Kevin Scott
Project Manager

March 23, 2012

Mr. Eric Daly
On-Scene Coordinator
U.S. Environmental Protection Agency Region 2
2890 Woodbridge Avenue
Edison, NJ 08837

Subject: Amended Draft Sampling Trip Report for the Riverside Avenue Site Newark, Essex County, New Jersey
Contract: EPA Region 7 START, Region 2 Crossover
Contract No. EP-S7-06-01
Task No. 9004L100178000

Dear Mr. Daly:

Tetra Tech EM Inc. (Tetra Tech) is submitting the amended draft sampling trip report for the Riverside Avenue site located at Riverside Avenue in Newark, New Jersey. The trip report summarizes the test pit sampling activities conducted at the site from January 25 through January 27, 2012 and includes a discussion of the sample results. If you have any questions regarding this report, please contact me at (302) 283-2248 or kevin.scott@tetratech.com.

Sincerely,

Kevin Scott
Project Manager

Enclosure
cc: TDD File

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DRAFT SAMPLING TRIP REPORT
RIVERSIDE AVENUE SITE
NEWARK, ESSEX COUNTY, NEW JERSEY

Prepared for

U.S. Environmental Protection Agency Region 2
Emergency and Remedial Response Division
2890 Woodbridge Avenue
Edison, New Jersey 08837

Prepared by

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EPA Contract No. EP-S7-06-01

Task No. 9004L100178000

March 23, 2012

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1.0 INTRODUCTION

Under Region 7 Superfund Technical Assessment and Response Team (START) Contract No. EP-S7-06-01, Task No. 9004L100178000, U.S. Environmental Protection Agency (EPA) Region 2 tasked Tetra Tech EM Inc. (Tetra Tech) to conduct a removal assessment at the Riverside Avenue site, located in Newark, Essex County, New Jersey. Results from this investigation will be used to determine the nature and extent of soil contamination in the vicinity of the underground storage tank (UST) farm at the site. All sampling was completed in accordance with the site-specific abbreviated sampling and analysis plan (SAP) and quality assurance project plan (QAPP) prepared for the site (Tetra Tech 2012a, 2012b)

Information collected during this investigation will be used to determine if hazardous substances that might pose a significant risk to public health or the environment are present at the site and if remediation is warranted under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), and the Superfund Amendments and Reauthorization Act of 1986 (SARA).

This trip report provides site background information in Section 2.0, describes sampling activities in Section 3.0, summarizes observations from the investigation in Section 4.0, discusses the sample analytical results in Section 5.0 and provides a conclusion and recommendations in Section 6.0. All references cited in this trip report are listed after the text. The appendices include figures illustrating the site and test pit locations associated with this investigation in Appendix A; tables in Appendix B; photographic documentation of site activities in Appendix C; and field logbook notes, and chain-of-custody records in Appendix D and E, respectively.

2.0 BACKGROUND

This section describes the site location and layout, presents a site description, discusses the site's history, and summarizes previous investigation activities conducted on and in the vicinity of the Riverside Avenue site.

2.1 SITE LOCATION AND LAYOUT

The Riverside Avenue site is located off of McCarter Highway (New Jersey Route 21) on Riverside Avenue in Newark, New Jersey, as shown on Figure 1, Site Location Map, in Appendix A. The site is identified in the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) as being located at 29 Riverside Avenue. The geographic coordinates for the approximate center of the site are 40º 45' 56.52" north latitude and 74˚ 9' 32.7594" west longitude. The area being investigated covers

approximately 1/10 of 1 acre (5,000 square feet) on Lot 64 (Block 614) where 10 underground tanks are buried as shown on Figure 2, Site Layout Map, in Appendix A. Lot 64 is owned by the City of Newark, New Jersey. The area of investigation is bordered by commercial properties to the north, by the Passaic River to the east, by commercial properties to the south, and by the Norfolk Southern Railroad, McCarter Highway (New Jersey Route 21), and Riverside Avenue to the west. Access to the site is through Riverside Avenue.

2.2 SITE DESCRIPTION

The Riverside Avenue site is a former PPG paint manufacturing facility located in an industrial area of Newark, New Jersey. Two buildings located on the property have been investigated: Buildings 7 and 12. Building 7 is a three-story building that contains approximately one hundred 3,000 to 10,000-gallon aboveground storage tanks (AST) and two subsurface impoundments (sub-basements), and Building 12 is a five-story building containing two abandoned 10,000-gallon ASTs containing hazardous waste. Previous field investigations have confirmed the presence of ten 12,000-gallon underground storage tanks (UST) containing hazardous substances, primarily volatile organic compounds (VOC), buried in the central portion of the site (Lockheed Martin 2010a). The area surrounding the ten 12,000 UST is the focus of this removal assessment. Figure 2, Site Layout Map, in Appendix A shows the locations of Buildings 7 and 12, and the 12,000-gallon USTs in the center of the site.

Site soil is composed of fill material that was used to create land adjacent to the Passaic River (U.S. Geological Survey [USGS] 1955).

2.3 SITE HISTORY

Based on existing Sanborn Fire Insurance maps, the site has been used for industrial activities from 1909 through 1983. Various operators used the property for the manufacture of paints and varnishes. From 1931 to 1950, PPG conducted operations on approximately 7 acres along the western shore of the Passaic River. From approximately 1950 through 1973, the size of the operations decreased. Various tenants have occupied the property from 1973 through 1993. In 1993, the City of Newark obtained portions of the site through foreclosure (Weston Solutions, Inc. [Weston] 2009; Sanborn Maps 1909, 1931, and 1950).

2.4 PREVIOUS SITE INVESTIGATIONS

In May 2009, Weston completed a preliminary assessment (PA) for the City of Newark as part of the New Jersey Department of Environmental Protection (NJDEP) remediation program. During the PA, Weston investigated Buildings 7 and 12 located in the central portion of the Riverside Avenue site, and the property surrounding the buildings. While conducting the PA, Weston

identified several areas of concern (AOC) based on Sanborn maps. The AOCs included ASTs, USTs, and underground piping (Weston 2009). In August and October 2009, Birdsall Services Group Inc./PMK Group, Inc. (Birdsall) completed a site inspection (SI) at the site to investigate possible contamination from the AOCs. Birdsall also has a geophysical survey completed for the site. The survey identified possible USTs located east of Building 12. Subsequently, 10 USTs were confirmed to be present at this location (Birdsall 2009).

During the SI, A total of 17 soil borings were installed and 23 soils samples were collected. The soil samples were analyzed for total petroleum hydrocarbons (TPH) and priority pollutants. Analytical results from soil samples collected from areas surrounding the identified AOCs contained TPH in every sample; VOCs benzene, toluene, and ethylbenzene in about 12 samples; several semivolatile organic compounds (SVOC) in every sample; lead in every sample; and polychlorinated biphenyls (PCB) in seven samples. SVOC and lead contamination are present in soil throughout the area sampled.

EPA Region 2 requested the EPA Environmental Response Team (ERT) conduct a subsurface investigation of a portion at the Riverside Avenue site. On May 26 and 27, 2010, ERT collected 24 subsurface soil samples from 12 soil borings, 12 groundwater samples from the soil boring locations, and six sediment samples from the Passaic River adjacent to 29 Riverside Avenue (Lockheed Martin 2010a).

The analytical results from the 2010 subsurface investigation identified SVOCs in the 24 soil and six sediment samples collected from the site and the Passaic River, respectively. The most prevalent SVOCs detected in soil include benzo(a)anthracene (up to 4.9 milligrams per kilogram [mg/kg]), benzo(b)fluoranthene (up to 3.3 mg/kg), benzo(k)fluoranthene (up to 4.5 mg/kg), benzo(a)pyrene (up to 4.1 mg/kg), and indeno(1,2,3-cd)pyrene (up to 1.9 mg/kg). Lead was detected in 19 of the 24 soil samples at concentrations up to 4,700 mg/kg. Benzene was detected in two soil samples at concentrations up to 2.9 mg/kg. The sediment samples contained the same SVOCs detected in the soil samples including benzo(a)anthracene (up to 5.2 mg/kg), benzo(b)fluoranthene (up to 4.3 mg/kg), benzo(k)fluoranthene (up to 2.1 mg/kg), benzo(a)pyrene (up to 4.6 mg/kg), and indeno(1,2,3-cd)pyrene (up to 1.8 mg/kg). Lead also was detected in all sediment samples, with a maximum concentration of 21,000 mg/kg (Lockheed Martin 2010a).

Groundwater samples collected during the 2010 subsurface investigation contained notable concentrations of lead in nine of the 12 groundwater samples collected from the soil borings on site, with a maximum concentration of 16 micrograms per liter (µg/L). Other contaminants found in the groundwater samples included benzene (up to 16 µg/L); m,p,o-xylene (up to 1,400 µg/L); methylene chloride (up to 110 µg/L); naphthalene (up to 6.1 µg/L); and 2-methylnaphthalene (8.8 µg/L) (Lockheed Martin 2010a).

In October 2009, NJDEP responded to a spill into the Passaic River from two tanks in the basement of Building 12 on the Riverside Avenue site. The spilled material was characterized as waste solvent and fuel (NJDEP 2009). In response to the spill and the presence of contamination identified during the May 2010 SI, the EPA removal program began removal actions at the site. The actions included surface and subsurface soil sampling, groundwater sampling, and waste characterization (Lockheed Martin 2010b).

Under EPA Region 7 START Contract No. EP-S7-06-01, Technical Direction Document (TDD) No. 0178, EPA Region 2 tasked Tetra Tech to conduct a site removal assessment at the Riverside Avenue site in June 2010. Tetra Tech completed the following tasks during this removal assessment:

- Inventoried and collected liquid and/or residual solid samples from tanks located on the second and third floors of Building 7
- Collected aqueous and sediment samples from the basements of Buildings 7 and 12 where pooled water has accumulated
- Inventoried and sampled drums and containers located on site
- Collected samples of red and blue-colored dry pigment materials located on the floor of Building 12
- Collected samples of the tar/resin-like materials leaching from the west bank of the Passaic River and observed along the base of the north wall of Building 7
- Packaged and shipped samples to laboratories procured through the EPA Contract Laboratory Program (CLP) for target compound list (TCL) and toxicity characteristics leaching procedure (TCLP) VOCs, SVOCs, pesticides, and PCBs and TAL and TCLP metals and cyanide (Tetra Tech 2010)

The sub-basement sediment samples contained acetone up to 11,000 micrograms per kilogram (µg/kg); chloroform up to 2,200 µg/kg; 1,3-dichlorobenzene up to 290,000 µg/kg; methylene chloride up to 220,000 µg/kg; tetrachloroethene up to 280,000 µg/kg; 1,1,1-trichloroethane up to 1,100,000 µg/kg; and 2-methylphenol up to 4,700,000 µg/kg. The tank wastes contained acetone up to 1,100 µg/kg, methylene chloride up to 560 µg/kg, and xylene up to 630 µg/kg. Resin from the pipes contained ethylbenzene up to 150,000 µg/kg, isopropylbenzene up to 7,700 µg/kg, and m,p-xylene up to 65,000 µg/kg. Samples were collected from pigments found in containers and on the floor. The pigments contained acetone up to 710 µg/kg, methylene chloride up to 300 µg/kg, toluene up to 4,300 µg/kg, and lead up to 143 mg/kg (Tetra Tech 2010).

Previous investigations of the Riverside Avenue site have only been conducted in the central portion of the site near Buildings 7 and 12. However, PPG operations were located north and

south of the central portion of the site. No samples have been previously collected from the northern and southern portions of the former PPG operational areas. In November and December 2011, EPA START Region 7 contractor Tetra Tech collected surface soil, subsurface soil, and groundwater samples from the northern and southern portions of the site to identify possible contamination from releases from former operational areas such as storage tanks located on the northern and southern portions of the site. The sampling activities from this investigation were described in a drafted trip report prepared by Tetra Tech and submitted to EPA on December 21, 2011. Tetra Tech and EPA are currently reviewing and evaluating the sample analytical results for this sampling event.

3.0 SITE ACTIVITIES

On Tuesday, January 24, 2012, Tetra Tech employee Kevin Scott traveled to the Riverside Avenue site and met with U.S. EPA On-Scene Coordinator Eric Daly and Kemron employee, Kevin Shaver, the foreman for the EPA's Emergency and Rapid Response Service (ERRS) contractor to discuss the approach for the removal assessment and determine the locations for the six proposed test trenches (test pits). Test pit excavation was performed by the ERRS contractor and test pit soil sample collection was performed by Tetra Tech. Test pits TP1, TP2, and TP3 were excavated and sampled on January 25, 2012. Test pit TP4 was excavated and sampled on January 26 and TP5 was partially excavated on January 26, but was not completed on this date because an 8 inch diameter water main was broken during the excavation of this test pit. Tetra Tech collected two of the three samples proposed for test pit TP5 on January 26. Test pit TP6 was excavated and sampled on January 27, 2012, and the crews completed the excavation and sampling of test pit TP5.

Figure 3, Test Pit Location Map, in Appendix A shows the locations of the six test pits excavated along the perimeter of the UST farm. Test pits were identified as TP1 through TP6. Two test pits were excavated on each of the north and south sides of the UST perimeter and one test pit was excavated on each of the east and west sides. Table 1 in Appendix B is a summary of the samples collected from the six test pits, including the date and time of each sample collected; the test pit number and sample depth; the analytical parameter and method; and laboratory, chain-of-custody record number and air bill number.

This section discusses sampling activities, sampling handling, equipment decontamination, and investigation-derived waste (IDW) and equipment decontamination procedures conducted as part of the January 2012 sampling event.

3.1 SAMPLING ACTIVITIES

Figure 4 in Appendix A shows the sampling locations and depths. Tetra Tech obtained geographic coordinates for each of the sampling locations using Google Earth. The coordinates are included in sample summary Table 2 Appendix B. A photographic documentation log of the investigation is provided in Appendix C. Copies of the logbook notes are provided in Appendix D. Logbook notes were recorded in accordance with Tetra Tech SOP No. 024, "Recording of Notes in Field Logbook" (Tetra Tech 2008b). Copies of chain-of-custody records from the sampling event are provided in Appendix E.

This section describes the sampling activities and summarizes the sample collection methods, samples collected, and locations for the samples collected as part of this investigation.

3.2 SOIL SAMPLING

Tetra Tech collected a total of 20 soil samples (including two duplicate samples) from six test pits excavated by the EPA ERRS contractor around the perimeter of the UST farm as shown on Figure 4, Test Pit Sample Location Map, in Appendix A. Samples were collected at three depth intervals in each test pit - 4 feet below ground surface (bgs), 8 feet bgs, and 10 feet bgs. An ERRS laborer determined the depth of the excavation by dropping the end of a weighted tape measure into the excavation. When the desired depth interval was reached, the ERRS operator scooped dirt into the excavator bucket and then lifted it out of the excavation and positioned the bucket in a manner to facilitate sample collection by the START contractor. This procedure was repeated for each depth interval in each of the six test pits. Table 1 in Appendix B provides a summary of the surface soil samples collected from the Riverside Avenue site.

Soil samples were collected in accordance with Tetra Tech SOP No. 005, "Soil Sampling" (Tetra Tech 2009c). Tetra Tech collected soil directly into Encore samplers for VOC analysis. Additional sample volume was collected and homogenized, and then transferred with a dedicated plastic scoop into certified-clean bottleware for analyses for SVOCs, pesticides, Aroclors, herbicides, metals, cyanide, and moisture. In four of the six test trenches, additional sample was also collected at the 8 foot depth for five soil samples, including one duplicate sample, for analysis for dioxins and furans. All soil samples were screened with a photoionization detector (PID) to evaluate the presence of VOCs. Table 3 in Appendix B provides a summary of the PID readings measured during the excavations of test pits TP1 through TP5. Due to inclement weather on January 27, 2012, the PID was not used during the excavation and sampling of test pit TP6.

3.3 SAMPLE HANDLING

Sample handling, packaging, and shipment procedures were performed in accordance with Tetra Tech SOP No. 019, "Packaging and Shipping Samples" (Tetra Tech 2008a). Samples were shipped to two EPA-approved CLP laboratories, with the exception of 5 soil samples that were shipped to Lancaster Laboratories, a Tetra Tech subcontracted laboratory. All sampling data, including sampling times, dates, locations, types, and sampler, were recorded on Scribe chain-of-custody/traffic reports and in the site logbook; copies are provided in Appendix D and Appendix E, respectively.

3.4 IDW AND EQUIPMENT DECONTAMINATION

Dedicated sampling equipment and personal protective equipment (PPE) were double-bagged and disposed of with other waste produced at the site. All investigation-derived waste (IDW) was double-bagged and disposed of as dry, industrial waste.

4.0 OBSERVATIONS

Dark, oil-stained fill material was encountered at all test pit locations and a strong petroleum odor was detected during the excavation of each test pit. A visible oily sheen was observed on the surface of pooled groundwater that accumulated in the bottom of each excavation. The water table was measured at a depth of approximately 6 feet bgs. A clay layer was determined to be present at approximately 11' bgs. All soil samples collected from the site did have notable visible contamination and notable petroleum odors. A pesticide odor was detected during the excavation of Test pit TP5.

Elevated PID readings were recorded in the test pits. The maximum PID reading in test pits TP1 through TP5 were 146 ppm, 190.5 ppm, 192.5ppm, 153.5 ppm and 200.7, respectively.

5.0 ANALYTICAL RESULTS

Samples were submitted to two EPA CLP laboratories, ALS Laboratory and A4 Scientific for inorganic analyte and organic compound analysis, respectively and to a Tetra Tech subcontracted laboratory, Lancaster Laboratories, for dioxins/furans analysis. Soil samples submitted to A4 Scientific were analyzed for EPA Target Compound List (TCL) VOCs, SVOCs, pesticides, herbicides and PCBs (Aroclors) in accordance with the EPA CLP Statement of Work (SOW) for Organics Analysis, Multi-Media, Multi-Concentration (SOM01.2). Samples submitted to ALS Laboratory were analyzed for EPA Target Analyte List (TAL) metals including cyanide and mercury in accordance with the EPA CLP SOW for Inorganic Superfund Methods, Multi-Media,

Multi-Concentration (ISM01.2) (EPA 2010). Soil samples shipped to Lancaster Laboratories for dioxins/furans analysis were analyzed using EPA method SW846-8290A. The CLP sample summaries from the sample analysis are provided in Attachment A. The CLP electronic deliverable documents are provided in Attachment B. The Lancaster Laboratories dioxins/furans analysis report is provided in Attachment C.

The EPA Region 2 Division of Environmental Services and Assessment (DESA) validated the EPA CLP analytical data packages. Data were validated in accordance with the EPA CLP SOW for Organics Analysis, Multi-Media, Multi-Concentration (SOM01.2), April 2007; the EPA CLP SOW for Inorganic Superfund Methods, Multi-Media, Multi-Concentration (ISM01.2), January 2010; the EPA National Functional Guidelines for Superfund Organic Methods Data Review, EPA-540-R-08-01, June 2008; the EPA National Functional Guidelines for Inorganic Superfund Data Review, EPA 540-R-10-011, January 2010; and EPA Region 2 Data Validation SOPs for Organic Analysis of Low/Medium Concentration VOCs, SVOCs, Pesticides, and Aroclors, under SOW SOM01.2 (SOPs HW-33 [Revision 1], HW-35 [Revision 1], HW-36 [Revision 2], and HW-37 [Revision 1]), respectively, August 2007. The DESA data validation reports are provided in Attachment D.

Tetra Tech validated the Lancaster Laboratories dioxins/furans analytical data package. Data were validated in accordance with the EPA CLP National Functional Guidelines for chlorinated dibenzo-p-dioxins (CDD) and chlorinated dibenzofurans (CDF) data review, September 2005. The dioxins/furans data validation report is provided in Attachment E.

Sample results were summarized and subsequently compared to New Jersey Non Residential Direct Contact Soil Screening Criteria (NRDCSCC). The analytical data summary tables are presented in Appendix B, Tables 4 through 10. As the analytical data summary tables indicate, some of the concentrations are qualified with a “J”. “J” is a data validation qualifier that indicates that the an analyte is present; however the concentration is estimated because laboratory quality control criteria were not met, or the concentration of the analyte was below the contract required quantitation limit (CRQL).

Table 4 in Appendix B summarizes the VOCs detected in the test pit soil samples. Twenty-eight different VOCs were detected in all, however, xylene was the only VOC detected at concentrations at or above the NRDCSCC. Xylene was detected in sample TP3-2 and TP6-1 at a concentration of 1000 mg/kg and 1600 mg/kg, respectively. Xylene was also detected in sample TP7-1, a field duplicate of TP6-1, at a concentration of 1100 mg/kg. The NRDCSCC for xylene is 1000 mg/kg. Figure 5 in Appendix A shows the locations of samples TP3-2 and TP6-1/TP7-1 where concentrations of xylene exceed the NRDCSCC for xylene. Xylene was detected in 14 of the 20 soil samples collected ranging in concentration between 0.21 mg/kg to 1600 mg/kg. The

average xylene concentration for the 14 samples was 380 mg/kg. Isopropylbenzene and methylcyclohexane were detected in all 20 samples ranging in concentrations from less than 1 mg/kg to 15,000 mg/kg for isopropylbenzene and 70,000 mg/kg for methylcyclohexane. The average isopropylbenzene and methylcyclohexane concentrations detected were 1,400 mg/kg and 9,000 mg/kg respectively. Three other VOCs – cyclohexane, ethylbenzene, and trichloroethene – were detected in ten or more samples.

Table 5 in Appendix B summarizes the SVOCs detected in the test pit soil samples. Twenty-five different SVOCs were detected in all, however, no SVOCs were detected at concentrations at or above the NRDCSCC. Three SVOCs – 2-methylnaphthalene, phenanthrene, and pyrene – were detected in multiple soil samples but detected at their highest concentrations in sample TP6-1 collected from test pit 6 at a depth of 4 feet bgs. These three compounds were detected at concentrations of 11 mg/kg, 6.5 mg/kg, and 2.9 mg/kg, respectively in sample TP6-1.

Tables 6 and 7 in Appendix B summarize the pesticides and herbicides detected in the test pit soil samples, respectively. Twenty different pesticides and one herbicide were detected in all; however, none were detected at concentrations at or above the NRDCSCC.

Table 8 in Appendix B summarizes the Aroclors detected in the test pit soil samples. Of eight Aroclors analyzed for, only three different Aroclors (Aroclor-1016, -1054, and -1060) were detected. No Aroclors were detected at concentrations at or above the NRDCSCC. Aroclor -1054 was detected in trace amounts in eight of the 20 samples and Aroclors-1016 and Aroclor-1060 were detected in only two samples.

Table 9 in Appendix B summarizes the dioxins and furan detected in the five test pit soil samples submitted to Lancaster Laboratories. Several dioxin and furan compounds were detected in each of the five samples; however, all such analytes were flagged as detected in the laboratory method blank and qualified as such.

Table 10 in Appendix B summarizes the inorganic analytes detected in test pit soil samples submitted to ALS Laboratory. Lead was the only metal detected at concentrations at or above the NRDCSCC. Lead was detected in samples TP3-1 and TP5-1 at a concentration of 1,880 mg/kg and 900 mg/kg, respectively. The NRDCSCC for lead is 600 mg/kg. Figure 6 in Appendix A shows the locations of the two lead contaminated samples. Lead was detected in all 20 of the soil samples collected and ranged in concentration from 166 mg/kg to 1,880 mg/kg. The average lead concentration for all samples was 425 mg/kg.

6.0 CONCLUSIONS AND RECOMMENDATIONS

All soil samples collected from the site had notable visible contamination and notable petroleum odors. Elevated PID readings were recorded in the each of the test pits monitored with the PID. A pesticide odor was detected during the excavation of test pit TP5. Analytical results of 20 soil samples collected from six test pits reveal the presence of hazardous substances in subsurface soil at concentrations above the NJ NRDCSCC. The contamination includes xylenes and lead. Xylenes were detected above the NRDCSCC in two samples, TP3-2 and TP6-1, collected from two different test pits, at depths of 8 feet and 4 feet bgs, respectively. Lead was also detected above the NRDCSCC in two samples, TP3-1 and TP5-1, collected from two different test pits, but only at a depth of 4 feet bgs. Concentrations of contaminants at above NJ NRDCSCC were detected in three of the six test pits, TP3, TP5, and TP6. Tetra Tech recommends removing the 10 USTs, or as many of the USTs that still remain, excavating all contaminated soil in the vicinity of the USTs to a depth of approximately 8 feet bgs, and conducting post excavation confirmatory sampling for VOCs and metals.

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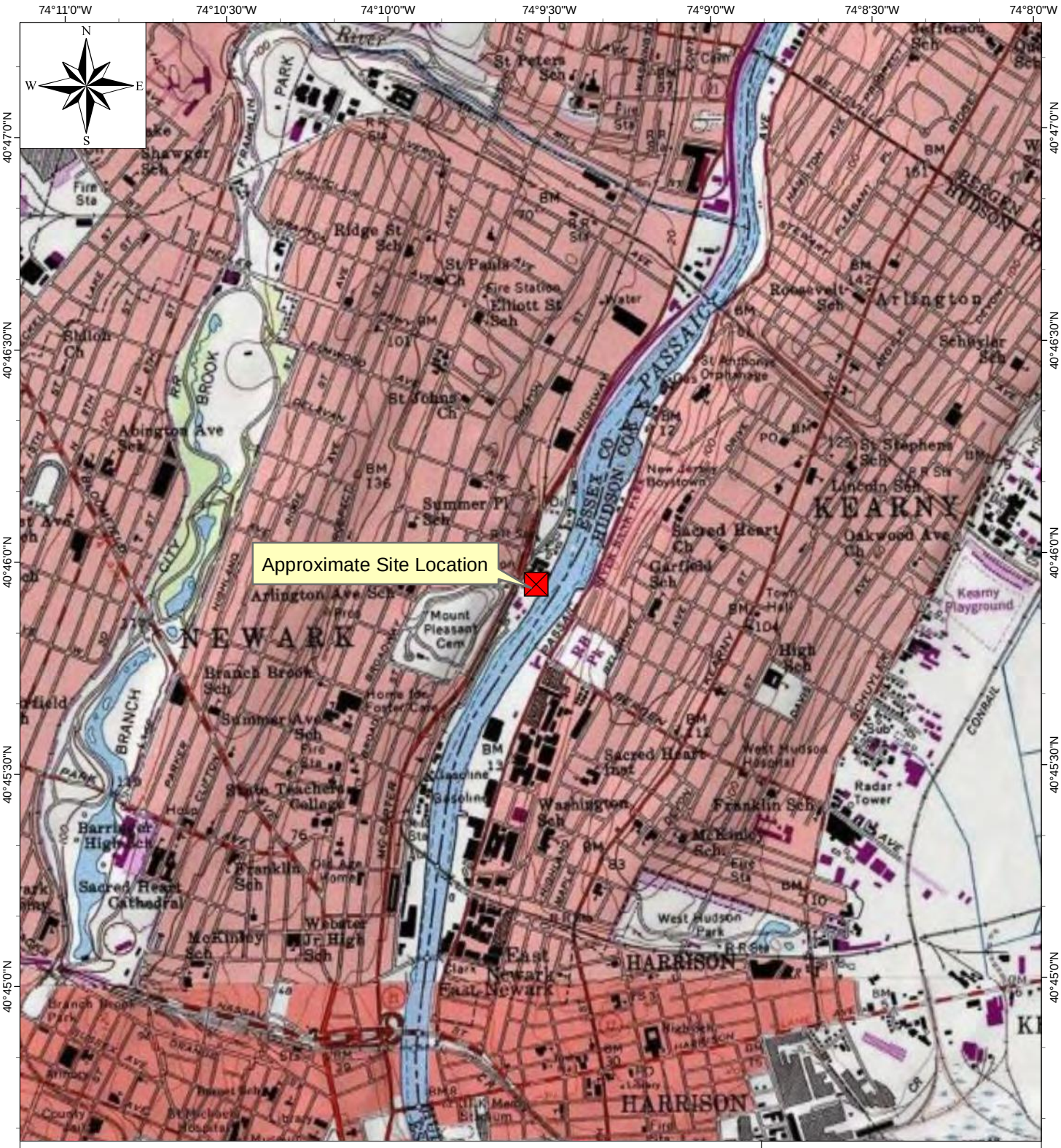
APPENDIX A

FIGURES

1 **Site Location**
2 **Site Layout Map**
3 **Test Pit Location Map**
4 **Test Pit Sample Location Map**
5 **Xylene Concentrations Detected in Test Pit Soil Samples Above NJ Cleanup Criterion**
6 **Lead Concentrations Detected in Test Pit Soil Samples Above NJ Cleanup Criterion**



Source: Modified from USGS 7.5-Minute Series Topographic Quadrangles: Elizabeth, New Jersey, 1967, Photorevised 1981; Orange, New Jersey, 1955, Photorevised 1981

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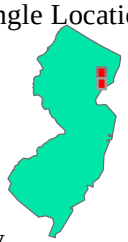
Quadrangle Location =



New Jersey

Riverside Avenue
Newark, Essex County, New Jersey

Figure 1
Site Location Map

Project number 9004L9004L100178000
EPA Contract No. EP-S7-06-01

TETRA TECH

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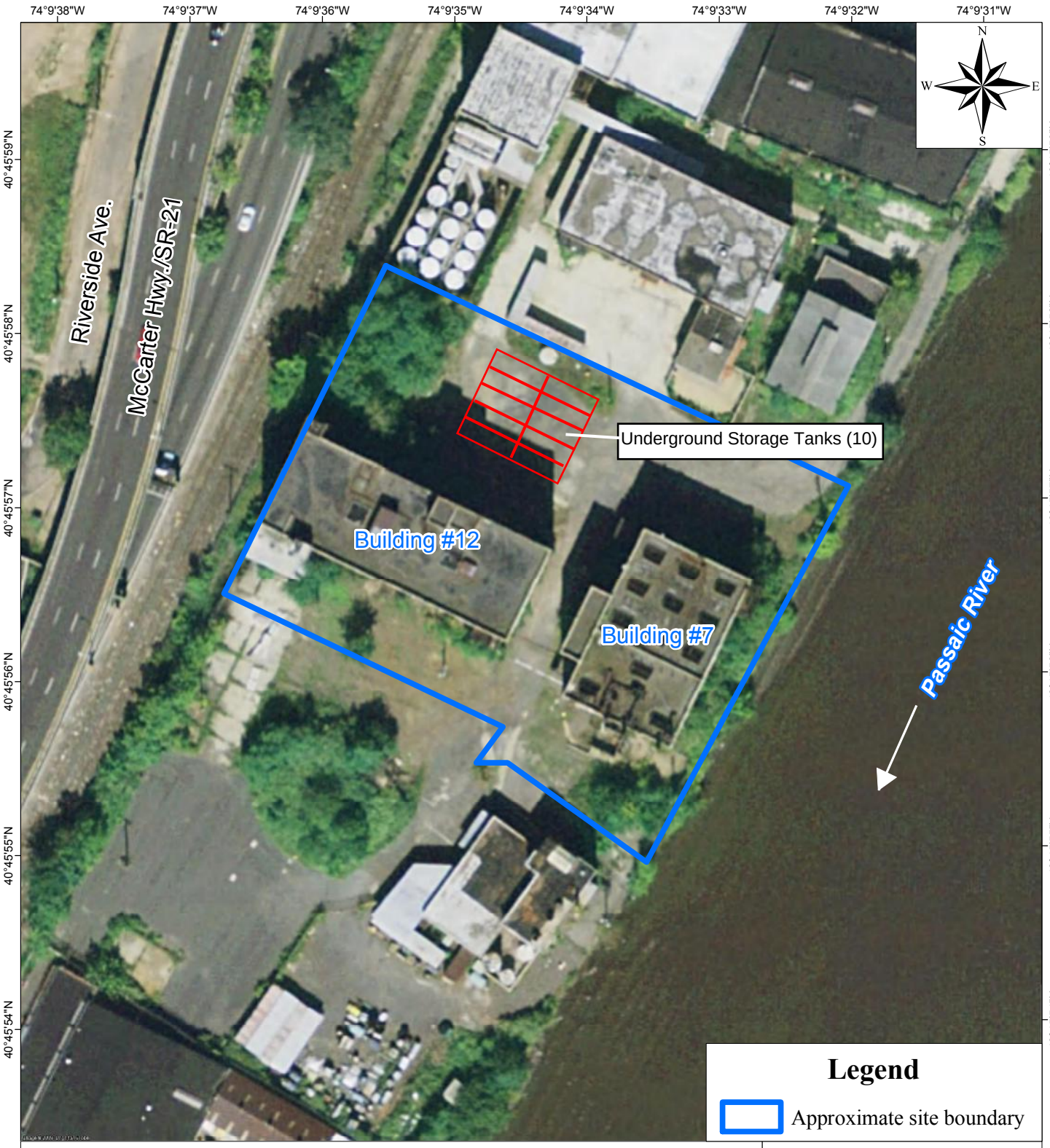


Source: Modified from DigitalGlobe aerial photography, September 19, 2009.

0 50 100 Feet

Approximate Site Location =

New Jersey

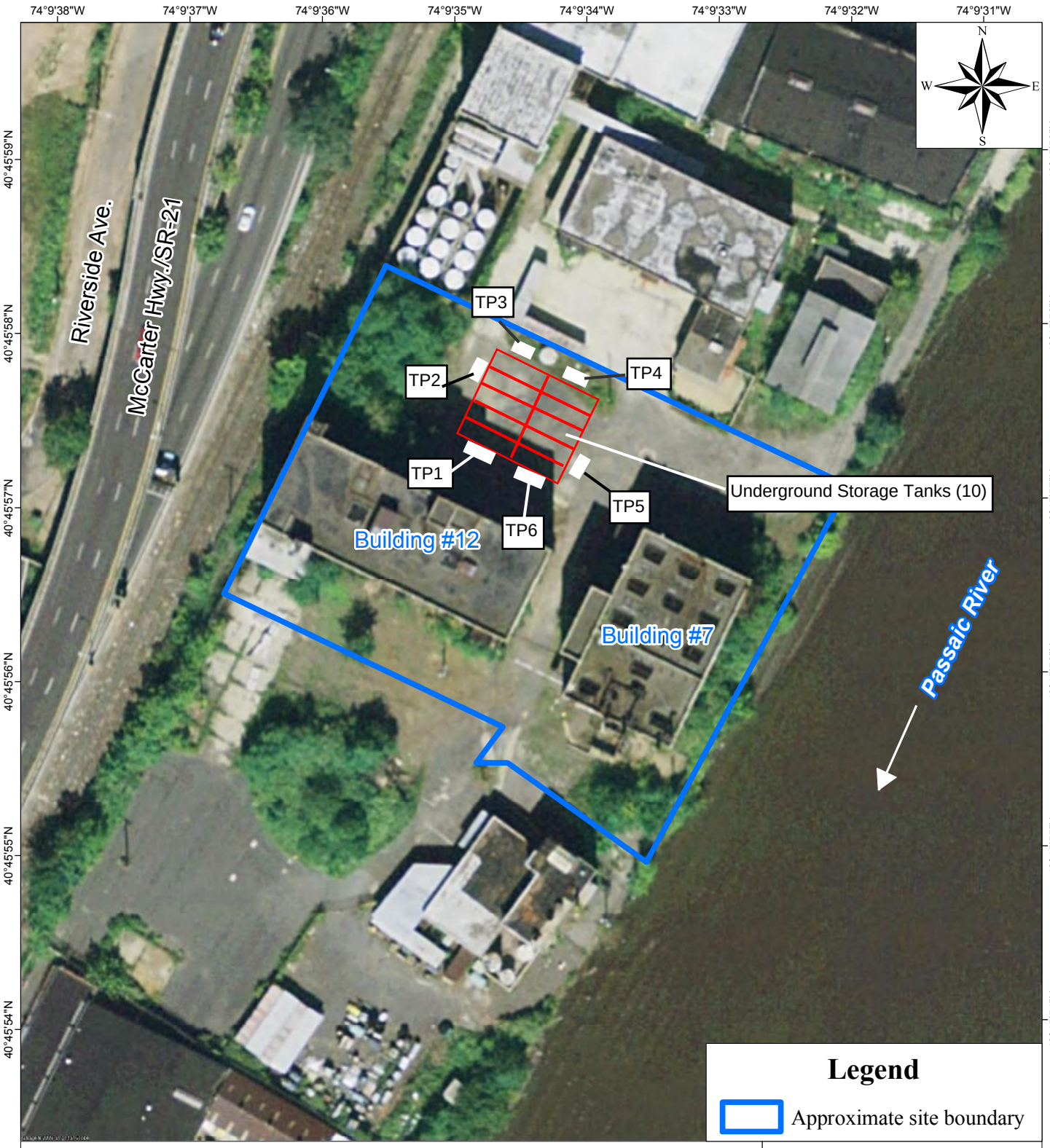
29 Riverside Avenue
Newark, Essex County, New Jersey

Figure 2
Site Layout Map

Project number 9004L100178
EPA Contract No. EP-S7-06-01

Map created on June 25, 2010
by D. Call, Tetra Tech EM Inc.

TETRA TECH



Source: Modified from DigitalGlobe aerial photography, September 19, 2009.

0 50 100 Feet

Approximate Site Location =

New Jersey

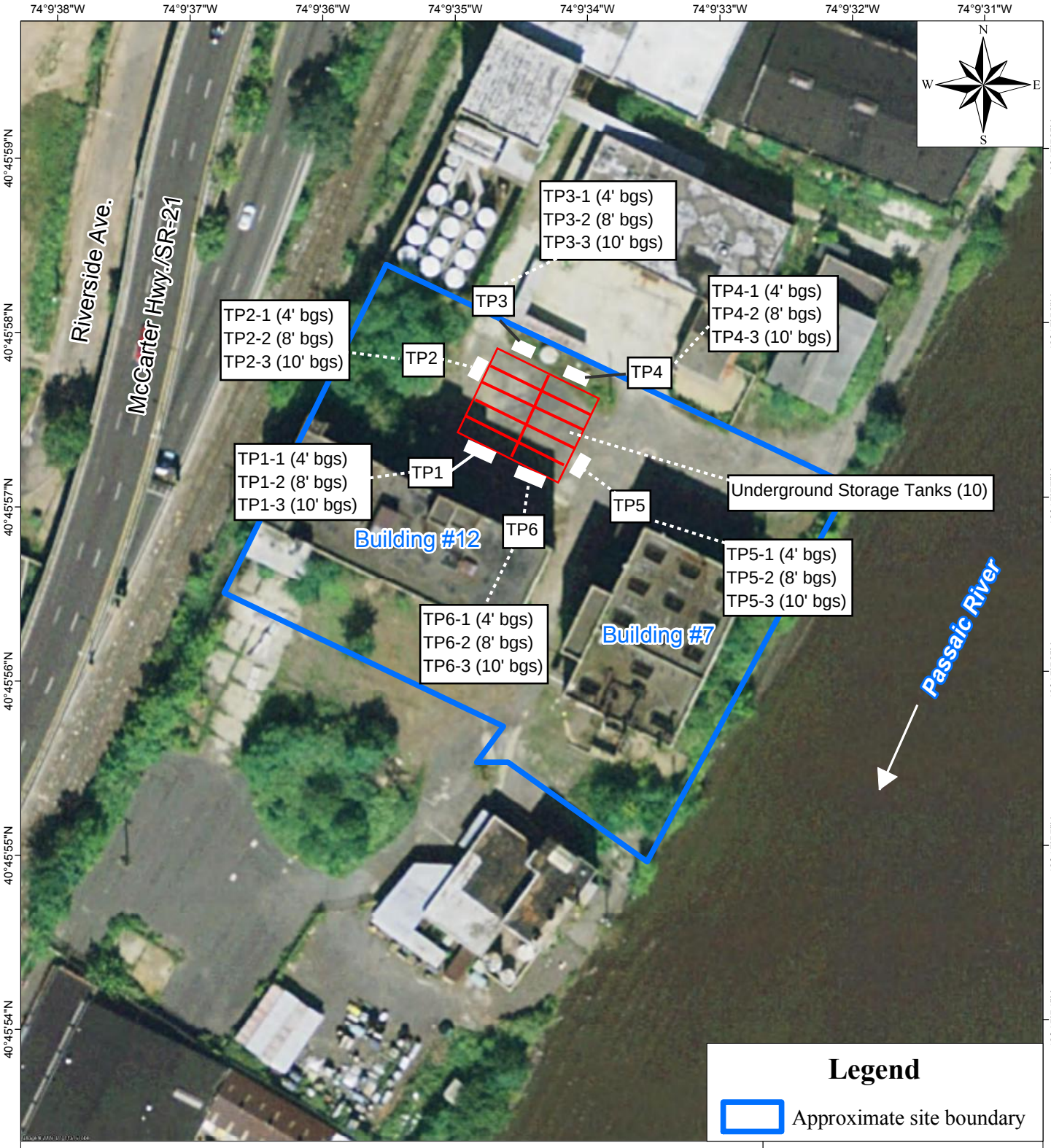
29 Riverside Avenue
Newark, Essex County, New Jersey

Figure 3
Test Pit Location Map

Project number 9004L100178
EPA Contract No. EP-S7-06-01

Map created on Feb 1, 2012
by k. scott, Tetra Tech EM Inc.

TETRA TECH



Source: Modified from DigitalGlobe aerial photography, September 19, 2009.

0 50 100 Feet

Approximate Site Location =

New Jersey

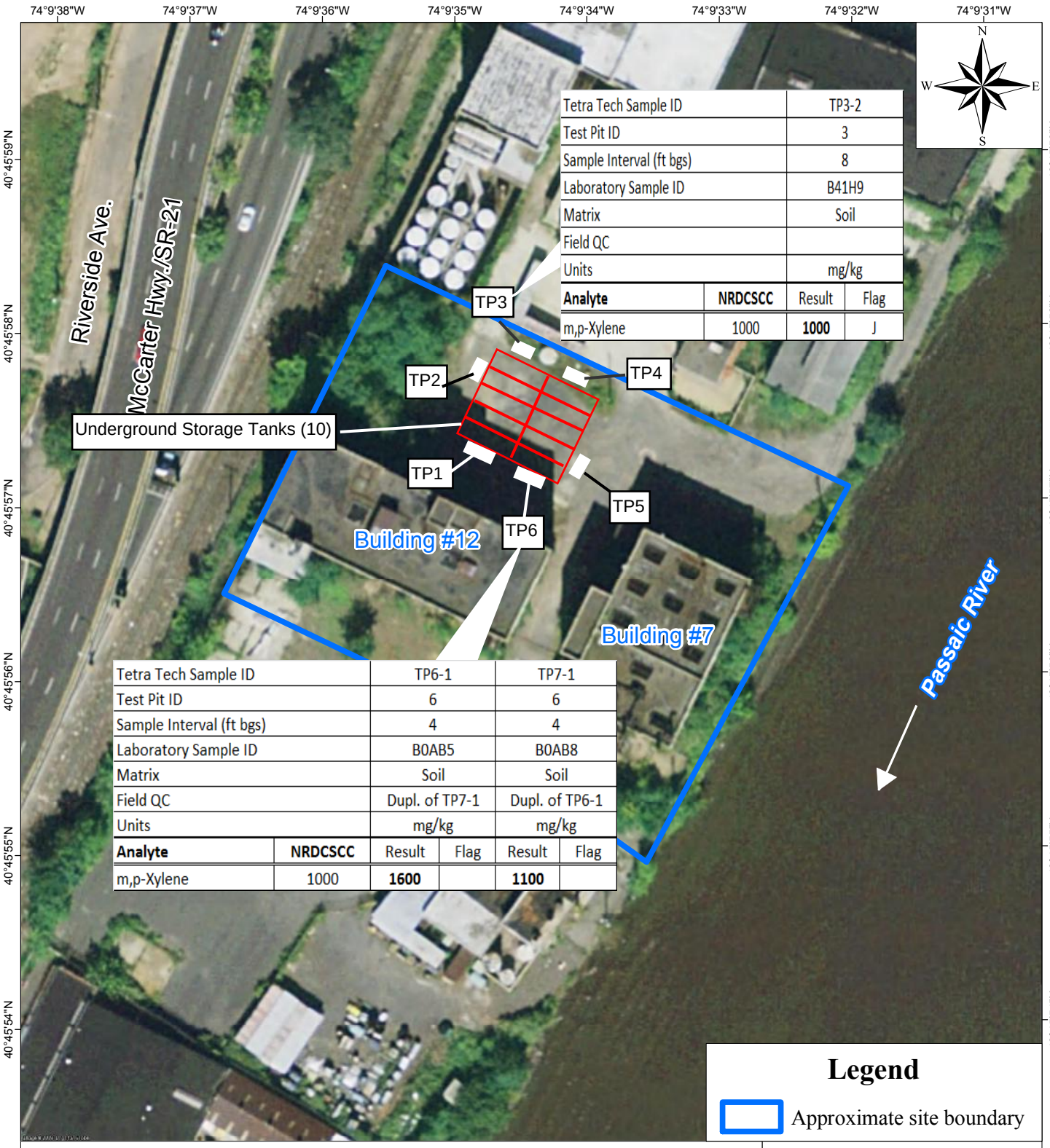
29 Riverside Avenue
Newark, Essex County, New Jersey

Figure 4
Test Pit Sample Location Map

Project number 9004L100178
EPA Contract No. EP-S7-06-01

Map created on Feb 1, 2012
by k. scott, Tetra Tech EM Inc.

TETRA TECH



Tetra Tech Sample ID		TP3-2	
Test Pit ID		3	
Sample Interval (ft bgs)		8	
Laboratory Sample ID		B41H9	
Matrix		Soil	
Field QC			
Units		mg/kg	
Analyte	**NRDCSCC**	Result	Flag
m,p-Xylene	1000	**1000**	J

Tetra Tech Sample ID		TP6-1		TP7-1	
Test Pit ID		6		6	
Sample Interval (ft bgs)		4		4	
Laboratory Sample ID		B0AB5		B0AB8	
Matrix		Soil		Soil	
Field QC		Dupl. of TP7-1		Dupl. of TP6-1	
Units		mg/kg		mg/kg	
Analyte	**NRDCSCC**	Result	Flag	Result	Flag
m,p-Xylene	1000	**1600**		**1100**	

Legend

Approximate site boundary

Source: Modified from DigitalGlobe aerial photography, September 19, 2009.

mg/kg - milligrams per kilogram

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria

0 50 100 Feet

Approximate Site Location =

New Jersey

Riverside Avenue Site
Newark, Essex County, New Jersey

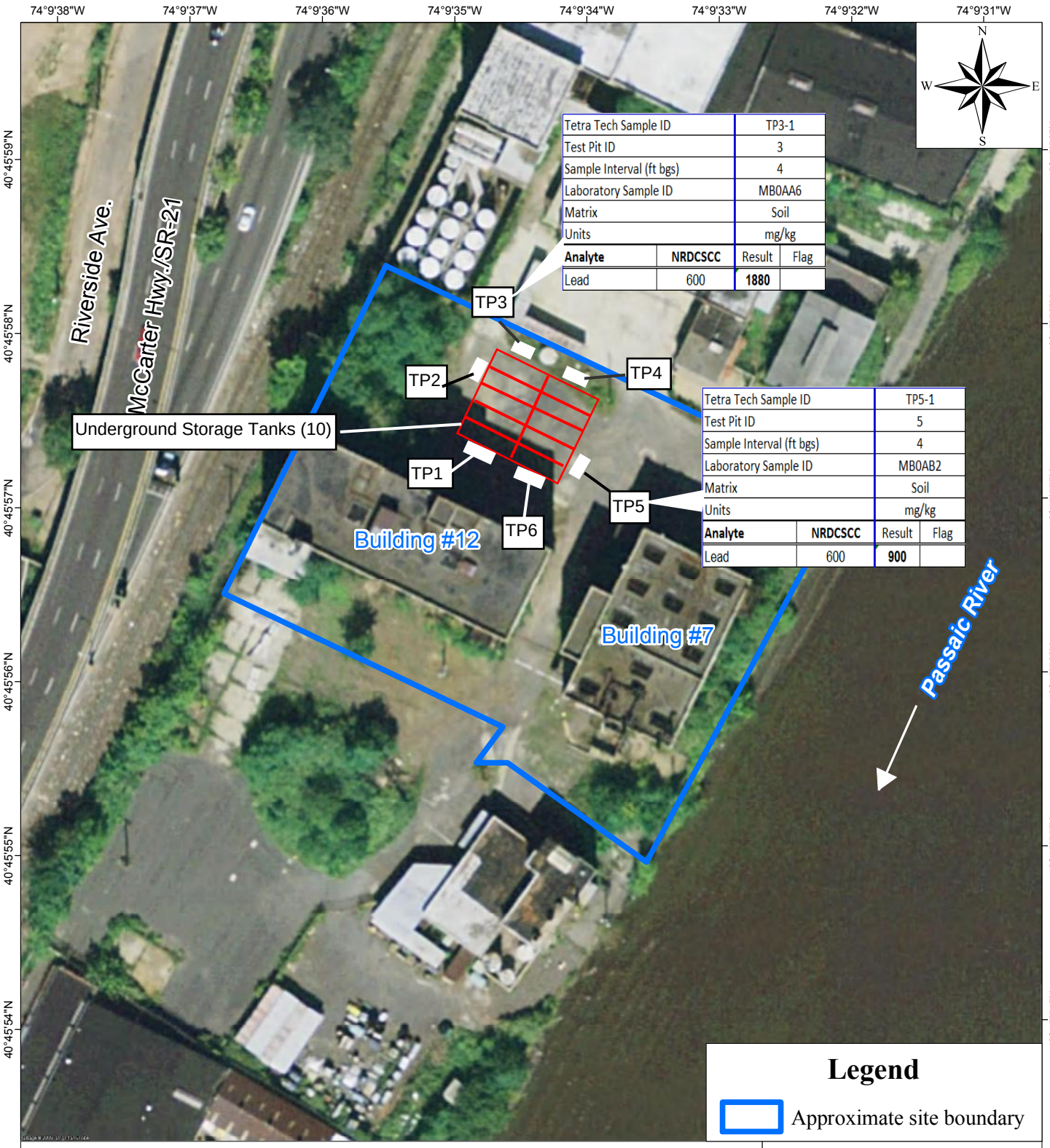
Figure 5

Xylene Concentrations Detected in Test Pit Soil Samples Above NJ Cleanup Criterion

Project number 9004L100178
EPA Contract No. EP-S7-06-01

Map created on March 16, 2012
by K. Scott, Tetra Tech EM Inc.

TETRA TECH



Tetra Tech Sample ID		TP3-1	
Test Pit ID		3	
Sample Interval (ft bgs)		4	
Laboratory Sample ID		MB0AA6	
Matrix		Soil	
Units		mg/kg	
Analyte	**NRDCSCC**	Result	Flag
Lead	600	**1880**	

Tetra Tech Sample ID		TP5-1	
Test Pit ID		5	
Sample Interval (ft bgs)		4	
Laboratory Sample ID		MB0AB2	
Matrix		Soil	
Units		mg/kg	
Analyte	**NRDCSCC**	Result	Flag
Lead	600	**900**	

Source: Modified from DigitalGlobe aerial photography, September 19, 2009.

mg/kg - milligrams per kilogram

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria

0 50 100 Feet

Approximate Site Location =

New Jersey

Riverside Avenue Site
Newark, Essex County, New Jersey

Figure 6

Lead Concentrations Detected in Test Pit Soil Samples Above NJ Cleanup Criterion

Project number 9004L100178
EPA Contract No. EP-S7-06-01

Map created on March 16, 2012
by K. Scott, Tetra Tech EM Inc.

TETRA TECH

APPENDIX B

TABLES

1	**Sample Summary**
2	**Geographic Coordinates of Test Pits**
3	**PID Readings from Test Pit Excavations**
4	**Summary of Volatile Organic Compounds Detected in Test Pit Soil Samples**
5	**Summary of Semivolatile Organic Compounds Detected in Test Pit Soil Samples**
6	**Summary of Pesticides Detected in Test Pit Soil Samples**
7	**Summary of Herbicides Detected in Test Pit Soil Samples**
8	**Summary of Aroclors Detected in Test Pit Soil Samples**
9	**Summary of Dioxins/Furans Detected in Test Pit Soil Samples**
10	**Summary of Inorganic Analytes Detected in Test Pit Soil Samples**

TABLE 1
Riverside Avenue Site
Test Pit Sampling Summary

Tetra Tech Sample ID	CLP Sample ID	Orientation to UST perimeter	Sampe Depth (ft bgs)	Sampe Date	Sample Time	Matrix	Analysis	Method	Container Type, Volume, (# of Containers)	Preservative	Field QC	Lab QC	Laboratory	CLP Lab Y/N	Date shipped	FedEx Airbill #	COC/TR #	Sample # on TR/COC
TP1-1	B41H2	SW	4	1/25/2012	1100	Soil	TCL VOCs	CLP SOW SOM01.2	Encore® Sampler, 5 gram (3)	4° C	--	--	A4 Scientific	Y	1/25/2012	8645 2662 8793	2-012512-172056-0001	02-p-0001
							Moisture		2 oz. CWM glass jar (1)						1/26/2012	8645 2662 8510		
	B0AA0						TCL SVOCs		8 oz. CWM glass jar (1)								2-012612-132645-0001	02PC-0001
							TCL Pesticides		8 oz. CWM glass jar (1)									
							TCL Aroclors		8 oz. CWM glass jar (1)									
							Herbicides	SW846 8151A	8 oz. CWM glass jar (1)						1/27/2012	8645 2662 8602	2-012712-084509-0003	
	MB0AA0						TAL Inorganics	CLP SOW ISM01.3	8 oz. CWM glass jar (1)				ALS Laboratory	Y	1/27/2012	8645 2662 8576	2-012712-085202-0004	
TP1-2	B41H3	SW	8	1/25/2012	1120	Soil	TCL VOCs	CLP SOW SOM01.2	Encore® Sampler, 5 gram (3)	4° C	--	--	A4 Scientific	Y	1/25/2012	8645 2662 8793	2-012512-172056-0001	02-p-0002
							Moisture		2 oz. CWM glass jar (1)						1/26/2012	8645 2662 8510		
	B0AA1						TCL SVOCs		8 oz. CWM glass jar (1)								2-012612-132645-0001	02PC-0002
							TCL Pesticides		8 oz. CWM glass jar (1)									
							TCL Aroclors		8 oz. CWM glass jar (1)									
							Herbicides	SW846 8151A	8 oz. CWM glass jar (1)						1/27/2012	8645 2662 8602	2-012712-084509-0003	
	MB0AA1						TAL Inorganics	CLP SOW ISM01.3	8 oz. CWM glass jar (1)				ALS Laboratory	Y	1/27/2012	8645 2662 8576	2-012712-085202-0004	
TP1-3	B41H4	SW	10	1/25/2012	1145	Soil	TCL VOCs	CLP SOW SOM01.2	Encore® Sampler, 5 gram (3)	4° C	--	--	A4 Scientific	Y	1/25/2012	8645 2662 8793	2-012512-172056-0001	02-p-0003
							Moisture		2 oz. CWM glass jar (1)						1/26/2012	8645 2662 8510		
	B0AA2						TCL SVOCs		8 oz. CWM glass jar (1)								2-012612-132645-0001	02PC-0003
							TCL Pesticides		8 oz. CWM glass jar (1)									
							TCL Aroclors		8 oz. CWM glass jar (1)									
							Herbicides	SW846 8151A	8 oz. CWM glass jar (1)						1/27/2012	8645 2662 8602	2-012712-084509-0003	
	MB0AA2						TAL Inorganics	CLP SOW ISM01.3	8 oz. CWM glass jar (1)				ALS Laboratory	Y	1/27/2012	8645 2662 8576	2-012712-085202-0004	
TP2-1	B41H5	W	4	1/25/2012	1225	Soil	TCL VOCs	CLP SOW SOM01.2	Encore® Sampler, 5 gram (3)	4° C	--	--	A4 Scientific	Y	1/25/2012	8645 2662 8793	2-012512-172056-0001	02-p-0004
							Moisture		2 oz. CWM glass jar (1)						1/26/2012	8645 2662 8510		
	B0AA3						TCL SVOCs		8 oz. CWM glass jar (1)								2-012612-132645-0001	02PC-0004
							TCL Pesticides		8 oz. CWM glass jar (1)									
							TCL Aroclors		8 oz. CWM glass jar (1)									
							Herbicides	SW846 8151A	8 oz. CWM glass jar (1)						1/27/2012	8645 2662 8602	2-012712-084509-0003	
	MB0AA3						TAL Inorganics	CLP SOW ISM01.3	8 oz. CWM glass jar (1)				ALS Laboratory	Y	1/27/2012	8645 2662 8576	2-012712-085202-0004	
TP2-2	B41H6	W	8	1/25/2012	1245	Soil	TCL VOCs	CLP SOW SOM01.2	Encore® Sampler, 5 gram (3)	4° C	--	--	A4 Scientific	Y	1/25/2012	8645 2662 8793	2-012512-172056-0001	02-p-0005
							Moisture		2 oz. CWM glass jar (1)						1/26/2012	8645 2662 8510		
	B0AA4						TCL SVOCs		8 oz. CWM glass jar (1)								2-012612-132645-0001	02PC-0005
							TCL Pesticides		8 oz. CWM glass jar (1)									
							TCL Aroclors		8 oz. CWM glass jar (1)									
							Herbicides	SW846 8151A	8 oz. CWM glass jar (1)						1/27/2012	8645 2662 8602	2-012712-084509-0003	
	MB0AA4						TAL Inorganics	CLP SOW ISM01.3	8 oz. CWM glass jar (1)				ALS Laboratory	Y	1/27/2012	8645 2662 8576	2-012712-085202-0004	
	NA						Dioxins/Furans	SW846 8290A	8 oz. CWM glass jar (1)				Lancaster Laboratories	N	1/27/2012	8645 2662 8565	300804	TP2-2
							Moisture		2 oz. CWM glass jar (1)									
TP2-3	B41H7	W	10	1/25/2012	1300	Soil	TCL VOCs	CLP SOW SOM01.2	Encore® Sampler, 5 gram (3)	4° C	--	--	A4 Scientific	Y	1/25/2012	8645 2662 8793	2-012512-172056-0001	02-p-0006
							Moisture		2 oz. CWM glass jar (1)						1/26/2012	8645 2662 8510		
	B0AA5						TCL SVOCs		8 oz. CWM glass jar (1)								2-012612-132645-0001	02PC-0006
							TCL Pesticides		8 oz. CWM glass jar (1)									
							TCL Aroclors		8 oz. CWM glass jar (1)									
							Herbicides	SW846 8151A	8 oz. CWM glass jar (1)						1/27/2012	8645 2662 8602	2-012712-084509-0003	
	MB0AA5						TAL Inorganics	CLP SOW ISM01.3	8 oz. CWM glass jar (1)				ALS Laboratory	Y	1/27/2012	8645 2662 8576	2-012712-085202-0004	
TP3-1	B41H8	NW	4	1/25/2012	1500	Soil	TCL VOCs	CLP SOW SOM01.2	Encore® Sampler, 5 gram (3)	4° C	--	--	A4 Scientific	Y	1/25/2012	8645 2662 8793	2-012512-172056-0001	02-p-0007
							Moisture		2 oz. CWM glass jar (1)						1/26/2012	8645 2662 8510		
	B0AA6						TCL SVOCs		8 oz. CWM glass jar (1)								2-012612-132645-0001	02PC-0007
							TCL Pesticides		8 oz. CWM glass jar (1)									
							TCL Aroclors		8 oz. CWM glass jar (1)									
							Herbicides	SW846 8151A	8 oz. CWM glass jar (1)						1/27/2012	8645 2662 8602	2-012712-084509-0003	
	MB0AA6						TAL Inorganics	CLP SOW ISM01.3	8 oz. CWM glass jar (1)				ALS Laboratory	Y	1/27/2012	8645 2662 8576	2-012712-085202-0004	

TABLE 1
Riverside Avenue Site
Test Pit Sampling Summary

Tetra Tech Sample ID	CLP Sample ID	Orientation to UST perimeter	Sampe Depth (ft bgs)	Sampe Date	Sample Time	Matrix	Analysis	Method	Container Type, Volume, (# of Containers)	Preservative	Field QC	Lab QC	Laboratory	CLP Lab Y/N	Date shipped	FedEx Airbill #	COC/TR #	Sample # on TR/COC
TP3-2	B41H9	NW	8	1/25/2012	1515	Soil	TCL VOCs	CLP SOW SOM01.2	Encore® Sampler, 5 gram (3)	4° C	--	--	A4 Scientific	Y	1/25/2012	8645 2662 8793	2-012512-172056-0001	02-p-0008
							Moisture		2 oz. CWM glass jar (1)									
	B0AA7						TCL SVOCs		8 oz. CWM glass jar (1)						1/26/2012	8645 2662 8510	2-012612-132645-0001	02PC-0008
							TCL Pesticides		8 oz. CWM glass jar (1)									
							TCL Aroclors		8 oz. CWM glass jar (1)									
							Herbicides	SW846 8151A	8 oz. CWM glass jar (1)						1/27/2012	8645 2662 8602	2-012712-084509-0003	
	MB0AA7						TAL Inorganics	CLP SOW ISM01.3	8 oz. CWM glass jar (1)				ALS Laboratory	Y	1/27/2012	8645 2662 8576	2-012712-085202-0004	
	NA						Dioxins/Furans	SW846 8290A	8 oz. CWM glass jar (1)				Lancaster Laboratories	N	1/27/2012	8645 2662 8565	300804	TP3-2
							Moisture		2 oz. CWM glass jar (1)									
TP3-3	B41H10	NW	10	1/25/2012	1530	Soil	TCL VOCs	CLP SOW SOM01.2	Encore® Sampler, 5 gram (3)	4° C	--	--	A4 Scientific	Y	1/25/2012	8645 2662 8793	2-012512-172056-0001	02-p-0009
							Moisture		2 oz. CWM glass jar (1)									
	B0AA8						TCL SVOCs		8 oz. CWM glass jar (1)						1/26/2012	8645 2662 8510	2-012612-132645-0001	02PC-0009
							TCL Pesticides		8 oz. CWM glass jar (1)									
							TCL Aroclors		8 oz. CWM glass jar (1)									
							Herbicides	SW846 8151A	8 oz. CWM glass jar (1)						1/27/2012	8645 2662 8602	2-012712-084509-0003	
	MB0AA8						TAL Inorganics	CLP SOW ISM01.3	8 oz. CWM glass jar (1)				ALS Laboratory	Y	1/27/2012	8645 2662 8576	2-012712-085202-0004	
TP4-1	BA0AA9	NE	4	1/26/2012	915	Soil	TCL VOCs	CLP SOW SOM01.2	Encore® Sampler, 5 gram (3)	4° C	--	--	A4 Scientific	Y	1/26/2012	8645 2662 8510	2-012712-084509-0003	02PC-0010
							Moisture		2 oz. CWM glass jar (1)									
							TCL SVOCs		8 oz. CWM glass jar (1)									
							TCL Pesticides		8 oz. CWM glass jar (1)									
							TCL Aroclors		8 oz. CWM glass jar (1)									
							Herbicides	SW846 8151A	8 oz. CWM glass jar (1)						1/27/2012	8645 2662 8602		
	MB0AA9						TAL Inorganics	CLP SOW ISM01.3	8 oz. CWM glass jar (1)				ALS Laboratory	Y	1/27/2012	8645 2662 8576	2-012712-085202-0004	
TP4-2	B0AB0	NE	8	1/26/2012	930	Soil	TCL VOCs	CLP SOW SOM01.2	Encore® Sampler, 5 gram (3)	4° C	--	--	A4 Scientific	Y	1/26/2012	8645 2662 8510	2-012712-084509-0003	02PC-0011
							Moisture		2 oz. CWM glass jar (1)									
							TCL SVOCs		8 oz. CWM glass jar (1)									
							TCL Pesticides		8 oz. CWM glass jar (1)									
							TCL Aroclors		8 oz. CWM glass jar (1)									
							Herbicides	SW846 8151A	8 oz. CWM glass jar (1)						1/27/2012	8645 2662 8602		
	MB0AB0						TAL Inorganics	CLP SOW ISM01.3	8 oz. CWM glass jar (1)				ALS Laboratory	Y	1/27/2012	8645 2662 8576	2-012712-085202-0004	
TP4-3	B0AB1	NE	10	1/26/2012	945	Soil	TCL VOCs	CLP SOW SOM01.2	Encore® Sampler, 5 gram (3)	4° C	--	--	A4 Scientific	Y	1/26/2012	8645 2662 8510	2-012712-084509-0003	02PC-0012
							Moisture		2 oz. CWM glass jar (1)									
							TCL SVOCs		8 oz. CWM glass jar (1)									
							TCL Pesticides		8 oz. CWM glass jar (1)									
							TCL Aroclors		8 oz. CWM glass jar (1)									
							Herbicides	SW846 8151A	8 oz. CWM glass jar (1)						1/27/2012	8645 2662 8602		
	MB0AB1						TAL Inorganics	CLP SOW ISM01.3	8 oz. CWM glass jar (1)				ALS Laboratory	y	1/27/2012	8645 2662 8576	2-012712-085202-0004	
TP5-1	B0AB2	E	4	1/26/2012	1020	Soil	TCL VOCs	CLP SOW SOM01.2	Encore® Sampler, 5 gram (3)	4° C	--	--	A4 Scientific	Y	1/26/2012	8645 2662 8510	2-012712-084509-0003	02PC-0013
							Moisture		2 oz. CWM glass jar (1)									
							TCL SVOCs		8 oz. CWM glass jar (1)									
							TCL Pesticides		8 oz. CWM glass jar (1)									
							TCL Aroclors		8 oz. CWM glass jar (1)									
							Herbicides	SW846 8151A	8 oz. CWM glass jar (1)						1/27/2012	8645 2662 8602		
	MB0AB2						TAL Inorganics	CLP SOW ISM01.3	8 oz. CWM glass jar (1)				ALS Laboratory	Y	1/27/2012	8645 2662 8576	2-012712-085202-0004	
TP5-2	B0AB3	E	8	1/26/2012	1030	Soil	TCL VOCs	CLP SOW SOM01.2	Encore® Sampler, 5 gram (3)	4° C	--	--	A4 Scientific	Y	1/26/2012	8645 2662 8510	2-012712-084509-0003	02PC-0014
							Moisture		2 oz. CWM glass jar (1)									
							TCL SVOCs		8 oz. CWM glass jar (1)									
							TCL Pesticides		8 oz. CWM glass jar (1)									
							TCL Aroclors		8 oz. CWM glass jar (1)									
							Herbicides	SW846 8151A	8 oz. CWM glass jar (1)						1/27/2012	8645 2662 8602		
	MB0AB3						TAL Inorganics	CLP SOW ISM01.3	8 oz. CWM glass jar (1)				ALS Laboratory	Y	1/27/2012	8645 2662 8576	2-012712-085202-0004	
	NA						Dioxins/Furans	SW846 8290A	8 oz. CWM glass jar (1)				Lancaster Laboratories	N	1/27/2012	8645 2662 8565	300804	TP5-2
							Moisture		2 oz. CWM glass jar (1)									

TABLE 1
Riverside Avenue Site
Test Pit Sampling Summary

Tetra Tech Sample ID	CLP Sample ID	Orientation to UST perimeter	Sampe Depth (ft bgs)	Sampe Date	Sample Time	Matrix	Analysis	Method	Container Type, Volume, (# of Containers)	Preservative	Field QC	Lab QC	Laboratory	CLP Lab Y/N	Date shipped	FedEx Airbill #	COC/TR #	Sample # on TR/COC
TP5-3	B0AB4	E	10	1/27/2012	1015	Soil	TCL VOCs	CLP SOW SOM01.2	Encore® Sampler, 5 gram (3)	4° C	--	--	A4 Scientific	Y	1/27/2012	8645 2662 8602	2-012712-084509-0003	02PC-0015
							Moisture		2 oz. CWM glass jar (1)									
							TCL SVOCs		8 oz. CWM glass jar (1)									
							TCL Pesticides		8 oz. CWM glass jar (1)									
							TCL Aroclors		8 oz. CWM glass jar (1)									
							Herbicides	SW846 8151A	8 oz. CWM glass jar (1)									
	MB0AB4						TAL Inorganics	CLP SOW ISM01.3	8 oz. CWM glass jar (1)				ALS Laboratory	Y	1/27/2012	8645 2662 8576	2-012712-085202-0004	
TP6-1	B0AB5	SE	4	1/27/2012	1050	Soil	TCL VOCs	CLP SOW SOM01.2	Encore® Sampler, 5 gram (4)	4° C	field duplicate (TP7-1)	MS/MSD	A4 Scientific	Y	1/27/2012	8645 2662 8602		02PC-0016
							Moisture		2 oz. CWM glass jar (1)									
							TCL SVOCs		8 oz. CWM glass jar (2)									
							TCL Pesticides		8 oz. CWM glass jar (2)									
							TCL Aroclors		8 oz. CWM glass jar (2)									
							Herbicides	SW846 8151A	8 oz. CWM glass jar (2)								2-012712-084509-0003	
	MB0AB5						TAL Inorganics	CLP SOW ISM01.3	8 oz. CWM glass jar (2)				ALS Laboratory	Laborat	1/27/2012	8645 2662 8576	2-012712-085202-0004	
TP6-2	B0AB6	SE	8	1/27/2012	1145	Soil	TCL VOCs	CLP SOW SOM01.2	Encore® Sampler, 5 gram (3)	4° C	field duplicate (TP7-2)	--	A4 Scientific	Y	1/27/2012	8645 2662 8602	2-012712-084509-0003	02PC-0017
							Moisture		2 oz. CWM glass jar (1)									
							TCL SVOCs		8 oz. CWM glass jar (1)									
							TCL Pesticides		8 oz. CWM glass jar (1)									
							TCL Aroclors		8 oz. CWM glass jar (1)									
							Herbicides	SW846 8151A	8 oz. CWM glass jar (1)									
	MB0AB6						TAL Inorganics	CLP SOW ISM01.3	8 oz. CWM glass jar (1)				ALS Laboratory	Y	1/27/2012	8645 2662 8576	2-012712-085202-0004	
	NA						Dioxins/Furans	SW846 8290A	8 oz. CWM glass jar (1)		field duplicate		Lancaster Laboratories	N	1/27/2012	8645 2662 8565	300804	TP6-2
							Moisture		2 oz. CWM glass jar (1)									
TP6-3	B0AB7	SE	10	1/27/2012	1215	Soil	TCL VOCs	CLP SOW SOM01.2	Encore® Sampler, 5 gram (3)	4° C	--	--	A4 Scientific	Y	1/27/2012	8645 2662 8602	2-012712-084509-0003	02PC-0018
							Moisture		2 oz. CWM glass jar (1)									
							TCL SVOCs		8 oz. CWM glass jar (1)									
							TCL Pesticides		8 oz. CWM glass jar (1)									
							TCL Aroclors		8 oz. CWM glass jar (1)									
							Herbicides	SW846 8151A	8 oz. CWM glass jar (1)									
	MB0AB7						TAL Inorganics	CLP SOW ISM01.3	8 oz. CWM glass jar (1)				ALS Laboratory	Y	1/27/2012	8645 2662 8576	2-012712-085202-0004	
TP7-1	B0AB8	SE	4	1/27/2012	1245 (1050)	Soil	TCL VOCs	CLP SOW SOM01.2	Encore® Sampler, 5 gram (3)	4° C	field duplicate (TP6-1)	--	A4 Scientific	Y	1/27/2012	8645 2662 8602	2-012712-084509-0003	02PC-0019
							Moisture		2 oz. CWM glass jar (1)									
							TCL SVOCs		8 oz. CWM glass jar (1)									
							TCL Pesticides		8 oz. CWM glass jar (1)									
							TCL Aroclors		8 oz. CWM glass jar (1)									
							Herbicides	SW846 8151A	8 oz. CWM glass jar (1)									
	MB0AB8						TAL Inorganics	CLP SOW ISM01.3	8 oz. CWM glass jar (1)				ALS Laboratory	Y	1/27/2012	8645 2662 8576	2-012712-085202-0004	
TP7-2	B0AB9	SE	8	1/27/2012	1300 (1245)	Soil	TCL VOCs	CLP SOW SOM01.2	Encore® Sampler, 5 gram (3)	4° C	field duplicate (TP6-2)	--	A4 Scientific	Y	1/27/2012	8645 2662 8602	2-012712-084509-0003	02PC-0020
							Moisture		2 oz. CWM glass jar (1)									
							TCL SVOCs		8 oz. CWM glass jar (1)									
							TCL Pesticides		8 oz. CWM glass jar (1)									
							TCL Aroclors		8 oz. CWM glass jar (1)									
							Herbicides	SW846 8151A	8 oz. CWM glass jar (1)									
	MB0AB9						TAL Inorganics	CLP SOW ISM01.3	8 oz. CWM glass jar (1)				ALS Laboratory	Y	1/27/2012	8645 2662 8576	2-012712-085202-0004	
	NA						Dioxins/Furans	SW846 8290A	8 oz. CWM glass jar (2)			MS/MSD	Lancaster Laboratories	N	1/27/2012	8645 2662 8565	300804	TP7-2

Table 2 Geographic Coordinates of Test Pits Riverside Avenue Site Newark, NJ		
Test Pit ID	**Longitude**	**Latitude**
TP1	40° 45’ 57.26” N	74° 09’ 35.16 W
TP2	40° 45’ 57.58” N	74° 09’ 35.08 W
TP3	40° 45’ 57.70” N	74° 09’ 34.86 W
TP4	40° 45’ 57.55” N	74° 09’ 34.39 W
TP5	40° 45’ 57.10” N	74° 09’ 34.51 W
TP6	40° 45’ 57.07” N	74° 09’ 34.81 W

TABLE 3
Summary of PID Readings From Test Pit Excavations
Riverside Avenue Sit
Newark, NJ

Instrument: MiniRAE 2000 (PGM7600) Serial Number: 013459
Data Points: 295 Gas Name: Isobutylene Sample Period: 60 sec
Last Calibration Time: 01/20/2012 13:38

Measurement Type:	Min(ppm)	Avg(ppm)	Max(ppm)
High Alarm Levels:	100	100	100
Low Alarm Levels:	50	50	50

Line#	Date Time	Min(ppm)	Alarm	Avg(ppm)	Alarm	Max(ppm)	Alarm	TEST PIT #
1	1/25/2012 10:58	0		6		42.5		TP1
2	1/25/2012 10:59	0		4.5		29.3		TP1
3	1/25/2012 11:00	0		6.2		34.6		TP1
4	1/25/2012 11:01	0		17.7		115.8	H	TP1
5	1/25/2012 11:02	0		5.7		18.9		TP1
6	1/25/2012 11:03	0		3.8		24.5		TP1
7	1/25/2012 11:04	0		0		0		TP1
8	1/25/2012 11:05	0		0.8		7.4		TP1
9	1/25/2012 11:06	0		2		7.5		TP1
10	1/25/2012 11:07	0		0		0.6		TP1
11	1/25/2012 11:08	0		0.8		5.5		TP1
12	1/25/2012 11:09	0		0		0		TP1
13	1/25/2012 11:10	0		0		0		TP1
14	1/25/2012 11:11	0		0.2		5.3		TP1
15	1/25/2012 11:12	0.5		7.2		30.8		TP1
16	1/25/2012 11:13	0.2		4.6		11.7		TP1
17	1/25/2012 11:14	0		5.2		18.8		TP1
18	1/25/2012 11:15	0.6		10.5		53.2	L	TP1
19	1/25/2012 11:16	0		1.7		10.1		TP1
20	1/25/2012 11:17	0		0.2		7.3		TP1
21	1/25/2012 11:18	0		7.8		25.2		TP1
22	1/25/2012 11:19	0		1.7		4.9		TP1
23	1/25/2012 11:20	0		0.6		9.1		TP1
24	1/25/2012 11:21	0		11.7		59.9	L	TP1
25	1/25/2012 11:22	0		18.2		117.5	H	TP1
26	1/25/2012 11:23	0		0		0		TP1
27	1/25/2012 11:24	0		10.2		146	H	TP1
28	1/25/2012 11:25	0.4		22.2		64.8	L	TP1
29	1/25/2012 11:26	0		10.6		47.1		TP1
30	1/25/2012 11:27	0		3.4		22.6		TP1
31	1/25/2012 11:28	0		4.5		15		TP1
32	1/25/2012 11:29	0		0		0		TP1
33	1/25/2012 11:30	0		0.3		6.1		TP1
34	1/25/2012 11:31	0		0		0.8		TP1
35	1/25/2012 11:32	0		2.6		10.5		TP1
36	1/25/2012 11:33	0		0.2		2.5		TP1
37	1/25/2012 11:34	0		0		1		TP1
38	1/25/2012 11:35	0		0.3		3.4		TP1
39	1/25/2012 11:36	0		0.7		5		TP1
40	1/25/2012 11:37	0		0.4		4.6		TP1
41	1/25/2012 11:38	0		1.5		21.2		TP1
42	1/25/2012 11:39	0		0.1		2.1		TP1
43	1/25/2012 11:40	0		3.7		19.4		TP1
44	1/25/2012 11:41	0		0		1.5		TP1
45	1/25/2012 11:42	0		0		0		TP1
46	1/25/2012 11:43	0		0		0		TP1
47	1/25/2012 11:44	0		0		0		TP1
48	1/25/2012 11:45	0		7.9		48.5		TP1
49	1/25/2012 11:46	0		1.5		15.3		TP1
50	1/25/2012 11:47	0		0		0.3		TP1
51	1/25/2012 11:48	0		0.8		7.2		TP1
52	1/25/2012 11:49	0		0.8		6.7		TP1
53	1/25/2012 11:50	0		1.5		6.6		TP1
54	1/25/2012 11:51	0		3		12.5		TP1

TABLE 3
Summary of PID Readings From Test Pit Excavations
Riverside Avenue Sit
Newark, NJ

Instrument: MiniRAE 2000 (PGM7600) Serial Number: 013459
Data Points: 295 Gas Name: Isobutylene Sample Period: 60 sec
Last Calibration Time: 01/20/2012 13:38

Measurement Type:	Min(ppm)	Avg(ppm)	Max(ppm)
High Alarm Levels:	100	100	100
Low Alarm Levels:	50	50	50

Line#	Date Time	Min(ppm)	Alarm	Avg(ppm)	Alarm	Max(ppm)	Alarm	TEST PIT #
55	1/25/2012 11:52	0		0		0		TP1
56	1/25/2012 11:53	0		1.7		18.8		TP1
57	1/25/2012 11:54	0		0		0		TP1
58	1/25/2012 11:55	0		0.4		6		TP1
59	1/25/2012 11:56	1.3		6.3		16.3		TP1
60	1/25/2012 11:57	1.2		5.4		14.8		TP1
61	1/25/2012 11:58	0		4.5		15.4		TP1
62	1/25/2012 11:59	0		1.4		8.1		TP1
63	1/25/2012 12:00	0		1.5		6.8		TP1
64	1/25/2012 12:01	0		7.6		19.4		TP1
65	1/25/2012 12:02	0.4		11.5		43.6		TP1
66	1/25/2012 12:03	0		7.5		53	L	TP1
67	1/25/2012 12:04	2.5		19.7		138.8	H	TP1
68	1/25/2012 12:05	3.4		11.1		33.3		TP1
69	1/25/2012 12:06	0		9.6		35.3		TP1
70	1/25/2012 12:07	0		2.7		9		TP1
71	1/25/2012 12:08	0		3.7		13.4		TP1
72	1/25/2012 12:09	0		0.2		3		TP1
73	1/25/2012 12:10	0		2.6		15.1		TP1
74	1/25/2012 12:11	0		2.7		15.5		TP1
75	1/25/2012 12:12	0		0.2		2.1		TP1
76	1/25/2012 12:13	0		0		0.3		TP1
77	1/25/2012 12:14	0		0		0		TP1
78	1/25/2012 12:15	0		4		12.2		TP1
AVERAGE READING TP1				**3.8**				
MAXIMUM READING TP1						**146**		
79	1/25/2012 12:16	0		1.2		10.4		TP2
80	1/25/2012 12:17	0		0.5		9.5		TP2
81	1/25/2012 12:18	0		0		0		TP2
82	1/25/2012 12:19	0		0		0		TP2
83	1/25/2012 12:20	0		18.9		130.3	H	TP2
84	1/25/2012 12:21	0		1.3		20		TP2
85	1/25/2012 12:22	0		0.3		5.5		TP2
86	1/25/2012 12:23	0		18.9		89.8	L	TP2
87	1/25/2012 12:24	0		0.1		2.8		TP2
88	1/25/2012 12:25	0		0.2		2.8		TP2
89	1/25/2012 12:26	0		0		1.6		TP2
90	1/25/2012 12:27	0		1		10.2		TP2
91	1/25/2012 12:28	0		0		0		TP2
92	1/25/2012 12:29	0		0.2		5.7		TP2
93	1/25/2012 12:30	0		0		2.2		TP2
94	1/25/2012 12:31	0		0		0		TP2
95	1/25/2012 12:32	0		0		0.3		TP2
96	1/25/2012 12:33	0		0		0		TP2
97	1/25/2012 12:34	0		0		0		TP2
98	1/25/2012 12:35	0		0		0		TP2
99	1/25/2012 12:36	0		0		0		TP2
100	1/25/2012 12:37	0		0		0		TP2
101	1/25/2012 12:38	0		0		0		TP2
102	1/25/2012 12:39	0		0		0.8		TP2
103	1/25/2012 12:40	0		2.1		29.6		TP2
104	1/25/2012 12:41	0		39.4		190.5	H	TP2
105	1/25/2012 12:42	0		0.4		6		TP2
106	1/25/2012 12:43	0		1.8		15.6		TP2

TABLE 3
Summary of PID Readings From Test Pit Excavations
Riverside Avenue Sit
Newark, NJ

Instrument: MiniRAE 2000 (PGM7600) Serial Number: 013459
Data Points: 295 Gas Name: Isobutylene Sample Period: 60 sec
Last Calibration Time: 01/20/2012 13:38

Measurement Type:	Min(ppm)	Avg(ppm)	Max(ppm)
High Alarm Levels:	100	100	100
Low Alarm Levels:	50	50	50

Line#	Date Time	Min(ppm)	Alarm	Avg(ppm)	Alarm	Max(ppm)	Alarm	TEST PIT #
107	1/25/2012 12:44	0		0		2.2		TP2
108	1/25/2012 12:45	0		0.6		6.6		TP2
109	1/25/2012 12:46	0		0.1		3.7		TP2
110	1/25/2012 12:47	0		0.1		4.7		TP2
111	1/25/2012 12:48	0		0		0		TP2
112	1/25/2012 12:49	0		0		0		TP2
113	1/25/2012 12:50	0		0		0		TP2
114	1/25/2012 12:51	0		0		0		TP2
115	1/25/2012 12:52	0		0		0		TP2
116	1/25/2012 12:53	0		46.7		172.7	H	TP2
117	1/25/2012 12:54	0.2		2.9		10.1		TP2
118	1/25/2012 12:55	0		1.7		7.5		TP2
119	1/25/2012 12:56	0		4.1		24.2		TP2
120	1/25/2012 12:57	1.1		11.5		23.2		TP2
121	1/25/2012 12:58	0		3.7		16.8		TP2
122	1/25/2012 12:59	0		0		0		TP2
123	1/25/2012 13:00	0		0		0		TP2
124	1/25/2012 13:01	0		0		0		TP2
125	1/25/2012 13:02	0		0		0		TP2
126	1/25/2012 13:03	0		0.1		2.8		TP2
127	1/25/2012 13:04	0		0.1		4.3		TP2
128	1/25/2012 13:05	0		0.8		8.7		TP2
129	1/25/2012 13:06	0		0		2.6		TP2
130	1/25/2012 13:07	0		0		1.6		TP2
131	1/25/2012 13:08	0		0		0.4		TP2
132	1/25/2012 13:09	0		0		0		TP2
133	1/25/2012 13:10	0		0		0		TP2
134	1/25/2012 13:11	0		0		0		TP2
135	1/25/2012 13:12	0		0		0.2		TP2
136	1/25/2012 13:13	0		0		0.3		TP2
137	1/25/2012 13:14	0		3.2		17.1		TP2
AVERAGE READING TP2				**3.3**				
MAXIMUM READING TP2						**190.5**		
1	1/25/2012 14:48	0		0		0		TP3
2	1/25/2012 14:49	0		0		0		TP3
3	1/25/2012 14:50	0		0		0		TP3
4	1/25/2012 14:51	0		0		0		TP3
5	1/25/2012 14:52	0		0		0		TP3
6	1/25/2012 14:53	0		0		0		TP3
7	1/25/2012 14:54	0		0		0		TP3
8	1/25/2012 14:55	0		0		0		TP3
9	1/25/2012 14:56	0		0		0		TP3
10	1/25/2012 14:57	0		0.7		10		TP3
11	1/25/2012 14:58	0		0		0		TP3
12	1/25/2012 14:59	0		11.3		115.5	H	TP3
13	1/25/2012 15:00	1		27.5		159.5	H	TP3
14	1/25/2012 15:01	0		0.3		10.7		TP3
15	1/25/2012 15:02	0		4		27.9		TP3
16	1/25/2012 15:03	0		8		25.5		TP3
17	1/25/2012 15:04	0		7.3		16.2		TP3
18	1/25/2012 15:05	0		2.4		12.8		TP3
19	1/25/2012 15:06	0		0.4		7.8		TP3
20	1/25/2012 15:07	0		0.2		3.6		TP3
21	1/25/2012 15:08	0		0.3		2.2		TP3

TABLE 3
Summary of PID Readings From Test Pit Excavations
Riverside Avenue Sit
Newark, NJ

Instrument: MiniRAE 2000 (PGM7600) Serial Number: 013459
Data Points: 295 Gas Name: Isobutylene Sample Period: 60 sec
Last Calibration Time: 01/20/2012 13:38

Measurement Type:	Min(ppm)	Avg(ppm)	Max(ppm)
High Alarm Levels:	100	100	100
Low Alarm Levels:	50	50	50

Line#	Date Time	Min(ppm)	Alarm	Avg(ppm)	Alarm	Max(ppm)	Alarm	TEST PIT #
22	1/25/2012 15:09	0		19.7		165.8	H	TP3
23	1/25/2012 15:10	0		17.7		167.1	H	TP3
24	1/25/2012 15:11	0		0		0		TP3
25	1/25/2012 15:12	0		15.3		177.6	H	TP3
26	1/25/2012 15:13	0		54.7	L	192.5	H	TP3
27	1/25/2012 15:14	0		0.2		4.5		TP3
28	1/25/2012 15:15	0		0		1.9		TP3
29	1/25/2012 15:16	0		0		0		TP3
30	1/25/2012 15:17	0		0.1		2.7		TP3
31	1/25/2012 15:18	0		0		0		TP3
32	1/25/2012 15:19	0		0		0		TP3
33	1/25/2012 15:20	0		0		0.9		TP3
34	1/25/2012 15:21	0		0.1		2.4		TP3
35	1/25/2012 15:22	0		2		10.8		TP3
36	1/25/2012 15:23	0		0.2		6.9		TP3
37	1/25/2012 15:24	0		10.2		42.9		TP3
38	1/25/2012 15:25	0		3.6		42.1		TP3
39	1/25/2012 15:26	0		0		0		TP3
40	1/25/2012 15:27	0		0		0		TP3
41	1/25/2012 15:28	0		0		0.9		TP3
42	1/25/2012 15:29	0		0		0		TP3
43	1/25/2012 15:30	0		0		0		TP3
44	1/25/2012 15:31	0		0		0		TP3
45	1/25/2012 15:32	0		0.9		13.9		TP3
46	1/25/2012 15:33	0		4.1		13.7		TP3
47	1/25/2012 15:34	0		0		0		TP3
48	1/25/2012 15:35	0		0		0		TP3
49	1/25/2012 15:36	0		0.2		1.6		TP3
50	1/25/2012 15:37	0		0.8		4.4		TP3
51	1/25/2012 15:38	0		0.7		6		TP3
52	1/25/2012 15:39	0		0		0		TP3
53	1/25/2012 15:40	0		0		0		TP3
54	1/25/2012 15:41	0		0		0		TP3
55	1/25/2012 15:42	0		0		0		TP3
56	1/25/2012 15:43	0		0		0		TP3
57	1/25/2012 15:44	0		0		0		TP3
58	1/25/2012 15:45	0		0		0		TP3
59	1/25/2012 15:46	0		0		0		TP3
AVERAGE READING TP3				**2.7**				
MAXIMUM READING TP3						**192.5**		
1	1/26/2012 8:49	0		0		0		TP4
2	1/26/2012 8:50	0		0		0		TP4
3	1/26/2012 8:51	0		0		0		TP4
4	1/26/2012 8:52	0		0		0		TP4
5	1/26/2012 8:53	0		0		0		TP4
6	1/26/2012 8:54	0		0		0		TP4
7	1/26/2012 8:55	0		0		0		TP4
8	1/26/2012 8:56	0		0		0		TP4
9	1/26/2012 8:57	0		0		0		TP4
10	1/26/2012 8:58	0		0		0		TP4
11	1/26/2012 8:59	0		0		0		TP4
12	1/26/2012 9:00	0		0		0		TP4
13	1/26/2012 9:01	0		0		0		TP4
14	1/26/2012 9:02	0		0		0		TP4

TABLE 3
Summary of PID Readings From Test Pit Excavations
Riverside Avenue Sit
Newark, NJ

Instrument: MiniRAE 2000 (PGM7600) Serial Number: 013459
Data Points: 295 Gas Name: Isobutylene Sample Period: 60 sec
Last Calibration Time: 01/20/2012 13:38

Measurement Type:	Min(ppm)	Avg(ppm)	Max(ppm)
High Alarm Levels:	100	100	100
Low Alarm Levels:	50	50	50

Line#	Date Time	Min(ppm)	Alarm	Avg(ppm)	Alarm	Max(ppm)	Alarm	TEST PIT #
15	1/26/2012 9:03	0		0		0		TP4
16	1/26/2012 9:04	0		0		0		TP4
17	1/26/2012 9:05	0		0		0		TP4
18	1/26/2012 9:06	0		0		0		TP4
19	1/26/2012 9:07	0		0		0		TP4
20	1/26/2012 9:08	0		0		0		TP4
21	1/26/2012 9:09	0		0		0		TP4
22	1/26/2012 9:10	0		0		0		TP4
23	1/26/2012 9:11	0		27.4		109	H	TP4
24	1/26/2012 9:12	0		17.2		129.8	H	TP4
25	1/26/2012 9:13	0		0		0		TP4
26	1/26/2012 9:14	0		0		0		TP4
27	1/26/2012 9:15	0		0		0		TP4
28	1/26/2012 9:16	0		0		0		TP4
29	1/26/2012 9:17	0		0		0		TP4
30	1/26/2012 9:18	0		0		0		TP4
31	1/26/2012 9:19	0		0		0		TP4
32	1/26/2012 9:20	0		0		2.2		TP4
33	1/26/2012 9:21	0		16.4		153.5	H	TP4
34	1/26/2012 9:22	0		3.3		75.9	L	TP4
35	1/26/2012 9:23	0		2.3		21.4		TP4
36	1/26/2012 9:24	0		0		0		TP4
37	1/26/2012 9:25	0		0		0		TP4
38	1/26/2012 9:26	0		0		0		TP4
39	1/26/2012 9:27	0		0		0		TP4
40	1/26/2012 9:28	0		0		0		TP4
41	1/26/2012 9:29	0		0		0		TP4
42	1/26/2012 9:30	0		0		0		TP4
43	1/26/2012 9:31	0		0		0		TP4
44	1/26/2012 9:32	0		0		0		TP4
45	1/26/2012 9:33	0		0.2		2.1		TP4
46	1/26/2012 9:34	0		0		0		TP4
47	1/26/2012 9:35	0		0		0		TP4
48	1/26/2012 9:36	0		0		0		TP4
49	1/26/2012 9:37	0		0		0		TP4
50	1/26/2012 9:38	0		0.1		2		TP4
51	1/26/2012 9:39	0		16.8		37.6		TP4
52	1/26/2012 9:40	10.1		21		50.1	L	TP4
53	1/26/2012 9:41	0		4.9		23.1		TP4
54	1/26/2012 9:42	0		0		0		TP4
55	1/26/2012 9:43	0		0		0		TP4
56	1/26/2012 9:44	0		0		0		TP4
57	1/26/2012 9:45	0		0		0		TP4
58	1/26/2012 9:46	0		0		0		TP4
59	1/26/2012 9:47	0		0		0		TP4
60	1/26/2012 9:48	0		0		0		TP4
61	1/26/2012 9:49	0		0		0		TP4
62	1/26/2012 9:50	0		0		0		TP4
63	1/26/2012 9:51	0		0		0		TP4
64	1/26/2012 9:52	0		0		0		TP4
65	1/26/2012 9:53	0		0		0		TP4
66	1/26/2012 9:54	0		0		0		TP4
67	1/26/2012 9:55	0		0		0		TP4
68	1/26/2012 9:56	0		0		0		TP4

TABLE 3
Summary of PID Readings From Test Pit Excavations
Riverside Avenue Sit
Newark, NJ

Instrument: MiniRAE 2000 (PGM7600) Serial Number: 013459
Data Points: 295 Gas Name: Isobutylene Sample Period: 60 sec
Last Calibration Time: 01/20/2012 13:38

Measurement Type:	Min(ppm)	Avg(ppm)	Max(ppm)
High Alarm Levels:	100	100	100
Low Alarm Levels:	50	50	50

Line#	Date Time	Min(ppm)	Alarm	Avg(ppm)	Alarm	Max(ppm)	Alarm	TEST PIT #
69	1/26/2012 9:57	0		0		0		TP4
70	1/26/2012 9:58	0		0		0		TP4
71	1/26/2012 9:59	0		0		0		TP4
72	1/26/2012 10:00	0		0		0		TP4
73	1/26/2012 10:01	0		0		0		TP4
74	1/26/2012 10:02	0		0		0		TP4
75	1/26/2012 10:03	0		0		0		TP4
76	1/26/2012 10:04	0		0		0		TP4
77	1/26/2012 10:05	0		0		0		TP4
78	1/26/2012 10:06	0		0		0		TP4
79	1/26/2012 10:07	0		0		0		TP4
80	1/26/2012 10:08	0		0		0		TP4
81	1/26/2012 10:09	0		0		0		TP4
AVERAGE READING TP4				**1.4**				
MAXIMUM READING TP4						**153.5**		
82	1/26/2012 10:10	0		0		0		TP5
83	1/26/2012 10:11	0		0		0		TP5
84	1/26/2012 10:12	0		0		0		TP5
85	1/26/2012 10:13	0		0		0		TP5
86	1/26/2012 10:14	0		0		0		TP5
87	1/26/2012 10:15	0		0		0		TP5
88	1/26/2012 10:16	0		0		0		TP5
89	1/26/2012 10:17	0		0		0		TP5
90	1/26/2012 10:18	0		17		97.7	L	TP5
91	1/26/2012 10:19	0		39.8		200.7	H	TP5
92	1/26/2012 10:20	0		0		0		TP5
93	1/26/2012 10:21	0		0		0		TP5
94	1/26/2012 10:22	0		0.5		12		TP5
95	1/26/2012 10:23	0		0.5		19.6		TP5
96	1/26/2012 10:24	0		0		0		TP5
97	1/26/2012 10:25	0		0		0		TP5
98	1/26/2012 10:26	0		0		0		TP5
99	1/26/2012 10:27	0		0		0.2		TP5
AVERAGE READING TP5				**1.8**				
MAXIMUM READING TP5						**200.7**		

Note: Due to inclement weather on 1/27/12, the PID was not used to screen soil samples collected from test pit TP6.

TABLE 4
SUMMARY OF VOLATILE ORGANIC COMPOUNDS DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID		TP1-1		TP1-1 DL		TP1-2		TP1-2 DL		TP1-3		TP1-3 DL		TP2-1	
Test Pit ID		1				1				1				2	
Sample Interval (ft bgs)		4				8				10				4	
Laboratory Sample ID		B41H2		B41H2 DL		B41H3		B41H3 DL		B41H4		B41H4 DL		B41H5	
Matrix		Soil				Soil				Soil				Soil	
Field QC															
Laboratory		A4				A4				A4				A4	
Analytical Method		CLP SOW/SOM01.2				CLP SOW/SOM01.2				CLP SOW/SOM01.2				CLP SOW/SOM01.2	
Sample Collection Date		1/25/2012				1/25/2012				1/25/2012				1/25/2012	
Sample Collection Time		11:00				11:20				11:45				12:25	
Dilution		1				1				1				1	
% Moisture		17				14				17				19	
Units		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
Analyte	**NRDCSCC**	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
1,1,1-Trichloroethane	1000									1.5	UJ				
1,1,2-Trichloro-1,2,2-trifluoroethane										1.5	UJ				
1,1,2-Trichloroethane	420									1.5	UJ				
1,2-Dibromomethane										1.5	UJ				
1,2-Dichloroethane	1000									1.5	UJ				
Benzene	13					1.7	J			1.3	J				
Bromomethane	1000														
Carbon Disulfide															
Carbon tetrachloride	4									1.5	UJ				
Chloroethane															
Chloromethane	1000														
cis-1,2-Dichloroethene															
Cyclohexane		0.61	J					1	J						
Dichlorodifluoromethane															
Ethylbenzene	1000	37		42		110		130		28		58			
Isopropylbenzene		10		11	J	18		18		8.1		16		0.86	
m,p-Xylene	1000	270		270		480		480		0.21		21		1.6	
Methyl acetate										1.5	UJ				
Methyl tert-butyl ether										1.5	UJ				
Methylcyclohexane		17		15		20				7.6				4.1	
Methylene chloride	210									1.5	UJ				
o-Xylene	1000	19		21		37		39		7.8		16		0.48	
Toluene	1000	0.76	J			2.9	J			0.77	J				
trans-1,3-Dichloropropene										1.5	UJ				
Tetrachloroethene	6														
Trichloroethene	54	0.64	J			2.8	J	3.5	J	0.34	J				
Trichlorofluoromethane										1.5	UJ				
Vinyl chloride	7							12	UJ						

Notes
DL - diluted sample
J - estimated
UJ (and empty Result cells) - not detected
ft bgs - feet below ground surface
CLP SOW/SOM01.2 - inductively coupled plasma atomic emission spectroscopy
NRDCSCC - NJ Non-Residential Direct Contact Soil Cleanup Criteria
mg/kg = milligrams per kilogram
TP - test pit
Exceeds NJ NRDCSCC

TABLE 4
SUMMARY OF VOLATILE ORGANIC COMPOUNDS DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID		TP2-2		TP2-2 DL		TP2-3		TP2-3 DL		TP3-1		TP3-1 DL		TP3-2		TP3-2 DL		TP3-3	
Test Pit ID		2				2				3				3				3	
Sample Interval (ft bgs)		8				10				4				8				10	
Laboratory Sample ID		B41H6		B41H6 DL		B41H7		B41H7 DL		B41H8		B41H8 DL		B41H9		B41H9 DL		B41J0	
Matrix		Soil				Soil				Soil				Soil				Soil	
Field QC																			
Laboratory		A4				A4				A4				A4				A4	
Analytical Method		CLP SOW/SOM01.2				CLP SOW/SOM01.2				CLP SOW/SOM01.2				CLP SOW/SOM01.2				CLP SOW/SOM01.2	
Sample Collection Date		1/25/2012				1/25/2012				1/25/2012				1/25/2012				1/25/2012	
Sample Collection Time		12:45				13:00				15:00				15:15				15:30	
Dilution		1				1				1				1				1	
% Moisture		18				15				15				14				16	
Units		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
Analyte	**NRDCSCC**	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
1,1,1-Trichloroethane	1000			1.4	UJ											1500	UJ		
1,1,2-Trichloro-1,2,2-trifluoroethane				1.4	UJ											1500	UJ		
1,1,2-Trichloroethane	420			1.4	UJ														
1,2-Dibromomethane				1.4	UJ											1500	UJ		
1,2-Dichloroethane	1000			1.4	UJ											1500	UJ		
Benzene	13					0.33													
Bromomethane	1000					290	UJ											270	UJ
Carbon Disulfide						0.29	UJ											270	UJ
Carbon tetrachloride	4	0.58	UJ					1500	UJ	1500	UJ					1500	UJ		
Chloroethane						290	UJ											270	UJ
Chloromethane	1000					290	UJ											270	UJ
cis-1,2-Dichloroethene																			
Cyclohexane		1.6		1.4	J	710		750	J	1600		2100	J	2700		2500			
Dichlorodifluoromethane						290	UJ											270	UJ
Ethylbenzene	1000			1.3	J														
Isopropylbenzene		15	J	13		3400		3200		5500		5500	J	14000	J	15000		650	
m,p-Xylene	1000	4.8	J	4.2		300								1000	J				
Methyl acetate				1.4	UJ											1500	UJ		
Methyl tert-butyl ether				1.4	UJ											1500	UJ		
Methylcyclohexane		47		47		16000		16000		70000		70000		48000		48000		2100	
Methylene chloride	210			1.4	UJ											1500	UJ		
o-Xylene	1000	0.49	J																
Toluene	1000																	130	J
trans-1,3-Dichloropropene																			
Tetrachloroethene	6																		
Trichloroethene	54			0.99	J														
Trichlorofluoromethane				1.4	UJ											1500	UJ		
Vinyl chloride	7																		

Notes
DL - diluted sample
J - estimated
UJ (and empty Result cells) - not detected
ft bgs - feet below ground surface
CLP SOW/SOM01.2 - inductively coupled plasma atomic emission spectroscopy
NRDCSCC - NJ Non-Residential Direct Contact Soil Cleanup Criteria
mg/kg = milligrams per kilogram
TP - test pit
Exceeds NJ NRDCSCC

TABLE 4
SUMMARY OF VOLATILE ORGANIC COMPOUNDS DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID		TP4-1		TP4-2		TP4-3		TP5-1		TP5-1 DL		TP5-2		TP5-2 DL		TP5-3		TP5-3 DL	
Test Pit ID		4		4		4		5				5				5			
Sample Interval (ft bgs)		4		8		10		4				8				10			
Laboratory Sample ID		B0AA9		B0AB0		B0AB1		B0AB2		B0AB2DL		B0AB3		B0AB3DL		B0AB4		B0AB4DL	
Matrix		Soil		Soil		Soil		Soil				Soil				Soil			
Field QC																			
Laboratory		A4		A4		A4		A4				A4				A4			
Analytical Method		CLP SOW/SOM01.2		CLP SOW/SOM01.2		CLP SOW/SOM01.2		CLP SOW/SOM01.2				CLP SOW/SOM01.2				CLP SOW/SOM01.2			
Sample Collection Date		1/26/2012		1/26/2012		1/26/2012		1/26/2012				1/26/2012				1/27/2012			
Sample Collection Time		9:15		9:30		9:45		10:30				10:30				10:15			
Dilution		1		1		1		1				1				1			
% Moisture		12		18		16		12				11				15			
Units		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
Analyte	**NRDCSCC**	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
1,1,1-Trichloroethane	1000							0.19	J			0.18	J						
1,1,2-Trichloro-1,2,2-trifluoroethane																			
1,1,2-Trichloroethane	420																		
1,2-Dibromomethane																			
1,2-Dichloroethane	1000																		
Benzene	13							0.12	J							0.048	J		
Bromomethane	1000																		
Carbon Disulfide																			
Carbon tetrachloride	4																		
Chloroethane																			
Chloromethane	1000																		
cis-1,2-Dichloroethene																			
Cyclohexane								0.55				0.48				0.26	J		
Dichlorodifluoromethane																			
Ethylbenzene	1000							120		120		82		82		75		75	
Isopropylbenzene		4.1		2.2		0.55		9.5		12	J	8.2		9.6	J	3.4		5.1	J
m,p-Xylene	1000							460		460		320		320		300		300	
Methyl acetate																			
Methyl tert-butyl ether																			
Methylcyclohexane		11		3.4		0.29	J	11	J	18	J	10	J	15	J	5		10	J
Methylene chloride	210							0.52											
o-Xylene	1000							37		37		24		24		15	J	23	J
Toluene	1000							2.7				1.4				1.2			
trans-1,3-Dichloropropene																			
Tetrachloroethene	6															0.22	J		
Trichloroethene	54							2.4				1.7				1.1			
Trichlorofluoromethane																			
Vinyl chloride	7																		

Notes
DL - diluted sample
J - estimated
UJ (and empty Result cells) - not detected
ft bgs - feet below ground surface
CLP SOW/SOM01.2 - inductively coupled plasma atomic emission spectroscopy
NRDCSCC - NJ Non-Residential Direct Contact Soil Cleannup Criteria
mg/kg = milligrams per kilogram
TP - test pit
Exceeds NJ NRDCSCC

TABLE 4
SUMMARY OF VOLATILE ORGANIC COMPOUNDS DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID		TP6-1		TP6-1 DL		TP6-2		TP6-2 DL		TP6-2 RE		TP6-3		TP6-3 DL	
Test Pit ID		6				6						6			
Sample Interval (ft bgs)		4				8						10			
Laboratory Sample ID		B0AB5		B0AB5DL		B0AB6		B0AB6DL		B0AB6RE		B0AB7		B0AB7DL	
Matrix		Soil				Soil						Soil			
Field QC		Dupl. of TP7-1				Dupl. of TP7-2									
Laboratory		A4				A4						A4			
Analytical Method		CLP SOW/SOM01.2				CLP SOW/SOM01.2						CLP SOW/SOM01.2			
Sample Collection Date		1/27/2012				1/27/2012						1/27/2012			
Sample Collection Time		10:50				11:45						12:15			
Dilution		1				1						1			
% Moisture		27				14						16			
Units		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
Analyte	**NRDCSCC**	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
1,1,1-Trichloroethane	1000	0.33	J												
1,1,2-Trichloro-1,2,2-trifluoroethane															
1,1,2-Trichloroethane	420														
1,2-Dibromomethane															
1,2-Dichloroethane	1000														
Benzene	13	0.2	J							0.033	J				
Bromomethane	1000														
Carbon Disulfide															
Carbon tetrachloride	4														
Chloroethane															
Chloromethane	1000														
cis-1,2-Dichloroethene		0.42													
Cyclohexane		0.41				0.34				0.4		0.6		0.6	J
Dichlorodifluoromethane															
Ethylbenzene	1000	400		400		28		28		22	J	0.81	J	0.87	J
Isopropylbenzene		4.2				4.2		5	J	4.5	J	16		16	
m,p-Xylene	1000	1600		1600		110		110		76	J	3	J	3.1	
Methyl acetate															
Methyl tert-butyl ether															
Methylcyclohexane		5.3				7.2				8		27		27	
Methylene chloride	210														
o-Xylene	1000	110		110		6.5		7.9	J	6.9	J	0.25	J		
Toluene	1000	3.3				0.41				0.38	J	0.1	J		
trans-1,3-Dichloropropene															
Tetrachloroethene	6	0.91								0.1	J				
Trichloroethene	54	3.5				0.44				0.43	J				
Trichlorofluoromethane															
Vinyl chloride	7														

Notes
DL - diluted sample
J - estimated
UJ (and empty Result cells) - not detected
ft bgs - feet below ground surface
CLP SOW/SOM01.2 - inductively coupled plasma atomic emission spectroscopy
NRDCSCC - NJ Non-Residential Direct Contact Soil Cleanup Criteria
mg/kg = milligrams per kilogram
TP - test pit
Exceeds NJ NRDCSCC

TABLE 4
SUMMARY OF VOLATILE ORGANIC COMPOUNDS DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID		TP7-1		TP7-1 DL		TP7-2		TP7-2 DL	
Test Pit ID		6				6			
Sample Interval (ft bgs)		4				8			
Laboratory Sample ID		B0AB8		B0AB8DL		B0AB9		B0AB9DL	
Matrix		Soil				Soil			
Field QC		Dupl. of TP6-1				Dupl. of TP6-2			
Laboratory		A4				A4			
Analytical Method		CLP SOW/SOM01.2				CLP SOW/SOM01.2			
Sample Collection Date		1/27/2012				1/27/2012			
Sample Collection Time		12:45				13:00 (11:45)			
Dilution		1				1			
% Moisture		17				17			
Units		mg/kg		mg/kg		mg/kg		mg/kg	
Analyte	**NRDCSCC**	Result	Flag	Result	Flag	Result	Flag	Result	Flag
1,1,1-Trichloroethane	1000	0.28	J						
1,1,2-Trichloro-1,2,2-trifluoroethane									
1,1,2-Trichloroethane	420								
1,2-Dibromomethane									
1,2-Dichloroethane	1000								
Benzene	13	0.23	J						
Bromomethane	1000								
Carbon Disulfide									
Carbon tetrachloride	4								
Chloroethane									
Chloromethane	1000								
cis-1,2-Dichloroethene		0.39							
Cyclohexane		0.31				0.42			
Dichlorodifluoromethane									
Ethylbenzene	1000	280		280		27		27	
Isopropylbenzene		3.4		8.1	J	5.1		6	J
m,p-Xylene	1000	1100		1100		100		100	
Methyl acetate									
Methyl tert-butyl ether									
Methylcyclohexane		3.6		12	J	9.4			
Methylene chloride	210	0.65							
o-Xylene	1000	83		83		6.7		7.6	J
Toluene	1000	3				0.41			
trans-1,3-Dichloropropene									
Tetrachloroethene	6	0.68				0.096	J		
Trichloroethene	54	2.6				0.47			
Trichlorofluoromethane									
Vinyl chloride	7								

Notes
DL - diluted sample
J - estimated
UJ (and empty Result cells) - not detected
ft bgs - feet below ground surface
CLP SOW/SOM01.2 - inductively coupled plasma atomic emission spectroscopy
NRDCSCC - NJ Non-Residential Direct Contact Soil Cleanup Criteria
mg/kg = milligrams per kilogram
TP - test pit
Exceeds NJ NRDCSCC

TABLE 5
SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID			TP1-1		TP1-2		TP1-3		TP2-1		TP2-2		TP2-3		TP3-1	
Test Pit ID			1		1		1		2		2		2		3	
Sample Interval (ft bgs)			4		8		10		4		8		10		4	
Laboratory Sample ID			B0AA0		B0AA1		B0AA2		B0AA3		B0AA4		B0AA5		B0AA6	
Matrix			Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Field QC																
Laboratory			A4		A4		A4		A4		A4		A4		A4	
Analytical Method			CLP SOW/SOM01.2		CLP SOW/SOM01.2		CLP SOW/SOM01.2		CLP SOW/SOM01.2		CLP SOW/SOM01.2		CLP SOW/SOM01.2		CLP SOW/SOM01.2	
Sample Collection Date			1/25/2012		1/25/2012		1/25/2012		1/25/2012		1/25/2012		1/25/2012		1/25/2012	
Sample Collection Time			11:00		11:20		11:45		12:25		12:45		13:00		15:00	
Dilution			1		1		1		1		1		1		1	
% Moisture			17		15		16		19		18		20		16	
Units			mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
Compound	**CAS #**	**NRDCSCC**	**Result**	**Flag**	**Result**	**Flag**	**Result**	**Flag**	**Result**	**Flag**	**Result**	**Flag**	**Result**	**Flag**	**Result**	**Flag**
1,1'-Biphenyl	92-52-4		0.23		0.11	J	0.031	J					0.05	J		
2,4-Dimethylphenol	105-67-9	10000	0.09	J									0.049	J		
2-Methylnaphthalene	91-57-6		2.2		1.4		0.44		0.11	J	0.085	J	0.83			
4-Methylphenol	106-44-5	10000											0.067	J		
Acenaphthene	83-32-9	10000	0.25		0.14	J	0.047	J	0.35		0.048	J	0.1	J		
Acenaphthylene	208-96-8															
Acetophenone	98-86-2						0.15	J								
Anthracene	120-12-7	10000	0.23		0.12	J	0.044	J	0.11	J	0.074	J	0.16	J	0.054	J
Benzo(a)anthracene	56-55-3		0.29		0.16	J	0.067	J	0.12	J	0.2	J	0.38		0.36	
Benzo(a)pyrene	50-32-8	4	0.29		0.11	J	0.058	J	0.1	J	0.24		0.37		0.54	
Benzo(b)fluoranthene	205-99-2	4	0.2	J	0.071	J	0.047	J	0.12	J	0.26		0.37		0.64	
Benzo(g,h,I)perylene	191-24-2		0.28		0.089	J	0.049	J	0.094	J	0.2	J	0.27		0.57	
Benzo(k)fluoranthene	207-08-9	4	0.18	J	0.071	J	0.034	J	0.08	J	0.16	J	0.27		0.38	
Carbazole	86-74-8		0.11	J	0.036	J	0.018	J					0.052	J		
Chrysene	218-01-9	40	0.35		0.18	J	0.081	J	0.11	J	0.2	J	0.38		0.4	
Dibenzo(a,h)anthracene	53-70-3	0.66	0.049	J					0.03	J	0.035	J	0.096	J	0.061	J
Dibenzofuran	132-64-9		0.1	J	0.052	J	0.017	J	0.046	J	0.02	J	0.046	J		
Diethylphthalate	84-66-2	10000														
Fluoranthene	206-44-0	10000	0.33		0.18	J	0.086	J	0.36		0.38		0.57		0.55	
Fluorene	86-73-7	10000	0.37		0.19	J	0.067	J	0.26		0.071	J	0.18	J	0.017	J
Indeno(1,2,3-cd)pyrene	193-39-5	4	0.25		0.096	J	0.048	J	0.11	J	0.27		0.39		0.78	
Naphthalene	91-20-3	4200	0.45		1.2	J	0.84		0.086	J	0.11	J	0.11	J	0.082	J
N-Nitrosodiphenylamine	86-30-6	600	0.41													
Phenanthrene	85-01-8		1.8		0.93		0.32		0.59		0.33		0.98		0.098	J
Pyrene	129-00-0	10000	0.66		0.36		0.15	J	0.43		0.43		0.73		0.76	

Notes
DL - diluted sample
J - estimated
ft bgs - feet below ground surface
CLP SOW - Contract Lab Program Statement of Work
SOM - Superfund Organic Methods
NRDCSCC - NJ Non-Residential Direct Contact Soil Cleanup Criteria
mg/kg = milligrams per kilogram
TP - test pit
Exceeds NJ NRDCSCC

TABLE 5
SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID			TP3-2		TP3-3		TP4-1		TP4-2		TP4-3		TP5-1		TP5-1 DL	
Test Pit ID			3		3		4		4		4		5			
Sample Interval (ft bgs)			8		10		4		8		10		4			
Laboratory Sample ID			B0AA7		B0AA8		B0AA9		B0AB0		B0AB1		B0AB2		B0AB2DL	
Matrix			Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Field QC																
Laboratory			A4		A4		A4		A4		A4		A4		A5	
Analytical Method			CLP SOW/SOM01.2		CLP SOW/SOM01.2		CLP SOW/SOM01.2		CLP SOW/SOM01.2		CLP SOW/SOM01.2		CLP SOW/SOM01.2		CLP SOW/SOM01.2	
Sample Collection Date			1/25/2012		1/25/2012		1/26/2012		1/26/2012		1/26/2012		1/26/2012			
Sample Collection Time			15:15		15:30		9:15		9:30		9:45		10:30			
Dilution			1		1		1		1		1		1		2	
% Moisture			15		13		12		18		16		12			
Units			mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
Compound	**CAS #**	**NRDCSCC**	**Result**	**Flag**	**Result**	**Flag**	**Result**	**Flag**	**Result**	**Flag**	**Result**	**Flag**	**Result**	**Flag**	**Result**	**Flag**
1,1'-Biphenyl	92-52-4												0.079	J	0.078	J
2,4-Dimethylphenol	105-67-9	10000											0.54		0.67	
2-Methylnaphthalene	91-57-6		0.49	J	0.052	J	0.34		0.32		0.14	J	3.7		3.7	
4-Methylphenol	106-44-5	10000											0.33		0.34	J
Acenaphthene	83-32-9	10000	0.26	J			0.059	J	0.066	J	0.14	J	0.46		0.47	
Acenaphthylene	208-96-8				0.064	J					0.17	J				
Acetophenone	98-86-2								0.094	J	0.076	J				
Anthracene	120-12-7	10000	0.31	J	0.036	J	0.031	J	0.17	J	0.18	J	0.52		0.54	
Benzo(a)anthracene	56-55-3		1.1	J	0.29		0.077	J	1.3		0.73		1.2		1.3	
Benzo(a)pyrene	50-32-8	4	1.2	J	0.23		0.07	J	1.2		0.71		1.2		1.2	
Benzo(b)fluoranthene	205-99-2	4	1.3	J	0.25		0.059	J	0.75		0.78		1.3		1.4	
Benzo(g,h,I)perylene	191-24-2		1.1	J	0.13	J	0.078	J	0.62		0.45		0.94		1.1	
Benzo(k)fluoranthene	207-08-9	4	1	J	0.17	J	0.069	J	0.69		0.47		0.74		0.81	
Carbazole	86-74-8										0.055	J	0.23		0.22	J
Chrysene	218-01-9	40	1.1	J	0.25		0.081	J	1.2		0.75		1.2		1.3	
Dibenzo(a,h)anthracene	53-70-3	0.66			0.055	J			0.22		0.14	J	0.31		0.37	J
Dibenzofuran	132-64-9		0.16	J	0.019	J	0.097	J	0.067	J	0.094	J	0.21		0.21	J
Diethylphthalate	84-66-2	10000							0.023	J	0.019					
Fluoranthene	206-44-0	10000	2.4		0.19	J	0.13	J	1.5		1.9		1.7		1.8	
Fluorene	86-73-7	10000	0.45	J	0.02	J	0.14	J	0.14	J	0.2	J	0.74		0.76	
Indeno(1,2,3-cd)pyrene	193-39-5	4	1.6	J	0.19	J	0.091	J	0.82		0.69		1.3		1.5	J
Naphthalene	91-20-3	4200	0.63	J	0.05	J	0.4		0.27		0.16	J	0.47		0.61	
N-Nitrosodiphenylamine	86-30-6	600														
Phenanthrene	85-01-8		1.5	J	0.064	J	0.15	J	0.66		1.4		3.5		3.5	
Pyrene	129-00-0	10000	2.6		0.21		0.15	J	2.9		1.7		2.4		2.5	

Notes
DL - diluted sample
J - estimated
ft bgs - feet below ground surface
CLP SOW - Contract Lab Program Statement of Work
SOM - Superfund Organic Methods
NRDCSCC - NJ Non-Residential Direct Contact Soil Cleanup Criteria
mg/kg = milligrams per kilogram
TP - test pit
Exceeds NJ NRDCSCC

TABLE 5
SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID			TP5-2		TP5-2 DL		TP5-3		TP6-1		TP6-1 DL		TP6-2		TP6-3	
Test Pit ID			5				5		6				6		6	
Sample Interval (ft bgs)			8				10		4				8		10	
Laboratory Sample ID			B0AB3		B0AB3DL		B0AB4		B0AB5		B0AB5DL		B0AB6		B0AB7	
Matrix			Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Field QC									Dupl. of TP7-1				Dupl. of TP7-2			
Laboratory			A4		A5		A4		A4		A5		A4		A4	
Analytical Method			CLP SOW/SOM01.2		LP SOW/SOM01.		CLP SOW/SOM01.2		CLP SOW/SOM01.2		CLP SOW/SOM01.2		CLP SOW/SOM01.2		CLP SOW/SOM01.2	
Sample Collection Date			1/26/2012				1/27/2012		1/27/2012				1/27/2012		1/27/2012	
Sample Collection Time			10:30				10:15		10:50				11:45		12:15	
Dilution			1		5		1		1		5		1		1	
% Moisture			11				15		27				14		16	
Units			mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
Compound	**CAS #**	**NRDCSCC**	**Result**	**Flag**	**Result**	**Flag**	**Result**	**Flag**	**Result**	**Flag**	**Result**	**Flag**	**Result**	**Flag**	**Result**	**Flag**
1,1'-Biphenyl	92-52-4		0.18	J	0.19	J	0.1	J	0.83		0.89	J	0.045	J		
2,4-Dimethylphenol	105-67-9	10000	0.05	J			0.3		0.25		11		0.11	J		
2-Methylnaphthalene	91-57-6		3.9		3.9		3.1		11				1.1		0.16	J
4-Methylphenol	106-44-5	10000	0.057	J									0.12	J		
Acenaphthene	83-32-9	10000	0.45		0.45	J	0.34		0.86		0.92	J	0.16	J	0.071	J
Acenaphthylene	208-96-8															
Acetophenone	98-86-2															
Anthracene	120-12-7	10000	0.47		0.4	J	0.39		0.84		0.9	J	0.26		0.058	J
Benzo(a)anthracene	56-55-3		0.66		0.57	J	0.74		1.4		1.4		0.91		0.13	J
Benzo(a)pyrene	50-32-8	4	0.44		0.41	J	0.69		1.3		1.4		1		0.11	J
Benzo(b)fluoranthene	205-99-2	4	0.47		0.36	J	0.74		1.7		1.5		1.3		0.13	J
Benzo(g,h,I)perylene	191-24-2		0.32		0.32	J	0.57		1.2		1.2	J	0.81		0.083	J
Benzo(k)fluoranthene	207-08-9	4	0.24		0.26	J	0.49		0.66		0.87	J	0.62		0.072	J
Carbazole	86-74-8		0.18	J	0.15	J	0.16	J	0.46		0.54	J	0.054	J		
Chrysene	218-01-9	40	0.66		0.62	J	0.8		1.5		1.6		0.91		0.13	J
Dibenzo(a,h)anthracene	53-70-3	0.66	0.11	J	0.099	J	0.2		0.44		0.41	J	0.34		0.04	J
Dibenzofuran	132-64-9		0.19		0.21	J	0.16	J	0.35		0.37	J	0.077	J		
Diethylphthalate	84-66-2	10000														
Fluoranthene	206-44-0	10000	0.82		0.76	J	1		1.6		1.7		1.2		0.27	
Fluorene	86-73-7	10000	0.68		0.67	J	0.56		1.2		1.3		0.24		0.093	J
Indeno(1,2,3-cd)pyrene	193-39-5	4	0.42		0.38	J	0.77	J	1.6	J	1.6	J	1.2	J	0.12	J
Naphthalene	91-20-3	4200	0.49		0.45	J	0.54		1.6		1.6		0.26		0.14	J
N-Nitrosodiphenylamine	86-30-6	600														
Phenanthrene	85-01-8		3		3		2.6		6.5		6.5		1.3		0.34	
Pyrene	129-00-0	10000	1.4		1.2		1.5		2.9		3		1.3		0.27	

Notes
DL - diluted sample
J - estimated
ft bgs - feet below ground surface
CLP SOW - Contract Lab Program Statement of Work
SOM - Superfund Organic Methods
NRDCSCC - NJ Non-Residential Direct Contact Soil Cleanup Criteria
mg/kg = milligrams per kilogram
TP - test pit
Exceeds NJ NR

TABLE 5
SUMMARY OF SEMIVOLATILE ORGANIC COMPOUNDS DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID			TP7-1		TP7-1 DL		TP7-2	
Test Pit ID			6				6	
Sample Interval (ft bgs)			4				8	
Laboratory Sample ID			B0AB8		B0AB8DL		B0AB9	
Matrix			Soil		Soil		Soil	
Field QC			Dupl. of TP6-1				Dupl. of TP6-2	
Laboratory			A4		A5		A4	
Analytical Method			CLP SOW/SOM01.2		CLP SOW/SOM01.2		CLP SOW/SOM01.2	
Sample Collection Date			1/27/2012				1/27/2012	
Sample Collection Time			12:45				13:00 (11:45)	
Dilution			1		2		1	
% Moisture			17				17	
Units			mg/kg		mg/kg		mg/kg	
Compound	**CAS #**	**NRDCSCC**	**Result**	**Flag**	**Result**	**Flag**	**Result**	**Flag**
1,1'-Biphenyl	92-52-4		0.31		0.34	J		
2,4-Dimethylphenol	105-67-9	10000	0.11	J	0.1	J		
2-Methylnaphthalene	91-57-6		3.5		3.5		0.21	
4-Methylphenol	106-44-5	10000						
Acenaphthene	83-32-9	10000	0.35		0.39	J	0.05	J
Acenaphthylene	208-96-8							
Acetophenone	98-86-2							
Anthracene	120-12-7	10000	0.36		0.35	J	0.051	J
Benzo(a)anthracene	56-55-3		0.62		0.65		0.17	J
Benzo(a)pyrene	50-32-8	4	0.64		0.63		0.16	J
Benzo(b)fluoranthene	205-99-2	4	0.83		0.75		0.2	
Benzo(g,h,I)perylene	191-24-2		0.61		0.58		0.16	J
Benzo(k)fluoranthene	207-08-9	4	0.34		0.36	J	0.13	J
Carbazole	86-74-8		0.2	J	0.18	J		
Chrysene	218-01-9	40	0.76		0.75		0.18	J
Dibenzo(a,h)anthracene	53-70-3	0.66	0.21		0.18	J	0.058	J
Dibenzofuran	132-64-9		0.14	J	0.15	J	0.022	J
Diethylphthalate	84-66-2	10000						
Fluoranthene	206-44-0	10000	0.7		0.7		0.35	
Fluorene	86-73-7	10000	0.51		0.55		0.077	J
Indeno(1,2,3-cd)pyrene	193-39-5	4	0.79	J	0.77	J	0.21	J
Naphthalene	91-20-3	4200	0.46		0.44		0.75	
N-Nitrosodiphenylamine	86-30-6	600						
Phenanthrene	85-01-8		2.5		2.5		0.36	
Pyrene	129-00-0	10000	1.3		1.3		0.39	

Notes
DL - diluted sample
J - estimated
ft bgs - feet below ground surface
CLP SOW - Contract Lab Program Statement of Work
SOM - Superfund Organic Methods
NRDCSCC - NJ Non-Residential Direct Contact Soil Cleanup Criteria
mg/kg = milligrams per kilogram
TP - test pit
Exceeds NJ NR

TABLE 6
SUMMARY OF PESTICIDES DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID			TP1-1		TP1-2		TP1-3		TP2-1		TP2-2		TP2-3	
Test Pit ID			1		1		1		2		2		2	
Sample Interval (ft bgs)			4		8		10		4		8		10	
Laboratory Sample ID			B0AA0		B0AA1		B0AA2		B0AA3		B0AA4		B0AA5	
Case No.			42187		42187		42187		42187		42187		42187	
SDG No.			B0AA1		B0AA1		B0AA1		B0AA1		B0AA1		B0AA1	
Matrix			Soil		Soil		Soil		Soil		Soil		Soil	
Field QC														
Laboratory			A4 Scientific		A4 Scientific		A4 Scientific		A4 Scientific		A4 Scientific		A4 Scientific	
Analytical Method			CLP SOW Pest		CLP SOW Pest		CLP SOW Pest		CLP SOW Pest		CLP SOW Pest		CLP SOW Pest	
Sample Collection Date			1/25/2012		1/25/2012		1/25/2012		1/25/2012		1/25/2012		1/25/2012	
Sample Collection Time			11:00		11:20		11:45		12:25		12:45		13:00	
Dilution			1		1		1		1		1		1	
% Moisture			17		15		16		19		18		20	
Units			mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
Compound	**CAS RN**	**NRDCSCC**	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
4,4'-DDD	72-54-8	12	0.12	NJ	0.052	J	0.02	NJ						
4,4'-DDE	72-55-9	9	0.031	R	0.019	J					0.0045	R		
4,4'-DDT	50-29-3	9									0.016	NJ		
Aldrin	309-00-2	0.17												
alpha-BHC	319-84-6													
alpha-Chlordane	5103-71-9													
beta-BHC	319-85-7													
delta-BHC	319-86-8													
Dieldrin	60-57-1	0.18									0.0045	R		
Endosulfan I	959-98-8						0.0032	R						
Endosulfan II	33213-65-9		0.017	R										
Endosulfan sulfate	1031-07-8													
Endrin	72-20-8	310												
Endrin aldehyde	7421-93-4													
Endrin ketone	53494-70-5		0.018	R										
gamma-BHC (Lindane)	58-89-9													
gamma-Chlordane	5103-74-2										0.0085	NJ		
Heptachlor	76-44-8	0.65												
Heptachlor epoxide	1024-57-3													
Methoxychlor	72-43-5	5200	0.044	NJ	0.015	NJ	0.013	NJ						
Toxaphene	8001-35-2	0.2												

Notes

J - estimated
NJ - presumptive evidence for the presence of the material at an estimated value
R - rejected (unusable)
SDG - Sample Delivery Group
ft bgs - feet below ground surface
CLP SOW - Contract Laboratory Program Statement of Work
Pest - Pesticides
NRDCSCC - NJ Non-Residential Direct Contact Soil Cleanup Criteria
mg/kg = milligrams per kilogram
TP - test pit

TABLE 6
SUMMARY OF PESTICIDES DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID			TP3-1		TP3-2		TP3-3		TP4-1		TP4-2		TP4-3	
Test Pit ID			3		3		3		4		4		4	
Sample Interval (ft bgs)			4		8		10		4		8		10	
Laboratory Sample ID			B0AA6		B0AA7		B0AA8		B0AA9		B0AB0		B0AB1	
Case No.			42187		42187		42187		42187		42187		42187	
SDG No.			B0AA1		B0AA1		B0AA1		B0AA1		B0AA1		B0AA1	
Matrix			Soil		Soil		Soil		Soil		Soil		Soil	
Field QC														
Laboratory			A4 Scientific		A4 Scientific		A4 Scientific		A4 Scientific		A4 Scientific		A4 Scientific	
Analytical Method			CLP SOW Pest		CLP SOW Pest		CLP SOW Pest		CLP SOW Pest		CLP SOW Pest		CLP SOW Pest	
Sample Collection Date			1/25/2012		1/25/2012		1/25/2012		1/26/2012		1/26/2012		1/26/2012	
Sample Collection Time			15:00		15:15		15:30		9:15		9:30		9:45	
Dilution			1		1		1		1		1		1	
% Moisture			16		15		13		12		18		16	
Units			mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
Compound	**CAS RN**	**NRDCSCC**	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
4,4'-DDD	72-54-8	12												
4,4'-DDE	72-55-9	9												
4,4'-DDT	50-29-3	9												
Aldrin	309-00-2	0.17												
alpha-BHC	319-84-6													
alpha-Chlordane	5103-71-9													
beta-BHC	319-85-7													
delta-BHC	319-86-8													
Dieldrin	60-57-1	0.18												
Endosulfan I	959-98-8													
Endosulfan II	33213-65-9													
Endosulfan sulfate	1031-07-8													
Endrin	72-20-8	310												
Endrin aldehyde	7421-93-4													
Endrin ketone	53494-70-5													
gamma-BHC (Lindane)	58-89-9													
gamma-Chlordane	5103-74-2													
Heptachlor	76-44-8	0.65												
Heptachlor epoxide	1024-57-3													
Methoxychlor	72-43-5	5200												
Toxaphene	8001-35-2	0.2												

Notes

J - estimated
NJ - presumptive evidence for the presence of the material at an estimated value
R - rejected (unusable)
SDG - Sample Delivery Group
ft bgs - feet below ground surface
CLP SOW - Contract Laboratory Program Statement of Work
Pest - Pesticides
NRDCSCC - NJ Non-Residential Direct Contact Soil Cleanup Criteri
mg/kg = milligrams per kilogram
TP - test pit

TABLE 6
SUMMARY OF PESTICIDES DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID			TP5-1		TP5-2		TP5-3		TP6-1		TP6-1 MS		TP6-1 MSD		TP6-2	
Test Pit ID			5		5		5		6						6	
Sample Interval (ft bgs)			4		8		10		4						8	
Laboratory Sample ID			B0AB2		B0AB3		B0AB4		B0AB5		B0AB5MS		B0AB5MSD		B0AB6	
Case No.			42187		42187		42187		42187						42187	
SDG No.			B0AA1		B0AA1		B0AA1		B0AA1						B0AA1	
Matrix			Soil		Soil		Soil		Soil						Soil	
Field QC									Dupl. of TP7-1						Dupl. of TP7-2	
Laboratory			A4 Scientific		A4 Scientific		A4 Scientific		A4 Scientific						A4 Scientific	
Analytical Method			CLP SOW Pest		CLP SOW Pest		CLP SOW Pest		CLP SOW Pest						CLP SOW Pest	
Sample Collection Date			1/26/2012		1/26/2012		1/27/2012		1/27/2012						1/27/2012	
Sample Collection Time			10:30		10:30		10:15		10:50						11:45	
Dilution			1		1		1		1						1	
% Moisture			12		11		15		27						14	
Units			mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
Compound	**CAS RN**	**NRDCSCC**	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
4,4'-DDD	72-54-8	12	0.031	R			0.061	J	0.14	R	0.14	NJ	0.18	R	0.021	J
4,4'-DDE	72-55-9	9			0.02	R			0.038	R	0.055	J	0.066	R	0.0085	NJ
4,4'-DDT	50-29-3	9									0.053	J	0.065	J		
Aldrin	309-00-2	0.17									0.04	J	0.042	J		
alpha-BHC	319-84-6															
alpha-Chlordane	5103-71-9															
beta-BHC	319-85-7															
delta-BHC	319-86-8															
Dieldrin	60-57-1	0.18									0.54	J	.065J			
Endosulfan I	959-98-8															
Endosulfan II	33213-65-9						0.024	J	0.021	R	0.027	R	0.038	R		
Endosulfan sulfate	1031-07-8															
Endrin	72-20-8	310									0.072	J	0.079	J		
Endrin aldehyde	7421-93-4															
Endrin ketone	53494-70-5		0.052	J	0.019	R	0.011	R	0.026	R	0.0099	R	0.038	R		
gamma-BHC (Lindane)	58-89-9										0.039	J	0.041	J		
gamma-Chlordane	5103-74-2															
Heptachlor	76-44-8	0.65									0.042	J	0.042	J		
Heptachlor epoxide	1024-57-3															
Methoxychlor	72-43-5	5200			0.051	NJ			0.079	R	0.043	NJ	0.034	R		
Toxaphene	8001-35-2	0.2														

Notes

J - estimated
NJ - presumptive evidence for the presence of the material at an estimated value
R - rejected (unusable)
SDG - Sample Delivery Group
ft bgs - feet below ground surface
CLP SOW - Contract Laboratory Program Statement of Work
Pest - Pesticides
NRDCSCC - NJ Non-Residential Direct Contact Soil Cleanup Criteri
mg/kg = milligrams per kilogram
TP - test pit

TABLE 6
SUMMARY OF PESTICIDES DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID			TP6-3		TP7-1		TP7-2	
Test Pit ID			6		6		6	
Sample Interval (ft bgs)			10		4		8	
Laboratory Sample ID			B0AB7		B0AB8		B0AB9	
Case No.			42187		42187		42187	
SDG No.			B0AA1		B0AA1		B0AA1	
Matrix			Soil		Soil		Soil	
Field QC					Dupl. of TP6-1		Dupl. of TP6-2	
Laboratory			A4 Scientific		A4 Scientific		A4 Scientific	
Analytical Method			CLP SOW Pest		CLP SOW Pest		CLP SOW Pest	
Sample Collection Date			1/27/2012		1/27/2012		1/27/2012	
Sample Collection Time			12:15		12:45		13:00 (11:45)	
Dilution			1		1		1	
% Moisture			16		17		17	
Units			mg/kg		mg/kg		mg/kg	
Compound	**CAS RN**	**NRDCSCC**	Result	Flag	Result	Flag	Result	Flag
4,4'-DDD	72-54-8	12			0.061	NJ	0.022	NJ
4,4'-DDE	72-55-9	9			0.024	J	0.0094	NJ
4,4'-DDT	50-29-3	9			0.014	R		
Aldrin	309-00-2	0.17						
alpha-BHC	319-84-6							
alpha-Chlordane	5103-71-9							
beta-BHC	319-85-7							
delta-BHC	319-86-8							
Dieldrin	60-57-1	0.18						
Endosulfan I	959-98-8							
Endosulfan II	33213-65-9							
Endosulfan sulfate	1031-07-8							
Endrin	72-20-8	310						
Endrin aldehyde	7421-93-4							
Endrin ketone	53494-70-5							
gamma-BHC (Lindane)	58-89-9							
gamma-Chlordane	5103-74-2							
Heptachlor	76-44-8	0.65						
Heptachlor epoxide	1024-57-3							
Methoxychlor	72-43-5	5200						
Toxaphene	8001-35-2	0.2						

Notes

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ft bgs - feet below ground surface
CLP SOW - Contract Laboratory Program Statement of Work
Pest - Pesticides
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mg/kg = milligrams per kilogram
TP - test pit

TABLE 7
SUMMARY OF PESTICIDES DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID			TP1-1		TP1-2		TP1-3		TP2-1		TP2-2	
Test Pit ID			1		1		1		2		2	
Sample Interval (ft bgs)			4		8		10		4		8	
Laboratory Sample ID			B0AA0		B0AA1		B0AA2		B0AA3		B0AA4	
Case No.			42187		42187		42187		42187		42187	
SDG No.			B0AA1		B0AA1		B0AA1		B0AA1		B0AA1	
Matrix			Soil		Soil		Soil		Soil		Soil	
Field QC												
Laboratory			A4 Scientific		A4 Scientific		A4 Scientific		A4 Scientific		A4 Scientific	
Analytical Method			CLP SOW Pest		CLP SOW Pest		CLP SOW Pest		CLP SOW Pest		CLP SOW Pest	
Sample Collection Date			1/25/2012		1/25/2012		1/25/2012		1/25/2012		1/25/2012	
Sample Collection Time			11:00		11:20		11:45		12:25		12:45	
Dilution			1		1		1		1		1	
% Moisture			15		13		15		18		18	
Units			mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
Compound	**CAS RN**	**NRDCSCC**	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4,5-T	93-76-5	--										
2,4,5-TP (Silvex)	93-72-1	--										
2,4-D	94-75-7	--										
2,4-DB	94-82-6	--										
Dalapon	75-99-0	--										
Dicamba	1918-00-9	--										
Dichloroprop	120-36-5	--										
Dinoseb	88-85-7	--										
MCPA	94-74-6	--										
MCPP	93-65-2	--										
Pentachlorophenol	87-86-5	24										
4-Nitrophenol	100-02-7	--										

Notes

J - estimated

NJ - presumptive evidence for the presence of the material at an estimated value

R - rejected (unusable)

SDG - Sample Delivery Group

ft bgs - feet below ground surface

CLP SOW - Contract Laboratory Program Statement of Work

Pest - Pesticides

NRDCSCC - NJ Non-Residential Direct Contact Soil Cleanup Criteria

mg/kg = milligrams per kilogram

TP - test pit

TABLE 7
SUMMARY OF PESTICIDES DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID			TP2-3		TP3-1		TP3-2		TP3-3		TP4-1	
Test Pit ID			2		3		3		3		4	
Sample Interval (ft bgs)			10		4		8		10		4	
Laboratory Sample ID			B0AA5		B0AA6		B0AA7		B0AA8		B0AA9	
Case No.			42187		42187		42187		42187		42187	
SDG No.			B0AA1		B0AA1		B0AA1		B0AA1		B0AA1	
Matrix			Soil		Soil		Soil		Soil		Soil	
Field QC												
Laboratory			A4 Scientific		A4 Scientific		A4 Scientific		A4 Scientific		A4 Scientific	
Analytical Method			CLP SOW Pest		CLP SOW Pest		CLP SOW Pest		CLP SOW Pest		CLP SOW Pest	
Sample Collection Date			1/25/2012		1/25/2012		1/25/2012		1/25/2012		1/26/2012	
Sample Collection Time			13:00		15:00		15:15		15:30		9:15	
Dilution			1		1		1		1		1	
% Moisture			22		18		13		13		11	
Units			mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
Compound	**CAS RN**	**NRDCSCC**	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4,5-T	93-76-5	--										
2,4,5-TP (Silvex)	93-72-1	--										
2,4-D	94-75-7	--										
2,4-DB	94-82-6	--										
Dalapon	75-99-0	--										
Dicamba	1918-00-9	--										
Dichloroprop	120-36-5	--			0.075	J	0.092	J	0.055	NJ	0.15	R
Dinoseb	88-85-7	--										
MCPA	94-74-6	--										
MCPP	93-65-2	--										
Pentachlorophenol	87-86-5	24										
4-Nitrophenol	100-02-7	--										

Notes

J - estimated

NJ - presumptive evidence for the presence of the material at an estimated value

R - rejected (unusable)

SDG - Sample Delivery Group

ft bgs - feet below ground surface

CLP SOW - Contract Laboratory Program Statement of W

Pest - Pesticides

NRDCSCC - NJ Non-Residential Direct Contact Soil Clean

mg/kg = milligrams per kilogram

TP - test pit

TABLE 7
SUMMARY OF PESTICIDES DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID			TP4-2		TP4-3		TP5-1		TP5-2		TP5-3	
Test Pit ID			4		4		5		5		5	
Sample Interval (ft bgs)			8		10		4		8		10	
Laboratory Sample ID			B0AB0		B0AB1		B0AB2		B0AB3		B0AB4	
Case No.			42187		42187		42187		42187		42187	
SDG No.			B0AA1		B0AA1		B0AA1		B0AA1		B0AA1	
Matrix			Soil		Soil		Soil		Soil		Soil	
Field QC												
Laboratory			A4 Scientific		A4 Scientific		A4 Scientific		A4 Scientific		A4 Scientific	
Analytical Method			CLP SOW Pest		CLP SOW Pest		CLP SOW Pest		CLP SOW Pest		CLP SOW Pest	
Sample Collection Date			1/26/2012		1/26/2012		1/26/2012		1/26/2012		1/27/2012	
Sample Collection Time			9:30		9:45		10:30		10:30		10:15	
Dilution			1		1		1		1		1	
% Moisture			17		13		12		13		14	
Units			mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
Compound	**CAS RN**	**NRDCSCC**	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4,5-T	93-76-5	--										
2,4,5-TP (Silvex)	93-72-1	--										
2,4-D	94-75-7	--										
2,4-DB	94-82-6	--										
Dalapon	75-99-0	--										
Dicamba	1918-00-9	--										
Dichloroprop	120-36-5	--	0.13	NJ	0.089	J					0.16	R
Dinoseb	88-85-7	--										
MCPA	94-74-6	--										
MCPP	93-65-2	--										
Pentachlorophenol	87-86-5	24										
4-Nitrophenol	100-02-7	--										

Notes

J - estimated

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mg/kg = milligrams per kilogram

TP - test pit

TABLE 7
SUMMARY OF PESTICIDES DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID			TP6-1		TP6-2		TP6-3		TP7-1		TP7-2	
Test Pit ID			6		6		6		6		6	
Sample Interval (ft bgs)			4		8		10		4		8	
Laboratory Sample ID			B0AB5		B0AB6		B0AB7		B0AB8		B0AB9	
Case No.			42187		42187		42187		42187		42187	
SDG No.			B0AA1		B0AA1		B0AA1		B0AA1		B0AA1	
Matrix			Soil		Soil		Soil		Soil		Soil	
Field QC					Dupl. of TP7-2						Dupl. of TP6-2	
Laboratory			A4 Scientific		A4 Scientific		A4 Scientific		A4 Scientific		A4 Scientific	
Analytical Method			CLP SOW Pest		CLP SOW Pest		CLP SOW Pest		CLP SOW Pest		CLP SOW Pest	
Sample Collection Date			1/27/2012		1/27/2012		1/27/2012		1/27/2012		1/27/2012	
Sample Collection Time			10:50		11:45		12:15		12:45		13:00 (11:45)	
Dilution			1		1		1		1		1	
% Moisture			20		15		15		18		16	
Units			mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
Compound	**CAS RN**	**NRDCSCC**	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4,5-T	93-76-5	--										
2,4,5-TP (Silvex)	93-72-1	--										
2,4-D	94-75-7	--										
2,4-DB	94-82-6	--										
Dalapon	75-99-0	--										
Dicamba	1918-00-9	--										
Dichloroprop	120-36-5	--	0.12	NJ	0.11	NJ	0.095	J				
Dinoseb	88-85-7	--										
MCPA	94-74-6	--										
MCPP	93-65-2	--										
Pentachlorophenol	87-86-5	24										
4-Nitrophenol	100-02-7	--										

Notes

J - estimated

NJ - presumptive evidence for the presence of the material at an estimated value

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ft bgs - feet below ground surface

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Pest - Pesticides

NRDCSCC - NJ Non-Residential Direct Contact Soil Clean

mg/kg = milligrams per kilogram

TP - test pit

TABLE 8
SUMMARY OF PCBs DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID			TP1-1		TP1-2		TP1-3		TP2-1	
Test Pit ID			1		1		1		2	
Sample Interval (ft bgs)			4		8		10		4	
Laboratory Sample ID			B0AA0		B0AA1		B0AA2		B0AA3	
Case No.			42187		42187		42187		42187	
SDG No.			B0AA1		B0AA1		B0AA1		B0AA1	
Matrix			Soil		Soil		Soil		Soil	
Field QC										
Laboratory			A4 Scientific		A4 Scientific		A4 Scientific		A4 Scientific	
Analytical Method			CLP SOW PCBs		CLP SOW PCBs		CLP SOW PCBs		CLP SOW PCBs	
Sample Collection Date			1/25/2012		1/25/2012		1/25/2012		1/25/2012	
Sample Collection Time			11:00		11:20		11:45		12:25	
Dilution			1		1		1		1	
% Moisture			17		15		16		19	
Units			mg/kg		mg/kg		mg/kg		mg/kg	
Compound	**CAS RN**	**NRDCSCC**	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Aroclor-1016	12674-11-2	--								
Aroclor-1221	11104-28-2	--								
Aroclor-1232	11141-16-5	--								
Aroclor-1242	53469-21-9	--								
Aroclor-1254	11097-69-1	--			0.13		0.1		0.067	
Aroclor-1260	11096-82-5	--								
Aroclor-1262	37324-23-5	--								
Aroclor-1268	11100-14-4	--								

Notes

J - estimated

SDG - Sample Delivery Group

ft bgs - feet below ground surface

CLP SOW - Contract Laboratory Program Statement of Work

PCBs - Polychlorinated biphenyls

NRDCSCC - NJ Non-Residential Direct Contact Soil Cleanup Criteria

mg/kg = milligrams per kilogram

TP - test pit

TABLE 8
SUMMARY OF PCBs DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID			TP2-2		TP2-3		TP3-1		TP3-2	
Test Pit ID			2		2		3		3	
Sample Interval (ft bgs)			8		10		4		8	
Laboratory Sample ID			B0AA4		B0AA5		B0AA6		B0AA7	
Case No.			42187		42187		42187		42187	
SDG No.			B0AA1		B0AA1		B0AA1		B0AA1	
Matrix			Soil		Soil		Soil		Soil	
Field QC										
Laboratory			A4 Scientific		A4 Scientific		A4 Scientific		A4 Scientific	
Analytical Method			CLP SOW PCBs		CLP SOW PCBs		CLP SOW PCBs		CLP SOW PCBs	
Sample Collection Date			1/25/2012		1/25/2012		1/25/2012		1/25/2012	
Sample Collection Time			12:45		13:00		15:00		15:15	
Dilution			1		1		1		1	
% Moisture			18		20		16		15	
Units			mg/kg		mg/kg		mg/kg		mg/kg	
Compound	**CAS RN**	**NRDCSCC**	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Aroclor-1016	12674-11-2	--								
Aroclor-1221	11104-28-2	--								
Aroclor-1232	11141-16-5	--								
Aroclor-1242	53469-21-9	--								
Aroclor-1254	11097-69-1	--	0.27		0.068					
Aroclor-1260	11096-82-5	--								
Aroclor-1262	37324-23-5	--								
Aroclor-1268	11100-14-4	--								

Notes

J - estimated

SDG - Sample Delivery Group

ft bgs - feet below ground surface

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PCBs - Polychlorinated biphenyls

NRDCSCC - NJ Non-Residential Direct Contact Soil Cleanup Cri

mg/kg = milligrams per kilogram

TP - test pit

TABLE 8
SUMMARY OF PCBs DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID			TP3-3		TP4-1		TP4-2		TP4-3	
Test Pit ID			3		4		4		4	
Sample Interval (ft bgs)			10		4		8		10	
Laboratory Sample ID			B0AA8		B0AA9		B0AB0		B0AB1	
Case No.			42187		42187		42187		42187	
SDG No.			B0AA1		B0AA1		B0AA1		B0AA1	
Matrix			Soil		Soil		Soil		Soil	
Field QC										
Laboratory			A4 Scientific		A4 Scientific		A4 Scientific		A4 Scientific	
Analytical Method			CLP SOW PCBs		CLP SOW PCBs		CLP SOW PCBs		CLP SOW PCBs	
Sample Collection Date			1/25/2012		1/26/2012		1/26/2012		1/26/2012	
Sample Collection Time			15:30		9:15		9:30		9:45	
Dilution			1		1		1		1	
% Moisture			13		12		18		16	
Units			mg/kg		mg/kg		mg/kg		mg/kg	
Compound	**CAS RN**	**NRDCSCC**	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Aroclor-1016	12674-11-2	--								
Aroclor-1221	11104-28-2	--								
Aroclor-1232	11141-16-5	--								
Aroclor-1242	53469-21-9	--								
Aroclor-1254	11097-69-1	--			0.03	J				
Aroclor-1260	11096-82-5	--								
Aroclor-1262	37324-23-5	--								
Aroclor-1268	11100-14-4	--								

Notes

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TABLE 8
SUMMARY OF PCBs DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID			TP5-1		TP5-2		TP5-3		TP6-1	
Test Pit ID			5		5		5		6	
Sample Interval (ft bgs)			4		8		10		4	
Laboratory Sample ID			B0AB2		B0AB3		B0AB4		B0AB5	
Case No.			42187		42187		42187		42187	
SDG No.			B0AA1		B0AA1		B0AA1		B0AA1	
Matrix			Soil		Soil		Soil		Soil	
Field QC									Dupl. of TP7-1	
Laboratory			A4 Scientific		A4 Scientific		A4 Scientific		A4 Scientific	
Analytical Method			CLP SOW PCBs		CLP SOW PCBs		CLP SOW PCBs		CLP SOW PCBs	
Sample Collection Date			1/26/2012		1/26/2012		1/27/2012		1/27/2012	
Sample Collection Time			10:30		10:30		10:15		10:50	
Dilution			1		1		1		1	
% Moisture			12		11		15		27	
Units			mg/kg		mg/kg		mg/kg		mg/kg	
Compound	**CAS RN**	**NRDCSCC**	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Aroclor-1016	12674-11-2	--								
Aroclor-1221	11104-28-2	--								
Aroclor-1232	11141-16-5	--								
Aroclor-1242	53469-21-9	--								
Aroclor-1254	11097-69-1	--								
Aroclor-1260	11096-82-5	--								
Aroclor-1262	37324-23-5	--								
Aroclor-1268	11100-14-4	--								

Notes

J - estimated

SDG - Sample Delivery Group

ft bgs - feet below ground surface

CLP SOW - Contract Laboratory Program Statement of Work

PCBs - Polychlorinated biphenyls

NRDCSCC - NJ Non-Residential Direct Contact Soil Cleanup Cri

mg/kg = milligrams per kilogram

TP - test pit

TABLE 8
SUMMARY OF PCBs DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID			TP6-1 MS		TP6-1 MSD		TP6-2		TP6-3	
Test Pit ID							6		6	
Sample Interval (ft bgs)							8		10	
Laboratory Sample ID			B0AB5MS		B0AB5MSD		B0AB6		B0AB7	
Case No.							42187		42187	
SDG No.							B0AA1		B0AA1	
Matrix							Soil		Soil	
Field QC							Dupl. of TP7-2			
Laboratory							A4 Scientific		A4 Scientific	
Analytical Method							CLP SOW PCBs		CLP SOW PCBs	
Sample Collection Date							1/27/2012		1/27/2012	
Sample Collection Time							11:45		12:15	
Dilution							1		1	
% Moisture							14		16	
Units			mg/kg		mg/kg		mg/kg		mg/kg	
Compound	**CAS RN**	**NRDCSCC**	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Aroclor-1016	12674-11-2	--	0.18	J	0.22	J				
Aroclor-1221	11104-28-2	--								
Aroclor-1232	11141-16-5	--								
Aroclor-1242	53469-21-9	--								
Aroclor-1254	11097-69-1	--								
Aroclor-1260	11096-82-5	--	0.59	J		0.86	J			
Aroclor-1262	37324-23-5	--								
Aroclor-1268	11100-14-4	--								

Notes

J - estimated
SDG - Sample Delivery Group
ft bgs - feet below ground surface
CLP SOW - Contract Laboratory Program Statement of Work
PCBs - Polychlorinated biphenyls
NRDCSCC - NJ Non-Residential Direct Contact Soil Cleanup Cri
mg/kg = milligrams per kilogram
TP - test pit

TABLE 8
SUMMARY OF PCBs DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID			TP7-1		TP7-2	
Test Pit ID			6		6	
Sample Interval (ft bgs)			4		8	
Laboratory Sample ID			B0AB8		B0AB9	
Case No.			42187		42187	
SDG No.			B0AA1		B0AA1	
Matrix			Soil		Soil	
Field QC			Dupl. of TP6-1		Dupl. of TP6-2	
Laboratory			A4 Scientific		A4 Scientific	
Analytical Method			CLP SOW PCBs		CLP SOW PCBs	
Sample Collection Date			1/27/2012		1/27/2012	
Sample Collection Time			12:45		13:00 (11:45)	
Dilution			1		1	
% Moisture			17		17	
Units			mg/kg		mg/kg	
Compound	**CAS RN**	**NRDCSCC**	Result	Flag	Result	Flag
Aroclor-1016	12674-11-2	--				
Aroclor-1221	11104-28-2	--				
Aroclor-1232	11141-16-5	--				
Aroclor-1242	53469-21-9	--				
Aroclor-1254	11097-69-1	--	0.35		0.1	J
Aroclor-1260	11096-82-5	--				
Aroclor-1262	37324-23-5	--				
Aroclor-1268	11100-14-4	--				

Notes

J - estimated
SDG - Sample Delivery Group
ft bgs - feet below ground surface
CLP SOW - Contract Laboratory Program Statement of Work
PCBs - Polychlorinated biphenyls
NRDCSCC - NJ Non-Residential Direct Contact Soil Cleanup Cri
mg/kg = milligrams per kilogram
TP - test pit

TABLE 9
SUMMARY OF DIOXINS/FURANS IN SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID	TP2-2		TP3-2		TP5-2		TP6-2		TP7-2	
Laboratory Sample ID	6534429		6534430		6534431		6534432		6534433	
Field QC							Dupl. of TP7-2		Dupl. of TP6-2	
Laboratory	Lancaster Labs		Lancaster Labs		Lancaster Labs		Lancaster Labs		Lancaster Labs	
Analytical Method	SW846 8290A		SW846 8290A		SW846 8290A		SW846 8290A		SW846 8290A	
Sample Collection Date	1/25/2012		1/25/2012		1/26/2012		1/27/2012		1/27/2012	
Sample Collection Time	12:45		15:15		10:30		11:45		13:00 (11:45)	
Dilution	1		1		1		1		1	
% Moisture	17.9		15.6		18.5		15.2		19.7	
Units	ng/kg		ng/kg		ng/kg		ng/kg		ng/kg	
Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2378-TCDD	< 1.20		< 1.17		< 1.23		1.65	B	< 1.23	
12378-PeCDD	< 6.00		< 5.83		< 6.13		< 5.88		< 6.15	
123478-HxCDD	< 6.00		< 5.83		< 6.13		< 5.88		< 6.15	
123678-HxCDD	< 6.00		< 5.83		< 6.13		5.91	B	< 6.15	
123789-HxCDD	< 6.00		< 5.83		< 6.13		< 5.88		< 6.15	
1234678-HpCDD	21.6	B	26.5	B	49.8	B	59.9	B	50.2	B
OCDD	1,450	B	2,760	B	1,870	B	1,710	B	2,390	B
2378-TCDF	< 1.20		< 1.17		< 1.23		< 1.18		n.a.	
2378-TCDF-Conf	n.a.		n.a.		n.a.		n.a.		< 1.23	
12378-PeCDF	< 6.00		< 5.83		< 6.13		< 5.88		< 6.15	
23478-PeCDF	< 6.00		< 5.83		< 6.13		< 5.88		< 6.15	
123478-HxCDF	< 6.00		< 5.83		< 6.13		< 5.88		< 6.15	
123678-HxCDF	< 6.00		< 5.83		< 6.13		< 5.88		< 6.15	
123789-HxCDF	< 6.00		< 5.83		< 6.13		< 5.88		< 6.15	
234678-HxCDF	< 6.00		< 5.83		< 6.13		< 5.88		< 6.15	
1234678-HpCDF	9.17	B	10.0	B	22.9	B	26.3	B	26.7	B
1234789-HpCDF	< 6.00		< 5.83		< 6.13		< 5.88		< 6.15	
OCDF	22.6	B	28.5	B	110	B	57.4	B	56.5	B
Total TCDD	2.66	QB	3.15	QB	2.32	QB	13.1	QB	5.52	QB
Total PeCDD	< 6.00		< 5.83		< 6.13		25.7	QB	8.80	QB
Total HxCDD	11.2	QB	8.68	QB	10.1	QB	56.4	QB	26.3	QB
Total HpCDD	50.7	B	56.9	QB	90.6	B	117	QB	98.7	B
Total TCDF	11.7	QB	8.73	QB	4.00	QB	16.0	QB	18.1	QB
Total PeCDF	9.83	QB	7.54	QB	< 6.13		16.6	QB	17.8	QB
Total HxCDF	14.2	QB	12.1	QB	19.9	QB	29.7	QB	31.1	QB
Total HpCDF	24.6	QB	29.6	QB	94.6	QB	65.4	QB	67.9	QB

Notes

B =Detected in Method Blank

Q =EMPC - Estimated Maximum Possible Concentration

n.a. = not analyzed

ng/kg = nanograms per kilogram

SUMMARY OF INORGANIC ANALYTES DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID		TP1-1		TP1-2		TP1-3		TP2-1	
Test Pit ID		1		1		1		2	
Sample Interval (ft bgs)		4		8		10		4	
Laboratory Sample ID		MB0AA0		MB0AA1		MB0AA2		MB0AA3	
Matrix		Soil		Soil		Soil		Soil	
Field QC									
Laboratory		ALS Laboratory		ALS Laboratory		ALS Laboratory		ALS Laboratory	
Analytical Method		ICP - AES		ICP - AES		ICP - AES		ICP - AES	
Sample Collection Date		1/25/2012		1/25/2012		1/25/2012		1/25/2012	
Sample Collection Time		11:00		11:20		11:45		12:25	
Dilution		1		1		1		1 (Hg -20)	
% Moisture		17.5		20.5		20.9		17.9	
Units		mg/kg		mg/kg		mg/kg		mg/kg	
Analyte	**NRDCSCC**	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Aluminum		6250		7410		8190		8060	
Antimony	340	5.6	UJ	7.1	UJ	6.8	UJ	7.3	UJ
Arsenic	20	6.7		5.5		6.4		5.0	
Barium	47000	417		784		327		2010	
Beryllium		0.46	U	0.59	U	0.57	U	0.61	U
Cadmium	100	0.81		2.3		0.57	U	0.88	
Calcium		6110		4880		6420		3560	
Chromium		24.2		33.6		17.5		18.6	
Cobalt		5.4		5.9	U	6.0		6.4	
Copper	600	55.6	J	42.7	J	154	J	69.7	J
Iron		12900		11400		13600		14300	
Lead	600	384		405		237		179	
Magnesium		1970		1650		1840		2090	
Manganese		298		301		265		264	
Mercury	270	0.6		0.79		0.58		28.2	
Nickel	2400	11		10.0		11.5		13.1	
Potassium		549		597		551	U	618	
Selenium	3100	3.2	U	4.1	U	4.0	U	4.3	U
Silver	4100	0.93	U	1.2	U	1.1	U	1.2	U
Sodium		463	U	588	U	569	U	609	U
Thallium	2	2.3	U	2.9	U	2.8	U	3.0	U
Vanadium	7100	18.3		18.2		16.1		16.8	
Zinc	1500	444		752		336		2500	
Cyanide	21000	1.0		0.26	J	0.30	J	0.45	J

Notes

J - estimated

U - not detected

ft bgs - feet below ground surface

ICP -AES - inductively coupled plasma atomic emission spectroscopy

NRDCSCC - NJ Non-Residential Direct Contact Soil Cleanup Criteria

mg/kg = milligrams per kilogram

TP - test pit

Exceeds NJ NRDCSCC

SUMMARY OF INORGANIC ANALYTES DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID		TP2-2		TP2-3		TP3-1		TP3-2	
Test Pit ID		2		2		3		3	
Sample Interval (ft bgs)		8		10		4		8	
Laboratory Sample ID		MB0AA4		MB0AA5		MB0AA6		MB0AA7	
Matrix		Soil		Soil		Soil		Soil	
Field QC									
Laboratory		ALS Laboratory		ALS Laboratory		ALS Laboratory		ALS Laboratory	
Analytical Method		ICP - AES		ICP - AES		ICP - AES		ICP - AES	
Sample Collection Date		1/25/2012		1/25/2012		1/25/2012		1/25/2012	
Sample Collection Time		12:45		13:00		15:00		15:15	
Dilution		1		1 (Cn -5)		1		1	
% Moisture		20		25.7		14.9		15.3	
Units		mg/kg		mg/kg		mg/kg		mg/kg	
Analyte	**NRDCSCC**	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Aluminum		7240		5750		6150		7480	
Antimony	340	7.3	UJ	7.5	UJ	5.8	UJ	5.5	UJ
Arsenic	20	10.1		6.7		6.5		6.1	
Barium	47000	465		238		287		287	
Beryllium		0.61	U	0.62	U	0.49	U	0.59	
Cadmium	100	1.0		0.62	U	0.72		0.55	
Calcium		7350		5190		3560		4770	
Chromium		36.2		15.7		21.6		18.9	
Cobalt		7.0		6.2	U	5.1		4.9	
Copper	600	66.8	J	48.6	J	52.7	J	36.1	J
Iron		14600		15000		11800		12800	
Lead	600	342		390		**1880**		350	
Magnesium		1710		1450		1440		1750	
Manganese		538		487		225		338	
Mercury	270	0.98		2.3		0.51		0.56	
Nickel	2400	13.6		10.1		10.5		10.5	
Potassium		649		537	U	535		663	
Selenium	3100	4.2	U	4.4	U	3.4	U	3.2	U
Silver	4100	0.078	U	0.086	U	0.095	U	0.92	U
Sodium		607	U	623	U	486	U	461	U
Thallium	2	3.0	U	3.1	U	2.4	U	2.3	U
Vanadium	7100	20.7		14.9		19.9		15.6	
Zinc	1500	503		231		318		342	
Cyanide	21000	0.37	J	11.7		0.21	J	0.34	J

Notes

J - estimated

U - not detected

ft bgs - feet below ground surface

ICP -AES - inductively coupled plasma atomic emission spectroscopy

NRDCSCC - NJ Non-Residential Direct Contact Soil Cleanup Criteria

mg/kg = milligrams per kilogram

TP - test pit

Exceeds NJ NRDCSCC

SUMMARY OF INORGANIC ANALYTES DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID		TP3-3		TP4-1		TP4-2		TP4-3	
Test Pit ID		3		4		4		4	
Sample Interval (ft bgs)		10		4		8		10	
Laboratory Sample ID		MB0AA8		MB0AA9		MB0AB0		MB0AB1	
Matrix		Soil		Soil		Soil		Soil	
Field QC									
Laboratory		ALS Laboratory		ALS Laboratory		ALS Laboratory		ALS Laboratory	
Analytical Method		ICP - AES		ICP - AES		ICP - AES		ICP - AES	
Sample Collection Date		1/25/2012		1/26/2012		1/26/2012		1/26/2012	
Sample Collection Time		15:30		9:15		9:30		9:45	
Dilution		1		1		1		1	
% Moisture		14.6		12.7		17.3		15.8	
Units		mg/kg		mg/kg		mg/kg		mg/kg	
Analyte	**NRDCSCC**	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Aluminum		7630		9320		7690		7260	
Antimony	340	6.0	UJ	6.7	UJ	7.0	UJ	6.9	UJ
Arsenic	20	6.3		4.5		6.9		5.4	
Barium	47000	271		432		293		539	
Beryllium		0.50	U	0.56	U	0.59	U	0.57	U
Cadmium	100	0.50	U	0.56	U	0.59	U	0.64	
Calcium		4510		2310		3410		4120	
Chromium		23.0		17.1		15.7		18.3	
Cobalt		6.2		6.4		6.0		5.7	U
Copper	600	31.2	J	43.2	J	60.9	J	61.5	J
Iron		14100		16600		13300		14900	
Lead	600	286		166		244		290	
Magnesium		1700		2880		2040		2340	
Manganese		374		294		350		370	
Mercury	270	1.1		0.93		0.60		0.64	
Nickel	2400	10.4		14.5		12.8		13.9	
Potassium		603		991		761	J-	656	
Selenium	3100	3.5	U	3.9	U	4.1	U	4.0	U
Silver	4100	1.0	U	1.1	U	1.2	U	1.1	U
Sodium		500	U	556	U	587	U	571	U
Thallium	2	2.5	U	2.8	U	2.9	U	2.9	U
Vanadium	7100	13.9		17.0		16.5		14.5	
Zinc	1500	338		449		347		585	
Cyanide	21000	0.33	J	0.24		0.27	J	0.29	J

Notes

J - estimated

U - not detected

ft bgs - feet below ground surface

ICP -AES - inductively coupled plasma atomic emission spectroscopy

NRDCSCC - NJ Non-Residential Direct Contact Soil Cleanup Criteria

mg/kg = milligrams per kilogram

TP - test pit

Exceeds NJ NRDCSCC

SUMMARY OF INORGANIC ANALYTES DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID		TP5-1		TP5-2		TP5-3		TP6-1	
Test Pit ID		5		5		5		6	
Sample Interval (ft bgs)		4		8		10		4	
Laboratory Sample ID		MB0AB2		MB0AB3		MB0AB4		MB0AB5	
Matrix		Soil		Soil		Soil		Soil	
Field QC									
Laboratory		ALS Laboratory		ALS Laboratory		ALS Laboratory		ALS Laboratory	
Analytical Method		ICP - AES		ICP - AES		ICP - AES		ICP - AES	
Sample Collection Date		1/26/2012		1/26/2012		1/27/2012		1/27/2012	
Sample Collection Time		10:30		10:30		10:15		10:50	
Dilution		1		1		1		1	
% Moisture		12.3		13.9		13.7		22.2	
Units		mg/kg		mg/kg		mg/kg		mg/kg	
Analyte	**NRDCSCC**	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Aluminum		7270		8000		9650		5140	
Antimony	340	6.6	UJ	6.8	UJ	5.2	UJ	0.49	UJ
Arsenic	20	4.7		4.0		4.5		6.4	
Barium	47000	760		185		196		313	J
Beryllium		0.55	U	0.56	U	0.66		0.60	U
Cadmium	100	0.83		0.56	U	0.56		1.1	
Calcium		4230		3280		13500		2890	
Chromium		24.5		14.0		17.3		37.5	J
Cobalt		34.7		8.8		20.3		9.8	
Copper	600	65.4	J	32.2	J	58.5	J	92.9	J
Iron		12900		13800		16100		13800	
Lead	600	**900**		200		444		436	
Magnesium		1910		1960		2520		1250	
Manganese		359		319		377		213	J
Mercury	270	0.50		0.30		0.50		0.83	
Nickel	2400	13.3		11.2		14.2		13.2	
Potassium		609		783		687		556	U
Selenium	3100	3.8	U	3.9	U	3.0	U	0.77	U
Silver	4100	1.1	U	1.1	U	0.085	U	0.20	U
Sodium		548	U	564	U	429	U	601	U
Thallium	2	2.7	U	2.8	U	2.1	U	3.0	U
Vanadium	7100	19.4		14.8		25.8		23.3	
Zinc	1500	561		204		244		518	J
Cyanide	21000	0.25	J	0.18	J	0.26	J	0.40	J

Notes

J - estimated

U - not detected

ft bgs - feet below ground surface

ICP -AES - inductively coupled plasma atomic emission spectroscopy

NRDCSCC - NJ Non-Residential Direct Contact Soil Cleanup Criteria

mg/kg = milligrams per kilogram

TP - test pit

Exceeds NJ NRDCSCC

SUMMARY OF INORGANIC ANALYTES DETECTED IN TEST PIT SOIL SAMPLES
RIVERSIDE AVENUE SITE
NEWARK, NJ

Tetra Tech Sample ID		TP6-2		TP6-3		TP7-1		TP7-2	
Test Pit ID		6		6		6		6	
Sample Interval (ft bgs)		8		10		4		8	
Laboratory Sample ID		MB0AB6		MB0AB7		MB0AB8		MB0AB9	
Matrix		Soil		Soil		Soil		Soil	
Field QC		Dupl. of TP7-2						Dupl. of TP6-2	
Laboratory		ALS Laboratory		ALS Laboratory		ALS Laboratory		ALS Laboratory	
Analytical Method		ICP - AES		ICP - AES		ICP - AES		ICP - AES	
Sample Collection Date		1/27/2012		1/27/2012		1/27/2012		1/27/2012	
Sample Collection Time		11:45		12:15		12:45		13:00 (11:45)	
Dilution		1		1		1		1	
% Moisture		20		25.4		16.9		23.9	
Units		mg/kg		mg/kg		mg/kg		mg/kg	
Analyte	**NRDCSCC**	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Aluminum		5580		7050		4660	J	8390	J
Antimony	340	5.9	UJ	8.0	UJ	6.0	UJ	0.27	UJ
Arsenic	20	5.4		5.2		5.6		6.6	
Barium	47000	192	J	135		288		325	
Beryllium		0.49	U	0.66	U	0.50	U	0.63	U
Cadmium	100	0.61		0.66	U	0.83		0.91	
Calcium		2460		2040		6310	J	3950	J
Chromium		22.8	J	261		23.3		29.1	
Cobalt		8.8		6.6	U	9.1		11.2	
Copper	600	69.4	J	106	J	85.2	J	75.4	J
Iron		13000		13100		11400		14600	
Lead	600	381		208		289	J	483	J
Magnesium		1510		1690		1670		1940	
Manganese		526	J	364		181	J	261	J
Mercury	270	0.65		0.44		0.47		0.53	
Nickel	2400	10.5		10.7		10.3		12.8	
Potassium		508		664	U	501	U	723	
Selenium	3100	3.4	U	4.6	U	3.5	U	0.67	J
Silver	4100	0.11	U	0.11	U	1.0	U	1.3	U
Sodium		492	U	664	U	501	U	626	U
Thallium	2	2.5	U	3.3	U	2.5	U	3.1	U
Vanadium	7100	16.4		14.7		13.9	J	26.9	J
Zinc	1500	310	J	248		412		393	
Cyanide	21000	0.18	J	0.15	J	0.33	J	0.47	J

Notes

J - estimated

U - not detected

ft bgs - feet below ground surface

ICP -AES - inductively coupled plasma atomic emission spectroscopy

NRDCSCC - NJ Non-Residential Direct Contact Soil Cleanup Criteria

mg/kg = milligrams per kilogram

TP - test pit

Exceeds NJ NRDCSCC

APPENDIX C

PHOTOGRAPHIC DOCUMENTATION LOG

Photographic Documentation

Client: U.S. EPA Region 2
Site Name: Riverside Avenue
Location: Newark, New Jersey

Prepared by: Tetra Tech EM Inc.
Photographer: Kevin Scott, START Region 7
EPA Task Order No.: 9004L100178000

Photograph No. 001

Photograph Date: 1/25/12

Photograph Time: 10:38

Orientation: Facing west

Description: Photograph shows ERRS Foreman and Heavy Equipment Operator in vicinity of test pit TP1 location, at southwestern end of UST tank farm perimeter. Building #12 is in background.

Photograph No. 002

Photograph Date: 1/25/12

Photograph Time: 10:38

Orientation: Facing west

Description: Photograph shows pooled water in excavated area on Lot 64 in the area of the UST tank farm. One UST is visible in the photograph.

Photographic Documentation

Client: U.S. EPA Region 2
Site Name: Riverside Avenue
Location: Newark, New Jersey

Prepared by: Tetra Tech EM Inc.
Photographer: Kevin Scott, START Region 7
EPA Task Order No.: 9004L100178000

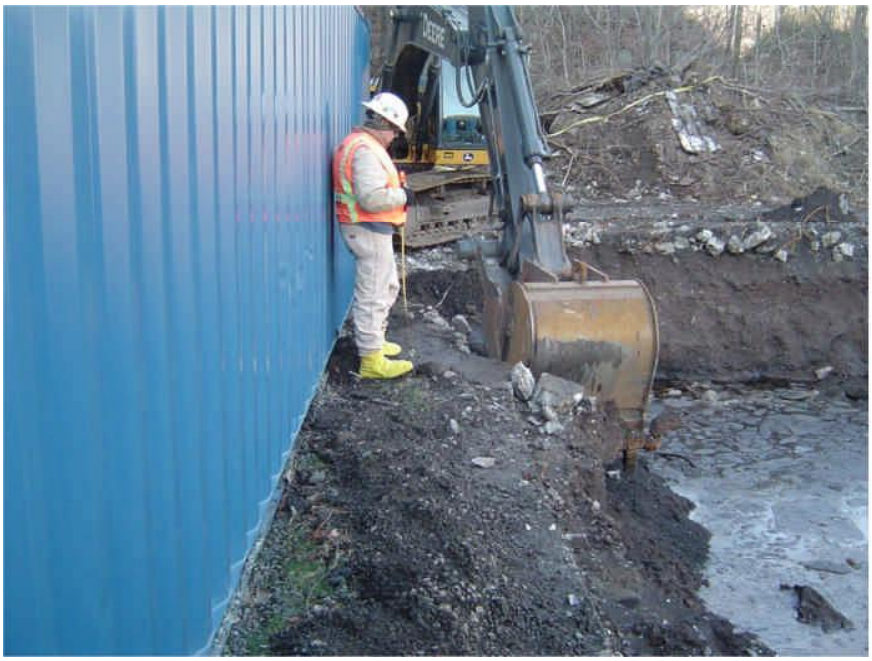
Photograph No. 003

Photograph Date: 1/25/12

Photograph Time: 10:56

Orientation: West

Description: Photograph shows ERRS operator excavating test pit TP1. ERRS Foreman is shown in foreground of photo with a tape measure to measure depth of excavation for sampling interval.



Photograph No. 004

Photograph Date: 1/25/12

Photograph Time: 11:03

Orientation: northwest

Description: Photograph shows soil in excavator bucket collected from a depth of 4' bgs in test pit TP1.

Photographic Documentation

Client: U.S. EPA Region 2
Site Name: Riverside Avenue
Location: Newark, New Jersey

Prepared by: Tetra Tech EM Inc.
Photographer: Kevin Scott, START Region 7
EPA Task Order No.: 9004L100178000

Photograph No. 005

Photograph Date: 1/25/12

Photograph Time: 12:14

Orientation: Facing northwest

Description: Photograph shows ERRS crew starting to excavate test pit TP2.

Photograph No. 006

Photograph Date: 1/25/12

Photograph Time: 12:16

Orientation: Facing southeast

Description: Photograph shows START sample staging location outside of the UST tank farm perimeter fence line.

Photographic Documentation

Client: U.S. EPA Region 2
Site Name: Riverside Avenue
Location: Newark, New Jersey

Prepared by: Tetra Tech EM Inc.
Photographer: Kevin Scott, START Region 7
EPA Task Order No.: 9004L100178000

Photograph No. 007

Photograph Date: 1/25/12

Photograph Time: 12:18

Orientation: North

Description: Photograph shows initial exaction of test pit TP2.

Photograph No. 008

Photograph Date: 1/25/12

Photograph Time: 12:18

Orientation: Facing east

Description: Photograph shows soil in excavator bucket collected from a depth of 4' bgs in test pit TP2.

Photographic Documentation

Client: U.S. EPA Region 2
Site Name: Riverside Avenue
Location: Newark, New Jersey

Prepared by: Tetra Tech EM Inc.
Photographer: Kevin Scott, START Region 7
EPA Task Order No.: 9004L100178000

Photograph No. 009

Photograph Date: 1/25/12

Photograph Time: 12:22

Orientation: Facing west

Description: Photographs shows soil sample collected from TP2 and PID used to screen soil samples for volatile organic compounds.

Photograph No. 010

Photograph Date: 1/25/12

Photograph Time: 15:23

Orientation: Facing northwest

Description: Looking down into test pit TP3. Excavation depth is approximately 8' bgs. Excavation is below water table (approx. 6' bgs). Black oily sheen is also visible in photo, floating on pooled water in excavation.

Photographic Documentation

Client: U.S. EPA Region 2
Site Name: Riverside Avenue
Location: Newark, New Jersey

Prepared by: Tetra Tech EM Inc.
Photographer: Kevin Scott, START Region 7
EPA Task Order No.: 9004L100178000

Photograph No. 011

Photograph Date: 1/26/12

Photograph Time: 09:09

Orientation: Facing west

Description: Photos shows ERRS foreman measuring depth of excavation in test pit TP4.

Photograph No. 012

Photograph Date: 1/26/12

Photograph Time: 10:15

Orientation: Facing north/northwest

Description: Photograph shows initial exaction of test pit TP5.

Photographic Documentation

Client: U.S. EPA Region 2
Site Name: Riverside Avenue
Location: Newark, New Jersey

Prepared by: Tetra Tech EM Inc.
Photographer: Kevin Scott, START Region 7
EPA Task Order No.: 9004L100178000

Photograph No. 013

Photograph Date: 1/26/12

Photograph Time: 10:26

Orientation: Facing south

Description: Looking down into test pit TP5. Excavation depth is approximately 5' bgs. Black oily sheen is also visible in photo, floating on pooled water in excavation.

Photograph No. 014

Photograph Date: 1/26/12

Photograph Time: 10:26

Orientation: Facing south

Description: Photograph shows soil in excavator bucket collected from a depth of 8' bgs in test pit TP5.

Photographic Documentation

Client: U.S. EPA Region 2
Site Name: Riverside Avenue
Location: Newark, New Jersey

Prepared by: Tetra Tech EM Inc.
Photographer: Kevin Scott, START Region 7
EPA Task Order No.: 9004L100178000

Photograph No. 015

Photograph Date: 1/26/12

Photograph Time: 10:51

Orientation: Facing southwest

Description: Photograph shows test pit TP5 overflowing with water after 8 inch water main was damaged by the excavator bucket while attempting to excavate to 10'bgs. ERRS personnel quickly constructed an earthen berm to and swale to channel water into open pit.

Photograph No. 016

Photograph Date: 1/26/12

Photograph Time: 10:38

Orientation: Facing east

Description: Photograph shows the 8 inch water main that was damaged in test pit TP5, after the main had been turned off and the water pumped out of the excavation.

Photographic Documentation

Client: U.S. EPA Region 2
Site Name: Riverside Avenue
Location: Newark, New Jersey

Prepared by: Tetra Tech EM Inc.
Photographer: Kevin Scott, START Region 7
EPA Task Order No.: 9004L100178000

Photograph No. 017

Photograph Date: 1/27/12

Photograph Time: 11:35

Orientation: Facing east

Description: Photograph of test pit TP6.

APPENDIX D

FIELD LOGBOOK NOTES

Rite in the Rain
ALL-WEATHER WRITING PAPER

Name KEVIN SCOTT
TetraTech
Address 240 Continental Dr, Ste 200
Newark, DE 19701
Phone 302.283.2248

Project Riverside Ave.
29 Riverside Ave
Newark NJ

Clear Vinyl Protective Slipcovers (Item No. 30) are available for this style of notebook.
Helps protect your notebook from wear & tear. Contact your dealer or the J. L. Darling Corporation

CONTENTS

PAGE	REFERENCE	DATE

1/24/12

0700 Kevin Scott (KS) of Tetra Tech (TT) departs home (Thorofare, NJ) + travels to Avis Rental Car (Deptford, NJ) to pick up Rental Vehicle for Riverside Ave Project. (SUV)

0730 KS departs Avis with rental vehicle + travels to TT Equipment storage Unit in Newark DE.

0815 KS arrives at TT storage Unit + loads rental vehicle w/ equipment + supplies needed for Riverside Ave sampling project.

0845 KS departs TT storage unit in Newark, DE + departs for Riverside Ave. Site

945 K.S. receives call from Adly Michael regarding Analytical Request Form submitted by K.S. on 1/23/12

K Scott 1/24/12

1/24/12 (cont.)

1000 K.S. contacts EPA OSC Eric Daly (E.D.) regarding phone conversation w/ Adly Michael. + give E.D. ETA.

1130 K.S. Arrives on site
Weather: Sunny temps in low 50s. °F
K.S., E.D. + Kevin ERRS Foreman (Kemron) discuss plan for test trenches + sampling

1200 KS sets up computer in EPA trailer + checks email and updates A.R.F + QAPP and assists E.D. w/ dioxin data conversions.

1730 All personnel offsite

K Scott
1/24/12

Rite in the Rain

1/25/12

0715 K.S. departs hotel (Comfort Inn, McCarter Blvd, Newark, NJ) + travels to STAPLES to pick up sampling (office supplies.

0745 Staples not open until 0800. KS heads to site

0810 KS arrives at site, signs in. KS attempts to connect to network printer in EPA command post in order to print F2L labels + Chain-of-custody records. KS

0930 K.S. calls Adly Michaels (EPA) to check on status of lab assignment. (A.M. informs K.S. that lab assignment should be in be late morning

0945 K.S. travels to Staples to purchase sample tags, bubble wrap + batteries + then to K mart to purchase coolers

K Scott 1/25/12

1/25/12 (cont.)

1030 KS returns to site w/ items purchased from Staples + K mart + speaks w/ ERRS Foreman about beginning excavating test pits.

ERRS operator (Sean) begins excavating on SW wall of open pit (UST Farm) Test Pit 1

1040 K.S. takes photographs of test pit excavation + conducts air monitoring with RAE Systems mini RAE 200 PID. Strong odor of petroleum and visible sheen on surface of ponded water in open pit. Readings on PID are elevated above background. ERRS operator (215) excavated to a depth of 4' bgs in TP1

K Scott 1/25/12 the Rain

1/25/12 (cont.)

1100 K.S. collects sample of dark oil-stained dirt from 215 Excavator bucket + transfers it into a disposable aluminum baking pan. Lab Entry: KS first took 3 VOA samples using 3 Encore® samplers from inside the Excavator bucket.

KS also took additional photo + conducted air monitoring above the soil in the 215 bucket. PID readings exceeded 100 ppm.

KS took soil sample to staging area set up outside the perimeter of the UST tank farm + filled bottleware for the following Analytical parameters SVOC (1 8 oz jar) moisture (one 2-oz jar) Pesticides (one 8-oz jar) PCBs (1 8-oz jar) + herbicides (one 8-oz jar).

K Scott 1/25/12

1/25/12

1115 ERRS operator continues excavating in TP1 to a depth of approx. 8' below ground surface (bgs)

1120 KS collects sample TP1-2 (same containers + analytical parameters as TP1-1.

KS Photos soil in bucket from TP1 @ 8' depth and conducts air monitoring above soil in 215 bucket. PID readings exceed 100 ppm (PID in datalog mode - KS to download data later).

1140 ERRS operator continues to excavate TP1 to depth of ≈ 10' bgs

1145 KS collects sample TP1-3 (same containers + parameters as for TP1-1 + TP1-2.

K Scott

1/25/12

Rite in the Rain

Riverside Ave
1/25/12 (cont.)

1215 ERRS Operator repositions 215 Excavator to begin excavating test pit #2 (TP2). TP2 is on west side of tank farm perimeter. KS

1225 KS collects soil sample TP2-1 from bucket of Excavator KS
(Same sample containers and parameters as for TP1.)

1240 ERRS operator continues excavating TP2 to depth of Approximately 8' bgs.

1245 KS Collects Samples TP2-2 (Same containers + analytical parameters as ~~other~~ KS TP1 + TP2-1 plus an extra 8 oz jar was filled for dioxin/furan analysis (plus a 2 oz moisture sample.)

KSoff
1/25/12

Riverside Ave
1/25/12 (cont.)

1250 ERRS operator continues excavating TP2 to depth of approx. 10' bgs.

1300 KS collects sample TP2-3 Same containers + analytical parameters as TP1 + TP2-1. ERRS operator continues to excavate deeper in TP2 to determine depth of clay layer. Clay layer observed at depth of approx. 11' bgs. water table at approx 6' bgs bottom of UST at approx 8' bgs. KS

1330 ERRS break for lunch KS updates Forms 2 Lite with sample dates + times for samples collected so far. Also enter CASE # + lab info into F2L.

KSoff 1/25/12

Rite in the Rain

1/25/12 (cont.)

1445 ERRS operator begins excavating Test Pit #3 (TP3), Northwest side of UST tank farm perimeter. Temperature: approx 45°F less windy than morning (approx. 8 mph from NW

1500 KS collects sample from bucket, TP3 at depth of 4' bgs (TP3-1). Same containers + parameters as TP1. (no sample collected for dioxin at this depth. KS photographs test pit and material in excavator bucket and conducts air monitoring with PID. Elevated PID readings measured ~~with~~ KS in bucket

1505 ERRS Excavator operator continues excavating TP3 to a depth of 8' bgs.

1515 KS collects sample TP3-2 from excavator bucket

K S Cott 1/25/12

1/25/12 (cont.)

Sample TP3-2 contained in same containers as for TP2-2 and for same analytical parameters. KS takes photos + air monitoring same as previously conducted. TP3-2 includes sample for dioxin (furan analysis

ERRS operator continues excavating TP3 to a depth of 10' bgs.

1530 KS collects sample TP3-3 from the bucket of the excavator after taking photos + conducting air monitoring with PID (PID in data logging mode).

ERRS operator backfills TP3

1545 KS updates F2L software with new sample info. + attempts to print sample labels + tags + Chain-of-custody

K S Cott 1/25/2012

1/25/12 (cont)

(C-o-C) records. Glitch with F2L +/or printer. tag label text not lining up properly on Avery labels and F2L shows "Run time error + will not allow C-o-C record to print.

1630 KS uploads sample info into into Scribe software + prints Chain of custody + sample tags for VOCs only in order to make Fed Ex before last pick up.

1750 KS locks up EPA field office trailer + heads to Fed Ex near Newark Airport. KS

1900 KS arrive at Fed Ex and package VOC samples (Encores®) for shipment to lab.

1930 KS shipped VOCs + returned

K Scott 1/25/12

1/25/12 (cont.)

to hotel.

Rite in the Rain

Riverside Ave Site
1/26/12

0805 KS arrive on site and preps for sampling activities. Weather: overcast, light rain. Temps in mid 30's (F°), Calm.

0910 ERRS operator begins excavating test pit #4 (TP4) (KS)

0915 Kevin Scott (KS) of Tetra Tech (TT) collects sample TP4-1 from bucket of ERRS excavator. sample collected from depth of approx 4' bgs. — KS
Soil collected with encore samplers for VOC analysis + five 8 oz jars were filled for SVOC, Pest, PCB Herbicide + dioxin/furan analysis. A 2 oz jar was also filled for moisture analysis to be included w/ Encore samplers

KScott 1/26/12

Riverside Ave
1/26/12 (cont.)

Soil sample placed into disposable aluminum baking pan with disposable plastic scoop (transferred from bucket of excavator into aluminum pan with plastic scoop. ~~then~~ (KS)

0920 ERRS operator continues excavating TP4 to depth of approx. 8' bgs.

0930 KS collects soil sample TP4-2 from bucket of excavator. after taking photographs + screening soil with PID (mini RAE 2000) Elevated readings >100 ppm measured with PID. Same suite of sample containers + analytical parameters for TP4-2 as for TP4-1 plus 1 add'l 8 oz jar for dioxin analysis

KScott 1/26/12

Rite in the Rain

Riverside Ave.
1/26/12 (cont.

and one additional 2-oz jar for moisture to be sent to Lancaster Lab with sample collected for Dioxin analysis

0930 ERRS operator continues excavating TP4 to depth of approx 10' bgs

0945 KS collects soil sample TP4-3 from ~~back~~ excavator bucket. Same sample containers and analytical parameters as for TP4-1. ERRS operator begins back filling TP4 with material excavated from test pit. Additional fill material needed to properly compact dirt placed back into test pit

1010 ERRS operator begins excavating TP5 (southeast corner of UST perimeter)

K Scott

Riverside Ave
1/26/12 (cont.)

1020 4' depth reached in TP5 KS collects soil sample TP5-1 from bucket of Excavator. Soil from bucket transferred into disposable aluminum pan w/ disposable plastic scoop. KS photographed trench + soil in bucket and monitoring vapors above soil w/ PID. ERRS operator continued to excavate to depth of 8' bgs in TP5

1030 KS collects soil sample TP5-2 from bucket of Excavator. after taking photos + air monitoring. Sample containers filled for VOC Analysis (3 encore samplers + 2 oz glass jar for moisture), SVOC (8 oz glass) Pest (8 oz glass), PCB (8 oz glass) Herbicides 8 oz glass + Dioxin 8 oz + 2 oz

K Scott
Rain in the Rain

Riverside Ave. Site (cont.)
1/26/12 (cont.)

1030 Late Entry: Mini RAE 2000 reading sticks on 319 ppm + indicates low battery. measurement may not get captured in data log. (TPS-2)

1050 ERRS operator hits + breaks water main while excavating TP5. TP5 fills with water and begins to overflow. ERRS crew hurries to build earthen berm to prevent water from flowing east and off site into Passaic River. ERRS excavator operator digs culvert between TP5 and open pit to the west to channel water into open pit. KS

OSC contacts City of Newark to alert them about water line break + to send crew to shut off water main.

1051 KS takes photos of TP5

K Scott

Riverside Ave.
1/26/2012 (cont.)

filled with water + water flowing into open excavation

1115 KS preps samples for shipment to lab while ERRS + EPA contend with water main break.

KS updates Scribe database with samples collected + prepares Chain-of-custody record + sample labels using scribe program. KS

Two coolers used for packaging organic samples for shipment to CLP lab (A4 Scientific).

1130 KS departs site with samples + heads to Fed Ex after stopping to get 2 bags of ice.

1830 KS prepares Fed Ex Airbills for coolers while in Fed Ex parking lot + drops shipment off @ Fed Ex Counter.

K Scott

Rite in the Rain

Riverside Ave
1/26/2012 (cont.)

1900 KS deposits Fed Ex. travels to Kmart to get additional coolers needed for 1/27/12 sampling activities
KS checks back into hotel.
(checked out earlier assuming sampling would be finished.

KS Coll
1/26/12

Riverside Ave.
1/27/2012

0730 KS checks out of Comfort Inn (Newark) & travels to site

0815 weather: light rain - temps near 50°F.
KS continues prepping samples that were not shipped to AK Scientific lab on 1/26/12 (inorganic samples going to AMS Laboratory & dioxin/furan samples going to Lancaster Laboratories.

1000 CRRS operator continues excavation of test pit TP5 to a depth of 10' bgs.

1015 KS collects soil sample from excavator bucket for TP5-3 (10' bgs)
Same analytical parameters + bottle ~~wake~~ as other 10' bgs samples.

KS Coll
1/27/12

Rite in the Rain

Riverside Ave Site
1/22/12 (cont'd)

1030 EBRS operator begins excavating Test pit TP6 (southeast side of UST perimeter.
TP5 left open to allow city workers to enter excavation + evaluate broken water main

1032 KS takes photos of excavation activity at TP6 + broken water main in Test pit TP5.

1058 KS collects soil sample from excavator bucket for location TP6-1. Extra volume collected at this sample will be used for field + lab QC (field duplicate (TP7-1) + MS/MSD) Analytical parameters + container types are same as other samples collected from 4' bgs depth interval Although quantities have

Riverside Ave Site
1/22/12

tripled because of field + lab QC..

1140 KS takes photos of soil in excavator bucket collected at a depth of 8' bgs in test pit TP6.

1145 KS collects soil sample TP6-2 from ~~dep~~ excavator bucket for test pit TP6-2 (8' bgs). Extra volume collected for this location as this location will also be a duplicate sample (TP7-2). Analytical parameters + sample container types are same as other locations with the exception of the addition of dioxin/furan analysis at this location. Additional bottle was used for duplicate sample.

KS
1/22/12

Rite in the Rain

APPENDIX E

CHAIN-OF-CUSTODY RECORDS

lyses

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KScott

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MS/MS