Interim Remedial Measures Report

(Volume 1 of 3)

Midler City Industrial Park Site Brownfield Cleanup

City of Syracuse
Onondaga County, New York

NYSDEC BROWNFIELD SITE # C734103

Prepared for
Pioneer Midler Avenue, LLC

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1.0 INTRODUCTION

1.1 Purpose and Format of the Report

This Interim Remedial Measure (IRM) Report documents the performance of an IRM at the Pioneer Midler Avenue Brownfield Site, in the City of Syracuse, Onondaga County, New York. The IRM was conducted by Pioneer Midler Avenue LLC as a volunteer under the New York State Department of Environmental Conservation's (NYSDEC's) "Brownfields Cleanup Program". The IRM addressed the presence of chlorinated volatile organic compounds within identified source areas within the overburden soils at the Pioneer Midler Avenue site. As used in this report, the term *chlorinated volatile organic compounds* (CVOCs) refers to the suite of compounds consisting of tetrachloroethene (PCE), trichloroethene (TCE), vinyl chloride, cis-1,2-dichloroethene, and trans-1,2-dichloroethene.

The presence and extent of the CVOCs within the site was established during a multi-phase Remedial Investigation (RI) and documented in a series of Data Reports; the final Data Report, summarizing all phases of the RI, was submitted to NYSDEC in July 2005. The IRM approach of limited excavation and in-situ thermal treatment was established in a July 2006 *Interim Remedial Measure Work Plan* (C&S Engineers, Inc.), which was approved by NYSDEC. The IRM thermal treatment contractor, selected by Pioneer Midler Avenue LLC via competitive bid, was TerraTherm, Inc. (TerraTherm) of Fitchburg, MA. C&S Engineers, Inc. (C&S) was retained by Pioneer Milder Avenue, LLC to perform a variety of support tasks including assistance in obtaining permits and conducting the IRM verification sampling.

This report follows the format for Remedial Action Reports provided in Section 5.8 of NYSDEC's *Draft Technical Guidance for Site Investigation and Remediation* (Draft DER-10, dated December 2002). A separate report, the RI Report, will also be prepared and will include the following:

- Soil and groundwater quality data generated after the July 2005 Data Report (including IRM data);
- A Qualitative Human Health Exposure Assessment (HHEA); and

- A Remedial Action Alternatives (RAA) analysis.

Upon completion of the IRM, TerraTherm submitted an October 2007 *Remedial Activities Report – Implementing In-Situ Thermal Desorption (ISTD) Remediation* to Pioneer Midler Avenue LLC. That report is provided as Appendix A.

1.2 Summary of the Remedy

The IRM was conducted to remove CVOCs from four source areas identified during the RI. The technology adopted to remove CVOCs was in-situ thermal desorption. The smallest of the four source areas ("B-5" Area) was first excavated and the impacted materials were placed within the two largest treatment areas ("B-1" and "B-3" Areas) for CVOC removal via thermal desorption. The subsurface within the thermal treatment areas was heated by electrical resistance units installed within vertical steel wells to depths of five feet below the depth of detected CVOC impacts within each area or sub-area; vapors released by the heating process were collected in a horizontal extraction system installed above the water table and beneath a concrete (low-permeability) surface pad. The collected CVOC vapors were then thermally destroyed in an aboveground natural gas-fired thermal oxidation unit.

The IRM Work Plan set forth a soil verification sampling plan that included specific sampling locations, depths, and protocols for sample collection and data reduction. Table 1 provides the verification sample identifications, depths, and the RI reference samples used to determine those depths. Figure 1 illustrates the sample locations. In addition to soil verification data, the following data were regularly collected and reported during the IRM:

- Vapor CVOC content prior to and following CVOC destruction within the thermal oxidizer or removal within the vapor-phase carbon units;
- Condensate (water) from the vapor treatment system prior to and following CVOC removal in the aqueous phase carbon unit;
- Ambient air per requirements of the Community Air Monitoring Plan.

Appendix B provides copies of the above data and reports.

2.0 SUMMARY OF REMEDIAL ACTIONS

In July 2006, prior to the installation of the in-situ thermal treatment system, the "B-5" Area was excavated and the CVOC-impacted soils were moved to the "B-1" and "B-3" thermal treatment areas. Bottom and sidewall soil verification samples were collected at the limits of the "B-5" excavation per the work plan. "B-5" Area verification results are included in Table 2. The "B-5" Area verification sampling results were previously provided to NYSDEC in a September 22, 2006 report, a copy of which is provided as Appendix A-2.

Prior to mobilizing to the site, TerraTherm submitted a layout and specifications for the remedial system, with the understanding that additions/modifications to the system could be instituted as necessary to meet the performance and scheduling goals. The system layout was provided to NYSDEC. TerraTherm mobilized for the IRM on July 24, 2006. Heater wells were installed in a hexagonal grid within each of the three ("3D", "B-3", and "B-1") thermal treatment areas (Figure 2). Thermal treatment began on November 1, 2006, with the phased start-up of the heater wells.

Verification sampling was initiated on March 5, 2007. TerraTherm identified areas where, based on temperature data from subsurface thermocouples, CVOC removal to the remedial goals was likely to have occurred. Successive rounds of verification sampling were then conducted until the remedial objective was attained in each treatment area. The vapor collection and treatment system operated continuously throughout the remediation. As the various thermal treatment areas or sub-areas achieved the remedial goals, specific heater wells were taken off-line. As additional resources became available due to those shutdowns, those resources were shifted (via installation of additional heater wells) to other areas as needed.

2.1 Areas of Concern

The four CVOC source areas of concern were identified during the RI and addressed by the IRM. As developed in the IRM Work Plan, the areas delineated for source area treatment under the IRM were those areas where RI sample results for CVOCs (total) in soils exceeded 31,200 µg/kg. Figure 1 shows the source areas addressed during the IRM. The following provides a description of each of those areas.

- **"B-3" Area**: Located generally along the eastern edge of former Building 7, this area included two apparently separate sources of CVOCs, where concentrations in soil were two to three orders of magnitude greater than the concentrations detected at other sampling locations in the surrounding area. CVOC impacts were present to a maximum depth of 26 feet (GPD-3) in the B-3 Area.
- **"B-1" Area**: Located along the northern edge of former Building 13, this area included two apparently separate source areas defined by the PCE/TCE analytical data for boring B-1 and test pit TP-14 (westernmost source area), and borings DW-4 and GPD-26 (easternmost source area). The CVOC impacts in these areas were relatively shallow (<15 ft. below the ground surface).
- **"B-5" Area**: Located east of Building 12, the IRM work in this area addressed one area (characterized by soil samples B-5 and GPD-14), where the data indicate CVOC concentrations exceeded 31,200 µg/kg to a depth of approximately ten feet.
- **"3D" area:** The soil sample from this boring did not exhibit significant CVOC impacts during initial investigations, but the groundwater sample from this location exceeded Class GA standards for several parameters. During October 2005, a dense non-aqueous phase liquid (DNAPL) exhibiting the olfactory characteristics of PCE was observed in MW-3D. Subsequent laboratory analysis confirmed that the DNAPL was PCE. Additional borings confirmed the presence of elevated levels of CVOCs in a small area around MW-3D.

2.2 Problems Encountered During Construction

As discussed above, and further discussed in the report prepared by the remedial contractor (Appendix A), the operational approach provided the flexibility to take heaters off-line in an area when verification sampling results indicated that the remedial goals were achieved and, conversely, to install additional heater wells in other areas to accelerate removals in those areas. A proposal for each resource reallocation event was submitted to NYSDEC for approval in advance of implementation (Appendix A, Sections 2.5 and 6). In addition to heater wells, two additional types of installations were utilized by TerraTherm to accelerate treatment in specific areas:

- Sheet piling was installed to inhibit possible surface water flux in several areas; and
- Air sparge points were installed at three locations to enhance vapor movement towards the vapor collection system.

Figure 2 shows the initial heater well grids and where sparge points and sheet piling were subsequently installed.

As the verification sampling proceeded, the data indicated that the thermal processes being used to volatilize CVOCs were also producing measurable quantities of ketones (acetone, 2-butanone) within the subsurface. Literature from other thermal remediation projects and TerraTherm's experience indicated that ketone production is due to either biological or physical/chemical pathways. The physical/chemical pathway would be greatly enhanced by elevated temperatures and by the presence of humic acids within the subsurface strata. The concentrations of ketones are expected to decline relatively rapidly as the treatment areas cool down in the months following shut-down of the thermal treatment system.

2.3 Changes to the Design Documents

As the thermal treatment progressed, protocols for sampling the heated soils and groundwater were developed to assure sample integrity by cooling of the sample media to ambient temperatures as soon as possible after retrieving the sample form the subsurface. Those protocols were submitted to NYSDEC prior to sample collection.

Near the end of the thermal treatment, when only three "B-1" sample locations required further treatment, the vapor stream was routed through a vapor-phase carbon treatment system, and the thermal oxidation unit was taken off-line. The NYSDEC was notified prior to this changeover.

2.4 Volume and Concentrations of Materials Removed

Section 4 provides calculations, based on CVOC concentrations at the inlet and exhaust of the vapor treatment units (thermal oxidizer or vapor-phase carbon), and associated vapor flow rates, for the mass of CVOCs removed during the IRM. These data indicate that a total of approximately 86,205 pounds of CVOCs were removed from the site during the IRM. Similar mass removal calculations for the condensate water (before and after aqueous-phase carbon adsorption) indicated that CVOC mass removals via that pathway were negligible.

2.5 Waste Disposal Listing

The CVOCs removed via vapor extraction were destroyed in the thermal oxidizer; therefore, no waste disposal was associated with that part of the project. Appendix B-1 provides the monthly results of the vapor treatment unit sampling.

After exiting the thermal oxidizer, the hot vapors entered a quench tank and packed tower scrubber that utilized a caustic solution to neutralize the acid-containing vapors. A portion of the quench water was evaporated and, after passing through carbon, the remaining water was discharged to the sanitary sewer system under a permit with the Onondaga County Department of Water Environment Protection. Appendix B-2 contains information relative to the wastewater discharge.

During the last stages of the IRM, when only small thermal treatment sub-areas required treatment, the vapor phase carbon replaced the thermal oxidizer for treatment of the vapor phase. Documentation pertaining to the disposal of spent vapor phase carbon is provided in Appendix C.

3.0 APPLICABLE REMEDIATION STANDARDS

NYSDEC's TAGM 4046 provides Recommended Soil Cleanup Objectives (RSCOs) for contaminated sites. This TAGM also provides a methodology for modifying RSCOs for site-specific conditions such as groundwater elevations and total organic carbon (TOC) content of soils.

As indicated by the NYSDEC, the TAGM 4046 RSCOs were developed based on an assumed soil Total Organic Carbon (TOC) content of one percent. During the RI, soil samples from the Midler site were analyzed for TOC and an average TOC above the clay unit of approximately eight percent was calculated. Appendix A-3 provides the Total Organic Carbon data and averaging. Utilizing the NYSDEC formula for calculating site-specific soil clean-up objectives for protection of groundwater in Section 3, Part A of TAGM 4046, the resulting objectives based on site TOC levels would have been 11,200 µg/kg for PCE , 5,600 µg/kg for TCE, 2,400 µg/kg for trans-1,2-dichloroethene, and 1,600 µg/kg for vinyl chloride.

The TAGM 4046 methodology for establishing RSCOs also utilizes a correction factor of 100 to account for soils above the groundwater table. The shallow groundwater conditions and the thickness of the saturated zone at the Midler Avenue site indicated that the correction factor of 100 utilized in the NYSDEC formula could result in site-specific soil cleanup objectives (SSCOs) that would be too high. Therefore, given the need to improve groundwater quality, a more conservative correction factor of 50 was utilized. As shown in the table below, the resulting site-specific soil cleanup objectives within the boundary of each proposed IRM treatment area was 5,600 µg/kg for PCE; 2,800 µg/kg for TCE; 1,200 µg/kg for trans-1,1-dichloroethene; and 800 µg/kg for vinyl chloride.

CVOC Parameter	TAGM 4046 RSCO	Midler SSCO
PCE	1,400	5,600
TCE	700	2,800
Vinyl chloride	200	800
trans-1,2-Dichloroethene	300	1,200
cis-1,2-Dichloroethene	NA	NA
Total CVOCs	2,600	10,400

All units in µg/kg

For purposes of verifying successful IRM CVOC removals, the average concentration of each individual CVOC needed to be equal or less than the SSCO within each IRM treatment area.

4.0 IRM DATA REVIEW

Table 2 provides the validated analytical results for VOCs from all verification samples collected. A verification sampling data reduction protocol was developed for the site and approved by NYSDEC after comment and revision. Under the protocol, if analytical results from an initial round of verification sampling indicated one or more of the specific sampling locations within a treatment area required further treatment to achieve the IRM goals, each specific location would be re-sampled following the extended treatment period. Subsequent samples were to be collected as close as practical to the location and depth of the related earlier sample. Analytical results for the subsequent samples then replaced the earlier round results from the same discrete area. Those data were incorporated with the earlier results from the same treatment area in calculating that area's average concentration. Table 3 provides the summary CVOCs data for each treatment area and identifies the individual results used in calculating average CVOC concentrations for the individual treatment areas.

Tables 1 and 2 include the depth interval from which each verification sample was collected. PID headspace field screening measurements were made prior to the sample being prepared for submittal to the analytical laboratory. Figure 1 illustrates the approximate location where each of the verification samples was collected. Appendix D provides the Data Usability Summary Reports (DUSRs) as well as the sample report sheets as modified by the data validator.

Tables 2 and 3 provide analytical results for verification samples, organized by treatment areas and indicating the final samples utilized in calculating the average concentration for each area. The data indicate that the SSCO was achieved for the average concentration of each CVOC in each thermal treatment area. Once the remedial goal was met for an entire treatment area, the remedial contractor requested acknowledgement of completion from NYSDEC for that area and, following receipt of such acknowledgement, decommissioned the treatment infrastructure in the area. By October 1, 2007, TerraTherm had received acknowledgement that treatment was complete in all treatment areas. TerraTherm completed decommissioning and demobilization by October 6, 2007.

Table 4 provides calculations of the total CVOC reductions within the four treatment areas during the IRM. These calculations, using RI samples from within the delineated treatment areas (prior to the IRM) and IRM verification samples from the same areas, indicate that for the combined four treatment areas, 99.92% of CVOCs were removed. The individual treatment area reductions ranged from 99.95% for the "B-3" area to 93.92% for the "B-5" area.

The following table provides a calculation of the mass of CVOCs removed from the combined treatment areas during the IRM. These calculations are based on the laboratory data for CVOCs at the inlet of the vapor treatment systems, along with the vapor flow rates.

CVOC Parameter	Mass Removed (Pounds)
Tetrachloroethylene	82,793
Trichloroethylene	2,196
cis-1,2-Dichloroethylene	1,055
trans-1,2-Dichloroethylene	33
Vinyl Chloride	128
Total CVOCs	86,205

5.0 SITE RESTORATION AND SOURCE OF FILL MATERIALS

Since there was no removal of subsurface soil from within the thermal treatment areas, fill materials were not required. The materials excavated from the "B-5" area and placed within the "B-1" and "B-3" areas, were replaced with rubblized concrete fill that was previously generated by crushing the floor slabs and concrete foundations of the former site buildings. After the treatment equipment was decommissioned from a treatment area, the areas were subjected to redevelopment work, including placement of imported granular fill to satisfy site construction requirements.

6.0 SUMMARY OF PROJECT COSTS

Under the BCP, costs associated with the RI and associated IRMs may be recoverable by a volunteer entity after the volunteer receives a Certificate of Completion indicating that the project was completed and approved by the NYSDEC. Project cost documents are presently being assembled by Pioneer Midler Avenue LLC, and will be provided under separate cover to become part of the project record.

7.0 "AS-BUILT" DRAWINGS

Figure 1 provides the approximate horizontal limits of the IRM treatment areas as well as the approximate vertical limits of IRM treatment. Figure 1 also indicates the locations of IRM verification samples and Table 1 provides the depths of those samples. Figure 3 shows the relationships between the treatment areas and planned site redevelopment of the site.

8.0 WASTE TRANSPORT MANIFESTS

As described in Section 2.5 of this report, several waste streams were generated during the IRM. Documentation relative to the disposal of these wastes is shown in Appendix C.

9.0 ENGINEERING OR INSTITUTIONAL CONTROLS

During the IRM, the following site engineering controls were maintained for project:

- Air Emissions Data from inlet and exhaust streams associated with the thermal oxidizer and vapor phase carbon treatment systems were collected and reported monthly – The data reports are included in Appendix B-1.
- Condensate (water) from the vapor treatment system, discharged to the Onondaga County Department of Water Environment Protection (OCDWEP), was sampled and reported monthly consistent with the permit - The data reports are included in Appendix B-2.
- Community Air Monitoring was maintained consistent with the Community Air Monitoring Plan (June 2006) and Addendum 1 (August 4, 2006) – Community Air Monitoring Documentation is provided in Appendix B-3.

Site security during the project was handled as a joint effort between Pioneer Midler LLC and TerraTherm.

There were no institutional controls in effect during the IRM. Such site controls, if appropriate for the future, will be implemented as part of the over-all site remedy, following assessments in the Qualitative Human Health Exposure Assessment and the Remedial Alternatives Assessment.

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TABLES

Pioneer-Midler Avenue, LLC
IRM Report
Table 1 - Verification Sample Identifications and Depths

Sample ID	Sample Depth (ft)	Sample Elevation[1]	RI Reference Sample(s)
B-3 Thermal Treatment Area Samples			
VB3-1	4-8	413.6 - 417.6	GPD-3
VB3-2	15-17	404.6 - 406.6	GPD-3
VB3-3	17-20	401.6 - 404.6	GPD-3
VB3-4	8-10	412.4 - 414.4	GPD-2
VB3-5	6-10	412.3 - 416.3	GPB 3-5
VB3-6	6-10	412.2 - 416.2	GPB 3-7
VB3-7	6-10	412.1 - 416.1	GPB 3-18
VB3-8	6-10	411.9 - 415.9	GPB 3-22
VB3-9	8-10	411.8 - 413.8	GP-13
VB3-10	14-16	405.0 - 409.0	B-3
VB3-11	10-12	409.6 - 411.6	GP-4
VB3-12	14-17	404.6 - 407.6	GPB 3-8
VB3-13	6-10	411.7 - 415.7	GPB 3-13
VB3-14	14-17	405.1 - 408.1	GPB 3-3
VB3-15	16-19	402.9 - 405.9	GP-3; GP-16
VB3-16	14-16	405.9 - 407.9	GP-3
VB3-17	14-17	404.7 - 407.7	GPB 3-9
VB3-18	14-17	404.3 - 407.3	GPB 3-12
VB3-19	14-18	404.0 - 408.0	GPB 3-2; GPD-53
VB3-20	15-18	404.0 - 407.0	GPD-51
VB3-21	23-25	400.1 - 402.1	GP-15
VB3-22	23-25	400.1 - 402.1	GP-15
VB3-23	15-19	402.8 - 406.8	GPD-56
VB3-24	15-18	403.6 - 406.6	GPD-52
VB3-25	15-18	404.0 - 407.0	GPD-51
VB3-26	14-18	403.6 - 407.6	GPB 3-17
B-1 Thermal Treatment Area Samples			
VB1-1	14-18	401.9 - 405.9	GPB 1-4
VB1-2	11-15	405.0 - 409.0	GPD-26
VB1-3	4-7	413.0 - 416.0	GPD-26
VB1-4	16-18	402.1 - 404.1	DW-4
VB1-5	14-17	402.1 - 405.1	GPB 1-10
VB1-6	4-6	414.5 - 416.5	B-1; TP-14
VB1-7	14-18	401.6 - 405.6	GPB 1-6
VB1-8	14-18	402.1 - 406.1	GPB 1-2
VB1-9	10-14	406.1 - 410.1	GPB 1-2
VB1-10	11-15	405.0 - 409.0	GPD-26
VB1-11	16-18	402.1 - 404.1	DW-4
VB1-12	14-17	402.1 - 405.1	GPB 1-10
VB1-13	14-18	401.3 - 405.3	GPB 1-7
VB1-14	17-19	400.3 - 402.3	GPD-38
VB1-15	10-12	408.0 - 410.0	GPB 1-3
VB1-16	7-10	409.2 - 412.2	GPD-31
VB1-17	14-17	402.4 - 405.4	GPB 1-1
VB1-18	14-18	401.4 - 405.4	GPB 1-9
VB1-19	7-11	407.9 - 411.9	GPD-27; GPD-35
VB1-20	11-15	404.2 - 408.2	GPD-32
MW-3D Thermal Treatment Area Samples			
V3D-1	14-18	400.8 - 404.8	GP3-9
V3D-2	10-14	404.6 - 408.6	GP3-8
V3D-3	14-18	400.8 - 404.8	GP3-9
V3D-4	10-14	404.8 - 412.8	GP3-9
V3D-5	14-18	400.6 - 404.6	GP3-8

See Figure IRM-3 for verification sample locations.

1. Verification sample elevations are calculated from the individual RI Reference Sample ground surface elevations

Pioneer Midler Avenue LLC
Interim Remedial Measures Report
Table 2 - Verification Sample Results - B-3 Area

Sample ID ->	Midler	VB3 - 1	VB3 - 1 DL	VB3 - 2	VB3 - 2	VB3 - 3	VB3 - 4	VB3 - 4 DL	VB3 - 5	VB - 5 DL	VB3 - 5	VB3 - 5 DL
Depth - >	SSCO	5.9 - 9.9	5.9 -9.9	16.1 - 20.1	16.1 - 20.1	18.1 - 22.1	8 -12	8 - 12	7 - 11	7 - 11	7 - 11	7 - 11
Date Sampled ->		03/08/07	03/08/07	03/08/07	05/07/07	03/08/07	03/08/07	03/08/07	03/07/07	03/07/07	05/07/07	05/07/07
Chloromethane		18 UJ	93 U	1,400 U	1,500 U	12 UJ	21 UJ	2,400 U	19 UJ	2,300 U	98 U	2,400 U
Vinyl chloride	800	65 J	65 DJ	1,400 U	1,500 U	12 UJ	220 J	2,400 U	8 J	2,300 U	98 U	2,400 U
Bromomethane		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
Chloroethane		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
1,1-Dichloroethene		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
Carbon disulfide		6 J	10 DJ	1,400 U	1,500 U	2 J	3 J	2,400 U	3 J	2,300 U	19 J	2,400 U
Acetone		580	580 BD	1,400 U	2,000	130 B	5,600	5,600 D	3,200	3,200 D	12,000 BEJ	4,800 D
Methylene chloride		18 UJ	70 BDJ	1,400 U	1,500 U	12 UJ	21 UJ	2,400 U	19 UJ	2,300 U	100 U	2,400 U
1,1-Dichloroethane		18 U	93 U	1,400 U	1,500 U	12 U	4 J	2,400 U	19 U	2,300 U	98 U	2,400 U
2-Butanone		70	84 DJ	1,400 U	820 J	31	1,700 J	1,700 DJ	1,000 J	1,000 DJ	2,600 EJ	1,500 DJ
Chloroform		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
1,1,1-Trichloroethane		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
Carbon tetrachloride		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
Benzene		18 U	93 U	1,400 U	1,500 U	12 U	24	2,400 U	17 J	2,300 U	98 U	2,400 U
1,2-Dichloroethane		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
Trichloroethene	2,800	140	200 D	3,300	760 J	4 J	45	2,400 U	120	2,300 U	18 J	2,400 U
1,2-Dichloropropane		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
Bromodichloromethane		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
cis-1,3-Dichloropropene		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
4-Methyl-2-pentanone		18 U	93 U	1,400 U	1,500 U	12 U	6 J	2,400 U	19 U	2,300 U	98 U	2,400 U
Toluene		18 U	93 U	1,400 U	1,500 U	12 U	54	2,400 U	36	2,300 U	13 J	2,400 U
trans-1,3-Dichloropropene		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
1,1,2-Trichloroethane		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
Tetrachloroethene	5,600	150	260 D	14,000	4,400	9 J	56	2,400 U	830 J	830 JD	130	300 DJ
2-Hexanone		18 U	93 U	1,400 U	1,500 U	12 U	21	2,400 U	6 J	2,300 U	98 U	2,400 U
Dibromochloromethane		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
Chlorobenzene		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
Ethylbenzene		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
Styrene		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
Bromoform		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
1,1,2,2-Tetrachloroethane		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
Total Xylenes		18 U	93 U	1,400 U	1,500 U	12 U	140	2,400 U	49	2,300 U	98 U	2,400 U
cis-1,2-Dichloroethene		170	200 D	750 J	240 J	5 J	4,700	4,700 D	320	350 DJ	26 J	2,400 U
trans-1,2-Dichloroethene	1,200	44	55 DJ	1,400 U	1,500 U	12 U	650 J	650 JD	6 J	2,300 U	98 U	2,400 U
Dichlorodifluoromethane		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
Trichlorofluoromethane		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
1,1,2-Trichloro-1,2,2-trifluoroethane		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
Methyl-t-butyl ether (MTBE)		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
1,2-Dibromoethane		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
Isopropylbenzene		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
1,3-Dichlorobenzene		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
1,4-Dichlorobenzene		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
1,2-Dichlorobenzene		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
1,2-Dibromo-3-chloropropane		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
1,2,4-Trichlorobenzene		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
Methyl acetate		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	270 DJ	98 U	2,400 U
Cyclohexane		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U
Methylcyclohexane		18 U	93 U	1,400 U	1,500 U	12 U	21 U	2,400 U	19 U	2,300 U	98 U	2,400 U

** Indicates Non-ASP Method Data

Pioneer Midler Avenue LLC
Interim Remedial Measures Report
Table 2 - Verification Sample Results - B-3 Area

Sample ID ->	Midler	VB3 - 6	VB3 - 6 DL	VB3 - 6	VB3 - 7	VB3 - 7 DL	VB3 - 7 **	VB3 - 7	VB3 - 7	VB3 - 8	VB3 - 8	VB3 - 9	VB3 - 9 DL
Depth - >	SSCO	7 - 11	7 - 11	7 - 11	7.6 - 11.6	7.6 - 11.6	7.6 - 11.6	7 - 9	9 - 11.6	7.3 - 11.3	7.3 - 11.3	8.75 - 12.75	8.75 - 12.75
Date Sampled ->		03/07/07	03/07/07	05/07/07	05/07/07	05/07/07	5/16/2007	06/06/07	06/06/07	03/08/07	05/07/07	03/07/07	03/07/07
Chloromethane		54,000 UJ	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 UJ	2,500 U
Vinyl chloride	800	54,000 UJ	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	6 J	2,500 U
Bromomethane		54,000 UJ	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
Chloroethane		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
1,1-Dichloroethene		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
Carbon disulfide		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	7 J	2,500 U
Acetone		54,000 U	110,000 U	14,000	11,000	100,000 U	8,900 B	38,000 J	15,000	5,600 J	28,000	2,900 BE	7,300 D
Methylene chloride		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	1,400 J	3,100 U	20 UJ	2,500 U
1,1-Dichloroethane		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
2-Butanone		54,000 U	110,000 U	3,500	2,300 J	100,000 U	1,000 U	7,200 J	3,200	11,000 U	8,300	2,200 J	2,200 DJ
Chloroform		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
1,1,1-Trichloroethane		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
Carbon tetrachloride		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
Benzene		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
1,2-Dichloroethane		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
Trichloroethene	2,800	22,000 J	20,000 DJ	3,500 U	50,000	59,000 DJ	660 BJ	1,200 J	2,400 U	17,000	3,100 U	150	2,500 U
1,2-Dichloropropane		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
Bromodichloromethane		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
cis-1,3-Dichloropropene		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
4-Methyl-2-pentanone		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	8 J	2,500 U
Toluene		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	48	2,500 U
trans-1,3-Dichloropropene		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
1,1,2-Trichloroethane		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
Tetrachloroethene	5,600	1,000,000	1,000,000 D	1,100 J	430,000 EJ	830,000 D	8,100	11,000	860 J	62,000	10,000	280	1,100 JD
2-Hexanone		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20	2,500 U
Dibromochloromethane		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
Chlorobenzene		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
Ethylbenzene		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
Styrene		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
Bromoform		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
1,1,2,2-Tetrachloroethane		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
Total Xylenes		54,000 U	110,000 U	3,500 U	1,100 J	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	130	2,500 U
cis-1,2-Dichloroethene		6,600 U	110,000 U	3,500 U	23,000	23,000 DJ	1,000 U	760 J	2,400 U	16,000	3,100 U	1,800 J	1,800 DJ
trans-1,2-Dichloroethene	1,200	54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	14 J	2,500 U
Dichlorodifluoromethane		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
Trichlorofluoromethane		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
1,1,2-Trichloro-1,2,2-trifluoroethane		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
Methyl-t-butyl ether (MTBE)		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
1,2-Dibromoethane		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
Isopropylbenzene		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
1,3-Dichlorobenzene		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
1,4-Dichlorobenzene		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
1,2-Dichlorobenzene		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
1,2-Dibromo-3-chloropropane		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
1,2,4-Trichlorobenzene		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
Methyl acetate		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	410 DJ
Cyclohexane		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U
Methylcyclohexane		54,000 U	110,000 U	3,500 U	2,600 U	100,000 U	1,000 U	2,800 U	2,400 U	11,000 U	3,100 U	20 U	2,500 U

** Indicates Non-ASP Method Data

Pioneer Midler Avenue LLC
Interim Remedial Measures Report
Table 2 - Verification Sample Results - B-3 Area

Sample ID ->	Midler	VB3 - 10	VB3 - 10	VB3 - 10	VB - 11	VB3 - 11	VB3 - 11 DL	VB3 - 12	VB3 - 12	VB3 - 12	VB3 - 13	VB3 - 13 DL
Depth - >	SSCO	14.5 - 18.5	14.5 - 18.5	14.5 - 18.5	10.5 - 14.5	10.5 - 14.5	10.5 - 14.5	14.8 - 18.8	14.8 - 18.8	14.8 - 18.8	7.25 - 11.25	7.25 - 11.25
Date Sampled ->		03/07/07	05/07/07	05/21/07	03/15/07	05/07/07	05/07/07	03/15/07	05/08/07	06/06/07	03/08/07	03/08/07
Chloromethane		13,000 UJ	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
Vinyl chloride	800	13,000 UJ	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
Bromomethane		13,000 UJ	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
Chloroethane		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
1,1-Dichloroethene		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
Carbon disulfide		13,000 U	1,800 U	1,900 U	2700 U	11 J	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
Acetone		13,000 U	7,900	10,000 U	5400	3200 J	4,200 DJ	1,100 J	4,300	15,000 J	5600	5600 D
Methylene chloride		13,000 U	1,800 U	35 U	2700 U	34 B	1,800 U	2,000 U	2,200 U	2,200 U	140 U	230 DJ
1,1-Dichloroethane		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
2-Butanone		13,000 U	3,100	2,200	1800 J	660	1,300 DJ	590 J	1,400 J	4,100 J	2000 E	2000 D
Chloroform		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
1,1,1-Trichloroethane		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
Carbon tetrachloride		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
Benzene		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	17 J	1800 U
1,2-Dichloroethane		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
Trichloroethene	2,800	3,100 J	1,800 U	1,900 U	3400	33 U	1,800 U	5,200	5,700	6,700	220	350 DJ
1,2-Dichloropropane		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
Bromodichloromethane		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
cis-1,3-Dichloropropene		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	4,600	2,200 U	2,200 U	96 U	1800 U
4-Methyl-2-pentanone		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
Toluene		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	48 J	1800 U
trans-1,3-Dichloropropene		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
1,1,2-Trichloroethane		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
Tetrachloroethene	5,600	260,000	20,000	4,100	4700	160	850 DJ	10,000	25,000	31,000	320	840 DJ
2-Hexanone		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
Dibromochloromethane		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
Chlorobenzene		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
Ethylbenzene		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	130	1800 U
Styrene		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
Bromoform		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
1,1,2,2-Tetrachloroethane		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
Total Xylenes		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	100	1800 U
cis-1,2-Dichloroethene		13,000 U	1,800 U	1,900 U	6800	33 U	1,800 U	2,000 U	5,700	5,700	3100	3100 D
trans-1,2-Dichloroethene	1,200	13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	31 J	1800 U
Dichlorodifluoromethane		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
Trichlorofluoromethane		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
1,1,2-Trichloro-1,2,2-trifluoroethane		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
Methyl-t-butyl ether (MTBE)		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
1,2-Dibromoethane		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
Isopropylbenzene		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
1,3-Dichlorobenzene		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
1,4-Dichlorobenzene		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
1,2-Dichlorobenzene		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
1,2-Dibromo-3-chloropropane		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
1,2,4-Trichlorobenzene		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
Methyl acetate		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	500 DJ
Cyclohexane		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U
Methylcyclohexane		13,000 U	1,800 U	1,900 U	2700 U	33 U	1,800 U	2,000 U	2,200 U	2,200 U	96 U	1800 U

** Indicates Non-ASP Method Data

Pioneer Midler Avenue LLC
Interim Remedial Measures Report
Table 2 - Verification Sample Results - B-3 Area

Sample ID ->	Midler	VB3 - 14	VB3 - 14 DL	VB3 - 14	VB3 - 14	VB3 - 14	VB3 - 15	VB3 - 15	VB3 - 16	VB3 - 16 DL	VB3 - 17	VB3 - 17	VB3 - 18
Depth - >	SSCO	7.5 - 11.5	7.5 - 11.5	15.1 - 19.1	15.9 - 19.1	15.1 - 19.1	17.1 - 21.1	17.1 - 21.1	14.4 - 18.4	14.4 - 18.4	14.9 - 18.9	14.9 - 18.9	14.9 - 18.9
Date Sampled ->		03/07/07	03/07/07	03/15/07	05/08/07	06/06/07	03/07/07	05/08/07	03/09/07	03/09/07	03/09/07	05/07/07	03/15/07
Chloromethane		16 UJ	1900 U	2500 U	2,200 U	2300 U	3700 UJ	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
Vinyl chloride	800	2 J	1900 U	2500 U	2,200 U	240 J	3700 UJ	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
Bromomethane		16 U	200 DJ	2500 U	2,200 U	2300 U	3700 UJ	1,700 U	16 U	290 DJ	360,000 U	2,200 U	290 J
Chloroethane		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
1,1-Dichloroethene		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
Carbon disulfide		2 J	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	2 J	1,800 U	360,000 U	2,200 U	2,000 U
Acetone		16 U	1900 U	5300	2,800	8700 J	7100	7,600	870 J	870 DJ	360,000 U	7,600	540 J
Methylene chloride		16 UJ	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	240 DJ	42,000 J	2,200 U	2,000 U
1,1-Dichloroethane		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
2-Butanone		17	1900 U	2200 J	1,200 J	2500 J	2600 J	3,000	210	420 DJ	360,000 U	2,200	450 J
Chloroform		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
1,1,1-Trichloroethane		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
Carbon tetrachloride		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
Benzene		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
1,2-Dichloroethane		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
Trichloroethene	2,800	560 J	560 JD	1700 J	3,100	3400	8800	1,700 U	64	1,800 U	96,000 J	2,200 U	11,000
1,2-Dichloropropane		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
Bromodichloromethane		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
cis-1,3-Dichloropropene		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
4-Methyl-2-pentanone		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
Toluene		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
trans-1,3-Dichloropropene		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
1,1,2-Trichloroethane		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
Tetrachloroethene	5,600	2900	2900 D	6600	19,000	19000	64000	2,600	2,000	2,000 D	5,200,000	17,000	120,000 E
2-Hexanone		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
Dibromochloromethane		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
Chlorobenzene		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
Ethylbenzene		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
Styrene		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
Bromoform		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
1,1,2,2-Tetrachloroethane		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
Total Xylenes		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
cis-1,2-Dichloroethene		61	1900 U	620 J	2,200	1800 J	1700 J	1,700 U	7 J	1,800 U	360,000 U	2,200 U	7,800
trans-1,2-Dichloroethene	1,200	4 J	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
Dichlorodifluoromethane		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
Trichlorofluoromethane		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
1,1,2-Trichloro-1,2,2-trifluoroethane		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
Methyl-t-butyl ether (MTBE)		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
1,2-Dibromoethane		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
Isopropylbenzene		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
1,3-Dichlorobenzene		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
1,4-Dichlorobenzene		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
1,2-Dichlorobenzene		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
1,2-Dibromo-3-chloropropane		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
1,2,4-Trichlorobenzene		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
Methyl acetate		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
Cyclohexane		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U
Methylcyclohexane		16 U	1900 U	2500 U	2,200 U	2300 U	3700 U	1,700 U	16 U	1,800 U	360,000 U	2,200 U	2,000 U

** Indicates Non-ASP Method Data

Pioneer Midler Avenue LLC
Interim Remedial Measures Report
Table 2 - Verification Sample Results - B-3 Area

Sample ID ->	Midler	VB3 - 18 DL	VB3 - 18	VB3 - 19	VB3 - 19	VB3 - 19	VB3 - 19	VB3 - 20	VB3 - 20 DL	VB3 - 20	VB3 - 21	VB3 - 21 DL
Depth - >	SSCO	14.9 - 18.9	14.9 - 18.9	15.6 - 19.6	15.6 - 19.6	15.6 - 19.6	15.6 - 19.6	16.9 - 20.9	16.9 - 20.9	16.9 - 20.9	16.9 - 20.9	16.9 - 20.9
Date Sampled ->		03/15/07	05/08/07	03/07/07	05/08/07	05/21/07	06/06/07	03/09/07	03/09/07	05/08/07	03/09/07	03/09/07
Chloromethane		10,000 U	1,700 U	2,200 UJ	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
Vinyl chloride	800	10,000 U	1,700 U	2,200 UJ	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
Bromomethane		10,000 U	1,700 U	2,200 UJ	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
Chloroethane		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
1,1-Dichloroethene		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
Carbon disulfide		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
Acetone		10,000 U	5,500	1,000 J	13,000	15,000 U	17,000 J	2,100 BEJ	5,000 DJ	11,000	3,400 BEJ	7,400 DJ
Methylene chloride		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	33 U	23,000 U	2,000 U	36 U	10,000 U
1,1-Dichloroethane		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
2-Butanone		10,000 U	2,400	2,200 U	5,500	4,500	4,700 J	850	23,000 U	4,400	1,700 EJ	2,600 DJ
Chloroform		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
1,1,1-Trichloroethane		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
Carbon tetrachloride		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
Benzene		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
1,2-Dichloroethane		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
Trichloroethene	2,800	13,000 D	720 J	5,200	4,200	3,000	1,600 J	29,000 EJ	56,000 D	2,000 U	3,100 EJ	5,600 DJ
1,2-Dichloropropane		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
Bromodichloromethane		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
cis-1,3-Dichloropropene		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
4-Methyl-2-pentanone		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
Toluene		10,000 U	1,700 U	2,200 U	2,600 U	42	2,200 U	27 J	23,000 U	2,000 U	32 J	10,000 U
trans-1,3-Dichloropropene		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
1,1,2-Trichloroethane		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
Tetrachloroethene	5,600	160,000 D	7,400	590 J	30,000	18,000	5,700	93,000 EJ	460,000 D	4,900	36,000 EJ	180,000 D
2-Hexanone		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	18 J	10,000 U
Dibromochloromethane		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
Chlorobenzene		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
Ethylbenzene		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	40 J	23,000 U	2,000 U	9 J	10,000 U
Styrene		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
Bromoform		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
1,1,2,2-Tetrachloroethane		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
Total Xylenes		10,000 U	1,700 U	2,200 U	2,600 U	110 J	2,200 U	170	23,000 U	2,000 U	99	10,000 U
cis-1,2-Dichloroethene		8,700 DJ	890 J	18,000	3,000	2,200 J	2,300	10,000 EJ	9,500 DJ	2,000 U	200	10,000 U
trans-1,2-Dichloroethene	1,200	10,000 U	1,700 U	590	2,600 U	2,500 U	1,900 J	170	23,000 U	2,000 U	84 U	10,000 U
Dichlorodifluoromethane		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
Trichlorofluoromethane		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
1,1,2-Trichloro-1,2,2-trifluoroethane		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
Methyl-t-butyl ether (MTBE)		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
1,2-Dibromoethane		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
Isopropylbenzene		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
1,3-Dichlorobenzene		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
1,4-Dichlorobenzene		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
1,2-Dichlorobenzene		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
1,2-Dibromo-3-chloropropane		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
1,2,4-Trichlorobenzene		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
Methyl acetate		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
Cyclohexane		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U
Methylcyclohexane		10,000 U	1,700 U	2,200 U	2,600 U	2,500 U	2,200 U	83 U	23,000 U	2,000 U	84 U	10,000 U

** Indicates Non-ASP Method Data

Pioneer Midler Avenue LLC
Interim Remedial Measures Report
Table 2 - Verification Sample Results - B-3 Area

Sample ID ->	Midler	VB3 - 21	VB3 - 21 DL	VB3 - 22	VB3 - 22 DL	VB3 - 22	VB3 - 23	VB3 - 23 DL	VB3 - 23	VB3 - 23	VB3 - 24	VB3 - 24 DL	VB3 - 24
Depth - >	SSCO	16.9 - 20.9	16.9 - 20.9	16 - 22	16 - 22	16 - 20	16.6 - 20.6	16.6 - 20.6	16.6 - 20.6	16.6 - 20.6	16.4 - 20.4	16.4 - 20.4	16.9 - 20.9
Date Sampled ->		05/08/07	05/08/07	03/09/07	03/09/07	05/08/07	03/07/07	03/07/07	05/08/07	05/21/07	03/07/07	03/07/07	05/08/07
Chloromethane		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 UJ	120,000 U	2,700 U	2,600 U	10,000 UJ	21,000 U	2,200 U
Vinyl chloride	800	71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 UJ	120,000 U	2,700 U	2,600 U	1,900 J	21,000 U	2,200 U
Bromomethane		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 UJ	120,000 U	2,700 U	2,600 U	10,000 UJ	21,000 U	2,200 U
Chloroethane		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
1,1-Dichloroethene		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
Carbon disulfide		14 J	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
Acetone		13,000 BEJ	3,000 D	1,600 BEJ	99,000 U	13,000	60,000 U	120,000 U	9,500	23,000 B	10,000 U	21,000 U	7,200
Methylene chloride		66 U	1,900 U	30 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	79 U	10,000 U	21,000 U	2,200 U
1,1-Dichloroethane		71 U	1,900 U	29 J	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
2-Butanone		3,200 EJ	1,000 DJ	880 J	99,000 U	4,400	60,000 U	120,000 U	3,100	7,400	10,000 U	21,000 U	3,000
Chloroform		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
1,1,1-Trichloroethane		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
Carbon tetrachloride		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
Benzene		71 U	1,900 U	14 J	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
1,2-Dichloroethane		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
Trichloroethene	2,800	71 U	1,900 U	23,000 EJ	50,000 DJ	2,200 U	65,000	74,000 DJ	1,500 J	2,900	86,000	85,000 D	770 J
1,2-Dichloropropane		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
Bromodichloromethane		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
cis-1,3-Dichloropropene		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
4-Methyl-2-pentanone		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
Toluene		71 U	1,900 U	74 J	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	62 J	10,000 U	21,000 U	2,200 U
trans-1,3-Dichloropropene		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
1,1,2-Trichloroethane		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
Tetrachloroethene	5,600	40 J	1,900 U	140,000 EJ	1,100,000 D	1,600 J	1,600,000	1,600,000 D	42,000	3,700	220,000	220,000 D	8,000
2-Hexanone		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
Dibromochloromethane		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
Chlorobenzene		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
Ethylbenzene		71 U	1,900 U	71 J	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
Styrene		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
Bromoform		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
1,1,2,2-Tetrachloroethane		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
Total Xylenes		71 U	1,900 U	340 J	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	190 J	10,000 U	21,000 U	2,200 U
cis-1,2-Dichloroethene		71 U	1,900 U	6,700 EJ	99,000 U	2,200 U	29,000 J	32,000 DJ	1,200 J	3,300	53,000	54,000 D	430 J
trans-1,2-Dichloroethene	1,200	71 U	1,900 U	100 J	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
Dichlorodifluoromethane		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
Trichlorofluoromethane		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
1,1,2-Trichloro-1,2,2-trifluoroethane		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
Methyl-t-butyl ether (MTBE)		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
1,2-Dibromoethane		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
Isopropylbenzene		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
1,3-Dichlorobenzene		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
1,4-Dichlorobenzene		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
1,2-Dichlorobenzene		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
1,2-Dibromo-3-chloropropane		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
1,2,4-Trichlorobenzene		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
Methyl acetate		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
Cyclohexane		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U
Methylcyclohexane		71 U	1,900 U	76 U	99,000 U	2,200 U	60,000 U	120,000 U	2,700 U	2,600 U	10,000 U	21,000 U	2,200 U

** Indicates Non-ASP Method Data

Pioneer Midler Avenue LLC
Interim Remedial Measures Report
Table 2 - Verification Sample Results - B-3 Area

Sample ID ->	Midler	VB3 - 25	VB3 - 25	VB3 - 25 **	VB3 - 25	VB3 - 25 DL	VB3 - 25	VB3 - 25	VB3 - 25 DL	VB3 - 25	VB3 - 25 DL	VB3 - 25	VB3 - 25 DL
Depth - >	SSCO	15.8 - 19.8	15.8 - 19.8	15.8 - 19.8	15.8 - 19.8	15.8 - 19.8	15.8 - 19.8	15.8 - 19.8	15.8 - 19.8	15.8 - 19.8	15.8 - 19.8	15.8 - 19.8	15.8 - 19.8
Date Sampled ->		03/15/07	05/07/07	05/17/07	06/06/07	06/06/07	06/16/07	07/02/07	07/02/07	07/16/07	07/16/07	08/03/07	08/03/07
Chloromethane		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
Vinyl chloride	800	1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
Bromomethane		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
Chloroethane		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
1,1-Dichloroethene		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	62 J	10,000 U	82 U	3,900 U	150 U	1,800 U
Carbon disulfide		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	28 J	10,000 U	12 J	3,900 U	22 J	1,800 U
Acetone		1,800 U	40,000 U	33,000 BJ	30,000	77,000 D	19,000 U	4,400 BEJ	14,000 U	9,200 EJ	11,000 U	2,300	2,300
Methylene chloride		1,800 U	40,000 U	46,000 U	2,200 U	8,900 U	3,500 U	110 U	300 U	36 U	130 U	77 JB	26
1,1-Dichloroethane		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
2-Butanone		1,800 U	40,000 U	46,000 U	8,200	17,000 DJ	12,000 U	2,100 E	4,300 J	3,100 EJ	3,200 J	750	1,800 U
Chloroform		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
1,1,1-Trichloroethane		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
Carbon tetrachloride		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
Benzene		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	13 J	10,000 U	5.5 J	3,900 U	2.6 J	1,800 U
1,2-Dichloroethane		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
Trichloroethene	2,800	2,200	21,000 J	50,000 B	3,300	4,600 DJ	3,500 J	5,100 EJ	7,000 J	1,600	2,100 J	3,000	3,200
1,2-Dichloropropane		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
Bromodichloromethane		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
cis-1,3-Dichloropropene		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
4-Methyl-2-pentanone		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
Toluene		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	50 J	10,000 U	82 U	3,900 U	15 JB	1,800 U
trans-1,3-Dichloropropene		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
1,1,2-Trichloroethane		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
Tetrachloroethene	5,600	5,800	720,000	840,000	120,000 EJ	260,000 D	150,000	11,000 EJ	170,000	14,000 EJ	43,000	21,000 E	31,000
2-Hexanone		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	28 J	10,000 U	24 J	3,900 U	150 U	1,800 U
Dibromochloromethane		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
Chlorobenzene		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
Ethylbenzene		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	19 J	10,000 U	5.7 J	3,900 U	3.7 J	1,800 U
Styrene		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
Bromoform		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
1,1,2,2-Tetrachloroethane		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
Total Xylenes		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	150	10,000 U	54 J	3,900 U	49 J	35 J
cis-1,2-Dichloroethene		7,300	40,000 U	46,000 U	1,900	22,000 U	1,300 J	2,400 EJ	2,700 J	780	850 J	150 U	210 J
trans-1,2-Dichloroethene	1,200	1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	59 J	10,000 U	15 J	3,900 U	2.2 JM	1,800 U
Dichlorodifluoromethane		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
Trichlorofluoromethane		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
1,1,2-Trichloro-1,2,2-trifluoroethane		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
Methyl-t-butyl ether (MTBE)		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
1,2-Dibromoethane		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
Isopropylbenzene		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
1,3-Dichlorobenzene		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
1,4-Dichlorobenzene		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
1,2-Dichlorobenzene		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
1,2-Dibromo-3-chloropropane		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
1,2,4-Trichlorobenzene		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
Methyl acetate		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	1,200 J	84 U	620 J	82 U	590 J	150 U	1,800 U
Cyclohexane		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U
Methylcyclohexane		1,800 U	40,000 U	46,000 U	2,200 U	22,000 U	12,000 U	84 U	10,000 U	82 U	3,900 U	150 U	1,800 U

** Indicates Non-ASP Method Data

Pioneer Midler Avenue LLC
Interim Remedial Measures Report
Table 2 - Verification Sample Results - B-3 Area

Sample ID ->	Midler	VB3 - 25	VB3 - 25 DL	VB3 - 25	VB3 - 25 DL	VB3 - 25	VB3 - 25 DL	VB3 - 26	VB3 - 26 DL
Depth - >	SSCO	15.8 - 19.8	15.8 - 19.8	15.8 - 19.8	15.8 - 19.8	15.8 - 19.8	15.8 - 19.8	15.4 - 19.4	15.4 - 19.4
Date Sampled ->		08/10/07	08/10/07	08/20/07	08/20/07	08/28/07	08/28/07	03/07/07	03/07/07
Chloromethane		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 UJ	90 U
Vinyl chloride	800	170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 UJ	90 U
Bromomethane		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
Chloroethane		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
1,1-Dichloroethene		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
Carbon disulfide		15 J	2,000 U	28 J	1,900 U	170 U	2,000 U	5 J	12 DJ
Acetone		5,100 BEJ	5,900	8,500 BEJ	13,000	5,600 BEJ	5,900 J	1,200	1,200 BD
Methylene chloride		34 U	63 U	52 U	66 U	44 U	48 U	18 UJ	62 BDJ
1,1-Dichloroethane		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	3 J	90 U
2-Butanone		2,500	1,800 J	4,600 EJ	4,700	2,400	2,000 JB	210	360 D
Chloroform		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
1,1,1-Trichloroethane		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
Carbon tetrachloride		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
Benzene		8.3 J	2,000 U	15 J	1,900 U	5.6 J	2,000 U	18 U	90 U
1,2-Dichloroethane		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
Trichloroethene	2,800	3,100	2,000	1,500	2,200	590 U	740 J	250	360 D
1,2-Dichloropropane		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
Bromodichloromethane		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
cis-1,3-Dichloropropene		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
4-Methyl-2-pentanone		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	5 J	90 U
Toluene		57	2,000 U	79 JB	100 J	14 U	2,000 U	3 J	90 U
trans-1,3-Dichloropropene		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
1,1,2-Trichloroethane		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
Tetrachloroethene	5,600	20,000 EJ	24,000	8,900 EJ	19,000	6,100 EJ	8,200 B	2 J	90 U
2-Hexanone		170 U	2,000 U	160 U	1,900 U	26 J	2,000 U	6 J	90 U
Dibromochloromethane		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
Chlorobenzene		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
Ethylbenzene		8.6 J	2,000 U	7.5 J	1,900 U	170 U	2,000 U	18 U	90 U
Styrene		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
Bromoform		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
1,1,2,2-Tetrachloroethane		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
Total Xylenes		150 J	120 J	190	310 J	35 J	47 J	18 U	90 U
cis-1,2-Dichloroethene		1,200	570 J	2,400	2,500	290	210 J	290	380 D
trans-1,2-Dichloroethene	1,200	23 J	2,000 U	52 J	1,900 U	170 U	2,000 U	80	110 D
Dichlorodifluoromethane		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
Trichlorofluoromethane		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
1,1,2-Trichloro-1,2,2-trifluoroethane		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
Methyl-t-butyl ether (MTBE)		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
1,2-Dibromoethane		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
Isopropylbenzene		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
1,3-Dichlorobenzene		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
1,4-Dichlorobenzene		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
1,2-Dichlorobenzene		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
1,2-Dibromo-3-chloropropane		170 U	2,000 U	160 U	1,900 UR	170 U	2,000 U	18 U	90 U
1,2,4-Trichlorobenzene		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
Methyl acetate		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
Cyclohexane		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U
Methylcyclohexane		170 U	2,000 U	160 U	1,900 U	170 U	2,000 U	18 U	90 U

** Indicates Non-ASP Method Data

Pioneer Midler Avenue LLC
Interim Remedial Measures Report
Table 2 - Verification Sample Results - MW-3D Area

Sample ID ->	Midler	V3D - 1	V3D - 1	V3D - 1 DL	V3D - 1 **	V3D - 1	V3D - 1	V3D - 1	V3D - 1 DL	V3D - 2	V3D - 2 DL	V3D - 3	V3D - 3 DL
Depth - >	SSCO	15.1 - 19.1	15.1 - 19.1	15.1 - 19.1	15.1 - 19.1	15.1 - 19.1	15.1 - 19.1	15.1 - 19.1	15.1 - 19.1	10.5 - 14.5	10.5 - 14.5	14.3 - 18.3	14.3 - 18.3
Date Sampled ->		3/5/2007	05/08/07	05/08/07	05/23/07	6/6/2007	6/16/2007	07/02/07	7/2/2007	3/5/2007	3/5/2007	3/5/2007	3/5/2007
Chloromethane		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
Vinyl chloride	800	41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	640	640 D	2,100 U	420,000 U
Bromomethane		5,800 J	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	600 J	420,000 U
Chloroethane		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
1,1-Dichloroethene		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
Carbon disulfide		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	15 J	170 U	5 J	13 DJ	2,100 U	420,000 U
Acetone		41,000 U	22,000	27,000 D	18,000 JB	9,400 J	18,000 U	3,100 BEJ	2,800 B	92 B	170 BD	1,900 J	420,000 U
Methylene chloride		41,000 U	2,200 U	22,000 U	36,000 U	380 U	8,500 U	110 U	120 U	18 U	140 BD	400 J	420,000 U
1,1-Dichloroethane		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
2-Butanone		41,000 U	7,900	10,000 DJ	18,000 U	2,200 J	22,000 U	1,000	860	18	33 DJ	960 J	420,000 U
Chloroform		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
1,1,1-Trichloroethane		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
Carbon tetrachloride		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
Benzene		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	2.1 J	2.9 J	17 U	81 U	2,100 U	420,000 U
1,2-Dichloroethane		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
Trichloroethene	2,800	41,000 U	1,400 J	22,000 U	1,800 J	320 J	3,300 J	69 J	55 J	6 J	14 DJ	2,900	420,000 U
1,2-Dichloropropane		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
Bromodichloromethane		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
cis-1,3-Dichloropropene		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
4-Methyl-2-pentanone		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
Toluene		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	22 J	18 J	2 J	81 U	500 J	420,000 U
trans-1,3-Dichloropropene		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
1,1,2-Trichloroethane		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
Tetrachloroethene	5,600	570,000	230,000 EJ	330,000 D	170,000	20,000	320,000	3,000 EJ	2,200	17 U	81 U	440,000 E	2,200,000 D
2-Hexanone		41,000 U	2,200 U	22,000 U	18,000 U	1,900 U	22,000 U	27 J	20 J	17 U	81 U	2,100 U	420,000 U
Dibromochloromethane		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
Chlorobenzene		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
Ethylbenzene		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	1.2 J	170 U	17 U	81 U	2,100 U	420,000 U
Styrene		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
Bromoform		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
1,1,2,2-Tetrachloroethane		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
Total Xylenes		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	56 J	37 J	17 U	81 U	920 J	420,000 U
cis-1,2-Dichloroethene		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	110	190 D	420 J	420,000 U
trans-1,2-Dichloroethene	1,200	41,000 U	2,200 U	22,000 U	9,000 U	1,900 J	22,000 U	87 U	170 U	17	28 DJ	2,100 U	420,000 U
Dichlorodifluoromethane		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
Trichlorofluoromethane		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
1,1,2-Trichloro-1,2,2-trifluoroethane		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
Methyl-t-butyl ether (MTBE)		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
1,2-Dibromoethane		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
Isopropylbenzene		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
1,3-Dichlorobenzene		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
1,4-Dichlorobenzene		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
1,2-Dichlorobenzene		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
1,2-Dibromo-3-chloropropane		41,000 U	2,200 U	22,000 U	18,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
1,2,4-Trichlorobenzene		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
Methyl acetate		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
Cyclohexane		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	2,100 U	420,000 U
Methylcyclohexane		41,000 U	2,200 U	22,000 U	9,000 U	1,900 U	22,000 U	87 U	170 U	17 U	81 U	370 J	420,000 U

** Indicates Non-ASP Method Data

Pioneer Midler Avenue LLC
Interim Remedial Measures Report
Table 2 - Verification Sample Results - MW-3D Area

Sample ID ->	Midler	V3D - 3	V3D - 3 DL	V3D - 3 **	V3D - 3	V3D - 4	V3D - 4	V3D - 4 DL	V3D - 5	V3D - 5	V3B - 5 **	V3D - 5
Depth - >	SSCO	14.3 - 18.3	14.3 - 18.3	14.3 - 18.3	14.3 - 18.3	10.75 - 14.75	10.75 - 14.75	10.75 - 14.75	14.4 - 18.4	14.4 - 18.4	14.4 - 18.4	14.4 - 18.4
Date Sampled ->		05/08/07	05/08/07	05/21/07	06/07/07	03/05/07	05/08/07	05/08/07	03/05/07	05/08/07	05/22/07	06/07/07
Chloromethane		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
Vinyl chloride	800	2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	9 J	1,900 U	2,100 U	3,600 U	890 U	2,200 U
Bromomethane		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	560 J	3,600 U	890 U	2,200 U
Chloroethane		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
1,1-Dichloroethene		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
Carbon disulfide		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	15 J	1,900 U	2,100 U	3,600 U	890 U	2,200 U
Acetone		8,200	82,000 U	2,300 JMB	9,400 J	98,000 U	8,200 BEJ	3,000 D	1,700 J	9,200	11,000 B	13,000 J
Methylene chloride		2,000 U	82,000 U	37,000 U	420 U	98,000 U	25 J	1,900 U	2,100 U	390 J	890 U	410 U
1,1-Dichloroethane		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
2-Butanone		3,200	82,000 U	37,000 U	2,000 J	98,000 U	3,100 EJ	1,200 DJ	630 J	3,900	6,200	4,000 J
Chloroform		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
1,1,1-Trichloroethane		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
Carbon tetrachloride		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
Benzene		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
1,2-Dichloroethane		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
Trichloroethene	2,800	3,600	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	860 J	470 JB	2,200 U
1,2-Dichloropropane		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
Bromodichloromethane		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
cis-1,3-Dichloropropene		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
4-Methyl-2-pentanone		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	16 J	1,900 U	2,100 U	3,600 U	890 U	2,200 U
Toluene		970 J	82,000 U	37,000 U	2,200 U	98,000 U	46 J	1,900 U	2,100 U	3,600 U	890 U	2,200 U
trans-1,3-Dichloropropene		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
1,1,2-Trichloroethane		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
Tetrachloroethene	5,600	560,000 EJ	1,700,000 D	1,100,000	6,100	740,000	14 J	700 J	5,300	67,000	27,000	5,900
2-Hexanone		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	28 J	1,900 U	2,100 U	3,600 U	890 U	2,200 U
Dibromochloromethane		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
Chlorobenzene		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
Ethylbenzene		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
Styrene		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
Bromoform		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
1,1,2,2-Tetrachloroethane		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
Total Xylenes		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	77 J	1,900 U	2,100 U	3,600 U	890 U	2,200 U
cis-1,2-Dichloroethene		760 J	82,000 U	37,000 U	2,200 U	98,000 U	470	380 J	470 J	3,600 U	890 U	2,200 U
trans-1,2-Dichloroethene	1,200	2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	36 J	1,900 U	2,100 U	3,600 U	890 U	2,200 U
Dichlorodifluoromethane		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
Trichlorofluoromethane		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
1,1,2-Trichloro-1,2,2-trifluoroethane		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
Methyl-t-butyl ether (MTBE)		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
1,2-Dibromoethane		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
Isopropylbenzene		320 J	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
1,3-Dichlorobenzene		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
1,4-Dichlorobenzene		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
1,2-Dichlorobenzene		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
1,2-Dibromo-3-chloropropane		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
1,2,4-Trichlorobenzene		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
Methyl acetate		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
Cyclohexane		2,000 U	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U
Methylcyclohexane		360 J	82,000 U	37,000 U	2,200 U	98,000 U	80 U	1,900 U	2,100 U	3,600 U	890 U	2,200 U

** Indicates Non-ASP Method Data

Pioneer Midler Avenue LLC
Interim Remedial Measures Report
Table 2 - Verification Sample Results - B-1 Area

Sample ID ->	Midler	VB1 - 1	VB1 - 2	VB1 - 3	VB1 - 3 DL	VB1 - 3	VB1 - 3 DL	VB1 - 3	VB1 - 3 DL	VB1 - 3	VB1 - 3 DL	VB1 - 4	VB1 - 4 DL	VB1 - 5
Depth - >	SSCO	16.0 - 20.0	12.9 - 16.9	5.5 - 9.5	5.5 - 9.5	5.5 - 9.5	5.5 - 9.5	5.5 - 9.5	5.5 - 9.5	5.5 - 9.5	5.5 - 9.5	16.8 - 20.8	16.8 - 20.8	16.0 - 20.0
Date Sampled ->		03/16/07	03/16/07	06/07/07	06/07/07	08/03/07	08/03/07	08/21/07	08/21/07	09/04/07	09/04/07	03/16/07	03/16/07	03/16/07
Chloromethane		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
Vinyl chloride	800	90 U	9 J	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	22 J	2,800 U	3 J	120 U	23 U
Bromomethane		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
Chloroethane		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
1,1-Dichloroethene		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
Carbon disulfide		28 J	4 J	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	7 J	120 U	5 J
Acetone		1,300 U	41 U	14,000 J	58,000 U	5,700 E	4,900 U	8,600 BEJ	10,000	4,300 B	7,400	47 U	84 BJD	140 B
Methylene chloride		200 U	42 U	550 U	23,000 U	100 JB	120 JB	81 U	140 U	170 U	300 U	59 U	260 BD	28 U
1,1-Dichloroethane		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	' 3,300 U	230 U	2,800 U	26 U	120 U	23 U
2-Butanone		580	18 U	2,900 U	58,000 U	1,200	4,900 U	2,500	3,300 U	1,300	2,800 U	13 J	28 DJ	50
Chloroform		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
1,1,1-Trichloroethane		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
Carbon tetrachloride		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
Benzene		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	5.9 JB	3,300 U	4 J	2,800 U	26 U	120 U	23 U
1,2-Dichloroethane		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
Trichloroethene	2,800	100	4 J	74,000 EJ	96,000 D	850	700 J	1,400	1,700 J	6,300 EJ	7,200	270	450 D	35
1,2-Dichloropropane		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
Bromodichloromethane		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
cis-1,3-Dichloropropene		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
4-Methyl-2-pentanone		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
Toluene		90 U	18 U	2,900 U	58,000 U	16 JB	4,900 U	28 U	3,300 U	21 U	2,800 U	26 U	120 U	23 U
trans-1,3-Dichloropropene		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
1,1,2-Trichloroethane		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
Tetrachloroethene	5,600	67 J	18 U	430,000 EJ	880,000 D	43,000 E	57,000	32,000 EJ	66,000	13,000 EJ	16,000	100	170 D	7 J
2-Hexanone		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	59 J	3,300 U	230 U	2,800 U	26 U	120 U	23 U
Dibromochloromethane		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
Chlorobenzene		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
Ethylbenzene		90 U	18 U	2,900 U	58,000 U	13 J	4,900 U	11 J	3,300 U	11 J	2,800 U	26 U	120 U	23 U
Styrene		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
Bromoform		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
1,1,2,2-Tetrachloroethane		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
Total Xylenes		90 U	18 U	2,900 U	58,000 U	80 J	4,900 U	72 J	82 J	51 J	2,800 U	26 U	120 U	23 U
cis-1,2-Dichloroethene		450	88	36,000	42,000 DJ	660	380 J	590	510 J	1,100	770	1,100	1,100 D	200
trans-1,2-Dichloroethene	1,200	21 J	14 J	360 J	58,000 U	11 J	4,900 U	270 U	3,300 U	22 J	2,800 U	27	23 DJ	27
Dichlorodifluoromethane		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
Trichlorofluoromethane		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
1,1,2-Trichloro-1,2,2-trifluoroethane		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
Methyl-t-butyl ether (MTBE)		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
1,2-Dibromoethane		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
Isopropylbenzene		90 U	18 U	2,900 U	58,000 U	8 J	4,900 U	9.1 J	3,300 U	230 U	2,800 U	26 U	120 U	23 U
1,3-Dichlorobenzene		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
1,4-Dichlorobenzene		90 U	18 U	2,900 U	58,000 U	13 J	4,900 U	5.0 J	3,300 U	230 U	2,800 U	26 U	120 U	23 U
1,2-Dichlorobenzene		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
1,2-Dibromo-3-chloropropane		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
1,2,4-Trichlorobenzene		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
Methyl acetate		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
Cyclohexane		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U
Methylcyclohexane		90 U	18 U	2,900 U	58,000 U	200 U	4,900 U	270 U	3,300 U	230 U	2,800 U	26 U	120 U	23 U

** Indicates Non-ASP Method Data

Pioneer Midler Avenue LLC
Interim Remedial Measures Report
Table 2 - Verification Sample Results - B-1 Area

Sample ID ->	Midler	VB1 - 6	VB1 - 6	VB1 - 6 DL	VB1 - 7	VB1 - 8	VB1 - 8 DL	VB1 - 8	VB1 - 8 DL	VB1 - 8	VB1 - 8 DL	VB1 - 8	VB1 - 8 DL	VB1 - 8
Depth - >	SSCO	3.9 - 7.9	3.9 - 7.9	3.9 - 7.9	15.8 - 19.8	15.4 - 18.4	15.4 - 18.4	15.4 - 18.4	15.4 - 18.4	15.4 - 19.4	15.4 - 19.4	15.4 - 19.4	15.4 - 19.4	15.4 - 19.4
Date Sampled ->		03/16/07	05/10/07	05/10/07	06/07/07	06/07/07	06/07/07	07/02/07	07/02/07	07/16/07	07/16/07	08/10/07	08/10/07	08/20/07
Chloromethane		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
Vinyl chloride	800	310 J	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
Bromomethane		230 J	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
Chloroethane		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
1,1-Dichloroethene		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
Carbon disulfide		1,800 U	17 J	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	9.4 J	4,200 U	170 U
Acetone		2,900	14,000 BEJ	10,000 D	36,000 J	12,000 J	41,000 U	7,500 EJ	15,000 B	12,000 EJ	13,000 U	16,000 BEJ	17,000	13,000 BEJ
Methylene chloride		1,800 U	130	2,500 U	920 U	430 U	7,200 U	110 U	520 U	46 U	300 U	28 U	100 U	51 U
1,1-Dichloroethane		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
2-Butanone		690 J	3,000 EJ	2,600 D	12,000 J	4,400 J	41,000 U	2,700 EJ	3,800	3,900 EJ	3,500 J	9,200 EJ	6,300	6,600 EJ
Chloroform		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
1,1,1-Trichloroethane		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
Carbon tetrachloride		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
Benzene		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	4 J	2,100 U	5 J	4,600 U	14 J	4,200 U	6 J
1,2-Dichloroethane		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
Trichloroethene	2,800	1,300 J	12 J	2,500 U	1,800 J	1,100 J	41,000 U	78 J	110 J	64 J	4,600 U	430	290 J	120 J
1,2-Dichloropropane		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
Bromodichloromethane		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
cis-1,3-Dichloropropene		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
4-Methyl-2-pentanone		1,800 U	20 J	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
Toluene		1,800 U	20 J	2,500 U	2,100 U	2,000 U	41,000 U	24 J	57 J	19 J	4,600 U	78 JB	52 J	29 U
trans-1,3-Dichloropropene		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
1,1,2-Trichloroethane		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
Tetrachloroethene	5,600	10,000	240	610 J	6,100	190,000 EJ	550,000 D	12,000 E	42,000	17,000 EJ	56,000	33,000 EJ	46,000	4,000 EJ
2-Hexanone		1,800 U	19 J	2,500 U	2,100 U	2,000 U	41,000 U	42 J	2,100 U	36 J	4,600 U	90 J	4,200 U	85 J
Dibromochloromethane		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
Chlorobenzene		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
Ethylbenzene		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	2 J	4,600 U	5 J	4,200 U	170 U
Styrene		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
Bromoform		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
1,1,2,2-Tetrachloroethane		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
Total Xylenes		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	51 J	180 J	45 J	4,600 U	130 J	4,200 U	37 J
cis-1,2-Dichloroethene		1,900	13 J	2,500 U	2,200	1,200 J	41,000 U	58 J	2,100 U	16 J	4,600 U	53 J	4,200 U	20 J
trans-1,2-Dichloroethene	1,200	1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
Dichlorodifluoromethane		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
Trichlorofluoromethane		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
1,1,2-Trichloro-1,2,2-trifluoroethane		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
Methyl-t-butyl ether (MTBE)		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
1,2-Dibromoethane		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
Isopropylbenzene		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
1,3-Dichlorobenzene		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
1,4-Dichlorobenzene		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	3 J	4,600 U	180 U	4,200 U	170 U
1,2-Dichlorobenzene		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
1,2-Dibromo-3-chloropropane		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
1,2,4-Trichlorobenzene		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
Methyl acetate		1,800 U	100 U	2,500 U	460 J	2,000 U	41,000 U	86 U	2,100 U	96 U	760 J	180 U	4,200 U	170 U
Cyclohexane		1,800 U	100 U	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U
Methylcyclohexane		550 J	21 J	2,500 U	2,100 U	2,000 U	41,000 U	86 U	2,100 U	96 U	4,600 U	180 U	4,200 U	170 U

** Indicates Non-ASP Method Data

Pioneer Midler Avenue LLC
Interim Remedial Measures Report
Table 2 - Verification Sample Results - B-1 Area

Sample ID ->	Midler	VB1 - 8 DL	VB1 - 9	VB1 - 10	VB1 - 10 DL	VB1 - 10	VB1 - 10 DL	VB1 - 11	VB1 - 11 DL	VB1 - 11	VB1 - 11 DL	VB1 - 12	VB1 - 12 DL	VB1 - 12
Depth - >	SSCO	15.4 - 19.4	11.6 - 15.6	12.7 - 16.7	12.7 - 16.7	12.7 - 16.7	12.7 - 16.7	16.4 - 20.4	16.4 - 20.4	16.4 - 20.4	16.4 - 20.4	15.9 - 19.9	15.9 - 19.9	15.9 - 19.9
Date Sampled ->		08/20/07	06/07/07	06/08/07	06/08/07	08/03/07	08/03/07	06/08/07	06/08/07	08/03/07	08/03/07	06/08/07	06/08/07	08/10/07
Chloromethane		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
Vinyl chloride	800	2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
Bromomethane		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
Chloroethane		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
1,1-Dichloroethene		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
Carbon disulfide		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	14 J
Acetone		15,000 U	10,000 J	42,000 U	110,000 U	4,100 E	3,700	15,000 J	85,000 U	22,000 E	16,000	5,900 J	6,000 DJ	3,700 BEJ
Methylene chloride		85 U	840 U	17,000 U	20,000 U	90 JB	40 JB	8,400 JU	16,000 U	79 JB	2,200 U	980 U	1,900 U	26 U
1,1-Dichloroethane		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	'85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
2-Butanone		5,600	2,400 J	42,000 U	110,000 U	1,200	2,100 U	210,000 U	85,000 U	8,100 E	5,100	2,200 U	8,800 U	2,300
Chloroform		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
1,1,1-Trichloroethane		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
Carbon tetrachloride		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
Benzene		2,100 U	1,800 U	42,000 U	110,000 U	1.7 JB	2,100 U	210,000 U	85,000 U	7 J	2,200 U	2,200 U	8,800 U	11 J
1,2-Dichloroethane		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
Trichloroethene	2,800	130 J	1,800 U	22,000 J	22,000 DJ	32 J	2,100 U	8,800 J	85,000 U	83 J	2,200 U	1,000 J	980 DJ	130 J
1,2-Dichloropropane		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
Bromodichloromethane		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
cis-1,3-Dichloropropene		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
4-Methyl-2-pentanone		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
Toluene		2,100 U	1,800 U	42,000 U	110,000 U	9 JB	2,100 U	210,000 U	85,000 U	42 JB	2,200 U	2,200 U	8,800 U	47 U
trans-1,3-Dichloropropene		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
1,1,2-Trichloroethane		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
Tetrachloroethene	5,600	6,500	5,000 U	1,400,000 EJ	1,500,000 D	2,200 E	3,300	910,000 EJ	1,000,000 D	4,000 E	4,900	48,000 EJ	53,000 D	1,800
2-Hexanone		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	41 J
Dibromochloromethane		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
Chlorobenzene		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
Ethylbenzene		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
Styrene		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
Bromoform		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
1,1,2,2-Tetrachloroethane		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
Total Xylenes		2,100 U	1,800 U	42,000 U	110,000 U	16 J	2,100 U	210,000 U	85,000 U	65 J	59 J	2,200 U	8,800 U	80 J
cis-1,2-Dichloroethene		2,100 U	1,800 U	42,000 U	110,000 U	12 J	2,100 U	6,600 J	85,000 U	41 J	2,200 U	29,000	29,000 D	6,600 EJ
trans-1,2-Dichloroethene	1,200	2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	440 J	8,800 U	100 J
Dichlorodifluoromethane		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
Trichlorofluoromethane		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
1,1,2-Trichloro-1,2,2-trifluoroethane		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
Methyl-t-butyl ether (MTBE)		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
1,2-Dibromoethane		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
Isopropylbenzene		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
1,3-Dichlorobenzene		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
1,4-Dichlorobenzene		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
1,2-Dichlorobenzene		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
1,2-Dibromo-3-chloropropane		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
1,2,4-Trichlorobenzene		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
Methyl acetate		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
Cyclohexane		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U
Methylcyclohexane		2,100 U	1,800 U	42,000 U	110,000 U	170 U	2,100 U	210,000 U	85,000 U	180 U	2,200 U	2,200 U	8,800 U	160 U

** Indicates Non-ASP Method Data

Pioneer Midler Avenue LLC
Interim Remedial Measures Report
Table 2 - Verification Sample Results - B-1 Area

Sample ID ->	Midler	VB1 - 12 DL	VB1 - 13	VB1 - 13	VB1 - 14	VB1 - 14 DL	VB1 - 14	VB1 - 14 DL	VB1 - 14 DL 2	VB1 - 14	VB1 - 14 DL	VB1 - 14	VB1 - 14 DL	VB1 - 14 DL2
Depth - >	SSCO	15.9 - 19.9	16.1 - 20.1	16.1 - 20.1	18.1 - 22.1	18.1 - 22.1	18.1 - 22.1	18.1 - 22.1	18.1 - 22.1	18.1 - 22.1	18.1 - 22.1	18.1 - 22.1	18.1 - 22.1	18.1 - 22.1
Date Sampled ->		08/10/07	03/15/07	05/10/07	06/11/07	06/11/07	07/30/07	07/30/07	07/30/07	08/10/07	08/10/07	08/28/07	08/28/07	08/28/07
Chloromethane		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
Vinyl chloride	800	1,900 U	700 J	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
Bromomethane		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
Chloroethane		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
1,1-Dichloroethene		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
Carbon disulfide		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	15 J	1,800 U	3,600 U	10 J	3,900 U	160 U	1,900 U	3,700 U
Acetone		4,600	1,300 J	5,200	26,000 J	76,000 D	13,000 EJ	9,100 J	9,300 J	13,000 BEJ	14,000	8,200 BEJ	13,000 J	15,000 J
Methylene chloride		63 U	2,100 U	2,100 U	260 U	4,100 U	74 U	99 U	260 U	26 U	120 U	32 U	69 U	98 U
1,1-Dichloroethane		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
2-Butanone		1,700 J	460 J	2,300	10,000 J	24,000 DJ	6,000 EJ	1,800	3,600 U	6,900 EJ	4,900	3,500 EJ	5,600	5,600 J
Chloroform		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
1,1,1-Trichloroethane		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
Carbon tetrachloride		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
Benzene		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	9 J	1,800 U	3,600 U	6 J	3,900 U	4 J	1,900 U	3,700 U
1,2-Dichloroethane		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
Trichloroethene	2,800	120 J	2,800	2,100 U	640 J	2,200 DJ	470	500 J	510 J	330	260 JB	230	700 J	790
1,2-Dichloropropane		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
Bromodichloromethane		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
cis-1,3-Dichloropropene		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
4-Methyl-2-pentanone		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
Toluene		40 J	2,100 U	2,100 U	2,000 U	20,000 U	74 JB	76 J	78 J	48 U	3,900 U	25 U	57 J	54 J
trans-1,3-Dichloropropene		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
1,1,2-Trichloroethane		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
Tetrachloroethene	5,600	2,700	4,800	450 J	51,000 EJ	230,000 D	27,000 EJ	49,000 EJ	51,000	30,000 EJ	49,000	7,800 EJ	46,000 BEJ	49,000
2-Hexanone		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	96 J	3,900 U	42 J	1,900 U	3,700 U
Dibromochloromethane		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
Chlorobenzene		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
Ethylbenzene		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	3 J	1,800 U	3,600 U	4 J	3,900 U	160 U	1,900 U	3,700 U
Styrene		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
Bromoform		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
1,1,2,2-Tetrachloroethane		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
Total Xylenes		72 J	2,100 U	2,100 U	2,000 U	20,000 U	110 J	120 J	92 J	98 J	3,900 U	32 J	130 J	100 J
cis-1,2-Dichloroethene		5,900	10,000	8,600	290 J	20,000 U	130 J	73 J	3,600 U	120 J	3,900 U	83 J	120 J	3,700 U
trans-1,2-Dichloroethene	1,200	86 JM	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 UM	3,900 U	160 U	1,900 U	3,700 U
Dichlorodifluoromethane		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
Trichlorofluoromethane		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
1,1,2-Trichloro-1,2,2-trifluoroethane		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
Methyl-t-butyl ether (MTBE)		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
1,2-Dibromoethane		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
Isopropylbenzene		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
1,3-Dichlorobenzene		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
1,4-Dichlorobenzene		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
1,2-Dichlorobenzene		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
1,2-Dibromo-3-chloropropane		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
1,2,4-Trichlorobenzene		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
Methyl acetate		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 J	430 J	450 J	160 U	3,900 U	160 U	1,900 U	3,700 U
Cyclohexane		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U
Methylcyclohexane		1,900 U	2,100 U	2,100 U	2,000 U	20,000 U	150 U	1,800 U	3,600 U	160 U	3,900 U	160 U	1,900 U	3,700 U

** Indicates Non-ASP Method Data

Pioneer Midler Avenue LLC
Interim Remedial Measures Report
Table 2 - Verification Sample Results - B-1 Area

Sample ID ->	Midler	VB1 - 14	VB1 - 14 DL	VB1 - 14 DL	VB1 - 14	VB1 - 15	VB1 - 16	VB1 - 16	VB1 - 16 DL	VB1 - 17	VB1 - 17 DL	VB1 - 17	VB1 - 17 DL	VB1 - 17 DL2
Depth - >	SSCO	18.1 - 22.1	18.1 - 22.1	18.1 - 22.1	18.1 - 22.1	10.2 - 14.2	8.8 - 12.8	8.8 - 12.8	8.8 - 12.8	15.5 - 15.9	15.5 - 19.5	15.5 - 15.9	15.5 - 15.9	15.5 - 19.5
Date Sampled ->		09/13/07	09/13/07	09/13/07	09/26/07	06/11/07	06/11/07	07/16/07	07/16/07	06/08/07	06/08/07	08/28/07	08/28/07	08/28/07
Chloromethane		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
Vinyl chloride	800	160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
Bromomethane		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
Chloroethane		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
1,1-Dichloroethene		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
Carbon disulfide		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
Acetone		5,200 EB	12,000	12,000	1,100 B	13,000 J	15,000	9,000 EJ	7,700 U	31,000	44,000 U	5,300 BEJ	8,100 J	7,700 J
Methylene chloride		99 JB	240 JB	690 JB	20 JB	380 U	320 U	49 U	170 U	4,400 U	8,400 U	34 U	47 U	200 U
1,1-Dichloroethane		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 J	44,000 U	170 U	2,000 U	8,200 U
2-Butanone		2,000	4,400	9,400 U	410	2,400 J	3,900	2,000	2,700 U	8,300 J	44,000 U	2,400	3,500	8,200 U
Chloroform		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
1,1,1-Trichloroethane		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
Carbon tetrachloride		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
Benzene		2.6 JB	1,900 U	9,400 U	77 U	2,300 U	3,000 U	3 J	2,700 U	11,000 U	44,000 U	28 J	31 J	8,200 U
1,2-Dichloroethane		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
Trichloroethene	2,800	260	1,200 J	1,200 JB	77 U	2,300 U	1,500 J	36 J	2,700 U	27,000	26,000 DJ	1,400	3,800	4,100 J
1,2-Dichloropropane		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
Bromodichloromethane		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
cis-1,3-Dichloropropene		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
4-Methyl-2-pentanone		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
Toluene		18 JB	84 J	9,400 U	1.6 JB	2,300 U	3,000 U	6 J	2,700 U	11,000 U	44,000 U	57 JB	160 J	150 J
trans-1,3-Dichloropropene		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
1,1,2-Trichloroethane		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
Tetrachloroethene	5,600	10,000 E	100,000 E	100,000	150	2,600	46,000	750	970 J	390,000 EJ	430,000 D	13,000 EJ	96,000 BEJ	98,000
2-Hexanone		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	39 J	2,000 U	8,200 U
Dibromochloromethane		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
Chlorobenzene		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
Ethylbenzene		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	3.0 J	2,000 U	8,200 U
Styrene		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
Bromoform		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
1,1,2,2-Tetrachloroethane		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
Total Xylenes		29 J	300 J	240 J	77 U	2,300 U	3,000 U	10 J	2,700 U	11,000 U	44,000 U	48 J	240 J	220 J
cis-1,2-Dichloroethene		54 J	110 J	9,400 U	77 U	2,300 U	8,200	780	750	12,000	11,000 DJ	1,400	1,800 J	1,800 J
trans-1,2-Dichloroethene	1,200	160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	5 J	2,700 U	11,000 U	44,000 U	16 J	2,000 U	8,200 U
Dichlorodifluoromethane		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
Trichlorofluoromethane		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
1,1,2-Trichloro-1,2,2-trifluoroethane		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
Methyl-t-butyl ether (MTBE)		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
1,2-Dibromoethane		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
Isopropylbenzene		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
1,3-Dichlorobenzene		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
1,4-Dichlorobenzene		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
1,2-Dichlorobenzene		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
1,2-Dibromo-3-chloropropane		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
1,2,4-Trichlorobenzene		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
Methyl acetate		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	690 J	11,000 U	44,000 U	170 U	2,000 U	8,200 U
Cyclohexane		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U
Methylcyclohexane		160 U	1,900 U	9,400 U	77 U	2,300 U	3,000 U	110 U	2,700 U	11,000 U	44,000 U	170 U	2,000 U	8,200 U

** Indicates Non-ASP Method Data

Pioneer Midler Avenue LLC
Interim Remedial Measures Report
Table 2 - Verification Sample Results - B-1 Area

Sample ID ->	Midler	VB1 - 17	VB1 - 17 DL	VB1 - 18	VB1 - 19	VB1 - 19	VB1 - 19 DL	VB1 - 20	VB1 - 20 DL	VB1 - 20	VB1 - 20 DL	VB1 - 20
Depth - >	SSCO	15.5 - 15.9	15.5 - 19.5	15.9 - 19.9	8.8 - 12.8	8.8 - 12.8	8.8 - 12.8	13.0 - 17.0	13.0 - 17.0	13 - 17	13 - 17	13 - 17
Date Sampled ->		09/04/07	09/04/07	05/10/07	03/19/07	05/10/07	05/10/07	03/19/07	03/19/07	05/10/07	05/10/07	06/11/07
Chloromethane		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
Vinyl chloride	800	170 U	2,100 U	2,000 U	490 J	12 J	2,600 U	2,400 J	2,200 DJ	2,500 U	5,100 U	2,200 U
Bromomethane		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	280 J	5,200 U	2,500 U	5,100 U	2,200 U
Chloroethane		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
1,1-Dichloroethene		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
Carbon disulfide		170 U	2,100 U	2,000 U	2,700 U	17 J	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
Acetone		7,600 BEJ	15,000	1,900 J	3,100	17,000 BEJ	12,000 D	960 J	5,200 U	6,000	6,800 D	19,000 J
Methylene chloride		130 U	240 U	2,000 U	2,700 U	110	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
1,1-Dichloroethane		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
2-Butanone		4,300 EJ	5,200	750 J	960 J	4,100 EJ	3,500 D	2,600 U	5,200 U	2,300 J	2,300 DJ	5,000 J
Chloroform		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
1,1,1-Trichloroethane		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
Carbon tetrachloride		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
Benzene		5.3 JB	2,100 U	2,000 U	2,700 U	17 J	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
1,2-Dichloroethane		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
Trichloroethene	2,800	770	930 J	2,800	2,900	210	500 DJ	17,000	17,000 D	23,000	25,000 D	2,200 U
1,2-Dichloropropane		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
Bromodichloromethane		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
cis-1,3-Dichloropropene		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
4-Methyl-2-pentanone		170 U	2,100 U	2,000 U	2,700 U	54 J	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
Toluene		40 JB	45 J	2,000 U	2,700 U	48 J	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
trans-1,3-Dichloropropene		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
1,1,2-Trichloroethane		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
Tetrachloroethene	5,600	9,900 EJ	17,000	640 J	14,000	580	2,200 DJ	6,400	6,300 D	60,000 EJ	62,000 D	1,400 J
2-Hexanone		62 J	2,100 U	2,000 U	2,700 U	38 J	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
Dibromochloromethane		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
Chlorobenzene		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
Ethylbenzene		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
Styrene		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
Bromoform		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
1,1,2,2-Tetrachloroethane		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
Total Xylenes		74 J	120 J	2,000 U	2,700 U	38 J	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
cis-1,2-Dichloroethene		870	870 J	23,000	1,700 J	740	1,200 DJ	56,000 EJ	56,000 D	30,000	32,000 D	1,100 J
trans-1,2-Dichloroethene	1,200	6.6 J	2,100 U	310 J	2,700 U	16 J	2,600 U	500 J	5,200 U	2,500 U	5,100 U	2,200 U
Dichlorodifluoromethane		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
Trichlorofluoromethane		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
1,1,2-Trichloro-1,2,2-trifluoroethane		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
Methyl-t-butyl ether (MTBE)		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
1,2-Dibromoethane		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
Isopropylbenzene		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
1,3-Dichlorobenzene		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
1,4-Dichlorobenzene		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
1,2-Dichlorobenzene		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
1,2-Dibromo-3-chloropropane		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
1,2,4-Trichlorobenzene		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
Methyl acetate		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
Cyclohexane		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U
Methylcyclohexane		170 U	2,100 U	2,000 U	2,700 U	110 U	2,600 U	2,600 U	5,200 U	2,500 U	5,100 U	2,200 U

** Indicates Non-ASP Method Data

Pioneer Midler Avenue LLC
Interim Remedial Measures Report
Table 2 - Verification Sample Results - B-5 Area

Sample ID ->	Units	Bottom North	Bottom North DL	Bottom South	Bottom South DL	East Wall	North Wall	Slab North
Depth - >		12 feet	12 feet	14 feet	14 feet	6-10 feet	6 - 8 feet	6 - 8 feet
Date Sampled ->		7/18/2006	7/18/2006	7/18/2006	7/18/2006	7/18/2006	7/18/2006	7/18/2006
PID		0.7	0.7	4.5	4.5	13.2	0.3	7.1
VOLATILES	ug/kg							
Chloromethane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Bromomethane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Vinyl chloride	ug/kg	240	**120** D	190	**78** D	**18**	**13** J	160
Chloroethane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Methylene chloride	ug/kg	13 U	56 U	12 U	48 U	8 U	12 U	13 U
Acetone	ug/kg	6 J	81 U	17 U	75 U	35	27	7 J
Carbon disulfide	ug/kg	18 U	81 U	3 J	75 U	2 J	16 U	2 J
1,1-Dichloroethene	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	3 J
1,1-Dichloroethane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Chloroform	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
1,2-Dichloroethane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
2-Butanone	ug/kg	18 U	81 U	17 U	75 U	8 J	16 U	17 U
1,1,1-Trichloroethane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Carbon tetrachloride	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Bromodichloromethane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
1,2-Dichloropropane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
cis-1,3-Dichloropropene	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Trichloroethene	ug/kg	**18**	81 U	12 J	**12** DJ	**13** U	**16** U	**17** U
Dibromochloromethane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
1,1,2-Trichloroethane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Benzene	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
trans-1,3-Dichloropropene	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Bromoform	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
4-Methyl-2-pentanone	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
2-Hexanone	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Tetrachloroethene	ug/kg	**18**	81 U	7 J	**15** DJ	**13** U	**16** U	**17** U
Toluene	ug/kg	18	81 U	17 U	75 U	13 U	16 U	17 U
1,1,2,2-Tetrachloroethane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Chlorobenzene	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Ethylbenzene	ug/kg	18	81 U	17 U	75 U	13 U	16 U	17 U
Styrene	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Total xylenes	ug/kg	18	81 U	17 U	75 U	13 U	16 U	17 U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
cis-1,2-Dichloroethene	ug/kg	390 EJ	**360** D	850 EJ	**850** D	**25**	**24**	1,100 EJ
trans-1,2-Dichloroethene	ug/kg	19	**13** DJ	8 J	75 U	**6** J	**16** U	7 J
Dichlorodifluoromethane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Trichlorofluoromethane	ug/kg	6 BJ	17 U	5 U	12 U	5 U	5 U	6 U
Methyl acetate	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Methyl tert butyl ether	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Cyclohexane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Methylcyclohexane	ug/kg	18 U	81 U	17 U	75 U	2 J	16 U	17 U

Table 2 - Verification Sample Results - B-5 Area

Sample ID ->	Units	Bottom North		Bottom North DL		Bottom South		Bottom South DL		East Wall		North Wall		Slab North	
Depth - >		12 feet		12 feet		14 feet		14 feet		6-10 feet		6 - 8 feet		6 - 8 feet	
Date Sampled ->		7/18/2006		7/18/2006		7/18/2006		7/18/2006		7/18/2006		7/18/2006		7/18/2006	
1,2-Dibromoethane	ug/kg	18	U	81	U	17	U	75	U	13	U	16	U	17	U
Isopropylbenzene	ug/kg	18	U	81	U	17	U	75	U	13	U	16	U	17	U
1,3-Dichlorobenzene	ug/kg	18	U	81	U	17	U	75	U	13	U	16	U	17	U
1,4-Dichlorobenzene	ug/kg	18	U	81	U	17	U	75	U	13	U	16	U	17	U
1,2-Dichlorobenzene	ug/kg	18	U	81	U	17	U	75	U	13	U	16	U	17	U
1,2-Dibromo-3-chloropropane	ug/kg	18	U	81	U	17	U	75	U	13	U	16	U	17	U
1,2,4-Trichlorobenzene	ug/kg	18	U	81	U	17	U	75	U	13	U	16	U	17	U

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Table 2 - Verification Sample Results - B-5 Area

Sample ID ->	Units	Slab North DL		Slab South		West Wall		West Wall DL	
Depth - >		6-8 feet		8 feet		6-10 feet		6-10 feet	
Date Sampled ->		7/18/2006		7/18/2006		7/18/2006		7/18/2006	
PID		7.1		3.8		9.7		9.7	
VOLATILES	ug/kg								
Chloromethane	ug/kg	86	U	16	U	15	U	1,800	U
Bromomethane	ug/kg	86	U	16	U	15	U	1,800	U
Vinyl chloride	ug/kg	72	DJ	7	J	450	EJ	**1,900**	D
Chloroethane	ug/kg	86	U	16	U	15	U	1,800	U
Methylene chloride	ug/kg	63	U	12	U	9	U	1,800	U
Acetone	ug/kg	86	U	9	J	77		1,800	U
Carbon disulfide	ug/kg	86	U	16	U	3	J	1,800	U
1,1-Dichloroethene	ug/kg	86	U	16	U	3	J	1,800	U
1,1-Dichloroethane	ug/kg	86	U	16	U	15	U	1,800	U
Chloroform	ug/kg	86	U	16	U	15	U	1,800	U
1,2-Dichloroethane	ug/kg	86	U	16	U	15	U	1,800	U
2-Butanone	ug/kg	86	U	16	U	15	U	1,800	U
1,1,1-Trichloroethane	ug/kg	86	U	16	U	15	U	1,800	U
Carbon tetrachloride	ug/kg	86	U	16	U	15	U	1,800	U
Bromodichloromethane	ug/kg	86	U	16	U	15	U	1,800	U
1,2-Dichloropropane	ug/kg	86	U	16	U	15	U	1,800	U
cis-1,3-Dichloropropene	ug/kg	86	U	16	U	15	U	1,800	U
Trichloroethene	ug/kg	86	U	16	U	5	J	350	DJ
Dibromochloromethane	ug/kg	86	U	16	U	15	U	1,800	U
1,1,2-Trichloroethane	ug/kg	86	U	16	U	15	U	1,800	U
Benzene	ug/kg	86	U	16	U	15	U	1,800	U
trans-1,3-Dichloropropene	ug/kg	86	U	16	U	15	U	1,800	U
Bromoform	ug/kg	86	U	16	U	15	U	1,800	U
4-Methyl-2-pentanone	ug/kg	86	U	16	U	15	U	1,800	U
2-Hexanone	ug/kg	86	U	16	U	15	U	1,800	U
Tetrachloroethene	ug/kg	86	U	16	U	2	J	330	DJ
Toluene	ug/kg	86	U	16	U	15	U	1,800	U
1,1,2,2-Tetrachloroethane	ug/kg	86	U	16	U	15	U	1,800	U
Chlorobenzene	ug/kg	86	U	16	U	15	U	1,800	U
Ethylbenzene	ug/kg	86	U	16	U	15	U	1,800	U
Styrene	ug/kg	86	U	16	U	15	U	1,800	U
Total xylenes	ug/kg	86	U	16	U	15	U	1,800	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	86	U	16	U	15	U	1,800	U
cis-1,2-Dichloroethene	ug/kg	**1,200**	D	140		1,300	EJ	**22,000**	D
trans-1,2-Dichloroethene	ug/kg	86	U	16	U	140		**2,600**	D
Dichlorodifluoromethane	ug/kg	86	U	16	U	2	J	1,800	U
Trichlorofluoromethane	ug/kg	15	U	5	U	5	U	1,800	U
Methyl acetate	ug/kg	86	U	16	U	15	U	1,800	U
Methyl tert butyl ether	ug/kg	86	U	16	U	15	U	1,800	U
Cyclohexane	ug/kg	86	U	16	U	15	U	1,800	U
Methylcyclohexane	ug/kg	86	U	16	U	15	U	1,800	U

Table 2 - Verification Sample Results - B-5 Area

Sample ID ->	Units	Slab North DL		Slab South		West Wall		West Wall DL	
Depth - >		6-8 feet		8 feet		6-10 feet		6-10 feet	
Date Sampled ->		7/18/2006		7/18/2006		7/18/2006		7/18/2006	
1,2-Dibromoethane	ug/kg	86	U	16	U	15	U	1,800	U
Isopropylbenzene	ug/kg	86	U	16	U	15	U	1,800	U
1,3-Dichlorobenzene	ug/kg	86	U	16	U	15	U	1,800	U
1,4-Dichlorobenzene	ug/kg	86	U	16	U	15	U	1,800	U
1,2-Dichlorobenzene	ug/kg	86	U	16	U	15	U	1,800	U
1,2-Dibromo-3-chloropropane	ug/kg	86	U	16	U	15	U	1,800	U
1,2,4-Trichlorobenzene	ug/kg	86	U	16	U	15	U	1,800	U

Notes:
U = Compound not detected at listed reporting limit
B = Compound detected in Method Blank
E = Listed concentration exceeds reporting limit range
D = Listed concentration is from diluted sample
J = Listed concentration is estimated

Average* Concentrations of the Four CVOCs with Site Specific Clean-up Objectives:

		SSCO
PCE	56.3	5,600
TCE	59.4	2,800
VC	315	800
trans-1,2-d	379	1,200
cis-1,2-dce	3514	NA

* METHOD FOR CALCULATING AVERAGES:
1. One value for each sample location
2. Non-detect sample is valued at 1/2 reporting limit
3. If diluted sample and non-diluted sample are both non-detect, 1/2 non-diluted reporting limit is used
4. If both diluted sample and non-diluted sample are "detect", the diluted sample result is used
5. If the diluted sample is "detect" and the undiluted sample is "non-detect" (or vice-versa), the "detect" value is used.

Shaded cells represent values used to compute average concentrations

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Table 3 - Average CVOC Calculations - B-3 Area

Sample ID	Depth	Date	PCE	TCE	VC	trans	Selected Data PCE	TCE	VC	trans	PCE	TCE	VC	trans
		Midler SSCOs ->	5,600	2,800	800	1,200					5,600	2,800	800	1,200
VB3 - 1	5.9 - 9.9	03/08/07	150	140	65	44	x	x	x	x	150	140	65	44
VB3 - 1 DL	5.9 - 9.9	03/08/07	260 D	200 D	65 DJ	55 DJ								
VB3 - 2	16.1 - 20.1	03/08/07	14,000	3,300	1,400 U	1,400 U								
VB3 - 2	16.1 - 20.1	05/07/07	4,400	760 J	1,500 U	1,500 U	x	x	x	x	4,400	760	750	750
VB3 - 3	18.1 - 22.1	03/08/07	9 J	4 J	12 UJ	12 U	x	x	x	x	9	4	12	6
VB3 - 4	8 - 12	03/08/07	56	45	220 J	650 J								
VB3 - 4 DL	8 - 12	03/08/07	2,400 U	2,400 U	2,400 U	650 JD	'x	x	x	x	1,200	1,200	1,200	650
VB3 - 5	7 - 11	03/07/07	830 J	120	8 J	6 J								
VB3 - 5 DL	7 - 11	03/07/07	830 JD	2,300 U	2,300 U	2,300 U								
VB3 - 5	7 - 11	05/07/07	130	18 J	98 U	98 U	x	x	x	x	130	18	49	49
VB3 - 5 DL	7 - 11	05/07/07	300 DJ	2,400 U	2,400 U	2,400 U								
VB3 - 6	7 - 11	03/07/07	1,000,000	22,000 J	54,000 UJ	54,000 U								
VB3 - 6 DL	7 - 11	03/07/07	1,000,000 D	20,000 DJ	110,000 U	110,000 U								
VB3 - 6	7 - 11	05/07/07	1,100 J	3,500 U	3,500 U	3,500 U	x	x	x	x	1,100	1,750	1,750	1,750
VB3 - 7	7.6 - 11.6	05/07/07	430,000 EJ	50,000	2,600 U	2,600 U								
VB3 - 7 DL	7.6 - 11.6	05/07/07	830,000 D	59,000 DJ	100,000 U	100,000 U								
VB3 - 7	7 - 9	06/06/07	11,000	1,200 J	2,800 U	2,800 U	x	x	x	x	11,000	1,200	1,400	1,400
VB3 - 7	9 - 11.6	06/06/07	860 J	2,400 U	2,400 U	2,400 U	x	x	x	x	860	1,200	1,200	1,200
VB3 - 8	7.3 - 11.3	03/08/07	62,000	17,000	11,000 U	11,000 U								
VB3 - 8	7.3 - 11.3	05/07/07	10,000	3,100 U	3,100 U	3,100 U	x	x	x	x	10,000	1,550	1,550	1,550
VB3 - 9	8.75 - 12.75	03/07/07	280	150	6 J	14 J	x	x	x	x	280	150	6	14
VB3 - 9 DL	8.75 - 12.75	03/07/07	1,100 JD	2,500 U	2,500 U	2,500 U								
VB3 - 10	14.5 - 18.5	03/07/07	260,000	3,100 J	13,000 UJ	13,000 U								
VB3 - 10	14.5 - 18.5	05/07/07	20,000	1,800 U	1,800 U	1,800 U								
VB3 - 10	14.5 - 18.5	05/21/07	4,100	1,900 U	1,900 U	1,900 U	x	x	x	x	4,100	950	950	950
VB3 - 11	10.5 - 14.5	03/15/07	4,700	3,400	2,700 U	2,700 U								
VB3 - 11	10.5 - 14.5	05/07/07	160	33 U	33 U	33 U	x	x	x	x	160	17	17	17
VB3 - 11 DL	10.5 - 14.5	05/07/07	850 DJ	1,800 U	1,800 U	1,800 U								
VB3 - 12	14.8 - 18.8	03/15/07	10,000	5,200	2,000 U	2,000 U								
VB3 - 12	14.8 - 18.8	05/08/07	25,000	5,700	2,200 U	2,200 U								
VB3 - 12	14.8 - 18.8	06/06/07	31,000	6,700	2,200 U	2,200 U	x	x	x	x	31,000	6,700	1,100	1,100
VB3 - 13	7.25 - 11.25	03/08/07	320	220	96 U	31 J	x	x	x	x	320	220	48	31
VB3 - 13 DL	7.25 - 11.25	03/08/07	840 DJ	350 DJ	1,800 U	1,800 U								
VB3 - 14	7.5 - 11.5	03/07/07	2,900	560 J	2 J	4 J								
VB3 - 14 DL	7.5 - 11.5	03/07/07	2,900 D	560 JD	1,900 U	1,900 U								
VB3 - 14	15.1 - 19.1	03/15/07	6,600	1,700 J	2,500 U	2,500 U								
VB3 - 14	15.1 - 19.1	05/08/07	19,000	3,100	2,200 U	2,200 U								
VB3 - 14	15.1 - 19.1	06/06/07	19,000	3,400	240 J	2,300 U	x	x	x	x	19,000	3,400	240	1,150
VB3 - 15	17.1 - 21.1	03/07/07	64,000	8,800	3,700 UJ	3,700 U								
VB3 - 15	17.1 - 21.1	05/08/07	2,600	1,700 U	1,700 U	1,700 U	x	x	x	x	2,600	850	850	850
VB3 - 16	14.4 - 18.4	03/09/07	2,000 E	64	16 U	16 U								
VB3 - 16 DL	14.4 - 18.4	03/09/07	2,000 D	1,800 U	1,800 U	1,800 U	x	x	x	x	2,000	900	900	900
VB3 - 17	14.9 - 18.9	03/09/07	5,200,000	96,000 J	360,000 U	360,000 U								

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Table 3 - Average CVOC Calculations - B-3 Area

Sample ID	Depth	Date	PCE	TCE	VC	trans	Selected Data PCE	TCE	VC	trans	PCE	TCE	VC	trans
		Midler SSCOs ->	5,600	2,800	800	1,200					5,600	2,800	800	1,200
VB3 - 17	14.9 - 18.9	05/07/07	17,000	2,200 U	2,200 U	2,200 U	x	x	x	x	17,000	1,100	1,100	1,100
VB3 - 18	14.9 - 18.9	03/15/07	120,000 E	11,000	2,000 U	2,000 U								
VB3 - 18 DL	14.9 - 18.9	03/15/07	160,000 D	13,000 D	10,000 U	10,000 U								
VB3 - 18	14.9 - 18.9	05/08/07	7,400	720 J	1,700 U	1,700 U	x	x	x	x	7,400	720	850	850
VB3 - 19	15.6 - 19.6	03/07/07	590 J	5,200	2,200 UJ	590								
VB3 - 19	15.6 - 19.6	05/08/07	30,000	4,200	2,600 U	2,600 U								
VB3 - 19	15.6 - 19.6	05/21/07	18,000	3,000	2,500 U	2,500 U								
VB3 - 19	15.6 - 19.6	06/06/07	5,700	1,600 J	2,200 U	1,900 J	x	x	x	x	5,700	1,600	1,100	1,900
VB3 - 20	16.9 - 20.9	03/09/07	93,000 EJ	29,000 EJ	83 U	170								
VB3 - 20 DL	16.9 - 20.9	03/09/07	460,000 D	56,000 D	23,000 U	23,000 U								
VB3 - 20	16.9 - 20.9	05/08/07	4,900	2,000 U	2,000 U	2,000 U	x	x	x	x	4,900	1,000	1,000	1,000
VB3 - 21	16.9 - 20.9	03/09/07	36,000 EJ	3,100 E	84 U	84 U								
VB3 - 21 DL	16.9 - 20.9	03/09/07	180,000 D	5,600 DJ	10,000 U	10,000 U								
VB3 - 21	16.9 - 20.9	05/08/07	40 J	71 U	71 U	71 U	x	x	x	x	40	36	36	36
VB3 - 21 DL	16.9 - 20.9	05/08/07	1,900 U	1,900 U	1,900 U	1,900 U								
VB3 - 22	16 - 20	03/09/07	140,000 EJ	23,000 EJ	76 U	100 J								
VB3 - 22 DL	16 - 20	03/09/07	1,100,000 D	50,000 DJ	99,000 U	99,000 U								
VB3 - 22	16 - 20	05/08/07	1,600 J	2,200 U	2,200 U	2,200 U	x	x	x	x	1,600	1,100	1,100	1,100
VB3 - 23	16.6 - 20.6	03/07/07	1,600,000	65,000	60,000 UJ	60,000 U								
VB3 - 23 DL	16.6 - 20.6	03/07/07	1,600,000 D	74,000 DJ	120,000 U	120,000 U								
VB3 - 23	16.6 - 20.6	05/08/07	42,000	1,500 J	2,700 U	2,700 U								
VB3 - 23	16.6 - 20.6	05/21/07	3,700	2,900	2,600 U	2,600 U	x	x	x	x	3,700	2,900	1,300	1,300
VB3 - 24	16.4 - 20.4	03/07/07	220,000	86,000	1,900 J	10,000 U								
VB3 - 24 DL	16.4 - 20.4	03/07/07	220,000 D	85,000 D	21,000 U	21,000 U								
VB3 - 24	16.9 - 20.9	05/08/07	8,000	770 J	2,200 U	2,200 U	x	x	x	x	8,000	770	1,100	1,100
VB3 - 25	15.8 - 19.8	03/15/07	5,800	2,200	1,800 U	1,800 U								
VB3 - 25	15.8 - 19.8	05/07/07	720,000	21,000 J	40,000 U	40,000 U								
VB3 - 25	15.8 - 19.8	06/06/07	120,000 EJ	3,300	2,200 U	2,200 U								
VB3 - 25 DL	15.8 - 19.8	06/06/07	260,000 D	4,600 DJ	22,000 U	22,000 U								
VB3 - 25	15.8 - 19.8	06/16/07	150,000	3,500 J	12,000 U	12,000 U								
VB3 - 25	15.8 - 19.8	07/02/07	11,000 EJ	5,100 E	84 U	59 J								
VB3 - 25	15.8 - 19.8	07/02/07	170,000	7,000 J	10,000 U	10,000 U								
VB3 - 25	15.8 - 19.8	07/16/07	14,000 EJ	1,600	82 U	15 J								
VB3 - 25 DL	15.8 - 19.8	07/16/07	43,000	2,100 J	3,900 U	3,900 U								
VB3 - 25	15.8 - 19.8	08/03/07	21,000 E	3,000	150 U	2 JM								
VB3 - 25 DL	15.8 - 19.8	08/03/07	31,000	3,200	1,800 U	1,800 U								
VB3 - 25	15.8 - 19.8	08/10/07	20,000 E	3,100	170 U	23 J								
VB3 - 25 DL	15.8 - 19.8	08/10/07	24,000	2,000	2,000 U	2,000 U								
VB3 - 25	15.8 - 19.8	08/20/07	8,900 EJ	1,500	160 U	52 J								
VB3 - 25 DL	15.8 - 19.8	08/20/07	19,000	2,200	1,900 U	1,900 U								
VB3 - 25	15.8 - 19.8	08/28/07	6,100 EJ	590 U	170 U	170 U								
VB3 - 25 DL	15.8 - 19.8	08/28/07	8,200 B	740 J	2,000 U	2,000 U	x	x	x	x	8,200	740	1,000	1,000
VB3 - 26	15.4 - 19.4	03/07/07	2 J	250	18 UJ	80	x	x	x	x	2	250	18	80

Pioneer Midler Avenue LLC
Interim Remedial Measures Report
Table 3 - Average CVOC Calculations - B-3 Area

							Selected Data							
Sample ID	**Depth**	**Date**	**PCE**	**TCE**	**VC**	**trans**	**PCE**	**TCE**	**VC**	**trans**	**PCE**	**TCE**	**VC**	**trans**
		Midler SSCOs ->	5,600	2,800	800	1,200					5,600	2,800	800	1,200
VB3 - 26 DL	15.4 - 19.4	03/07/07	90 U	360 D	90 U	110 D								
							Average of selected samples ->				**5,365**	**1,156**	**766**	**810**

Pioneer Midler Avenue LLC
Interim Remedial Measures Report
Table 3 - Average CVOC Calculations - B-1 Area

Sample ID	Depth	Date	PCE	TCE	VC	trans	PCE	TCE	VC	trans	PCE	TCE	VC	trans
											Selected Data			
		Midler SSCOs ->	5,600	2,800	800	1,200					5,600	2,800	800	1,200
VB1 - 1	16.0 - 20.0	03/17/07	67 J	100	90 U	21 J	x	x	x	x	67	100	45	21
VB1 - 2	12.9 - 16.9	03/17/07	18 U	4 J	9 J	14 J	x	x	x	x	9	4	9	14
VB1 - 3	5.5 - 9.5	06/07/07	430,000 EJ	74,000 EJ	2,900 U	360 J								
VB1 - 3 DL	5.5 - 9.5	06/07/07	880,000 D	96,000 D	58,000 U	58,000 U								
VB1 - 3	5.5 - 9.5	08/03/04	43,000 E	850	200 U	11 J								
VB1 - 3 DL	5.5 - 9.5	08/03/04	57,000	700 J	4,900 U	4,900 U								
VB1 - 3	5.5 - 9.5	08/20/07	32,000 EJ	1,400	270 U	270 U								
VB1 - 3 DL	5.5 - 9.5	08/20/07	66,000	1,700 J	3,300 U	3,300 U								
VB1 - 3	5.5 - 9.5	09/04/07	13,000 EJ	6,300 EJ	22 J	22 J								
VB1 - 3 DL	5.5 - 9.5	09/04/07	16,000	7,200	2,800 U	2,800 U	x	x	x	x	16,000	7,200	1,400	1,400
VB1 - 4	16.8 - 20.8	03/16/07	100	270	3 J	27								
VB1 - 4 DL	16.8 - 20.8	03/16/07	170 D	450 D	120 U	23 DJ	x	x	x	x	170	450	60	23
VB1 - 5	16.0 - 20.0	03/17/07	7 J	35	23 U	27	x	x	x	x	7	35	12	27
VB1 - 6	3.9 - 7.9	03/16/07	10,000	1,300 J	310 J	1,800 U								
VB1 - 6	3.9 - 7.9	05/10/07	240	12 J	100 U	100 U	x	x	x	x	240	12	50	50
VB1 - 6 DL	3.9 - 7.9	05/10/07	610 J	2,500 U	2,500 U	2,500 U								
VB1 - 7	15.8 - 19.8	06/07/07	6,100	1,800 J	2,100 U	2,100 U	x	x	x	x	6,100	1,800	1,050	1,050
VB1 - 8	15.4 - 18.4	06/07/07	190,000 EJ	1,100 J	2,000 U	2,000 U								
VB1 - 8 DL	15.4 - 18.4	06/07/07	550,000 D	41,000 U	41,000 U	41,000 U								
VB1 - 8	15.4 - 18.4	07/02/07	12,000 E	78 J	86 U	86 U								
VB1 - 8 DL	15.4 - 18.4	07/02/07	42,000	110 J	2,100 U	2,100 U								
VB1 - 8	15.4 - 18.4	07/16/07	17,000 EJ	64 J	96 U	96 U								
VB1 - 8 DL	15.4 - 18.4	07/16/07	56,000	4,600 U	4,600 U	4,600 U								
VB1 - 8	15.4 - 18.4	08/10/07	33,000 EJ	430	180 U	180 U								
VB1 - 8 DL	15.4 - 18.4	08/10/07	46,000	290 J	4,200 U	4,200 U								
VB1 - 8	15.4 - 18.4	08/20/07	4,000 EJ	120 J	170 U	170 U								
VB1 - 8 DL	15.4 - 18.4	08/20/07	6,500	130 J	2,100 U	2,100 U	x	x	x	x	6,500	130	1,050	1,050
VB1 - 9	11.6 - 15.6	06/07/07	5,000 U	1,800 U	1,800 U	1,800 U	x	x	x	x	2,500	900	900	900
VB1 - 10	12.7 - 16.7	06/08/07	1,400,000 EJ	22,000 J	42,000 U	42,000 U								
VB1 - 10 DL	12.7 - 16.7	06/08/07	1,500,000 D	22,000 DJ	110,000 U	110,000 U								
VB1 - 10	12.7 - 16.7	08/03/07	2,200 E	32 J	170 U	170 U								
VB1 - 10 DL	12.7 - 16.7	08/03/07	3,300	2,100 U	2,100 U	2,100 U	x	x	x	x	3,300	1,050	1,050	1,050
VB1 - 11	16.4 - 20.4	06/08/07	910,000 EJ	8,800 J	210,000 U	210,000 U								
VB1 - 11 DL	16.4 - 20.4	06/08/07	1,000,000 D	85,000 U	85,000 U	85,000 U								
VB1 - 11	16.4 - 20.4	08/03/07	4,000 E	83 J	180 U	180 U								
VB1 - 11 DL	16.4 - 20.4	08/03/07	4,900	2,200 U	2,200 U	2,200 U	x	x	x	x	4,900	1,100	1,100	1,100
VB1 - 12	15.9 -19.9	06/08/07	48,000 EJ	1,000 J	2,200 U	440 J								
VB1 - 12 DL	15.9 -19.9	06/08/07	53,000 D	980 DJ	8,800 U	8,800 U								

Table 3 - Average CVOC Calculations - B-1 Area

Sample ID	Depth	Date	PCE	TCE	VC	trans	PCE	TCE	VC	trans	Selected Data PCE	Selected Data TCE	Selected Data VC	Selected Data trans
		Midler SSCOs ->	5,600	2,800	800	1,200					5,600	2,800	800	1,200
VB1 - 12	15.9 -19.9	08/10/07	1,800	130 J	160 U	100 J	x	x	x	x	1,800	130	80	100
VB1 - 12 DL	15.9 -19.9	08/10/07	2,700	120 J	1,900 U	86 JM								
VB1 - 13	16.1 - 20.1	03/15/07	4,800	2,800	700 J	2,100 U								
VB1 - 13	16.1 - 20.1	05/10/07	450 J	2,100 U	2,100 U	2,100 U	x	x	x	x	450	1,050	1,050	1,050
VB1 - 14	18.1 - 22.1	06/11/07	51,000 EJ	640 J	2,000 U	2,000 U								
VB1 - 14	18.1 - 22.1	06/11/07	230,000 D	2,200 DJ	20,000 U	20,000 U								
VB1 - 14	18.1 - 22.1	07/30/07	27,000 EJ	470	150 U	150 U								
VB1 - 14	18.1 - 22.1	07/30/07	49,000 EJ	500 J	1,800 U	1,800 U								
VB1 - 14 DL	18.1 - 22.1	07/30/07	51,000	510 J	3,600 U	3,600 U								
VB1 - 14	18.1 - 22.1	08/10/07	30,000 EJ	330	160 U	160 UM								
VB1 - 14 DL	18.1 - 22.1	08/10/07	49,000	260 JB	3,900 U	3,900 U								
VB1 - 14	18.1 - 22.1	08/28/07	7,800 EJ	230	160 U	160 U								
VB1 - 14 DL	18.1 - 22.1	08/28/07	46,000 BEJ	700 J	1,900 U	1,900 U								
VB1 - 14 DL	18.1 - 22.1	08/28/07	49,000	790	3,700 U	3,700 U								
VB1 - 14	18.1 - 22.1	09/13/07	10,000 E	260	160 U	160 U								
VB1 - 14 DL	18.1 - 22.1	09/13/07	100,000 E	1,200 J	1,900 U	1,900 U								
VB1 - 14 DL	18.1 - 22.1	09/13/07	100,000	1,200 JB	9,400 J	9,400 U								
VB1 - 14	18.1 - 22.1	09/26/07	150	77 U	77 U	77 U	x	x	x	x	150	39	39	39
VB1 - 15	10.2 - 14.2	06/11/07	2,600	2,300 U	2,300 U	2,300 U	x	x	x	x	2,600	1,150	1,150	1,150
VB1 - 16	8.8 - 12.8	06/11/07	46,000	1,500 J	3,000 U	3,000 U								
VB1 - 16	8.8 - 12.8	07/16/07	750	36 J	110 U	5.0 J	x	x	x	x	750	36	55	5
VB1 - 16 DL	8.8 - 12.8	07/16/07	970 J	2,700 U	2,700 U	2,700 U								
VB1 - 17	15.5 - 19.5	06/08/07	390,000 EJ	27,000	11,000 U	11,000 U								
VB1 - 17 DL	15.5 - 19.5	06/08/07	430,000 D	26,000 DJ	44,000 U	44,000 U								
VB1 - 17	15.5 - 19.5	08/28/07	13,000 EJ	1,400	170 U	170 U								
VB1 - 17 DL	15.5 - 19.5	08/28/07	96,000 BEJ	3,800	2,000 U	2,000 U								
VB1 - 17 DL	15.5 - 19.5	08/28/07	98,000	4,100 J	8,200 U	8,200 U								
VB1 - 17	15.5 - 19.5	09/04/07	9,900 EJ	770	170 U	7 J								
VB1 - 17 DL	15.5 - 19.5	09/04/07	17,000	930 J	2,100 U	2,100 U	x	x	x	x	17,000	930	1,050	1,050
VB1 - 18	15.9 - 19.9	05/10/07	640 J	2,800	2,000 U	310 J	x	x	x	x	640	2,800	1,000	310
VB1 - 19	8.8 - 12.8	03/19/07	14,000	2,900	490 J	2,700 U								
VB1 - 19	8.8 - 12.8	05/10/07	580	210	12 J	16 J	x	x	x	x	580	210	12	16
VB1 - 19 DL	8.8 - 12.8	05/10/07	2,200 DJ	500 DJ	2,600 U	2,600 U								
VB1 - 20	13.0 - 17.0	03/19/07	6,400	17,000	2,400 J	500 J								
VB1 - 20 DL	13.0 - 17.0	03/19/07	6,300 D	17,000 D	2,200 DJ	5,200 U								
VB1 - 20	13 - 17	05/10/07	60,000 EJ	23,000	2,500 U	2,500 U								
VB1 - 20 DL	13 - 17	05/10/07	62,000 D	25,000 D	5,100 U	5,100 U								
VB1 - 20	13 - 17	06/11/07	1,400 J	2,200 U	2,200 U	2,200 U	x	x	x	x	1,400	1,100	1,100	1,100

Pioneer Midler Avenue LLC
Interim Remedial Measures Report
Table 3 - Average CVOC Calculations - B-1 Area

Sample ID	Depth	Date	PCE	TCE	VC	trans					Selected Data			
							PCE	TCE	VC	trans	PCE	TCE	VC	trans
		Midler SSCOs ->	5,600	2,800	800	1,200					5,600	2,800	800	1,200
						Average of selected samples ->					**3,258**	**1,011**	**613**	**575**

Pioneer Midler Avenue LLC
Interim Remedial Measures Report
Table 3 - Average CVOC Calculations - MW-3D Area

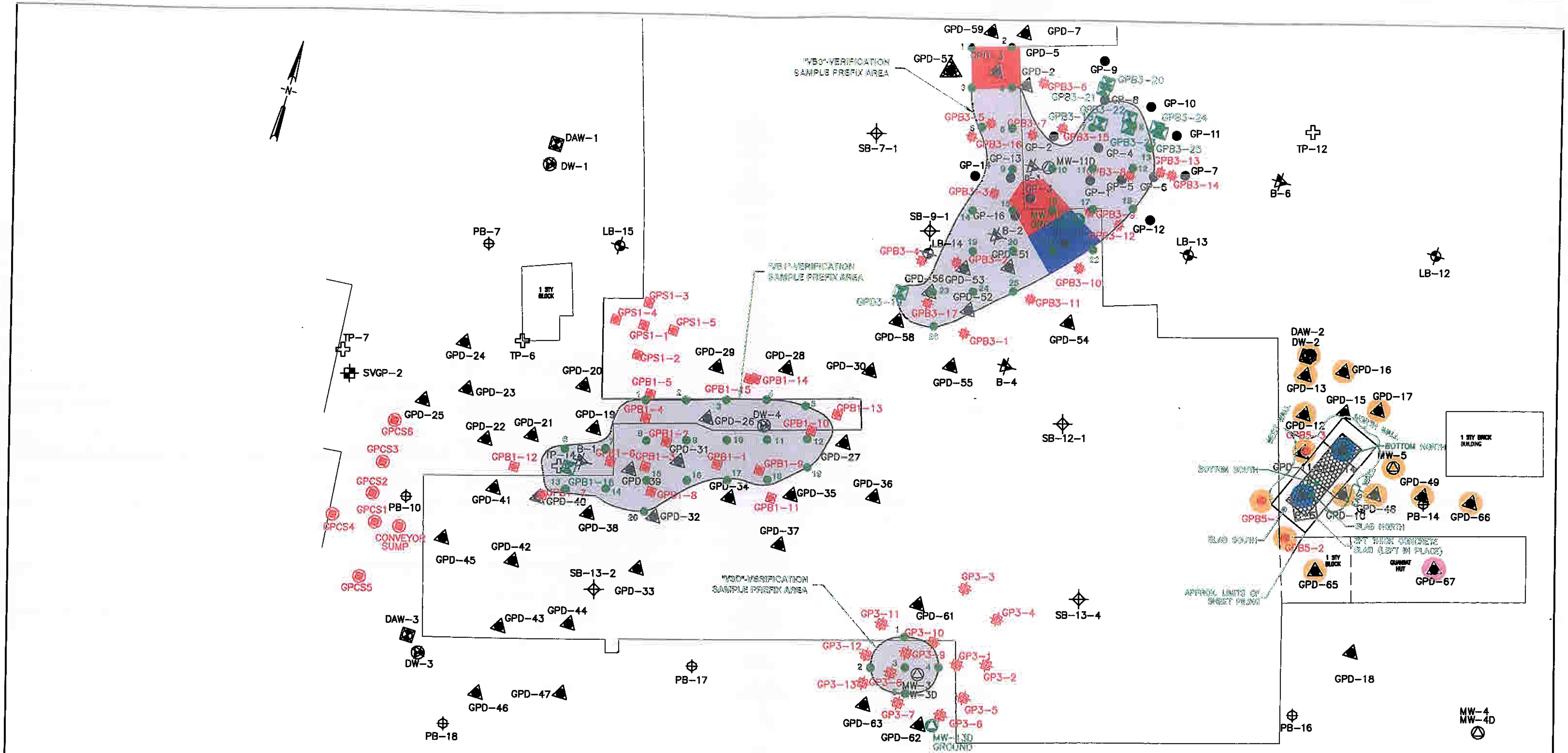
Sample ID	Depth	Date	PCE	TCE	VC	trans	Selected Data PCE	TCE	VC	trans	PCE	TCE	VC	trans
		Midler SSCOs ->	5,600	2,800	800	1,200					5,600	2,800	800	1,200
VB3D - 1	15.1 - 19.1	03/05/07	570,000	41,000 U	41,000 U	41,000 U								
VB3D - 1	15.1 - 19.1	05/08/07	230,000 EJ	1,400 J	2,200 U	2,200 U								
VB3D - 1 DL	15.1 - 19.1	05/08/07	330,000 D	22,000 U	22,000 U	22,000 U								
VB3D - 1	15.1 - 19.1	06/06/07	20,000	320 J	1,900 U	1,900 J								
VB3D - 1	15.1 - 19.1	06/16/07	320,000	3,300 J	22,000 U	22,000 U								
VB3D - 1	15.1 - 19.1	07/02/07	3,000 EJ	69 J	87 U	87 U								
VB3D - 1	15.1 - 19.1	07/02/07	2,200	55 J	170 U	170 U	x	x	x	x	2,200	55	85	85
VB3D - 2	10.5 - 14.5	03/05/07	17 U	6 J	640	17								
VB3D - 2 DL	10.5 - 14.5	03/05/07	81 U	14 DJ	640 D	28 DJ	x	x	x	x	41	14	640	28
VB3D - 3	14.3 - 18.3	03/05/07	440,000 E	2,900	2,100 U	2,100 U								
VB3D - 3 DL	14.3 - 18.3	03/05/07	2,200,000 D	420,000 U	420,000 U	420,000 U								
VB3D - 3	14.3 - 18.3	05/08/07	560,000 EJ	3,600	2,000 U	2,000 U								
VB3D - 3 DL	14.3 - 18.3	05/08/07	1,700,000 D	82,000 U	82,000 U	82,000 U								
VB3D - 3	14.3 - 18.3	06/07/07	6,100	2,200 U	2,200 U	2,200 U	x	x	x	x	6,100	1,100	1,100	1,100
VB3D - 4	10.75 - 14.75	03/05/07	740,000	98,000 U	98,000 U	98,000 U								
VB3D - 4	10.75 - 14.75	05/08/07	14 J	80 U	9 J	36 J	x	x	x	x	14	40	9	36
VB3D - 4 DL	10.75 - 14.75	05/08/07	700 J	1,900 U	1,900 U	1,900 U								
VB3D - 5	14.4 - 18.4	03/05/07	5,300	2,100 U	2,100 U	2,100 U								
VB3D - 5	14.4 - 18.4	05/08/07	67,000	860 J	3,600 U	3,600 U								
VB3D - 5	14.4 - 18.4	06/07/07	5,900	2,200 U	2,200 U	2,200 U	x	x	x	x	5,900	1,100	1,100	1,100
						Average of selected samples ->					**2,851**	**462**	**587**	**470**

[shaded box] = designates sample data used in the average.

Pioneer-Midler Avenue LLC
Interim Remedial Measures Report
Table 4 - IRM CVOC Reductions

PRE-IRM		POST-IRM		% Reduction (Pre-IRM/Post IRM)
Number of Samples	Average Total CVOCs (ug/kg)	Number of Samples	Average Total CVOCs (ug/kg)	
B-3 TREATMENT AREA				
22	18,927,326	27	9,430	99.95
B-1 TREATMENT AREA				
24	4,481,576	20	8,002	99.82
3-D TREATMENT AREA				
4	1,306,250	5	4,951	99.62
B-5 TREATMENT AREA				
2	57,745	7	3,513	93.92
COMBINED TOTALS FOR FOUR TREATMENT AREAS				
52	10,178,326	59	7,864	99.92
ESTIMATED TOTAL CVOC MASS (POUNDS) FOR FOUR TREATMENT AREAS				
86,274		69		99.92

FIGURES



LEGEND:

MW-10 MW-10D		PERMANENT MONITORING WELL
TP-14		TEST PITS
B-5		B SERIES COMPLETED NOV. 2004
GPD-44		GPD SERIES COMPLETED SEPT. 2005
GP-12		GP SERIES COMPLETED MARCH 2005
SB-13-4		INTERIOR SOIL BORING COMPLETED AS TEMPERARY MONITORING WELLS MARCH 2005
DW-1		DW SERIES COMPLETED JULY 2005
DAW-1		DAW SERIES COMPLETED AUG. 2005
PB-18		PB SERIES COMPLETED NOV. 2004
LB-1		LB SERIES COMPLETED NOV. 2004
SVGP-1		SVOC SAMPLES COMPLETED SEPT. 2005

APPROXIMATE LIMIT OF PROPOSED THERMAL TREATMENT AREA-18 FEET TREATMENT DEPTH

APPROXIMATE LIMIT OF PROPOSED THERMAL TREATMENT AREA-20 FEET TREATMENT DEPTH

APPROXIMATE LIMIT OF PROPOSED THERMAL TREATMENT AREA-25 FEET TREATMENT DEPTH

B-5 EXCAVATION AREA

IRM DESIGN B-3 SOURCE AREA COMPLETED MARCH 2006

IRM DESIGN B-1 SOURCE AREA COMPLETED MARCH 2006

CONVEYOR SUMP INVESTIGATION COMPLETED MARCH 2006

MW3/3D INVESTIGATION COMPLETED MARCH 2006

IRM DESIGN B-5 SOURCE AREA COMPLETED MARCH 2006

MW-10 MW-10D — MW SERIES COMPLETED APRIL 2006

DAW-1 — DAW SERIES COMPLETED APRIL 2006

GPB3-18 — GPB SERIES COMPLETED APRIL 2006

GPD-44 — GPD SERIES COMPLETED APRIL 2006

SV — SOIL VAPOR SAMPLING LOCATIONS COMPLETED APRIL 2006

VERIFICATION SAMPLE LOCATION

NOTE: SEE TABLE 1 FOR VERIFICATION SAMPLE DEPTHS

CAST WALL

30' 15' 0 30'

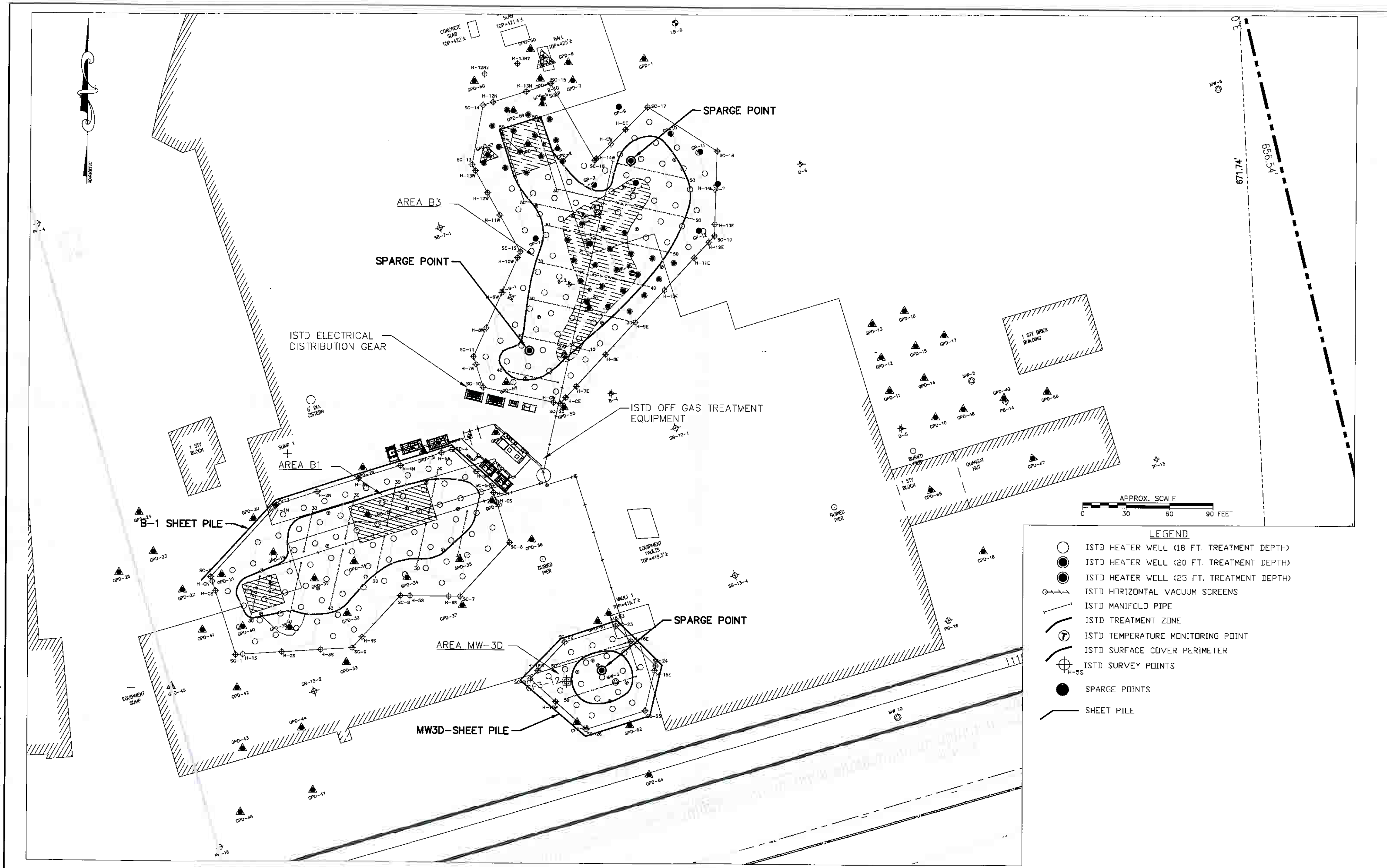
C&S ENGINEERS, INC.
499 Col. Eileen Collins Blvd. Syracuse, New York 13212
Phone 315-455-2000
Fax 315-455-9667
www.cscos.com

DATE: APRIL 2006
SCALE: AS SHOWN
FILE NO. C81.002.001

NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK EDUCATION LAW

Pioneer Midler Avenue LLC
Interim Remedial Measure Report
Verification Sample Locations & Treatment Depths

Figure 1



C&S ENGINEERS, INC.
499 Col. Eileen Collins Blvd. Syracuse, New York 13212 Phone 315-455-2000 Fax 315-455-9667 www.cscos.com

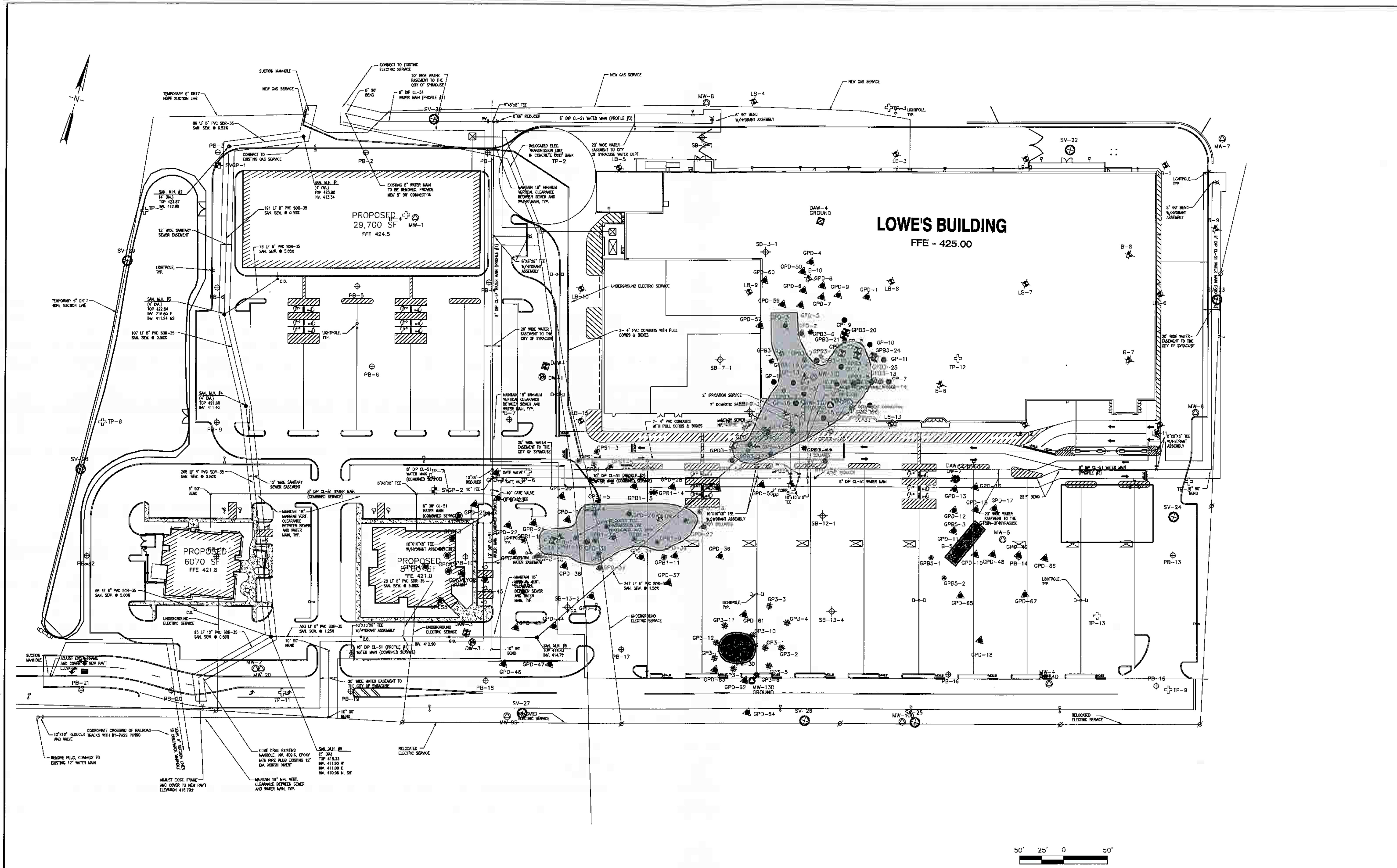
DATE:	APRIL 2006
SCALE:	AS SHOWN
FILE NO.	C81.002.001

NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK EDUCATION LAW

Pioneer Midler Avenue LLC
Interim Remedial Measure Report
Heater Well Layout & ISTD Enhancements

Figure 2

Oct 15, 2007 - 2:30pm
F:\Project\C81 - Pioneer Development\Cadd IRM Reports\figure 2.dwg



C&S ENGINEERS, INC.
499 Col. Eileen Collins Blvd.
Syracuse, New York 13212
Phone 315-455-2000
Fax 315-455-9667
www.cscos.com

DATE:
SCALE: AS SHOWN
FILE NO. C81.002.001

NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK EDUCATION LAW

Pioneer Midler Avenue LLC
Interim Remedial Measure Report
IRM Areas And Site Redevelopment Features

Figure 3

Oct 15, 2007 - 1:41pm
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APPENDIX A – PRELIMINARY REPORTS

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A-3 December 9, 2005 Total Organic Carbon Sampling Results

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IRM ISTD Contractor's Operations Report

Remedial Activities Report
Implementing In-Situ Thermal Desorption (ISTD) Remediation

Midler Avenue Brownfield Cleanup Program
NYSDEC Site # C734103
Syracuse, Onondaga County, New York

Submitted to:

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TerraTherm is an exclusive licensee/owner of (a) U.S. Patent Nos. 4,984,594; 5,076,727; 5,114,497; 5,190,405; 5,221,827; 5,229,583; 5,244,310; 5,271,693; 5,318,116; 5,553,189; 5,656,239; 5,660,500; 5,997,214; 6,102,622; 6,419,423; 6,485,232; 6,543,539; 6,632,047; 6,824,328; 6,854,929; 6,881,009; 6,951,436; 6,962,466; and 7,004,678, (b) U.S. Patent Publication 2004-0228690, and (c) and certain non-U.S. counterpart applications/patents of the above-referenced patents and application.

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1. Introduction

This Report presents the remedial activities completed at three separate source zones at the Midler Avenue Redevelopment Brownfield Cleanup Program (BCP) Project in Syracuse, NY. The primary objective of this report is to describe the remedial activities completed at the site. The secondary objective of this report is to describe the changes that were made to the remedial design since TerraTherm's submittal of the Design Work Plan for Implementing In-Situ Thermal Desorption (ISTD) Remediation[i] in August 2006 and the reasons for those changes.

1.1. ISTD Technology Description

ISTD is the simultaneous application of heat by thermal conduction and vacuum to the subsurface, for remediation without excavation. ISTD has been utilized to treat soil, sediments and groundwater contaminated with a wide range of organic chemicals, including volatile organic compounds (VOCs) such as benzene, toluene, ethylbenzene and xylenes (BTEX); chlorinated VOCs (CVOCs) including trichloroethene (TCE), trichloroethane (TCA), tetrachloroethene (PCE), and chlorobenzenes; and semivolatile organic compounds (SVOCs), including polychlorinated biphenyls (PCBs), creosote, coal tar, naphthalene, polycyclic aromatic hydrocarbons (PAHs), and polychlorinated dibenzodioxins and furans (PCDD/Fs).

The following describes the process by which ISTD heats and treats the soil.

Thermal energy provided by thermal wells heats the soil, water, and Contaminants of Concern (COCs). Thermal conductivity of soil materials varies over a very narrow range; therefore, thermal conduction heating is usually very precise and predictable regardless of the permeability of the soil or its degree of heterogeneity, resulting in excellent sweep efficiency.

The heat front moves away from the heaters through the soil by thermal conduction and convection, and the superposition of heat from the plurality of heaters results in a temperature rise throughout the target treatment zone (TTZ).

As soil temperatures increase, COCs and water contained in the soil matrix are vaporized. While locations immediately adjacent to heaters may achieve temperatures well above the boiling point of water (100°C), locations in between heaters need only achieve 100°C to accomplish steam distillation for effective removal of VOCs (e.g. BTEX and CVOCs). Boiling off more than a fraction of the soil water is not necessary in such cases. Very high (>99%) resulting removal rates having been measured for ISTD of VOCs.[ii,iii] ISTD conducted with much higher target temperatures (e.g., 617°F, 325°C) has achieved similar results for PCBs, PAHs, and petroleum hydrocarbons.[iv]

The vacuum applied to the horizontal vapor extraction screens from the process system draws the vapors through the hot soil. Oxidation, hydrolysis, and pyrolysis reactions occur in the hot soil, typically resulting in significant in-situ destruction of the COCs. Off-gases are collected and treated using an Air Quality Control (AQC) system.

1.2. Project Organization and Roles

Pioneer Midler Avenue, LLC (Pioneer) owns the Midler Avenue Site, and assumed the lead role in managing the assessment and remediation efforts at the site.

C&S Engineers, Inc. (C&S) served as the environmental consultant for Pioneer at the site, providing oversight services on behalf of Pioneer. In addition, C&S was responsible for providing environmental permitting and miscellaneous other services for the ISTD remediation project. C&S also assisted with implementation and monitoring of the ISTD remediation system, as well as performance monitoring and performance evaluation sampling.

TerraTherm, Inc. (TerraTherm) worked under contract to Pioneer, providing ISTD design and implementation services. TerraTherm is a turnkey remediation technology company, capable of delivering a complete project from start to finish. TerraTherm provided design and construction services, start-up assistance and training, and operations both on-site and from our main office in Massachusetts, as well as assisting with post-treatment sampling and decommissioning of the ISTD system.

1.3. Project Objectives

The primary objective of this ISTD remediation project was to reduce the mass and concentration of COCs within the TTZ so the soils/sediments reach numeric standards accepted by New York State Department of Environmental Conservation (NYSDEC), and listed in the Interim Remedial Measure Work Plan (IRM)[v] as prepared by C&S.

1.4. Chemicals of Concern and Remediation Standards

The Contaminants of Concern (COCs) and remediation criteria are listed in Table 1.1. When the average concentration of each individual CVOC within a thermal treatment area is less than the SSCO for that CVOC the IRM will be considered complete for that treatment area.

Table 1.1. Site Specific Cleanup Objectives (SSCO)

Contaminant	SSCO (µg/kg)
PCE	5,600
TCE	2,800
VC	800
t-1,2,-DCE	1,200
c-1,2,-DCE	NA
Total	**10,400**

The sampling procedures and averaging used to determine if the goals are met is presented in Section 4.4.

1.5. ISTD Treatment Area and Volume

The ISTD treatment area comprised three separate irregularly shaped areas. Soil from the excavation of a fourth area, the B-5 area, was included in the treatment volume of the B-1 area. Table 2.2 lists the areas with approximate dimensions.

Table 2.2. Treatment Areas, Depths, and Volumes

Location	Surface Area (ft^2)	Average Depth (ft)	Volume (cy)	Comment
B-3	12,675	20	9,389	In-situ treatment
B-1	8,400	18	5,600	In-situ treatment
B-5	840	13	404	Excavated and placed in B-1 area
MW-3D	1,220	18	813	In-situ treatment
Total	**22,295**		**16,207**	

The source areas addressed in the IRM are areas where soil sampling data showed the total VOC (TVOC) concentration exceeded 31,200 µg/kg. The following provides a description of those areas.

- B-3 Area: Located generally along the eastern edge of former Building 7, this area includes two apparently separate sources of CVOCs. In both of these source areas, maximum CVOC concentrations in soil were two to three orders of magnitude greater than the concentrations detected at other sampling locations in the surrounding area. As indicated above, the source area treatments mandated by the IRM are those areas where remedial investigation (RI) sample results for CVOCs (total) in soils exceeded 31,200 µg/kg.

- B-1 Area: Located along the northern edge of former Building 13, this area includes two apparently separate source areas defined by the PCE/TCE analytical data for boring B-1 and test pit TP-14 (westernmost source area), and borings DW-4 and GPD-26 (easternmost source area). The CVOC impacts in these areas were relatively shallow (<15 ft. below the ground surface). As stated previously, treatment under the IRM was for those areas where RI sample results for CVOCs in soils exceeded 31,200 µg/kg.

- B-5 Area: Located east of former Building 12, the IRM work in this area addresses one area (characterized by soil samples B-5 and GPD-14), where the data indicated that CVOC concentrations exceeded 31,200 µg/kg to a depth of approximately ten feet. This area was excavated and the excavated soils were moved to Area B-1.

- MW-3D area: The soil sample from this boring did not exhibit significant CVOC impacts during initial investigations, but prior to treatment, the groundwater sample concentration of PCE from this location exceeded Class GA groundwater standards. During October 2005, a dense non-aqueous phase liquid (DNAPL) exhibiting the olfactory characteristics of PCE was observed in MW-3D.

Subsequent laboratory analysis confirmed that the DNAPL was PCE. Additional borings in this area confirmed the presence of elevated levels of CVOCs in a small area around MW-3D.

2. ISTD Design Summary

2.1. Borings and Wells

The original ISTD system layout consisted of a total of 211 heater-only wells, approximately 30 multi-level temperature monitoring points and 25 horizontal vapor collectors. The three treatment areas are as follows in Table 2.1:

Table 2.1. Treatment Areas, number of heaters, etc.

Location	Heaters	Vapor Collectors	Temperature Monitoring Locations
B-3	108	13	15
B-1	82	10	10
MW-3D	21	2	5
Total	**211**	**25**	**30**

Field changes to optimize the ISTD system increased the total number of heaters to 288. The revised breakdown by location is noted in the table below in Table 2.2:

Table 2.2. Revised Treatment Areas, number of heaters, etc. (changes to original are italicized)

Location	Heaters	Vapor Collectors	Temperature Monitoring Locations
B-3	*110*	13	15
B-1	*157*	10	10
MW-3D	21	2	5
Total	***288***	**25**	**30**

The ISTD heaters extended from slightly below the vapor cover to a depth of approximately 5 ft below the top of the clay aquitard, to deliver heat to a depth approximately 4 ft below the base of the TTZ. The additional heated length below the base of the TTZ helped to offset heat losses through the bottom of the TTZ.

ISTD heater wells were constructed of 3" Schedule 40 carbon steel with an inner stainless steel liner to protect the heater elements. The carbon steel casing and inner stainless steel liner were both capped at the bottom and all subsurface joints were welded to prevent vapor or steam intrusion.

To simulate the shape and depth of the three source areas, three different lengths of heaters were used:

- Heaters in Area B-1 and MW-3D, and the largest portion of Area B-3 extended to approximately 23 ft below grade, or 5 ft below the top of the clay aquitard.
- Heaters in a small area around GPD-3 (in area B-3) extended to 26 ft, treating to a depth of 20 ft below grade.
- Heaters in a small area around GP-3 (in area B-3) extended to 30 ft, treating to a depth of 25 ft below grade.

In addition to the heater wells, a network of temperature and pressure monitoring points were installed in and around the ISTD wellfield. The temperature monitoring points consisted of 1-½ inch carbon steel pipe segments, installed to the maximum treatment depth in the different areas (as listed in Table 2.2). Each point was outfitted with thermocouples starting at a depth of 2 ft below grade and every 4 ft vertically, with the deepest thermocouple located at or near the bottom of the TTZ, to allow evaluation of vertical as well as horizontal temperature distributions:

- In areas with a TTZ depth of 18 ft, thermocouples were located at depths of 2, 6, 10, 14, and 18 ft (5 thermocouples).
- In areas with a TTZ depth of 20 ft, thermocouples were located at depths of 2, 6, 10, 14, 18, and 22 ft (6 thermocouples).
- In areas with a TTZ depth of 25 ft, thermocouples were located at depths of 2, 6, 10, 14, 18, 22, and 26 ft (7 thermocouples).

2.2. ISTD Heating Equipment & Controls

The ISTD heater elements were placed inside the stainless steel sleeves and set inside the heater wells. A group of approximately 5 to 10 heater wells were wired in series, to deliver approximately 350 watts per foot of heated length to the subsurface.

The well heaters are configured to automatically maintain the set-point temperature. Silicon controlled rectifier (SCR) power controllers and remote temperature controllers were used to regulate the power application to the ISTD well heaters, based on temperature input from thermocouples located in the annular space between the carbon steel outer casing and inner stainless steel sleeve, for each individual heater circuit.

After the initial start-up and heater temperature ramping period, the heater set point temperature typically ranged from 1000°F to 1400°F (540°C to 760°C), depending on the site conditions and the temperature response around the particular heater circuit. The soils within the TTZ were heated through a combination of direct thermal conduction, through grain-to-grain heat transfer, and convection through the circulation of hot vapors and steam within the TTZ.

2.3. Vapor Collection and Control

Control of steam and volatilized COC vapors is critical for all ISTD projects. There have been several previous ISTD projects performed in urban areas and all have been successful, with no vapor, odor or other impacts.

Previous ISTD implementations have used a variety of combinations of vertical heater-only wells, vertical heater-vacuum wells, and horizontal vapor extraction screens. The approach for the Midler Avenue site was to use vertical heater-only wells and horizontal vapor collectors.

As described previously, the existing surface depression within area B-1 was filled in with materials excavated in the B-5 area and graded to prevent runoff and to shed water away from the TTZ. The fill material was placed such that there was a layer of permeable fill (pea gravel), overlain by a denser compacted layer (crushed concrete), which in turn was overlain by the ISTD surface cover. The network of horizontal vapor collection screens was bedded within the layer of pea gravel fill, so that the pea gravel layer served as a vapor collection plenum over the top of the TTZ.

The horizontal vapor collection pipes were arranged with a main aboveground header, and a network of horizontal screened subsurface "fingers" extending between the ISTD heater wells in each of the three TTZ areas. The horizontal vapor collection screens were placed between every second row of heater wells, resulting in a spacing of approximately 25 ft between the horizontal extraction screens. Vertical risers extended from the interior end of each subsurface screen to connect to the main aboveground vapor header. The vapor collection manifold and air quality control system were maintained under a negative pressure by the vacuum blower. The vacuum on the manifold was adjusted to maintain adequate vapor capture and collection, while minimizing, to the extent possible, the amount of excess air, and thus heat that was withdrawn from the subsurface.

2.4. Vapor Treatment Equipment

The effluent treatment equipment was located centrally in the ISTD wellfield between the three TTZ areas. Conveyance piping connected each area to the off-gas treatment system.

Extracted vapors were conveyed from the main ISTD wellfield manifold to the aboveground AQC system in un-insulated fiberglass piping. The extracted vapors then entered the thermal oxidizer where the organic constituents were destroyed with a minimum of 99% destruction efficiency, as per NYSDEC regulations. Exiting the thermal oxidizer, the vapors entered the wet scrubber system. The wet scrubber system consists of a quench tank to rapidly cool the hot vapors and a packed tower scrubber that utilizes a recirculating caustic solution to neutralize the acid-laden vapors. Vacuum blowers, located downstream of the scrubber served as the prime movers for the vapor stream, such that the entire AQC system was under vacuum. Following treatment by thermal oxidation and wet scrubbing, the treated vapors were exhausted to the atmosphere.

Two vapor-phase carbon beds were provided as an emergency back-up in the event that the thermal oxidizer needed to be shut down for maintenance. Bypass piping was installed around the thermal oxidizer to allow the use of the back-up carbon beds if required. Isolation valves were installed upstream of the thermal oxidizer to allow for rapid installation if needed.

The scrubber tower evaporated a portion of the quench water to cool the incoming stream. In addition, a slipstream from the scrubber sump was wasted to the sewer to limit salt buildup in the sump.

2.5. Target Treatment Temperature, Operational Objectives and Design Changes

To achieve the remedial objectives by obtaining the target temperature of 100°C, the ISTD system was designed to operate for approximately 184 days; however, certain areas within the TTZ took longer to heat than this. In an effort to expedite the remediation process, several changes were made to the system to accommodate the variations.

At day 125 of the operational period, soil samples were collected to determine how well the soils were responding in all areas inclusive of those areas that had achieved target temperatures as well as those areas that had not yet achieved target temperature. This provided TerraTherm with important tracking information and with the flexibility to be able to optimize the entire treatment process by reallocating heaters into those areas that had not yet achieved the Site Specific Cleanup Objectives (SSCOs). Heaters located in the areas that had achieved SSCOs were repositioned into certain areas that were running at a slightly slower heat up rate. A detailed reallocation plan was submitted to the NYSDEC on March 23, 2007. Average temperatures in the B-3 and MW-3D areas were above 185 degrees Fahrenheit at that time. First round sample results (samples taken between day 125 and day 128 of heating) varied with location numbers: 1, 3, 4, 9, 13, 16 and 26 in the B-3 area and sample location number 4 in the MW-3D area all meeting the performance criteria. Heaters from areas of B-3 that met the SSCOs were then reallocated as per the reallocation plan. Another sample event was scheduled for early May. Samples were taken during operational days 188 and 189. Refer to Section 6.0 for further discussion of subsequent sampling events.

3. Remedial Activities

3.1. Wellfield Installation

The ISTD heater wells were laid out on a hexagonal grid pattern, with approximately 15-foot spacing between wells. ISTD heater wells consist of a 3" Sch. 40 carbon steel casing ("heater can") installed to a depth of approximately 5 ft below the target treatment depth.

Initial drill casings were installed using hollow stem auger rigs or driven using a rotosonic drill rig. Once the drill casing was advanced to the desired depth, the ISTD heater can was lowered inside the drill casing and the drill casing was then removed, leaving behind the drive point. The annular space was backfilled with sand as the drill casing was withdrawn. The additional heater wells added between existing wells to reduce the spacing pattern and decrease the heat up time were installed using a pile driver.

Temperature monitoring points were installed using similar drilling techniques.

A closer spacing pattern was developed during the project as part of the optimization program identified in Section 2.1. Seventy-five additional wells were added in area B-1 and two wells were added in area B-3.

3.2. Surface Cover Installation

An insulating surface cover was installed to limit heat losses through the ground surface and prevent infiltration of precipitation into the TTZ. The fill material that was placed over a majority of the TTZ also served as an insulating layer and to help to minimize surficial heat losses.

3.3. Wellfield Mechanical Installation

The vapor conveyance piping from the ISTD wellfield to the thermal oxidizer was constructed of flanged sections of fiberglass pipe. Extraction manifold piping was supported on jack stands.

3.4. ISTD Heating Equipment Installation

ISTD heaters were installed inside 2-5/8" O.D. thin wall stainless steel tubing, which was placed inside the 3" carbon steel heater wells. The stainless steel liner protects the heater elements from flaking and scaling of the carbon steel heater can, which may occur as a result of high-temperature corrosion of the carbon steel. Once the liner was lowered into the well, the heater was installed in the liner and the wellhead electrical junction box was secured to the top of the liner.

3.5. Electrical Equipment Installation

There were three basic parts to the electrical installation: the service drop and transformer/distribution equipment feeds; the wellfield electrical installation; and the process equipment and instrument wiring. The electrical installation followed the design plan. An additional separately fed transformer was brought in to feed power to the supplemental heaters that were installed to increase the heating rate.

3.6. Commissioning

Once all of the heating and effluent treatment equipment was installed, TerraTherm staff tested all of the equipment and verified proper operation prior to startup.

3.7. Operation and Shutdown

ISTD operation required manual adjustment throughout the operational period. In general, the vapor treatment system operation was controlled and monitored by the PLC system. ISTD heater operation was monitored, but not controlled, by the PLC. Heater operation was controlled by the individual heater circuit SCRs and their individual temperature controllers.

The ISTD system was attended by at least one TerraTherm ISTD system operator on a daily basis, generally 8 to 10 hours per day.

During the operational period, vapor samples were collected from the treatment system to monitor and to track treatment system performance. Soil samples were also collected from within the TTZ at predetermined sample locations to determine the level of treatment achieved as a function of temperature and saturation. The determination of whether to shutdown the ISTD system was based on consideration of the trends in subsurface temperatures, soil vapor concentrations, and concentrations of COCs in the soil in the TTZ. It was determined that additional treatment was warranted in certain areas to achieve further mass removal, so the ISTD heating system was operated for more than the planned duration as previously mentioned in Section 2.2.

Once it was determined that the treatment objectives had been achieved in any given area, the NYSDEC was notified, the ISTD heaters were turned off and decommissioning commenced.

3.8. Soil Sampling

Soil sampling was conducted to assess the level of treatment achieved at particular times in the ISTD treatment period to document remedial soil conditions. Soil sampling followed the plan described in the IRM to determine the degree of treatment achieved at specific locations and depths and specific temperature regimes. Section 4.4 provides additional discussion on the sampling procedures.

3.9. Demobilization

Upon completion of the ISTD treatment by area and confirmatory sampling, TerraTherm mobilized staff to the site to commence the demobilization activities. Electrical power to certain heater circuits was de-energized and the wellfield electrical components were disassembled.

The surface cover has been removed and disposed of by Pioneer. Heater wells, extraction screens, and monitoring points were removed.

4. Performance Evaluation

4.1. Subsurface Temperatures

Wellfield temperatures were monitored using thermocouples (TCs) placed in temperature monitoring points to track the movement of the heat front through the whole depth of the treatment zone.

Table 4.1 summarizes the subsurface temperature monitoring program for the ISTD system. Details of the specific types of monitoring are presented in the following sections.

Table 4.1 Summary of ISTD Well Field Monitoring Program

Type of Monitoring	Description	Objective	Number of Locations	Depth Interval/ Monitoring Frequency
Temperature	TCs immediately adjacent to outside of thermal well casing	Control temp. of heaters on each electrical circuit.	1 per circuit phase – 31 total	~15 ft Continuous/Daily
Temperature	TCs in interwell regions	Rate of heating and attainment of target temp.	30	Every 4 ft from 2 ft down Daily

TC – thermocouple

4.1.1. Heater Controlling Thermocouples

Thermocouples (TCs) were placed in the annular space between the outer heater can and the inner stainless steel liner on at least one heater in each circuit, to allow monitoring and control of the temperature of the heaters on that circuit. One representative heater was selected from each electrical circuit for monitoring (i.e., one per phase of each of 31 circuits). The location of the controlling thermocouple was changed during the heating period, based on the actual temperature of the wells on the individual circuits and the response of the soil to the heating process.

The TC was installed at the approximate mid-depth of the heated interval (i.e., ~11-15 ft below grade), since the middle typically runs hotter than other intervals. Data from the TCs was used to control the amount of power delivered to each heater electrical circuit to maintain an optimal heater temperature (e.g., 1,000-1,400°F). The amount of power being delivered to each circuit was controlled automatically by connecting the controlling TCs to the temperature controller for that circuit's SCR. In addition to the continuous measurements, daily manual measurements were made from the additional TCs not connected to the SCRs, during operation of the ISTD system.

4.1.2. Interwell Thermocouples

Thermocouples were installed at 30 locations in between the thermal wells throughout the three ISTD well fields to monitor heat up of the soil. These TCs were used to determine when the target treatment temperature had been attained within and at the top and bottom of the TTZ and when ISTD treatment could be stopped. Typical temperature monitoring point locations included TCs at approximate distances of 8 feet from nearby heater wells, as well as closer locations to monitor the horizontal and vertical progress of heating. Daily measurements were made during operation of the ISTD system.

4.2. Process Data

The daily data sheets containing records of subsurface temperatures and pressures, energy delivery (amperage and kW-hr), as well as the PLC-logged data of flows, temperatures and pressures in the subsurface and aboveground treatment components were utilized to evaluate the progress of remediation.

Vapor and liquid COC concentration measurements were also utilized to evaluate the progress of remediation.

The COCs in the treated vapor phase were conveyed to the stack where they were measured using a photoionization detector (PID) and periodic quantitative air sampling. As expected, near the end of treatment, the mass removal of COCs diminished and the COC concentrations decreased.

4.3. Monitoring and Process Sampling

TerraTherm operations staff was on-site on a daily basis to monitor, to operate, and to maintain the ISTD system throughout the operational period.

Daily monitoring data was entered onto a Daily Data Sheet at the job site, and then e-faxed to the project manager for entry into an Excel database. A site-specific form was developed for this project and included in the O&M Manual. The Excel spreadsheet was set up with macros that could automatically extract the daily data and convert it to a graphical display so that data such as temperature, pressure, flow, vapor concentration, and other relevant parameters were tracked and monitored throughout the ISTD heating period.

On-site operations staff collected temperature data from thermocouples distributed throughout the wellfield and recorded them on the data sheet. Staff also recorded heater circuit set points and actual temperature data and the operating amperage of the heater circuits.

The operations staff also recorded flows, pressures and temperatures throughout the vapor collection, groundwater extraction, and effluent treatment systems on the Daily Data Sheet to track and to monitor the performance of the aboveground treatment systems. In addition, field staff monitored and logged influent vapor concentrations with a PID.

Changes in influent vapor concentrations were used as an indication of the progress of remediation. To supplement this on-site screening, periodic vapor and liquid samples were collected from the aboveground process system and submitted to a laboratory for quantitative analysis.

The ISTD operators also performed daily, weekly, and monthly inspections and maintenance on operating equipment. These regular maintenance checks included greasing fans and bearings, checking or changing oil, tightening belts, securing guards, and other typical mechanical maintenance functions.

The PLC logged selected system operating data including relevant temperatures, pressures and flows through the aboveground vapor treatment equipment, as well as the position of safety sensors and controls (e.g., motor operated valves, etc.). The PLC was accessible remotely through a dial up modem, allowing engineering and project management staff in the office to access the PLC and observe the same operating information available to the field staff. These data were readily available on-line for TerraTherm on-site operational field personnel and office support staff to review, enabling the progress and operational status of the treatment system to be monitored.

4.4. Soil Sampling and Evaluation of Treatment

Soil sampling was conducted by C&S to assess the level of treatment achieved at various times and locations during the remediation period and followed a pre-approved sampling program.

Sampling of the hot soils was performed according to the guidelines presented by Gaberell and coworkers[1] as described in the Work Plan. This methodology was validated during the Cape Canaveral Inter-Agency demonstration project, and has been used successfully by TerraTherm in several states throughout the US, including Massachusetts, to verify attainment of soil cleanup goals. It has been shown to yield representative samples without significant loss of volatile COCs due to the elevated temperatures.

The thermal treatment verification sampling consisted of soil grab samples from designated areas and depths within each of the treatment areas. Figure IRM-3 of the IRM Work Plan provides the verification sample grid, which is based on a 25-foot sampling grid. The verification sampling grid extends to the treatment area boundaries to address the NYSDEC's concern that boundary areas be sampled. At several locations, boundary samples are less than 25 feet from adjacent sample locations to provide verification samples near the boundary. In all situations, the outermost verification samples were located within the IRM thermal treatment area. Verification sample depths were determined to provide comparability with RI sample data. Exact sample locations needed to be adjusted in the field to avoid treatment system infrastructure while sampling. The following list provides the number of samples collected from each thermal treatment area.

- B-3: 26 sampling locations.
- B-1: 20 sampling locations.
- MW-3D: 5 sampling locations.

When TerraTherm determined that adequate treatment had been applied, verification samples were collected from that area(s) by C&S. Consistent with the Work Plan, when the average concentration of each individual CVOC within a treatment area was reduced to less than the SSCO for that CVOC, the IRM was considered complete for that treatment area.

Verification samples from all areas were submitted for laboratory analysis of VOCs consistent with the NYSDEC's Analytical Services Protocol. The verification sampling data was provided to a certified data validator for preparation of a Data Usability Summary Report to confirm that the IRM verification sample results meet the Brownfield Cleanup Program requirements for quality control/quality assurance.

5. Project Schedule

5.1. Schedule

The major phases of the ISTD implementation consisted of pre-mobilization/procurement; construction; shakedown and operation; and decommissioning/demobilization.

The majority of the materials and equipment necessary to implement ISTD for this site were readily available from TerraTherm or manufacturer's stock. A limited amount of fabrication was required to assemble the heater cans and sleeves, wellfield manifold piping and interconnecting piping between the vapor treatment equipment components.

Construction took approximately 12 weeks. Major components of the construction phase included:

- Grading and placement of the fill and horizontal extraction screens;
- Installation of ISTD wells and monitoring points;
- Surface cover installation;
- Installation of wellfield manifold piping;
- Placement and connection of the off-gas treatment equipment;
- Electrical installation, including the power drop;
- Installation and connection of instrumentation and the PLC; and
- Connection to water, gas and sewer utilities.

Upon completion of construction, shakedown commenced. TerraTherm staff tested and confirmed proper operation of all instruments and system components, including the thermal oxidizer and scrubber. The shake down checklists included with the O&M plan were reviewed and completed. During this period, TerraTherm staff also provided on-site training for field personnel. Shakedown took approximately 3 days.

Once the system was fully tested and all components were functioning properly, the operation period commenced. The heaters were ramped up to target temperature over a period of several days to a week or more, depending on the response in the subsurface. The ISTD operation was expected to last approximately 6 months to reach the target temperature throughout the entire TTZ. However, as addressed in the following section, some areas took longer than this.

Upon completion of operation in individual areas, TerraTherm staff mobilized to the site and commenced decommissioning, decontamination, and demobilization of the equipment.

6. Changes to Design

To achieve the remedial objectives by obtaining a target temperature of 100°C, the ISTD system was designed to operate for approximately 184 days. However, certain areas within the TTZ did not heat up as quickly as other areas. In an effort to expedite the remediation process, several changes were made to the system to accommodate the variations. As described in Section 2.2, in early March 2007, soil samples were collected to determine how well the soils were responding in all areas inclusive of those areas that had achieved target temperatures as well as those areas that had not yet achieved target temperature. This provided TerraTherm with important tracking information and with the flexibility to optimize the entire treatment process.

Following a review of the results from the analytical lab as well as the temperature monitoring thermocouples and visual observation of surface water impacting two of the treatment areas, a plan to install sheet piling around the MW-3D area and on the north side of the B-1 area was submitted to the NYSDEC, approved, and implemented. After the sheet pile installation was completed, a heater reallocation plan was submitted to the NYSDEC, in late March 2007. Heaters from areas of B-3 that had already met the SSCOs were then reallocated and additional heaters were installed in the B-1 area in accordance with the reallocation plan.

In May 2007, following another round of soil sampling, it was determined that enhancement of volatilization would help expedite the remediation process in locations that had achieved target temperatures, but were still exhibiting elevated soil concentrations. A plan was submitted, approved, and implemented inclusive of several enhanced volatilization systems for use in certain locations of the B-3 and MW-3D areas. In June 2007, following another round of soil sampling and after careful review of the soil temperatures, in order to optimize the performance and expedite the remediation, an additional plan for reallocating heaters and enhanced volatilization in the B-1 area was submitted to the NYSDEC, approved, and implemented.

In mid-July 2007, the MW-3D area achieved remedial goals and the area was decommissioned.

In late August of 2007, the B-3 treatment area achieved remedial goals and the area was decommissioned.

By early September 2007, the majority of the B-1 area had met the SSCO's and most of the heaters in the B-1 area were shut down. The oxidizer was taken off line for repairs and the vapor stream was diverted through the existing back up carbon vessels in mid-September. This left only 12 heaters (one circuit) operational, producing only about 100

SCFM, so the two 5,000 lb carbon vessels and the 2000 scfm blowers were replaced with a 150scfm blower and a 400 lb carbon vessel.

In late September 2007, the average concentration of each individual CVOC within the B-1 area was less than the SSCO for that CVOC, so the IRM was considered complete for that treatment area. Final decommissioning was commenced.

7. Field and Support Staffing

7.1. TerraTherm Staffing

TerraTherm provided a single Lead ISTD Operator that was at the site, one shift per day, approximately 50 to 60 hours per week, with occasional supplemental assistance as required for maintenance and support tasks.

The Lead ISTD Operator was responsible for monitoring and adjusting the ISTD system operations, conducting required health and safety and air monitoring, and performing system maintenance and troubleshooting. In addition, TerraTherm engineering staff visited the site on a scheduled and as-needed basis throughout the operation period.

ISTD operations ran continuously 24 hours per day, 7 days per week from the start of heating until the process system was shut down. Each weekday morning, the operator conducted a review of the previous day's instrument readings and data. The operator determined, after the daily review, whether there was any anomalous data that required investigation. Anomalous data was called to the attention of the Project Manager and/or Project Engineer and a plan of investigation/action was developed to verify the anomalous reading or correct the problem. The PLC also had the capability of alerting TerraTherm operations or engineering staff by cell phone and/or pager if an alarm condition occurred while the operator was off-site.

The Lead ISTD Operator was responsible for conducting day-to-day operation and maintenance and monitoring activities at the site and coordinating any required support personnel on an as needed basis. The Lead Operator reported to the Project Manager. TerraTherm engineering staff provided support from the home office and on-site when required, throughout ISTD operation.

[i] TerraTherm, Inc. (August 2006), *Design Work Plan for Implementing In-Situ Thermal Desorption (ISTD) Remediation*. TerraTherm, Inc., Fitchburg, MA.

[ii] Conley, D.M., K.S. Hansen, G.L. Stegemeier, H.J. Vinegar, F.R. Fossati, F.G. Carl, and H.F. Clough. 2000. "In Situ Thermal Desorption of Refined Petroleum Hydrocarbons from Saturated Soil." Pp. 197-206. In: G.D. Wickramanayake and A.R. Gavaskar (eds.) *Physical and Thermal Technologies: Remediation of Chlorinated and Recalcitrant Compounds*. Battelle Press, Columbus, OH.

[iii] Vinegar, H.J., G.L. Stegemeier, F.G. Carl, J.D. Stevenson, and R.J. Dudley. 1999. "In Situ Thermal Desorption of Soils Impacted with Chlorinated Solvents." *Proceedings of the Annual Meetings of the Air and Waste Management Association*, Paper No. 99-450.

[iv] Stegemeier, G.L., and Vinegar, H.J. 2001. "Thermal Conduction Heating for In-Situ Thermal Desorption of Soils." Ch. 4.6, pp. 1-37. In: Chang H. Oh (ed.), *Hazardous and Radioactive Waste Treatment Technologies Handbook*, CRC Press, Boca Raton, FL.

[v] C&S Engineers, Inc. (July 2006), *Interim Remedial Measure Work Plan*. C&S Engineers, Inc., Syracuse, NY.

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September 2006 B-5 Area Data Report

ENGINEERS
DESIGN BUILD
TECHNICAL RESOURCES
OPERATIONS

C&S Engineers, Inc.
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September 22, 2006

Ms. Karen A. Cahill
Project Manager
Division of Environmental Remediation – Region 7
New York State Department of Environmental Conservation
615 Erie Boulevard West
Syracuse, New York 13204-2400

Re: B-5 IRM Excavation Area
Data Report

File: C81.002.001

Dear Ms. Cahill:

C&S Engineers, Inc., on behalf of our client Pioneer-Midler Avenue LLC, submits this data report for the B-5 Area excavations that were conducted as part of the ongoing Interim Remedial Measures (IRMs) at the Midler Avenue Brownfields Clean-Up Program (BCP) site. The B-5 Area (identified during the Site Investigation (SI) and delineated in the IRM Work Plan) work was conducted to move soil exhibiting chlorinated volatile organic compound (CVOC) impacts that exceeded the IRM target concentration of 31,000 parts-per-billion (ppb) into the B-3 thermal treatment area for treatment. The B-5 excavation area was identified based on the results of two SI samples (B-5 and GPD-14); approximately twelve surrounding samples exhibited total CVOC concentrations less than the 31,000 ppb target concentration.

Copies of the preliminary laboratory data sheets for the B-5 soil verification samples were previously forwarded to NYSDEC on July 21, 2006. This report provides a data table summarizing the VOCs data for the soil verification samples and a figure showing the general locations where the verification samples were collected. These data and figures will be incorporated into the IRM Construction Certification Report, which will be submitted following completion of the thermal treatment portion of the IRMs. The IRM Construction Certification Report will include a Data Usability Summary Report (DUSR) for the data provided here-in.

The B-5 Area excavations were conducted on July 18, 2006. Approximately 400 cubic yards of soil were moved into the B-3 thermal treatment area from the B-5 area. That soil was characterized utilizing PID headspace screening with a conservative screening criteria of 5 parts-per-million. In general, the soils from the six-foot to twelve-foot depth interval within the excavation area were moved into the thermal treatment area. Soils with PID measurements less than the 5 ppm screening criteria were stockpiled and re-used as partial back-fill for the excavation area.

As shown on the attached figure, a sheet-piling containment area was utilized to inhibit groundwater movement into the excavation area. This containment area was placed six to eight feet outside the delineated B-5 area, and excavation was continued to the sheet piling, resulting in the excavation of an area larger than the original B-5 area (sheet pile footprint of 28-ft. by 72 ft. versus delineated area of 16 ft. by 56 ft.).

As also shown on the attached figure, an approximately 170 square foot by approximately three-foot thick concrete structure was encountered within the southern portion of the sheet-piled area. The top of this structure was approximately three feet below the ground surface. Verification samples SLAB NORTH and SLAB SOUTH were collected at the north and south ends of the structure, respectively, at depths of zero to two feet below the bottom of the structure to confirm soil quality in the area.

Soil verification BOTTOM and SLAB samples were grab samples collected at the depths and locations indicated on the summary table. For the sidewall samples, three separate grab samples were collected for PID headspace analysis from each sidewall at the limits of excavation and from the depth interval indicated on the summary table. For each sidewall, the grab sample exhibiting the highest PID headspace measurement was submitted to the laboratory. Verification sample PID headspace measurements are provided on the summary table.

The soil verification analytical data indicate that soil remaining at the limits of excavation contains concentrations of CVOCs that are less than the 31,000 ppb IRM target concentration. In addition, the Site Specific Clean-Up Objective was achieved for the average concentration of each of the four individual CVOC parameters (Vinyl Chloride, TCE, PCE, and trans-1,2-Dichloroethene).

Should you have any questions regarding this report, please contact me.

Very truly yours,

C&S ENGINEERS, INC.

Rory Woodmansee

Rory Woodmansee
Senior Engineer
(Attachment)

Cc: Jed Schneider, Pioneer Midler Avenue, LLC
Mary Jane Peachey, P.E., - NYSDEC 7
Ken Lynch - NYSDEC 7
Jim Burke – NYSDEC 7
Henri Hamel – NYSDOH

Pioneer Midler Avenue LLC
B-5 Area Remedial Excavation
Verification Sample Results

Sample ID ->	Units	Bottom North	Bottom North DL	Bottom South	Bottom South DL	East Wall	North Wall	Slab North
Depth - >		12 feet	12 feet	14 feet	14 feet	6-10 feet	6 - 8 feet	6 - 8 feet
Date Sampled ->		7/18/2006	7/18/2006	7/18/2006	7/18/2006	7/18/2006	7/18/2006	7/18/2006
PID		0.7	0.7	4.5	4.5	13.2	0.3	7.1
VOLATILES	ug/kg							
Chloromethane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Bromomethane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Vinyl chloride	ug/kg	240	120 D	190	73 D	18	13 J	160
Chloroethane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Methylene chloride	ug/kg	13 BJ	56 BDJ	12 BJ	48 BDJ	8 BJ	12 BJ	13 BJ
Acetone	ug/kg	6 J	81 U	17 U	75 U	35	27	7 J
Carbon disulfide	ug/kg	18 U	81 U	3 J	75 U	2 J	16 U	2 J
1,1-Dichloroethene	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	3 J
1,1-Dichloroethane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Chloroform	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
1,2-Dichloroethane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
2-Butanone	ug/kg	18 U	81 U	17 U	75 U	8 J	16 U	17 U
1,1,1-Trichloroethane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Carbon tetrachloride	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Bromodichloromethane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
1,2-Dichloropropane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
cis-1,3-Dichloropropene	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Trichloroethene	ug/kg	18	81 U	12 J	12 DJ	13 U	16 U	17 U
Dibromochloromethane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
1,1,2-Trichloroethane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Benzene	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
trans-1,3-Dichloropropene	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Bromoform	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
4-Methyl-2-pentanone	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
2-Hexanone	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Tetrachloroethene	ug/kg	18	81 U	7 J	15 DJ	13 U	16 U	17 U
Toluene	ug/kg	18	81 U	17 U	75 U	13 U	16 U	17 U
1,1,2,2-Tetrachloroethane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Chlorobenzene	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Ethylbenzene	ug/kg	18	81 U	17 U	75 U	13 U	16 U	17 U
Styrene	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Total xylenes	ug/kg	18	81 U	17 U	75 U	13 U	16 U	17 U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
cis-1,2-Dichloroethene	ug/kg	390 E	360 D	850 E	850 D	25	24	1,100 E
trans-1,2-Dichloroethene	ug/kg	19	13 DJ	8 J	75 U	6 J	16 U	7 J
Dichlorodifluoromethane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Trichlorofluoromethane	ug/kg	6 BJ	17 BDJ	5 BJ	12 BDJ	5 BJ	5 BJ	6 BJ
Methyl acetate	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Methyl tert butyl ether	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Cyclohexane	ug/kg	18 U	81 U	17 U	75 U	13 U	16 U	17 U
Methylcyclohexane	ug/kg	18 U	81 U	17 U	75 U	2 J	16 U	17 U

Pioneer Midler Avenue LLC
B-5 Area Remedial Excavation
Verification Sample Results

Sample ID ->	Units	Bottom North		Bottom North DL		Bottom South		Bottom South DL		East Wall		North Wall		Slab North	
Depth - >		12 feet		12 feet		14 feet		14 feet		6-10 feet		6 - 8 feet		6 - 8 feet	
Date Sampled ->		7/18/2006		7/18/2006		7/18/2006		7/18/2006		7/18/2006		7/18/2006		7/18/2006	
1,2-Dibromoethane	ug/kg	18	U	81	U	17	U	75	U	13	U	16	U	17	U
Isopropylbenzene	ug/kg	18	U	81	U	17	U	75	U	13	U	16	U	17	U
1,3-Dichlorobenzene	ug/kg	18	U	81	U	17	U	75	U	13	U	16	U	17	U
1,4-Dichlorobenzene	ug/kg	18	U	81	U	17	U	75	U	13	U	16	U	17	U
1,2-Dichlorobenzene	ug/kg	18	U	81	U	17	U	75	U	13	U	16	U	17	U
1,2-Dibromo-3-chloropropane	ug/kg	18	U	81	U	17	U	75	U	13	U	16	U	17	U
1,2,4-Trichlorobenzene	ug/kg	18	U	81	U	17	U	75	U	13	U	16	U	17	U

Pioneer Midler Avenue LLC
B-5 Area Remedial Excavation
Verification Sample Results

Sample ID ->	Units	Slab North DL		Slab South		West Wall		West Wall DL	
Depth - >		6-8 feet		8 feet		6-10 feet		6-10 feet	
Date Sampled ->		7/18/2006		7/18/2006		7/18/2006		7/18/2006	
PID		7.1		3.8		9.7		9.7	
VOLATILES	ug/kg								
Chloromethane	ug/kg	86	U	16	U	15	U	1,800	U
Bromomethane	ug/kg	86	U	16	U	15	U	1,800	U
Vinyl chloride	ug/kg	72	DJ	7	J	450	E	1,900	D
Chloroethane	ug/kg	86	U	16	U	15	U	1,800	U
Methylene chloride	ug/kg	63	BDJ	12	BJ	9	BJ	1,800	U
Acetone	ug/kg	86	U	9	J	77		1,800	U
Carbon disulfide	ug/kg	86	U	16	U	3	J	1,800	U
1,1-Dichloroethene	ug/kg	86	U	16	U	3	J	1,800	U
1,1-Dichloroethane	ug/kg	86	U	16	U	15	U	1,800	U
Chloroform	ug/kg	86	U	16	U	15	U	1,800	U
1,2-Dichloroethane	ug/kg	86	U	16	U	15	U	1,800	U
2-Butanone	ug/kg	86	U	16	U	15	U	1,800	U
1,1,1-Trichloroethane	ug/kg	86	U	16	U	15	U	1,800	U
Carbon tetrachloride	ug/kg	86	U	16	U	15	U	1,800	U
Bromodichloromethane	ug/kg	86	U	16	U	15	U	1,800	U
1,2-Dichloropropane	ug/kg	86	U	16	U	15	U	1,800	U
cis-1,3-Dichloropropene	ug/kg	86	U	16	U	15	U	1,800	U
Trichloroethene	ug/kg	86	U	16	U	5	J	350	DJ
Dibromochloromethane	ug/kg	86	U	16	U	15	U	1,800	U
1,1,2-Trichloroethane	ug/kg	86	U	16	U	15	U	1,800	U
Benzene	ug/kg	86	U	16	U	15	U	1,800	U
trans-1,3-Dichloropropene	ug/kg	86	U	16	U	15	U	1,800	U
Bromoform	ug/kg	86	U	16	U	15	U	1,800	U
4-Methyl-2-pentanone	ug/kg	86	U	16	U	15	U	1,800	U
2-Hexanone	ug/kg	86	U	16	U	15	U	1,800	U
Tetrachloroethene	ug/kg	86	U	16	U	2	J	330	DJ
Toluene	ug/kg	86	U	16	U	15	U	1,800	U
1,1,2,2-Tetrachloroethane	ug/kg	86	U	16	U	15	U	1,800	U
Chlorobenzene	ug/kg	86	U	16	U	15	U	1,800	U
Ethylbenzene	ug/kg	86	U	16	U	15	U	1,800	U
Styrene	ug/kg	86	U	16	U	15	U	1,800	U
Total xylenes	ug/kg	86	U	16	U	15	U	1,800	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	86	U	16	U	15	U	1,800	U
cis-1,2-Dichloroethene	ug/kg	1,200	D	140		1,300	E	22,000	D
trans-1,2-Dichloroethene	ug/kg	86	U	16	U	140		2,800	D
Dichlorodifluoromethane	ug/kg	86	U	16	U	2	J	1,800	U
Trichlorofluoromethane	ug/kg	15	BDJ	5	BJ	5	BJ	1,800	U
Methyl acetate	ug/kg	86	U	16	U	15	U	1,800	U
Methyl tert butyl ether	ug/kg	86	U	16	U	15	U	1,800	U
Cyclohexane	ug/kg	86	U	16	U	15	U	1,800	U
Methylcyclohexane	ug/kg	86	U	16	U	15	U	1,800	U

Pioneer Midler Avenue LLC
B-5 Area Remedial Excavation
Verification Sample Results

Sample ID ->	Units	Slab North DL		Slab South		West Wall		West Wall DL				
Depth - >		6-8 feet		8 feet		6-10 feet		6-10 feet				
Date Sampled ->		7/18/2006		7/18/2006		7/18/2006		7/18/2006				
1,2-Dibromoethane	ug/kg	86	U	16	U	15	U	1,800	U			
Isopropylbenzene	ug/kg	86	U	16	U	15	U	1,800	U			
1,3-Dichlorobenzene	ug/kg	86	U	16	U	15	U	1,800	U			
1,4-Dichlorobenzene	ug/kg	86	U	16	U	15	U	1,800	U			
1,2-Dichlorobenzene	ug/kg	86	U	16	U	15	U	1,800	U			
1,2-Dibromo-3-chloropropane	ug/kg	86	U	16	U	15	U	1,800	U			
1,2,4-Trichlorobenzene	ug/kg	86	U	16	U	15	U	1,800	U			

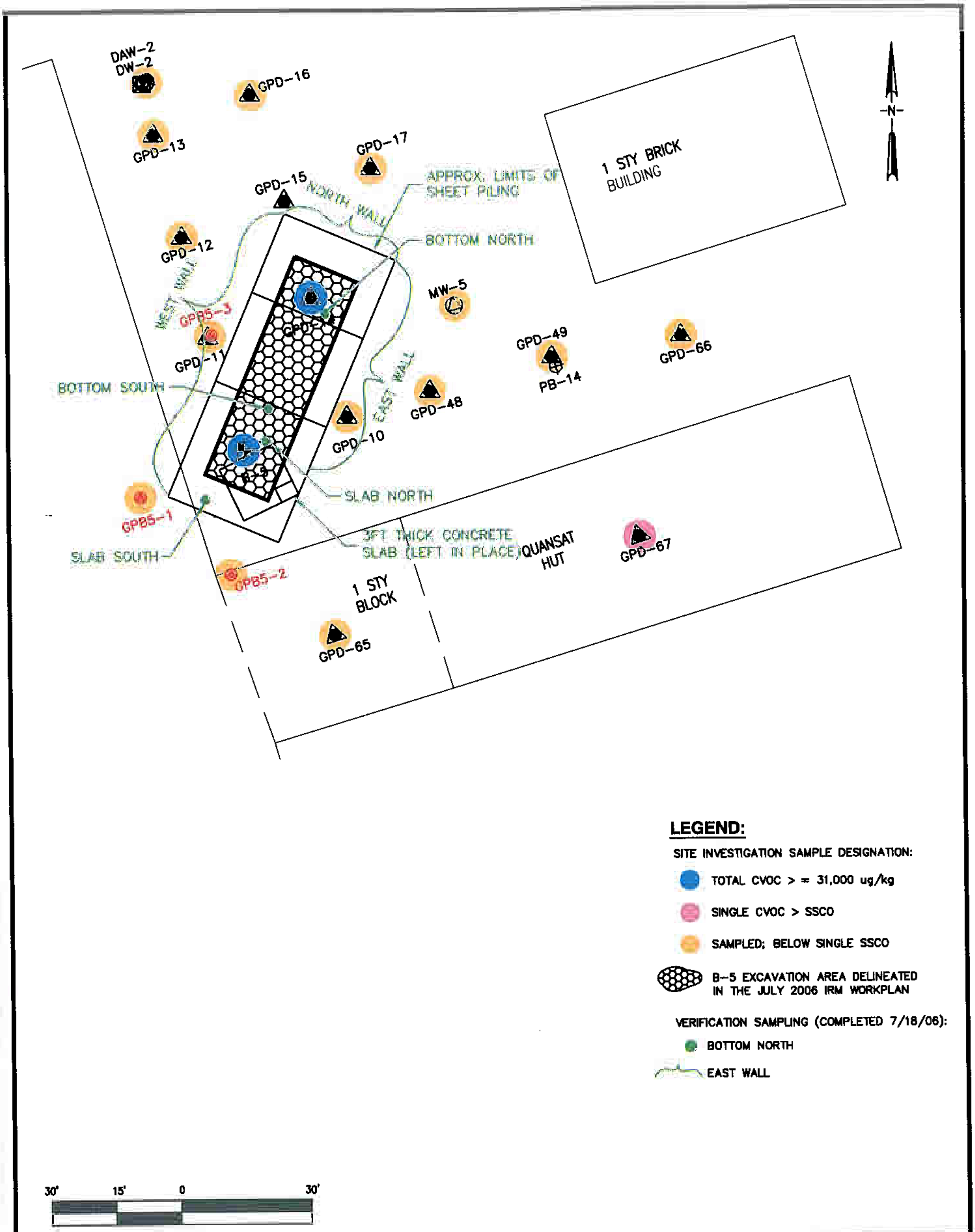
Notes:
U = Compound not detected at listed reporting limit
B = Compound detected in Method Blank
E = Listed concentration exceeds reporting limit range
D = Listed concentration is from diluted sample
J = Listed concentration is estimated
Data presented in this table has not been validated at the time of this submittal

Average* Concentrations of the Four CVOCs with Site Specific Clean-up Objectives:

		SSCO
PCE	56.3	5,600
TCE	59.4	2,800
VC	315	800
trans-1,2-d	379	1,200

* METHOD FOR CALCULATING AVERAGES:
1. One value for each sample location
2. Non-detect sample is valued at 1/2 reporting limit
3. If diluted sample and non-diluted sample are both non-detect, 1/2 non-diluted reporting limit is used
4. If both diluted sample and non-diluted sample are "detect", the diluted sample result is used
5. If the diluted sample is "detect" and the undiluted sample is "non-detect" (or vice-versa), the "detect" value is used.

Shaded cells represent values used to compute average concentrations



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WWW.CSCOS.COM

DATE:	SEPTEMBER 2006
SCALE:	AS SHOWN
FILE NO.	C81.002.001

NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK EDUCATION LAW

Pioneer Midler Avenue LLC
B-5 Excavation Area
Verification Sample Locations

Figure 1

A-3

December 9, 2005 Total Organic Carbon Sampling Results

ENGINEERS
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OPERATIONS

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December 9, 2005

Ms. Karen A. Cahill
Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation
615 Erie Boulevard West
Syracuse, New York 13204-2400

Re: Total Organic Carbon Sampling Results
Midler City Industrial Park
Site No. C734103

File: C81.002.001

Dear Ms. Cahill:

C&S Engineers, Inc., on behalf of our client, Pioneer Midler Avenue LLC, submits analytical results for Total Organic Carbon (TOC) in soils at the Midler City Industrial Park site. Although TOC sampling is not part of the work plan for the project, TOC content in soil has significant potential to affect the design and function of VOC remedial systems as well as the development of appropriate site-specific clean-up objectives. The opportunity to collect samples for TOC analysis presented itself in late November 2005 with mobilization of a geotechnical drill rig to complete seismic analysis borings for the project. In addition, sample quantity from three RI borings remained at the analytical laboratory (STL-Buffalo), and C&S requested the laboratory to analyze those samples for TOC.

Table 1 provides a summary of the TOC analytical results for the twelve samples submitted and Figure 1 provides the boring locations for the samples. Consistent with the information you provided concerning the NYSDEC's preferred method for analyzing TOC in soils, the samples were analyzed using the Lloyd Kahn method. Table 1 includes sample depths and soil descriptions observed for each sample. The table also includes calculations for the mean, median, and standard deviation for the entire sample group. Based on a preliminary analysis of the data, alternative mean, median, and standard deviation calculations were performed for the data set with the high and low data points removed. Attachment 1 provides the laboratory data sheets.

C&S COMPANIES

C&S will utilize these TOC data to derive appropriate remedial objectives for Interim Remedial Measures (IRMs) and for communications with prospective IRM contractors. We anticipate augmenting the TOC data for the site as additional subsurface soils are accessed during the upcoming foundation/floor systems demolition, supplemental investigative activities, and during the IRMs.

If you have any questions, please do not hesitate to contact me at (315) 455-2000.

Sincerely yours,

C&S ENGINEERS, INC.

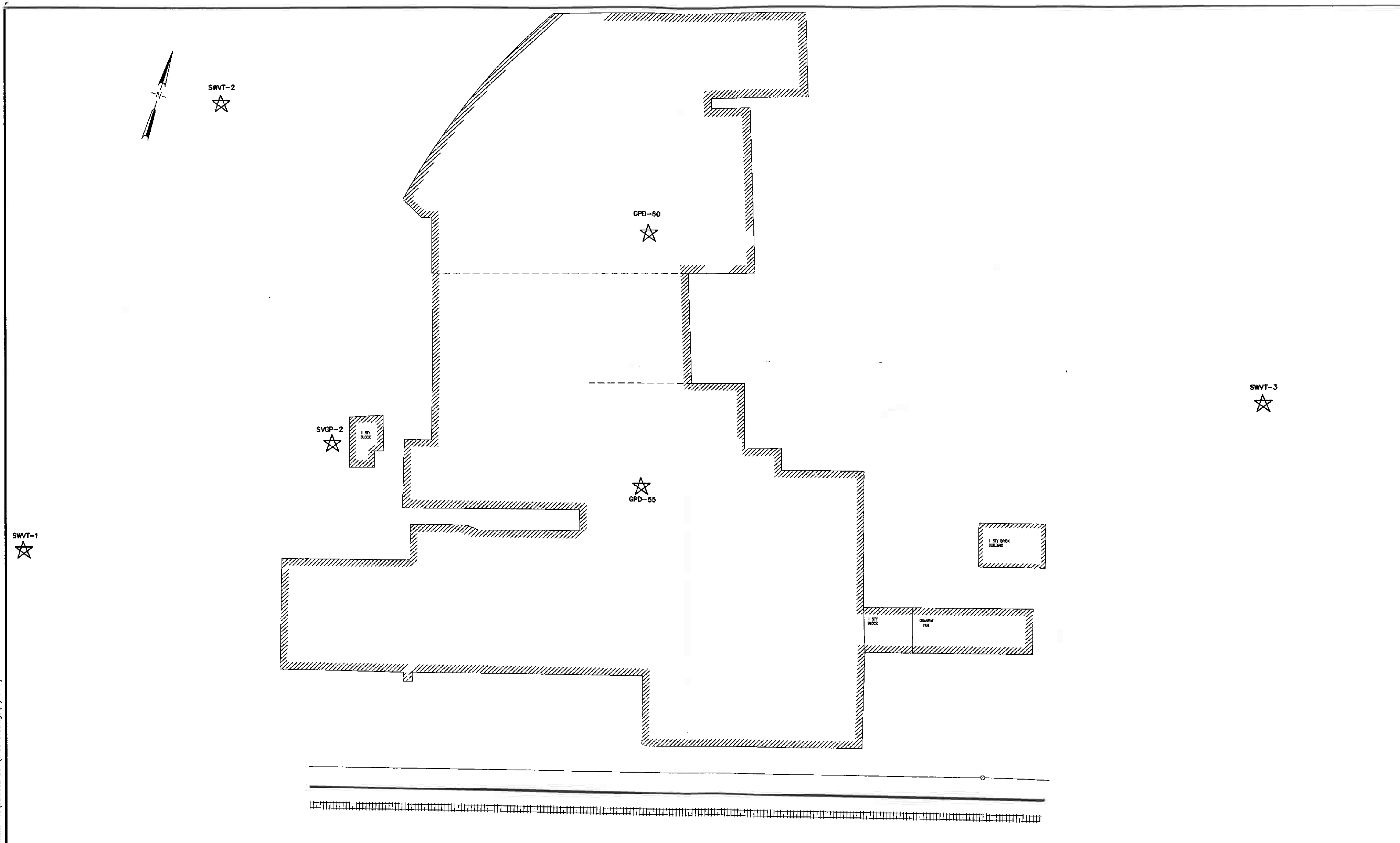
Thomas A. Barba
Manager, Remediation and Compliance

cc: Jed Schneider, Pioneer Midler Avenue LLC
Henriette Hamel, NYSDOH
J. Burke, NYSDEC Region 7
J. Charles, NYSDEC

Att.

Table 1
Pioneer Midler Avenue BCP Site
Total Organic Carbon Results

Sample ID	Sample Depth (feet)	Soil Type	TOC (mg/kg)	TOC (%)
SWVT-3-11-12-P	11-12	Peat	468,000	46.80
SWVT-3-14.5-16-MP	14.5-16	Marl/Peat	85,300	8.53
SWVT-3-16-18-PM	16-18	Peat/Marl	196,000	19.60
SWVT-2-5-6-M	5-6	Marl	37,300	3.73
SWVT-2-8-8.3-P	8-8.3	Peat	29,600	2.96
SWVT-2-8.3-10-M	8.3-10	Marl	34,900	3.49
SWVT-1-12-14-M	12-14	Marl	50,200	5.02
SWVT-1-18-20-M	18-20	Marl	46,500	4.65
SWVT-1-21-22-MC	21-22	Clay	37,300	3.73
SVGP-2-7-10	7-10	Marl	120,000	12.00
GPD-55-4-7	4-7	Marl	71,000	7.10
GPD-60-4-7	4-7	Peat/Marl	120,000	12.00
Mean TOC			108,008	10.80
Median TOC			60,600	6.06
Standard deviation			123,629	12.36
Mean (minus high/low)			79,850	7.99
Median(minus high/low)			60,600	6.06
Std. dev. (minus high/low)			52,128	5.21



LEGEND:

SWVT-1 ☆ APPROXIMATE LOCATION OF TOTAL ORGANIC CARBON SAMPLE

40' 20' 0 40'

C&S ENGINEERS, INC. 499 Col. Eileen Collins Blvd. Syracuse, New York 13212 Phone 315-455-2000 Fax 315-455-9667 www.cscos.com	DATE: AUGUST 2005 SCALE: AS SHOWN FILE NO. C81.001.001	NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK EDUCATION LAW	Pioneer Midler Avenue LLC Remedial Investigation Report Total Organic Carbon Sample Locations

Figure 1

Dec 09, 2005 - 11:28am
F:\Project\C81 - Pioneer Midler Ave\C81.002 BCP\CADD Drawings\fig1b.dwg

ATTACHMENT 1

LSL

Thomas Wirickx
C&S Engineers, Inc.
499 Col. Eileen Collins Blvd
N. Syracuse, NY 13212

Phone: (315) 455-2000
FAX: (315) 455-9667

Laboratory Analysis Report

For

C&S Engineers, Inc.

Client Project ID:

Midler

LSL Project ID: **0519651**

Receive Date/Time: 11/11/05 14:52

Project Received by: MW

Life Science Laboratories, Inc.

LSL Central Lab	LSL North Lab	LSL Finger Lakes Lab	LSL Southern Tier Lab	LSL MidLakes Lab
5854 Butternut Drive	131 St. Lawrence Avenue	16 N. Main St., PO Box 424	30 East Main Street	699 South Main Street
East Syracuse, NY 13057	Waddington, NY 13694	Wayland, NY 14572	Cuba, NY 14727	Canandaigua, NY 14424
Tel. (315) 445-1105	Tel. (315) 388-4476	Tel. (585) 728-3320	Tel. (585) 968-2640	Tel. (585) 396-0270
Fax (315) 445-1301	Fax (315) 388-4061	Fax (585) 728-2711	Fax (585) 968-0906	Fax (585) 396-0377
NYS DOH ELAP #10248	NYS DOH ELAP #10900	NYS DOH ELAP #11667	NYS DOH ELAP #10760	NYS DOH ELAP #11369
PA DEP #68-2556				

This report was reviewed by: [signature] **Date:** 11/28/05
Life Science Laboratories, Inc.

A copy of this report was sent to:

-- LABORATORY ANALYSIS REPORT --

C&S Engineers, Inc. *N. Syracuse, NY*

Sample ID:	**SWVT-3-11-12-P**			**LSL Sample ID:**	**0519651-001**
Location:	Midler				
Sampled:	11/11/05 9:40	**Sampled By:**	TCW		
Sample Matrix:	SHW as Recd				

Analytical Method / **Analyte**	**Result**	**Units**	**Prep Date**	**Analysis Date & Time**	**Analyst Initials**
Total Organic Carbon,Lloyd Kahn Method					
Total Organic Carbon	See Attached*				

-- LABORATORY ANALYSIS REPORT --

C&S Engineers, Inc. *N. Syracuse, NY*

Sample ID:	**SWVT-3-14.5-16-MP**	**LSL Sample ID:**	**0519651-002**
Location:	Midler		
Sampled:	11/11/05 9:50	**Sampled By:**	TCW
Sample Matrix:	SHW as Recd		

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
Total Organic Carbon,Lloyd Kahn Method					
Total Organic Carbon	See Attached*				

-- LABORATORY ANALYSIS REPORT --

C&S Engineers, Inc.   *N. Syracuse, NY*

Sample ID:	**SWVT-3-16-18-PM**	**LSL Sample ID:**	**0519651-003**
Location:	Midler		
Sampled:	11/11/05 10:00	**Sampled By:**	TCW
Sample Matrix:	SHW as Recd		

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
Total Organic Carbon,Lloyd Kahn Method					
Total Organic Carbon	See Attached*				

-- LABORATORY ANALYSIS REPORT --

C&S Engineers, Inc. *N. Syracuse, NY*

Sample ID:	**SWVT-2-5-6-M**	**LSL Sample ID:**	**0519651-004**
Location:	Midler		
Sampled:	11/11/05 11:05	**Sampled By:**	TCW
Sample Matrix:	SHW as Recd		

Analytical Method Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
Total Organic Carbon,Lloyd Kahn Method					
Total Organic Carbon	See Attached*				

-- LABORATORY ANALYSIS REPORT --

C&S Engineers, Inc. *N. Syracuse, NY*

Sample ID:	**SWVT-2-8-8.3-P**	**LSL Sample ID:**	**0519651-005**
Location:	Midler		
Sampled:	11/11/05 11:10	**Sampled By:**	TCW
Sample Matrix:	SHW as Recd		

Analytical Method Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
Total Organic Carbon,Lloyd Kahn Method					
Total Organic Carbon	See Attached*				

Analysis performed at: *(1) LSL Central, (2) LSL North, (3) LSL Finger Lakes, (4) LSL Southern Tier, (5) LSL MidLakes*

-- LABORATORY ANALYSIS REPORT --

C&S Engineers, Inc. *N. Syracuse, NY*

Sample ID: **SWVT-2-8.3-10-M** **LSL Sample ID:** **0519651-006**

Location: Midler

Sampled: 11/11/05 11:15 **Sampled By:** TCW

Sample Matrix: SHW as Recd

Analytical Method Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
Total Organic Carbon,Lloyd Kahn Method					
Total Organic Carbon	See Attached*				

-- LABORATORY ANALYSIS REPORT --

C&S Engineers, Inc. *N. Syracuse, NY*

Sample ID:	**SWVT-1-12-14-M**	**LSL Sample ID:**	**0519651-007**
Location:	Midler		
Sampled:	11/11/05 12:40	**Sampled By:**	TCW
Sample Matrix:	SHW as Recd		

Analytical Method / **Analyte**	**Result**	**Units**	**Prep Date**	**Analysis Date & Time**	**Analyst Initials**
Total Organic Carbon,Lloyd Kahn Method					
Total Organic Carbon	See Attached*				

-- LABORATORY ANALYSIS REPORT --

C&S Engineers, Inc. *N. Syracuse, NY*

Sample ID:	**SWVT-1-18-20-M**	**LSL Sample ID:**	**0519651-008**
Location:	Midler		
Sampled:	11/11/05 13:00	**Sampled By:**	TCW
Sample Matrix:	SHW as Recd		

Analytical Method Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
Total Organic Carbon,Lloyd Kahn Method					
Total Organic Carbon	See Attached*				

-- LABORATORY ANALYSIS REPORT --

C&S Engineers, Inc. ***N. Syracuse, NY***

Sample ID:	**SWVT-1-21-22-MC** **SWVT-1-21-22-MC**	**LSL Sample ID:**	**0519651-009**
Location:	Midler		
Sampled:	11/11/05 13:10	**Sampled By:**	TCW
Sample Matrix:	SHW as Recd		

Analytical Method Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
Total Organic Carbon,Lloyd Kahn Method					
Total Organic Carbon	See Attached*				

**This analysis was performed by NYS DOH ELAP laboratory number 10795.*

Buck Environmental Labs, Inc. **Date:** *23-Nov-05*

CLIENT: LIFE SCIENCE LABORATORIES
Project:
Lab Order: 0511133

CASE NARRATIVE

Samples were analyzed using Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition or other methods specifically approved by NYSDOH-ELAP. All quality control parameters for the analysis of samples under this lab log number met the laboratory acceptance limits and no data were qualified.

Glossary of terms and acronyms on the lab reports:

CAS - Chemical Abstract Series identification for the analyte.
DF - "1" indicates that there was no dilution. Any other number indicates that the sample was diluted by that factor.
PQL - Practical Quantitation Limit - The lowest level that the lab would report a value.
Result -This is the numerical result of the analysis (in bold). An "ND" indicates that the analyte was not detected at greater than the PQL concentration.
Units - The units of measure for the analysis. Ug/L and mg/L are for liquid samples. Ug/kg and mg/kg are for solid based units.
Qual - An entry in this column indicates that the results are "qualified" according to the following codes (generally related to lab QC results):

J - The analyte was detected at less than the PQL, but the amount is not precisely known.
B - The analyte was detected in the lab blank indicating possible contamination.
E - The result is estimated because the measurement exceeded the upper calibration limit.
D - Surrogate recovery was low due to sample dilution.
S - Spike recovery was outside laboratory acceptance limits.
R - RPD was outside laboratory acceptance limits.
H - The measurement is estimated because the sample was analyzed after regulatory holding time expired.
* - The result exceeds the public drinking water maximum contaminant level.

BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Report Date: *23-Nov-05*
Lab Log No: **0511133**

CLIENT:	LIFE SCIENCE LABORATORIES 5854 BUTTERNUT DRIVE EAST SYRACUSE, NY 13057	**Client Sample ID:**	0519651-001A
		Sampled By:	CLIENT
		Collection Date:	11/11/05
Project:		**Received at Lab:**	11/15/05
Lab ID:	0511133-01A	**Matrix:**	SOIL

Analyses	CAS	DF	PQL	Result	Units	Qual
PERCENT MOISTURE BY D2216		Analyst: **CR**	Analysis Date: **Nov 22, 2005 3:00 pm**			
Percent Moisture		1	0.100	**82.4**	wt%	
TOTAL ORGANIC CARBON BY LLOYD KAHN		Analyst: **DS**	Analysis Date: **Nov 23, 2005 10:00 am**			
Total Organic Carbon	7440-44-0	1	5680	**468000**	ug/g-dry	

NYSDOH ELAP #10795 **EPA LAB ID #NY00935**

3821 Buck Drive, Cortland, NY 13045-5150
Tel 607.753.3403 Fax 607.753.3415

BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Report Date: *23-Nov-05*
Lab Log No: **0511133**

CLIENT:	LIFE SCIENCE LABORATORIES 5854 BUTTERNUT DRIVE EAST SYRACUSE, NY 13057	**Client Sample ID:**	0519651-002A
		Sampled By:	CLIENT
		Collection Date:	11/11/05
Project:		**Received at Lab:**	11/15/05
Lab ID:	0511133-02A	**Matrix:**	SOIL

Analyses	CAS	DF	PQL	Result	Units	Qual
PERCENT MOISTURE BY D2216	Analyst: **CR**		Analysis Date: **Nov 22, 2005 3:00 pm**			
Percent Moisture		1	0.100	68.6	wt%	
TOTAL ORGANIC CARBON BY LLOYD KAHN	Analyst: **DS**		Analysis Date: **Nov 23, 2005 10:00 am**			
Total Organic Carbon	7440 44 0	1	3180	85300	ug/g-dry	

NYSDOH ELAP #10795 **EPA LAB ID #NY00935**

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Tel 607.753.3403 Fax 607.753.3415

BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Report Date: *23-Nov-05*
Lab Log No: **0511133**

CLIENT: LIFE SCIENCE LABORATORIES
5854 BUTTERNUT DRIVE
EAST SYRACUSE, NY 13057

Project:

Lab ID: 0511133-03A

Client Sample ID: 0519651-003A
Sampled By: CLIENT
Collection Date: 11/11/05
Received at Lab: 11/15/05
Matrix: SOIL

Analyses	CAS	DF	PQL	Result	Units	Qual
PERCENT MOISTURE BY D2216		Analyst: **CR**	Analysis Date: **Nov 22, 2005 3:00 pm**			
Percent Moisture		1	0.100	**67.8**	wt%	
TOTAL ORGANIC CARBON BY LLOYD KAHN		Analyst: **DS**	Analysis Date: **Nov 23, 2005 10:00 am**			
Total Organic Carbon	7440-44-0	1	3110	**196000**	ug/g-dry	

NYSDOH ELAP #10795 **EPA LAB ID #NY00935**

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Tel 607.753.3403 Fax 607.753.3415

BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Report Date: *23-Nov-05*
Lab Log No: **0511133**

CLIENT: LIFE SCIENCE LABORATORIES
5854 BUTTERNUT DRIVE
EAST SYRACUSE, NY 13057

Client Sample ID: 0519651-004A
Sampled By: CLIENT
Collection Date: 11/11/05
Received at Lab: 11/15/05
Matrix: SOIL

Project:
Lab ID: 0511133-04A

Analyses	CAS	DF	PQL	Result	Units	Qual
PERCENT MOISTURE BY D2216		Analyst: **CR**	Analysis Date: **Nov 22, 2005 3:00 pm**			
Percent Moisture		1	0.100	**44.2**	wt%	
TOTAL ORGANIC CARBON BY LLOYD KAHN		Analyst: **DS**	Analysis Date: **Nov 23, 2005 10:00 am**			
Total Organic Carbon	7440-44-0	1	1790	**37300**	ug/g-dry	

This laboratory analysis has been performed in accordance with generally accepted laboratory practices and requirements of the New York State Department of Health ELAP Program. Buck Environmental Laboratories, Inc. makes no recommendations, representations or warranties other than as specifically set forth in this report and shall not be responsible or liable for any action or the consequences of any action taken in connection with this report. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included on the cover letter.

NYSDOH ELAP #10795 **EPA LAB ID #NY00935**

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Tel 607.753.3403 Fax 607.753.3415

BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Report Date: *23-Nov-05*
Lab Log No: **0511133**

CLIENT:	LIFE SCIENCE LABORATORIES 5854 BUTTERNUT DRIVE EAST SYRACUSE, NY 13057	**Client Sample ID:**	0519651-005A
		Sampled By:	CLIENT
		Collection Date:	11/11/05
Project:		**Received at Lab:**	11/15/05
Lab ID:	0511133-05A	**Matrix:**	SOIL

Analyses	CAS	DF	PQL	Result	Units	Qual
PERCENT MOISTURE BY D2216		Analyst: **CR**	Analysis Date: **Nov 22, 2005 3:00 pm**			
Percent Moisture		1	0.100	**40.9**	wt%	
TOTAL ORGANIC CARBON BY LLOYD KAHN		Analyst: **DS**	Analysis Date: **Nov 23, 2005 10:00 am**			
Total Organic Carbon	7440-44-0	1	1690	**29600**	ug/g-dry	

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NYSDOH ELAP #10795 **EPA LAB ID #NY00935**

3821 Buck Drive, Cortland, NY 13045-5150
Tel 607.753.3403 Fax 607.753.3415

BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Report Date: *23-Nov-05*
Lab Log No: **0511133**

CLIENT:	LIFE SCIENCE LABORATORIES 5854 BUTTERNUT DRIVE EAST SYRACUSE, NY 13057	**Client Sample ID:**	0519651-006A
		Sampled By:	CLIENT
		Collection Date:	11/11/05
Project:		**Received at Lab:**	11/15/05
Lab ID:	0511133-06A	**Matrix:**	SOIL

Analyses	CAS	DF	PQL	Result	Units	Qual
PERCENT MOISTURE BY D2216		Analyst: **CR**	Analysis Date: **Nov 22, 2005 3:00 pm**			
Percent Moisture		1	0.100	47.9	wt%	
TOTAL ORGANIC CARBON BY LLOYD KAHN		Analyst: **DS**	Analysis Date: **Nov 23, 2005 10:00 am**			
Total Organic Carbon	7440-44-0	1	1920	34900	ug/g-dry	

This laboratory analysis has been performed in accordance with generally accepted laboratory practices and requirements of the New York State Department of Health ELAP Program. Buck Environmental Laboratories, Inc. makes no recommendations, representations or warranties other than as specifically set forth in this report and shall not be responsible or liable for any action or the consequences of any action taken in connection with this report. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included on the cover letter.

NYSDOH ELAP #10795 **EPA LAB ID #NY00935**

3821 Buck Drive, Cortland, NY 13045-5150
Tel 607.753.3403 Fax 607.753.3415

BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Report Date: *23-Nov-05*
Lab Log No: **0511133**

CLIENT: LIFE SCIENCE LABORATORIES
5854 BUTTERNUT DRIVE
EAST SYRACUSE, NY 13057

Project:

Lab ID: 0511133-07A

Client Sample ID: 0519651-007A
Sampled By: CLIENT
Collection Date: 11/11/05
Received at Lab: 11/15/05
Matrix: SOIL

Analyses	CAS	DF	PQL	Result	Units	Qual
PERCENT MOISTURE BY D2216		Analyst: **CR**	Analysis Date: **Nov 22, 2005 3:00 pm**			
Percent Moisture		1	0.100	**44.7**	wt%	
TOTAL ORGANIC CARBON BY LLOYD KAHN		Analyst: **DS**	Analysis Date: **Nov 23, 2005 10:00 am**			
Total Organic Carbon	7440-44-0	1	1810	**50200**	ug/g-dry	

NYSDOH ELAP #10795 **EPA LAB ID #NY00935**

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accredited environmental analysis

Report Date: *23-Nov-05*
Lab Log No: **0511133**

CLIENT: LIFE SCIENCE LABORATORIES
5854 BUTTERNUT DRIVE
EAST SYRACUSE, NY 13057

Project:

Lab ID: 0511133-08A

Client Sample ID: 0519651-008A
Sampled By: CLIENT
Collection Date: 11/11/05
Received at Lab: 11/15/05
Matrix: SOIL

Analyses	CAS	DF	PQL	Result	Units	Qual
PERCENT MOISTURE BY D2216	Analyst: **CR**		Analysis Date: **Nov 22, 2005 3:00 pm**			
Percent Moisture		1	0.100	**31.7**	wt%	
TOTAL ORGANIC CARBON BY LLOYD KAHN	Analyst: **DS**		Analysis Date: **Nov 23, 2005 10:00 am**			
Total Organic Carbon	7440 44 0	1	1460	**46500**	ug/g-dry	

NYSDOH ELAP #10795 **EPA LAB ID #NY00935**

3821 Buck Drive, Cortland, NY 13045-5150
Tel 607.753.3403 Fax 607.753.3415

BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Report Date: 23-Nov-05
Lab Log No: 0511133

CLIENT: LIFE SCIENCE LABORATORIES
5854 BUTTERNUT DRIVE
EAST SYRACUSE, NY 13057

Project:

Lab ID: 0511133-09A

Client Sample ID: 0519651-009A
Sampled By: CLIENT
Collection Date: 11/11/05
Received at Lab: 11/15/05
Matrix: SOIL

Analyses	CAS	DF	PQL	Result	Units	Qual
PERCENT MOISTURE BY D2216		Analyst: **CR**	Analysis Date: **Nov 22, 2005 3:00 pm**			
Percent Moisture		1	0.100	41.4	wt%	
TOTAL ORGANIC CARBON BY LLOYD KAHN		Analyst: **DS**	Analysis Date: **Nov 23, 2005 10:00 am**			
Total Organic Carbon	7440-44-0	1	1710	37300	ug/g-dry	

This laboratory analysis has been performed in accordance with generally accepted laboratory practices and requirements of the New York State Department of Health ELAP Program. Buck Environmental Laboratories, Inc. makes no recommendations, representations or warranties other than as specifically set forth in this report and shall not be responsible or liable for any action or the consequences of any action taken in connection with this report. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included on the cover letter.

NYSDOH ELAP #10795 **EPA LAB ID #NY00935**

3821 Buck Drive, Cortland, NY 13045-5150
Tel 607.753.3403 Fax 607.753.3415

Life Science Laboratories, Inc.
CHAIN OF CUSTODY RECORD

LSL Central Lab
5854 Butternut Drive
E. Syracuse, N.Y. 13057
Phone: (315)445-1105
Fax: (315)445-1301

LSL North Lab
131 St. Lawrence Ave.
Waddington, N.Y. 13694
Phone: (315)388-4476
Fax: (315)388-4061

LSL Finger
16 N. Main
Wayland, N
Phone: (5
Fax: (5

Tier Lab
t.
27
38-2640
/68-0906

0519651
C+SEng

Turnaround Time
Normal: 14 DAY [X]
Pre-Authorized: Next Day* [ ] 2-Day * [ ] 3-Day * [ ] 7-Day* [ ]
*Additional Charges may apply

Date Needed or Special Instructions:

Authorization or P.O. #

LSL Project Number:

Report Address:
Name: Thomas Wirickx
Company: C&S Engineers
Street: 499 Col. Eileen Collins Blvd.
City/State: Syracuse, New York Zip: 13212
Phone: 315-455-2000 Fax: 315-455-9667
Email:
Client:Project ID/Client Site ID Midler

Client's Sample Identifications	Sample Date	Sample Time	Type grab/comp	Matrix	Preserv Added	Containers #	Containers size/type	Analyses	Preserv Check	LSL ID#
SWVT-3-11-12-P	11-11-05	0940	Grab	Soil	Non	1	4oz/glass	Loyd Kahn TOC		001
SWVT-3-14.5-16-MP	11-11-05	0950	"	"	"	1	"	"		002
SWVT-3-16-18-PM	11-11-05	1000	"	"	"	1	"	"		003
SWVT-2-5-6-M	11-11-05	1105	"	"	"	1	"	"		004
SWVT-2-8-8.3-P	11-11-05	1110	"	"	"	1	"	"		005
SWVT-2-8.3-10-M	11-11-05	1115	"	"	"	1	"	"		006
SWVT-1-12-14-M	11-11-05	1240	"	"	"	1	"	"		007
SWVT-1-18-20-M	11-11-05	1300	"	"	"	1	"	"		008
SWVT-1-21-22-MC	11-11-05	1310	"	"	"	1	"	"		009

LSL use only:
Containers this C-O-C

Custody Transfers

			Date	Time
Sampled By: Thomas C. Wirickx	Received By:			
Relinquished By: Thomas C. Wirickx	Received By:			
Relinquished By:	Rec'd for Lab By: MW			
Shipment Method:	Received Intact: Y N		Sample Temp 11.9°C	

*** All areas of this Chain of Custody Record MUST be filled out in order to process samples in a timely manner IN PEN ONLY***

Reg COC

SEVERN TRENT STL®

STL Buffalo
10 Hazelwood Drive, Suite 106
Amherst, NY 14228

Tel: 716 691 2600 Fax: 716 691 7991
www.stl-inc.com

ANALYTICAL REPORT

Job#: A05-C857

STL Project#: NY4A9350
Site Name: C & S - Pioneer Midler site
Task: C & S - Pioneer Midler site

Mr. Thomas Barba
C & S Engineers
499 Col. Eileen Collins Blvd.
Syracuse, NY 13212

STL Buffalo

Brian J. Fischer
Project Manager

12/01/2005

NON-CONFORMANCE SUMMARY

Job#: A05-C857

STL Project#: NY4A9350
Site Name: C & S - Pioneer Midler site

General Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A05-C857
Sample Cooler(s) were received at the following temperature(s); 2.0 °C
All samples were received in good condition.

Wet Chemistry Data

Total Organic Carbon was subcontracted to STL Chicago. The complete subcontract report is included in this report as Appendix A. Comments pertaining to Total Organic Carbon may be found within the comment summary of the subcontract report.

****

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

"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 floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature."

____

Brian J. Fischer
Project Manager

____

Date

Appendix A

SEVERN TRENT STL®

STL Chicago
2417 Bond Street
University Park, IL 60466

Tel: 708 534 5200 Fax: 708 534 5211
www.stl-inc.com

SEVERN TRENT LABORATORIES
ANALYTICAL REPORT

JOB NUMBER: 241987

Prepared For:

Severn Trent Laboratories
10 Hazelwood Drive
Suite 106
Amherst, NY 14228

Project: Amherst

Attention: Brian Fisher

Date: 11/25/2005

Signature

Date 11/25/05

Name: Bonnie M. Stadelmann

Title: Project Manager

E-Mail: bstadelmann@stl-inc.com

STL Chicago
2417 Bond Street
University Park, IL 60466

PHONE: (708) 534-5200
FAX..: (708) 534-5211

This Report Contains (35) Pages

WET CHEMISTRY DATA PACKAGE
AMHERST
JOB# 241987

STL Chicago is part of Severn Trent Laboratories, Inc.

S A M P L E   I N F O R M A T I O N
Date: 11/25/2005

Job Number.: 241987
Customer...: Severn Trent Laboratories
Attn.......: Brian Fisher

Project Number.........: 20000259
Customer Project ID....: AMHERST NY4A9350
Project Description....: Amherst

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
241987-1	SVGP-2-7-10	Soil	09/27/2005	12:40	11/12/2005	09:30
241987-2	GPD-55-4-7	Soil	09/21/2005	14:50	11/12/2005	09:30
241987-3	GPD-60-4-7	Soil	09/22/2005	14:20	11/12/2005	09:30

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Job Number: 241987

LABORATORY TEST RESULTS

Date:11/25/2005

CUSTOMER: Severn Trent Laboratories   PROJECT: AMHERST NY4A9350   ATTN: Brian Fisher

Customer Sample ID: SVGP-2-7-10
Date Sampled......: 09/27/2005
Time Sampled......: 12:40
Sample Matrix.....: Soil

Laboratory Sample ID: 241987-1
Date Received.......: 11/12/2005
Time Received.......: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Lloyd Kahn	Total Organic Carbon (Soils) TOC Average Duplicates, Solid	120000			3300	14000	1	mg/Kg	165722		11/15/05 1838	rmm

* In Description = Dry Wgt.

STL Chicago is part of Severn Trent Laboratories, Inc.

L A B O R A T O R Y   T E S T   R E S U L T S

Job Number: 241987

Date:11/25/2005

CUSTOMER: Severn Trent Laboratories   PROJECT: AMHERST NY4A9350   ATTN: Brian Fisher

Customer Sample ID: GPD-55-4-7
Date Sampled......: 09/21/2005
Time Sampled......: 14:50
Sample Matrix.....: Soil

Laboratory Sample ID: 241987-2
Date Received.......: 11/12/2005
Time Received.......: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Lloyd Kahn	Total Organic Carbon (Soils) TOC Average Duplicates, Solid	71000			1800	7700	1	mg/Kg	165722		11/15/05 1909	rnm

* In Description = Dry Wgt.

STL Chicago is part of Severn Trent Laboratories, Inc.

Job Number: 241987

LABORATORY TEST RESULTS

Date:11/25/2005

CUSTOMER: Severn Trent Laboratories PROJECT: AMHERST NY4A9350 ATTN: Brian Fisher

Customer Sample ID: GPD-60-4-7
Date Sampled......: 09/22/2005
Time Sampled......: 14:20
Sample Matrix.....: Soil

Laboratory Sample ID: 241987-3
Date Received.......: 11/12/2005
Time Received.......: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Lloyd Kahn	Total Organic Carbon (Soils) TOC Average Duplicates, Solid	120000			3200	14000	1	mg/Kg	165722		11/15/05 1932	rnm

* In Description = Dry Wgt.

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LABORATORY CHRONICLE

Job Number: 241987

Date: 11/25/2005

CUSTOMER: Severn Trent Laboratories   PROJECT: AMHERST NY4A9350   ATTN: Brian Fisher

Lab ID: 241987-1   Client ID: SVGP-2-7-10   Date Recvd: 11/12/2005   Sample Date: 09/27/2005

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
Lloyd Kahn	Total Organic Carbon (Soils)	1	165722	165722	11/15/2005 1838	

Lab ID: 241987-2   Client ID: GPD-55-4-7   Date Recvd: 11/12/2005   Sample Date: 09/21/2005

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
Lloyd Kahn	Total Organic Carbon (Soils)	1	165722	165722	11/15/2005 1909	

Lab ID: 241987-3   Client ID: GPD-60-4-7   Date Recvd: 11/12/2005   Sample Date: 09/22/2005

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
Lloyd Kahn	Total Organic Carbon (Soils)	1	165722	165722	11/15/2005 1932	

QUALITY CONTROL RESULTS

Job Number.: 241987

Report Date.: 11/25/2005

CUSTOMER: Severn Trent Laboratories   PROJECT: AMHERST NY4A9350   ATTN: Brian Fisher

Test Method.........: Lloyd Kahn
Method Description.: Total Organic Carbon (Soils)
Parameter..........: Organic Carbon, Tot. (TOC)
Batch..............: 165722
Equipment Code.....: TOC4
Analyst...: rmm
Test Code.: TOC

QC	Lab ID	Reagent	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	F	*	Limits	Date	Time
ICV	165722-002	105JSTTC2	mg/Kg	1989.14		2000.00		99		%	85-115	11/15/2005	1209
MB	165722-003		mg/Kg	29.00 U								11/15/2005	1212
CCV	165722-015	105JSTTC2	mg/Kg	2211.88		2000.00		111		%	85-115	11/15/2005	1618
CCB	165722-016		mg/Kg	29.00 U								11/15/2005	1627
CCV	165722-015	105JSTTC2	mg/Kg	2105.24		2000.00		105		%	85-115	11/15/2005	2023
CCB	165722-016		mg/Kg	29.00 U								11/15/2005	2028

Test Method.........: Lloyd Kahn
Method Description.: Total Organic Carbon (Soils)
Parameter..........: TOC Average Duplicates
Batch..............: 165722
Equipment Code.....: TOC4
Analyst...: rmm
Test Code.: TOCAV2

QC	Lab ID	Reagent	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	F	*	Limits	Date	Time
LCS	165722-004	100FSTLK3	mg/Kg	4621.02		4780.00		97		%	53-140	11/15/2005	1219

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 11/25/2005

REPORT COMMENTS

1) All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.
2) Soil, sediment and sludge sample results are reported on a "dry weight" basis except when analyzed for landfill disposal or incineration parameters. All other solid matrix samples are reported on an "as received" basis unless noted differently.
3) Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.
4) The test results for the noted analytical method(s) meet the requirements of NELAC. Lab Cert. ID# 100201
5) According to 40CFR Part 136.3, pH, Chlorine Residual and Dissolved Oxygen analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH Field) they were not analyzed immediately, but as soon as possible on laboratory receipt.

Glossary of flags, qualifiers and abbreviations (any number of which may appear in the report)

Inorganic Qualifiers (Q-Column)

- U Analyte was not detected at or above the stated limit.
- < Not detected at or above the reporting limit.
- J Result is less than the RL, but greater than or equal to the method detection limit.
- B Result is less than the CRDL/RL, but greater than or equal to the IDL/MDL.
- S Result was determined by the Method of Standard Additions.
- F AFCEE: Result is less than the RL, but greater than or equal to the method detection limit.

Inorganic Flags (Flag Column)

- ^ ICV,CCV,ICB,CCB,ISA,ISB,CRI,CRA,MRL: Instrument related QC exceed the upper or lower control limits.
- * LCS, LCD, MD: Batch QC exceeds the upper or lower control limits.
- + MSA correlation coefficient is less than 0.995.
- 4 MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
- E SD: Serial dilution exceeds the control limits.
- H MB, EB1, EB2, EB3: Batch QC is greater than reporting limit or had a negative instrument reading lower than the absolute value of the reporting limit.
- N MS, MSD: Spike recovery exceeds the upper or lower control limits.
- W AS(GFAA) Post-digestion spike was outside 85-115% control limits.

Organic Qualifiers (Q - Column)

- U Analyte was not detected at or above the stated limit.
- ND Compound not detected.
- J Result is an estimated value below the reporting limit or a tentatively identified compound (TIC).
- Q Result was qualitatively confirmed, but not quantified.
- C Pesticide identification was confirmed by GC/MS.
- Y The chromatographic response resembles a typical fuel pattern.
- Z The chromatographic response does not resemble a typical fuel pattern.
- E Result exceeded calibration range, secondary dilution required.
- F AFCEE:Result is an estimated value below the reporting limit or a tentatively identified compound (TIC)

Organic Flags (Flags Column)

- B MB: Batch QC is greater than reporting limit.
- * LCS, LCD, ELC, ELD, CV, MS, MSD, Surrogate: Batch QC exceeds the upper or lower control limits.
- ^ EB1, EB2, EB3, MLE: Batch QC is greater than reporting Limit
- A Concentration exceeds the instrument calibration range
- a Concentration is below the method Reporting Limit (RL)
- B Compound was found in the blank and sample.
- D Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution will be flagged with a D.
- H Alternate peak selection upon analytical review
- I Indicates the presence of an interfence, recovery is not calculated.
- M Manually integrated compound.
- P The lower of the two values is reported when the % difference between the results of two GC columns is

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 11/25/2005

greater than 25%.

Abbreviations

AS	Post Digestion Spike (GFAA Samples - See Note 1 below)
Batch	Designation given to identify a specific extraction, digestion, preparation set, or analysis set
CAP	Capillary Column CCB Continuing Calibration Blank
CCV	Continuing Calibration Verification
CF	Confirmation analysis of original
C1	Confirmation analysis of A1 or D1
C2	Confirmation analysis of A2 or D2
C3	Confirmation analysis of A3 or D3
CRA	Low Level Standard Check - GFAA; Mercury
CRI	Low Level Standard Check - ICP
CV	Calibration Verification Standard
Dil Fac	Dilution Factor - Secondary dilution analysis
D1	Dilution 1
D2	Dilution 2
D3	Dilution 3
DLFac	Detection Limit Factor
DSH	Distilled Standard - High Level
DSL	Distilled Standard - Low Level
DSM	Distilled Standard - Medium Level
EB1	Extraction Blank 1
EB2	Extraction Blank 2
EB3	DI Blank
ELC	Method Extracted LCS
ELD	Method Extracted LCD
ICAL	Initial calibration
ICB	Initial Calibration Blank
ICV	Initial Calibration Verification
IDL	Instrument Detection Limit
ISA	Interference Check Sample A - ICAP
ISB	Interference Check Sample B - ICAP
Job No.	The first six digits of the sample ID which refers to a specific client, project and sample group
	Lab ID An 8 number unique laboratory identification
LCD	Laboratory Control Standard Duplicate
LCS	Laboratory Control Standard with reagent grade water or a matrix free from the analyte of interest
MB	Method Blank or (PB) Preparation Blank
MD	Method Duplicate
MDL	Method Detection Limit
MLE	Medium Level Extraction Blank
MRL	Method Reporting Limit Standard
MSA	Method of Standard Additions
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not Detected
PREPF	Preparation factor used by the Laboratory's Information Management System (LIMS)
PDS	Post Digestion Spike (ICAP)
RA	Re-analysis of original
A1	Re-analysis of D1
A2	Re-analysis of D2
A3	Re-analysis of D3
RD	Re-extraction of dilution
RE	Re-extraction of original
RC	Re-extraction Confirmation
RL	Reporting Limit
RPD	Relative Percent Difference of duplicate (unrounded) analyses
RRF	Relative Response Factor
RT	Retention Time

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 11/25/2005

RTW	Retention Time Window Sample ID A 9 digit number unique for each sample, the first six digits are referred as the job number
SCB	Seeded Control Blank
SD	Serial Dilution (Calculated when sample concentration exceeds 50 times the MDL)
UCB	Unseeded Control Blank
SSV	Second Source Verification Standard
SLCS	Solid Laboratory Control Standard(LCS)
PHC	pH Calibration Check LCSP pH Laboratory Control Sample
LCDP	pH Laboratory Control Sample Duplicate
MDPH	pH Sample Duplicate
MDFP	Flashpoint Sample Duplicate
LCFP	Flashpoint LCS
G1	Gelex Check Standard Range 0-1
G2	Gelex Check Standard Range 1-10
G3	Gelex Check Standard Range 10-100
G4	Gelex Check Standard Range 100-1000

Note 1: The Post Spike Designation on Batch QC for GFAA is designated with an "S" added to the current abbreviation used. EX. LCS S=LCS Post Spike (GFAA); MSS=MS Post Spike (GFAA)

Note 2: The MD calculates an absolute difference (A) when the sample concentration is less than 5 times the reporting limit. The control limit is represented as +/- the RL.

CHAIN OF CUSTODY

Date: 11/11/2005
Time: 09:42:38

STL Buffalo
Internal Chain of Custody

Page: 1
Rept: AN0093

241987

11

Client: C & S Engineers
Project: NY4A9350
Quote: CY04-021
SM #: 0819

PM: Brian J. Fischer
Turn Around Required: 10B
Purchase Order#: TBD

	Client Sample ID	Lab ID	Matrix	Parameters	# and Type of Samp Containers	Sample Date/Time
1	SVGP-2-7-10	A5C85701	SOIL	TOC	1-8ozGW	09/27/2005 12:40
2	GPD-55-4-7	A5C85702	SOIL	TOC	1-8ozGW	09/21/2005 14:50
3	GPD-60-4-7	A5C85703	SOIL	TOC	1-8ozGW	09/22/2005 14:20

Relinquished by STL Buffalo: Signature(s)	Date	Time	Received By STL - Chicago: Signature(s)	Date	Time
(1) [signature]	11/11/2005	1800	(3) [signature]	11/12/2005	0930
(2)	/ /20		(4)	/ /20	

STL Buffalo
Sample Inventory

Job No: A05-C857
Client: C & S Engineers
Project: NY4A9350
SDG:
Case:
SMO No: 0819
No. Samps: 3

Radiation Check: YES
Custody Seal: YES
Chain of Custody: YES
Sample Tags: NO
Sample Tag Numbers: NO
SMO Forms: NO
CLSIS: NO

Cooler Temperature: 2.0°C

Sample	Receive	Client Sample ID	Lab ID	Condition	Bottles	Parameters	Lab	Pres log Code	Pres log PH
09/27/2005 12:40	11/11/2005 10:00	SVGP-2-7-10	A5C85701	Good	1-8ozGW	TOC	STLCH	0100	
09/21/2005 14:50	11/11/2005 10:00	GPD-55-4-7	A5C85702	Good	1-8ozGW	TOC	STLCH	0100	
09/22/2005 14:20	11/11/2005 10:00	GPD-60-4-7	A5C85703	Good	1-8ozGW	TOC	STLCH	0100	

Custodian:________ / /20

Analytical Services Coordinator: ________ / /20

Preservation Code References:

First Digit: Sample Filtration; 1=Filtered, 0=Unfiltered
Second Digit: Sample Requires Cooling; (4°) 1=Cooled, 0=Not Cooled

Third, Fourth Digits - Preservation Types:
00=Nothing added, 01=HNO3, 02=H2SO4, 03=HCl, 04=Sodium Thiosulfate
05=NaOH, 06=NaOH+Zinc Acetate, 07=Sodium Thiosulfate+HCl, 08=MeOH
09=MCAA (Mono chloroacetic acid)

rpjsckl — Job Sample Receipt Checklist Report — V2

Job Number.: 241987 Location.: 57222 Check List Number.: 1 Description.:
Customer Job ID.....: Job Check List Date.: 11/12/2005
Project Number.: 20000259 Project Description.: Amherst
Customer.......: Severn Trent Laboratories Contact.: Brian Fisher

Date of the Report..: 11/25/2005
Project Manager.....: stadelmb

Questions ?	(Y/N)	Comments
Chain-of-Custody Present?.........................	Y	
Were samples dropped off at or picked up by STL?..	N	
Custody seal on shipping container?...............	Y	
...If "yes", custody seal intact?.................	Y	
Custody seals on sample containers?...............	N	
...If "yes", custody seal intact?.................		
Samples iced?.....................................	N	
Temperature of cooler acceptable? (4 deg C +/- 2).	N	
Samples received intact (good condition)?.........	Y	
Volatile samples acceptable? (no headspace).......		
Correct containers used?..........................	Y	
Adequate sample volume provided?..................	Y	
Samples preserved correctly?......................	Y	
Samples received within holding-time?.............	Y	
Agreement between COC and sample labels?..........	Y	
Radioactivity at or below background levels?......	Y	
A Sample Discrepancy Report (SDR) was needed?.....	N	
Residual Chlorine Check Required?		
If samples were shipped was there an air bill #?..	Y	
Sample Custodian Signature/Date...................	Y	

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CASE NARRATIVE

STL Chicago
Wet Chemistry Case Narrative

Client: STL Amherst
Job #: 241987 Date Rec'd: 11/12/05

1. This narrative covers the analysis of the soil samples in the above Job # for **Total Organic Carbon** by the Lloyd Kahn Method. The samples were analyzed by furnace combustion and non-dispersive infrared detection on a Dohrmann Phoenix 8000 TOC analyzer, after acidification to remove inorganic carbon, and low-temperature drying. All analysis was done in duplicate with the average reported. Since the samples were dried prior to analysis, no correction was made for moisture content.

2. The method-recommended holding time of 2 weeks from collection was not met because the samples were received past that deadline.

3. The standard curve and the initial and continuing calibration verification standards were all within acceptance limits. The blanks were less than the reporting limit.

4. The LCS recovery was within the statistical control limits of 53-140% recovery. See the Quality Control Results page and the raw data for details.

5. The matrix spikes were done on an alternate sample.

6. These samples were all over-range at the first analysis and were repeated in duplicate.

Diane L. Harper
Wet Chemistry Section Manager

11-25-05
Date

RAW DATA

*** RUN LOG *** (V2)

11/16/05 12:58

Total Organic Carbon (Soils) Status.......: RVWD User Name......: rnm Location Code..: 57222
Method Code..: TOCS Batch Date...: 11/16/05 QC Code........: TOCS Equipment Code.: TOC4
Batch Code...: 165722 Batch Time...: 1047 Calc Code......: TOCS Import Code....:

SAMPLE: Grp	Pos	Sample ID	Dilution	TEST CODE / TEST POS / Date / Time	TOC 1	TOC2 2	TOC3 3	TOC4 4	TOCAV2 5	TOCAV3 6	TOCAV4 7	TCS 17	TCS2 18	TCSAV2 19	TICS 20	TICS2 21	TICSA2 22	
1	1	___ICAL_I05JSTTC1_																0
1	2	__S_ICV_I05JSTTC2_		11/15/05 1209	0													
1	3	__S_MB__		11/15/05 1212	0													
1	4	__S_LCS_I00FSTLK3_3		11/15/05 1219					0									
1	5	241814_14_S___		11/15/05 1233					0									
1	6	241814_15_S___		11/15/05 1250					0									
1	7	241867_1_S___		11/15/05 1316					0									
1	8	241867_2_S___		11/15/05 1342					0									
1	9	241867_3_S___		11/15/05 1357					0									
1	10	241867_4_S___		11/15/05 1424					0									
1	11	241867_5_S___		11/15/05 1448					0									
1	12	241867_6_S___		11/15/05 1503					0									
1	13	241867_7_S___		11/15/05 1529					0									
1	14	241867_8_S___		11/15/05 1554					0									
1	15	___CCV_I05JSTTC2_		11/15/05 1618	0													
1	16	___CCB__		11/15/05 1627	0													
1	17	241920_2_S___		11/15/05 1635					0									
1	18	241920_3_S___		11/15/05 1647					0									
1	19	241920_1_S___		11/15/05 1707					0									
1	20	241920_4_S___		11/15/05 1726					0									
1	21	241920_5_S___		11/15/05 1754					0									
1	22	241920_6_S___		11/15/05 1814					0									
1	23	241987_1_S___		11/15/05 1838					0									
1	24	241987_2_S___		11/15/05 1909					0									
1	25	241987_3_S___		11/15/05 1932					0									
1	26	241988_1_S___		11/15/05 1948					0									
1	27	241988_1_S_MS_I05JSTTC2_26		11/15/05 2003					0									
1	28	241988_1_S_MSD_I05JSTTC2_26		11/15/05 2012					0									

Page 1

*** RUN LOG *** (V2)

11/16/05 12:58

Total Organic Carbon (Soils)
Method Code..: TOCS
Batch Code...: 165722

Status.......: RVWD
Batch Date...: 11/16/05
Batch Time...: 1047

User Name......: rnm
QC Code........: TOCS
Calc Code......: TOCS

Location Code..: 57222
Equipment Code.: TOC4
Import Code....:

			TEST CODE	TOC	TOC2	TOC3	TOC4	TOCAV2	TOCAV3	TOCAV4	TCS	TCS2	TCSAV2	TICS	TICS2	TICSA2
SAMPLE: Grp Pos	Sample ID	Dilution	TEST POS Date / Time	1	2	3	4	5	6	7	17	18	19	20	21	22
1 29	__CCV_I05JSTTC2_		11/15/05 2023	0												
1 30	__CCB__		11/15/05 2028	0												
1 31	__LCS__		11/15/05 2048													
1 32	241988_2_S___		11/15/05 2114													
1 33	241995_1_S___		11/15/05 2127													
1 34	241995_1_S_MS_I05JSTTC2_33		11/15/05 2141													
1 35	241995_1_S_MSD_I05JSTTC2_33		11/15/05 2149													
1 36	241995_2_S___		11/15/05 2156													
1 37	__CCV_I05JSTTC2_		11/15/05 2211													
1 38	__CCB__		11/15/05 2115													

*** QC Summary *** (V2)

Total Organic Carbon (Soils)

Report Date: 11/16/05 12:58

Method Code..: TOCS
Batch Code...: 165722
Status.......: RVWD

Batch Date...: 11/16/05
Batch Time...: 1047
User Name....: rmm

QC Code........: TOCS
Calc Code......: TOCS
Location Code..: 57222

Equipment Code.: TOC4
Import Code....:

Grp	Smp	Sample ID	Pos	Test	Result	Known	Original	Alternate	QC Res	F	QC Res	F
1	2	__S_ICV_I05JSTTC2_	1	TOC	1989.14	2000			99			
1	3	__S_MB__	1	TOC	-3.81							
1	4	__S_LCS_I00FSTLK3_3	5	TOCAV2	4621.02	4780			97			
1	15	___CCV_I05JSTTC2_	1	TOC	2211.88	2000			111			
1	16	___CCB__	1	TOC	-2.31							
1	27	241988_1_S_MS_I05JSTTC2_26	5	TOCAV2	15603.85	2000	8729.19		92			
1	28	241988_1_S_MSD_I05JSTTC2_26	5	TOCAV2	15356.43	2000	8729.19	15603.85	86		6.7	
1	29	___CCV_I05JSTTC2_	1	TOC	2105.24	2000			105			
1	30	___CCB__	1	TOC	-2.48							

*** RAW TEST DATA *** (V2)

Total Organic Carbon (Soils)

Report Date: 11/16/05 12:58

Method Code..: TOCS Batch Date...: 11/16/05 QC Code........: TOCS Equipment Code.: TOC4
Batch Code...: 165722 Batch Time...: 1047 Calc Code......: TOCS Import Code....:
Status.......: RVWD User Name....: rmn Location Code..: 57222

SAMPLE:	Grp	Pos	Sample ID	Dilution	TOC mg/Kg	TOC2 mg/Kg	TOC3 mg/Kg	TOC4 mg/Kg	TOCAV2 mg/Kg
	1	1	___ICAL_I05JSTTC1_						
	1	2	__S_ICV_I05JSTTC2_		1989.14				
	1	3	__S_MB__		-3.81				
	1	4	__S_LCS_I00FSTLK3_3		4604.33	4637.71			4621.02
	1	5	241814_14_S___		3183.86	3376.87			3280.36
	1	6	241814_15_S___		576.70	566.75			571.73
	1	7	241867_1_S___		9401.95	8350.71			8876.33
	1	8	241867_2_S___		40819.63	50783.58			45801.60
	1	9	241867_3_S___		5437.57	5527.15			5482.36
	1	10	241867_4_S___		22160.94	28743.55			25452.24
	1	11	241867_5_S___		2079.23	1668.12			1873.67
	1	12	241867_6_S___		1067.70	1060.35			1064.03
	1	13	241867_7_S___		14608.53	15855.58			15232.06
	1	14	241867_8_S___		76756.29	66103.70			71429.99
	1	15	___CCV_I05JSTTC2_		2211.88				
	1	16	___CCB__		-2.31				
	1	17	241920_2_S___		6013.99	2440.51			4227.25
	1	18	241920_3_S___		2909.07	3667.32			3288.20
	1	19	241920_1_S___		4402.19	3667.15			4034.67
	1	20	241920_4_S___		2929.78	3159.75			3044.76
	1	21	241920_5_S___		3441.46	2761.69			3101.57
	1	22	241920_6_S___		5956.37	4095.47			5025.92
	1	23	241987_1_S___		111220.15	135915.73			123567.94
	1	24	241987_2_S___		65862.04	75708.96			70785.50
	1	25	241987_3_S___		148600.62	84635.87			116618.24
	1	26	241988_1_S___		7261.07	10197.31			8729.19
	1	27	241988_1_S_MS_I05JSTTC2_26						15603.85
	1	28	241988_1_S_MSD_I05JSTTC2_26						15356.43
	1	29	___CCV_I05JSTTC2_		2105.24				
	1	30	___CCB__		-2.48				
	1	31	___LCS__		3808.90	4905.27			4357.09
	1	32	241988_2_S___		12792.47	12102.06			12447.26
	1	33	241995_1_S___		3530.95	2071.53			2801.24
	1	34	241995_1_S_MS_I05JSTTC2_33						8430.31
	1	35	241995_1_S_MSD_I05JSTTC2_33						6932.37
	1	36	241995_2_S___		1830.43	1025.68			1428.06
	1	37	___CCV_I05JSTTC2_		1977.78				
	1	38	___CCB__		-3.64				

*** RAW TEST DATA *** (V2)

Total Organic Carbon (Soils)

Report Date: 11/16/05 12:58

Method Code..: TOCS	Batch Date...: 11/16/05	QC Code........: TOCS	Equipment Code.: TOC4
Batch Code...: 165722	Batch Time...: 1047	Calc Code......: TOCS	Import Code....:
Status.......: RVWD	User Name....: rnm	Location Code..: 57222	

SAMPLE:	Grp	Pos	Sample ID	Dilution	TOCAV3 mg/Kg	TOCAV4 mg/Kg	TOCR1 ug	TOCR2 ug	TOCR3 ug
	1	1	___ICAL_I05JSTTC1_						
	1	2	__S_ICV_I05JSTTC2_				99.4572		
	1	3	__S_MB__				-0.6089		
	1	4	__S_LCS_I00FSTLK3_3				151.9428	92.7542	
	1	5	241814_14_S___				176.7040	138.4516	
	1	6	241814_15_S___				28.0275	38.7655	
	1	7	241867_1_S___				118.4646	125.2606	
	1	8	241867_2_S___				212.2621	253.9179	
	1	9	241867_3_S___				257.7408	218.8751	
	1	10	241867_4_S___				301.3888	209.8279	
	1	11	241867_5_S___				56.9710	53.2131	
	1	12	241867_6_S___				47.5127	51.4272	
	1	13	241867_7_S___				197.2152	141.1147	
	1	14	241867_8_S___				184.2151	178.4800	
	1	15	___CCV_I05JSTTC2_				110.5939		
	1	16	___CCB__				-0.3704		
	1	17	241920_2_S___				93.2169	39.0482	
	1	18	241920_3_S___				74.7632	140.8249	
	1	19	241920_1_S___				149.6746	149.2532	
	1	20	241920_4_S___				100.4914	112.1710	
	1	21	241920_5_S___				141.7881	117.6480	
	1	22	241920_6_S___				50.0335	71.6708	
	1	23	241987_1_S___				144.5862	203.8736	
	1	24	241987_2_S___				184.4137	181.7015	
	1	25	241987_3_S___				312.0613	67.7087	
	1	26	241988_1_S___				153.9346	165.1964	
	1	27	241988_1_S_MS_I05JSTTC2_26				209.0916		
	1	28	241988_1_S_MSD_I05JSTTC2_26				198.0979		
	1	29	___CCV_I05JSTTC2_				105.2618		
	1	30	___CCB__				-0.3968		
	1	31	___LCS__				132.9305	168.2508	
	1	32	241988_2_S___				222.5889	185.1615	
	1	33	241995_1_S___				46.9617	71.6748	
	1	34	241995_1_S_MS_I05JSTTC2_33				163.5480		
	1	35	241995_1_S_MSD_I05JSTTC2_33				144.1932		
	1	36	241995_2_S___				40.8186	39.5913	
	1	37	___CCV_I05JSTTC2_				98.8892		
	1	38	___CCB__				-0.5829		

*** RAW TEST DATA *** (V2)

Total Organic Carbon (Soils)

Report Date: 11/16/05 12:58

Method Code..: TOCS
Batch Code...: 165722
Status.......: RVWD

Batch Date...: 11/16/05
Batch Time...: 1047
User Name....: rmm

QC Code........: TOCS
Calc Code......: TOCS
Location Code..: 57222

Equipment Code.: TOC4
Import Code....:

SAMPLE:	Grp	Pos	Sample ID	Dilution	TOCR4 ug	WT1 g	WT2 g	WT3 g	WT4 g
	1	1	___ICAL_I05JSTTC1_						
	1	2	__S_ICV_I05JSTTC2_			0.05			
	1	3	__S_MB__			0.16			
	1	4	__S_LCS_I00FSTLK3_3			0.033	0.0200		
	1	5	241814_14_S___			0.0555	0.0410		
	1	6	241814_15_S___			0.0486	0.0684		
	1	7	241867_1_S___			0.0126	0.0150		
	1	8	241867_2_S___			0.0052	0.0050		
	1	9	241867_3_S___			0.0474	0.0396		
	1	10	241867_4_S___			0.0136	0.0073		
	1	11	241867_5_S___			0.0274	0.0319		
	1	12	241867_6_S___			0.0445	0.0485		
	1	13	241867_7_S___			0.0135	0.0089		
	1	14	241867_8_S___			0.0024	0.0027		
	1	15	___CCV_I05JSTTC2_			0.05			
	1	16	___CCB__			0.16			
	1	17	241920_2_S___			0.0153	0.0160		
	1	18	241920_3_S___			0.0257	0.0384		
	1	19	241920_1_S___			0.0340	0.0407		
	1	20	241920_4_S___			0.0343	0.0355		
	1	21	241920_5_S___			0.0412	0.0426		
	1	22	241920_6_S___			0.0084	0.0175		
	1	23	241987_1_S___			0.0013	0.0015		
	1	24	241987_2_S___			0.0028	0.0024		
	1	25	241987_3_S___			0.0021	0.0008		
	1	26	241988_1_S___			0.0212	0.0162		
	1	27	241988_1_S_MS_I05JSTTC2_26			0.0134			
	1	28	241988_1_S_MSD_I05JSTTC2_26			0.0129			
	1	29	___CCV_I05JSTTC2_			0.05			
	1	30	___CCB__			0.16			
	1	31	___LCS__			0.0349	0.0343		
	1	32	241988_2_S___			0.0174	0.0153		
	1	33	241995_1_S___			0.0133	0.0346		
	1	34	241995_1_S_MS_I05JSTTC2_33			0.0194			
	1	35	241995_1_S_MSD_I05JSTTC2_33			0.0208			
	1	36	241995_2_S___			0.0223	0.0386		
	1	37	___CCV_I05JSTTC2_			0.05			
	1	38	___CCB__			0.16			

*** RAW TEST DATA *** (V2)

Total Organic Carbon (Soils)

Report Date: 11/16/05 12:58

Method Code..: TOCS
Batch Code...: 165722
Status.......: RVWD

Batch Date...: 11/16/05
Batch Time...: 1047
User Name....: rrm

QC Code........: TOCS
Calc Code......: TOCS
Location Code..: 57222

Equipment Code.: TOC4
Import Code....:

SAMPLE:	Grp	Pos	Sample ID	Dilution	DLFAC N/A	TCS mg/Kg	TCS2 mg/Kg	TCSAV2 mg/Kg	TICS mg/Kg
	1	1	___ICAL_I05JSTTC1_						
	1	2	__S_ICV_I05JSTTC2_		3.2000				
	1	3	__S_MB__		1.0000				
	1	4	__S_LCS_I00FSTLK3_3		6.0377				
	1	5	241814_14_S___		3.3161				
	1	6	241814_15_S___		2.7350				
	1	7	241867_1_S___		11.5942				
	1	8	241867_2_S___		31.3725				
	1	9	241867_3_S___		3.6782				
	1	10	241867_4_S___		15.3110				
	1	11	241867_5_S___		5.3963				
	1	12	241867_6_S___		3.4409				
	1	13	241867_7_S___		14.2857				
	1	14	241867_8_S___		62.7451				
	1	15	___CCV_I05JSTTC2_		3.2000				
	1	16	___CCB__		1.0000				
	1	17	241920_2_S___		10.1587				
	1	18	241920_3_S___		4.9922				
	1	19	241920_1_S___		4.2838				
	1	20	241920_4_S___		4.5845				
	1	21	241920_5_S___		3.8186				
	1	22	241920_6_S___		12.3552				
	1	23	241987_1_S___		114.2857				
	1	24	241987_2_S___		61.5385				
	1	25	241987_3_S___		110.3448				
	1	26	241988_1_S___		8.5561				
	1	27	241988_1_S_MS_I05JSTTC2_26		11.9403				
	1	28	241988_1_S_MSD_I05JSTTC2_26		12.4031				
	1	29	___CCV_I05JSTTC2_		3.2000				
	1	30	___CCB__		1.0000				
	1	31	___LCS__		4.6243				
	1	32	241988_2_S___		9.7859				
	1	33	241995_1_S___		6.6806				
	1	34	241995_1_S_MS_I05JSTTC2_33		8.2474				
	1	35	241995_1_S_MSD_I05JSTTC2_33		7.6923				
	1	36	241995_2_S___		5.2545				
	1	37	___CCV_I05JSTTC2_		3.2000				
	1	38	___CCB__		1.0000				

Calibration Report   Print Date/Time: 2005/11/15 22:02:53

Cal. Curve ID: SOILCURVE
Created: 10/13/2005 10:55
Calibration Factor (m): 9.016e+04
Y Intercept (b): -41304
r-squared: 0.99989

Standard ID	Y Raw Data	X Expected ug C	Measured ug C	Message	Date & Time
0 ugram C	759	0.000	0.467	No Sample Det	10/13/2005 08:41
10ugramC	901557	10.000	10.458		10/13/2005 08:55
20 ugram C	1904744	20.000	21.585		10/13/2005 09:23
40 ugram C	3594471	40.000	40.327		10/13/2005 09:35
80 ugram C	7069674	80.000	78.873		10/13/2005 09:45
120 ugram C	10496726	120.000	116.886		10/13/2005 09:57
200 ugram C	17972838	200.000	199.809		10/13/2005 10:07
300 ugram C	27172866	300.000	301.854		10/13/2005 10:17
400 ugram C	35998128	400.000	399.742		10/13/2005 10:31

165722
165743

Multiple Analysis Report   Print Date/Time: 2005/11/15 22:20:57

Sample ID	Result	Std. Dev.	RSD	Mode	ALT
ICV	99.4572			TC	
ICB	-0.6089			TC	
LCS	151.9428			TC	
LCS	92.7542			TC	
241814-14	176.7040			TC	
241814-14	138.4516			TC	
241814-15	28.0275			TC	
241814-15	38.7655			TC	
241867-1	412.8529			TC	
241867-1	118.4646			TC	
241867-1	125.2606			TC	
241867-2	511.0553			TC	
241867-2	212.2621			TC	
241867-2	253.9179			TC	
241867-3	257.7408			TC	
241867-3	218.8751			TC	
241867-4	533.5005			TC	
241867-4	301.3888			TC	
241867-4	441.4874			TC	
241867-4	209.8279			TC	
241867-5	56.9710			TC	
241867-5	53.2131			TC	
241867-6	47.5127			TC	
241867-6	51.4272			TC	
241867-7	197.2152			TC	
241867-7	141.1147			TC	
241867-8	548.1509			TC	
241867-8	184.2151			TC	
241867-8	178.4800			TC	
CCV	110.5939			TC	
CCB	-0.3704			TC	
241920-1	93.2169			TC	
241920-1	39.0482			TC	
241920-2	74.7632			TC	
241920-2	140.8249			TC	
241920-1	-0.2872			TC	
241920-1	149.6746			TC	
241920-1	149.2532			TC	
241920-4	100.4914			TC	
241920-4	112.1710			TC	
241920-5	141.7881			TC	
241920-5	117.6480			TC	
241920-6	50.0335			TC	
241920-6	71.6708			TC	
241987-1	676.9399			TC	
241987-1	144.5862			TC	
241987-1	203.8736			TC	
241987-2	1690.2710			TC	
241987-2	184.4137			TC	
241987-2	181.7015			TC	
241987-3	1204.7581			TC	
241987-3	312.0613			TC	
241987-3	67.7087			TC	
241988-1	153.9346			TC	
241988-1	165.1964			TC	
241988-1 MS	209.0916			TC	
241988-1 MSD	198.0979			TC	
CCV	105.2618			TC	
CCB	-0.3968			TC	
LCS	168.5156			TC	
LCS	132.9305			TC	
LCS	130.3142			TC	
LCS	168.2508			TC	

241988-2	222.5889	TC
241988-2	185.1615	TC
241995-1	46.9617	TC
241995-1	71.6748	TC
241995-1 MS	163.5480	TC
241995-1 MSD	144.1932	TC
241995-2	40.8186	TC
241995-2	39.5913	TC
CCV	98.8892	TC
CCB	-0.5829	TC

Detailed Analysis Report   Print Date/Time: 2005/11/15 22:21:00

Sample ID: ICV
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca
Mode: TC
Filename: 11151203
Timestamp: 11/15/2005 12:09
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	99.4572	99.4572	8925439	1.467	2.466	305

Sample ID: ICB
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca
Mode: TC
Filename: 11151209
Timestamp: 11/15/2005 12:12
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-0.6089	-0.6089	-29129	1.764	1.522	120

Last Message: No Sample Detected

Sample ID: LCS
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca
Mode: TC
Filename: 11151214
Timestamp: 11/15/2005 12:19
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	151.9428	151.9428	13724448	2.290	3.290	256

Sample ID: LCS
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca
Mode: TC
Filename: 11151221
Timestamp: 11/15/2005 12:27
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	92.7542	92.7542	8388192	1.521	2.520	265

Sample ID: 241814-14
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca
Mode: TC
Filename: 11151227
Timestamp: 11/15/2005 12:33
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	176.7040	176.7040	15956843	2.454	3.450	285

Sample ID: 241814-14
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca
Mode: TC
Filename: 11151237
Timestamp: 11/15/2005 12:43
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time

1	51.4272	51.4272	4662277	1.357	2.354	252

Sample ID: 241867-7
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca

Mode: TC
Filename: 11151523
Timestamp: 11/15/2005 15:29
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	197.2152	197.2152	17806060	1.816	2.815	289

Sample ID: 241867-7
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca

Mode: TC
Filename: 11151530
Timestamp: 11/15/2005 15:36
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	141.1147	141.1147	12748223	1.896	2.895	301

Sample ID: 241867-8
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca

Mode: TC
Filename: 11151539
Timestamp: 11/15/2005 15:45
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	548.1509	548.1509	49445320	1.920	2.918	345

Sample ID: 241867-8
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca

Mode: TC
Filename: 11151548
Timestamp: 11/15/2005 15:54
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	184.2151	184.2151	16634018	1.636	2.635	280

Sample ID: 241867-8
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca

Mode: TC
Filename: 11151555
Timestamp: 11/15/2005 16:00
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	178.4800	178.4800	16116960	1.886	2.882	274

Sample ID: CCV
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca

Mode: TC
Filename: 11151614
Timestamp: 11/15/2005 16:18
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	110.5939	110.5939	9929488	4.766	5.759	243

Sample ID: CCB
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca

Mode: TC
Filename: 11151625
Timestamp: 11/15/2005 16:27
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-0.3704	-0.3704	-7632	1.693	1.557	120

Last Message: No Sample Detected

Sample ID: 241920-1 2 DW 11/16/05
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca

Mode: TC
Filename: 11151631
Timestamp: 11/15/2005 16:35
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	93.2169	93.2169	8429902	6.423	7.415	200

Sample ID: 241920-1 2 DW 11/16/05
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca

Mode: TC
Filename: 11151636
Timestamp: 11/15/2005 16:40
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	39.0482	39.0482	3546222	2.428	3.425	207

Sample ID: 241920-2 3 DW 11/16/05
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca

Mode: TC
Filename: 11151642
Timestamp: 11/15/2005 16:47
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	74.7632	74.7632	6766181	2.002	3.001	258

Sample ID: 241920-2 3 DW 11/16/05
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca

Mode: TC
Filename: 11151648
Timestamp: 11/15/2005 16:54
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	140.8249	140.8249	12722089	1.668	2.668	319

Sample ID: 241920-1
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca

Mode: TC
Filename: 11151657
Timestamp: 11/15/2005 17:00
Sample Type: Sample

boat missed

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time

				Baseline.	Baseline	Time
1	117.6480	117.6480	10632535	1.176	2.176	297

==

Sample ID: 241920-6
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca

Mode: TC
Filename: 11151808
Timestamp: 11/15/2005 18:14
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	50.0335	50.0335	4536624	1.410	2.408	285

==

Sample ID: 241920-6
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca

Mode: TC
Filename: 11151818
Timestamp: 11/15/2005 18:23
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	71.6708	71.6708	6487376	1.092	2.089	293

==

Sample ID: 241987-1
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca

over range

Mode: TC
Filename: 11151824
Timestamp: 11/15/2005 18:31
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	676.9399	676.9399	61056528	1.804	2.804	350

==

Sample ID: 241987-1
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca

Mode: TC
Filename: 11151833
Timestamp: 11/15/2005 18:38
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	144.5862	144.5862	13061196	1.971	2.971	275

==

Sample ID: 241987-1
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca

Mode: TC
Filename: 11151840
Timestamp: 11/15/2005 18:51
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	203.8736	203.8736	18406362	1.491	2.490	307

==

Sample ID: 241987-2
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca

over range

Mode: TC
Filename: 11151854
Timestamp: 11/15/2005 19:02
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time

1	1690.2710	1690.2710	152415248	1.462	3.487	479

Last Message: Over-range

Sample ID: 241987-2
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca

Mode: TC
Filename: 11151904
Timestamp: 11/15/2005 19:09
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	184.4137	184.4137	16651917	2.551	3.550	286

Sample ID: 241987-2
Method: boat
Cal. Curve: SOILCURVE

Operator ID: Rebecca

Mode: TC
Filename: 11151910
Timestamp: 11/15/2005 19:16

Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	181.7015	181.7015	16407400	1.963	2.963	319

Sample ID: 241987-3
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca

Over range

Mode: TC
Filename: 11151918
Timestamp: 11/15/2005 19:25
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1204.7581	1204.7581	108642936	1.872	2.872	395

Last Message: Over-range

Sample ID: 241987-3
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca

Mode: TC
Filename: 11151926
Timestamp: 11/15/2005 19:32
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	312.0613	312.0613	28160222	2.349	3.347	304

Sample ID: 241987-3
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca

Mode: TC
Filename: 11151934
Timestamp: 11/15/2005 19:39
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	67.7087	67.7087	6130167	1.806	2.805	252

Sample ID: 241988-1
Method: boat
Cal. Curve: SOILCURVE

Mode: TC
Filename: 11151943
Timestamp: 11/15/2005 19:48

Operator ID: Rebecca
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	153.9346	153.9346	13904022	2.726	3.724	274

Sample ID: 241988-1
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca
Mode: TC
Filename: 11151950
Timestamp: 11/15/2005 19:55
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	165.1964	165.1964	14919349	1.667	2.665	287

Sample ID: 241988-1 MS
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca
Mode: TC
Filename: 11151957
Timestamp: 11/15/2005 20:03
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	209.0916	209.0916	18876802	1.592	2.592	347

Sample ID: 241988-1 MSD
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca
Mode: TC
Filename: 11152006
Timestamp: 11/15/2005 20:12
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	198.0979	198.0979	17885640	1.739	2.737	330

Sample ID: CCV
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca
Mode: TC
Filename: 11152016
Timestamp: 11/15/2005 20:23
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	105.2618	105.2618	9448764	1.000	1.999	379

Sample ID: CCB
Method: boat
Cal. Curve: SOILCURVE
Operator ID: Rebecca
Mode: TC
Filename: 11152026
Timestamp: 11/15/2005 20:28
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-0.3968	-0.3968	-10007	1.515	1.352	120

Last Message: No Sample Detected

Sample ID: LCS
Method: boat
Mode: TC
Filename: 11152031

STL Chicago
TOC in Soils
Method: Lloyd Kahn

Page No.: 5
Book No.:
Instrument: Phoenix 8000 (TOC4)
LabNet Batch: 16522
Date of Standard Curve: 10/13/05
Book # ________ Page # ________

Calculations:

TOC (mg/kg) = ug C / grams sample
MS, MSD Known Conc. (mg/kg) = 100 ug C / grams sample
MS, MSD Observed (mg/kg) = ug C / grams sample
MS, MSD Rec. = [observed mg/kg – avg. sample result (mg/kg)] / known concentration in mg/kg x 100

Standard Traceability: (Note: Working Standards are prepared daily from the noted Stock Solutions.)

Stock I (Curve) I05JSTTC 1 Stock II (ICV/CCV) I05 JSTTC 2

LCS Source ID I00FSTLC3 LCS True Value 4780 Acceptance Range 53-140 %

Sample ID:	Sample Weight (g)	ug C	Comments:
ICV	0.05	99.4572	
ICB/MB	0.16	-0.6089	
LCS	0.0330	151.9408	96%
LCS	~~0.0300~~ 0.0200	92.7542	97%
241814-14	0.0555	176.7041	
-14	0.0410	136.4516	
-15	0.0486	28.0275	
-15	~~0.0490~~ 0.0681	38.7655	
~~241867-1~~	~~0.04500~~	~~412.8529~~	~~overrange~~ RM 11/15/05 Endpoint-time
241867-1	0.0126	118.4046	
-1	0.0150	125.2606	
-2	0.0112	511.0553	Overrange RM 11/15/05
-2	0.0052	212.2621	
-2	0.0050	253.9179	
-3	0.0474	257.7408	
-3	0.0396	218.8751	
~~-4~~	~~0.0383~~	~~533.5005~~	Overrange RM 11/15/05
-4	0.0091	301.3889	
-4	0.0136	441.4874	
-54	0.0073	209.8279	
-5	0.0274	56.9710	
-5	0.0319	53.2131	

Prep Analyst: Sujata Olivier Date:
Analyst: Rebecca N. Myo Date: 11/15/05 1200
Reviewed by: [signature] Date: 11/16/05

STL Chicago
TOC in Soils
Method: Lloyd Kahn

Page No.: 6
Book No.:
Instrument: Phoenix 8000 (TOC4)
LabNet Batch: 163722
Date of Standard Curve: 10/13/05
Book # ______ Page # ______

Cont.

Calculations:
TOC (mg/kg) = ug C / grams sample
MS, MSD Known Conc. (mg/kg) = 100 ug C / grams sample
MS, MSD Observed (mg/kg) = ug C / grams sample
MS, MSD Rec. = [observed mg/kg – avg. sample result (mg/kg)] x 100 / known concentration in mg/kg

see page 5

Standard Traceability: (Note: Working Standards are prepared daily from the noted Stock Solutions.)

Stock I (Curve) ______ Stock II (ICV/CCV) ______

LCS Source ID ______ LCS True Value ______ Acceptance Range ______

Sample ID:	Sample Weight (g)	ug C	Comments:
241867-6	0.0445	47.5127	
-6	0.0485	51.4272	
-7	0.0135	197.2152	
-7	0.0089	141.1147	
-8	0.0075	548.1509	
-8	0.0024	184.2151	
-8	0.0027		
CCV	0.05		
CCB	~~0.3704~~ 0.16	-0.3704	
241920-12	0.0155	93.2169	
-12	0.0160	39.0461	
-13	0.0257	74.7632	
-13	0.0364	140.8249	
~~-1~~	~~0.0090~~	~~-0.2872~~	~~Non Detect~~ RM 11/15/05
-1	0.0340	149.6746	
-1	0.0407	149.2532	
-4	0.0343	100.4914	
-4	0.0355	112.1710	
-5	0.0412	141.7881	
-5	0.0426	117.6480	
-6	0.0094	80.0335	
-6	0.0175		

Prep Analyst: Ros Sanita Quin / [illegible] Date: 11/14/05
Analyst: Rebecca N. Myers Date: 11/15/05
Reviewed by: [signature] Date: 11/16/05

STL Chicago
TOC in Soils
Method: Lloyd Kahn

Page No.: 7
Book No.:
Instrument: Phoenix 8000 (TOC4)
LabNet Batch: 165722/165723
Date of Standard Curve: 10/13/05
Book # ________ Page # ________

cont.

Calculations:

TOC (mg/kg) = ug C / grams sample

MS, MSD Known Conc. (mg/kg) = 100 ug C / grams sample

MS, MSD Observed (mg/kg) = ug C / grams sample

MS, MSD Rec. = [observed mg/kg – avg. sample result (mg/kg)] / known concentration in mg/kg x 100

Standard Traceability: (Note: Working Standards are prepared daily from the noted Stock Solutions.) see page 5

Stock I (Curve) ________ Stock II (ICV/CCV) ________

LCS Source ID ________ LCS True Value ________ Acceptance Range ________

Sample ID:	Sample Weight (g)	ug C	Comments:
~~241987-1~~	~~0.0079~~	~~676.9399~~	~~overrange~~ RM 11/15/05
-1	0.008113	144.5862	
-1	0.0015	263.8736	
~~-2~~	~~0.0248~~	~~1090.2710~~	~~Overrange~~ RM 11/15/05
-2	0.0026	184.4137	
-2	0.0024	161.7015	
~~-3~~	~~0.0121~~	~~1204.7881~~	Overrange RM 11/15/05
-3	0.0021	312.0613	
-3	0.0008	67.7083	
241988-1	0.0212	153.9340	avg = 8729.2 mg/kg
-1	0.0162	165.1964	mg/kg obs mg/kg %REC
-1MS	0.0134	209.0916	TV= 7462.7 15603.8 92
-1MSD	0.0129	198.0979	TV= 7719.4 15356.4 86 (RPD 6.7)
CCV	0.05	105.2618	
CCB/MB	0.10	-0.3968	
~~LCS~~	~~0.02589~~	~~168.5136~~	~~1368~~ overrange RM 11/15/05
LCS	0.0349	132.9305	79.68
~~LCS 241988-2~~	~~0.0204~~ 0.0203	~~130.3142~~	~~1348~~ overrange RM 11/15/05
LCS	0.0343	108.2508	1038
241988-2	0.0174	222.5689	
-2	0.0153	185.7615	
241995-1	0.0133	46.9617	

Prep Analyst: [signature] Date: 11/14/05
Analyst: Rebecca N. Mino Date: 11/15/05
Reviewed by: [signature] Date: 11/16/05

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Syracuse, New York 13212
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SOIL BORING LOG

Project: Midler Ave. **Client:** Pioneer Midler, LLC		**Soil Boring ID:**	SWVT-1
Location: Syracuse, NY		**Project No.:** C81.002.001	
Contractor: CME	**Equipment:** DEIDRICH 120	**Date:** 11/11/05	**Logged By:** T. Wirickx
Northing: NA	**Easting:** NA	**Surface Elevation:** NA	**Depth to Water:** NA

Depth (ft.)	Sample Number	PID Reading (ppm)	Recovery (in.)	Soil Classification	Graphic Log	Physical Description Lithology	Remarks
0	S-1	NR	16	GW		Dark grey and black, moist, fmc SAND and f GRAVEL, trace slag	
				GW		Dark grey and black, moist, fmc SAND and f GRAVEL, little marl and slag	
2	S-2	NR	12	SM		Black, moist, fm SAND, some marl, trace slag	
4	S-3	NR	14	SP		Black, moist, fm SAND, little marl, trace slag	
6	S-4	NR	18	SW		Black, wet, fmc SAND, little slag	
8	S-5	NR	20				
10	S-6	NR	14				
				ML		Beige, wet, MARL	
12	S-7	NR	12	SM		Beige, wet, MARL, f concretions	
14	S-8	NR	12				
16	S-9	NR	16				
18	S-10	NR	14				
20							

NON COHESIVE		COHESIVE	
BLOWS FT.	DENSITY	BLOWS FT.	DENSITY
0-4	VERY LOOSE	0-2	VERY SOFT
4-10	LOOSE	2-4	SOFT
10-30	MEDIUM COMPACT	4-8	MEDIUM STIFF
30-50	COMPACT	8-15	STIFF
50+	VERY COMPACT	15-30	VERY STIFF

FIELD SOIL CLASSIFICATION			
% COMPOSITION	MODIFIER	DESCRIPTION	GRAIN SIZE
40% - 50%	AND	SILT AND CLAY	< 0.074 mm
20% - 40%	SOME	SAND	
10% - 20%	LITTLE	Coarse	0.074 - 0.42 mm
1% - 10%	TRACE	Medium	0.42 - 2.00 mm
		Fine	2.00 - 4.76 mm
		GRAVEL	4.76 - 76 mm

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SOIL BORING LOG

Project: Midler Ave.		**Soil Boring ID:**	SWVT-1		
Client: Pioneer Midler, LLC					
Location: Syracuse, NY		**Project No.:** C81.002.001			
Contractor: CME	**Equipment:** DEIDRICH 120		**Date:** 11/11/05	**Logged By:** T. Wirickx	
Northing: NA	**Easting:** NA	**Surface Elevation:** NA		**Depth to Water:** NA	

Depth (ft.)	Sample Number	PID Reading (ppm)	Recovery (in.)	Soil Classification	Graphic Log	Physical Description Lithology	Remarks
20–22	S-11	NR	16				
22				CH		Grey, wet, CLAY	
24							
26							
28							
30							
32							
34							
36							
38							
40							

NON COHESIVE		COHESIVE	
BLOWS FT.	DENSITY	BLOWS FT.	DENSITY
0-4	VERY LOOSE	0-2	VERY SOFT
4-10	LOOSE	2-4	SOFT
10-30	MEDIUM COMPACT	4-8	MEDIUM STIFF
30-50	COMPACT	8-15	STIFF
50+	VERY COMPACT	15-30	VERY STIFF

FIELD SOIL CLASSIFICATION			
% COMPOSITION	MODIFIER	DESCRIPTION	GRAIN SIZE
40% - 50%	AND	SILT AND CLAY	< 0.074 mm
20% - 40%	SOME	SAND	
10% - 20%	LITTLE	Coarse	0.074 - 0.42 mm
1% - 10%	TRACE	Medium	0.42 - 2.00 mm
		Fine	2.00 - 4.76 mm
		GRAVEL	4.76 - 76 mm

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SOIL BORING LOG

Project: Midler Ave.
Client: Pioneer Midler, LLC
Soil Boring ID: SWVT-2
Location: Syracuse, NY
Project No.: C81.002.001
Contractor: CME
Equipment: DEIDRICH 120
Date: 11/11/05
Logged By: T. Wirickx
Northing: NA
Easting: NA
Surface Elevation: NA
Depth to Water: NA

Depth (ft.)	Sample Number	PID Reading (ppm)	Recovery (in.)	Soil Classification	Graphic Log	Physical Description Lithology	Remarks
0–2	S-1	NR	8	GW		Dark grey, moist, fmc SAND and f GRAVEL, little slag	
2–4	NS	NR	NS			Not Sampled	
4–6	S-2	NR	14	SP		Black, moist to wet, fm SAND	
				PT		Dark brown, moist, PEAT	
				SM		Beige, wet, MARL, f concretions	
6–8	S-3	NR	16	PT		Brown, wet, PEAT, little wood	
8–10	S-4	NR	20	GM		Beige, wet, MARL, fm concretions	
10–12	S-5	NR	12	GP		Beige, wet, MARL, fmc concretions	
12–14	S-6	NR	8	GM		Beige, wet, MARL, fm concretions	
14–16	S-7	NR	12	SM		Red tan, wet, f sand, some silt	
16–20							

NON COHESIVE		COHESIVE	
BLOWS FT.	DENSITY	BLOWS FT.	DENSITY
0-4	VERY LOOSE	0-2	VERY SOFT
4-10	LOOSE	2-4	SOFT
10-30	MEDIUM COMPACT	4-8	MEDIUM STIFF
30-50	COMPACT	8-15	STIFF
50+	VERY COMPACT	15-30	VERY STIFF

FIELD SOIL CLASSIFICATION			
% COMPOSITION	MODIFIER	DESCRIPTION	GRAIN SIZE
40% - 50%	AND	SILT AND CLAY	< 0.074 mm
20% - 40%	SOME	SAND	
10% - 20%	LITTLE	Coarse	0.074 - 0.42 mm
1% - 10%	TRACE	Medium	0.42 - 2.00 mm
		Fine	2.00 - 4.76 mm
		GRAVEL	4.76 - 76 mm

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SOIL BORING LOG

Project: Midler Ave. **Client:** Pioneer Midler, LLC		**Soil Boring ID:**	SWVT-3
Location: Syracuse, NY		**Project No.:** C81.002.001	
Contractor: CME	**Equipment:** DEIDRICH 120	**Date:** 11/11/05	**Logged By:** T. Wirickx
Northing: NA	**Easting:** NA	**Surface Elevation:** NA	**Depth to Water:** NA

Depth (ft.)	Sample Number	PID Reading (ppm)	Recovery (in.)	Soil Classification	Graphic Log	Physical Description Lithology	Remarks
0–2	S-1	NR		GW		Dark grey, moist, fmc SAND and fc GRAVEL, some silt	
2–4	S-2	NR		GW / SW		Black, wet, fmc SAND and SLAG	
4–6	S-3	NR		SP		Black, wet, f SAND, trace slag	
6–8	S-4	NR		SP			
8–10	S-5	NR		SP		Brown, wet, f SAND, trace slag	
10–12	S-6	NR		SP / PT			
12–14	S-7	NR		PT		Dark brown, wet, PEAT	
14–16	S-8	NR		SM		Beige, wet, MARL, little peat, f concretions	
16–18	S-9	NR		PT		Dark brown, wet, PEAT, little marl and wood	
18–20							

NON COHESIVE		COHESIVE	
BLOWS FT.	DENSITY	BLOWS FT.	DENSITY
0-4	VERY LOOSE	0-2	VERY SOFT
4-10	LOOSE	2-4	SOFT
10-30	MEDIUM COMPACT	4-8	MEDIUM STIFF
30-50	COMPACT	8-15	STIFF
50+	VERY COMPACT	15-30	VERY STIFF

FIELD SOIL CLASSIFICATION			
% COMPOSITION	MODIFIER	DESCRIPTION	GRAIN SIZE
40% - 50%	AND	SILT AND CLAY	< 0.074 mm
20% - 40%	SOME	SAND	
10% - 20%	LITTLE	Coarse	0.074 - 0.42 mm
1% - 10%	TRACE	Medium	0.42 - 2.00 mm
		Fine	2.00 - 4.76 mm
		GRAVEL	4.76 - 76 mm

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SOIL BORING LOG

Project: Midler Ave.			
Client: Pioneer Midler, LLC		**Soil Boring ID:** GPD-55	
Location: Syracuse, NY		**Project No.:** C81.002.001	
Contractor: Lyon Drilling Co.	**Equipment:** Custom GP	**Date:** 9/21/05	**Logged By:** T. Wirickx
Northing: NA	**Easting:** NA	**Surface Elevation:** 421.60	**Depth to Water:** ~4.0

Depth (ft.)	Sample Number	PID Reading (ppm)	Recovery (ft.)	Soil Classification	Graphic Log	Physical Description Lithology	Remarks
0						ASPHALT	
						CONCRETE	
2	S-1	2.1	1.5	SP		Dark brown, moist, fm SAND	
4	S-2	1.9	2.5	ML		Beige, wet, MARL	Petroleum odor, free product, sampled 4-7'
6				GP		Beige, wet, MARL, fmc concretions	
8	S-3	1.3	3.0	SM		Beige, wet, MARL, f concretions	
10							
12	S-4	13.6	3.5				
14				ML		Beige, wet, MARL	
16	S-5	20.2	3.0				Sampled 15-18'
				PT		Dark brown, wet, PEAT, little marl	
18		0.6		CH		Grey, moist, CLAY	
20	S-6	NR	NR			NO RECOVERY	

NON COHESIVE		COHESIVE	
BLOWS FT.	DENSITY	BLOWS FT.	DENSITY
0-4	VERY LOOSE	0-2	VERY SOFT
4-10	LOOSE	2-4	SOFT
10-30	MEDIUM COMPACT	4-8	MEDIUM STIFF
30-50	COMPACT	8-15	STIFF
50+	VERY COMPACT	15-30	VERY STIFF

FIELD SOIL CLASSIFICATION			
% COMPOSITION	MODIFIER	DESCRIPTION	GRAIN SIZE
40% - 50%	AND	SILT AND CLAY	< 0.074 mm
20% - 40%	SOME	SAND	
10% - 20%	LITTLE	Coarse	
1% - 10%	TRACE	Medium	0.074 - 0.42 mm
		Fine	0.42 - 2.00 mm
			2.00 - 4.76 mm
		GRAVEL	4.76 - 76 mm

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SOIL BORING LOG

Project: Midler Ave.		**Soil Boring ID:**	GPD-55
Client: Pioneer Midler, LLC			
Location: Syracuse, NY		**Project No.:** C81.002.001	
Contractor: Lyon Drilling Co.	**Equipment:** Custom GP	**Date:** 9/21/05	**Logged By:** T. Wirickx
Northing: NA	**Easting:** NA	**Surface Elevation:** 421.60	**Depth to Water:** ~4.0

Depth (ft.)	Sample Number	PID Reading (ppm)	Recovery (ft.)	Soil Classification	Graphic Log	Physical Description Lithology	Remarks
22							Terminated boring at 21'
24							
26							
28							
30							
32							
34							
36							
38							
40							

NON COHESIVE		COHESIVE	
BLOWS FT.	DENSITY	BLOWS FT.	DENSITY
0-4	VERY LOOSE	0-2	VERY SOFT
4-10	LOOSE	2-4	SOFT
10-30	MEDIUM COMPACT	4-8	MEDIUM STIFF
30-50	COMPACT	8-15	STIFF
50+	VERY COMPACT	15-30	VERY STIFF

FIELD SOIL CLASSIFICATION			
% COMPOSITION	MODIFIER	DESCRIPTION	GRAIN SIZE
40% - 50%	AND	SILT AND CLAY	< 0.074 mm
20% - 40%	SOME	SAND	
10% - 20%	LITTLE	Coarse	0.074 - 0.42 mm
1% - 10%	TRACE	Medium	0.42 - 2.00 mm
		Fine	2.00 - 4.76 mm
		GRAVEL	4.76 - 76 mm

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SOIL BORING LOG

Project: Midler Ave.					
Client: Pioneer Midler, LLC		**Soil Boring ID:**	GPD-60		
Location: Syracuse, NY		**Project No.:** C81.002.001			
Contractor: Lyon Drilling Co.	**Equipment:** Custom GP	**Date:** 9/22/05		**Logged By:** T. Wirickx	
Northing: NA	**Easting:** NA	**Surface Elevation:** 421.80		**Depth to Water:** ~3.5	

Depth (ft.)	Sample Number	PID Reading (ppm)	Recovery (ft.)	Soil Classification	Graphic Log	Physical Description Lithology	Remarks
0	S-1		1.0			CONCRETE	
		137		GP		Black and brown, damp, f SAND, SLAG, GLASS and BRICK	
2				ML		White, moist to wet, MARL	
4	S-2	220	1.0	ML		Beige, wet, MARL	Sampled 4-7'
6				PT		Brown, wet, PEAT, some marl	
8	S-3	0.8	2.5	GP		Beige, wet, MARL, fmc concretions	
10				SM		Beige, wet, MARL, f concretions	
12	S-4	0.8	1.5	PT		Dark brown, wet, PEAT, trace marl	
14		0.7		CH		Grey, moist, CLAY	
16							Terminated boring at 15'
18							
20							

NON COHESIVE BLOWS FT.	NON COHESIVE DENSITY	COHESIVE BLOWS FT.	COHESIVE DENSITY
0-4	VERY LOOSE	0-2	VERY SOFT
4-10	LOOSE	2-4	SOFT
10-30	MEDIUM COMPACT	4-8	MEDIUM STIFF
30-50	COMPACT	8-15	STIFF
50+	VERY COMPACT	15-30	VERY STIFF

FIELD SOIL CLASSIFICATION

% COMPOSITION	MODIFIER	DESCRIPTION	GRAIN SIZE
40% - 50%	AND	SILT AND CLAY	< 0.074 mm
20% - 40%	SOME	SAND	
10% - 20%	LITTLE	Coarse	0.074 - 0.42 mm
1% - 10%	TRACE	Medium	0.42 - 2.00 mm
		Fine	2.00 - 4.76 mm
		GRAVEL	4.76 - 76 mm

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SOIL BORING LOG

Project: Midler Ave.
Client: Pioneer Midler, LLC
Location: Syracuse, NY
Soil Boring ID: SVGP-2
Project No.: C81.002.001
Contractor: Lyon Drilling Co.
Equipment: Custom GP
Date: 9/27/05
Logged By: T. Wirickx
Northing: NA
Easting: NA
Surface Elevation: 421.30
Depth to Water: ~3.8

Depth (ft.)	Sample Number	PID Reading (ppm)	Recovery (ft.)	Soil Classification	Graphic Log	Physical Description Lithology	Remarks
0	S-1	13.4	2.0	GP		Greyish brown, moist, fmc SAND and fc GRAVEL, little silt	
2				GP		Black and brown, moist to wet, fmc SAND, SLAG and BRICK	
4	S-2	4.3	2.5	PT		Dark brown, moist, PEAT, some marl	
6				SM		Beige, wet, MARL, f concretions	
8	S-3	12.8	3.0	ML		Beige, wet, MARL	
10				GP		Beige, wet, MARL, fmc concretions	
12							
14							
16							
18							
20							

NON COHESIVE BLOWS FT.	NON COHESIVE DENSITY	COHESIVE BLOWS FT.	COHESIVE DENSITY
0-4	VERY LOOSE	0-2	VERY SOFT
4-10	LOOSE	2-4	SOFT
10-30	MEDIUM COMPACT	4-8	MEDIUM STIFF
30-50	COMPACT	8-15	STIFF
50+	VERY COMPACT	15-30	VERY STIFF

FIELD SOIL CLASSIFICATION

% COMPOSITION	MODIFIER	DESCRIPTION	GRAIN SIZE
40% - 50%	AND	SILT AND CLAY	< 0.074 mm
20% - 40%	SOME	SAND	
10% - 20%	LITTLE	Coarse	0.074 - 0.42 mm
1% - 10%	TRACE	Medium	0.42 - 2.00 mm
		Fine	2.00 - 4.76 mm
		GRAVEL	4.76 - 76 mm

A-4

NYSDEC-Approved Verification Sampling Protocol

Pioneer Midler Avenue LLC
Revised Thermal Treatment Area (TTA) Verification Sampling Protocol

The following protocol pertains to collection of verification samples from locations and depths proposed in the IRM work Plan and approved by NYSDEC. The purpose of the protocol is to minimize potential volatilization associated with sample cooling and preparation for analysis.

Health and safety issues and PPE associated with verification sampling field work (high temperature sample media and potential electrical hazards) will be reviewed with all on-site personnel.

1. Layout and Survey

   Upon consultation with NYSDEC and the Remedial Contractor, verification sampling points will be determined and clearly marked on each TTA surface. The sample points will correspond to the sample designations from Figure IRM-3 of the IRM Work Plan, adjusted as required to avoid treatment system infrastructure. Once established, the surface location for each sample point will be surveyed.

   For each verification sample point, a sampling interval from the TTA surface will be calculated from surveyed elevations. Each interval will straddle the RI reference sample from Table 3 of the IRM Work Plan (e.g., if the RI sample was reported from the 17'- 20' depth interval, the verification sample will be collected from the depth corresponding to the 16.5'-20.5' interval).

2. Sample Collection

   Soil samples will be collected using a four-foot (nominal) direct push sampling tool with seven six-inch stainless steel or brass sleeve inserts. The recovered sleeved sample cores will be removed from the sampling tool, labeled, and the ends sealed to encapsulate sample media within the sleeves. Each capped and labeled core will be placed in an ice-filled basin and cooled to ambient temperature. Holes in the basin bottom will drain melt-water to reduce the potential for liquid intrusion into the sample.

   Following cooling to ground temperature (approximately 55-60 degrees F) or cooler, equal portions from each core from within the target interval (from the 17'-20' interval in the above example) will be transferred to a labeled laboratory-supplied sample jar and placed onto ice in a cooler. The remaining soil from the sampling sleeves will then be placed within a labeled baggie and will be visually described relative to color, grain size, and moisture content, and surveyed for volatile vapors using a PID. The sampling tool and sleeves will be decontaminated for re-use using an Alconox® wash and potable water rinse.

3. Sample Analysis and Reporting

Per the IRM Work Plan, one sample from each verification sample location and depth, as well as the requisite QA/QC samples, will be submitted for laboratory analysis of TCL VOCs by USEPA Method 8260B.

Laboratory data will be validated per the IRM Work Plan and the Data Usability Summary Report (DUSR) will be included in the IRM Report.

Consistent with the IRM Work Plan: "If the average concentration of each individual CVOC within a thermal treatment area is less than the SSCO for that CVOC (listed in the table in Section 2.1.5), the IRM will be considered complete for that treatment area."

If analytical results from a first round of verification sampling indicate one or more discrete locations and depths within an overall treatment area that require additional treatment to achieve the IRM goals, each of those discrete locations and depths will be re-sampled following the extended treatment period. The second round sample will be collected as close as practical to the location and depth of the related first round sample. Analytical results for the second round samples will then replace the first round results from the same discrete area, and will be utilized with the first round results from the remainder of the treatment area in calculating the average concentration for the treatment area.

4. Sampling Protocol QA/QC

The effectiveness of the above sampling protocol will be reviewed on a continuous basis and revisions to the protocol may be proposed if indicated by experience in the field.