05 Order #: 866486 Sample Matrix: SOIL/SEDIMENT
Date Received: 12/10/05 Submission #: R2529204 Percent Solid: 84.1

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 12/19/05			
ANALYTICAL DILUTION: 1.00			Dry Weight
ACETONE	20	5.7 J	UG/KG
BENZENE	5.0	0.90 J	UG/KG
BROMODICHLOROMETHANE	5.0	5.9 U	UG/KG
BROMOFORM	5.0	5.9 U	UG/KG
BROMOMETHANE	5.0	5.9 U	UG/KG
2-BUTANONE (MEK)	10	12 U	UG/KG
SEC-BUTYLBENZENE	5.0	5.9 U	UG/KG
N-BUTYLBENZENE	5.0	5.9 U	UG/KG
TERT-BUTYLBENZENE	5.0	5.9 U	UG/KG
CARBON DISULFIDE	10	1.00 J	UG/KG
CARBON TETRACHLORIDE	5.0	5.9 U	UG/KG
CHLOROBENZENE	5.0	5.9 U	UG/KG
CHLOROETHANE	5.0	5.9 U	UG/KG
CHLOROFORM	5.0	5.9 U	UG/KG
CHLOROMETHANE	5.0	5.9 U	UG/KG
DIBROMOCHLOROMETHANE	5.0	5.9 U	UG/KG
1,1-DICHLOROETHANE	5.0	5.9 U	UG/KG
1,2-DICHLOROETHANE	5.0	5.9 U	UG/KG
1,1-DICHLOROETHENE	5.0	5.9 U	UG/KG
CIS-1,2-DICHLOROETHENE	5.0	5.9 U	UG/KG
TRANS-1,2-DICHLOROETHENE	5.0	5.9 U	UG/KG
1,2-DICHLOROPROPANE	5.0	5.9 U	UG/KG
CIS-1,3-DICHLOROPROPENE	5.0	5.9 U	UG/KG
TRANS-1,3-DICHLOROPROPENE	5.0	5.9 U	UG/KG
METHYL-TERT-BUTYL-ETHER	5.0	5.9 U	UG/KG
ETHYLBENZENE	5.0	5.9 U	UG/KG
2-HEXANONE	10	12 U	UG/KG
ISOPROPYL BENZENE	5.0	5.9 U	UG/KG
P-ISOPROPYLTOLUENE	5.0	5.9 U	UG/KG
METHYLENE CHLORIDE	5.0	9.9	UG/KG
NAPHTHALENE	5.0	5.9 U	UG/KG
4-METHYL-2-PENTANONE (MIBK)	10	12 U	UG/KG
N-PROPYLBENZENE	5.0	5.9 U	UG/KG
STYRENE	5.0	5.9 U	UG/KG
1,1,2,2-TETRACHLOROETHANE	5.0	5.9 U	UG/KG
TETRACHLOROETHENE	5.0	5.9 U	UG/KG
TOLUENE	5.0	5.9 U	UG/KG
1,1,1-TRICHLOROETHANE	5.0	5.9 U	UG/KG
1,1,2-TRICHLOROETHANE	5.0	5.9 U	UG/KG
TRICHLOROETHENE	5.0	5.9 U	UG/KG
1,3,5-TRIMETHYLBENZENE	5.0	5.9 U	UG/KG
1,2,4-TRIMETHYLBENZENE	5.0	5.9 U	UG/KG
VINYL CHLORIDE	5.0	5.9 U	UG/KG
O-XYLENE	5.0	5.9 U	UG/KG

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL/TANK
Reported: 01/24/06

Fuss & O'Neill, Inc

Project Reference: AC DUTTON

Client Sample ID : ACD-SL-AA11 (12-13')

Date Sampled : 12/09/05 Order #: 866486 Sample Matrix: SOIL/SEDIMENT
Date Received: 12/10/05 Submission #: R2529204 Percent Solid: 84.1

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 12/19/05			
ANALYTICAL DILUTION: 1.00			Dry Weight
M+P-XYLENE	5.0	5.9 U	UG/KG
SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(65 - 129 %)	90	%
TOLUENE-D8	(75 - 128 %)	98	%
DIBROMOFLUOROMETHANE	(62 - 133 %)	92	%

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS
METHOD 8260B TCL/TANK
Reported: 01/24/06Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-AA10 (12-14')Date Sampled : 12/09/05 Order #: 866487 Sample Matrix: SOIL/SEDIMENT
Date Received: 12/10/05 Submission #: R2529204 Percent Solid: 90.6

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 12/16/05			
ANALYTICAL DILUTION: 5.00			Dry Weight
ACETONE	20	32 J	UG/KG
BENZENE	5.0	36	UG/KG
BROMODICHLOROMETHANE	5.0	28 U	UG/KG
BROMOFORM	5.0	28 U	UG/KG
BROMOMETHANE	5.0	28 U	UG/KG
2-BUTANONE (MEK)	10	55 U	UG/KG
SEC-BUTYLBENZENE	5.0	28 U	UG/KG
N-BUTYLBENZENE	5.0	28 U	UG/KG
TERT-BUTYLBENZENE	5.0	28 U	UG/KG
CARBON DISULFIDE	10	4.2 J	UG/KG
CARBON TETRACHLORIDE	5.0	28 U	UG/KG
CHLOROBENZENE	5.0	28 U	UG/KG
CHLOROETHANE	5.0	28 U	UG/KG
CHLOROFORM	5.0	28 U	UG/KG
CHLOROMETHANE	5.0	28 U	UG/KG
DIBROMOCHLOROMETHANE	5.0	28 U	UG/KG
1,1-DICHLOROETHANE	5.0	28 U	UG/KG
1,2-DICHLOROETHANE	5.0	28 U	UG/KG
1,1-DICHLOROETHENE	5.0	28 U	UG/KG
CIS-1,2-DICHLOROETHENE	5.0	28 U	UG/KG
TRANS-1,2-DICHLOROETHENE	5.0	28 U	UG/KG
1,2-DICHLOROPROPANE	5.0	28 U	UG/KG
CIS-1,3-DICHLOROPROPENE	5.0	28 U	UG/KG
TRANS-1,3-DICHLOROPROPENE	5.0	28 U	UG/KG
METHYL-TERT-BUTYL-ETHER	5.0	28 U	UG/KG
ETHYLBENZENE	5.0	28 U	UG/KG
2-HEXANONE	10	55 U	UG/KG
ISOPROPYL BENZENE	5.0	28 U	UG/KG
P-ISOPROPYLTOLUENE	5.0	28 U	UG/KG
METHYLENE CHLORIDE	5.0	110	UG/KG
NAPHTHALENE	5.0	28 U	UG/KG
4-METHYL-2-PENTANONE (MIBK)	10	55 U	UG/KG
N-PROPYLBENZENE	5.0	28 U	UG/KG
STYRENE	5.0	28 U	UG/KG
1,1,2,2-TETRACHLOROETHANE	5.0	28 U	UG/KG
TETRACHLOROETHENE	5.0	28 U	UG/KG
TOLUENE	5.0	1.8 J	UG/KG
1,1,1-TRICHLOROETHANE	5.0	28 U	UG/KG
1,1,2-TRICHLOROETHANE	5.0	28 U	UG/KG
TRICHLOROETHENE	5.0	28 U	UG/KG
1,3,5-TRIMETHYLBENZENE	5.0	28 U	UG/KG
1,2,4-TRIMETHYLBENZENE	5.0	28 U	UG/KG
VINYL CHLORIDE	5.0	28 U	UG/KG
O-XYLENE	5.0	28 U	UG/KG

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL/TANK
Reported: 01/24/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-AA10 (12-14')

Date Sampled : 12/09/05 Order #: 866487 Sample Matrix: SOIL/SEDIMENT
Date Received: 12/10/05 Submission #: R2529204 Percent Solid: 90.6

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 12/16/05			
ANALYTICAL DILUTION: 5.00			Dry Weight
M+P-XYLENE	5.0	28 U	UG/KG
<u>SURROGATE RECOVERIES</u>	<u>QC LIMITS</u>		
4-BROMOFLUOROBENZENE	(65 - 129 %)	95	%
TOLUENE-D8	(75 - 128 %)	99	%
DIBROMOFLUOROMETHANE	(62 - 133 %)	93	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TANK LIST
Reported: 01/24/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-U5 (4-8')

Date Sampled : 12/09/05 Order #: 866488 Sample Matrix: SOIL/SEDIMENT
Date Received: 12/10/05 Submission #: R2529204 Percent Solid: 86.5

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 12/19/05			
ANALYTICAL DILUTION: 1.00			Dry Weight
BENZENE	5.0	5.8 U	UG/KG
N-BUTYLBENZENE	5.0	5.8 U	UG/KG
SEC-BUTYLBENZENE	5.0	5.8 U	UG/KG
TERT-BUTYLBENZENE	5.0	5.8 U	UG/KG
METHYL-TERT-BUTYL-ETHER	5.0	5.8 U	UG/KG
ETHYLBENZENE	5.0	5.8 U	UG/KG
ISOPROPYL BENZENE	5.0	5.8 U	UG/KG
P-ISOPROPYLTOLUENE	5.0	5.8 U	UG/KG
NAPHTHALENE	5.0	5.8 U	UG/KG
N-PROPYLBENZENE	5.0	5.8 U	UG/KG
TOLUENE	5.0	5.8 U	UG/KG
1,2,4-TRIMETHYLBENZENE	5.0	5.8 U	UG/KG
1,3,5-TRIMETHYLBENZENE	5.0	5.8 U	UG/KG
O-XYLENE	5.0	5.8 U	UG/KG
M+P-XYLENE	5.0	5.8 U	UG/KG

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(65 - 129 %)	94	%
TOLUENE-D8	(75 - 128 %)	97	%
DIBROMOFLUOROMETHANE	(62 - 133 %)	90	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TANK LIST
Reported: 01/24/06Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-U6 (6-8')Date Sampled : 12/09/05 Order #: 866489 Sample Matrix: SOIL/SEDIMENT
Date Received: 12/10/05 Submission #: R2529204 Percent Solid: 80.3

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 12/19/05			
ANALYTICAL DILUTION: 1.00			Dry Weight
BENZENE	5.0	6.2 U	UG/KG
N-BUTYLBENZENE	5.0	6.2 U	UG/KG
SEC-BUTYLBENZENE	5.0	6.2 U	UG/KG
TERT-BUTYLBENZENE	5.0	6.2 U	UG/KG
METHYL-TERT-BUTYL-ETHER	5.0	6.2 U	UG/KG
ETHYLBENZENE	5.0	6.2 U	UG/KG
ISOPROPYL BENZENE	5.0	6.2 U	UG/KG
P-ISOPROPYLTOLUENE	5.0	6.2 U	UG/KG
NAPHTHALENE	5.0	6.2 U	UG/KG
N-PROPYLBENZENE	5.0	6.2 U	UG/KG
TOLUENE	5.0	6.2 U	UG/KG
1,2,4-TRIMETHYLBENZENE	5.0	6.2 U	UG/KG
1,3,5-TRIMETHYLBENZENE	5.0	6.2 U	UG/KG
O-XYLENE	5.0	6.2 U	UG/KG
M+P-XYLENE	5.0	6.2 U	UG/KG

SURROGATE RECOVERIES

QC LIMITS

4-BROMOFLUOROBENZENE	(65 - 129 %)	95	%
TOLUENE-D8	(75 - 128 %)	98	%
DIBROMOFLUOROMETHANE	(62 - 133 %)	91	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL/TANK
Reported: 01/24/06

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : Order #: 870577 Sample Matrix: SOIL/SEDIMENT
Date Received: Submission #: Percent Solid: 100

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 12/15/05			
ANALYTICAL DILUTION: 1.00			Dry Weight
ACETONE	20	20 U	UG/KG
BENZENE	5.0	5.0 U	UG/KG
BROMODICHLOROMETHANE	5.0	5.0 U	UG/KG
BROMOFORM	5.0	5.0 U	UG/KG
BROMOMETHANE	5.0	5.0 U	UG/KG
2-BUTANONE (MEK)	10	10 U	UG/KG
SEC-BUTYLBENZENE	5.0	5.0 U	UG/KG
N-BUTYLBENZENE	5.0	5.0 U	UG/KG
TERT-BUTYLBENZENE	5.0	5.0 U	UG/KG
CARBON DISULFIDE	10	10 U	UG/KG
CARBON TETRACHLORIDE	5.0	5.0 U	UG/KG
CHLOROBENZENE	5.0	5.0 U	UG/KG
CHLOROETHANE	5.0	5.0 U	UG/KG
CHLOROFORM	5.0	5.0 U	UG/KG
CHLOROMETHANE	5.0	5.0 U	UG/KG
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/KG
1,1-DICHLOROETHANE	5.0	5.0 U	UG/KG
1,2-DICHLOROETHANE	5.0	5.0 U	UG/KG
1,1-DICHLOROETHENE	5.0	5.0 U	UG/KG
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/KG
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/KG
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/KG
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/KG
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/KG
METHYL-TERT-BUTYL-ETHER	5.0	5.0 U	UG/KG
ETHYLBENZENE	5.0	5.0 U	UG/KG
2-HEXANONE	10	10 U	UG/KG
ISOPROPYL BENZENE	5.0	5.0 U	UG/KG
P-ISOPROPYLTOLUENE	5.0	5.0 U	UG/KG
METHYLENE CHLORIDE	5.0	0.35 J	UG/KG
NAPHTHALENE	5.0	5.0 U	UG/KG
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/KG
N-PROPYLBENZENE	5.0	5.0 U	UG/KG
STYRENE	5.0	5.0 U	UG/KG
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/KG
TETRACHLOROETHENE	5.0	5.0 U	UG/KG
TOLUENE	5.0	5.0 U	UG/KG
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/KG
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/KG
TRICHLOROETHENE	5.0	5.0 U	UG/KG
1,3,5-TRIMETHYLBENZENE	5.0	5.0 U	UG/KG
1,2,4-TRIMETHYLBENZENE	5.0	5.0 U	UG/KG
VINYL CHLORIDE	5.0	5.0 U	UG/KG
O-XYLENE	5.0	5.0 U	UG/KG
M+P-XYLENE	5.0	5.0 U	UG/KG

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL/TANK
Reported: 01/24/06

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled :	Order #: 870577	Sample Matrix: SOIL/SEDIMENT
Date Received:	Submission #:	Percent Solid: 100

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 12/15/05		
ANALYTICAL DILUTION:	1.00		Dry Weight

<u>SURROGATE RECOVERIES</u>	<u>QC LIMITS</u>		
4-BROMOFLUOROBENZENE	(65 - 129 %)	96	%
TOLUENE-D8	(75 - 128 %)	98	%
DIBROMOFLUOROMETHANE	(62 - 133 %)	95	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL/TANK
Reported: 01/24/06

Project Reference:

Client Sample ID : METHOD BLANK

Date Sampled : Order #: 870584 Sample Matrix: SOIL/SEDIMENT
Date Received: Submission #: Percent Solid: 100

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 12/19/05			
ANALYTICAL DILUTION: 1.00			Dry Weight
ACETONE	20	20 U	UG/KG
BENZENE	5.0	5.0 U	UG/KG
BROMODICHLOROMETHANE	5.0	5.0 U	UG/KG
BROMOFORM	5.0	5.0 U	UG/KG
BROMOMETHANE	5.0	5.0 U	UG/KG
2-BUTANONE (MEK)	10	10 U	UG/KG
SEC-BUTYLBENZENE	5.0	5.0 U	UG/KG
N-BUTYLBENZENE	5.0	5.0 U	UG/KG
TERT-BUTYLBENZENE	5.0	5.0 U	UG/KG
CARBON DISULFIDE	10	10 U	UG/KG
CARBON TETRACHLORIDE	5.0	5.0 U	UG/KG
CHLOROBENZENE	5.0	5.0 U	UG/KG
CHLOROETHANE	5.0	5.0 U	UG/KG
CHLOROFORM	5.0	5.0 U	UG/KG
CHLOROMETHANE	5.0	5.0 U	UG/KG
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/KG
1,1-DICHLOROETHANE	5.0	5.0 U	UG/KG
1,2-DICHLOROETHANE	5.0	5.0 U	UG/KG
1,1-DICHLOROETHENE	5.0	5.0 U	UG/KG
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/KG
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/KG
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/KG
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/KG
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/KG
METHYL-TERT-BUTYL-ETHER	5.0	5.0 U	UG/KG
ETHYLBENZENE	5.0	5.0 U	UG/KG
2-HEXANONE	10	10 U	UG/KG
ISOPROPYL BENZENE	5.0	5.0 U	UG/KG
P-ISOPROPYLTOLUENE	5.0	5.0 U	UG/KG
METHYLENE CHLORIDE	5.0	5.0 U	UG/KG
NAPHTHALENE	5.0	5.0 U	UG/KG
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/KG
N-PROPYLBENZENE	5.0	5.0 U	UG/KG
STYRENE	5.0	5.0 U	UG/KG
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/KG
TETRACHLOROETHENE	5.0	5.0 U	UG/KG
TOLUENE	5.0	5.0 U	UG/KG
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/KG
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/KG
TRICHLOROETHENE	5.0	5.0 U	UG/KG
1,3,5-TRIMETHYLBENZENE	5.0	5.0 U	UG/KG
1,2,4-TRIMETHYLBENZENE	5.0	5.0 U	UG/KG
VINYL CHLORIDE	5.0	5.0 U	UG/KG
O-XYLENE	5.0	5.0 U	UG/KG
M+P-XYLENE	5.0	5.0 U	UG/KG

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL/TANK
Reported: 01/24/06

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled :	Order #: 870584	Sample Matrix: SOIL/SEDIMENT
Date Received:	Submission #:	Percent Solid: 100

ANALYTE	PQL	RESULT	UNITS

DATE ANALYZED	: 12/19/05		
ANALYTICAL DILUTION:	1.00		Dry Weight

<u>SURROGATE RECOVERIES</u>	<u>QC LIMITS</u>		
4-BROMOFLUOROBENZENE	(65 - 129 %)	96	%
TOLUENE-D8	(75 - 128 %)	97	%
DIBROMOFLUOROMETHANE	(62 - 133 %)	91	%

COLUMBIA ANALYTICAL SERVICES

QUALITY CONTROL SUMMARY MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
SOIL/SEDIMENT

Spiked Order No. : 866486 Fuss & O'Neill, Inc

Client ID: ACD-SL-AA11 (12-13')

Test: 8260B TCL/TANK

Analytical Units: UG/KG

Run Number : 124577

Percent Solid : 84.1

ANALYTE	SPIKE ADDED	CONCENT. SAMPLE	MATRIX SPIKE		MATRIX SPIKE DUP.				QC LIMITS	
			FOUND	% REC.	FOUND	% REC.	RPD	RPD	REC.	
BENZENE	59.5	0.904	52.3	86	54.7	90	4	30	70 - 130	
CHLOROBENZENE	59.5	0	46.4	78	47.6	80	3	30	70 - 130	
1,1-DICHLOROETHENE	59.5	0	55.9	94	57.1	96	2	30	70 - 130	
TOLUENE	59.5	0	52.3	88	52.3	88	0	30	70 - 130	
TRICHLOROETHENE	59.5	0	47.6	80	49.9	84	5	30	70 - 130	

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS
METHOD: 8260B TCL/TANKLABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 870582

ANALYTICAL RUN #: 124577

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 12/15/05			
ANALYTICAL DILUTION: 1.0			
ACETONE	20.0	117	50 - 150
BENZENE	20.0	94	70 - 130
BROMODICHLOROMETHANE	20.0	92	70 - 130
BROMOFORM	20.0	95	70 - 130
BROMOMETHANE	20.0	94	50 - 150
2-BUTANONE (MEK)	20.0	89	50 - 150
SEC-BUTYLBENZENE	20.0	76	70 - 130
N-BUTYLBENZENE	20.0	76	70 - 130
TERT-BUTYLBENZENE	20.0	87	70 - 130
CARBON DISULFIDE	20.0	106	70 - 130
CARBON TETRACHLORIDE	20.0	87	70 - 130
CHLOROBENZENE	20.0	89	70 - 130
CHLOROETHANE	20.0	90	70 - 130
CHLOROFORM	20.0	92	70 - 130
CHLOROMETHANE	20.0	86	70 - 130
DIBROMOCHLOROMETHANE	20.0	95	70 - 130
1,1-DICHLOROETHANE	20.0	93	70 - 130
1,2-DICHLOROETHANE	20.0	97	70 - 130
1,1-DICHLOROETHENE	20.0	97	70 - 130
CIS-1,2-DICHLOROETHENE	20.0	93	70 - 130
TRANS-1,2-DICHLOROETHENE	20.0	86	70 - 130
1,2-DICHLOROPROPANE	20.0	93	70 - 130
CIS-1,3-DICHLOROPROPENE	20.0	91	70 - 130
TRANS-1,3-DICHLOROPROPENE	20.0	91	70 - 130
METHYL-TERT-BUTYL-ETHER	20.0	92	70 - 130
ETHYLBENZENE	20.0	89	70 - 130
2-HEXANONE	20.0	92	70 - 130
ISOPROPYL BENZENE	20.0	85	70 - 130
P-ISOPROPYLTOLUENE	20.0	83	70 - 130
METHYLENE CHLORIDE	20.0	100	70 - 130
NAPHTHALENE	20.0	89	50 - 150
4-METHYL-2-PENTANONE (MIBK)	20.0	96	70 - 130
N-PROPYLBENZENE	20.0	80	70 - 130
STYRENE	20.0	88	70 - 130
1,1,2,2-TETRACHLOROETHANE	20.0	88	70 - 130
TETRACHLOROETHENE	20.0	85	70 - 130
TOLUENE	20.0	91	70 - 130
1,1,1-TRICHLOROETHANE	20.0	89	70 - 130
1,1,2-TRICHLOROETHANE	20.0	93	70 - 130
TRICHLOROETHENE	20.0	91	70 - 130
1,3,5-TRIMETHYLBENZENE	20.0	84	70 - 130

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD: 8260B TCL/TANK

LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 870582

ANALYTICAL RUN # : 124577

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 12/15/05			
ANALYTICAL DILUTION: 1.0			
1,2,4-TRIMETHYLBENZENE	20.0	87	70 - 130
VINYL CHLORIDE	20.0	87	70 - 130
O-XYLENE	20.0	88	70 - 130
M+P-XYLENE	40.0	87	70 - 130

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS
METHOD: 8260B TCL/TANKLABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 870585

ANALYTICAL RUN #: 124577

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 12/19/05			
ANALYTICAL DILUTION: 1.0			
ACETONE	20.0	135	50 - 150
BENZENE	20.0	99	70 - 130
BROMODICHLOROMETHANE	20.0	97	70 - 130
BROMOFORM	20.0	101	70 - 130
BROMOMETHANE	20.0	110	50 - 150
2-BUTANONE (MEK)	20.0	98	50 - 150
SEC-BUTYLBENZENE	20.0	91	70 - 130
N-BUTYLBENZENE	20.0	96	70 - 130
TERT-BUTYLBENZENE	20.0	99	70 - 130
CARBON DISULFIDE	20.0	104	70 - 130
CARBON TETRACHLORIDE	20.0	97	70 - 130
CHLOROBENZENE	20.0	101	70 - 130
CHLOROETHANE	20.0	96	70 - 130
CHLOROFORM	20.0	100	70 - 130
CHLOROMETHANE	20.0	89	70 - 130
DIBROMOCHLOROMETHANE	20.0	100	70 - 130
1,1-DICHLOROETHANE	20.0	98	70 - 130
1,2-DICHLOROETHANE	20.0	95	70 - 130
1,1-DICHLOROETHENE	20.0	109	70 - 130
CIS-1,2-DICHLOROETHENE	20.0	101	70 - 130
TRANS-1,2-DICHLOROETHENE	20.0	98	70 - 130
1,2-DICHLOROPROPANE	20.0	95	70 - 130
CIS-1,3-DICHLOROPROPENE	20.0	97	70 - 130
TRANS-1,3-DICHLOROPROPENE	20.0	94	70 - 130
METHYL-TERT-BUTYL-ETHER	20.0	98	70 - 130
ETHYLBENZENE	20.0	100	70 - 130
2-HEXANONE	20.0	98	70 - 130
ISOPROPYL BENZENE	20.0	95	70 - 130
P-ISOPROPYLTOLUENE	20.0	100	70 - 130
METHYLENE CHLORIDE	20.0	104	70 - 130
NAPHTHALENE	20.0	109	50 - 150
4-METHYL-2-PENTANONE (MIBK)	20.0	102	70 - 130
N-PROPYLBENZENE	20.0	98	70 - 130
STYRENE	20.0	99	70 - 130
1,1,2,2-TETRACHLOROETHANE	20.0	103	70 - 130
TETRACHLOROETHENE	20.0	103	70 - 130
TOLUENE	20.0	100	70 - 130
1,1,1-TRICHLOROETHANE	20.0	98	70 - 130
1,1,2-TRICHLOROETHANE	20.0	103	70 - 130
TRICHLOROETHENE	20.0	99	70 - 130
1,3,5-TRIMETHYLBENZENE	20.0	99	70 - 130

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD: 8260B TCL/TANK

LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 870585

ANALYTICAL RUN # : 124577

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 12/19/05			
ANALYTICAL DILUTION: 1.0			
1,2,4-TRIMETHYLBENZENE	20.0	99	70 - 130
VINYL CHLORIDE	20.0	97	70 - 130
O-XYLENE	20.0	102	70 - 130
M+P-XYLENE	40.0	99	70 - 130

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS

METHOD 8270C STARS LIST SEMIVOLATIL

Reported: 01/24/06

Fuss & O'Neill, Inc

Project Reference: AC DUTTON

Client Sample ID : ACD-SL-AA11 (12-13')

Date Sampled : 12/09/05

Order #: 866486

Sample Matrix: SOIL/SEDIMENT

Date Received: 12/10/05

Submission #: R2529204

Percent Solid: 84.1

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 12/22/05			
DATE ANALYZED : 01/14/06			
ANALYTICAL DILUTION: 2.00			Dry Weight
ACENAPHTHENE	330	780 U	UG/KG
ANTHRACENE	330	780 U	UG/KG
BENZO (A) ANTHRACENE	330	200 J	UG/KG
BENZO (A) PYRENE	330	210 J	UG/KG
BENZO (B) FLUORANTHENE	330	180 J	UG/KG
BENZO (G, H, I) PERYLENE	330	170 J	UG/KG
BENZO (K) FLUORANTHENE	330	220 J	UG/KG
INDENO (1, 2, 3-CD) PYRENE	330	160 J	UG/KG
CHRYSENE	330	200 J	UG/KG
DIBENZO (A, H) ANTHRACENE	330	780 U	UG/KG
FLUORANTHENE	330	230 J	UG/KG
FLUORENE	330	780 U	UG/KG
NAPHTHALENE	200	480 U	UG/KG
PHENANTHRENE	330	130 J	UG/KG
PYRENE	330	200 J	UG/KG

SURROGATE RECOVERIESQC LIMITS

TERPHENYL-d14	(48 - 131 %)	87	%
NITROBENZENE-d5	(27 - 130 %)	72	%
2-FLUOROBIPHENYL	(32 - 130 %)	80	%

COLUMBIA ANALYTICAL SERVICESEXTRACTABLE ORGANICS
METHOD 8270C STARS LIST SEMIVOLATIL
Reported: 01/24/06Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-AA10 (12-14')Date Sampled : 12/09/05 Order #: 866487 Sample Matrix: SOIL/SEDIMENT
Date Received: 12/10/05 Submission #: R2529204 Percent Solid: 90.6

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 12/22/05			
DATE ANALYZED : 01/14/06			
ANALYTICAL DILUTION: 1.00			Dry Weight
ACENAPHTHENE	330	360 U	UG/KG
ANTHRACENE	330	360 U	UG/KG
BENZO (A) ANTHRACENE	330	280 J	UG/KG
BENZO (A) PYRENE	330	260 J	UG/KG
BENZO (B) FLUORANTHENE	330	160 J	UG/KG
BENZO (G, H, I) PERYLENE	330	160 J	UG/KG
BENZO (K) FLUORANTHENE	330	160 J	UG/KG
INDENO (1, 2, 3-CD) PYRENE	330	92 J	UG/KG
CHRYSENE	330	240 J	UG/KG
DIBENZO (A, H) ANTHRACENE	330	37 J	UG/KG
FLUORANTHENE	330	400	UG/KG
FLUORENE	330	360 U	UG/KG
NAPHTHALENE	200	150 J	UG/KG
PHENANTHRENE	330	360 U	UG/KG
PYRENE	330	990	UG/KG

SURROGATE RECOVERIESQC LIMITS

TERPHENYL-d14	(48 - 131 %)	90	%
NITROBENZENE-d5	(27 - 130 %)	77	%
2-FLUOROBIPHENYL	(32 - 130 %)	82	%

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
 METHOD 8270C STARS LIST SEMIVOLATIL
 Reported: 01/24/06

Fuss & O'Neill, Inc
 Project Reference: AC DUTTON
 Client Sample ID : ACD-SL-U5 (4-8')

Date Sampled : 12/09/05 Order #: 866488 Sample Matrix: SOIL/SEDIMENT
 Date Received: 12/10/05 Submission #: R2529204 Percent Solid: 86.5

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 12/22/05			
DATE ANALYZED : 01/14/06			
ANALYTICAL DILUTION: 1.00			Dry Weight
ACENAPHTHENE	330	380 U	UG/KG
ANTHRACENE	330	380 U	UG/KG
BENZO (A) ANTHRACENE	330	380 U	UG/KG
BENZO (A) PYRENE	330	380 U	UG/KG
BENZO (B) FLUORANTHENE	330	380 U	UG/KG
BENZO (G, H, I) PERYLENE	330	380 U	UG/KG
BENZO (K) FLUORANTHENE	330	380 U	UG/KG
INDENO (1, 2, 3-CD) PYRENE	330	380 U	UG/KG
CHRYSENE	330	380 U	UG/KG
DIBENZO (A, H) ANTHRACENE	330	380 U	UG/KG
FLUORANTHENE	330	380 U	UG/KG
FLUORENE	330	380 U	UG/KG
NAPHTHALENE	200	160 J	UG/KG
PHENANTHRENE	330	380 U	UG/KG
PYRENE	330	380 U	UG/KG

SURROGATE RECOVERIES	QC LIMITS		
TERPHENYL-d14	(48 - 131 %)	95	%
NITROBENZENE-d5	(27 - 130 %)	69	%
2-FLUOROBIPHENYL	(32 - 130 %)	76	%

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C STARS LIST SEMIVOLATIL
Reported: 01/24/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-U6 (6-8')

Date Sampled : 12/09/05 Order #: 866489 Sample Matrix: SOIL/SEDIMENT
Date Received: 12/10/05 Submission #: R2529204 Percent Solid: 80.3

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 12/22/05			
DATE ANALYZED : 01/14/06			
ANALYTICAL DILUTION: 1.00			Dry Weight
ACENAPHTHENE	330	410 U	UG/KG
ANTHRACENE	330	410 U	UG/KG
BENZO (A) ANTHRACENE	330	410 U	UG/KG
BENZO (A) PYRENE	330	410 U	UG/KG
BENZO (B) FLUORANTHENE	330	410 U	UG/KG
BENZO (G, H, I) PERYLENE	330	410 U	UG/KG
BENZO (K) FLUORANTHENE	330	410 U	UG/KG
INDENO (1, 2, 3-CD) PYRENE	330	410 U	UG/KG
CHRYSENE	330	410 U	UG/KG
DIBENZO (A, H) ANTHRACENE	330	410 U	UG/KG
FLUORANTHENE	330	72 J	UG/KG
FLUORENE	330	410 U	UG/KG
NAPHTHALENE	200	250 U	UG/KG
PHENANTHRENE	330	140 J	UG/KG
PYRENE	330	120 J	UG/KG

SURROGATE RECOVERIESQC LIMITS

TERPHENYL-d14	(48 - 131 %)	104	%
NITROBENZENE-d5	(27 - 130 %)	89	%
2-FLUOROBIPHENYL	(32 - 130 %)	100	%

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C STARS LIST SEMIVOLATIL
Reported: 01/24/06

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : Order #: 874614 Sample Matrix: SOIL/SEDIMENT
Date Received: Submission #: Percent Solid: 100

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 12/22/05			
DATE ANALYZED : 01/13/06			
ANALYTICAL DILUTION: 1.00			Dry Weight
ACENAPHTHENE	330	330 U	UG/KG
ANTHRACENE	330	330 U	UG/KG
BENZO (A) ANTHRACENE	330	330 U	UG/KG
BENZO (A) PYRENE	330	330 U	UG/KG
BENZO (B) FLUORANTHENE	330	330 U	UG/KG
BENZO (G, H, I) PERYLENE	330	330 U	UG/KG
BENZO (K) FLUORANTHENE	330	330 U	UG/KG
INDENO (1, 2, 3-CD) PYRENE	330	330 U	UG/KG
CHRYSENE	330	330 U	UG/KG
DIBENZO (A, H) ANTHRACENE	330	330 U	UG/KG
FLUORANTHENE	330	330 U	UG/KG
FLUORENE	330	330 U	UG/KG
NAPHTHALENE	200	200 U	UG/KG
PHENANTHRENE	330	330 U	UG/KG
PYRENE	330	330 U	UG/KG

SURROGATE RECOVERIESQC LIMITS

TERPHENYL-d14	(48 - 131 %)	83	%
NITROBENZENE-d5	(27 - 130 %)	61	%
2-FLUOROBIPHENYL	(32 - 130 %)	65	%

COLUMBIA ANALYTICAL SERVICES

QUALITY CONTROL SUMMARY: LABORATORY CONTROL SAMPLE
SOIL/SEDIMENT

Spiked Order No. : 874615

Dup Spiked Order No. : 874616

Client ID:

Test: 8270C STARS LIST SEMIVOLATILES

Analytical Units: UG/KG

Run Number : 125208

ANALYTE	SPIKE ADDED	SAMPLE CONCENT.	BLANK SPIKE		BLANK SPIKE DUP.				QC LIMITS	
			FOUND.	% REC.	FOUND.	% REC.	RPD	RPD	REC.	
ACENAPHTHENE	3300	0	2940	88	3300	99	12	19	47 - 123	
ANTHRACENE	3300	0	3070	92	3320	100	8	30	44 - 125	
BENZO (A) ANTHRACENE	3300	0	3070	92	3430	103	11	30	48 - 122	
BENZO (A) PYRENE	3300	0	3060	92	3340	100	9	30	49 - 126	
BENZO (B) FLUORANTHENE	3300	0	3170	95	3540	106	11	30	42 - 128	
BENZO (G, H, I) PERYLENE	3300	0	3040	91	3440	103	12	30	42 - 126	
BENZO (K) FLUORANTHENE	3300	0	3260	98	3540	106	8	30	48 - 124	
INDENO (1,2,3-CD) PYRENE	3300	0	3030	91	3360	101	10	30	41 - 127	
CHRYSENE	3300	0	3060	92	3420	103	11	30	49 - 122	
DIBENZO (A,H) ANTHRACENE	3300	0	3290	99	3630	109	10	30	23 - 140	
FLUORANTHENE	3300	0	3210	96	3420	103	6	30	42 - 124	
FLUORENE	3300	0	3060	92	3220	97	5	30	36 - 128	
NAPHTHALENE	3300	0	2600	78	2880	86	10	30	38 - 116	
PHENANTHRENE	3300	0	3130	94	3450	104	10	30	48 - 130	
PYRENE	3300	0	3080	92	3410	102	10	36	53 - 130	

COLUMBIA ANALYTICAL SERVICES

Reported: 01/24/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-AA11 (12-13')

Date Sampled : 12/09/05 Order #: 866486 Sample Matrix: SOIL/SEDIMENT
Date Received: 12/10/05 Submission #: R2529204

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.3M	1.0	84.1	%	12/29/05	12:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/24/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-AA10 (12-14')

Date Sampled : 12/09/05
Date Received: 12/10/05

Order #: 866487
Submission #: R2529204

Sample Matrix: SOIL/SEDIMENT

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.3M	1.0	90.6	%	12/29/05	12:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/24/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-U5 (4-8')

Date Sampled : 12/09/05
Date Received: 12/10/05

Order #: 866488
Submission #: R2529204

Sample Matrix: SOIL/SEDIMENT

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.3M	1.0	86.5	%	12/29/05	12:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/24/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-U6 (6-8')

Date Sampled : 12/09/05	Order #: 866489	Sample Matrix: SOIL/SEDIMENT
Date Received: 12/10/05	Submission #: R2529204	

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.3M	1.0	80.3	%	12/29/05	12:30	1.0



Columbia
Analytical
Services Inc.

1 Mustard St., Suite 250
Rochester, NY 14609

Date: January 25, 2006
Number of pages: 24

To:

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RUSH REPORT

Submission #: R2629759

Project Reference: AC DUTTON

RCRA 8 Metals

E4 (3-6)	E5 (3-6)
G2 (1.5-3)	V9 (3-6)
T10 (1.5-3)	G4 (10-11)
B3 (0-.5)	S4 (2-3)
D2 (6-8)	H7 (1.5-3)
AA10 (8-10)	Q6 (1-3)
C4 (1.5-3)	I9 (2-5)
L4 (1.5-3)	Z9 (3-6)
Y12 (1.5-4)	
A3 (1.5-2.5)	

TCLP (RCRA 8 Metals)

E4 (3-6)
G2 (1.5-3)
T10 (1.5-3)
B3 (0-.5)
D2 (6-8)
AA10 (8-10)

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COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : E4 (3-6')

Date Sampled : 01/06/06
Date Received: 01/07/06

Order #: 873205
Submission #: R2629759

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	44.2	MG/KG	01/23/06	10.0
BARIUM	2.00	106	MG/KG	01/23/06	10.0
CADMIUM	0.500	6.14 U	MG/KG	01/23/06	10.0
CHROMIUM	1.00	19.7	MG/KG	01/23/06	10.0
COPPER	2.00	24.6 U	MG/KG	01/23/06	10.0
LEAD	5.00	77.1	MG/KG	01/23/06	10.0
MERCURY	0.0333	0.0409 U	MG/KG	01/13/06	1.00
SELENIUM	2.00	24.6 U	MG/KG	01/23/06	10.0
SILVER	1.00	12.3 U	MG/KG	01/23/06	10.0
WET CHEMISTRY					
PERCENT SOLIDS	1.0	81.4	%	01/11/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc

Project Reference: AC DUTTON

Client Sample ID 23 (0.5-3')

G2

LMG

Date Sampled : 01/06/06

Order #: 873206

Sample Matrix: SOIL/SEDIMENT

Date Received: 01/07/06

Submission #: R2629759

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	811	MG/KG	01/23/06	10.0
BARIUM	2.00	33.9	MG/KG	01/23/06	1.00
CADMIUM	0.500	0.878	MG/KG	01/23/06	1.00
CHROMIUM	1.00	469	MG/KG	01/19/06	1.00
COPPER	2.00	876	MG/KG	01/23/06	10.0
LEAD	5.00	30.5	MG/KG	01/19/06	1.00
MERCURY	0.0333	0.126	MG/KG	01/13/06	1.00
SELENIUM	2.00	2.23 U	MG/KG	01/19/06	1.00
SILVER	1.00	1.12 U	MG/KG	01/19/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	89.5	%	01/11/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : T10 (0.5-3')

Date Sampled : 01/06/06
Date Received: 01/07/06

Order #: 873207
Submission #: R2629759

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	36.1	MG/KG	01/23/06	2.00
BARIUM	2.00	121	MG/KG	01/23/06	2.00
CADMIUM	0.500	1.37 U	MG/KG	01/23/06	2.00
CHROMIUM	1.00	9.23	MG/KG	01/23/06	2.00
COPPER	2.00	33.7	MG/KG	01/23/06	2.00
LEAD	5.00	40.3	MG/KG	01/23/06	2.00
MERCURY	0.0333	0.184	MG/KG	01/13/06	1.00
SELENIUM	2.00	5.46 U	MG/KG	01/23/06	2.00
SILVER	1.00	2.73 U	MG/KG	01/23/06	2.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	73.2	%	01/11/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : B3 (0-0.5')

Date Sampled : 01/06/06
Date Received: 01/07/06

Order #: 873208
Submission #: R2629759

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	18.2	MG/KG	01/23/06	2.00
BARIUM	2.00	63.0	MG/KG	01/23/06	2.00
CADMIUM	0.500	1.12 U	MG/KG	01/23/06	2.00
CHROMIUM	1.00	13.9	MG/KG	01/23/06	2.00
COPPER	2.00	20.3	MG/KG	01/23/06	2.00
LEAD	5.00	19.6	MG/KG	01/23/06	2.00
MERCURY	0.0333	0.0488	MG/KG	01/13/06	1.00
SELENIUM	2.00	4.48 U	MG/KG	01/23/06	2.00
SILVER	1.00	2.24 U	MG/KG	01/23/06	2.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	89.2	%	01/11/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : D2 (6-8')

Date Sampled : 01/06/06
Date Received: 01/07/06

Order #: 873209
Submission #: R2629759

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	6.04	MG/KG	01/19/06	1.00
BARIUM	2.00	22.2	MG/KG	01/23/06	1.00
CADMIUM	0.500	1.35	MG/KG	01/23/06	1.00
CHROMIUM	1.00	15.9	MG/KG	01/19/06	1.00
COPPER	2.00	33.2	MG/KG	01/19/06	1.00
LEAD	5.00	13.8	MG/KG	01/19/06	1.00
MERCURY	0.0333	0.0386 U	MG/KG	01/13/06	1.00
SELENIUM	2.00	2.32 U	MG/KG	01/19/06	1.00
SILVER	1.00	1.16 U	MG/KG	01/19/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	86.2	%	01/11/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : AA10 (8-10')

Date Sampled : 01/06/06
Date Received: 01/07/06

Order #: 873210
Submission #: R2629759

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	7.10	MG/KG	01/19/06	1.00
BARIUM	2.00	45.5	MG/KG	01/23/06	1.00
CADMIUM	0.500	1.50	MG/KG	01/23/06	1.00
CHROMIUM	1.00	20.4	MG/KG	01/19/06	1.00
COPPER	2.00	44.2	MG/KG	01/19/06	1.00
LEAD	5.00	18.4	MG/KG	01/19/06	1.00
MERCURY	0.0333	0.0595	MG/KG	01/13/06	1.00
SELENIUM	2.00	2.30 U	MG/KG	01/19/06	1.00
SILVER	1.00	1.15 U	MG/KG	01/19/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	87.1	%	01/11/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : C4 (0.5-3')

Date Sampled : 01/06/06
Date Received: 01/07/06

Order #: 873211
Submission #: R2629759

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	7.79	MG/KG	01/19/06	1.00
BARIUM	2.00	32.8	MG/KG	01/23/06	1.00
CADMIUM	0.500	1.13	MG/KG	01/23/06	1.00
CHROMIUM	1.00	8.47	MG/KG	01/19/06	1.00
COPPER	2.00	50.2	MG/KG	01/19/06	1.00
LEAD	5.00	33.0	MG/KG	01/19/06	1.00
MERCURY	0.0333	0.123	MG/KG	01/13/06	1.00
SELENIUM	2.00	2.18 U	MG/KG	01/19/06	1.00
SILVER	1.00	1.09 U	MG/KG	01/19/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	91.7	%	01/11/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : L4 (0.5-3')

Date Sampled : 01/06/06
Date Received: 01/07/06

Order #: 873212
Submission #: R2629759

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	21.5	MG/KG	01/24/06	5.00
BARIUM	2.00	93.0	MG/KG	01/24/06	5.00
CADMIUM	0.500	2.82 U	MG/KG	01/24/06	5.00
CHROMIUM	1.00	12.8	MG/KG	01/24/06	5.00
COPPER	2.00	44.2	MG/KG	01/24/06	5.00
LEAD	5.00	55.1	MG/KG	01/24/06	5.00
MERCURY	0.0333	0.0443	MG/KG	01/13/06	1.00
SELENIUM	1.00	5.65 U	MG/KG	01/24/06	5.00
SILVER	1.00	5.65 U	MG/KG	01/24/06	5.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	88.5	%	01/11/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : E5 (3-6')

Date Sampled : 01/06/06
Date Received: 01/07/06

Order #: 873213
Submission #: R2629759

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	121 U	MG/KG	01/23/06	100
BARIUM	2.00	383	MG/KG	01/23/06	100
CADMIUM	0.500	60.5 U	MG/KG	01/23/06	100
CHROMIUM	1.00	121 U	MG/KG	01/23/06	100
COPPER	2.00	242 U	MG/KG	01/23/06	100
LEAD	5.00	605 U	MG/KG	01/23/06	100
MERCURY	0.0333	0.0403 U	MG/KG	01/13/06	1.00
SELENIUM	2.00	242 U	MG/KG	01/23/06	100
SILVER	1.00	121 U	MG/KG	01/23/06	100
WET CHEMISTRY					
PERCENT SOLIDS	1.0	82.6	%	01/11/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : V9 (3-6')

Date Sampled : 01/06/06
Date Received: 01/07/06

Order #: 873214
Submission #: R2629759

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	6.15	MG/KG	01/19/06	1.00
BARIUM	2.00	34.0	MG/KG	01/23/06	1.00
CADMIUM	0.500	5.02	MG/KG	01/23/06	1.00
CHROMIUM	1.00	9.87	MG/KG	01/19/06	1.00
COPPER	2.00	46.8	MG/KG	01/19/06	1.00
LEAD	5.00	26.5	MG/KG	01/19/06	1.00
MERCURY	0.0333	0.0392	MG/KG	01/13/06	1.00
SELENIUM	2.00	2.24 U	MG/KG	01/19/06	1.00
SILVER	1.00	1.23	MG/KG	01/19/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	89.1	%	01/11/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : G4 (10-11')

Date Sampled : 01/06/06
Date Received: 01/07/06

Order #: 873215
Submission #: R2629759

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	9.16	MG/KG	01/19/06	1.00
BARIUM	2.00	87.2	MG/KG	01/23/06	1.00
CADMIUM	0.500	1.15	MG/KG	01/23/06	1.00
CHROMIUM	1.00	21.2	MG/KG	01/19/06	1.00
COPPER	2.00	30.6	MG/KG	01/19/06	1.00
LEAD	5.00	78.6	MG/KG	01/19/06	1.00
MERCURY	0.0333	0.659	MG/KG	01/13/06	1.00
SELENIUM	2.00	2.76 U	MG/KG	01/19/06	1.00
SILVER	1.00	1.38 U	MG/KG	01/19/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	72.5	%	01/11/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : S4 (2-3')

Date Sampled : 01/06/06
Date Received: 01/07/06

Order #: 873216
Submission #: R2629759

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	11.0	MG/KG	01/20/06	1.00
BARIUM	2.00	22.1	MG/KG	01/23/06	1.00
CADMIUM	0.500	1.87	MG/KG	01/23/06	1.00
CHROMIUM	1.00	20.3	MG/KG	01/20/06	1.00
COPPER	2.00	56.3	MG/KG	01/20/06	1.00
LEAD	5.00	19.1	MG/KG	01/20/06	1.00
MERCURY	0.0333	0.0840	MG/KG	01/20/06	1.00
SELENIUM	2.00	2.25 U	MG/KG	01/13/06	1.00
SILVER	1.00	1.13 U	MG/KG	01/20/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	88.8	%	01/11/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : H7 (0.5-3')

Date Sampled : 01/06/06
Date Received: 01/07/06

Order #: 873217
Submission #: R2629759

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	19.5	MG/KG	01/23/06	10.0
BARIUM	2.00	59.0	MG/KG	01/23/06	10.0
CADMIUM	0.500	5.56 U	MG/KG	01/23/06	10.0
CHROMIUM	1.00	16.7	MG/KG	01/23/06	10.0
COPPER	2.00	28.7	MG/KG	01/23/06	10.0
LEAD	5.00	55.6 U	MG/KG	01/23/06	10.0
MERCURY	0.0333	0.121	MG/KG	01/13/06	1.00
SELENIUM	2.00	22.2 U	MG/KG	01/23/06	10.0
SILVER	1.00	11.1 U	MG/KG	01/23/06	10.0
WET CHEMISTRY					
PERCENT SOLIDS	1.0	89.9	%	01/11/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : Q6 (1-3')

Date Sampled : 01/06/06 Order #: 873218 Sample Matrix: SOIL/SEDIMENT
Date Received: 01/07/06 Submission #: R2629759

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	44.5	MG/KG	01/23/06	20.0
BARIUM	2.00	142	MG/KG	01/23/06	20.0
CADMIUM	0.500	12.2 U	MG/KG	01/23/06	20.0
CHROMIUM	1.00	24.3 U	MG/KG	01/23/06	20.0
COPPER	2.00	81.9	MG/KG	01/23/06	20.0
LEAD	5.00	122 U	MG/KG	01/23/06	20.0
MERCURY	0.0333	1.00	MG/KG	01/13/06	1.00
SELENIUM	2.00	48.6 U	MG/KG	01/23/06	20.0
SILVER	1.00	24.3 U	MG/KG	01/23/06	20.0
WET CHEMISTRY					
PERCENT SOLIDS	1.0	82.3	%	01/11/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : I9 (2-5')

Date Sampled : 01/06/06
Date Received: 01/07/06

Order #: 873219
Submission #: R2629759

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	0.00000000	MG/KG		0.00000000
BARIUM	2.00	0.00000000	MG/KG		0.00000000
CADMIUM	0.500	0.00000000	MG/KG		0.00000000
CHROMIUM	1.00	0.00000000	MG/KG		0.00000000
COPPER	2.00	0.00000000	MG/KG		0.00000000
LEAD	5.00	0.00000000	MG/KG		0.00000000
MERCURY	0.0333	0.0432 U	MG/KG	01/13/06	1.00
SELENIUM	0.500	0.00000000	MG/KG		0.00000000
SILVER	1.00	0.00000000	MG/KG		0.00000000
WET CHEMISTRY					
PERCENT SOLIDS	1.0	77.1	%	01/11/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : E4 (3-6') - TCLP

Date Sampled : 01/06/06	Order #: 873220	Sample Matrix: SOIL/SEDIMENT
Date Received: 01/07/06	Submission #: R2629759	

ANALYTE	PQL	RESULT	UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	0.500	0.500 U	MG/L	01/16/06	1.00
BARIUM	1.00	1.00 U	MG/L	01/16/06	1.00
CADMIUM	0.100	0.100 U	MG/L	01/16/06	1.00
CHROMIUM	0.100	0.100 U	MG/L	01/16/06	1.00
LEAD	0.100	0.100 U	MG/L	01/16/06	1.00
MERCURY	0.000300	0.00300 U	MG/L	01/16/06	10.0
SELENIUM	0.500	0.500 U	MG/L	01/16/06	1.00
SILVER	0.100	0.100 U	MG/L	01/16/06	1.00

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : G2 (0.5-3') - TCLP

Date Sampled : 01/06/06
Date Received: 01/07/06

Order #: 873221
Submission #: R2629759

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	0.500	1.59	MG/L	01/16/06	1.00
BARIUM	1.00	1.00 U	MG/L	01/16/06	1.00
CADMIUM	0.100	0.100 U	MG/L	01/16/06	1.00
CHROMIUM	0.100	0.100 U	MG/L	01/16/06	1.00
LEAD	0.100	0.100 U	MG/L	01/16/06	1.00
MERCURY	0.000300	0.00300 U	MG/L	01/16/06	10.0
SELENIUM	0.500	0.500 U	MG/L	01/16/06	1.00
SILVER	0.100	0.100 U	MG/L	01/16/06	1.00

Data reported following TCLP Toxicity Characteristic Leaching Procedure.
Federal Register, Part 261, Vol. 55, No. 126, June 29, 1990.

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : T10 (0.5-3') - TCLP

Date Sampled : 01/06/06	Order #: 873222	Sample Matrix: SOIL/SEDIMENT
Date Received: 01/07/06	Submission #: R2629759	

ANALYTE	PQL	RESULT	UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	0.500	0.500 U	MG/L	01/16/06	1.00
BARIUM	1.00	1.09	MG/L	01/16/06	1.00
CADMIUM	0.100	0.100 U	MG/L	01/16/06	1.00
CHROMIUM	0.100	0.100 U	MG/L	01/16/06	1.00
LEAD	0.100	0.100 U	MG/L	01/16/06	1.00
MERCURY	0.000300	0.00300 U	MG/L	01/16/06	10.0
SELENIUM	0.500	0.500 U	MG/L	01/16/06	1.00
SILVER	0.100	0.100 U	MG/L	01/16/06	1.00

Data reported following TCLP Toxicity Characteristic Leaching Procedure.
Federal Register, Part 261, Vol. 55, No. 126, June 29, 1990.

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : B3 (0-0.5') - TCLP

Date Sampled : 01/06/06 Order #: 873223 Sample Matrix: SOIL/SEDIMENT
Date Received: 01/07/06 Submission #: R2629759

ANALYTE	PQL	RESULT	UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	0.500	0.500 U	MG/L	01/16/06	1.00
BARIUM	1.00	1.48	MG/L	01/16/06	1.00
CADMIUM	0.100	0.100 U	MG/L	01/16/06	1.00
CHROMIUM	0.100	0.100 U	MG/L	01/16/06	1.00
LEAD	0.100	0.100 U	MG/L	01/16/06	1.00
MERCURY	0.000300	0.00300 U	MG/L	01/16/06	10.0
SELENIUM	0.500	0.500 U	MG/L	01/16/06	1.00
SILVER	0.100	0.100 U	MG/L	01/16/06	1.00

Data reported following TCLP Toxicity Characteristic Leaching Procedure.
Federal Register, Part 261, Vol. 55, No. 126, June 29, 1990.

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : D2 (6-8') - TCLP

Date Sampled : 01/06/06
Date Received: 01/07/06

Order #: 873224
Submission #: R2629759

Sample Matrix: SOIL/SEDIMENT

ANALYTE	PQL	RESULT	UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	0.500	0.500 U	MG/L	01/16/06	1.00
BARIUM	1.00	1.00 U	MG/L	01/16/06	1.00
CADMIUM	0.100	0.100 U	MG/L	01/16/06	1.00
CHROMIUM	0.100	0.100 U	MG/L	01/16/06	1.00
LEAD	0.100	0.100 U	MG/L	01/16/06	1.00
MERCURY	0.000300	0.00300 U	MG/L	01/16/06	10.0
SELENIUM	0.500	0.500 U	MG/L	01/16/06	1.00
SILVER	0.100	0.100 U	MG/L	01/16/06	1.00

Data reported following TCLP Toxicity Characteristic Leaching Procedure.
Federal Register, Part 261, Vol. 55, No. 126, June 29, 1990.

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : AA10 (8-10') - TCLP

Date Sampled : 01/06/06 Order #: 873225 Sample Matrix: SOIL/SEDIMENT
Date Received: 01/07/06 Submission #: R2629759

ANALYTE	PQL	RESULT	UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	0.500	0.500 U	MG/L	01/16/06	1.00
BARIUM	1.00	1.00 U	MG/L	01/16/06	1.00
CADMIUM	0.100	0.100 U	MG/L	01/16/06	1.00
CHROMIUM	0.100	0.100 U	MG/L	01/16/06	1.00
LEAD	0.100	0.100 U	MG/L	01/16/06	1.00
MERCURY	0.000300	0.00300 U	MG/L	01/16/06	10.0
SELENIUM	0.500	0.500 U	MG/L	01/16/06	1.00
SILVER	0.100	0.100 U	MG/L	01/16/06	1.00

Data reported following TCLP Toxicity Characteristic Leaching Procedure.
Federal Register, Part 261, Vol. 55, No. 126, June 29, 1990.

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SS-A3(0.5-2.5)

Date Sampled : 01/10/06 Order #: 873969 Sample Matrix: SOIL/SEDIMENT
Date Received: 01/11/06 Submission #: R2629759

ANALYTE	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	1.00	7.24	MG/KG	01/20/06	1.00
BARIUM	2.00	20.4	MG/KG	01/24/06	1.00
CADMIUM	0.500	1.22	MG/KG	01/24/06	1.00
CHROMIUM	1.00	15.5	MG/KG	01/20/06	1.00
COPPER	2.00	40.3	MG/KG	01/20/06	1.00
LEAD	5.00	20.5	MG/KG	01/20/06	1.00
MERCURY	0.0333	0.109	MG/KG	01/13/06	1.00
SELENIUM	2.00	2.12 U	MG/KG	01/20/06	1.00
SILVER	1.00	1.06 U	MG/KG	01/20/06	1.00
WET CHEMISTRY					
PERCENT SOLIDS	1.0	94.3	%	01/12/06	1.00



1 Mustard St., Suite 250
Rochester, NY 14609

Date: May 3, 2006 3
Number of pages: 3

To:

Mr. Richard Totino
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From:

Michael Perry

Phone: (585) 288-5380

Fax: (585) 288-8475

RUSH REPORT

Submission #: R2631301
Project Reference: AC DUTTON

TCLP Results

M2 (2-5)
BGR (4-4.5)

thanks, Mike

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COLUMBIA ANALYTICAL SERVICES

Reported: 05/03/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACDSS-M2 (2-5) (880070)

Date Sampled : 02/03/06 Order #: 898363 Sample Matrix: SOIL/SEDIMENT
Date Received: 02/04/06 Submission #: R2631301

ANALYTE	PQL	RESULT	UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	0.500	0.500 U	MG/L	04/27/06	1.00
CHROMIUM	0.100	0.100 U	MG/L	04/27/06	1.00

Data reported following TCLP Toxicity Characteristic Leaching Procedure.
Federal Register, Part 261, Vol. 55, No. 126, June 29, 1990.

COLUMBIA ANALYTICAL SERVICES

Reported: 05/03/06

Fuss & O'Neill, Inc

Project Reference: AC DUTTON

Client Sample ID : ACDSS-B8R (4-4.5) (880090)

Date Sampled : 02/03/06

Order #: 898364

Sample Matrix: SOIL/SEDIMENT

Date Received: 02/04/06

Submission #: R2631301

ANALYTE	PQL	RESULT	UNITS	DATE ANALYZED	ANALYTICAL DILUTION
METALS					
ARSENIC	0.500	0.500 U	MG/L	04/27/06	1.00
CHROMIUM	0.100	0.100 U	MG/L	04/27/06	1.00

Data reported following TCLP Toxicity Characteristic Leaching Procedure.
Federal Register, Part 261, Vol. 55, No. 126, June 29, 1990.



1 Mustard St., Suite 250
Rochester, NY 14609

Date: May 11, 2006
Number of pages: 9

To:

Mr. Rich Torino /Lisa Gwiazdowski
Euss & O'Neill, Inc
80 Washington St.
Suite 301
Poughkeepsie, NY 12601

Phone: 845-452-6801

Fax: 845-452-5186

CC:

From:

Michael Perry

Phone: (585) 288-5380

Fax: (585) 288-8475

RUSH REPORT

Submission #: R2629759
Project Reference: AC DUTTON

Corrected pages

~~62 - Not 63!~~

thanks, Mike

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METALS
COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Contract: R2629759SDG No.: E4

Lab Code:

Case No.:

SAS No.:

SOW No.: SW846 CLP-MClient: Fuss & O'Neill, IncSample No.Lab Sample ID.E4 (3-6')873205E4 (3-6')D873205bE4 (3-6')S873205SG2 (0.5-3')873206T10 (0.5-3')873207H3 (0-0.5')873208D2 (5-8')873209AA10 (8-10')873210C4 (0.5-3')873211L4 (0.5-3')873212X5 (3-6')873213V9 (3-6')873214G4 (10-11')873215S4 (2-3')873216H7 (0.5-3')873217Q6 (1-3')873218Q6 (1-3')D873218DQ6 (1-3')S873218SI9 (2-5')873219ACD-SS-A3(0.5-2.5)873969ACD-SS-Z9(3-6')873970

Were ICP interelement corrections applied?

Yes/No YES

Were ICP background corrections applied?

Yes/No YESIf yes-were raw data generated before
application of background corrections?Yes/No NOComments: See Attached Case Narrative

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Michael K. PerryName: Michael K. PerryDate: 5/11/06Title: Laboratory Manager

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

G2 (0.5-3')

Contract: R2629759

Lab Code:

Case No.:

SAS No.:

SDG NO.: E4

Matrix (soil/water): SOIL/SEDIMENT

Lab Sample ID: 873206

Level (low/med): LOW

Date Received: 01/07/06

% Solids: 89.5

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

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	812			P
7440-39-3	Barium	33.9			P
7440-43-9	Cadmium	0.88		N	P
7440-47-3	Chromium	469		N	P
7440-50-8	Copper	876			P
7439-92-1	Lead	30.6		N	P
7439-97-6	Mercury	0.13			CV
7782-49-2	Selenium	1.1	U		P
7440-22-4	Silver	1.1	U	N	P

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

METALS
-13-
PREPARATION LOG

Contract: X2629759

Lab Code:

Case No.:

SAS No.:

SDG NO.: E4

Method P

Sample No.	Preparation Date	Weight (grams)	Volume (mL)
AA10 (8-10')	01/16/06	1.05	100
ACD-SS-A3 (0.5-	01/16/06	1.00	100
ACD-SS-Y12 (0.5	01/16/06	1.01	100
ACD-SS-Z9 (3-6'	01/16/06	1.03	100
B3 (0-0.5')	01/16/06	1.01	100
C4 (0.5-3')	01/16/06	1.01	100
D2 (6-8')	01/16/06	1.02	100
E4 (3-6')	01/16/06	1.02	100
E5 (3-6')	01/16/06	1.04	100
G2 (0.5-3')	01/16/06	1.02	100
G4 (10-11')	01/16/06	1.02	100
H7 (0.5-3')	01/16/06	1.04	100
I4 (0.5-3')	01/16/06	1.01	100
LCSS	01/16/06	1.05	100
PB3	01/16/06	1.00	100
Q6 (1-3')	01/16/06	1.03	100
Q6 (1-3')D	01/16/06	1.02	100
Q6 (1-3')S	01/16/06	1.00	100
S4 (2-3')	01/16/06	1.01	100
T10 (0.5-3')	01/16/06	1.00	100
V9 (3-6')	01/16/06	1.05	100

METALS
-13-
PREPARATION LOG

Contract: R2629759

Lab Code:

Case No.:

SAS No.:

SDG NO.: E4

Method CV

Sample No.	Preparation Date	Weight (grams)	Volume (mL)
AA10 (8-10')	01/13/06	0.66	100
ACD-SS-A3(0.5-	01/13/06	0.64	100
ACD-SS-Y12(0.5	01/13/06	0.61	100
ACD-SS-Z9(3-6'	01/13/06	0.61	100
B3 (0-0.5')	01/13/06	0.63	100
C4 (0.5-3')	01/13/06	0.65	100
D2 (6-8')	01/13/06	0.63	100
E4 (3-6')	01/13/06	0.61	100
E4 (3-6')D	01/13/06	0.60	100
E4 (3-6')E	01/13/06	0.60	100
E5 (3-6')	01/13/06	0.60	100
G2 (0.5-3')	01/13/06	0.62	100
G4 (10-11')	01/13/06	0.60	100
H7 (0.5-3')	01/13/06	0.63	100
I9 (2-5')	01/13/06	0.62	100
L4 (0.5-3')	01/13/06	0.64	100
LCSS	01/13/06	0.61	100
PBS	01/13/06	0.60	100
Q6 (1-3')	01/13/06	0.61	100
R4 (2-3')	01/13/06	0.60	100
T10 (0.5-3')	01/13/06	0.61	100
V9 (3-6')	01/13/06	0.62	100

METALS

-14-

ANALYSIS RUN LOG

Contract R2629759

Lab Code

Case No.:

SAS No.:

SDG No.: E4

Instrument ID Number: Optima ICP 2

Method: P

Start Date: 1/19/06

End Date: 1/20/06

Sample No.	D/F	Time	S X	Analytes																					
				A	S	A	B	C	C	C	C	F	P	M	M	H	N	K	S	A	N	T	V	Z	C
G2 (0.5-3')	1.00	22:46								X			X						X	X					
T10 (0.5-3')	1.00	22:52																							
B3 (0-0.5')	1.00	22:59																							
D2 (6-8')	1.00	23:05				X				X	X	X							X	X					
AA10 (8-10')	1.00	23:11				X				X	X	X							X	X					
C4 (0.5-3')	1.00	23:18				X				X	X	X							X	X					
ZZZZZZ	1.00	23:25																							
CCV7	1.00	23:31				X				X	X	X							X	X					
CCB7	1.00	23:37				X				X	X	X							X	X					
E5 (3-8')	1.00	23:44																							
V9 (3-6')	1.00	23:50				X				X	X	X							X	X					
G4 (10-11')	1.00	23:56				X				X	X	X							X	X					
S4 (2-3')	1.00	00:03				X				X	X	X							X	X					
H7 (0.5-3')	1.00	00:09																							
Q6 (1-3')	1.00	00:16																							
Q6 (1-3')D	1.00	00:23																							
Q6 (1-3')S	1.00	00:29																							
Q6 (1-3')A	1.00	00:36																							
Q6 (1-3')L	5.00	00:42																							
CCV8	1.00	00:48				X				X	X	X							X	X					
CCB8	1.00	00:54				X				X	X	X							X	X					
ACD-SS-A3(0.5-2.5)	1.00	01:01				X				X	X	X							X	X					
ACD-SS-Z9(3-6')	1.00	01:08				X				X	X	X							X	X					
ACD-SS-Y12(0.5-4')	1.00	01:14				X				X	X	X							X	X					
CCV9	1.00	01:20				X				X	X	X							X	X					
CCB9	1.00	01:26				X				X	X	X							X	X					
CRDL3	1.00	01:32				X				X	X	X							X	X					
ICSA3	1.00	01:39				X				X	X	X							X	X					
ICS-AB3	1.00	01:46				X				X	X	X							X	X					
CCV10	1.00	01:52				X				X	X	X							X	X					
CCB10	1.00	01:58				X				X	X	X							X	X					

* - Denotes additional elements (other than the standard CLF elements) are represented on another Form 14

Form XIV - IN

METALS
-14-
ANALYSIS RUN LOG

Contract R2629759

Lab Code

Case No.:

SAS No.:

SDG No.: E4Instrument ID Number: Optima ICP 2Method: PStart Date: 1/23/06End Date: 1/24/06

Sample No.	D/F	Time	t R	Analytes																									
				A	S	A	B	B	C	C	C	C	F	P	M	M	H	N	K	S	A	N	T	V	Z	C			
				L	B	S	A	E	D	A	R	O	U	E	B	G	N	G	I	E	G	A	L	N	M	N			
ZZZZZZ	1.00	19:09																											
ZZZZZZ	1.00	19:15																											
ZZZZZZ	1.00	19:22																											
CCV3	1.00	19:28				X	X		X	X	X	X							X	X									
CCB3	1.00	19:34				X	X		X	X	X	X							X	X									
ZZZZZZ	1.00	19:41																											
ZZZZZZ	1.00	19:47																											
ZZZZZZ	1.00	19:53																											
ZZZZZZ	5.00	20:00																											
ZZZZZZ	1.00	20:06																											
ZZZZZZ	1.00	20:13																											
ZZZZZZ	1.00	20:20																											
ZZZZZZ	5.00	20:26																											
CCV4	1.00	20:33				X	X		X	X	X	X							X	X									
CCB4	1.00	20:39				X	X		X	X	X	X							X	X									
CCDL2	1.00	20:45				X	X		X	X	X	X							X	X									
IC9A2	1.00	20:52				X	X		X	X	X	X							X	X									
IC8-AB2	1.00	20:59				X	X		X	X	X	X							X	X									
HLCCV2	1.00	21:06				X	X		X	X	X	X							X	X									
HLCCV1	1.00	21:13				X	X		X	X	X	X							X	X									
CCV5	1.00	21:19				X	X		X	X	X	X							X	X									
CCB5	1.00	21:25				X	X		X	X	X	X							X	X									
PR5	1.00	21:32					X	X																					
LC85	3.00	21:38					X	X																					
X4 (3-6')	10.00	21:45				X	X		X	X	X	X							X	X									
G2 (0.5-3')	10.00	21:51				X						X																	
G2 (0.5-3')	1.00	21:58					X	X																					
T10 (0.5-3')	2.00	22:04				X	X		X	X	X	X							X	X									
D3 (0-0.5')	2.00	22:11				X	X		X	X	X	X							X	X									
D2 (6-8')	1.00	22:17					X	X																					
AA10 (8-10')	1.00	22:24					X	X																					
C4 (0.5-3')	1.00	22:31					X	X																					

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Form XIV - IN

METALS

-14-

ANALYSIS RUN LOG

Contract R2629759

Lab Code

Case No.:

SAS No.:

SDG No.: E4Instrument ID Number: FE FAA/CVAAMethod: CVStart Date: 1/13/06End Date: 1/13/06

Sample No.	D/F	Time	* R	Analytes																	
				A	S	A	B	B	C	C	C	C	C	F	P	M	M	H	N	X	S
				L	B	S	A	E	D	A	R	O	U	E	B	G	N	G	I	E	G
Calib Blank	1.00	13:07																X			
0.2ppb std	1.00	13:09																X			
0.5ppb std	1.00	13:11																X			
1ppb std	1.00	13:13																X			
2ppb std	1.00	13:15																X			
5ppb std	1.00	13:16																X			
10ppb std	1.00	13:18																X			
ICV1	1.00	13:20																X			
ICB1	1.00	13:22																X			
CRDL1	1.00	13:24																X			
CCV1	1.00	13:26																X			
CCB1	1.00	13:27																X			
FBS	1.00	13:29																X			
LCSS	5.00	13:31																X			
E4 (3-6')	1.00	13:33																X			
E4 (3-6')D	1.00	13:35																X			
E4 (3-6')S	1.00	13:36																X			
O2 (0.5-3')	1.00	13:38																X			
T10 (0.5-3')	1.00	13:40																X			
B3 (0-0.5')	1.00	13:42																			
D2 (6-8')	1.00	13:44																			
CCV2	1.00	13:46																X			
CCB2	1.00	13:47																X			
AA10 (8-10')	1.00	13:49																X			
C4 (0.5-3')	1.00	13:51																X			
Y4 (0.5-3')	1.00	13:53																X			
E5 (3-6')	1.00	13:55																X			
V9 (3-6')	1.00	13:57																X			
G4 (10-11')	1.00	13:58																X			
S4 (2-3')	1.00	14:00																X			
E7 (0.5-3')	1.00	14:02																X			
Q6 (1-3')	1.00	14:04																X			

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Form XIV - IN

May-11-06 14:44 From-CAS-Rochester

+2885380

T-466 P.009/000 F-059

COLUMBIA ANALYTICAL SERVICES

Reported: 05/11/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : G2 (0.5-3')

Date Sampled : 01/06/06
Date Received: 01/07/06

Order #: 873206
Submission #: R1629759

Sample Matrix: SOIL/SEDIMENT

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.3M	1.00	89.5	%	01/11/06	14:30	1.0



1 Mustard St., Suite 250
Rochester, NY 14609

Date: January 16, 2006
Number of pages: 11

To:

Mr. Noah Livingston
Fuss & O'Neill, Inc
80 Washington St.
Suite 301
Poughkeepsie, NY 12601

Phone: 845-452-6801

Fax: 845-452-5186

CC:

From:

Michael Perry

Phone: (585) 288-5380

Fax: (585) 288-8475

Submission #: R2529204
Project Reference: AC DUTTON

RUSH REPORT

AA11(12-13)
AA10(12-14)
U5(4-6)
U6(6-8)

✓	✓
✓	✓
✓	✓
✓	✓

↓

thanks, Mike

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COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL/TANK
Reported: 01/16/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-AA11 (12-13')

Date Sampled : 12/09/05 Order #: 866486 Sample Matrix: SOIL/SEDIMENT
Date Received: 12/10/05 Submission #: R2529204 Percent Solid: 84.1

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 12/19/05			
ANALYTICAL DILUTION: 1.00			Dry Weight
ACETONE	20	5.7 J	UG/KG
BENZENE	5.0	0.90 J	UG/KG
BROMODICHLOROMETHANE	5.0	5.9 U	UG/KG
BROMOFORM	5.0	5.9 U	UG/KG
BROMOMETHANE	5.0	5.9 U	UG/KG
2-BUTANONE (MEK)	10	12 U	UG/KG
SEC-BUTYLBENZENE	5.0	5.9 U	UG/KG
N-BUTYLBENZENE	5.0	5.9 U	UG/KG
TERT-BUTYLBENZENE	5.0	5.9 U	UG/KG
CARBON DISULFIDE	10	1.00 J	UG/KG
CARBON TETRACHLORIDE	5.0	5.9 U	UG/KG
CHLOROBENZENE	5.0	5.9 U	UG/KG
CHLOROETHANE	5.0	5.9 U	UG/KG
CHLOROFORM	5.0	5.9 U	UG/KG
CHLOROMETHANE	5.0	5.9 U	UG/KG
DIBROMOCHLOROMETHANE	5.0	5.9 U	UG/KG
1,1-DICHLOROETHANE	5.0	5.9 U	UG/KG
1,2-DICHLOROETHANE	5.0	5.9 U	UG/KG
1,1-DICHLOROETHENE	5.0	5.9 U	UG/KG
CIS-1,2-DICHLOROETHENE	5.0	5.9 U	UG/KG
TRANS-1,2-DICHLOROETHENE	5.0	5.9 U	UG/KG
1,2-DICHLOROPROPANE	5.0	5.9 U	UG/KG
CIS-1,3-DICHLOROPROPENE	5.0	5.9 U	UG/KG
TRANS-1,3-DICHLOROPROPENE	5.0	5.9 U	UG/KG
METHYL-TERT-BUTYL-ETHER	5.0	5.9 U	UG/KG
ETHYLBENZENE	5.0	5.9 U	UG/KG
2-HEXANONE	10	12 U	UG/KG
ISOPROPYL BENZENE	5.0	5.9 U	UG/KG
P-ISOPROPYLTOLUENE	5.0	5.9 U	UG/KG
METHYLENE CHLORIDE	5.0	9.9	UG/KG
NAPHTHALENE	5.0	5.9 U	UG/KG
4-METHYL-2-PENTANONE (MIBK)	10	12 U	UG/KG
N-PROPYLBENZENE	5.0	5.9 U	UG/KG
STYRENE	5.0	5.9 U	UG/KG
1,1,2,2-TETRACHLOROETHANE	5.0	5.9 U	UG/KG
TETRACHLOROETHENE	5.0	5.9 U	UG/KG
TOLUENE	5.0	5.9 U	UG/KG
1,1,1-TRICHLOROETHANE	5.0	5.9 U	UG/KG
1,1,2-TRICHLOROETHANE	5.0	5.9 U	UG/KG
TRICHLOROETHENE	5.0	5.9 U	UG/KG
1,3,5-TRIMETHYLBENZENE	5.0	5.9 U	UG/KG
1,2,4-TRIMETHYLBENZENE	5.0	5.9 U	UG/KG
VINYL CHLORIDE	5.0	5.9 U	UG/KG
O-XYLENE	5.0	5.9 U	UG/KG

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL/TANK
Reported: 01/16/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-AA11 (12-13')

Date Sampled : 12/09/05 Order #: 866486 Sample Matrix: SOIL/SEDIMENT
Date Received: 12/10/05 Submission #: R2529204 Percent Solid: 84.1

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 12/19/05			
ANALYTICAL DILUTION: 1.00			Dry Weight
M+P-XYLENE	5.0	5.9 U	UG/KG
<u>SURROGATE RECOVERIES</u>	<u>QC LIMITS</u>		
4-BROMOFLUOROBENZENE	(65 - 129 %)	90	%
TOLUENE-D8	(75 - 128 %)	98	%
DIBROMOFLUOROMETHANE	(62 - 133 %)	92	%

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C STARS LIST SEMIVOLATIL
Reported: 01/16/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-AA11 (12-13')

Date Sampled : 12/09/05 Order #: 866486 Sample Matrix: SOIL/SEDIMENT
Date Received: 12/10/05 Submission #: R2529204 Percent Solid: 84.1

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 12/22/05			
DATE ANALYZED : 01/14/06			
ANALYTICAL DILUTION: 2.00			Dry Weight
ACENAPHTHENE	330	780 U	UG/KG
ANTHRACENE	330	780 U	UG/KG
BENZO (A) ANTHRACENE	330	780 U	UG/KG
BENZO (A) PYRENE	330	780 U	UG/KG
BENZO (B) FLUORANTHENE	330	780 U	UG/KG
BENZO (G, H, I) PERYLENE	330	780 U	UG/KG
BENZO (K) FLUORANTHENE	330	780 U	UG/KG
INDENO (1, 2, 3-CD) PYRENE	330	780 U	UG/KG
CHRYSENE	330	780 U	UG/KG
DIBENZO (A, H) ANTHRACENE	330	780 U	UG/KG
FLUORANTHENE	330	780 U	UG/KG
FLUORENE	330	780 U	UG/KG
NAPHTHALENE	200	480 U	UG/KG
PHENANTHRENE	330	780 U	UG/KG
PYRENE	330	780 U	UG/KG

SURROGATE RECOVERIES	QC LIMITS		
TERPHENYL-d14	(48 - 131 %)	87	%
NITROBENZENE-d5	(27 - 130 %)	72	%
2-FLUOROBIPHENYL	(32 - 130 %)	80	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL/TANK
Reported: 01/16/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-AA10 (12-14')

Date Sampled : 12/09/05 Order #: 866487 Sample Matrix: SOIL/SEDIMENT
Date Received: 12/10/05 Submission #: R2529204 Percent Solid: 90.6

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 12/16/05			
ANALYTICAL DILUTION: 5.00			Dry Weight
ACETONE	20	32 J	UG/KG
BENZENE	5.0	36	UG/KG
BROMODICHLOROMETHANE	5.0	28 U	UG/KG
BROMOFORM	5.0	28 U	UG/KG
BROMOMETHANE	5.0	28 U	UG/KG
2-BUTANONE (MEK)	10	55 U	UG/KG
SEC-BUTYLBENZENE	5.0	28 U	UG/KG
N-BUTYLBENZENE	5.0	28 U	UG/KG
TERT-BUTYLBENZENE	5.0	28 U	UG/KG
CARBON DISULFIDE	10	4.2 J	UG/KG
CARBON TETRACHLORIDE	5.0	28 U	UG/KG
CHLOROBENZENE	5.0	28 U	UG/KG
CHLOROETHANE	5.0	28 U	UG/KG
CHLOROFORM	5.0	28 U	UG/KG
CHLOROMETHANE	5.0	28 U	UG/KG
DIBROMOCHLOROMETHANE	5.0	28 U	UG/KG
1,1-DICHLOROETHANE	5.0	28 U	UG/KG
1,2-DICHLOROETHANE	5.0	28 U	UG/KG
1,1-DICHLOROETHENE	5.0	28 U	UG/KG
CIS-1,2-DICHLOROETHENE	5.0	28 U	UG/KG
TRANS-1,2-DICHLOROETHENE	5.0	28 U	UG/KG
1,2-DICHLOROPROPANE	5.0	28 U	UG/KG
CIS-1,3-DICHLOROPROPENE	5.0	28 U	UG/KG
TRANS-1,3-DICHLOROPROPENE	5.0	28 U	UG/KG
METHYL-TERT-BUTYL-ETHER	5.0	28 U	UG/KG
ETHYLBENZENE	5.0	28 U	UG/KG
2-HEXANONE	10	55 U	UG/KG
ISOPROPYL BENZENE	5.0	28 U	UG/KG
P-ISOPROPYLTOLUENE	5.0	28 U	UG/KG
METHYLENE CHLORIDE	5.0	110	UG/KG
NAPHTHALENE	5.0	28 U	UG/KG
4-METHYL-2-PENTANONE (MIBK)	10	55 U	UG/KG
N-PROPYLBENZENE	5.0	28 U	UG/KG
STYRENE	5.0	28 U	UG/KG
1,1,2,2-TETRACHLOROETHANE	5.0	28 U	UG/KG
TETRACHLOROETHENE	5.0	28 U	UG/KG
TOLUENE	5.0	1.8 J	UG/KG
1,1,1-TRICHLOROETHANE	5.0	28 U	UG/KG
1,1,2-TRICHLOROETHANE	5.0	28 U	UG/KG
TRICHLOROETHENE	5.0	28 U	UG/KG
1,3,5-TRIMETHYLBENZENE	5.0	28 U	UG/KG
1,2,4-TRIMETHYLBENZENE	5.0	28 U	UG/KG
VINYL CHLORIDE	5.0	28 U	UG/KG
O-XYLENE	5.0	28 U	UG/KG

JAGM

0.1 ppm

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL/TANK
Reported: 01/16/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-AA10 (12-14')

Date Sampled : 12/09/05 Order #: 866487 Sample Matrix: SOIL/SEDIMENT
Date Received: 12/10/05 Submission #: R2529204 Percent Solid: 90.6

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 12/16/05			Dry Weight
ANALYTICAL DILUTION: 5.00			
M+P-XYLENE	5.0	28 U	UG/KG
SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(65 - 129 %)	95	%
TOLUENE-D8	(75 - 128 %)	99	%
DIBROMOFLUOROMETHANE	(62 - 133 %)	93	%

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C STARS LIST SEMIVOLATIL
Reported: 01/16/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-AA10 (12-14')

Date Sampled : 12/09/05 Order #: 866487 Sample Matrix: SOIL/SEDIMENT
Date Received: 12/10/05 Submission #: R2529204 Percent Solid: 90.6

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 12/22/05			
DATE ANALYZED : 01/14/06			
ANALYTICAL DILUTION: 1.00			Dry Weight <i>TAGM</i>
ACENAPHTHENE	330	360 U	UG/KG
ANTHRACENE	330	360 U	UG/KG
BENZO (A) ANTHRACENE	330	360 U	UG/KG
BENZO (A) PYRENE	330	360 U	UG/KG
BENZO (B) FLUORANTHENE	330	360 U	UG/KG
BENZO (G, H, I) PERYLENE	330	360 U	UG/KG
BENZO (K) FLUORANTHENE	330	360 U	UG/KG
INDENO (1, 2, 3-CD) PYRENE	330	360 U	UG/KG
CHRYSENE	330	360 U	UG/KG
DIBENZO (A, H) ANTHRACENE	330	360 U	UG/KG
FLUORANTHENE	330	400	UG/KG <i>50ppm</i>
FLUORENE	330	360 U	UG/KG
NAPHTHALENE	200	220 U	UG/KG
PHENANTHRENE	330	360 U	UG/KG
PYRENE	330	990	UG/KG <i>50ppm</i>

SURROGATE RECOVERIESQC LIMITS

TERPHENYL-d14
NITROBENZENE-d5
2-FLUOROBIPHENYL

(48 - 131 %)
(27 - 130 %)
(32 - 130 %)

90 %
77 %
82 %

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TANK LIST
Reported: 01/16/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-U5 (4-8')

Date Sampled : 12/09/05 Order #: 866488 Sample Matrix: SOIL/SEDIMENT
Date Received: 12/10/05 Submission #: R2529204 Percent Solid: 86.5

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 12/19/05			
ANALYTICAL DILUTION: 1.00			Dry Weight
BENZENE	5.0	5.8 U	UG/KG
N-BUTYLBENZENE	5.0	5.8 U	UG/KG
SEC-BUTYLBENZENE	5.0	5.8 U	UG/KG
TERT-BUTYLBENZENE	5.0	5.8 U	UG/KG
METHYL-TERT-BUTYL-ETHER	5.0	5.8 U	UG/KG
ETHYLBENZENE	5.0	5.8 U	UG/KG
ISOPROPYL BENZENE	5.0	5.8 U	UG/KG
P-ISOPROPYLTOLUENE	5.0	5.8 U	UG/KG
NAPHTHALENE	5.0	5.8 U	UG/KG
N-PROPYLBENZENE	5.0	5.8 U	UG/KG
TOLUENE	5.0	5.8 U	UG/KG
1,2,4-TRIMETHYLBENZENE	5.0	5.8 U	UG/KG
1,3,5-TRIMETHYLBENZENE	5.0	5.8 U	UG/KG
O-XYLENE	5.0	5.8 U	UG/KG
M+P-XYLENE	5.0	5.8 U	UG/KG

SURROGATE RECOVERIESQC LIMITS

4-BROMOFLUOROBENZENE
TOLUENE-D8
DIBROMOFLUOROMETHANE

(65 - 129 %)
(75 - 128 %)
(62 - 133 %)

94 %
97 %
90 %

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS

METHOD 8270C STARS LIST SEMIVOLATIL

Reported: 01/16/06

Fuss & O'Neill, Inc

Project Reference: AC DUTTON

Client Sample ID : ACD-SL-U5 (4-8')

Date Sampled : 12/09/05 Order #: 866488 Sample Matrix: SOIL/SEDIMENT
 Date Received: 12/10/05 Submission #: R2529204 Percent Solid: 86.5

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 12/22/05			
DATE ANALYZED : 01/14/06			
ANALYTICAL DILUTION: 1.00			Dry Weight
ACENAPHTHENE	330	380 U	UG/KG
ANTHRACENE	330	380 U	UG/KG
BENZO (A) ANTHRACENE	330	380 U	UG/KG
BENZO (A) PYRENE	330	380 U	UG/KG
BENZO (B) FLUORANTHENE	330	380 U	UG/KG
BENZO (G,H,I) PERYLENE	330	380 U	UG/KG
BENZO (K) FLUORANTHENE	330	380 U	UG/KG
INDENO (1,2,3-CD) PYRENE	330	380 U	UG/KG
CHRYSENE	330	380 U	UG/KG
DIBENZO (A,H) ANTHRACENE	330	380 U	UG/KG
FLUORANTHENE	330	380 U	UG/KG
FLUORENE	330	380 U	UG/KG
NAPHTHALENE	200	230 U	UG/KG
PHENANTHRENE	330	380 U	UG/KG
PYRENE	330	380 U	UG/KG

SURROGATE RECOVERIESQC LIMITS

TERPHENYL-d14	(48 - 131 %)	95	%
NITROBENZENE-d5	(27 - 130 %)	69	%
2-FLUOROBIPHENYL	(32 - 130 %)	76	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TANK LIST
Reported: 01/16/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-U6 (6-8')

Date Sampled : 12/09/05 Order #: 866489 Sample Matrix: SOIL/SEDIMENT
Date Received: 12/10/05 Submission #: R2529204 Percent Solid: 80.3

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 12/19/05			
ANALYTICAL DILUTION: 1.00			Dry Weight
BENZENE	5.0	6.2 U	UG/KG
N-BUTYLBENZENE	5.0	6.2 U	UG/KG
SEC-BUTYLBENZENE	5.0	6.2 U	UG/KG
TERT-BUTYLBENZENE	5.0	6.2 U	UG/KG
METHYL-TERT-BUTYL-ETHER	5.0	6.2 U	UG/KG
ETHYLBENZENE	5.0	6.2 U	UG/KG
ISOPROPYL BENZENE	5.0	6.2 U	UG/KG
P-ISOPROPYLTOLUENE	5.0	6.2 U	UG/KG
NAPHTHALENE	5.0	6.2 U	UG/KG
N-PROPYLBENZENE	5.0	6.2 U	UG/KG
TOLUENE	5.0	6.2 U	UG/KG
1,2,4-TRIMETHYLBENZENE	5.0	6.2 U	UG/KG
1,3,5-TRIMETHYLBENZENE	5.0	6.2 U	UG/KG
O-XYLENE	5.0	6.2 U	UG/KG
M+P-XYLENE	5.0	6.2 U	UG/KG

SURROGATE RECOVERIESQC LIMITS

4-BROMOFLUOROBENZENE
TOLUENE-D8
DIBROMOFLUOROMETHANE

(65 - 129 %)
(75 - 128 %)
(62 - 133 %)

95 %
98 %
91 %

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
 METHOD 8270C STARS LIST SEMIVOLATIL
 Reported: 01/16/06

Fuss & O'Neill, Inc
 Project Reference: AC DUTTON
 Client Sample ID : ACD-SL-U6 (6-8')

Date Sampled : 12/09/05 Order #: 866489 Sample Matrix: SOIL/SEDIMENT
 Date Received: 12/10/05 Submission #: R2529204 Percent Solid: 80.3

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 12/22/05			
DATE ANALYZED : 01/14/06			
ANALYTICAL DILUTION: 1.00			Dry Weight
ACENAPHTHENE	330	410 U	UG/KG
ANTHRACENE	330	410 U	UG/KG
BENZO (A) ANTHRACENE	330	410 U	UG/KG
BENZO (A) PYRENE	330	410 U	UG/KG
BENZO (B) FLUORANTHENE	330	410 U	UG/KG
BENZO (G, H, I) PERYLENE	330	410 U	UG/KG
BENZO (K) FLUORANTHENE	330	410 U	UG/KG
INDENO (1, 2, 3-CD) PYRENE	330	410 U	UG/KG
CHRYSENE	330	410 U	UG/KG
DIBENZO (A, H) ANTHRACENE	330	410 U	UG/KG
FLUORANTHENE	330	410 U	UG/KG
FLUORENE	330	410 U	UG/KG
NAPHTHALENE	200	250 U	UG/KG
PHENANTHRENE	330	410 U	UG/KG
PYRENE	330	410 U	UG/KG

SURROGATE RECOVERIESQC LIMITS

TERPHENYL-d14	(48 - 131 %)	104	%
NITROBENZENE-d5	(27 - 130 %)	89	%
2-FLUOROBIPHENYL	(32 - 130 %)	100	%



Columbia
Analytical
Services^{INC.}

A FULL SERVICE ENVIRONMENTAL LABORATORY

January 23, 2006

Mr. Noah Livingston
Fuss & O'Neill, Inc
80 Washington St.
Suite 301
Poughkeepsie, NY 12601

PROJECT: AC DUTTON
Submission #: R2529547

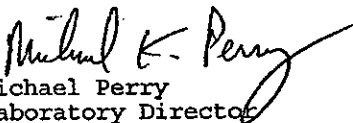
Dear Mr. Livingston

Enclosed are the analytical results of the analyses requested. All data has been reviewed prior to report submission. Should you have any questions please contact me at (585) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES


Michael Perry
Laboratory Director

Enc.

X7(8-10)	✓	✓
B8R(4.5-5.2)	✓	✓

8260B TEL (VOCs)
8271C STARS (SVOCs)



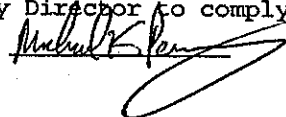
1 Mustard ST.
Suite 250
Rochester, NY 14609
(585) 288-5380

THIS IS AN ANALYTICAL TEST REPORT FOR:

Client : Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Lab Submission # : R2529547
Project Manager : Michael Perry
Reported : 01/23/06

Report Contains a total of 16 pages

The results reported herein relate only to the samples received by the laboratory. This report may not be reproduced except in full, without the approval of Columbia Analytical Services.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal. 

**CASE NARRATIVE**

This report contains analytical results for the following samples:

Submission #: R2529547

<u>Lab ID</u>	<u>Client ID</u>
870061	ACD-SL-X7(8-10')
870062	ACD-SL-B8-R(4.5-5.2')

All samples were received in good condition unless otherwise noted on the cooler receipt and preservation check form located at the end of this report.

All samples were preserved in accordance with approved analytical methods.

All samples have been analyzed by the approved methods cited on the analytical results pages.

All holding times and associated QC were within limits.

No analytical or QC problems were encountered.

All sampling activities performed by CAS personnel have been in accordance with "CAS Field Procedures and Measurements Manual" or by client specifications.



ORGANIC QUALIFIERS

- U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J - Indicates an estimated value. The flag is used either when estimating a concentration for tentatively identified compounds, or when the data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit and greater than the MDL.
- N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search.
- P - This flag is used for a pesticide/Aroclor target analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. The concentration is reported on the Form I and flagged with a "P".
- C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B - This flag is used when the analyte is found in the associated blank as well as in the sample.
- E - This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and ALL concentration values reported on that Form I are flagged with the "D" flag.
- A - This flag indicates that a TIC is a suspected aldol-condensation product.
- X - As specified in Case Narrative.
- * - This flag identifies compounds associated with a quality control parameter which exceeds laboratory limits.

CAS/Rochester Lab ID # for State Certifications

NELAP Accredited
 Delaware Accredited
 Connecticut ID # PH0556
 Florida ID # E87674
 Illinois ID #200047
 Maine ID #NY0032
 Massachusetts ID # M-NY032
 Navy Facilities Engineering Service Center Approved

Nebraska Accredited
 New Jersey ID # NY004
 New York ID # 10145
 New Hampshire ID # 294100 A/B
 Pennsylvania Registration 68-786
 Rhode Island ID # 158
 West Virginia ID # 292



INORGANIC QUALIFIERS

C (Concentration) qualifier -

- B - if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but was greater than or equal to the Instrument Detection Limit (IDL). This qualifier may also be used to indicate that there was contamination above the reporting limit in the associated blank. See Narrative for details.
- U - if the analyte was analyzed for, but not detected

Q qualifier - Specified entries and their meanings are as follows:

- D - Spike was diluted out
- E - The reported value is estimated because the serial dilution did not meet criteria.
- J - Estimated Value
- M - Duplicate injection precision not met.
- N - Spiked sample recovery not within control limits.
- S - The reported value was determined by the Method of Standard Additions (MSA).
- W - Post-digestion spike for Furnace AA Analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
- * - Duplicate analysis not within control limits.
- + - Correlation coefficient for the MSA is less than 0.995.

M (Method) qualifier:

- "P" for ICP
- "A" for Flame AA
- "F" for Furnace AA
- "PM" for ICP when Microwave Digestion is used
- "AM" for Flame AA when Microwave Digestion is used
- "FM" for Furnace M when Microwave Digestion is used
- "CV" for Manual Cold Vapor AA
- "AV" for Automated Cold Vapor AA
- "CA" for Midi-Distillation Spectrophotometric
- "AS" for Semi-Automated Spectrophotometric
- "C" for Manual Spectrophotometric
- "T" for Titrimetric
- " " where no data has been entered
- "NR" if the analyte is not required to be analyzed.

CAS/Rochester Lab ID # for State Certifications

NELAP Accredited
 Delaware Accredited
 Connecticut ID # PH0556
 Florida ID # E87674
 Illinois ID #200047
 Maine ID #NY0032
 Massachusetts ID # M-NY032
 Navy Facilities Engineering Service Center Approved

Nebraska Accredited
 New Jersey ID # NY004
 New York ID # 10145
 New Hampshire ID # 294100 A/B
 Pennsylvania Registration 68-786
 Rhode Island ID # 158
 West Virginia ID # 292

COLUMBIA ANALYTICAL SERVICES

Reported: 01/23/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-X7(8-10')

Date Sampled : 12/19/05 Order #: 870061 Sample Matrix: SOIL/SEDIMENT
Date Received: 12/22/05 Submission #: R2529547

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.3M	1.0	86.4	†	01/10/06	15:30	1.0

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/23/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-X7(8-10')

Date Sampled : 12/19/05 Order #: 870061 Sample Matrix: SOIL/SEDIMENT
Date Received: 12/22/05 Submission #: R2529547 Percent Solid: 86.4

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 12/30/05			
ANALYTICAL DILUTION: 2.50			Dry Weight
ACETONE	20	58 U	UG/KG
BENZENE	5.0	14 U	UG/KG
BROMODICHLOROMETHANE	5.0	14 U	UG/KG
BROMOFORM	5.0	14 U	UG/KG
BROMOMETHANE	5.0	14 U	UG/KG
2-BUTANONE (MEK)	10	29 U	UG/KG
CARBON DISULFIDE	10	29 U	UG/KG
CARBON TETRACHLORIDE	5.0	14 U	UG/KG
CHLOROBENZENE	5.0	14 U	UG/KG
CHLOROETHANE	5.0	14 U	UG/KG
CHLOROFORM	5.0	14 U	UG/KG
CHLOROMETHANE	5.0	14 U	UG/KG
DIBROMOCHLOROMETHANE	5.0	14 U	UG/KG
1,1-DICHLOROETHANE	5.0	14 U	UG/KG
1,2-DICHLOROETHANE	5.0	14 U	UG/KG
1,1-DICHLOROETHENE	5.0	14 U	UG/KG
CIS-1,2-DICHLOROETHENE	5.0	14 U	UG/KG
TRANS-1,2-DICHLOROETHENE	5.0	14 U	UG/KG
1,2-DICHLOROPROPANE	5.0	14 U	UG/KG
CIS-1,3-DICHLOROPROPENE	5.0	14 U	UG/KG
TRANS-1,3-DICHLOROPROPENE	5.0	14 U	UG/KG
ETHYLBENZENE	5.0	14 U	UG/KG
2-HEXANONE	10	29 U	UG/KG
METHYLENE CHLORIDE	5.0	14 U	UG/KG
4-METHYL-2-PENTANONE (MIBK)	10	29 U	UG/KG
STYRENE	5.0	14 U	UG/KG
1,1,2,2-TETRACHLOROETHANE	5.0	14 U	UG/KG
TETRACHLOROETHENE	5.0	14 U	UG/KG
TOLUENE	5.0	14 U	UG/KG
1,1,1-TRICHLOROETHANE	5.0	14 U	UG/KG
1,1,2-TRICHLOROETHANE	5.0	14 U	UG/KG
TRICHLOROETHENE	5.0	14 U	UG/KG
VINYL CHLORIDE	5.0	14 U	UG/KG
O-XYLENE	5.0	14 U	UG/KG
M+P-XYLENE	5.0	14 U	UG/KG

SURROGATE RECOVERIES	QC LIMITS
4-BROMOFLUOROBENZENE	(65 - 129 %)
TOLUENE-D8	(75 - 128 %)
DIBROMOFLUOROMETHANE	(62 - 133 %)

65 %
90 %
98 %

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS

METHOD 8270C STARS LIST SEMIVOLATIL

Reported: 01/23/06

Fuss & O'Neill, Inc

Project Reference: AC DUTTON

Client Sample ID : ACD-SL-X7 (8-10')

Date Sampled : 12/19/05 Order #: 870061 Sample Matrix: SOIL/SEDIMENT
 Date Received: 12/22/05 Submission #: R2529547 Percent Solid: 86.4

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 01/02/06			
DATE ANALYZED : 01/17/06			
ANALYTICAL DILUTION: 5.00			Dry Weight
ACENAPHTHENE	330	1900 U	UG/KG
ANTHRACENE	330	1900 U	UG/KG
BENZO (A) ANTHRACENE	330	1900 U	UG/KG
BENZO (A) PYRENE	330	1900 U	UG/KG
BENZO (B) FLUORANTHENE	330	1900 U	UG/KG
BENZO (G, H, I) PERYLENE	330	1900 U	UG/KG
BENZO (K) FLUORANTHENE	330	1900 U	UG/KG
INDENO (1, 2, 3-CD) PYRENE	330	1900 U	UG/KG
CHRYSENE	330	1900 U	UG/KG
DIBENZO (A, H) ANTHRACENE	330	1900 U	UG/KG
FLUORANTHENE	330	1900 U	UG/KG
FLUORENE	330	1900 U	UG/KG
NAPHTHALENE	200	1200 U	UG/KG
PHENANTHRENE	330	1900 U	UG/KG
PYRENE	330	1900 U	UG/KG

SURROGATE RECOVERIESQC LIMITS

TERPHENYL-d14	(48 - 131 %)	88	%
NITROBENZENE-d5	(27 - 130 %)	76	%
2-FLUOROBIPHENYL	(32 - 130 %)	89	%

COLUMBIA ANALYTICAL SERVICES

Reported: 01/23/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-B8-R(4.5-5.2')

Date Sampled : 12/20/05 Order #: 870062 Sample Matrix: SOIL/SEDIMENT
Date Received: 12/22/05 Submission #: R2529547

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.3M	1.0	77.6	%	01/10/06	15:30	1.0

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/23/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-B8-R(4.5-5.2')

Date Sampled : 12/20/05 Order #: 870062 Sample Matrix: SOIL/SEDIMENT
Date Received: 12/22/05 Submission #: R2529547 Percent Solid: 77.6

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 12/30/05			
ANALYTICAL DILUTION: 5.00			Dry Weight
ACETONE	20	130 U	UG/KG
BENZENE	5.0	32 U	UG/KG
BROMODICHLOROMETHANE	5.0	32 U	UG/KG
BROMOFORM	5.0	32 U	UG/KG
BROMOMETHANE	5.0	32 U	UG/KG
2-BUTANONE (MEK)	10	64 U	UG/KG
CARBON DISULFIDE	10	64 U	UG/KG
CARBON TETRACHLORIDE	5.0	32 U	UG/KG
CHLOROBENZENE	5.0	32 U	UG/KG
CHLOROETHANE	5.0	32 U	UG/KG
CHLOROFORM	5.0	32 U	UG/KG
CHLOROMETHANE	5.0	32 U	UG/KG
DIBROMOCHLOROMETHANE	5.0	32 U	UG/KG
1,1-DICHLOROETHANE	5.0	32 U	UG/KG
1,2-DICHLOROETHANE	5.0	32 U	UG/KG
1,1-DICHLOROETHENE	5.0	32 U	UG/KG
CIS-1,2-DICHLOROETHENE	5.0	32 U	UG/KG
TRANS-1,2-DICHLOROETHENE	5.0	32 U	UG/KG
1,2-DICHLOROPROPANE	5.0	32 U	UG/KG
CIS-1,3-DICHLOROPROPENE	5.0	32 U	UG/KG
TRANS-1,3-DICHLOROPROPENE	5.0	32 U	UG/KG
ETHYLBENZENE	5.0	32 U	UG/KG
2-HEXANONE	10	64 U	UG/KG
METHYLENE CHLORIDE	5.0	32 U	UG/KG
4-METHYL-2-PENTANONE (MIBK)	10	64 U	UG/KG
STYRENE	5.0	32 U	UG/KG
1,1,2,2-TETRACHLOROETHANE	5.0	32 U	UG/KG
TETRACHLOROETHENE	5.0	32 U	UG/KG
TOLUENE	5.0	32 U	UG/KG
1,1,1-TRICHLOROETHANE	5.0	32 U	UG/KG
1,1,2-TRICHLOROETHANE	5.0	32 U	UG/KG
TRICHLOROETHENE	5.0	32 U	UG/KG
VINYL CHLORIDE	5.0	32 U	UG/KG
O-XYLENE	5.0	32 U	UG/KG
M+P-XYLENE	5.0	32 U	UG/KG

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(65 - 129 %)	106	%
TOLUENE-D8	(75 - 128 %)	95	%
DIBROMOFLUOROMETHANE	(62 - 133 %)	102	%

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS

METHOD 8270C STARS LIST SEMIVOLATIL

Reported: 01/23/06

Fuss & O'Neill, Inc

Project Reference: AC DUTTON

Client Sample ID : ACD-SL-B8-R(4.5-5.2')

Date Sampled : 12/20/05

Order #: 870062

Sample Matrix: SOIL/SEDIMENT

Date Received: 12/22/05

Submission #: R2529547

Percent Solid: 77.6

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 01/02/06			
DATE ANALYZED : 01/18/06			
ANALYTICAL DILUTION: 10.00			Dry Weight
ACENAPHTHENE	330	4300 U	UG/KG
ANTHRACENE	330	4300 U	UG/KG
BENZO (A) ANTHRACENE	330	4300 U	UG/KG
BENZO (A) PYRENE	330	4300 U	UG/KG
BENZO (B) FLUORANTHENE	330	4300 U	UG/KG
BENZO (G, H, I) PERYLENE	330	4300 U	UG/KG
BENZO (K) FLUORANTHENE	330	4300 U	UG/KG
INDENO (1, 2, 3-CD) PYRENE	330	4300 U	UG/KG
CHRYSENE	330	4300 U	UG/KG
DIBENZO (A, H) ANTHRACENE	330	4300 U	UG/KG
FLUORANTHENE	330	4300 U	UG/KG
FLUORENE	330	4300 U	UG/KG
NAPHTHALENE	200	2600 U	UG/KG
PHENANTHRENE	330	5000	UG/KG
PYRENE	330	4300 U	UG/KG
<u>SURROGATE RECOVERIES</u>		<u>QC LIMITS</u>	
TERPHENYL-d14	(48 - 131 %)	100	%
NITROBENZENE-d5	(27 - 130 %)	103	%
2-FLUOROBIPHENYL	(32 - 130 %)	107	%

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS
METHOD: 8260B TCLLABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 871965

ANALYTICAL RUN #: 124806

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 12/30/05			
ANALYTICAL DILUTION: 1.0			
ACETONE	20.0	94	50 - 150
BENZENE	20.0	94	70 - 130
BROMODICHLOROMETHANE	20.0	100	70 - 130
BROMOFORM	20.0	90	70 - 130
BROMOMETHANE	20.0	85	50 - 150
2-BUTANONE (MEK)	20.0	86	50 - 150
CARBON DISULFIDE	20.0	88	70 - 130
CARBON TETRACHLORIDE	20.0	94	70 - 130
CHLOROBENZENE	20.0	91	70 - 130
CHLOROETHANE	20.0	101	70 - 130
CHLOROFORM	20.0	100	70 - 130
CHLOROMETHANE	20.0	95	70 - 130
DIBROMOCHLOROMETHANE	20.0	100	70 - 130
1,1-DICHLOROETHANE	20.0	98	70 - 130
1,2-DICHLOROETHANE	20.0	102	70 - 130
1,1-DICHLOROETHENE	20.0	94	70 - 130
CIS-1,2-DICHLOROETHENE	20.0	96	70 - 130
TRANS-1,2-DICHLOROETHENE	20.0	90	70 - 130
1,2-DICHLOROPROPANE	20.0	104	70 - 130
CIS-1,3-DICHLOROPROPENE	20.0	92	70 - 130
TRANS-1,3-DICHLOROPROPENE	20.0	86	70 - 130
ETHYLBENZENE	20.0	88	70 - 130
2-HEXANONE	20.0	70	70 - 130
METHYLENE CHLORIDE	20.0	92	70 - 130
4-METHYL-2-PENTANONE (MIBK)	20.0	77	70 - 130
STYRENE	20.0	82	70 - 130
1,1,2,2-TETRACHLOROETHANE	20.0	112	70 - 130
TETRACHLOROETHENE	20.0	87	70 - 130
TOLUENE	20.0	93	70 - 130
1,1,1-TRICHLOROETHANE	20.0	97	70 - 130
1,1,2-TRICHLOROETHANE	20.0	102	70 - 130
TRICHLOROETHENE	20.0	89	70 - 130
VINYL CHLORIDE	20.0	95	70 - 130
O-XYLENE	20.0	88	70 - 130
M+P-XYLENE	40.0	83	70 - 130

11

REFERENCE-1

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/23/06

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : Order #: 871963 Sample Matrix: SOIL/SEDIMENT
Date Received: Submission #: Percent Solid: 100

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 12/30/05			
ANALYTICAL DILUTION: 1.00			Dry Weight
ACETONE	20	20 U	UG/KG
BENZENE	5.0	5.0 U	UG/KG
BROMODICHLOROMETHANE	5.0	5.0 U	UG/KG
BROMOFORM	5.0	5.0 U	UG/KG
BROMOMETHANE	5.0	5.0 U	UG/KG
2-BUTANONE (MEK)	10	10 U	UG/KG
CARBON DISULFIDE	10	10 U	UG/KG
CARBON TETRACHLORIDE	5.0	5.0 U	UG/KG
CHLOROBENZENE	5.0	5.0 U	UG/KG
CHLOROETHANE	5.0	5.0 U	UG/KG
CHLOROFORM	5.0	5.0 U	UG/KG
CHLOROMETHANE	5.0	5.0 U	UG/KG
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/KG
1,1-DICHLOROETHANE	5.0	5.0 U	UG/KG
1,2-DICHLOROETHANE	5.0	5.0 U	UG/KG
1,1-DICHLOROETHENE	5.0	5.0 U	UG/KG
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/KG
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/KG
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/KG
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/KG
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/KG
ETHYLBENZENE	5.0	5.0 U	UG/KG
2-HEXANONE	10	10 U	UG/KG
METHYLENE CHLORIDE	5.0	5.0 U	UG/KG
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/KG
STYRENE	5.0	5.0 U	UG/KG
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/KG
TETRACHLOROETHENE	5.0	5.0 U	UG/KG
TOLUENE	5.0	5.0 U	UG/KG
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/KG
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/KG
TRICHLOROETHENE	5.0	5.0 U	UG/KG
VINYL CHLORIDE	5.0	5.0 U	UG/KG
O-XYLENE	5.0	5.0 U	UG/KG
M+P-XYLENE	5.0	5.0 U	UG/KG

SURROGATE RECOVERIESQC LIMITS

4-BROMOFLUOROBENZENE	(65 - 129 %)	76	%
TOLUENE-D8	(75 - 128 %)	95	%
DIBROMOFLUOROMETHANE	(62 - 133 %)	102	%

COLUMBIA ANALYTICAL SERVICES

QUALITY CONTROL SUMMARY: LABORATORY CONTROL SAMPLE
SOIL/SEDIMENT

Spiked Order No. : 875567

Dup Spiked Order No. : 875568

Client ID:

Test: 8270C STARS LIST SEMIVOLATILES

Analytical Units: UG/KG

Run Number : 125373

ANALYTE	SPIKE ADDED	SAMPLE CONCENT.	BLANK SPIKE		BLANK SPIKE DUP.			QC LIMITS	
			FOUND	% REC.	FOUND	% REC.	RPD	RPD	REC.
ACENAPHTHENE	3300	0	3130	94	3210	96	3	19	47 - 123
ANTHRACENE	3300	0	3210	96	3180	95	1	30	44 - 125
BENZO (A) ANTHRACENE	3300	0	3290	99	3290	99	0	30	48 - 122
BENZO (A) PYRENE	3300	0	3180	95	3200	96	1	30	49 - 126
BENZO (B) FLUORANTHENE	3300	0	3210	96	3260	98	2	30	42 - 128
BENZO (G, H, I) PERYLENE	3300	0	3440	103	3360	101	2	30	42 - 126
BENZO (K) FLUORANTHENE	3300	0	3210	96	3250	98	1	30	48 - 124
INDENO (1, 2, 3-CD) PYRENE	3300	0	3400	102	3300	99	3	30	41 - 127
CHRYSENE	3300	0	3280	98	3280	98	0	30	49 - 122
DIBENZO (A, H) ANTHRACENE	3300	0	3610	108	3540	106	2	30	23 - 140
FLUORANTHENE	3300	0	3220	97	3180	95	1	30	42 - 124
FLUORENE	3300	0	3140	94	3220	97	3	30	36 - 128
NAPHTHALENE	3300	0	3030	91	3080	92	2	30	38 - 116
PHENANTHRENE	3300	0	3320	100	3290	99	1	30	48 - 130
PYRENE	3300	0	3480	105	3350	101	4	36	53 - 130

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS

METHOD 8270C STARS LIST SEMIVOLATIL

Reported: 01/23/06

Project Reference:

Client Sample ID : METHOD BLANK

Date Sampled :	Order #: 875566	Sample Matrix: SOIL/SEDIMENT
Date Received:	Submission #:	Percent Solid: 100

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 01/02/06			
DATE ANALYZED : 01/17/06			
ANALYTICAL DILUTION: 1.00			Dry Weight
ACENAPHTHENE	330	330 U	UG/KG
ANTHRACENE	330	330 U	UG/KG
BENZO (A) ANTHRACENE	330	330 U	UG/KG
BENZO (A) PYRENE	330	330 U	UG/KG
BENZO (B) FLUORANTHENE	330	330 U	UG/KG
BENZO (G, H, I) PERYLENE	330	330 U	UG/KG
BENZO (K) FLUORANTHENE	330	330 U	UG/KG
INDENO (1, 2, 3-CD) PYRENE	330	330 U	UG/KG
CHRYSENE	330	330 U	UG/KG
DIBENZO (A, H) ANTHRACENE	330	330 U	UG/KG
FLUORANTHENE	330	330 U	UG/KG
FLUORENE	330	330 U	UG/KG
NAPHTHALENE	200	200 U	UG/KG
PHENANTHRENE	330	330 U	UG/KG
PYRENE	330	330 U	UG/KG

SURROGATE RECOVERIESQC LIMITS

TERPHENYL-d14	(48 - 131 %)	93	%
NITROBENZENE-d5	(27 - 130 %)	82	%
2-FLUOROBIPHENYL	(32 - 130 %)	90	%

Cooler Receipt And Preservation Check Form

Project/Client Russ & O'Neill Submission Number K2-29547

Cooler received on 12/22/05 by ANY COURIER: CAS UPS FEDEX VELOCITY CLIENT

1. Were custody seals on outside of cooler? YES NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did any VOA vials have significant air bubbles? YES NO N/A
5. Were Ice or Ice packs present? YES NO
6. Where did the bottles originate? CAS/ROG CLIENT
7. Temperature of cooler(s) upon receipt: 11

Is the temperature within 0° - 6° C?: Yes Yes Yes Yes Yes

If No, Explain Below No No No No No

Date/Time Temperatures Taken: 12/22/05 1115

Thermometer ID: 161 or IR GUN Reading From: Temp Blank or Sample Bottle

If out of Temperature, Client Approval to Run Samples _____

PC Secondary Review: _____

Cooler Breakdown: Date: 12/22/05 by: ANY

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies: _____

		YES	NO	Sample I.D.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO ₃					
2	H ₂ SO ₄					
Residual Chlorine (+/-)	for TCN & Phenol					
5.9**	P/PCBs (608 only)					

YES = All samples OK

NO = Samples were preserved at lab as listed

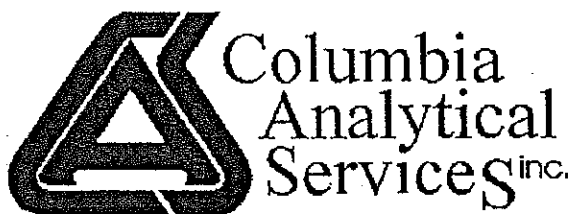
PC OK to adjust pH

**If pH adjustment is required, use NaOH and/or H₂SO₄

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2		

Other Comments:

PC Secondary Review: _____



A FULL SERVICE ENVIRONMENTAL LABORATORY

January 25, 2006

Mr. Noah Livingston
Fuss & O'Neill, Inc
80 Washington St.
Suite 301
Poughkeepsie, NY 12601

PROJECT: AC DUTTON
Submission #: R2529242

Dear Mr. Livingston:

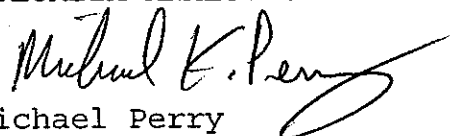
Enclosed are the analytical results of the analyses requested. The analytical data was provided to you on 01/13/06 per a Facsimile transmittal. All data has been reviewed prior to report submission.

Should you have any questions please contact me at (585) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES


Michael Perry
Laboratory Director

Enc.

RCRA & Metals

A6 (0-1)	AA 10 (0-.5)
C2 (0-.5)	Z 12 (0-1)
E6 (0-1)	K2 (0-.5)
K6 (0-.5)	
M2 (0-.5)	
M6 (0-1)	
Q2 (0-.5)	
Q8 (0-1)	
U6 (0-.5)	
U8 (0-1)	



1 Mustard ST.
Suite 250
Rochester, NY 14609
(585) 288-5380

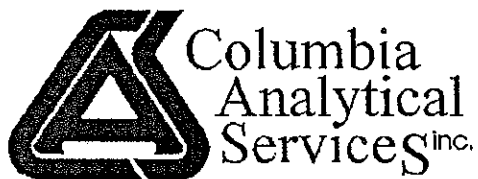
THIS IS AN ANALYTICAL TEST REPORT FOR:

Client : Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Lab Submission # : R2529242
Project Manager : Michael Perry
Reported : 01/25/06

Report Contains a total of 34 pages

The results reported herein relate only to the samples received by the laboratory. This report may not be reproduced except in full, without the approval of Columbia Analytical Services.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal. *Michael K. Perry*



CASE NARRATIVE

This report contains analytical results for the following samples:

Submission #: R2529242

<u>Lab ID</u>	<u>Client ID</u>
867382	ACD-SL-A6 (0-1')
867383	ACD-SL-C2 (0-0.5')
867384	ACD-SL-E6 (0-1')
867385	ACD-SL-K6 (0-0.5')
867386	ACD-SL-M2 (0-0.5')
867387	ACD-SL-M6 (0-1')
867388	ACD-SL-Q2 (0-0.5')
867389	ACD-SL-Q8 (0-1')
867390	ACD-SL-U6 (0-0.5')
867391	ACD-SL-U8 (0-1')
867392	ACD-SL-AA10 (0-0.5')
867393	ACD-SL-Z12 (0-1')
867394	ACD-SL-K2 (0-0.5')

All samples were received in good condition unless otherwise noted on the cooler receipt and preservation check form located at the end of this report.

All samples were preserved in accordance with approved analytical methods.

All samples have been analyzed by the approved methods cited on the analytical results pages.

All holding times and associated QC were within limits.

No analytical or QC problems were encountered.

All sampling activities performed by CAS personnel have been in accordance with "CAS Field Procedures and Measurements Manual" or by client specifications.



INORGANIC QUALIFIERS

C (Concentration) qualifier –

- B - if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but was greater than or equal to the Instrument Detection Limit (IDL). This qualifier may also be used to indicate that there was contamination above the reporting limit in the associated blank. See Narrative for details.
- U - if the analyte was analyzed for, but not detected

Q qualifier - Specified entries and their meanings are as follows:

- D - Spike was diluted out
- E - The reported value is estimated because the serial dilution did not meet criteria.
- J - Estimated Value
- M - Duplicate injection precision not met.
- N - Spiked sample recovery not within control limits.
- S - The reported value was determined by the Method of Standard Additions (MSA).
- W - Post-digestion spike for Furnace AA Analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
- * - Duplicate analysis not within control limits.
- + - Correlation coefficient for the MSA is less than 0.995.

M (Method) qualifier:

- "P" for ICP
- "A" for Flame AA
- "F" for Furnace AA
- "PM" for ICP when Microwave Digestion is used
- "AM" for Flame AA when Microwave Digestion is used
- "FM" for Furnace M when Microwave Digestion is used
- "CV" for Manual Cold Vapor AA
- "AV" for Automated Cold Vapor AA
- "CA" for Midi-Distillation Spectrophotometric
- "AS" for Semi-Automated Spectrophotometric
- "C" for Manual Spectrophotometric
- "T" for Titrimetric
- " " where no data has been entered
- "NR" if the analyte is not required to be analyzed.

CAS/Rochester Lab ID # for State Certifications

NELAP Accredited
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Illinois ID #200047
Maine ID #NY0032
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved

Nebraska Accredited
New Jersey ID # NY004
New York ID # 10145
New Hampshire ID # 294100 A/B
Pennsylvania Registration 68-786
Rhode Island ID # 158
West Virginia ID # 292

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-A6 (0-1')

Date Sampled : 12/13/05	Order #: 867382	Sample Matrix: SOIL/SEDIMENT
Date Received: 12/14/05	Submission #: R2529242	

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.3M	1.0	92.0	%	12/29/05	12:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-A6 (0-1')

Date Sampled : 12/13/05
Date Received: 12/14/05

Order #: 867382
Submission #: R2529242

Sample Matrix: SOIL/SEDIMENT

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	DILUTION
ARSENIC	6010B	1.00	9.50	MG/KG	01/10/06	1.0
BARIUM	6010B	2.00	47.6	MG/KG	01/11/06	1.0
CADMIUM	6010B	2.00	2.17 U	MG/KG	01/11/06	1.0
CHROMIUM	6010B	1.00	15.9	MG/KG	01/10/06	1.0
COPPER	6010B	2.00	33.4	MG/KG	01/10/06	1.0
LEAD	6010B	5.00	40.3	MG/KG	01/11/06	1.0
MERCURY	7471A	0.0500	0.0543 U	MG/KG	12/30/05	1.0
SELENIUM	6010B	1.00	1.09 U	MG/KG	01/10/06	1.0
SILVER	6010B	1.00	1.09 U	MG/KG	01/11/06	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-C2 (0-0.5')

Date Sampled : 12/13/05	Order #: 867383	Sample Matrix: SOIL/SEDIMENT
Date Received: 12/14/05	Submission #: R2529242	

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.3M	1.0	89.1	%	12/29/05	12:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-C2 (0-0.5')

Date Sampled : 12/13/05 Order #: 867383 Sample Matrix: SOIL/SEDIMENT
Date Received: 12/14/05 Submission #: R2529242

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	DILUTION
ARSENIC	6010B	1.00	24.2	MG/KG	01/10/06	1.0
BARIUM	6010B	2.00	77.0	MG/KG	01/11/06	1.0
CADMIUM	6010B	2.00	2.24 U	MG/KG	01/11/06	1.0
CHROMIUM	6010B	1.00	21.7	MG/KG	01/10/06	1.0
COPPER	6010B	2.00	37.8	MG/KG	01/10/06	1.0
LEAD	6010B	5.00	29.0	MG/KG	01/11/06	1.0
MERCURY	7471A	0.0500	0.0866	MG/KG	12/30/05	1.0
SELENIUM	6010B	1.00	1.12 U	MG/KG	01/10/06	1.0
SILVER	6010B	1.00	1.12 U	MG/KG	01/11/06	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-E6 (0-1')

Date Sampled : 12/13/05	Order #: 867384	Sample Matrix: SOIL/SEDIMENT
Date Received: 12/14/05	Submission #: R2529242	

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.3M	1.0	94.4	%	12/29/05	12:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-E6 (0-1')

Date Sampled : 12/13/05
Date Received: 12/14/05

Order #: 867384
Submission #: R2529242

Sample Matrix: SOIL/SEDIMENT

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	DILUTION
ARSENIC	6010B	1.00	29.2	MG/KG	01/13/06	10.0
BARIUM	6010B	2.00	103	MG/KG	01/11/06	10.0
CADMIUM	6010B	2.00	21.2 U	MG/KG	01/11/06	10.0
CHROMIUM	6010B	1.00	18.0	MG/KG	01/11/06	10.0
COPPER	6010B	2.00	43.9	MG/KG	01/13/06	10.0
LEAD	6010B	5.00	53.0 U	MG/KG	01/11/06	10.0
MERCURY	7471A	0.0500	0.328	MG/KG	12/30/05	1.0
SELENIUM	6010B	0.500	5.30 U	MG/KG	01/13/06	10.0
SILVER	6010B	1.00	10.6 U	MG/KG	01/11/06	10.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-K6 (0-0.5')

Date Sampled : 12/13/05	Order #: 867385	Sample Matrix: SOIL/SEDIMENT
Date Received: 12/14/05	Submission #: R2529242	

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.3M	1.0	99.7	%	12/29/05	12:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-K6 (0-0.5')

Date Sampled : 12/13/05 Order #: 867385 Sample Matrix: SOIL/SEDIMENT
Date Received: 12/14/05 Submission #: R2529242

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	DILUTION
ARSENIC	6010B	1.00	14.1	MG/KG	01/10/06	1.0
BARIUM	6010B	2.00	15.4	MG/KG	01/11/06	1.0
CADMIUM	6010B	2.00	2.01 U	MG/KG	01/11/06	1.0
CHROMIUM	6010B	1.00	7.76	MG/KG	01/10/06	1.0
COPPER	6010B	2.00	12.8	MG/KG	01/10/06	1.0
LEAD	6010B	5.00	23.2	MG/KG	01/11/06	1.0
MERCURY	7471A	0.0500	0.0502 U	MG/KG	12/30/05	1.0
SELENIUM	6010B	1.00	1.00 U	MG/KG	01/10/06	1.0
SILVER	6010B	1.00	1.00 U	MG/KG	01/11/06	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-M2 (0-0.5')

Date Sampled : 12/13/05	Order #: 867386	Sample Matrix: SOIL/SEDIMENT
Date Received: 12/14/05	Submission #: R2529242	

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.3M	1.0	93.2	%	12/29/05	12:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-M2 (0-0.5')

Date Sampled : 12/13/05 Order #: 867386 Sample Matrix: SOIL/SEDIMENT
Date Received: 12/14/05 Submission #: R2529242

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	DILUTION
ARSENIC	6010B	1.00	68.3	MG/KG	01/13/06	10.0
BARIUM	6010B	2.00	93.7	MG/KG	01/11/06	10.0
CADMIUM	6010B	2.00	21.5 U	MG/KG	01/11/06	10.0
CHROMIUM	6010B	1.00	12.1	MG/KG	01/11/06	10.0
COPPER	6010B	2.00	21.5 U	MG/KG	01/13/06	10.0
LEAD	6010B	5.00	53.6 U	MG/KG	01/11/06	10.0
MERCURY	7471A	0.0500	0.106	MG/KG	12/30/05	1.0
SELENIUM	6010B	0.500	5.36 U	MG/KG	01/13/06	10.0
SILVER	6010B	1.00	10.7 U	MG/KG	01/11/06	10.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-M6 (0-1')

Date Sampled : 12/13/05	Order #: 867387	Sample Matrix: SOIL/SEDIMENT
Date Received: 12/14/05	Submission #: R2529242	

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.3M	1.0	91.3	%	12/29/05	12:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-M6 (0-1')

Date Sampled : 12/13/05
Date Received: 12/14/05

Order #: 867387
Submission #: R2529242

Sample Matrix: SOIL/SEDIMENT

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	DILUTION
ARSENIC	6010B	1.00	21.8	MG/KG	01/13/06	10.0
BARIUM	6010B	2.00	275	MG/KG	01/11/06	10.0
CADMIUM	6010B	2.00	21.9 U	MG/KG	01/11/06	10.0
CHROMIUM	6010B	1.00	17.9	MG/KG	01/11/06	10.0
COPPER	6010B	2.00	21.9 U	MG/KG	01/13/06	10.0
LEAD	6010B	5.00	1350	MG/KG	01/11/06	10.0
MERCURY	7471A	0.0500	0.0942	MG/KG	12/30/05	1.0
SELENIUM	6010B	0.500	5.48 U	MG/KG	01/13/06	10.0
SILVER	6010B	1.00	11.0 U	MG/KG	01/11/06	10.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-Q2 (0-0.5')

Date Sampled : 12/13/05	Order #: 867388	Sample Matrix: SOIL/SEDIMENT
Date Received: 12/14/05	Submission #: R2529242	

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.3M	1.0	96.1	%	12/29/05	12:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-Q2 (0-0.5')

Date Sampled : 12/13/05
Date Received: 12/14/05

Order #: 867388
Submission #: R2529242

Sample Matrix: SOIL/SEDIMENT

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	DILUTION
ARSENIC	6010B	1.00	17.1	MG/KG	01/11/06	1.0
BARIUM	6010B	2.00	57.8	MG/KG	01/11/06	1.0
CADMIUM	6010B	2.00	2.08 U	MG/KG	01/11/06	1.0
CHROMIUM	6010B	1.00	18.6	MG/KG	01/11/06	1.0
COPPER	6010B	2.00	42.0	MG/KG	01/11/06	1.0
LEAD	6010B	5.00	76.8	MG/KG	01/11/06	1.0
MERCURY	7471A	0.0500	0.152	MG/KG	12/30/05	1.0
SELENIUM	6010B	1.00	1.04 U	MG/KG	01/11/06	1.0
SILVER	6010B	1.00	1.04 U	MG/KG	01/11/06	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-Q8 (0-1')

Date Sampled : 12/13/05	Order #: 867389	Sample Matrix: SOIL/SEDIMENT
Date Received: 12/14/05	Submission #: R2529242	

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.3M	1.0	87.0	%	12/29/05	12:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-Q8 (0-1')

Date Sampled : 12/13/05
Date Received: 12/14/05

Order #: 867389
Submission #: R2529242

Sample Matrix: SOIL/SEDIMENT

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	DILUTION
ARSENIC	6010B	1.00	54.3	MG/KG	01/13/06	10.0
BARIUM	6010B	2.00	102	MG/KG	01/11/06	10.0
CADMIUM	6010B	2.00	23.0 U	MG/KG	01/11/06	10.0
CHROMIUM	6010B	1.00	19.5	MG/KG	01/11/06	10.0
COPPER	6010B	2.00	26.3	MG/KG	01/13/06	10.0
LEAD	6010B	5.00	57.5 U	MG/KG	01/11/06	10.0
MERCURY	7471A	0.0500	0.147	MG/KG	12/30/05	1.0
SELENIUM	6010B	0.500	5.75 U	MG/KG	01/13/06	10.0
SILVER	6010B	1.00	11.5 U	MG/KG	01/11/06	10.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-U6 (0-0.5')

Date Sampled : 12/13/05	Order #: 867390	Sample Matrix: SOIL/SEDIMENT
Date Received: 12/14/05	Submission #: R2529242	

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.3M	1.0	99.8	%	12/29/05	12:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-U6 (0-0.5')

Date Sampled : 12/13/05
Date Received: 12/14/05

Order #: 867390
Submission #: R2529242

Sample Matrix: SOIL/SEDIMENT

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	DILUTION
ARSENIC	6010B	1.00	8.58	MG/KG	01/11/06	1.0
BARIUM	6010B	2.00	8.54	MG/KG	01/11/06	1.0
CADMIUM	6010B	2.00	2.00 U	MG/KG	01/11/06	1.0
CHROMIUM	6010B	1.00	10.0	MG/KG	01/11/06	1.0
COPPER	6010B	2.00	9.24	MG/KG	01/11/06	1.0
LEAD	6010B	5.00	28.2	MG/KG	01/11/06	1.0
MERCURY	7471A	0.0500	0.0501 U	MG/KG	12/30/05	1.0
SELENIUM	6010B	1.00	1.00 U	MG/KG	01/11/06	1.0
SILVER	6010B	1.00	1.00 U	MG/KG	01/11/06	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-U8 (0-1')

Date Sampled : 12/13/05	Order #: 867391	Sample Matrix: SOIL/SEDIMENT
Date Received: 12/14/05	Submission #: R2529242	

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.3M	1.0	88.1	%	12/29/05	12:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-U8 (0-1')

Date Sampled : 12/13/05 Order #: 867391 Sample Matrix: SOIL/SEDIMENT
Date Received: 12/14/05 Submission #: R2529242

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	DILUTION
ARSENIC	6010B	1.00	23.2	MG/KG	01/11/06	1.0
BARIUM	6010B	2.00	57.9	MG/KG	01/11/06	1.0
CADMIUM	6010B	2.00	2.69	MG/KG	01/11/06	1.0
CHROMIUM	6010B	1.00	18.7	MG/KG	01/11/06	1.0
COPPER	6010B	2.00	42.5	MG/KG	01/11/06	1.0
LEAD	6010B	5.00	72.5	MG/KG	01/11/06	1.0
MERCURY	7471A	0.0500	1.66	MG/KG	12/30/05	1.0
SELENIUM	6010B	1.00	1.14 U	MG/KG	01/11/06	1.0
SILVER	6010B	1.00	1.14 U	MG/KG	01/11/06	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-AA10 (0-0.5')

Date Sampled : 12/13/05	Order #: 867392	Sample Matrix: SOIL/SEDIMENT
Date Received: 12/14/05	Submission #: R2529242	

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.3M	1.0	94.4	%	12/29/05	12:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-AA10 (0-0.5')

Date Sampled : 12/13/05
Date Received: 12/14/05

Order #: 867392
Submission #: R2529242

Sample Matrix: SOIL/SEDIMENT

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	DILUTION
ARSENIC	6010B	1.00	83.8	MG/KG	01/11/06	1.0
BARIUM	6010B	2.00	50.6	MG/KG	01/11/06	1.0
CADMIUM	6010B	2.00	2.12 U	MG/KG	01/11/06	1.0
CHROMIUM	6010B	1.00	23.2	MG/KG	01/11/06	1.0
COPPER	6010B	2.00	53.3	MG/KG	01/11/06	1.0
LEAD	6010B	5.00	130	MG/KG	01/11/06	1.0
MERCURY	7471A	0.0500	0.136	MG/KG	12/30/05	1.0
SELENIUM	6010B	1.00	1.06 U	MG/KG	01/11/06	1.0
SILVER	6010B	1.00	1.06 U	MG/KG	01/11/06	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-Z12 (0-1')

Date Sampled : 12/13/05	Order #: 867393	Sample Matrix: SOIL/SEDIMENT
Date Received: 12/14/05	Submission #: R2529242	

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.3M	1.0	94.5	%	12/29/05	12:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-Z12 (0-1')

Date Sampled : 12/13/05 Order #: 867393 Sample Matrix: SOIL/SEDIMENT
Date Received: 12/14/05 Submission #: R2529242

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	DILUTION
ARSENIC	6010B	1.00	17.0	MG/KG	01/11/06	1.0
BARIUM	6010B	2.00	68.0	MG/KG	01/11/06	1.0
CADMIUM	6010B	2.00	2.12 U	MG/KG	01/11/06	1.0
CHROMIUM	6010B	1.00	12.2	MG/KG	01/11/06	1.0
COPPER	6010B	2.00	22.2	MG/KG	01/11/06	1.0
LEAD	6010B	5.00	52.2	MG/KG	01/11/06	1.0
MERCURY	7471A	0.0500	0.0529 U	MG/KG	12/30/05	1.0
SELENIUM	6010B	1.00	1.06 U	MG/KG	01/11/06	1.0
SILVER	6010B	1.00	1.06 U	MG/KG	01/11/06	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-K2 (0-0.5')

Date Sampled : 12/13/05	Order #: 867394	Sample Matrix: SOIL/SEDIMENT
Date Received: 12/14/05	Submission #: R2529242	

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.3M	1.0	84.5	%	12/29/05	12:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 01/25/06

Fuss & O'Neill, Inc
Project Reference: AC DUTTON
Client Sample ID : ACD-SL-K2 (0-0.5')

Date Sampled : 12/13/05
Date Received: 12/14/05

Order #: 867394
Submission #: R2529242

Sample Matrix: SOIL/SEDIMENT

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	DILUTION
ARSENIC	6010B	1.00	65.2	MG/KG	01/13/06	10.0
BARIUM	6010B	2.00	199	MG/KG	01/11/06	10.0
CADMIUM	6010B	2.00	23.7 U	MG/KG	01/11/06	10.0
CHROMIUM	6010B	1.00	26.4	MG/KG	01/11/06	10.0
COPPER	6010B	2.00	68.4	MG/KG	01/13/06	10.0
LEAD	6010B	5.00	161	MG/KG	01/11/06	10.0
MERCURY	7471A	0.0500	0.244	MG/KG	12/30/05	1.0
SELENIUM	6010B	0.500	5.92 U	MG/KG	01/13/06	10.0
SILVER	6010B	1.00	11.8 U	MG/KG	01/11/06	10.0

COLUMBIA ANALYTICAL SERVICES

INORGANIC BLANK SPIKE SUMMARY

CAS Submission #: R2529242
 Client: Fuss & O'Neill, Inc
 AC DUTTON

BLANK SPIKES

	BLANK	FOUND	ADDED	% REC	LIMITS	RUN	UNITS
MERCURY	0.0500 U	1.85	1.77	104	57 - 142	124757	MG/KG
ARSENIC	1.00 U	148	146	101	74 - 126	125198	MG/KG
COPPER	2.00 U	69.3	70.0	99	82 - 118	125198	MG/KG
SELENIUM	1.00 U	70.7	73.0	97	74 - 125	125198	MG/KG
BARIUM	2.00 U	360	351	103	77 - 123	125202	MG/KG
CADMIUM	2.00 U	100	91.9	109	77 - 123	125202	MG/KG
CHROMIUM	1.00 U	187	176	106	80 - 120	125202	MG/KG
LEAD	5.00 U	66.2	68.1	97	76 - 124	125202	MG/KG
SILVER	1.00 U	94.8	93.0	102	74 - 126	125202	MG/KG
ARSENIC	1.00 U	138	146	94	74 - 126	125363	MG/KG

COLUMBIA ANALYTICAL SERVICES

INORGANIC BLANK SPIKE SUMMARY

CAS Submission #: R2529242
Client: Fuss & O'Neill, Inc
AC DUTTON

BLANK SPIKES

	BLANK	FOUND	ADDED	% REC	LIMITS	RUN	UNITS
COPPER	2.00 U	64.2	70.0	92	82 - 118	125363	MG/KG
SELENIUM	0.500 U	73.1	73.0	100	74 - 125	125363	MG/KG



Fuss & O'Neill Inc.
consulting engineers
Environmental Field Services

FUSS & O'NEILL, INC.
146 HARTFORD ROAD
MANCHESTER, CT 06040
(860) 646-2469

CHAIN-OF-CUSTODY RECORD N^o 60893

PROJECT NAME		PROJECT LOCATION		PROJECT NUMBER		LABORATORY	
AC Dutton		North Livingston		20040764.AIN		CAS	
REPORT TO:		80 Washington St. Poughkeepsie, NY 12601		Source Codes:		L=Lake/Pond/Ocean PW=Potable Water SG=Sludge	
INVOICE TO:		845 452 680		MW=Monitor Well RO=Run Off T=Treatment Facility X= Other, Specify		LF=Landfill R=River/Stream ST=Septic Tank	
ITEM NUMBER	SAMPLE NUMBER	SOURCE CODE	CONTAINER		ANALYSIS REQUIRED	COMMENTS	TRANSFER NUMBER & CHECK
			NO.	TYPE	SIZE		1 2 3 4
1	ACD-SL-A6(0-1)	S	1	G	4oz.	RCRA 8 + copper method 6010	
2	ACD-SL-C2(0-0.5)	S	1	G	4oz.		
3	ACD-SL-E6(0-1)	S	1	G	4oz.		
4	ACD-SL-K6(0-0.5)	S	1	A	4oz.		
5	ACD-SL-M2(0-0.5)	S	1	A	4oz.		
6	ACD-SL-M6(0-1)	S	1	G	4oz.		
Container Code: P=Plastic V=VOA Vial C=Cube G=Glass A=Amber Glass T=Teflon Lid B=Bacteria Bottle							
Preservative Code: I=Iced F=Filtered N=Nitric Acid [HNO ₃] H=Hydrochloric Acid [HCl] S=Sodium Hydroxide [NaOH] T=Sodium Thiosulfate [Na ₂ S ₂ O ₃] B=Sodium Bisulfate [NaHSO ₄] O=Sulfuric Acid [H ₂ SO ₄] A=Ascorbic Acid [C ₆ H ₈ O ₆] X=Other, Specify							
Sampler's Signature		Affiliation		Date		Time	
North Livingston		Fuss & O'Neill		12/13/05			
ADDITIONAL COMMENTS:							
Please return cooler							
R2529247							
ACCEPTED BY							
DATE							
TIME							
12/12/05 7:40							
12/14/05 7:40							
12/14/05 9:45							



Fuss & O'Neill Inc.
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MANCHESTER, CT 06040
(860) 646-2469

CHAIN-OF-CUSTODY RECORD NO: 60895

PROJECT NAME		PROJECT LOCATION		PROJECT NUMBER		LABORATORY	
AC Dutton		Roughkeepsie, NY		20040764.AIN		CAS	
REPORT TO: Noah Livingston				Source Codes:		L=Lake/Pond/Ocean PW=Potable Water SG=Sludge ST=Septic Tank	
INVOICE TO: 80 Washington St. Roughkeepsie, NY 12601				MW=Monitor Well RO=Run Off T=Treatment Facility W=Well X= Other, Specify			
P.O.#: 845 4526801				ANALYSIS REQUIRED		TRANSFER NUMBER & CHECK	
ITEM NUMBER	SAMPLE NUMBER	SOURCE CODE	CONTAINER		COMMENTS	1 2 3 4	
			NO.	TYPE	SIZE	PRESERV.	
7	ACD-SL-Q2(0-0.5)	S	1	A	4oz.	1	
8	ACD-SL-Q8(0-1)	S	1	G	4oz.	1	
9	ACD-SL-U6(0-0.5)	S	1	A	4oz.	1	
10	ACD-SL-U8(0-1)	S	1	G	4oz.	1	
11	ACD-SL-AA10(0-0.5)	S	1	A	4oz.	1	
12	ACD-SL-Z12(0-1)	S	1	G	4oz.	1	
13	ACD-SL-K2(0-0.5)	S	1	G	4oz.	1	
Container Code: P=Plastic V=VOA Vial C=Cube G=Glass T=Teflon Lid B=Bacteria Bottle		S=Amber Glass		T=Teflon Lid		B=Bacteria Bottle	
Preservative Code: I=Iced F=Filtered B=Sodium Bisulfate [NaHSO4]		N=Nitric Acid [HNO3] H=Hydrochloric Acid [HCl] S=Sodium Hydroxide [NaOH] T=Sodium Thiosulfate [Na2S2O3]					
O=Sulfuric Acid [H2SO4] A=Ascorbic Acid [C6H8O6] X=Other, Specify							
Sampler's Signature		Affiliation		Date		Time	
Noah Livingston		Fuss & O'Neill		12/13/05			
ADDITIONAL COMMENTS:							
Please return cooler							
ACCEPTED BY		TRANSFERS RELINQUISHED BY		DATE		TIME	
Refrig.		Noah Livingston		12/13/05		7:45	
Refrig.		Refrig.		12/13/05		7:45	
Refrig.		Refrig.		12/13/05		9:45	

Cooler Receipt And Preservation Check Form

Project/Client Fuss + Oneill Submission Number R2-29742

Cooler received on 12-14-05 by: KZ COURIER: CAS UPS FEDEX VELOCITY CLIENT

1. Were custody seals on outside of cooler? YES NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did any VOA vials have significant air bubbles? YES NO N/A
5. Were Ice or Ice packs present? YES NO
6. Where did the bottles originate? CAS/ROC CLIENT
7. Temperature of cooler(s) upon receipt: 3°

Is the temperature within 0° - 6° C?: Yes Yes Yes Yes Yes

If No, Explain Below No No No No No

Date/Time Temperatures Taken: 12-14-05 @ 9:50

Thermometer ID: 161 or IR GUN Reading From: Temp Blank or Sample Bottle

If out of Temperature, Client Approval to Run Samples

PC Secondary Review: MM 12/14/05

Cooler Breakdown: Date: 12/16/05 by: MM

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies:

		YES	NO	Sample I.D.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO ₃					
2	H ₂ SO ₄					
Residual Chlorine (+/-)	for TCN & Phenol					
5-9**	P/PCBs (608 only)					

YES = All samples OK

NO = Samples were preserved at lab as listed

PC OK to adjust pH

**If pH adjustment is required, use NaOH and/or H₂SO₄

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2		

Other Comments:

PC Secondary Review:



APPENDIX D

FORMER A.C. DUTTON LUMBER FACILITY REMEDIAL INVESTIGATION REPORT

DATA USABILITY SUMMARY REPORT



MEMORANDUM

TO: AC Dutton 2004-0764 A1N
FROM: Paula Bibeau
DATE: 05/11/2006
RE: Sampling Event 05-T-01: Problems with import SDG R2529204 and R2629759

SDG R5259204

- Surrogate results were missing the units (%).
- Dilution was zero for some records. This is invalid. The dilution must be 0.01 to 9999. It cannot be zero.
- The results for this SDG had limit1 and limit2 incorrect. Limit1 is the reporting limit and limit2 is the MDL/PQL/IDL (whichever is used for a particular job). The limit1 should never be lower than limit2. It can be the same as limit2 if the data is being reported to the MDL/PQL/IDL.

SDG R2629759

- Filtered was T for some samples. This is an invalid. The only acceptable options are Y for yes, N for no or U for unknown.
- Basis was left blank for some records. Basis must be filled in for all soil samples.

Both SDG R2529204 and R2629759

- The lab_id was incorrect. It is CAS for Columbia Analytical Services in Rochester, NY as noted in the Fuss & O'Neill structure notes.
- The prog_type (program code) should be blank unless the data reported is air or soil gas data than the program code will always be S.
- The case_id should be left blank. This field to be filled in by us.

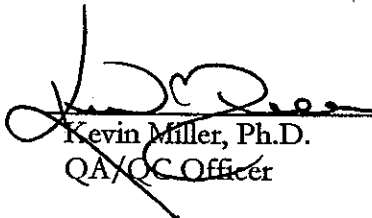
**Data Usability Summary Report
Project: 20040764.A1N – AC Dutton**

Columbia Analytical Services Lab Project Number:	<u>R2529204</u>
Date Samples Received at Laboratory:	<u>12/10/2005</u>
Date of Review:	<u>5/26/2006</u>

Four soil samples were collected and submitted to Columbia Analytical Services in Rochester, New York for analysis of volatile organic compounds (VOCs) (TCL list) and semi-volatile organic compounds (SVOCs) (TCL/STARS list) on a mass basis.

- Is the data package complete as defined under the requirements for NYDES ASP Category B deliverables? Yes ☒ No ☐
- Have all holding times been met? Yes ☒ No ☐
- Do all the QC data (blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, replicate analyses, laboratory controls, and sample data fall within the protocol required limits and specifications? Yes ☒ No ☐
- Have all of the data been generated using established and agreed upon analytical protocols? Yes ☒ No ☐
- Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes ☒ No ☐
- Have the correct data qualifiers been used? Yes ☒ No ☐

Certified by:



Kevin Miller, Ph.D.
QA/QC Officer

Data Validation
NYSDEC ASP
Category B Data Deliverables

Project Name: AC Dutton
Project Number: 20040764.A1N
SDG: R2529204

	YES	NO
SDG Narrative	☒	☐
Contract Lab Sample Information Sheets	☐	☒
NYSDEC Data Package Summary Forms	☒	☐
Chain of Custody Forms (external and internal)	☒	☐
GC/MS Volatiles Data		
QC Summary		
System Monitoring Compound Summary	☒	☐
MS/MSD Duplicate Summary	☒	☐
QC Check Sample/Standard	☒	☐
Method Blank Summary	☒	☐
GC/MS Instrument Performance Check	☒	☐
Instrument Detection Limits	☒	☐
Sample Data		
TCL Results (1 sig fig if <10; 2 sig figs if >10)	☒	☐
TICs (for up to 10 compounds)	☐	☒
RICs (Reconstructed Total Ion Chromatograms)	☒	☐
Standards Data		
Initial Calibration Data	☒	☐
Continuing Calibration	☒	☐
Raw QC Data		
BFB	☒	☐
Blanks	☒	☐
Matrix Spike Blanks	☒	☐
Matrix Spike Data	☒	☐
Matrix Spike Duplicate Data	☒	☐
QC Check Sample/Standard	☒	☐
Copy of Calculations	☒	☐
Copy of Extraction Logs	☒	☐
GC/MS Semi-Volatiles Data		
QC Summary		
Surrogate % Recovery Summary	☒	☐
MS/MSD Summary	☐	☒
QC Check Sample/Standard	☒	☐
Method Blank Summary	☒	☐
GC/MS Instrument Performance and Mass Calibration	☒	☐
Internal Standard Area and RT Summary	☒	☐
Instrument Detection Limits	☒	☐
Sample Data		
TCL Results	☒	☐
TICs	☐	☒
RICs	☒	☐

GC/MS Semi-Volatiles Data (continued)	YES	NO
Standards Data		
Initial Calibration Data	☒	☐
Continuing Calibration	☒	☐
Internal Standard Area Summary	☒	☐
SVOC GPC Calibration Data	☐	☒
Raw QC Data		
DFTPP	☒	☐
Blanks	☒	☐
Matrix Spike Blank Data	☒	☐
MSD Data	☒	☐
QC Check Sample/Standard	☒	☐
Copy of Calculations	☒	☐
Copy of Extraction Logs	☒	☐
GC/ECD Pesticides/Aroclor Data		
QC Summary	N/A	
MS/MSD/MS Blank Summary	☐	☐
QC Check Sample/Standard Recovery	☐	☐
Method Blank Summary	☐	☐
Instrument Detection Limits	☐	☐
Sample Data		
TCL Results	☐	☐
Copies of Pesticide Chromatograms	☐	☐
Standards Data		
ICal – Single	☐	☐
ICal – Multi	☐	☐
Analyte Resolution Summary	☐	☐
Calibration Verification Summary (Pest 1)	☐	☐
Calibration Verification Summary (Pest 2)	☐	☐
Analytical Sequence	☐	☐
Florisil Cartridge Check	☐	☐
Pesticide GPC Calibration	☐	☐
Pesticide Identification Summary – Single	☐	☐
Pesticide Identification Summary – Multi	☐	☐
Chromatograms/Data System Printouts	☐	☐
Retention Times and Peak Areas/Heights	☐	☐
Raw QC Data		
Blanks	☐	☐
Matrix Spike Data	☐	☐
Matrix Spike Duplicate Data	☐	☐
Matrix Spike Blank Data	☐	☐
QC Check Sample/Standard	☐	☐
Copy of Calculations	☐	☐
Copy of Extraction Log	☐	☐

	YES	NO
GC Organic Data		
QC Summary		
Surrogate Percent Recovery Summary	☐	☐
MS/MSD/MS Blank Summary	☐	☐
QC Check Sample/Standard	☐	☐
Method Blank Summary	☐	☐
Instrument Detection Limits	☐	☐
Sample Data		
TCL Results	☐	☐
Copies of Chromatograms	☐	☐
Copies of Chromatograms from 2 nd Column	☐	☐
GC Integration Report/Data System Printout	☐	☐
Manual Work Sheets	☐	☐
GPC Chromatograms	☐	☐
Standards Data		
Initial Calibration Data	☐	☐
Continuing Calibration Data	☐	☐
QC Check Sample/Standard	☐	☐
Standard Chromatograms/Data System		
Printouts (ALL Standards)	☐	☐
Raw QC Data		
Blank Data	☐	☐
MS Data	☐	☐
MSD Data	☐	☐
QC Check Sample/Standard	☐	☐
Copy of Calculations	☐	☐
Copy of Extraction Log	☐	☐
Inorganic Data	N/A	
Results – Inorganic Analysis Data Sheet	☐	☐
Quality Control Data		
Initial and Continuing Calibration Verification	☐	☐
CRDL Standard for AA and Linear Range		
Analysis for ICP	☐	☐
Blanks	☐	☐
ICP Interference Check Sample	☐	☐
Spike Sample Recovery	☐	☐
Post Digest Spike Sample Recovery	☐	☐
Duplicates	☐	☐
Quality Control Sample	☐	☐
Standard Addition Results	☐	☐
ICP Serial Dilutions	☐	☐
Holding Times	☐	☐

Inorganic Data (Continued)	YES	NO
Verification of Instrument Parameters		
Instrument Detection Limits (Semi-annually)	☐	☐
ICP Interelement Correction Factors (Annually) (Part 1)	☐	☐
ICP Interelement Correction Factors (Annually) (Part 2)	☐	☐
ICP Linear Ranges (Quarterly)	☐	☐
Raw Data		
Calibration Standards	☐	☐
Initial/Continuing Calibration Blanks/Prep Blanks	☐	☐
Initial/Continuing Calibration Verification Standards (Interference check samples, ICP serial dilution samples, CRDL Standard for ICP/AA, LCS, Post-Digest Spike)	☐	☐
Diluted/Undiluted Samples	☐	☐
Duplicates	☐	☐
Spikes	☐	☐
Digestion Logs	☐	☐
Wet-Chemical Data		
Results	☐	☐
QC Data	☐	☐
Raw Data	☐	☐
Digestion/Distillation Logs	☐	☐
TCLP Data		
Results	☐	☐
Inorganic QC Data	☐	☐
Verification of Instrument Parameters	☐	☐
Raw Data	☐	☐
Digestion Logs	☐	☐

Data Usability Summary Report
Project: 20040764.A1N – AC Dutton

Columbia Analytical Services Lab Project Number: R2629759
Date Samples Received at Laboratory: 1/7/2006
Date of Review: 5/26/2006

Eighteen soil samples were collected and submitted to Columbia Analytical Services in Rochester, New York for analysis of RCRA-8 metals and copper on a mass basis. In addition, TCLP extractions were performed on six of the samples.

- Is the data package complete as defined under the requirements for NYDES ASP Category B deliverables? Yes ☒ No ☐
- Have all holding times been met? Yes ☒ No ☐
- Do all the QC data (blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, replicate analyses, laboratory controls, and sample data fall within the protocol required limits and specifications? Yes ☐ No ☒

Initial and continuing calibration criteria were met for all analytes. Recoveries of cadmium, chromium, and lead in the matrix spike were outside control limits, biased high. Analyses of the remaining QA/QC samples were satisfactory.

- Have all of the data been generated using established and agreed upon analytical protocols? Yes ☒ No ☐
- Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes ☒ No ☐
- Have the correct data qualifiers been used? Yes ☒ No ☐

Certified by:


Kevin Miller, Ph.D.
QA/QC Officer

Data Validation
NYSDEC ASP
Category B Data Deliverables

Project Name: AC Dutton
Project Number: 20040764.A1N
SDG: R2629759

	YES	NO
SDG Narrative	☒	☐
Contract Lab Sample Information Sheets	☐	☒
NYSDEC Data Package Summary Forms	☒	☐
Chain of Custody Forms (external and internal)	☒	☐

GC/MS Volatiles Data

QC Summary

N/A

System Monitoring Compound Summary

MS/MSD Duplicate Summary

QC Check Sample/Standard

Method Blank Summary

GC/MS Instrument Performance Check

Instrument Detection Limits

Sample Data

TCL Results (1 sig fig if <10; 2 sig figs if >10)

TICs (for up to 10 compounds)

RICs (Reconstructed Total Ion Chromatograms)

Standards Data

Initial Calibration Data

Continuing Calibration

Raw QC Data

BFB

Blanks

Matrix Spike Blanks

Matrix Spike Data

Matrix Spike Duplicate Data

QC Check Sample/Standard

Copy of Calculations

Copy of Extraction Logs

GC/MS Semi-Volatiles Data

QC Summary

N/A

Surrogate % Recovery Summary

MS/MSD Summary

QC Check Sample/Standard

Method Blank Summary

GC/MS Instrument Performance and Mass Calibration

Internal Standard Area and RT Summary

Instrument Detection Limits

Sample Data

TCL Results

TICs

RICs

	YES	NO
GC Organic Data		
QC Summary		
Surrogate Percent Recovery Summary	☐	☐
MS/MSD/MS Blank Summary	☐	☐
QC Check Sample/Standard	☐	☐
Method Blank Summary	☐	☐
Instrument Detection Limits	☐	☐
Sample Data		
TCL Results	☐	☐
Copies of Chromatograms	☐	☐
Copies of Chromatograms from 2 nd Column	☐	☐
GC Integration Report/Data System Printout	☐	☐
Manual Work Sheets	☐	☐
GPC Chromatograms	☐	☐
Standards Data		
Initial Calibration Data	☐	☐
Continuing Calibration Data	☐	☐
QC Check Sample/Standard	☐	☐
Standard Chromatograms/Data System		
Printouts (ALL Standards)	☐	☐
Raw QC Data		
Blank Data	☐	☐
MS Data	☐	☐
MSD Data	☐	☐
QC Check Sample/Standard	☐	☐
Copy of Calculations	☐	☐
Copy of Extraction Log	☐	☐
Inorganic Data		
Results – Inorganic Analysis Data Sheet	☒	☐
Quality Control Data		
Initial and Continuing Calibration Verification	☒	☐
CRDL Standard for AA and Linear Range		
Analysis for ICP	☒	☐
Blanks	☒	☐
ICP Interference Check Sample	☒	☐
Spike Sample Recovery	☒	☐
Post Digest Spike Sample Recovery	☒	☐
Duplicates	☒	☐
Quality Control Sample	☒	☐
Standard Addition Results	☐	☒
ICP Serial Dilutions	☒	☐
Holding Times	☒	☐

Inorganic Data (Continued)	YES	NO
Verification of Instrument Parameters		
Instrument Detection Limits (Semi-annually)	☒	☐
ICP Interelement Correction Factors (Annually) (Part 1)	☒	☐
ICP Interelement Correction Factors (Annually) (Part 2)	☒	☐
ICP Linear Ranges (Quarterly)	☒	☐
Raw Data		
Calibration Standards	☒	☐
Initial/Continuing Calibration Blanks/Prep Blanks	☒	☐
Initial/Continuing Calibration Verification Standards (Interference check samples, ICP serial dilution samples, CRDL Standard for ICP/AA, LCS, Post-Digest Spike)	☒	☐
Diluted/Undiluted Samples	☒	☐
Duplicates	☒	☐
Spikes	☒	☐
Digestion Logs	☒	☐
Wet-Chemical Data		
Results	☒	☐
QC Data	☒	☐
Raw Data	☒	☐
Digestion/Distillation Logs	☒	☐
TCLP Data		
Results	☒	☐
Inorganic QC Data	☒	☐
Verification of Instrument Parameters	☒	☐
Raw Data	☒	☐
Digestion Logs	☒	☐

PERIOD: From 12/01/2005 thru 12/19/2005 - Inclusive
SAMPLE TYPE: Soil

[x]=Less than Reporting Limit ----=Not analyzed

PERIOD: From 12/01/2005 thru 12/19/2005 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE	A03	AA10	AA10	AA11	B03	C04
	SAMPLE ID	A03_0.5-2.5	AA10_8-10	AA10_12-14	AA11_12-13	B03_0-0.5	C04_0.5-3
	DATE	12/15/2005	12/07/2005	12/07/2005	12/08/2005	12/15/2005	12/06/2005
	DEPTH (ft)	1.50	9.00	13.00	12.50	0.25	1.75
1,2-Dichloropropane	(ug/kg)	----	----	<28U	<5.9U	----	----
cis-1,3-Dichloropropene	(ug/kg)	----	----	<28U	<5.9U	----	----
Trans-1,3-Dichloropropene	(ug/kg)	----	----	<28U	<5.9U	----	----
Methyl tert butyl ether	(ug/kg)	----	----	<28U	<5.9U	----	----
Ethylbenzene	(ug/kg)	----	----	<28U	<5.9U	----	----
2-Hexanone	(ug/kg)	----	----	<55U	<12U	----	----
Isopropylbenzene	(ug/kg)	----	----	<28U	<5.9U	----	----
4-Isopropyltoluene	(ug/kg)	----	----	<28U	<5.9U	----	----
Methylene chloride	(ug/kg)	----	----	110	9.9	----	----
Naphthalene	(ug/kg)	----	----	[150]J ?	<5.9U ?	----	----
4-Methyl-2-pentanone (MIBK)	(ug/kg)	----	----	<55U	<12U	----	----
n-Propylbenzene	(ug/kg)	----	----	<28U	<5.9U	----	----
Styrene	(ug/kg)	----	----	<28U	<5.9U	----	----
1,1,2,2-Tetrachloroethane	(ug/kg)	----	----	<28U	<5.9U	----	----
Tetrachloroethene	(ug/kg)	----	----	<28U	<5.9U	----	----
Toluene	(ug/kg)	----	----	[1.8]J	<5.9U	----	----
1,1,1-trichloroethane	(ug/kg)	----	----	<28U	<5.9U	----	----
1,1,2-Trichloroethane	(ug/kg)	----	----	<28U	<5.9U	----	----
Trichloroethene	(ug/kg)	----	----	<28U	<5.9U	----	----
1,3,5-Trimethylbenzene	(ug/kg)	----	----	<28U	<5.9U	----	----
1,2,4-Trimethylbenzene	(ug/kg)	----	----	<28U	<5.9U	----	----

?=Duplicate records found, Data review required. [x]=Less than Reporting Limit ----=Not analyzed

Summary of Analytical Results

AC Dutton
Poughkeepsie, New York

PERIOD: From 12/01/2005 thru 12/19/2005 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE SAMPLE ID DATE DEPTH (ft)	A03 A03_0.5-2.5 12/15/2005 1.50	AA10 AA10_8-10 12/07/2005 9.00	AA10 AA10_12-14 12/07/2005 13.00	AA11 AA11_12-13 12/08/2005 12.50	B03 B03_0-0.5 12/15/2005 0.25	C04 C04_0.5-3 12/06/2005 1.75
Vinyl Chloride	(ug/kg)	----	----	<28U	<5.9U	----	----
o-Xylene	(ug/kg)	----	----	<28U	<5.9U	----	----
M/P-xylenes	(ug/kg)	----	----	<28U	<5.9U	----	----
Acenaphthene	(ug/kg)	----	----	<360U	<780U	----	----
Anthracene	(ug/kg)	----	----	<360U	<780U	----	----
Benzo(a)anthracene	(ug/kg)	----	----	[280]J	[200]J	----	----
Benzo(a)pyrene	(ug/kg)	----	----	[260]J	[210]J	----	----
Benzo(b)fluoranthene	(ug/kg)	----	----	[160]J	[180]J	----	----
Benzo(ghi)perylene	(ug/kg)	----	----	[160]J	[170]J	----	----
Benzo(k)fluoranthene	(ug/kg)	----	----	[160]J	[220]J	----	----
Indeno(1,2,3-cd)pyrene	(ug/kg)	----	----	[92]J	[160]J	----	----
Chrysene	(ug/kg)	----	----	[240]J	[200]J	----	----
Dibenzo(a,h)anthracene	(ug/kg)	----	----	[37]J	<780U	----	----
Fluoranthene	(ug/kg)	----	----	400	[230]J	----	----
Fluorene	(ug/kg)	----	----	<360U	<780U	----	----
Phenanthrene	(ug/kg)	----	----	<360U	[130]J	----	----
Pyrene	(ug/kg)	----	----	990	[200]J	----	----
Arsenic	(mg/kg)	7.2	7.1	----	----	18.2	7.8
Barium	(mg/kg)	20.3	45.4	----	----	63.0	32.8
Cadmium	(mg/kg)	1.2N	1.5N	----	----	<1.1UN	1.1N
Chromium	(mg/kg)	15.5N	20.4N	----	----	13.9N	8.5N

[x]=Less than Reporting Limit ----=Not analyzed

Summary of Analytical Results

AC Dutton
Poughkeepsie, New York

PERIOD: From 12/01/2005 thru 12/19/2005 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE	A03	AA10	AA10	AA11	B03	C04
	SAMPLE ID	A03_0.5-2.5	AA10_8-10	AA10_12-14	AA11_12-13	B03_0-0.5	C04_0.5-3
	DATE	12/15/2005	12/07/2005	12/07/2005	12/08/2005	12/15/2005	12/06/2005
	DEPTH (ft)	1.50	9.00	13.00	12.50	0.25	1.75
Copper	(mg/kg)	40.3	44.2	----	----	20.3	50.1
Lead	(mg/kg)	20.5N	18.3N	----	----	19.7N	33.0N
Mercury	(mg/kg)	0.11	0.06	----	----	0.05	0.12
Selenium	(mg/kg)	<1.1U	<1.1U	----	----	<2.2U	<1.1U
Silver	(mg/kg)	<1.1U	<1.1U	----	----	<2.2U	<1.1U
Arsenic (TCLP)	(ug/l)	----	<500U	----	----	<500U	----
Barium (TCLP)	(ug/l)	----	<1000U	----	----	1480	----
Cadmium (TCLP)	(ug/l)	----	<100U	----	----	<100U	----
Chromium (TCLP)	(ug/l)	----	<100U	----	----	<100U	----
Lead (TCLP)	(ug/l)	----	<100U	----	----	<100U	----
Mercury (TCLP)	(ug/l)	----	<2.0U	----	----	<2.0U	----
Selenium (TCLP)	(ug/l)	----	<500U	----	----	<500U	----
Silver (TCLP)	(ug/l)	----	<100U	----	----	<100U	----

----=Not analyzed

Summary of Analytical Results

AC Dutton
Poughkeepsie, New York

SAMPLE TYPE: Soil

CONSTITUENT	SITE	D02	E04	E05	G02	G04	H07
	SAMPLE ID	D02_6-8	E04_3-6	E05_3-6	G02_0.5-3	G04_10-11	H07_0.5-3
	DATE	12/15/2005	12/06/2005	12/19/2005	12/06/2005	12/13/2005	12/14/2005
	DEPTH (ft)	7.00	4.50	4.50	1.75	10.50	1.75
Acetone	(ug/kg)	----	----	----	----	----	----
Benzene	(ug/kg)	----	----	----	----	----	----
Bromodichloromethane	(ug/kg)	----	----	----	----	----	----
Bromoform	(ug/kg)	----	----	----	----	----	----
Bromomethane	(ug/kg)	----	----	----	----	----	----
2-Butanone (MEK)	(ug/kg)	----	----	----	----	----	----
sec-Butylbenzene	(ug/kg)	----	----	----	----	----	----
n-Butylbenzene	(ug/kg)	----	----	----	----	----	----
tert-Butylbenzene	(ug/kg)	----	----	----	----	----	----
Carbon Disulfide	(ug/kg)	----	----	----	----	----	----
Carbon tetrachloride	(ug/kg)	----	----	----	----	----	----
Chlorobenzene	(ug/kg)	----	----	----	----	----	----
Chloroethane	(ug/kg)	----	----	----	----	----	----
Chloroform	(ug/kg)	----	----	----	----	----	----
Chloromethane	(ug/kg)	----	----	----	----	----	----
Dibromochloromethane	(ug/kg)	----	----	----	----	----	----
1,1-Dichloroethane	(ug/kg)	----	----	----	----	----	----
1,2-Dichloroethane	(ug/kg)	----	----	----	----	----	----
1,1-Dichloroethene	(ug/kg)	----	----	----	----	----	----
cis-1,2-Dichloroethene	(ug/kg)	----	----	----	----	----	----
Trans-1,2-Dichloroethene	(ug/kg)	----	----	----	----	----	----
----=Not analyzed							

Summary of Analytical Results

AC Dutton
Poughkeepsie, New York

SAMPLE TYPE: Soil

CONSTITUENT	SITE	D02	E04	E05	G02	G04	H07
	SAMPLE ID	D02_6-8	E04_3-6	E05_3-6	G02_0.5-3	G04_10-11	H07_0.5-3
	DATE	12/15/2005	12/06/2005	12/19/2005	12/06/2005	12/13/2005	12/14/2005
	DEPTH (ft)	7.00	4.50	4.50	1.75	10.50	1.75
1,2-Dichloropropane	(ug/kg)	----	----	----	----	----	----
cis-1,3-Dichloropropene	(ug/kg)	----	----	----	----	----	----
Trans-1,3-Dichloropropene	(ug/kg)	----	----	----	----	----	----
Methyl tert butyl ether	(ug/kg)	----	----	----	----	----	----
Ethylbenzene	(ug/kg)	----	----	----	----	----	----
2-Hexanone	(ug/kg)	----	----	----	----	----	----
Isopropylbenzene	(ug/kg)	----	----	----	----	----	----
4-Isopropyltoluene	(ug/kg)	----	----	----	----	----	----
Methylene chloride	(ug/kg)	----	----	----	----	----	----
Naphthalene	(ug/kg)	----	----	----	----	----	----
4-Methyl-2-pentanone (MIBK)	(ug/kg)	----	----	----	----	----	----
n-Propylbenzene	(ug/kg)	----	----	----	----	----	----
Styrene	(ug/kg)	----	----	----	----	----	----
1,1,2,2-Tetrachloroethane	(ug/kg)	----	----	----	----	----	----
Tetrachloroethene	(ug/kg)	----	----	----	----	----	----
Toluene	(ug/kg)	----	----	----	----	----	----
1,1,1-trichloroethane	(ug/kg)	----	----	----	----	----	----
1,1,2-Trichloroethane	(ug/kg)	----	----	----	----	----	----
Trichloroethene	(ug/kg)	----	----	----	----	----	----
1,3,5-Trimethylbenzene	(ug/kg)	----	----	----	----	----	----
1,2,4-Trimethylbenzene	(ug/kg)	----	----	----	----	----	----
----=Not analyzed							

PERIOD: From 12/01/2005 thru 12/19/2005 - Inclusive
SAMPLE TYPE: Soil

----=Not analyzed

AC Dutton
Poughkeepsie, New York

SAMPLE TYPE: Soil

----=Not analyzed

AC Dutton
Poughkeepsie, New York

SAMPLE TYPE: Soil

----=Not analyzed

Summary of Analytical Results

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AC Dutton
Poughkeepsie, New York

PERIOD: From 12/01/2005 thru 12/19/2005 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE SAMPLE ID DATE DEPTH (ft)	I09 I09_2-5 12/19/2005 3.50	L04 L04_0.5-3 12/13/2005 1.75	Q06 Q06_1-3 12/01/2005 2.00	S04 S04_2-3 12/13/2005 2.50	T10 T10_0.5-3 12/15/2005 1.75	U05 U05_4-8 12/08/2005 6.00
Vinyl Chloride	(ug/kg)	----	----	----	----	----	----
o-Xylene	(ug/kg)	----	----	----	----	----	<5.8U
M/P-xylenes	(ug/kg)	----	----	----	----	----	<5.8U
Acenaphthene	(ug/kg)	----	----	----	----	----	<380U
Anthracene	(ug/kg)	----	----	----	----	----	<380U
Benzo(a)anthracene	(ug/kg)	----	----	----	----	----	<380U
Benzo(a)pyrene	(ug/kg)	----	----	----	----	----	<380U
Benzo(b)fluoranthene	(ug/kg)	----	----	----	----	----	<380U
Benzo(ghi)perylene	(ug/kg)	----	----	----	----	----	<380U
Benzo(k)fluoranthene	(ug/kg)	----	----	----	----	----	<380U
Indeno(1,2,3-cd)pyrene	(ug/kg)	----	----	----	----	----	<380U
Chrysene	(ug/kg)	----	----	----	----	----	<380U
Dibenzo(a,h)anthracene	(ug/kg)	----	----	----	----	----	<380U
Fluoranthene	(ug/kg)	----	----	----	----	----	<380U
Fluorene	(ug/kg)	----	----	----	----	----	<380U
Phenanthrene	(ug/kg)	----	----	----	----	----	<380U
Pyrene	(ug/kg)	----	----	----	----	----	<380U
Arsenic	(mg/kg)	66.7N	21.4	44.4	11.0	36.1	----
Barium	(mg/kg)	175	92.9	142	22.1	121	----
Cadmium	(mg/kg)	<12.4U	<2.8UN	<11.8UN	1.9N	<1.4UN	----
Chromium	(mg/kg)	<24.7U	12.7N	<23.6UN	20.2N	9.2N	----

----=Not analyzed

AC Dutton
Poughkeepsie, New York

SAMPLE TYPE: Soil

----=Not analyzed

Summary of Analytical Results

AC Dutton
Poughkeepsie, New York

PERIOD: From 12/01/2005 thru 12/19/2005 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE SAMPLE ID DATE DEPTH (ft)	U06 U06_6-8 12/07/2005 7.00	V09 V09_3-6 12/19/2005 4.50	Y12 Y12_0.5-4 12/07/2005 2.25	Z09 Z09_3-6 12/15/2005 4.50
Acetone	(ug/kg)	----	----	----	----
Benzene	(ug/kg)	<6.2U	----	----	----
Bromodichloromethane	(ug/kg)	----	----	----	----
Bromoform	(ug/kg)	----	----	----	----
Bromomethane	(ug/kg)	----	----	----	----
2-Butanone (MEK)	(ug/kg)	----	----	----	----
sec-Butylbenzene	(ug/kg)	<6.2U	----	----	----
n-Butylbenzene	(ug/kg)	<6.2U	----	----	----
tert-Butylbenzene	(ug/kg)	<6.2U	----	----	----
Carbon Disulfide	(ug/kg)	----	----	----	----
Carbon tetrachloride	(ug/kg)	----	----	----	----
Chlorobenzene	(ug/kg)	----	----	----	----
Chloroethane	(ug/kg)	----	----	----	----
Chloroform	(ug/kg)	----	----	----	----
Chloromethane	(ug/kg)	----	----	----	----
Dibromochloromethane	(ug/kg)	----	----	----	----
1,1-Dichloroethane	(ug/kg)	----	----	----	----
1,2-Dichloroethane	(ug/kg)	----	----	----	----
1,1-Dichloroethene	(ug/kg)	----	----	----	----
cis-1,2-Dichloroethene	(ug/kg)	----	----	----	----
Trans-1,2-Dichloroethene	(ug/kg)	----	----	----	----
----=Not analyzed					

Summary of Analytical Results

AC Dutton
Poughkeepsie, New York

PERIOD: From 12/01/2005 thru 12/19/2005 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE SAMPLE ID DATE DEPTH (ft)	U06 U06_6-8 12/07/2005 7.00	V09 V09_3-6 12/19/2005 4.50	Y12 Y12_0.5-4 12/07/2005 2.25	Z09 Z09_3-6 12/15/2005 4.50
1,2-Dichloropropane	(ug/kg)	----	----	----	----
cis-1,3-Dichloropropene	(ug/kg)	----	----	----	----
Trans-1,3-Dichloropropene	(ug/kg)	----	----	----	----
Methyl tert butyl ether	(ug/kg)	<6.2U	----	----	----
Ethylbenzene	(ug/kg)	<6.2U	----	----	----
2-Hexanone	(ug/kg)	----	----	----	----
Isopropylbenzene	(ug/kg)	<6.2U	----	----	----
4-Isopropyltoluene	(ug/kg)	<6.2U	----	----	----
Methylene chloride	(ug/kg)	----	----	----	----
Naphthalene	(ug/kg)	<6.2U ?	----	----	----
4-Methyl-2-pentanone (MIBK)	(ug/kg)	----	----	----	----
n-Propylbenzene	(ug/kg)	<6.2U	----	----	----
Styrene	(ug/kg)	----	----	----	----
1,1,2,2-Tetrachloroethane	(ug/kg)	----	----	----	----
Tetrachloroethene	(ug/kg)	----	----	----	----
Toluene	(ug/kg)	<6.2U	----	----	----
1,1,1-trichloroethane	(ug/kg)	----	----	----	----
1,1,2-Trichloroethane	(ug/kg)	----	----	----	----
Trichloroethene	(ug/kg)	----	----	----	----
1,3,5-Trimethylbenzene	(ug/kg)	<6.2U	----	----	----
1,2,4-Trimethylbenzene	(ug/kg)	<6.2U	----	----	----
?=Duplicate records found, Data review required. ----=Not analyzed					

Summary of Analytical Results

AC Dutton
Poughkeepsie, New York

PERIOD: From 12/01/2005 thru 12/19/2005 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE SAMPLE ID DATE DEPTH (ft)	U06 U06_6-8 12/07/2005 7.00	V09 V09_3-6 12/19/2005 4.50	Y12 Y12_0.5-4 12/07/2005 2.25	Z09 Z09_3-6 12/15/2005 4.50
Vinyl Chloride	(ug/kg)	----	----	----	----
o-Xylene	(ug/kg)	<6.2U	----	----	----
M/P-xylenes	(ug/kg)	<6.2U	----	----	----
Acenaphthene	(ug/kg)	<410U	----	----	----
Anthracene	(ug/kg)	<410U	----	----	----
Benzo(a)anthracene	(ug/kg)	<410U	----	----	----
Benzo(a)pyrene	(ug/kg)	<410U	----	----	----
Benzo(b)fluoranthene	(ug/kg)	<410U	----	----	----
Benzo(ghi)perylene	(ug/kg)	<410U	----	----	----
Benzo(k)fluoranthene	(ug/kg)	<410U	----	----	----
Indeno(1,2,3-cd)pyrene	(ug/kg)	<410U	----	----	----
Chrysene	(ug/kg)	<410U	----	----	----
Dibenzo(a,h)anthracene	(ug/kg)	<410U	----	----	----
Fluoranthene	(ug/kg)	[72]J	----	----	----
Fluorene	(ug/kg)	<410U	----	----	----
Phenanthrene	(ug/kg)	[140]J	----	----	----
Pyrene	(ug/kg)	[120]J	----	----	----
Arsenic	(mg/kg)	----	6.2	31.4	24.5
Barium	(mg/kg)	----	34.1	107	117
Cadmium	(mg/kg)	----	5.0N	2.1N	1.2N
Chromium	(mg/kg)	----	9.9N	26.0N	13.6N
[x]=Less than Reporting Limit ----=Not analyzed					

Summary of Analytical Results

AC Dutton
Poughkeepsie, New York

PERIOD: From 12/01/2005 thru 12/19/2005 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE SAMPLE ID DATE DEPTH (ft)	U06 U06_6-8 12/07/2005 7.00	V09 V09_3-6 12/19/2005 4.50	Y12 Y12_0.5-4 12/07/2005 2.25	Z09 Z09_3-6 12/15/2005 4.50
Copper	(mg/kg)	----	46.8	60.3	35.0
Lead	(mg/kg)	----	26.5N	328N	125N
Mercury	(mg/kg)	----	0.04	0.22	0.20
Selenium	(mg/kg)	----	<1.1U	<1.4U	<1.2U
Silver	(mg/kg)	----	1.2	<1.4U	<1.2U
Arsenic (TCLP)	(ug/l)	----	----	----	----
Barium (TCLP)	(ug/l)	----	----	----	----
Cadmium (TCLP)	(ug/l)	----	----	----	----
Chromium (TCLP)	(ug/l)	----	----	----	----
Lead (TCLP)	(ug/l)	----	----	----	----
Mercury (TCLP)	(ug/l)	----	----	----	----
Selenium (TCLP)	(ug/l)	----	----	----	----
Silver (TCLP)	(ug/l)	----	----	----	----
-----=Not analyzed					

Summary of Detected Analytical Results

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Date: 05/11/2006AC Dutton
Poughkeepsie, New York

PERIOD: From 12/01/2005 thru 12/19/2005 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE SAMPLE ID DATE DEPTH (ft)	A03 A03_0.5-2.5 12/15/2005 1.50	AA10 AA10_8-10 12/07/2005 9.00	AA10 AA10_12-14 12/07/2005 13.00	AA11 AA11_12-13 12/08/2005 12.50	B03 B03_0-0.5 12/15/2005 0.25	C04 C04_0.5-3 12/06/2005 1.75
Acetone	(ug/kg)	----	----	32J	[5.7]J	----	----
Benzene	(ug/kg)	----	----	36	[0.90]J	----	----
Carbon Disulfide	(ug/kg)	----	----	[4.2]J	[1.00]J	----	----
Methylene chloride	(ug/kg)	----	----	110	9.9	----	----
Naphthalene	(ug/kg)	----	----	[150]J ?	<5.9U ?	----	----
Toluene	(ug/kg)	----	----	[1.8]J	<5.9U	----	----
Benzo(a)anthracene	(ug/kg)	----	----	[280]J	[200]J	----	----
Benzo(a)pyrene	(ug/kg)	----	----	[260]J	[210]J	----	----
Benzo(b)fluoranthene	(ug/kg)	----	----	[160]J	[180]J	----	----
Benzo(ghi)perylene	(ug/kg)	----	----	[160]J	[170]J	----	----
Benzo(k)fluoranthene	(ug/kg)	----	----	[160]J	[220]J	----	----
Indeno(1,2,3-cd)pyrene	(ug/kg)	----	----	[92]J	[160]J	----	----
Chrysene	(ug/kg)	----	----	[240]J	[200]J	----	----
Dibenzo(a,h)anthracene	(ug/kg)	----	----	[37]J	<780U	----	----
Fluoranthene	(ug/kg)	----	----	400	[230]J	----	----
Phenanthrene	(ug/kg)	----	----	<360U	[130]J	----	----
Pyrene	(ug/kg)	----	----	990	[200]J	----	----
Arsenic	(mg/kg)	7.2	7.1	----	----	18.2	7.8
Barium	(mg/kg)	20.3	45.4	----	----	63.0	32.8
Cadmium	(mg/kg)	1.2N	1.5N	----	----	<1.1UN	1.1N
Chromium	(mg/kg)	15.5N	20.4N	----	----	13.9N	8.5N

?=Duplicate records found, Data review required. [x]=Less than Reporting Limit ----=Not analyzed

PERIOD: From 12/01/2005 thru 12/19/2005 - Inclusive
SAMPLE TYPE: Soil

----=Not analyzed

PERIOD: From 12/01/2005 thru 12/19/2005 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE	D02	E04	E05	G02	G04	H07
	SAMPLE ID	D02_6-8	E04_3-6	E05_3-6	G02_0.5-3	G04_10-11	H07_0.5-3
	DATE	12/15/2005	12/06/2005	12/19/2005	12/06/2005	12/13/2005	12/14/2005
	DEPTH (ft)	7.00	4.50	4.50	1.75	10.50	1.75
Acetone	(ug/kg)	----	----	----	----	----	----
Benzene	(ug/kg)	----	----	----	----	----	----
Carbon Disulfide	(ug/kg)	----	----	----	----	----	----
Methylene chloride	(ug/kg)	----	----	----	----	----	----
Naphthalene	(ug/kg)	----	----	----	----	----	----
Toluene	(ug/kg)	----	----	----	----	----	----
Benzo(a)anthracene	(ug/kg)	----	----	----	----	----	----
Benzo(a)pyrene	(ug/kg)	----	----	----	----	----	----
Benzo(b)fluoranthene	(ug/kg)	----	----	----	----	----	----
Benzo(ghi)perylene	(ug/kg)	----	----	----	----	----	----
Benzo(k)fluoranthene	(ug/kg)	----	----	----	----	----	----
Indeno(1,2,3-cd)pyrene	(ug/kg)	----	----	----	----	----	----
Chrysene	(ug/kg)	----	----	----	----	----	----
Dibenzo(a,h)anthracene	(ug/kg)	----	----	----	----	----	----
Fluoranthene	(ug/kg)	----	----	----	----	----	----
Phenanthrene	(ug/kg)	----	----	----	----	----	----
Pyrene	(ug/kg)	----	----	----	----	----	----
Arsenic	(mg/kg)	6.0	44.2	<116U	812	9.2	19.5
Barium	(mg/kg)	22.2	106	382	33.9	87.1	58.9
Cadmium	(mg/kg)	1.3N	<6.0UN	<58.2UN	0.88N	1.1N	<5.3UN
Chromium	(mg/kg)	15.9N	19.7N	<116UN	469N	21.2N	16.7N
----=Not analyzed							

Summary of Detected Analytical Results

AC Dutton
Poughkeepsie, New York

SAMPLE TYPE: Soil

CONSTITUENT	SITE	D02	E04	E05	G02	G04	H07
	SAMPLE ID	D02_6-8	E04_3-6	E05_3-6	G02_0.5-3	G04_10-11	H07_0.5-3
	DATE	12/15/2005	12/06/2005	12/19/2005	12/06/2005	12/13/2005	12/14/2005
	DEPTH (ft)	7.00	4.50	4.50	1.75	10.50	1.75
Copper	(mg/kg)	33.2	<24.1U	<233U	876	30.6	28.7
Lead	(mg/kg)	13.9N	77.2N	<582UN	30.6N	78.7N	<53.5UN
Mercury	(mg/kg)	<0.04U	<0.04U	<0.04U	0.13	0.66	0.12
Silver	(mg/kg)	<1.1U	<12.0U	<116U	<1.1U	<1.4U	<10.7U
Arsenic (TCLP)	(ug/l)	<500U	<500U	----	1590	----	----
Barium (TCLP)	(ug/l)	<1000U	<1000U	----	<1000U	----	----
-----=Not analyzed							

PERIOD: From 12/01/2005 thru 12/19/2005 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE	I09	L04	Q06	S04	T10	U05
	SAMPLE ID	I09_2-5	L04_0.5-3	Q06_1-3	S04_2-3	T10_0.5-3	U05_4-8
	DATE	12/19/2005	12/13/2005	12/01/2005	12/13/2005	12/15/2005	12/08/2005
	DEPTH (ft)	3.50	1.75	2.00	2.50	1.75	6.00
Acetone	(ug/kg)	----	----	----	----	----	----
Benzene	(ug/kg)	----	----	----	----	----	<5.8U
Carbon Disulfide	(ug/kg)	----	----	----	----	----	----
Methylene chloride	(ug/kg)	----	----	----	----	----	----
Naphthalene	(ug/kg)	----	----	----	----	----	[160]J ?
Toluene	(ug/kg)	----	----	----	----	----	<5.8U
Benzo(a)anthracene	(ug/kg)	----	----	----	----	----	<380U
Benzo(a)pyrene	(ug/kg)	----	----	----	----	----	<380U
Benzo(b)fluoranthene	(ug/kg)	----	----	----	----	----	<380U
Benzo(ghi)perylene	(ug/kg)	----	----	----	----	----	<380U
Benzo(k)fluoranthene	(ug/kg)	----	----	----	----	----	<380U
Indeno(1,2,3-cd)pyrene	(ug/kg)	----	----	----	----	----	<380U
Chrysene	(ug/kg)	----	----	----	----	----	<380U
Dibenzo(a,h)anthracene	(ug/kg)	----	----	----	----	----	<380U
Fluoranthene	(ug/kg)	----	----	----	----	----	<380U
Phenanthrene	(ug/kg)	----	----	----	----	----	<380U
Pyrene	(ug/kg)	----	----	----	----	----	<380U
Arsenic	(mg/kg)	66.7N	21.4	44.4	11.0	36.1	----
Barium	(mg/kg)	175	92.9	142	22.1	121	----
Cadmium	(mg/kg)	<12.4U	<2.8UN	<11.8UN	1.9N	<1.4UN	----
Chromium	(mg/kg)	<24.7U	12.7N	<23.6UN	20.2N	9.2N	----
?=Duplicate records found, Data review required. [x]=Less than Reporting Limit ----=Not analyzed							

Summary of Detected Analytical Results

AC Dutton
Poughkeepsie, New York

PERIOD: From 12/01/2005 thru 12/19/2005 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE	I09	L04	Q06	S04	T10	U05
	SAMPLE ID	I09_2-5	L04_0.5-3	Q06_1-3	S04_2-3	T10_0.5-3	U05_4-8
	DATE	12/19/2005	12/13/2005	12/01/2005	12/13/2005	12/15/2005	12/08/2005
	DEPTH (ft)	3.50	1.75	2.00	2.50	1.75	6.00
Copper	(mg/kg)	<49.4U	44.2	81.9	56.3	33.8	----
Lead	(mg/kg)	<124U	55.2N	<118UN	19.2N	40.3N	----
Mercury	(mg/kg)	<0.04U	0.04	1.0	0.08	0.18	----
Silver	(mg/kg)	<24.7U	<5.6U	<23.6U	<1.1U	<2.7U	----
Arsenic (TCLP)	(ug/l)	----	----	----	----	<500U	----
Barium (TCLP)	(ug/l)	----	----	----	----	1090	----
-----Not analyzed							

Summary of Detected Analytical Results

AC Dutton
Poughkeepsie, New York

PERIOD: From 12/01/2005 thru 12/19/2005 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE SAMPLE ID DATE DEPTH (ft)	U06 U06_6-8 12/07/2005 7.00	V09 V09_3-6 12/19/2005 4.50	Y12 Y12_0.5-4 12/07/2005 2.25	Z09 Z09_3-6 12/15/2005 4.50
Acetone	(ug/kg)	----	----	----	----
Benzene	(ug/kg)	<6.2U	----	----	----
Carbon Disulfide	(ug/kg)	----	----	----	----
Methylene chloride	(ug/kg)	----	----	----	----
Naphthalene	(ug/kg)	<6.2U ?	----	----	----
Toluene	(ug/kg)	<6.2U	----	----	----
Benzo(a)anthracene	(ug/kg)	<410U	----	----	----
Benzo(a)pyrene	(ug/kg)	<410U	----	----	----
Benzo(b)fluoranthene	(ug/kg)	<410U	----	----	----
Benzo(ghi)perylene	(ug/kg)	<410U	----	----	----
Benzo(k)fluoranthene	(ug/kg)	<410U	----	----	----
Indeno(1,2,3-cd)pyrene	(ug/kg)	<410U	----	----	----
Chrysene	(ug/kg)	<410U	----	----	----
Dibenzo(a,h)anthracene	(ug/kg)	<410U	----	----	----
Fluoranthene	(ug/kg)	[72]J	----	----	----
Phenanthrene	(ug/kg)	[140]J	----	----	----
Pyrene	(ug/kg)	[120]J	----	----	----
Arsenic	(mg/kg)	----	6.2	31.4	24.5
Barium	(mg/kg)	----	34.1	107	117
Cadmium	(mg/kg)	----	5.0N	2.1N	1.2N
Chromium	(mg/kg)	----	9.9N	26.0N	13.6N
?=Duplicate records found, Data review required. [x]=Less than Reporting Limit ----=Not analyzed					

Summary of Detected Analytical Results

AC Dutton
Poughkeepsie, New York

PERIOD: From 12/01/2005 thru 12/19/2005 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE SAMPLE ID DATE DEPTH (ft)	U06 U06_6-8 12/07/2005 7.00	V09 V09_3-6 12/19/2005 4.50	Y12 Y12_0.5-4 12/07/2005 2.25	Z09 Z09_3-6 12/15/2005 4.50
Copper	(mg/kg)	----	46.8	60.3	35.0
Lead	(mg/kg)	----	26.5N	328N	125N
Mercury	(mg/kg)	----	0.04	0.22	0.20
Silver	(mg/kg)	----	1.2	<1.4U	<1.2U
Arsenic (TCLP)	(ug/l)	----	----	----	----
Barium (TCLP)	(ug/l)	----	----	----	----
-----=Not analyzed					

Summary of Exceedances

AC Dutton
Poughkeepsie, New York

PERIOD: From 12/01/2005 thru 12/19/2005 - Inclusive

SAMPLE TYPE: Soil

SITE	DATE / TIME		DEPTH				
LAB	METHOD	PF	RES TYPE				
CONSTITUENT				ACTION LEVEL CODE	ACTION LEVEL	TESTED CONCENTRATION	
A03				12/15/2005	09:50	1.50	
CAS	6010B	T	P01				
7440-43-9	Cadmium			NY-TAGM	1 mg/Kg	1.2 mg/Kg	
7440-47-3	Chromium			NY-CUERD	0.4 mg/Kg	15.5 mg/Kg	
7440-47-3	Chromium			NY-TAGM	10 mg/Kg	15.5 mg/Kg	
7440-50-8	Copper			NY-TAGM	25 mg/Kg	40.3 mg/Kg	
CAS	7470A	T	P01				
7439-97-6	Mercury			NY-TAGM	0.1 mg/Kg	0.11 mg/Kg	
AA10				12/7/2005	09:38	9.00	
CAS	6010B	T	P01				
7440-43-9	Cadmium			NY-TAGM	1 mg/Kg	1.5 mg/Kg	
7440-47-3	Chromium			NY-CUERD	0.4 mg/Kg	20.4 mg/Kg	
7440-47-3	Chromium			NY-RCUPGWD	19 mg/Kg	20.4 mg/Kg	
7440-47-3	Chromium			NY-TAGM	10 mg/Kg	20.4 mg/Kg	
7440-47-3	Chromium			NY-URCUPHD	19 mg/Kg	20.4 mg/Kg	
7440-50-8	Copper			NY-TAGM	25 mg/Kg	44.2 mg/Kg	
AA10				12/7/2005	09:48	13.00	
CAS	8260B	T	P01				
71-43-2	Benzene			NY-FOTOTAL	14 ppb	36 ug/Kg	
71-43-2	Benzene			NY-GASTOT	14 ppb	36 ug/Kg	
75-09-2	Dichloromethane			NY-RCUPGWD	0.05 mg/Kg	110 ug/Kg	
75-09-2	Dichloromethane			NY-TAGM	0.1 mg/Kg	110 ug/Kg	
75-09-2	Dichloromethane			NY-URCUPHD	0.05 mg/Kg	110 ug/Kg	
CAS	8270C	T	P01				
50-32-8	Benzo(a)pyrene			NY-FOHH	61 ppb	260 ug/Kg	
50-32-8	Benzo(a)pyrene			NY-FOTOTAL	0.04 ppb	260 ug/Kg	
50-32-8	Benzo(a)pyrene			NY-TAGM	0.061 mg/Kg	260 ug/Kg	
53-70-3	Dibenz(a,h)anthracene			NY-FOHH	14 ppb	37 ug/Kg	
53-70-3	Dibenz(a,h)anthracene			NY-TAGM	0.014 mg/Kg	37 ug/Kg	
56-55-3	Benz(a)anthracene			NY-FOHH	220 ppb	280 ug/Kg	
56-55-3	Benz(a)anthracene			NY-FOTOTAL	0.04 ppb	280 ug/Kg	
56-55-3	Benz(a)anthracene			NY-TAGM	0.224 mg/Kg	280 ug/Kg	
191-24-2	Benzo(g,h,i)perylene			NY-FOTOTAL	0.04 ppb	160 ug/Kg	
193-39-5	Indeno(1,2,3-cd)pyrene			NY-FOTOTAL	0.04 ppb	92 ug/Kg	
205-99-2	Benzo(b)fluoranthene			NY-FOTOTAL	0.04 ppb	160 ug/Kg	

SAMPLE TYPE: Soil

SITE	DATE / TIME		DEPTH		
LAB	METHOD	PF	RES TYPE		
CONSTITUENT			ACTION LEVEL CODE	ACTION LEVEL	TESTED CONCENTRATION
207-08-9	Benzo(k)fluoranthene		NY-FOTOTAL	0.04 ppb	160 ug/Kg
218-01-9	Chrysene		NY-FOTOTAL	0.04 ppb	240 ug/Kg
AA11	12/8/2005		14:30	12.50	
CAS	8270C	T	P01		
50-32-8	Benzo(a)pyrene		NY-FOHH	61 ppb	210 ug/Kg
50-32-8	Benzo(a)pyrene		NY-FOTOTAL	0.04 ppb	210 ug/Kg
50-32-8	Benzo(a)pyrene		NY-TAGM	0.061 mg/Kg	210 ug/Kg
56-55-3	Benz(a)anthracene		NY-FOTOTAL	0.04 ppb	200 ug/Kg
191-24-2	Benzo(g,h,i)perylene		NY-FOTOTAL	0.04 ppb	170 ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene		NY-FOTOTAL	0.04 ppb	160 ug/Kg
205-99-2	Benzo(b)fluoranthene		NY-FOTOTAL	0.04 ppb	180 ug/Kg
207-08-9	Benzo(k)fluoranthene		NY-FOTOTAL	0.04 ppb	220 ug/Kg
218-01-9	Chrysene		NY-FOTOTAL	0.04 ppb	200 ug/Kg
B03	12/15/2005		09:00	0.25	
CAS	6010B	T	P01		
7440-38-2	Arsenic		NY-CUERD	13 mg/Kg	18.2 mg/Kg
7440-38-2	Arsenic		NY-RCUPGWD	16 mg/Kg	18.2 mg/Kg
7440-38-2	Arsenic		NY-RCUPRCD	16 mg/Kg	18.2 mg/Kg
7440-38-2	Arsenic		NY-RCUPRID	16 mg/Kg	18.2 mg/Kg
7440-38-2	Arsenic		NY-RCUPRRD	16 mg/Kg	18.2 mg/Kg
7440-38-2	Arsenic		NY-TAGM	7.5 mg/Kg	18.2 mg/Kg
7440-38-2	Arsenic		NY-URCUPHD	16 mg/Kg	18.2 mg/Kg
7440-47-3	Chromium		NY-CUERD	0.4 mg/Kg	13.9 mg/Kg
7440-47-3	Chromium		NY-TAGM	10 mg/Kg	13.9 mg/Kg
C04	12/6/2005		09:10	1.75	
CAS	6010B	T	P01		
7440-38-2	Arsenic		NY-TAGM	7.5 mg/Kg	7.8 mg/Kg
7440-43-9	Cadmium		NY-TAGM	1 mg/Kg	1.1 mg/Kg
7440-47-3	Chromium		NY-CUERD	0.4 mg/Kg	8.5 mg/Kg
7440-50-8	Copper		NY-CUERD	50 mg/Kg	50.1 mg/Kg
7440-50-8	Copper		NY-TAGM	25 mg/Kg	50.1 mg/Kg
CAS	7470A	T	P01		
7439-97-6	Mercury		NY-TAGM	0.1 mg/Kg	0.12 mg/Kg
D02	12/15/2005		14:15	7.00	

Summary of Exceedances

AC Dutton
Poughkeepsie, New York

PERIOD: From 12/01/2005 thru 12/19/2005 - Inclusive

SAMPLE TYPE: Soil

SITE	DATE / TIME	DEPTH				
LAB	METHOD	PF	RES TYPE			
CONSTITUENT				ACTION LEVEL CODE	ACTION LEVEL	TESTED CONCENTRATION
CAS	6010B	T	P01			
7440-43-9	Cadmium			NY-TAGM	1 mg/Kg	1.3 mg/Kg
7440-47-3	Chromium			NY-CUERD	0.4 mg/Kg	15.9 mg/Kg
7440-47-3	Chromium			NY-TAGM	10 mg/Kg	15.9 mg/Kg
7440-50-8	Copper			NY-TAGM	25 mg/Kg	33.2 mg/Kg
E04			12/6/2005	09:30	4.50	
CAS	6010B	T	P01			
7439-92-1	Lead			NY-CUERD	63 mg/Kg	77.2 mg/Kg
7440-38-2	Arsenic			NY-CUERD	13 mg/Kg	44.2 mg/Kg
7440-38-2	Arsenic			NY-RCUPGWD	16 mg/Kg	44.2 mg/Kg
7440-38-2	Arsenic			NY-RCUPRCD	16 mg/Kg	44.2 mg/Kg
7440-38-2	Arsenic			NY-RCUPRID	16 mg/Kg	44.2 mg/Kg
7440-38-2	Arsenic			NY-RCUPRRD	16 mg/Kg	44.2 mg/Kg
7440-38-2	Arsenic			NY-TAGM	7.5 mg/Kg	44.2 mg/Kg
7440-38-2	Arsenic			NY-URCUPHD	16 mg/Kg	44.2 mg/Kg
7440-47-3	Chromium			NY-CUERD	0.4 mg/Kg	19.7 mg/Kg
7440-47-3	Chromium			NY-RCUPGWD	19 mg/Kg	19.7 mg/Kg
7440-47-3	Chromium			NY-TAGM	10 mg/Kg	19.7 mg/Kg
7440-47-3	Chromium			NY-URCUPHD	19 mg/Kg	19.7 mg/Kg
E05			12/19/2005	13:10	4.50	
CAS	6010B	T	P01			
7440-39-3	Barium			NY-TAGM	300 mg/Kg	382 mg/Kg
7440-39-3	Barium			NY-URCUPHD	350 mg/Kg	382 mg/Kg
G02			12/6/2005	11:30	1.75	
CAS	6010B	T	P01			
7440-38-2	Arsenic			NY-CUERD	13 mg/Kg	812 mg/Kg
7440-38-2	Arsenic			NY-RCUPGWD	16 mg/Kg	812 mg/Kg
7440-38-2	Arsenic			NY-RCUPRCD	16 mg/Kg	812 mg/Kg
7440-38-2	Arsenic			NY-RCUPRID	16 mg/Kg	812 mg/Kg
7440-38-2	Arsenic			NY-RCUPRRD	16 mg/Kg	812 mg/Kg
7440-38-2	Arsenic			NY-TAGM	7.5 mg/Kg	812 mg/Kg
7440-38-2	Arsenic			NY-URCUPHD	16 mg/Kg	812 mg/Kg
7440-47-3	Chromium			NY-CUERD	0.4 mg/Kg	469 mg/Kg
7440-47-3	Chromium			NY-RCUPGWD	19 mg/Kg	469 mg/Kg
7440-47-3	Chromium			NY-RCUPRCD	400 mg/Kg	469 mg/Kg

Summary of Exceedances

AC Dutton
Poughkeepsie, New York

PERIOD: From 12/01/2005 thru 12/19/2005 - Inclusive

SAMPLE TYPE: Soil

SITE	DATE / TIME		DEPTH			
LAB	METHOD	PF	RES TYPE			
CONSTITUENT				ACTION LEVEL CODE	ACTION LEVEL	TESTED CONCENTRATION
7440-47-3	Chromium			NY-RCUPRRD	110 mg/Kg	469 mg/Kg
7440-47-3	Chromium			NY-TAGM	10 mg/Kg	469 mg/Kg
7440-47-3	Chromium			NY-URCUPHD	19 mg/Kg	469 mg/Kg
7440-50-8	Copper			NY-CUERD	50 mg/Kg	876 mg/Kg
7440-50-8	Copper			NY-RCUPRCD	270 mg/Kg	876 mg/Kg
7440-50-8	Copper			NY-RCUPRRD	270 mg/Kg	876 mg/Kg
7440-50-8	Copper			NY-TAGM	25 mg/Kg	876 mg/Kg
7440-50-8	Copper			NY-URCUPHD	270 mg/Kg	876 mg/Kg
CAS	7470A	T	P01			
7439-97-6	Mercury			NY-TAGM	0.1 mg/Kg	0.13 mg/Kg
G04			12/13/2005	12:28	10.50	
CAS	6010B	T	P01			
7439-92-1	Lead			NY-CUERD	63 mg/Kg	78.7 mg/Kg
7440-38-2	Arsenic			NY-TAGM	7.5 mg/Kg	9.2 mg/Kg
7440-43-9	Cadmium			NY-TAGM	1 mg/Kg	1.1 mg/Kg
7440-47-3	Chromium			NY-CUERD	0.4 mg/Kg	21.2 mg/Kg
7440-47-3	Chromium			NY-RCUPGWD	19 mg/Kg	21.2 mg/Kg
7440-47-3	Chromium			NY-TAGM	10 mg/Kg	21.2 mg/Kg
7440-47-3	Chromium			NY-URCUPHD	19 mg/Kg	21.2 mg/Kg
7440-50-8	Copper			NY-TAGM	25 mg/Kg	30.6 mg/Kg
CAS	7470A	T	P01			
7439-97-6	Mercury			NY-TAGM	0.1 mg/Kg	0.66 mg/Kg
H07			12/14/2005	09:10	1.75	
CAS	6010B	T	P01			
7440-38-2	Arsenic			NY-CUERD	13 mg/Kg	19.5 mg/Kg
7440-38-2	Arsenic			NY-RCUPGWD	16 mg/Kg	19.5 mg/Kg
7440-38-2	Arsenic			NY-RCUPRCD	16 mg/Kg	19.5 mg/Kg
7440-38-2	Arsenic			NY-RCUPRID	16 mg/Kg	19.5 mg/Kg
7440-38-2	Arsenic			NY-RCUPRRD	16 mg/Kg	19.5 mg/Kg
7440-38-2	Arsenic			NY-TAGM	7.5 mg/Kg	19.5 mg/Kg
7440-38-2	Arsenic			NY-URCUPHD	16 mg/Kg	19.5 mg/Kg
7440-47-3	Chromium			NY-CUERD	0.4 mg/Kg	16.7 mg/Kg
7440-47-3	Chromium			NY-TAGM	10 mg/Kg	16.7 mg/Kg
7440-50-8	Copper			NY-TAGM	25 mg/Kg	28.7 mg/Kg

Summary of Exceedances

AC Dutton
Poughkeepsie, New York

PERIOD: From 12/01/2005 thru 12/19/2005 - Inclusive

SAMPLE TYPE: Soil

SITE	DATE / TIME		DEPTH				
LAB	METHOD	PF	RES TYPE				
CONSTITUENT				ACTION LEVEL CODE	ACTION LEVEL		TESTED CONCENTRATION
CAS	7470A	T	P01				
7439-97-6	Mercury				NY-TAGM	0.1 mg/Kg	0.12 mg/Kg
I09			12/19/2005	11:45	3.50		
CAS	6010B	T	P01				
7440-38-2	Arsenic				NY-CUERG	13 mg/Kg	66.7 mg/Kg
7440-38-2	Arsenic				NY-RCUPGWD	16 mg/Kg	66.7 mg/Kg
7440-38-2	Arsenic				NY-RCUPRCD	16 mg/Kg	66.7 mg/Kg
7440-38-2	Arsenic				NY-RCUPRID	16 mg/Kg	66.7 mg/Kg
7440-38-2	Arsenic				NY-RCUPRRD	16 mg/Kg	66.7 mg/Kg
7440-38-2	Arsenic				NY-TAGM	7.5 mg/Kg	66.7 mg/Kg
7440-38-2	Arsenic				NY-URCUPHD	16 mg/Kg	66.7 mg/Kg
L04			12/13/2005	14:12	1.75		
CAS	6010B	T	P01				
7440-38-2	Arsenic				NY-CUERG	13 mg/Kg	21.4 mg/Kg
7440-38-2	Arsenic				NY-RCUPGWD	16 mg/Kg	21.4 mg/Kg
7440-38-2	Arsenic				NY-RCUPRCD	16 mg/Kg	21.4 mg/Kg
7440-38-2	Arsenic				NY-RCUPRID	16 mg/Kg	21.4 mg/Kg
7440-38-2	Arsenic				NY-RCUPRRD	16 mg/Kg	21.4 mg/Kg
7440-38-2	Arsenic				NY-TAGM	7.5 mg/Kg	21.4 mg/Kg
7440-38-2	Arsenic				NY-URCUPHD	16 mg/Kg	21.4 mg/Kg
7440-47-3	Chromium				NY-CUERG	0.4 mg/Kg	12.7 mg/Kg
7440-47-3	Chromium				NY-TAGM	10 mg/Kg	12.7 mg/Kg
7440-50-8	Copper				NY-TAGM	25 mg/Kg	44.2 mg/Kg
Q06			12/1/2005	14:20	2.00		
CAS	6010B	T	P01				
7440-38-2	Arsenic				NY-CUERG	13 mg/Kg	44.4 mg/Kg
7440-38-2	Arsenic				NY-RCUPGWD	16 mg/Kg	44.4 mg/Kg
7440-38-2	Arsenic				NY-RCUPRCD	16 mg/Kg	44.4 mg/Kg
7440-38-2	Arsenic				NY-RCUPRID	16 mg/Kg	44.4 mg/Kg
7440-38-2	Arsenic				NY-RCUPRRD	16 mg/Kg	44.4 mg/Kg
7440-38-2	Arsenic				NY-TAGM	7.5 mg/Kg	44.4 mg/Kg
7440-38-2	Arsenic				NY-URCUPHD	16 mg/Kg	44.4 mg/Kg
7440-50-8	Copper				NY-CUERG	50 mg/Kg	81.9 mg/Kg
7440-50-8	Copper				NY-TAGM	25 mg/Kg	81.9 mg/Kg
CAS	7470A	T	P01				

Summary of Exceedances

AC Dutton
Poughkeepsie, New York

PERIOD: From 12/01/2005 thru 12/19/2005 - Inclusive

SAMPLE TYPE: Soil

SITE	DATE / TIME	DEPTH				
LAB	METHOD	PF	RES TYPE			
CONSTITUENT				ACTION LEVEL CODE	ACTION LEVEL	TESTED CONCENTRATION
7439-97-6	Mercury			NY-RCUPGWD	0.73 mg/Kg	1.0 mg/Kg
7439-97-6	Mercury			NY-RCUPRRD	0.81 mg/Kg	1.0 mg/Kg
7439-97-6	Mercury			NY-TAGM	0.1 mg/Kg	1.0 mg/Kg
7439-97-6	Mercury			NY-URCUPHD	0.73 mg/Kg	1.0 mg/Kg
S04	12/13/2005	13:25	2.50			
CAS	6010B	T	P01			
7440-38-2	Arsenic			NY-TAGM	7.5 mg/Kg	11.0 mg/Kg
7440-43-9	Cadmium			NY-TAGM	1 mg/Kg	1.9 mg/Kg
7440-47-3	Chromium			NY-CUERG	0.4 mg/Kg	20.2 mg/Kg
7440-47-3	Chromium			NY-RCUPGWD	19 mg/Kg	20.2 mg/Kg
7440-47-3	Chromium			NY-TAGM	10 mg/Kg	20.2 mg/Kg
7440-47-3	Chromium			NY-URCUPHD	19 mg/Kg	20.2 mg/Kg
7440-50-8	Copper			NY-CUERG	50 mg/Kg	56.3 mg/Kg
7440-50-8	Copper			NY-TAGM	25 mg/Kg	56.3 mg/Kg
T10	12/15/2005	13:14	1.75			
CAS	6010B	T	P01			
7440-38-2	Arsenic			NY-CUERG	13 mg/Kg	36.1 mg/Kg
7440-38-2	Arsenic			NY-RCUPGWD	16 mg/Kg	36.1 mg/Kg
7440-38-2	Arsenic			NY-RCUPRCD	16 mg/Kg	36.1 mg/Kg
7440-38-2	Arsenic			NY-RCUPRID	16 mg/Kg	36.1 mg/Kg
7440-38-2	Arsenic			NY-RCUPRRD	16 mg/Kg	36.1 mg/Kg
7440-38-2	Arsenic			NY-TAGM	7.5 mg/Kg	36.1 mg/Kg
7440-38-2	Arsenic			NY-URCUPHD	16 mg/Kg	36.1 mg/Kg
7440-47-3	Chromium			NY-CUERG	0.4 mg/Kg	9.2 mg/Kg
7440-50-8	Copper			NY-TAGM	25 mg/Kg	33.8 mg/Kg
CAS	7470A	T	P01			
7439-97-6	Mercury			NY-TAGM	0.1 mg/Kg	0.18 mg/Kg
V09	12/19/2005	08:30	4.50			
CAS	6010B	T	P01			
7440-43-9	Cadmium			NY-CUERG	4 mg/Kg	5.0 mg/Kg
7440-43-9	Cadmium			NY-RCUPRRD	4.3 mg/Kg	5.0 mg/Kg
7440-43-9	Cadmium			NY-TAGM	1 mg/Kg	5.0 mg/Kg
7440-43-9	Cadmium			NY-URCUPHD	2.5 mg/Kg	5.0 mg/Kg
7440-47-3	Chromium			NY-CUERG	0.4 mg/Kg	9.9 mg/Kg

Summary of Exceedances

AC Dutton
Poughkeepsie, New York

PERIOD: From 12/01/2005 thru 12/19/2005 - Inclusive

SAMPLE TYPE: Soil

SITE	DATE / TIME		DEPTH				
LAB	METHOD	PF	RES TYPE				
CONSTITUENT					ACTION LEVEL CODE	ACTION LEVEL	TESTED CONCENTRATION
7440-50-8	Copper				NY-TAGM	25 mg/Kg	46.8 mg/Kg
Y12			12/7/2005	14:50	2.25		
CAS	6010B	T	P01				
7439-92-1	Lead				NY-CUERD	63 mg/Kg	328 mg/Kg
7440-38-2	Arsenic				NY-CUERD	13 mg/Kg	31.4 mg/Kg
7440-38-2	Arsenic				NY-RCUPGWD	16 mg/Kg	31.4 mg/Kg
7440-38-2	Arsenic				NY-RCUPRCD	16 mg/Kg	31.4 mg/Kg
7440-38-2	Arsenic				NY-RCUPRID	16 mg/Kg	31.4 mg/Kg
7440-38-2	Arsenic				NY-RCUPRRD	16 mg/Kg	31.4 mg/Kg
7440-38-2	Arsenic				NY-TAGM	7.5 mg/Kg	31.4 mg/Kg
7440-38-2	Arsenic				NY-URCUPHD	16 mg/Kg	31.4 mg/Kg
7440-43-9	Cadmium				NY-TAGM	1 mg/Kg	2.1 mg/Kg
7440-47-3	Chromium				NY-CUERD	0.4 mg/Kg	26.0 mg/Kg
7440-47-3	Chromium				NY-RCUPGWD	19 mg/Kg	26.0 mg/Kg
7440-47-3	Chromium				NY-TAGM	10 mg/Kg	26.0 mg/Kg
7440-47-3	Chromium				NY-URCUPHD	19 mg/Kg	26.0 mg/Kg
7440-50-8	Copper				NY-CUERD	50 mg/Kg	60.3 mg/Kg
7440-50-8	Copper				NY-TAGM	25 mg/Kg	60.3 mg/Kg
CAS	7470A	T	P01				
7439-97-6	Mercury				NY-TAGM	0.1 mg/Kg	0.22 mg/Kg
Z09			12/15/2005	09:12	4.50		
CAS	6010B	T	P01				
7439-92-1	Lead				NY-CUERD	63 mg/Kg	125 mg/Kg
7440-38-2	Arsenic				NY-CUERD	13 mg/Kg	24.5 mg/Kg
7440-38-2	Arsenic				NY-RCUPGWD	16 mg/Kg	24.5 mg/Kg
7440-38-2	Arsenic				NY-RCUPRCD	16 mg/Kg	24.5 mg/Kg
7440-38-2	Arsenic				NY-RCUPRID	16 mg/Kg	24.5 mg/Kg
7440-38-2	Arsenic				NY-RCUPRRD	16 mg/Kg	24.5 mg/Kg
7440-38-2	Arsenic				NY-TAGM	7.5 mg/Kg	24.5 mg/Kg
7440-38-2	Arsenic				NY-URCUPHD	16 mg/Kg	24.5 mg/Kg
7440-43-9	Cadmium				NY-TAGM	1 mg/Kg	1.2 mg/Kg
7440-47-3	Chromium				NY-CUERD	0.4 mg/Kg	13.6 mg/Kg
7440-47-3	Chromium				NY-TAGM	10 mg/Kg	13.6 mg/Kg
7440-50-8	Copper				NY-TAGM	25 mg/Kg	35.0 mg/Kg

SAMPLE TYPE: Soil

SAMPLE TYPE: Soil

SAMPLING DATA									
SAMPLER					TIME HELD (days)				
SITE	DATE	TIME	DEPTH	SET	C->E	E->A	C->A	R->E	R->A
* LAB / METHOD / PF/RES TYPE: CAS / 6010B / C / P01									
* ALLOWED HOLDING TIMES:					0	0	180	0	0
AA10	12/07/2005	09:38	9.00	1	0	1	41	0	10
B03	12/15/2005	09:00	0.25	1	0	1	33	0	10
D02	12/15/2005	14:15	7.00	1	0	1	32	0	10
E04	12/06/2005	09:30	4.50	1	0	1	42	0	10
G02	12/06/2005	11:30	1.75	1	0	1	42	0	10
T10	12/15/2005	13:14	1.75	1	0	1	32	0	10
* LAB / METHOD / PF/RES TYPE: CAS / 6010B / T / P01									
* ALLOWED HOLDING TIMES:					0	0	180	0	0
A03	12/15/2005	09:50	1.50	1	0	1	36	0	10
AA10	12/07/2005	09:38	9.00	1	0	1	44	0	13
B03	12/15/2005	09:00	0.25	1	0	1	40	0	17
C04	12/06/2005	09:10	1.75	1	0	1	45	0	13
D02	12/15/2005	14:15	7.00	1	0	1	36	0	13
E04	12/06/2005	09:30	4.50	1	0	1	49	0	17
E05	12/19/2005	13:10	4.50	1	0	1	36	0	17
G02	12/06/2005	11:30	1.75	1	0	1	49	0	17
G04	12/13/2005	12:28	10.50	1	0	1	38	0	13
H07	12/14/2005	09:10	1.75	1	0	1	41	0	17
I09	12/19/2005	11:45	3.50	1	0	1	39	0	21
L04	12/13/2005	14:12	1.75	1	0	1	42	0	18
Q06	12/01/2005	14:20	2.00	1	0	1	54	0	17
S04	12/13/2005	13:25	2.50	1	0	1	38	0	14
T10	12/15/2005	13:14	1.75	1	0	1	40	0	17
V09	12/19/2005	08:30	4.50	1	0	1	32	0	13
Y12	12/07/2005	14:50	2.25	1	0	1	44	0	10
Z09	12/15/2005	09:12	4.50	1	0	1	36	0	10
* LAB / METHOD / PF/RES TYPE: CAS / 7470A / C / P01									
* ALLOWED HOLDING TIMES:					0	0	28	0	0
AA10	12/07/2005	09:38	9.00	1	0	1	40	0	10
B03	12/15/2005	09:00	0.25	1	0	1	32	0	10
D02	12/15/2005	14:15	7.00	1	0	1	32	0	10
E04	12/06/2005	09:30	4.50	1	0	1	41	0	10
G02	12/06/2005	11:30	1.75	1	0	1	41	0	10
T10	12/15/2005	13:14	1.75	1	0	1	32	0	10
* LAB / METHOD / PF/RES TYPE: CAS / 7470A / T / P01									
* ALLOWED HOLDING TIMES:					0	0	28	0	0
A03	12/15/2005	09:50	1.50	1	0	1	30	0	3
AA10	12/07/2005	09:38	9.00	1	0	1	38	0	7
B03	12/15/2005	09:00	0.25	1	0	1	30	0	7
					C->E = Collection to Extraction R->E = Lab Receipt to Extract E->A = Extraction to Analysis C->A = Collection to Analysis R->A = Lab Receipt to Analysis				

SAMPLE TYPE: Soil

SAMPLED					TIME HELD (days)				
SITE	DATE	TIME	DEPTH	SET	C->E	E->A	C->A	R->E	R->A
C04	12/06/2005	09:10	1.75	1	0	1	39	0	7
D02	12/15/2005	14:15	7.00	1	0	1	30	0	7
E04	12/06/2005	09:30	4.50	1	0	1	39	0	7
E05	12/19/2005	13:10	4.50	1	0	1	26	0	7
G02	12/06/2005	11:30	1.75	1	0	1	39	0	7
G04	12/13/2005	12:28	10.50	1	0	1	32	0	7
H07	12/14/2005	09:10	1.75	1	0	1	31	0	7
I09	12/19/2005	11:45	3.50	1	0	1	26	0	7
L04	12/13/2005	14:12	1.75	1	0	1	31	0	7
Q06	12/01/2005	14:20	2.00	1	0	1	43	0	7
S04	12/13/2005	13:25	2.50	1	0	1	32	0	7
T10	12/15/2005	13:14	1.75	1	0	1	30	0	7
V09	12/19/2005	08:30	4.50	1	0	1	26	0	7
Y12	12/07/2005	14:50	2.25	1	0	1	37	0	3
Z09	12/15/2005	09:12	4.50	1	0	1	30	0	3
* LAB / METHOD / PF/RES TYPE: CAS / 8260B / T / P01									
* ALLOWED HOLDING TIMES:					0	0	14	0	0
AA10	12/07/2005	09:48	13.00	1	0	1	9	0	6
AA11	12/08/2005	14:30	12.50	1	0	1	12	0	10
U05	12/08/2005	10:08	6.00	1	0	1	12	0	10
U06	12/07/2005	13:08	7.00	1	0	1	13	0	10
* LAB / METHOD / PF/RES TYPE: CAS / 8270C / T / P01									
* ALLOWED HOLDING TIMES:					14	40	0	0	0
AA10	12/07/2005	09:48	13.00	1	0	1	38	0	35
AA11	12/08/2005	14:30	12.50	1	0	1	37	0	35
U05	12/08/2005	10:08	6.00	1	0	1	37	0	35
U06	12/07/2005	13:08	7.00	1	0	1	38	0	35

C->E = Collection to Extraction
R->E = Lab Receipt to Extract
E->A = Extraction to Analysis
C->A = Collection to Analysis
R->A = Lab Receipt to Analysis

Summary Detail Report

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Date: 05/11/2006AC Dutton
Poughkeepsie, New York

PERIOD: From 12/01/2005 thru 12/19/2005 - Inclusive

SAMPLE TYPE: Soil

CASE NO	LAB	METHOD	PF CODE	BATCH NO	RESULT TYPE	SITE	SAMPLE DATE	SAMPLE TIME	SAMPLE DEPTH	BLANK ID	FIELD SAMPLE ID	LAB SAMPLE ID
01	CAS	160.3M	T	124695	P01	AA10	12/7/2005	09:48	13.00		AA10_12-14	866487
01	CAS	160.3M	T	124695	P01	AA11	12/8/2005	14:30	12.50		AA11_12-13	866486
01	CAS	160.3M	T	124695	P01	U05	12/8/2005	10:08	6.00		U05_4-8	866488
01	CAS	160.3M	T	124695	P01	U06	12/7/2005	13:08	7.00		U06_6-8	866489
01	CAS	160.3M	T	125153	P01	AA10	12/7/2005	09:38	9.00		AA10_8-10	873210
01	CAS	160.3M	T	125153	P01	B03	12/15/2005	09:00	0.25		B03_0-0.5	873208
01	CAS	160.3M	T	125153	P01	C04	12/6/2005	09:10	1.75		C04_0.5-3	873211
01	CAS	160.3M	T	125153	P01	D02	12/15/2005	14:15	7.00		D02_6-8	873209
01	CAS	160.3M	T	125153	P01	E04	12/6/2005	09:30	4.50		E04_3-6	873205
01	CAS	160.3M	T	125153	P01	E05	12/19/2005	13:10	4.50		E05_3-6	873213
01	CAS	160.3M	T	125153	P01	G02	12/6/2005	11:30	1.75		G02_0.5-3	873206
01	CAS	160.3M	T	125153	P01	G04	12/13/2005	12:28	10.50		G04_10-11	873215
01	CAS	160.3M	T	125153	P01	H07	12/14/2005	09:10	1.75		H07_0.5-3	873217
01	CAS	160.3M	T	125153	P01	I09	12/19/2005	11:45	3.50		I09_2-5	873219
01	CAS	160.3M	T	125153	P01	L04	12/13/2005	14:12	1.75		L04_0.5-3	873212
01	CAS	160.3M	T	125153	P01	Q06	12/1/2005	14:20	2.00		Q06_1-3	873218
01	CAS	160.3M	T	125153	P01	S04	12/13/2005	13:25	2.50		S04_2-3	873216
01	CAS	160.3M	T	125153	P01	T10	12/15/2005	13:14	1.75		T10_0.5-3	873207
01	CAS	160.3M	T	125153	P01	V09	12/19/2005	08:30	4.50		V09_3-6	873214
01	CAS	160.3M	T	125167	P01	A03	12/15/2005	09:50	1.50		A03_0.5-2.5	873969
01	CAS	160.3M	T	125167	P01	Y12	12/7/2005	14:50	2.25		Y12_0.5-4	873973
01	CAS	160.3M	T	125167	P01	Z09	12/15/2005	09:12	4.50		Z09_3-6	873970
RESULT TYPES:						PP = Primary PD = Duplicate PS = Splits BL = Lab Blank	BF = Field Blank BR = Rinsate Blank BT = Travel Blank BM = Method Blank	SF/SFD = Field Matrix Spike/Duplicate SL/SLD = Lab Matrix Spike/Duplicate CB/CBD = Blind Control Sample/Duplicate CK/CKD = Know Control Sample/Duplicate				

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SAMPLE TYPE: Soil

CASE NO	LAB	METHOD	PF CODE	BATCH NO	RESULT TYPE	SITE	SAMPLE DATE	SAMPLE TIME	SAMPLE DEPTH	BLANK ID	FIELD SAMPLE ID	LAB SAMPLE ID
01	CAS	6010B	C	42371	P01	AA10	12/7/2005	09:38	9.00		AA10_8-10	873225
01	CAS	6010B	C	42371	P01	B03	12/15/2005	09:00	0.25		B03_0-0.5	873223
01	CAS	6010B	C	42371	P01	D02	12/15/2005	14:15	7.00		D02_6-8	873224
01	CAS	6010B	C	42371	P01	E04	12/6/2005	09:30	4.50		E04_3-6	873220
01	CAS	6010B	C	42371	P01	G02	12/6/2005	11:30	1.75		G02_0.5-3	873221
01	CAS	6010B	C	42371	P01	T10	12/15/2005	13:14	1.75		T10_0.5-3	873222
01	CAS	6010B	T	2JAN19A	P01	A03	12/15/2005	09:50	1.50		A03_0.5-2.5	873969
01	CAS	6010B	T	2JAN19A	P01	AA10	12/7/2005	09:38	9.00		AA10_8-10	873210
01	CAS	6010B	T	2JAN19A	P01	C04	12/6/2005	09:10	1.75		C04_0.5-3	873211
01	CAS	6010B	T	2JAN19A	P01	D02	12/15/2005	14:15	7.00		D02_6-8	873209
01	CAS	6010B	T	2JAN19A	P01	G04	12/13/2005	12:28	10.50		G04_10-11	873215
01	CAS	6010B	T	2JAN19A	P01	S04	12/13/2005	13:25	2.50		S04_2-3	873216
01	CAS	6010B	T	2JAN19A	P01	V09	12/19/2005	08:30	4.50		V09_3-6	873214
01	CAS	6010B	T	2JAN19A	P01	Y12	12/7/2005	14:50	2.25		Y12_0.5-4	873973
01	CAS	6010B	T	2JAN19A	P01	Z09	12/15/2005	09:12	4.50		Z09_3-6	873970
01	CAS	6010B	T	2JAN23A	P01	B03	12/15/2005	09:00	0.25		B03_0-0.5	873208
01	CAS	6010B	T	2JAN23A	P01	E04	12/6/2005	09:30	4.50		E04_3-6	873205
01	CAS	6010B	T	2JAN23A	P01	E05	12/19/2005	13:10	4.50		E05_3-6	873213
01	CAS	6010B	T	2JAN23A	P01	G02	12/6/2005	11:30	1.75		G02_0.5-3	873206
01	CAS	6010B	T	2JAN23A	P01	H07	12/14/2005	09:10	1.75		H07_0.5-3	873217
01	CAS	6010B	T	2JAN23A	P01	Q06	12/1/2005	14:20	2.00		Q06_1-3	873218
01	CAS	6010B	T	2JAN23A	P01	T10	12/15/2005	13:14	1.75		T10_0.5-3	873207
						RESULT TYPES:	PP = Primary PD = Duplicate PS = Splits BL = Lab Blank	BF = Field Blank BR = Rinsate Blank BT = Travel Blank BM = Method Blank	SF/SFD = Field Matrix Spike/Duplicate SL/SLD = Lab Matrix Spike/Duplicate CB/CBD = Blind Control Sample/Duplicate CK/CKD = Know Control Sample/Duplicate			

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CASE NO	LAB	METHOD	PF CODE	BATCH NO	RESULT TYPE	SITE	SAMPLE DATE	SAMPLE TIME	SAMPLE DEPTH	BLANK ID	FIELD SAMPLE ID	LAB SAMPLE ID
01	CAS	6010B	T	2JAN26A	P01	I09	12/19/2005	11:45	3.50		I09_2-5	873219
01	CAS	6010B	T	8768	P01	L04	12/13/2005	14:12	1.75		L04_0.5-3	873212
01	CAS	7470A	C	JAN_16WHG	P01	AA10	12/7/2005	09:38	9.00		AA10_8-10	873225
01	CAS	7470A	C	JAN_16WHG	P01	B03	12/15/2005	09:00	0.25		B03_0-0.5	873223
01	CAS	7470A	C	JAN_16WHG	P01	D02	12/15/2005	14:15	7.00		D02_6-8	873224
01	CAS	7470A	C	JAN_16WHG	P01	E04	12/6/2005	09:30	4.50		E04_3-6	873220
01	CAS	7470A	C	JAN_16WHG	P01	G02	12/6/2005	11:30	1.75		G02_0.5-3	873221
01	CAS	7470A	C	JAN_16WHG	P01	T10	12/15/2005	13:14	1.75		T10_0.5-3	873222
01	CAS	7470A	T	JAN_13SHG	P01	A03	12/15/2005	09:50	1.50		A03_0.5-2.5	873969
01	CAS	7470A	T	JAN_13SHG	P01	AA10	12/7/2005	09:38	9.00		AA10_8-10	873210
01	CAS	7470A	T	JAN_13SHG	P01	B03	12/15/2005	09:00	0.25		B03_0-0.5	873208
01	CAS	7470A	T	JAN_13SHG	P01	C04	12/6/2005	09:10	1.75		C04_0.5-3	873211
01	CAS	7470A	T	JAN_13SHG	P01	D02	12/15/2005	14:15	7.00		D02_6-8	873209
01	CAS	7470A	T	JAN_13SHG	P01	E04	12/6/2005	09:30	4.50		E04_3-6	873205
01	CAS	7470A	T	JAN_13SHG	P01	E05	12/19/2005	13:10	4.50		E05_3-6	873213
01	CAS	7470A	T	JAN_13SHG	P01	G02	12/6/2005	11:30	1.75		G02_0.5-3	873206
01	CAS	7470A	T	JAN_13SHG	P01	G04	12/13/2005	12:28	10.50		G04_10-11	873215
01	CAS	7470A	T	JAN_13SHG	P01	H07	12/14/2005	09:10	1.75		H07_0.5-3	873217
01	CAS	7470A	T	JAN_13SHG	P01	I09	12/19/2005	11:45	3.50		I09_2-5	873219
01	CAS	7470A	T	JAN_13SHG	P01	L04	12/13/2005	14:12	1.75		L04_0.5-3	873212
01	CAS	7470A	T	JAN_13SHG	P01	Q06	12/1/2005	14:20	2.00		Q06_1-3	873218
01	CAS	7470A	T	JAN_13SHG	P01	S04	12/13/2005	13:25	2.50		S04_2-3	873216
						RESULT TYPES:	PP = Primary PD = Duplicate PS = Splits BL = Lab Blank	BF = Field Blank BR = Rinsate Blank BT = Travel Blank BM = Method Blank	SF/SFD = Field Matrix Spike/Duplicate SL/SLD = Lab Matrix Spike/Duplicate CB/CBD = Blind Control Sample/Duplicate CK/CKD = Know Control Sample/Duplicate			

PERIOD: From 12/01/2005 thru 12/19/2005 - Inclusive
SAMPLE TYPE: Soil

[illegible]



APPENDIX E

FORMER A.C. DUTTON LUMBER FACILITY REMEDIAL INVESTIGATION REPORT

FISH & WILDLIFE RESOURCE IMPACT ANALYSIS

Fish and Wildlife Resource Impact Analysis
Former A.C. Dutton Lumber Site
Poughkeepsie, New York

The O'Neill Group - Dutton, LLC
Poughkeepsie, New York

August 2007



Fuss & O'Neill of New York, P.C.
80 Washington Street, Suite 301
Poughkeepsie, New York 12601



Fish & Wildlife Resource Impact Analysis
Former A.C. Dutton Site

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THE POUGHKEEPSIE DEEPWATER HABITAT



1.0 INTRODUCTION

A fish and wildlife exposure assessment has been conducted for the former A.C. Dutton Lumber Site as outlined in the New York State Department of Environmental Conservation's (NYSDEC) Draft DER-10: Technical Guidance for Site Investigation and Remediation. The purpose of a fish and wildlife resources impact analysis (FWRIA) is to identify actual or potential impacts to fish and wildlife resources from site contaminants of ecological concern.

The FWRIA is required for the subject Brownfields Cleanup Program (BCP) site based on the results of the FWRIA Decision Key, provided in [Appendix A](#). According to the FWRIA Decision Key, the guidance for conducting a FWRIA found in DER-10 must be followed based on a number of site characteristics.

Most of the ground surface of the site is covered with concrete or asphalt pavement. There is an abandoned railroad track extending along the river through the site, however most of the railroad tracks have been removed. There is very little vegetation on the site, only occurring as opportunistic weeds and small shrubs growing through cracks in the pavement cover, between the abandoned railroad tracks and along the river edge. The river bank is heavily fortified with bulk heads, concrete blocks or abandoned steel, timber or concrete docking and boat mooring structures. As detailed in the sections below, the site is surrounded by urban development, except for the west side which abuts the Hudson River. The property is surrounded by fencing and there is very limited access to the site. There is a small creek, known as Kidney Creek, that historically extended east to west bisecting the site, however the creek is completely culverted within the site and there is no access to the creek. There are several large steel or masonry buildings at the site, which historically served as processing centers, temporary drying shelters and office buildings. There are also several concrete loading docks along the railroad tracks that once served to offload product from the former glassworks and treated lumber.

Prior to 1913, site uses included an iron works and a glass works plant. The former glass works plant was reportedly located at the southern end of the parcel. As part of the glass works, there were several kilns at the site in which glass was fired. Historical and empirical data suggest that solidified kiln ash, periodically cleaned out of the kilns, was used as fill material at the site. Additionally, when the glass works building and loading dock were dismantled, this demolition debris was also utilized as fill. The former A.C. Dutton Lumber Company operated as a wholesale lumber company at the site beginning circa 1913. Pressure treatment of lumber using chromated copper arsenate (CCA) reportedly began in 1966.

At the A.C. Dutton facility, raw lumber material was brought into the site by truck, boat, and rail. Lumber was processed in either of the two on-site treatment plants, known as the northern and southern treatment plants. The lumber stock was then temporarily stored in a sheltered drip pad area and allowed to partially drip dry, and then transferred outside to large, open storage yards for additional drying.

The conventional understanding of this site is that arsenic, copper and chromium, contained in the CCA fluid, was discharged to ground surface as part of the drying process. It has been reported that the large open lumber yard was used to temporarily store freshly treated lumber during drying. While in the yard, CCA fluid likely dripped off the lumber directly to the concrete or asphalt pavement. Collection systems were not in place. The residual liquid



collected on the ground surface and was transported via overland flow to low spots in the site.

The floors in the treatment buildings, and most of the exterior areas of the site, are covered with approximately three inches of concrete and/or asphalt. CCA fluid came into contact with incidental soil and dust on the concrete surfaces, the liquid portion eventually evaporated and residual metals and dust accumulated on the concrete surface. In the treatment buildings, CCA fluid flowed or was swept into floor drains or out onto soil immediately adjacent to the treatment buildings.

Over time, CCA fluids likely absorbed into porous surfaces through cracks or breaks in the asphalt or concrete paving, and have impacted surface and near-surface soils under the concrete. Rainfall, surficial run-off and tide cycles that regularly flood portions of the site, all played roles in the accumulation, transport and leaching of metals from surface and near-surface soils.

2.0 FISH AND WILDLIFE RESOURCES

2.1 Fish & Wildlife Habitats

The area surrounding the subject site does not contain any critical habitats supporting threatened or endangered species. There are no New York State wetlands, or wild, scenic, or recreational rivers within the site boundaries.

The land cover type map provided as [Figure 1](#) indicates that emergent herbaceous wetlands exist along a small portion of the southeast shoreline. Additionally, The U.S. Fish & Wildlife Service's ECOS online mapping program shows a tidal wetland along the shoreline of the site (Class R1 and Code R1UBV). However, no wetland areas have been observed during multiple visits to the site. The river shoreline adjacent to the site is completely occupied by concrete, timber or steel bulkheads or abandoned docking structures. No NYSDEC regulated wetlands exist on or in the vicinity of the site.

There are no accessible freshwater streams or ponds present at the site (The culverted Kidney Creek is discussed in Section 1.0 above). There are no commercial fisheries near the site. The Hudson River is utilized almost exclusively as a commercial or recreational boating travel way, and is not used as a commercial fishing area. There are no aquaculture or fish/shellfish breeding operations within at least one half mile of the site. The site is completely surrounded by fencing and has extremely limited access. There is very little vegetation present at the site, and most of the property is covered with concrete or asphalt. Existing vegetation along the property boundaries was not observed to be stressed, dead, or dying. No leachate, other seeps, or exposed waste exists at the site.

The portion of the Hudson River which is adjacent to the subject site is classified as Class A, Standard A by the NYSDEC (Part 858.4, Table 1). The best usages of Class A waters are a source of water supply for drinking, culinary or food processing purposes, primary and secondary contact recreation, and fishing. The waters shall be suitable for fish propagation and survival. Although the Hudson River is listed as a Class A Stream, there are active advisories to limit fish and shellfish consumption for the reach of the Hudson River near Poughkeepsie,



NY. These advisories are in place for polychlorinated biphenyl compounds (PCBs) and Dioxins (chemical by-products formed as a result of combustion processes such as waste incineration and burning fuels such as wood and coal), which have been documented to exist in fish in this area, and for cadmium and PCBs which are documented to exist in shellfish. None of these contaminants are a result of historical or current activities taking place at the subject site. No recorded fish kills or other instances of wildlife mortality are known to be associated with the subject site.

The majority of lands north, east and south of the site are developed urban land which would not sustain, nor be expected to sustain fish or other wildlife. The Hudson River, abutting the site to the west, effectively supports fish and wildlife. In addition, the Hudson River is a significantly resource to humans for a number of activities including hunting, recreational fishing, scientific research, and other recreational and economic activities. The City of Poughkeepsie, among multiple other municipalities, uses the Hudson River as a source of potable water.

The topographic map provided as [Figure 1](#) has been prepared to show fish and wildlife resources within one-half mile of the site. According to the NYS Department of State (DOS) Division of Coastal Resources, the only significant coastal fish and wildlife habitat within a one-half mile radius of the site is the Poughkeepsie Deepwater Habitat, which is located within the Hudson River between Hyde Park, NY and Marlboro, NY. The habitat exists at depths of 30 feet below the river surface to the river bottom, which in some places can reach 125 feet. The deepwater areas are known to provide a wintering habitat for shortnose sturgeon. A variety of other estuarine and marine species appear in numbers in this habitat, including bay anchovies, silversides, bluefish, weakfish, and hogchokers. A Coastal Fish & Wildlife Habitat Rating Form, published by the DOS Department of Coastal Resources, is provided as [Appendix B](#).

2.2 Land Cover Within One-Half Mile of the Site

A 2001 National Land Cover Database (NLCD) cover type map obtained from the Multi-Resolution Land Characteristics (MRLC) Consortium viewer shows that the A.C. Dutton property is comprised of developed open space, developed medium intensity and developed high intensity areas. Adjoining lands within one-half mile of the site include open water, developed open space, developed low intensity, developed medium intensity, developed high intensity, pasture/hay, and emergent herbaceous wetlands. The map is provided as [Figure 2](#). Descriptions of these land cover types are as follows:

Developed, Open Space – This land cover designation represents areas with a mixture of some constructed materials, but mostly vegetation in the form of lawn grasses. Impervious surfaces account for less than 20 percent of total cover. These areas most commonly include large-lot single-family housing units, parks, golf courses, and vegetation planted in developed settings for recreation, erosion control, or aesthetic purposes.

Developed, Medium Intensity – This land cover includes areas with a mixture of constructed materials and vegetation. Impervious surfaces account for 50-79 percent of the total cover. These areas most commonly include single-family housing units.



Developed, High Intensity - Includes highly developed areas where people reside or work in high numbers. Examples include apartment complexes, row houses and commercial/industrial. Impervious surfaces account for 80 to 100 percent of the total cover.

Emergent Herbaceous Wetlands - Areas where perennial herbaceous vegetation accounts for greater than 80 percent of vegetative cover and the soil or substrate is periodically saturated with or covered with water. There are limited areas of this cover type indicated on various wetland maps, however no wetland areas have been observed at or near the site. There is a small area at the end of Hoffman Street near the A.C. Dutton entrance driveway that is at a low elevation. The area is sometimes flooded during high tide during the spring time or if heavy precipitation has recently occurred. However the area is covered with asphalt and does not contain vegetation.

Open Water - Areas of open water, generally with less than 25% cover of vegetation or soil. The Hudson River abuts the subject site to the west.

Developed, Low Intensity - Includes areas with a mixture of constructed materials and vegetation. Impervious surfaces account for 20-49 percent of total cover. These areas most commonly include single-family housing units.

Pasture / Hay - Areas of grasses, legumes, or grass-legume mixtures planted for livestock grazing or the production of seed or hay crops, typically on a perennial cycle. Pasture/hay vegetation accounts for greater than 20 percent of total vegetation. A very limited area northeast of the site consists of pasture/hay.

The area surrounding the subject site does not contain woodland habitats, fields, shellfish beds, or weed beds.

2.3 Ecological Communities Within One-Half Mile of the Site

According to "Draft Ecological Communities of New York State (Edinger et al. 2002), the A.C. Dutton Site is believed to be comprised of the following ecological communities, which are rated as shown:

System	Subsystem	Community	Global / State Element Rarity Rank	Significant Habitat?
Estuarine	Subtidal	Tidal River	G4/S3	Yes in Specific Areas
Estuarine	Cultural	Estuarine Riprap / Artificial Shore	G5/S5	Not Likely
Terrestrial	Cultural	Railroad	G5/S5	Not Likely
Terrestrial	Cultural	Paved Road / Path	G5/S5	Not Likely
Terrestrial	Cultural	Urban Vacant Lot	G5/S5	Not Likely
Terrestrial	Cultural	Urban Structure Exterior	G5/S5	Not Likely



System	Subsystem	Community	Global / State Element Rarity Rank	Significant Habitat?
Terrestrial	Cultural	Mowed Lawn	G5/S5	Not Likely
Terrestrial	Cultural	Mowed Roadside	G5/S5	Not Likely

The most notable ecological community in the vicinity of the subject site is the Tidal River, or the Hudson River. Deepwater portions of the river are considered significant fish and wildlife habitats. Other ecological communities present within one-half mile of the site are those commonly associated with urban developed areas, including roads, railroads, mowed lawn, etc. It is not likely that any estuarine freshwater sub-tidal aquatic beds exist in the vicinity of the subject site, as the historically industrial area has deepwater shorelines.

The communities associated with urban areas generally have sparse or no vegetation. Examples of species that possibly exist in the other communities are as follows:

Community	Characteristic Species
Tidal River	Deepwater Fishes –Atlantic tomcod, hogchoker, rainbow smelt. Rare deepwater species –sturgeon. Shallow water fishes –striped bass, American shad, banded killifish, spottail shiner, tessellated darter, and pumpkinseed. Other fishes –bay anchovy, blueback herring, white perch, alewife.
Estuarine Riprap/ Artificial Shore	Sparse or none
Railroad	Sparse or none
Paved Road/Path	Sparse or none
Urban Vacant Lot	Trees, often naturalized exotic species – Norway maple, white mulberry, tree of heaven
Urban Structure Exterior	Birds –common nighthawk, American robin, rock dove, house sparrow
Mowed Lawn	Clipped grasses, less than 30% trees, less than 50% ornamental or native shrub cover. Birds –American robin, upland sandpiper, killdeer.
Mowed Roadside	Grasses, sedges and rushes; or forbs, vines, and low shrubs.

3.0 CONTAMINANTS OF ECOLOGICAL CONCERN

The contaminants present at the former A. C. Dutton site consist of metals including arsenic and chromium that were contained in the CCA fluid used to treat lumber. The NYSDEC § Draft DER-10 guidance document defines contaminants of ecological concern as site contaminants that meet any of the following criteria:

1. Exceed the NYSDEC Technical Guidance for Screening Contaminated Sediments;



2. Exceed the NYSDEC surface water criteria in the NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 for type A(A), A(C), H(FC) or W waters;
3. Are known to bioaccumulate or biomagnify in the aquatic, marine or terrestrial food chain;
4. Exist at levels which result in toxic effects in biota; or
5. May contribute to the need for a health advisory for the consumption of fish or wildlife.

3.1 Contaminants in On-Site Soils

Analytical results for soils within the A.C. Dutton property were compared against restricted use soil cleanup objectives as outlined in ECL Part 375-6. The results are provided in [Table 1](#). Several samples are in exceedance of the cleanup objectives for some metals; and some samples exceed for multiple metals. Since the intended remedial action for the property will mitigate all exposure pathways for metals in soils, the future impact to ecological resources will be eliminated or substantially reduced.

During the remedial investigation, limited areas of petroleum impacts were observed in site soils. These areas were limited to the vicinity of known above-ground and underground fuel storage tanks (USTs). The petroleum impacts were delineated horizontally and vertically by advancing test pits or soil borings around the suspected areas.

Only very low levels of volatile and semi-volatile organic compounds were detected in soil samples in limited areas of the site. For compounds where cleanup objectives were specified, the concentrations of contaminants detected are well below the cleanup objective (e.g. 36 ppb benzene in ACD-AA10 versus a cleanup objective of 70,000 ppb). For other contaminants, cleanup objectives were not derived based on the insignificant concentrations detected. As with the most significantly impacted metals in soils, the intended remedial action for the property will mitigate all exposure pathways for metals in soils, the future impact to ecological resources will be eliminated or substantially reduced.

3.2 Contaminants in Sediment Adjacent to the Site

Sediment contaminants of ecological concern primarily consist of heavy metals and persistent organic compounds (EPA, 1990). Metals originating from the former A. C. Dutton site include arsenic, chromium and copper that were contained in the CCA fluid used to treat lumber.

Chromium and copper were measured in site soils and sediments as total mass concentrations. For the five shallow sediment samples collected along the shoreline of the A.C. Dutton site, analytical results indicate that samples exhibited concentrations of metals including arsenic, cadmium, copper and lead that only slightly exceeded the lowest effect level (LEL) screening criteria. Four samples obtained exhibit concentrations of chromium and mercury that slightly exceeded the LEL. No results exceed the SEL criteria, or even reach 50% of the SEL.

Based on the historical and continuous use of the Hudson River for commercial and recreational boat traffic, it is likely that background concentrations of these metals in the Hudson River are at levels that already exceed SCG standards. Although there are



concentrations of arsenic, chromium and copper that exceeded sediment criteria, there are also metals concentrations that exceed these standards that are not known to come from the A.C. Dutton site (cadmium, lead and mercury). The waterfront including and surrounding the site has been used for industrial purposes since its development, which over the long term may have resulted in generally elevated metal concentrations in sediment over the length of the Poughkeepsie waterfront.

A number of semi-volatile organic compounds (SVOCs) were detected in each of the sediment samples, specifically polycyclic aromatic hydrocarbons (PAHs). Of the PAHs detected, at least one compound from each of the samples was in exceedance of the chronic toxicity screening criteria. In four out of five samples, the concentration of benzo(a)anthracene is in exceedance of the acute toxicity screening criteria. Therefore, exposure to SVOC contaminants could occur. Exposure routes would include dermal contact or incidental ingestion. However, the likelihood of exposure is considered minimal due to the industrial nature of the site and limited access for use of the near shore area. It is expected that the sediment throughout the Hudson River may be impacted by contaminants commonly associated with other possible sources including the existing MGP site adjacent to the A.C. Dutton property, urban stormwater runoff and other unidentified sources along the river.

3.3 Surface Water Bodies

As detailed in Section 1.0, there is a small creek, known as Kidney Creek, that extends east to west across the site. Kidney Creek is completely culverted within the site boundaries (the creek is culverted through most of the City of Poughkeepsie). There is no access to and it is impossible for fish or wildlife to come into contact with the creek within the property boundaries. No surface water samples were obtained from the creek. There are no other creeks or ponds within or in the vicinity of the site.

4.0 MIGRATION AND EXPOSURE PATHWAYS

Migration of surficial dust or soil that is impacted with metals could occur by the mobilization of these soils in surface rainfall runoff or inundation by tidal overflow over portions of the site. Information obtained during the remedial investigation indicated that metals in site soils may have leached to groundwater only in limited areas of the site, in the vicinity of the southern treatment plant building.

Volatile and semi-volatile organic compounds related to site uses were observed in site soils. These areas were limited to the vicinity of known above-ground and underground fuel storage tanks (USTs). Volatile and semi-volatile organic compounds could be transported via groundwater toward the Hudson River, however the petroleum impacts were delineated horizontally and vertically by advancing test pits or soil borings around the suspected areas. The extent of petroleum impacts was defined and did not approach the river edge.

As detailed in Section 3.1, the intended remedial action for the property will mitigate all exposure pathways for metals in site soils and the future impact to ecological resources will be eliminated or substantially reduced.



Fish Exposure Pathways: Fish could be exposed to site contaminants via ingestion of, or contact with impacted sediment. However, as detailed above, there are no surface water features within the site boundaries. The Hudson River is adjacent to the site, but not part of the property. Contaminants detected in sediments adjacent to the site were found at concentrations that most likely would not result in adverse impacts to fish or wildlife. Metals concentrations only slightly exceeded the LEL criteria, and were well below the SEL levels. Samples for organic compounds did exhibit concentrations that exceeded criteria for benthic organisms, however these compounds were detected in samples from very shallow sediments. The presence of these compounds is most likely from the continuous use of the Hudson River as a commercial boating traffic way, and these compounds are not directly attributable to historic activities at the subject site.

Wildlife Exposure Pathways: Transient wildlife could possible come in contact with surficial dust or soils that are impacted with metals. Exposure could result from incidental ingestion or dermal contact. However, as detailed in Section 2.1, the site is nearly completely cut off from all access. The property is surrounded by chain-link fencing, and is bordered on the east by a steep slope. The property is surrounded by urban lands, which exhibit very little wildlife.

5.0 CONCLUSIONS

The Remedial Investigation and FWRIA have indicated that there are only limited pathways through which fish or wildlife could be exposed to potential contaminants of ecological concern related to former site activities.

Comparison of soil and sediment analytical data may suggest that site-related contaminants of ecological concern could pose a risk to fish and wildlife; however, the potential risk from these contaminants is not significant for a number of reasons. Exposure frequency, chemical concentration, mechanism of exposure, and duration of exposure determines risk of impact. The site and immediate surrounding area are residential, commercial or industrial properties. The commercial and industrial areas have minimal habitat in the form of small trees or brush that would not support a wildlife population. Residential areas are comprised of single-family and multi-unit properties surrounded primarily by mowed lawns. These areas experience constant physical disturbance preventing development of significant wildlife populations. Because only transient species and a few individual wild animals would use this area, the frequency and duration of exposure is limited. The future use of the site, restricted residential development, is expected to be of a type that will not provide a significant wildlife habitat.

According to this FWRIA, fish and wildlife in the vicinity of the subject site are not expected to be impacted by environmental conditions caused by contaminants of concern at the A.C. Dutton site.



TABLES

The O'Neill Group – Dutton, LLC
A.C. Dutton FWRIA

Former A. C. Dutton Lumber Facility
Fish & Wildlife Resource Impact Analysis
TABLE 1
Volatile Organic Compounds in Soils

Compound (µg / kg)	ACD-SS-X7	ACD-SS-B8-R	ACD-SS-AA11	ACD-SS-AA10	ACD-SS-U5	ACD-SS-U6	Part 375-6 Soil Cleanup Objectives** (µg/kg)
(depth, ft. bgs)	8.0-10.0'	4.5-5.2'	12.0-13.0'	12.0-14.0'	4.0-8.0'	6.0-8.0'	
Acetone	ND	ND	5.7 *	32.0 *	--	--	2200
Benzene	ND	ND	0.9 *	36.0	ND	ND	70000
Bromodichloromethane	ND	ND	ND	ND	--	--	NS
Bromophorm	ND	ND	ND	ND	--	--	NS
Bromomethane	ND	ND	ND	ND	--	--	NS
2-butanone (MEK)	ND	ND	ND	ND	--	--	NS
sec-Butylbenzene	--	--	ND	ND	ND	ND	NS
n-Butylbenzene	--	--	ND	ND	ND	ND	NS
tert-Butylbenzene	--	--	ND	ND	ND	ND	NS
Carbon disulfide	ND	ND	1.0 *	4.2 *	--	--	NS
Carbon tetrachloride	ND	ND	ND	ND	--	--	NS
Chlorobenzene	ND	ND	ND	ND	--	--	40000
Chloroethane	ND	ND	ND	ND	--	--	NS
Chloroform	--	--	ND	ND	--	--	12000
Chloromethane	ND	ND	ND	ND	--	--	NS
Dibromochloromethane	ND	ND	ND	ND	--	--	NS
1,1-dichloroethane	ND	ND	ND	ND	--	--	NS
1,2-dichloroethane	ND	ND	ND	ND	--	--	10000
1,1-dichloroethene	ND	ND	ND	ND	--	--	NS
cis-1,2-dichloroethene	ND	ND	ND	ND	--	--	NS
trans-1,2-dichloroethene	ND	ND	ND	ND	--	--	NS
1,2-dichloropropane	ND	ND	ND	ND	--	--	NS
cis-1,3-dichloropropene	ND	ND	ND	ND	--	--	NS
trans-1,3-dichloropropene	ND	ND	ND	ND	--	--	NS
Methyl-tert-butyl-ether (MTBE)	--	--	ND	ND	ND	ND	NS
Ethylbenzene	ND	ND	ND	ND	ND	ND	NS
2-hexanone	ND	ND	ND	ND	--	--	NS
Isopropyl benzene	--	--	ND	ND	ND	ND	NS
p-Isopropyltoluene	--	--	ND	ND	--	--	NS
Methylene chloride	ND	ND	9.9	110.0	--	--	12000
Naphthalene			ND	ND	ND	ND	NS
4-methyl-2-pentanone (MIBK)	ND	ND	ND	ND	--	--	NS
n-Propylbenzene	--	--	ND	ND	ND	ND	NS
Styrene	ND	ND	ND	ND	--	--	NS
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	--	--	NS
Tetrachloroethene	ND	ND	ND	ND	--	--	2000
Toluene	ND	ND	ND	1.8 *	ND	ND	36000
1,1,1-trichloroethane	ND	ND	ND	ND	--	--	NS
1,1,2-trichloroethane	ND	ND	ND	ND	--	--	NS
Trichloroethene	ND	ND	ND	ND	--	--	2000
1,3,5-Trimethylbenzene	--	--	ND	ND	ND	ND	NS
2,4,6-Trimethylbenzene	--	--	ND	ND	ND	ND	NS
Vinyl Chloride	ND	ND	ND	ND	--	--	NS
o-xylene	ND	ND	ND	ND	ND	ND	260
m-xylene, p-xylene	ND	ND	ND	ND	ND	ND	

NS - Not Specified

* - Value is estimated by the laboratory.

** - Soil Cleanup Objectives specified are for the protection of ecological resources.

Former A. C. Dutton Lumber Facility
Fish & Wildlife Resource Impact Analysis

TABLE 1
Semi-volatile Organic Compounds in Soils

Compound (µg/kg)	ACD-SS-X7 8270C STARS	ACD-SS-B8-R 8270C STARS	ACD-SS-AA11 8270C STARS	ACD-SS-AA10 8270C STARS	ACD-SS-U5 8270C STARS	ACD-SS-U6 8270C STARS	Part 375-6 Soil Cleanup Objectives* (µg/kg)
(depth, ft. bgs)	8.0-10.0'	4.5-5.2'	12.0-13.0'	12.0-14.0'	4.0-8.0'	6.0-8.0'	
Acenaphthene	ND	ND	ND	ND	ND	ND	20000
Anthracene	ND	ND	ND	ND	ND	ND	NS
Benzo(a)anthracene	ND	ND	ND	ND	ND	ND	NS
Benzo(a)pyrene	ND	ND	ND	ND	ND	ND	2600
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	ND	NS
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	ND	NS
Benzo(k)fluoranthene	ND	ND	ND	ND	ND	ND	NS
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	ND	NS
Chrysene	ND	ND	ND	ND	ND	ND	NS
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	NS
Fluoranthene	ND	ND	ND	400	ND	ND	NS
Fluorene	ND	ND	ND	ND	ND	ND	30000
Naphthalene	ND	ND	ND	ND	ND	ND	NS
Phenanthrene	ND	5000	ND	ND	ND	ND	NS
Pyrene	ND	ND	ND	990	ND	ND	NS

* - Soil Cleanup Objectives specified are for the protection of ecological resources.

NS - Not Specified

Former A. C. Dutton Lumber Facility
Fish & Wildlife Resource Impact Analysis
TABLE 1
Metals in Soils

		Arsenic (ppm)	Barium (ppm)	Cadmium (ppm)	Chromium (ppm)	Copper (ppm)	Lead (ppm)	Mercury (ppm)	Selenium (ppm)	Silver (ppm)
Part 375 Ecological Resources:		13	433	4	1	50	63	0.18	3.9	2
Sample ID	Depth									
ACD-SS-SS7R	0.0-0.2'	212.00	52.70	0.571	171.00	109.00	11.80	ND < 0.0355	ND < 2.67	ND < 1.07
ACD-SS-C2	0.0-0.5'	24.20	77.00	ND < 2.24	21.70	37.80	29.00	0.0866	ND < 1.12	ND < 1.12
ACD-SS-K2	0.0-0.5'	39.50	199.00	ND < 23.7	26.40	86.40	161.00	0.2440	64.70	ND < 11.8
ACD-SS-K6	0.0-0.5'	14.10	15.40	ND < 2.01	7.76	12.80	23.20	ND < 0.0502	ND < 1.00	ND < 1.00
ACD-SS-M2	0.0-0.5'	35.50	93.70	ND < 21.5	12.10	37.80	ND < 53.6	0.1060	115.00	ND < 10.7
ACD-SS-Q2	0.0-0.5'	17.10	57.80	ND < 2.08	18.60	42.00	76.80	0.1520	ND < 1.04	ND < 1.04
ACD-SS-U6	0.0-0.5'	8.60	8.54	ND < 2.00	10.00	9.24	28.20	ND < 0.0501	ND < 1.00	ND < 1.00
ACD-SS-AA10	0.0-0.5'	83.80	50.60	ND < 2.12	23.20	53.30	130.00	0.1360	ND < 1.06	ND < 1.06
ACD-SS-B3	0.0-0.5'	18.20	63.00	ND < 1.12	13.90	20.30	19.60	0.0488	ND < 4.48	ND < 2.24
ACD-SS-Y6	0.0-0.5'	13.70	42.00	1.13	20.90	42.00	54.30	ND < 0.0600	ND < 3.00	2.23
ACD-SS-X9	0.0-0.5'	28.40	45.50	ND < 0.543	19.40	24.80	34.70	ND < 0.0543	ND < 2.71	ND < 1.09
ACD-SS-O5	0.0-0.5'	55.00	94.20	ND < 2.88	13.80	19.80	ND < 57.5	0.1140	ND < 14.4	ND < 5.75
ACD-SS-D4	0.0-0.5'	70.00	54.10	1.060	70.60	83.60	42.50	0.1170	ND < 2.74	1.58
ACD-SS-A8	0.0-0.5'	24.20	123.00	0.811	25.40	46.20	44.20	0.3230	ND < 2.92	1.24
ACD-SS-L4	0.0-0.5'	33.10	88.40	ND < 2.81	17.60	54.20	28.40	ND < 0.0374	ND < 14.0	ND < 5.61
ACD-SS-L9	0.0-0.5'	56.80	255.00	ND < 17.6	ND < 35.5	ND < 70.5	ND < 176	ND < 0.0391	ND < 88.1	ND < 35.3
ACD-SS-G6	0.0-0.5'	95.80	11.70	ND < 0.520	80.70	72.10	21.80	ND < 0.0346	ND < 2.60	ND < 1.04
ACD-SS-G4	0.0-0.5'	20.20	27.10	ND < 0.535	24.10	21.10	9.88	ND < 0.0356	ND < 2.67	ND < 1.07
ACD-SS-E8	0.0-0.5'	37.10	70.90	ND < 0.543	40.20	46.00	64.20	0.2610	ND < 2.71	ND < 1.09
ACD-SS-I8	0.0-0.5'	8.32	32.40	ND < 0.518	16.70	36.50	23.80	ND < 0.0345	ND < 2.59	ND < 1.04
ACD-SS-C6	0.0-0.5'	23.50	63.40	ND < 0.543	25.80	41.90	19.50	ND < 0.0362	ND < 2.71	ND < 1.09
ACD-SS-3SS13R	0.0-0.7'	19.60	54.20	2.000	24.10	108.00	64.20	ND < 0.0556	ND < 2.78	2.09
ACD-SS-3SS14R	0.0-0.7'	31.90	68.90	0.846	29.10	34.20	70.00	0.0857	ND < 2.98	ND < 1.19
ACD-SS-3HB8R	0.0-0.7'	7.94	63.10	0.734	33.90	32.10	16.80	ND < 0.0359	ND < 2.70	1.59
ACD-SS-A6	0.0-1.0'	9.50	47.60	ND < 2.17	15.90	33.40	40.30	ND < 0.0543	ND < 1.09	ND < 1.09
ACD-SS-E6	0.0-1.0'	ND < 10.6	103.00	ND < 21.2	18.00	46.70	ND < 53.0	0.3280	ND < 5.3	ND < 10.6
ACD-SS-M6	0.0-1.0'	15.80	275.00	ND < 21.9	17.90	ND < 21.9	1350.00	0.0942	ND < 5.48	ND < 11.0
ACD-SS-U8	0.0-1.0'	23.20	57.90	2.69	18.70	42.50	72.50	1.6600	ND < 1.14	ND < 1.14
ACD-SS-Z12	0.0-1.0'	17.00	68.00	ND < 2.12	12.20	22.20	52.20	ND < 0.0529	ND < 1.06	ND < 1.06
ACD-SS-Q8	0.0-1.0'	48.50	113.00	ND < 2.91	18.90	38.10	46.00	0.1540	ND < 14.6	ND < 5.82
ACD-SS-S10	0.0-1.0'	14.20	69.80	0.607	12.20	77.90	27.10	0.0788	ND < 2.82	1.24
ACD-SS-O8	0.0-3.0'	59.30	117.00	ND < 11.7	ND < 23.4	ND < 46.8	ND < 117	ND < 0.0390	ND < 58.5	ND < 23.4
ACD-SS-B2R	0.2-1.3'	77.40	224.00	ND < 17.0	ND < 34.1	ND < 68.2	ND < 170	ND < 0.0378	ND < 85.2	ND < 34.1
ACD-SS-3HB6R	0.3-1.4'	7.87	55.50	0.740	21.40	32.40	14.00	ND < 0.0346	ND < 2.60	1.89
ACD-SS-A3	0.5-2.5'	7.24	20.40	1.22	15.50	40.30	20.50	0.1090	ND < 2.12	ND < 1.06
ACD-SS-L9	0.5-2.5'	15.90	52.80	ND < 1.04	12.70	15.80	26.60	0.1170	ND < 5.19	ND < 2.08
ACD-SS-G2	0.5-3.0'	811.00	33.90	0.878	469.00	876.00	30.50	0.1260	ND < 2.23	ND < 1.12
ACD-SS-T10	0.5-3.0'	36.10	121.00	ND < 1.37	9.23	33.70	40.30	0.1840	ND < 5.46	ND < 2.73
ACD-SS-C4	0.5-3.0'	7.79	32.80	1.13	8.47	50.20	33.00	0.1230	ND < 2.18	ND < 1.09
ACD-SS-L4	0.5-3.0'	21.50	93.00	ND < 2.82	12.80	44.20	55.10	0.0443	ND < 5.65	ND < 5.65
ACD-SS-H7	0.5-3.0'	19.50	59.00	ND < 5.56	16.70	28.70	ND < 55.6	0.1210	ND < 22.2	ND < 11.1
ACD-SS-Z9	0.5-3.0'	65.40	63.00	0.603	29.50	50.20	67.10	0.0624	ND < 2.90	ND < 1.16
ACD-SS-P3	0.5-3.0'	15.80	94.30	1.320	16.50	26.20	31.30	0.1030	ND < 5.82	ND < 2.33
ACD-SS-J2	0.5-3.0'	48.00	184.00	ND < 11.9	ND < 23.8	ND < 47.6	ND < 119	ND < 0.0396	ND < 59.5	ND < 23.8
ACD-SS-N5	0.5-3.0'	32.10	111.00	ND < 2.82	10.60	29.40	1820.00	0.0628	ND < 14.1	ND < 5.64
ACD-SS-K6	0.5-3.0'	46.90	73.00	0.762	20.80	32.50	44.00	0.1120	ND < 2.99	ND < 1.20
ACD-SS-Y12	0.5-4.0'	31.40	107.00	2.06	25.90	60.30	328.0	0.2180	ND < 2.82	ND < 1.41
ACD-SS-SS7R	0.8-1.4'	129.00	248.00	ND < 11.2	53.00	61.70	ND < 112	ND < 0.0373	ND < 56.1	ND < 22.4
ACD-SS-AB10	0.8-1.5'	20.50	117.00	ND < 0.543	19.20	45.50	140.00	0.1300	ND < 2.71	ND < 1.09
ACD-SS-L8	1.0-2.0'	22.10	77.30	0.805	14.00	47.60	76.00	0.5570	ND < 3.11	1.38
ACD-SS-Q6	1.0-3.0'	44.50	142.00	ND < 12.2	ND < 24.3	81.90	ND < 122	1.0000	ND < 48.6	ND < 24.3
ACD-SS-S2	1.0-3.0'	40.40	69.30	1.360	29.00	58.70	73.80	0.1290	ND < 2.91	1.57
ACD-SS-V8	1.0-3.0'	21.80	65.80	1.700	15.60	27.80	40.90	ND < 0.0562	ND < 2.81	1.60
ACD-SS-X7	1.0-3.0'	10.60	87.10	0.801	22.00	58.50	63.00	0.0743	ND < 2.84	1.95
ACD-SS-E5	1.0-3.0'	94.50	255.00	ND < 18.0	ND < 36.0	ND < 71.9	ND < 180	0.5200	ND < 89.9	ND < 36.0
ACD-SS-S4	2.0-3.0'	11.00	22.10	1.87	20.30	56.30	19.10	0.0840	ND < 2.25	ND < 1.13
ACD-SS-I9	2.0-5.0'	66.70	175.00	ND < 13.9	ND < 25.9	ND < 51.9	ND < 130	ND < 0.0432	ND < 25.9	ND < 25.9
ACD-SS-M2	2.0-5.0'	148.00	40.70	ND < 5.81	ND < 11.6	ND < 23.3	ND < 58.1	ND < 0.0581	ND < 29.1	ND < 11.6
ACD-SS-E8	3.0-3.5'	36.30	62.90	1.230	29.60	47.70	97.10	0.1740	ND < 2.74	2.62
ACD-SS-B3	3.0-5.5'	10.50	88.10	ND < 0.539	16.30	39.30	17.30	0.1000	ND < 2.69	ND < 1.08
ACD-SS-E4	3.0-6.0'	44.20	106.00	ND < 6.14	19.70	ND < 24.6	77.10	ND < 0.0409	ND < 24.6	ND < 12.3
ACD-SS-E5	3.0-6.0'	ND < 121	383.00	ND < 60.5	ND < 121	ND < 242	ND < 605	ND < 0.0403	ND < 242	ND < 121
ACD-SS-V9	3.0-6.0'	6.15	34.00	5.02	9.87	46.80	26.50	0.0392	ND < 2.24	1.23
ACD-SS-Z9	3.0-6.0'	24.50	117.00	1.20	13.60	35.00	125.00	0.1970	ND < 2.47	ND < 1.24
ACD-SS-Q3	3.0-6.0'	19.10	60.70	1.19	12.70	28.50	ND < 28.3	ND < 0.0566	ND < 2.83	1.19
ACD-SS-M6	3.0-6.0'	34.60	130.00	ND < 5.75	ND < 11.5	28.40	110.00	ND < 0.0575	ND < 28.7	ND < 11.5
ACD-SS-U6	3.0-6.0'	21.90	97.90	ND < 2.55	21.20	47.90	ND < 25.5	ND < 0.0339	ND < 12.7	ND < 5.10
ACD-SS-Y7	3.0-8.0'	8.73	715.00	0.655	18.60	34.90	650.00	ND < 0.0561	ND < 2.81	1.57
ACD-SS-AA11	3.0-8.0'	21.20	695.00	1.780	17.70	47.20	431.00	0.8650	ND < 3.08	ND < 1.23
ACD-SS-B8R	4.0-4.5'	105.00	189.00	ND < 11.8	69.70	ND < 47.3	ND < 118	0.1210	ND < 59.1	ND < 23.6
ACD-SS-SS9R	4.0-5.3'	14.60	23.30	ND < 0.548	28.30	52.20	14.60	0.0597	ND < 2.74	ND < 1.10
ACD-SS-D2	6.0-8.0'	6.04	22.20	1.35	15.90	33.20	13.80	ND < 0.0386	ND < 2.32	ND < 1.16
ACD-SS-V9	6.0-8.0'	11.30	45.20	2.27	31.50	43.00	17.30	0.0389	ND < 13.9	3.19
ACD-SS-Q3	6.0-8.0'	7.71	42.20	0.710	20.60	34.90	11.70	ND < 0.0596	ND < 2.98	1.82
ACD-SS-T7	6.0-8.0'	24.40	54.80	0.701	20.30	321.00	61.40	ND < 0.0412	ND < 3.09	2.32
ACD-SS-X7	6.0-8.0'	21.10	56.10	1.370	27.80	63.70	35.20	0.0717	ND < 2.78	2.49
ACD-SS-AA10	8.0-10.0'	7.10	45.50	1.50	20.40	44.20	18.40	0.0595	ND < 2.30	ND < 1.15
ACD-SS-F2	8.0-10.0'	10.60	31.10	0.927	24.40	40.30	18.70	0.0512	ND < 2.96	2.27
ACD-SS-3HB6R	8.0-10.1'	12.10	24.90	0.893	33.60	39.00	7.13	ND < 0.0571	ND < 2.86	2.32
ACD-SS-G4	10.0-11.0'	9.16	87.20	1.15	21.20	30.60	78.60	0.6590	ND < 2.76	ND < 1.38

Bold shaded values indicate results that exceed the Part 375-6 soil cleanup objectives.

Former A. C. Dutton Lumber Facility
 Fish Wildlife Resource Impact Analysis
TABLE 2
 Metals in Sediment

Compound (mg / kg)	SED-01 329060120-04	SED-02 329060120-05	SED-03 329060120-06	SED-04 329060120-07	SED-05 329060120-08	Sediment SCGs Lowest Effect Level (mg / kg)	Sediment SCGs Severe Effect Level (mg / kg)
Arsenic	9.8	9.4	10.4	10.2	14.4	6.0	33.0
Barium	153.0	150.0	39.4	119.0	111.0	N/A	N/A
Cadmium	1.8	1.7	1.6	1.7	1.8	0.6	9.0
Chromium	40.7	39.8	17.2	40.6	30.4	26.0	110.0
Copper	49.3	47.6	28.8	46.6	43.4	16.0	110.0
Lead	43.6	44.3	47.3	57.5	41.6	31.0	110.0
Mercury	0.19	0.19	ND < 0.04	0.18	0.15	0.15	1.3
Selenium	ND < 2.9	4.3	2.1	ND < 2.4	3.2	N/A	N/A
Silver	ND < 2.9	ND < 3.0	ND < 1.3	ND < 2.4	ND < 2.4	1.0	2.2

SCGs were obtained from the NYSDEC's Technical Guidance for Screening Contaminated Sediments.

Bold values indicate results that exceed the Lowest Effect Level criteria.

N/A - no guidance available.

Former A. C. Dutton Lumber Facility
Fish & Wildlife Resource Impact Analysis
TABLE 2
Semi-Volatile Organic Compounds in Sediment

Compound	SED-14 329060120-04	SED-13 329060120-05	SED-12 329060120-06	SED-11 329060120-07	SED-10 329060120-08	Benthic Aquatic Life Acute Toxicity (µg/kg)**	Benthic Aquatic Life Chronic Toxicity (µg/kg)**
Acenaphthene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	407.4
Acenaphthylene	ND < 2900	ND < 3000	ND < 8800	650*	280*	N/A	N/A
Anthracene	ND < 2900	520*	ND < 8800	690*	360*	2869.26	311.37
Benzo(a)anthracene	470*	1900*	ND < 8800	1800*	1000*	273.54	34.92
Benzo(a)pyrene	490*	1800*	ND < 8800	2100*	960*	N/A	N/A
Benzo(b)fluoranthene	410*	1500*	ND < 8800	1300*	740*	N/A	N/A
Benzo(g,h,i)perylene	370*	1100*	ND < 8800	1400*	650*	N/A	N/A
Benzo(k)fluoranthene	390*	1500*	ND < 8800	1500*	840*	N/A	N/A
Benzyl alcohol	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
butyl benzyl phthalate	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
Di-n-Butylphthalate	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
Carbazole	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
Indeno(1,2,3-cd)pyrene	320*	1000*	ND < 8800	1100*	540*	N/A	N/A
4-chloroaniline	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
Bis(2-chloroethoxy)methane	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
Bis(2-chloroethyl)ether	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
2-chloronaphthalene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
2-chlorophenol	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
2,2'-oxybis(1-chloropropane)	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
Chrysene	660*	1900*	ND < 8800	2100*	1300*	N/A	N/A
Dibenzo(a,h)anthracene	ND < 2900	400*	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
Dibenzofuran	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
1,3-dichlorobenzene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	349.2	34.92
1,2-dichlorobenzene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	349.2	34.92
1,4-dichlorobenzene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	349.2	34.92
3,3'-dichlorobenzidine	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
2,4-dichlorophenol	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
Diethylphthalate	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
Dimethyl phthalate	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
2,4-dimethylphenol	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
2,4-dinitrophenol	ND < 15000	ND < 16000	ND < 45000	ND < 22000	ND < 12000	N/A	N/A
2,4-dinitrotoluene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
2,6-dinitrotoluene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
Bis(2-ethylhexyl)phthalate	400*	400*	ND < 8800	ND < 4200	310*	N/A	580.545
Fluoranthene	870*	3600	1200*	3300*	2100*	N/A	2968.2
Fluorene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	212.43	23.28
Hexachlorobenzene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	26425.71	16208.7
Hexachlorobutadiene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	160.05	16.005
Hexachlorocyclopentadiene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	128.04	12.804
Hexachloroethane	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
Isophorone	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
2-methylnaphthalene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	884.64	98.94
4,6-dinitro-2-methylphenol	ND < 15000	ND < 16000	ND < 45000	ND < 22000	ND < 12000	N/A	N/A
4-chloro-3-methylphenol	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
2-methylphenol	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
4-methylphenol	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
naphthalene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	750.78	87.3
2-nitroaniline	ND < 15000	ND < 16000	ND < 45000	ND < 22000	ND < 12000	N/A	N/A
3-nitroaniline	ND < 15000	ND < 16000	ND < 45000	ND < 22000	ND < 12000	N/A	N/A
4-nitroaniline	ND < 15000	ND < 16000	ND < 45000	ND < 22000	ND < 12000	N/A	N/A
nitrobenzene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
2-nitrophenol	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
4-nitrophenol	ND < 15000	ND < 16000	ND < 45000	ND < 22000	ND < 12000	N/A	N/A
N-nitrosodimethylamine	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
N-nitrosodiphenylamine	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
Di-N-octyl phthalate	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
Pentachlorophenol	ND < 15000	ND < 16000	ND < 45000	ND < 22000	ND < 12000	291	116.4
Phenanthrene	540*	1700*	980*	2000*	1500*	N/A	349.2
Phenol	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	1.455
4-bromophenyl-phenylether	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
4-chlorophenyl-phenylether	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
N-nitroso-Di-N-propylamine	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
Pyrene	930*	3300	1100*	3400*	2100*	25535.25	2796.51
1,2,4-trichlorobenzene	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	4746.21	541.26
2,4,6-trichlorophenol	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A
2,4,5-trichlorophenol	ND < 2900	ND < 3000	ND < 8800	ND < 4200	ND < 2400	N/A	N/A

Bold values are in exceedance of chronic toxicity screening criteria

Bold Shaded values are in exceedance of acute toxicity screening criteria

* Values are estimated by the laboratory.

** Screening criteria is based on sediment organic carbon content of 2.91 g/kg.



FIGURES

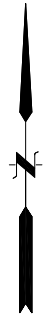
The O'Neill Group – Dutton, LLC
A.C. Dutton FWRIA

LEGEND

- Critical Habitat
- Cities**
- Cities Greater than 500,000
- Cities 100,000 to 500,000
- Towns below 100,000
- Railroads
- Counties
- U.S. States
- Water Bodies
- NWI Wetlands**
- Estuary
- Estuarine Wetland
- Lake (Deep)
- Lake (Shallow)
- Open Water
- Marine Wetland
- Other Vegetated Wetland
- Inland Aquatic Bed
- Inland Herbaceous Wetland
- Inland Forested Wetland
- Inland Shrub Swamp
- Pond
- Pond (Drawdown)
- Tidal River
- Lower Perennial River
- Upper Perennial River
- Intermittent River
- Other Perennial River

Hudson River

Approximate
site boundary



MAP PROVIDED BY THE US
FISH AND WILDLIFE
SERVICE'S ECOS ONLINE
MAPPING PROGRAM. BASED
ON THIS INFORMATION, THE
SITE DOES NOT CONTAIN
ANY CRITICAL HABITATS,
BUT IS PARTIALLY
CONSIDERED A TIDAL RIVER
WETLAND IN THE
NORTHWEST CORNER.

SCALE:	
HORZ.: NTS	
VERT.:	
DATUM:	
HORZ.:	
VERT.:	
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NEW YORK

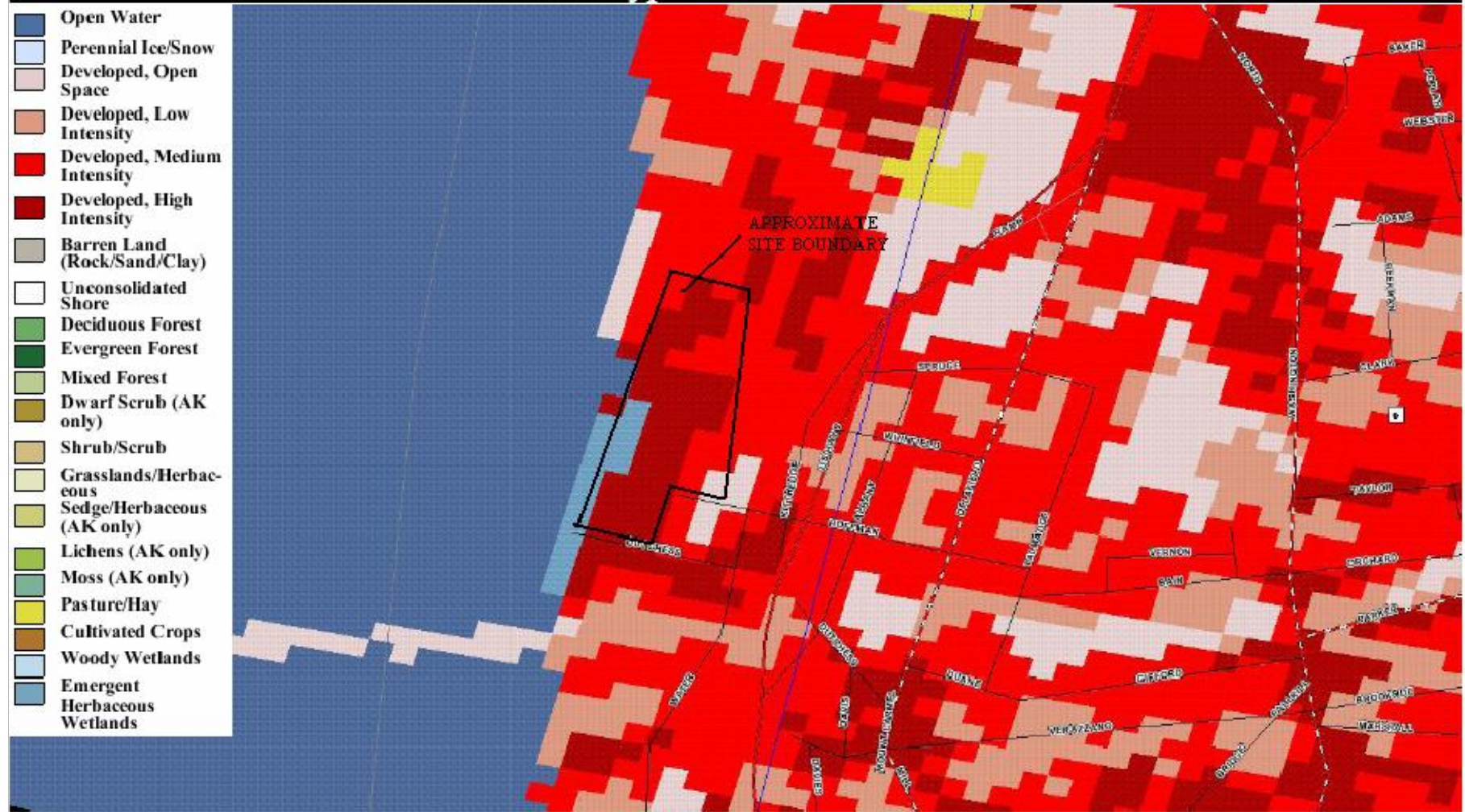
PROJ. No.: 20040764.A1N
DATE: AUGUST 2007

FIG. 1



A.C. Dutton: NLCD 2001 Land Cover Types

- Open Water
- Perennial Ice/Snow
- Developed, Open Space
- Developed, Low Intensity
- Developed, Medium Intensity
- Developed, High Intensity
- Barren Land (Rock/Sand/Clay)
- Unconsolidated Shore
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Dwarf Scrub (AK only)
- Shrub/Scrub
- Grasslands/Herbaceous
- Sedge/Herbaceous (AK only)
- Lichens (AK only)
- Moss (AK only)
- Pasture/Hay
- Cultivated Crops
- Woody Wetlands
- Emergent Herbaceous Wetlands



SCALE:	
HORIZ.: NTS	
VERT.:	
DATUM:	
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 LAND COVER MAP
 2 HOFFMAN STREET

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 DATE: AUGUST 2007

FIG. 2



APPENDIX A

The O'Neill Group – Dutton, LLC
A.C. Dutton FWRIA

FWRIA DECISION KEY

APPENDIX 3C

Fish and Wildlife Resources Impact Analysis Decision Key

		If YES Go to:	If NO Go to:
1.	Is the site or area of concern a discharge or spill event?	13.	2.
2.	Is the site or area of concern a point source of contamination to the groundwater which will be prevented from discharging to surface water? Soil contamination is not widespread, or if widespread, is confined under buildings and paved areas.	13.	3
3.	Is the site and all adjacent property a developed area with buildings, paved surfaces and little or no vegetation?	4.	9.
4.	Does the site contain habitat of an endangered, threatened or special concern species?	Section 3.10.1	5.
5.	Has the contamination gone off site?	6.	14.
6.	Is there any discharge or erosion of contamination to surface water or the potential for discharge or erosion of contamination?	7.	14.
7.	Are the site contaminants PCBs, pesticides or other persistent, bioaccumulable substances?	Section 3.10.1	8.
8.	Does contamination exist at concentrations that could exceed SCGs or be toxic to aquatic life if discharged to surface water?	Section 3.10.1	14.
9.	Does the site or any adjacent or downgradient property contain any of the following resources? a. Any endangered, threatened or special concern species or rare plants or their habitat b. Any NYSDEC designated significant habitats or rare NYS Ecological Communities c. Tidal or freshwater wetlands d. Stream, creek or river e. Pond, lake, lagoon f. Drainage ditch or channel g. Other surface water feature h. Other marine or freshwater habitat i. Forest j. Grassland or grassy field k. Parkland or woodland l. Shrubby area m. Urban wildlife habitat n. Other terrestrial habitat	11.	10.
10.	Is the lack of resources due to the contamination?	Section 3.10.1	14.
11.	Is the contamination a localized source which has not migrated and will not migrate from the source to impact any on-site or off-site resources?	14.	12.
12.	Does the site have widespread soil contamination that is not confined under and around buildings or paved areas?	Section 3.10.1	13.
13.	Does the contamination at the site or area of concern have the potential to migrate to, erode into or otherwise impact any on-site or off-site habitat of endangered, threatened or special concern species or other fish and wildlife resource? (See #9 for list of potential resources. Contact NYSDEC for information regarding endangered species.)	Section 3.10.1	14.
14.	No Fish and Wildlife Resources Impact Analysis needed.		



APPENDIX B

The O'Neill Group – Dutton, LLC
A.C. Dutton FWRIA

POUGHKEEPSIE DEEPWATER HABITAT RATING FORM

COASTAL FISH & WILDLIFE HABITAT RATING FORM

Name of Area: **Poughkeepsie Deepwater Habitat**

Designated: **November 15, 1987**

County(ies): **Dutchess; Ulster**

Town(s): **Hyde Park, Poughkeepsie, Wappinger; Esopus, Lloyd, Marlboro**

7½' Quadrangle(s): **Hyde Park, NY; Poughkeepsie, NY; Wappingers Falls, NY**

<u>Score</u>	<u>Criterion</u>
40	Ecosystem Rarity (ER) An extensive area of deep, freshwater, estuarine habitat; rare in New York State, but somewhat common in the Hudson River. Geometric mean: $(25 \times 64)^{1/2} = 40$.
36	Species Vulnerability (SV) Shortnose sturgeon (E) wintering area.
0	Human Use (HU) No significant fish or wildlife related human use of the area.
16	Population Level (PL) Concentrations of sturgeon and other estuarine species are unusual in New York State.
1.2	Replaceability (R) Irreplaceable.

SIGNIFICANCE VALUE = $[(ER + SV + HU + PL) \times R]$

= 110

DESIGNATED HABITAT: POUGHKEEPSIE DEEPWATER HABITAT

HABITAT DESCRIPTION:

The Poughkeepsie Deepwater Habitat encompasses a fourteen mile stretch of the Hudson River extending from the Villages of West Park in Ulster County and Hyde Park in Dutchess County south to the hamlet of Marlboro in Ulster County. Towns with jurisdiction included in the area are Hyde Park, Poughkeepsie, and Wappinger, Dutchess County; and Esopus, Lloyd and Marlborough, Ulster County (7.5' Quadrangle: Hyde Park, N.Y., Poughkeepsie, N.Y., and Wappingers Falls, N.Y.). The important fish and wildlife habitat is a nearly continuous river bottom trench, from 30 feet deep to the bottom. Most of this area has water depths of 50 feet or greater including a small area in the "Crum Elbow" section of the river which exceeds 125 feet in depth.

FISH AND WILDLIFE HABITAT:

Deepwater estuary areas such as the Poughkeepsie Deepwater Habitat are rare in the eastern United States. The Hudson River is the only river in New York State that contains this ecosystem type.

Deepwater areas provide wintering habitat for shortnose sturgeon (E), and support an unusual diversity of marine species in the Hudson River. Shortnose sturgeon also use this area as spawning grounds. Yolk-sac shortnose sturgeon larvae have been collected from this region at depths of 45 feet to 120 feet. Although habitat requirements of this species in the Hudson River are not well known, it is believed that these deepwater areas may be critical throughout the year. A variety of estuarine and marine species appear in numbers in this area, including bay anchovies, silversides, bluefish, weakfish, and hogchokers.

The abundance of shortnose sturgeon and these other estuarine species is unusual in New York State. However, commercial or recreational uses of fish and wildlife in this area are not known to be significant.

IMPACT ASSESSMENT:

A **habitat impairment test** must be met for any activity that is subject to consistency review under federal and State laws, or under applicable local laws contained in an approved local waterfront revitalization program. If the proposed action is subject to consistency review, then the habitat protection policy applies, whether the proposed action is to occur within or outside the designated area.

The specific **habitat impairment test** that must be met is as follows.

In order to protect and preserve a significant habitat, land and water uses or development shall not be undertaken if such actions would:

- destroy the habitat; or,
- significantly impair the viability of a habitat.

Habitat destruction is defined as the loss of fish or wildlife use through direct physical alteration, disturbance, or pollution of a designated area or through the indirect effects of these actions on a designated area. Habitat destruction may be indicated by changes in vegetation, substrate, or hydrology, or increases in runoff, erosion, sedimentation, or pollutants.

Significant impairment is defined as reduction in vital resources (e.g., food, shelter, living space) or change in environmental conditions (e.g., temperature, substrate, salinity) beyond the tolerance range of an organism. Indicators of a significantly impaired habitat focus on ecological alterations and may include but are not limited to reduced carrying capacity, changes in community structure (food chain relationships, species diversity), reduced productivity and/or increased incidence of disease and mortality.

The *tolerance range* of an organism is not defined as the physiological range of conditions beyond which a species will not survive at all, but as the ecological range of conditions that supports the species population or has the potential to support a restored population, where practical. Either the loss of individuals through an increase in emigration or an increase in death rate indicates that the tolerance range of an organism has been exceeded. An abrupt increase in death rate may occur as an environmental factor falls beyond a tolerance limit (a range has both upper and lower limits). Many environmental factors, however, do not have a sharply defined tolerance limit, but produce increasing emigration or death rates with increasing departure from conditions that are optimal for the species.

The range of parameters which should be considered in applying the habitat impairment test include but are not limited to the following:

1. physical parameters such as living space, circulation, flushing rates, tidal amplitude, turbidity, water temperature, depth (including loss of littoral zone), morphology, substrate type, vegetation, structure, erosion and sedimentation rates;
2. biological parameters such as community structure, food chain relationships, species diversity, predator/prey relationships, population size, mortality rates, reproductive rates, meristic features, behavioral patterns and migratory patterns; and,
3. chemical parameters such as dissolved oxygen, carbon dioxide, acidity, dissolved solids, nutrients, organics, salinity, and pollutants (heavy metals, toxics and hazardous materials).

Although not comprehensive, examples of generic activities and impacts which could destroy or significantly impair the habitat are listed below to assist in applying the habitat impairment test to a proposed activity.

Activities that would substantially degrade water quality, including changes in temperature, turbidity, or freshwater to saline distribution, would result in significant impairment of the habitat. This area may be especially sensitive to discharges of municipal or industrial wastewater, sewage effluents, and agricultural runoff.

Major reduction in overall depths along this deepwater trench would also have adverse effects on the endangered shortnose sturgeon utilizing the area. Of particular concern is a past practice of using portions of the deepwater trench as a dredge spoil dumping site. Activities such as this must be controlled to avoid interference with use of the area by shortnose sturgeon. Impingement of shortnose sturgeon on water intake screens could affect the population status of this endangered species.