ENVIRONMENTAL CONDITION OF PROPERTY UPDATE REPORT

Niagara Falls USAR Center (NY046)
9400 Porter Road
Niagara Falls, New York 14304

Prepared For:

U.S. Army Corps of Engineers – Louisville District
Engineering Division – Environmental Engineering Branch
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October 2012

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1.0 INTRODUCTION

XCEL Engineering, Inc. (XCEL), under contract to the U.S. Army Corps of Engineers (USACE) Louisville District, has prepared this Environmental Condition of Property (ECP) Update Report for USACE – Louisville District and the 99th Regional Support Command (RSC) on the Niagara Falls United States Army Reserve (USAR) Center (NY046). The USAR Center is located at 9400 Porter Road in Niagara Falls, New York, hereafter referred to as the "Site" or "Property". In support of the ECP Update Report, a visual reconnaissance of the Site was conducted on January 4 - 5, 2012. The purpose of the visit was to visually obtain information indicating the environmental condition of the Property prior to a scheduled disposal.

1.1 PURPOSE OF ENVIRONMENTAL CONDITION OF PROPERTY (ECP) UPDATE REPORT

An original ECP Report was prepared for the Property by CH2M Hill dated July 2007. The primary purpose of this ECP Update Report is to identify any environmental conditions that may have changed materially since the completion of the original ECP Report performed in 2007 and to identify any Recognized Environmental Conditions at the Property prior to the scheduled disposal.

According to Section §4.6.1 of ASTM D 6008-96 (2005) *Standard Practice for Conducting Environmental Baseline Surveys,* "users and environmental professionals may use information in prior EBSs provided such information was generated as a result of procedures that meet or exceed the requirements of this practice or accurately state the limitations of the information presented". The original ECP (July 2007) was reviewed and found to meet the requirements set forth in §4.6.2 of ASTM D 6008-96(2005) and the narrative discussion and findings of that report are incorporated by reference into this ECP Update Report as if contained here in its entirety.

1.2 SCOPE OF SERVICES

This ECP Update Report has been performed for the Niagara Falls USAR Center (NY046) facility in accordance with AR 200-1 and ASTM D 6008-96 (2005). The following components were completed as part of this ECP Update Report: interviews, government record reviews, visual inspection of the Property and adjoining properties, and the declaration by the environmental professional responsible for the assessment.

2.0 BACKGROUND

2.1 PHYSICAL DESCRIPTION

The Niagara Falls USAR Center is on 19.5 acres of land in Niagara Falls, New York, and has 11 permanent structures and three parking/equipment storage areas. The Property is almost entirely covered by impervious surfaces, such as asphalt parking areas, driveways, and buildings. Small areas are grass covered (south-central area) or have a mix of grass and gravel, such as in the southwestern corner of the Property. The structures on the Property are described in detail in Section 2.3 of the 2007 ECP

Report (Appendix A). The Property is vacant and has been since September 2011, according to 99th RSC personnel.

Based on a review of historical resources dating back to 1899, the U.S. Government acquired the Property in 1955 and the U.S. Navy used the site to service helicopters and airplanes. Most of the buildings were constructed by 1956 and the Army acquired the tract from the U.S. Navy in 1962. The Army used the Property from 1970 to 1975 to serve Nike Missiles from missile batteries around New York State. The Property was utilized as an Army Reserve Center from 1975 until closing in September 2011.

2.2 PREVIOUS ECP FINDINGS

In July 2007, CH2M Hill, under contract to the U.S. Army Corps of Engineers, Louisville District, completed an ECP Report at the Property in accordance with ASTM D 6008. The text portion from the previous ECP is included in Appendix A. The ECP identified the following areas of potential environmental concern:

1. Reports of a former landfill on the Property. A preliminary assessment (PA) report quoting previous studies at the Property states that the Property is known to have been a landfill. The PA cites other intrusive investigations on the Property, which did not conclude that a landfill existed at the location. The PA, however, states that “no additional documents could be located to confirm or deny the potential presence of a landfill” and recommended additional records reviews and subsurface sampling on the Property with the objective of determining whether a landfill was previously located at the Property.

2. According to Property personnel, the hangar in Building 4 was formerly used to service Nike missiles having conventional warheads in support of other Nike missile batteries in New York. Several published reports on the Nike missile program indicate there is the potential for environmental effects related to Nike missile operations and maintenance.

3. Three aircraft maintenance hangars: two former wooden hangars located on the east side of the Property, and one hangar within Building 4. According to the PA report, operations at the Building 4 hangar included daily inspections, engine repair, and aircraft modifications. Building 4 also was used to service Nike missiles from batteries in the New York area. The hangars were in use as early as the 1930s, and no detailed information is available on storage and disposal of hazardous substances that were likely used. Drainage from the hangar reportedly flowed into storm drains for several decades before installation of the oil/water separator (OWS) near Building 4 in 1994. A PA performed in 1994 recommended sediment sampling in Cayuga Creek to evaluate discharges from building floor drains into the storm sewer. No information was available to indicate that such sampling had been performed.

The July 2007 ECP Report classified the Site as an ECP Category Type 7 property, which, in accordance with ASTM Designation D 5746-98 (2002), is defined as an area or parcel of real property that is unevaluated or requires additional evaluation.

3.0 INTERVIEWS

3.1 INTERVIEW WITH CHARLES DEMATERI, AREA FACILITY OPERATIONS SPECIALIST (AFOS), 99TH RSC

Mr. Charles Demarti was interviewed during our January 2012 site inspection. Mr. Demarti answered questions about current and historical operations at the Property and the environmental condition of the Property. Mr. Demarti stated that the Property had been vacant since September 2011. Mr. Demarti was unaware of any current recognized environmental conditions associated with the Property.

3.2 INTERVIEW WITH DOMINIC VANTASSELL, REGIONAL ENVIRONMENTAL PROTECTION SPECIALIST, 99TH RSC

Mr. Dominic VanTassell was interviewed and escorted XCEL throughout the buildings on the Property during our January 2012 site inspection. Mr. VanTassell answered questions about current and historical operations at the Property and the environmental condition of the Property. Mr. VanTassell provided details of the polychlorinated biphenyl (PCB) investigation that occurred at the Property. Refer to Section 6.0 of this ECP Update Report for additional information.

3.3 INTERVIEW WITH FIRE CHIEF ED MCDONALD, NIAGARA FALLS FIRE DEPARTMENT

XCEL contacted Fire Chief Ed McDonald of the Niagara Falls Fire Department for environmental information such as underground storage tank registration, hazardous materials spills, or open violations/compliance infractions associated with the Property. As of this writing, the Niagara Falls Fire Department has not returned our call. Should receipt of a response from the Fire Department change the conclusions of this report, the 99th RSC will be notified in writing by XCEL.

3.4 INTERVIEW WITH LAURA DELL'OLIO, INSTALLATION RESTORATION PROGRAM COORDINATOR - 99TH RSC

Ms. Laura Dell'Olio is the contract Installation Restoration Program Coordinator for the 99th RSC. She provided XCEL with copies of supplemental findings or assessments that have been conducted at the Site since the July 2007 ECP Report. Ms. Dell'Olio did not possess any specialized knowledge or experience that was material to current recognized environmental conditions in connection with the Property.

4.0 REVIEW OF REGULATORY DATABASE INFORMATION

An electronic database search of environmental records for the Property and surrounding sites was finalized by Environmental Data Resources, Inc. (EDR) on January 20, 2012. EDR focused on searching federal, state, local, and tribal environmental databases and historical and current land uses to identify sites of potential environmental concern with addresses in the areas immediately surrounding the Property. Full documentation of the EDR database review is provided in Appendix B.

The Site was identified in the regulatory database report on the following databases: CERCLIS No Further Remedial Action Planned (NFRAP), State Hazardous Waste Site

(SHWS), UST/AST, Historical UST/AST, Manifest, NY Spills, NY Historical Spills, Emergency Response Notification System (ERNS), and RCRA Generator. With the exception of the Property's inclusion on the CERCLIS NFRAP and SHWS lists, the remaining databases have been discussed previously in the 2007 ECP Report. See Section 5.0 of the 2007 ECP Report (Appendix A) for this information.

The Property was listed on the SHWS database due to the discovery and cleanup of PCBs in soil near Outfall No. 5 located in the southeast corner of the Property. On June 24, 2008, sediment in a pipe and a yellow substance was identified in the drainage swale near Outfall No. 5 and found to contain PCBs (Spill No. 0803478). Delineation and investigative activities identified PCBs in soil samples at maximum concentrations of 1,060 parts per million (ppm). Contaminated soil was excavated in the drainage swale area to meet the Maximum Contaminant Level (MCL) requirements of 1 ppm. Based on the results of the Remedial Action Report (Pars Environmental, 2010), no further action was required and the Spill Case was recommended for closure. Refer to Section 6.0 of this report for a detailed summary of subsurface investigations associated with the PCB spill and cleanup.

The Property was also identified on the CERCLIS NFRAP database. According to information provided in the database report, the site was discovered on December 13, 1994 and a Preliminary Assessment conducted February 15, 1997. The Site was recommended for NFRAP status (does not qualify for the National Priority List) and archived on September 30, 1997. Inclusion of the Property on the CERCLIS NFRAP list does not necessarily constitute environmental contamination, but instead merely indicates that the Property was selected for an assessment by the EPA to determine if the potential for contamination exists. The Property was granted a NFRAP status on September 30, 1997. Accordingly, XCEL recommends no further action.

Potential environmental sites of concern, located within corresponding ASTM search radius distances from the Property, were also evaluated. The 2007 ECP Report identified the adjacent Niagara Frontier Transportation Authority (NFTA) property as having the potential to impact environmental conditions at the Property. This parcel is located west-northwest of Building 4. According to available information, one UST was removed from this property, date unknown. The top of another UST that is reportedly empty was visible on the NFTA property during our site reconnaissance. There is no record of these tanks with the New York State Department of Environmental Conservation (NYSDEC); furthermore, NYSDEC has no records of spills or releases associated with this property. The NFTA parcel is located downgradient of the Property and groundwater flow direction in the vicinity of this parcel is expected towards the west, in the direction of Cayuga Creek and away from the USAR Center. Based on the regulatory status of these tanks and their downgradient location relative to the Property, XCEL does not suspect this site of having had a negative environmental impact on the Property and no further action is currently recommended.

With regard to remaining surrounding properties, based on the information provided in the database report, previous and/or current conditions, regulatory status, distance, and location relative to the Site, none of the regulated facilities identified within the ASTM search radius of the Site have a probability to affect the environmental condition of the Property.

5.0 SITE RECONNAISSANCE

A Site reconnaissance was performed to characterize on-site conditions and assess surrounding property uses and natural surface features that may have affected the condition of the Property. Photographs taken as part of the Site reconnaissance are provided in Appendix C. The Site visit was conducted on January 4-5, 2012 by Michael Dickinson, Hydrogeologist and Senior Environmental Property Assessor for XCEL. The Site was represented by Mr. Dominic VanTassell; contract Regional Environmental Protection Specialist for the 99th RSC. Weather conditions were mostly sunny and the outside temperature was approximately 30° F. XCEL conducted the site reconnaissance in a systematic manner focusing initially on the Property boundaries and exterior areas, which were surveyed in a grid pattern. XCEL also surveyed all interior spaces of existing improvements, focusing on areas of potential environmental concern (i.e., chemical storage areas, mechanical rooms, etc). In addition, XCEL conducted a reconnaissance of the surrounding roads and readily accessible adjacent properties to identify obvious potential environmental conditions on neighboring properties.

The Property was vacant at the time of XCEL's site reconnaissance and has been since September 2011, according to 99th RSC personnel. No physical changes to the Site or adjoining properties, since the 2007 ECP Report, were observed during XCEL's site inspection. No evidence of current recognized environmental conditions was observed during our January 4-5, 2012 visual inspection of the Property.

6.0 FINDINGS SINCE PREVIOUS ECP

This section documents supplemental investigations and/or findings associated with the Property since the July 2007 ECP Report. Copies of supporting documentation are provided in Appendix D.

- Evaluation of Potential Impacts to Cayuga Creek. The 2007 ECP Report identified the potential for impacts to Cayuga Creek from activities at the USAR Center, specifically from maintenance of Nike missiles in Building 4. There have been no reports of stressed vegetation at any of the outfalls in Cayuga Creek, nor has there been any evidence of industrial discharge leaving the property via the storm water system associated with Building 4 that would indicate any contamination occurred as a result of maintenance operations in Building 4. Additionally, during the 2011 RI, the NYSDEC informed the Army that sediment sampling at Outfalls 1, 2, and 3 in Cayuga Creek was not required due to inaccessibility issues and the outfall's position below the creek's water line (PARS, 2012). Based on the foregoing, significant impacts to Cayuga Creek are not expected as a result of USAR activities and no further action is currently recommended.

- Spill Notification Form, June 2008. A Spill Notification Form dated June 24, 2008 detailed the release of what was suspected to be diesel with low concentration s of PCBs in the 24" stormwater pipe which discharges to the offsite stormwater Outfall 5. According to the form, a sample of the product was taken for analysis. NYSDEC was contacted and the spill was assigned Spill No. 0803478.

- PCB Spill Delineation Report, May 2009. XCEL reviewed a previous report entitled *PCB Spill Delineation Report, Outfall 5 Storm Water Culvert, Cleanup and Ditch Remediation*, dated May 2009, prepared by PARS Environmental, Inc. on behalf of the 99th RSC. According to the report, PCBs (Aroclor 1254) were identified coming from a 24" stormwater pipe, that runs north/south along the southeastern property line, and releasing into offsite stormwater Outfall 5. The purpose of this investigation was to establish the spill boundaries and delineate the contaminated area offsite, in Outfall 5. A total of 34 soil samples were collected within the stormwater outfall and associated ditch and analyzed for PCBs. Sampling data indicated that PCB contamination extended beyond the sampling area and concentrations are more than triple the regulatory threshold. PARS recommended collecting additional soil samples to delineate the outer limits of contamination in Outfall 5 and associated ditch area.

- Letter from NYSDEC, June 2009. XCEL reviewed a letter addressed to the 99th RSC from NYSDEC, dated June 22, 2009. The letter stated that a Site Investigation conducted by the Army found PCB-contaminated sediment in the off-site roadside drainage ditch (Outfall 5) exceeding NYSDEC criteria. NYSDEC requested expedited funding for remediation of the offsite stormwater Outfall 5 and associated ditch area to reduce the potential for off-site exposures.

- Supplemental Phase 1 Assessment, August 2009. XCEL reviewed a report entitled *Supplemental Phase 1 Assessment, Niagara Falls U.S. Army Reserve Center (NY046), Niagara Falls, New York*, dated August 2009, prepared by CH2M Hill on behalf of the 99th RSC and USACE – Louisville District. According to the report, the assessment was conducted to further investigate reports of the presence of a landfill at the Property, documented in the 2007 ECP Report. A chain-of-title review and several interviews with city and state officials were conducted. The Report concluded that "no definitive evidence was obtained that confirms the presence of a landfill on the Property." The assessment recommended the Property remain an ECP Area Type 7 because of ongoing PCB contamination investigation.

- Remedial Action Report, PCB Spill Delineation, March 2010. XCEL reviewed a report entitled *Remedial Action Report, PCB Spill Delineation Report, Outfall 5 Storm Water Culvert Cleanup and Ditch Remediation, Niagara Falls US Armed Forces Reserve Center, 9400 Porter Road, Niagara Falls, NY, NYSDEC Spill # 0803478*, dated March 2010, prepared by PARS Environmental, Inc. on behalf of the 99th RSC and USACE – Louisville District. According to the report, the objective of this investigation and remediation was to address PCB impacts at offsite stormwater Outfall 5 located immediately south of the Site along Porter Road. Approximately 134 tons of PCB impacted soils were excavated from Outfall 5 and its associated ditch. Post excavation confirmatory soil sample results (after an additional one foot of soil was excavated) were below the MCL of 1 mg/kg. Based on the post-excavation results, PARS recommended no further action for Spill No. 0803478 and requested NYSDEC close the spill case.

- Site Inspection Report, June 2011. XCEL reviewed a report entitled *Site Inspection Report, Niagara Falls Armed Forces Reserve Center, Building 2 and Former Fire Protection Main, 9400 Porter Road, Niagara Falls, Niagara County, NY,* dated June 2011, prepared by PARS Environmental, Inc. on behalf of USACE – Louisville District. According to the report, the purpose of the Site Inspection (SI) was to determine the source of the PCBs observed in 2008 flowing from the 24 inch onsite stormwater pipe into Outfall 5, located offsite. The SI evaluated if the PCB release was associated with historic USTs at former Building 2 and at the former fire protection main and reservoir area. The SI activities included a geophysical survey, exploratory excavations, and soil and groundwater sampling in the southeastern portion of the property. No anomalies consistent with USTs were identified during the geophysical survey. Several contaminants, including PCBs were detected in soil samples exceeding the Residential and Commercial Restricted Use Soil Cleanup Objectives. However based on the low concentrations of PCBs in the areas investigated, it is not suspected that the PCBs found in the offsite Outfall 5, were due to a release associated with the investigated areas described above. A small area located near the 24 inch stormwater pipe (exploratory excavation, TP-12) was discovered to contain free petroleum product. The report concluded that an Interim Remedial Action (IRA) in the form of contaminated soil and groundwater removal was recommended near TP-12, as well as further investigation of soil and groundwater, and a Human Health Risk Assessment (HHRA).

- Radiological Assessment Report, December 2011. XCEL reviewed a report entitled *Final Radiological Assessment Report, Niagara Falls U.S. Army Reserve Center (NY046), 9400 Porter Road, Niagara Falls, New York 14304*, dated December 2011, prepared by Terranear PMC on behalf of the U.S. Army, Rock Island Contracting Center. According to the report, 38 smear samples were collected at the USAR Center and analyzed for Tritium by Liquid Scintillation and Gross Alpha/Beta by Gas-Flow Proportional Counting. The report concluded that "all data collected and survey results support the conclusion that there is no evidence of radiological contamination or radioactive material present at the Niagara Falls USARC Site." The report recommended this Site be considered radiologically non-impacted and available for unrestricted use relative to radiological hazards.

- Radiological Release Memorandum, December 2011. This memorandum, signed by Stephanie Christie, Director, Safety/Rad Waste Directorate for the Department of the Army, concludes that the site is free of radiological concerns.

- Letter from NYSDEC, March 2012. XCEL reviewed a letter addressed to PARS Environmental (representing the 99th RSC) from NYSDEC, dated March 23, 2012. The letter provided several technical comments to the DRAFT Remedial Investigation/Interim Remedial Action Report and Human Health Risk.

- Remedial Investigation/Interim Remedial Action Report & Human Health Risk Assessment, April 2012. XCEL reviewed a report entitled *Final – Remedial Investigation/Interim Remedial Action Report and Human Health Risk*

Assessment, dated April 2012, prepared by PARS Environmental, Inc. on behalf of USACE – Louisville District. According to the report, thirty soil probes were advanced at the Property. Volatile Organic Compounds (VOCs), Semi-VOCs, and PCBs were detected in soil samples exceeding the Unrestricted Soil Cleanup Objectives (USCO). SVOCs and PCBs were also detected in soil samples exceeding the Commercial Soil Cleanup Objectives (CSCO). Eight groundwater samples were collected at the Property and analyzed for VOCs, SVOCs, and PCBs. Benzene was the only VOC detected exceeding the Class GA criteria. SVOCs and total PCBs were also detected in groundwater at concentrations exceeding the respective Class GA criteria. As part of the IRA, approximately 40 tons of soil and approximately 2,000-gallons of groundwater were removed from a former exploratory excavation (TP-12). Five confirmatory soil samples were collected and analyzed for VOCs, SVOCs, and PCBs, none of which exceeded the applicable USCOs or CSCOs. A Human Health Risk Assessment (HHRA) was conducted and the only unacceptable exposure scenario identified was exposure to impacted groundwater by construction workers. The report recommended that a Site Management Plan (to be developed and implemented by the future landowner) be prepared to limit groundwater exposure to construction workers.

- Letter from NYSDEC, April 2012. XCEL reviewed a letter addressed to PARS Environmental (representing the 99th RSC) from NYSDEC, dated April 23, 2012. According to the letter, NYSDEC received the *Final – Remedial Investigation/Interim Remedial Action Report and Human Health Risk Assessment* and stated that all technical comments (provided by NYSDEC in letter dated March 23, 2012) had been adequately addressed and approved the report for public release.

- Spill No. 0803478 Closed, May 2012. According to the NYSDEC Spill Incident Database, Spill No. 0803478 was granted a “Closed” status on May 17, 2012. A “Closed” designation indicates that a site does not exhibit levels of contamination warranting clean-up, or the site has been remediated to the satisfaction of the NYSDEC and no longer poses a threat to human health or the environment. A copy of the Spill Incident Report is included in Appendix D.

- Asbestos Visual Inspection Report, July 2012. XCEL reviewed a report entitled *Asbestos Visual Inspection Report, Niagara Falls Armed Forces Reserve Center (NY046), 9400 Porter Road, Niagara Falls, New York,* dated July 2012, prepared by Small Business Group, Inc. (SBG) on behalf of the 99th RSC and USACE – Savannah District. According to the report, suspect friable and non-friable asbestos containing materials (ACM) were identified in 95 materials in twelve structures. Friable ACMs included ceiling tiles, grey mud fittings (TSI), pipe aircell (TSI), sheetrock joint compound, and cork insulation. Refer to the complete copy of the Asbestos Visual Inspection Report included in Appendix D for condition, specific locations, and quantities.

7.0 CONCLUSIONS

XCEL has conducted this Environmental Condition of Property Update Report in accordance with AR 200-1 and applicable ASTM standards. Under ASTM D 6008-96 (2005), the following components were completed: interviews, government record reviews, visual inspections of the Property and adjoining properties, and the declaration by the environmental professional responsible for the assessment.

Other than the documented spill associated with PCBs offsite at stormwater Outfall 5 and the corresponding investigation for the source of PCBS onsite in the southeast portion of Property (former Building 2, former fire protection main and reservoir area, and 24 inch stormwater pipe) at the Property (Spill No. 0803478), this ECP Update Report did not identify any new recognized environmental conditions at the Property during our visual site inspection, regulatory database search, review of previous reports, and/or interviews with personnel knowledgeable about operations at the Property. The previous ECP (July 2007) classified the Site as an ECP Category Type 7 which, in accordance with ASTM D5746-98 (2002), is defined as an area or parcel of real property that is unevaluated or requires additional evaluation. Based on the components of this ECP Update Report and our review of supplemental investigations (refer to Section 6.0), it is the opinion of this ECP Update Report that the Property be re-categorized as an ECP Category Type 5 property, which in accordance with ASTM Designation D 5746-98 (2002), is defined as an area or parcel of real property where release, disposal, or migration, or some combination thereof, of hazardous substances has occurred and removal or remedial actions, or both, are underway, but all required actions have not yet been taken. This classification was selected based on removal and remedial actions that have occurred offsite at stormwater Outfall 5 and onsite at TP-12, but supplement investigations to gain sufficient information to properly delineate the extent of the contamination is still necessary for remedy selection.

8.0 DECLARATION OF ENVIRONMENTAL PROFESSIONAL

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312 and I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject Property. A copy of my resume is provided in Appendix E.

03 OCT 2012

Michael P. Dickinson, REPA, CES
Senior Environmental Property Assessor
XCEL Engineering, Inc

Date

9.0 PRIOR ECP MEETS OR EXCEEDS ASTM REQUIREMENTS

The original ECP (July 2007) was reviewed and found to meet the requirements set forth in §4.6.2 of ASTM D 6008-96(2005) and the narrative discussion and findings of that report are incorporated by reference into this ECP Update as if contained here in its

Thomas C Lederle

Tom Lederle
ACSIM-ODB Deputy

3 Dec 2012

Date

10.0 POINTS OF CONTACT

Please contact Ms. Laura Dell'Olio (609-562-7661) or Mr. Michael Dickinson (865-481-3200) if you require further information.

APPENDIX A

PREVIOUS ECP (TEXT ONLY)

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FINAL

ENVIRONMENTAL CONDITION OF PROPERTY REPORT

NIAGARA FALLS
U.S. ARMY RESERVE CENTER (NY046)
NIAGARA FALLS, NY 14304

Prepared For:

U.S. Army Corps of Engineers – Louisville District
Engineering Division – Environmental Engineering Branch
600 Dr. Martin Luther King, Jr. Place
Louisville, Kentucky 40202-2232

JULY 2007

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Certification

All information/documentation provided accurately reflects the environmental condition of the property. This ECP report is in general accordance with the U.S. Department of Defense (DoD) requirements for completion of an Environmental Condition of Property (ECP) report.

JOHN WOHRLE **DATE**
Acting Facility Management Officer
77th Regional Readiness Command, ARIM

The undersigned certifies the contents of this report are in general accordance with DoD policies for the completion of an ECP report.

LENARD GUNNELL, P.G. **DATE**
Project Geologist
U.S. Army Corps of Engineers

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Executive Summary

CH2M HILL, under contract to the U.S. Army Corps of Engineers, Louisville District, has prepared this Environmental Condition of Property (ECP) report for the Niagara Falls U.S. Army Reserve (USAR) Center (Facility ID NY046), hereafter referred to as the "Property" or "USAR Center."

This ECP report was conducted in conformance with the Department of Defense's (DoD's) Base Redevelopment and Realignment Manual, DoD 4165.66-M (BRRM), Army Regulation 200-1, and the American Society for Testing and Materials (ASTM) Designation D6008-96 (2005), *Standard Practice for Conducting Environmental Baseline Surveys*.

This ECP report details the history of the Property including prior tenant use; however, the focus of this document is on USAR's use of the Property and the resulting environmental condition.

The USAR Center is on 19.5 acres of land in Niagara Falls, New York, and has 11 permanent structures and three parking/equipment storage areas. The Property is occupied mainly by the 277th Quartermaster Company (a refueling company), the 865th Combat Support Hospital (a medical group), a small presence of the 1982nd Forward Surgical Unit, and Area Maintenance Support Activity (AMSA) 76. A small presence is maintained by personnel of the Department of Public Works, Fort Drum, New York.

Based on a review of aerial photographs and U.S. Geological Survey (USGS) topographic maps dating back to 1899, development similar to the present appeared at least by 1948. Some of the buildings on the Property are depicted on the USGS topographic map of 1965.

Areas of potential environmental concern were reviewed, and CH2M HILL found the following relating to the environmental condition of the Property:

- Reports of a former landfill on the Property. A preliminary assessment (PA) report quoting previous studies at the Property states that the Property is known to have been a landfill. The PA cites other intrusive investigations on the Property, which did not conclude that a landfill existed at the location. The PA, however, states that "no additional documents could be located to confirm or deny the potential presence of a landfill" and recommended additional records reviews and subsurface sampling on the Property with the objective of determining whether a landfill was previously located at the Property.
- According to Property personnel, the hangar in Building 4 was formerly used to service Nike missiles having conventional warheads in support of other Nike missile batteries in New York. Several published reports on the Nike missile program indicate there is the potential for environmental effects related to Nike missile operations and maintenance.
- Three aircraft maintenance hangars: two former wooden hangars located on the east side of the Property, and one hangar within Building 4. According to the PA report, operations at the Building 4 hangar included daily inspections, engine repair, and

aircraft modifications. Building 4 also was used to service Nike missiles from batteries in the New York area. The hangars were in use as early as the 1930s, and no detailed information is available on storage and disposal of hazardous substances that were likely used. Drainage from the hangar reportedly flowed into storm drains for several decades before installation of the OWS near Building 4 in 1994. A PA performed in 1994 recommended sediment sampling in Cayuga Creek to evaluate discharges from building floor drains into the storm sewer. No information was available to indicate that such sampling had been performed.

In accordance with DoD policy defining the classifications (see Sherri Goodman memorandum dated 21 October 1996), the Property has been classified as Type 7. This classification does not include categorizing the property based on de minimis conditions that generally do not present material risk of harm to the public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

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Abbreviations and Acronyms

The following is a comprehensive list of abbreviations and acronyms that are used throughout this report.

ACM	asbestos-containing material
AGV	alternative guidance value
AMSA	Area Maintenance Support Activity
AR	army regulation
AST	aboveground storage tank
ASTM	American Society for Testing and Materials
bgs	below ground surface
BRAC	Base Realignment and Closure
BRRM	Base Redevelopment and Realignment Manual
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Act Information System
CFR	Code of Federal Regulations
CONEX	Container Express
CORRACTS	Resource Conservation and Recovery Act corrective action site
CSH	Combat Support Hospital
DoD	Department of Defense
DPW	Department of Public Works
ECP	Environmental Condition of Property
EDR	Environmental Data Resources, Inc.
ERNS	Emergency Response Notification System
FEMA	Federal Emergency Management Agency
kg	kilogram
LBP	lead-based paint
LUST	leaking underground storage tank

MEC	munitions and explosives of concern
MEK	methyl ethyl ketone
MEP	military equipment parking
msl	mean sea level
MVPA	military vehicle parking area
NETR	NETR Real Estate Research and Information
NFA	no further action
NFTA	Niagara Frontier Transportation Authority
NPL	National Priorities List
NRHP	National Register of Historic Places
NYARNG	New York Army National Guard
NYSDEC	New York State Department of Environmental Conservation
OMS	organizational maintenance shop
OWS	oil/water separator
PA	preliminary assessment
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PCE	tetrachloroethylene
pCi/L	picoCuries per liter
POL	petroleum, oil, and lubricant
POV	privately owned vehicle
ppb	parts per billion
ppm	parts per million
PSG	Professional Services Group
QmC	Quartermaster Company
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery Act Information System
RQ	reportable quantity
STARS	Spill Technology and Remediation Series
TAGM	Technical and Administrative Guidance Memorandum

TCA	trichloroethane
TCE	trichloroethylene
TCLP	Toxicity Characteristic Leaching Procedure
TSD	treatment, storage, or disposal
TSI	thermal system insulation
USACE	United States Army Corps of Engineers
USAR	United States Army Reserve
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	underground storage tank

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1 Introduction

CH2M HILL, under contract to the U.S. Army Corps of Engineers (USACE) Louisville District Engineering Division, was authorized to conduct an Environmental Condition of Property (ECP) report for the Niagara Falls U.S. Army Reserve (USAR) Center (NY046). The facility is located at 9400 Porter Road, Niagara Falls, Niagara County, New York 14304 (Figure 1, Appendix A) and is hereafter referred to as the "Property" or "USAR Center." CH2M HILL prepared this ECP report under Contract Number W912QR-04-D-0020, Task Order No. 0018, with the Louisville District USACE.

A visual non-intrusive reconnaissance of the Property was conducted on August 16 and 17, 2006, in support of the ECP. On April 12, 2007, Property personnel conducted a visual non-intrusive reconnaissance of some of the areas that were not accessible to CH2M HILL. The site reconnaissance purpose was to visually obtain information indicating the likelihood of recognized environmental conditions associated with the Property or adjacent properties.

In preparing this ECP report, CH2M HILL gathered information from the available records and previous work by others, interviews with individuals purporting to be familiar with the Property, and observations from the site reconnaissance. The accuracy of the information obtained from these sources was not verified by CH2M HILL. As such, CH2M HILL will make no warranty, expressed or implied, relative to the accuracy, completeness, or reliability of the information used to create the records and reports prepared by others.

1.1 Purpose of Environmental Condition of Property

This report meets the Department of Defense's (DoD's) requirement to prepare an ECP report under the provisions of the Base Redevelopment and Realignment Manual (BRRM) (DoD 4165.66-M, March 1, 2006) Section C8.3. The ECP was prepared for the following purposes:

- Provide the Army with information it may use to make disposal decisions
- Provide the public with information relative to the environmental condition of the Property
- Assist in community planning for the reuse of Base Realignment and Closure (BRAC) property
- Assist federal agencies during the property screening process
- Provide information for prospective buyers
- Assist prospective new owners in meeting the requirements under the U.S. Environmental Protection Agency (USEPA) "All Appropriate Inquiry" regulations when they become final
- Provide information about completed remedial and corrective actions at the property

- Assist in determining appropriate responsibilities, asset valuation, and liabilities with other parties to a transaction

This ECP report contains the information required to comply with the provisions of 40 Code of Federal Regulations (CFR) Part 373 that require a notice accompany contracts for the sale of, and deeds entered into for the transfer of federal property on which hazardous substances may have been stored, released, or disposed of. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) §120(h) stipulates that a notice is required if certain quantities of designated hazardous substances have been stored on the property for 1 year or more—specifically quantities exceeding (1) 1,000 kilograms (kg) or the reportable quantity (RQ), whichever is greater, of the substances specified in 40 CFR 302.4, or (2) 1 kg of acutely hazardous waste as defined in 40 CFR 261.30. A notice also is required if hazardous substances have been disposed of or released on the property in an amount greater than or equal to the RQ. Army Regulation (AR) 200-1 requires that the ECP report address asbestos, lead-based paint (LBP), radon, and other substances potentially hazardous to health.

This ECP report used the American Society for Testing and Materials (ASTM) Designation D6008-96 (2005), *Standard Practice for Conducting Environmental Baseline Surveys*, the BRRM, CERCLA §120, and AR 200-1.

1.2 Scope of Services

This ECP report covers the USAR Center located at 9400 Porter Road, Niagara Falls, New York (Figure 2, Appendix A). All site maps, figures, and aerial photographs referenced herein are provided in Appendix A, and Appendix B contains the photographs taken during the August 16 and 17, 2006, site reconnaissance. Appendix C contains the property warranty deeds and chain of title information. Relevant historical environmental documents and reports are provided in Appendix D, and Appendix E contains the Environmental Data Resources, Inc. (EDR) radius search reports commissioned for this effort.

This ECP report classifies the Property into one of seven DoD Environmental ECP categories as defined by the DoD policy defining the classifications (see Sherri Goodman memorandum dated 21 October 1996). The property classification categories are as follows:

- ECP Area Type 1—An area or parcel of real property where no release or disposal of hazardous substances or petroleum products or their derivatives has occurred (including no migration of these substances from adjacent properties).
- ECP Area Type 2—An area or parcel of real property where only the release or disposal of petroleum products or their derivatives has occurred.
- ECP Area Type 3—An area or parcel of real property where release, disposal, or migration, or some combination thereof, of hazardous substances has occurred, but at concentrations that do not require a removal or remedial action.
- ECP Area Type 4—An area or parcel of real property where release, disposal, or migration, or some combination thereof, of hazardous substances has occurred and all

remedial actions necessary to protect human health and the environment have been taken.

- ECP Area Type 5—An area or parcel of real property where release, disposal, or migration, or some combination thereof, of hazardous substances has occurred and removal or remedial actions, or both, are underway, but all required actions have not yet been taken.
- ECP Area Type 6—An area or parcel of real property where release, disposal, or migration, or some combination thereof, of hazardous substances has occurred, but required response actions have not yet been initiated.
- ECP Area Type 7—An area or parcel of real property that is unevaluated or requires additional evaluation.

2 Site Location and Physical Description

2.1 Site Location

The USAR Center is located in Niagara County, on the south side of Niagara Township, in Niagara Falls, New York, at 9400 Porter Road (Figure 1, Appendix A). The 19.5-acre parcel is located north of a main thoroughfare (Porter Road, also known as Route 182). Undeveloped, forested land is located south of Porter Road. The Property is bordered on the east, west, and north sides by wooded land and commercial development (Photographs 1 through 7, Appendix B).

2.2 Asset Information

Facility Name and Address:	Niagara Falls USAR Center 9400 Porter Road Niagara Falls, New York 14304
Property Owner:	U.S. Government
Date of Ownership:	The Army acquired the property in 1962 from the U.S. Navy. The U.S. Government acquired the Property in 1955.
Current Occupant:	U.S. Army Reserve: 277th Quartermaster Company (QmC), 865th Combat Support Hospital (CSH), 1982nd Surgical Unit, Area Maintenance Support Activity (AMSA) No. 76, Fort Drum Department of Public Works (DPW)
Zoning:	The Town of Niagara does not have jurisdiction here; surrounding properties are zoned LI—Light Industrial.
County, State:	Niagara, New York
USGS Quadrangle:	Tonawanda West, New York
Section/Township/Range:	This information was not available at the time of this ECP report preparation.
Latitude/longitude:	43°06′0.7″N; 78°57′17.6″W
Legal Description:	See below

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Niagara, County of Niagara and State of New York, being part of Lots 2 and 6, Township 13, Range 9 of the Holland Land Company's Survey, being more particularly bounded and described as follows:

BEGINNING AT A POINT in the northerly line of Porter Road, New York State Route 182 (being 100 feet wide), at the southwesterly corner of a parcel of land conveyed to The United States of America by a deed filed in the Niagara County Clerk's Office in Liber 1198 of Deeds at page 340, said point also being a distance of 176.25 feet northwesterly of the intersection of the west line of lot 2 and said northerly line of Porter Road, New York State Route 182;

Thence North 05°04'44" East along said lands conveyed to The United States of America, a distance of 155.91 feet to an angle point in the southerly line of lands conveyed to the Niagara Frontier Transportation Authority by a deed filed in the Niagara County Clerk's Office in Liber 1566 of Deeds at page 795;

Thence South 87°03'30" East along the southerly line of said lands conveyed to the Niagara Frontier Transportation Authority by Liber 1566 of Deeds at page 795, a distance of 149.79 feet to a point in the west line of lot 2 and the southeasterly corner of said parcel conveyed to the Niagara Frontier Transportation Authority;

Thence North 00°23'47" West along the west line of lot 2 and the easterly line of said lands conveyed to the Niagara Frontier Transportation Authority, a distance of 316.83 feet to the northwesterly corner of lands conveyed to The United States of America by a deed filed in the Niagara County Clerk's Office in Liber 674 of Deeds at page 492;

Thence North 89°36'10" East along a line parallel with the north line of lot 2 and along the northerly line of said lands conveyed to The United States of America by Liber 674 of Deeds at page 492, a distance of 1110.00 feet to the northeasterly corner of said lands conveyed to The United States of America by Liber 674 of Deeds at page 492;

Thence South 00°23'47" East along a line parallel with the west line of lot 2 and along the easterly line of said lands conveyed to The United States of America by Liber 674 of Deeds at page 492, a distance of 940.00 feet to a point in the northerly line of Porter Road, New York State Route 182 and the southeasterly corner of said lands conveyed to The United States of America by Liber 674 of Deeds at page 492;

Thence northwesterly along the northerly line of Porter Road, New York State Route 182, being a non-tangent curve, concave to the north, having a radius of 2815.00 feet, a central angle of 05°44'32" and a chord of 282.00 feet bearing North 72°15'01" West, a distance of 282.12 feet to the point of tangency;

Thence North 69°16'17" West continuing along the northerly line of Porter Road, New York State Route 182, a distance of 1078.94 feet to the POINT OF BEGINNING, containing 19.52 Acres of land, more or less.

Together with all the rights, title and interest in a 20 foot wide easement for purposes of ingress and egress as described in a deed filed in the Niagara County Clerk's Office in Liber 1566 of Deeds at page 795

2.3 Physical Description

The USAR Center has 11 permanent structures and three parking/equipment storage areas (Figure 2, Appendix A). In addition, a concrete guardhouse is located north of the entrance to the Property from Porter Road. A military equipment parking (MEP) area is located on the eastern side of the Property, and a military vehicle parking area (MVPA) is located west of the MEP. A privately owned vehicle (POV) parking area is located west of Building 4. Chain-link security fencing encloses the MEP area. Personnel indicated that the Property is used for vehicle maintenance; storage of equipment such as tents, clothing, boots, vests, and

other similar materials; minor medical supplies such as bactericide, sporicide, and fungicide; vehicle maintenance tools; petroleum, oil, and lubricant (POL) materials; paints; batteries; tires; and miscellaneous equipment such as heaters, compressors, furniture, hoses, and load testers, for the 865th CSH and the 277th QmC. The 865th CSH uses the Property one weekend each month for drill (classroom) training.

The Property is almost entirely covered by impervious surfaces, such as asphalt parking areas, driveways, and buildings. Small areas are grass covered (south-central area) or have a mix of grass and gravel, such as in the southwestern corner of the Property. Permanent structures on the Property are described below.

Building 4

Building 4 is an 85,500-square-foot building constructed in 1956 (Photograph 8, Appendix B). It is a large, metal-framed hangar having two-story brick buildings attached to the north (Building 4N) and south (Building 4S) sides. All roofs are rubber-coated.

The 865th CSH and the 277th QmC use the hangar and Buildings 4S and 4N to store equipment, such as tents, clothing, boots, vests, and other similar materials; and minor medical supplies such as bactericide, sporicide, fungicide, and tools; and for classroom training, readiness, and administrative purposes. The eastern part of Building 4S contains a battery room, reportedly empty and not in use (Fort Drum DPW, April 2007). A boiler room, having two natural gas-powered boilers is located in the southeastern part of the building. An electrical room in the northeastern corner of the first floor of Building 4S contains dry transformers and associated equipment. Other items stored in several rooms and metal cages in Building 4S on the first floor include kitchen and medical supplies, tools, clothing, and personal equipment, such as boots, vests, and other similar materials. Medical items included fungicide, bactericide, sporicide, activated dialdehyde solution, and acetone, all in quantities commensurate with training use at the facility.

The building also has administrative offices, a mailroom, bathrooms, a garage, and an air compressor room (operable but not in use). Oil stains were visible in the compressor room on the concrete pad on which the compressor was located (Photograph 11, Appendix B). The oil stains did not run off the edge of the pad, so there is no indication of a release to the environment. The second floor of Building 4S also has offices, classrooms, a conference room, a chapel/prayer room, a family support room, a computer server room, bathrooms, and a mechanical room having a natural gas-fired boiler.

According to personnel, part of the first floor of Building 4N is used by the 1982nd Forward Surgical Unit for supply/tool storage. The first floor of Building 4N has a functioning kitchen, a boiler/mechanical room, offices, an empty flight locker room, and equipment storage areas. Oil stains and corroding equipment were visible in the boiler room during the site reconnaissance. The oil stains did not run off the edge of the pad on which the boiler was located, so there is no indication of a release to the environment. The second floor of Building 4N consists mainly of classrooms, and some office rooms, a mechanical room, a janitorial room, and bathrooms. No access was available to CH2M HILL in most classrooms on the days of the site reconnaissance; however, as reported by Property personnel, these classrooms had only furniture associated with their use.

Building 17

Building 17 consists of a POL shed and an aboveground storage tank (AST). The POL shed is a concrete block building, having a metal roof, constructed in 1993. Supplies of POL and antifreeze are properly stored in this shed. Attached to the east side of the POL shed is an 18-inch-high concrete containment wall, having a metal roof. A 528-gallon steel waste oil AST is located inside this containment. The EDR report states this tank was installed in September 1999.

Building 18

Building 18 is an L-shaped, single-story, 9,720–square-foot structure, constructed in 1956 and expanded in the 1990s. It is a metal-framed and concrete block structure having metal and brick exterior. The southern part of the building, constructed in 1956, houses the 277th QmC Organizational Maintenance Shop (OMS). The shop is used for vehicle maintenance and for the storage of related equipment, tools, POL, and hazardous waste prior to offsite disposal by a licensed contractor. A trench drain, connected to the oil/water separator (OWS) located near the north end of Building 18, is located in the midsection of the shop floor. The OWS connects to the sanitary sewer. At the time of the site reconnaissance, the OMS building contained three storage cabinets for flammable materials. CH2M HILL did not have access to the interior of the cabinets during the site reconnaissance; however, the area around the cabinets did not show signs of any staining or corrosion.

Property personnel conducted a visual reconnaissance of the interior of these cabinets on April 12, 2007, and based on their visual inspection, the storage cabinets contain POL and spray paint (Fort Drum DPW, April 2007). Numerous other tools were visible inside a locked metal room near the compressor/boiler room. Property personnel indicate that this locked room contains only spray paint (Fort Drum DPW, April 2007). Another tool room on the north side of Building 18, not accessible to CH2M HILL during the site reconnaissance, was reported by Property personnel as containing tools for vehicle repair and vehicle parts (Fort Drum DPW, April 2007). No POL or hazardous substances are stored in this tool room. Photographs of the storage cabinets in Building 18 and the tool room on the west side of Building 18 are included in Appendix B.

The remainder of the building, added in the 1990s, is of metal frame construction and houses AMSA 76. That part of Building 18 is used for vehicle maintenance, storage of related equipment, tools, used POL, other chemicals, and vehicle battery recharging (Photograph 12, Appendix B). The northwestern part of the AMSA contains a parts washer, a wash water recycling system (reportedly not functioning), and an oil filter crusher. Seven maintenance bays are used to service military vehicles. Trench drains connected to the OWS are located outside each of the seven maintenance bays. The OWS is connected to the sanitary sewer. During the site reconnaissance, two military vehicles were in the maintenance bays in the AMSA. Oil stains were visible on the concrete floor beneath one of the vehicles, and absorbent was spread over the oil stains. The concrete floor is, however, continuous to the building walls, so there is no suspected release to the environment.

A storage room inside the AMSA building contained a vehicle battery recharging station. The wooden bench on which batteries are placed was blackened and burnt on the surface, presumably because of acid burns, whereas the concrete floor of the room was observed to be corroded around the wooden bench, having white deposits on the floor (Photograph 12,

Appendix B). Because the corrosion did not appear to penetrate the full depth of the floor, there is no suspected release to the environment.

Building 19

Building 19 is a single-story, 1,600-square-foot storage structure built in 1956 of a concrete foundation and metal frame and roof. It is used to store equipment belonging to the 277th QmC. Equipment observed inside this building included a heater, tires, wires, a hydraulic press (reportedly not in use), an electric load tester, hoses, and a gas-fired furnace. Peeling paint, likely LBP, and roof water damage were observed in the southeastern part of the interior of the building.

Building 20

Building 20 is a single-story 2,133-square-foot structure constructed in 1956 of concrete and brick veneer and an asphalt-coated metal roof. It is used for storage of equipment for the 277th QmC, and has an electronics service room in the northern part of the building and an unused vehicle battery storage room at the south end of the building. More than 20 vehicle tires were observed inside the battery room. Items observed inside the central part of the building included a steam cleaner, a refrigerator, desktop computers, an oil drain tank (not used), and office supplies. A natural gas–fired boiler room is also located in this part of the building.

Building 21

Building 21 is a single-story 13,055-square-foot structure built in 1956 of concrete block and brick exterior and a shingled roof. The 277th QmC uses it to maintain vehicles, to store equipment, and for classroom training and administration. The vehicle maintenance areas, located in the eastern part of the building, have trench drains leading to an OWS located east of the building, which is connected to the sanitary sewer system. Building 21 also has a boiler room, classrooms, offices, bathrooms, and storage areas.

Two maintenance bays are located on the east side of the building, where equipment is stored and light vehicle maintenance is performed. During the site reconnaissance, two flammable materials cabinets were observed in the north maintenance area. A lawn mower and “bobcat” were stored along the north wall of this area. An overhead air compressor was located in the southwest corner of this area; workbenches and pipes were located along the west wall. The southeast corner of this area contained insulated water pipes and backflow prevention valves; this is the main point of entry for water supply to the Property. The pipes appeared to be insulated with foam. Damage to the insulation was apparent in small parts of the pipes. Other items observed in Building 21 during the site reconnaissance included a dry transformer in Room 104 and a paint storage cabinet in Room 123.

Building 22

Building 22 is a two-story, 20,703-square-foot structure constructed in 1956 of concrete block and brick veneer and a shingled, rubber-coated roof. The building is used for equipment storage of the 277th QmC, classroom training, and administrative tasks. The building also has a kitchen and dining hall for use during drill weekends (once a month). The second story consists of classrooms and office space, a room for storage of flight gear, and

bathrooms. An attic space is located along the southern edge of the building because of the pitch of the roofline.

Building 23

Building 23 is a single-story, 2,058-square-foot structure constructed in 1956 of metal frame and metal roof and siding. It is used for storage of equipment belonging to the 277th QmC. Equipment observed in the building on the first day of the site reconnaissance (August 16, 2006) included hoses, wooden boxes, floodlights, fuel pump and filters, accessories, tents, sandbags, and fire extinguishers.

Building 24

Building 24 is a single-story, 2,400-square-foot structure constructed in 1993 of metal frame and metal roof and siding. The 865th CSH uses it to store equipment and material. The building is supplied with electricity and heat but no plumbing. Equipment observed in the building on the first day of the site reconnaissance (August 16, 2006) included a modular field kitchen, a steel refrigerator, and food containers. Nine fluorescent overhead lamps, possibly containing mercury, were observed on the ceiling of the building.

Building 25

Building 25 is a single-story, 1,504–square-foot structure constructed in 1956 of concrete block and brick exterior and an asphalt-coated roof. It was formerly used as the heating plant for the Property and contained fuel oil USTs. Natural gas became the fuel source in the mid-1980s. Telephone and fiber optic cables are routed to the building from the supplier before branching out to the other buildings on the Property. Building 25 is now used to store equipment belonging mainly to the Fort Drum DPW. Equipment observed in the building on the day of the site reconnaissance included spill containment kits, convection ovens, a small container of an herbicide, and acrylic and enamel paints.

Building 26

Building 26 is a single-story, 2,150-square-foot structure constructed in 1960 of metal frame and metal siding and roof. It is primarily used to store equipment belonging to the 277th QmC. Equipment observed in the building on the day of the site reconnaissance included paints (some oil-based, containing xylenes), vinyl jackets for duct work, ceiling and floor tile, a 50-gallon water heater, parts of old boilers, and adhesives.

Wash Rack Outside Building 18

A concrete wash rack is located near the northwestern corner of the AMSA, adjacent to an OWS. The wash rack drains into the OWS, located south of the wash rack. The OWS is connected to the sanitary sewer. Rinse water generated by vehicle washing is recycled through a water recycling system inside the AMSA shop. AMSA personnel indicated that vehicle washing is now rarely performed at the facility, in part because of the malfunction of the water recycling system.

Oil/Water Separators

Three OWSs are located on the Property. One OWS, reportedly installed in 1994, is located near the southwestern corner of Building 4S (Photograph 9, Appendix B). A 1,000-gallon

underground storage tank (UST) associated with the OWS was removed in September 1999. Another OWS is located south of the vehicle wash rack near the northwest corner of Building 18 (Photograph 10, Appendix B). Property personnel indicated the wash rack and the OWS were installed between 1986 and 1988. A 550-gallon UST associated with the OWS was removed in September 1999. A third OWS, reportedly installed at the time of original building construction, is located adjacent to the east wall of Building 21. Personnel stated that a small (55-gallon) UST is associated with the OWS.

The OWS near Building 4S receives water from the hangar floor, where helicopter/airplane cleaning and washing historically occurred and where Nike missiles were serviced. The OWS near Building 18 receives water from vehicle maintenance activities in the AMSA shop and OMS. The OWS adjacent to Building 21 receives water from occasional vehicle washing and maintenance activities inside Building 21. According to personnel, and a Storm Water Pollution Prevention Plan Update (Bowne AE&T Group, 2006) all OWSs are connected to the sanitary sewer.

Storage Sheds

Two metal storage sheds (6 feet by 8 feet by 8 feet tall) are located in the MEP northeast of Building 21. CH2M HILL did not have access to the interior of the two storage sheds in the MEP area. The outsides of the sheds indicated they contained flammable material; personnel confirmed they contained POL. Property personnel conducted a visual inspection of these sheds and observed four partially full 55-gallon drums, containing used motor oil and antifreeze. All drums were on secondary containment structures, and there was no indication of a spill or a release from these drums (Fort Drum DPW, April 2007). A photograph of the interior of one of these storage sheds is contained n Appendix B. Two similar storage sheds are located in the MVPA east of Building 18. In the MVPA, one shed contained oxygen gas cylinders; the other, acetylene gas cylinders. A third, larger shed (6 feet by 10 feet by 15 feet) contained POL (including waste oil, antifreeze, diesel, diesel waste, and parts cleaners). The large shed reportedly has been in use for about 2 years. The age of the other sheds could not be ascertained. The appearance of the ground around each shed was normal and did not indicate releases to the environment.

A wooden shed (6 feet by 10 feet by 15 feet) having glass windows is located north of Building 18. Property personnel performed a visual inspection and indicated the shed was empty (Fort Drum DPW, April 2007).

Two Container Express (CONEX)–type containers were observed between Buildings 4 and 18, on the north side of a fence. According to Property personnel, the containers store equipment for the 865th CSH. During a visual inspection by Property personnel, the CONEX containers were observed to hold items such as tents, shelving, and other mobile hospital supplies. No POL or hazardous substances were stored in these containers at the time of the inspection

Switchyard

An electric switchyard is located in the south-central part of the Property. Personnel indicated there no transformers inside this structure at the time of the site reconnaissance. The switchgear and circuit breakers inside the structure are dry and do not contain polychlorinated biphenyls (PCBs), according to USAR Center personnel. Wet lead/calcium-

acid batteries were observed inside an enclosure in the area. The batteries are used as backup for the circuit breakers and switchgear.

2.4 Site Hydrology and Geology

Geologic and hydrogeologic information was obtained mainly from the final preliminary assessment (PA; Engineering Technologies Associates, 1994), which obtained related information from previously published U.S. Geological Survey (USGS) reports and from the United States Department of Agriculture (USDA) and Cornell University, New York. The Property is located in the Erie-Ontario Lowlands Physiographic Province. The region is characterized by relatively flat topography and is dissected by east-west trending escarpments. The Property is located about 5 miles south of the Niagara Escarpment.

The Niagara Falls area is underlain by glacial sediments consisting mainly of till and lacustrine silt and clay, 5 to 80 feet thick. The glacial deposits are underlain by weathered dolomite and limestone of the Lockport Group of the Niagaran Series of Middle Silurian age. The Lockport Group is underlain by about 100 feet of shale and limestone (Clinton Group), which is underlain by 110 feet of sandstone and shale (Medina Group).

2.4.1 Surface Water Characteristics

The USAR Center is on the USGS 7.5-minute Tonawanda West topographic map. As shown on this map (Figure 3, Appendix A), ground surface elevations at the USAR Center average 575 feet above mean sea level (msl). Topography at the site is nearly level; surface and stormwater drainage is to Cayuga Creek, located between 100 to 200 feet from the western boundary of the Property. Cayuga Creek is an intermittent tributary of the Niagara River. The drainage area of the Property is less than 50 acres.

Figure 4 in Appendix A depicts surface water, stormwater, and sanitary sewer lines on the Property. Several interior building areas drain directly or indirectly into the stormwater sewer system. Drainage from the Building 4 hangar reportedly flowed into storm drains for several decades before installation of the OWS (1994) near Building 4. A drainage ditch located along the eastern boundary of the Property flows south into a ditch along the north side of Porter Road, outside the Property. Four stormwater outfalls were identified during a stormwater pollution prevention survey (Bowne AE&T Group, 2006). Each outfall is associated with a local stormwater sewer line and a network of drain inlets. Property grading and the location of some of the inlets causes stormwater flow to bypass the inlets and flow directly into the drainage ditches (Bowne AE&T Group, 2006).

2.4.2 Hydrogeological Characteristics

The Property is underlain by two types of soil: the Lakemont silty clay loam and the Fonda mucky silt loam. Both soil types are described as fine- to moderately fine-textured, of low permeability, and a prolonged high water table at 0 to 0.5 foot below ground surface (bgs). These soils have high clay content and are subject to ponding. Permeability rates range from 0.2 to 0.6 inch per hour. According to personnel at the Property, the subsurface is underlain by clay of variable moisture. The material is locally known as “Gumbo clay.” The water table is at a depth of less than 4 feet bgs.

The glacial deposits are underlain by weathered dolomite and limestone of Middle Silurian age in the Lockport Group of the Niagaran Series. The Lockport Group is underlain by about 100 feet of shale and limestone (Clinton Group), which is underlain by 110 feet of sandstone and shale (Medina Group).

The glacial deposits act as a confining unit for the weathered bedrock aquifers below. Groundwater flow in the glacial deposits generally is downward in recharge areas near topographic highs, and upward in discharge areas near streams and in other low-lying areas. The hydraulic properties in the Lockport dolomite and limestone are related to secondary porosity and permeability owing to the presence of fractures and solutioning. The main water-bearing zones in the Lockport Group are the weathered bedrock surface and horizontal fracture zones near stratigraphic contacts. The rock matrix transmits negligible amounts of groundwater because primary porosity is very low. Horizontal hydraulic conductivity of the weathered bedrock is estimated at 40 feet per day.

In the Lockport Group, groundwater flows from topographic highs near the Niagara Escarpment north toward the escarpment, and south and west toward the low-lying areas near the Niagara River and outcrop areas along the Niagara River Gorge. Recharge of groundwater into the Lockport Group is influenced by manmade structures such as reservoirs and unlined sewers.

2.5 Site Utilities

Water Service—The City of Niagara Falls provides potable water service to the Property.

Sanitary Sewer System—The Town of Niagara provides sanitary sewer service to the Property. The primary source of the wastewater directed to the sewer system includes nonprocess wastewater (bathrooms, sinks, etc.), the discharge from the OWSs, and vehicle washing and maintenance runoff.

Gas and Electric—National Fuel provides natural gas service to the Property; National Grid (formerly Niagara Mohawk) provides electric service.

2.6 Water Supply Wells and Septic Systems

Based on a review of available historical site and agency records and interviews with site personnel, neither a water supply well nor a septic system is or was located on the Property. Potable water is supplied by the City of Niagara Falls. The City of Niagara Falls has supplied potable water to the buildings since they were constructed.

3 Site History

3.1 History of Ownership

The chain of title for the Property (Appendix C) was obtained for this ECP from NETR Real Estate Research and Information (NETR). Information provided by NETR, which had records dating back to 1933, indicates the Property was owned by private individuals until 1955, when the warranty deed was transferred to the Unites States of America. This is inconsistent with information presented in the PA (Engineering Technologies Associates, 1994), which indicates the Property was developed in 1939 by the U.S. Navy as an air station. According to the PA (Engineering Technologies Associates, 1994), the U.S. Army acquired the Property in about 1962 as a sub-installation of Fort Drum, New York.

According to a city directory provided by EDR and dated July 24, 2006, the address of the USAR Center was first listed in the research source (Polk's City Directory) in 1975. City directory searches from 1995 to 2005 (Haines Criss-Cross Directory) do not list the Property. A copy of the city directory entry is included in Appendix E.

3.2 Past Uses and Operations

The PA for the Property (Engineering Technologies Associates, 1994) cites an unreferenced reports as stating that the Property was "known to have been a landfill prior to the original construction of the Naval Air Station." Water lines at the Property were deteriorating because of the presence of corrosive soils. Soil chemical analyses indicated high sulfate concentration and low resistivity, along with the presence of non-uniform soils. A corrosion survey of the Property reportedly was performed in 1983. The corrosion survey concluded that that water line corrosion was likely due to mechanical reasons, and that corrosion was mainly due to "plug type graphitization resulting from the non-uniform backfill." The PA states that "no additional documents could be located to confirm or deny the potential presence of a landfill." The PA states that numerous excavations completed at the Property for upgrading utility lines and other similar objectives did not find evidence for a landfill. These excavations, however, were not carried out with the specific objective of proving or disproving the existence of a landfill at the Property. The PA recommended additional records reviews and subsurface sampling on the Property with the objective of determining whether a landfill was previously located at the Property. During preparation of this ECP report, a review of representative historical USGS topographic maps (dating back to 1899) and aerial photographs (dating back to 1963) for the Property did not provide evidence of surficial disturbance indicative of landfilling activities. The PA also recommended sediment sampling in Cayuga Creek to evaluate discharges from building floor drains into the storm sewer. No information was available to indicate that such sampling had been performed.

The U.S. Navy historically used the Property to service and maintain helicopters and airplanes. By 1956, it had constructed most of the buildings now on the Property. The 1948 USGS topographic map (Figure 5, Appendix A) shows what appears to be the former hangar/reservoir in the southeastern part of the Property. Although the chain of title for the

Property indicates the U.S. Government acquired the Property in 1955, it appears the Navy used the Property at least as early as 1948. This use is consistent with information in the PA (Engineering Technologies Associates, 1994), which indicates the Navy originally developed the Property in 1939. Aircraft maintenance was performed in the hangar at Building 4. According to personnel at the Property, there were two additional wooden hangars on the Property, in the approximate area occupied by Buildings 18 and 21, and east of Building 4, toward the east Property boundary. The wooden hangars were demolished at an unknown date, and personnel indicate the hangars burned down while demolition was in progress.

A structure consistent with the descriptions of the former hangars is visible in the eastern part of the Property on the aerial photograph of 1963 (Figure 6, Appendix A) but not on the aerial photograph of 1979 (Figure 7, Appendix A). Concrete pavement having markings and pads for helicopter parking were visible during the site reconnaissance, east of Buildings 4 and 18. A water reservoir provided as a backup water supply for firefighting, a concrete vault used for coal storage, two USTs (one 10,000-gallon, one 20,000-gallon), and a building (Building 2) reportedly were located on the eastern and southern parts of the Property. The structures reportedly were built during the original construction at the Property. According to personnel, the tanks and concrete vault were demolished in 1987 or 1988. The Property reportedly stopped using coal in 1955 or 1956. No evidence of outdoor coal storage is apparent in the aerial photographs reviewed by CH2M HILL. The reservoir and Building 2 were demolished sometime between 1995 and 1997. A water systems improvement map from 1993 confirms the presence of the reservoir and Building 2. The area formerly occupied by the reservoir and Building 2 is now part of the MVPA, north of Building 26.

The U.S. Government acquired the Property in 1955 and has owned it since (NETR, Appendix C). Various units within the USAR have used the Property since that time, including the 277th QmC (a refueling unit), the 865th CSH (a field medical unit), and the 1982nd Forward Surgical Unit (a field surgical unit). Personnel from the Fort Drum DPW also are based at the Property in Building 21. Property personnel indicated the New York Army National Guard (NYARNG) was a tenant on the Property from about 1972 to 1995.

From about 1970 to 1975, the Property, specifically the Building 4 hangar, was used to service Nike missiles from missile batteries around the state of New York. Property personnel did not know of specific activities performed as part of Nike missile service at the USAR Center, nor was such information reasonably available from historical site-specific records. Based on common operations involved in the assembly and service operations for Nike Ajax missiles, as reported in a *Final Report, Nike Missile Battery, Environmental Conditions Assessment Guide, DERP-FUDS* (USACE-HTRW-CX, July 2003), Nike missiles were transported for servicing, disassembled, and packed in crates. Organizational maintenance consisted of lubrication, painting, periodic preventive maintenance services, troubleshooting, and specified maintenance of the missile and missile guidance system. The components of the missile system were repacked prior to shipment. According to Property personnel, only Nike missiles having conventional warheads were serviced at the Building 4 hangar.

Building 4

The Navy used Building 4 since its construction (1956) to about 1970 to service and maintain helicopters and airplanes. From about 1970 until 1991, the Army used the building for

helicopter maintenance. Personnel indicated that the NYARNG used the hangar to park, service, and maintain two aviation companies, reduced to one aviation company of 21 UH-1 helicopters. Property personnel also indicated that from about 1970 to 1975, Building 4 served as a Nike missile support center, where missile warheads were serviced and maintained from locations in the state of New York. From the late 1970s to about 1994, the 42nd Aviation Battalion, part of NYARNG, used and serviced about 30 helicopters in the hangar. The 865th CSH, which includes hospital units, a petroleum company, and a drill sergeant unit, used the building to store equipment, and for administrative, educational, and logistical purposes. Reservists of the 865th CSH historically used Building 4 for drill activities on weekends throughout the year.

Review of previous reports (Appendix D) indicates aircraft service mechanics used Stoddard solvent, until about 1991, to clean aircraft parts. The USACE-HTRW-CX report on Nike missile batteries (July 2003) indicates the service and maintenance of Nike missiles routinely involved use of POL and hazardous substances, including trichloroethylene (TCE). Another report, prepared for the USACE Huntsville District (*Final Report, Investigation of Former Nike Missile Sites for Potential Toxic and hazardous Waste Contamination*, Law Engineering Testing Company, March 1986), indicates that waste disposal practices varied from one location to another, and could have included storage in drums as well as "unofficial" disposal to the ground and subsurface.

Drainage from the Building 4 hangar reportedly flowed into storm drains for several decades before installation of the OWS (1994) near Building 4. A PA performed in 1994 recommended sediment sampling in Cayuga Creek to evaluate discharges from building floor drains into the storm sewer. No information was available to indicate that such sampling had been performed.

277th QmC OMS Shop and AMSA No. 76, Building 18

The southern part of Building 18 houses the 277th QmC OMS. Activities inside the OMS building were limited to preventive maintenance checks, including checking and changing vehicle fluids such as motor oil, water, and antifreeze, and light maintenance activities. Associated equipment, tools, POL, and hazardous waste, were stored at the OMS prior to offsite disposal.

The northern part of the building has housed AMSA 76 since it was constructed in the 1990s. The AMSA performed vehicle maintenance for the units stationed at the Property, and storage of associated equipment, tools, used POL, and other chemicals, and vehicle battery recharging.

Building 19

The 277th QmC reportedly used Building 19 as a dining hall 15 to 20 years ago. Previous use could not be determined.

Building 21

The 277th QmC used Building 21 to maintain and service vehicles, to store equipment, and for classroom training and administration.

Oil/Water Separators

As stated in Section 2.3, three OWSs are located on the Property. The vehicle wash rack and OWS located near Building 18 were reportedly installed between 1986 and 1988. The OWS located near the southwestern corner of Building 4S was reportedly installed in 1994. The third OWS located adjacent to the east wall of Building 21 reportedly was installed at the time of original building construction.

Prior to installation of the OWS near Buildings 4 and 18, Property personnel indicated aircraft and vehicle service and wash water drained into the storm drains.

Chemical and Equipment Storage in Other Buildings

Several other buildings on the Property were used to store equipment and chemicals, many in reportedly de minimis quantities commensurate with use onsite. The buildings include Building 20 (lead acid batteries, tires, oil and enamel paints, POL), Building 22 (dry transformer, POL), Building 25 (acrylic and latex-based paints, empty spill containment drums), and Building 26 (oil and enamel paints). As stated in Section 2.3, the POL shed is the main storage area for new and unused POL supplies (inventory in Appendix C).

Historical aerial photographs and topographic maps were used as sources of information on the past use and operations at the Property. Figures 3, 6, 7, and 8 (Appendix A) provide USGS topographic maps and aerial photographs of the Property and surrounding areas.

The 1948 USGS topographic map (Figure 5, Appendix A) shows the Property and Niagara Falls International Airport (then known as Niagara Falls Municipal Airport). One large structure is depicted on this map in the approximate location of the former hangars, in the eastern part of the Property. Adjacent areas north and west appear undeveloped. Porter Road is depicted in roughly its current location. The adjacent area south of Porter Road appears forested or marshy.

The 1963 black and white aerial photograph (Figure 6, Appendix A) shows structures in the location of the former hangars, Building 4, and additional structures in the southern part of the Property, not clearly discernible. The northern half of the Property appears to be paved with concrete (light gray color). A road extending north about 1,200 feet from the location of Building 4 and then west is seen in the aerial photograph. Runways and taxiways of the Niagara Falls International Airport, which appears to have expanded west from 1948, are visible north and east of the Property.

The 1965 USGS topographic map (Figure 3, Appendix A) shows structures on the Property in the location of the former hangar, Building 4, Building 21, and four other structures south of Building 4. Adjacent properties appear similar to those depicted on the 1963 topographic map. More development is apparent in the surrounding area. The Niagara Falls Air Force Base is seen north of Niagara Falls International Airport. The 1979 aerial photograph (Figure 7, Appendix A) shows Buildings 4, 18, 22, and several smaller structures on the Property. A structure similar to a reservoir is apparent in the southeast corner of the Property. Several parked airplanes are visible in the adjacent property east. An asphalt paved area is visible east of Building 4.

The 1995 aerial photograph (Figure 8, Appendix A) is similar to the 1979 photograph, but additional development appears to have taken place west of Cayuga Creek. No evidence of

any recognized environmental conditions, including landfilling, is apparent on the aerial photographs reviewed.

3.3 Past Use, Storage, Disposal, and Release of Hazardous Substances

3.3.1 Past Use and Storage of Hazardous Substances

Information related to the past use and storage of hazardous substances at the Property was compiled through review of available site records, search of federal and state environmental databases, and interviews with USAR personnel at the Property. Chemicals formerly used and stored at the Property were associated with aircraft and vehicle maintenance, Nike missile servicing, and facility maintenance activities and janitorial services. Janitorial chemicals and products related to building maintenance were stored in the designated storage area within the janitorial closets located in several buildings on the Property. Vehicle maintenance products and POL products also were stored within designated areas within Building 18 (OMS and AMSA areas), Building 20, Building 21, and several outdoor storage sheds.

Although no specific records were reasonably available regarding hazardous substances used at the Property, aircraft maintenance and Nike missile servicing typically involved the use of several hazardous substances, including solvents (tetrachloroethylene [PCE], TCE, benzene, carbon tetrachloride, 1,1,1-trichloroethane [TCA], and 1,1,2-TCA), nitric acid, sodium dichromate, sulfuric acid, zinc chromate, and paint. Use and storage of these materials varied considerably (Law Engineering Testing Company, 1986). The solvents were used in cleaning, corrosion removal, painting, and preparation of parts. Sodium dichromate and zinc chromate were used in metal cleaning and paints, respectively. Sulfuric acid was used in lead acid batteries. Metallic selenium was used in rectifier parts. The Nike Ajax missiles used a 28-volt silver-cadmium battery that used potassium hydroxide as the electrolyte.

3.3.2 Past Disposal and Release of Hazardous Substances

Information related to past disposal and potential release of hazardous substances at the Property was compiled through review of available site records, search of federal and state environmental databases, and interviews with USAR personnel. Available records indicate that reportable quantity releases of hazardous substances have occurred at the Property.

USAR conducted a PA of the Property in 1994, in which a release of 120 gallons of transformer oil containing PCBs (250 parts per million) was identified (Engineering Technologies Associates, 1994). The release occurred in 1991. A transformer fell and broke over a storm sewer drain, east of Building 22. The PCB oil spilled on the pavement and into the drain. Surface paving materials, soils, and storm drain materials were remediated after the spill. On October 31, 1991, the New York State Department of Environmental Conservation (NYSDEC) indicated that the spill had been adequately remediated.

In September 1999, during removal of a 550-gallon UST associated with a wash rack outside Building 18, TCE was detected in soil at concentrations exceeding the NYSDEC allowable

soil concentration of 7 parts per billion (ppb) (http://www.dec.state.ny.us/website/der/tagms/prtg4046b.html). The concentration of TCE, however, was less than the NYSDEC recommended soil cleanup objective of 700 ppb, which was obtained by multiplying the allowable soil concentration by a correction factor of 100. The EDR report (Appendix E) indicates the spill was closed in February 2000, and a phone conversation with NYSDEC (January 22, 2007) indicated that this spill is no longer on the NYSDEC database. The NYSDEC further indicated that the tank was not required to be registered because it was associated with an OWS.

3.4 Past Presence of Bulk Petroleum Storage Tanks

Based on a review of available site records and a search of federal and state environmental databases, five bulk petroleum storage tanks located at the Property were removed between 1990 and 1999. The database also lists one 528-gallon AST for the Property. The AST is used to store used oil and is made of steel/carbon steel. It is listed as being located on stilts/saddles/legs/rack or cradle. The AST was observed during the site reconnaissance adjacent to the POL shed (Building 17). Table 1 summarizes AST/UST data for the Property from the EDR report and from Property personnel.

TABLE 1
Storage Tank Information
Niagara Falls USAR Center, Niagara Falls, New York

No.	Tank Description	Source	Date Removed/Closed	Removal Documented?	Remarks/Status
1	3,000-gallon unleaded gasoline UST	EDR	Removed July 1, 1990	Closed per EDR	Closed.
2	10,000-gallon No. 1, 2, or 4 fuel oil vaulted UST	EDR	Removed October 1, 1991	Closed per EDR	Closed.
3	20,000-gallon No. 1, 2, or 4 fuel oil vaulted UST	EDR	Removed October 1, 1991	Closed per EDR	Closed.
4	One 550-gallon waste oil UST located beneath concrete pad, adjacent to wash rack	EDR	Removed September 20, 1999	Closed per EDR	Closed.
5	One 1,000-gallon waste oil UST near OWS	EDR	Removed September 22, 1999	Closed per EDR	Closed.
6	One large gasoline UST near former building near Building 21	Property personnel	Removed 1984 or 1985	No	Not listed in EDR report or other studies. No additional information or documents are available.
7	One 250- or 400-gallon waste oil holding tank (UST)	Property personnel	Removed mid-1990s	Yes; appears same as No. 4	Closed. Records indicate a spill was registered during tank removal, and TCE

TABLE 1
Storage Tank Information
Niagara Falls USAR Center, Niagara Falls, New York

No.	Tank Description	Source	Date Removed/Closed	Removal Documented?	Remarks/Status
	near wash rack				detected in closure soil samples at concentrations less than the NYSDEC Recommended Soil Cleanup Objective (see Sections 3.5.2 and 5.2.5).
8	One 600-gallon waste oil UST near OWS by Building 4	Property personnel	Removed 1984 or 1985	Yes; appears same as No. 5	Closed. Records indicate a spill was registered during removal, and PAHs were detected in closure soil/groundwater at concentrations less than the NYSDEC Recommended Soil Cleanup Objective (see Section 3.5.2 and 5.2.5)
9	One 250-gallon fuel oil AST outside Building 19	Property personnel	1989 or 1990	No	Not listed in EDR report or other studies. No additional information available.
10	One 250-gallon fuel oil AST outside Building 23	Property personnel	1989 or 1990	No	Not listed in EDR report or other studies. No additional information available.
11	One 250-gallon fuel oil AST outside Building 26	Property personnel	1989 or 1990	No	Not listed in EDR report or other studies. No additional information available.
12	Two 20,000-gallon USTs associated with former hangars and reservoir	Property personnel	1987 or 1988	Yes; appears same as No. 2 and No. 3	Closed.
13	Two 25,000-gallon heating oil USTs, south and east of Building 25	Property personnel	1987 or 1988	No	Not listed in EDR report or other studies. No additional information available.
14	AST on cradle/rack/stilts	EDR	Not applicable—tank is in use	Same as AST (528-gallon) is in Building 17 (POL Shed)	Tank is in good condition, and no indications of a spill or a release.

PAH – polycyclic aromatic hydrocarbon

Based on a comparison of information in the EDR report and information provided by Property personnel, there is no reasonably available documentation on the removal of six tanks, including the three 250-gallon fuel oil tanks outside Buildings 19, 23, and 26; the one gasoline UST near former building near Building 21; and the two 25,000-gallon heating oil tanks located south and east of Building 25.

3.5 Review of Previous Environmental Reports

The following subsections briefly summarize the environmental reports. Copies of the reports, unless otherwise specified, are provided in Appendix D.

3.5.1 1994 Preliminary Assessment

The object of the PA, completed by Engineering Technologies Associates, Inc., was to review available information regarding past practices related to hazardous waste storage, handling, and disposal at the Property. No environmental sampling was performed. The PA report noted that the Property may have been built on a former landfill, which was significant, given the industrial and chemical manufacturing facilities nearby, including the former Love Canal Superfund site.

The PA further describes the subject of the landfill as follows. A document was prepared in support of a funding request for replacement of water lines at the Property. Although this document was unreferenced, it reportedly stated that the Property was "known to have been a landfill prior to the original construction of the Naval Air Station." This document reported deterioration of water lines, high sulfate concentrations in soil, and low resistivity, and anticipated a "corrosion problem" of "severe magnitude." A corrosion survey was conducted at the Property in June 1983 by Professional Services Group (PSG). The PSG study reportedly concluded that water line corrosion was likely due to mechanical reasons, and that corrosion was mainly due to "plug type graphitization resulting from the non-uniform backfill." The PA stated that no further documents could be found to confirm or deny the presence of a landfill. The PA also referenced a study by Alexander (1983), which reportedly stated that several excavations had occurred since the Army acquired the Property. These excavations were performed for building foundations, remediation of a PCB spill, water line installations, and UST removals. None of these excavations found evidence for a landfill at the Property. Based on information reviewed, the PA recommended that chain-of-title, aerial photographs, and other Property records be reviewed to ascertain whether there was a landfill at the Property. The PA also recommended installing "at least a sufficient number of sample borings on the installation to attempt to confirm or refute the existence of subsurface landfill materials, allegedly placed prior to site acquisition by the U.S. Government."

The PA noted that principal operations at the Property included aircraft and vehicle maintenance, and USAR personnel training. The PA describes aircraft cleaning operations, which were conducted inside the hangar in Building 4, or outside on an asphalt covered cement pad. Cleaning solutions used for cleaning included soap/detergent concentrates, and "small quantities" of methyl ethyl ketone (MEK) and "PD-680" used locally and sparingly. The principal pathway of potential contamination from the site was by floor drains that led to the storm sewer system, entering the surface water system at Cayuga Creek. The PA did not mention the service of Nike missiles.

3.5.2 1999 Underground Storage Tank Removals

Sverdrup Environmental, Inc. removed and closed two USTs located on the Property. One 550-gallon fiberglass tank (removed September 20, 1999), used to store waste oil, was located adjacent to the vehicle wash rack. A 1,000-gallon steel tank (removed September 14,

1999) was used to store waste oil from an OWS. (The report does not specify the location of the OWS.) Both tanks were in good condition when removed, but groundwater entered the 550-gallon UST during removal because it was demolished in the ground and removed in pieces, creating a visible sheen on the water. The spill was reported to NYSDEC. The contents of the 550-gallon UST and excavated soil were classified as hazardous based on Toxicity Characteristic Leaching Procedure (TCLP) analytical data for lead, cadmium, and selenium. Therefore, excavation soil samples also were sampled for hazardous material.

Soil sampling from the 550-gallon tank excavation indicated TCE at 42 ppb from an excavation sidewall composite sample and 6.6 ppb in an excavation floor composite sample. The concentration from the sidewall composite sample exceeded the current NYSDEC allowable soil concentration of 7 ppb (Technical and Administrative Guidance Memorandum [TAGM] 4046-VOCs Soil Cleanup Criteria Table 1). The concentration of TCE, however, was less than the NYSDEC recommended soil cleanup objective of 700 ppb, which is obtained by multiplying the allowable soil concentration by a correction factor of 100. The EDR report (Appendix E) indicates the spill was closed in February 2000. Sverdrup reported that no compounds were detected in the soil closure samples at concentrations exceeding the NYSDEC Spill Technology and Remediation Series (STARS) Memorandum 1 alternative guidance values (AGVs) for solids.

During removal of the 1,000-gallon UST, the tank was turned over in the excavation pit, allowing groundwater to flow into and out of the tank. Soil and water samples from the excavation indicated the presence of polycyclic aromatic hydrocarbons (PAHs) at concentrations exceeding the NYSDEC STARS Memorandum 1 AGVs and extraction guidance values, respectively, including some PAHs, which were reportedly detected at concentrations exceeding the human health guidance values and soil and water TCLP values. All detections of PAHs, however, were significantly less than the recommended soil cleanup objective (TAGM 4046 – SVOCs Soil Cleanup Criteria Table 2). Sverdrup noted that the probable source of the contamination (the tank and product piping) had been removed, and that it was possible that contaminants identified in the groundwater sample were due to mixing of residual tank contents and groundwater in the excavation.

The closure report recommended no further action (NFA) for both tanks because of "the lack of petroleum contamination in the soil surrounding the 550-gallon UST" and "the limited nature of the petroleum contamination in the soil surrounding the 1,000-gallon UST." Information obtained as part of this ECP and information obtained from NYSDEC, Region 9, indicates that both spills areas were closed on February 22, 2000. Appendix D of this report indicates that 400 pounds of hazardous waste containing lead, cadmium, and selenium, and 6,000 pounds of nonhazardous waste were transported offsite in November 1999.

Property personnel indicated that the 550-gallon UST may be the same as the 250- or 400-gallon UST reportedly removed in the mid-1990s. Property personnel also indicated that the 1,000-gallon UST formerly located near an OWS may be the same as the 600-gallon waste oil UST removed from near the OWS by Building 4 in 1984 or 1985.

3.5.3 2004 Asbestos Inspection Report

Environmental Enterprise Group, Inc. conducted an inspection of the Property to identify asbestos-containing material (ACM) at the Property. Suspect ACM was sampled in accordance with Asbestos Hazard Emergency Response Act-style guidelines. The report noted that confirmed ACM was identified in Buildings 4, 19, 21, 22, 23, and 26, in floor tile, floor tile mastic, fire doors, piping thermal system insulation (TSI), vent ducts, and roofing mastic. ACM not removed from the Property was required to be documented in an operations and maintenance plan.

3.5.4 2006 Stormwater Pollution Prevention Plan Update

Bowne AE&T Group performed an update on the Stormwater Pollution Prevention Plan originally prepared by the USGS. The plan describes the drainage features in each building, surface water flow on the Property, and potentially polluting materials and their handling and storage.

4 Adjacent Properties

Adjacent property land uses are significant to the ECP process, as these current or past uses may have an environmental effect on the USAR Center. Adjacent properties were included in the EDR report review for this reason. Typically, adjacent properties within 0.25 mile of the USAR Center property boundaries are reviewed and visually surveyed. For the purposes of this ECP report, the adjacent property reconnaissance was performed from the USAR Center property boundaries and from public access points. Historical aerial photographs and topographic maps were reviewed for conditions or activities that may have had an environmental effect on the Property.

4.1 Land Uses

Land use south of the USAR Center is County right-of-way for a highway. The highway is Porter Road, Route 182, and is undivided. Undeveloped, wooded land is located directly south of the highway.

The land north of the Property is used as an airport by the Niagara Frontier Transportation Authority (NFTA). The land immediately north of the Property is part of the Niagara Falls International Airport.

Land east of the Property appears to be used as a storage area, with numerous small sheds located immediately east of, and parallel to, the Property fence. The land is owned by NFTA.

Land west of the Property is grass-covered and appears to be unused. The concrete top of an apparently unused fuel UST owned by the NFTA is visible from the Property. Personnel indicated there were originally two such tanks adjacent to each other, but one was removed at an unknown date. No information regarding spills or leaks from these tanks was reported in the EDR report, which includes a search of the state database.

West of the NFTA land is Cayuga Creek. West of the creek is a strip mall having a nursery, an eyeglass shop, and numerous small businesses.

4.2 Findings

The EDR database search results were reviewed for any evidence that adjacent properties may have past or present environmental issues that would affect the Property.

The Niagara Falls Airport/Air Force Base with a listed address of 9400 Porter Road (same as the Property) was listed as having had one spill of 50 gallons of jet fuel on December 2, 1999. The spill was caused because an automatic shutoff system did not function while the truck was being refueled. The spilled fuel and contaminated material were disposed of offsite. The spill was closed on March 28, 2000.

Niagara Mohawk Pole, with a listed address of 9401 Porter Road, less than 0.125 mile west of the Property, was reported as having a spill of 3 gallons of transformer oil on May 19, 1999. Three gallons of oil were reported as "recovered," and the spill was closed on the same date. The cause of the spill was reported as a possible lightning strike.

Cecos International, Inc., located less than 0.125 mile east-northeast of the Property, with an address of Box 340 L PO, Niagara Falls, is listed in the UST and AST database. One 2,000-gallon UST and one 6,000-gallon diesel UST were removed and closed at the site before April 1991. Four ASTs, either 250-gallon or 300-gallon capacity, are located on the site. The tanks reportedly are unregulated because they are less than 1,101 gallons in capacity.

Water well databases at the federal and state level were reviewed to identify any water supply source near the Property. Two locations were identified in a USGS database within 0.25 mile of the Property. USGS 2242961 is located less than 0.125 mile north-northwest of the Property, and is topographically higher than the Property. USGS 2242955 is located less than 0.25 mile east of the Property and also is topographically higher than the Property. Both wells are listed as "test holes"; that is, no well was completed at either location. No public water supply system or other state-registered well was identified in the database within a 1-mile radius of the Property.

Land use at adjacent properties does not appear to have changed substantially over the years, based on a review of available aerial photographs (1963, 1979, and 1995).

5 Review of Regulatory Information

An essential component of an ECP is the review of records and databases containing information on the Property and adjacent properties. The review includes reasonably obtainable federal, state, and local government records and is intended to identify a release or likely release of any hazardous substance or any petroleum product that is likely to cause or contribute to a release or threatened release of any hazardous substance or any petroleum product to the Property.

Most of the regulatory information for this ECP was obtained from EDR on July 13, 2006. EDR provides a regulatory database summary that consolidates standard federal, state, local, and tribal environmental record sources based on ASTM D6008-recommended minimum search distances from the Property.

All findings reported in Sections 5.1, 5.2, and 5.3 are from the EDR report unless otherwise noted. A copy of the complete EDR report is included in Appendix E.

5.1 Federal Environmental Records

5.1.1 Federal National Priorities List Sites within 1 Mile

USEPA maintains a record of the nation's worst uncontrolled or abandoned hazardous waste sites, known as the National Priorities List (NPL). Sites on the NPL undergo long-term remedial action under CERCLA. The USAR Center is not an NPL site, nor was any such site located within 1 mile of the Property.

5.1.2 CERCLA Information Systems Sites within 0.5 Mile

The CERCLA Information System (CERCLIS) contains data on potentially hazardous waste sites that have been reported to USEPA by states, municipalities, private companies, and private persons, pursuant to Section 103 of the Act. CERCLIS contains sites that either are proposed to be or are on the NPL, and sites that are in the screening and assessment phase for possible inclusion on the NPL. The USAR Center is not a CERCLIS site, and no CERCLIS sites are located within 0.5 mile of the Property.

5.1.3 Resource Conservation and Recovery Act Corrective Action Sites within 1 Mile

Resource Conservation and Recovery Act (RCRA) corrective action sites (CORRACTS) represent facilities that have generated or managed hazardous wastes and require corrective action. The USAR Center is not a CORRACTS, nor was any such site identified within 1 mile of the Property.

5.1.4 RCRA Treatment, Storage, and/or Disposal Sites within 0.5 Mile

RCRA defines and regulates sites that generate, transport, store, or provide treatment, storage, or disposal (TSD) of hazardous wastes. The RCRA Information System (RCRIS)

includes selective information on these sites. The USAR Center is not an RCRA TSD site, and no such sites are located with 0.5 mile of the USAR Center.

5.1.5 Federal RCRA Small and Large Quantity Generators within 0.25 Mile

Conditionally exempt small quantity generators are defined as facilities generating less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. RCRA small quantity generators are defined as facilities generating between 100 and 1,000 kg of hazardous waste per month. A facility generating more than 1,000 kg of hazardous waste or more than 1 kg of acutely hazardous waste per month is defined as a large quantity generator.

The USAR Center is listed as an RCRA registered small quantity generator. No RCRA violations are associated with the USAR Center. No adjacent property owner is a RCRA registered small quantity generator. No large quantity generators are located within 0.25 mile of the USAR Center.

5.1.6 Federal Emergency Response Notification System List

The Federal Emergency Response Notification System (ERNS) List maintains information on reported releases of oil and hazardous substances. The Property is on this list because of the PCB spill in 1991 (see Section 3.3.2).

5.2 State and Local Environmental Records

Most of the information presented in this subsection was obtained from the EDR report. Additional information was obtained from online database searches of the State of New York's Web site.

5.2.1 State Lists of Hazardous Waste Sites within 1 Mile

The USAR Center is not on the state list of hazardous waste sites. No adjacent properties within 1 mile of the Property were listed as having a hazardous waste site.

5.2.2 State-Registered Landfills or Solid Waste Disposal Sites within 0.5 Mile

The USAR Center does not have a solid waste landfill, incinerator, or transfer station within the Property boundaries. No adjacent properties within 0.5 mile of the Property have a solid waste landfill, incinerator, or transfer station.

5.2.3 State-Registered Leaking UST Sites within 0.5 Mile

In addition to information obtained from the EDR report, the New York Division of Underground Storage Tanks maintains a comprehensive database of leaking underground storage tank (LUST) sites. The USAR Center is not listed in the state LUST database.

Seven LUST sites were identified within 0.5 mile of the Property. Table 2 summarizes information relative to the USAR Center and provides the status of corrective actions. All seven sites have been closed and have NFA status, indicating they do not pose a threat to human health and the environment and, thus, no environmental effect on the Property.

TABLE 2
Leaking Underground Storage Tank Sites
Near Niagara Falls USAR Center, Niagara, New York

Company/Site	Address	Distance and Direction from Property	Regulatory Status	Elevation Relative to Property
Cayuga Village	512 B Street, Niagara Falls, NY	Approx. 1,473 feet south-southwest	Closed	Lower
Rausmann Residence	431 A Street, Niagara Falls, NY	Approx. 1,573 feet south	Closed	Lower
Dunn Tire	9540 Niagara Falls Boulevard, Niagara Falls, NY	Approx. 1,761 feet south-southeast	Closed	Lower
Cayuga Village	640 C Street, Niagara Falls, NY	Approx. 1,785 feet southwest	Closed	Lower
Cayuga Village Mobile Park	Niagara Falls Boulevard, Niagara Falls, NY	Approx. 1,957 feet south	Closed	Lower
Rainbow Tire	9340 Niagara Falls Boulevard, Niagara Falls, NY	Approx. 2,053 feet south	Closed	Lower
Maria Healey (home)	9200 Niagara Falls Boulevard, Niagara Falls, NY	Approx. 2,309 feet south-southwest	Closed	Lower

5.2.4 State-Registered UST Sites and AST Sites within 0.5 Mile

Based on a review of the EDR report and the State of New York's UST and AST database, one UST site and one AST site were identified within 0.25 mile of the Property. The Property also is listed in the state UST and AST database.

A 3,000-gallon UST used for unleaded gasoline storage was properly removed from the Property on July 1, 1990. The UST was installed on June 1, 1966. A 10,000-gallon UST and a 20,000-gallon UST, used to store No. 1, 2, or 4 fuel oil, were properly removed from the Property on October 1, 1991. Both USTs were installed on June 1, 1965. In addition, the database lists one 528-gallon AST for the Property. The AST is used to store used oil. It is listed as being located on stilts/saddles/legs/rack or cradle and was last inspected on July 9, 1990, and having an expiration date of January 19, 2001. This tank was observed during the site reconnaissance adjacent to the POL shed (Building 17).

USTs and ASTs were located on the Cecos International, Inc. property. One 2,000-gallon UST and one 6,000-gallon diesel UST were removed from the Cecos property before April 1991. Four ASTs, either 250-gallon or 300-gallon capacity, are located on the Cecos property. The ASTs are reportedly unregulated because they are less than 1,101 gallons in capacity. The Cecos property is located topographically higher than and less than 0.125 mile from the USAR Center.

The two USTs on the adjacent west NFTA property (one of which was removed from the ground, according to Property personnel) were not listed in the state's UST or AST database. It is not known whether these USTs have leaked.

5.2.5 State Spills Incidents

The USAR Center is listed on the New York State petroleum spill list. There were two spill incidents at the Property; both spill incidents are classified "closed." The incidents are described below.

- A release of an unknown quantity of waste/fuel oil was recorded on September 21, 1999. Two 550-gallon waste oil tanks associated with an OWS were scheduled to be removed. While removing the tanks and associated piping, one of the tanks cracked. A "small amount" of groundwater entered the tank and then spilled out from the tank, producing a sheen on the water. The water was pumped into 55-gallon drums and disposed of. No affected soil was observed. The spill was closed on February 22, 2000.

  Based on information provided by personnel and information in historical documents, the "two 550-gallon waste oil tanks" consisted in reality of one 550-gallon UST by the wash rack and associated OWS, and one 1,000-gallon UST by the OWS near Building 4. As indicated in Table 1, these tanks and the associated spills have been closed by NYSDEC (Sections 3.4 and 3.5.2).

- On October 18, 1991, 200 gallons of No. 2 fuel oil were released while a UST was being removed. The tank contents were stored in a concrete vault, and sorbents were used to hold the spill. The sorbents were later disposed of, and no further action was required. The spill was closed on March 6, 1992.

  No corresponding information about this spill or tank could be determined from interviews with Property personnel.

One additional property located less than 0.125 mile from the USAR Center is listed in the spills database. The Niagara Falls Airport/Air Force Base, with a listed address of 9400 Porter Road (same as the Property), was listed as having had one spill of 50 gallons of jet fuel on December 2, 1999. The spill was caused because an automatic shutoff system did not function while the truck was being refueled. The spilled fuel and contaminated material were disposed of offsite. The spill was closed on March 28, 2000.

5.2.6 Records of Contaminated Public Wells

The City of Niagara Falls does not own or operate any municipal water supply wells within 0.5 mile of the USAR Center.

5.2.7 Voluntary Remediation Program Sites within 0.5 Mile

The USAR Center is not listed in New York's Brownfield Program (the successor to the Voluntary Cleanup Program). No sites located within 0.5 mile of the USAR Center are listed as being in the Brownfield Program.

5.2.8 State-Registered Bulk Fertilizer and Pesticide Storage Facilities within 0.25 Mile

The USAR Center is not registered with the state as a bulk fertilizer and pesticide storage facility. No adjacent properties within 0.25 mile were registered as one of these facilities.

5.3 Unmapped Sites

Some sites within the databases EDR searches have the same zip code as the USAR Center but no street address. These sites, known as unmapped or orphan sites, cannot be mapped from the EDR results alone. Additional efforts were made to locate these sites and to assess their environmental importance to the USAR Center.

Using the mapping utility provided at maps.google.com, an attempt was made to identify and map the locations of the orphan sites. None of the identifiable sites was located within corresponding ASTM search radius distances.

5.4 Summary of Properties Evaluated to Determine Risk to the Property

To summarize, 29 properties near or adjacent to the USAR Center were evaluated for potential risk to the Property. Based on information obtained during area reconnaissance, interviews, and regulatory database searches, the adjacent west NFTA property exhibits potential environmental conditions that have the potential to adversely affect the environmental conditions at the Property.

One UST was removed from the NFTA property, which is located close to the west boundary of the USAR Center. It is not known when the UST was removed. The top of another UST that is reportedly empty was visible on the NFTA property during the site reconnaissance. The former uses and contents of both tanks are unknown. There is no record of these tanks with NYSDEC; furthermore, NYSDEC has no records that indicate a spill occurred from either tank.

6 Site Investigation and Review of Hazards

Findings documented in the following subsections are based on the August 16 and 17, 2006, site reconnaissance, a review of available site records, and information obtained from USAR personnel.

6.1 USTs/ASTs

A 528-gallon waste oil AST installed around 1990 is located near the northeastern corner of the Property. The AST is located within a concrete containment structure and receives used oil from the AMSA shop and OMS.

6.2 Inventory of Chemicals/Hazardous Substances

Records pertaining to hazardous substances including hazardous materials, chemical bulk storage, and hazardous waste, and records pertaining to petroleum products and petroleum waste were reviewed, along with interviews and site reconnaissance conducted to develop the inventory for the Property. Available records indicate that hazardous materials and POLs are stored, and had been stored, at the Property. These materials include batteries, acids, paints, methanol, fuel oil, lubricating oil, gear oil, waste oil, rifle bore cleaner, transmission fluid, antifreeze, motor oil, gasoline, diesel, and acetylene and oxygen gas cylinders. AMSA employees said that AMSA generates, on average, 50 gallons of used engine oil, 10 gallons of antifreeze, 5 gallons of hydraulic fluid, and 5 gallons of waste diesel every month. Activities in Building 21 reportedly generate a minimal quantity of used oil each month.

Building 17

During the site reconnaissance, the shed (Building 17) contained lubricating oil, antifreeze, grease (including aircraft grease), diesel, and hydraulic fluid. An inventory of the items stored inside the shed at the time of the site reconnaissance was reviewed, and indicates that POL products, such as engine oil (240 pounds), grease (600 pounds), diesel (35 gallons), gasoline (5 gallons), windshield washer fluid (20 cases), and antifreeze (75 gallons), are stored in containers ranging from 55-gallon drums to 5-gallon containers. Empty containers for kerosene also are in Building 17.

Building 18

The OMS is used to perform vehicle maintenance and to store related equipment, tools, POL, and hazardous waste prior to offsite disposal by a licensed contractor. At the time of the site reconnaissance, the OMS shop contained three flammable storage cabinets, one 55-gallon drum of used oil, and one 55-gallon drum of engine oil on the main bay floor, and degreasing solvent cans containing TCE and PCE as components.

An inventory of the chemicals stored in flammable storage cabinets in the AMSA indicates that degreasers, brake cleaning fluid, penetrating grease, lubricant sprays, adhesives,

fiberglass resin, paint, insect killer and repellent, primer, isopropyl alcohol, denatured alcohol, coolant cleaner, floor cleaners, and methanol, are stored in numerous small containers for a total approximate quantity of several tens of pounds.

During the site reconnaissance, additional chemical and equipment storage was observed in the AMSA. Additional storage included 55-gallon drums and 5-gallon containers containing used oil, new engine oil, lubricants, paints, rust prevention sprays, spill kits, gasoline, diesel, vehicle batteries, crushed oil filters, a parts washer, a water recycling system (not used because of malfunction), nonpetroleum-based soap, and a drum containing used rags. The substances appeared to be properly stored, and no indication of a release to the environment.

Building 20

An inventory of the items stored in the battery room at the time of the site reconnaissance indicated that fifty 1-gallon acid batteries, five boxes of washer fluid each containing seven bottles, and twelve 1-gallon hydraulic oil containers were stored inside the battery room.

Building 21

Two maintenance bays are located on the east side of the building, where equipment is stored and light vehicle maintenance is performed. During the site reconnaissance, two cabinets of flammable material were observed in the north maintenance area. These cabinets contained engine oil, diesel, lubricant oil, and gasoline in cans and small containers. Two 55-gallon drums containing waste oil also were observed in this area along with a spill kit, and oxygen and acetylene cylinders. The second, larger, maintenance bay had several (more than 15) spent or “expired” fire extinguishers awaiting recharge or disposal.

Building 22

The first floor of the building had two flammable storage cabinets. Visual observation and an inventory of the items stored inside these cabinets at the time of the site reconnaissance was reviewed, and indicates that they contained several small containers of assorted cans of spray paint, rifle bore cleaner, glass cleaner, bleach, pine oil disinfectant, floor wax, and an assortment of other household cleaners.

Storage Sheds

Several storage sheds were observed on the Property during the site reconnaissance. Two metal storage sheds (6 feet by 8 feet by 8 feet tall) are located in the MEP area northeast of Building 21. CH2M HILL did not have access to the interior of the sheds in the MEP on the day of the site reconnaissance. Property personnel performed a visual inspection of these two sheds on April 12, 2007. Both sheds contained a total of four partially full 55-gallon drums containing used motor oil and antifreeze. The total quantity of used motor oil was approximately 75 gallons. The total quantity of antifreeze was between 5 and 10 gallons. Two similar storage sheds are located in the MVPA east of Building 18. In the MVPA, one shed contained oxygen gas cylinders; another, acetylene gas cylinders. A third, larger shed (6 feet by 10 feet by 17 feet) contained POL, including waste oil, antifreeze, diesel, diesel waste, and parts cleaners.

Several other buildings on the Property are and were used to store hazardous equipment and chemicals, most in de minimis quantities commensurate with use onsite. These buildings include Building 20 (an inventory of the items stored in the battery room at the time of the site reconnaissance was available and listed fifty 1-gallon acid batteries, five boxes of washer fluid each containing seven bottles, and twelve 1-gallon hydraulic oil containers were stored inside this room); Building 22 (dry transformer, POL); Building 25 (acrylic and latex-based paints, empty spill containment drums); and Building 26 (oil and enamel paints).

Other than the assumed routine household and yard use of pesticides and herbicides, no evidence of pesticide/herbicide use (empty containers, dead or stressed vegetation) was observed during the site reconnaissance.

In all areas of POL and hazardous material storage, there was no indication of improper storage that is likely to indicate a release to the environment.

6.3 Waste Disposal Sites

Available records indicate that the Property may have been a landfill before it was used by the U.S. Government (see Section 3.5.1 for more specific discussion). There is no evidence of onsite waste disposal, other than through storm drains (as discussed in Section 2.4.1), related to the U.S. Navy or the USAR activities on the Property. No waste disposal sites were observed during the site reconnaissance, nor were any signs observed of past onsite waste disposal (such as stressed vegetation or suspicious depressions in the landscape).

6.4 Pits, Sumps, Drywells, and Catch Basins

Three OWSs are located on the Property. One OWS is located south of the vehicle wash rack near the northwest corner of Building 18. The interior of the OWS could not be inspected visually because of vehicular traffic. The wash rack had a 550-gallon UST associated with it to collect waste oil that drained from the OWS. The UST was removed in September 1999 (see Section 3.4 for details). Maintenance bays within the AMSA in Building 18 drain through a series of trench drains and this OWS into a branch of the sanitary sewer. Maintenance bays within the Building 18 OMS also drain into trench drains connected through a sump to a sanitary sewer line. The wash rack near Building 18 drains through a single inlet drain into this OWS.

Another OWS is located near the southwest corner of Building 4S. The unit consists of a 6-foot by 15-foot concrete vault that contains an OWS, a holding tank, and associated piping. The OWS is connected to floor drains in the hangar (Building 4) and drains into the sanitary sewer system. A 1,000-gallon waste oil UST associated with the OWS was removed in September 1999. No recognized environmental conditions were apparent during the visual inspection of the OWS. According to personnel, trench drains in Building 4 (hangar part) drain into this OWS, which drains into the local sanitary sewer system.

A third OWS is located adjacent to the east wall of Building 21. During the site reconnaissance, facility personnel were unaware of the OWS (it was identified during a subsequent phone interview), and it was not visually inspected. The OWS receives water

from vehicle washing and maintenance activities inside Building 21 and drains into the sanitary sewer system. A small tank, about the size of a 55-gallon drum, is associated with the OWS. According to personnel, trench drains in Building 21 drain into the OWS before it drains into the local sanitary sewer system.

Several interior building areas drain directly or indirectly into the stormwater sewer system.

6.5 Asbestos-containing Material

An ACM survey (Environmental Enterprise Group, Inc.) in 2004 identified several buildings that contained ACM. Confirmed ACM was identified in Buildings 4, 19, 21, 22, 23, and 26, in floor tile, floor tile mastic, fire doors, piping TSI, vent ducts, and roofing mastic. The survey did not indicate the subsequent removal of pipe insulation or tiles; therefore, the ACM survey is assumed to represent current conditions. According to personnel, no abatement activities have been performed since the time of the survey.

6.6 PCB-containing Equipment

One pad-mounted dry transformer was located in Building 22 along the first floor north wall. Another overhead dry transformer was located close to the northeast corner of the first floor of Building 22. Another pad-mounted dry transformer was located in an enclosed area within Room 104, Building 21. An electrical room, located in the northeast corner of the first floor of Building 4S, contains dry transformers and associated equipment. All transformers observed appeared to be in good condition and had no leaks. Personnel said that none of the transformers contained PCBs.

In 1991, a transformer fell and broke, releasing 120 gallons of transformer oil containing 250 parts per million (ppm) of PCB into a storm sewer drain located east of Building 22. Surface paving materials, soils, and storm drain materials were remediated after the spill. NYSDEC indicated that the spill had been adequately remediated that same year.

6.7 Lead-based Paint

Because Buildings 4, 18 through 23, 25, and 26 on the Property were constructed before 1981, there is potential for LBP. At the time of the site reconnaissance, the painted surfaces at this facility were in good condition, with the exception of the southeast interior of Building 19, where chipped paint was observed on the walls and floor, along with water damage on the ceiling.

6.8 Radon

Based on information provided by the USACE, a radon survey was conducted at the Property from August 5-11, 1998. The testing found radon levels between 0.1 and 0.2 picoCuries per liter (pCi/L). USEPA recommends 4 pCi/L as an action level for radon abatement. The radon concern is therefore considered low for the Property.

6.9 Munitions and Explosives of Concern

Based on a review of available records, the site reconnaissance, and interviews with USAR Center personnel, no munitions and explosives of concern (MEC) are present on the Property, although Nike missiles reportedly were serviced and maintained in the hangar part of Building 4. The principal munitions associated with Nike sites included the missiles themselves and propellants and fuels associated with the missile components. The exact components of the warheads serviced, missile propellants, and fuels used (if any) at the Property were not detailed in the reports reviewed in preparing this ECP report.

There are no firing ranges on the Property, and there is no evidence that a firing range was ever located on the Property.

6.10 Radioactive Materials

Based on available records review, interviews, and the site reconnaissance, there may be monitoring equipment on the Property which contains small amounts of sealed radioactive materials. The northern, enclosed section of Building 20, where electronic equipment is stored, had a "Radioactive" sticker on the door as abundant caution. Property personnel were unsure of the exact nature of the instruments in this room; the room reportedly contained Radiac meters, which are used to monitor radiation, and reportedly contain small amounts of radium in sealed units. However, an online search (http://www.orau.org/ptp/collection/radiac/T1B.htm) indicates these meters are similar to Geiger counters, and therefore may not have a radioactive source of their own. The Radiac meters at the Property are sent annually to the Tobyhanna Army Depot for calibration. Based on the above information, there is minimal likelihood of a release to the environment.

7 Review of Special Resources

7.1 Land Use

The building inspector for the town of Niagara has designated the area near the Property and surrounding properties as LI—Light Industrial. The Property is located in a commercial area.

7.2 Coastal Zone Management

NYSDEC is the lead agency for the New York Coastal Management Program. The Property is not included in the coastal zone management plan, nor is it in a coastal zone.

7.3 Wetlands

According to the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory map, no jurisdictional wetland areas are identified on the Property. The nearest wetlands are located less than 0.125 mile north and south of the Property. Figure 9 in Appendix A is a map of wetlands in the immediate vicinity of the Property.

7.4 100-year Floodplain

A review of the Federal Emergency Management Agency (FEMA) digital Flood Hazard Area map indicates that the Property lies within the 100-year floodplain of Cayuga Creek (Figure 10, Appendix A). Property personnel were not aware of any flood events on the Property.

7.5 Natural Resources

No natural resources surveys or mapping reports that included this Property and the adjacent properties were available for review. According to the PA for the Property (Engineering Technologies Associates, 1994), sensitive environments around the Property include wetlands, waterfowl nesting and wintering areas, and habitat for four New York State–listed threatened or endangered plant species.

7.6 Cultural Resources

A Section 110 cultural resources survey report for the Property has not been prepared. Because most buildings on the Property are at least 50 years old, the buildings may be eligible for nomination to the National Register of Historic Places (NRHP).

8 Conclusions

The following information was obtained after conducting an environmental record search, including records for adjacent properties, reviewing available historical information, conducting interviews with knowledgeable parties connected with the Property or with state and local agencies, and conducting a reconnaissance of the Property and adjacent properties.

8.1 Review of Findings

Hazardous Substances. CERCLA hazardous substances pursuant to CERCLA §101(14) (42 United States Code 960 (14)) were used and stored at the Property.

Historical reports indicate that the Property may have been used as a landfill prior to ownership by the U.S. Government. The historical PA report (Engineering Technologies Associates, 1994) states that "no additional documents could be located to confirm or deny the potential presence of a landfill," and recommended additional records reviews and sampling to determine the potential for a landfill at the Property. During preparation of this ECP report, a review of representative historical USGS topographic maps (dating back to 1899) and aerial photographs (dating back to 1963) for the Property did not provide evidence of surficial disturbance indicative of landfilling activities.

Hazardous substance releases may have occurred as a result of historical aircraft maintenance activities and Nike missile service and maintenance in current and former hangars. No information was available to suggest potential releases from these activities have been investigated. Prior to installation of the OWSs, aircraft/vehicle service and wash water drained into storm drains. Drainage from the Building 4 hangar reportedly flowed into storm drains for several decades before installation of the OWS (1994) near Building 4. A historical PA report (Engineering Technologies Associates, 1994) recommended sediment sampling in Cayuga Creek to evaluate discharges from building floor drains into the storm sewer. No information was available to indicate that such sampling had been performed. There are three OWSs on the Property. No maintenance records were available for any of the OWSs on the Property.

In 1991, a transformer fell and broke, releasing 120 gallons of transformer oil containing 250 ppm of PCB into a storm sewer drain located east of Building 22. Surface paving materials, soils, and storm drain materials were remediated after the spill. NYSDEC indicated that the spill had been adequately remediated that same year.

USTs and ASTs. Available records do not indicate any USTs on the Property. One 528-gallon used oil AST is located on the Property in Building 17. During the site reconnaissance, the AST was observed adjacent to the POL shed (Building 17). Available records and information from Property personnel indicate that seven USTs and three ASTs were formerly located at the Property. All 10 tanks reportedly have been removed. Two USTs for waste oil (one 550-gallon, one 1,000-gallon) had documented spills, but both have received regulatory closure. In October 1991, 200 gallons of No. 2 fuel oil were released

while a UST was being removed. The tank contents were stored in a concrete vault, and sorbents were used to hold the spill. The sorbents were later disposed of, and no further action was required. The spill was closed in March 1992. Documented removals and closure are not available for six of the tanks.

Non-UST/AST Petroleum Storage. Petroleum storage other than in USTs or ASTs was observed on the Property in several buildings and storage sheds. Petroleum storage was observed in 55-gallon drums, in 5-gallon cans/containers, and in smaller containers, and no indications of any release to the environment. It is reasonable to assume that similar type non-UST/AST petroleum storage occurred historically, given the Property's history of aircraft and Nike missile servicing and maintenance.

PCBs. No surveys of PCB-containing equipment have been performed for the Property. One pad-mounted dry transformer is located in Building 22 along the first floor north wall. An overhead dry transformer is located close to the northeast corner of the first floor of Building 22. Another pad-mounted dry transformer is located in an enclosed area within Room 104, Building 21. An electrical room, located in the northeast corner of the first floor, Building 4S, contains dry transformers and associated equipment. All transformers observed appeared in good condition. Property personnel indicated that none of the transformers contained PCBs. A 1991 spill of PCB-containing dielectric fluid is discussed in the hazardous substances section above.

ACM. A 2004 ACM survey identified ACM in Buildings 4, 19, 21, 22, 23, and 26, in floor tile, floor tile mastic, fire doors, piping thermal system insulation, vent ducts, and roofing mastic. According to personnel, no abatement activities have been performed since the time of the survey. The onsite reconnaissance confirmed the presence of material that may be ACM in locations where reasonably visible.

LBP. No LBP surveys have been conducted at the Property. Facilities constructed before 1981 are likely to have LBP. Buildings 4, 18 through 23, 25, and 26 were constructed before 1981, and LBP may be present there. At the time of the site reconnaissance, painted surfaces were in good condition and had no chipped or peeling paint, except in the southeast interior of Building 19 where chipped paint was observed on the walls and floor, along with water damage. Buildings 17 and 24 were constructed after 1981.

Radiological Materials. Based on a review of available records, the site reconnaissance, and interviews with USAR Center personnel, there may be monitoring equipment on the Property, which contains small quantities of sealed radioactive material. The equipment is serviced offsite and this is minimal likelihood of a release to the environment. Based on available information, a radiological survey has not been performed for the Property.

Radon. Based on information provided by the USACE, a radon survey was conducted at the Property from August 5-11, 1998. The testing found radon levels between 0.1 and 0.2 pCi/L. USEPA recommends 4 pCi/L as an action level for radon abatement. The radon concern is therefore considered low for the Property.

MEC. Based on a review of available records, the site reconnaissance, and interviews with USAR Center personnel, no MEC is present on the Property.

Surrounding Properties. Potential environmental sites of concern located within the 1-mile ASTM search radius from the Property were evaluated through database review and site

reconnaissance. None of the adjacent properties evaluated exhibited documented environmental conditions that had or have the potential to adversely affect environmental conditions at the Property. According to Property personnel, one UST is located on the adjacent west property. This property had a second UST that was removed at an unknown date. It is not known whether either of these USTs have leaked.

Wetlands and Floodplain. According to online USFWS National Wetlands Inventory maps and visual observations, no wetlands were observed or appear to be present on the Property. The adjacent property to the south (south of Porter Road) is classified as freshwater forested/shrub wetland, and the adjacent property to the north (NFTA) is classified as freshwater emergent wetland.

According to the FEMA Flood Insurance Rate Map effective date June 15, 1994, the Property is located within the 100-year floodplain for Cayuga Creek. Property personnel were unaware of any flood events on the Property.

Threatened and Endangered Species. No natural resources surveys or mapping reports that included this Property and the adjacent properties were available for review. According to the PA report for the Property (Engineering Technologies Associates, 1994), however, sensitive environments around the Property include wetlands, waterfowl nesting and wintering areas, and habitat for four New York State–listed threatened or endangered plant species.

Archaeological and Historical Resources. Because all buildings on the Property were constructed in 1956, they may be eligible for listing on the NRHP.

8.2 Environmental Condition of Property

The findings presented in this ECP report were based on reasonably available environmental information; interviews with site and state and local personnel; and review of previous environmental studies, federal and state databases, and file information related to the storage, release, treatment, or disposal of hazardous substances or petroleum products. Results also were based on visual observations of the Property and adjacent properties.

In accordance with DoD policy defining the classifications (see Sherri Goodman memorandum dated 21 October 1996), the Property has been classified as Type 7. This classification does not include categorizing the property based on de minimis conditions that generally do not present material risk of harm to the public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. The property type is based on the following major findings:

- Reports of a former landfill on the Property. A PA quoting previous studies at the Property states that the Property is known to have been a landfill. The PA cites other intrusive investigations on the Property, performed for other purposes, which did not demonstrate evidence of a landfill. The PA, however, states that "no additional documents could be located to confirm or deny the potential presence of a landfill" and recommended additional records reviews and sampling on the Property with the

objective of determining whether a landfill was previously located at the Property. Based on information available at the time of preparation of this report, no such sampling has been performed.

- According to Property personnel, Building 4 was formerly used to service Nike missiles having conventional warheads in support of other Nike missile batteries in New York. Several published reports on the Nike missile program indicate there is the potential for environmental effects related to Nike missile operations and maintenance. The floor drains in Building 4 and other buildings flowed to the storm sewer for several decades prior to 1994. A historical PA report (Engineering Technologies Associates, 1994) recommended sediment sampling in Cayuga Creek to evaluate discharges from building floor drains into the storm sewer. No information was available to indicate that such sampling had been performed
- Three aircraft maintenance hangars: two former wooden hangars located on the east side of the Property and one hangar within Building 4. According to the PA report, operations at the Building 4 hangar included daily inspections, engine repair, and aircraft modifications. As noted, Building 4 also was used to service Nike missiles from batteries in the New York area. The hangars were in use as early as the 1930s, and no detailed information is available on storage and disposal of hazardous substances that were likely used. Furthermore, drainage from the hangar reportedly flowed into storm drains for several decades before installation of the OWS near Building 4 in 1994. A historical PA report (Engineering Technologies Associates, 1994) recommended sediment sampling in Cayuga Creek to evaluate discharges from building floor drains into the storm sewer. No information was available to indicate that such sampling had been performed.

9 References

Persons Contacted

- Jon Pashong, Fort Drum Department of Public Works, Maintenance Mechanic, 315-523-0016, August 16 and 17, 2006.
- Patrick Patterson, Fort Drum Department of Public Works, Maintenance Mechanic, 716-297-7725, x 229, August 29, 2006; September 1, 6, 19; October 2, 2006; January 8 and 22, 2007; April 12, 2007.
- Charlie Page, AMSA 76, Supervisor, 716-297-7200, August 16 and 17, 2006.
- Joe D'Amico, AMSA 76 and 277th Quartermaster Company, Supply Technician, 716-297-7200, August 16 and 17, 2006.
- Glenn Seidel, AMSA 76 and 277th Quartermaster Company, Safety Officer, 716-297-7200, August 16 and 17, 2006.
- Sal Calandra, New York State Department of Environmental Conservation, Region 9, Buffalo, 716-851-7220, January 22 and 23, 2007.

Resources Consulted

- Aerial photographs provided by BBL, Inc., dated 1962, 1978, and 1995
- National Wild and Scenic Rivers, http://www.nps.gov/rivers/wildriverslist.html#ny
- USEPA Map of Radon Zones, http://www.epa.gov/radon/zonemap.html
- New York Coastal Zone Management, http://www.nyswaterfronts.com/index.asp
- FEMA Flood Hazard Insurance Map, http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView
- Federal regulatory databases:

  NPL: National Priority List
  Last EDR Contact: 05/05/2006
  Proposed NPL: Proposed National Priority List Sites
  Last EDR Contact: 05/05/2006
  DELISTED NPL: National Priority List Deletions
  Last EDR Contact: 05/05/2006
  NPL RECOVERY: Federal Superfund Liens
  Last EDR Contact: 05/23/2006
  CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
  Last EDR Contact: 06/22/2006
  CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Last EDR Contact: 06/23/2006
CORRACTS: Corrective Action Report
Last EDR Contact: 05/21/2006
RCRA: Resource Conservation and Recovery Act Information
Last EDR Contact: 06/28/2006
ERNS: Emergency Response Notification System
Last EDR Contact: 04/26/2006
HMIRS: Hazardous Materials Information Reporting System
Last EDR Contact: 04/14/2006
US ENG CONTROLS: Engineering Controls Sites List
Last EDR Contact: 07/03/2006
US INST CONTROL: Sites with Institutional Controls
Last EDR Contact: 07/03/2006
DOD: Department of Defense Sites
Last EDR Contact: 05/12/2006
FUDS: Formerly Used Defense Sites
Last EDR Contact: 07/03/2006
US BROWNFIELDS: A Listing of Brownfields Sites
Last EDR Contact: 06/12/2006
CONSENT: Superfund (CERCLA) Consent Decrees
Last EDR Contact: 03/13/2006
UMTRA: Uranium Mill Tailings Sites
Last EDR Contact: 06/21/2006
ODI: Open Dump Inventory
Last EDR Contact: 06/09/2004
Last EDR Contact: 06/22/2006
TSCA: Toxic Substances Control Act
Last EDR Contact: 04/12/2006
FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
Last EDR Contact: 06/19/2006
FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
Last EDR Contact: 06/19/2006
SSTS: Section 7 Tracking Systems
Last EDR Contact: 03/06/2006
ICIS: Integrated Compliance Information System
Last EDR Contact: 04/11/2006
PADS: PCB Activity Database System
Last EDR Contact: 06/28/2006
MLTS: Material Licensing Tracking System
Last EDR Contact: 07/03/2006
MINES: Mines Master Index File
Last EDR Contact: 06/28/2006
FINDS: Facility Index System/Facility Registry System
Last EDR Contact: 04/03/2006
RAATS: RCRA Administrative Action Tracking System

Last EDR Contact: 06/05/2006
BRS: Biennial Reporting System
Last EDR Contact: 06/30/2006

- State and local records:

HSWDS: Hazardous Substance Waste Disposal Site Inventory
Last EDR Contact: 05/30/2006
SHWS: Inactive Hazardous Waste Disposal Sites in New York State
Last EDR Contact: 06/15/2006
DEL SHWS: Delisted Registry Sites
Last EDR Contact: 06/15/2006
SWF/LF: Facility Register
Last EDR Contact: 05/01/2006
SWRCY: Registered Recycling Facility List
Last EDR Contact: 05/01/2006
SWTIRE: Registered Waste Tire Storage & Facility List
Last EDR Contact: 05/19/2006
LTANKS: Spills Information Database
Last EDR Contact: 06/22/2006
HIST LTANKS: Listing of Leaking Storage Tanks
Last EDR Contact: 07/07/2005
UST: Petroleum Bulk Storage (PBS) Database
Last EDR Contact: 06/02/2006
CBS UST: Chemical Bulk Storage Database
MOSF UST: Major Oil Storage Facilities Database
Last EDR Contact: 07/25/2005
AST: Petroleum Bulk Storage
Last EDR Contact: 06/02/2006
CBS AST: Chemical Bulk Storage Database
Last EDR Contact: 07/25/2005
MOSF AST: Major Oil Storage Facilities Database
Last EDR Contact: 07/25/2005
NY MANIFEST: Facility and Manifest Data
Last EDR Contact: 05/31/2006
SPILLS: Spills Information Database
Last EDR Contact: 06/22/2006
HIST SPILLS: SPILLS Database
Last EDR Contact: 07/07/2005
ENG CONTROLS: Registry of Engineering Controls
Last EDR Contact: 06/15/2006
INST CONTROL: Registry of Institutional Controls
Last EDR Contact: 06/15/2006
VCP: Voluntary Cleanup Agreements
Last EDR Contact: 06/15/2006
DRYCLEANERS: Registered Drycleaners
Last EDR Contact: 05/21/2004
BROWNFIELDS: Brownfield Site List

Last EDR Contact: 06/15/2006
SPDES: State Pollutant Discharge Elimination System
Last EDR Contact: 05/09/2006
AIRS: Air Emissions Data
Telephone: 518-402-8452
TRIBAL RECORDS
INDIAN RESERV: Indian Reservations
Last EDR Contact: 05/12/2006
EDR PROPRIETARY RECORDS
Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants
EDR Historical Auto Stations: EDR Proprietary Historic Gas Stations

Agencies Contacted

- Town of Niagara, New York

Works Cited

Bowne AE&T Group. 2006. *Stormwater Pollution Prevention Plan Update, Niagara Falls USARC – NY046 (Niagara Falls, NY).* February.

Engineering Technologies Associates, Inc. 1994. *Final Preliminary Assessment of Niagara Falls Armed Forces Reserve Center.* February.

Environmental Enterprise Group, Inc. 2004. *U.S. Armed Forces Reserve Center – Niagara Falls (NY046), Asbestos Inspection Report.* December.

Law Engineering Testing Company. 1986. *Final Report, Investigation of Former Nike Missile Sites for Potential Toxic and Hazardous Waste Contamination*. March.

Sverdrup Environmental, Inc. 1999. *Closure Report, Underground Storage Tank Removals, Niagara Falls United States Army Reserve Center, 9400 Porter Road, Niagara Falls, NY 14304*. December.

U.S. Army Corps of Engineers (USACE) HTRW-CX. 2003. *Final Report, Nike Missile Battery Environmental Conditions Assessment Guide, Defense Environmental Restoration Program Formerly Used Defense Sites (DERP-FUDS).* July.

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APPENDIX B

DATABASE SEARCH REPORT

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Niagara Falls USARC
9400 Porter Rd
Niagara Falls, NY 14304

Inquiry Number: 3248210.1s
January 30, 2012

The EDR Radius Map™ Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

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Orphan Summary	134
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

GeoCheck - Not Requested

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

9400 PORTER RD
NIAGARA FALLS, NY 14304

COORDINATES

Latitude (North):	43.1002000 - 43˚ 6' 0.72''
Longitude (West):	78.9550000 - 78˚ 57' 18.00''
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	666420.6
UTM Y (Meters):	4773756.5
Elevation:	577 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	43078-A8 TONAWANDA WEST, NY
Most Recent Revision:	1980

AERIAL PHOTOGRAPHY IN THIS REPORT

Photo Year:	2009
Source:	USDA

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 7 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
NIAGARA FALLS AFRC 9400 PORTER ROAD NIAGARA FALLS, NY 14304	UST	N/A
NIAGARA FALLS ARMED FORCE 9400 PORTER ROAD NIAGARA FALLS, NY	SHWS HIST UST AST HIST AST MANIFEST NY Spills Date Closed: 2/22/2000 NY Hist Spills	N/A
9400 PORTER ROAD 9400 PORTER ROAD NIAGRA FALLS, NY	ERNS	N/A

EXECUTIVE SUMMARY

US ARMY VEHICLE WASH 9400 PORTER RD NIAGARA FALLS, NY 14304	FINDS	N/A
NIAGARA FALLS AFRC 9400 PORTER RD NIAGARA FALLS, NY 14304	CERC-NFRAP RCRA-LQG MANIFEST	NY8210424273
NIAGARA FALLS RESERVE CENTER 9400 PORTER RD NIAGARA FALLS, NY 14304	RCRA-NonGen	NYD981875206
NYARNG NYARNG AASF 2 9400 PORTER RD - AFRC NIAGARA FALLS, NY 14304	RCRA-NonGen FINDS MANIFEST	NY5210524273
ARMED FORCES RESERVE CENTER 9400 PORTER ROAD NIAGARA FALLS, NY 14304	MANIFEST	N/A
ARMY RESERVES 9400 PORTER ROAD NIAGARA FALLS, NY	NY Spills Date Closed: 3/6/1992 NY Hist Spills	N/A
FORT DRUM ARM SERVICES 9400 PORTER RD NIAGARA FALLS, NY 14304	MANIFEST	N/A
UNITED STATES MILITARY RESERVE CENTER 9400 PORTER RD NIAGARA FALLS, NY 14304	MANIFEST	N/A
NIAGARA FALLS AIRPORT 9400 PORTER ROAD NIAGARA FALLS, NY	NY Spills Date Closed: 11/15/1993 Date Closed: 3/28/2000 NY Hist Spills	N/A

EXECUTIVE SUMMARY

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ..... National Priority List
Proposed NPL ..... Proposed National Priority List Sites
NPL LIENS ..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ..... National Priority List Deletions

Federal CERCLIS list

CERCLIS ..... Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY ..... Federal Facility Site Information listing

Federal RCRA generators list

RCRA-SQG ..... RCRA - Small Quantity Generators
RCRA-CESQG ..... RCRA - Conditionally Exempt Small Quantity Generator

State- and tribal - equivalent CERCLIS

VAPOR REOPENED ..... Vapor Intrusion Legacy Site List

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ..... Facility Register

State and tribal leaking storage tank lists

INDIAN LUST ..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

TANKS ..... Storage Tank Faciliy Listing
CBS UST ..... Chemical Bulk Storage Database
MOSF UST ..... Major Oil Storage Facilities Database
CBS AST ..... Chemical Bulk Storage Database
MOSF AST ..... Major Oil Storage Facilities Database
MOSF ..... Major Oil Storage Facility Site Listing
CBS ..... Chemical Bulk Storage Site Listing
INDIAN UST ..... Underground Storage Tanks on Indian Land
FEMA UST ..... Underground Storage Tank Listing

State and tribal institutional control / engineering control registries

ENG CONTROLS ..... Registry of Engineering Controls

EXECUTIVE SUMMARY

INST CONTROL ..... Registry of Institutional Controls
RES DECL ..... Restrictive Declarations Listing

State and tribal voluntary cleanup sites

INDIAN VCP ..... Voluntary Cleanup Priority Listing
VCP ..... Voluntary Cleanup Agreements

State and tribal Brownfields sites

ERP ..... Environmental Restoration Program Listing
BROWNFIELDS ..... Brownfields Site List

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

ODI ..... Open Dump Inventory
DEBRIS REGION 9 ..... Torres Martinez Reservation Illegal Dump Site Locations
SWTIRE ..... Registered Waste Tire Storage & Facility List
SWRCY ..... Registered Recycling Facility List
INDIAN ODI ..... Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL ..... Clandestine Drug Labs
DEL SHWS ..... Delisted Registry Sites
US HIST CDL ..... National Clandestine Laboratory Register

Local Land Records

LIENS 2 ..... CERCLA Lien Information
LUCIS ..... Land Use Control Information System

Records of Emergency Release Reports

HMIRS ..... Hazardous Materials Information Reporting System

Other Ascertainable Records

DOT OPS ..... Incident and Accident Data
DOD ..... Department of Defense Sites
FUDS ..... Formerly Used Defense Sites
CONSENT ..... Superfund (CERCLA) Consent Decrees
ROD ..... Records Of Decision
UMTRA ..... Uranium Mill Tailings Sites
MINES ..... Mines Master Index File
TRIS ..... Toxic Chemical Release Inventory System
TSCA ..... Toxic Substances Control Act
FTTS ..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

EXECUTIVE SUMMARY

HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS	Section 7 Tracking Systems
ICIS	Integrated Compliance Information System
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
RADINFO	Radiation Information Database
RAATS	RCRA Administrative Action Tracking System
HSWDS	Hazardous Substance Waste Disposal Site Inventory
UIC	Underground Injection Control Wells
DRYCLEANERS	Registered Drycleaners
NPDES	State Pollutant Discharge Elimination System
AIRS	Air Emissions Data
E DESIGNATION	E DESIGNATION SITE LISTING
INDIAN RESERV	Indian Reservations
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
PCB TRANSFORMER	PCB Transformer Registration Database
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
COAL ASH	Coal Ash Disposal Site Listing
FINANCIAL ASSURANCE	Financial Assurance Information Listing
COAL ASH DOE	Sleam-Electric Plan Operation Data

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants	EDR Proprietary Manufactured Gas Plants

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal CERCLIS NFRAP site List

CERC-NFRAP: Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

A review of the CERC-NFRAP list, as provided by EDR, and dated 02/25/2011 has revealed that there are

2 CERC-NFRAP sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DIBACC0 LF SITE 1	PORTER & TUSCARORA RDS	WNW 1/4 - 1/2 (0.365 mi.)	19	96

Lower Elevation	Address	Direction / Distance	Map ID	Page
BELL AEROSPACE TEXTRON	***ROUTE 62 AND WALMORE RD***	***SE 1/4 - 1/2 (0.365 mi.)***	***20***	***97***

Federal RCRA CORRACTS facilities list

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 08/19/2011 has revealed that there is 1 CORRACTS site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BELL AEROSPACE TEXTRON	***ROUTE 62 AND WALMORE RD***	***SE 1/4 - 1/2 (0.365 mi.)***	***20***	***97***

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-TSDF list, as provided by EDR, and dated 06/15/2011 has revealed that there is 1 RCRA-TSDF site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BELL AEROSPACE TEXTRON	***ROUTE 62 AND WALMORE RD***	***SE 1/4 - 1/2 (0.365 mi.)***	***20***	***97***

Federal institutional controls / engineering controls registries

US ENG CONTROLS: A listing of sites with engineering controls in place.

A review of the US ENG CONTROLS list, as provided by EDR, and dated 12/30/2011 has revealed that there is 1 US ENG CONTROLS site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BELL AEROSPACE TEXTRON	***ROUTE 62 AND WALMORE RD***	***SE 1/4 - 1/2 (0.365 mi.)***	***20***	***97***

EXECUTIVE SUMMARY

US INST CONTROL: A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

A review of the US INST CONTROL list, as provided by EDR, and dated 12/30/2011 has revealed that there is 1 US INST CONTROL site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BELL AEROSPACE TEXTRON	***ROUTE 62 AND WALMORE RD***	***SE 1/4 - 1/2 (0.365 mi.)***	***20***	***97***

State and tribal leaking storage tank lists

LTANKS: Leaking Storage Tank Incident Reports. These records contain an inventory of reported leaking storage tank incidents reported from 4/1/86 through the most recent update. They can be either leaking underground storage tanks or leaking aboveground storage tanks. The causes of the incidents are tank test failures, tank failures or tank overfills

A review of the LTANKS list, as provided by EDR, and dated 11/22/2011 has revealed that there are 8 LTANKS sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CAYUGA VILLAGE Date Closed: 5/1/1991	***512 B STREET***	***SSW 1/4 - 1/2 (0.278 mi.)***	***15***	***81***
RAUSMANN RESIDENCE Date Closed: 6/8/1995	***431 A STREET***	***S 1/4 - 1/2 (0.295 mi.)***	***16***	***84***
CAYUGA VILLAGE Date Closed: 2/22/1991	***640 C STREET***	***SSW 1/4 - 1/2 (0.299 mi.)***	***17***	***86***
DUNN TIRE Date Closed: 11/12/2004	***9540 NIAGARA FALLS BLVD***	***SSE 1/4 - 1/2 (0.334 mi.)***	***18***	***89***
CAYUGA VILL. MOBILE PARK Date Closed: 8/22/1989	***NIAGARA FALLS BLVD***	***S 1/4 - 1/2 (0.371 mi.)***	***21***	***123***
RAINBOW TIRE Date Closed: 7/22/1996	***9340 NIAGARA FALLS BLVD***	***S 1/4 - 1/2 (0.389 mi.)***	***22***	***125***
CAYUGA VILLAGE TRAILER HOME PA Date Closed: 8/23/2007	533 C STREET	SW 1/4 - 1/2 (0.418 mi.)	23	128
MARIA HEALEY (HOME) Date Closed: 2/22/1991	***9200 NIAGARA FALLS BLVD***	***SSW 1/4 - 1/2 (0.436 mi.)***	***24***	***131***

HIST LTANKS: A listing of leaking underground and aboveground storage tanks. The causes of the incidents are tank test failures, tank failures or tank overfills. In 2002, the Department of Environmental Conservation stopped providing updates to its original Spills Information Database. This database includes fields that are no longer available from the NYDEC as of January 1, 2002. Current information may be found in the NY LTANKS database.

A review of the HIST LTANKS list, as provided by EDR, and dated 01/01/2002 has revealed that there are 7 HIST LTANKS sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CAYUGA VILLAGE Date Closed: 05/01/91	***512 B STREET***	***SSW 1/4 - 1/2 (0.278 mi.)***	***15***	***81***

Lower Elevation	Address	Direction / Distance	Map ID	Page
RAUSMANN RESIDENCE Date Closed: 06/08/95	***431 A STREET***	***S 1/4 - 1/2 (0.295 mi.)***	***16***	***84***
CAYUGA VILLAGE Date Closed: 02/22/91	***640 C STREET***	***SSW 1/4 - 1/2 (0.299 mi.)***	***17***	***86***
DUNN TIRE Date Closed: / /	***9540 NIAGARA FALLS BLVD***	***SSE 1/4 - 1/2 (0.334 mi.)***	***18***	***89***
CAYUGA VILL. MOBILE PARK Date Closed: 08/22/89	***NIAGARA FALLS BLVD***	***S 1/4 - 1/2 (0.371 mi.)***	***21***	***123***
RAINBOW TIRE Date Closed: 07/22/96	***9340 NIAGARA FALLS BLVD***	***S 1/4 - 1/2 (0.389 mi.)***	***22***	***125***
MARIA HEALEY (HOME) Date Closed: 02/22/91	***9200 NIAGARA FALLS BLVD***	***SSW 1/4 - 1/2 (0.436 mi.)***	***24***	***131***

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Conservation's Petroleum Bulk Storage (PBS) Database

A review of the UST list, as provided by EDR, and dated 01/03/2012 has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CECOS INTERNATIONAL INC	***BOX 340 L P O***	***E 0 - 1/8 (0.043 mi.)***	***14***	***67***

AST: The Aboveground Storage Tank database contains registered ASTs. The data come from the Department of Environmental Conservation's Petroleum Bulk Storage (PBS) Database.

A review of the AST list, as provided by EDR, and dated 01/03/2012 has revealed that there is 1 AST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CECOS INTERNATIONAL INC	***BOX 340 L P O***	***E 0 - 1/8 (0.043 mi.)***	***14***	***67***

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Registered Storage Tanks

HIST UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Conservation's Petroleum Bulk Storage (PBS) Database

A review of the HIST UST list, as provided by EDR, and dated 01/01/2002 has revealed that there is 1

HIST UST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CECOS INTERNATIONAL INC	***BOX 340 L P O***	***E 0 - 1/8 (0.043 mi.)***	***14***	***67***

Records of Emergency Release Reports

NY Spills: Data collected on spills reported to NYSDEC. is required by one or more of the following: Article 12 of the Navigation Law, 6 NYCRR Section 613.8 (from PBS regs), or 6 NYCRR Section 595.2 (from CBS regs). It includes spills active as of April 1, 1986, as well as spills occurring since this date.

A review of the NY Spills list, as provided by EDR, and dated 11/22/2011 has revealed that there is 1 NY Spills site within approximately 0.125 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
NIAGARA MOHAWK POLE Date Closed: 5/19/1999	***9401 PORTER ROAD***	***SSE 0 - 1/8 (0.003 mi.)***	***A13***	***65***

NY Hist Spills: This database contains records of chemical and petroleum spill incidents. Under State law, petroleum and hazardous chemical spills that can impact the waters of the state must be reported by the spiller (and, in some cases, by anyone who has knowledge of the spills). In 2002, the Department of Environmental Conservation stopped providing updates to its original Spills Information Database. This database includes fields that are no longer available from the NYDEC as of January 1, 2002. Current information may be found in the NY SPILLS database.

A review of the NY Hist Spills list, as provided by EDR, and dated 01/01/2002 has revealed that there is 1 NY Hist Spills site within approximately 0.125 miles of the target property.

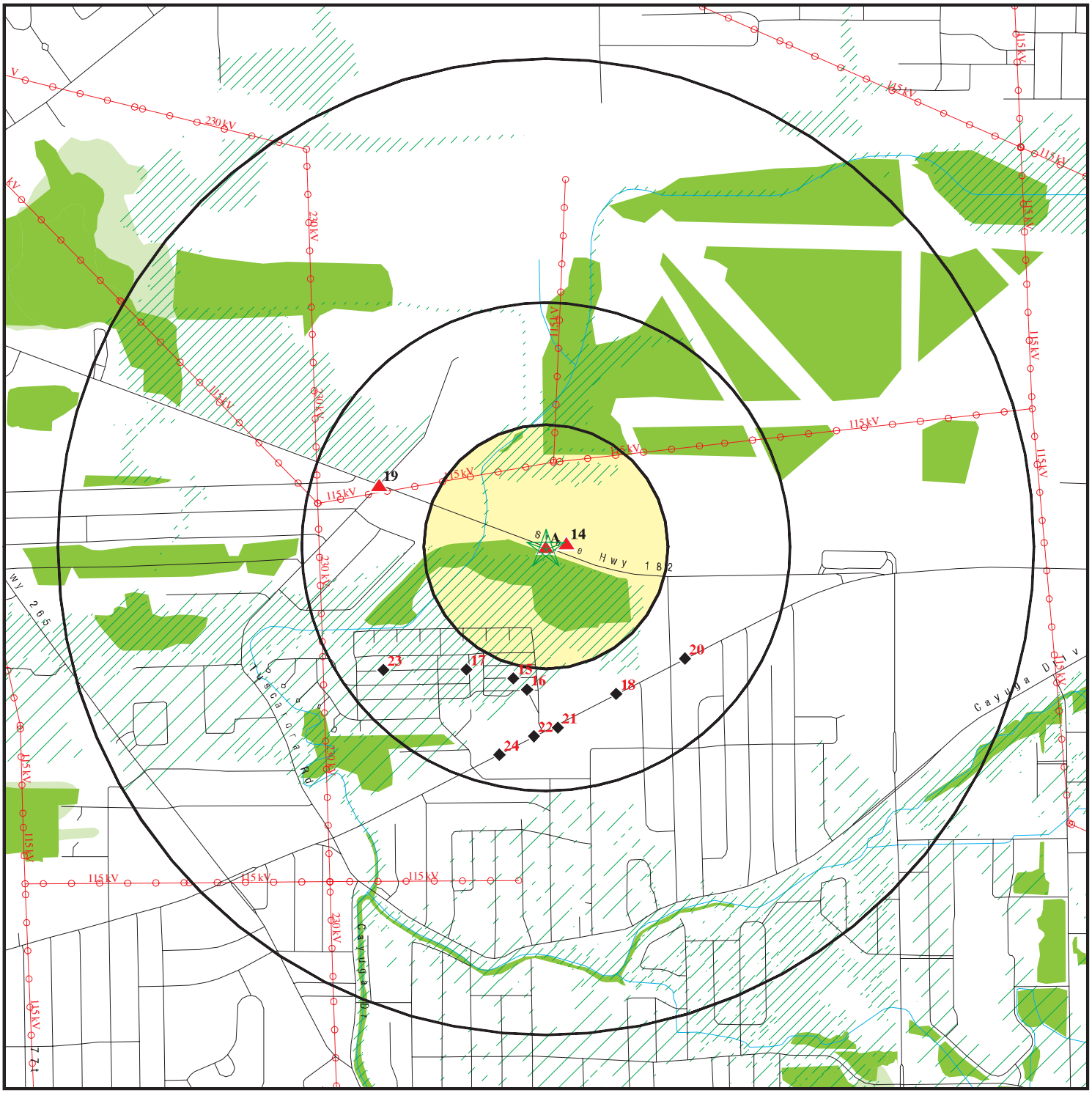
Lower Elevation	Address	Direction / Distance	Map ID	Page
NIAGARA MOHAWK POLE	***9401 PORTER ROAD***	***SSE 0 - 1/8 (0.003 mi.)***	***A13***	***65***

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 20 records.

Site Name	Database(s)
NIAGARA JUNCTION RAILWAY	CERCLIS-NFRAP
NIAGARA FALLS INTL ARPT	CERCLIS-NFRAP
NEW ROAD LF	CERCLIS-NFRAP
NIAGARA FALLS AIR FORCE RESERVE FA	CERCLIS-NFRAP
NYSDOT BIN 1028580	RCRA-LQG
NYSDOT BIN 1064919	RCRA-LQG
NYSDOT BIN 1064920	RCRA-LQG
NYSDOT BIN 1064959	RCRA-LQG
NYSDOT BIN 1064969	RCRA-LQG
NYSDOT BIN 1064979	RCRA-LQG
NYSDOT BIN 1064939	RCRA-LQG
NYSDOT BIN 1064940	RCRA-LQG
UNI-MART STORE #5010	SPILLS,HIST SPILLS
K-MART PARKING LOT	SPILLS
LEAKING TANKER TRUCK	SPILLS
NIAGARA MOHAWK	SPILLS,HIST SPILLS
SIMON OIL	SPILLS,HIST SPILLS
OIL FROM UNKNOWN TRUCK	SPILLS,HIST SPILLS
CAYUGA CREEK	SPILLS
N.F. AIR RESERVE BASE	SPILLS

OVERVIEW MAP - 3248210.1s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites

0 1/4 1/2 1 Miles

- Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Niagara Falls USARC	CLIENT: Xcel Engineering
ADDRESS: 9400 Porter Rd Niagara Falls NY 14304	CONTACT: Michael Dickinson INQUIRY #: 3248210.1s
LAT/LONG: 43.1002 / 78.955	DATE: January 30, 2012 4:08 pm

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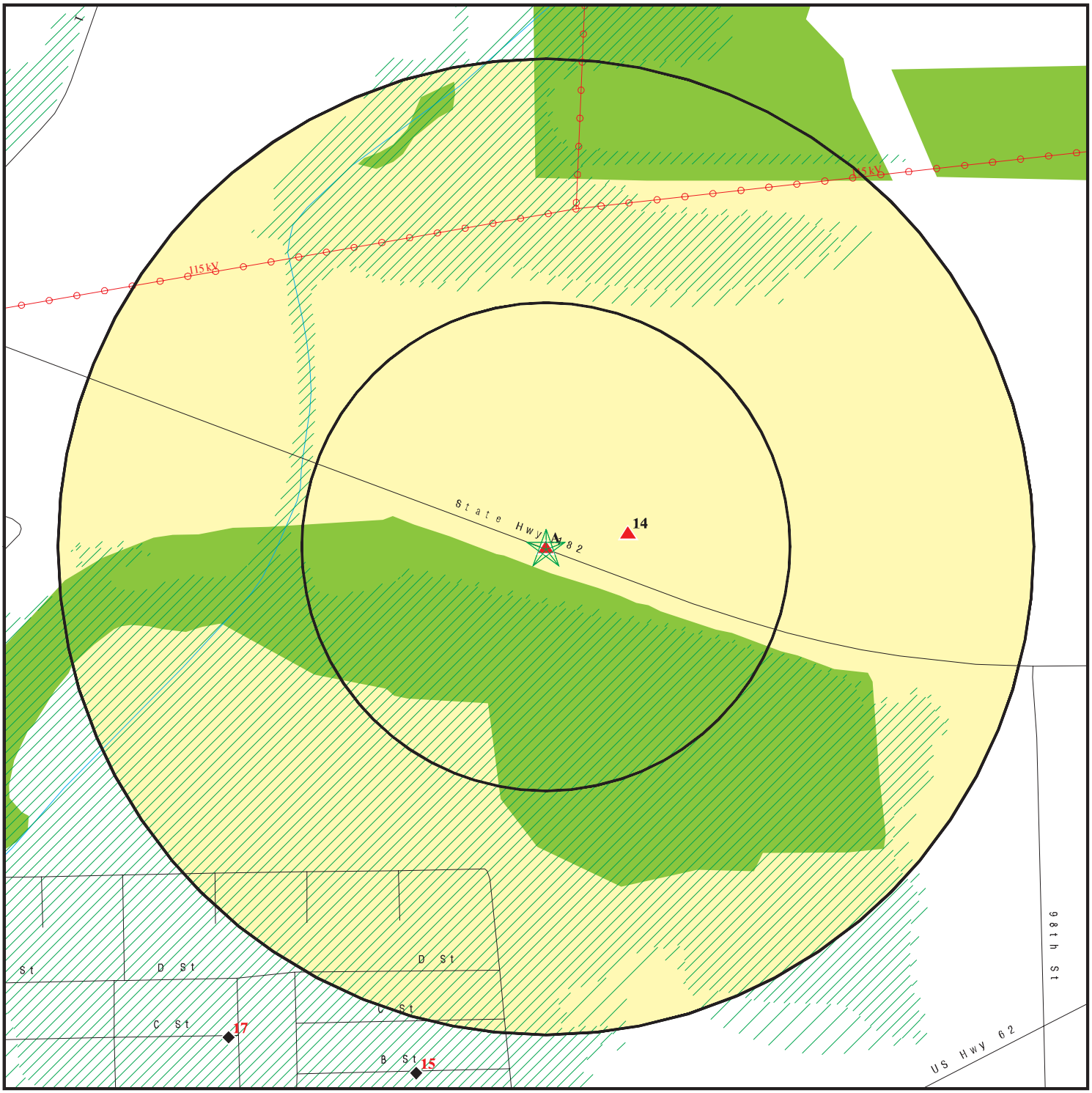
DETAIL MAP - 3248210.1s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands

0 1/16 1/8 1/4 Miles

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Niagara Falls USARC	CLIENT: Xcel Engineering
ADDRESS: 9400 Porter Rd Niagara Falls NY 14304	CONTACT: Michael Dickinson INQUIRY #: 3248210.1s
LAT/LONG: 43.1002 / 78.955	DATE: January 30, 2012 4:09 pm

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MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
NPL LIENS		TP	NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL		1.000	0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS		0.500	0	0	0	NR	NR	0
FEDERAL FACILITY		1.000	0	0	0	0	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP	X	0.500	0	0	2	NR	NR	2
Federal RCRA CORRACTS facilities list								
CORRACTS		1.000	0	0	1	0	NR	1
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF		0.500	0	0	1	NR	NR	1
Federal RCRA generators list								
RCRA-LQG	X	0.250	0	0	NR	NR	NR	0
RCRA-SQG		0.250	0	0	NR	NR	NR	0
RCRA-CESQG		0.250	0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
US ENG CONTROLS		0.500	0	0	1	NR	NR	1
US INST CONTROL		0.500	0	0	1	NR	NR	1
Federal ERNS list								
ERNS	X	TP	NR	NR	NR	NR	NR	0
State- and tribal - equivalent CERCLIS								
SHWS	X	1.000	0	0	0	0	NR	0
VAPOR REOPENED		1.000	0	0	0	0	NR	0
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF		0.500	0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LTANKS		0.500	0	0	8	NR	NR	8
HIST LTANKS		0.500	0	0	7	NR	NR	7
INDIAN LUST		0.500	0	0	0	NR	NR	0
State and tribal registered storage tank lists								
TANKS		0.250	0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST	X	0.250	1	0	NR	NR	NR	1
CBS UST		0.250	0	0	NR	NR	NR	0
MOSF UST		0.500	0	0	0	NR	NR	0
AST	X	0.250	1	0	NR	NR	NR	1
CBS AST		0.250	0	0	NR	NR	NR	0
MOSF AST		0.500	0	0	0	NR	NR	0
MOSF		0.500	0	0	0	NR	NR	0
CBS		0.250	0	0	NR	NR	NR	0
INDIAN UST		0.250	0	0	NR	NR	NR	0
FEMA UST		0.250	0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
ENG CONTROLS		0.500	0	0	0	NR	NR	0
INST CONTROL		0.500	0	0	0	NR	NR	0
RES DECL		0.125	0	NR	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP		0.500	0	0	0	NR	NR	0
VCP		0.500	0	0	0	NR	NR	0
State and tribal Brownfields sites								
ERP		0.500	0	0	0	NR	NR	0
BROWNFIELDS		0.500	0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
ODI		0.500	0	0	0	NR	NR	0
DEBRIS REGION 9		0.500	0	0	0	NR	NR	0
SWTIRE		0.500	0	0	0	NR	NR	0
SWRCY		0.500	0	0	0	NR	NR	0
INDIAN ODI		0.500	0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL		TP	NR	NR	NR	NR	NR	0
DEL SHWS		1.000	0	0	0	0	NR	0
US HIST CDL		TP	NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
HIST UST	X	0.250	1	0	NR	NR	NR	1
HIST AST	X	TP	NR	NR	NR	NR	NR	0
Local Land Records								
LIENS 2		TP	NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LUCIS		0.500	0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS		TP	NR	NR	NR	NR	NR	0
NY Spills	X	0.125	1	NR	NR	NR	NR	1
NY Hist Spills	X	0.125	1	NR	NR	NR	NR	1
Other Ascertainable Records								
RCRA-NonGen	X	0.250	0	0	NR	NR	NR	0
DOT OPS		TP	NR	NR	NR	NR	NR	0
DOD		1.000	0	0	0	0	NR	0
FUDS		1.000	0	0	0	0	NR	0
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
UMTRA		0.500	0	0	0	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
HIST FTTS		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
ICIS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
RADINFO		TP	NR	NR	NR	NR	NR	0
FINDS	X	TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
HSWDS		0.500	0	0	0	NR	NR	0
UIC		TP	NR	NR	NR	NR	NR	0
MANIFEST	X	0.250	0	0	NR	NR	NR	0
DRYCLEANERS		0.250	0	0	NR	NR	NR	0
NPDES		TP	NR	NR	NR	NR	NR	0
AIRS		TP	NR	NR	NR	NR	NR	0
E DESIGNATION		0.125	0	NR	NR	NR	NR	0
INDIAN RESERV		1.000	0	0	0	0	NR	0
SCRD DRYCLEANERS		0.500	0	0	0	NR	NR	0
PCB TRANSFORMER		TP	NR	NR	NR	NR	NR	0
COAL ASH EPA		0.500	0	0	0	NR	NR	0
COAL ASH		0.500	0	0	0	NR	NR	0
FINANCIAL ASSURANCE		TP	NR	NR	NR	NR	NR	0
COAL ASH DOE		TP	NR	NR	NR	NR	NR	0
EDR PROPRIETARY RECORDS								
EDR Proprietary Records								
Manufactured Gas Plants		1.000	0	0	0	0	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 Target Property | **NIAGARA FALLS AFRC**
9400 PORTER ROAD
NIAGARA FALLS, NY 14304 | **UST** | **U004082308**
N/A

Site 1 of 13 in cluster A

Actual: 577 ft.

UST:

Facility Id:	9-008877
Region:	STATE
DEC Region:	9
Site Status:	Unregulated
Program Type:	PBS
Expiration Date:	N/A
UTM X:	178174.62813
UTM Y:	4779527.1869099997

Affiliation Records:

Site Id:	51933
Affiliation Type:	Owner
Company Name:	99TH REGIONAL SUPPORT COMMAND
Contact Type:	CHIEF, ENVIRONMENTAL DIVISION
Contact Name:	JEFFREY M. HRZIC
Address1:	5231 SOUTH SCOTT PLAZA
Address2:	Not reported
City:	FORT DIX
State:	NJ
Zip Code:	08640
Country Code:	001
Phone:	(609) 562-7677
Phone Ext:	Not reported
Email:	Not reported
Fax Number:	Not reported
Modified By:	BHYUKOWE
Date Last Modified:	1/25/2011

Site Id:	51933
Affiliation Type:	Mail Contact
Company Name:	99TH REGIONAL SUPPORT COMMAND
Contact Type:	Not reported
Contact Name:	ENVIRONMENTAL DIVISION (ALBA)
Address1:	5231 SOUTH SCOTT PLAZA
Address2:	Not reported
City:	FORT DIX
State:	NJ
Zip Code:	08640
Country Code:	001
Phone:	(609) 562-7663
Phone Ext:	Not reported
Email:	CHRISTINE.ALBA@USAR.ARMY.MIL
Fax Number:	Not reported
Modified By:	WLSTEVEN
Date Last Modified:	10/27/2011

Site Id:	51933
Affiliation Type:	On-Site Operator
Company Name:	NIAGARA FALLS AFRC
Contact Type:	Not reported
Contact Name:	DAVE MCCARGO
Address1:	Not reported
Address2:	Not reported

NIAGARA FALLS AFRC (Continued) **U004082308**

City:	Not reported
State:	NN
Zip Code:	Not reported
Country Code:	001
Phone:	(716) 297-7200
Phone Ext:	Not reported
Email:	Not reported
Fax Number:	Not reported
Modified By:	LDGOMEZ
Date Last Modified:	1/20/2011

Site Id:	51933
Affiliation Type:	Emergency Contact
Company Name:	99TH REGIONAL SUPPORT COMMAND
Contact Type:	Not reported
Contact Name:	SCOTT KAWSKI
Address1:	Not reported
Address2:	Not reported
City:	Not reported
State:	NN
Zip Code:	Not reported
Country Code:	999
Phone:	(609) 744-1123
Phone Ext:	Not reported
Email:	Not reported
Fax Number:	Not reported
Modified By:	WLSTEVEN
Date Last Modified:	10/27/2011

Equipment Records:

A00 - Tank Internal Protection - None
G01 - Tank Secondary Containment - Diking (Aboveground)
J02 - Dispenser - Suction
A00 - Tank Internal Protection - None
D01 - Pipe Type - Steel/Carbon Steel/Iron
J02 - Dispenser - Suction
B01 - Tank External Protection - Painted/Asphalt Coating
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
I04 - Overfill - Product Level Gauge (A/G)
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
I04 - Overfill - Product Level Gauge (A/G)
G09 - Tank Secondary Containment - Modified Double-Walled (Aboveground)
H02 - Tank Leak Detection - Interstitial - Manual Monitoring
L00 - Piping Leak Detection - None
K00 - Spill Prevention - None
B00 - Tank External Protection - None
D00 - Pipe Type - No Piping
H99 - Tank Leak Detection - Other
G00 - Tank Secondary Containment - None
A00 - Tank Internal Protection - None
B00 - Tank External Protection - None
E00 - Piping Secondary Containment - None
H00 - Tank Leak Detection - None
C00 - Pipe Location - No Piping

NIAGARA FALLS AFRC (Continued) **U004082308**

F00 - Pipe External Protection - None
I04 - Overfill - Product Level Gauge (A/G)
D01 - Pipe Type - Steel/Carbon Steel/Iron
J02 - Dispenser - Suction
G03 - Tank Secondary Containment - Vault (w/o access)
G03 - Tank Secondary Containment - Vault (w/o access)
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
I04 - Overfill - Product Level Gauge (A/G)
A00 - Tank Internal Protection - None
D01 - Pipe Type - Steel/Carbon Steel/Iron
J02 - Dispenser - Suction
B00 - Tank External Protection - None
H00 - Tank Leak Detection - None
H00 - Tank Leak Detection - None

Tank Info:

Site ID:	51933
Tank Number:	RA1
Tank ID:	160232
Tank Status:	Closed - Removed
Tank Model:	Not reported
Pipe Model:	Not reported
Install Date:	1966-06-01 00:00:00
Capacity Gallons:	3000
Tightness Test Method:	NN
Next Test Date:	Not reported
Date Tank Closed:	1990-07-01 00:00:00
Tank Location:	5
Tank Type:	Steel/carbon steel
Date Test:	Not reported
Register:	True
Modified By:	TRANSLAT
Last Modified:	2004-03-04 00:00:00
Site ID:	51933
Tank Number:	RA2
Tank ID:	160233
Tank Status:	Closed - Removed
Tank Model:	Not reported
Pipe Model:	Not reported
Install Date:	1965-06-01 00:00:00
Capacity Gallons:	10000
Tightness Test Method:	NN
Next Test Date:	Not reported
Date Tank Closed:	1991-10-01 00:00:00
Tank Location:	6
Tank Type:	Steel/carbon steel
Date Test:	Not reported
Register:	True
Modified By:	TRANSLAT
Last Modified:	2004-03-04 00:00:00
Site ID:	51933
Tank Number:	RA3

NIAGARA FALLS AFRC (Continued) **U004082308**

Tank ID:	160234
Tank Status:	Closed - Removed
Tank Model:	Not reported
Pipe Model:	Not reported
Install Date:	1965-06-01 00:00:00
Capacity Gallons:	20000
Tightness Test Method:	NN
Next Test Date:	Not reported
Date Tank Closed:	1991-10-01 00:00:00
Tank Location:	6
Tank Type:	Steel/carbon steel
Date Test:	Not reported
Register:	True
Modified By:	TRANSLAT
Last Modified:	2004-03-04 00:00:00

A2 Target Property | **NIAGARA FALLS ARMED FORCE** | **SHWS** | **U003316292**
9400 PORTER ROAD | **HIST UST** | **N/A**
NIAGARA FALLS, NY | **AST**
HIST AST
Site 2 of 13 in cluster A | **MANIFEST**
NY Spills
Actual: 577 ft. | **NY Hist Spills**

SHWS:

Program:	HW
Site Code:	441103
Classification:	A
Region:	9
Acres:	Not reported
HW Code:	932152
Record Add:	10/19/2010 3:24:00 PM
Record Upd:	9/1/2011 11:15:00 AM
Updated By:	JBSWARTO

Site Description: The Niagara Falls Armed Forces Reserve Center (Niagara Falls AFRC) is an approximate 19.5 acre parcel located on the southern portion of Niagara Township in Niagara Falls. The Site is bounded to the south by Porter Road. Niagara Falls International Airport is located immediately north and east of the Site. Surface and storm water drainage is directed to Cayuga Creek immediately west of the Site. The site is currently used for industrial purposes and the expected future use is industrial or commercial. Other properties in the vicinity of the Site are used primarily for commercial purposes. The U.S. Government acquired the Site in 1955 and the U.S. Navy used the Site to service helicopters and airplanes. Most of the buildings were constructed by 1956, and the Army used the Site from 1970 to 1975 to service Nike Missiles from missile batteries around New York State. Sediment in a pipe and yellow substance present in the drainage swale near Outfall No. 5 at the southeast corner of the Site was found to contain PCBs (Aroclor 1254) and was remediated and funded by the U.S. Army Corps of Engineer in March 2010 under the management of NYSDEC's Spill Program (Spill No: 0803478). This work was completed in March 2010. Subsequently, a site inspection was performed in 2010 which consists of geophysical survey, exploratory excavations and soil and water sampling. Based on the inspection, a further investigation of petroleum products and groundwater impacts identified at the Site is recommended. A work plan for this further investigation is currently underway.

NIAGARA FALLS ARMED FORCE (Continued) **U003316292**

Env Problem: This site was first managed under the Spill Program (Spill No: 0803478) for activities leading up to the emergency removal action for the PCBs found in the drainage swale and metal piping. The water table at the Site is at a depth of between 2 to 6 feet below the ground surface. Soil types are fine to moderately fine-textured andhave a low permeability. Groundwater flow is to the west of the site. Based on investigations conducted on the corrugated metal pipe and drainage swale area, PCBs (Aroclor 1254) was detected in the soil samples at maximum concentrations of 1060 ppm. The metal pipe was cleaned out and the contents were disposed off-site. Contaminated soil was excavated in the drainage swale area to meet the MCL requirements of 1 ppm. Clean backfill material was applied, and all excavated soil was transported off-site for disposal. No further action was required and the Spill case was recommended for closure. This Site is currently tracked under ID: 932152 for investigations related to finding the contamination source for the PCBs and other related petroleum products.
Health Problem: Not reported
Dump: Not reported
Structure: Not reported
Lagoon: Not reported
Landfill: Not reported
Pond: Not reported
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: Not reported
Dell: Not reported
Record Add: Not reported
Record Upd: Not reported
Updated By: Not reported
Own Op: Owner
Sub Type: 03
Owner Name: Ingrid Wegand
Owner Company: Niagara Falls Army Reserve
Owner Address: 9400 Porter Road
Owner Addr2: Not reported
Owner City,St,Zip: Niagara Falls, NY 14304-5713
Owner Country: United States of America
HW Code: 932152
Waste Type: PCB-AROCLOR 1254
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: 0803478
Cross Ref Type Code: 01
Cross Ref Type: Spill No.
Record Added Date: 10/19/2010 3:36:00 PM
Record Updated: 10/19/2010 3:36:00 PM
Updated By: MOBARRIE

HIST UST:
PBS Number: 9-008877
SPDES Number: Not reported
Emergency Contact: PAUL BERTRAND
Emergency Telephone: (718) 352-2092
Operator: MR HOGAN
Operator Telephone: (716) 297-7200
Owner Name: 77TH REGIONAL SUPPORT COMMAND

NIAGARA FALLS ARMED FORCE (Continued) **U003316292**

Owner Address:	AFRC-CNY-EN, BLDG 200
Owner City,St,Zip:	FT TOTTEN, NY 11359-1016
Owner Telephone:	(718) 352-5624
Owner Type:	Corporate/Commercial
Owner Subtype:	Not reported
Mailing Name:	77TH REGIONAL SUPPORT COMMAND
Mailing Address:	AFRC-CNY-EN
Mailing Address 2:	BUILDING 200
Mailing City,St,Zip:	FT TOTTEN, NY 11359-1016
Mailing Contact:	ENVIRONMENTAL DIVISION
Mailing Telephone:	(718) 352-2092
Owner Mark:	First Owner
Facility Status:	4 - Subpart 360-14 only (active)
Facility Addr2:	Not reported
SWIS ID:	2911
Old PBS Number:	Not reported
Facility Type:	OTHER
Inspected Date:	19900709
Inspector:	JFO
Inspection Result:	Not reported
Federal ID:	Not reported
Certification Flag:	False
Certification Date:	01/19/2001
Expiration Date:	01/17/2006
Renew Flag:	False
Renewal Date:	Not reported
Total Capacity:	528
FAMT:	True
Facility Screen:	No Missing Data
Owner Screen:	Minor Data Missing
Tank Screen:	No Missing Data
Dead Letter:	False
CBS Number:	Not reported
Town or City:	NIAGARA FALLS (C)
County Code:	29
Town or City:	11
Region:	9

Tank Id:	RA1
Tank Location:	UNDERGROUND
Tank Status:	Closed-Removed
Install Date:	19660601
Capacity (gals):	3000
Product Stored:	UNLEADED GASOLINE
Tank Type:	Steel/carbon steel
Tank Internal:	Not reported
Tank External:	Not reported
Pipe Location:	Not reported
Pipe Type:	STEEL/IRON
Pipe Internal:	Not reported
Pipe External:	Not reported
Second Containment:	None
Leak Detection:	None
Overfill Prot:	Product Level Gauge
Dispenser:	Suction
Date Tested:	Not reported
Next Test Date:	Not reported

NIAGARA FALLS ARMED FORCE (Continued) **U003316292**

Missing Data for Tank:	Minor Data Missing
Date Closed:	07/01/1990
Test Method:	Not reported
Deleted:	False
Updated:	True
Lat/long:	Not reported

Tank Id:	RA2
Tank Location:	UNDERGROUND, VAULTED, WITH ACCESS
Tank Status:	Closed-Removed
Install Date:	19650601
Capacity (gals):	10000
Product Stored:	NOS 1,2, OR 4 FUEL OIL
Tank Type:	Steel/carbon steel
Tank Internal:	Not reported
Tank External:	Not reported
Pipe Location:	Not reported
Pipe Type:	STEEL/IRON
Pipe Internal:	Not reported
Pipe External:	Not reported
Second Containment:	Diking
Leak Detection:	None
Overfill Prot:	Product Level Gauge
Dispenser:	Suction
Date Tested:	Not reported
Next Test Date:	Not reported
Missing Data for Tank:	Minor Data Missing
Date Closed:	10/01/1991
Test Method:	Not reported
Deleted:	False
Updated:	True
Lat/long:	Not reported

Tank Id:	RA3
Tank Location:	UNDERGROUND, VAULTED, WITH ACCESS
Tank Status:	Closed-Removed
Install Date:	19650601
Capacity (gals):	20000
Product Stored:	NOS 1,2, OR 4 FUEL OIL
Tank Type:	Steel/carbon steel
Tank Internal:	Not reported
Tank External:	Not reported
Pipe Location:	Not reported
Pipe Type:	STEEL/IRON
Pipe Internal:	Not reported
Pipe External:	Not reported
Second Containment:	Diking
Leak Detection:	None
Overfill Prot:	Product Level Gauge
Dispenser:	Suction
Date Tested:	Not reported
Next Test Date:	Not reported
Missing Data for Tank:	Minor Data Missing
Date Closed:	10/01/1991
Test Method:	Not reported

NIAGARA FALLS ARMED FORCE (Continued) **U003316292**

Deleted: False
Updated: True
Lat/long: Not reported

AST:
Region: STATE
DEC Region: 9
Site Status: Unregulated
Facility Id: 9-008877
Program Type: PBS
UTM X: 178174.62813
UTM Y: 4779527.1869099997
Expiration Date: N/A

Affiliation Records:
Site Id: 51933
Affiliation Type: Owner
Company Name: 99TH REGIONAL SUPPORT COMMAND
Contact Type: CHIEF, ENVIRONMENTAL DIVISION
Contact Name: JEFFREY M. HRZIC
Address1: 5231 SOUTH SCOTT PLAZA
Address2: Not reported
City: FORT DIX
State: NJ
Zip Code: 08640
Country Code: 001
Phone: (609) 562-7677
Phone Ext: Not reported
Email: Not reported
Fax Number: Not reported
Modified By: BHYUKOWE
Date Last Modified: 1/25/2011

Site Id: 51933
Affiliation Type: Mail Contact
Company Name: 99TH REGIONAL SUPPORT COMMAND
Contact Type: Not reported
Contact Name: ENVIRONMENTAL DIVISION (ALBA)
Address1: 5231 SOUTH SCOTT PLAZA
Address2: Not reported
City: FORT DIX
State: NJ
Zip Code: 08640
Country Code: 001
Phone: (609) 562-7663
Phone Ext: Not reported
Email: CHRISTINE.ALBA@USAR.ARMY.MIL
Fax Number: Not reported
Modified By: WLSTEVEN
Date Last Modified: 10/27/2011

Site Id: 51933
Affiliation Type: On-Site Operator
Company Name: NIAGARA FALLS AFRC
Contact Type: Not reported
Contact Name: DAVE MCCARGO
Address1: Not reported

NIAGARA FALLS ARMED FORCE (Continued) **U003316292**

Address2:	Not reported
City:	Not reported
State:	NN
Zip Code:	Not reported
Country Code:	001
Phone:	(716) 297-7200
Phone Ext:	Not reported
Email:	Not reported
Fax Number:	Not reported
Modified By:	LDGOMEZ
Date Last Modified:	1/20/2011

Site Id:	51933
Affiliation Type:	Emergency Contact
Company Name:	99TH REGIONAL SUPPORT COMMAND
Contact Type:	Not reported
Contact Name:	SCOTT KAWSKI
Address1:	Not reported
Address2:	Not reported
City:	Not reported
State:	NN
Zip Code:	Not reported
Country Code:	999
Phone:	(609) 744-1123
Phone Ext:	Not reported
Email:	Not reported
Fax Number:	Not reported
Modified By:	WLSTEVEN
Date Last Modified:	10/27/2011

Equipment Records:

A00 - Tank Internal Protection - None
G01 - Tank Secondary Containment - Diking (Aboveground)
J02 - Dispenser - Suction
A00 - Tank Internal Protection - None
D01 - Pipe Type - Steel/Carbon Steel/Iron
J02 - Dispenser - Suction
B01 - Tank External Protection - Painted/Asphalt Coating
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
I04 - Overfill - Product Level Gauge (A/G)
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
I04 - Overfill - Product Level Gauge (A/G)
G09 - Tank Secondary Containment - Modified Double-Walled (Aboveground)
H02 - Tank Leak Detection - Interstitial - Manual Monitoring
L00 - Piping Leak Detection - None
K00 - Spill Prevention - None
B00 - Tank External Protection - None
D00 - Pipe Type - No Piping
H99 - Tank Leak Detection - Other
G00 - Tank Secondary Containment - None
A00 - Tank Internal Protection - None
B00 - Tank External Protection - None
E00 - Piping Secondary Containment - None
H00 - Tank Leak Detection - None

NIAGARA FALLS ARMED FORCE (Continued) **U003316292**

C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
I04 - Overfill - Product Level Gauge (A/G)
D01 - Pipe Type - Steel/Carbon Steel/Iron
J02 - Dispenser - Suction
G03 - Tank Secondary Containment - Vault (w/o access)
G03 - Tank Secondary Containment - Vault (w/o access)
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
I04 - Overfill - Product Level Gauge (A/G)
A00 - Tank Internal Protection - None
D01 - Pipe Type - Steel/Carbon Steel/Iron
J02 - Dispenser - Suction
B00 - Tank External Protection - None
H00 - Tank Leak Detection - None
H00 - Tank Leak Detection - None

Tank Info:

Tank Number:	WO9
Tank Id:	174061
Tank Location:	3
Tank Type:	Steel/Carbon Steel/Iron
Tank Status:	Closed - Removed
Tank Model:	Not reported
Pipe Model:	Not reported
Install Date:	1999-09-01 00:00:00
Capacity Gallons:	528
Tightness Test Method:	NN
Date Test:	Not reported
Next Test Date:	Not reported
Date Tank Closed:	2011-09-30 00:00:00
Register:	True
Modified By:	aeskalsk
Last Modified:	2011-10-06 00:00:00

HIST AST:

PBS Number:	9-008877
SWIS Code:	2911
Operator:	MR HOGAN
Facility Phone:	(716) 297-7200
Facility Addr2:	Not reported
Facility Type:	OTHER
Emergency:	PAUL BERTRAND
Emergency Tel:	(718) 352-2092
Old PBSNO:	Not reported
Date Inspected:	19900709
Inspector:	JFO
Result of Inspection:	Not reported
Owner Name:	77TH REGIONAL SUPPORT COMMAND
Owner Address:	AFRC-CNY-EN, BLDG 200
Owner City,St,Zip:	FT TOTTEN, NY 11359-1016
Federal ID:	Not reported
Owner Tel:	(718) 352-5624
Owner Type:	Corporate/Commercial
Owner Subtype:	Not reported
Mailing Contact:	ENVIRONMENTAL DIVISION

NIAGARA FALLS ARMED FORCE (Continued) **U003316292**

Mailing Name:	77TH REGIONAL SUPPORT COMMAND
Mailing Address:	AFRC-CNY-EN
Mailing Address 2:	BUILDING 200
Mailing City,St,Zip:	FT TOTTEN, NY 11359-1016
Mailing Telephone:	(718) 352-2092
Owner Mark:	First Owner
Facility Status:	4 - Subpart 360-14 only (active)
Certification Flag:	False
Certification Date:	01/19/2001
Expiration:	01/17/2006
Renew Flag:	False
Renew Date:	Not reported
Total Capacity:	528
FAMT:	True
Facility Screen:	No Missing Data
Owner Screen:	Minor Data Missing
Tank Screen:	No Missing Data
Dead Letter:	False
CBS Number:	Not reported
Town or City:	NIAGARA FALLS (C)
County Code:	29
Town or City Code:	11
Region:	9

Tank ID:	WO9
Tank Location:	ABOVEGROUND ON SADDLES LEGS, STILTS, RACK, OR CRADLE
Tank Status:	In Service
Install Date:	19990901
Capacity (Gal):	528
Product Stored:	USED OIL
Tank Type:	Steel/carbon steel
Tank Internal:	0
Tank External:	01
Pipe Location:	None
Pipe Type:	NONE
Pipe Internal:	None
Pipe External:	00
Tank Containment:	Vault (w/access)
Leak Detection:	09
Overfill Protection:	04
Dispenser Method:	Suction
Date Tested:	Not reported
Next Test Date:	Not reported
Missing Data for Tank:	No Missing Data
Date Closed:	Not reported
Test Method:	Not reported
Deleted:	False
Updated:	True
SPDES Number:	Not reported
Lat/Long:	Not reported

NY MANIFEST:

EPA ID:	NY8210424273
Country:	USA
Mailing Name:	UNITED STATES MILITARY
Mailing Contact:	PATRICK A PATTERSON
Mailing Address:	9400 PORTER ROAD

NIAGARA FALLS ARMED FORCE (Continued) **U003316292**

Mailing Address 2:	Not reported
Mailing City:	NIAGARA FALLS
Mailing State:	NY
Mailing Zip:	14304
Mailing Zip4:	Not reported
Mailing Country:	USA
Mailing Phone:	716-297-7615

NY MANIFEST:

No Manifest Records Available

NY Spills:

Site ID:	246072
Facility Addr2:	Not reported
Facility ID:	9907461
Spill Number:	9907461
Facility Type:	ER
SWIS:	3211
Investigator:	SACALAND
Referred To:	NIAGARA CNTY HEALTH DEPT
Spill Date:	9/21/1999
Reported to Dept:	9/21/1999
CID:	257
Spill Cause:	Other
Water Affected:	Not reported
Spill Source:	Institutional, Educational, Gov., Other
Spill Notifier:	Responsible Party
Cleanup Ceased:	Not reported
Cleanup Meets Std:	True
Last Inspection:	9/21/1999
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	2/22/2000
Remediation Phase:	0
Date Entered In Computer:	9/21/1999
Spill Record Last Update:	2/25/2000
Spiller Name:	Not reported
Spiller Company:	DEPARTMENT OF THE ARMY
Spiller Address:	FORT TOTEN
Spiller City,St,Zip:	FLUSHING, NY 11359-1016
Spiller Company:	001
Contact Name:	RAVI AJODAH
Contact Phone:	(718) 352-5155
DEC Region:	9
DER Facility ID:	202076
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "SAC-NCHD" 09/21/99: SAC TELECON DAVE DRUST NOTIFYING HIM OF THE SPILL, CHECKED PBS COMPUTER RECORDS & TWO 550 GALLON WASTE OIL TANKS ARE SCHEDULED TO BE REMOVED PER AES, MR. DRUST WILL FOLLOW UP, FAXED COPY OF THE REPORT TO HIM. 09/21/99: SAC TELECON DAVE DRUST, HE IS RESPONDING TO THE REPORT. 09/21/99: SAC TELECON LINDA GRIMMER, EP&S & CONTRACTOR DOING THE REMOVAL, MS. GRIMMER SAID THE TANKS BEING REMOVED ARE ASSOCIATED WITH AND PIPED FROM THE OIL/WATER SEPARATOR, WHEN THEY REMOVED THE TANKS AND THE SEPARATOR NO CONTAMINATED SOIL

NIAGARA FALLS ARMED FORCE (Continued) **U003316292**

WAS OBSERVED AND EP&S PUMPED OUT THE SEPARATOR, BUT WHILE REMOVING THE SEPARATOR THE TANK WAS CRACKED AND A SMALL AMOUNT OF GROUNDWATER LEACHED INTO THE TANK AND LEACHED BACK OUT PRODUCING A SHEEN, THEY PUMPED THE SMALL AMOUNT OF GROUNDWATER INTO A 55 GALLON DRUM ALONG WITH THE SEPARATOR CONTENTS THAT WERE PREVIOUSLY PUMPED INTO THE DRUMS, NO CONTAMINATED SOIL WAS OBSERVED DURING THE TANK REMOVAL SO NO SOIL HAS BEEN STAGED FOR DISPOSAL, SOIL SAMPLES HAVE BEEN TAKEN AND NO GROUNDWATER LEACHED BACK INTO THE EXCAVATION SINCE IT WAS PUMPED OUT SO NO GROUNDWATER SAMPLE WAS TAKEN, DAVE MARTIN WAS AT THE SITE DURING THE TELECON, EXCAVATION HAS BEEN PARTIALLY BACKFILLED.
09/22/99: SAC TELECON DAVE MARTIN, NCHD, HE INSPECTED SITE YESTERDAY AND SPOKE WITH RICHARD RAND FROM J.M. WILLER, SPILL WAS CAUSED WHEN TANK SPLIT WHILE BEING REMOVED, THEY HAD ABOUT SIX DRUMS OF GROUNDWATER FROM PUMPING, AND TEN DRUMS OF MATERIAL WERE PUMPED FROM THE TANK ORIGINALLY. 02/03/00: SAC RECEIVED NCHD INSPECTION REPORT FROM DAVE MARTIN, SMALL SPILL THAT AFFECTED THE GROUNDWATER IN THE EXCAVATION, ALL WATER WAS PUMPED OUT AND 16 DRUMS OF WATER WAS DISPOSED BY ONYX ENVIRONMENTAL SERVICES, SINCE NO CONTAMINATED SOIL WAS FOUND, NO SOIL DISPOSAL OR RECEIPTS, THERE ARE NO CONFIRMATORY SAMPLES RESULTS EITHER. 02/15/00: SAC DISCUSSED SITE WITH RNL, SINCE THIS WAS AN OIL/WATER SEPARATOR THAT WAS REMOVED, CONFIRMATORY SAMPLING IS NOT REQUIRED, SITE CAN BE CLOSED PER RNL. 02/18/00: RECEIVED DISPOSAL RECEIPTS FOR THE CRUSHED FIBERGLASS SEPARATOR TANK AND CONTAMINATED WATER.

Remarks: during a tank pull some oil leaked out they are running test

Material:

Site ID:	246072
Operable Unit ID:	1086052
Operable Unit:	01
Material ID:	300164
Material Code:	0022
Material Name:	Waste Oil/Used Oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

NY Hist Spills:

Region of Spill:	9
Spill Number:	9907461

NIAGARA FALLS ARMED FORCE (Continued) **U003316292**

Investigator:	SAC-NCHD
Caller Name:	Not reported
Caller Agency:	Not reported
Caller Phone:	Not reported
Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported
Spill Date/Time:	09/21/1999 11:00
Reported to Dept Date/Time:	09/21/99 12:45
SWIS:	29
Spiller Name:	DEPARTMENT OF THE ARMY
Spiller Contact:	Not reported
Spiller Phone:	( ) -
Spiller Contact:	RAVI AJODAH
Spiller Phone:	(718) 352-5155
Spiller Address:	FORT TOTEN
Spiller City,St,Zip:	FLUSHING, NY 11359-1016
Spill Cause:	Other
Reported to Dept:	On Land
Water Affected:	Not reported
Spill Source:	02
Spill Notifier:	Responsible Party
PBS Number:	Not reported
Cleanup Ceased:	/ /
Cleanup Meets Std:	True
Last Inspection:	09/21/99
Recommended Penalty:	Penalty Not Recommended
Spiller Cleanup Dt:	/ /
Enforcement Date:	/ /
Invstgn Complete:	/ /
UST Involvement:	False
Spill Class:	Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	02/22/00
Corrective Action Plan Submitted:	/ /
Date Region Sent Summary to Central Office:	/ /
Date Spill Entered In Computer Data File:	09/21/99
Date Spill Entered In Computer Data File:	Not reported
Update Date:	02/25/00
Is Updated:	False

Tank:

PBS Number:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate Failed Tank:	Not reported
Gross Leak Rate:	Not reported

Material:

Material Class Type:	Petroleum
Quantity Spilled:	0
Unkonwn Quantity Spilled:	True
Units:	Gallons
Quantity Recovered:	0
Unkonwn Quantity Recovered:	True
Material:	WASTE OIL
Class Type:	WASTE OIL

NIAGARA FALLS ARMED FORCE (Continued) **U003316292**

Times Material Entry In File: 9509
CAS Number: Not reported
Last Date: 19940927
DEC Remarks: 09/21/99: SAC TELECON DAVE DRUST NOTIFYING HIM OF THE SPILL, CHECKED PBS COMPUTER RECORDS TWO 550 GALLON WASTE OIL TANKS ARE SCHEDULED TO BE REMOVED PER AES, MR. DRUST WILL FOLLOW UP, FAXED COPY OF THE REPORT TO HIM. 09/21/99: SAC TELECON DAVEDRUST, HE IS RESPONDING TO THE REPORT. 09/21/99: SAC TELECON LINDA GRIMMER, EP S CONTRACTOR DOING THE REMOVAL, MS. GRIMMER SAID THE TANKS BEING REMOVED ARE ASSOCIATED WITH AND PIPED FROM THE OIL/WATER SEPARATOR, WHEN THEY REMOVED THE TANKS ANDTHE SEPARATOR NO CONTAMINATED SOIL WAS OBSERVED AND EP S PUMPED OUT THE SEPARATOR, BUT WHILE REMOVING THE SEPARATOR THE TANK WAS CRACKED AND A SMALL AMOUNT OF GROUNDWATER LEACHED INTO THE TANK AND LEACHED BACK OUT PRODUCING A SHEEN, THEY PUMPED THESMALL AMOUNT OF GROUNDWATER INTO A 55 GALLON DRUM ALONG WITH THE SEPARATOR CONTENTS THAT WERE PREVIOUSLY PUMPED INTO THE DRUMS, NO CONTAMINATED SOIL WAS OBSERVED DURING THE TANK REMOVAL SO NO SOIL HAS BEEN STAGED FOR DISPOSAL, SOIL SAMPLES HAVE BEENTAKEN AND NO GROUNDWATER LEACHED BACK INTO THE EXCAVATION SINCE IT WAS PUMPED OUT SO NO GROUNDWATER SAMPLE WAS TAKEN, DAVE MARTIN WAS AT THE SITE DURING THE TELECON, EXCAVATION HAS BEEN PARTIALLY BACKFILLED. 09/22/99: SAC TELECON DAVE MARTIN, NCHD, HE INSPECTED SITE YESTERDAY AND SPOKE WITH RICHARD RAND FROM J.M. WILLER, SPILL WAS CAUSED WHEN TANK SPLIT WHILE BEING REMOVED, THEY HAD ABOUT SIX DRUMS OF GROUNDWATER FROM PUMPING, AND TEN DRUMS OF MATERIAL WERE PUMPED FROM THE TANK ORIGINALLY.02/03/00: SAC RECEIVED NCHD INSPECTION REPORT FROM DAVE MARTIN, SMALL SPILL THAT AFFECTED THE GROUNDWATER IN THE EXCAVATION, ALL WATER WAS PUMPED OUT AND 16 DRUMS OF WATER WAS DISPOSED BY ONYX ENVIRONMENTAL SERVICES, SINCE NO CONTAMINATED SOIL WAS FOUND, NO SOIL DISPOSAL OR RECEIPTS, THERE ARE NO CONFIRMATORY SAMPLES RESULTS EITHER. 02/15/00: SAC DISCUSSED SITE WITH RNL, SINCE THIS WAS AN OIL/WATER SEPARATOR THAT WAS REMOVED, CONFIRMATORY SAMPLING IS NOT REQUIRED, SITE CAN BE CLOSED PER RNL. 02/18/00: RECEIVED DISPOSAL RECEIPTS FOR THE CRUSHED FIBERGLASS SEPARATOR TANK AND CONTAMINATED WATER.
Remark: during a tank pull some oil leaked out they are running test

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A3 Target Property | **9400 PORTER ROAD** | **ERNS** | **91231394**
9400 PORTER ROAD | **N/A**
NIAGRA FALLS, NY

Site 3 of 13 in cluster A

Actual: 577 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A4 Target Property | **US ARMY VEHICLE WASH** | **FINDS** | **1007761275**
9400 PORTER RD | **N/A**
NIAGARA FALLS, NY 14304

Site 4 of 13 in cluster A

Actual: 577 ft.

FINDS:

Registry ID: 110019236940

Environmental Interest/Information System
FIS (New York - Facility Information System) is New York's Department of Environmental Conservation (DEC) information system for tracking environmental facility information found across the State.

A5 Target Property | **NIAGARA FALLS AFRC**
9400 PORTER RD
NIAGARA FALLS, NY 14304 | **CERC-NFRAP**
RCRA-LQG
MANIFEST | **1000557597**
NY8210424273

Site 5 of 13 in cluster A

Actual: 577 ft.

CERC-NFRAP:

Site ID:	0203930
Federal Facility:	Federal Facility
NPL Status:	Not on the NPL
Non NPL Status:	NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Site Alias Name(s):

Alias Name:	NIAGARA FALLS FACILITY
Alias Address:	9400 PORTER ROAD NIAGARA FALLS, NY

CERCLIS-NFRAP Assessment History:

Action:	DISCOVERY
Date Started:	Not reported
Date Completed:	12/13/1994
Priority Level:	Not reported
Action:	PRELIMINARY ASSESSMENT
Date Started:	Not reported
Date Completed:	02/15/1997
Priority Level:	NFRAP-Site does not qualify for the NPL based on existing information
Action:	ARCHIVE SITE
Date Started:	Not reported
Date Completed:	09/30/1997
Priority Level:	Not reported

RCRA-LQG:

Date form received by agency:	03/23/2010
Facility name:	NIAGARA FALLS AFRC
Facility address:	9400 PORTER RD NIAGARA FALLS, NY 143041650
EPA ID:	NY8210424273
Mailing address:	PORTER RD NIAGARA FALLS, NY 143041650
Contact:	DOMINIC L VAN TASSELL
Contact address:	Not reported Not reported
Contact country:	Not reported
Contact telephone:	(814) 836-4722
Contact email:	DOMINIC.VANTASSELL@USAR.ARMY.MIL
EPA Region:	02
Land type:	Federal
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less

NIAGARA FALLS AFRC (Continued) **1000557597**

of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	US ARMY RESERVE 99TH RSC
Owner/operator address:	SOUTH SCOTT STREET FORT DIX, NJ 16415
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Federal
Owner/Operator Type:	Owner
Owner/Op start date:	09/01/2007
Owner/Op end date:	Not reported

Owner/operator name:	HQ 10TH MTN DIV LI & FT DRUM
Owner/operator address:	AFZS-EH-E FORT DRUM, NY 13602
Owner/operator country:	Not reported
Owner/operator telephone:	(315) 772-5708
Legal status:	Federal
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	U.S. ARMY RESERVE 99TH RSC
Owner/operator address:	SOUTH SCOTT STREET FORT DIX, NJ 16415
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Federal
Owner/Operator Type:	Operator
Owner/Op start date:	09/01/2007
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

Date form received by agency:	01/01/2007
Facility name:	NIAGARA FALLS AFRC

NIAGARA FALLS AFRC (Continued) **1000557597**

Site name: ARMED FORCES RESERVE CENTER
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 01/01/2006
Facility name: NIAGARA FALLS AFRC
Site name: ARMED FORCES RESERVE CENTER
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 10/11/1991
Facility name: NIAGARA FALLS AFRC
Site name: ARMED FORCES RESERVE CENTER
Classification: Conditionally Exempt Small Quantity Generator

Hazardous Waste Summary:

Waste code: B007
Waste name: B007

Waste code: D000
Waste name: Not Defined

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D003
Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

Waste code: D004
Waste name: ARSENIC

Waste code: D006
Waste name: CADMIUM

Waste code: D008
Waste name: LEAD

Waste code: D009
Waste name: MERCURY

NIAGARA FALLS AFRC (Continued) **1000557597**

Waste code: D011
Waste name: SILVER

Violation Status: No violations found

Evaluation Action Summary:
Evaluation date: 02/23/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: EPA Contractor/Grantee

NJ MANIFEST:
Manifest Code: NJA3092096
EPA ID: NY8210424273
Date Shipped: 20040429
TSDF EPA ID: NJD980536593
Transporter EPA ID: NJD080631369
Transporter 2 EPA ID: NJD054126164
Transporter 3 EPA ID: Not reported
Transporter 4 EPA ID: Not reported
Transporter 5 EPA ID: Not reported
Transporter 6 EPA ID: Not reported
Transporter 7 EPA ID: Not reported
Transporter 8 EPA ID: Not reported
Transporter 10 EPA ID: Not reported
Date Trans1 Transported Waste: 040429
Date Trans2 Transported Waste: 040511
Date Trans3 Transported Waste: Not reported
Date Trans4 Transported Waste: Not reported
Date Trans5 Transported Waste: Not reported
Date Trans6 Transported Waste: Not reported
Date Trans7 Transported Waste: Not reported
Date Trans8 Transported Waste: Not reported
Date Trans9 Transported Waste: Not reported
Date Trans10 Transported Waste: Not reported
Date TSDF Received Waste: 040512
Tranporter 1 Decal: Not reported
Tranporter 2 Decal: Not reported
Data Entry Number: 05280421
Reference Manifest Number: Not reported
Was Load Rejected (Y/N): No
Reason Load Was Rejected: Not reported
Waste Code: Not reported
Manifest Year: Not reported
Quantity: Not reported
Unit: Not reported
Hand Code: Not reported

Manifest Code: 000250043VES
EPA ID: NY8210424273
Date Shipped: 11/13/2008
TSDF EPA ID: NJD980536593
Transporter EPA ID: NJD080631369
Transporter 2 EPA ID: NJD054126164

NIAGARA FALLS AFRC (Continued) **1000557597**

Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	11/13/2008
Date Trans2 Transported Waste:	11/20/2008
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	11/21/2008
Tranporter 1 Decal:	Not reported
Tranporter 2 Decal:	Not reported
Data Entry Number:	Not reported
Reference Manifest Number:	Not reported
Was Load Rejected (Y/N):	No
Reason Load Was Rejected:	Not reported

Waste Code:	D001
Manifest Year:	2008 New Jersey Manifest Data
Quantity:	225
Unit:	P
Hand Code:	H141

Waste Code:	D001
Manifest Year:	2008 New Jersey Manifest Data
Quantity:	175
Unit:	P
Hand Code:	H141

Waste Code:	U359
Manifest Year:	2008 New Jersey Manifest Data
Quantity:	175
Unit:	P
Hand Code:	H141

Waste Code:	D001
Manifest Year:	2008 New Jersey Manifest Data
Quantity:	125
Unit:	P
Hand Code:	H141

A6 Target Property | **NIAGARA FALLS RESERVE CENTER**
9400 PORTER RD
NIAGARA FALLS, NY 14304 | **RCRA-NonGen** | **1000232912**
NYD981875206

Site 6 of 13 in cluster A

Actual: 577 ft.

RCRA-NonGen:

Date form received by agency:	01/01/2007
Facility name:	NIAGARA FALLS RESERVE CENTER
Facility address:	9400 PORTER RD NIAGARA FALLS, NY 14304
EPA ID:	NYD981875206
Mailing address:	PORTER RD NIAGARA FALLS, NY 14304
Contact:	Not reported
Contact address:	PORTER RD NIAGARA FALLS, NY 14304
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	02
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	FT DRUM
Owner/operator address:	NOT REQUIRED NOT REQUIRED, WY 99999
Owner/operator country:	US
Owner/operator telephone:	(212) 555-1212
Legal status:	Federal
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	FT DRUM
Owner/operator address:	NOT REQUIRED NOT REQUIRED, WY 99999
Owner/operator country:	US
Owner/operator telephone:	(212) 555-1212
Legal status:	Federal
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No

NIAGARA FALLS RESERVE CENTER (Continued) **1000232912**

Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/01/2006
Facility name: NIAGARA FALLS RESERVE CENTER
Classification: Not a generator, verified

Date form received by agency: 05/19/1995
Facility name: NIAGARA FALLS RESERVE CENTER
Classification: Not a generator, verified

Date form received by agency: 02/19/1987
Facility name: NIAGARA FALLS RESERVE CENTER
Classification: Small Quantity Generator

Violation Status: No violations found

A7 Target Property | **NYARNG NYARNG AASF 2**
9400 PORTER RD - AFRC
NIAGARA FALLS, NY 14304 | **RCRA-NonGen FINDS MANIFEST** | **1000226530 NY5210524273**

Site 7 of 13 in cluster A

Actual: 577 ft.

RCRA-NonGen:
Date form received by agency: 01/01/2007
Facility name: NYARNG NYARNG AASF 2
Facility address: 9400 PORTER RD - AFRC
NIAGARA FALLS, NY 14304
EPA ID: NY5210524273
Mailing address: PO BOX F LASALLE STATION
NIAGARA FALLS, NY 14304
Contact: Not reported
Contact address: PO BOX F LASALLE STATION
NIAGARA FALLS, NY 14304
Contact country: US
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 02
Land type: Facility is not located on Indian land. Additional information is not known.
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: US DEPT OF ARMY
Owner/operator address: NOT REQUIRED
NOT REQUIRED, WY 99999
Owner/operator country: US
Owner/operator telephone: (212) 555-1212
Legal status: Federal
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: US DEPT OF ARMY
Owner/operator address: NOT REQUIRED
NOT REQUIRED, WY 99999

NYARNG NYARNG AASF 2 (Continued) **1000226530**

Owner/operator country: US
Owner/operator telephone: (212) 555-1212
Legal status: Federal
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/01/2006
Facility name: NYARNG NYARNG AASF 2
Classification: Not a generator, verified

Date form received by agency: 04/17/1995
Facility name: NYARNG NYARNG AASF 2
Classification: Not a generator, verified

Date form received by agency: 03/01/1990
Facility name: NYARNG NYARNG AASF 2
Site name: UNITED STATES MILITARY-AASF #2
Classification: Large Quantity Generator

Date form received by agency: 08/07/1986
Facility name: NYARNG NYARNG AASF 2
Classification: Large Quantity Generator

Violation Status: No violations found

Evaluation Action Summary:
Evaluation date: 08/29/1996
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/20/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: EPA

NYARNG NYARNG AASF 2 (Continued) **1000226530**

Evaluation date: 05/22/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: EPA Contractor/Grantee

FINDS:

Registry ID: 110004326168

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

HAZARDOUS WASTE BIENNIAL REPORTER

NY MANIFEST:

EPA ID: NY5210524273
Country: USA
Mailing Name: UNITED STATES MILITARY-AASF #2
Mailing Contact: UNITED STATES MILITARY-AASF #2
Mailing Address: AASF #2-P.O. BOX F-LASALLE
Mailing Address 2: Not reported
Mailing City: STATION-NIAGARA FALLS
Mailing State: NY
Mailing Zip: 14304
Mailing Zip4: Not reported
Mailing Country: USA
Mailing Phone: 716-694-1477

Document ID: NYA3996044
Manifest Status: Completed copy
Trans1 State ID: 47490ANY
Trans2 State ID: Not reported
Generator Ship Date: 870619
Trans1 Recv Date: 870619
Trans2 Recv Date: Not reported
TSD Site Recv Date: 870623
Part A Recv Date: 870626
Part B Recv Date: 870630
Generator EPA ID: NY5210524273
Trans1 EPA ID: NYD980769947

NYARNG NYARNG AASF 2 (Continued) **1000226530**

Trans2 EPA ID:	Not reported
TSDF ID:	NYD043815703
Waste Code:	D006 - CADMIUM 1.0 MG/L TCLP
Quantity:	01500
Units:	L
Number of Containers:	002
Container Type:	DM - Metal drums, barrels
Handling Method:	L Landfill.
Specific Gravity:	100
Waste Code:	Not reported
Quantity:	00055
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Year:	87

Document ID:	NJA1133736
Manifest Status:	Completed copy
Trans1 State ID:	NYGR1992
Trans2 State ID:	NJDEPS060
Generator Ship Date:	910726
Trans1 Recv Date:	910726
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	910731
Part A Recv Date:	910805
Part B Recv Date:	910819
Generator EPA ID:	NY5210524273
Trans1 EPA ID:	ILD051060408
Trans2 EPA ID:	NYD980769947
TSDF ID:	NJD002182897
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Quantity:	01012
Units:	P - Pounds
Number of Containers:	002
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Year:	91

Document ID:	NYB2362140
Manifest Status:	Completed copy
Trans1 State ID:	JD2082NY
Trans2 State ID:	Not reported
Generator Ship Date:	910712
Trans1 Recv Date:	910712
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	910712
Part A Recv Date:	910719
Part B Recv Date:	910726
Generator EPA ID:	NY5210524273
Trans1 EPA ID:	NYD980761191
Trans2 EPA ID:	Not reported
TSDF ID:	NYD043815703

NYARNG NYARNG AASF 2 (Continued) **1000226530**

Waste Code:	D002 - NON-LISTED CORROSIVE WASTES
Quantity:	00050
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Waste Code:	Not reported
Quantity:	00150
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Year:	91

Document ID:	NJA1431717
Manifest Status:	Completed copy
Trans1 State ID:	NYGR1992
Trans2 State ID:	NJDEPS869
Generator Ship Date:	930318
Trans1 Recv Date:	930318
Trans2 Recv Date:	930322
TSD Site Recv Date:	930323
Part A Recv Date:	930326
Part B Recv Date:	930401
Generator EPA ID:	NY5210524273
Trans1 EPA ID:	ILD051060408
Trans2 EPA ID:	ILD051060408
TSDF ID:	NJD002182897
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Quantity:	01012
Units:	P - Pounds
Number of Containers:	002
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Year:	93

Document ID:	VTA0067865
Manifest Status:	Completed copy
Trans1 State ID:	ILP119303
Trans2 State ID:	Not reported
Generator Ship Date:	950320
Trans1 Recv Date:	950320
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	950323
Part A Recv Date:	950329
Part B Recv Date:	950412
Generator EPA ID:	NY5210524273
Trans1 EPA ID:	ILD099202681
Trans2 EPA ID:	Not reported
TSDF ID:	VTD982766537
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Quantity:	00055

NYARNG NYARNG AASF 2 (Continued) **1000226530**

Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	004
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	100
Year:	95

Document ID:	NYA5284512
Manifest Status:	Completed copy
Trans1 State ID:	47518ANY
Trans2 State ID:	Not reported
Generator Ship Date:	880204
Trans1 Recv Date:	880204
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	880204
Part A Recv Date:	880212
Part B Recv Date:	880211
Generator EPA ID:	NY5210524273
Trans1 EPA ID:	NYD980769947
Trans2 EPA ID:	Not reported
TSDF ID:	NYD043815703
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Quantity:	02010
Units:	P - Pounds
Number of Containers:	005
Container Type:	DM - Metal drums, barrels
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	88

Document ID:	NYB2249334
Manifest Status:	Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID:	2294AP
Trans2 State ID:	Not reported
Generator Ship Date:	901204
Trans1 Recv Date:	901204
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	901210
Part A Recv Date:	901228
Part B Recv Date:	910110
Generator EPA ID:	NY5210524273
Trans1 EPA ID:	OKD981605363
Trans2 EPA ID:	Not reported
TSDF ID:	NCD000648451
Waste Code:	D006 - CADMIUM 1.0 MG/L TCLP
Quantity:	00435
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100
Waste Code:	Not reported
Quantity:	00055
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	001

NYARNG NYARNG AASF 2 (Continued) **1000226530**

Container Type:	DF - Fiberboard or plastic drums (glass)
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Waste Code:	Not reported
Quantity:	00165
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	003
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Waste Code:	Not reported
Quantity:	00900
Units:	P - Pounds
Number of Containers:	003
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Year:	90

Document ID:	NYB2249343
Manifest Status:	Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID:	2294AP
Trans2 State ID:	Not reported
Generator Ship Date:	901204
Trans1 Recv Date:	901204
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	901210
Part A Recv Date:	901228
Part B Recv Date:	910110
Generator EPA ID:	NY5210524273
Trans1 EPA ID:	OKD981605363
Trans2 EPA ID:	Not reported
TSDF ID:	NCD000648451
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Quantity:	00220
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	004
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Waste Code:	Not reported
Quantity:	00205
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	004
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Waste Code:	Not reported
Quantity:	00110
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	002
Container Type:	DF - Fiberboard or plastic drums (glass)
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Waste Code:	Not reported
Quantity:	00165

NYARNG NYARNG AASF 2 (Continued) **1000226530**

Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	003
Container Type:	DF - Fiberboard or plastic drums (glass)
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Year:	90

Document ID:	NJA1498285
Manifest Status:	Completed copy
Trans1 State ID:	NJDEPES50
Trans2 State ID:	NJDEPES50
Generator Ship Date:	930121
Trans1 Recv Date:	930121
Trans2 Recv Date:	930125
TSD Site Recv Date:	930129
Part A Recv Date:	930129
Part B Recv Date:	930212
Generator EPA ID:	NY5210524273
Trans1 EPA ID:	NYD980761191
Trans2 EPA ID:	NYD980761191
TSDF ID:	NJD002200046
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Quantity:	00300
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100
Year:	93

Document ID:	VTA0057825
Manifest Status:	Completed copy
Trans1 State ID:	P119303IL
Trans2 State ID:	Not reported
Generator Ship Date:	940824
Trans1 Recv Date:	940824
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	940826
Part A Recv Date:	940901
Part B Recv Date:	940913
Generator EPA ID:	NY5210524273
Trans1 EPA ID:	ILD099202681
Trans2 EPA ID:	Not reported
TSDF ID:	VTD982766537
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Quantity:	00055
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	100
Waste Code:	Not reported
Quantity:	00055
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	001

NYARNG NYARNG AASF 2 (Continued) **1000226530**

Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	100
Waste Code:	Not reported
Quantity:	00025
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	002
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	100
Year:	94

Document ID:	NYA8100648
Manifest Status:	Completed copy
Trans1 State ID:	585OABOK
Trans2 State ID:	Not reported
Generator Ship Date:	890601
Trans1 Recv Date:	890601
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	890608
Part A Recv Date:	890612
Part B Recv Date:	890621
Generator EPA ID:	NY5210524273
Trans1 EPA ID:	OKD981586605
Trans2 EPA ID:	Not reported
TSDF ID:	NCD000648451
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Quantity:	00275
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	005
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Year:	89

Document ID:	VTA0046489
Manifest Status:	Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID:	JD2082NY
Trans2 State ID:	242695NY
Generator Ship Date:	921007
Trans1 Recv Date:	921007
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	921014
Part A Recv Date:	Not reported
Part B Recv Date:	921202
Generator EPA ID:	NY5210524273
Trans1 EPA ID:	NYD980761191
Trans2 EPA ID:	Not reported
TSDF ID:	VTD982766537
Waste Code:	D006 - CADMIUM 1.0 MG/L TCLP
Quantity:	00250
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.

NYARNG NYARNG AASF 2 (Continued) **1000226530**

Specific Gravity:	100
Year:	92

Document ID:	PAB5591390
Manifest Status:	Completed copy
Trans1 State ID:	PA-AH0139
Trans2 State ID:	Not reported
Generator Ship Date:	890309
Trans1 Recv Date:	890309
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	890309
Part A Recv Date:	890321
Part B Recv Date:	890327
Generator EPA ID:	NY5210524273
Trans1 EPA ID:	PAD085690592
Trans2 EPA ID:	Not reported
TSDF ID:	PAD085690592
Waste Code:	D006 - CADMIUM 1.0 MG/L TCLP
Quantity:	00263
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	L Landfill.
Specific Gravity:	100
Waste Code:	Not reported
Quantity:	00110
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	002
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Year:	89

Document ID:	NJA1225962
Manifest Status:	Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID:	NYGR1992
Trans2 State ID:	Not reported
Generator Ship Date:	920124
Trans1 Recv Date:	920124
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	920203
Part A Recv Date:	920204
Part B Recv Date:	920220
Generator EPA ID:	NY5210524273
Trans1 EPA ID:	ILD051060408
Trans2 EPA ID:	Not reported
TSDF ID:	NJD002182897
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Quantity:	00506
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Year:	92

NYARNG NYARNG AASF 2 (Continued) **1000226530**

Document ID:	NYB4560714
Manifest Status:	Completed copy
Trans1 State ID:	JD2082NY
Trans2 State ID:	Not reported
Generator Ship Date:	921007
Trans1 Recv Date:	921007
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	921009
Part A Recv Date:	Not reported
Part B Recv Date:	921020
Generator EPA ID:	NY5210524273
Trans1 EPA ID:	NYD980761191
Trans2 EPA ID:	Not reported
TSDF ID:	NYD000632372
Waste Code:	D003 - NON-LISTED REACTIVE WASTES
Quantity:	00200
Units:	P - Pounds
Number of Containers:	001
Container Type:	DF - Fiberboard or plastic drums (glass)
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	100
Year:	92

Document ID:	NJA1450758
Manifest Status:	Completed copy
Trans1 State ID:	NYGR1992
Trans2 State ID:	NJDEPS869
Generator Ship Date:	920917
Trans1 Recv Date:	920917
Trans2 Recv Date:	920921
TSD Site Recv Date:	920922
Part A Recv Date:	Not reported
Part B Recv Date:	921002
Generator EPA ID:	NY5210524273
Trans1 EPA ID:	ILD051060408
Trans2 EPA ID:	ILD051060408
TSDF ID:	NJD002182897
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Quantity:	00460
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Year:	92

Document ID:	NJA1709588
Manifest Status:	Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID:	NJDEPES50
Trans2 State ID:	NJDEPES50
Generator Ship Date:	940113
Trans1 Recv Date:	940113
Trans2 Recv Date:	940118
TSD Site Recv Date:	940119
Part A Recv Date:	940124

NYARNG NYARNG AASF 2 (Continued) **1000226530**

Part B Recv Date:	940211
Generator EPA ID:	NY5210524273
Trans1 EPA ID:	NYD980761191
Trans2 EPA ID:	NYD980761191
TSDF ID:	NJD002200046
Waste Code:	D006 - CADMIUM 1.0 MG/L TCLP
Quantity:	00550
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100
Waste Code:	Not reported
Quantity:	00350
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100
Year:	94

Document ID:	NYA6093441
Manifest Status:	Completed copy
Trans1 State ID:	U65765NY
Trans2 State ID:	Not reported
Generator Ship Date:	870925
Trans1 Recv Date:	870925
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	870928
Part A Recv Date:	871005
Part B Recv Date:	871005
Generator EPA ID:	NY5210524273
Trans1 EPA ID:	NYD980769947
Trans2 EPA ID:	Not reported
TSDF ID:	NYD043815703
Waste Code:	F002 - HALO SOLV + STILL BOTTOMS FM REC OF SOLV
Quantity:	00165
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	003
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	100
Year:	87

Document ID:	NYA7305138
Manifest Status:	Completed copy
Trans1 State ID:	000000000
Trans2 State ID:	000000000
Generator Ship Date:	890802
Trans1 Recv Date:	890802
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	890808
Part A Recv Date:	890809
Part B Recv Date:	890816
Generator EPA ID:	NY5210524273

NYARNG NYARNG AASF 2 (Continued) **1000226530**

Trans1 EPA ID:	MDD980554653
Trans2 EPA ID:	Not reported
TSDF ID:	NCD000648451
Waste Code:	D008 - LEAD 5.0 MG/L TCLP
Quantity:	00855
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	016
Container Type:	DF - Fiberboard or plastic drums (glass)
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Year:	89

Document ID:	NJA1144542
Manifest Status:	Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID:	NYGR1992
Trans2 State ID:	Not reported
Generator Ship Date:	910510
Trans1 Recv Date:	910510
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	910520
Part A Recv Date:	910520
Part B Recv Date:	910614
Generator EPA ID:	NY5210524273
Trans1 EPA ID:	ILD051060408
Trans2 EPA ID:	Not reported
TSDF ID:	NJD002182897
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Quantity:	01650
Units:	P - Pounds
Number of Containers:	003
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Waste Code:	Not reported
Quantity:	00460
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Year:	91

Click this hyperlink while viewing on your computer to access
3 additional NY_MANIFEST: record(s) in the EDR Site Report.

A8 Target Property **ARMED FORCES RESERVE CENTER** **MANIFEST** **S109781723**
9400 PORTER ROAD **N/A**
NIAGARA FALLS, NY 14304

Site 8 of 13 in cluster A

Actual: 577 ft.

CT MANIFEST:

Waste:

Manifest No:	CTF0486227
Waste Occurence:	1
UNNA:	2208

ARMED FORCES RESERVE CENTER (Continued) **S109781723**

Hazard Class:	5.1
US Dot Description:	CALCIUM HYPOCHLORITE
No of Containers:	011
Container Type:	DM
Quantity:	680
Weight/Volume:	P
Additional Description:	Not reported
Handling Code:	Not reported
Date Record Was Last Modified:	4/26/2004
DEO Who Last Modified Record:	IG

Waste CD:

Manifest No:	CTF0486227
Waste Occurence:	1
EPA Waste Code:	D001
Recycled Waste?:	F
Date Record Was Last Modified:	4/26/2004
DEO Who Last Modified Record:	IG

Detail:

Year:	1996
Manifest ID:	CTF0486227
TSDF EPA ID:	CTD000604488
TSDF Name:	CLEAN HARBORS OF CONNECTICUT, INC.
TSDF Address:	51 BRODERICK RD
TSDF City,St,Zip:	BRISTOL, CT 06010
TSDF Country:	USA
TSDF Telephone:	Not reported
Transport Date:	4/4/1996
Transporter EPA ID:	NYD980769947
Transporter Name:	HAZMAT ENVIRONMENTAL GROUP
Transporter Country:	USA
Transporter Phone:	Not reported
Trans 2 Date:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
Trans 2 Address:	Not reported
Trans 2 City,St,Zip:	CT
Trans 2 Country:	USA
Trans 2 Phone:	Not reported
EPA ID:	NY8210424273
Generator Phone:	7162977909
Generator Mailing Addr:	9400 PORTER RD
Generator Mailing Town:	NIAGARA FALLS
Generator Mailing State:	NY
Generator Mailing Zip:	14304
Generator Mailing Country:	USA
Special Handling:	Not reported
Discrepancies:	Yes
Date Shipped:	4/4/1996
Date Received:	4/9/1996
Last modified date:	4/26/2004
Last modified by:	IG
Comments:	Not reported

A9 Target Property | **ARMY RESERVES 9400 PORTER ROAD NIAGARA FALLS, NY** | **NY Spills** | **S104498022**
NY Hist Spills | **N/A**

Site 9 of 13 in cluster A

Actual: 577 ft.

NY Spills:

Site ID:	400221
Facility Addr2:	Not reported
Facility ID:	0803478
Spill Number:	0803478
Facility Type:	ER
SWIS:	3211
Investigator:	sacaland
Referred To:	Not reported
Spill Date:	6/24/2008
Reported to Dept:	6/24/2008
CID:	444
Spill Cause:	Other
Water Affected:	Not reported
Spill Source:	Institutional, Educational, Gov., Other
Spill Notifier:	Federal Government
Cleanup Ceased:	Not reported
Cleanup Meets Std:	False
Last Inspection:	Not reported
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	Not Closed
Remediation Phase:	1
Date Entered In Computer:	6/24/2008
Spill Record Last Update:	8/1/2011
Spiller Name:	INGRID WEGAND
Spiller Company:	US ARMY RESERVE
Spiller Address:	9400 PORTER ROAD
Spiller City,St,Zip:	NIAGARA FALLS, NY
Spiller Company:	001
Contact Name:	INGRID WEGAND
Contact Phone:	(347) 219-9834
DEC Region:	9
DER Facility ID:	202076
DEC Memo:	6/24/08:SAC TELECON INGRID WEGAND - US ARMY RESERVE. MS. WEGAND SAID THEY HAVE BEEN INVESTIGATING A WHITE MILKY DISCHARGE FROM THEIR NUMBER 5 OUTFALL WHICH THEY SUSPECTED TO BE A PAINT. THEY PUT A CAMERA UP THE PIPE UNTIL THEY RAN INTO THE PIPE INVERT. WHEN THEY EXCAVATED AROUND THE INVERT THEY OBSERVED A REDDISH-BROWN PRODUCT BUBBLE UP IN THE TRENCH WHICH ONE OF THE WORKERS BELIEVED WAS PCB OIL. LESS THAN 4 FLUID OUNCES OF PRODUCT COLLECTED. THEY TOOK A SAMPLE TO HAVE IT ANALYZED. THEY INSTALLED A BALL VALVE IN THE LINE TO PREVENT ANY POTENTIAL DISCHARGE OF THE PRODUCT. SHE IS UNSURE WHETHER EXCAVATION HAS BEEN BACKFILLED. CHRISTINE ALBA FROM HER DEPT IS ON-SITE. WILL ARRANGE MEETING/INSPECTION ON-SITE TOMORROW. 6/24/08:SAC TELECON CHRISTINE ALBA. MS. ALBA SAID THAT EXCAVATION HAS BEEN BACKFILLED DUE TO SAFETY CONCERNS. WILL MEET TO TOMORROW ON-SITE. 6/25/08:SAC INSPECT SITE. MET W/CHRISTINE ALBA. MS. ALBA DOES TR IANNUAL INSPECTIONS AT THE SITE AND NOTICED A WHITE MATERIAL NEXT TO

ARMY RESERVES (Continued) **S104498022**

THE DISCHARGE PIPE OF A STORM LINE THAT RUNS FROM AN OPEN ON-SITE DITCH TO THE DRAINAGE DITCH ALONG PORTER RD. THE ON-SITE STORM DITCH WAS DRY YET THERE WAS AN EFFLUENT COMING OUT AT THE DISCHARGE POINT INDICATING THERE MUST BE ANOTHER LINE THAT WAS HOOKED INTO THIS LINE. THERE WAS A DRAWING SHOWING A LINE THAT DID TEE INTO THE AFFECTED DRAIN-LINE. THIS LINE WAS IN THE FORMER LOCATION OF A 500,000 GALLON TANK WATER RESERVOIR. A TELEVISION CAMERA WAS USED TO DETERMINE THE LOCATION OF THE TEE. A TRENCH WAS EXCAVATED THERE BUT NO PRODUCT WAS OBSERVED. THE TELEVISION CAMERA WAS THEN RUN ALONG THE LINE THAT TEED INTO THE DISCHARGE LINE UNTIL THEY CAME TO A BLOCKAGE. THEY EXCAVATED IN THAT AREA AND HIT A VALVE AT A MUCH SHALLOWER AND UNEXPECTED DEPTH IN COMPARISON TO THE DISCHARGE LINE. IT WAS HERE WHERE THE REDDISH-BROWN PRODUCT WAS FOUND. MEASURES WERE TAKEN TO BLOCK THE LINE SAMPLES WERE TAKEN OF THE PRODUCT AND THE WHITE SEDIMENT MATERIAL INSIDE THE DISCHARGE PIPE FOR A WASTE CHARACTERIZATION ANALYSIS. RESULTS FOR THE WHITE MATERIAL CAME BACK ND EXCEPT FOR PCBS IN THE RANGE OF 2 PPM. THE OTHER RESULTS HAVE NOT BEEN RECEIVED. SAC REQUSTED THE WHITE SEDIMENT MATERIAL BE REMOVED FOR DISPOSAL. IT WAS AGREED THAT A SITE ASSESSMENT TO DETERMINE THE EXTENT OF CONTAMINATION WILL BE PERFORMED IN THE AREA WHERE THE REDDISH-BROWN PRODUCT WAS FOUND. NO TIMETABLE WAS SET FOR WHEN THIS INVESTIGATION WILL TAKE PLACE. BASED ON FUNDING AND THE BID PROCESS REQUIRED, IT WILL NOT BE IN THE VERY IMMEDIATE FUTURE. WILL WAIT FOR THE SAMPLE RESULTS AND REPORT TO BEGIN TO DISCUSS A SCHEDULE.

6/30/08:RECEIVED ANALYTICAL RESULTS AND FIELD MEMO/TRIP REPORT FRO M CHRISTINE ALBA. THE TRIP REPORT INCLUDED PICTURES TAKEN DURING THE INVESTIGATION WORK. MS. ALBA SENT MESSAGE TO SAC INDICATING THAT SAMPLE RESULTS FROM THE INVESTIGATION WILL BE RECEIVED IN 2 WEEKS AND THAT THEY ARE CONTACTING CONTRACTORS IN THE AREA FOR THE CLEANUP OF THE PIPE AND DITCH.

7/14/08:RECEIVED MESSAGE FROM CHRISTINE ALBA, THEY ARE IN THE PROC ESS OF HIRING A CLEANUP CONTRACTOR FOR THE SITE AND WRITING THE SCOPE OF WORK.

7/16/08:RECEIVED ANALYTICAL RESULTS FROM SAMPLING. HAZARDOUS LEVE LS OF PCBs FOUND IN PIPE AND PRODUCT THAT WAS FOUND IN TEST PIT IDENTIFIED AS #2 FUEL OIL.

7/?/08:SAC TELECON CHRISTINE ALBA. MS. ALBA SAID THEY ARE WORKING W/THE CORP OF ENGINEERS IN DEVELOPING WORKPLAN AND HIRING CONTRACTOR FOR THE SITE.

7/29/08:SAC TELECON CHRISTINE ALBA. SHE BELIEVES THE ARMY CORP OF ENGINEERS HAS NEARLY COMPLETED THE WORK PLAN AND THINKS SHE SHOULD HAVE IT TOMORROW OR THE NEXT DAY. ONCE THIS FIRST PHASE OF WORK IS COMPLETED, THEY WILL ADDRESS THE INVESTIGATION OF THE SOURCE OF THE PRODUCT FOUND IN THE FORMER WATER TANK AREA.

8/26/08:SAC TELECON CHRISTINE ALBA. MS. ALBA SAID THE WORK HAS BE EN APPROVED AND FUNDED. THEY ARE NOW TRYING TO SCHEDULE THE WORK WITH THE CONTRACTOR. SHE BELIEVES WORK WILL BE DONE IN THE NEXT FEW WEEKS. INVESTIGATION/EXCAVATION OF THE ON-SITE AREA WON'T TAKE PLACE IN THIS PHASE. THEY ARE STILL IN THE PROCESS OF GETTING FUNDING TO DO THE WORK.

ARMY RESERVES (Continued) **S104498022**

9/25/08:SAC TELECON CHRISTINE ALBA. MS. ALBA SAID WORK IS SCHEDUL
ED FOR 10/14 &
10/15.
10/14/08:RECEIVED MESSAGE FROM CHRISTINE ALBA. WORK HAS BEEN POSTP
ONED FOR THE NEXT FEW
WEEKS.
12/12/08:SAC CALLED CHRISTINE ALBA. LEFT MESSAGE FOR A CALL BACK.
12/22/08:RECEIVED MESSAGE FROM CHRISTINE ALBA. WORK HAS NOT BEEN
COMPLETED. THEY ARE STILL TRYING TO GET CONTRACT PAPERWORK COMPLETED
BY THE END OF 1/09.
1/5/09:SAC TELECON CHRISTINE ALBA. MS. ALBA SAID THEY SHOULD HAVE
THINGS IN PLACE TO RESAMPLE TO DETERMINE THE EXTENT AND THEN SCRAPE
THE DITCH AFTER THE THAW IN EARLY
SPRING.
3/19/09:RECEIVED MESSAGE FROM CHRISTINE ALBA. SAMPLING TO DETERMI
NE EXTENT OF PCB CONTAMINATION WILL BEGIN ON 3/24. THEY EXPECT TO
START SCRAPING IN THE NEXT FEW WEEKS AFTER THE RECEIVE THE RESULTS
BACK.
4/16/09:RECEIVED RESULTS OF THE DITCH SAMPLING FROM CHRISTINE ALBA
. PLAN IS TO SCRAPE TO A DEPTH OF 10 INCHES WITH A CLEAN UP LEVEL
BEING 10 ppm AS PER CFR 40 PART
761.
4/23/09:SAC TELECON MATT FORCUCCI - NYSDOH. DISCUSSED PROPOSAL F
OR A GUIDANCE VALUE OF 10 ppm. MR. FORCUCCI SAID ACCORDING TO 6NYCRR
PART 375, RESIDENTIAL GUIDANCE VALUE IS 1 ppm AND BELIEVES THIS IS
MORE
APPROPRIATE.
4/24/09:SAC TELECON CHRISTINE ALBA. DISCUSSED CLEAN UP GUIDANCE V
ALUE FOR PCBs AND SAC TOLD HER THAT NYSDOH RECOMMENDATION IS 1 ppm
BASED ON PART 375 GUIDANCE VALUES. SHE REQUESTED SAC SEND e-mAIL
REGARDING LOWER GUIDANCE VALUE AND TO CITE THE REFERENCE. SAC SENT
LINK TO PART 375 TO MS. ALBA. OUTFALL PIPE WILL NOT BE REMOVED BUT
IT WILL BE JET CLEANED. SHE IS ALSO WORKING W/THE ARMY CORP OF
ENGINEERS FOR THE INVESTIGATION SCOPE OF
WORK.
5/22/09:RECEIVED MESSAGE FROM CHRISTINE ALBA. THEIR DEPT. DOES NO
T HAVE THE FUNDING TO PROCEED WITH THE CLEAN UP. HOWEVER, THE DEPT.
OF DEFENSE HAS FUNDS TO ALLOW FOR THE CLEAN UP THROUGH THE DSMOA
PROGRAM AND THE ARMY ENVIRONMENTAL COMMAND. MEETING TO DISCUSS SITE
NEXT WEEK TUESDAY,
5/26.
5/26/09:SAC MET W/CHRISTINE ALBA, DOMINIC VAN TASSELL, AND LAURA D
ELL'OLIO - 99TH RSC, CHARLIE DEMARTI - ARMY RESERVE AREA MANAGER AND
BOB SEVCIK - ARMY ENVIRONMENTAL COMMAND. DISCUSSED SITE. THEY WILL
BEGIN TO REQUEST THE NECESSARY FUNDING FOR THE SITE INVESTIGATION AND
THEN FOR A INTERIM CLEAN UP AFTER THIS. MR. SEVCIK ANTICIPATES
GETTING THE FUNDING APPROVAL BY JUNE 30 AND THEN POSSBILY EXCAVATING
THE DITCH BY LATE SUMMER. SAC REQUESTED THE SCRAPING BEGIN FIRST AND
AS SOON AS POSSIBLE. WALKED OVER THE SITE AND REVIEWED THE AREAS OF
CONCERN AS OUTLINED BY DRAFT WORK PLAN THAT WAS SUBMITTED TO THE ARMY
RESERVE/99TH RSC.
6/3/09:DKK, SAC TELECON JOHN SWARTWOUT - DEC/DER CENTRAL OFFICE RE
GARDING PROJECT. MR. SWARTHOUT HEADS SECTION THAT IS RESPONSIBLE
FOR PROJECTS FUNDED BY FEDERAL MILITARY THROUGH DSMOA. DISCUSSED
REQUEST TO HAVE DITCH CLEAN UP TAKE PRECEDENCE FOR THE CLEAN UP. MR.
SWARTWOUT REQUESTED A PROJECT DESCRIPTION SO THAT HE CAN FORWARD IT
TO HIS CONTACT W/THE AEC TO HELP PROCURE FUNDING FOR THIS

ARMY RESERVES (Continued) **S104498022**

WORK.
6/17/09:SAC TELECON CHEK NG - DEC/DER CENTRAL OFFICE. MR. NG WOR
KS FOR JOHN SWARTWOUT. MR. NG RECEIVED A SPREAD SHEET OF TASKS FROM
LAURA DELL'OLIO. DISCUSSED HOW WE WOULD LIKE TO HAVE IT
AMENDED.
6/18/09:SAC TELECON LAURA DELL'OLIO. MS. DELL'OLIO SAID LETTER RE
QUESTING WORK SHOULD BE SENT TO RAVI AJODAH - ARMY
RESERVE.
6/19/09:RECEIVED SPREADSHEET W/AMENDMENTS. 6/20/09:DKK SENT PR
OJECT DESCRIPTION MESSAGE TO JOHN SWARTWOUT.
7/2/09:SAC TELECON CHEK NG. MR. NG BELIEVES LETTER FROM JOHN SWAR
TWOUT WAS SENT TO RAVI AJODAH LAST WEEK.
7/3/09:RECEIVED COPY OF LETTER FROM JOHN SWARTWOUT TO RAVI AJODAH.
NOTE TO FILE:ROD DALTON - DSMOA CONTACT: 402-697-2586 7/7/09:RE
CEIVED MESSAGE FROM LAURA DELL'OLIO. THERE IS A TELECONFERENCE TODAY
TO DISCUSS IMMEDIATE
ACTION.
7/13/09:RECEIVED MESSAGE FROM LAURA DELL'OLIO. THEY HAVE LOCATED
FUNDING FOR THE SURFACE WORK AND HAVE CONTACTED THEIR CONSULTANT TO
PUT TOGETHER A WORK PLAN. MS. DELL'OLIO WILL UPDATE SAC ON STATUS
NEXT
WEEK.
7/28/09:SAC TELECON LAURA DELL'OLIO. CONTRACTOR PUT TOGETHER WORK
PLAN FOR ADDITIONAL DELINEATION SAMPLING. ARMY INSTRUCTED
CONTRACTOR WORK PLAN SHOULD BE FOR AN EMERGENCY SCRAPE. CONTRACTOR
IS WORKING ON NEW PLAN AND SHOULD PRESENT IT TO THE ARMY SHORTLY.
8/6/09:RECEIVED WORK PLAN. 8/10/09:TERRI MUCHA-DEC OFFICE OF GE
NERAL COUNSEL, JOHN SWARTWOUT AND SAC CONFERENCE CALL W/CHRISTINE
ALBA, LAURA DELL'OLIO, A REPRESENTATIVE FROM THEIR FUNDING/CONTRACT
OFFICE AND KIRAN GILL - PARS (CONTRACTOR FOR THE 99TH RSC).
DISCUSSED NEED TO REMOVE CONTAMINATED MATERIAL FROM DRAINAGE DITCH AS
SOON AS POSSIBLE. PROPOSED SCHEDULE WAS IN 8 TO 10 WEEKS. SAC
REQUESTED A SHORTER TIME FRAME. AGREED TO HAVE WORK BEGIN BY 9/14
AND TO SECURE AFFECTED DRAINAGE DITCH AREA.
9/11/09:RECEIVED MESSAGE FROM CHRISTINE ALBA. CLEANING OF THE OUT
FALL PIPE TOOK PLACE TODAY. BASED ON ATTACHED LETTER FROM RAVI
AJODAH - 99TH RSC BASE TRANSITION COORDINATOR, DITCH CLEAN UP IS
SCHEDULED TO BEGIN
9/15.
9/14/09:SAC INSPECT SITE. FENCING IN PLACE AROUND DITCH CONTAMINA
TED
AREA.
9/16/09:SAC INSPECT SITE. NO ONE PRESENT. NUMEROUS DRUMS AND SOI
L STAGED AND COVERED WITH PLASTIC WITH HAY BALES AS CONTAINMENT.
AREA STILL FENCED IN. DITCH AREA THAT WAS EXCAVATED WAS ALSO COVERED
WITH A BLACK FABRIC
MATERIAL.
10/13/09:SAC TELECON CHRISTINE ALBA. MS. ALBA SAID THEY HAVE RECE
IVED CONFIRMATORY ANALYTICAL RESULTS BACK FROM THE EXCAVATION AND
THEY ARE ALL BELOW THE 1 ppm GUIDANCE VALUE. THEY WILL PROCEED TO
BACKFILL THE
EXCAVATION.
10/14/09:RECEIVED MESSAGE FROM LAURA DELL'OLIO THROUGH JOHN SWARTW
OUT. FUNDING FOR THE INVESTIGATION PART OF THE PROJECT IS SCHEDULED
FOR THE 1ST QUARTER OF FEDERAL FISCAL YEAR 2011. HOWEVER, THERE MAY
BE A POSSIBILITY THAT IT COULD TAKE PLACE THE SECOND QUARTER OF THIS
FISCAL YEAR

ARMY RESERVES (Continued) **S104498022**

(2010).
11/16/09:SAC TELECON JOHN SWARTWOUT. MR. SWARTWOUT CLARIFIED THAT FEDERAL FISCAL YEAR 2011 WILL BEGIN NEXT OCTOBER SO THE FUNDING FOR THE INVESTIGATION IS SCHEDULED FOR OCT.-DEC.
2010.
1/26/10:SAC SENT MESSAGE TO CHRISTINE ALBA REGARDING ROADSIDE DITC H CLEAN UP
REPORT.
RECEIVED MESSSAGE FROM CHRISTINE ALBA THAT SHE DOES NOT HAVE REPOR T FROM CONSULTANT. CONTAMINATED SOIL WAS DISPOSED 12/4/09. SHE WILL SEND IN REPORT ONCE SHE RECEIVES
IT.
3/3/10:RECEIVED MESSAGE THROUGH JOHN SWARTOUT FROM LAURA DELL'OLIO . THE BRAC IS PREDICITING FUNDING FOR THE REMEDIAL INVESTIGATION IN LATE
2010.
4/19/10:SENT MESSAGE TO CHRISTINE ALBA IF REPORT FROM DITCH CLEAN UP IS
AVAILABLE.
5/6/10:RECEIVED MESSAGE FROM LAURA DELL'OLIO THAT SHE WILL SEND IN DITCH CLEAN UP
REPORT.
5/12/10:RECEIVED DITCH CLEAN UP REPORT. 5/20/10:SAC SENT COPY O F DITCH CLEAN UP REPORT TO MATT FORCUCCI. SAC REVIEWED REPORT. CONFIRMATORY SAMPLE RESULTS ARE ALL LESS THAN 1 PPM. DISPOSAL RECEIPTS
INCLUDED.
9/3/10:RECEIVED MESSAGE FROM LAURA DELL'OLIO THROUGH JOHN SWARTOUT . THEY HAVE RECEIVED FUNDING FOR THE ON-SITE
INVESTIGATION.
10/4/10:RECEIVED MESSAGE FROM LAURA DELL'OLIO THAT PARS IS CONTRAC TOR THAT HAS BEEN AWARDED THE JOB AND ATTACHED THE PROJECT'S SCOPE OF WORK.
10/19/10:RECEIVED MESSAGE FROM LAURA DELL'OLIO THAT THE DRAFT SAMP LING AND ANALYSIS PLAN WILL BE SUBMITTED TO DEC FOR REVIEW IN THE NEXT FEW
WEEKS.
10/28/10:SAC TELECON DAN EATON - DEC - DER CENTRAL OFFICE REGARDIN G JEP
ESTIMATES.
11/2/10:RECEIVED SAMPLING WORK PLAN. 11/10/10:REVIEWED WORK PLA N. PLAN INVOLVES: 1)GEOPHYSICAL STUDY TO IDENTIFY USTs; 2)THE INSTALLATION OF 22 GEOPROBES; 3)SOIL SAMPLING AND ANALYSIS 4)EXCAVATION TO INSPECT THE FORMER FIRE SUPPRESSANT WATER MAIN. SENT COMMENTS.
SCHEDULE PROPOSED IS FOR THE GEOPHYSICAL STUDY TO START WEEK OF 11 /22. GEOPHYSICAL STUDY REPORT COMPLETED WEEK OF 11/29. SOIL SAMPLING WORK TO START WEEK OF 12/6. FIRE SUPPRESSION WATER MAIN INSPECTION TO START WEEK OF 12/13. SITE REPORT SCHEDULED TO BE COMPLETED
2/28.
12/9/10:SAC TELECON LAURA DELL'OLIO. THE SOIL/GW SAMPLING PART OF THE INVESTIGATION WAS COMPLETED YESTERDAY AND THEY FILLED IN ALL BORINGS AND TEST PITS TODAY. PER MS. DELL'OLIO WHILE SHEENS AND GLOBULES WERE FOUND IN SOME OF THE THE INSTALLATIONS, THE SOURCE AREA/EXTENT OF CONTAMINATION APPEARS TO BE A RELATIVELY SMALL AREA. THE INVESTIGATION REPORT SHOULD BE COMPLETED IN THE NEXT MONTHS.

ARMY RESERVES (Continued) **S104498022**

SHE ANTICIPATES THE NEXT SCOPE OF WORK TO BEGIN NEXT SUMMER.
2/11/11:RECEIVED MESSAGE FROM LAURA DELL'OLIO. THEY ARE WAITING F OR THE INTERNAL DRAFT REPORT. SHE ANTICIPATES SAC WILL RECEIVE THE REPORT IN MID-MARCH.
3/30/11:RECEIVED SITE INSPECTION REPORT. 5/20/11:SENT COMMENTS TO LAURA DELL'OLIO REGARDING THE SITE INSPECTION PLAN.
6/7/11:RECEIVED UPDATED SITE INSPECTION REPORT. 7/1/11:RECEIVED MESSAGE FROM LAURA DELL'OLIO. WORK PLAN MOST LIKELY WILL BE SUBMITTED LATE THIS MONTH OR EARLY NEXT MONTH. THE WORK WOULD THEN BEGIN EITHER LATE AUGUST OR EARLY SEPTEMBER.
7/18/11:RECEIVED MESSAGE THAT PROJECT OVERSIGHT WILL BE HANDLED BY DER-ALBANY.
08/01/2011: GPS PROJECT TRANSFERED TO REMEDIAL BUREAU A, SECTION C . ALL EDOC'D FILES HAVE BEEN PLACED UNDER HW SITE NO.932152

Remarks: ABOUT 10 YEARS AGO WERE TRANSFORMERS ON SITE AND WAS ALL CLEANED UP : THINK IT MAY BE COMING UP FROM FORMER SPILL AND FOUND DURING OUTFALL INSPECTIONS... FOUND A BLOCKED PIPE AND A UNDOING IT A SMALL POOL WAS REALEASED AND MAYBE THE PIPE WAS HOLDING OIL AND THEY WILL CAP IT SO NOTHING ELES CAN BE RELEASED> AND CREW ON SITE

Material:

Site ID:	400221
Operable Unit ID:	1157058
Operable Unit:	01
Material ID:	2148069
Material Code:	0017A
Material Name:	PCB OIL
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

Site ID:	246071
Facility Addr2:	Not reported
Facility ID:	9107717
Spill Number:	9107717
Facility Type:	ER

ARMY RESERVES (Continued) **S104498022**

SWIS:	3211
Investigator:	COOKE
Referred To:	Not reported
Spill Date:	10/18/1991
Reported to Dept:	10/18/1991
CID:	Not reported
Spill Cause:	Other
Water Affected:	Not reported
Spill Source:	Institutional, Educational, Gov., Other
Spill Notifier:	Other
Cleanup Ceased:	3/6/1992
Cleanup Meets Std:	True
Last Inspection:	Not reported
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	3/6/1992
Remediation Phase:	0
Date Entered In Computer:	10/25/1991
Spill Record Last Update:	4/9/1993
Spiller Name:	Not reported
Spiller Company:	UNITED STATES ARMY
Spiller Address:	Not reported
Spiller City,St,Zip:	ZZ
Spiller Company:	001
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	202076
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "JDC" 10/18/91: TANK RUPTURED WHILE BEING REMOVED. SILLAGE HELD IN CONCRETE VAULT AND SORBENTS. CLEANUP UNDERWAY ACCORDING TO MR MURDOUGH. NCHD NOTIFIED AND WILL FOLLOWUP. 03/06/92: SORBENTS USED AND DISPOSED OF. NO FURTHER ACTION REQUIRED.
Remarks:	TANK RUPTURED WHILE BEING REMOVED

Material:

Site ID:	246071
Operable Unit ID:	961792
Operable Unit:	01
Material ID:	419909
Material Code:	0001
Material Name:	#2 Fuel Oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	200
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported

ARMY RESERVES (Continued) **S104498022**

Test Method: Not reported
Leak Rate: Not reported
Gross Fail: Not reported
Modified By: Not reported
Last Modified: Not reported
Test Method: Not reported

Click this hyperlink while viewing on your computer to access additional NY_SPILL: detail in the EDR Site Report.

NY Hist Spills:
Region of Spill: 9
Spill Number: 9107717
Investigator: JDC
Caller Name: Not reported
Caller Agency: Not reported
Caller Phone: Not reported
Notifier Name: Not reported
Notifier Agency: Not reported
Notifier Phone: Not reported
Spill Date/Time: 10/18/1991 11:50
Reported to Dept Date/Time: 10/18/91 12:20
SWIS: 29
Spiller Name: UNITED STATES ARMY
Spiller Contact: Not reported
Spiller Phone: (716) 297-7909
Spiller Address: Not reported
Spiller City,St,Zip: Not reported
Spill Cause: Other
Reported to Dept: Groundwater
Water Affected: Not reported
Spill Source: 02
Spill Notifier: Other
PBS Number: Not reported
Cleanup Ceased: 03/06/92
Cleanup Meets Std: True
Last Inspection: / /
Recommended Penalty: Penalty Not Recommended
Spiller Cleanup Dt: / /
Enforcement Date: / /
Invstgn Complete: / /
UST Involvement: False
Spill Class: Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt: 03/06/92
Corrective Action Plan Submitted: / /
Date Region Sent Summary to Central Office: / /
Date Spill Entered In Computer Data File: 10/25/91
Date Spill Entered In Computer Data File: Not reported
Update Date: 04/09/93
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported

ARMY RESERVES (Continued) **S104498022**

Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 200
Unkonwn Quantity Spilled: False
Units: Gallons
Quantity Recovered: 0
Unkonwn Quantity Recovered: False
Material: #2 FUEL OIL
Class Type: #2 FUEL OIL
Times Material Entry In File: 24464
CAS Number: Not reported
Last Date: 19941207
DEC Remarks: 10/18/91: TANK RUPTURED WHILE BEING REMOVED. SILLAGE HELD IN CONCRETE VAULT AND SORBENTS. CLEANUP UNDERWAY ACCORDING TO MR MURDOUGH. NCHD NOTIFIED AND WILL FOLLOWUP. 03/06/92: SORBENTS USED AND DISPOSED OF. NO FURTHER ACTION REQUIRED.
Remark: TANK RUPTURED WHILE BEING REMOVED

A10 Target Property **FORT DRUM ARM SERVICES** **MANIFEST** **1009226225**
9400 PORTER RD **N/A**
NIAGARA FALLS, NY 14304

Site 10 of 13 in cluster A

Actual: 577 ft.

NY MANIFEST:
EPA ID: NYD010424273
Country: USA
Mailing Name: FORT DRUM ARM SERVICES
Mailing Contact: EDMUND ZIEZINSKI
Mailing Address: 9400 PORTER ROAD BLDG 18
Mailing Address 2: Not reported
Mailing City: NIAGARA FALLS
Mailing State: NY
Mailing Zip: 14304
Mailing Zip4: Not reported
Mailing Country: USA
Mailing Phone: 716-297-7200

Document ID: NYC2407645
Manifest Status: Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID: NYCL9286
Trans2 State ID: Not reported
Generator Ship Date: 930708
Trans1 Recv Date: 930708
Trans2 Recv Date: Not reported
TSD Site Recv Date: 930708
Part A Recv Date: Not reported
Part B Recv Date: 930816
Generator EPA ID: NYD010424273
Trans1 EPA ID: ILD984908202
Trans2 EPA ID: Not reported
TSDF ID: NYD981556541
Waste Code: D001 - NON-LISTED IGNITABLE WASTES
Quantity: 00006

FORT DRUM ARM SERVICES (Continued) **1009226225**

Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100
Year:	93

A11 Target Property **UNITED STATES MILITARY** **MANIFEST** **1009232989**
RESERVE CENTER 9400 PORTER RD **N/A**
NIAGARA FALLS, NY 14304

Site 11 of 13 in cluster A

Actual: 577 ft.

NY MANIFEST:

EPA ID:	NYP000903187
Country:	USA
Mailing Name:	UNITED STATES MILITARY
Mailing Contact:	JOE PANGALLO
Mailing Address:	RESERVE CENTER 9400 PORTER RD
Mailing Address 2:	Not reported
Mailing City:	NIAGARA FALLS
Mailing State:	NY
Mailing Zip:	14304
Mailing Zip4:	Not reported
Mailing Country:	USA
Mailing Phone:	716-297-7615

Document ID:	NYB2491587
Manifest Status:	Completed copy
Trans1 State ID:	27223ANY
Trans2 State ID:	Not reported
Generator Ship Date:	910926
Trans1 Recv Date:	910926
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	910928
Part A Recv Date:	911004
Part B Recv Date:	911016
Generator EPA ID:	NYP000903187
Trans1 EPA ID:	NYD097644801
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	08873
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	91

Document ID:	NYB2491785
Manifest Status:	Completed copy
Trans1 State ID:	79615ZNY
Trans2 State ID:	Not reported
Generator Ship Date:	910930
Trans1 Recv Date:	910930

UNITED STATES MILITARY (Continued) **1009232989**

Trans2 Recv Date:	Not reported
TSD Site Recv Date:	910930
Part A Recv Date:	911010
Part B Recv Date:	911016
Generator EPA ID:	NYP000903187
Trans1 EPA ID:	NYD097644801
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	09979
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DT - Dump trucks
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	91

Document ID:	NYB4513779
Manifest Status:	Completed copy
Trans1 State ID:	E69849ME
Trans2 State ID:	Not reported
Generator Ship Date:	911009
Trans1 Recv Date:	911009
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	911009
Part A Recv Date:	911028
Part B Recv Date:	911018
Generator EPA ID:	NYP000903187
Trans1 EPA ID:	NYD097644801
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	13363
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DT - Dump trucks
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	91

Document ID:	NYB4513824
Manifest Status:	Completed copy
Trans1 State ID:	E69849ME
Trans2 State ID:	Not reported
Generator Ship Date:	911011
Trans1 Recv Date:	911011
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	911014
Part A Recv Date:	Not reported
Part B Recv Date:	911029
Generator EPA ID:	NYP000903187
Trans1 EPA ID:	NYD097644801
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES

UNITED STATES MILITARY (Continued) **1009232989**

Quantity:	11921
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DT - Dump trucks
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	91

Document ID:	NYB2491704
Manifest Status:	Completed copy
Trans1 State ID:	86240DNY
Trans2 State ID:	Not reported
Generator Ship Date:	910927
Trans1 Recv Date:	910927
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	910927
Part A Recv Date:	911007
Part B Recv Date:	911016
Generator EPA ID:	NYP000903187
Trans1 EPA ID:	NYD051809952
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	13699
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	91

Document ID:	NYB2491758
Manifest Status:	Completed copy
Trans1 State ID:	81046UNY
Trans2 State ID:	Not reported
Generator Ship Date:	911008
Trans1 Recv Date:	911008
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	911008
Part A Recv Date:	911016
Part B Recv Date:	911017
Generator EPA ID:	NYP000903187
Trans1 EPA ID:	NYD051809952
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	11558
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	91

UNITED STATES MILITARY (Continued) **1009232989**

Document ID:	NYB2491740
Manifest Status:	Completed copy
Trans1 State ID:	85865DNY
Trans2 State ID:	Not reported
Generator Ship Date:	911008
Trans1 Recv Date:	911008
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	911008
Part A Recv Date:	911016
Part B Recv Date:	911017
Generator EPA ID:	NYP000903187
Trans1 EPA ID:	NYD051809952
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	18126
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	91

Document ID:	NYB4513797
Manifest Status:	Completed copy
Trans1 State ID:	81046VNY
Trans2 State ID:	Not reported
Generator Ship Date:	911009
Trans1 Recv Date:	911009
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	911009
Part A Recv Date:	911028
Part B Recv Date:	911028
Generator EPA ID:	NYP000903187
Trans1 EPA ID:	NYD051809952
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	14733
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	91

Document ID:	NYB4513914
Manifest Status:	Completed copy
Trans1 State ID:	79628ZNY
Trans2 State ID:	Not reported
Generator Ship Date:	911008
Trans1 Recv Date:	911008
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	911008
Part A Recv Date:	911017

UNITED STATES MILITARY (Continued) **1009232989**

Part B Recv Date:	911028
Generator EPA ID:	NYP000903187
Trans1 EPA ID:	NYD097644801
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	24648
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DT - Dump trucks
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	91

Document ID:	NYB4513923
Manifest Status:	Completed copy
Trans1 State ID:	E69849MI
Trans2 State ID:	Not reported
Generator Ship Date:	911008
Trans1 Recv Date:	911008
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	911008
Part A Recv Date:	911017
Part B Recv Date:	911017
Generator EPA ID:	NYP000903187
Trans1 EPA ID:	NYD097644801
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	12111
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DF - Fiberboard or plastic drums (glass)
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	91

Document ID:	NYB2491713
Manifest Status:	Completed copy
Trans1 State ID:	86240DNY
Trans2 State ID:	Not reported
Generator Ship Date:	911003
Trans1 Recv Date:	911003
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	911003
Part A Recv Date:	911011
Part B Recv Date:	911015
Generator EPA ID:	NYP000903187
Trans1 EPA ID:	NYD051809952
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	10914
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001

UNITED STATES MILITARY (Continued) **1009232989**

Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	91

Document ID:	NYB2491632
Manifest Status:	Completed copy
Trans1 State ID:	86240DNY
Trans2 State ID:	Not reported
Generator Ship Date:	910926
Trans1 Recv Date:	910926
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	910927
Part A Recv Date:	911004
Part B Recv Date:	911007
Generator EPA ID:	NYP000903187
Trans1 EPA ID:	NYD051809952
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	16729
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	91

Document ID:	NYB4513815
Manifest Status:	Completed copy
Trans1 State ID:	TH80270PA
Trans2 State ID:	Not reported
Generator Ship Date:	911011
Trans1 Recv Date:	911011
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	911014
Part A Recv Date:	Not reported
Part B Recv Date:	911104
Generator EPA ID:	NYP000903187
Trans1 EPA ID:	NYD097644801
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	24159
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DT - Dump trucks
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	91

Document ID:	NYB2491731
Manifest Status:	Completed copy
Trans1 State ID:	86240DNY

UNITED STATES MILITARY (Continued) **1009232989**

Trans2 State ID:	Not reported
Generator Ship Date:	911004
Trans1 Recv Date:	911004
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	911004
Part A Recv Date:	911017
Part B Recv Date:	911016
Generator EPA ID:	NYP000903187
Trans1 EPA ID:	NYD051809952
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	16918
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	91

Document ID:	NYB2827827
Manifest Status:	Completed copy
Trans1 State ID:	85884DNY
Trans2 State ID:	Not reported
Generator Ship Date:	910926
Trans1 Recv Date:	910926
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	910926
Part A Recv Date:	911004
Part B Recv Date:	911007
Generator EPA ID:	NYP000903187
Trans1 EPA ID:	NYD051809952
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	13980
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	91

Document ID:	NYB4513788
Manifest Status:	Completed copy
Trans1 State ID:	85865DNY
Trans2 State ID:	Not reported
Generator Ship Date:	911009
Trans1 Recv Date:	911009
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	911009
Part A Recv Date:	911028
Part B Recv Date:	911018
Generator EPA ID:	NYP000903187
Trans1 EPA ID:	NYD051809952

UNITED STATES MILITARY (Continued) **1009232989**

Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	10868
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	91

Document ID:	NYB2491677
Manifest Status:	Completed copy
Trans1 State ID:	46737TNY
Trans2 State ID:	Not reported
Generator Ship Date:	910927
Trans1 Recv Date:	910927
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	910927
Part A Recv Date:	911004
Part B Recv Date:	911007
Generator EPA ID:	NYP000903187
Trans1 EPA ID:	NYD051809952
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	09380
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	91

Document ID:	NYB2827800
Manifest Status:	Completed copy
Trans1 State ID:	86240DNY
Trans2 State ID:	Not reported
Generator Ship Date:	910925
Trans1 Recv Date:	910925
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	910925
Part A Recv Date:	911004
Part B Recv Date:	911008
Generator EPA ID:	NYP000903187
Trans1 EPA ID:	NYD051809952
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	16003
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	L Landfill.
Specific Gravity:	100

UNITED STATES MILITARY (Continued) **1009232989**

Year: 91

Document ID: NYB4513869
Manifest Status: Completed copy
Trans1 State ID: E69849ME
Trans2 State ID: Not reported
Generator Ship Date: 911007
Trans1 Recv Date: 911007
Trans2 Recv Date: Not reported
TSD Site Recv Date: 911007
Part A Recv Date: 911016
Part B Recv Date: 911017
Generator EPA ID: NYP000903187
Trans1 EPA ID: NYD097644801
Trans2 EPA ID: Not reported
TSDF ID: NYD049836679
Waste Code: B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity: 17618
Units: K - Kilograms (2.2 pounds)
Number of Containers: 001
Container Type: DT - Dump trucks
Handling Method: L Landfill.
Specific Gravity: 100
Year: 91

Document ID: NYB2491605
Manifest Status: Completed copy
Trans1 State ID: 85884DNY
Trans2 State ID: Not reported
Generator Ship Date: 910926
Trans1 Recv Date: 910926
Trans2 Recv Date: Not reported
TSD Site Recv Date: 910927
Part A Recv Date: 911004
Part B Recv Date: 911007
Generator EPA ID: NYP000903187
Trans1 EPA ID: NYD051809952
Trans2 EPA ID: Not reported
TSDF ID: NYD049836679
Waste Code: B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity: 13182
Units: K - Kilograms (2.2 pounds)
Number of Containers: 001
Container Type: CM - Metal boxes, cases, roll-offs
Handling Method: L Landfill.
Specific Gravity: 100
Year: 91

Click this hyperlink while viewing on your computer to access
27 additional NY_MANIFEST: record(s) in the EDR Site Report.

A12 Target Property | **NIAGARA FALLS AIRPORT**
9400 PORTER ROAD
NIAGARA FALLS, NY | **NY Spills** | **S102178092**
NY Hist Spills | **N/A**

Site 12 of 13 in cluster A

Actual: 577 ft.

NY Spills:

Site ID:	221621
Facility Addr2:	NFAFB
Facility ID:	9306789
Spill Number:	9306789
Facility Type:	ER
SWIS:	3211
Investigator:	SACALAND
Referred To:	Not reported
Spill Date:	9/2/1993
Reported to Dept:	9/2/1993
CID:	Not reported
Spill Cause:	Human Error
Water Affected:	Not reported
Spill Source:	Commercial/Industrial
Spill Notifier:	Responsible Party
Cleanup Ceased:	11/15/1993
Cleanup Meets Std:	True
Last Inspection:	9/3/1993
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	11/15/1993
Remediation Phase:	0
Date Entered In Computer:	9/2/1993
Spill Record Last Update:	11/17/1993
Spiller Name:	Not reported
Spiller Company:	AIR FORCE RESERVES NFAFB
Spiller Address:	9400 PORTER AVENUE
Spiller City,St,Zip:	NIAGARA FALLS, NY
Spiller Company:	001
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	183284
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "SAC" 09/02/93: SAC/PAUL DICKY, NCHD/TELECON - HE WILL FOLLOW-UP. 11/15/93: RECEIVED REPORT FROM NCHD,INCLUDING CONFIRMATORY SAMPLE RESULTS AND DISPOSAL RECEIPTS.
Remarks:	FUEL POD SLIPPED OFF FORK LIFT WHILE MOVING IT.

Material:

Site ID:	221621
Operable Unit ID:	984957
Operable Unit:	01
Material ID:	396631
Material Code:	0008
Material Name:	Diesel
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	80
Units:	Gallons
Recovered:	50

NIAGARA FALLS AIRPORT (Continued) **S102178092**

Resource Affected: Not reported
Oxygenate: False

Tank Test:
Site ID: Not reported
Spill Tank Test: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate: Not reported
Gross Fail: Not reported
Modified By: Not reported
Last Modified: Not reported
Test Method: Not reported

Site ID: 156906
Facility Addr2: Not reported
Facility ID: 9975739
Spill Number: 9975739
Facility Type: ER
SWIS: 3200
Investigator: SACALAND
Referred To: NIAGARA CNTY HEALTH DEPT
Spill Date: 12/2/1999
Reported to Dept: 12/3/1999
CID: Not reported
Spill Cause: Equipment Failure
Water Affected: Not reported
Spill Source: Non Major Facility > 1,100 gal
Spill Notifier: Health Department
Cleanup Ceased: Not reported
Cleanup Meets Std: True
Last Inspection: 12/9/1999
Recommended Penalty: Penalty Not Recommended
UST Trust: False
Spill Class: Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt: 3/28/2000
Remediation Phase: 0
Date Entered In Computer: 3/23/2000
Spill Record Last Update: 3/31/2000
Spiller Name: MELVIN SHAKHAN
Spiller Company: TECH AVIATION
Spiller Address: 9900 PORTER ROAD
Spiller City,St,Zip: NIAGARA FALLS, NY 14304-
Spiller Company: 001
Contact Name: MELVIN SHAKHAN
Contact Phone: (716) 298-9307
DEC Region: 9
DER Facility ID: 283127
DEC Memo: Prior to Sept, 2004 data translation this spill Lead_DEC Field was "SAC-NCHD" 12/03/00: SAC TELECON PAUL DICKY, NCHD, HE WAS NOTIFIED OF THE SPILL BY THURMAN JAMES, NFTA GROUND FOREMAN, HE IS FOLLOWING UP. 03/23/00: SAC TELECON PAUL DICKY, HE SAID SPILL CLEANED UP AND HE HAS DISPOSAL RECEIPTS AND WILL SEND IN INSPECTION REPORT FOR CLOSEOUT. 03/27/00: SAC RECEIVED NCHD INSPECTION REPORT FROM PAUL

NIAGARA FALLS AIRPORT (Continued) **S102178092**

Remarks: DICKY, INCLUDING DISPOSAL RECEIPTS, SPILL CLEANED UP.
WHILE FILLING FUEL TRUCK FOR AIRCRAFT AUTOSHUT OFF ON FUEL TRUCK FAILED TO SHUT OFF

Material:

Site ID:	156906
Operable Unit ID:	1091874
Operable Unit:	01
Material ID:	290287
Material Code:	0011
Material Name:	Jet Fuel
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	50
Units:	Gallons
Recovered:	50
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

Click this hyperlink while viewing on your computer to access additional NY_SPILL: detail in the EDR Site Report.

NY Hist Spills:

Region of Spill:	9
Spill Number:	9975739
Investigator:	SAC-NCHD
Caller Name:	Not reported
Caller Agency:	Not reported
Caller Phone:	Not reported
Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported
Spill Date/Time:	12/02/1999 22:00
Reported to Dept Date/Time:	12/03/99 13:10
SWIS:	29
Spiller Name:	TECH AVIATION
Spiller Contact:	MELVIN SHAKHAN
Spiller Phone:	(716) 298-9307
Spiller Contact:	MELVIN SHAKHAN
Spiller Phone:	(716) 298-9307
Spiller Address:	9900 PORTER ROAD
Spiller City,St,Zip:	NIAGARA FALLS, NY 14304-
Spill Cause:	Equipment Failure
Reported to Dept:	On Land

NIAGARA FALLS AIRPORT (Continued) **S102178092**

Water Affected: Not reported
Spill Source: 04
Spill Notifier: Health Department
PBS Number: Not reported
Cleanup Ceased: / /
Cleanup Meets Std: True
Last Inspection: 12/09/99
Recommended Penalty: Penalty Not Recommended
Spiller Cleanup Dt: / /
Enforcement Date: / /
Invstgn Complete: / /
UST Involvement: False
Spill Class: Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt: 03/28/00
Corrective Action Plan Submitted: / /
Date Region Sent Summary to Central Office: / /
Date Spill Entered In Computer Data File: 03/23/00
Date Spill Entered In Computer Data File: 10:22
Update Date: 03/31/00
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 50
Unkonwn Quantity Spilled: False
Units: Gallons
Quantity Recovered: 50
Unkonwn Quantity Recovered: False
Material: JET FUEL
Class Type: JET FUEL
Times Material Entry In File: 1264
CAS Number: Not reported
Last Date: 19940728
DEC Remarks: 12/03/00: SAC TELECON PAUL DICKY, NCHD, HE WAS NOTIFIED OF THE SPILL BY THURMAN JAMES, NFTA GROUND FOREMAN, HE IS FOLLOWING UP. 03/23/00: SAC TELECON PAUL DICKY, HE SAID SPILL CLEANED UP AND HE HAS DISPOSAL RECEIPTS AND WILL SEND IN INSPECTION REPORT FOR CLOSEOUT. 03/27/00: SAC RECEIVED NCHD INSPECTION REPORT FROM PAUL DICKY, INCLUDING DISPOSAL RECEIPTS, SPILL CLEANED UP.
Remark: WHILE FILLING FUEL TRUCK FOR AIRCRAFT AUTOSHUT OFF ON FUEL TRUCK FAILED TO SHUT OFF

Region of Spill: 9
Spill Number: 9306789
Investigator: SAC
Caller Name: Not reported
Caller Agency: Not reported
Caller Phone: Not reported
Notifier Name: Not reported
Notifier Agency: Not reported

NIAGARA FALLS AIRPORT (Continued) **S102178092**

Notifier Phone:	Not reported
Spill Date/Time:	09/02/1993 11:30
Reported to Dept Date/Time:	09/02/93 11:37
SWIS:	29
Spiller Name:	AIR FORCE RESERVES NFAFB
Spiller Contact:	Not reported
Spiller Phone:	(716) 298-1420
Spiller Address:	9400 PORTER AVENUE
Spiller City,St,Zip:	NIAGARA FALLS, NY
Spill Cause:	Human Error
Reported to Dept:	On Land
Water Affected:	Not reported
Spill Source:	01
Spill Notifier:	Responsible Party
PBS Number:	Not reported
Cleanup Ceased:	11/15/93
Cleanup Meets Std:	True
Last Inspection:	09/03/93
Recommended Penalty:	Penalty Not Recommended
Spiller Cleanup Dt:	/ /
Enforcement Date:	/ /
Invstgn Complete:	/ /
UST Involvement:	False
Spill Class:	Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	11/15/93
Corrective Action Plan Submitted:	/ /
Date Region Sent Summary to Central Office:	/ /
Date Spill Entered In Computer Data File:	09/02/93
Date Spill Entered In Computer Data File:	Not reported
Update Date:	11/17/93
Is Updated:	False

Tank:

PBS Number:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate Failed Tank:	Not reported
Gross Leak Rate:	Not reported

Material:

Material Class Type:	Petroleum
Quantity Spilled:	80
Unkonwn Quantity Spilled:	False
Units:	Gallons
Quantity Recovered:	50
Unkonwn Quantity Recovered:	False
Material:	DIESEL
Class Type:	DIESEL
Times Material Entry In File:	10625
CAS Number:	Not reported
Last Date:	19940728
DEC Remarks:	09/02/93: SAC/PAUL DICKY, NCHD/TELECON - HE WILL FOLLOW-UP. 11/15/93: RECEIVED REPORT FROM NCHD,INCLUDING CONFIRMATORY SAMPLE RESULTS AND DISPOSAL RECEIPTS.
Remark:	FUEL POD SLIPPED OFF FORK LIFT WHILE MOVING IT.

A13 SSE < 1/8 0.003 mi. 15 ft. | **NIAGARA MOHAWK POLE 9401 PORTER ROAD NIAGARA FALLS, NY** | **NY Spills** | **S103937442**
NY Hist Spills | **N/A**

Site 13 of 13 in cluster A

Relative: Lower

Actual: 576 ft.

NY Spills:

Site ID:	210076
Facility Addr2:	Not reported
Facility ID:	9901922
Spill Number:	9901922
Facility Type:	ER
SWIS:	3211
Investigator:	BRENNAN
Referred To:	Not reported
Spill Date:	5/19/1999
Reported to Dept:	5/19/1999
CID:	198
Spill Cause:	Other
Water Affected:	Not reported
Spill Source:	Commercial/Industrial
Spill Notifier:	Responsible Party
Cleanup Ceased:	Not reported
Cleanup Meets Std:	True
Last Inspection:	Not reported
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Possible release with minimal potential for fire or hazard or Known release with no damage. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	5/19/1999
Remediation Phase:	0
Date Entered In Computer:	5/19/1999
Spill Record Last Update:	6/1/1999
Spiller Name:	WILLIAM HESSON
Spiller Company:	NIAGARA MOHAWK
Spiller Address:	1720 NEW ROAD
Spiller City,St,Zip:	NIAGARA FALLS, NY 14304-
Spiller Company:	001
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	174152
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "KAB" 05/19/99: KAB RECEIVED REPORT OF MINOR SPILLAGE OF 3 GALLONS OF TRANSFORMER OIL. SPILLAGE WAS CLEANED UP BY NIAGARA MOHAWK CREW. FAXED COPY OF REPORT TO NCHD. NO FURTHER ACTION NECESSARY. CLOSE OUT.
Remarks:	possible that transformer was struck by lightning causing transformer to leak. cleanup in progress now.

Material:

Site ID:	210076
Operable Unit ID:	1080688
Operable Unit:	01
Material ID:	305449
Material Code:	0020A
Material Name:	TRANSFORMER OIL
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	3

NIAGARA MOHAWK POLE (Continued) **S103937442**

Units:	Gallons
Recovered:	3
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

NY Hist Spills:

Region of Spill:	9
Spill Number:	9901922
Investigator:	KAB
Caller Name:	Not reported
Caller Agency:	Not reported
Caller Phone:	Not reported
Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported
Spill Date/Time:	05/19/1999 10:30
Reported to Dept Date/Time:	05/19/99 14:06
SWIS:	29
Spiller Name:	NIAGARA MOHAWK
Spiller Contact:	WILLIAM HESSON
Spiller Phone:	(716) 236-2710
Spiller Phone:	( ) -
Spiller Address:	1720 NEW ROAD
Spiller City,St,Zip:	NIAGARA FALLS, NY 14304-
Spill Cause:	Other
Reported to Dept:	On Land
Water Affected:	Not reported
Spill Source:	01
Spill Notifier:	Responsible Party
PBS Number:	Not reported
Cleanup Ceased:	/ /
Cleanup Meets Std:	True
Last Inspection:	/ /
Recommended Penalty:	Penalty Not Recommended
Spiller Cleanup Dt:	/ /
Enforcement Date:	/ /
Invstgn Complete:	/ /
UST Involvement:	False
Spill Class:	Possible release with minimal potential for fire or hazard or Known release with no damage. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	05/19/99
Corrective Action Plan Submitted:	/ /

NIAGARA MOHAWK POLE (Continued) **S103937442**

Date Region Sent Summary to Central Office: / /
Date Spill Entered In Computer Data File: 05/19/99
Date Spill Entered In Computer Data File: Not reported
Update Date: 06/01/99
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 3
Unkonwn Quantity Spilled: False
Units: Gallons
Quantity Recovered: 3
Unkonwn Quantity Recovered: False
Material: TRANSFORMER OIL
Class Type: TRANSFORMER OIL
Times Material Entry In File: 533
CAS Number: Not reported
Last Date: 19940926
DEC Remarks: 05/19/99: KAB RECEIVED REPORT OF MINOR SPILLAGE OF 3 GALLONS OF TRANSFORMER OIL. SPILLAGE WAS CLEANED UP BY NIAGARA MOHAWK CREW. FAXED COPY OF REPORT TO NCHD. NO FURTHER ACTION NECESSARY. CLOSE OUT.
Remark: possible that transformer was struck by lightning causing transformer to leak.
cleanup in progress now.

14
East
< 1/8
0.043 mi.
225 ft.

CECOS INTERNATIONAL INC
BOX 340 L P O
NIAGARA FALLS, NY 14304

UST **U003079275**
HIST UST **N/A**
AST
HIST AST

Relative:
Higher

Actual:
578 ft.

UST:
Facility Id: 9-040452
Region: STATE
DEC Region: 9
Site Status: Unregulated
Program Type: PBS
Expiration Date: N/A
UTM X: 187441.31505999999
UTM Y: 4758073.6999500003

Affiliation Records:
Site Id: 52276
Affiliation Type: Owner
Company Name: CECOS INTERNATIONAL INC
Contact Type: Not reported
Contact Name: Not reported
Address1: BOX 340 L P O
Address2: Not reported
City: NIAGARA FALLS
State: NY
Zip Code: 14304

CECOS INTERNATIONAL INC (Continued) **U003079275**

Country Code:	001
Phone:	(716) 282-2676
Phone Ext:	Not reported
Email:	Not reported
Fax Number:	Not reported
Modified By:	TRANSLAT
Date Last Modified:	3/4/2004

Site Id:	52276
Affiliation Type:	Mail Contact
Company Name:	CECOS INTERNATIONAL INC
Contact Type:	Not reported
Contact Name:	Not reported
Address1:	BOX 340 L P O
Address2:	Not reported
City:	NIAGARA FALLS
State:	NY
Zip Code:	14304
Country Code:	001
Phone:	(716) 282-2676
Phone Ext:	Not reported
Email:	Not reported
Fax Number:	Not reported
Modified By:	TRANSLAT
Date Last Modified:	3/4/2004

Site Id:	52276
Affiliation Type:	On-Site Operator
Company Name:	CECOS INTERNATIONAL INC
Contact Type:	Not reported
Contact Name:	CECOS INTERNATIONAL INC
Address1:	Not reported
Address2:	Not reported
City:	Not reported
State:	NN
Zip Code:	Not reported
Country Code:	001
Phone:	(716) 282-2676
Phone Ext:	Not reported
Email:	Not reported
Fax Number:	Not reported
Modified By:	TRANSLAT
Date Last Modified:	3/4/2004

Site Id:	52276
Affiliation Type:	Emergency Contact
Company Name:	CECOS INTERNATIONAL INC
Contact Type:	Not reported
Contact Name:	SAM RICOTTA
Address1:	Not reported
Address2:	Not reported
City:	Not reported
State:	NN
Zip Code:	Not reported
Country Code:	001
Phone:	(716) 754-7753
Phone Ext:	Not reported

CECOS INTERNATIONAL INC (Continued) **U003079275**

Email: Not reported
Fax Number: Not reported
Modified By: TRANSLAT
Date Last Modified: 3/4/2004

Equipment Records:

A00 - Tank Internal Protection - None
D02 - Pipe Type - Galvanized Steel
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
A00 - Tank Internal Protection - None
D02 - Pipe Type - Galvanized Steel
A00 - Tank Internal Protection - None
D02 - Pipe Type - Galvanized Steel
J01 - Dispenser - Submersible
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
G00 - Tank Secondary Containment - None
G00 - Tank Secondary Containment - None
G00 - Tank Secondary Containment - None
B00 - Tank External Protection - None
B00 - Tank External Protection - None
B00 - Tank External Protection - None
I00 - Overfill - None
I00 - Overfill - None
I00 - Overfill - None
A00 - Tank Internal Protection - None
D02 - Pipe Type - Galvanized Steel
J02 - Dispenser - Suction
G00 - Tank Secondary Containment - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
B00 - Tank External Protection - None
B00 - Tank External Protection - None
B00 - Tank External Protection - None
B00 - Tank External Protection - None
A00 - Tank Internal Protection - None
D02 - Pipe Type - Galvanized Steel
J02 - Dispenser - Suction
A00 - Tank Internal Protection - None
D02 - Pipe Type - Galvanized Steel
A00 - Tank Internal Protection - None
D02 - Pipe Type - Galvanized Steel
I00 - Overfill - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
G00 - Tank Secondary Containment - None
G00 - Tank Secondary Containment - None
G00 - Tank Secondary Containment - None
A00 - Tank Internal Protection - None
D02 - Pipe Type - Galvanized Steel

CECOS INTERNATIONAL INC (Continued) **U003079275**

J02 - Dispenser - Suction
G00 - Tank Secondary Containment - None
I00 - Overfill - None
I00 - Overfill - None
I00 - Overfill - None
I00 - Overfill - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
B00 - Tank External Protection - None
H00 - Tank Leak Detection - None
H00 - Tank Leak Detection - None
H00 - Tank Leak Detection - None
H00 - Tank Leak Detection - None
H00 - Tank Leak Detection - None
H00 - Tank Leak Detection - None
H00 - Tank Leak Detection - None
H00 - Tank Leak Detection - None

Tank Info:

Site ID:	52276
Tank Number:	CS1
Tank ID:	169255
Tank Status:	Closed Prior to Micro Conversion, 03/91
Tank Model:	Not reported
Pipe Model:	Not reported
Install Date:	Not reported
Capacity Gallons:	6000
Tightness Test Method:	01
Next Test Date:	Not reported
Date Tank Closed:	Not reported
Tank Location:	5
Tank Type:	Steel/carbon steel
Date Test:	1987-12-01 00:00:00
Register:	True
Modified By:	TRANSLAT
Last Modified:	2004-03-04 00:00:00
Site ID:	52276
Tank Number:	CS2
Tank ID:	169256
Tank Status:	Closed Prior to Micro Conversion, 03/91
Tank Model:	Not reported
Pipe Model:	Not reported
Install Date:	Not reported
Capacity Gallons:	2000
Tightness Test Method:	01
Next Test Date:	Not reported
Date Tank Closed:	Not reported
Tank Location:	5
Tank Type:	Steel/carbon steel
Date Test:	1987-12-01 00:00:00
Register:	True
Modified By:	TRANSLAT
Last Modified:	2004-03-04 00:00:00
Site ID:	52276

CECOS INTERNATIONAL INC (Continued) **U003079275**

Tank Number:	CS3
Tank ID:	169257
Tank Status:	Closed Prior to Micro Conversion, 03/91
Tank Model:	Not reported
Pipe Model:	Not reported
Install Date:	Not reported
Capacity Gallons:	1000
Tightness Test Method:	NN
Next Test Date:	Not reported
Date Tank Closed:	Not reported
Tank Location:	5
Tank Type:	Steel/carbon steel
Date Test:	Not reported
Register:	True
Modified By:	TRANSLAT
Last Modified:	2004-03-04 00:00:00

HIST UST:

PBS Number:	9-040452
SPDES Number:	Not reported
Emergency Contact:	SAM RICOTTA
Emergency Telephone:	(716) 754-7753
Operator:	CECOS INTERNATIONAL INC
Operator Telephone:	(716) 282-2676
Owner Name:	CECOS INTERNATIONAL INC
Owner Address:	BOX 340 L P O
Owner City,St,Zip:	NIAGARA FALLS, NY 14304
Owner Telephone:	(716) 282-2676
Owner Type:	Not reported
Owner Subtype:	Not reported
Mailing Name:	CECOS INTERNATIONAL INC
Mailing Address:	BOX 340 L P O
Mailing Address 2:	Not reported
Mailing City,St,Zip:	NIAGARA FALLS, NY 14304
Mailing Contact:	Not reported
Mailing Telephone:	(716) 282-2676
Owner Mark:	First Owner
Facility Status:	2 - Unregulated by PBS (the total capacity is less than 1,101 gallons) and Subpart 360-14.
Facility Addr2:	Not reported
SWIS ID:	2911
Old PBS Number:	Not reported
Facility Type:	TRUCKING/TRANSPORTATION
Facility Type:	OTHER
Inspected Date:	Not reported
Inspector:	Not reported
Inspection Result:	Not reported
Federal ID:	Not reported
Certification Flag:	False
Certification Date:	11/14/1986
Expiration Date:	11/14/1991
Renew Flag:	False
Renewal Date:	Not reported
Total Capacity:	0
FAMT:	True
Facility Screen:	No Missing Data
Owner Screen:	Minor Data Missing

CECOS INTERNATIONAL INC (Continued) **U003079275**

Tank Screen:	0
Dead Letter:	False
CBS Number:	9-000212
Town or City:	NIAGARA FALLS (C)
County Code:	29
Town or City:	11
Region:	9

Tank Id:	CS1
Tank Location:	UNDERGROUND
Tank Status:	Closed Before April 1, 1991
Install Date:	Not reported
Capacity (gals):	6000
Product Stored:	DIESEL
Tank Type:	Steel/carbon steel
Tank Internal:	Not reported
Tank External:	Not reported
Pipe Location:	Not reported
Pipe Type:	GALVANIZED STEEL
Pipe Internal:	Not reported
Pipe External:	Not reported
Second Containment:	None
Leak Detection:	None
Overfill Prot:	Not reported
Dispenser:	Suction
Date Tested:	12/01/1987
Next Test Date:	Not reported
Missing Data for Tank:	Minor Data Missing
Date Closed:	Not reported
Test Method:	Petro-Tite
Deleted:	False
Updated:	False
Lat/long:	Not reported

Tank Id:	CS2
Tank Location:	UNDERGROUND
Tank Status:	Closed Before April 1, 1991
Install Date:	Not reported
Capacity (gals):	2000
Product Stored:	DIESEL
Tank Type:	Steel/carbon steel
Tank Internal:	Not reported
Tank External:	Not reported
Pipe Location:	Not reported
Pipe Type:	GALVANIZED STEEL
Pipe Internal:	Not reported
Pipe External:	Not reported
Second Containment:	None
Leak Detection:	None
Overfill Prot:	Not reported
Dispenser:	Suction
Date Tested:	12/01/1987
Next Test Date:	Not reported
Missing Data for Tank:	Minor Data Missing
Date Closed:	Not reported
Test Method:	Petro-Tite

CECOS INTERNATIONAL INC (Continued) **U003079275**

Deleted:	False
Updated:	False
Lat/long:	Not reported

Tank Id:	CS3
Tank Location:	UNDERGROUND
Tank Status:	Closed Before April 1, 1991
Install Date:	Not reported
Capacity (gals):	1000
Product Stored:	UNLEADED GASOLINE
Tank Type:	Steel/carbon steel
Tank Internal:	Not reported
Tank External:	Not reported
Pipe Location:	Not reported
Pipe Type:	GALVANIZED STEEL
Pipe Internal:	Not reported
Pipe External:	Not reported
Second Containment:	None
Leak Detection:	None
Overfill Prot:	Not reported
Dispenser:	Suction
Date Tested:	Not reported
Next Test Date:	Not reported
Missing Data for Tank:	Minor Data Missing
Date Closed:	Not reported
Test Method:	Not reported
Deleted:	False
Updated:	False
Lat/long:	Not reported

AST:

Region:	STATE
DEC Region:	9
Site Status:	Unregulated
Facility Id:	9-040452
Program Type:	PBS
UTM X:	187441.31505999999
UTM Y:	4758073.6999500003
Expiration Date:	N/A

Affiliation Records:

Site Id:	52276
Affiliation Type:	Owner
Company Name:	CECOS INTERNATIONAL INC
Contact Type:	Not reported
Contact Name:	Not reported
Address1:	BOX 340 L P O
Address2:	Not reported
City:	NIAGARA FALLS
State:	NY
Zip Code:	14304
Country Code:	001
Phone:	(716) 282-2676
Phone Ext:	Not reported
Email:	Not reported
Fax Number:	Not reported

CECOS INTERNATIONAL INC (Continued) **U003079275**

Modified By:	TRANSLAT
Date Last Modified:	3/4/2004

Site Id:	52276
Affiliation Type:	Mail Contact
Company Name:	CECOS INTERNATIONAL INC
Contact Type:	Not reported
Contact Name:	Not reported
Address1:	BOX 340 L P O
Address2:	Not reported
City:	NIAGARA FALLS
State:	NY
Zip Code:	14304
Country Code:	001
Phone:	(716) 282-2676
Phone Ext:	Not reported
Email:	Not reported
Fax Number:	Not reported
Modified By:	TRANSLAT
Date Last Modified:	3/4/2004

Site Id:	52276
Affiliation Type:	On-Site Operator
Company Name:	CECOS INTERNATIONAL INC
Contact Type:	Not reported
Contact Name:	CECOS INTERNATIONAL INC
Address1:	Not reported
Address2:	Not reported
City:	Not reported
State:	NN
Zip Code:	Not reported
Country Code:	001
Phone:	(716) 282-2676
Phone Ext:	Not reported
Email:	Not reported
Fax Number:	Not reported
Modified By:	TRANSLAT
Date Last Modified:	3/4/2004

Site Id:	52276
Affiliation Type:	Emergency Contact
Company Name:	CECOS INTERNATIONAL INC
Contact Type:	Not reported
Contact Name:	SAM RICOTTA
Address1:	Not reported
Address2:	Not reported
City:	Not reported
State:	NN
Zip Code:	Not reported
Country Code:	001
Phone:	(716) 754-7753
Phone Ext:	Not reported
Email:	Not reported
Fax Number:	Not reported
Modified By:	TRANSLAT
Date Last Modified:	3/4/2004

CECOS INTERNATIONAL INC (Continued) **U003079275**

Equipment Records:

A00 - Tank Internal Protection - None
D02 - Pipe Type - Galvanized Steel
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
A00 - Tank Internal Protection - None
D02 - Pipe Type - Galvanized Steel
A00 - Tank Internal Protection - None
D02 - Pipe Type - Galvanized Steel
J01 - Dispenser - Submersible
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
G00 - Tank Secondary Containment - None
G00 - Tank Secondary Containment - None
G00 - Tank Secondary Containment - None
B00 - Tank External Protection - None
B00 - Tank External Protection - None
B00 - Tank External Protection - None
I00 - Overfill - None
I00 - Overfill - None
I00 - Overfill - None
A00 - Tank Internal Protection - None
D02 - Pipe Type - Galvanized Steel
J02 - Dispenser - Suction
G00 - Tank Secondary Containment - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
B00 - Tank External Protection - None
B00 - Tank External Protection - None
B00 - Tank External Protection - None
B00 - Tank External Protection - None
A00 - Tank Internal Protection - None
D02 - Pipe Type - Galvanized Steel
J02 - Dispenser - Suction
A00 - Tank Internal Protection - None
D02 - Pipe Type - Galvanized Steel
A00 - Tank Internal Protection - None
D02 - Pipe Type - Galvanized Steel
I00 - Overfill - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
G00 - Tank Secondary Containment - None
G00 - Tank Secondary Containment - None
G00 - Tank Secondary Containment - None
A00 - Tank Internal Protection - None
D02 - Pipe Type - Galvanized Steel
J02 - Dispenser - Suction
G00 - Tank Secondary Containment - None
I00 - Overfill - None
I00 - Overfill - None
I00 - Overfill - None

CECOS INTERNATIONAL INC (Continued) **U003079275**

I00 - Overfill - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
B00 - Tank External Protection - None
H00 - Tank Leak Detection - None
H00 - Tank Leak Detection - None
H00 - Tank Leak Detection - None
H00 - Tank Leak Detection - None
H00 - Tank Leak Detection - None
H00 - Tank Leak Detection - None
H00 - Tank Leak Detection - None
H00 - Tank Leak Detection - None

Tank Info:

Tank Number:	CS4
Tank Id:	169258
Tank Location:	3
Tank Type:	Steel/Carbon Steel/Iron
Tank Status:	Closed Prior to Micro Conversion, 03/91
Tank Model:	Not reported
Pipe Model:	Not reported
Install Date:	Not reported
Capacity Gallons:	250
Tightness Test Method:	NN
Date Test:	Not reported
Next Test Date:	Not reported
Date Tank Closed:	Not reported
Register:	True
Modified By:	TRANSLAT
Last Modified:	2004-03-04 00:00:00

Tank Number:	CS5
Tank Id:	169259
Tank Location:	3
Tank Type:	Steel/Carbon Steel/Iron
Tank Status:	Closed Prior to Micro Conversion, 03/91
Tank Model:	Not reported
Pipe Model:	Not reported
Install Date:	Not reported
Capacity Gallons:	250
Tightness Test Method:	NN
Date Test:	Not reported
Next Test Date:	Not reported
Date Tank Closed:	Not reported
Register:	True
Modified By:	TRANSLAT
Last Modified:	2004-03-04 00:00:00

Tank Number:	CS6
Tank Id:	169260
Tank Location:	3
Tank Type:	Steel/Carbon Steel/Iron
Tank Status:	Closed Prior to Micro Conversion, 03/91
Tank Model:	Not reported
Pipe Model:	Not reported

CECOS INTERNATIONAL INC (Continued) **U003079275**

Install Date:	Not reported
Capacity Gallons:	250
Tightness Test Method:	NN
Date Test:	Not reported
Next Test Date:	Not reported
Date Tank Closed:	Not reported
Register:	True
Modified By:	TRANSLAT
Last Modified:	2004-03-04 00:00:00

Tank Number:	CS7
Tank Id:	169261
Tank Location:	3
Tank Type:	Steel/Carbon Steel/Iron
Tank Status:	Closed Prior to Micro Conversion, 03/91
Tank Model:	Not reported
Pipe Model:	Not reported
Install Date:	Not reported
Capacity Gallons:	250
Tightness Test Method:	NN
Date Test:	Not reported
Next Test Date:	Not reported
Date Tank Closed:	Not reported
Register:	True
Modified By:	TRANSLAT
Last Modified:	2004-03-04 00:00:00

Tank Number:	CS8
Tank Id:	169262
Tank Location:	3
Tank Type:	Steel/Carbon Steel/Iron
Tank Status:	Closed Prior to Micro Conversion, 03/91
Tank Model:	Not reported
Pipe Model:	Not reported
Install Date:	Not reported
Capacity Gallons:	300
Tightness Test Method:	NN
Date Test:	Not reported
Next Test Date:	Not reported
Date Tank Closed:	Not reported
Register:	True
Modified By:	TRANSLAT
Last Modified:	2004-03-04 00:00:00

HIST AST:

PBS Number:	9-040452
SWIS Code:	2911
Operator:	CECOS INTERNATIONAL INC
Facility Phone:	(716) 282-2676
Facility Addr2:	Not reported
Facility Type:	TRUCKING/TRANSPORTATION
Facility Type:	OTHER
Emergency:	SAM RICOTTA
Emergency Tel:	(716) 754-7753
Old PBSNO:	Not reported

CECOS INTERNATIONAL INC (Continued) **U003079275**

Date Inspected:	Not reported
Inspector:	Not reported
Result of Inspection:	Not reported
Owner Name:	CECOS INTERNATIONAL INC
Owner Address:	BOX 340 L P O
Owner City,St,Zip:	NIAGARA FALLS, NY 14304
Federal ID:	Not reported
Owner Tel:	(716) 282-2676
Owner Type:	Not reported
Owner Subtype:	Not reported
Mailing Contact:	Not reported
Mailing Name:	CECOS INTERNATIONAL INC
Mailing Address:	BOX 340 L P O
Mailing Address 2:	Not reported
Mailing City,St,Zip:	NIAGARA FALLS, NY 14304
Mailing Telephone:	(716) 282-2676
Owner Mark:	First Owner
Facility Status:	2 - Unregulated by PBS (the total capacity is less than 1,101 gallons) and Subpart 360-14.
Certification Flag:	False
Certification Date:	11/14/1986
Expiration:	11/14/1991
Renew Flag:	False
Renew Date:	Not reported
Total Capacity:	0
FAMT:	True
Facility Screen:	No Missing Data
Owner Screen:	Minor Data Missing
Tank Screen:	0
Dead Letter:	False
CBS Number:	9-000212
Town or City:	NIAGARA FALLS (C)
County Code:	29
Town or City Code:	11
Region:	9

Tank ID:	CS4
Tank Location:	ABOVEGROUND ON SADDLES LEGS, STILTS, RACK, OR CRADLE
Tank Status:	Closed Before April 1, 1991
Install Date:	Not reported
Capacity (Gal):	250
Product Stored:	DIESEL
Tank Type:	Steel/carbon steel
Tank Internal:	Not reported
Tank External:	Not reported
Pipe Location:	Not reported
Pipe Type:	GALVANIZED STEEL
Pipe Internal:	Not reported
Pipe External:	Not reported
Tank Containment:	None
Leak Detection:	0
Overfill Protection:	Not reported
Dispenser Method:	Gravity
Date Tested:	Not reported
Next Test Date:	Not reported
Missing Data for Tank:	Minor Data Missing
Date Closed:	Not reported

CECOS INTERNATIONAL INC (Continued) **U003079275**

Test Method:	Not reported
Deleted:	False
Updated:	False
SPDES Number:	Not reported
Lat/Long:	Not reported

Tank ID:	CS5
Tank Location:	ABOVEGROUND ON SADDLES LEGS, STILTS, RACK, OR CRADLE
Tank Status:	Closed Before April 1, 1991
Install Date:	Not reported
Capacity (Gal):	250
Product Stored:	UNKNOWN
Tank Type:	Steel/carbon steel
Tank Internal:	Not reported
Tank External:	Not reported
Pipe Location:	Not reported
Pipe Type:	GALVANIZED STEEL
Pipe Internal:	Not reported
Pipe External:	Not reported
Tank Containment:	None
Leak Detection:	0
Overfill Protection:	Not reported
Dispenser Method:	Gravity
Date Tested:	Not reported
Next Test Date:	Not reported
Missing Data for Tank:	Minor Data Missing
Date Closed:	Not reported
Test Method:	Not reported
Deleted:	False
Updated:	False
SPDES Number:	Not reported
Lat/Long:	Not reported

Tank ID:	CS6
Tank Location:	ABOVEGROUND ON SADDLES LEGS, STILTS, RACK, OR CRADLE
Tank Status:	Closed Before April 1, 1991
Install Date:	Not reported
Capacity (Gal):	250
Product Stored:	UNKNOWN
Tank Type:	Steel/carbon steel
Tank Internal:	Not reported
Tank External:	Not reported
Pipe Location:	Not reported
Pipe Type:	GALVANIZED STEEL
Pipe Internal:	Not reported
Pipe External:	Not reported
Tank Containment:	None
Leak Detection:	0
Overfill Protection:	Not reported
Dispenser Method:	Gravity
Date Tested:	Not reported
Next Test Date:	Not reported
Missing Data for Tank:	Minor Data Missing
Date Closed:	Not reported
Test Method:	Not reported

CECOS INTERNATIONAL INC (Continued) **U003079275**

Deleted:	False
Updated:	False
SPDES Number:	Not reported
Lat/Long:	Not reported

Tank ID:	CS7
Tank Location:	ABOVEGROUND ON SADDLES LEGS, STILTS, RACK, OR CRADLE
Tank Status:	Closed Before April 1, 1991
Install Date:	Not reported
Capacity (Gal):	250
Product Stored:	UNKNOWN
Tank Type:	Steel/carbon steel
Tank Internal:	Not reported
Tank External:	Not reported
Pipe Location:	Not reported
Pipe Type:	GALVANIZED STEEL
Pipe Internal:	Not reported
Pipe External:	Not reported
Tank Containment:	None
Leak Detection:	0
Overfill Protection:	Not reported
Dispenser Method:	Gravity
Date Tested:	Not reported
Next Test Date:	Not reported
Missing Data for Tank:	Minor Data Missing
Date Closed:	Not reported
Test Method:	Not reported
Deleted:	False
Updated:	False
SPDES Number:	Not reported
Lat/Long:	Not reported

Tank ID:	CS8
Tank Location:	ABOVEGROUND ON SADDLES LEGS, STILTS, RACK, OR CRADLE
Tank Status:	Closed Before April 1, 1991
Install Date:	Not reported
Capacity (Gal):	300
Product Stored:	UNKNOWN
Tank Type:	Steel/carbon steel
Tank Internal:	Not reported
Tank External:	Not reported
Pipe Location:	Not reported
Pipe Type:	GALVANIZED STEEL
Pipe Internal:	Not reported
Pipe External:	Not reported
Tank Containment:	None
Leak Detection:	0
Overfill Protection:	Not reported
Dispenser Method:	Submersible
Date Tested:	Not reported
Next Test Date:	Not reported
Missing Data for Tank:	Minor Data Missing
Date Closed:	Not reported
Test Method:	Not reported
Deleted:	False

CECOS INTERNATIONAL INC (Continued) **U003079275**

Updated: False
SPDES Number: Not reported
Lat/Long: Not reported

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15 SSW 1/4-1/2 0.278 mi. 1466 ft.

CAYUGA VILLAGE
512 B STREET
NIAGARA FALLS, NY

LTANKS **S100155498**
HIST LTANKS **N/A**

Relative: Lower

Actual: 573 ft.

LTANKS:

Site ID:	282777
Spill No:	9012106
Spill Date:	2/20/1991
Spill Cause:	Tank Failure
Spill Source:	Private Dwelling
Spill Class:	Not reported
Spill Closed Dt:	5/1/1991
Facility Addr2:	Not reported
Cleanup Ceased:	5/1/1991
Cleanup Meets Standard:	True
SWIS:	3211
Investigator:	SORGI
Referred To:	Not reported
Reported to Dept:	2/20/1991
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Affected Persons
Last Inspection:	2/26/1991
Recommended Penalty:	Penalty Not Recommended
UST Involvement:	False
Remediation Phase:	0
Date Entered In Computer:	2/21/1991
Spill Record Last Update:	5/1/1991
Spiller Name:	Not reported
Spiller Company:	BOB DUSCAVAGE
Spiller Address:	512 B STREET
Spiller City,St,Zip:	NIAGARA FALLS, NY
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	229559
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "MJS" 02/20/91: MJS NOTIFIED NCHD. THEY WILL SEND INSPECTOR OUT. 02/26/91: MJS SITE INSPECTION. SOIL STAGED NEAR MAINTENENCE GARAGE. SOIL TO BE TESTED AND DISPOSED OF AT MODERN LANDFILL. EXCAVATION LOOKED OK. CAYUGA VILLAGE TO BACKFILL. 03/18/91: MJS RECEIVED REPORT FROM NCHD. WAITING FOR TESTING AND DISPOSAL FROM DAVID EISENBART. 05/01/91: MJS RECEIVED ANALYTICAL RESULTS AND DISPOSAL RECEIPTS FROM DAVID EISENBART. 0.97 TONS OF SOIL DISPOSED OF AT MODERN LANDFILL.
Remarks:	TENANTS TANK LEAKED TO SOIL. TANK HAS BEEN PUMPED OUT. WILL EXCAVATE SOIL AND DISPOSE.

Material:

CAYUGA VILLAGE (Continued) **S100155498**

Site ID:	282777
Operable Unit ID:	951954
Operable Unit:	01
Material ID:	428616
Material Code:	0001
Material Name:	#2 Fuel Oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	25
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

HIST LTANKS:

Region of Spill:	9
Spill Number:	9012106
Spill Date:	02/20/1991
Spill Time:	13:00
Spill Cause:	Tank Failure
Resource Affectd:	On Land
Water Affected:	Not reported
Spill Source:	Private Dwelling
Spill Class:	Not reported
Spill Closed Dt:	05/01/91
Cleanup Ceased:	05/01/91
Cleanup Meets Standard:	True
Investigator:	MJS
Caller Name:	Not reported
Caller Agency:	Not reported
Caller Phone:	Not reported
Caller Extension:	Not reported
Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported
Notifier Extension:	Not reported
Reported to Department Date:	02/20/91
Reported to Department Time:	14:27
SWIS:	29
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
Spiller Name:	BOB DUSCAVAGE

CAYUGA VILLAGE (Continued) **S100155498**

Spiller Address: 512 B STREET
Spiller City,St,Zip: NIAGARA FALLS, NY
Spiller Cleanup Date: / /
Facility Contact: Not reported
Facility Phone: Not reported
Facility Extention: Not reported
Spill Notifier: Affected Persons
PBS Number: Not reported
Last Inspection: 02/26/91
Recommended Penalty: Penalty Not Recommended
Enforcement Date: / /
Investigation Complete: / /
UST Involvement: False
Date Region Sent Summary to Central Office: / /
Corrective Action Plan Submitted: / /
Date Spill Entered In Computer Data File: 02/21/91
Time Spill Entered In Computer Data File: Not reported
Spill Record Last Update: 05/01/91
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 25
Unkonwn Quantity Spilled: False
Units: Gallons
Quantity Recovered: 0
Unkonwn Quantity Recovered: False
Material: #2 FUEL OIL
Class Type: #2 FUEL OIL
Times Material Entry In File: 24464
CAS Number: Not reported
Last Date: 19941207
DEC Remarks: 02/20/91: MJS NOTIFIED NCHD. THEY WILL SEND INSPECTOR OUT. 02/26/91: MJS SITE INSPECTION. SOIL STAGED NEAR MAINTENENCE GARAGE. SOIL TO BE TESTED AND DISPOSED OF AT MODERN LANDFILL. EXCAVATION LOOKED OK. CAYUGA VILLAGE TO BACKFILL. 03/18/91: MJS RECEIVED REPORT FROM NCHD. WAITING FOR TESTING AND DISPOSAL FROM DAVID EISENBART. 05/01/91: MJS RECEIVED ANALYTICAL RESULTS AND DISPOSAL RECEIPTS FROM DAVID EISENBART. 0.97 TONS OF SOIL DISPOSED OF AT MODERN LANDFILL.
Spill Cause: TENANTS TANK LEAKED TO SOIL. TANK HAS BEEN PUMPED OUT. WILL EXCAVATE SOIL AND DISPOSE.

16 South 1/4-1/2 0.295 mi. 1558 ft. | **RAUSMANN RESIDENCE**
431 A STREET
NIAGARA FALLS, NY | **LTANKS** | **S101659211**
HIST LTANKS | **N/A**

Relative: Lower

Actual: 573 ft.

LTANKS:

Site ID:	186820
Spill No:	9500110
Spill Date:	12/19/1994
Spill Cause:	Tank Failure
Spill Source:	Private Dwelling
Spill Class:	Known release that creates potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	6/8/1995
Facility Addr2:	Not reported
Cleanup Ceased:	6/8/1995
Cleanup Meets Standard:	True
SWIS:	3211
Investigator:	SACALAND
Referred To:	NIAGARA CNTY HEALTH DEPT
Reported to Dept:	12/19/1994
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Other
Last Inspection:	12/19/1994
Recommended Penalty:	Penalty Not Recommended
UST Involvement:	False
Remediation Phase:	0
Date Entered In Computer:	4/4/1995
Spill Record Last Update:	11/12/1999
Spiller Name:	Not reported
Spiller Company:	ROBERT KRAUSMANN
Spiller Address:	431 A STREET
Spiller City,St,Zip:	NIAGARA FALLS, NY 14304
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	156140
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "SAC-NCHD" 04/05/95: RECEIVED NCHD INSPECTION REPORT & ANALYTICAL RESULTS FROM B.BUZZELLI,LOW-LEVEL EXCEEDANCES FOR PHENATHRENE,N-BUTYLBENZENE AND NAPHTHALENE.HIGHER THAN NORMAL DETECTION LIMITS FOR 8021. 04/10/95: RECEIVED NCHD INSPECT.REPORT&ANAL.RESULTS FROM B.BUZZELLI,LOW-LEVEL EXCEED.FOR PHENATHRENE,N-BUTYLBENZENE&NAPHTHALENE.HIGH 8021 DETECT. LIMITS.B.BUZZELLI SENT LETTER ASKING FOR RESAMPLING BY 8021&8270. 06/08/95: RECEIVED NCHD INSPECTION REPORT AND RETEST RESULTS FROM B.BUZZELLI,ALL PARAMETERS WERE BQL.
Remarks:	TANK FAILURE AT CAYUGA VILLAGE MOBILE HOME PARK.

Material:

Site ID:	186820
Operable Unit ID:	1010868
Operable Unit:	01
Material ID:	368728
Material Code:	0001

RAUSMANN RESIDENCE (Continued) **S101659211**

Material Name:	#2 Fuel Oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

HIST LTANKS:

Region of Spill:	9
Spill Number:	9500110
Spill Date:	12/19/1994
Spill Time:	06:00
Spill Cause:	Tank Failure
Resource Affectd:	On Land
Water Affected:	Not reported
Spill Source:	Private Dwelling
Spill Class:	Known release that creates potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	06/08/95
Cleanup Ceased:	06/08/95
Cleanup Meets Standard:	True
Investigator:	SAC-NCHD
Caller Name:	Not reported
Caller Agency:	Not reported
Caller Phone:	Not reported
Caller Extension:	Not reported
Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported
Notifier Extension:	Not reported
Reported to Department Date:	12/19/94
Reported to Department Time:	09:00
SWIS:	29
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
Spiller Name:	ROBERT KRAUSMANN
Spiller Address:	431 A STREET
Spiller City,St,Zip:	NIAGARA FALLS, NY 14304
Spiller Cleanup Date:	/ /
Facility Contact:	Not reported

RAUSMANN RESIDENCE (Continued) **S101659211**

Facility Phone: Not reported
Facility Extention: Not reported
Spill Notifier: Other
PBS Number: Not reported
Last Inspection: 12/19/94
Recommended Penalty: Penalty Not Recommended
Enforcement Date: / /
Investigation Complete: / /
UST Involvement: False
Date Region Sent Summary to Central Office: / /
Corrective Action Plan Submitted: / /
Date Spill Entered In Computer Data File: 04/04/95
Time Spill Entered In Computer Data File: Not reported
Spill Record Last Update: 11/12/99
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 0
Unkonwn Quantity Spilled: True
Units: Gallons
Quantity Recovered: 0
Unkonwn Quantity Recovered: True
Material: #2 FUEL OIL
Class Type: #2 FUEL OIL
Times Material Entry In File: 24464
CAS Number: Not reported
Last Date: 19941207
DEC Remarks: 04/05/95: RECEIVED NCHD INSPECTION REPORT ANALYTICAL RESULTS FROM B.BUZZELLI,LOW-LEVEL EXCEEDANCES FOR PHENATHRENE,N-BUTYLBENZENE AND NAPHTHALENE.HIGHER THAN NORMAL DETECTION LIMITS FOR 8021. 04/10/95: RECEIVED NCHD INSPECT.REPORT ANAL.RESULTS FROMB.BUZZELLI,LOW-LEVEL EXCEED.FOR PHENATHRENE,N-BUTYLBENZENE NAPHTHALENE.HIGH 8021 DETECT. LIMITS.B.BUZZELLI SENT LETTER ASKING FOR RESAMPLING BY 8021 8270. 06/08/95: RECEIVED NCHD INSPECTION REPORT AND RETEST RESULTS FROM B.BUZZELLI,ALL PARAMETERS WERE BQL.
Spill Cause: TANK FAILURE AT CAYUGA VILLAGE MOBILE HOME PARK.

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17 SSW 1/4-1/2 0.299 mi. 1579 ft. | **CAYUGA VILLAGE**
640 C STREET
NIAGARA FALLS, NY | **LTANKS** **S103038163**
HIST LTANKS **N/A**

Relative: Lower
Actual: 572 ft.

LTANKS:
Site ID: 218375
Spill No: 9012112
Spill Date: 1/15/1991
Spill Cause: Tank Overfill
Spill Source: Private Dwelling
Spill Class: Not reported

CAYUGA VILLAGE (Continued) **S103038163**

Spill Closed Dt:	2/22/1991
Facility Addr2:	Not reported
Cleanup Ceased:	2/22/1991
Cleanup Meets Standard:	True
SWIS:	3211
Investigator:	SORGI
Referred To:	Not reported
Reported to Dept:	2/20/1991
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Health Department
Last Inspection:	1/16/1991
Recommended Penalty:	Penalty Not Recommended
UST Involvement:	False
Remediation Phase:	0
Date Entered In Computer:	2/21/1991
Spill Record Last Update:	2/26/1991
Spiller Name:	Not reported
Spiller Company:	TRUCK DRIVER (DELIVERY)
Spiller Address:	Not reported
Spiller City,St,Zip:	ZZ
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	180660
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "MJS" 02/20/91: CLEANUP DONE BY MAINTENENCE CREW FROM CAYUGA VILLAGE. CAUSED BY TANK OVERFILL DURING DELIVERY.
Remarks:	TRUCK DRIVER OVERFILLED A/G #2 F.O. TANK DURING DELIVERY. SPILLED ON CONCRETE PAD UNDER TANK. NO OIL APPEARED TO REACH GROUND. MAINTENENCE CREW FROM CAYUGA VILLAGE CLEANED UP.

Material:

Site ID:	218375
Operable Unit ID:	951960
Operable Unit:	01
Material ID:	428622
Material Code:	0001
Material Name:	#2 Fuel Oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	2
Units:	Gallons
Recovered:	2
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported

CAYUGA VILLAGE (Continued) **S103038163**

Gross Fail: Not reported
Modified By: Not reported
Last Modified: Not reported
Test Method: Not reported

HIST LTANKS:
Region of Spill: 9
Spill Number: 9012112
Spill Date: 01/15/1991
Spill Time: 17:00
Spill Cause: Tank Overfill
Resource Affectd: On Land
Water Affected: Not reported
Spill Source: Private Dwelling
Spill Class: Not reported
Spill Closed Dt: 02/22/91
Cleanup Ceased: 02/22/91
Cleanup Meets Standard: True
Investigator: MJS
Caller Name: Not reported
Caller Agency: Not reported
Caller Phone: Not reported
Caller Extension: Not reported
Notifier Name: Not reported
Notifier Agency: Not reported
Notifier Phone: Not reported
Notifier Extension: Not reported
Reported to Department Date: 02/20/91
Reported to Department Time: 12:00
SWIS: 29
Spiller Contact: Not reported
Spiller Phone: Not reported
Spiller Extention: Not reported
Spiller Name: TRUCK DRIVER (DELIVERY)
Spiller Address: Not reported
Spiller City,St,Zip: Not reported
Spiller Cleanup Date: / /
Facility Contact: Not reported
Facility Phone: Not reported
Facility Extention: Not reported
Spill Notifier: Health Department
PBS Number: Not reported
Last Inspection: 01/16/91
Recommended Penalty: Penalty Not Recommended
Enforcement Date: / /
Investigation Complete: / /
UST Involvement: False
Date Region Sent Summary to Central Office: / /
Corrective Action Plan Submitted: / /
Date Spill Entered In Computer Data File: 02/21/91
Time Spill Entered In Computer Data File: Not reported
Spill Record Last Update: 02/26/91
Is Updated: False

Tank:

CAYUGA VILLAGE (Continued) **S103038163**

PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 2
Unkonwn Quantity Spilled: False
Units: Gallons
Quantity Recovered: 2
Unkonwn Quantity Recovered: False
Material: #2 FUEL OIL
Class Type: #2 FUEL OIL
Times Material Entry In File: 24464
CAS Number: Not reported
Last Date: 19941207
DEC Remarks: 02/20/91: CLEANUP DONE BY MAINTENENCE CREW FROM CAYUGA VILLAGE. CAUSED BY TANK OVERFILL DURING DELIVERY.
Spill Cause: TRUCK DRIVER OVERFILLED A/G 2 F.O. TANK DURING DELIVERY. SPILLED ON CONCRETE PAD UNDER TANK. NO OIL APPEARED TO REACH GROUND. MAINTENENCE CREW FROM CAYUGA VILLAGE CLEANED UP.

18
SSE
1/4-1/2
0.334 mi.
1763 ft.

DUNN TIRE **LTANKS** **S104950830**
9540 NIAGARA FALLS BLVD **HIST LTANKS** **N/A**
NIAGARA FALLS, NY

Relative:
Lower

Actual:
574 ft.

LTANKS:
Site ID: 81054
Spill No: 0075561
Spill Date: 1/16/2001
Spill Cause: Tank Failure
Spill Source: Commercial/Industrial
Spill Class: Known release that creates potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt: 11/12/2004
Facility Addr2: Not reported
Cleanup Ceased: Not reported
Cleanup Meets Standard: False
SWIS: 3211
Investigator: RMCROSSE
Referred To: Not reported
Reported to Dept: 1/16/2001
CID: Not reported
Water Affected: Not reported
Spill Notifier: Other
Last Inspection: 1/29/2003
Recommended Penalty: Penalty Not Recommended
UST Involvement: True
Remediation Phase: 0
Date Entered In Computer: 1/16/2001
Spill Record Last Update: 11/12/2004
Spiller Name: FRANK AMENDOLA
Spiller Company: FRANK AMENDOLA

DUNN TIRE (Continued) **S104950830**

Spiller Address: POB 408
Spiller City,St,Zip: NIAGARA FALLS, NY 14303-
Spiller County: 001
Spiller Contact: BILL REUTER (CONTRACTOR)
Spiller Phone: (716) 754-4148
Spiller Extention: Not reported
DEC Region: 9
DER Facility ID: 75044
DEC Memo: Prior to Sept, 2004 data translation this spill Lead_DEC Field was
"RMC" 1/24/01:SAC TELECON JIM WEHNER - GREEN ENVIRONMENTAL SPECIALIST
S, HE HAS REMOVED THE TANKS AND STAGED CONTAMINATED SOIL ON THE
PROPERTY, HE HAS EXCAVATED TO THE FOUNDATION AND BELIEVES SOME HAS
GONE UNDERNEATH THE BUILDING, HE WILL CONTINUE TO EXCAVATE WHERE HE
CAN BUT REQUESTED AN INSPECTION, SAC SAID HE WOULD ARRANGE TO HAVE
THE NIAGARA COUNTY HEALTH DEPARTMENT INSPECT THE
SITE.
1/24/01:SAC TELECON PAUL DICKY - NCHD REGARDING THE SITE AND A
SKED IF HE COULD DO AN INSPECTION AT THE SITE, MR. DICKY RECOGNIZED
WHERE THE SITE WAS AND INDICATED THAT THIS SITE HAD SOME LOW LEVEL
RADIOACTIVE CONTAMINATION AT THE SITE THAT HAD RESTRICTIONS REGARDING
EXCAVATION OF THE SOIL AT THE SITE, MR. DICKY WILL INSPECT ALONG WITH
JOHN ARCHIBALD FROM THE NCHD WHO IS INVOLVED WITH RADIOACTIVE MATTERS
FOR THE COUNTY, SAC THEN CALLED JIM WEHNER TO NOTIFY HIM OF THE
SITUATION AND TO HAVE HIM STOP THE EXCAVATING AND THAT THE NCHD WAS
GOING TO INSPECT THE
SITE.
1/24/01:SAC TELECON PAUL DICKY - THEY INSPECTED THE SITE BUT T
HEY DID NOT HAVE A METER TO TELL IF THE SOIL WAS OF CONCERN, THE
PROBLEM AT THE SITE IS THAT THE RADIOACTIVE MATERIAL WAS IN THE SLAG
THAT WAS USED JUST BELOW THE PAVED AREA ON THE SITE, THIS MATERIAL
WAS NOW MIXED IN WITH THE PETROLEUM CONTAMINATED SOIL AND NOW COULD
NOT BE SEGREGATED EASILY SO THAT IT COULD BE TAKEN TO MODERN DISPOSAL
AS WAS ORIGINALLY PLANNED, IT WOULD HAVE TO GO TO A FACILITY THAT
TAKES MIXED WASTE BASED ON THE LEVEL OF RADIOACTIVITY AND THAT WOULD
MEAN IT WOULD HAVE TO BE TRANSPORTED TO UTAH, THEY WILL CONTACT BARB
IGNATZ WITH THE NYS HEALTH DEPT TO NOTIFY HER OF THE SITUATION, SAC
NOTIFIED PJB REGARDING THE
SITE.
1/24/01:SAC TELECON BARB IGNATZ - NYS HEALTH DEPT. AND DISCUSS
ED SITE, MS. IGNATZ WILL CONTACT ALBANY CENTRAL OFFICE OF HEALTH
DEPARTMENT TO FIND OUT THEIR RECOMMENDATIONS AND GET BACK TO
SAC.
1/26/01:SAC TELECON JIM WEHNER - MR. WEHNER WANTED TO KNOW WHA
T WAS STATUS OF THE PROJECT, EXCAVATION REMAINS OPEN AND CONTRACTOR
IS CONCERNED THAT THE FOUNDATION BEING EXPOSED FOR A LONG TIME COULD
CAUSE STRUCTURAL DAMAGE, MR. WEHNER SAID THAT HE WAS IN CONTACT WITH
BUTCH EGAN OF ZEBRA TECHNOLOGIES TO PROPOSE A PLAN ABOUT THE USE OF
ORCS ON THE SITE SINCE THERE WAS A POSSIBILTY THE SOIL MIGHT HAVE TO
BE PLACED IN THE EXCAVATION AND BECAUSE THEY WERE LOOKING INTO THIS
REMEDIAL OPTION BECAUSE OF THE CONTAMINATION THAT WAS UNSDER THE
FLOOR, SAC TRIED TO CONTACT BARB IGNATZ AND JOHN ARCHIBALD BUT BOTH
WERE UNAVAILABLE TODAY, WILL HAVE TO WAIT UNTIL NEXT WEEK, SAC CALLED
PAUL DICKY ABOUT THIS AND MR. DICKY SAID HE WOULD SPEAK TO MR.
ARCHIBALD WHEN HE CAME BACK AND CALL SAC TO LET HIM KNOW WHAT THEY
RECOMMENDED, SAC LATER RECEIVED MESSAGE FROM BARB YOUNGBERG - WHO IS
IN DEC DIV OF SOLID AND HAZARDOUS MATERIALS - RADIATION BUREAU TO SEE
IF THEY COULD BE OF ANY HELP, SAC WILL CONTACT HER NEXT

DUNN TIRE (Continued) **S104950830**

WEEK.
1/29/01:SAC TELECON PAUL DICKY, MR. DICKY SPOKE TO JOHN ARCHIB
ALD WHO HAD SPOKEN TO BARB IGNATZ, THE HEALTH DEPARTMENT RECOMMENDED
THE SOIL BE PLACED BACK IN THE EXCAVATION, SAC LATER SPOKE TO BARB
YOUNGBERG ABOUT THE REMEDIAL OPTIONS AND ABOUT THE HEALTH DEPT.
RECOMMENDATION ABOUT BACKFILLING THE EXCAVATION WITH THE CONTAMINATED
SOIL, MS. YOUNGBERG DID NOT HAVE A PROBLEM WITH THIS AT THE TIME, SAC
HAD DISCUSSED THIS WITH PJB AND IT WAS AGREED THAT IN THIS SPECIAL
CASE BECAUSE OF THE POTENTIAL OF RADIOACTIVE MATERIAL IN THE SOIL
THAT THIS WOULD TAKE PRECEDENCE AND THAT SOIL WOULD BE ALLOWED TO BE
BACKFILLED, SAC CONTACTED JIM WEHNER TO LET HIM KNOW IT WAS OKAY TO
BACKFILL THE MATERIAL ON THE
SITE.
1/30/01:SAC TELECON BARB YOUNGBERG, MS. YOUNGBERG WANTED TO KN
OW IF THE SOIL HAD BEEN BACKFILLED SINCE THEY MAY WANT TO INSPECT IT,
SAC TOLDHER HE BELIEVES IT HAD BUT WOULD FIND OUT FOR SURE IF IT HAD
BEEN, SAC CALLED JIM WEHNER WHO TOLD HIM THAT THE EXCAVATION HAD BEEN
BACKFILLED BUT THEY WERE UNABLE TO BACK FILL ALL THE MATERIAL INTO
THE EXCAVATION SO THERE IS STILL SOME THAT THEY STAGED ON AND COVERED
WITH
PLASTIC.
2/1/01:SAC TELECON BARB YOUNGBERG TO LET HER KNOW ABOUT THE SI
TE.
2/2/01:SAC RECEIVED MESSAGE FROM BARB YOUNGBERG THAT REPRESENT
ATIVES FROM THEIR GROUP WERE COMING TO THE SITE ON 2/6/01 TO INSPECT
THE SITE WITH THE HEALTH DEPT., SAC e-MAILED HER BACK TO LET HER KNOW
HE WOULD BE UNABLE TO ATTEND DUE TO PREVIOUS APPOINTMENT BUT THAT SHE
MAY WANT TO CONTACT JIM WEHNER TO ATTEND THE
MEETING.
2/7/01:SAC TELECON PAUL DICKY, MR. DICKY SAID THAT AT THE MEET
ING THE REPRESENTATIVES FROM ALBANY DETERMINED THAT THE SOIL THAT
REMAINED ON-SITE WOULD HAVE TO BE DISPOSED AT A MIXED WASTE FACILITY
DUE TO THE RADIOACTIVITY OF THE SOIL, HE SAID THAT ALBANY WOULD BE
CONTACTING SAC TO DISCUSS THE SITE
FURTHER.
3/14/01:SAC TELECON JIM WEHNER - GREEN ENVIRONMENT, REGARDING
THE SITE, MR. WEHNER IS STILL ARRANGING FOR THE DISPOSAL OF THE
MATERIAL THAT IS PRESENTLY STAGED ON-SITE, DUE TO THE COST INVOLVED
IT MAY NOT BE SETTLED SOON, MR. WEHNER WILL SEND IN WORKPLAN ONCE
THIS HAS BEEN
SETTLED.
5/22/01:SAC TELECON JIM WEHNER, HE WAS GIVEN APPROVAL TO BACKF
ILL REMAINDER OF THE SOIL BY NYSDOH BY LETTER BUT LETTER INDICATED
REMOVAL COULD BE REQUIRED AT A LATER DATE, HE ASKED IF HE COULD
INJECT ORCs AROUND THE SITE TO ENCAPSULATE THE AREA UNTIL REMOVAL IS
ARRANGED AT SOME LATER DATE, SAC DISCUSS WITH PJB, BASED ON THE
NYSDOH LETTER REMOVAL OF SOIL DOES NOT HAVE A DEFINITE TIME REQUIRED
SO THEREFORE TREATMENT IS REQUIRED ON THE SOIL ITSELF, SAC TELECON
JIM WEHNER INFORMING HIM OF THIS, MR. WEHNER WILL PUT TOGETHER
WORKPLAN FOR THE
SITE.
01/28/03 RMC/FILE. REASSIGNED SITE FROM SAC. REVIEWED FILE. F
OUR USTS REMOVED FROM THE SITE. AN AMOUNT OF PETROLEUM CONTAMINATED
SOIL WAS STOCKPILED ON SITE. SOIL WAS LATER PUT BACK IN THE
EXCAVATION DUE TO POTENTIAL LOW LEVEL RADIOACTIVITY OF THE AREA FROM
SHALLOW BACKFILL USED IN THE PAST. ONE COMPOSITE EXCAVATION SAMPLE
TAKEN 1/16/01 SHOWED NO EXCEEDANCES BUT NOT ALL THE STARS COMPOUNDS

DUNN TIRE (Continued) **S104950830**

WERE REPORTED. ALSO NOTE THAT NO SAMPLES WERE TAKEN OF THE MATERIAL PLACED BACK IN THE EXCAVTION. DEC NEEDS THE FOLLOWING FOR PETROLEUM CLOSURE. 1. FOUR BORINGS OUTSIDE THE ORIGINAL EXCAVATION FOR STARS 8021/8270 COMPOUNDS. 2. TWO SAMPLES OF THE MATERIAL PUT BACK IN THE HOLE FOR 8021/8270 STARS COMPOUNDS. DRAFTED LETTER. UPDATE
2/28/
03 01/29/03 RMC/SITE. NO SOILS FOUND TO BE STOCKPILED ON SITE. NO OPEN EXCAVATIONS NOTE. UPDATE
2/28/
03 04/08/03 RMC/FILE. NO RESPONSE LETTER, REPONSE DUE 4/28/03
05/27/03 RMC/FILE. LETTER TO RPS ATTORNY, AS REQUESTED, RESPONDE D TO 4/15/03 LETTER, RESPONSE DUE
7/30/
03 10/09/03 RMC/FILE. NO REPONSE LETTER, TO LEGAL IF NO RESPONS E BY
10/30/
03 10/16/03 RMC/FRANK A/PHONE. HE WILL LOOK INTO GETTING PETROL EUM SAMPLING DONE, UPDATE
11/30/
03 12/16/03 RMC/FILE. NOT RECEIVED, ANOTHER LETTER TO THE RP AN D HIS ATTORNEY, RESPONSE DUE
12/30/03.
01/15/04 RMC/FILE. NO RESPONSE. LEFT MESSAGE FOR PRP. CALL DUE
Not reported
1/20/04.
01/26/04 RMC/FRANK A./PHONE. HE CONTACTED AN ENVIRONMENTAL FIR M. RMC ADVISED DEC HAS NOT RECEIVED ANYTHING, HE SAID HE WOULD LOOK INTO AND CALL RIGHT BACK. CALL DUE
1/31/04.
01/26/04 RMC/FRANK A./PHONE. HE SAID HE CALLED TOM OMALLI. RM C ADVISED THAT WORK NEEDS TO BE DONE AND DOCUMENTED, UPDATE
1/31/04.
02/24/04 RMC/FILE. CONTRACTOR HAS CONTACTED NYSDOH RE H AND S, REPORT DUE 3/30/04.
05/01/04 RMC/FILE. RECEIVED MESSAGE THAT HAZARD EVALUATION HAS BEEN HIRED AND THAT THEY ARE WORKING ON H AND S PLAN WITH DOH, UPDATE 5/30/04.
05/24/04 RMC/FILE. RECEIVED WORK PLAN FROM HEI. PLAN ON OBTAIN ING SIX SETS OF LAB RESULTS. FOUR OUTSIDE THE PREVIOUS EXCAVATION, TWO INSIDE THE PREVIOUS EXCAVATON. PLAN OK WITH DEC, RESULTS DUE
7/30/04.
08/01/04 RMC/FILE. SAC IS WORKING ON PLAN OF ACTION WITH DK, U PDATE
9/1/04.
8/?/04:DKK, SAC TELECON MARK VIRGIL - NYSDOH. DISCUSS COMMENTS BY NYSDOH FOR CONTRACTOR WORKPLAN. MR. VIRGIL WILL DISCUSS W/STEVE GAVITTS OF HIS OFFICE AND GET BACK TO DEC WITH
RECOMMENDATIONS.
MARK VIRGIL/STEVE GAVITTS - (518) 402-7556 8/24/04:SAC TELECON MARK VIRGIL. MR. VIRGIL WANTED TO KNOW WHERE DEC SPILLS WANTS TO INSTALL BORINGS AND HE WAS LOOKING AT HIS DATA TO DETERMINE RECOMMENDATIONS. SAC FAXED COPY OF SITE DRAWING TO MR. VIRGIL SHOWING WHERE TANKS WERE
LOCATED.
8/25/04:SAC TELECON MARK VIRGIL. FURTHER DISCUSSED SITE. A TEC HNICIAN FROM HIS DIVISION WILL BE IN THE AREA THIS WEEK OR NEXT ON ANOTHER MATTER. HE WILL HAVE HIM INSPECT SITE TO HELP WITH

DUNN TIRE (Continued) **S104950830**

RECOMMENDATIONS. HE WILL CONTINUE TO EVALUATE HIS DATA AND WILL CALL DEC BACK ONCE EVALUATION IS
COMPLETED.
9/29/04:SAC RECEIVED PHONE MESSAGE FROM SCOTT OVERHOFF - HAZAR
D EVALUATIONS. MR. OVERHOFF SPOKE TO NYSDOH AND THEY ANTICIPATE HAVING AN ANSWER REGARDING THE ON-SITE SOMETIME NEXT
WEEK.
11/12/04 RMC/FILE. AFTER HAVING CONFRENCE CALL WITH KING, SAC, A
ND STATE DOH IN OCTOBER DEC THOUGHT BOINGS OUTSIDE THE RADIATION ZONE WERE GOING TO MOVE FORWARD. LETTER DATED 10/22/04 TO DAN KING FROM STATE DOH BACKTRACKED ON THAT PLAN. DUE TO COST AND SEEMINGLY MOVING TARGET OF REQUIREMENTS BY STATE DOH, DEC WILL NOT PURSUE ACTION AT THIS TIME DUE TO RADIATION RISK VS COST. PETROLEUM TANKS (SOURCE) IS GONE, NO FREE PRODUCT NOTED, NO GW NOTED, RADIATION RISK UNKNOWN IF EXCAVATED, SITE TO BE MADE INACTIVE, LETTER.

Remarks: during removal of 4 ust's (two 1,000-gal. gasoline; one 300-gal. waste oil; one 500-gal. heating oil tank, contamination noted around gasoline and waste oil tanks.

Material:

Site ID:	81054
Operable Unit ID:	836926
Operable Unit:	01
Material ID:	539137
Material Code:	0009
Material Name:	Gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

HIST LTANKS:

Region of Spill:	9
Spill Number:	0075561
Spill Date:	01/16/2001
Spill Time:	11:00
Spill Cause:	Tank Failure
Resource Affectd:	On Land
Water Affected:	Not reported
Spill Source:	Other Commercial/Industrial

DUNN TIRE (Continued) **S104950830**

Spill Class:	Known release that creates potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	/ /
Cleanup Ceased:	/ /
Cleanup Meets Standard:	False
Investigator:	SAC-NCHD
Caller Name:	Not reported
Caller Agency:	Not reported
Caller Phone:	Not reported
Caller Extension:	Not reported
Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported
Notifier Extension:	Not reported
Reported to Department Date:	01/16/01
Reported to Department Time:	13:00
SWIS:	29
Spiller Contact:	BILL REUTER (CONTRACTOR)
Spiller Phone:	(716) 754-4148
Spiller Extention:	Not reported
Spiller Name:	FRANK AMENDOLA
Spiller Address:	NIAGARA BLDG., THIRD ST.
Spiller City,St,Zip:	NIAGARA FALLS, NY 14304-
Spiller Cleanup Date:	/ /
Facility Contact:	FRANK AMENDOLA
Facility Phone:	(716) 285-5050
Facility Extention:	Not reported
Spill Notifier:	Other
PBS Number:	Not reported
Last Inspection:	/ /
Recommended Penalty:	Penalty Not Recommended
Enforcement Date:	/ /
Investigation Complete:	/ /
UST Involvement:	True
Date Region Sent Summary to Central Office:	/ /
Corrective Action Plan Submitted:	/ /
Date Spill Entered In Computer Data File:	01/16/01
Time Spill Entered In Computer Data File:	13:16
Spill Record Last Update:	05/29/01
Is Updated:	False

Tank:

PBS Number:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate Failed Tank:	Not reported
Gross Leak Rate:	Not reported

Material:

Material Class Type:	Petroleum
Quantity Spilled:	0
Unkonwn Quantity Spilled:	True
Units:	Gallons
Quantity Recovered:	0
Unkonwn Quantity Recovered:	True
Material:	GASOLINE

DUNN TIRE (Continued) **S104950830**

Class Type: GASOLINE
Times Material Entry In File: 21329
CAS Number: Not reported
Last Date: 19940929
DEC Remarks: 1/24/01:SAC TELECON JIM WEHNER - GREEN ENVIRONMENTAL SPECIALISTS, HE HAS REMOVED THE TANKS AND STAGED CONTAMINATED SOIL ON THE PROPERTY, HE HAS EXCAVATED TO THE FOUNDATION AND BELIEVES SOME HAS GONE UNDERNEATH THE BUILDING, HE WILL CONTINUE TO EXCAVATE WHERE HE CAN BUT REQUESTED AN INSPECTION, SAC SAID HE WOULD ARRANGE TO HAVE THE NIAGARA COUNTY HEALTH DEPARTMENT INSPECT THE SITE. 1/24/01:SAC TELECON PAUL DICKY - NCHD REGARDING THE SITE AND ASKED IF HE COULD DO AN INSPECTION AT THE SITE, MR. DICKY RECOGNIZED WHERE THE SITE WAS AND INDICATED THAT THIS SITE HAD SOME LOW LEVEL RADIOACTIVE CONTAMINATION AT THE SITE THAT HAD RESTRICTIONS REGARDING EXCAVATION OF THE SOIL AT THE SITE, MR. DICKY WILL INSPECT ALONG WITH JOHN ARCHIBALD FROM THE NCHD WHO IS INVOLVED WITH RADIOACTIVE MATTERS FOR THE COUNTY, SAC THEN CALLED JIM WEHNER TO NOTIFY HIM OF THE SITUATION AND TO HAVE HIM STOP THE EXCAVATING AND THAT THE NCHD WAS GOING TO INSPECT THE SITE. 1/24/01:SAC TELECON PAUL DICKY - THEY INSPECTED THE SITE BUT THEY DID NOT HAVE A METER TO TELL IF THE SOIL WAS OF CONCERN, THE PROBLEM AT THE SITE IS THAT THE RADIOACTIVE MATERIAL WAS IN THE SLAG THAT WAS USED JUST BELOW THE PAVED AREA ON THE SITE, THIS MATERIAL WAS NOW MIXED IN WITH THE PETROLEUM CONTAMINATED SOIL AND NOW COULD NOT BE SEGREGATED EASILY SO THAT IT COULD BE TAKEN TO MODERN DISPOSAL AS WAS ORIGINALLY PLANNED, IT WOULD HAVE TO GO TO A FACILITY THAT TAKES MIXED WASTE BASED ON THE LEVEL OF RADIOACTIVITY AND THAT WOULD MEAN ITWOULD HAVE TO BE TRANSPORTED TO UTAH, THEY WILL CONTACT BARB IGNATZ WITH THE NYS HEALTH DEPT TO NOTIFY HER OF THE SITUATION, SAC NOTIFIED PJB REGARDING THE SITE. 1/24/01:SAC TELECON BARB IGNATZ - NYS HEALTH DEPT. AND DISCUSSED SITE, MS. IGNATZ WILLCONTACT ALBANY CENTRAL OFFICE OF HEALTH DEPARTMENT TO FIND OUT THEIR RECOMMENDATIONS AND GET BACK TO SAC. 1/26/01:SAC TELECON JIM WEHNER - MR. WEHNER WANTED TO KNOW WHAT WAS STATUS OF THE PROJECT, EXCAVATION REMAINS OPEN AND CONTRACTOR IS CONCERNEDTHAT THE FOUNDATION BEING EXPOSED FOR A LONG TIME COULD CAUSE STRUCTURAL DAMAGE, MR. WEHNER SAID THAT HE WAS IN CONTACT WITH BUTCH EGAN OF ZEBRA TECHNOLOGIES TO PROPOSE A PLAN ABOUT THE USE OF ORCS ON THE SITE SINCE THERE WAS A POSSIBILTY THE SOIL MIGHT HAVE TO BE PLACED IN THE EXCAVATION AND BECAUSE THEY WERE LOOKING INTO THIS REMEDIAL OPTION BECAUSE OF THE CONTAMINATION THAT WAS UNSDER THE FLOOR, SAC TRIED TO CONTACT BARB IGNATZ AND JOHN ARCHIBALD BUT BOTH WERE UNAVAILABLE TODAY, WILL HAVE TO WAIT UNTIL NEXT WEEK, SAC CALLED PAUL DICKY ABOUT THIS AND MR. DICKY SAID HE WOULD SPEAK TO MR. ARCHIBALD WHEN HE CAME BACK AND CALL SAC TO LET HIM KNOW WHAT THEY RECOMMENDED, SAC LATER RECEIVED MESSAGE FROM BARB YOUNGBERG - WHO IS IN DEC DIV OF SOLID AND HAZARDOUS MATERIALS - RADIATION BUREAU TO SEE IF THEY COULD BE OF ANY HELP, SAC WILL CONTACT HER NEXT WEEK. 1/29/01:SAC TELECON PAUL DICKY, MR. DICKY SPOKE TO JOHN ARCHIBALD WHO HAD SPOKEN TO BARB IGNATZ, THE HEALTH DEPARTMENT RECOMMENDED THE SOIL BE PLACED BACK IN THE EXCAVATION, SAC LATER SPOKE TO BARB YOUNGBERG ABOUT THE REMEDIAL OPTIONS AND ABOUT THE HEALTH DEPT. RECOMMENDATION ABOUT BACKFILLING THE EXCAVATION WITH THE CONTAMINATED SOIL, MS. YOUNGBERG DID NOT HAVE A PROBLEM WITH THIS AT THE TIME, SAC HAD DISCUSSED THIS WITH PJB AND IT WAS AGREED THAT IN THIS SPECIAL CASE BECAUSE OF THE POTENTIAL OF RADIOACTIVE MATERIAL IN THE SOIL THAT THIS WOULD TAKE PRECEDENCE AND THAT SOIL WOULD BE ALLOWED TO BE BACKFILLED, SAC CONTACTEDJIM WEHNER TO LET HIM KNOW IT WAS OKAY TO BACKFILL THE MATERIAL ON THE SITE. 1/30/01:SAC TELECON BARB YOUNGBERG, MS. YOUNGBERG WANTED TO KNOW IF THE SOIL HAD BEEN BACKFILLED SINCE THEY MAY WANT TO INSPECT IT, SAC TOLDHER HE BELIEVES IT HAD BUT WOULDFIND OUT FOR SURE IF IT HAD BEEN, SAC CALLED JIM WEHNER WHO TOLD HIM THAT THE EXCAVATION HAD BEEN BACKFILLED BUT THEY WERE UNABLE TO BACK FILL ALL THE MATERIAL INTO THE EXCAVATION SO THERE IS STILL SOME THAT THEY STAGED ON AND COVERED WITH PLASTIC.2/1/01:SAC TELECON BARB YOUNGBERG TO LET HER KNOW ABOUT THE SITE. 2/2/01:SAC RECEIVED MESSAGE FROM BARB YOUNGBERG

DUNN TIRE (Continued) **S104950830**

THAT REPRESENTATIVES FROM THEIR GROUP WERE COMING TO THE SITE ON 2/6/01 TO INSPECT THE SITE WITH THE HEALTH DEPT., SAC e-MAILED HER BACK TO LET HER KNOW HE WOULD BE UNABLE TO ATTEND DUE TO PREVIOUS APPOINTMENT BUT THAT SHE MAY WANT TO CONTACT JIM WEHNER TO ATTEND THE MEETING. 2/7/01:SAC TELECON PAUL DICKY, MR. DICKY SAID THAT AT THE MEETING THE REPRESENTATIVES FROM ALBANY DETERMINED THAT THE SOIL THAT REMAINED ON-SITE WOULD HAVE TO BE DISPOSED AT A MIXED WASTE FACILITY DUE TO THE RADIOACTIVITY OF THE SOIL, HE SAID THAT ALBANY WOULD BE CONTACTING SAC TO DISCUSS THE SITE FURTHER. 3/14/01:SAC TELECON JIM WEHNER - GREEN ENVIRONMENT, REGARDING THE SITE, MR. WEHNER IS STILL ARRANGING FOR THE DISPOSAL OF THE MATERIAL THAT IS PRESENTLY STAGED ON-SITE, DUE TO THE COST INVOLVED IT MAY NOT BE SETTLED SOON, MR. WEHNER WILL SEND IN WORKPLAN ONCE THIS HAS BEEN SETTLED. 5/22/01:SAC TELECON JIM WEHNER, HE WAS GIVEN APPROVAL TO BACKFILL REMAINDER OF THE SOIL BY NYSDOH BY LETTER BUT LETTER INDICATED REMOVAL COULD BE REQUIRED AT A LATER DATE, HE ASKED IF HE COULD INJECT ORCs AROUND THE SITE TO ENCAPSULATE THE AREA UNTIL REMOVAL IS ARRANGED AT SOME LATER DATE, SAC DISCUSS WITH PJB, BASED ON THE NYSDOH LETTER REMOVAL OF SOIL DOES NOT HAVE A DEFINITE TIME REQUIRED SO THERE TREATMENT IS REQUIRED ON THE SOIL ITSELF, SAC TELECON JIM WEHNER INFORMING HIM OF THIS, MR. WEHNER WILL PUTTOGETHER WORKPLAN FOR THE SITE.

Spill Cause: during removal of 4 ust s two 1,000-gal. gasoline; one 300-gal. waste oil; one 500-gal. heating oil tank, contamination noted around gasoline and waste oil tanks.

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19 WNW 1/4-1/2 0.365 mi. 1925 ft.

DIBACC0 LF SITE 1
PORTER & TUSCARORA RDS
NIAGARA FALLS, NY 14304

CERC-NFRAP **1003863725**
NYD980508097

Relative: Higher

Actual: 580 ft.

CERC-NFRAP:

Site ID:	0201798
Federal Facility:	Not a Federal Facility
NPL Status:	Not on the NPL
Non NPL Status:	NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Assessment History:

Action:	DISCOVERY
Date Started:	Not reported
Date Completed:	04/01/1980
Priority Level:	Not reported
Action:	PRELIMINARY ASSESSMENT
Date Started:	Not reported
Date Completed:	11/01/1981
Priority Level:	Low priority for further assessment
Action:	SITE INSPECTION
Date Started:	11/01/1981
Date Completed:	11/01/1981
Priority Level:	NFRAP-Site does not qualify for the NPL based on existing information
Action:	SITE INSPECTION
Date Started:	02/01/1992
Date Completed:	02/01/1992
Priority Level:	NFRAP-Site does not qualify for the NPL based on existing information
Action:	ARCHIVE SITE

DIBACC0 LF SITE 1 (Continued) **1003863725**

Date Started: Not reported
Date Completed: 02/01/1992
Priority Level: Not reported

20
SE
1/4-1/2
0.365 mi.
1927 ft.

Relative:
Lower

Actual:
576 ft.

BELL AEROSPACE TEXTRON
ROUTE 62 AND WALMORE RD.
WHEATFIELD, NY 14150

RCRA-TSDF **1000273613**
CERC-NFRAP **NYD002106276**
CORRACTS
RCRA-CESQG
US ENG CONTROLS
US INST CONTROL
FINDS
FINANCIAL ASSURANCE

RCRA-TSDF:
Date form received by agency: 01/01/2007
Facility name: BELL AEROSPACE TEXTRON
Facility address: 9812 NIAGARA FALLS BLVD
WHEATFIELD, NY 14150
EPA ID: NYD002106276
Mailing address: PO BOX 1
BUFFALO, NY 14240
Contact: MICHAEL HEALY
Contact address: PO BOX 1
BUFFALO, NY 14240
Contact country: US
Contact telephone: (716) 297-1000
Contact email: Not reported
EPA Region: 02
Land type: Private
Classification: TSDF
Description: Handler is engaged in the treatment, storage or disposal of hazardous waste
Classification: Conditionally Exempt Small Quantity Generator
Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:
Owner/operator name: BELL AEROSPACE TEXTRON
Owner/operator address: PO BOX 1
OPERCITY, NY 99999
Owner/operator country: US
Owner/operator telephone: (716) 297-1000
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported

BELL AEROSPACE TEXTRON (Continued) **1000273613**

Owner/Op end date: Not reported

Owner/operator name: BELL AEROSPACE TEXTRON
Owner/operator address: PO BOX 1
BUFFALO, NY 14240
Owner/operator country: US
Owner/operator telephone: (716) 297-1000
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: Yes
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/01/2006
Facility name: BELL AEROSPACE TEXTRON
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 01/01/2001
Facility name: BELL AEROSPACE TEXTRON
Site name: TEXTRON INC
Classification: Large Quantity Generator

Date form received by agency: 02/24/1998
Facility name: BELL AEROSPACE TEXTRON
Site name: TEXTRON REALTY OPER (WHEATFIELD) INC
Classification: Large Quantity Generator

Date form received by agency: 02/07/1996
Facility name: BELL AEROSPACE TEXTRON
Site name: TEXTRON REALTY OPERATIONS
Classification: Large Quantity Generator

Date form received by agency: 02/14/1994
Facility name: BELL AEROSPACE TEXTRON
Classification: Large Quantity Generator

Date form received by agency: 02/21/1992
Facility name: BELL AEROSPACE TEXTRON
Site name: BELL AEROSPA

BELL AEROSPACE TEXTRON (Continued) **1000273613**

Classification: Large Quantity Generator

Date form received by agency: 03/01/1990
Facility name: BELL AEROSPACE TEXTRON
Classification: Large Quantity Generator

Date form received by agency: 11/19/1980
Facility name: BELL AEROSPACE TEXTRON
Classification: Not a generator, verified

Date form received by agency: 08/18/1980
Facility name: BELL AEROSPACE TEXTRON
Classification: Large Quantity Generator

Date form received by agency: 12/31/1979
Facility name: BELL AEROSPACE TEXTRON
Classification: Large Quantity Generator

Corrective Action Summary:

Event date: 06/01/1980
Event: CA772ID

Event date: 06/15/1986
Event: RFI Imposition

Event date: 05/15/1987
Event: RFA Determination Of Need For An RFI, RFI is Necessary;

Event date: 05/15/1987
Event: RFI Imposition

Event date: 12/30/1987
Event: CA770NG

Event date: 01/15/1990
Event: RFA Completed

Event date: 06/15/1990
Event: CMS Imposition

Event date: 02/21/1991
Event: RFI Workplan Received

Event date: 03/14/1991
Event: RFI Workplan Approved

Event date: 04/04/1991
Event: RFI Workplan Notice Of Deficiency Issued

Event date: 06/01/1991
Event: RFI Approved

Event date: 06/01/1991
Event: RFI Workplan Approved

Event date: 06/04/1991
Event: CMS Workplan Approved

BELL AEROSPACE TEXTRON (Continued) **1000273613**

Event date: 06/04/1991
Event: CMS Implementation Begun

Event date: 06/07/1991
Event: CMS Approved

Event date: 07/08/1991
Event: CA Prioritization, Facility or area was assigned a high corrective action priority.

Event date: 12/26/1991
Event: RFI Approved

Event date: 03/13/1992
Event: Date For Remedy Selection (CM Imposed)

Event date: 04/01/1992
Event: CMI Workplan Approved

Event date: 06/19/1992
Event: CA Prioritization, Facility or area was assigned a high corrective action priority.

Event date: 04/15/1993
Event: CA770GW

Event date: 05/14/1993
Event: CMI Workplan Approved

Event date: 05/14/1993
Event: CA770GW

Event date: 05/02/1994
Event: Date For Remedy Selection (CM Imposed)

Event date: 06/28/1994
Event: CA770GW

Event date: 06/28/1994
Event: Certification Of Remedy Completion Or Construction Completion

Event date: 04/14/1995
Event: CA577

Event date: 08/01/1995
Event: Stabilization Measures Evaluation,This facility is not amenable to stabilization activity at the present time for reasons other than 1- it appears to be technically infeasible or inappropriate (NF) or 2- there is a lack of technical information (IN). Reasons for this conclusion may be the status of closure at the facility, the degree of risk, timing considerations, the status of corrective action work at the facility, or other administrative considerations.

Event date: 09/25/1995
Event: CA577

Event date: 12/13/1995

BELL AEROSPACE TEXTRON (Continued) **1000273613**

Event: Certification Of Remedy Completion Or Construction Completion

Event date: 12/14/1995
Event: Certification Of Remedy Completion Or Construction Completion

Event date: 01/10/1996
Event: CA577

Event date: 11/19/1997
Event: CA577

Event date: 04/16/1999
Event: CA577

Event date: 09/29/1999
Event: Igration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified. Based on a review of information contained in the EI determination, it has been determined that migration of contaminated groundwater is under control at the facility. Specifically, this determination indicates that the migration of contaminated groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the existing area of contaminated groundwater. This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

Event date: 09/30/1999
Event: Current Human Exposures under Control, More information is needed to make a determination.

Event date: 05/18/2000
Event: CA577

Event date: 09/20/2000
Event: Current Human Exposures under Control, Yes, Current Human Exposures Under Control has been verified. Based on a review of information contained in the EI determination, current human exposures are expected to be under control at the facility under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

Event date: 03/02/2001
Event: CA577

Event date: 04/04/2001
Event: CA577

Event date: 12/07/2001
Event: CA577

Event date: 06/26/2002
Event: CA577

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: State Statute or Regulation

BELL AEROSPACE TEXTRON (Continued) **1000273613**

Date violation determined: 03/08/2011
Date achieved compliance: 03/30/2011
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/15/2011
Enf. disposition status: Action Satisfied (Case Closed)
Enf. disp. status date: 04/04/2011
Enforcement lead agency: State
Proposed penalty amount: 0
Final penalty amount: 0
Paid penalty amount: 0

Regulation violated: Not reported
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 06/20/1984
Date achieved compliance: 07/14/1987
Violation lead agency: State
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 12/19/1984
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 0
Final penalty amount: 0
Paid penalty amount: 0

Regulation violated: Not reported
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 06/20/1984
Date achieved compliance: 07/14/1987
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 06/02/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 0
Final penalty amount: 0
Paid penalty amount: 0

Evaluation Action Summary:
Evaluation date: 03/08/2011
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: State Statute or Regulation
Date achieved compliance: 03/30/2011
Evaluation lead agency: State

Evaluation date: 05/19/2010
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: EPA

Evaluation date: 03/29/2010
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported

BELL AEROSPACE TEXTRON (Continued) **1000273613**

Evaluation lead agency: State

Evaluation date: 01/15/2009
Evaluation: GROUNDWATER MONITORING EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/02/2008
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/23/2006
Evaluation: GROUNDWATER MONITORING EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/14/2006
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: EPA

Evaluation date: 06/29/2006
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/01/2004
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/29/2004
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/04/2004
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/13/2003
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/02/2002

BELL AEROSPACE TEXTRON (Continued) **1000273613**

Evaluation: GROUNDWATER MONITORING EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/26/2002
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/06/2002
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/07/2001
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/04/2001
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/30/2001
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 02/12/2001
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/18/2000
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/29/1999
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/21/1999
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported

BELL AEROSPACE TEXTRON (Continued) **1000273613**

Evaluation lead agency: State

Evaluation date: 09/29/1998
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/24/1998
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/26/1997
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/28/1997
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/29/1997
Evaluation: OPERATION AND MAINTENANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/18/1997
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/16/1996
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/08/1995
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/15/1994
Evaluation: GROUNDWATER MONITORING EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/06/1993

BELL AEROSPACE TEXTRON (Continued) **1000273613**

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/26/1993
Evaluation: OPERATION AND MAINTENANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/26/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/18/1989
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/30/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/30/1987
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/08/1987
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: EPA

Evaluation date: 04/22/1987
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/15/1986
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/23/1986
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported

BELL AEROSPACE TEXTRON (Continued) **1000273613**

Evaluation lead agency: State

Evaluation date: 09/26/1985
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/31/1984
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/27/1984
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/20/1984
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: TSD IS-Ground-Water Monitoring
Date achieved compliance: 07/14/1987
Evaluation lead agency: State

Evaluation date: 06/20/1984
Evaluation: GROUNDWATER MONITORING EVALUATION
Area of violation: TSD IS-Ground-Water Monitoring
Date achieved compliance: 07/14/1987
Evaluation lead agency: State

Evaluation date: 06/20/1984
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/05/1984
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/17/1984
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: EPA

CERC-NFRAP:
Site ID: 0201384
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Site Alias Name(s):

BELL AEROSPACE TEXTRON (Continued) **1000273613**

Alias Name: BELL AEROSPACE
Alias Address: NIAGARA FLS BLVD
WHEATFIELD, NY 14150

Alias Name: BELL AEROSPACE TEXTRON
Alias Address: Not reported
NIAGARA, NY

CERCLIS-NFRAP Assessment History:
Action: DISCOVERY
Date Started: Not reported
Date Completed: 04/01/1980
Priority Level: Not reported

Action: ARCHIVE SITE
Date Started: Not reported
Date Completed: 09/02/1987
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT
Date Started: Not reported
Date Completed: 09/02/1987
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

CORRACTS:

EPA ID: NYD002106276
EPA Region: 02
Area Name: ON-SITE CMI
Actual Date: 01/10/1996
Action: CA577
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: OFF-SITE CMI
Actual Date: 01/10/1996
Action: CA577
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02

BELL AEROSPACE TEXTRON (Continued) **1000273613**

Area Name: GROUNDWATER RFI
Actual Date: 01/15/1990
Action: CA050 - RFA Completed
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: SOIL INVESTIGATION
Actual Date: 01/15/1990
Action: CA050 - RFA Completed
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 02/21/1991
Action: CA110 - RFI Workplan Received
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: ON-SITE CMI
Actual Date: 03/02/2001
Action: CA577
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: GROUNDWATER RFI

BELL AEROSPACE TEXTRON (Continued) **1000273613**

Actual Date: 03/13/1992
Action: CA400 - Date For Remedy Selection (CM Imposed)
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: SOIL INVESTIGATION
Actual Date: 03/14/1991
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: OFF-SITE CMI
Actual Date: 04/01/1992
Action: CA500 - CMI Workplan Approved
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: 04/01/1992
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 04/04/1991
Action: CA140 - RFI Workplan Notice Of Deficiency Issued
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: OFF-SITE CMI
Actual Date: 04/04/2001

BELL AEROSPACE TEXTRON (Continued) **1000273613**

Action: CA577
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: OFF-SITE CMI
Actual Date: 04/14/1995
Action: CA577
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: ON-SITE CMI
Actual Date: 04/15/1993
Action: CA770GW
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: OFF-SITE CMI
Actual Date: 04/15/1993
Action: CA770GW
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: OFF-SITE CMI
Actual Date: 04/16/1999
Action: CA577

BELL AEROSPACE TEXTRON (Continued) **1000273613**

NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: ON-SITE CMI
Actual Date: 04/16/1999
Action: CA577
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 05/02/1994
Action: CA400 - Date For Remedy Selection (CM Imposed)
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: ON-SITE CMI
Actual Date: 05/14/1993
Action: CA500 - CMI Workplan Approved
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: 05/14/1993
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: ON-SITE CMI
Actual Date: 05/14/1993
Action: CA770GW
NAICS Code(s): 334511 336413 336611 334419

BELL AEROSPACE TEXTRON (Continued) **1000273613**

Search, Detection, Navigation, Guidance, Aeronautical, and Nautical
System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: GROUNDWATER RFI
Actual Date: 05/15/1987
Action: CA100 - RFI Imposition
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical
System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 05/15/1987
Action: CA070YE - RFA Determination Of Need For An RFI, RFI is Necessary
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical
System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: OFF-SITE CMI
Actual Date: 05/18/2000
Action: CA577
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical
System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: ON-SITE CMI
Actual Date: 05/18/2000
Action: CA577
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical

BELL AEROSPACE TEXTRON (Continued) **1000273613**

System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 06/01/1980
Action: CA772ID
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical
System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: GROUNDWATER RFI
Actual Date: 06/01/1991
Action: CA200 - RFI Approved
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical
System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: ON-SITE CMI
Actual Date: 06/01/1991
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical
System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: 06/01/1991
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: GROUNDWATER RFI
Actual Date: 06/04/1991
Action: CA330 - CMS Implementation Begun
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical
System and Instrument Manufacturing

BELL AEROSPACE TEXTRON (Continued) **1000273613**

Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: GROUNDWATER RFI
Actual Date: 06/04/1991
Action: CA300 - CMS Workplan Approved
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: 01/01/1991
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: GROUNDWATER RFI
Actual Date: 06/07/1991
Action: CA350 - CMS Approved
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 06/15/1986
Action: CA100 - RFI Imposition
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: GROUNDWATER RFI
Actual Date: 06/15/1990
Action: CA250 - CMS Imposition
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing

BELL AEROSPACE TEXTRON (Continued) **1000273613**

Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 06/19/1992
Action: CA075HI - CA Prioritization, Facility or area was assigned a high corrective action priority
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: OFF-SITE CMI
Actual Date: 06/26/2002
Action: CA577
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: ON-SITE CMI
Actual Date: 06/26/2002
Action: CA577
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: OFF-SITE CMI
Actual Date: 06/28/1994
Action: CA770GW
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing

BELL AEROSPACE TEXTRON (Continued) **1000273613**

Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: OFF-SITE CMI
Actual Date: 06/28/1994
Action: CA550 - Certification Of Remedy Completion Or Construction Completion
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: 06/28/1994
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 07/08/1991
Action: CA075HI - CA Prioritization, Facility or area was assigned a high corrective action priority
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 08/01/1995
Action: CA225NR - Stabilization Measures Evaluation, This facility is, not amenable to stabilization activity at the, present time for reasons other than (1) it appears to be technically, infeasible or inappropriate (NF) or (2) there is a lack of technical, information (IN). Reasons for this conclusion may be the status of, closure at the facility, the degree of risk, timing considerations, the status of corrective action work at the facility, or other, administrative considerations
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02

BELL AEROSPACE TEXTRON (Continued) **1000273613**

Area Name: SITEWIDE
Actual Date: 09/20/2000
Action: CA725YE - Current Human Exposures Under Control, Yes, Current Human Exposures Under Control has been verified
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: OFF-SITE CMI
Actual Date: 09/25/1995
Action: CA577
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: ON-SITE CMI
Actual Date: 09/25/1995
Action: CA577
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 09/29/1999
Action: CA750YE - Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276

BELL AEROSPACE TEXTRON (Continued) **1000273613**

EPA Region: 02
Area Name: SITEWIDE
Actual Date: 09/30/1999
Action: CA725IN - Current Human Exposures Under Control, More information is needed to make a determination
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: ON-SITE CMI
Actual Date: 11/19/1997
Action: CA577
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: OFF-SITE CMI
Actual Date: 11/19/1997
Action: CA577
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: ON-SITE CMI
Actual Date: 12/07/2001
Action: CA577
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276

BELL AEROSPACE TEXTRON (Continued) **1000273613**

EPA Region: 02
Area Name: OFF-SITE CMI
Actual Date: 12/07/2001
Action: CA577
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: ON-SITE CMI
Actual Date: 12/13/1995
Action: CA550 - Certification Of Remedy Completion Or Construction Completion
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 12/14/1995
Action: CA550 - Certification Of Remedy Completion Or Construction Completion
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02
Area Name: SOIL INVESTIGATION
Actual Date: 12/26/1991
Action: CA200 - RFI Approved
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002106276
EPA Region: 02

BELL AEROSPACE TEXTRON (Continued) **1000273613**

Area Name: SITEWIDE
Actual Date: 12/30/1987
Action: CA770NG
NAICS Code(s): 334511 336413 336611 334419
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
Other Aircraft Parts and Auxiliary Equipment Manufacturing
Ship Building and Repairing
Other Electronic Component Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

US ENG CONTROLS:
EPA ID: NYD002106276
Site ID: Not reported
Name: BELL AEROSPACE TEXTRON
Address: NIAGARA FALLS BLVD
WHEATFIELD, NY 14150
EPA Region: 2
County: NIAGARA
Event Code: CA770GW
Actual Date: 28-Jun-94

Action ID: Not reported
Action Name: Not reported
Action Completion date: Not reported
Operable Unit: Not reported
Contaminated Media : Not reported
Engineering Control: Not reported

Action ID: Not reported
Action Name: Not reported
Action Completion date: Not reported
Operable Unit: Not reported
Contaminated Media : Not reported
Engineering Control: Not reported

US INST CONTROL:
EPA ID: NYD002106276
Site ID: Not reported
Name: BELL AEROSPACE TEXTRON
Action Name: Not reported
Address: NIAGARA FALLS BLVD
WHEATFIELD, NY 14150
EPA Region: 2
County: NIAGARA
Event Code: CA772ID
Inst. Control: Not reported
Actual Date: 1-Jun-80
Complet. Date: Not reported
Operable Unit: Not reported
Contaminated Media : Not reported

FINDS:

BELL AEROSPACE TEXTRON (Continued) **1000273613**

Registry ID: 110000807066

Environmental Interest/Information System

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

FIS (New York - Facility Information System) is New York's Department of Environmental Conservation (DEC) information system for tracking environmental facility information found across the State.

PCS (Permit Compliance System) is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

FINASS2:

Region:	2
Letter of Credit:	Not reported
Other:	Not reported
EPA Id Number:	NYD002106276
Company Name:	Textron Inc.
Closure Cost:	$0
Post-Closure Cost:	$1,678,721
Correction Action Cost:	$0
Financial Mech Cg:	Not reported
Financial Mech Ft:	Y
Type:	Not reported
Insurance Provider:	Not reported
Surety:	Not reported
Trust Fund Institution:	Not reported

21 South 1/4-1/2 0.371 mi. 1959 ft. | **CAYUGA VILL. MOBILE PARK**
NIAGARA FALLS BLVD
NIAGARA FALLS, NY | **LTANKS** | **S100117626**
HIST LTANKS | **N/A**

Relative: Lower

Actual: 573 ft.

LTANKS:

Site ID:	205018
Spill No:	8809760
Spill Date:	3/10/1989
Spill Cause:	Tank Failure
Spill Source:	Private Dwelling
Spill Class:	Not reported
Spill Closed Dt:	8/22/1989
Facility Addr2:	Not reported
Cleanup Ceased:	8/22/1989
Cleanup Meets Standard:	True
SWIS:	3211
Investigator:	MJHINTON
Referred To:	Not reported
Reported to Dept:	3/17/1989
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Other
Last Inspection:	3/20/1989
Recommended Penalty:	Penalty Not Recommended
UST Involvement:	False
Remediation Phase:	0
Date Entered In Computer:	3/21/1989
Spill Record Last Update:	9/5/1989
Spiller Name:	Not reported
Spiller Company:	MARIA HEALY
Spiller Address:	526-C CAYUGA VILLAGE
Spiller City,St,Zip:	NIAGARA FALLS, NY 14304
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	140747
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "MJH" 03/21/89: SPILLERS INSURANCE COMPANY TO PROCEED WITH CLEANUP. 05/04/89: LETTER SENT REQUESTING REPORT ON CLEANUP AND DISPOSAL RECIEPTS. 08/22/89: DISPOSAL RECIEPTS SUBMITTED FROM CLEANUP CONTRACTOR NO FURTHER ACTION NEEDED BY SPILL UNIT.
Remarks:	LEAK FROM FUEL TANK FOR TRAILER REPORTEDLY WENT UNDER TRAILER

Material:

Site ID:	205018
Operable Unit ID:	925822
Operable Unit:	01
Material ID:	450935
Material Code:	0001
Material Name:	#2 Fuel Oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	250
Units:	Gallons
Recovered:	225

CAYUGA VILL. MOBILE PARK (Continued) **S100117626**

Resource Affected: Not reported
Oxygenate: False

Tank Test:
Site ID: Not reported
Spill Tank Test: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate: Not reported
Gross Fail: Not reported
Modified By: Not reported
Last Modified: Not reported
Test Method: Not reported

HIST LTANKS:
Region of Spill: 9
Spill Number: 8809760
Spill Date: 03/10/1989
Spill Time: 12:00
Spill Cause: Tank Failure
Resource Affectd: On Land
Water Affected: Not reported
Spill Source: Private Dwelling
Spill Class: Not reported
Spill Closed Dt: 08/22/89
Cleanup Ceased: 08/22/89
Cleanup Meets Standard: True
Investigator: MJH
Caller Name: Not reported
Caller Agency: Not reported
Caller Phone: Not reported
Caller Extension: Not reported
Notifier Name: Not reported
Notifier Agency: Not reported
Notifier Phone: Not reported
Notifier Extension: Not reported
Reported to Department Date: 03/17/89
Reported to Department Time: 16:35
SWIS: 29
Spiller Contact: Not reported
Spiller Phone: Not reported
Spiller Extention: Not reported
Spiller Name: MARIA HEALY
Spiller Address: 526-C CAYUGA VILLAGE
Spiller City,St,Zip: NIAGARA FALLS, NY 14304
Spiller Cleanup Date: / /
Facility Contact: Not reported
Facility Phone: (716) 298-5226
Facility Extention: Not reported
Spill Notifier: Other
PBS Number: Not reported
Last Inspection: 03/20/89
Recommended Penalty: Penalty Not Recommended
Enforcement Date: / /

CAYUGA VILL. MOBILE PARK (Continued) **S100117626**

Investigation Complete: / /
UST Involvement: False
Date Region Sent Summary to Central Office: / /
Corrective Action Plan Submitted: / /
Date Spill Entered In Computer Data File: 03/21/89
Time Spill Entered In Computer Data File: Not reported
Spill Record Last Update: 09/05/89
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 250
Unkonwn Quantity Spilled: False
Units: Gallons
Quantity Recovered: 225
Unkonwn Quantity Recovered: False
Material: #2 FUEL OIL
Class Type: #2 FUEL OIL
Times Material Entry In File: 24464
CAS Number: Not reported
Last Date: 19941207
DEC Remarks: 03/21/89: SPILLERS INSURANCE COMPANY TO PROCEED WITH CLEANUP. 05/04/89: LETTER SENT REQUESTING REPORT ON CLEANUP AND DISPOSAL RECIEPTS. 08/22/89: DISPOSAL RECIEPTS SUBMITTED FROM CLEANUP CONTRACTOR NO FURTHER ACTION NEEDED BY SPILL UNIT.
Spill Cause: LEAK FROM FUEL TANK FOR TRAILER REPORTEDLY WENT UNDER TRAILER

22
South
1/4-1/2
0.389 mi.
2054 ft.

RAINBOW TIRE **LTANKS** **S102619449**
9340 NIAGARA FALLS BLVD **HIST LTANKS** **N/A**
NIAGARA FALLS, NY

Relative:
Lower

Actual:
572 ft.

LTANKS:
Site ID: 129557
Spill No: 9516572
Spill Date: 3/23/1996
Spill Cause: Tank Failure
Spill Source: Gasoline Station
Spill Class: Possible release with minimal potential for fire or hazard or Known release with no damage. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt: 7/22/1996
Facility Addr2: Not reported
Cleanup Ceased: Not reported
Cleanup Meets Standard: True
SWIS: 3211
Investigator: SACALAND
Referred To: NIAGARA CNTY HEALTH DEPT
Reported to Dept: 3/25/1996

RAINBOW TIRE (Continued) **S102619449**

CID:	275
Water Affected:	Not reported
Spill Notifier:	Citizen
Last Inspection:	3/25/1996
Recommended Penalty:	Penalty Not Recommended
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	3/25/1996
Spill Record Last Update:	11/4/1998
Spiller Name:	Not reported
Spiller Company:	RAINBOW TIRE
Spiller Address:	9340 NIAGARA FALLS BLVD
Spiller City,St,Zip:	NIAGARA FALLS, NY
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	111677
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "SAC-NCHD" 3/23/96:SAC TELECON BOB BUZZELLI,NCHD-BOB WILL FOLLOW UP. 7/22/96:RECEIVED NCHD INSPECTION REPORT FROM BOB BUZZELLI, EXCAVATION CONFIRMATORY SAMPLE RESULTS ARE BELOW GUIDANCE VALUES, NO CONTAMINATION OBSERVED THEREFORE NO DISPOSAL RECEIPTS NECESSARY. NO FURTHER ACTION, SITE IS CLOSED.
Remarks:	citizen reported tank removal with contaminated soil & gasoline odor behind building

Material:

Site ID:	129557
Operable Unit ID:	1031063
Operable Unit:	01
Material ID:	353084
Material Code:	0009
Material Name:	Gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

RAINBOW TIRE (Continued) **S102619449**

HIST LTANKS:

Region of Spill:	9
Spill Number:	9516572
Spill Date:	03/23/1996
Spill Time:	09:00
Spill Cause:	Tank Failure
Resource Affectd:	Groundwater
Water Affected:	Not reported
Spill Source:	Gas Station
Spill Class:	Possible release with minimal potential for fire or hazard or Known release with no damage. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	07/22/96
Cleanup Ceased:	/ /
Cleanup Meets Standard:	True
Investigator:	SAC-NCHD
Caller Name:	Not reported
Caller Agency:	Not reported
Caller Phone:	Not reported
Caller Extension:	Not reported
Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported
Notifier Extension:	Not reported
Reported to Department Date:	03/25/96
Reported to Department Time:	11:36
SWIS:	29
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
Spiller Name:	RAINBOW TIRE
Spiller Address:	9340 NIAGARA FALLS BLVD
Spiller City,St,Zip:	NIAGARA FALLS, NY
Spiller Cleanup Date:	/ /
Facility Contact:	Not reported
Facility Phone:	Not reported
Facility Extention:	Not reported
Spill Notifier:	Citizen
PBS Number:	Not reported
Last Inspection:	03/25/96
Recommended Penalty:	Penalty Not Recommended
Enforcement Date:	/ /
Investigation Complete:	/ /
UST Involvement:	True
Date Region Sent Summary to Central Office:	/ /
Corrective Action Plan Submitted:	/ /
Date Spill Entered In Computer Data File:	03/25/96
Time Spill Entered In Computer Data File:	Not reported
Spill Record Last Update:	11/04/98
Is Updated:	False

Tank:

PBS Number:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported

RAINBOW TIRE (Continued) **S102619449**

Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 0
Unkonwn Quantity Spilled: True
Units: Gallons
Quantity Recovered: 0
Unkonwn Quantity Recovered: False
Material: GASOLINE
Class Type: GASOLINE
Times Material Entry In File: 21329
CAS Number: Not reported
Last Date: 19940929
DEC Remarks: 3/23/96:SAC TELECON BOB BUZZELLI,NCHD-BOB WILL FOLLOW UP. 7/22/96:RECEIVED NCHD INSPECTION REPORT FROM BOB BUZZELLI, EXCAVATION CONFIRMATORY SAMPLE RESULTS ARE BELOW GUIDANCE VALUES, NO CONTAMINATION OBSERVED THEREFORE NO DISPOSAL RECEIPTS NECESSARY. NO FURTHER ACTION, SITE IS CLOSED.
Spill Cause: citi en reported tank removal with contaminated soil gasoline odor behind building

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23
SW
1/4-1/2
0.418 mi.
2206 ft.

CAYUGA VILLAGE TRAILER HOME PARK
533 C STREET
NIAGARA FALLS, NY

LTANKS **S107658932**
N/A

Relative:
Lower

Actual:
571 ft.

LTANKS:
Site ID: 360899
Spill No: 0551739
Spill Date: 3/11/2006
Spill Cause: Tank Failure
Spill Source: Private Dwelling
Spill Class: Known release that creates potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt: 8/23/2007
Facility Addr2: Not reported
Cleanup Ceased: Not reported
Cleanup Meets Standard: True
SWIS: 3211
Investigator: SACALAND
Referred To: NIAGARA COUNTY HEALTH DEPT.
Reported to Dept: 3/13/2006
CID: Not reported
Water Affected: Not reported
Spill Notifier: Other
Last Inspection: 3/31/2006
Recommended Penalty: Penalty Not Recommended
UST Involvement: False
Remediation Phase: 0
Date Entered In Computer: 3/13/2006
Spill Record Last Update: 8/23/2007
Spiller Name: JENNIFER SATTLEBERG
Spiller Company: JENNIFER SATTLEBERG
Spiller Address: 533 C STREET
Spiller City,St,Zip: NIAGARA FALLS, NY
Spiller County: 999

CAYUGA VILLAGE TRAILER HOME PARK (Continued) **S107658932**

Spiller Contact: CAROL - PARK MANAGER
Spiller Phone: (716) 998-1071
Spiller Extention: Not reported
DEC Region: 9
DER Facility ID: 311086
DEC Memo: 3/13/06:SAC TELECON MIKE YOUNT - NOCO. SPILL WAS DISCOVERED ON SATURDAY BUT ONLY APPEARED TO BE A FEW SMALL DROPS. PATCH WAS APPLIED TO TANK AT THAT TIME. ON RE-INSPECTION TODAY, SPILL WAS FOUND TO BE MUCH LARGER, ESTIMATED 20 TO 40 GALLONS. TRAILER PARK IS CONTACTING OP-TECH TO DO THE CLEANUP. RP IS CHECKING W/INSURANCE COMPANY TO SEE IF SHE HAS COVERAGE FOR THE SPILL.

3/13/06:SAC TELECON PAUL DICKY - NCHD NOTIFYING HIM OF THE SPILL. NCHD TO FOLLOW UP. FAXED COPY OF THE SPILL TO MR. DICKY.

3/14/06:SAC TELECON GARY HOUSE. MR. HOUSE SAID THEY RESPONDED FO R CLEANUP YESTERDAY. AREA WAS VERY WET AND MUDDY WHICH COMPLICATED CLEANUP. PADS WERE APPLIED TO SPILL AREA. SOME OF IT DID GET UNDER TRAILER. THEY DID SOME HAND EXCAVTION AND ALSO USED DRUM VACUUM TO COLLECT WATER/PRODUCT MIUXTURE AND FILLED A COUPLE OF DRUMS. JENNIFER SATTLEBERG IS THE OWNER OF THE TRAILER AND COULD NOT AFFORD CLEANUP. OP-TECH WAS HIRED THROUGH CERRONE CONSTRUCTION WHICH DOES WORK FOR THE TRAILER PARK. CAROL HALL IS CONTACT AT TRAILER PARK. DISCUSSED OPTIONS INVOLVING COLLECTION TRENCHES, MOVING TRAILER TO EXCAVATE CONTAMINATED MATERIAL, BIOTREATMENT, AND HAND DIGGING AND CONTINUE TO PAD MATERIAL. MR. HOUSE WILL CONTACT MS. HALL REGARDING THE FEASIBILITY OF MOVING THE TRAILER.

3/14/06:SAC TELECON PAUL DICKY. MR. DICKY SENT INSPECTION REPORT AND PICTURES. CONFIRMED MR. HOUSE'S ASSESSMENT. SHE IS NOT LIVING IN TRAILER AND MAY ABANDON TRAILER TO THE PARK. MR. DICKY WILL FOLLOW UP W/INSPECTION.

3/14/06:SAC TELECON GARY HOUSE. MR. HOUSE SAID HE SPOKE TO CAROL HALL. MS. HALL SAID TRAILER COULD NOT BE MOVED DUE TO ADDITION ON THE TRAILER. MR. HOUSE SAID THEY WILL CONTINUE TO PAD AND HAND EXCAVATE THE AREA TODAY.

3/15/06:RECEIVED NCHD INSPECTION REPORT FROM PAUL DICKY. BASED ON MR. DICKY'S INSPECTION FROM YESTERDAY, PADS BEING USED TO ABSORB PRODUCT. NO SIGN OF EXCAVATING. MR. DICKY SPOKE TO GARY HOUSE, TODAY. THEY HAVE EXCAVATED SHALLOW PITS TO COLLECT OIL. AREA DRYING OUT DUE TO DRIER WEATHER. NO DIGGING HAS OCCURRED UNDER TRAILER.

3/20/06:SAC TELECON GARY HOUSE. MR. HOUSE WANTS TO SET UP MEETING W/TRAILER PARK OPERATOR, CERRONE CONSTRUCTION, NCHD, AND DEC TO DISCUSS OPTIONS. TENTATIVELY SET UP MEETING FOR 3/22. MR. HOUSE DISCUSSED MOVING TRAILER AGAIN W/TRAILER PARK OPERATOR AND CERRONE AND DO NOT BELIEVE IT IS FEASIBLE DUE TO ADDITIONS ON THE TRAILER.

3/22/06:SAC INSPECT SITE. MEETING W/PAUL DICKY, GARY HOUSE, CAROL HALL, AND NORMAN WILLIAMSON OF ARMAND CERRONE, INC. IT WAS AGREED THAT OP-TECH TO HAND EXCAVATE AS MUCH SOIL AS POSSIBLE BOTH AROUND TRAILER AND UNDER TRAILER WHICH PROBABLY MEANS ABOUT 2 TO 3 INCHES OF SOIL. THEY WILL THEN PLACE DOWN CRUSHED STONE UNDER TRAILER AND PLACE A VAPOR BARRIER THERE. ONCE WEATHER BECOMES WARMER IN A MONTH TO 6 WEEKS, THEY WILL APPLY BIONUTRIENTS TO HELP TREAT REMAINING CONTAMINATION UNDER TRAILER. INLINE EXHAUST FAN MAY ALSO BE INSTALLED. MOBILE HOME PARK POLICY IS TO ELIMINATE FUEL OIL AS HEAT

CAYUGA VILLAGE TRAILER HOME PARK (Continued) **S107658932**

SOURCE ONCE TANK BECOMES UNUSABLE AND REPLACE W/NATURAL GAS. TO PREVENT POTENTIAL DAMAGE TO TRAILER HOME, GAS COMPANY WILL EXCAVATE TO INSTALL NEW GASLINE. MR. HOUSE SAID DUE TO COLD WEATHER AND FROZEN GROUND CONDITIONS, HAND EXCAVATING WILL BE DIFFICULT PRESENTLY SO HE WILL BEGIN WORK ONCE TEMPERATURES RISE AND GROUND THAWS.
4/5/06:SAC TELECON GARY HOUSE. THEY HAVE REMOVED AS MUCH SOIL AS IS POSSIBLE: THE AFFECTED GRASS AREA AND 2 TO 3 INCHES UNDER THE ENTIRE TRAILER. ODORS STILL EXIST SO IT WAS AGREED TO APPLY MICROBES TO BREAKDOWN WHAT REMAINS UNDERNEATH. MR. HOUSE ANTICIPATES PERFORMING THE APPLICATION NEXT MONTH.
4/5/06:SAC TELECON PAUL DICKY. HE INSPECTED SITE ON 3/31/06 AND C ONFIRMS CLEANUP EFFORT.
4/13/06:SAC TELECON GARY HOUSE. MR. HOUSE SAID HE HAS COMPLETED TH E WORK AND IS ARRANGING FOR THE DISPOSAL OF REMOVED MATERIAL. HE IS ALSO PREPARING TO DO THE BIOLOGICAL TREATMENT UNDER THE TRAILER.
4/19/06:SAC TELECON GARY HOUSE. MR. HOUSE SAID THAT HE APPLIED TH E BIOLOGICAL SOLUTION UNDERNEATH THE TRAILER. HE HAS REMOVED THE DRUMS AND THE ROLLOFF WILL BE REMOVED TODAY. DURING THE APPLICATION OF THE SOLUTION, MR. HOUSE DID NOT OBSERVE ANY ODORS.
2/12/07:SAC TELECON GARY HOUSE. SAC REQUESTED COPY OF DISPOSAL RE CEIPTS. MR. HOUSE WILL SEND IN THE DOCUMENTATION.
8/1/07:RECEIVED DISPOSAL RECEIPTS. 8/23/07:NCHD INSPECTION REPO RT FROM PAUL DICKY. NO FURTHER WORK REQUIRED.

Remarks: LEAKING HOME HEATING OIL TANK

Material:

Site ID:	360899
Operable Unit ID:	1118008
Operable Unit:	01
Material ID:	2108523
Material Code:	0001
Material Name:	#2 Fuel Oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	40
Units:	Gallons
Recovered:	Not reported
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported

CAYUGA VILLAGE TRAILER HOME PARK (Continued) **S107658932**

Test Method: Not reported

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24 SSW 1/4-1/2 0.436 mi. 2303 ft. | **MARIA HEALEY (HOME)**
9200 NIAGARA FALLS BLVD
NIAGARA, NY | **LTANKS** **S100120667**
HIST LTANKS **N/A**

Relative: Lower

Actual: 572 ft.

LTANKS:

Site ID:	177549
Spill No:	9010878
Spill Date:	1/5/1991
Spill Cause:	Tank Failure
Spill Source:	Private Dwelling
Spill Class:	Not reported
Spill Closed Dt:	2/22/1991
Facility Addr2:	Not reported
Cleanup Ceased:	2/22/1991
Cleanup Meets Standard:	True
SWIS:	3230
Investigator:	SORGI
Referred To:	Not reported
Reported to Dept:	1/11/1991
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Affected Persons
Last Inspection:	1/16/1991
Recommended Penalty:	Penalty Not Recommended
UST Involvement:	False
Remediation Phase:	0
Date Entered In Computer:	1/11/1991
Spill Record Last Update:	2/26/1991
Spiller Name:	Not reported
Spiller Company:	MARIA HEALEY
Spiller Address:	633 C STREET
Spiller City,St,Zip:	NIAGARA FALLS, NY
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	149191
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "MJS" 01/11/91: MJS CONTACTED NCHD. THEY WILL SEND INSPECTOR OUT TO SITE THIS AFTERNOON. REPRESENTATIVE OF INSURANCE COMPANY TO BE ON SITE. 01/11/91: MJS TELECON WITH RUDY MAIDA (NCHD). MOBILE HOME WILL HAVE TO BE MOVED TO GET AT CONCRETE PADS UNDERNEATH. F/O SEEPED INTO GROUND THRU JOINTS AND CRACKS. 01/16/91: MJS SITE INSPECTION WITH RUDY MAIDA (NCHD). REMOVAL OF PADS IS ONGOING. ALL CONTAMINATION WILL BE STAGED ON PLASTIC AT MAINTENENCE GARAGA. TENTATIVELY CONTAMINATION WILL BE TAKEN TO MODERN. 02/15/91: MJS TELECON WITH DAVE EISENBART. TESTING WAS DONE AND RESULTS HAVE COME BACK. MR EISENBART WAITING FOR DATE FROM MODERN. BENZENE - BQL. 02/20/91: MJS RECEIVED REPORT FROM NCHD. NEED RECEIPTS WHEN DISPOSED OF. 02/22/91: MJS RECEIVED INCIDENT REPORT, LAB RESULTS, AND DISPOSAL RECEIPTS FRON DAVE EISENBART.
Remarks:	A/G 275 GAL F/O TANK TIPPED OVER. SPILLED ON GROUND AROUND TRAILER

MARIA HEALEY (HOME) (Continued) **S100120667**

HOME. MRS HEALEY CONTACTED INSURANCE COMPANY.

Material:

Site ID:	177549
Operable Unit ID:	947984
Operable Unit:	01
Material ID:	430989
Material Code:	0001
Material Name:	#2 Fuel Oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	250
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

HIST LTANKS:

Region of Spill:	9
Spill Number:	9010878
Spill Date:	01/05/1991
Spill Time:	12:00
Spill Cause:	Tank Failure
Resource Affectd:	On Land
Water Affected:	Not reported
Spill Source:	Private Dwelling
Spill Class:	Not reported
Spill Closed Dt:	02/22/91
Cleanup Ceased:	02/22/91
Cleanup Meets Standard:	True
Investigator:	MJS
Caller Name:	Not reported
Caller Agency:	Not reported
Caller Phone:	Not reported
Caller Extension:	Not reported
Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported
Notifier Extension:	Not reported
Reported to Department Date:	01/11/91
Reported to Department Time:	12:06
SWIS:	29
Spiller Contact:	Not reported

MARIA HEALEY (HOME) (Continued) **S100120667**

Spiller Phone:	Not reported
Spiller Extention:	Not reported
Spiller Name:	MARIA HEALEY
Spiller Address:	633 C STREET
Spiller City,St,Zip:	NIAGARA FALLS, NY
Spiller Cleanup Date:	/ /
Facility Contact:	Not reported
Facility Phone:	(716) 298-5861
Facility Extention:	Not reported
Spill Notifier:	Affected Persons
PBS Number:	Not reported
Last Inspection:	01/16/91
Recommended Penalty:	Penalty Not Recommended
Enforcement Date:	/ /
Investigation Complete:	/ /
UST Involvement:	False
Date Region Sent Summary to Central Office:	/ /
Corrective Action Plan Submitted:	/ /
Date Spill Entered In Computer Data File:	01/11/91
Time Spill Entered In Computer Data File:	Not reported
Spill Record Last Update:	02/26/91
Is Updated:	False

Tank:

PBS Number:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate Failed Tank:	Not reported
Gross Leak Rate:	Not reported

Material:

Material Class Type:	Petroleum
Quantity Spilled:	250
Unkonwn Quantity Spilled:	False
Units:	Gallons
Quantity Recovered:	0
Unkonwn Quantity Recovered:	False
Material:	#2 FUEL OIL
Class Type:	#2 FUEL OIL
Times Material Entry In File:	24464
CAS Number:	Not reported
Last Date:	19941207

DEC Remarks: 01/11/91: MJS CONTACTED NCHD. THEY WILL SEND INSPECTOR OUT TO SITE THIS AFTERNOON. REPRESENTATIVE OF INSURANCE COMPANY TO BE ON SITE. 01/11/91: MJS TELECON WITH RUDY MAIDA NCHD). MOBILE HOME WILL HAVE TO BE MOVED TO GET AT CONCRETE PADS UNDERNEATH. F/O SEEPED INTO GROUND THRU JOINTS AND CRACKS. 01/16/91: MJS SITE INSPECTION WITH RUDY MAIDA NCHD). REMOVAL OF PADS IS ONGOING. ALL CONTAMINATION WILL BE STAGED ON PLASTIC AT MAINTENENCE GARAGA. TENTATIVELY CONTAMINATION WILL BE TAKEN TO MODERN.02/15/91: MJS TELECON WITH DAVE EISENBART. TESTING WAS DONE AND RESULTS HAVE COME BACK. MR EISENBART WAITING FOR DATE FROM MODERN. BENZENE - BQL. 02/20/91: MJS RECEIVED REPORT FROM NCHD. NEED RECEIPTS WHEN DISPOSED OF. 02/22/91: MJS RECEIVED INCIDENT REPORT, LAB RESULTS, AND DISPOSAL RECEIPTS FRON DAVE EISENBART.

Spill Cause: A/G 275 GAL F/O TANK TIPPED OVER. SPILLED ON GROUND AROUND TRAILER HOME. MRS HEALEY CONTACTED INSURANCE COMPANY.

Count: 20 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
NIAGARA FALLS	1003863682	NEW ROAD LF	NEW RD NORTH OF PORTER	14304	CERCLIS-NFRAP
NIAGARA FALLS	1003863786	NIAGARA FALLS INTL ARPT	IAP	14304	CERCLIS-NFRAP
NIAGARA FALLS	1003864066	NIAGARA JUNCTION RAILWAY	56TH ST AND PINE AVENUE	14304	CERCLIS-NFRAP
NIAGARA FALLS	1003864153	NIAGARA FALLS AIR FORCE RESERVE FA	914 TAG/DE PO BOX F LASALLE ST	14304	CERCLIS-NFRAP
NIAGARA FALLS	1012187140	NYSDOT BIN 1028580	RTE 62 OVER CSX RAILROAD	14304	RCRA-LQG
NIAGARA FALLS	1012187145	NYSDOT BIN 1064919	RTE 951A OVER 77TH ST	14304	RCRA-LQG
NIAGARA FALLS	1012187146	NYSDOT BIN 1064920	RTE 951A OVER 87TH ST	14304	RCRA-LQG
NIAGARA FALLS	1012187147	NYSDOT BIN 1064939	RAMP FROM RTE 951A EB OVER	14304	RCRA-LQG
NIAGARA FALLS	1012187148	NYSDOT BIN 1064940	RAMP TO RTE 951A WB OVER	14304	RCRA-LQG
NIAGARA FALLS	1012187149	NYSDOT BIN 1064959	RTE 951A OVER CAYUGA DR	14304	RCRA-LQG
NIAGARA FALLS	1012187150	NYSDOT BIN 1064969	RTE 951A OVER RTE 265	14304	RCRA-LQG
NIAGARA FALLS	1012187151	NYSDOT BIN 1064979	RTE 951A OVER 102ND ST	14304	RCRA-LQG
NIAGARA FALLS	S102174715	NIAGARA MOHAWK	PORTER ROAD		SPILLS,HIST SPILLS
NIAGARA FALLS	S103562403	SIMON OIL	PORTER AVENUE		SPILLS,HIST SPILLS
NIAGARA FALLS	S103573070	UNI-MART STORE #5010	ROUTE 31/MILITARY ROAD		SPILLS,HIST SPILLS
NIAGARA FALLS	S104953241	OIL FROM UNKNOWN TRUCK	PORTER PACKET ROAD/I190		SPILLS,HIST SPILLS
NIAGARA FALLS	S106013195	LEAKING TANKER TRUCK	I190S PACKARD/PORTER EXIT		SPILLS
NIAGARA FALLS	S107658296	CAYUGA CREEK	PORTER ROAD	14304	SPILLS
NIAGARA FALLS	S108298171	K-MART PARKING LOT	MILITARY RD @ PORTER-PACKARD R		SPILLS
NIAGARA FALLS	S110308308	N.F. AIR RESERVE BASE	PORTER RD.	14304	SPILLS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 06/30/2011
Date Data Arrived at EDR: 07/12/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 79

Source: EPA
Telephone: N/A
Last EDR Contact: 01/11/2012
Next Scheduled EDR Contact: 04/23/2012
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 06/30/2011
Date Data Arrived at EDR: 07/12/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 79

Source: EPA
Telephone: N/A
Last EDR Contact: 01/11/2012
Next Scheduled EDR Contact: 04/23/2012
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 06/30/2011	Source: EPA
Date Data Arrived at EDR: 07/12/2011	Telephone: N/A
Date Made Active in Reports: 09/29/2011	Last EDR Contact: 01/10/2012
Number of Days to Update: 79	Next Scheduled EDR Contact: 04/23/2012
	Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/25/2011	Source: EPA
Date Data Arrived at EDR: 03/01/2011	Telephone: 703-412-9810
Date Made Active in Reports: 05/02/2011	Last EDR Contact: 11/29/2011
Number of Days to Update: 62	Next Scheduled EDR Contact: 03/12/2012
	Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 12/10/2010	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/11/2011	Telephone: 703-603-8704
Date Made Active in Reports: 02/16/2011	Last EDR Contact: 01/13/2012
Number of Days to Update: 36	Next Scheduled EDR Contact: 04/23/2012
	Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 02/25/2011	Source: EPA
Date Data Arrived at EDR: 03/01/2011	Telephone: 703-412-9810
Date Made Active in Reports: 05/02/2011	Last EDR Contact: 11/29/2011
Number of Days to Update: 62	Next Scheduled EDR Contact: 03/12/2012
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 08/19/2011
Date Data Arrived at EDR: 08/31/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 132

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 11/14/2011
Next Scheduled EDR Contact: 02/27/2012
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 07/07/2011
Date Made Active in Reports: 08/08/2011
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 01/05/2012
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 07/07/2011
Date Made Active in Reports: 08/08/2011
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 01/05/2012
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 07/07/2011
Date Made Active in Reports: 08/08/2011
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 01/05/2012
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 07/07/2011
Date Made Active in Reports: 08/08/2011
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 01/05/2012
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 12/30/2011
Date Data Arrived at EDR: 12/30/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 12/09/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 12/30/2011
Date Data Arrived at EDR: 12/30/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 12/09/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 10/03/2011
Date Data Arrived at EDR: 10/04/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 38

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 01/18/2012
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Annually

State- and tribal - equivalent CERCLIS

SHWS: Inactive Hazardous Waste Disposal Sites in New York State

Referred to as the State Superfund Program, the Inactive Hazardous Waste Disposal Site Remedial Program is the cleanup program for inactive hazardous waste sites and now includes hazardous substance sites

Date of Government Version: 11/22/2011
Date Data Arrived at EDR: 11/22/2011
Date Made Active in Reports: 12/22/2011
Number of Days to Update: 30

Source: Department of Environmental Conservation
Telephone: 518-402-9622
Last EDR Contact: 11/22/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Annually

VAPOR REOPENED: Vapor Intrustion Legacy Site List

New York is currently re-evaluating previous assumptions and decisions regarding the potential for soil vapor intrusion exposures at sites. As a result, all past, current, and future contaminated sites will be evaluated to determine whether these sites have the potential for exposures related to soil vapor intrusion.

Date of Government Version: 08/01/2011
Date Data Arrived at EDR: 08/26/2011
Date Made Active in Reports: 09/16/2011
Number of Days to Update: 21

Source: Department of Environmenal Conservation
Telephone: 518-402-9814
Last EDR Contact: 11/23/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Varies

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Facility Register

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 01/11/2012
Date Data Arrived at EDR: 01/11/2012
Date Made Active in Reports: 01/27/2012
Number of Days to Update: 16

Source: Department of Environmental Conservation
Telephone: 518-457-2051
Last EDR Contact: 10/11/2011
Next Scheduled EDR Contact: 04/23/2012
Data Release Frequency: Semi-Annually

State and tribal leaking storage tank lists

LTANKS: Spills Information Database

Leaking Storage Tank Incident Reports. These records contain an inventory of reported leaking storage tank incidents reported from 4/1/86 through the most recent update. They can be either leaking underground storage tanks or leaking aboveground storage tanks. The causes of the incidents are tank test failures, tank failures or tank overfills.

Date of Government Version: 11/22/2011
Date Data Arrived at EDR: 11/23/2011
Date Made Active in Reports: 12/28/2011
Number of Days to Update: 35

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 11/23/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Varies

HIST LTANKS: Listing of Leaking Storage Tanks

A listing of leaking underground and aboveground storage tanks. The causes of the incidents are tank test failures, tank failures or tank overfills. In 2002, the Department of Environmental Conservation stopped providing updates to its original Spills Information Database. This database includes fields that are no longer available from the NYDEC as of January 1, 2002. Current information may be found in the NY LTANKS database. Department of Environmental Conservation.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 07/08/2005
Date Made Active in Reports: 07/14/2005
Number of Days to Update: 6

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 07/07/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 12/14/2011
Date Data Arrived at EDR: 12/15/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 26

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Semi-Annually

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/07/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 11/02/2011
Date Data Arrived at EDR: 11/04/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 7

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/01/2011
Date Data Arrived at EDR: 11/01/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 10

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 11/01/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 59

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 11/01/2011
Date Data Arrived at EDR: 11/21/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 50

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 08/18/2011
Date Data Arrived at EDR: 08/19/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 25

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Quarterly

State and tribal registered storage tank lists

TANKS: Storage Tank Faciliy Listing
This database contains records of facilities that are or have been regulated under Bulk Storage Program. Tank information for these facilities may not be releasable by the state agency.

Date of Government Version: 01/03/2012
Date Data Arrived at EDR: 01/05/2012
Date Made Active in Reports: 01/27/2012
Number of Days to Update: 22

Source: Department of Environmental Conservation
Telephone: 518-402-9543
Last EDR Contact: 01/05/2012
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Quarterly

UST: Petroleum Bulk Storage (PBS) Database
Facilities that have petroleum storage capacities in excess of 1,100 gallons and less than 400,000 gallons.

Date of Government Version: 01/03/2012
Date Data Arrived at EDR: 01/05/2012
Date Made Active in Reports: 01/25/2012
Number of Days to Update: 20

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 01/05/2012
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CBS UST: Chemical Bulk Storage Database
Facilities that store regulated hazardous substances in underground tanks of any size

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 02/20/2002
Date Made Active in Reports: 03/22/2002
Number of Days to Update: 30

Source: NYSDEC
Telephone: 518-402-9549
Last EDR Contact: 10/24/2005
Next Scheduled EDR Contact: 01/23/2006
Data Release Frequency: No Update Planned

MOSF UST: Major Oil Storage Facilities Database
Facilities that may be onshore facilities or vessels, with petroleum storage capacities of 400,000 gallons or greater.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 02/20/2002
Date Made Active in Reports: 03/22/2002
Number of Days to Update: 30

Source: NYSDEC
Telephone: 518-402-9549
Last EDR Contact: 07/25/2005
Next Scheduled EDR Contact: 10/24/2005
Data Release Frequency: Varies

AST: Petroleum Bulk Storage
Registered Aboveground Storage Tanks.

Date of Government Version: 01/03/2012
Date Data Arrived at EDR: 01/05/2012
Date Made Active in Reports: 01/25/2012
Number of Days to Update: 20

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 01/05/2012
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: No Update Planned

CBS AST: Chemical Bulk Storage Database
Facilities that store regulated hazardous substances in aboveground tanks with capacities of 185 gallons or greater, and/or in underground tanks of any size.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 02/20/2002
Date Made Active in Reports: 03/22/2002
Number of Days to Update: 30

Source: NYSDEC
Telephone: 518-402-9549
Last EDR Contact: 07/25/2005
Next Scheduled EDR Contact: 10/24/2005
Data Release Frequency: No Update Planned

MOSF AST: Major Oil Storage Facilities Database
Facilities that may be onshore facilities or vessels, with petroleum storage capacities of 400,000 gallons or greater.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 02/20/2002
Date Made Active in Reports: 03/22/2002
Number of Days to Update: 30

Source: NYSDEC
Telephone: 518-402-9549
Last EDR Contact: 07/25/2005
Next Scheduled EDR Contact: 10/24/2005
Data Release Frequency: No Update Planned

MOSF: Major Oil Storage Facility Site Listing
These facilities may be onshore facilities or vessels, with petroleum storage capacities of 400,000 gallons or greater.

Date of Government Version: 01/03/2012
Date Data Arrived at EDR: 01/05/2012
Date Made Active in Reports: 01/27/2012
Number of Days to Update: 22

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 01/05/2012
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Quarterly

CBS: Chemical Bulk Storage Site Listing
These facilities store regulated hazardous substances in aboveground tanks with capacities of 185 gallons or greater, and/or in underground tanks of any size

Date of Government Version: 01/03/2012
Date Data Arrived at EDR: 01/05/2012
Date Made Active in Reports: 01/27/2012
Number of Days to Update: 22

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 01/05/2012
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Quarterly

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/10/2011
Date Data Arrived at EDR: 05/11/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 34

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 07/01/2011
Date Data Arrived at EDR: 08/26/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 18

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 12/14/2011
Date Data Arrived at EDR: 12/15/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 26

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Semi-Annually

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 11/28/2011
Date Data Arrived at EDR: 11/29/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 42

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 08/18/2011
Date Data Arrived at EDR: 08/19/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 25

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 11/01/2011
Date Data Arrived at EDR: 11/21/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 50

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 11/02/2011
Date Data Arrived at EDR: 11/04/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 7

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Quarterly

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/01/2011
Date Data Arrived at EDR: 11/01/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 10

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/31/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/16/2012
Next Scheduled EDR Contact: 04/30/2012
Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

ENG CONTROLS: Registry of Engineering Controls

Environmental Remediation sites that have engineering controls in place.

Date of Government Version: 11/22/2011
Date Data Arrived at EDR: 11/22/2011
Date Made Active in Reports: 12/22/2011
Number of Days to Update: 30

Source: Department of Environmental Conservation
Telephone: 518-402-9553
Last EDR Contact: 11/22/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Quarterly

INST CONTROL: Registry of Institutional Controls

Environmental Remediation sites that have institutional controls in place.

Date of Government Version: 11/22/2011
Date Data Arrived at EDR: 11/22/2011
Date Made Active in Reports: 12/22/2011
Number of Days to Update: 30

Source: Department of Environmental Conservation
Telephone: 518-402-9553
Last EDR Contact: 11/22/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Quarterly

RES DECL: Restrictive Declarations Listing

A restrictive declaration is a covenant running with the land which binds the present and future owners of the property. As a condition of certain special permits, the City Planning Commission may require an applicant to sign and record a restrictive declaration that places specified conditions on the future use and development of the property. Certain restrictive declarations are indicated by a D on zoning maps.

Date of Government Version: 11/18/2010
Date Data Arrived at EDR: 12/23/2010
Date Made Active in Reports: 02/11/2011
Number of Days to Update: 50

Source: NYC Department of City Planning
Telephone: 212-720-3401
Last EDR Contact: 12/30/2011
Next Scheduled EDR Contact: 04/09/2012
Data Release Frequency: No Update Planned

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Agreements

New York established its Voluntary Cleanup Program (VCP) to address the environmental, legal and financial barriers that often hinder the redevelopment and reuse of contaminated properties. The Voluntary Cleanup Program was developed to enhance private sector cleanup of brownfields by enabling parties to remediate sites using private rather than public funds and to reduce the development pressures on "greenfield" sites.

Date of Government Version: 11/22/2011
Date Data Arrived at EDR: 11/22/2011
Date Made Active in Reports: 12/22/2011
Number of Days to Update: 30

Source: Department of Environmental Conservation
Telephone: 518-402-9711
Last EDR Contact: 11/22/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Semi-Annually

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 08/04/2011
Date Data Arrived at EDR: 10/04/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 38

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 01/06/2012
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

State and tribal Brownfields sites

ERP: Environmental Restoration Program Listing

In an effort to spur the cleanup and redevelopment of brownfields, New Yorkers approved a $200 million Environmental Restoration or Brownfields Fund as part of the $1.75 billion Clean Water/Clean Air Bond Act of 1996 (1996 Bond Act). Enhancements to the program were enacted on October 7, 2003. Under the Environmental Restoration Program, the State provides grants to municipalities to reimburse up to 90 percent of on-site eligible costs and 100% of off-site eligible costs for site investigation and remediation activities. Once remediated, the property may then be reused for commercial, industrial, residential or public use.

Date of Government Version: 11/22/2011
Date Data Arrived at EDR: 11/22/2011
Date Made Active in Reports: 12/22/2011
Number of Days to Update: 30

Source: Department of Environmental Conservation
Telephone: 518-402-9622
Last EDR Contact: 11/22/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Quarterly

BROWNFIELDS: Brownfields Site List

A Brownfield is any real property where redevelopment or re-use may be complicated by the presence or potential presence of a hazardous waste, petroleum, pollutant, or contaminant.

Date of Government Version: 11/22/2011
Date Data Arrived at EDR: 11/22/2011
Date Made Active in Reports: 12/22/2011
Number of Days to Update: 30

Source: Department of Environmental Conservation
Telephone: 518-402-9764
Last EDR Contact: 11/22/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Semi-Annually

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/27/2011
Date Data Arrived at EDR: 06/27/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 78

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/27/2011
Next Scheduled EDR Contact: 04/09/2012
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 12/21/2011
Next Scheduled EDR Contact: 04/09/2012
Data Release Frequency: No Update Planned

SWRCY: Registered Recycling Facility List

A listing of recycling facilities.

Date of Government Version: 01/11/2012
Date Data Arrived at EDR: 01/11/2012
Date Made Active in Reports: 01/27/2012
Number of Days to Update: 16

Source: Department of Environmental Conservation
Telephone: 518-402-8705
Last EDR Contact: 01/09/2012
Next Scheduled EDR Contact: 04/23/2012
Data Release Frequency: Semi-Annually

SWTIRE: Registered Waste Tire Storage & Facility List

A listing of facilities registered to accept waste tires.

Date of Government Version: 08/01/2006
Date Data Arrived at EDR: 11/15/2006
Date Made Active in Reports: 11/30/2006
Number of Days to Update: 15

Source: Department of Environmental Conservation
Telephone: 518-402-8694
Last EDR Contact: 01/27/2012
Next Scheduled EDR Contact: 05/07/2012
Data Release Frequency: Annually

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 11/07/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs
A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 10/07/2011
Date Data Arrived at EDR: 12/09/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 32

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 12/05/2011
Next Scheduled EDR Contact: 03/19/2012
Data Release Frequency: Quarterly

DEL SHWS: Delisted Registry Sites
A database listing of sites delisted from the Registry of Inactive Hazardous Waste Disposal Sites.

Date of Government Version: 08/23/2011
Date Data Arrived at EDR: 08/25/2011
Date Made Active in Reports: 09/16/2011
Number of Days to Update: 22

Source: Department of Environmental Conservation
Telephone: 518-402-9622
Last EDR Contact: 11/22/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Annually

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007
Date Data Arrived at EDR: 11/19/2008
Date Made Active in Reports: 03/30/2009
Number of Days to Update: 131

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

Local Lists of Registered Storage Tanks

HIST UST: Historical Petroleum Bulk Storage Database
These facilities have petroleum storage capacities in excess of 1,100 gallons and less than 400,000 gallons. This database contains detailed information per site. It is no longer updated due to the sensitive nature of the information involved. See UST for more current data.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 06/02/2006
Date Made Active in Reports: 07/20/2006
Number of Days to Update: 48

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 10/23/2006
Next Scheduled EDR Contact: 01/22/2007
Data Release Frequency: Varies

HIST AST: Historical Petroleum Bulk Storage Database

These facilities have petroleum storage capabilities in excess of 1,100 gallons and less than 400,000 gallons. This database contains detailed information per site. No longer updated due to the sensitive nature of the information involved. See AST for more current data.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 06/02/2006
Date Made Active in Reports: 07/20/2006
Number of Days to Update: 48

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 10/23/2006
Next Scheduled EDR Contact: 01/22/2007
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 09/09/2011
Date Data Arrived at EDR: 09/16/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005
Date Data Arrived at EDR: 12/11/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 31

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/22/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Varies

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 10/04/2011
Date Data Arrived at EDR: 10/04/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 38

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 01/03/2012
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Annually

SPILLS: Spills Information Database

Data collected on spills reported to NYSDEC as required by one or more of the following: Article 12 of the Navigation Law, 6 NYCRR Section 613.8 (from PBS regs), or 6 NYCRR Section 595.2 (from CBS regs). It includes spills active as of April 1, 1986, as well as spills occurring since this date.

Date of Government Version: 11/22/2011
Date Data Arrived at EDR: 11/23/2011
Date Made Active in Reports: 12/28/2011
Number of Days to Update: 35

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 11/23/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Varies

HIST SPILLS: SPILLS Database

This database contains records of chemical and petroleum spill incidents. Under State law, petroleum and hazardous chemical spills that can impact the waters of the state must be reported by the spiller (and, in some cases, by anyone who has knowledge of the spills). In 2002, the Department of Environmental Conservation stopped providing updates to its original Spills Information Database. This database includes fields that are no longer available from the NYDEC as of January 1, 2002. Current information may be found in the NY SPILLS database. Department of Environmental Conservation.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 07/08/2005
Date Made Active in Reports: 07/14/2005
Number of Days to Update: 6

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 07/07/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA-NonGen: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 07/07/2011
Date Made Active in Reports: 08/08/2011
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 01/05/2012
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/29/2011
Date Data Arrived at EDR: 08/09/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 94

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 11/08/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/20/2012
Next Scheduled EDR Contact: 04/30/2012
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 08/12/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 112

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 12/09/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/01/2011
Date Data Arrived at EDR: 11/18/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 53

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 12/27/2011
Next Scheduled EDR Contact: 04/16/2012
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 09/28/2011
Date Data Arrived at EDR: 12/14/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 27

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 12/14/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/21/2010
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 99

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 11/29/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Varies

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/18/2011
Date Data Arrived at EDR: 09/08/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 21

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 12/07/2011
Next Scheduled EDR Contact: 03/19/2012
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 09/01/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 131

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 12/02/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 64

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/27/2011
Next Scheduled EDR Contact: 04/09/2012
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 11/28/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 11/28/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems
Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/20/2011
Date Data Arrived at EDR: 11/10/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 61

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 12/21/2011
Next Scheduled EDR Contact: 04/09/2012
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/01/2010
Date Data Arrived at EDR: 11/10/2010
Date Made Active in Reports: 02/16/2011
Number of Days to Update: 98

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/20/2012
Next Scheduled EDR Contact: 04/30/2012
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/21/2011
Date Data Arrived at EDR: 07/15/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 60

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 12/12/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 01/11/2011
Date Data Arrived at EDR: 01/13/2011
Date Made Active in Reports: 02/16/2011
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 01/12/2012
Next Scheduled EDR Contact: 04/23/2012
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/02/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 119

Source: EPA
Telephone: (212) 637-3000
Last EDR Contact: 12/13/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 03/01/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 62

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 11/30/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Biennially

HSWDS: Hazardous Substance Waste Disposal Site Inventory

The list includes any known or suspected hazardous substance waste disposal sites. Also included are sites delisted from the Registry of Inactive Hazardous Waste Disposal Sites and non-Registry sites that U.S. EPA Preliminary Assessment (PA) reports or Site Investigation (SI) reports were prepared. Hazardous Substance Waste Disposal Sites are eligible to be Superfund sites now that the New York State Superfund has been refinanced and changed. This means that the study inventory has served its purpose and will no longer be maintained as a separate entity. The last version of the study inventory is frozen in time. The sites on the study will not automatically be made Superfund sites, rather each site will be further evaluated for listing on the Registry. So overtime they will be added to the registry or not.

Date of Government Version: 01/01/2003
Date Data Arrived at EDR: 10/20/2006
Date Made Active in Reports: 11/30/2006
Number of Days to Update: 41

Source: Department of Environmental Conservation
Telephone: 518-402-9564
Last EDR Contact: 05/26/2009
Next Scheduled EDR Contact: 08/24/2009
Data Release Frequency: No Update Planned

UIC: Underground Injection Control Wells

A listing of enhanced oil recovery underground injection wells.

Date of Government Version: 12/12/2011
Date Data Arrived at EDR: 12/14/2011
Date Made Active in Reports: 01/24/2012
Number of Days to Update: 41

Source: Department of Environmental Conservation
Telephone: 518-402-8056
Last EDR Contact: 12/14/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Quarterly

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 11/01/2011
Date Data Arrived at EDR: 11/08/2011
Date Made Active in Reports: 12/22/2011
Number of Days to Update: 44

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 11/08/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Annually

DRYCLEANERS: Registered Drycleaners

A listing of all registered drycleaning facilities.

Date of Government Version: 12/20/2011
Date Data Arrived at EDR: 12/30/2011
Date Made Active in Reports: 01/25/2012
Number of Days to Update: 26

Source: Department of Environmental Conservation
Telephone: 518-402-8403
Last EDR Contact: 12/20/2011
Next Scheduled EDR Contact: 04/02/2012
Data Release Frequency: Varies

SPDES: State Pollutant Discharge Elimination System

New York State has a state program which has been approved by the United States Environmental Protection Agency for the control of wastewater and stormwater discharges in accordance with the Clean Water Act. Under New York State law the program is known as the State Pollutant Discharge Elimination System (SPDES) and is broader in scope than that required by the Clean Water Act in that it controls point source discharges to groundwaters as well as surface waters.

Date of Government Version: 10/18/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 11/15/2011
Number of Days to Update: 27

Source: Department of Environmental Conservation
Telephone: 518-402-8233
Last EDR Contact: 01/16/2012
Next Scheduled EDR Contact: 04/30/2012
Data Release Frequency: No Update Planned

AIRS: Air Emissions Data
Point source emissions inventory data.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 08/24/2011
Date Made Active in Reports: 11/03/2011
Number of Days to Update: 71

Source: Department of Environmental Conservation
Telephone: 518-402-8452
Last EDR Contact: 01/30/2012
Next Scheduled EDR Contact: 05/14/2012
Data Release Frequency: Annually

E DESIGNATION: E DESIGNATION SITE LISTING
The (E (Environmental)) designation would ensure that sampling and remediation take place on the subject properties, and would avoid any significant impacts related to hazardous materials at these locations. The (E) designations would require that the fee owner of the sites conduct a testing and sampling protocol, and remediation where appropriate, to the satisfaction of the NYCDEP before the issuance of a building permit by the Department of Buildings pursuant to the provisions of Section 11-15 of the Zoning Resolution (Environmental Requirements). The (E) designations also include a mandatory construction-related health and safety plan which must be approved by NYCDEP.

Date of Government Version: 10/05/2011
Date Data Arrived at EDR: 01/03/2012
Date Made Active in Reports: 01/25/2012
Number of Days to Update: 22

Source: New York City Department of City Planning
Telephone: 718-595-6658
Last EDR Contact: 12/27/2011
Next Scheduled EDR Contact: 04/09/2012
Data Release Frequency: Varies

INDIAN RESERV: Indian Reservations
This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/20/2012
Next Scheduled EDR Contact: 04/30/2012
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing
The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 01/23/2012
Next Scheduled EDR Contact: 05/07/2012
Data Release Frequency: Varies

FINANCIAL ASSURANCE 2: Financial Assurance Information Listing
A listing of financial assurance information for hazardous waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 10/31/2008
Date Data Arrived at EDR: 11/25/2008
Date Made Active in Reports: 12/11/2008
Number of Days to Update: 16

Source: Department of Environmental Conservation
Telephone: 518-402-8712
Last EDR Contact: 01/09/2012
Next Scheduled EDR Contact: 04/23/2012
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 01/18/2012
Next Scheduled EDR Contact: 04/30/2012
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 08/17/2010
Date Data Arrived at EDR: 01/03/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 77

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 12/08/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 11/04/2011
Next Scheduled EDR Contact: 02/13/2012
Data Release Frequency: Varies

FINANCIAL ASSURANCE 1: Financial Assurance Information Listing
Financial assurance information.

Date of Government Version: 01/10/2012
Date Data Arrived at EDR: 01/11/2012
Date Made Active in Reports: 01/27/2012
Number of Days to Update: 16

Source: Department of Environmental Conservation
Telephone: 518-402-8660
Last EDR Contact: 01/09/2012
Next Scheduled EDR Contact: 04/23/2012
Data Release Frequency: Quarterly

COAL ASH: Coal Ash Disposal Site Listing
A listing of coal ash disposal site locations.

Date of Government Version: 01/11/2012
Date Data Arrived at EDR: 01/11/2012
Date Made Active in Reports: 01/27/2012
Number of Days to Update: 16

Source: Department of Environmental Conservation
Telephone: 518-402-8660
Last EDR Contact: 01/09/2012
Next Scheduled EDR Contact: 04/23/2012
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands
Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/20/2012
Next Scheduled EDR Contact: 04/30/2012
Data Release Frequency: N/A

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

COUNTY RECORDS

CORTLAND COUNTY:

Cortland County Storage Tank Listing
A listing of aboveground storage tank sites located in Cortland County.

Date of Government Version: 12/14/2011
Date Data Arrived at EDR: 12/15/2011
Date Made Active in Reports: 01/25/2012
Number of Days to Update: 41

Source: Cortland County Health Department
Telephone: 607-753-5035
Last EDR Contact: 11/07/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Quarterly

Cortland County Storage Tank Listing
A listing of underground storage tank sites located in Cortland County.

Date of Government Version: 12/14/2011
Date Data Arrived at EDR: 12/15/2011
Date Made Active in Reports: 01/25/2012
Number of Days to Update: 41

Source: Cortland County Health Department
Telephone: 607-753-5035
Last EDR Contact: 11/07/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Quarterly

NASSAU COUNTY:

Registered Tank Database
A listing of aboveground storage tank sites located in Nassau County.

Date of Government Version: 05/21/2003
Date Data Arrived at EDR: 05/27/2003
Date Made Active in Reports: 06/09/2003
Number of Days to Update: 13

Source: Nassau County Health Department
Telephone: 516-571-3314
Last EDR Contact: 01/09/2012
Next Scheduled EDR Contact: 04/23/2012
Data Release Frequency: No Update Planned

Storage Tank Database
A listing of aboveground storage tank sites located in Nassau County.

Date of Government Version: 02/15/2011
Date Data Arrived at EDR: 02/23/2011
Date Made Active in Reports: 03/29/2011
Number of Days to Update: 34

Source: Nassau County Office of the Fire Marshal
Telephone: 516-572-1000
Last EDR Contact: 11/07/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Varies

Registered Tank Database
A listing of underground storage tank sites located in Nassau County.

Date of Government Version: 05/21/2003
Date Data Arrived at EDR: 05/27/2003
Date Made Active in Reports: 06/09/2003
Number of Days to Update: 13

Source: Nassau County Health Department
Telephone: 516-571-3314
Last EDR Contact: 01/09/2012
Next Scheduled EDR Contact: 04/23/2012
Data Release Frequency: No Update Planned

Storage Tank Database
A listing of underground storage tank sites located in Nassau County.

Date of Government Version: 02/15/2011
Date Data Arrived at EDR: 02/23/2011
Date Made Active in Reports: 03/29/2011
Number of Days to Update: 34

Source: Nassau County Office of the Fire Marshal
Telephone: 516-572-1000
Last EDR Contact: 11/07/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Varies

ROCKLAND COUNTY:

Petroleum Bulk Storage Database
A listing of aboveground storage tank sites located in Rockland County.

Date of Government Version: 12/19/2011
Date Data Arrived at EDR: 12/20/2011
Date Made Active in Reports: 01/25/2012
Number of Days to Update: 36

Source: Rockland County Health Department
Telephone: 914-364-2605
Last EDR Contact: 12/12/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Quarterly

Petroleum Bulk Storage Database
A listing of underground storage tank sites located in Rockland County.

Date of Government Version: 12/19/2011
Date Data Arrived at EDR: 12/20/2011
Date Made Active in Reports: 01/25/2012
Number of Days to Update: 36

Source: Rockland County Health Department
Telephone: 914-364-2605
Last EDR Contact: 12/12/2011
Next Scheduled EDR Contact: 03/26/2012
Data Release Frequency: Quarterly

SUFFOLK COUNTY:

Storage Tank Database
A listing of aboveground storage tank sites located in Suffolk County.

Date of Government Version: 09/13/2006
Date Data Arrived at EDR: 01/11/2007
Date Made Active in Reports: 02/07/2007
Number of Days to Update: 27

Source: Suffolk County Department of Health Services
Telephone: 631-854-2521
Last EDR Contact: 11/07/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Annually

Storage Tank Database
A listing of underground storage tank sites located in Suffolk County.

Date of Government Version: 09/13/2006
Date Data Arrived at EDR: 01/11/2007
Date Made Active in Reports: 02/07/2007
Number of Days to Update: 27

Source: Suffolk County Department of Health Services
Telephone: 631-854-2521
Last EDR Contact: 11/07/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Annually

WESTCHESTER COUNTY:

Listing of Storage Tanks
A listing of aboveground storage tank sites located in Westchester County.

Date of Government Version: 12/09/2011
Date Data Arrived at EDR: 12/09/2011
Date Made Active in Reports: 12/29/2011
Number of Days to Update: 20

Source: Westchester County Department of Health
Telephone: 914-813-5161
Last EDR Contact: 11/07/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Varies

Listing of Storage Tanks
A listing of underground storage tank sites located in Westchester County.

Date of Government Version: 12/09/2011
Date Data Arrived at EDR: 12/09/2011
Date Made Active in Reports: 12/29/2011
Number of Days to Update: 20

Source: Westchester County Department of Health
Telephone: 914-813-5161
Last EDR Contact: 11/07/2011
Next Scheduled EDR Contact: 02/20/2012
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 11/21/2011
Date Data Arrived at EDR: 11/22/2011
Date Made Active in Reports: 12/22/2011
Number of Days to Update: 30

Source: Department of Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/22/2011
Next Scheduled EDR Contact: 03/05/2012
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 07/20/2011
Date Made Active in Reports: 08/11/2011
Number of Days to Update: 22

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/20/2012
Next Scheduled EDR Contact: 04/30/2012
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 12/01/2009
Date Made Active in Reports: 12/14/2009
Number of Days to Update: 13

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/23/2012
Next Scheduled EDR Contact: 05/07/2012
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 06/24/2011
Date Made Active in Reports: 06/30/2011
Number of Days to Update: 6

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/28/2011
Next Scheduled EDR Contact: 03/12/2012
Data Release Frequency: Annually

VT MANIFEST: Hazardous Waste Manifest Data
Hazardous waste manifest information.

Date of Government Version: 11/28/2011
Date Data Arrived at EDR: 12/02/2011
Date Made Active in Reports: 01/11/2012
Number of Days to Update: 40

Source: Department of Environmental Conservation
Telephone: 802-241-3443
Last EDR Contact: 01/23/2012
Next Scheduled EDR Contact: 05/07/2012
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 08/19/2011
Date Made Active in Reports: 09/15/2011
Number of Days to Update: 27

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 12/19/2011
Next Scheduled EDR Contact: 04/02/2012
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: Rextag Strategies Corp.
Telephone: (281) 769-2247
U.S. Electric Transmission and Power Plants Systems Digital GIS Data

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Providers
Source: Department of Health
Telephone: 212-676-2444

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Freshwater Wetlands
Source: Department of Environmental Conservation
Telephone: 518-402-8961

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

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APPENDIX C

SITE RECONNAISSANCE PHOTOGRAPHS

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Signage at Entrance to the USAR Center

View of Building 21, Administration Building

View of Building 26, Cold Storage

View of Building 18, OMS/ASMA Shop

View of Building 17, POL Storage Building (Empty)

View of Building 20, Telecom Building

View of Building 19, Mess Hall Building

View of Building 22, Administration Building/Caged Storage

View of Building 25, Maintenance Building

View of Building 23, Cold Storage

View of Building 24, Storage Building

View of Building 4, Hangar Building

Additional View of Building 4

Empty ASTs at the Property

View of Electrical Substation at the Property

View of Stormwater Ditch Along Eastern Property Boundary

View of Used Oil AST Adjacent to Building 17

View of Washrack/OWS at the AMSA Building

View of Typical Utility-Owned, Pole-Mounted Transformers at the Property

Interior View of Building 26

Interior of Building 21

Interior of Building 18

Remaining Drums Inside Building 18

Mechanical Room at Building 18

Interior of Building 20

Interior of Building 19

Interior of Building 22

Interior of Building 25

Interior of Building 23

OWS at Building 4

Surrounding Eastern Properties

Surrounding Western Properties

Surrounding Northern Properties

Surrounding Southern Properties

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APPENDIX D

SUPPORTING DOCUMENTATION

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77th RSC: SPILL NOTIFICATION FORM

Reporter's Name: (Print) __Ingrid Weigand_____
Position: ___Environmental Scientist____ Unit: _____
Incident Location, Address: Niagara Falls AFRC, 9400 Porter Rd, Niagara Falls, NY
& Description Invert off OF-5 Pipe _____
Release of what is suspected to be PCB oil while conducting pipe investigation_____
_____
Phone Number: 347-219-9834_____

INCIDENT DESCRIPTION

Chemical(s) Spilled: Suspected to be PCB oil (reddish brown color and strong petroleum odor.
Time & Date of Incident: 9:00 am 24 June 2008_____
Source, Cause and Description: Unknown. Thought to be from PCB spill on site approximately 10-15 year ago. Spill was cleaned up at the time. Recap of today's events. OF-5 was opened at the side to access invert. Camera was placed in invert and hit blockage at 2'. Blockage could not be cleared with hose. Soil excavated above pipe at blockage. Valve was dislodged causing the pooling of suspected PCB oil. Only a few ounces pooled into the soil. Ball valve will be used to cap invert at OF. Sample of oil was taken for analysis.
Container Type: Tank: _____ Drum: _____ Other: _Pipe_____

Quantity of Spill (Units): _approximately 4 oz. visible. _____
Is this a Reportable Quantity? _No – 1 pound is reportable. But it did impact the land of the state therefore it's reportable. _____
Material released in water, onto the ground or into a drain? (Describe)_Ground. Into surrounding soil at dislodged valve. Approximately 2' below grade. _____

ACTION TAKEN TO CORRECT OR MITIGATE INCIDENT: _Ball valve will be installed at invert entrance to OF. No additional flow occurred. Sample of liquid was taken for analysis.
_____

Was there damage? (Describe) No_____
_____
Were there injuries? No_____
Were there evacuations? No_____

Additional Information about the Incident: When soil was excavated above blockage in pipe valve was hit and oil emerged before pipe was reached. Seems that the pipe may be compromised and contains the oil. Clay soil surrounds the pipe and that may be what is helping contain the oil. Niagara Falls DPW and Christine Alba were on site facilitating this effort. They excavated several feet away from the pipe and no traces of oil were found.

CALLER NOTIFICATION

In the event of a spill, reportable or not, contact the 77th RSC Environmental Division and consult your Spill Response SOP.

77th RSC Environmental Division: 718-352-2092/5155
77th RSC Emergency Contact #: 888-490-6005/5997/6014
77th RSC DCSENG Fax #: (718) 352-5674

In the event of a reportable quantity spill, the NRC must be contacted: 1-800-424-8802

Other Agencies contacted: NYSDEC Spill # 0803478_____
Date and Time of Calls: 24 June 2008, 10:10 am _____

Reporter's Signature: _Ingrid Weigand_____
Date: __24 June 2008_____

PCB Spill Delineation Report

Outfall 5 Storm Water Culvert Cleanup and Ditch Remediation

Prepared for

99th REGIONAL SUPPORT COMMAND, USAR
Niagara Falls AFRC

Contract No. W91LV2-080M-0059

PREPARED BY

PARS Environmental Inc.
6A South Gold Drive
Robbinsville, NJ 08691
Tel: 609-890-7277
Fax: 609-890-9116

PARS Project No. 722-04

MAY 2009

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1.0 INTRODUCTION

1.1 Background and Objectives

The Niagara Falls US Armed Forces Center (USAFRC) is located in Niagara Falls, NY and owned by the 99th Regional Support Command (RSC). A 24" diameter, 260' long, corrugated metal storm water drainage pipe runs north/south along the southeastern property line of the AFRC toward a drainage ditch on Porter Road that runs east/west and terminates at Cayuga Creek. Cayuga Creek is a navigable waterway in the State of New York. A non-storm water discharge was discovered coming from the 24" pipe and accumulating in the drainage ditch. Sampling has indicated that the discharge contains Aroclor 1254, a polychlorinated biphenyl (PCB). NYSDEC has mandated that the pipe be cleaned and the contaminated soil be tested to determine the extent of the spill and then excavated and replaced.

To establish the spill boundaries, EPA regulations require that a statistically based sampling scheme be used to delineate the contaminated area. To do this, thirty-four (34) samples were taken within the ditch in locations 0' to 50' east and west of the drainage pipe.

1.2 Sample Locations

i. Six (6) total samples (three (3) in each direction, east and west) were taken in 10' increments down the center of the ditch. The first sample taken as part of this modification on the east side of the outfall started 10' east of the sample that was taken at 20' as part of the original contract, and continued east in 10' increments. An identical approach was taken from the west side, starting at 10' west of the 20' west sample taken in the original contract. By doing this, between the original contract and the modification, the center of the ditch was sampled for a total of 100 linear feet (50' in each direction).

ii. Four (4) samples were taken from north to south, extending from the soil directly below the outfall opening to the area where the depression in the ditch terminates and the ditch begins to slope up toward Porter Road. These samples were equidistant from each other.

iii. Two (2) samples were taken along the headwall of the outfall pipe, one from the east corner and one from the west.

iv. Ten (10) samples were taken in a row that stretches horizontally from east to west along the northern border of the ditch, where the depression begins to slope upwards toward the AFRC fence. This row runs parallel to the row that

stretches through the east-west center of the ditch, but in a brick pattern to the center row.

v. Ten (10) samples were taken in a row that stretches horizontally from east to west along the southern border of the ditch, where the depression begins to slope upward toward Porter Road. This row runs parallel to the row that stretches through the east-west center of the ditch, but in a brick pattern to the center row.

vi. Two (2) samples were taken along the mid-point of the east and west sidewalls of the depression of the ditch, between where the depression begins extending south from the outfall and where it splits heading east and west.

All of the above sample locations are diagrammed in the figure on page 7.

All samples were soil samples taken at least 3 inches in depth from the ground surface. Samples were taken in such a manner to prevent any cross contamination or other contamination from occurring. Analysis was performed by Waste Stream Technology, Inc., a New York State certified laboratory. Samples were analyzed using EPA method 8082 for PCB concentration. The sampling and laboratory data are shown in the table on page 9. The PCB level versus location is shown in the diagram on page 10.

2.0 CONCLUSIONS AND RECOMMENDATIONS

The current sample area is 102' x 10'. Assuming an excavation depth of 1', the total amount of soil requiring removal in this area is approximately 38 cubic yards. For the contaminant concentrations in the ditch, the most cost effective disposal option is to landfill the excavated soil. Landfill disposal cost will be approximately $200 per cubic yard depending on soil density (or approximately $150 per ton). The 38 cubic yards of soil requiring removal can be excavated in one (1) 8-hour workday.

Sampling data indicates that the PCB contamination extends beyond the sampled area. While samples taken the greatest distance from the source of contamination show lower PCB levels, these levels are more than triple the regulatory threshold and indicate contamination has spread along the ditch to the east and to the west beyond the area sampled. Further sampling to determine the full extent of contamination is recommended before remediation is initiated.

PARS recommends taking fifteen (15) additional samples in 20' intervals, ten (10) samples to be taken downstream from the outflow (west) and five (5) samples to be taken upstream (east). All fifteen (15) samples will be taken only along the center-line of the ditch. These samples will provide data for an additional 100 feet upstream and 200 feet downstream. Based on contaminant concentration trends observed in the last round of sampling, these additional samples should establish the outer limits of contamination in the ditch.

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3.0 FIGURES

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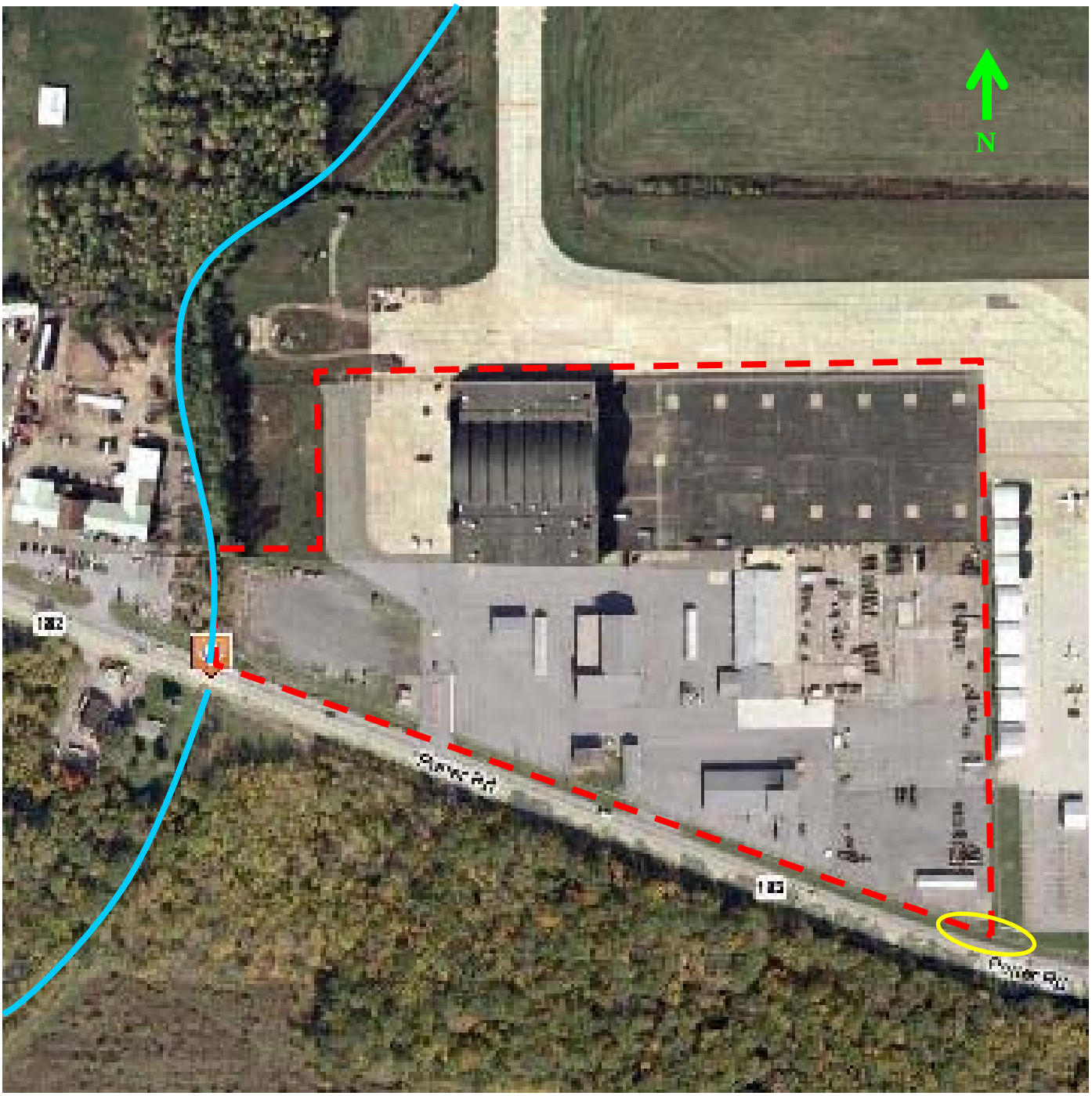


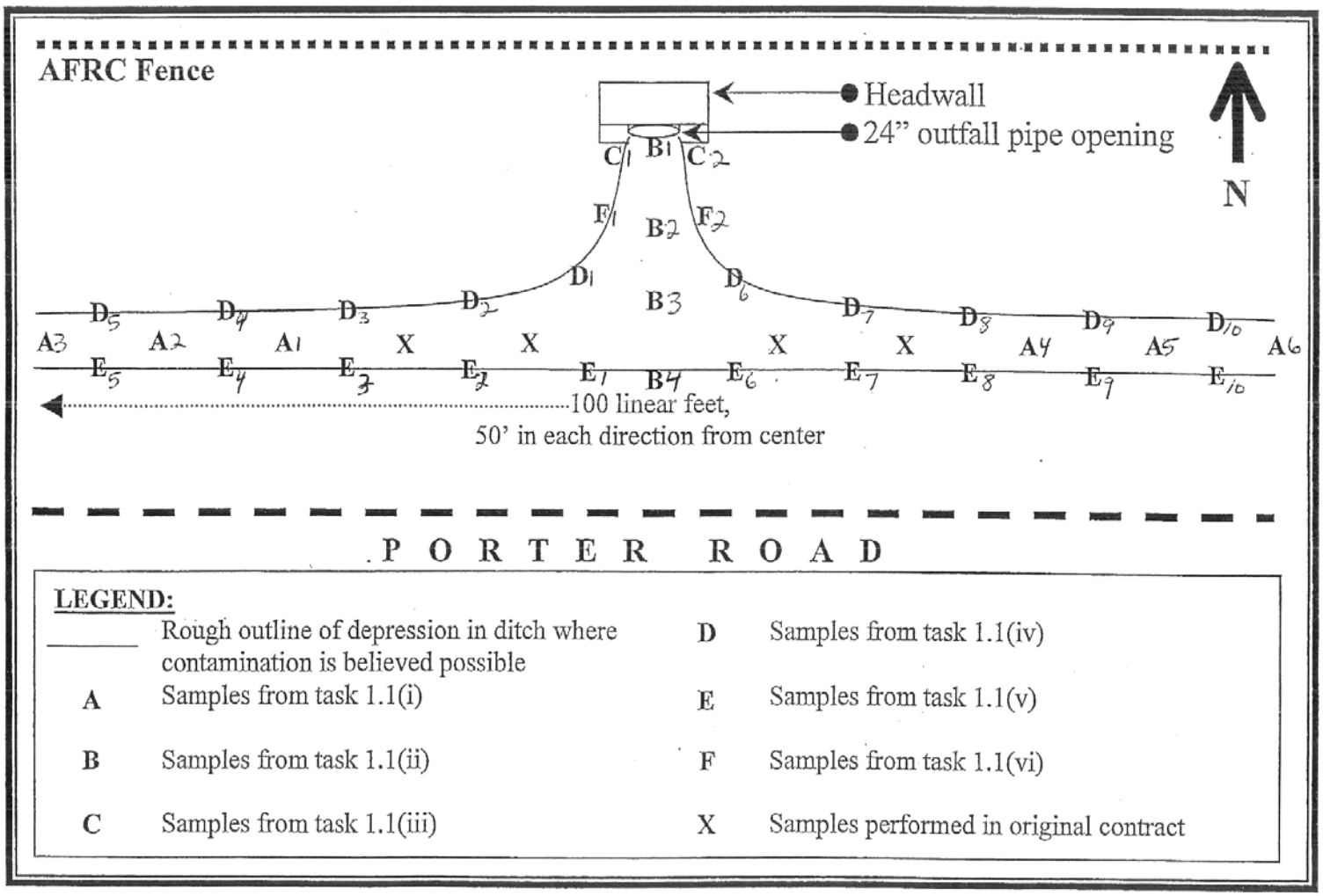
3.1 Aerial Photograph

The approximate distance from the spill/sampling site to Cayuga Creek is ¼ mile.

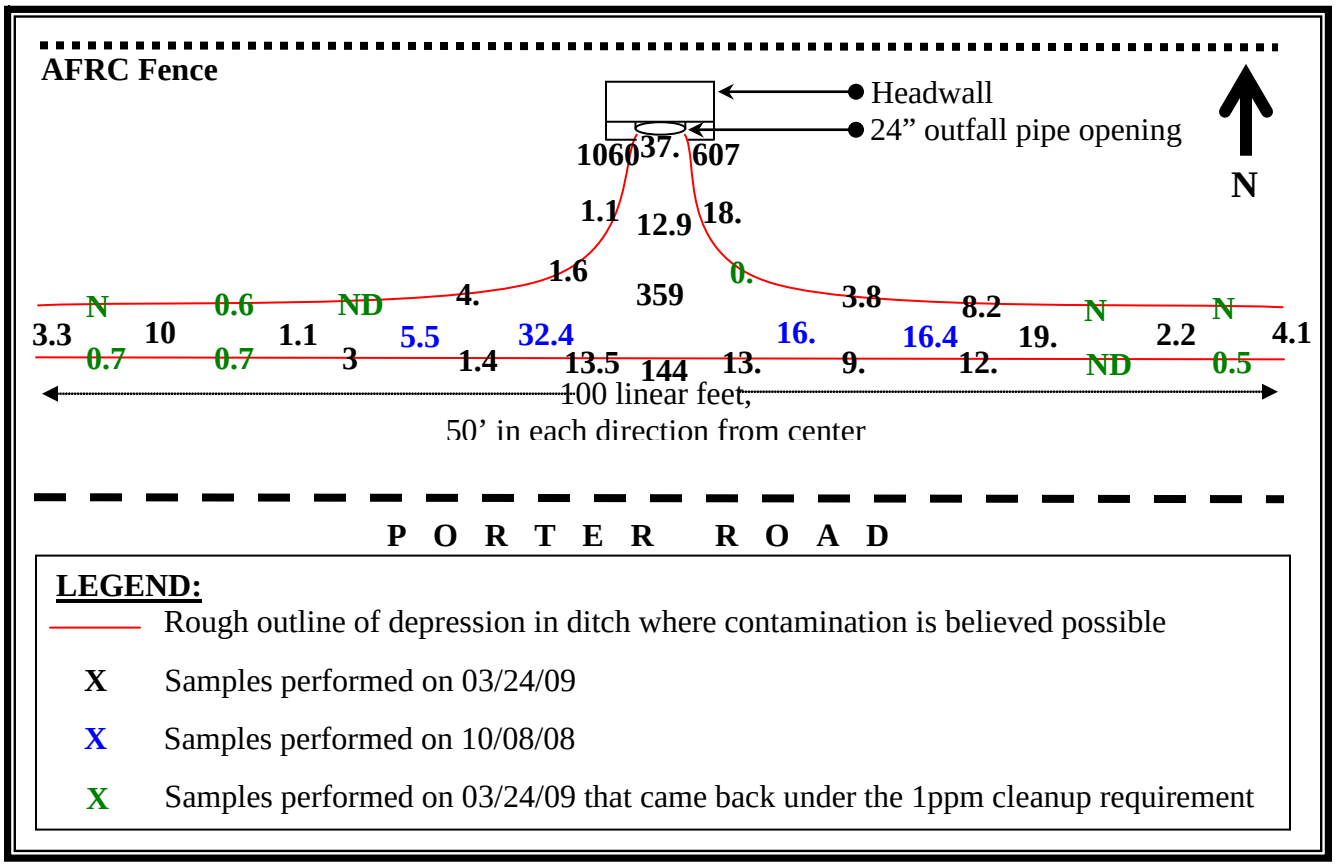
Property Boundary

Area of outfall & sampling

Cayuga Creek



3.2 Sample Locations



3.3 Sample Results

All results are in ppm (parts per million)

4.0 SUMMARY DATA SHEET

Niagara Falls Armed Forces Reserve Center - PCB Sampling Results 3/24/2009

Sample ID/Location	A3	D5	E5	A2	D4	E4	A1	D3
Laboratory ID	9C25002-18	9C25002-14	9C25002-15	9C25002-17	9C25002-12	9C25002-13	9C25002-16	9C25002-10
Date Sampled	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009
Time Sampled	10:06	10:07	10:08	10:05	10:00	10:01	9:59	9:55
Aroclor 1254 (ug/kg)	**3320**	ND	651	**9860**	648	747	**1110**	ND
Aroclor 1260 (ug/kg)	ND	ND	ND	ND	ND	ND	ND	ND
Percent Solids in Sample	68.1	76.9	61.2	53.1	63.8	57.6	66.0	57.8

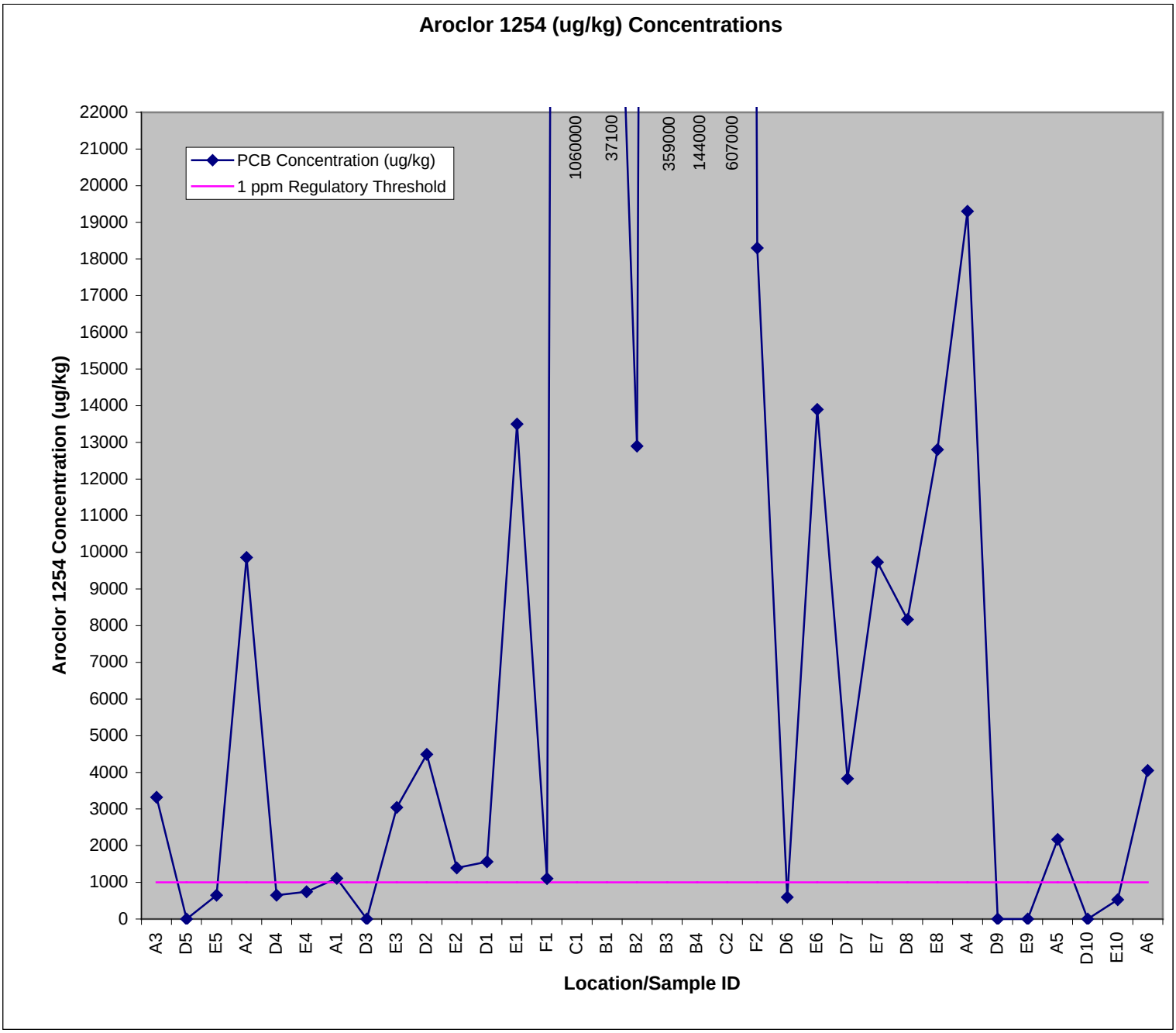
Sample ID/Location	E2	D1	E1	F1	C1	B1	B2	B3
Laboratory ID	9C25002-09	9C25002-07	9C25002-08	9C25002-33	9C25002-02	9C25002-01	9C25002-04	9C25002-05
Date Sampled	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009
Time Sampled	9:54	9:48	9:50	9:45	9:37	9:35	9:40	9:41
Aroclor 1254 (ug/kg)	**1390**	**1560**	**13500**	**1100**	**1060000**	**37100**	**12900**	**359000**
Aroclor 1260 (ug/kg)	ND	ND	ND	ND	ND	ND	ND	ND
Percent Solids in Sample	55.3	43.4	62.4	50.6	56.4	62.4	65.2	49.2

Sample ID/Location	F2	D6	E6	D7	E7	D8	E8	A4
Laboratory ID	9C25002-34	9C25002-19	9C25002-20	9C25002-21	9C25002-22	9C25002-23	9C25002-24	9C25002-29
Date Sampled	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009
Time Sampled	9:46	10:13	10:15	10:17	10:19	10:22	10:23	10:25
Aroclor 1254 (ug/kg)	**18300**	597	**13900**	**3830**	**9730**	**8170**	**12800**	**19300**
Aroclor 1260 (ug/kg)	ND	ND	ND	**2980**	ND	ND	ND	ND
Percent Solids in Sample	61.7	56.9	72.1	77.2	64.7	75.7	67.4	72.8

Sample ID/Location	A5	D10	E10	A6	DUP 1	DUP2	E3	D2
Laboratory ID	9C25002-30	9C25002-27	9C25002-28	9C25002-31	9C25002-35	9C25002-36	9C25002-11	9C25002-32
Date Sampled	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009
Time Sampled	10:32	10:35	10:37	10:38	0:00	0:00	9:57	9:53
Aroclor 1254 (ug/kg)	**2170**	ND	525	**4050**	**21700**	**10300**	**3040**	**4490**
Aroclor 1260 (ug/kg)	ND	ND	ND	ND	ND	ND	ND	ND
Percent Solids in Sample	77.8	81.5	78.5	73.6	63.5	61.6	44.0	52.4

Sample ID/Location	B4	C2	D9	E9
Laboratory ID	9C25002-06	9C25002-03	9C25002-25	9C25002-26
Date Sampled	3/24/2009	3/24/2009	3/24/2009	3/24/2009
Time Sampled	9:43	9:38	10:28	10:30
Aroclor 1254 (ug/kg)	**144000**	**607000**	ND	ND
Aroclor 1260 (ug/kg)	ND	ND	ND	ND
Percent Solids in Sample	57.0	70.7	82.3	77.2

5.0 PCB LEVEL VS. LOCATION



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6.0 ANALYTICAL RESULTS

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WASTE STREAM TECHNOLOGY, INC.

302 Grote Street
Buffalo, NY 14207
(716) 876-5290

Analytical Data Report
Report Date: 04/06/09
Work Order Number: 9C25002

Prepared For
Ken Paisley

Sevenson Environmental Services

2749 Lockport Road

Niagara Falls, NY 14302

Fax: (716) 285-4201

Site: NFAFB

Enclosed are the results of analyses for samples received by the laboratory on 03/24/09. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Brian S. Schepart, Ph.D., Laboratory Director

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS

NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757 CTDPH #PH-0306 MADEP #M-NY068

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B1	9C25002-01	Soil	03/24/09 09:35	03/24/09 16:25
C1	9C25002-02	Soil	03/24/09 09:37	03/24/09 16:25
C2	9C25002-03	Soil	03/24/09 09:38	03/24/09 16:25
B2	9C25002-04	Soil	03/24/09 09:40	03/24/09 16:25
B3	9C25002-05	Soil	03/24/09 09:41	03/24/09 16:25
B4	9C25002-06	Soil	03/24/09 09:43	03/24/09 16:25
D1	9C25002-07	Soil	03/24/09 09:48	03/24/09 16:25
E1	9C25002-08	Soil	03/24/09 09:50	03/24/09 16:25
E2	9C25002-09	Soil	03/24/09 09:54	03/24/09 16:25
D3	9C25002-10	Soil	03/24/09 09:55	03/24/09 16:25
E3	9C25002-11	Soil	03/24/09 09:57	03/24/09 16:25
D4	9C25002-12	Soil	03/24/09 10:00	03/24/09 16:25
E4	9C25002-13	Soil	03/24/09 10:01	03/24/09 16:25
D5	9C25002-14	Soil	03/24/09 10:07	03/24/09 16:25
E5	9C25002-15	Soil	03/24/09 10:08	03/24/09 16:25
A1	9C25002-16	Soil	03/24/09 09:59	03/24/09 16:25
A2	9C25002-17	Soil	03/24/09 10:05	03/24/09 16:25
A3	9C25002-18	Soil	03/24/09 10:06	03/24/09 16:25
D6	9C25002-19	Soil	03/24/09 10:13	03/24/09 16:25
E6	9C25002-20	Soil	03/24/09 10:15	03/24/09 16:25
D7	9C25002-21	Soil	03/24/09 10:17	03/24/09 16:25
E7	9C25002-22	Soil	03/24/09 10:19	03/24/09 16:25
D8	9C25002-23	Soil	03/24/09 10:22	03/24/09 16:25
E8	9C25002-24	Soil	03/24/09 10:23	03/24/09 16:25
D9	9C25002-25	Soil	03/24/09 10:28	03/24/09 16:25
E9	9C25002-26	Soil	03/24/09 10:30	03/24/09 16:25
D10	9C25002-27	Soil	03/24/09 10:35	03/24/09 16:25
E10	9C25002-28	Soil	03/24/09 10:37	03/24/09 16:25
A4	9C25002-29	Soil	03/24/09 10:25	03/24/09 16:25
A5	9C25002-30	Soil	03/24/09 10:32	03/24/09 16:25
A6	9C25002-31	Soil	03/24/09 10:38	03/24/09 16:25

The results in this report apply to the samples as received by the laboratory and analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sevenson Environmental Services	Project:	Niagara Falls	
2749 Lockport Road	Project Number:	NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager:	Ken Paisley	04/06/09 16:08

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
D2	9C25002-32	Soil	03/24/09 09:53	03/24/09 16:25
F1	9C25002-33	Soil	03/24/09 09:45	03/24/09 16:25
F2	9C25002-34	Soil	03/24/09 09:46	03/24/09 16:25
DUP 1	9C25002-35	Soil	03/24/09 00:00	03/24/09 16:25
DUP 2	9C25002-36	Soil	03/24/09 00:00	03/24/09 16:25

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Polychlorinated Biphenyls by EPA Method 8082

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B1 (9C25002-01) Soil Sampled: 03/24/09 09:35 Received: 03/24/09 16:25									
Aroclor 1016	ND	493	ug/kg dry	10	AC92604	03/26/09	03/26/09	8082	U
Aroclor 1221	ND	493	"	"	"	"	"	"	U
Aroclor 1232	ND	493	"	"	"	"	"	"	U
Aroclor 1242	ND	493	"	"	"	"	"	"	U
Aroclor 1248	ND	493	"	"	"	"	"	"	U
Aroclor 1254	**37100**	493	"	"	"	"	"	"	
Aroclor 1260	ND	493	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*95.5 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*104 %*	*61-133*		*"*	*"*	*"*	*"*	
C1 (9C25002-02RE2) Soil Sampled: 03/24/09 09:37 Received: 03/24/09 16:25									
Aroclor 1016	ND	40900	ug/kg dry	1000	AC92604	03/26/09	03/30/09	8082	U
Aroclor 1221	ND	40900	"	"	"	"	"	"	U
Aroclor 1232	ND	40900	"	"	"	"	"	"	U
Aroclor 1242	ND	40900	"	"	"	"	"	"	U
Aroclor 1248	ND	40900	"	"	"	"	"	"	U
Aroclor 1254	**1060000**	40900	"	"	"	"	"	"	
Aroclor 1260	ND	40900	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*%*	*74-133*		*"*	*"*	*"*	*"*	*S-06, U*
Surrogate: Decachlorobiphenyl		*%*	*61-133*		*"*	*"*	*"*	*"*	*S-06, U*
C2 (9C25002-03RE1) Soil Sampled: 03/24/09 09:38 Received: 03/24/09 16:25									
Aroclor 1016	ND	9170	ug/kg dry	200	AC92604	03/26/09	03/28/09	8082	U
Aroclor 1221	ND	9170	"	"	"	"	"	"	U
Aroclor 1232	ND	9170	"	"	"	"	"	"	U
Aroclor 1242	ND	9170	"	"	"	"	"	"	U
Aroclor 1248	ND	9170	"	"	"	"	"	"	U
Aroclor 1254	**607000**	9170	"	"	"	"	"	"	
Aroclor 1260	ND	9170	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*%*	*74-133*		*"*	*"*	*"*	*"*	*S-06, U*
Surrogate: Decachlorobiphenyl		*%*	*61-133*		*"*	*"*	*"*	*"*	*S-06, U*

The results in this report apply to the samples as received by the laboratory and analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Polychlorinated Biphenyls by EPA Method 8082

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B2 (9C25002-04) Soil Sampled: 03/24/09 09:40 Received: 03/24/09 16:25									
Aroclor 1016	ND	454	ug/kg dry	10	AC92604	03/26/09	03/26/09	8082	U
Aroclor 1221	ND	454	"	"	"	"	"	"	U
Aroclor 1232	ND	454	"	"	"	"	"	"	U
Aroclor 1242	ND	454	"	"	"	"	"	"	U
Aroclor 1248	ND	454	"	"	"	"	"	"	U
Aroclor 1254	**12900**	454	"	"	"	"	"	"	
Aroclor 1260	ND	454	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*101 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*111 %*	*61-133*		*"*	*"*	*"*	*"*	
B3 (9C25002-05RE1) Soil Sampled: 03/24/09 09:41 Received: 03/24/09 16:25									
Aroclor 1016	ND	4380	ug/kg dry	100	AC92604	03/26/09	03/28/09	8082	U
Aroclor 1221	ND	4380	"	"	"	"	"	"	U
Aroclor 1232	ND	4380	"	"	"	"	"	"	U
Aroclor 1242	ND	4380	"	"	"	"	"	"	U
Aroclor 1248	ND	4380	"	"	"	"	"	"	U
Aroclor 1254	**359000**	4380	"	"	"	"	"	"	
Aroclor 1260	ND	4380	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*125 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*163 %*	*61-133*		*"*	*"*	*"*	*"*	*S-04*
B4 (9C25002-06RE1) Soil Sampled: 03/24/09 09:43 Received: 03/24/09 16:25									
Aroclor 1016	ND	2190	ug/kg dry	50	AC92604	03/26/09	03/28/09	8082	U
Aroclor 1221	ND	2190	"	"	"	"	"	"	U
Aroclor 1232	ND	2190	"	"	"	"	"	"	U
Aroclor 1242	ND	2190	"	"	"	"	"	"	U
Aroclor 1248	ND	2190	"	"	"	"	"	"	U
Aroclor 1254	**144000**	2190	"	"	"	"	"	"	
Aroclor 1260	ND	2190	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*126 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*155 %*	*61-133*		*"*	*"*	*"*	*"*	*S-04*

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Polychlorinated Biphenyls by EPA Method 8082

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
D1 (9C25002-07) Soil Sampled: 03/24/09 09:48 Received: 03/24/09 16:25									
Aroclor 1016	ND	488	ug/kg dry	10	AC92604	03/26/09	03/26/09	8082	U
Aroclor 1221	ND	488	"	"	"	"	"	"	U
Aroclor 1232	ND	488	"	"	"	"	"	"	U
Aroclor 1242	ND	488	"	"	"	"	"	"	U
Aroclor 1248	ND	488	"	"	"	"	"	"	U
Aroclor 1254	**1560**	488	"	"	"	"	"	"	
Aroclor 1260	ND	488	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*100 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*109 %*	*61-133*		*"*	*"*	*"*	*"*	
E1 (9C25002-08) Soil Sampled: 03/24/09 09:50 Received: 03/24/09 16:25									
Aroclor 1016	ND	471	ug/kg dry	10	AC92604	03/26/09	03/26/09	8082	U
Aroclor 1221	ND	471	"	"	"	"	"	"	U
Aroclor 1232	ND	471	"	"	"	"	"	"	U
Aroclor 1242	ND	471	"	"	"	"	"	"	U
Aroclor 1248	ND	471	"	"	"	"	"	"	U
Aroclor 1254	**13500**	471	"	"	"	"	"	"	
Aroclor 1260	ND	471	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*98.6 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*108 %*	*61-133*		*"*	*"*	*"*	*"*	
E2 (9C25002-09) Soil Sampled: 03/24/09 09:54 Received: 03/24/09 16:25									
Aroclor 1016	ND	476	ug/kg dry	10	AC92604	03/26/09	03/26/09	8082	U
Aroclor 1221	ND	476	"	"	"	"	"	"	U
Aroclor 1232	ND	476	"	"	"	"	"	"	U
Aroclor 1242	ND	476	"	"	"	"	"	"	U
Aroclor 1248	ND	476	"	"	"	"	"	"	U
Aroclor 1254	**1390**	476	"	"	"	"	"	"	
Aroclor 1260	ND	476	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*99.2 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*109 %*	*61-133*		*"*	*"*	*"*	*"*	

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Polychlorinated Biphenyls by EPA Method 8082

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
D3 (9C25002-10) Soil Sampled: 03/24/09 09:55 Received: 03/24/09 16:25									
Aroclor 1016	ND	478	ug/kg dry	10	AC92604	03/26/09	03/26/09	8082	U
Aroclor 1221	ND	478	"	"	"	"	"	"	U
Aroclor 1232	ND	478	"	"	"	"	"	"	U
Aroclor 1242	ND	478	"	"	"	"	"	"	U
Aroclor 1248	ND	478	"	"	"	"	"	"	U
Aroclor 1254	ND	478	"	"	"	"	"	"	U
Aroclor 1260	ND	478	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*100 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*112 %*	*61-133*		*"*	*"*	*"*	*"*	
E3 (9C25002-11) Soil Sampled: 03/24/09 09:57 Received: 03/24/09 16:25									
Aroclor 1016	ND	483	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	483	"	"	"	"	"	"	U
Aroclor 1232	ND	483	"	"	"	"	"	"	U
Aroclor 1242	ND	483	"	"	"	"	"	"	U
Aroclor 1248	ND	483	"	"	"	"	"	"	U
Aroclor 1254	**3040**	483	"	"	"	"	"	"	
Aroclor 1260	ND	483	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*101 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*112 %*	*61-133*		*"*	*"*	*"*	*"*	
D4 (9C25002-12) Soil Sampled: 03/24/09 10:00 Received: 03/24/09 16:25									
Aroclor 1016	ND	446	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	446	"	"	"	"	"	"	U
Aroclor 1232	ND	446	"	"	"	"	"	"	U
Aroclor 1242	ND	446	"	"	"	"	"	"	U
Aroclor 1248	ND	446	"	"	"	"	"	"	U
Aroclor 1254	**648**	446	"	"	"	"	"	"	
Aroclor 1260	ND	446	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*102 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*113 %*	*61-133*		*"*	*"*	*"*	*"*	

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Polychlorinated Biphenyls by EPA Method 8082

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
E4 (9C25002-13) Soil Sampled: 03/24/09 10:01 Received: 03/24/09 16:25									
Aroclor 1016	ND	467	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	467	"	"	"	"	"	"	U
Aroclor 1232	ND	467	"	"	"	"	"	"	U
Aroclor 1242	ND	467	"	"	"	"	"	"	U
Aroclor 1248	ND	467	"	"	"	"	"	"	U
Aroclor 1254	**747**	467	"	"	"	"	"	"	
Aroclor 1260	ND	467	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*99.3 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*111 %*	*61-133*		*"*	*"*	*"*	*"*	
D5 (9C25002-14) Soil Sampled: 03/24/09 10:07 Received: 03/24/09 16:25									
Aroclor 1016	ND	438	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	438	"	"	"	"	"	"	U
Aroclor 1232	ND	438	"	"	"	"	"	"	U
Aroclor 1242	ND	438	"	"	"	"	"	"	U
Aroclor 1248	ND	438	"	"	"	"	"	"	U
Aroclor 1254	ND	438	"	"	"	"	"	"	U
Aroclor 1260	ND	438	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*100 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*111 %*	*61-133*		*"*	*"*	*"*	*"*	
E5 (9C25002-15) Soil Sampled: 03/24/09 10:08 Received: 03/24/09 16:25									
Aroclor 1016	ND	427	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	427	"	"	"	"	"	"	U
Aroclor 1232	ND	427	"	"	"	"	"	"	U
Aroclor 1242	ND	427	"	"	"	"	"	"	U
Aroclor 1248	ND	427	"	"	"	"	"	"	U
Aroclor 1254	**651**	427	"	"	"	"	"	"	
Aroclor 1260	ND	427	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*101 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*113 %*	*61-133*		*"*	*"*	*"*	*"*	

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Polychlorinated Biphenyls by EPA Method 8082

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A1 (9C25002-16) Soil Sampled: 03/24/09 09:59 Received: 03/24/09 16:25									
Aroclor 1016	ND	379	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	379	"	"	"	"	"	"	U
Aroclor 1232	ND	379	"	"	"	"	"	"	U
Aroclor 1242	ND	379	"	"	"	"	"	"	U
Aroclor 1248	ND	379	"	"	"	"	"	"	U
Aroclor 1254	**1110**	379	"	"	"	"	"	"	
Aroclor 1260	ND	379	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*98.9 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*112 %*	*61-133*		*"*	*"*	*"*	*"*	
A2 (9C25002-17) Soil Sampled: 03/24/09 10:05 Received: 03/24/09 16:25									
Aroclor 1016	ND	469	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	469	"	"	"	"	"	"	U
Aroclor 1232	ND	469	"	"	"	"	"	"	U
Aroclor 1242	ND	469	"	"	"	"	"	"	U
Aroclor 1248	ND	469	"	"	"	"	"	"	U
Aroclor 1254	**9860**	469	"	"	"	"	"	"	
Aroclor 1260	ND	469	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*99.7 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*110 %*	*61-133*		*"*	*"*	*"*	*"*	
A3 (9C25002-18) Soil Sampled: 03/24/09 10:06 Received: 03/24/09 16:25									
Aroclor 1016	ND	440	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	440	"	"	"	"	"	"	U
Aroclor 1232	ND	440	"	"	"	"	"	"	U
Aroclor 1242	ND	440	"	"	"	"	"	"	U
Aroclor 1248	ND	440	"	"	"	"	"	"	U
Aroclor 1254	**3320**	440	"	"	"	"	"	"	
Aroclor 1260	ND	440	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*101 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*111 %*	*61-133*		*"*	*"*	*"*	*"*	

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Polychlorinated Biphenyls by EPA Method 8082

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
D6 (9C25002-19) Soil Sampled: 03/24/09 10:13 Received: 03/24/09 16:25									
Aroclor 1016	ND	416	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	416	"	"	"	"	"	"	U
Aroclor 1232	ND	416	"	"	"	"	"	"	U
Aroclor 1242	ND	416	"	"	"	"	"	"	U
Aroclor 1248	ND	416	"	"	"	"	"	"	U
Aroclor 1254	**597**	416	"	"	"	"	"	"	
Aroclor 1260	ND	416	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*101 %*	*74-133*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*113 %*	*61-133*		"	"	"	"	
E6 (9C25002-20) Soil Sampled: 03/24/09 10:15 Received: 03/24/09 16:25									
Aroclor 1016	ND	474	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	474	"	"	"	"	"	"	U
Aroclor 1232	ND	474	"	"	"	"	"	"	U
Aroclor 1242	ND	474	"	"	"	"	"	"	U
Aroclor 1248	ND	474	"	"	"	"	"	"	U
Aroclor 1254	**13900**	474	"	"	"	"	"	"	
Aroclor 1260	ND	474	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*102 %*	*74-133*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*113 %*	*61-133*		"	"	"	"	
D7 (9C25002-21) Soil Sampled: 03/24/09 10:17 Received: 03/24/09 16:25									
Aroclor 1016	ND	474	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	474	"	"	"	"	"	"	U
Aroclor 1232	ND	474	"	"	"	"	"	"	U
Aroclor 1242	ND	474	"	"	"	"	"	"	U
Aroclor 1248	ND	474	"	"	"	"	"	"	U
Aroclor 1254	**3830**	474	"	"	"	"	"	"	
Aroclor 1260	**2980**	474	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*101 %*	*74-133*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*113 %*	*61-133*		"	"	"	"	

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Polychlorinated Biphenyls by EPA Method 8082

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
E7 (9C25002-22) Soil Sampled: 03/24/09 10:19 Received: 03/24/09 16:25									
Aroclor 1016	ND	495	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	495	"	"	"	"	"	"	U
Aroclor 1232	ND	495	"	"	"	"	"	"	U
Aroclor 1242	ND	495	"	"	"	"	"	"	U
Aroclor 1248	ND	495	"	"	"	"	"	"	U
Aroclor 1254	**9730**	495	"	"	"	"	"	"	
Aroclor 1260	ND	495	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*102 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*113 %*	*61-133*		*"*	*"*	*"*	*"*	
D8 (9C25002-23) Soil Sampled: 03/24/09 10:22 Received: 03/24/09 16:25									
Aroclor 1016	ND	398	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	398	"	"	"	"	"	"	U
Aroclor 1232	ND	398	"	"	"	"	"	"	U
Aroclor 1242	ND	398	"	"	"	"	"	"	U
Aroclor 1248	ND	398	"	"	"	"	"	"	U
Aroclor 1254	**8170**	398	"	"	"	"	"	"	
Aroclor 1260	ND	398	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*102 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*114 %*	*61-133*		*"*	*"*	*"*	*"*	
E8 (9C25002-24) Soil Sampled: 03/24/09 10:23 Received: 03/24/09 16:25									
Aroclor 1016	ND	456	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	456	"	"	"	"	"	"	U
Aroclor 1232	ND	456	"	"	"	"	"	"	U
Aroclor 1242	ND	456	"	"	"	"	"	"	U
Aroclor 1248	ND	456	"	"	"	"	"	"	U
Aroclor 1254	**12800**	456	"	"	"	"	"	"	
Aroclor 1260	ND	456	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*95.2 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*108 %*	*61-133*		*"*	*"*	*"*	*"*	

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Polychlorinated Biphenyls by EPA Method 8082

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
D9 (9C25002-25) Soil Sampled: 03/24/09 10:28 Received: 03/24/09 16:25									
Aroclor 1016	ND	465	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	465	"	"	"	"	"	"	U
Aroclor 1232	ND	465	"	"	"	"	"	"	U
Aroclor 1242	ND	465	"	"	"	"	"	"	U
Aroclor 1248	ND	465	"	"	"	"	"	"	U
Aroclor 1254	ND	465	"	"	"	"	"	"	U
Aroclor 1260	ND	465	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*97.7 %*	*74-133*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*107 %*	*61-133*		"	"	"	"	
E9 (9C25002-26) Soil Sampled: 03/24/09 10:30 Received: 03/24/09 16:25									
Aroclor 1016	ND	351	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	351	"	"	"	"	"	"	U
Aroclor 1232	ND	351	"	"	"	"	"	"	U
Aroclor 1242	ND	351	"	"	"	"	"	"	U
Aroclor 1248	ND	351	"	"	"	"	"	"	U
Aroclor 1254	ND	351	"	"	"	"	"	"	U
Aroclor 1260	ND	351	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*96.4 %*	*74-133*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*108 %*	*61-133*		"	"	"	"	
D10 (9C25002-27) Soil Sampled: 03/24/09 10:35 Received: 03/24/09 16:25									
Aroclor 1016	ND	467	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	467	"	"	"	"	"	"	U
Aroclor 1232	ND	467	"	"	"	"	"	"	U
Aroclor 1242	ND	467	"	"	"	"	"	"	U
Aroclor 1248	ND	467	"	"	"	"	"	"	U
Aroclor 1254	ND	467	"	"	"	"	"	"	U
Aroclor 1260	ND	467	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*97.1 %*	*74-133*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*107 %*	*61-133*		"	"	"	"	

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Polychlorinated Biphenyls by EPA Method 8082

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
E10 (9C25002-28) Soil Sampled: 03/24/09 10:37 Received: 03/24/09 16:25									
Aroclor 1016	ND	419	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	419	"	"	"	"	"	"	U
Aroclor 1232	ND	419	"	"	"	"	"	"	U
Aroclor 1242	ND	419	"	"	"	"	"	"	U
Aroclor 1248	ND	419	"	"	"	"	"	"	U
Aroclor 1254	**525**	419	"	"	"	"	"	"	
Aroclor 1260	ND	419	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*99.5 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*110 %*	*61-133*		*"*	*"*	*"*	*"*	
A4 (9C25002-29) Soil Sampled: 03/24/09 10:25 Received: 03/24/09 16:25									
Aroclor 1016	ND	495	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	495	"	"	"	"	"	"	U
Aroclor 1232	ND	495	"	"	"	"	"	"	U
Aroclor 1242	ND	495	"	"	"	"	"	"	U
Aroclor 1248	ND	495	"	"	"	"	"	"	U
Aroclor 1254	**19300**	495	"	"	"	"	"	"	
Aroclor 1260	ND	495	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*98.2 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*109 %*	*61-133*		*"*	*"*	*"*	*"*	
A5 (9C25002-30) Soil Sampled: 03/24/09 10:32 Received: 03/24/09 16:25									
Aroclor 1016	ND	361	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	361	"	"	"	"	"	"	U
Aroclor 1232	ND	361	"	"	"	"	"	"	U
Aroclor 1242	ND	361	"	"	"	"	"	"	U
Aroclor 1248	ND	361	"	"	"	"	"	"	U
Aroclor 1254	**2170**	361	"	"	"	"	"	"	
Aroclor 1260	ND	361	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*100 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*111 %*	*61-133*		*"*	*"*	*"*	*"*	

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Polychlorinated Biphenyls by EPA Method 8082

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A6 (9C25002-31) Soil Sampled: 03/24/09 10:38 Received: 03/24/09 16:25									
Aroclor 1016	ND	409	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	409	"	"	"	"	"	"	U
Aroclor 1232	ND	409	"	"	"	"	"	"	U
Aroclor 1242	ND	409	"	"	"	"	"	"	U
Aroclor 1248	ND	409	"	"	"	"	"	"	U
Aroclor 1254	**4050**	409	"	"	"	"	"	"	
Aroclor 1260	ND	409	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*98.6 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*109 %*	*61-133*		*"*	*"*	*"*	*"*	
D2 (9C25002-32) Soil Sampled: 03/24/09 09:53 Received: 03/24/09 16:25									
Aroclor 1016	ND	444	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	444	"	"	"	"	"	"	U
Aroclor 1232	ND	444	"	"	"	"	"	"	U
Aroclor 1242	ND	444	"	"	"	"	"	"	U
Aroclor 1248	ND	444	"	"	"	"	"	"	U
Aroclor 1254	**4490**	444	"	"	"	"	"	"	
Aroclor 1260	ND	444	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*98.7 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*109 %*	*61-133*		*"*	*"*	*"*	*"*	
F1 (9C25002-33) Soil Sampled: 03/24/09 09:45 Received: 03/24/09 16:25									
Aroclor 1016	ND	355	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	355	"	"	"	"	"	"	U
Aroclor 1232	ND	355	"	"	"	"	"	"	U
Aroclor 1242	ND	355	"	"	"	"	"	"	U
Aroclor 1248	ND	355	"	"	"	"	"	"	U
Aroclor 1254	**1100**	355	"	"	"	"	"	"	
Aroclor 1260	ND	355	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*97.8 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*108 %*	*61-133*		*"*	*"*	*"*	*"*	

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Polychlorinated Biphenyls by EPA Method 8082

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
F2 (9C25002-34) Soil Sampled: 03/24/09 09:46 Received: 03/24/09 16:25									
Aroclor 1016	ND	369	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	369	"	"	"	"	"	"	U
Aroclor 1232	ND	369	"	"	"	"	"	"	U
Aroclor 1242	ND	369	"	"	"	"	"	"	U
Aroclor 1248	ND	369	"	"	"	"	"	"	U
Aroclor 1254	**18300**	369	"	"	"	"	"	"	
Aroclor 1260	ND	369	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*95.4 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*102 %*	*61-133*		*"*	*"*	*"*	*"*	
DUP 1 (9C25002-35RE1) Soil Sampled: 03/24/09 00:00 Received: 03/24/09 16:25									
Aroclor 1016	ND	404	ug/kg dry	10	AC92604	03/26/09	03/30/09	8082	U
Aroclor 1221	ND	404	"	"	"	"	"	"	U
Aroclor 1232	ND	404	"	"	"	"	"	"	U
Aroclor 1242	ND	404	"	"	"	"	"	"	U
Aroclor 1248	ND	404	"	"	"	"	"	"	U
Aroclor 1254	**21700**	404	"	"	"	"	"	"	
Aroclor 1260	ND	404	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*83.3 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*77.8 %*	*61-133*		*"*	*"*	*"*	*"*	
DUP 2 (9C25002-36) Soil Sampled: 03/24/09 00:00 Received: 03/24/09 16:25									
Aroclor 1016	ND	452	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	452	"	"	"	"	"	"	U
Aroclor 1232	ND	452	"	"	"	"	"	"	U
Aroclor 1242	ND	452	"	"	"	"	"	"	U
Aroclor 1248	ND	452	"	"	"	"	"	"	U
Aroclor 1254	**10300**	452	"	"	"	"	"	"	
Aroclor 1260	ND	452	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*98.9 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*104 %*	*61-133*		*"*	*"*	*"*	*"*	

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Conventional Chemistry Parameters by EPA Methods

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B1 (9C25002-01) Soil Sampled: 03/24/09 09:35 Received: 03/24/09 16:25									
% Solids	**62.4**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
C1 (9C25002-02) Soil Sampled: 03/24/09 09:37 Received: 03/24/09 16:25									
% Solids	**56.4**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
C2 (9C25002-03) Soil Sampled: 03/24/09 09:38 Received: 03/24/09 16:25									
% Solids	**70.7**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
B2 (9C25002-04) Soil Sampled: 03/24/09 09:40 Received: 03/24/09 16:25									
% Solids	**65.2**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
B3 (9C25002-05) Soil Sampled: 03/24/09 09:41 Received: 03/24/09 16:25									
% Solids	**49.2**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
B4 (9C25002-06) Soil Sampled: 03/24/09 09:43 Received: 03/24/09 16:25									
% Solids	**57.0**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
D1 (9C25002-07) Soil Sampled: 03/24/09 09:48 Received: 03/24/09 16:25									
% Solids	**43.4**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
E1 (9C25002-08) Soil Sampled: 03/24/09 09:50 Received: 03/24/09 16:25									
% Solids	**62.4**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
E2 (9C25002-09) Soil Sampled: 03/24/09 09:54 Received: 03/24/09 16:25									
% Solids	**55.3**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	

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Conventional Chemistry Parameters by EPA Methods

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
D3 (9C25002-10) Soil Sampled: 03/24/09 09:55 Received: 03/24/09 16:25									
% Solids	**57.8**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
E3 (9C25002-11) Soil Sampled: 03/24/09 09:57 Received: 03/24/09 16:25									
% Solids	**44.0**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
D4 (9C25002-12) Soil Sampled: 03/24/09 10:00 Received: 03/24/09 16:25									
% Solids	**63.8**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
E4 (9C25002-13) Soil Sampled: 03/24/09 10:01 Received: 03/24/09 16:25									
% Solids	**57.6**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
D5 (9C25002-14) Soil Sampled: 03/24/09 10:07 Received: 03/24/09 16:25									
% Solids	**76.9**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
E5 (9C25002-15) Soil Sampled: 03/24/09 10:08 Received: 03/24/09 16:25									
% Solids	**61.2**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
A1 (9C25002-16) Soil Sampled: 03/24/09 09:59 Received: 03/24/09 16:25									
% Solids	**66.0**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
A2 (9C25002-17) Soil Sampled: 03/24/09 10:05 Received: 03/24/09 16:25									
% Solids	**53.1**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
A3 (9C25002-18) Soil Sampled: 03/24/09 10:06 Received: 03/24/09 16:25									
% Solids	**68.1**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	

The results in this report apply to the samples as received by the laboratory and analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Conventional Chemistry Parameters by EPA Methods

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
D6 (9C25002-19) Soil Sampled: 03/24/09 10:13 Received: 03/24/09 16:25									
% Solids	**56.9**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
E6 (9C25002-20) Soil Sampled: 03/24/09 10:15 Received: 03/24/09 16:25									
% Solids	**72.1**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
D7 (9C25002-21) Soil Sampled: 03/24/09 10:17 Received: 03/24/09 16:25									
% Solids	**77.2**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
E7 (9C25002-22) Soil Sampled: 03/24/09 10:19 Received: 03/24/09 16:25									
% Solids	**64.7**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
D8 (9C25002-23) Soil Sampled: 03/24/09 10:22 Received: 03/24/09 16:25									
% Solids	**75.7**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
E8 (9C25002-24) Soil Sampled: 03/24/09 10:23 Received: 03/24/09 16:25									
% Solids	**67.4**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
D9 (9C25002-25) Soil Sampled: 03/24/09 10:28 Received: 03/24/09 16:25									
% Solids	**82.3**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
E9 (9C25002-26) Soil Sampled: 03/24/09 10:30 Received: 03/24/09 16:25									
% Solids	**77.2**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
D10 (9C25002-27) Soil Sampled: 03/24/09 10:35 Received: 03/24/09 16:25									
% Solids	**81.5**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	

The results in this report apply to the samples as received by the laboratory and analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Conventional Chemistry Parameters by EPA Methods

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
E10 (9C25002-28) Soil Sampled: 03/24/09 10:37 Received: 03/24/09 16:25									
% Solids	**78.5**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
A4 (9C25002-29) Soil Sampled: 03/24/09 10:25 Received: 03/24/09 16:25									
% Solids	**72.8**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
A5 (9C25002-30) Soil Sampled: 03/24/09 10:32 Received: 03/24/09 16:25									
% Solids	**77.8**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
A6 (9C25002-31) Soil Sampled: 03/24/09 10:38 Received: 03/24/09 16:25									
% Solids	**73.6**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
D2 (9C25002-32) Soil Sampled: 03/24/09 09:53 Received: 03/24/09 16:25									
% Solids	**52.4**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
F1 (9C25002-33) Soil Sampled: 03/24/09 09:45 Received: 03/24/09 16:25									
% Solids	**50.6**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
F2 (9C25002-34) Soil Sampled: 03/24/09 09:46 Received: 03/24/09 16:25									
% Solids	**61.7**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
DUP 1 (9C25002-35) Soil Sampled: 03/24/09 00:00 Received: 03/24/09 16:25									
% Solids	**63.5**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
DUP 2 (9C25002-36) Soil Sampled: 03/24/09 00:00 Received: 03/24/09 16:25									
% Solids	**61.6**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	

The results in this report apply to the samples as received by the laboratory and analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Notes and Definitions

U	Analyte included in the analysis, but not detected at or above the reporting limit.
S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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7.0 CHAIN OF CUSTODY DOCUMENTATION

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CHAIN OF CUSTODY

WASTE STREAM TECHNOLOGY

Waste Stream Technology Inc.
[illegible] Ganson Street, Buffalo, NY 14207
(716) 876-5290 · FAX (716) 876-2412

OFFICE USE ONLY
GROUP # 9C2SOC2
DUE DATE

PAGE 1 OF 4

AIR LIQUID DETECTION LIMITS REQUIRED? YES NO
IF YES, PLEASE NOTIFY [illegible]

TURNAROUND TIME: STD

QUOTATION NUMBER

Has QC Package required? YES NO
IF YES, PLEASE NOTIFY [illegible]

DW DRINKING WATER
GW GROUND WATER
SW SURFACE WATER
WW WASTE WATER
O OIL
SL SLUDGE
SO SOIL
S SOLID
W WIPE
OTHER

SEND TO: Jeff Shirley
NF

CONTACT: Jeff
PH #: 716 284-0431
FAX #: 716 285-1120
CLIENT: 1001 [illegible]
PO #: 1001 5001
PROJECT DESCRIPTION: NFAFB
SAMPLED BY: [illegible]

ANALYSES TO BE PERFORMED

	SAMPLE ID	DATE SAMPLED	TIME OF SAMPLING	SAMPLE TYPE	TOTAL NO OF CONTAINERS	Total PCB's									TYPE OF CONTAINER/COMMENTS	OFFICE USE ONLY LAB ID
1	B1	3/24/09	0910	Sa	1	X									44	01
2	C1		0937		1	X										02
3	C2		0930		1	X										03
4	B2		0940		1	X										04
5	B3		0944		1	X										05
6	B4		0943		1	X										06
7	D1		0949		1	X										07
8	E1		0950		1	X										08
9	E2		0954		1	X										09
10	D3		0955		1	X										10

REMARKS: Main PCB of concern is Aroclor 1254. Samples B1-4 have most chance of high concentrations along w/ C1 & C2. Previous samples in these locations showed 22 mg/kg. Samples with results > 10 mg/kg must be returned to Falk for disposal @ jobsite.

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	3/24/09	1628	[signature]	3/24/09	1625
RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	/ /			/ /	

CHAIN OF CUSTODY

WASTE STREAM TECHNOLOGY

Waste Stream Technology Inc.
302 Grote Street, Buffalo, NY 14207
(716) 876-5290 · FAX (716) 876-2412

OFFICE USE ONLY
GROUP # 9625002
DUE DATE

REPORT TO: Jeff Shirley NF
CONTACT: Jeff
PH #: 716 284-0431
FAX #: 716-285-4201
ATTN TO: 1001
JOB #: 10019001
PROJECT DESCRIPTION: NFAPS
SAMPLER SIGNATURE: DAVID ELLIS

TURN AROUND TIME: STD
QUOTATION NUMBER:

ARE SPECIAL DETECTION LIMITS REQUIRED: YES (NO) If yes please attach [illegible]

Is a QC Package required: YES (NO) If yes please attach [illegible]

DW DRINKING WATER
GW GROUND WATER
SW SURFACE WATER
WW WASTE WATER
O OIL
SL SLUDGE
SO SOIL
S SOLID
W WIPE
OTHER

ANALYSES TO BE PERFORMED

		DATE SAMPLED	TIME OF SAMPLING	SAMPLE TYPE	TOTAL NO. OF CONTAINERS	TCLP / PCB / VOTS								TYPE OF CONTAINERS/ COMMENTS	OFFICE USE ONLY LAB. ID.
1	E3	3/24/09	0957	SO	1	X								1x4oz	11
1	D4		1000		1	X									12
2	E4		1001		1	X									13
4	D5		1007		1	X									14
5	E5		1021		1	X									15
6	A1		0955		1	X									16
7	A2		1015		1	X									17
8	A3		1020		1	X									18
9	D6		1017		1	X									19
10	E6		1025		1	X									20

REMARKS

RELINQUISHED BY:	DATE: 3/24/09	TIME: 1625	RECEIVED BY:	DATE: 3/24/09	TIME: 1625
RELINQUISHED BY:	DATE: / /	TIME:	RECEIVED BY:	DATE: / /	TIME:

CHAIN OF CUSTODY

WASTE STREAM TECHNOLOGY

Waste Stream Technology Inc.
302 Grote Street, Buffalo, NY 14207
(716) 876-5290 · FAX (716) 876-2412

OFFICE USE ONLY
GROUP # 4625 CO2
DUE DATE

PAGE 3 OF 4

ARE SPECIAL DETECTION LIMITS REQUIRED: YES (NO)
If yes, please attach requirements

TURN AROUND TIME: STD
QUOTATION NUMBER

Is a QC Package required: YES (NO)
If yes, please attach requirements

REPORT TO: Jeff Shirley
NF

CONTACT: Jeff
PHONE #: 716-284-0431
FAX #: 716-285-4201
BILL TO: 061
PO #: 1001 9001
PROJECT DESCRIPTION: NFAFR
SAMPLED BY (SIGNATURE): [illegible]

DW DRINKING WATER
GW GROUND WATER
SW SURFACE WATER
WW WASTE WATER
O OIL
SL SLUDGE
SO SOIL
S SOLID
W WIPE
OTHER

ANALYSES TO BE PERFORMED

		DATE SAMPLED	TIME OF SAMPLING	SAMPLE TYPE	TOTAL # OF CONTAINERS	TOTAL VOC SOIL								TYPE OF CONTAINER/FRAGMENTS	OFFICE USE ONLY LAB I.D.
1	D7	9/26/01	1017	SO	1	X								1x4oz	21
2	E7		1019		1	X									22
3	D8		1023		1	X									23
4	E8		1023		1	X									24
5	D9		1028		1	X									25
6	E9		1030		1	X									26
7	D10		1035		1	X									27
8	E10		1037		1	X									28
9	A4		1025		1	X									29
10	A5		1028		1	X									30

REMARKS:

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
[illegible]	9/24/01	1625	[illegible]	9/24/01	1625
RELINQUISHED BY	/ /	TIME	RECEIVED BY	/ /	TIME

CHAIN OF CUSTODY

WASTE STREAM TECHNOLOGY

Waste Stream Technology Inc.
302 Gr[illegible] St[illegible]t, Buffalo, NY 14207
(716) 876-5250 · FAX (716) 876-2412

OFFICE USE ONLY
GROUP # [illegible]
DUE DATE

REPORT TO: Jeff Shirley, NF

CONTACT: Jeff
PHONE: 716 285-4931
FAX #: 716-295-4201
BILL TO: 1001
PO #: 10019001
PROJECT DESCRIPTION: NFAFB
SAMPLER SIGNATURE:

TURN AROUND TIME: 30D
QUOTATION NUMBER:

ARE SPECIAL DETECTION LIMITS REQUIRED: YES (NO)
If yes, please attach to this form

Is a QC Package required: YES (NO)
If yes, please [illegible]

DW DRINKING WATER · GW GROUND WATER · SW SURFACE WATER · WW WASTE WATER · O OIL · SL SLUDGE · SO SOIL · S SOLID · W WIPE · O OTHER

ANALYSES TO BE PERFORMED

		DATE SAMPLED	TIME OF SAMPLING	SAMPLE TYPE	TOTAL NO. OF CONTAINERS	TCLP 8270								TYPE OF CONTAINER COMMENTS	OFFICE USE ONLY POST ID
1	A6	7/28/09	1035	SO	1	X								1x4oz	31
2	D2		1055		1	X									32
3	F1		0945		1	X									33
4	F2		0950		1	X									34
5	Dup1		-		1	X									35
6	Dup2		-		1	X									36
7															
8															
9															
10															

REMARKS

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
[illegible]	7/28/09	1625	[illegible]	3/04/09	1605
RELINQUISHED BY	/ /		RECEIVED BY	/ /	

New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau *A, 11th Floor*
625 Broadway, Albany, New York 12233-7015
Phone: (518) 402-9625 • **FAX:** (518) 402-9022
Website: www.dec.state.ny.us

Alexander B. Grannis
Commissioner

June 22, 2009

Mr. Ravi Ajodah
US Army Reserve
99th Regional Support Command
200 Duane Road
Room 309
Fort Totten, NY 11359-1016

Re: Expedited Funding for the Remediation of Niagara Falls Army Reserve Center (ARC)

Dear Mr. Ajodah:

Site investigation conducted by the ARC in 2008 found PCBs-contaminated sediment in the off-site roadside drainage ditch which exceeded the New York State Department of Environmental Conservation (Department) hazardous waste criteria of 50 ppm.

Through discussion conducted with the ARC last year, it was agreed that the off-site remediation of the ditch would be conducted prior to the on-site remediation. However, no remedial work has been done, presumably due to delays in funding and/or approval.

Further sampling undertaken by the ARC in 2009 confirmed the continued existence of high-level PCBs contamination in the ditch sediment. In fact, the highest level of PCBs contamination were found to be more than 1000 ppm near the outfall pipe opening. Funding to address off-site impacts and further investigate on-site sources is available. However, the remediation of the ditch area is delayed indefinitely since Army protocol mandates the completion of the on-site investigation before any off-site remediation could commence.

Given the potential for off-site exposures, the Department requires that the ditch area be remediated and monitored as soon as possible. Therefore, the Department requests that funding from the Army for the off-site remediation be expeditiously made available. Otherwise, a Department-approved contractor will be used to remediate the off-site ditch and the Department will seek cost reimbursement from the Army.

If you have any questions in connection with this matter, please contact me at (518) 402-9620 or jbswarto@gw.dec.state.ny.us.

Sincerely,

John B. Swartwout

John B. Swartwout, P.E.
Section Chief
Remedial Bureau A

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Final Technical Memorandum

Supplemental Phase 1 Assessment, Niagara Falls U.S. Army Reserve Center (NY046), Niagara Falls, New York

Prepared for

the 99th Regional Support Command, DPW ENV
5231 South Scott Plaza, Fort Dix, NJ 08640

and

U.S. Army Corps of Engineers - Louisville District
600 Dr. Martin Luther King Jr. Place
Louisville, Kentucky 40202-2232

August 2009

CH2MHILL

1717 Arch Street
Suite 4400
Philadelphia, PA 19103

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Figure 2 Site Layout Plan

Appendices

Appendix A Interview Records
Appendix B NYSDEC FOIL Response Letter
Appendix C Aerial Photographs and Historical Maps
Appendix D Photograph Log from May 7, 2009 Site Visit
Appendix E Environmental Investigation Summary Report and Figures

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Acronyms and Abbreviations

BRAC	Base Realignment and Closure
DERP	Defense Environmental Restoration Program
ECP	Environmental Condition of Property
FOIL	Freedom of Information Law
FUDS	Formerly Used Defense Sites
MEP	Military equipment parking
MVPA	Military vehicle parking area
NFTA	Niagara Frontier Transportation Authority
NYSDEC	New York State Department of Environmental Conservation
NY	New York
PA	Preliminary Assessment
ppb	parts per billion
ppm	parts per million
PCB	Polychlorinated biphenyl
POV	Privately owned vehicle
RSC-N	Regional Support Command-North
su	standard unit
TM	Technical Memorandum
USACE	U.S. Army Corps of Engineers
USAR	U.S. Army Reserve
USARC	U.S. Army Reserve Center
UST	Underground storage tank

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SECTION 1.0

Introduction

The U.S. Army Corps of Engineers (USACE), Louisville District contracted CH2M HILL to perform a supplemental Phase 1 site assessment at the Niagara Falls U.S. Army Reserve Center (USARC) (NY046) in Niagara Falls, NY (Figure 1) (Property). This additional assessment was conducted to further investigate reports of the presence of a landfill at the Property that were documented in the Phase 1 site assessment previously conducted on the Property, the Environmental Condition of Property (ECP) report (CH2M HILL, 2007). The Property is located within the 99th Regional Support Command-North (RSC-N) (formerly, the 77th Regional Readiness Command). This supplemental assessment consisted of additional file reviews, interviews, and an additional visit to the Property.

This Technical Memorandum (TM) documents the supplemental Phase 1 assessment activities conducted at the Property. The ECP and supplemental Phase 1 assessment activities were conducted to assess, determine, and document the environmental condition of the Property, which the U.S. Army Reserve (USAR) is transferring under the Base Realignment and Closure Act (BRAC). This work is being conducted under CH2M HILL's Indefinite Delivery Contract Number W912QR-04-D-0020 for A/E and Environmental Services within the Great Lakes and Ohio River Mission Boundaries.

1.1 Site Description and Project Background

The USARC is located north of a main thoroughfare (Porter Road, also known as Route 182) in Niagara County, on the south side of Niagara Township, in Niagara Falls, New York, at 9400 Porter Road (Figure 2). Cayuga Creek flows south along the western boundary of the Property. A complete site description can be found in the ECP report (CH2M HILL, 2007).

Based on the findings of the 2007 ECP report (CH2M HILL, 2007), the Property is suspected to have been constructed on a landfill. A 1994 Preliminary Assessment (PA) identified a 1987 "Operational Necessity Statement for Maintenance and Repair Project," which states that the Property is known to have been a landfill prior to government ownership in 1939. The 1987 document is a funding request to conduct water line repairs due to pipe corrosion, which was believed to be due to the fact that "soil characteristics are not uniform…[and] in some areas highly corrosive"(Engineering Technologies Associates, Inc. 1994). The PA identified a 1983 corrosion study that concluded the corrosion was principally due to "plug type graphitization resulting from non-uniform backfill." The PA also notes that in 1991, non-uniform soils were observed during remediation of a polychlorinated biphenyl (PCB) spill. The PA further states that "no additional documents could be located to confirm or deny the potential presence of a landfill" and recommended additional records reviews and sampling to determine whether a landfill exists at the Property. As part of the 2007 ECP report, CH2M HILL reviewed representative historical U.S. Geological Survey (USGS) topographic maps (dating back to 1899) and aerial photographs (dating back to 1963) for the Property. However, this review did not provide evidence of surficial disturbance indicative

of landfilling activities. No other reasonably ascertainable information was identified during the 2007 ECP to confirm or refute the reported presence of a landfill on the Property.

1.2 Purpose and Objective

The primary objective of this assessment is to gather additional information regarding the potential presence of a landfill at the Property to supplement the 2007 ECP that was prepared to support USAR's evaluation of this property for transfer.

SECTION 2.0

Significant Assumptions and Limitations

In preparing this report, CH2M HILL has relied on certain information provided by federal, state, and local officials and other parties referenced herein, and on information contained in the files of governmental agencies, that were reasonably ascertainable at the time of this assessment. Although there may have been some degree of overlap in the information provided by these various sources, an attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this site assessment was not conducted. Visual observations were made of the Property and surrounding properties as indicated in this report.

The information obtained from individuals interviewed and supporting documentation and records were considered accurate unless reasonable inquiries indicated otherwise. This TM presents a summary of reasonably ascertainable information on the reported presence of a landfill at the Property. In accordance with the task order scope of work, its findings are based solely on a record search of publicly available documents; a review of reasonably ascertainable documents; and interviews with personnel knowledgeable with the Property and its history.

The following subsections have been prepared to document the various additional records reviewed and interviews conducted in an attempt to find additional information regarding the reported presence of a landfill at the Property.

- Appendix A contains individual interview records.
- Appendix B includes the New York State Department of Environmental Conservation (NYSDEC) Freedom of Information Law (FOIL) Response Letter
- Appendix C includes aerial photographs and historical maps
- Appendix D contains a photograph log from the site visit.
- Appendix E contains an Environmental Summary Report and figures provided by Christine Alba of J.M Waller and Associates, Inc. (subcontractor to the Niagara Falls USARC Site Manager Charles Demarti).

SECTION 3.0

Supplemental Document Review and Interviews

3.1 Chain of Title Review

CH2M HILL reviewed the chain of title for the Property that was provided in Appendix C of the ECP Report (CH2M HILL, 2007). In addition, CH2M HILL reviewed historical maps at the History Department at the Niagara Falls Public Library (see Section 2.7). Historical ownership of the Property was reviewed to assess if any information could be obtained that indicated that past operations would have involved landfilling at the Property. The review of historical ownership indicated that Tobias Witmer owned the Property (which was part of a larger, 100-acre parcel) around 1854. The next owner of record appears in the chain of title report (CH2M HILL, 2007), and was Francis H. McDonald on August 29, 1933. The Property was then owned by the heirs of Francis H. McDonald until 1954 when Ivan Lozina acquired the Property. The chain of title indicates that the U.S. Government acquired the Property from Ivan Lozina on October 28, 1955, however, the PA suggests the U.S. Government has used the property since 1939. The Property was likely used for agricultural purposes prior to U.S. Government ownership. There was no information in the ownership records that confirmed or identified landfilling operations at the Property.

3.2 Interviews and Document Reviews

3.2.1 Interview with NYSDEC

Interview Information

Name: Greg Sutton
Title: Greg Sutton: NYSDEC Project Manager
Interview Date: April 23, 2009

CH2M HILL submitted a FOIL letter to the NYSDEC to inquire if the NYSDEC had any information that confirmed or identified the presence of a landfill on the Property. The NYSDEC issued a FOIL response letter (Appendix B) that provided information regarding the closure of underground storage tanks (USTs); however, did not provide any information that confirmed or identified the presence of a landfill on the property. CH2M HILL called the NYSDEC to inquire further, and was directed to Greg Sutton at the NYSDEC Region 9 office in Buffalo, New York. Mr. Sutton indicated that he was not aware of any landfill on the Property. However, he mentioned that there is a landfill near the Property, adjacent to the corner of Porter Road and Tuscarora Road. This landfill (NYSDEC Site Number 932056a), is also referred to as the Diabacco site and operated from approximately the 1970s to the 1980s. The Diabacco site is now closed and considered to be unrelated to the landfill mentioned in the PA since the suspected landfill located at the Niagara Falls USARC was likely closed prior to government use of the site, which started in 1955 and possibly dates back to 1939. The 2007 ECP report provides a detailed site history (CH2M HILL, 2007).

Documents Reviewed

Based on the interview with Greg Sutton, the NYSDEC did not have any records pertaining to a landfill at the Property.

3.2.2 Interview with Site Manager

Interview information

Name: Charles Demarti
Title: Site Manager, Niagara Falls USARC
Interview Date: May 7, 2009

Charles Demarti has worked at the Property since 1981 and has general knowledge of the site history, although he had no knowledge of a former landfill on the Property, of any reports of a former landfill on the Property, or of a landfill on any adjoining property. He provided aerial photographs of the Property from 1956, 1974, and 2006 (Appendix C) and accompanied CH2M HILL during the site visit.

During the site visit, Mr. Demarti noted the presence of a grass mound, a former 500,000-gallon capacity reservoir, and drainage ditch along Porter Road. CH2M HILL observed that the northwestern portion of the Property consisted of a grass field with a broad, gently sloping, mound that was approximately 6-8 feet higher in elevation than the surrounding property. Two concrete vaults, approximately 6-foot by 6-foot, are situated on top of the mound. Mr. Demarti noted that this area consisted of a UST farm and was not sure if it is on USARC property or if it is on the neighboring Niagara Frontier Transportation Authority (NFTA) property. According to Mr. Demarti, the USTs in this area are no longer in use.

The former 500,000-gallon capacity reservoir is located at the southeast corner of the Property and was previously used to contain water for fire suppression. According to Mr. Demarti, the reservoir was lined with concrete along with either rubber or plastic, and was surrounded by soil berms. The reservoir was abandoned around 1974, which is also about the same time that the neighboring airport was expanded. At the time of the site visit, the former reservoir consisted of a gravel lot. Mr. Demarti noted that he has periodically observed a white foamy substance flowing out of the storm sewer outfall near Porter Road. As described in Section 3.3, a 6-inch diameter pipe was found that connects this reservoir to a 24-inch diameter storm water pipe, which then discharges to the ditch that runs parallel to Porter Road.

Mr. Demarti noted that a USAR contractor (J.M. Waller and Associates) performs annual sampling of the storm water that flows from Outfall 5 located at the southeastern corner of the Property. Additional sediment sampling has also recently been performed along the storm water ditches that run along the eastern property boundary and parallel to Porter Road (see Section 3.3) (Photograph 1, Appendix D). There was also an excavation close to the location of the former reservoir near the southeast corner of the Property (Photograph 2, Appendix D). Additional information regarding this sampling was obtained from Christine Alba of J.M. Waller and Associates, and is presented in Section 3.3.

Mr. Demarti also mentioned that there had been a spill from a transformer. This spill was limited to a paved asphalt surface and remediation of the asphalt ground surface was

completed. He mentioned that there had been USTs that were previously removed and closed and provided the tank closure report for review.

Documents Reviewed

Mr. Demarti provided aerial photographs of the site from 1956, 1974, and 2006. He also provided the tank closure report.

3.2.3 Interview with Environmental Specialist

Interview Information

Name: Christine Alba
Title: Environmental Specialist, J.M. Waller and Associates, Inc., Supporting the 99th RSC North DPW, Environmental Division
Interview Date: May 8, 2009

As explained in **Section 3.2**, Mr. Demarti directed CH2M HILL to Christine Alba of J.M. Waller and Associates to obtain additional information regarding ongoing environmental activities at the Property.

Ms. Alba had no knowledge of a former landfill on the Property or on the adjacent properties; however, she provided CH2M HILL with annotated figures (Appendix E) that explain the rationale for the current environmental investigation (J.M Waller and Associates, 2009). According to Ms. Alba and the summary report, an oily substance was observed flowing from a 24-inch diameter corrugated pipe into a ditch that runs north-south along the eastern Property boundary. This ditch flows south into Outfall 5, which is located where the southeastern Property boundary meets Porter Road (Appendix E). The area around the 24-inch diameter pipe (approximately midway along the eastern Property boundary) was excavated and a 6-inch diameter cast iron pipe was found that connects into the 24-inch corrugated pipe. This 6-inch diameter pipe was shown on a historical utility drawing and appears to flow west to east from the former 500,000 gallon water reservoir (see Section 3.2 and Appendix E). The USAR contractor then inserted a video camera approximately 8 to 10 feet into the 6-inch pipe at which point a blockage kept the camera from advancing any further. The historical drawing (Appendix E) indicates that a drain valve may be present where the camera was blocked. The camera was then retrieved, and a sediment sample was collected from the location where the 6-inch pipe discharges into the 24-inch corrugated pipe. Analytical results from this sediment sample indicated that it contained 220 parts per million (ppm) Aroclor 1254 (a type of PCB), 0.58 ppm barium, 0.022 ppm cadmium, 0.011 ppm chromium, and 0.017 ppm lead. The pH of this sample was 10.5 standard units (su).

Following collection of the sediment sample, the 6-inch line was capped. An excavation was then performed around the location of the blockage in an attempt to confirm the presence of the drainage valve identified on the drawing. The excavation was stopped approximately 2 to 3-feet bgs after an oily substance was identified. A sample was collected from the oily substance and submitted to a laboratory for analysis of hazardous waste characteristics. The analytical results from this sample indicated 150,000 ppm No. 2 diesel fuel and 2.1 ppm Aroclor 1254. Another sample was also collected from a yellow substance that was identified downgradient, where the 24-inch corrugated pipe discharges into the ditch. This

yellow substance contained 2.81 parts per billion (ppb) Aroclor 1254 along with 0.132 ppm and 0.232 ppm barium and chromium, respectively; and had a pH of 10.8 su.

According to the summary report in Appendix E, planning efforts are underway to collect additional samples and conduct a remedial action.

Documents Reviewed

Ms. Alba provided annotated figures that document the current environmental investigation (J.M. Waller, 2009). This information is provided in Appendix E.

3.2.4 Interview with USACE Buffalo District

Interview Information

Name: Arleen Kreusch
Title: Defense Environmental Restoration Program (DERP)/Formerly Used Defense Sites (FUDS) Division at the USACE Buffalo District
Interview Date: April 23, 2009

CH2M HILL contacted Arleen Kreusch of the USACE Buffalo District to inquire if USACE has any knowledge of landfilling operations at the Property or in the general vicinity. Ms. Kreusch responded that USACE is not aware of any landfilling operations.

Documents Reviewed

No documents were acquired from the USACE Buffalo District.

3.2.5 Interview with Niagara Frontier Transportation Authority

Interview Information

Name: Kimberly Minkel
Title: Director, Health, Safety and Environmental Quality
Interview Date: May 8, 2009 and July 30, 2009

Kimberly Minkel is the Director, Health, Safety and Environmental Quality at the neighboring airport that is operated by NFTA. Ms. Minkel is familiar with the Property and its current use; however, she did not have information regarding a landfill on the Property or on the adjoining properties.

Ms. Minkel noted that NFTA performed a Phase I ESA on the airport site prior to starting the construction of a new terminal. CH2M HILL requested a copy of the completed Phase I site assessment, however it was not available at the time of the request. Ms. Minkel stated that the Phase I investigation did not find information indicating the presence of a landfill on the Property. .

3.2.6 Interview with the Town Assessor

Interview Information

Name: Darlene Sullivan
Title: Assessor, Town of Niagara Falls, New York
Interview Date: May 7, 2009

CH2M HILL contacted Darlene Sullivan to ascertain if the Town of Niagara Falls had any information confirming the presence of a landfill on the Property. Ms. Sullivan was unable to find anything on file for the Niagara Falls USARC. She was able to locate a file containing maps of the neighboring Niagara Falls Airport that also depicted the USARC. However, none of these maps indicated the presence of a landfill.

Ms. Sullivan did not have any knowledge of a former landfill on the Property or the adjacent properties.

Documents Reviewed

Ms. Sullivan provided a file review of historical maps that showed the boundary of the Property and adjacent properties.

3.2.7 Interview with the Town Historian

Interview Information

Name: Dorothy Rolling
Title: Historian, Town of Niagara Falls, New York
Interview Date: May 7, 2009

Ms. Rolling mentioned that the Property had been privately owned farmland until the U.S. Navy acquired it. The adjacent properties were also privately owned farms and were purchased over time as the Niagara Falls International Airport expanded. She stated that several areas along the Cayuga Creek were low lying wetlands that had been filled. There is a possibility that the landfill mentioned in the PA (see Section 1.1) actually consists of a location where wetlands were filled along Cayuga Creek; however, CH2M HILL was unable to obtain any other records that specify the methods used or the timing of this historical landfilling around Cayuga Creek.

Other than general information about historical landfilling along Cayuga Creek, Ms. Rolling did not have any specific knowledge about landfilling at the USARC.

Documents Reviewed

Ms. Rolling stated that she did not have custody or control over any relevant documents.

3.3 Additional Sources of Historical Information

In addition to the interviews, a review of historical maps was performed from the History Department at the Niagara Falls Public Library. There were no Sanborn maps available for this area. However, there were two historical maps on file that showed the Property and adjacent properties. A map of the Town of Niagara, compiled by the Niagara Frontier Planning Board in 1937, showed that the Property was part of a 64-acre parcel (Appendix A) owned by Francis McDonald. A map of the Town of Niagara from 1854 showed that the property was part of a 100-acre parcel owned by Tobias Witmer. These maps did not indicate the presence of a former landfill on the Property.

Additionally, Cayuga Creek does not appear to have changed based on a comparison of recent topographic maps (CH2M HILL, 2007) and the older 1937 and 1854 maps. During the

site walk, however, the land surface at the USARC was several feet higher in elevation than the bottom of the creek compared to the banks of Cayuga Creek on the south side of Porter Road. This indicates that the USARC may be constructed over fill material; however, the amount and extent of this fill material cannot be ascertained without cut and fill drawings or test pits.

SECION 4.0

User Reliance

This report has been produced under an agreement between CH2M HILL and the USACE Louisville District. Any reliance upon this document, or upon CH2M HILL's performance of services in preparing this document, is conditioned upon the relying party's acceptance and acknowledgement of the limitations, qualifications, terms, conditions, and indemnities set forth in the agreement between the parties, and property ownership/management disclosure limitations, if any. It is not to be relied upon by any party other than the United States Government, nor used for any purpose other than that specifically stated in Section 1.2 without advance and express written consent by CH2M HILL and USACE.

SECTION 5.0

Conclusions and Recommendations

5.1 Summary and Conclusions

Based on the information gathered during the site visit on May 7, 2009, and the interviews conducted between April 23 and May 8, 2009, no definitive evidence was obtained that confirms the presence of a landfill on the Property. According to the Town of Niagara Falls historian, low-lying areas and wetlands along Cayuga Creek are known to have been covered with fill material, although no definitive information was obtained to confirm this occurred on the Property. The 2007 ECP report (CH2M HILL, 2007) described the presence of non-uniform soils that were noted during the installation and repair of underground utilities; and these non-uniform soils may be the result of historical landfilling operations along the banks of Cayuga Creek either prior to or during the construction of USARC. The identification of non-uniform soil and information obtained from the town historian suggest that if a landfill is present, it is likely fill material used to cover low-lying areas along the banks of Cayuga Creek, as opposed to waste material.

Additional information found during the site visit noted the presence of sediments contaminated with PCBs, metals, and No. 2 diesel fuel; and the nature and extent of this contamination has yet to be fully defined.

5.2 Recommendations

Based on the results of additional records reviewed and interviews conducted as part of this supplemental assessment, if "landfilling" did occur on the Property, it is possible that it was associated with filling low lying areas adjacent to Cayuga Creek. This would explain the reported "non-uniform" soils encountered during excavation activities. There was nothing found during this supplemental records review or interviews to suggest that the Property had been used to dispose of waste material or trash. In terms of ECP property categorization, the 2007 ECP report assigned an ECP Area Type 7, which is an area or parcel of real property that is unevaluated or requires additional evaluation. This Type 7 classification was assigned, in part because of the reported presence of a landfill, as well as because of reported floor drain discharges directly into storm drains. Based on the results of this supplemental assessment, however, the Property classification remains a Type 7 (CH2M HILL, 2007) primarily because of the ongoing PCB contamination investigation..

SECTION 6.0

References

CH2M HILL, 2007. Final Environmental Condition of Property Report, Niagara Falls U.S. Army Reserve Center (NY046). June.

Engineering Technologies Associates, Inc. 1994. Final Preliminary Assessment of Niagara Falls Armed Forces Reserve Center. February.

J.M. Waller and Associates. 2009. Environmental Investigation Summary and Annotated figures. Provided to CH2M HILL on May 8, 2009.

Figures

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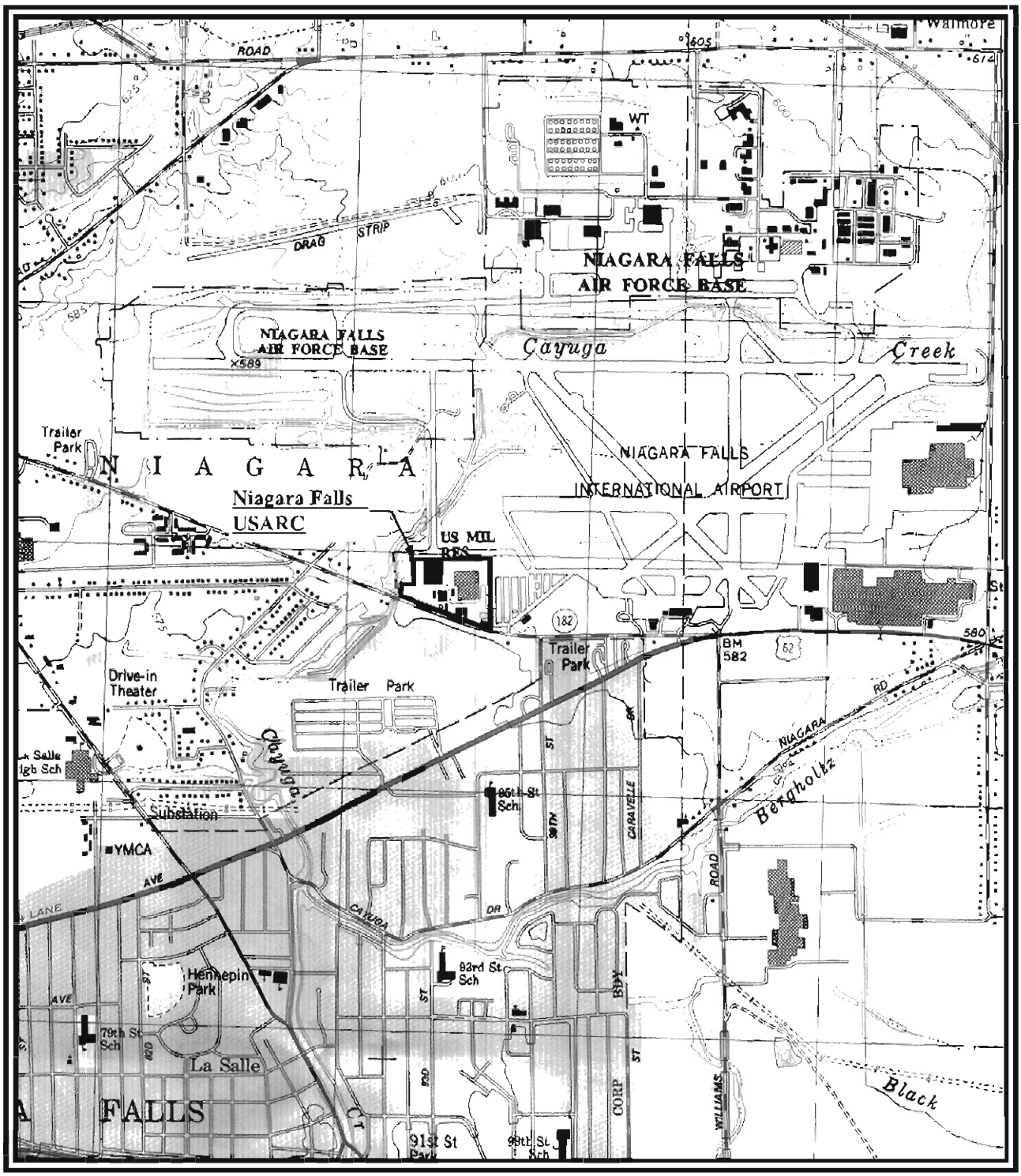

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1-2

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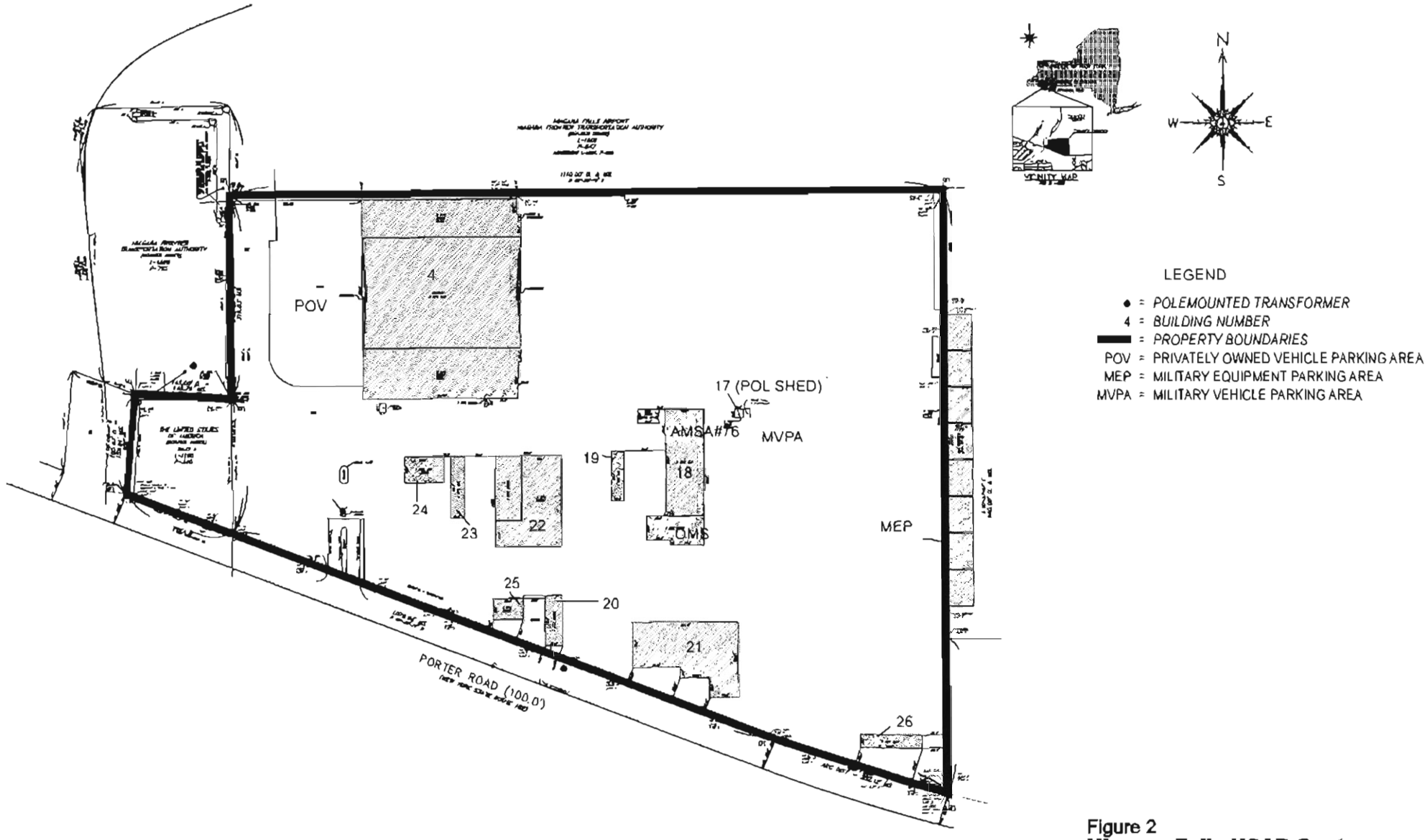
CONTOUR INTERVAL 5 FEET

Figure 1
Niagara Falls USAR Center
Site Location Map
United States Army Corps of Engineers
Louisville District
Louisville, Kentucky

SOURCE: Bowne AE&T Group, 2006

CH2MHILL

ES082006013MKE Niagara_Falls\Figure_1_Site_Location_Map_v4 9-26-06 cae



SOURCE: USACE

Not to Scale

Figure 2
Niagara Falls USAR Center
Site Layout Map
United States Army Corps of Engineers
Louisville District
Louisville, Kentucky

CH2MHILL

ES082006013MKE Niagara_Falls\Figure_2_Site_Layout_Plan_v8 1-17-07 cae

Appendix A
Interview Records

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Interview Record

Project: United States Army Reserve Center (USARC) - Supplemental Phase I Assessment
Site: Niagara Falls

Interview Date: April 23, 2009

Person Interviewed: Arleene Kreush – via telephone
Title: Defense Environmental Restoration Program (DERP)/Formerly Used Defense Sites (FUDS) Division at the USACE Buffalo District
Organization: USARC, Buffalo District

Interviewer: Nicole Wilbur - CH2M HILL

Knowledge of Current Property Use: Mrs. Kreush is familiar with the USARC.

Knowledge of Historical Property Uses: Mrs. Kreush was uncertain about past uses of the USARC property.

Knowledge of Storage, Disposal, or Use of Hazardous Materials on Property: Mrs. Kreush had no knowledge regarding the storage or disposal of hazard materials at the USARC.

Knowledge of Storage, Disposal, or Use of Hazardous Materials on Adjacent Properties: Mrs. Kreush is not aware of any landfilling operations at or near the USARC.

Knowledge of any Environmental Liens, Land use Restrictions, or Engineering Controls on Property: Mrs. Kreush had no knowledge of environmental liens, use restrictions, or engineering controls associated with the USARC.

Additional Information Pertaining to Environmental Condition of Property: Mrs. Kreush had no knowledge of a former dump or landfill site at the USARC.

Interview Record

Project: United States Army Reserve Center (USARC) - Supplemental Phase I Assessment
Site: Niagara Falls

Interview Date: May 7, 2009

Person Interviewed: Mr. Charles Demarti – in person
Title: Site Manager
Organization: United States Army Reserve Center, Niagara Falls, New York

Interviewer: Nicole Wilbur - CH2M HILL

Knowledge of Current Property Use: Mr. Demarti has worked at the USARC since 1981. He is familiar with the USARC and has a general knowledge of the site history.

Knowledge of Historical Property Uses: Mr. Demarti has a general knowledge of the site history. He provided historical aerial photographs of the site from 1957, 1974, and 2006. Mr. Demarti mentioned that the large hanger that is shown in the photograph from 1957 had burned down. The foundation from the hanger was buried and during construction activities that followed, was uncovered and removed in the areas being developed. Mr. Demarti informed CH2M HILL of a tank farm located on the northeast potion of the site. He noted that it is no longer actively used, but that the tanks are still in place. Mr. Demarti also informed CH2M HILL of environmental work that was being completed on the west side of the site near the storm sewer. He did not have information regarding a landfill or former dump site on the Property.

Knowledge of Storage, Disposal, or Use of Hazardous Materials on Property: Mr. Demarti informed CH2M HILL that there was possible contamination in the storm sewer at the southwest portion of the site. He stated that there had been some excavating and soil sampling completed by an Environmental Specialist contracted by the 99th RSC. He also stated that there had previously been underground storage tanks that onsite that were closed and removed. He provided a report summarizing the closure and removal of these tanks. Mr. Demarti said that there were still tanks located in the northeast portion of the site that may no longer be in use. He also stated that there was a fluid spill from a transformer prior to the replacement of the USARC transformers. He did not have any other information regarding the storage or disposal of hazard materials on the site.

Knowledge of Storage, Disposal, or Use of Hazardous Materials on Adjacent Properties: Mr. Demarti had no knowledge regarding hazardous materials use on adjacent properties.

Knowledge of any Environmental Liens, Land use Restrictions, or Engineering

Controls on Property: Mr. Demarti did not have any knowledge of environmental liens and use restrictions, or engineering controls associated with the USARC.

Additional Information Pertaining to Environmental Condition of Property: Mr. Demarti did say that he had spoken with an individual from the area who though Bell Aero may have owned the property prior to the US Navy. After further investigation, this was found to be incorrect. He did not have any knowledge regarding any former dump or landfill site on the Property.

Interview Record

Project: United States Army Reserve Center (USARC) - Supplemental Phase I Assessment
Site: Niagara Falls

Interview Date: May 8, 2009

Person Interviewed: Ms. Christine Alba – via telephone
Title: Environmental Specialist
Organization: J.M. Waller and Associates, Inc., Supporting the 99th RSC North DPW, Environmental Division

Interviewer: Nicole Wilbur - CH2M HILL

Knowledge of Current Property Use: Ms. Alba is familiar with the USARC and has been performing environmental work at the USARC.

Knowledge of Historical Property Uses: Ms. Alba was uncertain of historical property uses. She did not have information regarding a landfill or former dump site on the USARC, or the adjoining properties.

Knowledge of Storage, Disposal, or Use of Hazardous Materials on Property: Ms. Alba stated that there had been several underground storage tanks at the USARC that had been closed and removed. She did not have any knowledge regarding the storage or disposal of hazard materials.

Knowledge of Storage, Disposal, or Use of Hazardous Materials on Adjacent Properties: Ms. Alba had no knowledge regarding hazardous materials use or disposal on adjacent properties.

Knowledge of any Environmental Liens, Land use Restrictions, or Engineering Controls on Property: Ms. Alba stated that the USARC is permitted to discharge storm water to the Town of Niagara storm sewer. The details of this permit were not discussed. She did say that the storm sewer outfall is sampled annually; and due to detections of PCBs, environmental work had begun on the site including soil sampling and excavating.

Additional Information Pertaining to Environmental Condition of Property: Ms. Alba did not have any knowledge of a former landfill or dump site at the USARC. She did state that during an excavation it was determined that there was a pipeline connected from the area of the former reservoir to the storm sewer, which was the source of the PCBs to the storm water. That pipeline has now been sealed.

Interview Record

Project: United States Army Reserve Center (USARC) - Supplemental Phase I Assessment
Site: Niagara Falls

Interview Date: May 7, 2009

Person Interviewed: Mrs. Darlene Sullivan – in person
Title: Assessor for the Town of Niagara
Organization: Town of Niagara, New York

Interviewer: Nicole Wilbur - CH2M HILL

Knowledge of Current Property Use: Mrs. Sullivan was familiar with the location and use of the USARC.

Knowledge of Historical Property Uses: Mrs. Sullivan did not locate a file for the USARC, but was able to find information in the file for the neighboring Niagara Falls International Airport that adjoined the USARC. There were a few maps in the file that showed the location of the USARC and bordering properties and roadways.

Knowledge of Storage, Disposal, or Use of Hazardous Materials on Property: Mrs. Sullivan had no knowledge of any hazardous materials or dumping at the USARC. There was no information in the Niagara Falls International Airport file that indicated the presence of hazardous materials or former landfill at the USARC.

Knowledge of Storage, Disposal, or Use of Hazardous Materials on Adjacent Properties: Mrs. Sullivan had no knowledge regarding hazardous materials use on adjacent properties. There was no information in the file that indicated the use of hazardous materials on adjacent properties.

Knowledge of any Environmental Liens, Land use Restrictions, or Engineering Controls on Property: Mrs. Sullivan had no knowledge of environmental liens and use restrictions, or engineering controls associated with the USARC.

Additional Information Pertaining to Environmental Condition of Property: Mrs. Sullivan indicated that the USARC has been used by the United States military since she was born. She recommended contacting the Town Historian, Dorothy Rolling and provided her contact information.

Interview Record

Project: United States Army Reserve Center (USARC) - Supplemental Phase I Assessment
Site: Niagara Falls

Interview Date: May 7, 2009

Person Interviewed: Mrs. Dorothy Rolling – via telephone
Title: Town Historian
Organization: Town of Niagara Falls, New York

Interviewer: Nicole Wilbur - CH2M HILL

Knowledge of Current Property Use: Mrs. Rolling is familiar with the USARC and has a general knowledge of the site history and the adjoining properties.

Knowledge of Historical Property Uses: Mrs. Rolling stated that the USARC and the adjoining properties had been privately owned farm land prior to the airport and the US Military. She did not have information regarding a landfill or former dump site on the USARC, or the adjoining properties. Mrs. Rolling also said that landfilling had occurred at locations along Cayuga Creek. Cayuga Creek borders the USARC on the west and was once surrounded by wetlands and low lying land.

Knowledge of Storage, Disposal, or Use of Hazardous Materials on Property: Mrs. Rolling had no knowledge regarding the storage or disposal of hazard materials at the USARC.

Knowledge of Storage, Disposal, or Use of Hazardous Materials on Adjacent Properties: Mrs. Rolling had no knowledge regarding hazardous materials use or disposal on adjacent properties.

Knowledge of any Environmental Liens, Land use Restrictions, or Engineering Controls on Property: Mrs. Rolling had no knowledge of environmental liens, use restrictions, or engineering controls associated with the USARC.

Additional Information Pertaining to Environmental Condition of Property: Mrs. Rolling had no knowledge of a former dump or landfill site at the USARC.

Interview Record

Project: United States Army Reserve Center (USARC) - Supplemental Phase I Assessment
Site: Niagara Falls

Interview Date: April 23, 2009

Person Interviewed: Greg Sutton – via telephone
Title: New York State Department of Environmental Conservation (NYSDEC) Project Manager
Organization: NYSDEC, Region 9

Interviewer: Nicole Wilbur and Brian Wied - CH2M HILL

Knowledge of Current Property Use: Mr. Sutton is familiar with the USARC and has a general knowledge of the site history and the adjoining properties.

Knowledge of Historical Property Uses: Mr Sutton was uncertain about past uses of the USARC property.

Knowledge of Storage, Disposal, or Use of Hazardous Materials on Property: Mr. Sutton had no knowledge regarding the storage or disposal of hazard materials at the USARC.

Knowledge of Storage, Disposal, or Use of Hazardous Materials on Adjacent Properties: Mr. Sutton Sutton indicated that he was not aware of any landfill on the Property. However, he mentioned that there is a landfill near the Property, adjacent to the corner of Porter Road and Tuscarora Road. This landfill (NYSDEC Site Number 932056a), is also referred to as the Diabacco site and operated from approximately the 1970's to the 1980's. The Diabacco site is now closed.

Knowledge of any Environmental Liens, Land use Restrictions, or Engineering Controls on Property: Mr. Sutton had no knowledge of environmental liens, use restrictions, or engineering controls associated with the USARC.

Additional Information Pertaining to Environmental Condition of Property: Mr. Sutton had no knowledge of a former dump or landfill site at the USARC.

Interview Record

Project: United States Army Reserve Center (USARC) - Supplemental Phase I Assessment
Site: Niagara Falls

Interview Date: May 8, 2009 and July 30, 2009

Person Interviewed: Kimberly Minkel – via telephone
Title: Director, Health Safety & Environmental Quality
Organization: Niagara Frontier Transportation Authority (NFTA)

Interviewer: Nicole Wilbur and Brian Wied - CH2M HILL

Knowledge of Current Property Use: Mrs. Minkel is familiar with the USARC and its current use.

Knowledge of Historical Property Uses: Mrs. Minkel does have a general knowledge of the site history. However, she indicated that a recently completed Phase I ESA did not reveal information indicating the presence of a landfill or former dump site at the USARC.

Knowledge of Storage, Disposal, or Use of Hazardous Materials on Property: Mrs. Minkel had no knowledge of the storage or disposal of hazardous materials at the USARC.

Knowledge of Storage, Disposal, or Use of Hazardous Materials on Adjacent Properties: Mrs. Minkel had no knowledge regarding hazardous materials use or disposal on adjacent properties.

Knowledge of any Environmental Liens, Land use Restrictions, or Engineering Controls on Property: Mrs. Minkel had no knowledge of environmental lines, use restrictions, or engineering controls on the property.

Additional Information Pertaining to Environmental Condition of Property: Mrs. Minkel stated that the NFTA did have a Phase I ESA performed on the airport site prior to starting the construction of the new terminal. She asked the consultant for NFTA, Peter Gorton of Panamerican, to share the results of that report with CH2M HILL, however, at the time of this report, this Phase I ESA was not made available to CH2M HILL.

Appendix B
NYSDEC FOIL Response Letter

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New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 9
270 Michigan Avenue, Buffalo, New York, 14203-2999
Phone: (716) 851-7220 • **FAX:** (716) 851-7226
Website: www.dec.~~state~~ny.~~us~~ gov

Alexander B. Grannis
Commissioner

FACSIMILE COVER LETTER

PLEASE DELIVER THIS AND THE FOLLOWING PAGES TO:

NAME: Nicole

COMPANY: CH2M Hill FAX: 414/272-4408

SENDER: S. Zemka

DATE: 4-29-09

NUMBER OF PAGES (INCLUDING COVER SHEET) 24
If transmission is not complete, please call (716) 851-7220.

MESSAGE: Per your request, attached is file PBS # 9-008877.

CONFIDENTIALLY NOTICE

THIS TRANSMISSION WAS INTENDED SOLELY FOR THE INDIVIDUAL OR ENTITY TO WHOM IT IS ADDRESSED AND MAY CONTAIN INFORMATION WHICH IS CONFIDENTIAL OR PROTECTED BY PRIVILEGE. IF YOU ARE NOT THE INTENDED RECIPIENT, PLEASE CONTACT THE SENDER TO ARRANGE FOR THE RETURN OR OTHER DISPOSITION OF THE TRANSMISSION.

(pbsnewy_sept03)

New York State Department of Environmental Conservation
Division of Environmental Remediation

Petroleum Bulk Storage Application

Pursuant to the Petroleum Bulk Storage Law,
Article 17, Title 10 of ECL, 6 NYCRR 612-614 and 6 NYCRR, Subpart 360-14

Section A

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

Return Completed Form & Fees To:
NYSDEC - PBS Unit
Region 9 — 270 Michigan Avenue
Buffalo, NY 14203-2999
(716) 851-7220

Expiration Date: 01/17/2006

Please Type or Print Clearly and Complete All Items

PBS Number
9-008877

DEC CBS Number: (If applicable)

DEC SPDES Number: (If applicable)

Transaction Type
(Check all that apply)
NOTE: Transaction Types 1, 2 and 5 may require a fee

- [ ] 1) Initial/New Facility
- [ ] 2) Change of Ownership
- [ ] 3) Substantial Tank Modification
- [ ] 4) Information Correction
- [X] 5) Renewal

FACILITY

Facility Name: NIAGARA FALLS AFRC/AMSA 876(O)
Location (Not P.O. Boxes): 9400 PORTER RD
Location (cont.):
City: NIAGARA FALLS | State: NY | Zip Code: 14304-1698
County: Niagara | Township or City: Niagara Falls (c)
Name of Operator of Facility: ~~MR HOGAN~~ Mr. Pat Patterson | Facility Telephone Number: (716) 297-7200
Emergency Contact Name: PAUL BERTRAND | Emergency Telephone Number: (718) 352-2092

OWNER

Owner Name: 77TH REGIONAL SUPPORT COMMAND
Address (Street and/or P.O.): AFRC-CNY-EN, BLDG 200
City: FORT TOTTEN | State: NY | Zip Code: 11359-1016
Federal Tax ID Number: *** 35-1580470 | Owner Telephone Number: (718) 352-5624
Type of Owner: 1 [ ] Private Resident; 2 [ ] State Government; 3 [ ] Local Government; 4 [X] Federal Government; ~~5 [X] Corporate/Commercial~~

TYPE OF PETROLEUM FACILITY (Check only one)

- [ ] 01=Storage Terminal/Petroleum Distributor
- [ ] 02=Retail Gasoline Sales
- [ ] 03=Other Retail Sales
- [ ] 04=Manufacturing
- [ ] 05=Utility
- [ ] 06=Trucking/Transportation
- [ ] 07=Apartment Building
- [ ] 08=School
- [ ] 09=Farm
- [ ] 10=Private Residence
- [ ] 11=Airline/Air Taxi
- [ ] 12=Chemical Distributor
- [ ] 13=Municipality
- [ ] 14=Refinery Residence
- [ ] 15=Railroad
- [ ] 16=Vessel/Barge
- [X] 99=Other (Specify): U.S. Army Reserve

I hereby certify under penalty of perjury that the information provided on this form is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Name of Owner or Authorized Representative: *** CHARLES E. JOHNSON | Amount Enclosed: $
Title: REGIONAL ENGINEER
Signature: *** Charles E. Johnson | Date: 8 NOV 05

***** Application will be returned if these items are blank**

CORRESPONDENCE

(Please keep up to date - this information is used for mailing and contact purposes)

Attention: ENVIRONMENTAL DIVISION
Name of Company: 77TH REGIONAL SUPPORT COMMAND
Address: AFRC-CNY-EN
Address: BUILDING 200
City/State/Zip Code: FORT TOTTEN NY 11359-1016
Telephone Number: (718) 352-2092 | E-mail Address:

OFFICIAL USE ONLY

Page 1 of 2
Date Received 11/18/05
Date Processed 11/18/05
Amount Received $
Reviewed by LS

04/29/08 WED 09:58 FAX 716 851 7228 NYS DEC--DER/SEDI 002

04/29/09 WED 09:59 FAX 716 851 7228 NYS DEC--DER/SBM

PBS Number:
9-008877

Section B - Tank Information

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

Registration Expiration Date:
1/17/2006

(1) Action	(2) IMPORTANT! Tank number is required. If tank and piping models are entered into the tanks, columns 3 through 7 (Tank and piping model codes are on the PBS Inventory Sheet provided) DO NOT have to be completed. Tank Model	Piping Model	Tank Number	(3) Tank Location	(4) Status	(5) Installation or Permanent Closure Date (Month/Day/Year)	(6) Capacity (Gallons)	(7) Product Stored	(8) Tank Type	(9) Tank Internal Protection	(10) External Protection	(11) Tank Construction	(12) Tank Leak Detection	(13) Tank Overfill Prevention	(14) Tank Spill Prevention	(15) Tank Dispenser	(16) Piping Location	(17) Piping Type	(18) Secondary Containment	(19) Piping Leak Detection	(20) Piping Leak Detection	(21) Last Test Date/ Testing Due Date (Underground Tanks) Last Test	Next Test
			WO9	3	1	9/1/1999	528	0022	01	00	01	04	99	04		02	00	00	00		09		

Action (1)
1. Initial Listing
2. Add Tank
3. Close/Remove Tank
4. Information Correction
5. Reconditioned/Repair/Reline Tank

Tank Location (3)
1. Aboveground-contact w/soil
2. Aboveground-contact w/ impervious barrier
3. Aboveground on saddles, legs, stilts, rack, or cradle
4. Aboveground with 10% or more below ground
5. Underground
6. Underground, vaulted, [illegible]

Status (4)
1. In-service
2. Temporarily out-of-service
3. Closed-Removed
4. Closed- In Place
5. Tank converted to Non-Regulated use

Product Stored (7)
0000. Empty
0001. #2 Fuel Oil
0002. #4 Fuel Oil
0003. #6 Fuel Oil
0011. Jet Fuel
0008. Diesel
0009. Gasoline
0012. Kerosene
0013. Lube Oil
0022. Waste/Used Oil
0259. #5 Fuel Oil
2642. Used Oil (Fuel)
[illegible]

Tank Type (8)
01. Steel/Carbon Steel/Iron
02. Galvanized Steel Alloy
03. Stainless Steel Alloy
04. Fiberglass Coated Steel
05. Steel Tank in Concrete
06. Fiberglass Reinforced Plastic (FRP)
07. Plastic
08. Equivalent Technology
09. Concrete
10. Urethane Clad Steel
99. Other-please list:*

Internal Protection (9)
00. None
01. Epoxy Liner
02. Rubber Liner
03. Fiberglass Liner (FRP)
04. Glass Liner
99. Other-please list:*

External Protection (10/18)
00. None
01. Painted/Asphalt Coating
02. Original Sacrificial Anode
03. Original Impressed Current
04. Fiberglass
05. Jacketed
06. Wrapped (Piping)
07. Retrofitted Sacrificial Anode
08. Retrofitted Impressed Current
09. Urethane
99. Other-please list:*

Tank Leak Detection (12)
00. None
01. Interstitial Electronic Monitoring
02. Interstitial Manual Monitoring
03. Vapor Well
04. Groundwater Well
05. In-Tank System (ATG)
06. Impervious Barrier/Concrete Pad (A/G)
99. Other-please list:*

Piping Type (17)
00. None
01. Steel/Carbon Steel/Iron
02. Galvanized Steel
03. Stainless Steel Alloy
04. Fiberglass Coated Steel
05. Steel Encased in Concrete
06. Fiberglass Reinforced Plastic (FRP)
07. Plastic
08. Equivalent Technology
09. Concrete
10. Copper
11. Flexible Piping
99. Other-please list:*

Overfill Prevention (13)
00. None
01. Float Vent Valve
02. High Level Alarm
03. Automatic Shut-off
04. Product Level Gauge(A/G)
05. Vent Whistle
06. [illegible]

Secondary Containment (11/19)
00. None
01. Diking (A/G)
02. Vault (w/access)
03. Vault (w/o access)
04. Double-Walled (U/G)
05. Synthetic Liner
06. Remote Impounding Area
07. Excavation/Trench Liner System
08. Flexible Internal Liner (Bladder)
09. Modified Double-Walled (A/G)
10. Impervious Underchemical
11. Double Bottom (A/G)
99. Other-please list:*

Spill Prevention (14)
00. None
01. Catch Basin
02. Transfer Station Containment
99. Other-please list:*

Piping Location (16)
00. No Piping
01. Aboveground
02. Underground/On-ground
03. Aboveground/Underground Combination

Pipe Leak Detection (20)
00. None
01. Interstitial Electronic Monitoring
02. Interstitial Manual Monitoring
03. Vapor Well
04. Groundwater Well
07. Pressurized Piping Leak Detector
08. Tank Top Sump (Piping)
09. Exempt Suction Piping
99. Other-please list:*

Dispenser (15)
00. None
01. Submersible
02. Suction
03. [illegible]

DEPARTMENT OF THE ARMY
HEADQUARTERS
UNITED STATES ARMY 77TH REGIONAL SUPPORT COMMAND
FORT TOTTEN
FLUSHING, NY 11359-1016

REPLY TO
ATTENTION OF

RECEIVED
SEP 15 1999
NYSDEC - REG. 9
FOIL
__REL __UNREL

September 10, 1999

Office of the Deputy Chief of Staff,
Engineer

New York State
Department of Environmental Conservation
270 Michigan Ave.
Buffalo, NY 14203
ATTN: Petroleum Bulk Storage

Dear NYSDEC Region 9:

Enclosed please find the Petroleum Bulk Storage Application for the Amherst, Gerry, Niagara Falls, and Tonawanda United States Army Reserve Centers. The 5 UST's are associated with oil water separators for vehicle wash racks, and will be removed during the next 30 days. The discharge to septic tank, SPDES ID number 9-0644-00035/00001, associated with the Gerry USARC wash rack, will be closed according to EPA drywell closure procedures. The following schedule of UST removals has been set up and will be followed as long as there are no unforeseen delays:

PFC Deglopper USARC, Tonawanda, September 14, 1999
Amherst USARC, September 15, 1999
Niagara Falls AFRC, September 20, 1999
Gerry USARC, October 6, 1999

Please contact Dick Ramsdell at (718)352-2091 if you have any questions regarding these tank removals.

Sincerely,

for A. N. Thomas LTC, EN

Anthony J. Billelo
Lieutenant Colonel, U.S. Army Reserve
Acting Deputy Chief of Staff, Engineer

Enclosures

Syverdrup

Syverdrup Civil, Inc.
676 South Chimes Street
Suite 401
Baltimore, Maryland 21201

410 837-5840
FAX: 410 837-5777

September 7, 1999

Andrea Skalski
NYSDEC Region 9
270 Michigan Ave.
Buffalo, NY 14203

9-008877
Niagara Falls
Form

Dear Ms. Skalski:

This letter is to inform you of upcoming UST removal activities in the DEC Region 9. The schedule below is provided for your information:

Date	Tank Size	Material	Product	Site Address
9/14/99	550 Gal.	FRP	Waste Oil	Deglopper United States Army Reserve Center 2393 Colving Blvd. Tonawanda, NY 14150 9-008869
9/15/99	550 Gal.	FRP	Waste Oil	Amherst United States Army Reserve Center 100 N. Forest Rd. Amherst, NY 14221 9-008850
9/20/99	550 Gal.	FRP	Waste Oil	Niagara Falls United States Army Reserve Ctr 9400 Porter Rd. Niagara Falls, NY 14304 9-008877
9/23/99	1,000 Gal.	FRP	Waste Oil	Niagara Falls United States Army Reserve Ctr 9400 Porter Rd. Niagara Falls, NY 14304 9-008877

Should this schedule change I will inform you at the earliest possible date. Should you have any questions please do not hesitate to contact myself or Chris Stone at 410-837-5840. I will be the Site Superintendent for this work and I can be reached via cellular phone at 443-463-5429.

Sincerely,

Robert F. Gribben Jr.
Site Manager

cc: Chris Stone

Received 7/10/95

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

PETROLEUM BULK STORAGE APPLICATION

REGION # 9

SECTION A—Instructions on Back

APPLICATION NUMBER: 15581

TRANSACTION TYPE (Check one):
1. ☐ Registration
2. ☐ Renewal
3. ☐ Transfer, Existing PBS Number
4. ☐ Supplier Registration Only
5. ☐ Information Correction

PBS NUMBER: 00X677

OFFICIAL USE ONLY

Page 1 of 1

SIC Code: 291100

Date Received: 4/3/86

Amount Enclosed: $250.00

Processed by: Robert Gray

1. NAME OF FACILITY: Armed Forces Reserve Center
2. ADDRESS (Number and Street): 9400 Porter Road
3. CITY, TOWN, VILLAGE: Niagara Falls
4. STATE: NY
5. ZIP CODE: 14304
6. COUNTY: Erie Niagara
7. TELEPHONE: (716) 297-4993
8. NAME OF OWNER: Cdr
9. ADDRESS (Number and Street): 10th Mcd Div (LZ) & Ft Drum, ATTN: AFZS-EK-8
10. CITY, TOWN, VILLAGE: Ft Drum
11. STATE: NY
12. ZIP CODE: 13602-5000
13. TELEPHONE: (315) 785-5798
14. NAME OF OPERATOR: - Same as Above - Same as Facility above
15. ADDRESS (Number and Street):
16. CITY, TOWN, VILLAGE:
17. STATE:
18. ZIP CODE:
19. TELEPHONE: ( )
20. NAME OF EMERGENCY CONTACT: Ray Olsen
21. ADDRESS (Number and Street): 1385 Caravelly Drive
22. CITY, TOWN, VILLAGE: Niagara Falls
23. STATE: NY
24. ZIP CODE: 14304
25. TELEPHONE: (315) 297-4161

I hereby affirm under penalty of perjury, that information provided on this form is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

26. NAME/TITLE OF REPRESENTATIVE: HAROLD W. WAGNER, JR., LTC, CE, DAH

27. SIGNATURE: [signature]

28. DATE: 13 Feb 86

SECTION B—Instructions on Back

Action	Tank Number	Location	Capacity	Tank Type	Primary Shape	Status	Installation Date	Tank Direction	Secondary Containment	Primary Shape	Piping Type	Dispenser	Tank Attached Equipment	Internal Use Only
1	7A	1	1			1	08	01	1	3	06	65	66	2
1	8A	2	2			1	08	08	1	3	06	65	66	2
1	8A	2	2			1	00	00	1	3	06	65	66	2

Not in use by Depot, AL

Contact Tyrone

Pat Patterson

(716) 217-7909

KEY FOR SECTION B (Instructions on back)

ACTION
1 Registration (RF)
2 Add Tank
3 Change Tank Data
4 Modify Tank

LOCATION
1 Underground
2 Underground under building
3 Underground under, no access
4 Aboveground
5 Aboveground on dike, etc.
6 Aboveground — POE
7 Underground — POE

TANK TYPE
1 Bare steel or steel with bare steel underground piping
2 Steel in vault
3 Steel with cathodic protection
4 Fiberglass coated steel
5 Fiberglass reinforced plastic
6 Steel in building

PRODUCT STORED
1 Leaded gasoline
2 Unleaded gasoline
3 Non-A, 2 or 4 fuel oil
4 Non-A or C hot oil
5 Kerosene
6 Diesel
7 Other

STATUS
1 In service
2 Temporarily out
3 Permanently out

INSTALLATION DATE
Use actual installation date

LEAK DETECTION SYSTEM
1 Electronic
2 Vapor well
3 Sampling well
4 Inventory system
5 Other
6 None

SECONDARY CONTAINMENT
1 Dike
2 Vault
3 Double wall tank
4 Underground liner
5 Other
6 None

PRODUCT GAUGE
0 None
1 Gauge

PIPING TYPE
1 Steel
2 Galvanized Steel
3 Galvanized Steel
4 Fiberglass
5 Cathodically protected
6 Double walled
7 Unknown

DISPENSER METHOD
1 Submersible
2 Suction
3 Gravity
4 Combination

DESIGN

April 25, 1990

CDR
Attn: AFZS-EH-E
10th Mtn. Div. (LI) & Fort Drum
Fort Drum, New York 13602-5000

Dear Sir:

PBS Numbers 008869 and 008877

This is in regards to your underground petroleum storage tanks at 2393 Colvin Boulevard in Tonawanda, New York, and 9400 Porter Road in Niagara Falls, New York. A recent review of our records indicates that tanks #SD1, #RA1, #RA2, and #RA3 were due for testing in December 1987; yet to this date, this office has not received reports of such tests. This Department requests that you have the tanks tested by June 1, 1990, and have copies of the test reports forwarded to this office.

Your cooperation on this matter is appreciated. If you have any questions concerning this matter, I can be contacted at this office at (716) 847-4590.

Sincerely,

John F. Otto
Engineering Technician

JFO:vu

New York State Department of
Environmental Conservation
600 Delaware Avenue
Buffalo, New York 14202

Attn: Robert Locey, Jr.
Engineer

Re: Notification of Removal of
Underground Storage Tanks

Dear Mr. Locey:

This is to notify you that I intend to remove the petroleum storage tank, identified below, on or around the date indicated.

Tank Owner: U.S. Army

Name of Facility: Armed Forces Reserve Center

Address: 9400 Porter Rd.
Niagara Falls New York

Size of Tank(s): 1500 Gallons THIS TANK WAS REGISTERED A: A 3000 gal.

Gallons

Material Stored: Gasoline

Date Removal Planned: 7-3-90

Name of Contractor: The Environmental Service Group Inc.
Box 242, 567 Vickers St.
Tonawanda, N.Y. 14150
695-6720

The removal of the storage tank will comply with Part 613.9 6 NYCRR (attached).

Signed [signature]

Title Operations Manager

Jim Wehman

cancelled
will pull week of 7/9/90

PBS INSPECTION FORM

Facility Name: Armed Forces Reserve Ctr. PBS #: 008877

Address: 9400 Porter Rd Inspection Date: 7/12/90

City/Town: Niagara Falls Inspector: [illegible]

Contact: Pat Patterson

Checklist

yes	no	N/A		
			1. Registration	
X			Is the facility registered?	
	X		Is the PBS certificate posted?	
			Is the certificate accurate?	
X			Should another certificate be issued?	
			2. Tank Tightness Testing	UST will be removed
	X		Is the facility up-to-date on testing?	7/12/90
			If not, which tanks are overdue? ____, ____, ____, ____	
		X	Did any of the tanks fail any tests?	
		X	If so, were the failures reported to DEC?	
			3. Inventory Monitoring Requirements	
X			Are inventory records being maintained? ___daily X other	WK
	X		Do the records meet the requirements of Part 613.4(a)?	
	X		Do the records indicate a problem? ___loss ___gain	
	X		Does the operator check for water? ___daily ___weekly	
	X		Has there been a problem with water in the past?	
			4. Miscellaneous/General	
	X		Any apparent spills on site? area effected ____	
	X		Have there been any spills in the past?	
X		X	If so, were the spills reported? to whom? 500 + 500	
X			Are there any waste oil tanks? size? ____' ____	
X			Is the "housekeeping" satisfactory/adequate?	fair
		X	Is any clean up effort/action required?	
			5. Upgrading Due December 27, 1990	
		X	Are fill ports properly color-coded?	
		X	Do 10,000 gallon A/G tanks have adequate secondary cont.?	
		X	Do all A/G tanks have gauges or high level alarms?	
		X	Design and working cap., ID # marked on tank near gauge?	
		X	Do remote pumping systems have shear valves at dispensers?	
		X	Are monitoring wells clearly marked as such?	
			6. Federal Requirements	
X	X		Does facility have SPCC plan signed by a P.E.?	
X			Has facility complied with financial resp. requirements?	
			Do waste oil tanks require upgrading?	

Follow-up/Remarks

10:30 - 11 Pat Patterson - UG TANK TO BE REMOVED

2 (20000) AG drained but not closed 7/12/90

1 small aboveground (500) to be removed by fall

per April 25
per June 1

REGION - 7

A—Instructions on Back

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

PETROLEUM BULK STORAGE APPLICATION

SECTION B—Instructions on Back.

APPLICATION NUMBER: 15581

TRANSACTION TYPE (Check one)
1 ☒ Registration
2 ☐ Transfer
3 ☐ Transfer, Existing PBS Number
4 ☐ Subsequent / Additional Registration
5 ☐ Information Correction

PBS NUMBER: 008877

1. NAME OF FACILITY: Armed Forces Reserve Center
2. ADDRESS (Number and Street): 9600 Porter Road
3. CITY, TOWN, VILLAGE: Niagara Falls — 4. STATE: NY — 5. ZIP CODE: 14304
6. COUNTY: Niagara — 7. TELEPHONE: (716) 297-4991
8. NAME OF OWNER: GSA
9. ADDRESS (Number and Street): 10th Mon Div (LL) & Ft Drum, ATTN: AFZS-EH-E
10. CITY, TOWN, VILLAGE: Ft Drum — 11. STATE: NY — 12. ZIP CODE: 13602-5000
13. TELEPHONE: (315) 785-5708
14. NAME OF OPERATOR: - Same as Above - Same as facility above
15. ADDRESS (Number and Street):
16. CITY, TOWN, VILLAGE: — 17. STATE: — 18. ZIP CODE:
19. TELEPHONE:
20. NAME OF EMERGENCY CONTACT: Roy Olsen — Pat Pace 50N
21. ADDRESS (Number and Street): 1385 Coravelly Drive — 297-7907
22. CITY, TOWN, VILLAGE: Niagara Falls — 23. STATE: NY — 24. ZIP CODE: 14304
25. TELEPHONE: (716) 297-4161

I hereby affirm under penalty of perjury, that information provided on this form is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

26. NAME/TITLE OF REPRESENTATIVE: HAROLD W. HAGNER, JR., LTC, CE, DEH
27. SIGNATURE: [signature] — DATE: 13 Feb 86

ACTION	TANK NUMBER	LOCATION	EXPIRATION	TANK TYPE	PRODUCT STORED	STATUS	INSTALLATION DATE	LEAK DETECTION	TANK CAPACITY	MATERIAL CODE	PIPING TYPE	DISPENSER	TANK OPERATOR	OTHER INFORMATION
1	RA22		2000	1	3	1	06	65		66	12			
1	RA22		2000	1	3	1	06	65		66	12			

NOT IN USE 2 years

KEY FOR SECTION B (Instructions on back)

ACTION
1 Registration including tank
2 Add Tank
3 Change/Remove Tank
4 Modify Tank

LOCATION
1 Underground
2 Underground manway with sump
3 Underground manway in sump
4 Aboveground
5 Aboveground on grade, tile
6 Aboveground - fully or partially below ground

TANK TYPE
1 Bare steel or steel with heavy asphalt coating
2 Steel in vault
3 Steel with layer of wood above steel
4 Non-corrosive tank (fiberglass, polyethylene)
5 Steel with external protective coating
6 Fiberglass coated steel
7 (Reinforced) fiberglass pressure
8 Double walled

PRODUCTS STORED
1 Gasoline products
2 Diesel, kerosene, fuel oil
3 Used oil
4 Waste oil
5 Aviation
6 Marine
7 Other

STATUS
1 In service
2 Temporarily out
3 Permanently out

INSTALLATION DATE
Tank location
Month/year installed

LEAK DETECTION METHOD
1 Inventory
2 Vapor well
3 Sump leak well
4 Liquid sensors
5 Other
6 None

RECONDITIONING CONTRACTOR
1 Chemical
2 Vapor
3 Double wall tank
4 Underground tank
5 Other
6 None

PRODUCT GAUGE
1 Tank
2 Other

PIPING TYPE
1 Pressure
2 Gravity feed
3 Pressure feed
4 Flexible
5 Cathodically protected
6 Double walled
7 Unknown

DISPENSER METHOD
1 Gravity
2 Pump
3 Other
4 Hand operated

REGION

DEPARTMENT OF THE ARMY
HEADQUARTERS, 10TH MOUNTAIN DIVISION (LIGHT INFANTRY) AND FORT DRUM
FORT DRUM, NEW YORK 13602-5000

July 9, 1990

JES

REPLY TO
ATTENTION OF

Directorate of Engineering
and Housing

New York State Department of
Environmental Conservation
600 Delaware Avenue
Buffalo, New York 14202-1073

Dear Mr. Otto:

In reference to your letter dated April 25, 1990, the following information concerning underground storage tanks is provided.

The 1,500 gallon underground storage tank (#SD1) at the PFC Charles Deglopper USAR Center, 2393 Colvin Blvd., Tonawanda, New York, was removed as part of the heating system conversion contract in July 1988. The 15,000 gallon tank (#SD2) is included in the tank removal contract and will be removed on July 9-11, 1990. #008869

The 1,500 gallon tank containing unleaded gas (#RA1) is included in the tank removal contract which has been awarded and is scheduled to be removed July 3, 1990. The two 20,000 gallon storage tanks (#RA2) and (#RA3), which are in a concrete vault, were emptied in 1987. These two tanks will be removed at a future date.

If you have any questions regarding this matter, please contact Mr. Jim Haynes at (315) 772-4154.

Lynn C. Webster
Colonel, U.S. Army
Garrison Commander

Armed Forces Reserve Center
Niagara Falls
NY 14077

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

PETROLEUM BULK STORAGE APPLICATION

REMINDER

1. Enclose registration fee.
2. Make checks payable to: New York State Department of Environmental Conservation
3. Retain all three (3) copies of this application to the DEC Regional Office.

Facility Size and Fee
1,101-4,999 — $50 Initial
5,000-10,000 — $150 Initial
10,001-999,999 — $250 Initial

Please Type or Print Clearly and Complete All Items

SECTION A

APPLICATION NUMBER: 169083

TRANSACTION TYPE (Check one)
1. ☐ Registration
2. ☐ Renewal
3. ☐ Modification (Show Facility Number)
4. ☐ Permanent Closure

Existing PBS Number: 06829

OFFICIAL USE ONLY
PBS Number
Page ___ of ___
BWS Code
Date Received
Approved (Initials)
Posted By

1. NAME OF FACILITY: Armed Forces Reserve Center
2. ADDRESS (Number and Street): 9400 Porter Road
3. CITY, TOWN, VILLAGE: Niagara Falls
4. STATE: NY
5. ZIP CODE: 14304
6. COUNTY: Niagara
7. TELEPHONE: (716) 297-7909
8. NAME OF OWNER: Commander
9. ADDRESS (Number and Street): HQ, 10th Mtn Div (LI) & Ft. Drum Attn: AETS-EH-E
10. CITY, TOWN, VILLAGE: Fort Drum
11. STATE: NY
12. ZIP CODE: 13602-5097
13. TELEPHONE: (315) 772-6767
14. NAME OF OPERATOR
15. ADDRESS (Number and Street)
16. CITY, TOWN, VILLAGE
17. STATE
18. ZIP CODE
19. TELEPHONE
20. NAME OF EMERGENCY CONTACT
21. ADDRESS (Number and Street)
22. CITY, TOWN, VILLAGE
23. STATE
24. ZIP CODE
25. TELEPHONE

I hereby affirm under penalty of perjury, that information provided on this form is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

26. NAME/TITLE OF REPRESENTATIVE: LYNN C. WEBSTER, COL, EN, DEH
27. SIGNATURE: Lynn C. Webster
DATE: 23 Oct 90

SECTION B

See Instructions on Back

Tank No.	Total Tankage	Contents	Capacity (Gallons)	Tank Type	Product Stored	Status	Installation Date (Year)	Leak Detection	Secondary Containment	Primary Coat	Piping Type	Manufacturer	Date Last Used
3	8	0	6	1			1 5 0 0	1	2	0	1	3	8			6	6	0	1	1	5

KEY FOR REGIONAL (Instructions on back)

METER
1 Positive displacement
2 Mass flow
3 Electronic flow
4 Volumetric flow

LOCATION
1 Underground
2 Underground vault, accessible
3 Underground vault, inaccessible
4 Aboveground
5 Aboveground on pile, etc.
6 Aboveground bunker

TANK TYPE
1 Bare steel or steel with bare steel jacket
2 Steel in vault
3 Steel tank, jacket (specify)
4 Steel protected with cathodic protection
5 Steel with cathodic protection
6 Fiberglass-coated steel
7 Fiberglass reinforced plastic
8 Epoxy-lined (specify) steel jacket

PRODUCTS STORED
1 Diesel/Gasoline
2 Gasoline/Diesel
3 Non-P.O.P. heating oil
4 Non-P.O.P. heating oil
5 Kerosene
6 Diesel
7 Other

STATUS
1 In service
2 Temporarily out
3 Permanently out

INSTALLATION DATE
Tank location
Manufacturer serial no.

LEAK DETECTION SYSTEM
1 Electronic
2 Vapor test
3 Gas (Freon) test
4 Inventory control
5 Other
6 None

SECONDARY CONTAINMENT
1 Dikes
2 Berms
3 Double wall tank
4 Underground vault
5 Other
6 None

HAZARDOUS GAUGE
1 Yes
2 None

PIPING TYPE
1 Steel
2 Galvanized
3 Galvanized Steel
4 Vinyl
5 Fiberglass
6 Copper
7 Copper-lined
8 Other

DISPENSER METHOD
1 Gravity
2 Suction
3 Pump
4 Vacuum

REGION

90-19-1 (12/90)—26c

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF WATER · BUREAU OF SPILL PREVENTION AND RESPONSE

PETROLEUM BULK STORAGE APPLICATION

Pursuant to the Petroleum Bulk Storage Law, Article 17, Title 10 of ECL; and 6 NYCRR 612-614.

(Continued on Reverse Side—Please Be Sure to Complete Section B)

RECEIVED
OCT 11 1991
N.Y.S. DEPT. OF ENVIRONMENTAL CONSERVATION REGION 8

Please Type or Print Clearly and Complete All Items

SECTION A—See Instructions on Cover Sheet

PBS NUMBER: 9-008877

Indicate Other Existing DEC Numbers, if any, for this Facility:

CBS Number:

SPDES Number:

TRANSACTION TYPE (Check all that apply)

NOTE: Transaction Types 1, 2 and 5 require a fee.

1. ☐ Initial/New Facility
2. ☐ Change of Ownership
3. ☒ Substantial Tank Modification
4. ☐ Information Correction
5. ☐ Renewal

FACILITY

NAME: ARMED FORCES RESERVE CTR

LOCATION (Not P.O. Boxes): 9400 PORTER RD

LOCATION (Continued):

CITY/TOWN/VILLAGE: NIAGARA FALLS | STATE: NY | ZIP CODE: 14304

COUNTY: NIAGARA | TOWNSHIP OR CITY: NIAGARA FALLS (C)

NAME OF OPERATOR AT FACILITY: ARMED FORCES RE | FACILITY TELEPHONE NUMBER: (716) 297-4993

EMERGENCY CONTACT NAME: RAY OLSON | EMERGENCY CONTACT PHONE NO.: (315) 297-4161

OWNER

NAME: CDR

ADDRESS (Street and/or P.O. Box): 10TH MTN DIV (LI) & FT DRUM

CITY: FT DRUM | STATE: NY | ZIP CODE: 13602-5097

FEDERAL TAX ID NO.: | OWNER TELEPHONE NUMBER: (315) 772-5708

TYPE OF OWNER (Check only one)

1. ☐ Private Resident 2. ☐ State Government 3. ☐ Local Government 4. ☒ Federal Government 5. ☐ Corporate/Commercial

MAILING CORRESPONDENCE

ATTENTION: AFZS-EH-E

NAME OF COMPANY: CDR

ADDRESS: 10TH MTN DIV (LI) & FT DRUM

ADDRESS:

CITY/STATE/ZIP CODE: FT DRUM, NY 13602-5097

TELEPHONE NUMBER: (315) 772-5708

Geographical Locator for this Facility: (If known)

LATITUDE: DEG MIN SEC

LONGITUDE: DEG MIN SEC

TYPE OF PETROLEUM FACILITY: (Check all that apply)

A. ☐ Storage Terminal/Petroleum Distributor
B. ☐ Retail Gasoline Sales
C. ☐ Other Retail Sales
D. ☐ Manufacturing
E. ☐ Utility
F. ☐ Trucking/Transportation
G. ☐ Apartment Building
H. ☐ School
I. ☐ Farm
J. ☐ Private Residence
K. ☐ Airline (Air Taxi)
L. ☐ Other (Specify)

I hereby certify under penalty of perjury that the information provided on this form is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

NAME OF OWNER OR AUTHORIZED REPRESENTATIVE: MARK J. TILLOTSON | AMOUNT ENCLOSED: $

TITLE: DIRECTOR, ENGINEERING & HOUSING

SIGNATURE: Mark Tillotson | DATE: 7 October 1991

OFFICIAL USE ONLY

Page ____ of ____

Date Received: ___/___/___

Date Processed: ___/___/___

Amount Received $ ____

Reviewed By: ____

PBS NUMBER:
9-008877

Tank Information for Petroleum Bulk Storage Facility

SECTION B—See Instructions on Cover Sheet

Action	Tank Number	Tank Location	Status	Installation or Permanent Closure Date (MM)	(YR)	Capacity (Gallons)	Product Stored	Tank Type	Tank Internal Prot.	Tank External Protection	Piping Location	Piping Type	Piping Internal Prot.	Piping External Protection	Secondary Containment	Leak Detection	Spill/ Overfill Prevention	Dispenser	Last Test Date Underground Tanks (MO)	(YR)
3	RA1	5	3	0 6	6 5	3,000	3	1				1			0 1	0	4	2		
3	RA2	5	3	0 6	6 5	10,000	3	1				1			0 1	0	4	2		
3	RA3	5	3	0 6	6 5	20,000	3	1				1			0 1	0	4	2		

KEY FOR SECTION B

ACTION
1 Initial Listing
2 Add Tank
3 Close/Remove Tank
4 Information Correction
5 Recondition/Repair/Reline Tank

TANK LOCATION
1 Aboveground
2 Aboveground on saddles, legs, stilts, rack, or cradle
3 Aboveground; 10% or more below ground
4 Underground
5 Underground, vaulted, with access

STATUS
1 In-service
2 Temporarily out-of-service
3 Closed—Removed
4 Closed—In Place
5 Tank Converted to Non-Regulated Use

PRODUCT STORED
0 Empty
1 Leaded Gasoline
2 Unleaded Gasoline
3 Nos. 1, 2, or 4 Fuel Oil
4 Nos. 5 or 6 Fuel Oil
5 Kerosene
6 Diesel
A Lube Oil
9 Other*

TANK TYPE
1 Steel/Carbon Steel
2 Stainless Steel Alloy
3 Concrete
4 Fiberglass Coated Steel
5 Fiberglass Reinforced Plastic (FRP)
6 Equivalent Technology
9 Other*

PIPING TYPE
0 None
1 Steel/Iron
2 Galvanized Steel
3 Fiberglass (FRP)
4 Copper
9 Other*

INTERNAL PROTECTION: Tank/Piping
0 None
1 Epoxy Liner
2 Rubber Lines
3 Fiberglass Liner (FRP)
4 Glass Liner
9 Other*

EXTERNAL PROTECTION: Tank/Piping
0 None
1 Painted/Asphalt Coating
2 Sacrificial Anode
3 Impressed Current
4 Fiberglass
5 Jacketed
6 Wrapped (Piping)
9 Other*

PIPING LOCATION
0 None
1 Aboveground
2 Underground
3 Aboveground/Underground Combination

SECONDARY CONTAINMENT
0 None
1 Vault
2 Double-Walled Tank
3 Excavation Liner
4 Cut-off Walls
5 Impervious Underlayment
6 Earthen Dike
7 Prefabricated Steel Dike
8 Concrete Dike
A Synthetic Liner
B Natural Liner
9 Other*

LEAK DETECTION
0 None
1 Interstitial Monitoring
2 Vapor Well
3 Groundwater Well
4 In-tank System
5 Concrete Pad w/channels

SPILL/OVERFILL PREVENTION
0 None
1 Float Vent Valve
2 High Level Alarm
3 Automatic Shut-off
4 Product Level Gauge
5 Catch Basin
6 Vent Whistle
9 Other*

DISPENSER
1 Submersible
2 Suction
3 Gravity

* If Other, please list all specific types installed (for tank, piping)

04/28/09 WED 10:03 FAX 716 851 7228 NYS DEC--DER/SBI 014

DEPARTMENT OF THE ARMY
HEADQUARTERS
UNITED STATES ARMY 77TH REGIONAL SUPPORT COMMAND
FORT TOTTEN
FLUSHING, NY 11359-1016

REPLY TO
ATTENTION OF

January 22, 1999

RECEIVED
JAN 28 1999
NYSDEC - REG. 9
FOIL
REL UNREL

Office of the Deputy Chief of Staff
Engineers

New York State Department of Environmental Conservation
270 Michigan Ave.
Buffalo, NY 14203
ATTN: Petroleum Bulk Storage

RE: Petroleum Bulk Storage Application 9-008877

Dear NYSDEC:

Enclosed please find the Petroleum Bulk Storage Application for the Niagara Falls Armed Forces Reserve Center. Two used oil tanks associated with oil water separators were recently discovered at this facility and will be removed during this fiscal year. These tanks are no longer used and are temporarily closed.

Please contact Dick Ramsdell at (718) 352-2091 if you have any questions concerning this matter.

Sincerely,

for A. H. Thomas LTC, EN

Maios Eliades
COL, GS
Deputy Chief of Staff
Engineers

93-19-1 (10/90)—Zbc

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SPILLS MANAGEMENT • BUREAU OF SOURCE CONTROL

PETROLEUM BULK STORAGE APPLICATION

Pursuant to the Petroleum Bulk Storage Law, Article 17, Title 10 of ECL; and 6 NYCRR B12-B18.

(Continued on Reverse Side—Please Be Sure to Complete Section B).

RECEIVED
JAN 28 1999
NYSDEC - REG. 9
FOR
_REL _UNREL

Please Type or Print Clearly and Complete All Items

SECTION A—See Instructions on Cover Sheet

PBS NUMBER: 9-008877

Indicate Other Existing DEC Numbers, if any, for this Facility:

CBS Number:

SPDES Number:

TRANSACTION TYPE (Check all that apply. NOTE: Transaction Types 1, 2 and 5 require a fee.)

1. ☐ Initial New Facility
2. ☐ Change of Ownership
3. ☒ Substantial Tank Modification
4. ☒ Information Correction
5. ☐ Renewal

FACILITY

NAME: NIAGARA FALLS/AMSA 76

LOCATION (not P.O. Box): 4427 PORTER RD

LOCATION (Continued):

CITY/TOWN/VILLAGE: NIAGARA FALLS | STATE: NY | ZIP CODE: 14304-1618

COUNTY: NIAGARA | TOWNSHIP OR CITY: NIAGARA

NAME OF OPERATOR AT FACILITY: PAUL DONNER | FACILITY TELEPHONE NUMBER: (716) 297-7340

EMERGENCY CONTACT NAME: RICK RAMSDELL | EMERGENCY CONTACT PHONE NO.: (716) 352-2071

OWNER

NAME: 77th REGIONAL SUPPORT COMMAND

ADDRESS (Street Number P.O. Box): AFRC-CNY-EN, BLDG 200

CITY: FORT TOTTEN | STATE: NY | ZIP CODE: 11359-1016

FEDERAL TAX ID NO.: | OWNER TELEPHONE NUMBER: 718 352-5624

TYPE OF OWNER (Check one only)
1. ☐ Private Resident 2. ☐ State Government 3. ☐ Local Government
4. ☒ Federal Government 5. ☐ Corporate/Commercial

TYPE OF PETROLEUM FACILITY: (Check all that apply)

A. ☐ Storage Terminal/Petroleum Distributor
B. ☐ Retail Gasoline Sales
C. ☐ Other Retail Sales
D. ☐ Manufacturing
E. ☐ Utility
F. ☐ Trucking/Transportation
G. ☐ Apartment Building
H. ☐ School
I. ☐ Farm
J. ☐ Private Residence
K. ☐ Airline (All Taxi)
L. ☐ Other (Specify) OFFICE/ADMINISTRATION BUILDING

RECEIVED
JAN 28 1999
NYSDEC - REG. 9
FOR
_REL _UNREL

I hereby certify under penalty of perjury that the information provided on this form is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

NAME OF OWNER OR AUTHORIZED REPRESENTATIVE: MATOS ELADES | AMOUNT ENCLOSED: $

TITLE: CO, GS, RESENGR

SIGNATURE: [signature] | DATE: 25 JAN 99

Geographical Location for this Facility: (If known)

LATITUDE: DEG MIN SEC

LONGITUDE: DEG MIN SEC

CORRESPONDENCE MAILING

ATTENTION: ENVIRONMENTAL DIVISION

NAME OF COMPANY: 77th REGIONAL SUPPORT COMMAND

ADDRESS: AFRC-CNY-EN, BLDG 200

ADDRESS:

CITY/STATE/ZIP CODE: FORT TOTTEN, NY 11359-1016

TELEPHONE NUMBER: (718) 352-2071

OFFICIAL USE ONLY

Page ____ of ____

Date Received: ___/___/___

Date Processed: ___/___/___

Amount Received $ ____

Reviewed By: ____

PBS NUMBER

Tank Information for Petroleum Bulk Storage Facility

SECTION B—See Instructions on Cover Sheet

Page ___ of ___

Action	Tank Number	Tank Location	Status	Installation or Permanent Closure Date (MO)	(YR)	Capacity (Gallons)	Product Stored	Tank Type	Tank Internal Prot.	Tank External Protection	Piping Location	Piping Type	Piping Internal Prot.	Piping External Protection	Secondary Containment	Leak Detection	Spill/ Overfill Prevention	Dispenser	Last Test Date (underground Tanks) (MO)	(YR)
1	OW-1-18	4	2	07	94	550	0	5	3	4	2	1	0	6	0	0	0	3		
1	OW-2-4	4	2	07	89	550	0	5	3	4	2	1	0	0	0	0	0	3		

KEY FOR SECTION B

ACTION
1 Initial Listing
2 Add Tank
3 Closed/Remove Tank
4 Information Correction
5 Reconditioned/Repaired/Relined Tank

TANK LOCATION
1 Aboveground
2 Aboveground on saddles legs, stilts, rack, or cradle
3 Aboveground: 10% or more below ground
4 Underground
5 Underground, vaulted, with access

STATUS
1 In service
2 Temporarily out-of-service
3 Closed—Removed
4 Closed—In Place
5 Tank Converted to Non-Regulated Use

PRODUCT STORED
0 Empty
1 Leaded Gasoline
2 Unleaded Gasoline
3 Nos. 1, 2, or 4 Fuel Oil
4 Nos. 5 or 6 Fuel Oil
5 Kerosene
6 Diesel
A Used Oil
9 Other*

TANK TYPE
1 Steel/Carbon Steel
2 Stainless Steel Alloy
3 Concrete
4 Fiberglass Coated Steel
5 Fiberglass Reinforced Plastic (FRP)
6 Equivalent Technology
9 Other*

PIPING TYPE
0 None
1 Steel/Iron
2 Galvanized Steel
3 Fiberglass (FRP)
4 Copper
9 Other*

INTERNAL PROTECTION: Tank/Piping
0 None
1 Epoxy Liner
2 Rubber Liner
3 Fiberglass Liner (FRP)
4 Glass Liner
9 Other*

EXTERNAL PROTECTION: Tank/Piping
0 None
1 Painted/Asphalt Coating
2 Sacrificial Anode
3 Impressed Current
4 Fiberglass
5 Jacketed
6 Wrapped (Piping)
9 Other*

PIPING LOCATION
0 None
1 Aboveground
2 Underground

SECONDARY CONTAINMENT
0 None
1 Vault
2 Double-Walled Tank
3 Excavation Liner
4 Cut-off Walls
5 Impervious Underlayment
6 Earthen Dike
7 Prefabricated Steel Dike
8 Concrete Dike
A Synthetic Liner
B Natural Liner
9 Other*

LEAK DETECTION
0 None
1 Interstitial Monitoring
2 Vapor Well
3 Groundwater Well
4 In-tank System
5 Concrete Pad Secondary

SPILL/OVERFILL PREVENTION
0 None
1 Float Vent Valve
2 High Level Alarm
3 Automatic Shut-off
4 Product Level Gauge
5 Catch Basin
6 Vent Whistle
9 Other*

DISPENSER
1 Submersible
2 Suction
3 Gravity

* If Other, please list on separate sheet

CD-17-1 (5/76)
Formerly GA-4

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

9-008877
U-000197

TRANSMITTAL SLIP

TO: BULK STORAGE

FROM: JIM COOLE, SPILLS

DATE: 5-6-92

RE: TANK REMOVAL OF 10,000 G.T. BENZOLPROD
FUEL OIL ON 10-18-91 -- SPILL NUMBER 9107717
ARMY RESERVE CENTER
6400 PORTER RD
NIAGARA FALLS

FOR ACTION AS INDICATED:

- ☐ Please Handle
- ☐ Prepare Reply
- ☐ Prepare Reply for _____ Signature
- ☑ Information
- ☐ Approval
- ☐ Prepare final/draft in _____ Copies
- ☐ Comments
- ☐ Signature
- ☐ File
- ☐ Return to me
- ☐ _____
- ☐ _____

93-19-1 (1/97)—a

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION

PETROLEUM BULK STORAGE APPLICATION

Pursuant to the Petroleum Bulk Storage Law,
Article 17, Title 10 of ECL; 6 NYCRR 612-614 and 6 NYCRR, Subpart 360-14
(Continued on the Reverse Side—Please Be Sure to Complete Section B)

RECEIVED
SEP 15 1999
NYSDEC - REG. 4
REL FOIL UNREL

Please Type or Print Clearly and Complete All Items

SECTION A—See Instructions on Cover Sheet

CBS NUMBER: 9-008877

Indicate other existing DEC Numbers, if any, for this facility:

CBS Number:

SPDES Number: NY R00C444

TRANSACTION TYPE (Check all that apply)
NOTE: Transaction Types 1, 2 and 5 may require a fee.

1 ☐ Initial/New Facility
2 ☐ Change of Ownership
3 ☒ Substantial Tank Modification
4 ☐ Information Correction
5 ☐ Renewal

Geographical location for this Facility: (If known)

LATITUDE: DEG MIN SEC

LONGITUDE: DEG MIN SEC

FACILITY

FACILITY NAME: Niagara Falls Armed Forces Reserve Center
LOCATION (Not P.O. Boxes): 9400 Porter Rd.
LOCATION (Continued):
CITY/TOWN/VILLAGE: Niagara Falls | STATE: NY | ZIP CODE: 14304-1698
COUNTY: Niagara County | TOWNSHIP OR CITY:
NAME OF OPERATOR AT FACILITY: Mr. Donner | FACILITY TELEPHONE NUMBER: (716) 297-7340
EMERGENCY CONTACT NAME: same | EMERGENCY TELEPHONE NO: ( )

TYPE OF PETROLEUM FACILITY: (Check all that apply)

A. ☐ Storage Terminal/Petroleum Distributor
B. ☐ Retail Gasoline Sales
C. ☐ Other Retail Sales
D. ☐ Manufacturing
E. ☐ Utility
F. ☐ Trucking/Transportation
G. ☐ Apartment Building
H. ☐ School
I. ☐ Farm
J. ☐ Private Residence
K. ☐ Airline (Air Taxi)
L. ☒ Other (Specify Below)

U.S. Army Reserve

OWNER

OWNER NAME: 77th Regional Support Command
ADDRESS (Street and/or PO Box): AFRC-CNY-EN
CITY: Fort Totten | STATE: NY | ZIP CODE: 11359-1016
FEDERAL TAX ID NUMBER:
OWNER TELEPHONE NUMBER: (718) 352-5624

TYPE OF OWNER (Check only one)
1 ☐ Private Resident 2 ☐ State Government 3 ☐ Local Government
4 ☒ Federal Government 5 ☐ Corporate/Commercial

I hereby certify under penalty of perjury that the information provided on this form is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

NAME OF OWNER OR AUTHORIZED REPRESENTATIVE: Anthony J. Billelo
AMOUNT ENCLOSED: $ 0
TITLE: LTC, US Army Reserve, Acting DCSENGR
SIGNATURE: [signature] LTC, EN
DATE: 18 Sep 99

CORRESPONDENCE

ATTENTION: 77th RSC
NAME OF COMPANY:
ADDRESS: AFRC-CNY-EN (Ramsdell)
ADDRESS: Fort Totten, NY
CITY/STATE/ZIP CODE: 11359-1016
TELEPHONE NUMBER: (718) 352-2091

OFFICIAL USE ONLY

Page ____ of ____
Date Received: __/__/__
Date Processed: __/__/__
Amount Received $ ____
Reviewed By: ____

PBS NUMBER:

Tank Information for Petroleum Bulk Storage Facility
SECTION B—See Instructions on Cover Sheet

Action	Tank Number	Tank Location	Status	Installation or Permanent Closure Date (MO)	(YR)	Capacity (Gallons)	Product Stored	Tank Type	Tank Internal Protection	Tank External Protection	Piping Location	Piping Type	Piping Internal Protection	Piping External Protection	Secondary Containment	Leak Detection	Spill/Overfill Prevention	Dispenser	Leak Test Date (Underground Tanks) (MO)	(YR)
3	OW-1-18	4	2	07	89	550	0	5	3	4	2	1	0	0	0	0	0	3		
3	OW-2-4	4	2	07	89	550	0	5	3	4	2	1	0	0	0	0	0	3		

KEY FOR SECTION B

ACTION
1. Initial Listing
2. Add Tank
3. Close/Remove Tank
4. Information Correction
5. Reconstruction/Repair/Refline Tank

TANK LOCATION
1. Aboveground
2. Aboveground on saddles, legs, stilts, rack, or cradle
3. Aboveground 10% or more below ground
4. Underground
5. Underground, vaulted, with access

STATUS
1. In-service
2. Temporarily out-of-service
3. Closed—Removed
4. Closed—In Place
5. Tank Converted to Non-Regulated Use

PRODUCT STORED
0. Empty
1. Leaded Gasoline
2. Unleaded Gasoline
3. Not 1, 2, or 4 Fuel Oil
4. Not 5 or 6 Fuel Oil
5. Kerosene
6. Diesel
7. Lube Oil
8. Used Oil (fuel)
C. Used Oil
9. Other*

TANK TYPE
1. Steel/Carbon Steel
2. Stainless Steel Alloy
3. Concrete
4. Fiberglass Coated Steel
5. Fiberglass Reinforced Plastic (FRP)
6. Equivalent Technology
9. Other*

PIPING TYPE
0. None
1. Steel/Iron
2. Galvanized Steel
3. Fiberglass (FRP)
4. Copper
9. Other*

INTERNAL PROTECTION: Tank/Piping
0. None
1. Epoxy Liner
2. Rubber Liner
3. Fiberglass Liner (FRP)
4. Glass Liner
9. Other*

EXTERNAL PROTECTION: Tank/Piping
0. None
1. Painted/Asphalt Coating
2. Sacrificial Anode
3. Impressed Current
4. Fiberglass
5. Jacketed
6. Wrapped (Piping)
9. Other*

PIPING LOCATION
0. None
1. Aboveground
2. Underground
3. Aboveground/Underground Combination

SECONDARY CONTAINMENT
0. None
1. Vault
2. Double-Walled Tank
3. Lamination Liner
4. Cut-off Walls
5. Impervious Underlayment
6. Earthen Dike
7. Prefabricated Steel Dike
8. Concrete Dike
A. Synthetic Liner
B. Natural Liner
9. Other*

LEAK DETECTION
0. None
1. Interstitial Monitoring
2. Vapor Well
3. Groundwater Well
4. In-Tank System
5. Concrete Pad w/Channels
6. Double Bottom
9. Other*

SPILL/OVERFILL PREVENTION
0. None
1. Float Vent Valve
2. High Level Alarm
3. Automatic Shut-off
4. Product Level Gauge
5. Catch Basin
6. Vent Whistle
9. Other*

DISPENSER
1. Submersible
2. Suction
3. Gravity

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

020

9-008877
Waste Oil

RECEIVED
JAN 12 2001
NYSDEC - REG. 9
FOIL
REL UNREL

DEPARTMENT OF THE ARMY
HEADQUARTERS
UNITED STATES ARMY 77TH REGIONAL SUPPORT COMMAND
FORT TOTTEN
FLUSHING, NY 11359-1016

REPLY TO
ATTENTION OF

January 9, 2001

Office of the Deputy Chief of Staff Engineer

New York State Department of Environmental Conservation
270 Michigan Ave.
Buffalo, NY 14203-2999
Attn: Petroleum Bulk Storage Applications

To Whom It May Concern:

Enclosed please find the Petroleum Bulk Storage Application for the used oil pod at the Niagara Falls AFRC/AMSA #76 (G), Niagara Falls, NY. If you should have any questions or comments, please do not hesitate to contact the Environmental Division, Ingrid Weigand at (718) 352-2081.

Sincerely,

Arthur L. Patterson
Major, US Army Reserve
Regional Engineer

Enclosure

93-19-1 (1/97)—n

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION

PETROLEUM BULK STORAGE APPLICATION

Pursuant to the Petroleum Bulk Storage Law,
Article 17, Title 10 of ECL; 6 NYCRR 612-614 and 6 NYCRR, Subpart 360-14
(Continued on the Reverse Side—Please Be Sure to Complete Section B)

Please Type or Print Clearly and Complete All Items

SECTION A—See Instructions on Cover Sheet

FDS NUMBER: 9-008877

Indicate other existing DEC Numbers, if any, for this facility:

CBS Number:

SPDES Number:

TRANSACTION TYPE (Check all that apply)
NOTE: Transaction Types 1, 2 and 5 may require a fee.

1 ☐ Initial/New Facility
2 ☐ Change of Ownership
3 ☐ Substantial Tank Modification
4 ☐ Information Correction
5 ☐ Renewal

FACILITY

FACILITY NAME: NIAGARA FALLS AFRC/AMSA #76(G)
LOCATION (Not P.O. Box): 9400 PORTER ROAD
LOCATION (Continued):
CITY/TOWN/VILLAGE: NIAGARA FALLS
STATE: NY
ZIP CODE: 14304-1698
COUNTY: NIAGARA
TOWNSHIP OR CITY: NIAGARA FALLS
NAME OF OPERATOR AT FACILITY: MR. HOGAN
FACILITY TELEPHONE NUMBER: (716) 297-7200
EMERGENCY CONTACT NAME: PAUL BERTRAND
EMERGENCY TELEPHONE NO: (718) 352-2092

OWNER

OWNER NAME: 77th REGIONAL SUPPORT COMMAND
ADDRESS (Street and/or PO Box): AFRC-CNY-EN BLDG 200
CITY: FORT TOTTEN
STATE: NY
ZIP CODE: 11359-1016
FEDERAL TAX ID NUMBER:
OWNER TELEPHONE NUMBER: (718) 352-5624
TYPE OF OWNER (Check only one)
1 ☐ Private Resident 2 ☐ State Government 3 ☐ Local Government
4 ☒ Federal Government 5 ☐ Corporate/Commercial

TYPE OF PETROLEUM FACILITY:
(Check all that apply)

A. ☐ Storage Terminal/Petroleum Distributor
B. ☐ Retail Gasoline Sales
C. ☐ Other Retail Sales
D. ☐ Manufacturing
E. ☐ Utility
F. ☐ Trucking/Transportation
G. ☐ Apartment Building
H. ☐ School
I. ☐ Farm
J. ☐ Private Residence
K. ☐ Airline (Air Taxi)
L. ☒ Other (Specify Below)

ARMY RESERVE CENTER

I hereby certify under penalty of perjury that the information provided on this form is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

NAME OF OWNER OR AUTHORIZED REPRESENTATIVE: MAJ ARTHUR L PATTERSON
AMOUNT ENCLOSED: $
TITLE: REGIONAL ENGINEER
SIGNATURE: [signature]
DATE: 5 Dec 01

Geographical Locator for this Facility: (If known)

LATITUDE: DEG MIN SEC

LONGITUDE: DEG MIN SEC

CORRESPONDENCE

ATTENTION: ENVIRONMENTAL DIVISION
NAME OF COMPANY: 77th REGIONAL SUPPORT COMMAND
ADDRESS: AFRC-CNY-EN
ADDRESS: BUILDING 200
CITY/STATE/ZIP CODE: FORT TOTTEN, NY 11359-1016
TELEPHONE NUMBER: (718) 352-2092

OFFICIAL USE ONLY

Page ____ of ____
Date Received: __/__/__
Date Processed: __/__/__
Amount Received $ ____
Reviewed By: ____

ES NUMBER

Tank Information for Petroleum Bulk Storage Facility
SECTION D—See Instructions on Cover Sheet

Action	Tank Number	Tank Location	Status	Installation or Permanent Closure Date (MO)	(YR)	Capacity (Gallons)	Piping Status	Tank Type	Tank Internal Protection	Tank External Protection	Piping Location	Piping Type	Piping External Protection	Piping Secondary Containment	Tank Secondary Containment	Tank Detection	Spill/Overfill Prevention	Dispenser	Tank Test Date (Underground Tanks) (MO)	(YR)
1	W09	2	1			528	C	1	0	0 0	0	0	0	0 0	2	0	9*	4	2	

*Visual inspection conducted monthly

KEY FOR SECTION D

ACTION
1 Initial Listing
2 Add Tank
3 Close/Remove Tank
4 Information Correction
5 Reconciliation/Regional Status Tank

TANK LOCATION
1 Aboveground
2 Aboveground on saddles, legs, stilts, rack, or cradle
3 Aboveground: 90% or more below ground
4 Underground
5 Underground, vaulted with access

STATUS
In-service
2 Temporarily out-of-service
3 Closed—Removed
4 Closed—In Place
5 Tank Converted to Non-Regulated Use

PRODUCT STORED
0 Empty
1 Leaded Gasoline
2 Unleaded Gasoline
3 Nos. 1, 2, or 4 Fuel Oil
4 Nos. 5 or 6 Fuel Oil
5 Kerosene
6 Diesel
7 Lube Oil
8 Waste Oil (Used Oil(fuel))
C Used Oil
9 Other*

TANK TYPE
1 Steel/Carbon Steel
2 Stainless Steel Alloy
3 Concrete
4 Fiberglass Coated Steel
5 Fiberglass Reinforced Plastic (FRP)
6 Equivalent Technology
9 Other*

PIPING TYPE
0 None
1 Steel/Iron
2 Galvanized Steel
3 Fiberglass (FRP)
4 Copper
9 Other*

INTERNAL PROTECTION: Tank/Piping
0 None
1 Epoxy Liner
2 Rubber Liner
3 Fiberglass Liner (FRP)
4 Glass Liner
9 Other*

EXTERNAL PROTECTION: Tank/Piping
0 None
1 Painted/Asphalt Coating
2 Sacrificial Anode
3 Impressed Current
4 Fiberglass
5 Unsealed
6 Wrapped (Piping)
9 Other*

PIPING LOCATION
0 None
1 Aboveground
2 Underground
3 Aboveground/Underground Combination

SECONDARY CONTAINMENT
0 None
1 Vault
2 Double-Walled Tank
3 Containment Liner
4 Cut-off Walls
5 Impervious Underlayment
6 Earthen Dike
7 Reinforced Steel Dike
8 Concrete Dike
A Synthetic Liner
B Natural Liner
9 Other*

LEAK DETECTION
0 None
1 Interstitial Monitoring
2 Vapor Well
3 Groundwater Well
4 In-Tank System
5 Concrete Pad w/channels
6 Double Bottom
9 Other*

SPILL/OVERFILL PREVENTION
0 None
1 Float Vent Valve
2 High Level Alarm
3 Automatic Shut-off
4 Product Level Gauge
5 Catch Basin
6 Vent Whistle
9 Other*

DISPENSER
1 Submersible
2 Suction
3 Gravity

* If other, please list on separate sheet including tank number

PBS Number
9-008877

New York State Department of Environmental Conservation
PETROLEUM BULK STORAGE CERTIFICATE
625 Broadway, 11th Floor, Albany, NY 12233-7020 Phone: 518-402-9553

Region 9 NYSDEC - PBS Unit
270 Michigan Avenue
Buffalo, NY 14203-2999
(716) 851-7220

TANK NUMBER	TANK LOCATION	DATE INSTALLED	TANK TYPE	CAPACITY (GALLONS)	DATE LAST TESTED	TESTING DUE DATE
WO9	Aboveground on crib, rack, or cradle	09/01/1999	Steel/Carbon Steel/Iron	528		*

* Aboveground tanks require monthly visual inspections and may need documented internal inspections as described in 6 NYCRR Part 613

OWNER:
77TH REGIONAL SUPPORT COMMAND
AFRC-CNY-EN, BLDG 200
FORT TOTTEN, NY 11359-1016

SITE:
NIAGARA FALLS AFRC/AMSA #76(G)
9400 PORTER RD
NIAGARA FALLS, NY 14304-1698

OPERATOR: MR. PAT PATTERSON
(716) 297-7200

EMERGENCY CONTACT: PAUL BERTRAND
(718) 352-2092

ISSUED BY: Acting Commissioner Denise M. Sheehan

PBS NUMBER: 9-008877

DATE ISSUED: 11/18/2005

EXPIRATION DATE: 01/17/2011

FEE PAID: $0.00

MAILING CORRESPONDENCE:

ENVIRONMENTAL DIVISION
77TH REGIONAL SUPPORT COMMAND
AFRC-CNY-EN
BUILDING 200
FORT TOTTEN, NY 11359-1016

As an authorized representative of the above named facility, I affirm under penalty of perjury that the information displayed on this form is correct to the best of my knowledge. Additionally, I recognize that I am responsible for assuring that this facility is in compliance with all sections of 6 NYCRR Parts 612, 613 and 614, and applicable sections of 6 NYCRR Subpart 360-14 (used oil tanks only), not just those cited below:

- The facility must be re-registered if there is a transfer of ownership.
- The Department must be notified within 30 days prior to adding, replacing, reconditioning, or permanently closing a stationary tank.
- The facility must be operated in accordance with the code for storing petroleum, 6NYCRR Part 613.
- Any new facility or substantially modified facility must comply with 6NYCRR Part 614.
- This certificate must be signed and posted on the premises at all times. Posting must be at the tank, at the entrance of the facility, or the main office where the storage tanks are located
- Any person with knowledge of a spill, leak or discharge must report the incident to DEC within two hours (1-800-457-7362)

Signature of Representative/Owner Date

Name and Title of Authorized Representative/Owner (Please Print)

Appendix C
Aerial Photographs and Historical Maps

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)ARD

STREAMS
PARKS

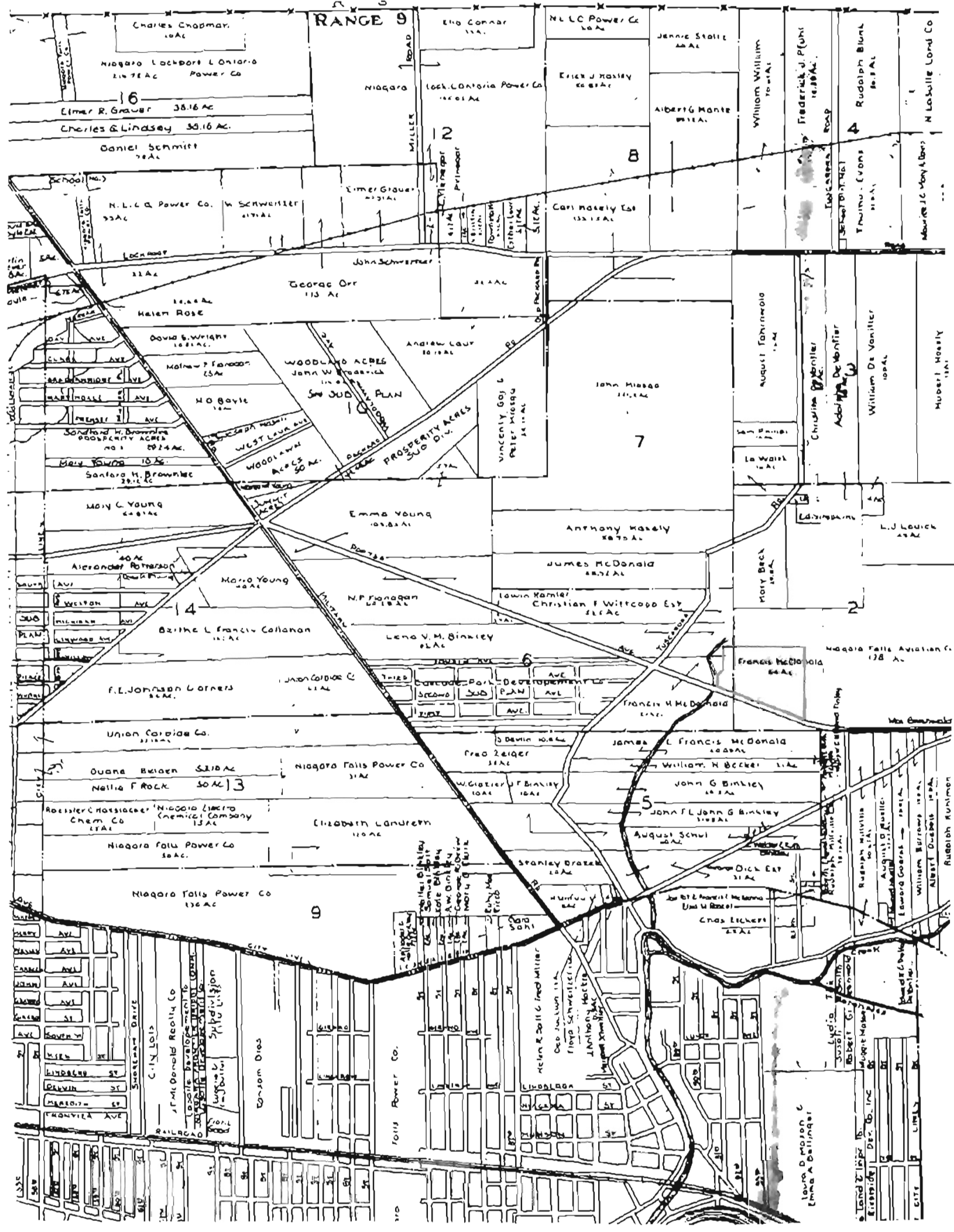
SCALE
Feet
1000 0 1000 2000 3000 4000 5000
0 ¼ ½ ¾ 1
Miles

LEWISTON

R — 9
RANGE 9

Charles Chapman 10 Ac
Niagara Lockport & Ontario Power Co.
Ella Connor
N.L.L.O. Power Co
Jennie Stoltz
Niagara
Lock. L Ontario Power Co.
Erick J Hasley
Alberto Monte
William Wilhelm
Frederick J. Pfuhl
Rudolph Blunk
N LaSalle Land Co
Gruber 38.16 Ac.
Lindsey 38.16 Ac.
Daniel Schmitt
Elmer Grauer
W Schweitzer
Carl Haseley Est
Thomas Evans
Maurice & Mary A Davis
Lockport
John Schweitzer
George Orr
Helen Rose
David S. Wright
Mathew P Flanagan
W.O. Bayle
WOODLAND ACRES
John W. Frederick
SUD PLAN
Andrew Laur
WEST LAWN AVE
WOODLAWN ACRES
PROSPERITY ACRES SUD DIV.
Vincenty Gaj & Peter Miosga
John Miosga
August Funnwald
Christine De Vanilier
Adolph De Vanilier
William De Vanilier
Hubert Haseley
Sam Pavlich
Ed Wolek
Emma Young
Anthony Haseley
James McDonald
Ed Lindsey
L.J. Louick
Mary Beck
Maria Young
N.P. Flanagan
Edwin Hamler
Christian F. Wittcopp Est.
Bertha L. Francis Collahan
Lena V. M. Binkley
Niagara Falls Aviation Field
Union Carbide Co
Francis McDonald
Francis H McDonald
Niagara Falls Power Co
Fred Zeiger
James & Francis McDonald
William H. Becker
John G Binkley
Elizabeth Landtrem
Niagara Electro Chemical Company
August Schul
Stanley Drozek
Chas Eickert
Rudolph Millville
Rudolph Kuhlman
Niagara Falls Power Co.

TOWNSHIP 13 — RANGE 8
OF
TOWN
WHEATFIELD


RANGE 9
Charles Chapman
Niagara Lockport & Ontario Power Co
Elmer R. Grauer 38.16 Ac
Charles G. Lindsey 38.16 Ac.
Daniel Schmitt
Niagara
Lock. & Ontario Power Co
Erick J. Hosley
Jennie Stolle
Albert G. Monte
William William
Frederick J. Pfuhl
Rudolph Blunk
N. Lockville Land Co
N. L. L. & O. Power Co.
H. Schweitzer
Elmer Grauer
Carl Hosely Est
Lock Road
John Schweitzer
George Orr
Helen Rose
David S. Wright
Andrew Laur
Woodland Acres
John W. Broderick
Sub Sub Plan
H. D. Boyle
Prosperity Acres
Sub Div.
Vincenty, Goj & Peter Hosey
John Hosey
August Fahrenwald
Christian De Vanitter
William De Vanitter
Hubert Hosely
Sanford H. Brownlee
Prosperity Acres
Mary Young
Emma Young
Anthony Hosely
L. J. Louick
Alexander Patterson
Mosso Young
James McDonald
Mary Beck
N. P. Flanagan
Christian F. Wittcopp Est
Brithe L. Francis Callahan
Lena V. M. Binkley
Niagara Falls Aviation Co
Frances McDonald
F. E. Johnson & Others
Union Carbide Co
Carbide Park Development Co
Sub Plan
Francis H. McDonald
Union Carbide Co.
James & Francis McDonald
Fred Zeiger
William H. Becker
Duane Belden
Nellie F. Rock
Niagara Falls Power Co
W. Glazier
John G. Binkley
Rochester Chemical Co
Niagara Electro Chemical Company
John F. & John G. Binkley
Elizabeth Landreth
August Schul
Niagara Falls Power Co
Stanley Brazen
Dick Est
Niagara Falls Power Co
Chas. Eichert
City Lots
J. T. McDonald Realty Co
Subdivision
Ransom Dies
Falls Power Co.
Helen R. Bell & Fred Miller
Floyd Schweitzer
Anthony Hartis
Lydia
Iowa D. Mason & Emma A. Bellinger
Railroad
Lindbergh St
Delvin St
Meredith St
Frontier Ave

1957

Diamond Fabric Research Center - Dec 1974 1974

Armed Forces Reserve Center - Aug - 1977

ARMED FORCES RESERVE CENTER - AUG - 1974

north

~~1970~~ 2006

← north

2006

Appendix D
Photograph Log from May 7, 2009, Site Visit

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Photograph 1: View facing west of flagged soil sample locations in ditch along Porter Road.

Photograph 2: View of excavation location and soil pile facing east.

Appendix E
Environmental Investigation Summary Report and Figures

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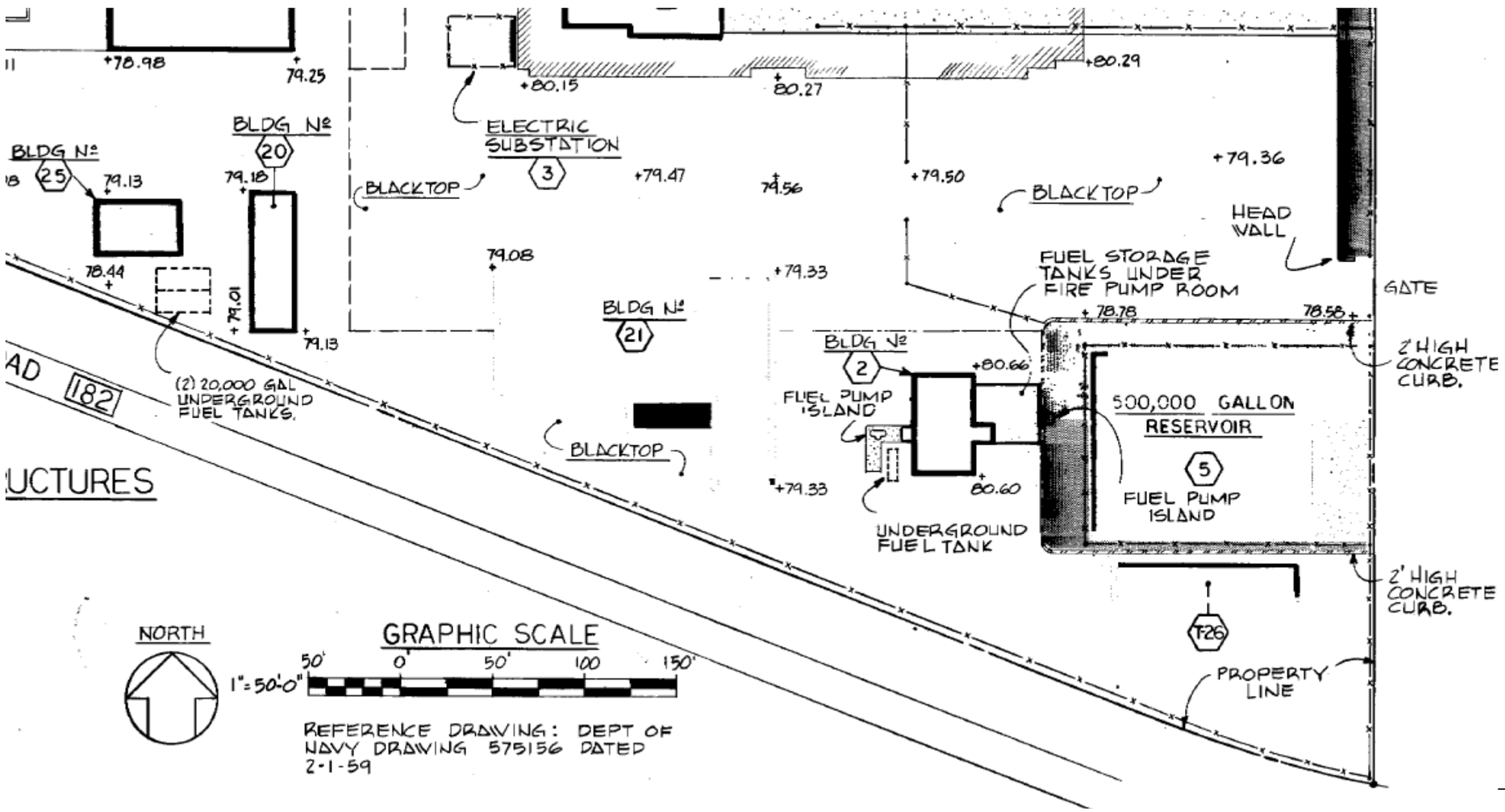
A/E OFFICE	
DESIGNED BY: R.C.S.	U.S. ARMY SUPPORT CENTER NIAGARA FALLS, NEW YORK
DRAWN BY: T.J.H.	CONTRACT Nº DACA51-79-C-0065
CHECKED BY: F.A.T.	SITE PLAN PAVEMENT AND STRUCTURES
SUBMITTED BY: ARCHITECT ENGINEER	
REVIEWED:	CONCURRED: 12 APRIL 82
APPROVAL RECOMMENDED: PE 12 APR	
APPROVED:	SCALE AS SHOWN
DATE 12 APRIL 82	DRAWING NUMBER SW-1 SHEET OF 2 34

The following 3 drawings are from 1982, when they did a project to install new water, fire, & steam lines. This project was initiated because many of the other lines were old & there were cracks & leaks in various locations throughout the system. It was hypothesized that the number of breakages was due to corrosive soils on the property.

I've included them so that you can have a better idea of the history of the site. They are the most recent drawings of the pipes that we have.



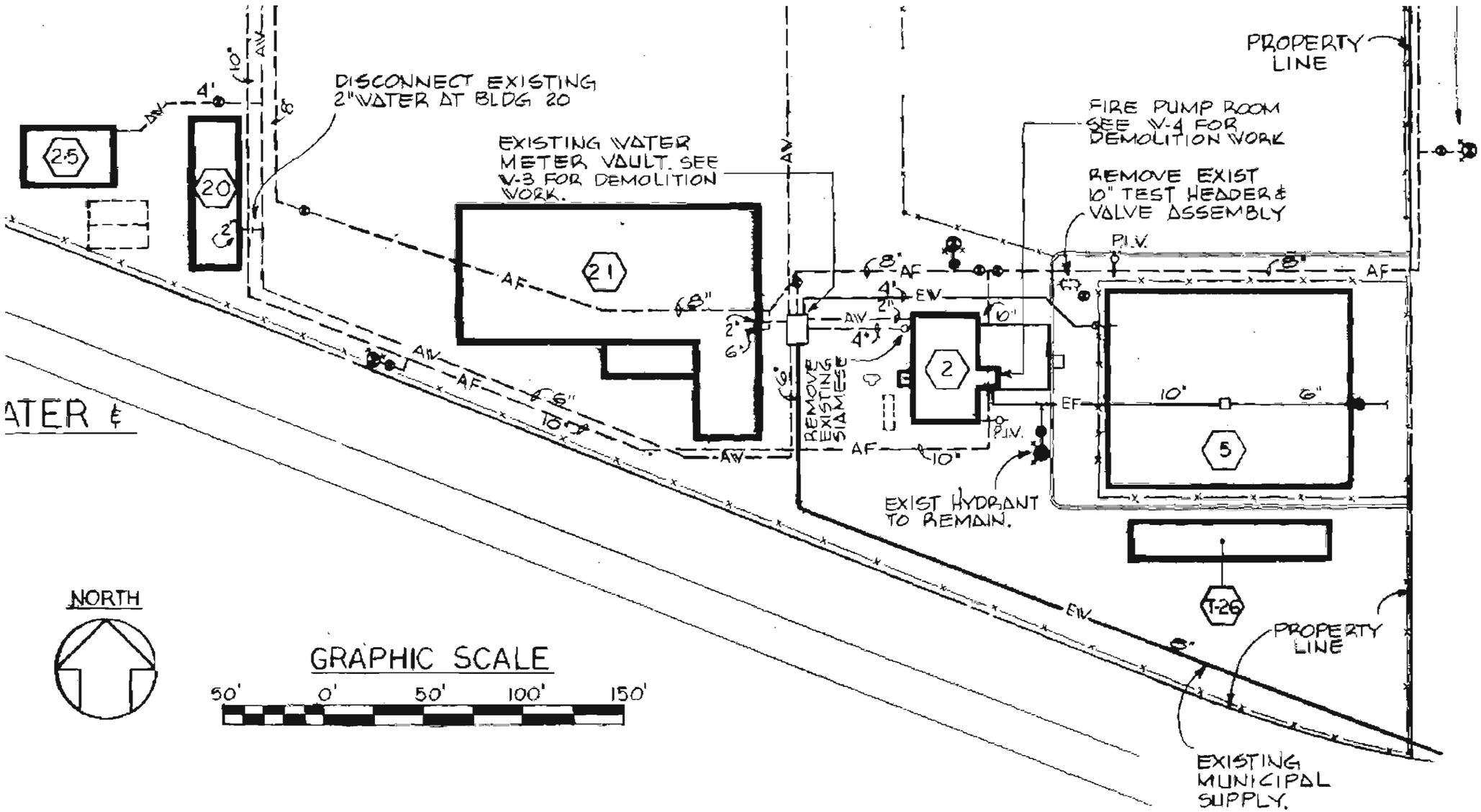
SYMBOLS

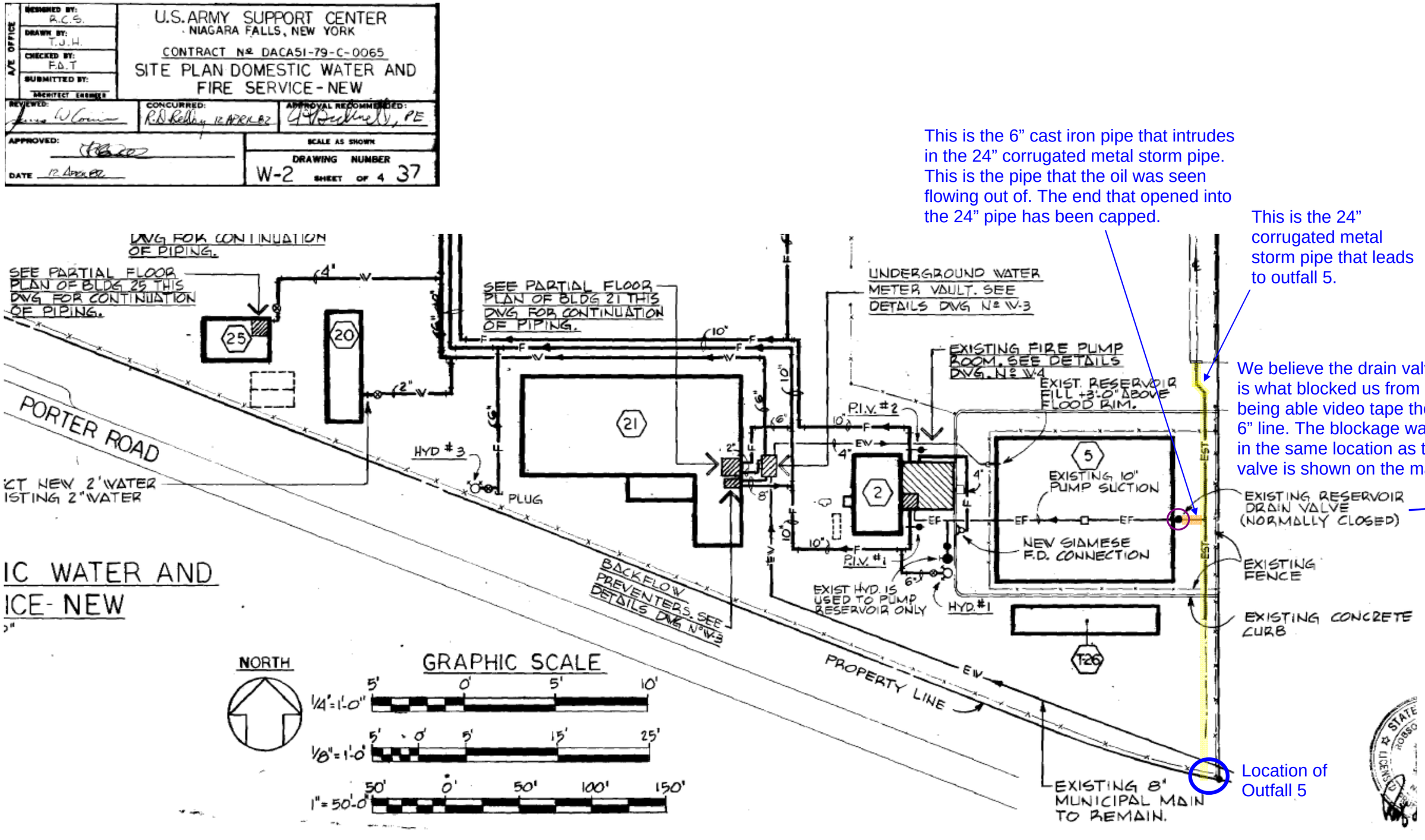
- EXISTING LIGHT POLE TO REMAIN
- EXISTING CATCH BASIN TO REMAIN
- EXISTING STORM OR SANITARY MANHOLE TO REMAIN
- ES — EXISTING SANITARY SEWER TO REMAIN
- EST — EXISTING STORM SEWER TO REMAIN
- EW — EXISTING WATER MAIN TO REMAIN
- EF — EXISTING FIRE PROTECTION MAIN TO REMAIN
- ESTM — EXISTING STEAM MAIN TO REMAIN
- EC — EXISTING STEAM CONDENSATE TO REMAIN
- EE — EXISTING ELECTRIC CONDUIT TO REMAIN
- ESL — EXISTING SIGNAL CONDUIT TO REMAIN
- ET — EXISTING TELEPHONE CONDUIT TO REMAIN.
- EXISTING ELECTRIC MANHOLE TO REMAIN
- EXISTING SIGNAL MANHOLE TO REMAIN
- EXISTING FIRE HYDRANT TO REMAIN
- EXISTING VALVE & CURB BOX TO REMAIN.
- EXISTING POST INDICATOR VALVE TO BE REMOVED
- EXISTING FIRE HYDRANT TO BE REMOVED
- EXISTING VALVE & CURB BOX TO BE REMOVED
- EXISTING WATER TO BE REMOVED
- EXISTING FIRE PROTECTION TO BE REMOVED
- EXISTING STEAM SUPPLY TO BE REMOVED
- EXISTING STEAM CONDENSATE TO BE REMOVED
- EXISTING AIRCRAFT PAVEMENT
- EXISTING AIRCRAFT PAVEMENT WITH BITUMINOUS WEARING SURFACE
- EXISTING BLACKTOP PAVEMENT
- EXISTING GRASSED AREA
- EXISTING CHAIN LINK FENCE
- V — NEW WATER MAIN
- F — NEW FIRE PROTECTION MAIN
- NEW FIRE HYDRANT
- NEW VALVE & CURB BOX
- P.I.V — NEW POST INDICATOR VALVE
- STM — NEW STEAM SUPPLY
- C — NEW STEAM CONDENSATE
- NEW VALVE-SERVICE INDICATED
- AW — EXISTING WATER MAIN TO BE ABANDONED
- AF — EXISTING FIRE PROTECTION MAIN TO BE ABANDONED
- +77.81 — SPOT GRADE ELEVATION
- EXISTING DELUGE VALVE
- EXISTING ALARM CHECK VALVE

A/E OFFICE	
DESIGNED BY: R.C.S.	U.S. ARMY SUPPORT CENTER NIAGARA FALLS, NEW YORK
DRAWN BY: T.J.H.	CONTRACT Nº DACA51-79-C-0065
CHECKED BY: F.A.T.	SITE PLAN EXISTING DOMESTIC WATER AND FIRE SERVICE - DEMOLITION
SUBMITTED BY: ARCHITECT ENGINEER	

REVIEWED:	CONCURRED:	APPROVAL RECOMMENDED:
James W. Cowin	R.S. Kelley 12 APRIL 82	H. Bischoff, PE

APPROVED:	SCALE AS SHOWN
DATE 12 APRIL 82	DRAWING NUMBER W-1 SHEET OF 4 36





This is the 6" cast iron pipe that intrudes in the 24" corrugated metal storm pipe. This is the pipe that the oil was seen flowing out of. The end that opened into the 24" pipe has been capped.

This is the 24" corrugated metal storm pipe that leads to outfall 5.

We believe the drain valve is what blocked us from being able video tape the 6" line. The blockage was in the same location as the valve is shown on the map.

Location of Outfall 5

Northern end of 24" pipe, looking south.

This side has been consistently dry, with no visible contamination.

Intersection of the 24" & 6" pipes.

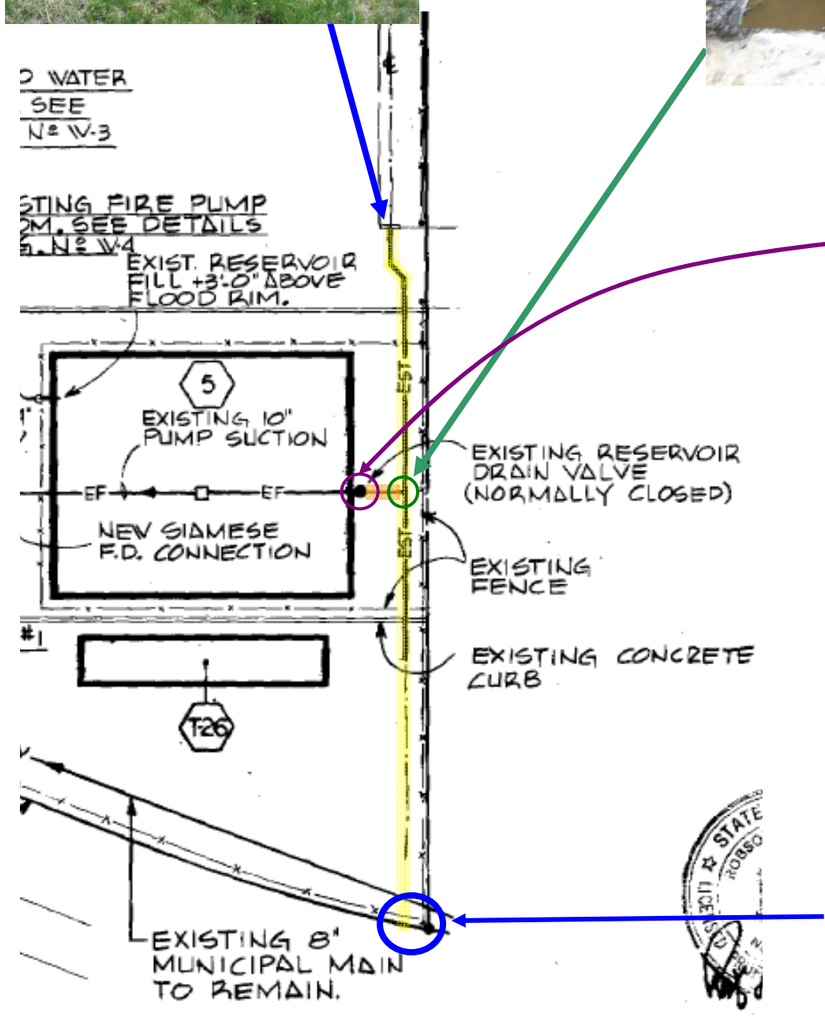
The area was excavated in order to video the 6" line. They sent a hose to try to clean it out, but as you can see, there was an oily sheen coming out of the pipe.

After going only about 8-10' up the 6" pipe, the hose hit a blockage, which is assumed to be the drain valve to the old reservoir

The company did not want to send their equipment up there, so they did not video the 6" line.

We sampled the sediment from the area circled in yellow for haz-waste characteristics. The major finding was 220ppm Aroclor 1254. There were also small amounts of Barium (0.58ppm), Cadmium (0.022ppm), Chromium (0.011ppm), & Lead (0.017PPM), and a pH of 10.5.

The 6" line was capped to prevent further contamination of the stormwater pipe.



We excavated where we found the blockage to see if we could find the valve. It was dislodge in the soil. When we moved it, oil started to come up in the ground. It was 2'-3' below grade.

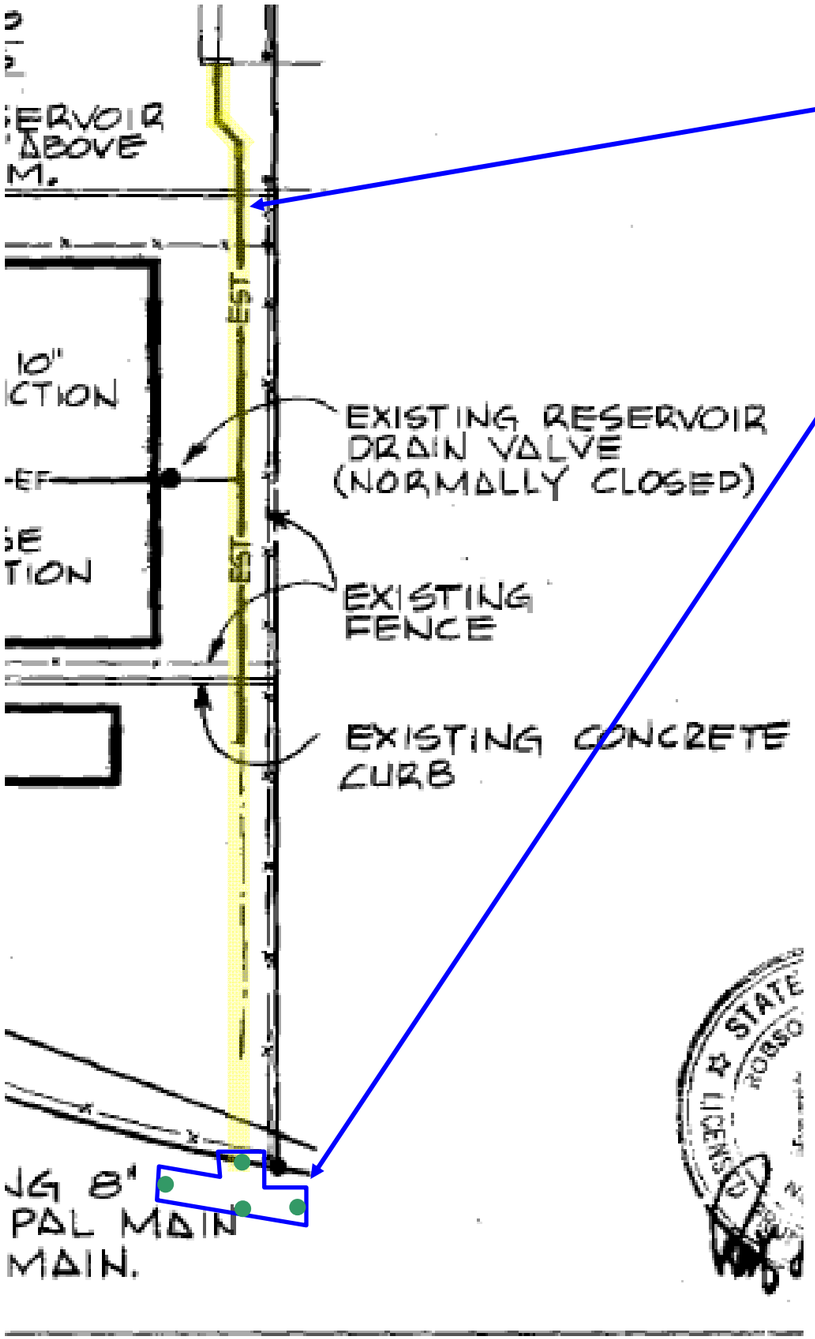
We tested this substance to see what kind of oil it was and for PCBs. Results showed No. 2 diesel fuel oil (150,000ppm) and Aroclor 1254 (2.1ppm).

Excavation of the 6" line and cleaning up the free oil in the clay soil will be part of the second phase of this project.

Outfall 5- Southern end of 24" pipe, looking north/ Ditch along Porter Road.

This is where the visible contamination is located. You can see the yellowish line of fluid extending from the pipe into the ditch. This is the area requiring excavation, sampling, & restoration.

We tested the yellow substance for haz-waste characteristics. The findings were Aroclor 1254 (2.81ppb), Barium (0.132ppm) and Chromium (0.252ppm), as well as a pH of 10.8.



This is how the 77th RRC envisions the first phase of this project:

Have the 24” storm pipe jet cleaned to clear it of all PCB contamination.

All of the water and debris would be captured by containment placed at the outfall. It would be stored on site in impervious containers, sampled for haz-waste determination, and then disposed of according to all applicable regulations

Then, excavate all visibly contaminated soil from the ditch, over-digging by about 2’-3’ in each direction. We anticipate only having to dig to about 6”-12” depth.

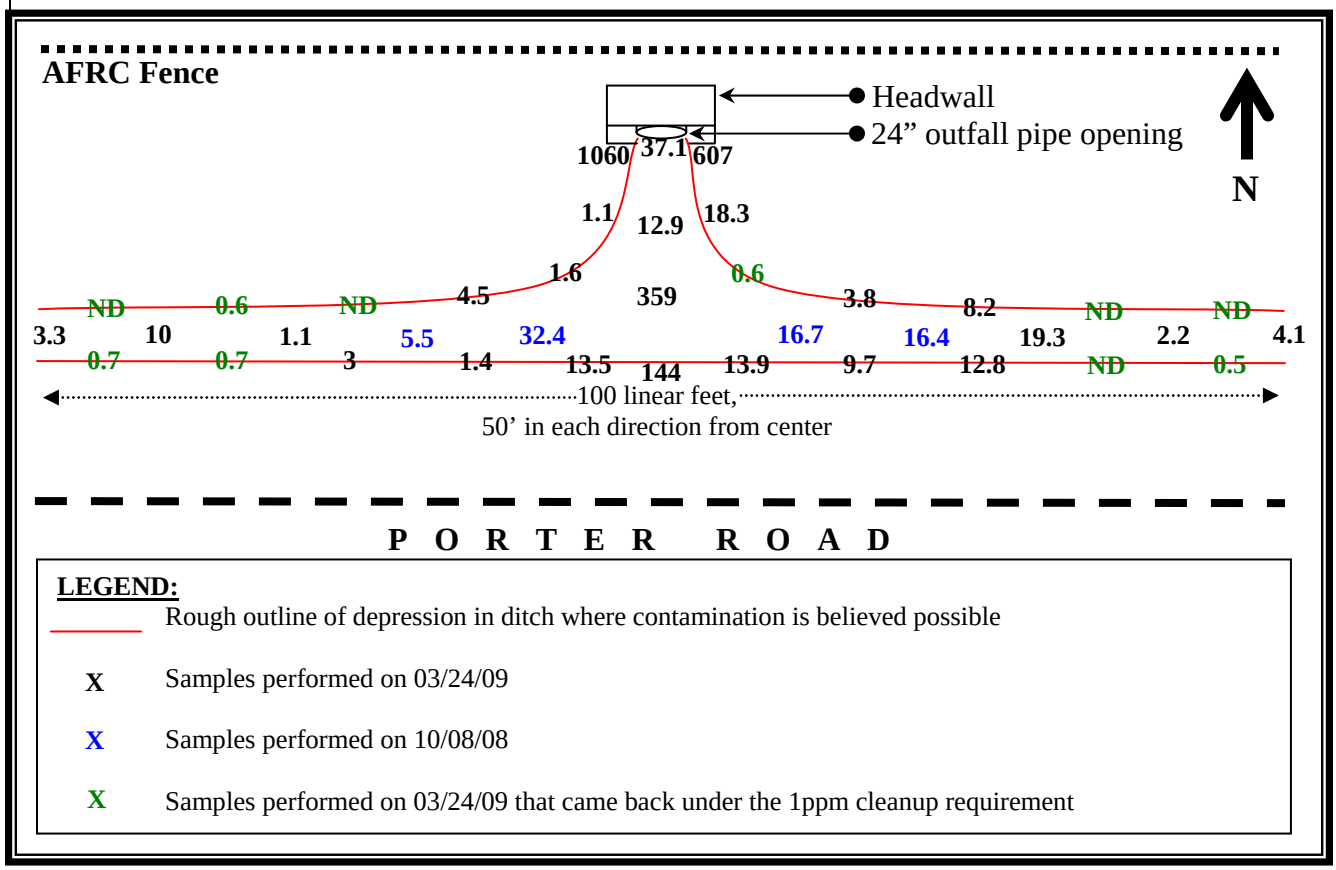
All excavated soil would be collected and stored on site, covered, on an impervious barrier and tested for haz-waste characteristics, then disposed of according to all applicable regulations.

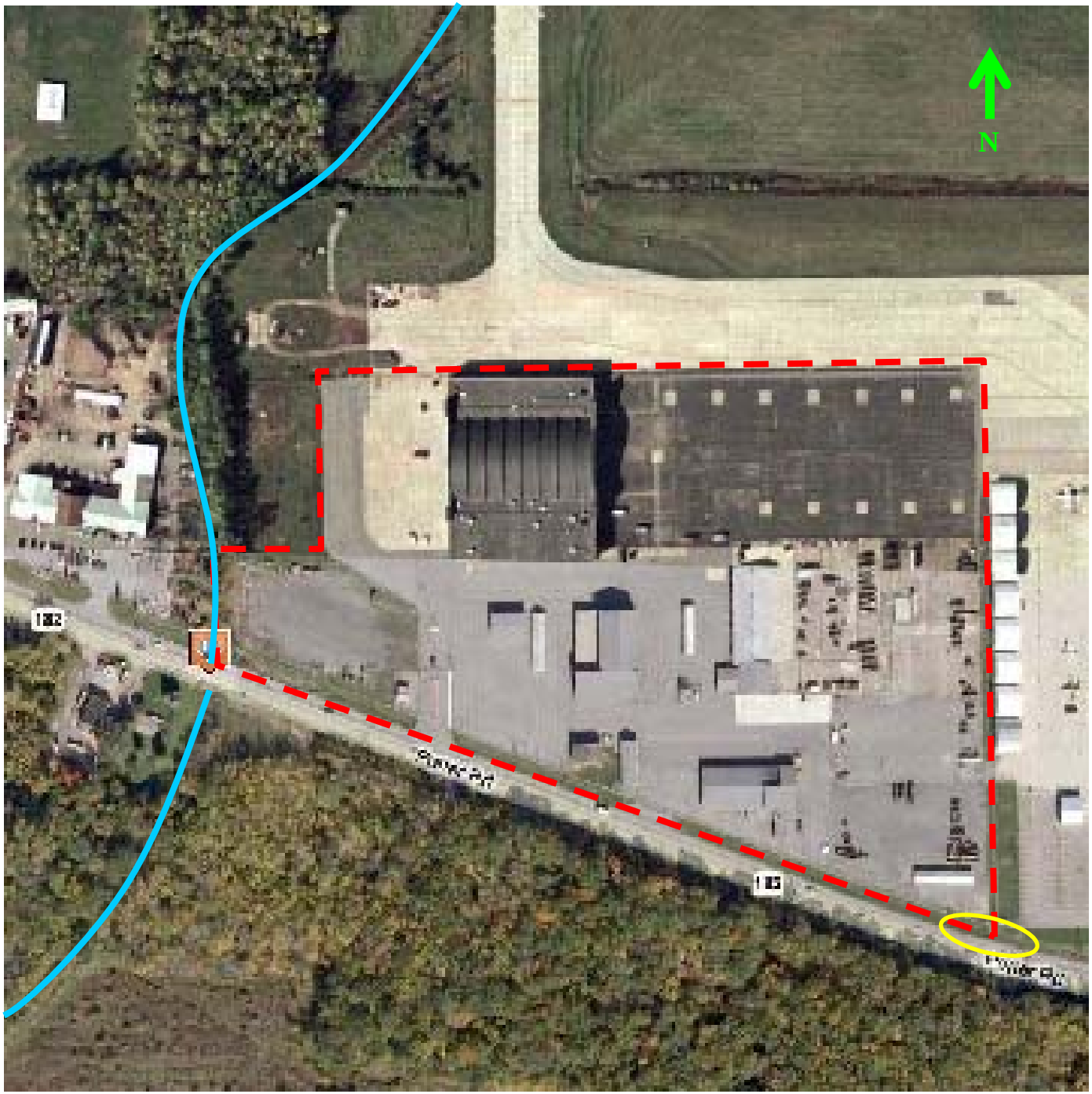
Take confirmatory samples taken in 4 points of the excavated area (highlighted in green). The DEC has directed us to use EPA Method 8082. They have set a maximum contaminant level (MCL) of 1ppm for the site to be considered cleaned.

Once the results of the 4 points of the excavated area have come back under the MCL, the site should be restored with rip-rap.

Full reports would be needed from the contractor with project summary, sampling methods, maps, sample results & chain of custodies, waste disposal documents & manifests, and photos of all steps of the project.

Rough diagram of sampling locations & results. All results are in ppm (parts per million)





Property Boundary

Area of outfall & sampling

Cayuga Creek

The approximate distance from the spill/ sampling site to Cayuga Creek is ¼ mile.

FIELD MEMORANDUM - TRIP REPORT

TO: FILE

FROM: CHRISTINE ALBA, 77TH RRC ARIM, ENVIRONMENTAL DIVISION

SUBJECT: NIAGARA FALLS USARC (NY046) SITE VISIT

SITE VISIT DATE: 06/23, 6/24, & 6/25 2008

DATE AUTHORED: 06/27/2008

PURPOSE OF VISIT: Christine Alba, of the 77th ARIM Environmental Division, visited the Niagara Falls USARC to oversee the investigation of the 24" corrugated pipe that leads to outfall 5, and the 6" pipe that flows into the 24" line about midway. The 6" line was formerly used as a drain for the former 500,000 gallon water reservoir, however, an oily substance has been discovered flowing from the line. Initial sample results taken on 1 May 2008 from the outfall area showed 2.81 ug/L Aroclor 1254.

UNITS & POINTS OF CONTACT:

Area Facility Manager:

Mr. Tim Cerow

Fort Drum DPW Off Post Engineers:

Mr. Jon Pashong
Mr. Pat Patterson
Mr. Bruce Aikman

RECAP OF FINDINGS/ EVENTS:

Pat, Jon, & Bruce used an excavator and shovels to excavate the 24" pipe where it is met by the 6" line.

24” pipe heading south towards outfall 5

Pat then used an acetylene & oxygen torch to open the 24” pipe over the spot where the 6” pipe comes into it.

Test America came on 6/23 and sampled the sediment at the base of the 6” pipe, since at the time, there was no fluid coming out of the 6” pipe. They are going to sample for haz-waste characteristics.

Path followed by effluent from the 6” pipe as it heads towards outfall 5.

Black substance is from the burning of the corrugated pipe. Mr. Patterson had to use an acetylene torch to open it.

Location of 6” pipe, entering the 24” pipe from the west side.

JA Brundage was hired to come and send a camera up the 6” line to try to find the source of the oily substance. Prior to sending the camera, they used a hose to clean out the pipe. When Mr. Brundage saw the oil with black flecks, he said he suspected it was PCB oil.

Hose used to clean out the 6” pipe.

Oily substance coming out of the 6” pipe once the hose was inserted.

Southern Fence line, along Porter Road

Location of Outfall 5, along Porter Road

Brundage got the hose about 15'-20' into the 6" line when he hit a blockage. They used a sensor to detect where the blockage was and marked it with orange marking paint.

"X" marks the spot where the blockage was sensed.

Valve discovered while excavating.

Jon used the excavator to excavate where the "X" had been marked. They wanted to verify that this was the location where the valve on the 6" pipe had been. At about 2' – 3' below grade, we found the top of the valve, dislodged from the pipe.

They moved the valve out of the way and used the shovel to start to dig to where the pipe was, but the hole where the valve was began to fill with an oily substance. It had a strong odor, similar to motor oil.

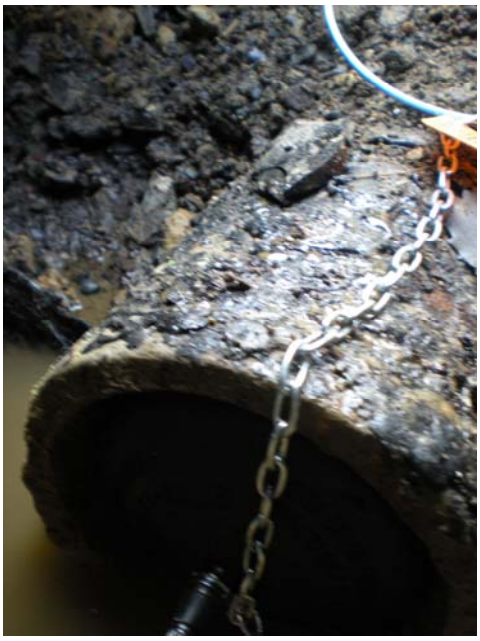
Due to the amount of oil found in the ground, and the oil coming out of the pipe, Brundage did not want to send their camera up the 6" line.

I called Test America and told them that we would need to take additional samples. Jon & I went to their office and picked up the vials needed to collect the sample.

Jon made the hole slightly larger in order to fit the 4oz jar, and it filled with more oil.

Since Brundage wouldn't send the camera up the line, there was no need to leave the line open.

Jon purchased this plug that he inserted into the end of the 6" line where the fluid had been entering the 24" line. He expanded it using an air compressor until it completely sealed the 6" pipe. This should prevent any further oil from ending up in Outfall 5.



The lab asked that we perform a phase test to confirm that the substance was not water soluble.

We took a pipette and sucked some of the substance from the hole in the ground, and put it into this vial that contained distilled water.

As you can see, the substance was an almost clear oil, with areas of red & brown. There were many black flecks floating in it.

Hole with oil, over 6" pipe. Hole with only water

Jon used the excavator to dig another hole about 8' north of the one where we'd found the oil to see if we could determine the extent of the plume. As you can see by the picture on the right, there was water in the clay layer, but no visible oil.

Outfall 5: You can see that the yellow substance which prompted the investigation extends from the pipe out into the ditch along Porter Road, and has started to extend westward along the ditch, towards Cayuga Creek. The area affected is approximately 25 square feet and needs to be excavated, as per NYSDEC.

Various photos showing the consistency of the substance, ranging from granular to large flakes. This is the substance that was tested that came back positive for 2.8ug/L Aroclor 1254 (a type of PCB).

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PARS
Environmental
Inc.

REMEDIAL ACTION REPORT

Niagara Falls US Armed Forces Reserve Center
9400 Porter Road
Niagara Falls, NY

NYSDEC SPILL #0803478

PREPARED FOR

UNITED STATES ARMY RESERVE
99TH REGIONAL SUPPORT COMMAND

AND

UNITED STATES ARMY CORP OF ENGINEERS,
LOUISVILLE DISTRICT

PREPARED BY

PARS Environmental, Inc.
500 Horizon Center, Suite 540
Robbinsville, NJ 08691
609-890-7277
609-890-9116 (Fax)

PARS PROJECT NO. 722-04/773-04

MARCH 2010

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APPENDIX A

Workplan (August 5, 2009)

APPENDIX B

Photographic Documentation

APPENDIX C

Analytical Laboratory Results

APPENDIX D

Disposal Documentation

APPENDIX E

NJDOT Highway Work Permit

APPENDIX F

Clean Fill Documentation

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STATEMENT OF TECHNICAL REVIEW

PARS Environmental, Inc. has completed the final Remedial Action Report for the investigation and cleanup at the Niagara Falls US Armed Forces Reserve Center located in Niagara Falls, New York (New York State Department of Environmental Conservation Spill # 0803478).

Notice is hereby given that an independent technical review has been conducted that is appropriate to the level of risk and complexity inherent in the project. During the independent technical review, compliance with established policy, principles and procedures, utilizing justified and valid assumptions, was verified. This included review of assumptions; methods, procedures and materials used in analyses; the appropriateness of data used and level of data obtained; and reasonableness of the results including whether the product meets the customer's needs consistent with the law and existing US Army Corp policy.

Significant concerns and explanation of the resolutions are documented within the project file. As noted above, all concerns resulting from the independent technical review of the project have been considered.

Project Manager
Michael D. Moore

3/3/10
Date

Independent Technical Review Team Leader
John P. Mihalich

3-3-10
Date

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1.0 INTRODUCTION

PARS Environmental, Inc (PARS) was retained by the United States Army Reserve 99th Regional Support Command (99th RSC) and the United States Army Corp of Engineers, Louisville District (USACE) to perform investigation and remedial action activities at the Niagara Falls US Armed Forces Reserve Center (USAFRC). The objective of the investigation and remediation was to address New York State Department of Environmental Conservation (NYSDEC) Spill # 0803478 (see Section 2.0).

The USAFRC is located at 9400 Porter Road in Niagara Falls, New York, hereinafter, the "Site." A Site Location Map and Site Plan are included as Figure 1 and Figure 2, respectively.

As outlined in the *Workplan* prepared by PARS (August 5, 2009) and presented to Mr. Salvatore Calandra of the NYSDEC, Region 9, investigation and remedial activities were conducted at the Site between August and December 2009. A copy of the *Workplan* is provided as Appendix A.

Investigation activities at the Site included the collection of surface soil samples to delineate polychlorinated biphenyl (PCB) impacts in a drainage swale located immediately south of the Site along Porter Road. Remedial activities included the cleaning of approximately 260 linear feet of a 24-inch diameter corrugated metal pipe (CMP) associated with the on-site storm sewer located along the eastern boundary of the Site. Additionally, approximately 134 tons of PCB impacted soil was excavated from the drainage swale. The drainage swale was backfilled with clean fill and restored to pre-excavation conditions. Locations of the drainage swale and storm sewer system (including Outfall No. 5) are depicted in Figure 2.

2.0 BACKGROUND

The Site is owned by the United States Army 99th RSC. On June 24, 2008, a milky white substance was observed discharging from a 24-inch diameter CMP at Outfall No.5, which is located immediately southeast of the Site. NYSDEC was notified of the incident on June 24, 2008 and Spill # 0803478 was assigned.

The 24-inch diameter CMP is oriented in a north-south direction and is approximately 260 feet in length. This pipe discharges to the drainage swale along the north side of Porter Road. The drainage swale along Porter Road is oriented in an east-west direction and directs storm water in a westerly direction toward Cayuga Creek. The drainage swale terminates at Cayuga Creek, which is approximately 1,400 feet west of Outfall No. 5.

An investigation of the 24-inch diameter CMP and the drainage swale was conducted in June 2008 by the 99th RSC. An oily substance was videotaped flowing into the 24-inch diameter CMP from a 6-inch diameter cast iron pipe, which was subsequently sealed. A yellow substance was also observed discharging from the outfall into the drainage swale.

As part of the investigation, a sediment sample was collected from the 24-inch diameter CMP adjacent to the 6 inch cast iron pipe and a sample of the yellow substance was collected from the drainage swale. The sample results revealed that the sediment in the pipe and the yellow substance present in the swale contained detectable levels of PCBs. Aroclor 1254 was detected in the sediment sample at a concentration of 220 milligrams per kilogram (mg/kg) and in the sample of the yellow substance at a concentration of 2.81 micrograms per liter (µg/L).

A soil investigation of the drainage swale was performed in October 2008 and March 2009 to evaluate the extent of PCB impacted soil in the drainage swale. Aroclor 1254 was detected in the soil samples collected from the drainage swale at concentrations ranging from non-detect to 1,060 mg/kg. Additionally, Aroclor 1260 was detected in one soil sample (D7) at a concentration of 2.98 mg/kg. Based on the findings of the investigation, it was concluded that additional soil delineation was required to determine the extent of PCB impacted soil in the drainage swale.

3.0 SCOPE OF WORK

NYSDEC mandated that the 24-inch diameter CMP be cleaned out and that the impacted soil in the drainage swale be excavated and replaced. A maximum contaminant level (MCL) of 1 mg/kg for PCBs in soil was established by NYSDEC for the remediation action.

Between September and December 2009, the following investigation and remedial action activities were completed at the Site as outlined in the *Workplan* dated August 5, 2009.

- Fifteen (15) surface soil samples were collected to delineate the extent of PCB impacts in the drainage swale in the vicinity of Outfall No.5. Soil samples were analyzed for PCBs using United States Environmental Protection Agency (USEPA) Method 8082.

- Approximately 260 linear feet of a 24-inch diameter CMP associated with Outfall No. 5 was cleaned using a high pressure wash. The contents of the pipe and water used in the cleaning process were containerized for proper disposal.

- Approximately 134 tons of PCB impacted soil from the drainage swale along the north side of Porter Road was excavated and properly disposed.

- Fifteen (15) composite post-excavation confirmation samples were collected from the drainage swale after the soil removal activities. Soil samples were analyzed for PCBs using USEPA Method 8082.

- Imported clean backfill material to restore the drainage swale to similar conditions prior to excavation activities. Grass seed was placed to restore the vegetative cover and Jute mesh material was used to stabilize the swale.

PARS provided oversight for all investigation and remediation activities at the Site. GZA GeoEnvironmental of New York (GZA) and Matrix Environmental Technologies, Inc. (Matrix) provided support services for the investigation and remediation of the drainage swale and cleanout of the 24-inch diameter CMP. Additionally, TestAmerica provided laboratory analytical services for the project.

4.0 FIELD ACTIVITIES

This section of the report describes the investigation and remedial action field activities conducted at the Site. Prior to initiating the field activities, Dig Safe New York was contacted to locate the underground utilities within the work area. A site-specific health and safety plan also was developed prior to initiating field activities. Photographic documentation of investigation and remediation activities is included in Appendix B.

4.1 SOIL DELINEATION

On August 20, 2009, 15 surface soil samples were collected along the centerline of the drainage swale to delineate the extent of PCB impacted soil. The samples were collected at 10-foot intervals outside of the areas previously investigated in October 2008 and March 2009. The additional delineation included nine surface soil samples to the west (H-1 through H-9) and six surface soil samples to the east (G-1 through G-6) of the area previously investigated. Soil sample locations, designations and laboratory analytical results are depicted in Figure 3.

The samples were collected in accordance with the *Workplan* dated August 5, 2009. A stainless steel hand trowel was used to collect the surface soil samples at a depth of approximately 0 to 0.25 feet below the vegetative cover present in the drainage swale. Samples were placed in laboratory supplied containers and placed in an iced cooler to maintain the required temperature. The stainless steel trowel was decontaminated between sampling locations using Alconox and distilled water to clean the trowel, followed by water to rinse free of the cleaning agent. The soil samples were submitted using proper chain-of-custody procedures to TestAmerica located in Amherst, New York. Soil samples were analyzed for PCBs analysis using USEPA Method 8082. The laboratory analytical results for the surface soil delineation sampling are summarized on Table 1 and the corresponding laboratory report is included in Appendix C.

Based on the October 2008/March 2009 investigation and the analytical results of the 15 surface soil delineation samples, an approximately 180 foot by 8 foot area of the drainage swale was identified for remediation. For disposal purposes, the soil within the proposed area of excavation was separated into two categories: soil areas with sample results equal to or greater than 50 mg/kg and soil areas with sample results below 50 mg/kg.

4.2 24- INCH DIAMETER PIPE CLEAN OUT

On September 10, 2009, a truck mounted sewer jet cleaner (Super Products, Model Camel 200®) was used to pressure wash approximately 260 linear feet of the 24-inch diameter CMP north of Outfall No. 5. The CMP was accessed through Outfall No. 5 at the discharge point to the drainage swale.

The sewer jet cleaner was equipped with a rotating head attachment that rotates 360 degrees using pressurized water to clean the interior of the pipe. The jet cleaner was advanced into the 24-inch diameter CMP from the south to the north end of the pipe run prior to initiating the high pressure cleaning operation. Pressure cleaning of the CMP was conducted from the north end to the south end of the pipe at Outfall No. 5.

Approximately 1,265 gallons of water were used to the clean the CMP. Water, sediment and debris from the pipe cleaning operations were collected at the spillway for the outfall using a vacuum truck.

Wash water samples (W-1 and W-2) were collected from the vacuum truck for waste characterization parameters, which included toxicity characteristic leaching procedure (TCLP) volatile organic compounds (VOCs), TCLP semi-volatile organic compounds (SVOCs), TCLP metals, TCLP herbicides, TCLP pesticides, PCBs, pH, flashpoint, cyanide, sulfide and oil & grease. Laboratory analytical results of the wash water samples are included in Appendix C.

The contents of the vacuum truck were transferred from the vacuum truck into 55-gallon steel drums. These drums were staged at the Site until approval was received for proper disposal. On December 14, 2009, 1,265 gallons of wash water from the cleaning of the CMP were transported to Covanta Energy located in Niagara Falls, New York. The 55-gallon drums used to store the wash water were pressure washed by Matrix and were transported off-site for reuse. Water generated during the cleaning of the drums was also transported to Covanta Energy for proper disposal. Disposal documentation is included as Appendix D.

Sediment present in the drums was placed in the hazardous soil pile generated during the drainage swale soil excavation (see Section 4.3 for details).

4.3 SOIL EXCAVATION

Prior to the start of the drainage swale excavation activities, the horizontal limits of the soil excavation and underground utilities were marked-out. A highway work permit was obtained from the New York State Department of Transportation to conduct excavation work. A copy of the permit is included in Appendix E.

4.3.1 Excavation – September 15 and 16, 2009

On September 15 and 16, 2009, the impacted soil was excavated using a tracked mini-excavator. The excavated area consisted of approximately four feet on either side of the center line of the drainage swale to an approximate depth of one foot. The excavation was extended over a length of approximately 180 linear feet. Excavation boundaries are depicted in Figure 4. Excavated soil was transported via dump truck to two stockpiles at the Site. Soil with concentrations above 50 mg/kg (hazardous soil pile) was excavated from the drainage swale in the vicinity of the spillway for the outfall and soil with concentrations below 50 mg/kg (non-hazardous soil pile) was excavated from the swale both east and west of the spillway.

The soil was stockpiled on polyethylene sheeting with hay bales used as retaining walls. The piles were covered with polyethylene sheeting at the end of each work day and secured with cinder blocks and bricks.

Ten post-excavation confirmatory soil samples were collected from the excavation area and were designated as CS-1 through CS-10 (see Section 4.4.1). After collection of confirmation samples, the excavated area was covered using non-woven geotextile that was secured with wooden stakes and metal pins.

4.3.2 Excavation – October 8, 2009

Based on the laboratory analytical results of the confirmation soil samples collected on September 16, 2009, an area was identified that required additional excavation to meet the MCL of 1 mg/kg. The area requiring additional excavation is depicted in Figure 4.

Additional soil excavation was completed on October 8, 2009 within the area depicted in Figure 4. An additional one foot of soil was excavated from within the previously excavated footprint using a tracked mini excavator for a total excavated depth of approximately two feet. Soil excavated from this area was transported via a dump truck to the non-hazardous soil pile because the PCB concentrations of the confirmatory soil samples were well below 50 mg/kg. The expanded non-hazardous soil pile was also covered with polyethylene sheeting and secured with cinder blocks and bricks.

Five additional post-excavation confirmatory soil samples were collected from the excavation area and were designated as CS-11 through CS-15 (see Section 4.4.2). Upon receipt of the confirmatory sample results, which indicated that PCBs were not detected above 1 mg/kg, the drainage swale was backfilled with clean clay material (see Section 5.0).

A composite soil sample was collected from each of the two stockpiles for waste characterization. The sample collected from the hazardous soil pile was designated as S-2 and the sample collected from the non-hazardous soil pile was designated as S-3. Sample analysis included TCLP VOCs, TCLP SVOCs, TCLP metals, TCLP herbicides, TCLP pesticides, PCBs, pH, flashpoint, cyanide, sulfide and oil & grease. The laboratory analytical results for the two stockpile samples are included in Appendix C.

On December 4, 2009, the PCB contaminated soil (approximately 10.86 tons) was transported to the Chemical Waste Management facility located in Model City, New York. The non-hazardous soil pile (approximately 123.33 tons) was transported to the Allied Waste Niagara Falls Landfill, Division of Republic Services located in Niagara Falls, New York. Disposal Documentation is included as Appendix D.

4.4 POST-EXCAVATION SOIL SAMPLING

4.4.1 Post-Excavation Soil Sampling - September 16, 2009

Ten post-excavation composite confirmatory soil samples (CS-1 through CS-10) were collected following initial excavation of the drainage swale on September 16, 2009. Post-excavation soil samples were collected in general accordance with the USEPA, *Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup* (May 1986). The locations of these post-excavation samples are depicted in Figure 4.

A stainless steel hand trowel was used to collect the confirmatory composite samples at a depth interval of 0 to 0.25 feet below the excavated grade (1.0 to 1.25 feet below the original grade of the drainage swale). The stainless steel trowel was decontaminated between sampling locations using Alconox and distilled water to clean the trowel and water to rinse free of the cleaning agent. Samples were placed in laboratory supplied sample containers and placed in an iced cooler to maintain the required temperature.

The samples were submitted under chain-of-custody to Test America in Amherst, New York for PCB analysis using USEPA Method 8082. The laboratory analytical results for the post-excavation soil samples are summarized in Table 2 and the corresponding laboratory report is included in Appendix C.

Based on the laboratory analytical results from samples CS-5 through CS-9, an area of the drainage swale required additional remediation to meet the MCL of 1 mg/kg set by NYSDEC. PCB concentrations in these five soil samples ranged from 1.9 to 18 mg/kg.

A duplicate composite soil sample was collected at CS-6. The duplicate sample was collected by splitting the composited sample and transferring the split samples into separate laboratory grade sample containers. Results of the split samples from CS-6 were comparable.

4.4.2 Post-Excavation Soil Sampling –October 8, 2009

After additional soil excavation activities were completed on October 8, 2009, five post-excavation composite confirmatory soil samples were collected from the drainage swale (CS-11 through CS-15). The locations of these post-excavation samples are depicted in Figure 5. The samples were collected at a depth interval of 0 to 0.25 feet below the excavation grade (2.0 to 2.25 below the original grade of the drainage swale). Post-excavation sampling was conducted in general accordance with the USEPA, *Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup*.

A stainless steel hand trowel was used for sample collection. The stainless steel trowel was decontaminated between sampling locations using Alconox and distilled water to clean the trowel and water to rinse free of the cleaning agent. Samples were placed in laboratory supplied sample containers and place in an iced cooler to maintain the required temperature

The samples were submitted under chain-of-custody to Test America in Amherst, New York for PCB analysis using USEPA Method 8082. Laboratory analytical results of the additional post-excavation soil samples are summarized in Table 3 and the corresponding laboratory report is included in Appendix C.

PCB concentrations of the post-excavation soil samples were below the MCL of 1 mg/kg set by NYSDEC.

A duplicate composite soil sample was collected at CS-14. The duplicate sample was collected by splitting the composted sample and transferring the split samples into separate laboratory grade sample containers. Results of the split samples for CS-14 were comparable.

5.0 SITE RESTORATION

On October 14, 2009, the 4 oz. non-woven geotextile was removed from the drainage swale. The geotextile material was placed with the non-hazardous soil stockpile prior to backfilling activities. Clean clay soil from Seven Springs Gravel Products Facility in Strafford, New York, was used to backfill and restore the drainage swale. This facility has been issued a permit by NYSDEC to mine unconsolidated materials. The clay material had similar characteristics to the soils excavated from the drainage swale. Approximately 106 tons of backfill material was used. Clean fill documentation is included as Appendix F.

The backfill material was placed in the drainage swale and spread using the front blade on the mini-excavator. The backfilled area was graded to promote positive drainage from the east to the west, as was the condition prior to the start of the remedial action. The finished grade of the drainage swale was seeded and stabilized with a Jute mesh stabilization material.

6.0 CONCLUSIONS

On August 20, 2009, 15 surface soil samples were collected along the centerline of the drainage swale to delineate the extent of PCB impacted soil. The samples were collected as outlined in the *Workplan* dated August 5, 2009. Based on the results of the investigation, an approximately 180 foot by 8 foot area of the drainage swale was identified for remediation.

On September 10, 2009, a truck mounted sewer jet cleaner was used to pressure wash approximately 260 linear feet of the 24-inch diameter CMP north of Outfall No. 5. Water, sediment and debris from the interior of the pipe cleaning operations were collected at the spillway for the outfall using a vacuum truck. The contents of the vacuum truck were transferred to 55-gallon steel drums and staged at the Site. On December 14, 2009, 1,265 gallons of wash water were transported to Covanta Energy located in Niagara Falls, New York for proper disposal.

On September 15 and 16, 2009, PCB impacted soil was excavated using a tracked mini-excavator. Excavated soil was transported via dump truck to two stockpiles (hazardous and non-hazardous soil piles). Ten post-excavation confirmatory soil samples were collected from the excavation area (CS-1 through CS-10). Based on the laboratory analytical results, an area was identified that required additional excavation to meet the MCL of 1 mg/kg.

On October 8, 2009, an additional one foot of soil was excavated from within the previously excavated footprint using a tracked mini excavator. Excavated soil was transported via a dump truck to the non-hazardous soil pile. Five post-excavation confirmatory soil samples were collected from the additional excavation area (CS-11 through CS-15). Post-excavation soil sample results were below the MCL of 1 mg/kg. The excavated area was backfilled using clean fill and the drainage swale was restored using seed and stabilized with a mesh stabilization material.

On December 4, 2009, the non-hazardous soil pile (approximately 123.33 tons) was transported to Allied Waste Niagara Falls Landfill, Division of Republic Services located in Niagara Falls, New York. The hazardous soil pile (approximately 10.86 tons) was transported to the Chemical Waste Management facility located in Model City, New York.

Based on the post-excavation analytical results, PARS recommends no further action for Spill # 0803478. On behalf of the 99th RSC, PARS requests that NYSDEC close this open spill case.

FIGURES

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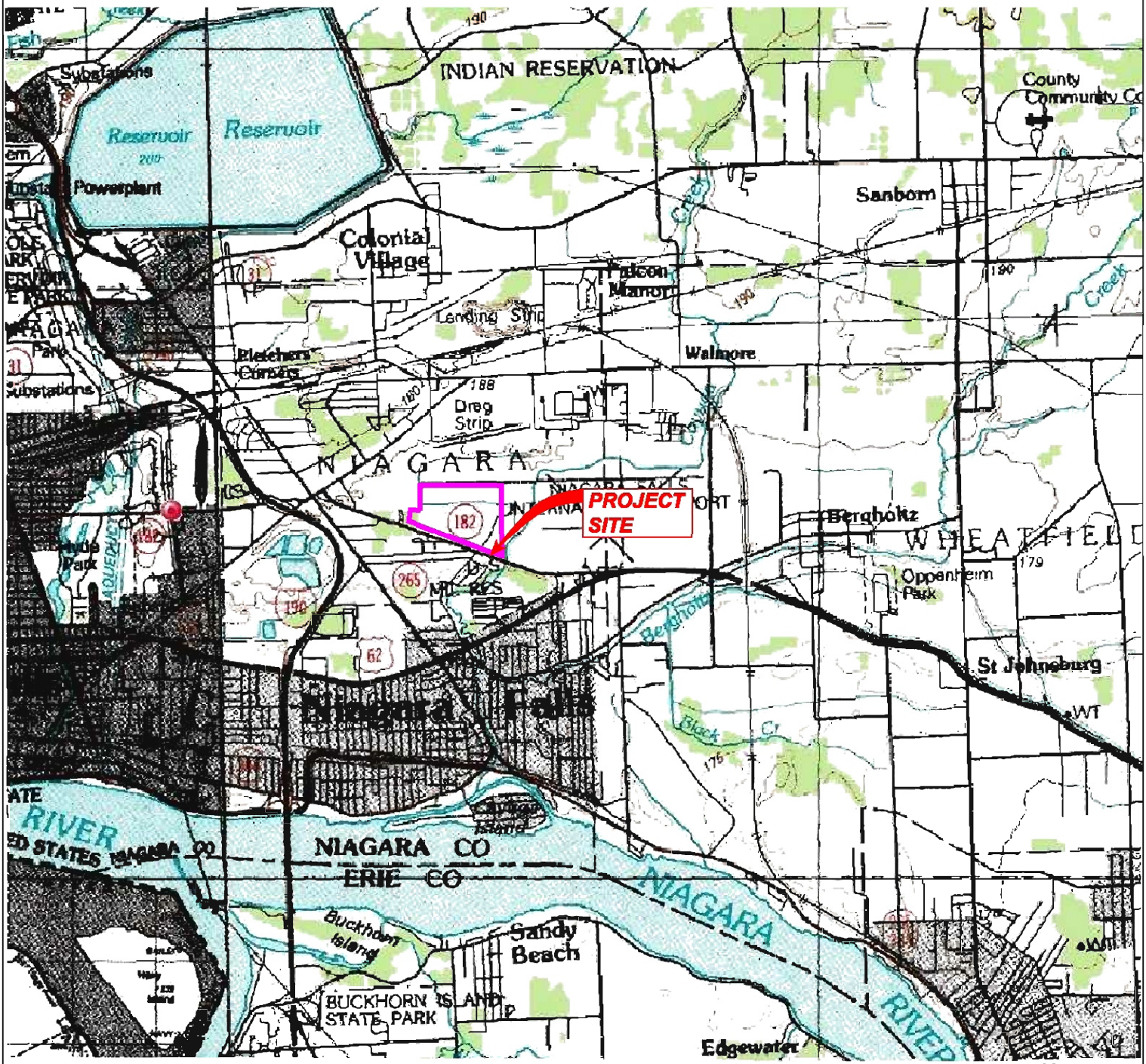


0 500 1000 2000

SCALE IN FEET

N
W E
S

NOTE:
BASE MAP ADAPTED FROM U.S.G.S. TOPOGRAPHIC MAPS DOWNLOADED FROM TERRASERVER.MICROSOFT.COM

FIGURE 1
SITE LOCATION MAP
USAFRC
NIAGARA FALLS, NEW YORK

PARS ENVIRONMENTAL, INC.
ROBBINSVILLE, NEW JERSEY

DR. BY: KN	SCALE: 1" = 2,000'	JOB No.: 773-04
CK'D. BY: MM	DATE: 1/10/10	FILE NO.: 773-04
REV. NO. –	REV. DATE: –	FIGURE NO.:1

NOTES:

1. BASE MAP ADAPTED FROM A 2008 AERIAL PHOTO AND PROPERTY LINE DOWNLOADED FROM http://www.bing.com/maps/l AND FIELD OBSERVATIONS.

2. THE SIZE AND LOCATION OF EXISTING SITE FEATURES SHOULD BE CONSIDERED APPROXIMATE.

FIGURE 2
SITE PLAN
USAFRC
NIAGARA FALLS, NEW YORK

PARS ENVIRONMENTAL, INC.
ROBBINSVILLE, NEW JERSEY

DR. BY: KN	SCALE: 1" = 40'	JOB No.: 773-04
CK'D. BY: MM	DATE: 1/10/10	FILE NO.: 773-04
REV. NO. –	REV. DATE: 3/2/10	FIGURE NO.: 2

24" Ø CMP

SOIL EXCAVATED FROM OUTSIDE SHADED AREA HANDLED AS NON-HAZARDOUS (<50 ppm)

H-9 0.142 mg/kg
H-8 0.129 mg/kg
H-7 0.27 mg/kg
H-6 0.214 mg/kg
H-5 1.200 mg/kg
H-4 0.62 mg/kg
H-3 0.41 mg/kg
H-2 1.1 mg/kg
H-1 0.234 mg/kg

SAMPLES H-1 THROUGH H-9 COLLECTED ON 8/20/09

HATCHED AREA PREVIOUSLY SAMPLED ON 10/08/08 AND 03/24/09

SAMPLES G-1 THROUGH G-6 COLLECTED ON 8/20/09

PORTER ROAD

EXCAVATION LIMITS BASED ON ALL SAMPLING RESULTS

SOIL EXCAVATED FROM WITHIN SHADED AREA HANDLED AS HAZARDOUS (>50 ppm)

G-1 1.5 mg/kg
G-2 2.5 mg/kg
G-3 0.210 mg/kg
G-4 0.140 mg/kg
G-5 0.110 mg/kg
G-6 0.037 mg/kg

NORTH

NOTES:

1. BASE MAP ADAPTED FROM A 2008 AERIAL PHOTO AND PROPERTY LINE DOWNLOADED FROM http://www.bing.com/maps/ AND FIELD OBSERVATIONS.

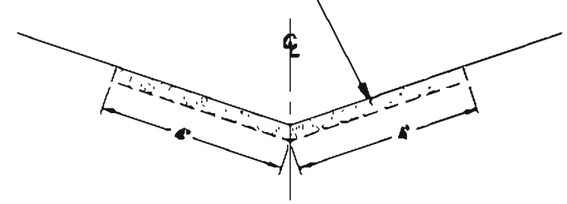
2. THE SIZE AND LOCATION OF EXISTING SITE FEATURES SHOULD BE CONSIDERED APPROXIMATE.

0 15 30
SCALE IN FEET

LEGEND:

H-2 ●
0.640 mg/kg — SAMPLE LOCATION, DESIGNATION AND CONCENTRATION OF POLYCHLORINATED BIPHYNOLS (PCB's)

EXCAVATION LIMITS BASED ON ALL SAMPLING RESULTS



DITCH SECTION
NOT TO SCALE

FIGURE 3
SOIL DELINEATION MAP (AUGUST 20, 2009) AND EXCAVATION LIMITS
USAFRC
NIAGARA FALLS, NEW YORK

PARS ENVIRONMENTAL, INC.
ROBBINSVILLE, NEW JERSEY

DR. BY: KN	SCALE: 1" = 15'	JOB No.: 773-04
CK'D. BY: MM	DATE: 1/10/10	FILE NO.: 773-04
REV. NO. --	REV. DATE: 3/2/10	FIGURE NO..3

APPROXIMATE EXCAVATION LIMITS

24" Ø CMP

APPROXIMATE CENTERLINE OF SWALE

CS-1

CS-2

CS-3

CS-4

CS-5

CS-6

CS-7

CS-8

CS-9

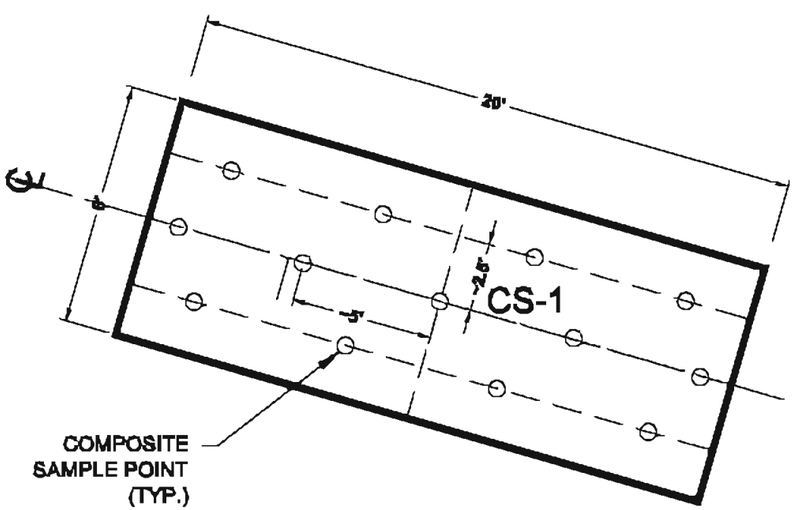
CS-10

BASED ON POST-EXCAVATION SAMPLE RESULTS, ADDITIONAL EXCAVATION REQUIRED WITHIN SHADED AREA. SEE FIGURE 5.

NORTH

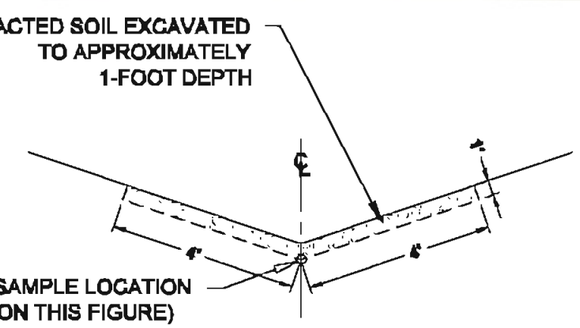
PORTER ROAD

POST-EXCAVATION COMPOSITE SAMPLES COLLECTED ON 9/16/09



POST-EXCAVATION COMPOSITE SAMPLE TEMPLATE

NOT TO SCALE



DITCH SECTION

NOT TO SCALE

NOTES:

1. BASE MAP ADAPTED FROM A 2008 AERIAL PHOTO AND PROPERTY LINE DOWNLOADED FROM http://www.bing.com/maps/! AND FIELD OBSERVATIONS.

2. THE SIZE AND LOCATION OF EXISTING SITE FEATURES SHOULD BE CONSIDERED APPROXIMATE.

3. COMPOSITE SAMPLE SPACING BASED ON "*FIELD MANUAL FOR GRID SAMPLING OF PCB SPILL SITES TO VERIFY CLEANUP*" EPA, MAY, 1986.

0 15 30

SCALE IN FEET

LEGEND:

CS-7

POST-EXCAVATION COMPOSITE SAMPLE IDENTIFICATION AND PCB CONCENTRATION FROM 9/16/09 SAMPLES

APPROXIMATE EXCAVATION LIMITS

FIGURE 4
POST-EXCAVATION CONFIRMATORY SAMPLE LOCATION MAP (9/16/2009)
USAFRC
NIAGARA FALLS, NEW YORK

PARS ENVIRONMENTAL, INC.
ROBBINSVILLE, NEW JERSEY

DR. BY: KN	SCALE: 1" = 15'	JOB No.: 773-04
CK'D. BY: MM	DATE: 1/10/10	FILE NO.: 773-04
REV. NO. –	REV. DATE: 3/1/10	FIGURE NO.: 4

24" Ø CMP

NORTH

CS-15
(0.007 J mg/kg)

CS-14
(0.006 J mg/kg)

CS-13
(0.800 mg/kg)

CS-12
(0.023 mg/kg)

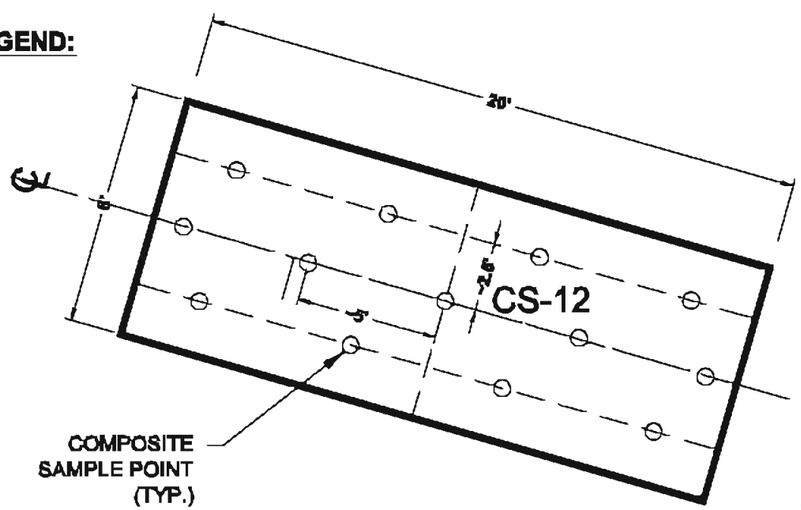
CS-11
(0.17 mg/kg)

POST-EXCAVATION COMPOSITE SAMPLES COLLECTED ON 10/8/09

APPROXIMATE "ADDITIONAL" EXCAVATION LIMITS

PORTER ROAD

LEGEND:

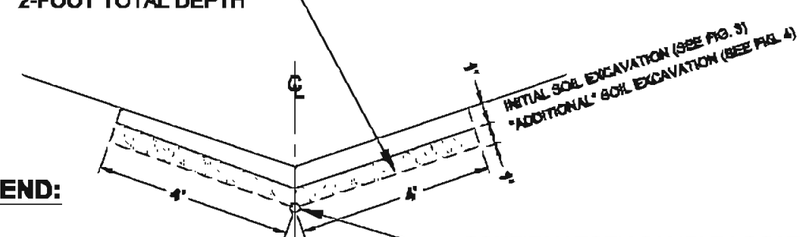


COMPOSITE SAMPLE POINT (TYP.)

POST-EXCAVATION COMPOSITE SAMPLE TEMPLATE

NOT TO SCALE

IMPACTED SOIL EXCAVATED TO APPROXIMATELY 2-FOOT TOTAL DEPTH



DITCH SECTION

NOT TO SCALE

CONFIRMATORY SAMPLE LOCATION (AS SHOWN ON THIS FIGURE 5)

APPROXIMATE "ADDITIONAL" EXCAVATION LIMITS

LEGEND:

CS-13

POST-EXCAVATION COMPOSITE SAMPLE IDENTIFICATION AND PCB CONCENTRATION FROM 10/8/2009 SAMPLES

NOTES:

1. BASE MAP ADAPTED FROM A 2008 AERIAL PHOTO AND PROPERTY LINE DOWNLOADED FROM http://www.bing.com/maps/ AND FIELD OBSERVATIONS.

2. THE SIZE AND LOCATION OF EXISTING SITE FEATURES SHOULD BE CONSIDERED APPROXIMATE.

3. COMPOSITE SAMPLE SPACING BASED ON "*FIELD MANUAL FOR GRID SAMPLING OF PCB SPILL SITES TO VERIFY CLEANUP*" EPA, MAY, 1986.

4. J-ANALYTE DETECTED AT A LEVEL LESS THAN THE REPORTING LIMIT AND GREATER THAN THE METHOD DETECTION LIMIT.

0 15 30

SCALE IN FEET

FIGURE 5
POST-EXCAVATION CONFIRMATORY SAMPLE LOCATION MAP (10/8/2009)
USAFRC
NIAGARA FALLS, NEW YORK

PARS ENVIRONMENTAL, INC.
ROBBINSVILLE, NEW JERSEY

DR. BY: KN	SCALE: 1" = 15'	JOB No.: 773-04
CK'D. BY: MM	DATE. 1/10/10	FILE NO.: 773-04
REV. NO. –	REV. DATE: 3/1/10	FIGURE NO.: 5

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TABLES

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Table 1
Soil Delineation Results - August 2009
9400 Porter Road
Niagara Falls, New York

Sample Location		G1	G2	G3	G4	G5	G6	H1	H2
Laboratory Sample ID	Maximum	RSH0587-01	RSH0587-02	RSH0587-03	RSH0587-04	RSH0587-05	RSH0587-6	RSH0857-07	RSH0587-08
Sample Date	Contaminant	8/20/2009	8/20/2009	8/20/2009	8/20/2009	8/20/2009	8/20/2009	8/20/2009	8/20/2009
Sample Depth (ft)	Level	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25
PCBs (mg/kg)									
EPA Method 8082	1.0	**1.5**	**2.5**	0.21	0.14	0.11	0.037	0.234	**1.1**

Sample Location		H3	H4	H5	H6	H7	H8	H9
Laboratory Sample ID	Maximum	RSH0587-09	RSH0587-10	RSH0587-11	RSH02587-12	RSH0587-13	RSH0587-14	RSH0587-15
Sample Date	Contaminant	8/20/2009	8/20/2009	8/20/2009	8/20/2009	8/20/2009	8/20/2009	8/20/2009
Sample Depth (ft)	Level	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25
PCBs (mg/kg)								
EPA Method 8082	1.0	0.41	0.62	**1.3**	0.214	0.27	0.129	0.142

Notes:

Samples detected at levels exceeding the Maximum Contaminant Level are shown in bold and underlined [**thus**].

mg/kg Milligrams per kilogram
ND Non-detect

Sampling Information:
Samples were collected in 8 oz glass containers.
Samples were placed in iced coolers at approximately 4°C.

Table 2
Post Excavation Soil Results - September 2009
9400 Porter Road
Niagara Falls, New York

Sample Location		CS-1	CS-2	CS-3	CS-4	CS-5	CS-6	CS-6 (DUP)	CS-7
Laboratory Sample ID	Maximum	RSI0550-01	RSI0550-02	RSI0550-03	RSI0550-04	RSI0550-05	RSI0550-06	RSI0550-11	RSI0550-07
Sample Date	Contaminant	9/16/2009	9/16/2009	9/16/2009	9/16/2009	9/16/2009	9/16/2009	9/16/2009	9/16/2009
Sample Depth (ft bgs)	Level	1.0-1.25	1.0-1.25	1.0-1.25	1.0-1.25	1.0-1.25	1.0-1.25	1.0-1.25	1.0-1.25
PCBs (mg/kg)									
EPA Method 8082	1.0	0.33	0.27	0.17	0.39	**14**	**18**	**12**	**14**

Sample Location		CS-8	CS-9	CS-10
Laboratory Sample ID	Maximum	RSI0550-08	RSI0550-09	RSI0550-10
Sample Date	Contaminant	9/16/2009	9/16/2009	9/16/2009
Sample Depth (ft)	Level	1.0-1.25	1.0-1.25	1.0-1.25
PCBs (mg/kg)				
EPA Method 8082	1.0	**4.8**	**1.9**	0.33

Notes:

Samples detected at levels exceeding the Maximum Contaminant Level are shown in bold and underlined [**thus**].

mg/kg Milligrams per kilogram
ND Non-detect

Sampling Information:
Samples were collected in 8 oz glass containers.
Samples were placed in iced coolers at approximately 4°C.

Table 3
Post-Excavation Soil Results - October 2009
9400 Porter Road
Niagara Falls, New York

Sample Location		CS-11	CS-12	CS-13	CS-14	CS-14(DUP)	CS-15
Laboratory Sample ID	Maximum	RSJ0561-01	RSJ0561-02	RSJ0561-03	RSJ0561-04	RSJ0561-06	RSJ0561-05
Sample Date	Contaminant	10/8/2009	10/8/2009	10/8/2009	10/8/2009	10/8/2009	10/8/2009
Sample Depth (ft bgs)	Level	2.0-2.25	2.0-2.25	2.0-2.25	2.0-2.25	2.0-2.25	2.0-2.25
PCBs (mg/kg)							
EPA Method 8082	1.0	0.170	0.022	0.800	0.006 J	0.016 J	0.007 J

Notes:

mg/kg Milligrams per kilogram
ND Non-detect
J Analyte detected at a level less than the Reporting Limit and greater than the Method Detection Limit.

Sampling Information:
Samples were collected in 8 oz glass containers.
Samples were placed in iced coolers at approximately 4°C.

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APPENDIX A

Workplan (August 5, 2009)

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PARS
Environmental
Inc.

6A South Gold Drive
Robbinsville, NJ 08691

Tel: 609-890-7277
Fax: 609-890-9116

August 5, 2009

Mr. Salvatore Calandra
New York State Department of Environmental Conservation
Region 9
270 Michigan Avenue
Buffalo, New York 14202

RE: Niagara Falls US Armed Forces Reserve Center
9400 Porter Road
Niagara Falls, New York
Spill Number 0803478

I. INTRODUCTION

On behalf of the United States Army Reserve (USAR), 99th Regional Support Command, PARS Environmental, Inc. (PARS) is pleased to present the New York Department of Environmental Conservation (NYDEC) with this workplan to address the spill incident reported on June 24, 2008 (Spill Number 0803478).

The spill occurred at the US Armed Forces Reserve Center (USAFRC) located at 9400 Porter Road in Niagara Falls, New York, hereinafter the "Site." The Site is currently owned by the 77th Regional Readiness Command (RRC). A Site Location Map and Site Plan are included as Figure 1 and Figure 2, respectively.

II. BACKGROUND

On June 24, 2008, a milky white substance was discovered discharging from a 24" diameter corrugated metal pipe to an outfall located along the southeastern boundary of the Site (Outfall Number 005). The 24" diameter corrugated metal pipe runs approximately 260' from north to south along the southeastern boundary of the Site and discharges to a drainage ditch along Porter Road. This drainage ditch runs from east to west along the southern border of the Site, terminating at Cayuga Creek. The approximate location of the 24" diameter corrugated metal pipe, the outfall and the drainage ditch are depicted in Figure 2.

The 77th RRC conducted an investigation of the 24" diameter corrugated metal pipe and the drainage ditch in June 2008. An oily substance was videotaped flowing into the corrugated metal pipe from a six inch diameter cast iron pipe, which was subsequently sealed. A yellow substance was visible extending from the outfall into the drainage ditch.

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On June 23, 2008, a sediment sample was collected from the 24" diameter corrugated metal pipe (adjacent to the 6" cast iron pipe). Additionally, a sample of the yellow substance was collected from the drainage ditch. Sample results showed that the yellow substance present in the ditch contained polychlorinated biphenyls (PCBs). Aroclor 1254 was detected in the sediment sample at a concentration of 220 milligrams per kilogram (mg/kg) and Aroclor 1254 was detected in the sample of the yellow substance at a concentration of 2.81 micrograms per liter (µg/L).

A soil investigation of the drainage ditch was performed in October 2008 and March 2009 to evaluate the extent of PCB soil impacts. Aroclor 1254 was detected in the soil samples collected from the drainage ditch at concentrations ranging from non-detect to 1,060 mg/kg. Additionally, Aroclor 1260 was detected in one soil sample (D7) at a concentration of 2.98 mg/kg. Based on the findings of the investigation, it was concluded that additional soil delineation was required to determine the extent of the PCB soil impacts. The locations of the soil samples collected in October 2008 and March 2009 are depicted in Figure 3. Analytical results for the investigation are summarized in Table 1 and the corresponding laboratory reports are included in Attachment I.

III. WORKPLAN SCOPE OF WORK

The NYSDEC has mandated that the 24" diameter corrugated metal pipe be cleaned out and that the impacted soil be excavated and replaced in the drainage ditch. A maximum contaminant level (MCL) of 1 mg/kg for PCB soil impacts has been established by the NYSDEC.

The following Scope of Work has been developed by the USAR, 99th Regional Support Command to investigate and cleanup the discharge to the drainage ditch. The NYSDEC will be notified a minimum of one week prior to initiating investigation and remediation activities proposed by the workplan. Permits will be obtained prior to performing any work at the Site. These permits may include, but may not be limited to, New York State Department of Transportation (NYSDOT) right-of-way (R/W) work permit and excavation permits.

A Health and Safety Plan (HASP) will be prepared in accordance with Occupational Safety and Health Administration (OSHA) requirements. All work will be performed in accordance with the applicable OSHA and New York State health and safety regulations, as well as the USACE Safety Manual EM-385-1-1.

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Soil Delineation

Additional soil sampling will be performed at the Site to delineate PCB soil impacts in the drainage ditch. Fifteen (15) soil samples will be collected along the center line of drainage ditch at ten foot intervals to delineate the horizontal extent of the soil impacts. The proposed delineation will include nine samples west of the outfall and six samples east of the outfall. The proposed sample locations are depicted in Figure 3.

The samples will be collected with a properly decontaminated stainless steel hand trowel at a depth interval of 0.0 to 0.25 feet below ground surface. Samples will be containerized in laboratory supplied dedicated sample containers then placed on ice and maintained at the required temperature. The samples will be submitted under chain-of-custody to a NYS certified lab. Soil samples will be analyzed for PCBs using EPA Method 8082.

Pressurized Cleaning of Corrugated Pipe

A sewer jet truck will be used to clean the 24” diameter corrugated pipe. The hose jet will have a spinning head and will use water to clean the interior surface of the pipe. The sewer jet will make one pass through the pipe, working from north to south towards the outfall.

Water and any debris will be collected at the outfall and pumped into a temporary storage tank or vacuum truck. Access to the corrugated pipe will be achieved through an existing opening.

Upon completion of cleaning of the pipe, a composite sample of the water will be collected from the temporary storage tank. The composite sample will be analyzed for waste characterization parameters to determine the appropriate disposal method. The water and debris from the pipe will be disposed in accordance with state and federal regulations.

Soil Remediation

Prior to the excavation of PCB impacted soil, a utility mark out will be performed by calling the New York State One-Call or Dig Safe.

Impacted soil (PCB concentrations above 1 mg/kg) will be excavated from the drainage ditch using a backhoe/front end loader or vacuum truck. The boundaries of the excavation will be based on the results of soil delineation activities. It is estimated that approximately 80 tons of impacted soil will be excavated from the drainage ditch.

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The excavated soil will be directly loaded into trucks or will be staged on polyethylene sheeting within the fence line of the Site. A composite sample will be collected and will be analyzed for waste characterization parameters to determine the appropriate disposal method. The PCB impacted soil will be disposed in accordance with state and federal regulations. Based on previous sample investigation activities, a portion of the excavated soil (concentrations greater than 50 mg/kg) will be disposed at a hazardous waste landfill permitted by the United States Environmental Protection Agency (USEPA) under Section 3004 of the Resource Conservation Recovery Act (RCRA).

Immediately after completion of excavation activities, post-excavation soil samples will be collected from the drainage ditch. Sampling will be performed in accordance with the sampling requirements under the Toxic Substance Control Act (40 CFR 761.130). The *Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup* (Midwest Research Institute, May 1986) will be used for sample collection. Based on the expected boundaries of the excavation, it is assumed that ten composite post-excavation/confirmation samples will be collected from the drainage ditch. The samples will be collected with a properly decontaminated stainless steel hand trowel and will be containerized in laboratory supplied dedicated sample containers then placed on ice and maintained at the required temperature. The samples will be submitted under chain-of-custody to a NYS certified lab and will be analyzed for PCBs using EPA Method 8082.

The drainage ditch will be restored to pre-excavation conditions by backfilling the excavation with clean top soil. Additionally, the drainage ditch will be seeded and stabilized using straw or seed starter mats.

Remedial Action Report

A letter report will be prepared after the completion of the proposed investigation and remediation activities. The report will include a narrative of the investigation and remediation, as well as figures and tables. Photographs of cleanup activities, disposal documentation and laboratory analytical reports will be included as appendices to the letter report.

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Robbinsville, NJ 08691

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Fax: 609-890-9116

IV. SCHEDULE

The investigation and remediation activities will be implemented after the NYSDEC approves the proposed workplan. The following schedule is based on the completion time for tasks from the date of approval. It is estimated that the project will be completed in approximately 12 weeks from the date of authorization to proceed.

Task Description	Completion Date from Workplan Approval
Health and Safety Plan	1 week
Permits (NYSDOT work permits, etc.)	3-4 weeks
Soil Delineation/Data Review	6 weeks
Pressure Cleaning of Corrugated Pipe	8 weeks
Soil Remediation/Data Review/Site Restoration	10 weeks
Remedial Action Report	12 weeks

If you have any questions or comments regarding this proposed workplan, please do not hesitate to contact our office at 609-890-7277.

Sincerely,

PARS ENVIRONMENTAL, INC.

Kiran K. Gill, CIHM, MBA
President

Michael D. Moore, P.G.
Project Manager

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Figures

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FIGURE 1
SITE LOCATION MAP
9400 PORTER ROAD
NIAGARA FALLS, NEW YORK

PARS ENVIRONMENTAL, INC.
ROBBINSVILLE, NEW JERSEY

DR. BY: KN	SCALE: NOT TO SCALE	JOB No.: 722-04
CK'D. BY: MM	DATE: 8/4/09	FILE NO.: 722-04
REV. NO. -	REV. DATE: -	FIGURE NO.: 1

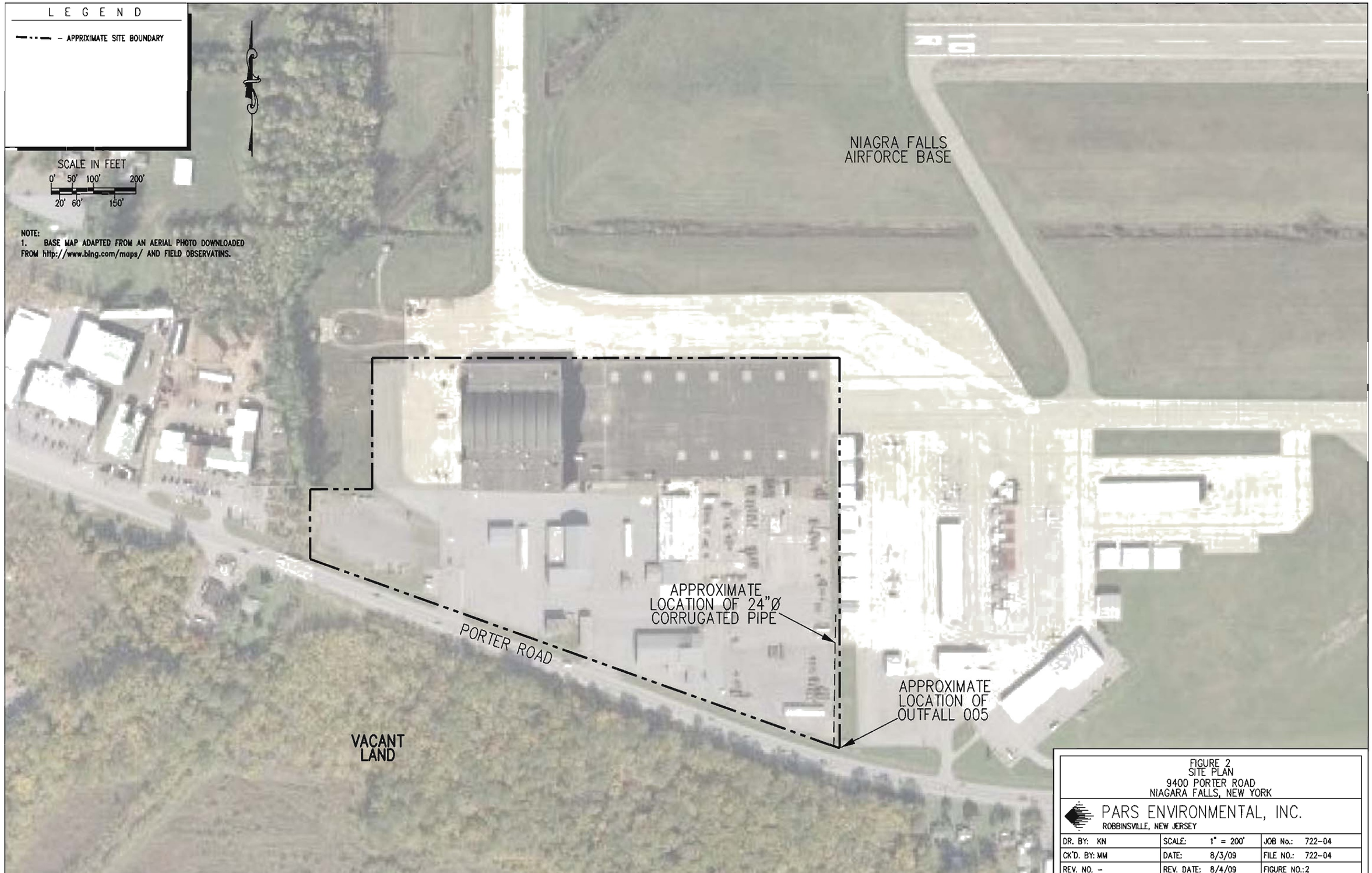

FIGURE 2
SITE PLAN
9400 PORTER ROAD
NIAGARA FALLS, NEW YORK

PARS ENVIRONMENTAL, INC.
ROBBINSVILLE, NEW JERSEY

DR. BY: KN	SCALE: 1" = 200'	JOB No.: 722-04
CK'D. BY: MM	DATE: 8/3/09	FILE NO.: 722-04
REV. NO. –	REV. DATE: 8/4/09	FIGURE NO.:2

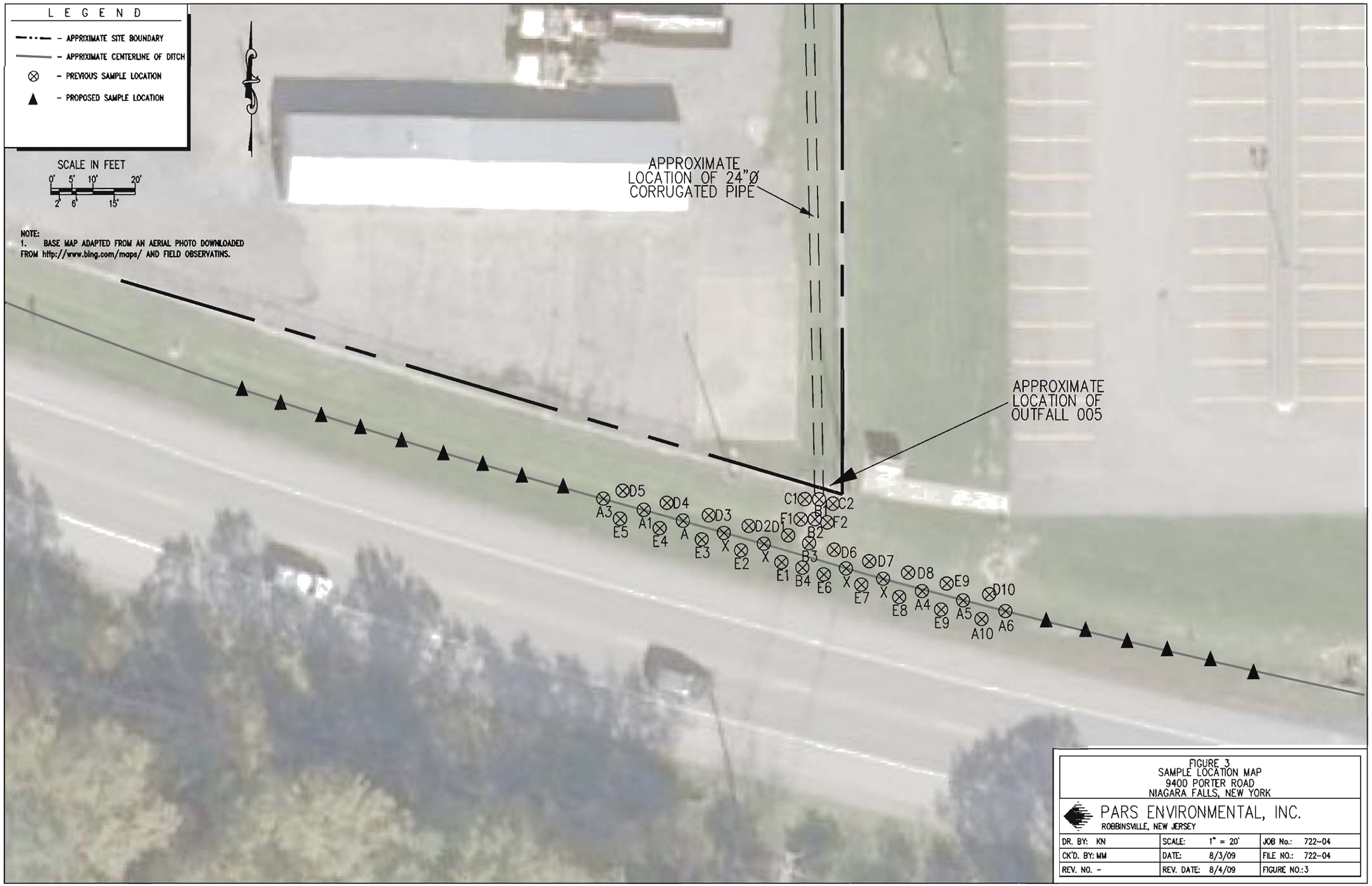

FIGURE 3
SAMPLE LOCATION MAP
9400 PORTER ROAD
NIAGARA FALLS, NEW YORK

PARS ENVIRONMENTAL, INC.
ROBBINSVILLE, NEW JERSEY

DR. BY: KN	SCALE: 1" = 20'	JOB No.: 722-04
CK'D. BY: MM	DATE: 8/3/09	FILE NO.: 722-04
REV. NO. -	REV. DATE: 8/4/09	FIGURE NO.:3

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Table

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Table 1
Soil Analytical Results
9400 Porter Road
Niagara Falls, New York

Sample Location		Outfall + 10E	Outfall + 20E	Outfall +10W	Outfall + 20W	B1	C1	E2
Laboratory Sample ID	Maximum	8J08014-01RE1	8J08014-02RE1	8J08014-03RE1	8J08014-04RE1	9C25002-01	9C25002-02	9C25002-09
Sample Date	Contaminant	10/10/2008	10/10/2008	10/10/2008	10/10/2008	3/24/2009	3/24/2009	3/24/2009
Sample Depth (ft)	Level	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25
PCBs (mg/kg)								
EPA Method 8082	1.0	**16.7**	**16.4**	**32.4**	**5.45**	**37.1**	**1060**	**1.39**

Sample Location		C2	B2	B3	B4	D1	E1	E5
Laboratory Sample ID	Maximum	9C25002-03	9C25002-04	9C25002-05	9C25002-06	9C25002-07	9C25002-08	9C25002-15
Sample Date	Contaminant	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009
Sample Depth (ft)	Level	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25
PCBs (mg/kg)								
EPA Method 8082	1.0	**607**	**12.9**	**359**	**144**	**1.56**	**13.5**	0.651

Table 1
Soil Analytical Results
9400 Porter Road
Niagara Falls, New York

Sample Location		D3	E3	D4	E4	D5	D7	E7
Laboratory Sample ID	Maximum	9C25002-10	9C25002-11	9C25002-12	9C25002-13	9C25002-14	9C25002-21	9C25002-22
Sample Date	Contaminant	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009
Sample Depth (ft)	Level	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25
PCBs (mg/kg)								
EPA Method 8082	1.0	ND	**3.04**	0.648	0.747	ND	**6.81**	**9.73**

Sample Location		A1	A2	A3	D6	E6	D10	E10
Laboratory Sample ID	Maximum	9C25002-16	9C25002-17	9C25002-18	9C25002-19	9C25002-20	9C25002-27	9C25002-28
Sample Date	Contaminant	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009
Sample Depth (ft)	Level	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25
PCBs (mg/kg)								
EPA Method 8082	1.0	**1.11**	**9.86**	**3.32**	0.597	**13.9**	ND	0.525

Table 1
Soil Analytical Results
9400 Porter Road
Niagara Falls, New York

Sample Location		D8	E8	D9	E9	F1	F2
Laboratory Sample ID	Maximum	9C25002-23	9C25002-24	9C25002-25	9C25002-26	9C25002-33	9C25002-34
Sample Date	Contaminant	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009
Sample Depth (ft)	Level	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25
PCBs (mg/kg)							
EPA Method 8082	1.0	**8.17**	**12.8**	ND	ND	**1.1**	**18.3**

Sample Location		A4	A5	A6	D2	DUP 1	DUP 2
Laboratory Sample ID	Maximum	9C25002-29	9C25002-30	9C25002-31	9C25002-32	9C25002-35RE1	9C25002-36
Sample Date	Contaminant	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009	3/24/2009
Sample Depth (ft)	Level	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25	0.0-0.25
PCBs (mg/kg)							
EPA Method 8082	1.0	**19.3**	**2.17**	**32.4**	**5.45**	**21.7**	**10.3**

Table 1
Soil Analytical Results
9400 Porter Road
Niagara Falls, New York

Notes:

Samples detected at levels exceeding the Maximum Contaminant Level are shown in bold and underlined [**thus**].

mg/kg Milligrams per kilogram
ND Non-detect

Sampling Information:
Samples were collected in 8 oz glass containers.
Samples were placed in iced coolers at approximately 4°C.

Attachment I
Investigation Laboratory Results

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WASTE STREAM TECHNOLOGY, INC.
302 Grote Street
Buffalo, NY 14207
(716) 876-5290

Analytical Data Report
Report Date: 10/10/08
Work Order Number: 8J08014

Prepared For
Ken Paisley

Sevenson Environmental Services

2749 Lockport Road

Niagara Falls, NY 14302

Fax: (716) 285-4201

Site: Niagara Falls Airbase

Enclosed are the results of analyses for samples received by the laboratory on 10/08/08. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Brian S. Schepart, Ph.D., Laboratory Director

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757 CTDPH #PH-0306 MADEP #M-NY063

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: Niagara Falls Airbase	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	10/10/08 16:11

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Outfall + 10E	8J08014-01	Soil	10/08/08 08:15	10/08/08 11:45
Outfall + 20E	8J08014-02	Soil	10/08/08 08:20	10/08/08 11:45
Outfall + 10W	8J08014-03	Soil	10/08/08 08:25	10/08/08 11:45
Outfall + 20W	8J08014-04	Soil	10/08/08 08:30	10/08/08 11:45

Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: Niagara Falls Airbase	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	10/10/08 16:11

Polychlorinated Biphenyls by EPA Method 8082

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Outfall + 10E (8J08014-01RE1) Soil Sampled: 10/08/08 08:15 Received: 10/08/08 11:45									
Aroclor 1016	ND	1650	ug/kg dry	500	AJ80905	10/09/08	10/10/08	8082	U
Aroclor 1221	ND	1650	"	"	"	"	"	"	U
Aroclor 1232	ND	1650	"	"	"	"	"	"	U
Aroclor 1242	ND	1650	"	"	"	"	"	"	U
Aroclor 1248	ND	1650	"	"	"	"	"	"	U
Aroclor 1254	**16700**	1650	"	"	"	"	"	"	
Aroclor 1260	ND	1650	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		%	*74-133*		"	"	"	"	*S-01, U*
Surrogate: Decachlorobiphenyl		%	*61-133*		"	"	"	"	*S-01, U*
Outfall + 20E (8J08014-02RE1) Soil Sampled: 10/08/08 08:20 Received: 10/08/08 11:45									
Aroclor 1016	ND	1650	ug/kg dry	500	AJ80905	10/09/08	10/10/08	8082	U
Aroclor 1221	ND	1650	"	"	"	"	"	"	U
Aroclor 1232	ND	1650	"	"	"	"	"	"	U
Aroclor 1242	ND	1650	"	"	"	"	"	"	U
Aroclor 1248	ND	1650	"	"	"	"	"	"	U
Aroclor 1254	**16400**	1650	"	"	"	"	"	"	
Aroclor 1260	ND	1650	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		%	*74-133*		"	"	"	"	*S-01, U*
Surrogate: Decachlorobiphenyl		%	*61-133*		"	"	"	"	*S-01, U*
Outfall + 10W (8J08014-03RE1) Soil Sampled: 10/08/08 08:25 Received: 10/08/08 11:45									
Aroclor 1016	ND	1650	ug/kg dry	500	AJ80905	10/09/08	10/10/08	8082	U
Aroclor 1221	ND	1650	"	"	"	"	"	"	U
Aroclor 1232	ND	1650	"	"	"	"	"	"	U
Aroclor 1242	ND	1650	"	"	"	"	"	"	U
Aroclor 1248	ND	1650	"	"	"	"	"	"	U
Aroclor 1254	**32400**	1650	"	"	"	"	"	"	
Aroclor 1260	ND	1650	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		%	*74-133*		"	"	"	"	*S-01, U*
Surrogate: Decachlorobiphenyl		%	*61-133*		"	"	"	"	*S-01, U*

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: Niagara Falls Airbase	Reported:
Niagara Falls NY, 14302	Project Manager: Ken Paisley	10/10/08 16:11

Polychlorinated Biphenyls by EPA Method 8082

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Outfall + 20W (8J08014-04RE2) Soil Sampled: 10/08/08 08:30 Received: 10/08/08 11:45									
Aroclor 1016	ND	165	ug/kg dry	50	AJ80905	10/09/08	10/10/08	8082	U
Aroclor 1221	ND	165	"	"	"	"	"	"	U
Aroclor 1232	ND	165	"	"	"	"	"	"	U
Aroclor 1242	ND	165	"	"	"	"	"	"	U
Aroclor 1248	ND	165	"	"	"	"	"	"	U
Aroclor 1254	**5450**	165	"	"	"	"	"	"	
Aroclor 1260	ND	165	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		%	*74-133*		"	"	"	"	*S-01, U*
Surrogate: Decachlorobiphenyl		%	*61-133*		"	"	"	"	*S-01, U*

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sevenson Environmental Services 2749 Lockport Road Niagara Falls NY, 14302	Project: Niagara Falls Project Number: Niagara Falls Airbase Project Manager: Ken Paisley	Reported: 10/10/08 16:11

Conventional Chemistry Parameters by EPA Methods

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Outfall + 10E (3J08014-01) Soil Sampled: 10/08/08 08:15 Received: 10/08/08 11:45									
% Solids	**60.5**	0.1	%	1	AJ81007	10/09/08	10/10/08	% calculation	
Outfall + 20E (8J08014-02) Soil Sampled: 10/08/08 08:20 Received: 10/08/08 11:45									
% Solids	**76.3**	0.1	%	1	AJ81007	10/09/08	10/10/08	% calculation	
Outfall + 10W (8J08014-03) Soil Sampled: 10/08/08 08:25 Received: 10/08/08 11:45									
% Solids	**29.4**	0.1	%	1	AJ81007	10/09/08	10/10/08	% calculation	
Outfall + 20W (8J08014-04) Soil Sampled: 10/08/08 08:30 Received: 10/08/08 11:45									
% Solids	**31.8**	0.1	%	1	AJ81007	10/09/08	10/10/08	% calculation	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Notes and Definitions

U	Analyte included in the analysis, but not detected at or above the reporting limit.
S-01	The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interferences.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

CHAIN OF CUSTODY

WASTE STREAM TECHNOLOGY

Waste Stream Technology Inc.
302 Grote Street, Buffalo, NY 14207
(716) 876-5290 • FAX (716) 876-2412

OFFICE USE ONLY
GROUP # 8J08014
DUE DATE

PAGE 1 OF 1

TURN AROUND TIME: 2 SD
QUOTATION NUMBER

ARE SPECIAL DETECTION LIMITS REQUIRED: YES (NO)
If yes please attach requirements

Is a DO Package required: YES (NO)
If yes please attach requirements

SURVEYOR: Jeff Schirley
Niagara Falls

CONTACT: Jeff
PHONE: 716 284-0931
FAX #: 716 285-4201
BILL TO:
PO#:
PROJECT DESCRIPTION: Niagara Falls Airbase
SAMPLED BY: [signature]

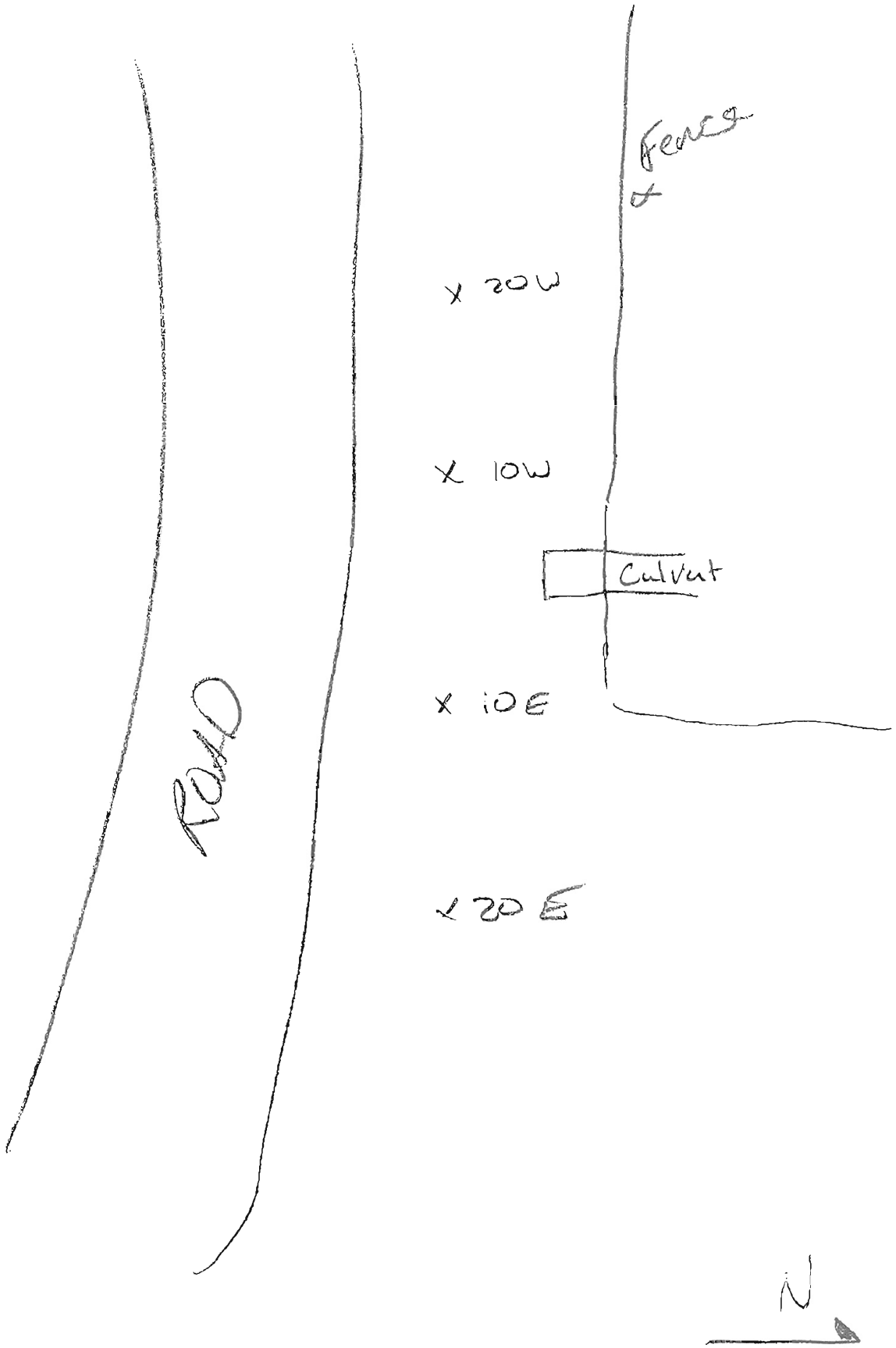
DW DRINKING WATER
GW GROUND WATER
SW SURFACE WATER
WW WASTE WATER
O OIL
SL RUNOFF
SO SOIL
S SOLID
W WIPE
OTHER

ANALYSES TO BE PERFORMED

		DATE SAMPLED	TIME OF SAMPLING	SAMPLE TYPE	TOTAL NO. OF CONTAINERS	Total PCB									TYPE OF CONTAINER/ COMMENTS:	US-CE USE ONLY VIST ID.
1	Outfall + 10 E	10/8/08	0815	So	1	X									1x8oz	-01
2	Out fall + 20 E		0820		1	X										-02
3	Outfall + 10 W		0825		1	X										-03
4	Out fall + 20W		0830		1	X										-04
5																
6																
7																
8																
9																
10																

REMARKS:

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
[signature]	10/8/08	1010	[signature]	10/8/08	10:10
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
[signature]	10/8/08	11:45	Alfonso Bellomo	10/8/08	11:45


Fence
x 20W
x 10W
Culvert
x 10E
ROAD
x 20E
N

WASTE STREAM TECHNOLOGY, INC.

302 Grote Street
Buffalo, NY 14207
(716) 876-5290

Analytical Data Report
Report Date: 04/06/09
Work Order Number: 9C25002

Prepared For
Ken Paisley

Sevenson Environmental Services

2749 Lockport Road

Niagara Falls, NY 14302

Fax: (716) 285-4201

Site: NFAFB

Enclosed are the results of analyses for samples received by the laboratory on 03/24/09. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Brian S. Schepart, Ph.D., Laboratory Director

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS

NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757 CTDPH #PH-0306 MADEP #M-NY068

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B1	9C25002-01	Soil	03/24/09 09:35	03/24/09 16:25
C1	9C25002-02	Soil	03/24/09 09:37	03/24/09 16:25
C2	9C25002-03	Soil	03/24/09 09:38	03/24/09 16:25
B2	9C25002-04	Soil	03/24/09 09:40	03/24/09 16:25
B3	9C25002-05	Soil	03/24/09 09:41	03/24/09 16:25
B4	9C25002-06	Soil	03/24/09 09:43	03/24/09 16:25
D1	9C25002-07	Soil	03/24/09 09:48	03/24/09 16:25
E1	9C25002-08	Soil	03/24/09 09:50	03/24/09 16:25
E2	9C25002-09	Soil	03/24/09 09:54	03/24/09 16:25
D3	9C25002-10	Soil	03/24/09 09:55	03/24/09 16:25
E3	9C25002-11	Soil	03/24/09 09:57	03/24/09 16:25
D4	9C25002-12	Soil	03/24/09 10:00	03/24/09 16:25
E4	9C25002-13	Soil	03/24/09 10:01	03/24/09 16:25
D5	9C25002-14	Soil	03/24/09 10:07	03/24/09 16:25
E5	9C25002-15	Soil	03/24/09 10:08	03/24/09 16:25
A1	9C25002-16	Soil	03/24/09 09:59	03/24/09 16:25
A2	9C25002-17	Soil	03/24/09 10:05	03/24/09 16:25
A3	9C25002-18	Soil	03/24/09 10:06	03/24/09 16:25
D6	9C25002-19	Soil	03/24/09 10:13	03/24/09 16:25
E6	9C25002-20	Soil	03/24/09 10:15	03/24/09 16:25
D7	9C25002-21	Soil	03/24/09 10:17	03/24/09 16:25
E7	9C25002-22	Soil	03/24/09 10:19	03/24/09 16:25
D8	9C25002-23	Soil	03/24/09 10:22	03/24/09 16:25
E8	9C25002-24	Soil	03/24/09 10:23	03/24/09 16:25
D9	9C25002-25	Soil	03/24/09 10:28	03/24/09 16:25
E9	9C25002-26	Soil	03/24/09 10:30	03/24/09 16:25
D10	9C25002-27	Soil	03/24/09 10:35	03/24/09 16:25
E10	9C25002-28	Soil	03/24/09 10:37	03/24/09 16:25
A4	9C25002-29	Soil	03/24/09 10:25	03/24/09 16:25
A5	9C25002-30	Soil	03/24/09 10:32	03/24/09 16:25
A6	9C25002-31	Soil	03/24/09 10:38	03/24/09 16:25

The results in this report apply to the samples as received by the laboratory and analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sevenson Environmental Services	Project:	Niagara Falls	
2749 Lockport Road	Project Number:	NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager:	Ken Paisley	04/06/09 16:08

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
D2	9C25002-32	Soil	03/24/09 09:53	03/24/09 16:25
F1	9C25002-33	Soil	03/24/09 09:45	03/24/09 16:25
F2	9C25002-34	Soil	03/24/09 09:46	03/24/09 16:25
DUP 1	9C25002-35	Soil	03/24/09 00:00	03/24/09 16:25
DUP 2	9C25002-36	Soil	03/24/09 00:00	03/24/09 16:25

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Polychlorinated Biphenyls by EPA Method 8082

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B1 (9C25002-01) Soil Sampled: 03/24/09 09:35 Received: 03/24/09 16:25									
Aroclor 1016	ND	493	ug/kg dry	10	AC92604	03/26/09	03/26/09	8082	U
Aroclor 1221	ND	493	"	"	"	"	"	"	U
Aroclor 1232	ND	493	"	"	"	"	"	"	U
Aroclor 1242	ND	493	"	"	"	"	"	"	U
Aroclor 1248	ND	493	"	"	"	"	"	"	U
Aroclor 1254	**37100**	493	"	"	"	"	"	"	
Aroclor 1260	ND	493	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*95.5 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*104 %*	*61-133*		*"*	*"*	*"*	*"*	
C1 (9C25002-02RE2) Soil Sampled: 03/24/09 09:37 Received: 03/24/09 16:25									
Aroclor 1016	ND	40900	ug/kg dry	1000	AC92604	03/26/09	03/30/09	8082	U
Aroclor 1221	ND	40900	"	"	"	"	"	"	U
Aroclor 1232	ND	40900	"	"	"	"	"	"	U
Aroclor 1242	ND	40900	"	"	"	"	"	"	U
Aroclor 1248	ND	40900	"	"	"	"	"	"	U
Aroclor 1254	**1060000**	40900	"	"	"	"	"	"	
Aroclor 1260	ND	40900	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*%*	*74-133*		*"*	*"*	*"*	*"*	*S-06, U*
Surrogate: Decachlorobiphenyl		*%*	*61-133*		*"*	*"*	*"*	*"*	*S-06, U*
C2 (9C25002-03RE1) Soil Sampled: 03/24/09 09:38 Received: 03/24/09 16:25									
Aroclor 1016	ND	9170	ug/kg dry	200	AC92604	03/26/09	03/28/09	8082	U
Aroclor 1221	ND	9170	"	"	"	"	"	"	U
Aroclor 1232	ND	9170	"	"	"	"	"	"	U
Aroclor 1242	ND	9170	"	"	"	"	"	"	U
Aroclor 1248	ND	9170	"	"	"	"	"	"	U
Aroclor 1254	**607000**	9170	"	"	"	"	"	"	
Aroclor 1260	ND	9170	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*%*	*74-133*		*"*	*"*	*"*	*"*	*S-06, U*
Surrogate: Decachlorobiphenyl		*%*	*61-133*		*"*	*"*	*"*	*"*	*S-06, U*

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Polychlorinated Biphenyls by EPA Method 8082

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B2 (9C25002-04) Soil Sampled: 03/24/09 09:40 Received: 03/24/09 16:25									
Aroclor 1016	ND	454	ug/kg dry	10	AC92604	03/26/09	03/26/09	8082	U
Aroclor 1221	ND	454	"	"	"	"	"	"	U
Aroclor 1232	ND	454	"	"	"	"	"	"	U
Aroclor 1242	ND	454	"	"	"	"	"	"	U
Aroclor 1248	ND	454	"	"	"	"	"	"	U
Aroclor 1254	**12900**	454	"	"	"	"	"	"	
Aroclor 1260	ND	454	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*101 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*111 %*	*61-133*		*"*	*"*	*"*	*"*	
B3 (9C25002-05RE1) Soil Sampled: 03/24/09 09:41 Received: 03/24/09 16:25									
Aroclor 1016	ND	4380	ug/kg dry	100	AC92604	03/26/09	03/28/09	8082	U
Aroclor 1221	ND	4380	"	"	"	"	"	"	U
Aroclor 1232	ND	4380	"	"	"	"	"	"	U
Aroclor 1242	ND	4380	"	"	"	"	"	"	U
Aroclor 1248	ND	4380	"	"	"	"	"	"	U
Aroclor 1254	**359000**	4380	"	"	"	"	"	"	
Aroclor 1260	ND	4380	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*125 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*163 %*	*61-133*		*"*	*"*	*"*	*"*	*S-04*
B4 (9C25002-06RE1) Soil Sampled: 03/24/09 09:43 Received: 03/24/09 16:25									
Aroclor 1016	ND	2190	ug/kg dry	50	AC92604	03/26/09	03/28/09	8082	U
Aroclor 1221	ND	2190	"	"	"	"	"	"	U
Aroclor 1232	ND	2190	"	"	"	"	"	"	U
Aroclor 1242	ND	2190	"	"	"	"	"	"	U
Aroclor 1248	ND	2190	"	"	"	"	"	"	U
Aroclor 1254	**144000**	2190	"	"	"	"	"	"	
Aroclor 1260	ND	2190	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*126 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*155 %*	*61-133*		*"*	*"*	*"*	*"*	*S-04*

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Polychlorinated Biphenyls by EPA Method 8082

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
D1 (9C25002-07) Soil Sampled: 03/24/09 09:48 Received: 03/24/09 16:25									
Aroclor 1016	ND	488	ug/kg dry	10	AC92604	03/26/09	03/26/09	8082	U
Aroclor 1221	ND	488	"	"	"	"	"	"	U
Aroclor 1232	ND	488	"	"	"	"	"	"	U
Aroclor 1242	ND	488	"	"	"	"	"	"	U
Aroclor 1248	ND	488	"	"	"	"	"	"	U
Aroclor 1254	**1560**	488	"	"	"	"	"	"	
Aroclor 1260	ND	488	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*100 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*109 %*	*61-133*		*"*	*"*	*"*	*"*	
E1 (9C25002-08) Soil Sampled: 03/24/09 09:50 Received: 03/24/09 16:25									
Aroclor 1016	ND	471	ug/kg dry	10	AC92604	03/26/09	03/26/09	8082	U
Aroclor 1221	ND	471	"	"	"	"	"	"	U
Aroclor 1232	ND	471	"	"	"	"	"	"	U
Aroclor 1242	ND	471	"	"	"	"	"	"	U
Aroclor 1248	ND	471	"	"	"	"	"	"	U
Aroclor 1254	**13500**	471	"	"	"	"	"	"	
Aroclor 1260	ND	471	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*98.6 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*108 %*	*61-133*		*"*	*"*	*"*	*"*	
E2 (9C25002-09) Soil Sampled: 03/24/09 09:54 Received: 03/24/09 16:25									
Aroclor 1016	ND	476	ug/kg dry	10	AC92604	03/26/09	03/26/09	8082	U
Aroclor 1221	ND	476	"	"	"	"	"	"	U
Aroclor 1232	ND	476	"	"	"	"	"	"	U
Aroclor 1242	ND	476	"	"	"	"	"	"	U
Aroclor 1248	ND	476	"	"	"	"	"	"	U
Aroclor 1254	**1390**	476	"	"	"	"	"	"	
Aroclor 1260	ND	476	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*99.2 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*109 %*	*61-133*		*"*	*"*	*"*	*"*	

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Polychlorinated Biphenyls by EPA Method 8082

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
D3 (9C25002-10) Soil Sampled: 03/24/09 09:55 Received: 03/24/09 16:25									
Aroclor 1016	ND	478	ug/kg dry	10	AC92604	03/26/09	03/26/09	8082	U
Aroclor 1221	ND	478	"	"	"	"	"	"	U
Aroclor 1232	ND	478	"	"	"	"	"	"	U
Aroclor 1242	ND	478	"	"	"	"	"	"	U
Aroclor 1248	ND	478	"	"	"	"	"	"	U
Aroclor 1254	ND	478	"	"	"	"	"	"	U
Aroclor 1260	ND	478	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*100 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*112 %*	*61-133*		*"*	*"*	*"*	*"*	
E3 (9C25002-11) Soil Sampled: 03/24/09 09:57 Received: 03/24/09 16:25									
Aroclor 1016	ND	483	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	483	"	"	"	"	"	"	U
Aroclor 1232	ND	483	"	"	"	"	"	"	U
Aroclor 1242	ND	483	"	"	"	"	"	"	U
Aroclor 1248	ND	483	"	"	"	"	"	"	U
Aroclor 1254	**3040**	483	"	"	"	"	"	"	
Aroclor 1260	ND	483	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*101 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*112 %*	*61-133*		*"*	*"*	*"*	*"*	
D4 (9C25002-12) Soil Sampled: 03/24/09 10:00 Received: 03/24/09 16:25									
Aroclor 1016	ND	446	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	446	"	"	"	"	"	"	U
Aroclor 1232	ND	446	"	"	"	"	"	"	U
Aroclor 1242	ND	446	"	"	"	"	"	"	U
Aroclor 1248	ND	446	"	"	"	"	"	"	U
Aroclor 1254	**648**	446	"	"	"	"	"	"	
Aroclor 1260	ND	446	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*102 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*113 %*	*61-133*		*"*	*"*	*"*	*"*	

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Polychlorinated Biphenyls by EPA Method 8082

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
E4 (9C25002-13) Soil Sampled: 03/24/09 10:01 Received: 03/24/09 16:25									
Aroclor 1016	ND	467	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	467	"	"	"	"	"	"	U
Aroclor 1232	ND	467	"	"	"	"	"	"	U
Aroclor 1242	ND	467	"	"	"	"	"	"	U
Aroclor 1248	ND	467	"	"	"	"	"	"	U
Aroclor 1254	**747**	467	"	"	"	"	"	"	
Aroclor 1260	ND	467	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*99.3 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*111 %*	*61-133*		*"*	*"*	*"*	*"*	
D5 (9C25002-14) Soil Sampled: 03/24/09 10:07 Received: 03/24/09 16:25									
Aroclor 1016	ND	438	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	438	"	"	"	"	"	"	U
Aroclor 1232	ND	438	"	"	"	"	"	"	U
Aroclor 1242	ND	438	"	"	"	"	"	"	U
Aroclor 1248	ND	438	"	"	"	"	"	"	U
Aroclor 1254	ND	438	"	"	"	"	"	"	U
Aroclor 1260	ND	438	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*100 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*111 %*	*61-133*		*"*	*"*	*"*	*"*	
E5 (9C25002-15) Soil Sampled: 03/24/09 10:08 Received: 03/24/09 16:25									
Aroclor 1016	ND	427	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	427	"	"	"	"	"	"	U
Aroclor 1232	ND	427	"	"	"	"	"	"	U
Aroclor 1242	ND	427	"	"	"	"	"	"	U
Aroclor 1248	ND	427	"	"	"	"	"	"	U
Aroclor 1254	**651**	427	"	"	"	"	"	"	
Aroclor 1260	ND	427	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*101 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*113 %*	*61-133*		*"*	*"*	*"*	*"*	

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Polychlorinated Biphenyls by EPA Method 8082

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A1 (9C25002-16) Soil Sampled: 03/24/09 09:59 Received: 03/24/09 16:25									
Aroclor 1016	ND	379	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	379	"	"	"	"	"	"	U
Aroclor 1232	ND	379	"	"	"	"	"	"	U
Aroclor 1242	ND	379	"	"	"	"	"	"	U
Aroclor 1248	ND	379	"	"	"	"	"	"	U
Aroclor 1254	**1110**	379	"	"	"	"	"	"	
Aroclor 1260	ND	379	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*98.9 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*112 %*	*61-133*		*"*	*"*	*"*	*"*	
A2 (9C25002-17) Soil Sampled: 03/24/09 10:05 Received: 03/24/09 16:25									
Aroclor 1016	ND	469	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	469	"	"	"	"	"	"	U
Aroclor 1232	ND	469	"	"	"	"	"	"	U
Aroclor 1242	ND	469	"	"	"	"	"	"	U
Aroclor 1248	ND	469	"	"	"	"	"	"	U
Aroclor 1254	**9860**	469	"	"	"	"	"	"	
Aroclor 1260	ND	469	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*99.7 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*110 %*	*61-133*		*"*	*"*	*"*	*"*	
A3 (9C25002-18) Soil Sampled: 03/24/09 10:06 Received: 03/24/09 16:25									
Aroclor 1016	ND	440	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	440	"	"	"	"	"	"	U
Aroclor 1232	ND	440	"	"	"	"	"	"	U
Aroclor 1242	ND	440	"	"	"	"	"	"	U
Aroclor 1248	ND	440	"	"	"	"	"	"	U
Aroclor 1254	**3320**	440	"	"	"	"	"	"	
Aroclor 1260	ND	440	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*101 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*111 %*	*61-133*		*"*	*"*	*"*	*"*	

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Polychlorinated Biphenyls by EPA Method 8082

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
D6 (9C25002-19) Soil Sampled: 03/24/09 10:13 Received: 03/24/09 16:25									
Aroclor 1016	ND	416	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	416	"	"	"	"	"	"	U
Aroclor 1232	ND	416	"	"	"	"	"	"	U
Aroclor 1242	ND	416	"	"	"	"	"	"	U
Aroclor 1248	ND	416	"	"	"	"	"	"	U
Aroclor 1254	**597**	416	"	"	"	"	"	"	
Aroclor 1260	ND	416	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*101 %*	*74-133*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*113 %*	*61-133*		"	"	"	"	
E6 (9C25002-20) Soil Sampled: 03/24/09 10:15 Received: 03/24/09 16:25									
Aroclor 1016	ND	474	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	474	"	"	"	"	"	"	U
Aroclor 1232	ND	474	"	"	"	"	"	"	U
Aroclor 1242	ND	474	"	"	"	"	"	"	U
Aroclor 1248	ND	474	"	"	"	"	"	"	U
Aroclor 1254	**13900**	474	"	"	"	"	"	"	
Aroclor 1260	ND	474	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*102 %*	*74-133*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*113 %*	*61-133*		"	"	"	"	
D7 (9C25002-21) Soil Sampled: 03/24/09 10:17 Received: 03/24/09 16:25									
Aroclor 1016	ND	474	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	474	"	"	"	"	"	"	U
Aroclor 1232	ND	474	"	"	"	"	"	"	U
Aroclor 1242	ND	474	"	"	"	"	"	"	U
Aroclor 1248	ND	474	"	"	"	"	"	"	U
Aroclor 1254	**3830**	474	"	"	"	"	"	"	
Aroclor 1260	**2980**	474	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*101 %*	*74-133*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*113 %*	*61-133*		"	"	"	"	

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Polychlorinated Biphenyls by EPA Method 8082

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
E7 (9C25002-22) Soil Sampled: 03/24/09 10:19 Received: 03/24/09 16:25									
Aroclor 1016	ND	495	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	495	"	"	"	"	"	"	U
Aroclor 1232	ND	495	"	"	"	"	"	"	U
Aroclor 1242	ND	495	"	"	"	"	"	"	U
Aroclor 1248	ND	495	"	"	"	"	"	"	U
Aroclor 1254	**9730**	495	"	"	"	"	"	"	
Aroclor 1260	ND	495	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*102 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*113 %*	*61-133*		*"*	*"*	*"*	*"*	
D8 (9C25002-23) Soil Sampled: 03/24/09 10:22 Received: 03/24/09 16:25									
Aroclor 1016	ND	398	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	398	"	"	"	"	"	"	U
Aroclor 1232	ND	398	"	"	"	"	"	"	U
Aroclor 1242	ND	398	"	"	"	"	"	"	U
Aroclor 1248	ND	398	"	"	"	"	"	"	U
Aroclor 1254	**8170**	398	"	"	"	"	"	"	
Aroclor 1260	ND	398	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*102 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*114 %*	*61-133*		*"*	*"*	*"*	*"*	
E8 (9C25002-24) Soil Sampled: 03/24/09 10:23 Received: 03/24/09 16:25									
Aroclor 1016	ND	456	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	456	"	"	"	"	"	"	U
Aroclor 1232	ND	456	"	"	"	"	"	"	U
Aroclor 1242	ND	456	"	"	"	"	"	"	U
Aroclor 1248	ND	456	"	"	"	"	"	"	U
Aroclor 1254	**12800**	456	"	"	"	"	"	"	
Aroclor 1260	ND	456	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*95.2 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*108 %*	*61-133*		*"*	*"*	*"*	*"*	

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Polychlorinated Biphenyls by EPA Method 8082

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
D9 (9C25002-25) Soil Sampled: 03/24/09 10:28 Received: 03/24/09 16:25									
Aroclor 1016	ND	465	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	465	"	"	"	"	"	"	U
Aroclor 1232	ND	465	"	"	"	"	"	"	U
Aroclor 1242	ND	465	"	"	"	"	"	"	U
Aroclor 1248	ND	465	"	"	"	"	"	"	U
Aroclor 1254	ND	465	"	"	"	"	"	"	U
Aroclor 1260	ND	465	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*97.7 %*	*74-133*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*107 %*	*61-133*		"	"	"	"	
E9 (9C25002-26) Soil Sampled: 03/24/09 10:30 Received: 03/24/09 16:25									
Aroclor 1016	ND	351	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	351	"	"	"	"	"	"	U
Aroclor 1232	ND	351	"	"	"	"	"	"	U
Aroclor 1242	ND	351	"	"	"	"	"	"	U
Aroclor 1248	ND	351	"	"	"	"	"	"	U
Aroclor 1254	ND	351	"	"	"	"	"	"	U
Aroclor 1260	ND	351	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*96.4 %*	*74-133*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*108 %*	*61-133*		"	"	"	"	
D10 (9C25002-27) Soil Sampled: 03/24/09 10:35 Received: 03/24/09 16:25									
Aroclor 1016	ND	467	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	467	"	"	"	"	"	"	U
Aroclor 1232	ND	467	"	"	"	"	"	"	U
Aroclor 1242	ND	467	"	"	"	"	"	"	U
Aroclor 1248	ND	467	"	"	"	"	"	"	U
Aroclor 1254	ND	467	"	"	"	"	"	"	U
Aroclor 1260	ND	467	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*97.1 %*	*74-133*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*107 %*	*61-133*		"	"	"	"	

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Polychlorinated Biphenyls by EPA Method 8082

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
E10 (9C25002-28) Soil Sampled: 03/24/09 10:37 Received: 03/24/09 16:25									
Aroclor 1016	ND	419	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	419	"	"	"	"	"	"	U
Aroclor 1232	ND	419	"	"	"	"	"	"	U
Aroclor 1242	ND	419	"	"	"	"	"	"	U
Aroclor 1248	ND	419	"	"	"	"	"	"	U
Aroclor 1254	**525**	419	"	"	"	"	"	"	
Aroclor 1260	ND	419	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*99.5 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*110 %*	*61-133*		*"*	*"*	*"*	*"*	
A4 (9C25002-29) Soil Sampled: 03/24/09 10:25 Received: 03/24/09 16:25									
Aroclor 1016	ND	495	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	495	"	"	"	"	"	"	U
Aroclor 1232	ND	495	"	"	"	"	"	"	U
Aroclor 1242	ND	495	"	"	"	"	"	"	U
Aroclor 1248	ND	495	"	"	"	"	"	"	U
Aroclor 1254	**19300**	495	"	"	"	"	"	"	
Aroclor 1260	ND	495	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*98.2 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*109 %*	*61-133*		*"*	*"*	*"*	*"*	
A5 (9C25002-30) Soil Sampled: 03/24/09 10:32 Received: 03/24/09 16:25									
Aroclor 1016	ND	361	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	361	"	"	"	"	"	"	U
Aroclor 1232	ND	361	"	"	"	"	"	"	U
Aroclor 1242	ND	361	"	"	"	"	"	"	U
Aroclor 1248	ND	361	"	"	"	"	"	"	U
Aroclor 1254	**2170**	361	"	"	"	"	"	"	
Aroclor 1260	ND	361	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*100 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*111 %*	*61-133*		*"*	*"*	*"*	*"*	

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Polychlorinated Biphenyls by EPA Method 8082

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A6 (9C25002-31) Soil Sampled: 03/24/09 10:38 Received: 03/24/09 16:25									
Aroclor 1016	ND	409	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	409	"	"	"	"	"	"	U
Aroclor 1232	ND	409	"	"	"	"	"	"	U
Aroclor 1242	ND	409	"	"	"	"	"	"	U
Aroclor 1248	ND	409	"	"	"	"	"	"	U
Aroclor 1254	**4050**	409	"	"	"	"	"	"	
Aroclor 1260	ND	409	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*98.6 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*109 %*	*61-133*		*"*	*"*	*"*	*"*	
D2 (9C25002-32) Soil Sampled: 03/24/09 09:53 Received: 03/24/09 16:25									
Aroclor 1016	ND	444	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	444	"	"	"	"	"	"	U
Aroclor 1232	ND	444	"	"	"	"	"	"	U
Aroclor 1242	ND	444	"	"	"	"	"	"	U
Aroclor 1248	ND	444	"	"	"	"	"	"	U
Aroclor 1254	**4490**	444	"	"	"	"	"	"	
Aroclor 1260	ND	444	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*98.7 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*109 %*	*61-133*		*"*	*"*	*"*	*"*	
F1 (9C25002-33) Soil Sampled: 03/24/09 09:45 Received: 03/24/09 16:25									
Aroclor 1016	ND	355	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	355	"	"	"	"	"	"	U
Aroclor 1232	ND	355	"	"	"	"	"	"	U
Aroclor 1242	ND	355	"	"	"	"	"	"	U
Aroclor 1248	ND	355	"	"	"	"	"	"	U
Aroclor 1254	**1100**	355	"	"	"	"	"	"	
Aroclor 1260	ND	355	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*97.8 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*108 %*	*61-133*		*"*	*"*	*"*	*"*	

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Polychlorinated Biphenyls by EPA Method 8082

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
F2 (9C25002-34) Soil Sampled: 03/24/09 09:46 Received: 03/24/09 16:25									
Aroclor 1016	ND	369	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	369	"	"	"	"	"	"	U
Aroclor 1232	ND	369	"	"	"	"	"	"	U
Aroclor 1242	ND	369	"	"	"	"	"	"	U
Aroclor 1248	ND	369	"	"	"	"	"	"	U
Aroclor 1254	**18300**	369	"	"	"	"	"	"	
Aroclor 1260	ND	369	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*95.4 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*102 %*	*61-133*		*"*	*"*	*"*	*"*	
DUP 1 (9C25002-35RE1) Soil Sampled: 03/24/09 00:00 Received: 03/24/09 16:25									
Aroclor 1016	ND	404	ug/kg dry	10	AC92604	03/26/09	03/30/09	8082	U
Aroclor 1221	ND	404	"	"	"	"	"	"	U
Aroclor 1232	ND	404	"	"	"	"	"	"	U
Aroclor 1242	ND	404	"	"	"	"	"	"	U
Aroclor 1248	ND	404	"	"	"	"	"	"	U
Aroclor 1254	**21700**	404	"	"	"	"	"	"	
Aroclor 1260	ND	404	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*83.3 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*77.8 %*	*61-133*		*"*	*"*	*"*	*"*	
DUP 2 (9C25002-36) Soil Sampled: 03/24/09 00:00 Received: 03/24/09 16:25									
Aroclor 1016	ND	452	ug/kg dry	10	AC92604	03/26/09	03/27/09	8082	U
Aroclor 1221	ND	452	"	"	"	"	"	"	U
Aroclor 1232	ND	452	"	"	"	"	"	"	U
Aroclor 1242	ND	452	"	"	"	"	"	"	U
Aroclor 1248	ND	452	"	"	"	"	"	"	U
Aroclor 1254	**10300**	452	"	"	"	"	"	"	
Aroclor 1260	ND	452	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		*98.9 %*	*74-133*		*"*	*"*	*"*	*"*	
Surrogate: Decachlorobiphenyl		*104 %*	*61-133*		*"*	*"*	*"*	*"*	

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Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Conventional Chemistry Parameters by EPA Methods

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B1 (9C25002-01) Soil Sampled: 03/24/09 09:35 Received: 03/24/09 16:25									
% Solids	**62.4**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
C1 (9C25002-02) Soil Sampled: 03/24/09 09:37 Received: 03/24/09 16:25									
% Solids	**56.4**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
C2 (9C25002-03) Soil Sampled: 03/24/09 09:38 Received: 03/24/09 16:25									
% Solids	**70.7**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
B2 (9C25002-04) Soil Sampled: 03/24/09 09:40 Received: 03/24/09 16:25									
% Solids	**65.2**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
B3 (9C25002-05) Soil Sampled: 03/24/09 09:41 Received: 03/24/09 16:25									
% Solids	**49.2**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
B4 (9C25002-06) Soil Sampled: 03/24/09 09:43 Received: 03/24/09 16:25									
% Solids	**57.0**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
D1 (9C25002-07) Soil Sampled: 03/24/09 09:48 Received: 03/24/09 16:25									
% Solids	**43.4**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
E1 (9C25002-08) Soil Sampled: 03/24/09 09:50 Received: 03/24/09 16:25									
% Solids	**62.4**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
E2 (9C25002-09) Soil Sampled: 03/24/09 09:54 Received: 03/24/09 16:25									
% Solids	**55.3**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	

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Conventional Chemistry Parameters by EPA Methods

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
D3 (9C25002-10) Soil Sampled: 03/24/09 09:55 Received: 03/24/09 16:25									
% Solids	**57.8**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
E3 (9C25002-11) Soil Sampled: 03/24/09 09:57 Received: 03/24/09 16:25									
% Solids	**44.0**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
D4 (9C25002-12) Soil Sampled: 03/24/09 10:00 Received: 03/24/09 16:25									
% Solids	**63.8**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
E4 (9C25002-13) Soil Sampled: 03/24/09 10:01 Received: 03/24/09 16:25									
% Solids	**57.6**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
D5 (9C25002-14) Soil Sampled: 03/24/09 10:07 Received: 03/24/09 16:25									
% Solids	**76.9**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
E5 (9C25002-15) Soil Sampled: 03/24/09 10:08 Received: 03/24/09 16:25									
% Solids	**61.2**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
A1 (9C25002-16) Soil Sampled: 03/24/09 09:59 Received: 03/24/09 16:25									
% Solids	**66.0**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
A2 (9C25002-17) Soil Sampled: 03/24/09 10:05 Received: 03/24/09 16:25									
% Solids	**53.1**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
A3 (9C25002-18) Soil Sampled: 03/24/09 10:06 Received: 03/24/09 16:25									
% Solids	**68.1**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	

The results in this report apply to the samples as received by the laboratory and analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Conventional Chemistry Parameters by EPA Methods

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
D6 (9C25002-19) Soil Sampled: 03/24/09 10:13 Received: 03/24/09 16:25									
% Solids	**56.9**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
E6 (9C25002-20) Soil Sampled: 03/24/09 10:15 Received: 03/24/09 16:25									
% Solids	**72.1**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
D7 (9C25002-21) Soil Sampled: 03/24/09 10:17 Received: 03/24/09 16:25									
% Solids	**77.2**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
E7 (9C25002-22) Soil Sampled: 03/24/09 10:19 Received: 03/24/09 16:25									
% Solids	**64.7**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
D8 (9C25002-23) Soil Sampled: 03/24/09 10:22 Received: 03/24/09 16:25									
% Solids	**75.7**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
E8 (9C25002-24) Soil Sampled: 03/24/09 10:23 Received: 03/24/09 16:25									
% Solids	**67.4**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
D9 (9C25002-25) Soil Sampled: 03/24/09 10:28 Received: 03/24/09 16:25									
% Solids	**82.3**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
E9 (9C25002-26) Soil Sampled: 03/24/09 10:30 Received: 03/24/09 16:25									
% Solids	**77.2**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
D10 (9C25002-27) Soil Sampled: 03/24/09 10:35 Received: 03/24/09 16:25									
% Solids	**81.5**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	

The results in this report apply to the samples as received by the laboratory and analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sevenson Environmental Services	Project: Niagara Falls	
2749 Lockport Road	Project Number: NFAFB	**Reported:**
Niagara Falls NY, 14302	Project Manager: Ken Paisley	04/06/09 16:08

Conventional Chemistry Parameters by EPA Methods

Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
E10 (9C25002-28) Soil Sampled: 03/24/09 10:37 Received: 03/24/09 16:25									
% Solids	**78.5**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
A4 (9C25002-29) Soil Sampled: 03/24/09 10:25 Received: 03/24/09 16:25									
% Solids	**72.8**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
A5 (9C25002-30) Soil Sampled: 03/24/09 10:32 Received: 03/24/09 16:25									
% Solids	**77.8**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
A6 (9C25002-31) Soil Sampled: 03/24/09 10:38 Received: 03/24/09 16:25									
% Solids	**73.6**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
D2 (9C25002-32) Soil Sampled: 03/24/09 09:53 Received: 03/24/09 16:25									
% Solids	**52.4**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
F1 (9C25002-33) Soil Sampled: 03/24/09 09:45 Received: 03/24/09 16:25									
% Solids	**50.6**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
F2 (9C25002-34) Soil Sampled: 03/24/09 09:46 Received: 03/24/09 16:25									
% Solids	**61.7**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
DUP 1 (9C25002-35) Soil Sampled: 03/24/09 00:00 Received: 03/24/09 16:25									
% Solids	**63.5**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	
DUP 2 (9C25002-36) Soil Sampled: 03/24/09 00:00 Received: 03/24/09 16:25									
% Solids	**61.6**	0.1	%	1	AC92703	03/26/09	03/27/09	% calculation	

The results in this report apply to the samples as received by the laboratory and analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Notes and Definitions

U	Analyte included in the analysis, but not detected at or above the reporting limit.
S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

CHAIN OF CUSTODY

REPORT TO: Jeff Shirley
NF

CONTACT: Jeff
PH #: 716 284-0431
FAX #: 716 285-4201
BILL TO: 1001 Foot
PO #: 1001 5001
PROJECT DESCRIPTION: NFAFB
SAMPLER SIGNATURE:

WASTE STREAM TECHNOLOGY

Waste Stream Technology Inc.
3332 Grote Street, Buffalo, NY 14207
(716) 876-5290 · FAX (716) 876-2412

OFFICE USE ONLY
GROUP # 9C25004
DUE DATE

PAGE 1 OF 4

TURN AROUND TIME: STD
QUOTATION NUMBER

ARE SPECIAL DETECTION LIMITS REQUIRED: YES / NO (NO)
If yes please attach requirements

Is a QC Package required: YES / NO (NO)
If yes please attach requirements

DW DRINKING WATER
GW GROUND WATER
SW SURFACE WATER
WW WASTE WATER
O OIL
SL SLUDGE
SO SOIL
S SOLID
W WIPE
OTHER

ANALYSES TO BE PERFORMED

		DATE SAMPLED	TIME OF SAMPLING	SAMPLE TYPE	TOTAL NO OF CONTAINERS	Total PCB's								TYPE OF CONTAINER/ COMMENTS:	OFFICE USE ONLY WST. I.D.
1	B1	3/20/09	0935	Sa	1	X								14.4	01
2	C1		0937		1	X									02
3	C2		0939		1	X									03
4	B2		0940		1	X									04
5	B3		0941		1	X									05
6	B4		0943		1	X									06
7	D1		0948		1	X									07
8	E1		0950		1	X									08
9	E2		0954		1	X									09
10	D3		0955		1	X									10

REMARKS: Main PCB of Concern is Aroclor 1254. Samples B1-4 have most chance of high concentrations along w/ C1 & C2. Previous samples in these locations showed 220mg/kg. Samples with results > 10mg/kg must be returned to Falls for disposal @ jobsite.

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	3/24/09	1628		3/24/09	1625
RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	/ /			/ /	

CHAIN OF CUSTODY

REPORT TO: Jeff Shinde, NF

CONTACT: Jeff

PH #: 716 284-0431

FAX #: 716-285-4201

SEND TO: 1001

JOB #: 10019001

PROJECT DESCRIPTION: NFAFS

SAMPLER SIGNATURE: [signature]

SAMPLER ID:

WASTE STREAM TECHNOLOGY

Waste Stream Technology Inc.
302 Grote Street, Buffalo, NY 14207
(716) 876-5290 - FAX (716) 876-2412

OFFICE USE ONLY
GROUP # 9635002
DUE DATE

TURN AROUND TIME: STD

QUOTATION NUMBER:

ARE SPECIAL DETECTION LIMITS REQUIRED? YES (NO) If yes please attach requirements

Is a QC Package required? YES (NO) If yes please attach requirements

DW DRINKING WATER, GW GROUND WATER, SW SURFACE WATER, WW WASTE WATER, O OIL, SL SLUDGE, SO SOIL, S SOLID, W WIPE, OTHER

ANALYSES TO BE PERFORMED

		DATE SAMPLED	TIME OF SAMPLING	SAMPLE TYPE	TOTAL NO. OF CONTAINERS	TSS + PCB CONTR									TYPE OF CONTAINER/ COMMENTS	OFFICE USE ONLY WST. LD.
1	E3	3/24/09	0957	SO	1	X									1x4oz	11
2	D4		1000		1	X										12
3	E4		1001		1	X										13
4	D5		1007		1	X										14
5	E5		1008		1	X										15
6	A1		0959		1	X										16
7	A2		1005		1	X										17
8	A3		1006		1	X										18
9	D6		1013		1	X										19
10	E6		1015		1	X										20

REMARKS

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	3/24/09	1625	[signature]	3/24/09	1625
RELINQUISHED BY	DATE / /	TIME	RECEIVED BY	DATE / /	TIME

CHAIN OF CUSTODY

REPORT TO: Jeff Shirley
NF

CONTACT: Jeff
PH #: 716-224-0431
FAX #: 716-205-4201
BILL TO: 1061

PO #: 10019001
PROJECT DESCRIPTION: NFAFB
SAMPLER SIGNATURE:

WASTE STREAM TECHNOLOGY

Waste Stream Technology Inc.
302 Grote Street, Buffalo, NY 14207
(716) 876-5290 · FAX (716) 876-2412

OFFICE USE ONLY
GROUP # 9625002
DUE DATE

PAGE 3 OF 4

TURN AROUND TIME: STD
QUOTATION NUMBER

ARE SPECIAL DETECTION LIMITS REQUIRED: YES (NO)
If yes, please attach requirements

Is a QC Package required: YES (NO)
If yes, please attach requirements

DW DRINKING WATER
GW GROUND WATER
SW SURFACE WATER
WW WASTE WATER
O OIL
SL SLUDGE
SO SOIL
S SOLID
W WIPE
OTHER

ANALYSES TO BE PERFORMED

	SAMPLE ID	DATE SAMPLED	TIME OF SAMPLING	SAMPLE TYPE	TOTAL NO. OF CONTAINERS	TOTAL PCB 8082									TYPE OF CONTAINER/ COMMENTS:	OFFICE USE ONLY WST. I.D.
1	D7	3/24/05	1017	SO	1	X									1x4oz	21
2	E7		1019		1	X										22
3	D8		1022		1	X										23
4	E8		1023		1	X										24
5	D9		1028		1	X										25
6	E9		1030		1	X										26
7	D10		1035		1	X										27
8	E10		1037		1	X										28
9	A4		1025		1	X										29
10	A5		1032		1	X										30

REMARKS

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	3/24/05	1625		3-24-05	1625
RELINQUISHED BY	DATE / /	TIME	RECEIVED BY	DATE / /	TIME

CHAIN OF CUSTODY

WASTE STREAM TECHNOLOGY

Waste Stream Technology Inc.
302 Grote Street, Buffalo, NY 14207
(716) 876-5290 · FAX (716) 876-2412

OFFICE USE ONLY
GROUP # 235002
DUE DATE

REPORT TO: Jeff Shirley
NF

CONTACT: Jeff
PH # 716 284-0431
FAX # 716-285-4201
BILL TO: 1001

PO # 10019001
PROJECT DESCRIPTION: NFAFB
SAMPLER SIGNATURE:

TURN AROUND TIME: STD
QUOTATION NUMBER:

ARE SPECIAL DETECTION LIMITS REQUIRED: YES (NO)
If yes, please attach requirements

Is a QC Package required: YES (NO)
If yes, please attach requirements

DW DRINKING WATER, GW GROUND WATER, SW SURFACE WATER, WW WASTE WATER, O OIL, SL SLUDGE, SO SOIL, S SOLID, W WIPE, OTHER

ANALYSES TO BE PERFORMED

	SAMPLE ID	DATE SAMPLED	TIME OF SAMPLING	SAMPLE TYPE	TOTAL NO. OF CONTAINERS	Total PCB	RCRA							TYPE OF CONTAINER/ COMMENTS	OFFICE USE ONLY WST. I.D.
1	A6	3/25/07	1038	SO	1	X								1x4oz	31
2	D2		1057		1	X									32
3	F1		0743		1	X									33
4	F2		0944		1	X									34
5	Dupl		—		1	X									35
6	Dupl2		—		1	X									36
7															
8															
9															
10															

REMARKS

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	7/24/07	1635		3/04/07	1625
RELINQUISHED BY	DATE / /	TIME	RECEIVED BY	DATE / /	TIME

APPENDIX B

Photographic Documentation

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PHOTO DOCUMENTATION

Niagara Falls AFRC
Niagara Falls, New York

Initial conditions at 24” diameter corrugated pipe at Outfall No. 5

Drainage swale delineation surface soil sampling

Delineation soil sampling at centerline of swale

Pipe cleaning nozzle advanced to north end of pipe

Pipe cleaning from south end of pipe and wash water collection

Containerizing wash water

PHOTO DOCUMENTATION

Niagara Falls AFRC
Niagara Falls, New York

Utility marking prior to excavation

Excavation at Outfall No. 5 spillway

Staining at Outfall No. 5 spillway

Hazardous soil stockpile

Hazardous soil excavation

Drainage swale excavation to east of Outfall No. 5

PHOTO DOCUMENTATION

Niagara Falls AFRC
Niagara Falls, New York

Drainage swale excavation limit to east of Outfall No. 5

Drainage swale excavation to west of Outfall No. 5

Non-hazardous stockpile

Drainage swale excavation limit to west

Covered hazardous soil stockpile

PHOTO DOCUMENTATION

Niagara Falls AFRC
Niagara Falls, New York
Post-excavation composite sample layout

Drainage swale lined with 4 oz geotextile

Geotextile at Outfall No. 5 spillway

Additional excavation to east of Outfall No. 5

Additional excavation complete

Additional excavation at Outfall No. 5

Backfill – beginning at east

PHOTO DOCUMENTATION

Niagara Falls AFRC
Niagara Falls, New York

Backfill placement

Removal and disposal of wash water

Drainage swale seeded and covered with erosion control fabric

Drainage swale with vegetative growth

PHOTO DOCUMENTATION

Niagara Falls AFRC
Niagara Falls, New York

Removal of soil stockpiles

Stockpile location cleaned after removal

APPENDIX C

Analytical Laboratory Results

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Analytical Report

Work Order. RSH0587

Project Description

Niagara Falls, NY - Armed Forces Reserve Center

For:

Michael Moore

PARS Environmental, Inc.

6A South Gold Drive

Robbinsville, NJ 08691

Sally Hoffman

Project Manager

Sally.Hoffman@testamericainc.com

Monday, August 24, 2009

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exception to NELAP requirements are noted in this report. Persuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project manager who has signed this report.

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PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSH0587

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 08/20/09
Reported: 08/24/09 10:46

TestAmerica Buffalo
Current Certifications

As of 1/27/2009

STATE	Program	Cert # / Lab ID
Arkansas	CWA, RCRA, SOIL	88-0686
California*	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida*	NELAP CWA, RCRA	E87672
Georgia*	SDWA,NELAP CWA, RCRA	956
Illinois*	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas*	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana*	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY0044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA,CWA, RCRA	036-999-337
New Hampshire*	NELAP SDWA, CWA	233701
New Jersey*	NELAP,SDWA, CWA, RCRA,	NY455
New York*	NELAP, AIR, SDWA, CWA, RCRA,CLP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania*	NELAP CWA,RCRA	68-00281
Tennessee	SDWA	02970
Texas*	NELAP CWA, RCRA	T104704412-08-TX
USDA	FOREIGN SOIL PERMIT	S-41579
USDOE	Department of Energy	DOECAP-STB
Virginia	SDWA	278
Washington*	NELAP CWA,RCRA	C1677
Wisconsin	CWA, RCRA	998310390
West Virginia	CWA,RCRA	252

*As required under the indicated accreditation, the test results in this report meet all NELAP requirements for parameters for which accre ditation is required or available. Any exceptions to NELAP requirements are noted in this report.

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSH0587

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 08/20/09
Reported: 08/24/09 10:46

Case Narrative

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

There are pertinent documents appended to this report, 2 pages, are included and are an integral part of this report.

Reproduction of this analytical report is permitted only in its entirety. This report shall not be reproduced except in full without the written approval of the laboratory.

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

PARS Environmental, Inc 6A South Gold Drive Robbinsville, NJ 08691	Work Order: RSH0587 Project: Niagara Falls, NY - Armed Forces Reserve Center Project Number. [none]	Received: 08/20/09 Reported. 08/24/09 10:46

DATA QUALIFIERS AND DEFINITIONS

D08	Dilution required due to high concentration of target analyte(s)
Z3	The sample required a dilution due to the nature of the sample matrix Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information
NR	Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

ADDITIONAL COMMENTS

Results are reported on a wet weight basis unless otherwise noted.

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSH0587

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 08/20/09
Reported: 08/24/09 10:46

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSH0587-01 (G-1 - Solid)					Sampled: 08/20/09 08:30			Recvd: 08/20/09 13:40		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254	1500	D08	200	43	ug/kg dry	10.0	08/21/09 16:24	JxM	9H21001	8082
General Chemistry Parameters										
Percent Solids	81		0.010	NR	%	1.00	08/22/09 07:21	LTT	9H21089	Dry Weight
Sample ID: RSH0587-02 (G-2 - Solid)					Sampled: 08/20/09 08:40			Recvd: 08/20/09 13:40		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254	2500	D08	380	81	ug/kg dry	20.0	08/21/09 16:38	JxM	9H21001	8082
General Chemistry Parameters										
Percent Solids	87		0.010	NR	%	1.00	08/22/09 07:23	LTT	9H21089	Dry Weight
Sample ID: RSH0587-03 (G-3 - Solid)					Sampled: 08/20/09 08:50			Recvd: 08/20/09 13:40		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254	210		20	4.2	ug/kg dry	1.00	08/21/09 16:53	JxM	9H21001	8082
General Chemistry Parameters										
Percent Solids	82		0.010	NR	%	1.00	08/22/09 07:25	LTT	9H21089	Dry Weight
Sample ID: RSH0587-04 (G-4 - Solid)					Sampled: 08/20/09 09:00			Recvd: 08/20/09 13:40		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254	140		21	4.5	ug/kg dry	1.00	08/21/09 17:08	JxM	9H21001	8082
General Chemistry Parameters										
Percent Solids	78		0.010	NR	%	1.00	08/22/09 07:27	LTT	9H21089	Dry Weight
Sample ID: RSH0587-05 (G-5 - Solid)					Sampled: 08/20/09 09:10			Recvd: 08/20/09 13:40		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254	110		21	4.3	ug/kg dry	1.00	08/21/09 17:23	JxM	9H21001	8082
General Chemistry Parameters										
Percent Solids	80		0.010	NR	%	1.00	08/22/09 07:29	LTT	9H21089	Dry Weight
Sample ID: RSH0587-06 (G-6 - Solid)					Sampled: 08/20/09 09:20			Recvd: 08/20/09 13:40		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254	37		20	4.3	ug/kg dry	1.00	08/21/09 17:38	JxM	9H21001	8082
General Chemistry Parameters										
Percent Solids	80		0.010	NR	%	1.00	08/22/09 07:31	LTT	9H21089	Dry Weight
Sample ID: RSH0587-07 (H-1 - Solid)					Sampled: 08/20/09 09:30			Recvd: 08/20/09 13:40		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254	180		21	4.4	ug/kg dry	1.00	08/21/09 17:53	JxM	9H21001	8082
Aroclor 1260	54		21	4.4	ug/kg dry	1.00	08/21/09 17:53	JxM	9H21001	8082
General Chemistry Parameters										

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSH0587

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 08/20/09
Reported: 08/24/09 10:46

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSH0587-07 (H-1 - Solid) - cont.					**Sampled: 08/20/09 09:30**			**Recvd: 08/20/09 13:40**		
General Chemistry Parameters - cont.										
Percent Solids	79		0.010	NR	%	1.00	08/22/09 07:33	LTT	9H21089	Dry Weight
Sample ID: RSH0587-08 (H-2 - Solid)					**Sampled: 08/20/09 09:40**			**Recvd: 08/20/09 13:40**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254	640	D08	210	44	ug/kg dry	10.0	08/21/09 18:37	JxM	9H21001	8082
Aroclor 1260	460	D08	210	44	ug/kg dry	10.0	08/21/09 18:37	JxM	9H21001	8082
General Chemistry Parameters										
Percent Solids	79		0.010	NR	%	1.00	08/22/09 07:35	LTT	9H21089	Dry Weight
Sample ID: RSH0587-09 (H-3 - Solid)					**Sampled: 08/20/09 09:50**			**Recvd: 08/20/09 13:40**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254	190		22	4.5	ug/kg dry	1.00	08/21/09 18:52	JxM	9H21001	8082
Aroclor 1260	220		22	4.5	ug/kg dry	1.00	08/21/09 18:52	JxM	9H21001	8082
General Chemistry Parameters										
Percent Solids	77		0.010	NR	%	1.00	08/22/09 07:37	LTT	9H21089	Dry Weight
Sample ID: RSH0587-10 (H-4 - Solid)					**Sampled: 08/20/09 10:00**			**Recvd: 08/20/09 13:40**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254	360		21	4.4	ug/kg dry	1.00	08/21/09 19:06	JxM	9H21001	8082
Aroclor 1260	260		21	4.4	ug/kg dry	1.00	08/21/09 19:06	JxM	9H21001	8082
General Chemistry Parameters										
Percent Solids	80		0.010	NR	%	1.00	08/22/09 07:39	LTT	9H21089	Dry Weight
Sample ID: RSH0587-11 (H-5 - Solid)					**Sampled: 08/20/09 10:10**			**Recvd: 08/20/09 13:40**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254	1300	D08	200	42	ug/kg dry	10.0	08/21/09 19:21	JxM	9H21001	8082
General Chemistry Parameters										
Percent Solids	83		0.010	NR	%	1.00	08/22/09 07:41	LTT	9H21089	Dry Weight
Sample ID: RSH0587-12 (H-6 - Solid)					**Sampled: 08/20/09 10:20**			**Recvd: 08/20/09 13:40**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254	84		20	4.3	ug/kg dry	1.00	08/21/09 19:36	JxM	9H21001	8082
Aroclor 1260	130		20	4.3	ug/kg dry	1.00	08/21/09 19:36	JxM	9H21001	8082
General Chemistry Parameters										
Percent Solids	82		0.010	NR	%	1.00	08/22/09 07:43	LTT	9H21089	Dry Weight
Sample ID: RSH0587-13 (H-7 - Solid)					**Sampled: 08/20/09 10:30**			**Recvd: 08/20/09 13:40**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254	150		20	4.3	ug/kg dry	1.00	08/21/09 19:51	JxM	9H21001	8082
Aroclor 1260	120		20	4.3	ug/kg dry	1.00	08/21/09 19:51	JxM	9H21001	8082

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Work Order: RSH0587

Project: Niagara Falls, NY - Armed Forces Reserve Center
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Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSH0587-13 (H-7 - Solid) - cont.					**Sampled: 08/20/09 10:30**			**Recvd: 08/20/09 13:40**		
General Chemistry Parameters										
Percent Solids	81		0.010	NR	%	1.00	08/22/09 07:45	LTT	9H21089	Dry Weight
Sample ID: RSH0587-14 (H-8 - Solid)					**Sampled: 08/20/09 10:40**			**Recvd: 08/20/09 13:40**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254	79		20	4.3	ug/kg dry	1.00	08/21/09 20:20	JxM	9H21001	8082
Aroclor 1260	50		20	4.3	ug/kg dry	1.00	08/21/09 20:20	JxM	9H21001	8082
General Chemistry Parameters										
Percent Solids	81		0.010	NR	%	1.00	08/22/09 07:47	LTT	9H21089	Dry Weight
Sample ID: RSH0587-15 (H-9 - Solid)					**Sampled: 08/20/09 10:50**			**Recvd: 08/20/09 13:40**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254	56		20	4.3	ug/kg dry	1.00	08/21/09 20:35	JxM	9H21001	8082
Aroclor 1260	86		20	4.3	ug/kg dry	1.00	08/21/09 20:35	JxM	9H21001	8082
General Chemistry Parameters										
Percent Solids	80		0.010	NR	%	1.00	08/22/09 07:49	LTT	9H21089	Dry Weight

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Project: Niagara Falls, NY - Armed Forces Reserve Center
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Received 08/20/09
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Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
G-1	RSH0587-01	Solid	08/20/09 08:30	08/20/09 13:40	
G-2	RSH0587-02	Solid	08/20/09 08:40	08/20/09 13:40	
G-3	RSH0587-03	Solid	08/20/09 08:50	08/20/09 13:40	
G-4	RSH0587-04	Solid	08/20/09 09:00	08/20/09 13:40	
G-5	RSH0587-05	Solid	08/20/09 09:10	08/20/09 13:40	
G-6	RSH0587-06	Solid	08/20/09 09:20	08/20/09 13:40	
H-1	RSH0587-07	Solid	08/20/09 09:30	08/20/09 13:40	
H-2	RSH0587-08	Solid	08/20/09 09:40	08/20/09 13:40	
H-3	RSH0587-09	Solid	08/20/09 09:50	08/20/09 13:40	
H-4	RSH0587-10	Solid	08/20/09 10:00	08/20/09 13:40	
H-5	RSH0587-11	Solid	08/20/09 10:10	08/20/09 13:40	
H-6	RSH0587-12	Solid	08/20/09 10:20	08/20/09 13:40	
H-7	RSH0587-13	Solid	08/20/09 10:30	08/20/09 13:40	
H-8	RSH0587-14	Solid	08/20/09 10:40	08/20/09 13:40	
H-9	RSH0587-15	Solid	08/20/09 10:50	08/20/09 13:40	

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Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSH0587-01 (G-1 - Solid)					**Sampled: 08/20/09 08:30**			**Recvd: 08/20/09 13:40**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND	D08	200	39	ug/kg dry	10.0	08/21/09 16:24	JxM	9H21001	8082
Aroclor 1221	ND	D08	200	39	ug/kg dry	10.0	08/21/09 16:24	JxM	9H21001	8082
Aroclor 1232	ND	D08	200	39	ug/kg dry	10.0	08/21/09 16.24	JxM	9H21001	8082
Aroclor 1242	ND	D08	200	44	ug/kg dry	10.0	08/21/09 16 24	JxM	9H21001	8082
Aroclor 1248	ND	D08	200	40	ug/kg dry	10.0	08/21/09 16 24	JxM	9H21001	8082
Aroclor 1254	1500	D08	200	43	ug/kg dry	10.0	08/21/09 16:24	JxM	9H21001	8082
Aroclor 1260	ND	D08	200	43	ug/kg dry	10.0	08/21/09 16.24	JxM	9H21001	8082
Aroclor 1262	ND	D08	200	43	ug/kg dry	10.0	08/21/09 16 24	JxM	9H21001	8082
Aroclor 1268	ND	D08	200	43	ug/kg dry	10.0	08/21/09 16 24	JxM	9H21001	8082
Decachlorobiphenyl	*	*D08,Z3*	*Surr Limits. (34-148%)*				*08/21/09 16:24*	*JxM*	*9H21001*	*8082*
Tetrachloro-m-xylene	*	*D08,Z3*	*Surr Limits. (35-134%)*				*08/21/09 16:24*	*JxM*	*9H21001*	*8082*
General Chemistry Parameters										
Percent Solids	81		0.010	NR	%	1.00	08/22/09 07:21	LTT	9H21089	Dry Weight

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Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSH0587-02 (G-2 - Solid)					**Sampled: 08/20/09 08:40**			**Recvd: 08/20/09 13:40**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND	D08	380	75	ug/kg dry	20.0	08/21/09 16:38	JxM	9H21001	8082
Aroclor 1221	ND	D08	380	75	ug/kg dry	20.0	08/21/09 16:38	JxM	9H21001	8082
Aroclor 1232	ND	D08	380	75	ug/kg dry	20.0	08/21/09 16:38	JxM	9H21001	8082
Aroclor 1242	ND	D08	380	83	ug/kg dry	20.0	08/21/09 16:38	JxM	9H21001	8082
Aroclor 1248	ND	D08	380	75	ug/kg dry	20.0	08/21/09 16:38	JxM	9H21001	8082
Aroclor 1254	2500	D08	380	81	ug/kg dry	20.0	08/21/09 16:38	JxM	9H21001	8082
Aroclor 1260	ND	D08	380	81	ug/kg dry	20.0	08/21/09 16:38	JxM	9H21001	8082
Aroclor 1262	ND	D08	380	81	ug/kg dry	20.0	08/21/09 16:38	JxM	9H21001	8082
Aroclor 1268	ND	D08	380	81	ug/kg dry	20.0	08/21/09 16:38	JxM	9H21001	8082
Decachlorobiphenyl	*	*D08,Z3*	*Surr Limits: (34-148%)*				*08/21/09 16:38*	*JxM*	*9H21001*	*8082*
Tetrachloro-m-xylene	*	*D08,Z3*	*Surr Limits: (35-134%)*				*08/21/09 16:38*	*JxM*	*9H21001*	*8082*
General Chemistry Parameters										
Percent Solids	87		0.010	NR	%	1.00	08/22/09 07:23	LTT	9H21089	Dry Weight

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Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSH0587-03 (G-3 - Solid)						**Sampled: 08/20/09 08:50**		**Recvd: 08/20/09 13:40**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND		20	3.9	ug/kg dry	1.00	08/21/09 16:53	JxM	9H21001	8082
Aroclor 1221	ND		20	3.9	ug/kg dry	1.00	08/21/09 16:53	JxM	9H21001	8082
Aroclor 1232	ND		20	3.9	ug/kg dry	1.00	08/21/09 16:53	JxM	9H21001	8082
Aroclor 1242	ND		20	4.3	ug/kg dry	1.00	08/21/09 16.53	JxM	9H21001	8082
Aroclor 1248	ND		20	3.9	ug/kg dry	1.00	08/21/09 16:53	JxM	9H21001	8082
Aroclor 1254	210		20	4.2	ug/kg dry	1.00	08/21/09 16:53	JxM	9H21001	8082
Aroclor 1260	ND		20	4.2	ug/kg dry	1.00	08/21/09 16:53	JxM	9H21001	8082
Aroclor 1262	ND		20	4.2	ug/kg dry	1.00	08/21/09 16:53	JxM	9H21001	8082
Aroclor 1268	ND		20	4 2	ug/kg dry	1.00	08/21/09 16:53	JxM	9H21001	8082
Decachlorobiphenyl	*109 %*		*Surr Limits: (34-148%)*				*08/21/09 16.53*	*JxM*	*9H21001*	*8082*
Tetrachloro-m-xylene	*89 %*		*Surr Limits: (35-134%)*				*08/21/09 16.53*	*JxM*	*9H21001*	*8082*
General Chemistry Parameters										
Percent Solids	82		0.010	NR	%	1.00	08/22/09 07:25	LTT	9H21089	Dry Weight

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Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSH0587-04 (G-4 - Solid)					**Sampled: 08/20/09 09:00**			**Recvd: 08/20/09 13:40**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND		21	4.2	ug/kg dry	1.00	08/21/09 17:08	JxM	9H21001	8082
Aroclor 1221	ND		21	4.2	ug/kg dry	1.00	08/21/09 17:08	JxM	9H21001	8082
Aroclor 1232	ND		21	4.2	ug/kg dry	1.00	08/21/09 17:08	JxM	9H21001	8082
Aroclor 1242	ND		21	4.6	ug/kg dry	1.00	08/21/09 17:08	JxM	9H21001	8082
Aroclor 1248	ND		21	4.2	ug/kg dry	1.00	08/21/09 17:08	JxM	9H21001	8082
Aroclor 1254	140		21	4.5	ug/kg dry	1.00	08/21/09 17:08	JxM	9H21001	8082
Aroclor 1260	ND		21	4.5	ug/kg dry	1.00	08/21/09 17:08	JxM	9H21001	8082
Aroclor 1262	ND		21	4.5	ug/kg dry	1.00	08/21/09 17:08	JxM	9H21001	8082
Aroclor 1268	ND		21	4.5	ug/kg dry	1.00	08/21/09 17:08	JxM	9H21001	8082
Decachlorobiphenyl	*106 %*		*Surr Limits: (34-148%)*				*08/21/09 17:08*	*JxM*	*9H21001*	*8082*
Tetrachloro-m-xylene	*91 %*		*Surr Limits: (35-134%)*				*08/21/09 17:08*	*JxM*	*9H21001*	*8082*
General Chemistry Parameters										
Percent Solids	78		0.010	NR	%	1.00	08/22/09 07:27	LTT	9H21089	Dry Weight

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Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSH0587-05 (G-5 - Solid)						Sampled: 08/20/09 09:10		Recvd: 08/20/09 13:40		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND		21	4.0	ug/kg dry	1.00	08/21/09 17:23	JxM	9H21001	8082
Aroclor 1221	ND		21	4.0	ug/kg dry	1.00	08/21/09 17:23	JxM	9H21001	8082
Aroclor 1232	ND		21	4.0	ug/kg dry	1.00	08/21/09 17:23	JxM	9H21001	8082
Aroclor 1242	ND		21	4.5	ug/kg dry	1.00	08/21/09 17:23	JxM	9H21001	8082
Aroclor 1248	ND		21	4.0	ug/kg dry	1.00	08/21/09 17:23	JxM	9H21001	8082
Aroclor 1254	110		21	4.3	ug/kg dry	1.00	08/21/09 17:23	JxM	9H21001	8082
Aroclor 1260	ND		21	4.3	ug/kg dry	1.00	08/21/09 17:23	JxM	9H21001	8082
Aroclor 1262	ND		21	4.3	ug/kg dry	1.00	08/21/09 17:23	JxM	9H21001	8082
Aroclor 1268	ND		21	4.3	ug/kg dry	1.00	08/21/09 17:23	JxM	9H21001	8082
Decachlorobiphenyl	*113 %*		*Surr Limits: (34-148%)*				*08/21/09 17:23*	*JxM*	*9H21001*	*8082*
Tetrachloro-m-xylene	*90 %*		*Surr Limits: (35-134%)*				*08/21/09 17:23*	*JxM*	*9H21001*	*8082*
General Chemistry Parameters										
Percent Solids	80		0.010	NR	%	1.00	08/22/09 07:29	LTT	9H21089	Dry Weight

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Project: Niagara Falls, NY - Armed Forces Reserve Center
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Received: 08/20/09
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Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSH0587-06 (G-6 - Solid)						**Sampled: 08/20/09 09:20**		**Recvd: 08/20/09 13:40**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND		20	4.0	ug/kg dry	1.00	08/21/09 17:38	JxM	9H21001	8082
Aroclor 1221	ND		20	4.0	ug/kg dry	1.00	08/21/09 17:38	JxM	9H21001	8082
Aroclor 1232	ND		20	4.0	ug/kg dry	1.00	08/21/09 17:38	JxM	9H21001	8082
Aroclor 1242	ND		20	4.4	ug/kg dry	1.00	08/21/09 17:38	JxM	9H21001	8082
Aroclor 1248	ND		20	4.0	ug/kg dry	1.00	08/21/09 17:38	JxM	9H21001	8082
Aroclor 1254	37		20	4.3	ug/kg dry	1.00	08/21/09 17:38	JxM	9H21001	8082
Aroclor 1260	ND		20	4.3	ug/kg dry	1.00	08/21/09 17:38	JxM	9H21001	8082
Aroclor 1262	ND		20	4.3	ug/kg dry	1.00	08/21/09 17:38	JxM	9H21001	8082
Aroclor 1268	ND		20	4.3	ug/kg dry	1.00	08/21/09 17:38	JxM	9H21001	8082
Decachlorobiphenyl	*104 %*		*Surr Limits: (34-148%)*				*08/21/09 17:38*	*JxM*	*9H21001*	*8082*
Tetrachloro-m-xylene	*88 %*		*Surr Limits: (35-134%)*				*08/21/09 17:38*	*JxM*	*9H21001*	*8082*
General Chemistry Parameters										
Percent Solids	80		0.010	NR	%	1.00	08/22/09 07:31	LTT	9H21089	Dry Weight

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Work Order: RSH0587

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 08/20/09
Reported: 08/24/09 10:46

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSH0587-07 (H-1 - Solid)						**Sampled: 08/20/09 09:30**		**Recvd: 08/20/09 13:40**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND		21	4.1	ug/kg dry	1.00	08/21/09 17:53	JxM	9H21001	8082
Aroclor 1221	ND		21	4.1	ug/kg dry	1.00	08/21/09 17:53	JxM	9H21001	8082
Aroclor 1232	ND		21	4.1	ug/kg dry	1.00	08/21/09 17:53	JxM	9H21001	8082
Aroclor 1242	ND		21	4.6	ug/kg dry	1.00	08/21/09 17:53	JxM	9H21001	8082
Aroclor 1248	ND		21	4.1	ug/kg dry	1.00	08/21/09 17:53	JxM	9H21001	8082
Aroclor 1254	180		21	4.4	ug/kg dry	1.00	08/21/09 17:53	JxM	9H21001	8082
Aroclor 1260	54		21	4.4	ug/kg dry	1.00	08/21/09 17:53	JxM	9H21001	8082
Aroclor 1262	ND		21	4.5	ug/kg dry	1.00	08/21/09 17:53	JxM	9H21001	8082
Aroclor 1268	ND		21	4.4	ug/kg dry	1.00	08/21/09 17:53	JxM	9H21001	8082
Decachlorobiphenyl	*104 %*		*Surr Limits: (34-148%)*				*08/21/09 17:53*	*JxM*	*9H21001*	*8082*
Tetrachloro-m-xylene	*90 %*		*Surr Limits: (35-134%)*				*08/21/09 17:53*	*JxM*	*9H21001*	*8082*
General Chemistry Parameters										
Percent Solids	79		0.010	NR	%	1.00	08/22/09 07:33	LTT	9H21089	Dry Weight

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Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

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Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSH0587-08 (H-2 - Solid)					**Sampled: 08/20/09 09:40**			**Recvd: 08/20/09 13:40**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND	D08	210	41	ug/kg dry	10.0	08/21/09 18:37	JxM	9H21001	8082
Aroclor 1221	ND	D08	210	41	ug/kg dry	10.0	08/21/09 18:37	JxM	9H21001	8082
Aroclor 1232	ND	D08	210	41	ug/kg dry	10.0	08/21/09 18:37	JxM	9H21001	8082
Aroclor 1242	ND	D08	210	45	ug/kg dry	10.0	08/21/09 18:37	JxM	9H21001	8082
Aroclor 1248	ND	D08	210	41	ug/kg dry	10.0	08/21/09 18:37	JxM	9H21001	8082
Aroclor 1254	640	D08	210	44	ug/kg dry	10.0	08/21/09 18:37	JxM	9H21001	8082
Aroclor 1260	460	D08	210	44	ug/kg dry	10.0	08/21/09 18:37	JxM	9H21001	8082
Aroclor 1262	ND	D08	210	44	ug/kg dry	10.0	08/21/09 18:37	JxM	9H21001	8082
Aroclor 1268	ND	D08	210	44	ug/kg dry	10.0	08/21/09 18:37	JxM	9H21001	8082
Decachlorobiphenyl	*	*D08,Z3*	*Surr Limits. (34-148%)*				*08/21/09 18:37*	*JxM*	*9H21001*	*8082*
Tetrachloro-m-xylene	*	*D08,Z3*	*Surr Limits. (35-134%)*				*08/21/09 18:37*	*JxM*	*9H21001*	*8082*
General Chemistry Parameters										
Percent Solids	79		0.010	NR	%	1.00	08/22/09 07:35	LTT	9H21089	Dry Weight

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSH0587

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: (none)

Received: 08/20/09
Reported: 08/24/09 10:46

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSH0587-09 (H-3 - Solid)						**Sampled: 08/20/09 09:50**		**Recvd: 08/20/09 13:40**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND		22	4.2	ug/kg dry	1.00	08/21/09 18:52	JxM	9H21001	8082
Aroclor 1221	ND		22	4.2	ug/kg dry	1.00	08/21/09 18:52	JxM	9H21001	8082
Aroclor 1232	ND		22	4.2	ug/kg dry	1.00	08/21/09 18:52	JxM	9H21001	8082
Aroclor 1242	ND		22	4.7	ug/kg dry	1.00	08/21/09 18:52	JxM	9H21001	8082
Aroclor 1248	ND		22	4.2	ug/kg dry	1.00	08/21/09 18:52	JxM	9H21001	8082
Aroclor 1254	190		22	4.5	ug/kg dry	1.00	08/21/09 18:52	JxM	9H21001	8082
Aroclor 1260	220		22	4.5	ug/kg dry	1.00	08/21/09 18:52	JxM	9H21001	8082
Aroclor 1262	ND		22	4.5	ug/kg dry	1.00	08/21/09 18:52	JxM	9H21001	8082
Aroclor 1268	ND		22	4.5	ug/kg dry	1.00	08/21/09 18:52	JxM	9H21001	8082
Decachlorobiphenyl	*140 %*		*Surr Limits. (34-148%)*				*08/21/09 18:52*	*JxM*	*9H21001*	*8082*
Tetrachloro-m-xylene	*100 %*		*Surr Limits. (35-134%)*				*08/21/09 18:52*	*JxM*	*9H21001*	*8082*
General Chemistry Parameters										
Percent Solids	77		0.010	NR	%	1.00	08/22/09 07:37	LTT	9H21089	Dry Weight

TestAmerica

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Work Order: RSH0587

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 08/20/09
Reported: 08/24/09 10:46

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSH0587-10 (H-4 - Solid)						**Sampled: 08/20/09 10:00**		**Recvd: 08/20/09 13:40**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND		21	4.0	ug/kg dry	1.00	08/21/09 19:06	JxM	9H21001	8082
Aroclor 1221	ND		21	4.0	ug/kg dry	1.00	08/21/09 19:06	JxM	9H21001	8082
Aroclor 1232	ND		21	4.0	ug/kg dry	1.00	08/21/09 19:06	JxM	9H21001	8082
Aroclor 1242	ND		21	4.5	ug/kg dry	1.00	08/21/09 19:06	JxM	9H21001	8082
Aroclor 1248	ND		21	4.0	ug/kg dry	1.00	08/21/09 19:06	JxM	9H21001	8082
Aroclor 1254	360		21	4.4	ug/kg dry	1.00	08/21/09 19:06	JxM	9H21001	8082
Aroclor 1260	280		21	4.4	ug/kg dry	1.00	08/21/09 19:06	JxM	9H21001	8082
Aroclor 1262	ND		21	4.4	ug/kg dry	1.00	08/21/09 19:06	JxM	9H21001	8082
Aroclor 1268	ND		21	4.4	ug/kg dry	1.00	08/21/09 19:06	JxM	9H21001	8082
Decachlorobiphenyl	*119 %*		*Surr Limits: (34-148%)*				*08/21/09 19:06*	*JxM*	*9H21001*	*8082*
Tetrachloro-m-xylene	*83 %*		*Surr Limits: (35-134%)*				*08/21/09 19:06*	*JxM*	*9H21001*	*8082*
General Chemistry Parameters										
Percent Solids	80		0.010	NR	%	1.00	08/22/09 07:39	LTT	9H21089	Dry Weight

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Work Order: RSH0587

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number [none]

Received: 08/20/09
Reported: 08/24/09 10:46

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSH0587-11 (H-5 - Solid)						Sampled: 08/20/09 10:10		Recvd: 08/20/09 13:40		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND	D08	200	39	ug/kg dry	10.0	08/21/09 19:21	JxM	9H21001	8082
Aroclor 1221	ND	D08	200	39	ug/kg dry	10.0	08/21/09 19:21	JxM	9H21001	8082
Aroclor 1232	ND	D08	200	39	ug/kg dry	10.0	08/21/09 19:21	JxM	9H21001	8082
Aroclor 1242	ND	D08	200	43	ug/kg dry	10.0	08/21/09 19:21	JxM	9H21001	8082
Aroclor 1248	ND	D08	200	39	ug/kg dry	10.0	08/21/09 19:21	JxM	9H21001	8082
Aroclor 1254	1300	D08	200	42	ug/kg dry	10.0	08/21/09 19:21	JxM	9H21001	8082
Aroclor 1260	ND	D08	200	42	ug/kg dry	10.0	08/21/09 19:21	JxM	9H21001	8082
Aroclor 1262	ND	D08	200	42	ug/kg dry	10.0	08/21/09 19:21	JxM	9H21001	8082
Aroclor 1268	ND	D08	200	42	ug/kg dry	10.0	08/21/09 19:21	JxM	9H21001	8082
Decachlorobiphenyl	*	*D08,Z3*	*Surr Limits: (34-148%)*				*08/21/09 19:21*	*JxM*	*9H21001*	*8082*
Tetrachloro-m-xylene	*	*D08,Z3*	*Surr Limits: (35-134%)*				*08/21/09 19:21*	*JxM*	*9H21001*	*8082*
General Chemistry Parameters										
Percent Solids	83		0.010	NR	%	1.00	08/22/09 07:41	LTT	9H21089	Dry Weight

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Work Order: RSH0587

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 08/20/09
Reported: 08/24/09 10:46

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSH0587-12 (H-6 - Solid)						**Sampled: 08/20/09 10:20**		**Recvd: 08/20/09 13:40**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND		20	3.9	ug/kg dry	1.00	08/21/09 19:36	JxM	9H21001	8082
Aroclor 1221	ND		20	3.9	ug/kg dry	1.00	08/21/09 19:36	JxM	9H21001	8082
Aroclor 1232	ND		20	3.9	ug/kg dry	1.00	08/21/09 19:36	JxM	9H21001	8082
Aroclor 1242	ND		20	4.4	ug/kg dry	1.00	08/21/09 19:36	JxM	9H21001	8082
Aroclor 1248	ND		20	4.0	ug/kg dry	1.00	08/21/09 19:36	JxM	9H21001	8082
Aroclor 1254	84		20	4.3	ug/kg dry	1.00	08/21/09 19:36	JxM	9H21001	8082
Aroclor 1260	130		20	4.3	ug/kg dry	1.00	08/21/09 19:36	JxM	9H21001	8082
Aroclor 1262	ND		20	4.3	ug/kg dry	1.00	08/21/09 19:36	JxM	9H21001	8082
Aroclor 1268	ND		20	4.3	ug/kg dry	1.00	08/21/09 19:36	JxM	9H21001	8082
Decachlorobiphenyl	*135 %*		*Surr Limits: (34-148%)*				*08/21/09 19:36*	*JxM*	*9H21001*	*8082*
Tetrachloro-m-xylene	*86 %*		*Surr Limits: (35-134%)*				*08/21/09 19:36*	*JxM*	*9H21001*	*8082*
General Chemistry Parameters										
Percent Solids	82		0.010	NR	%	1.00	08/22/09 07:43	LTT	9H21089	Dry Weight

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Work Order: RSH0587

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 08/20/09
Reported: 08/24/09 10:46

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSH0587-13 (H-7 - Solid)					Sampled: 08/20/09 10:30			Recvd: 08/20/09 13:40		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND		20	4.0	ug/kg dry	1.00	08/21/09 19:51	JxM	9H21001	8082
Aroclor 1221	ND		20	4.0	ug/kg dry	1.00	08/21/09 19:51	JxM	9H21001	8082
Aroclor 1232	ND		20	4.0	ug/kg dry	1.00	08/21/09 19:51	JxM	9H21001	8082
Aroclor 1242	ND		20	4.4	ug/kg dry	1.00	08/21/09 19:51	JxM	9H21001	8082
Aroclor 1248	ND		20	4.0	ug/kg dry	1.00	08/21/09 19:51	JxM	9H21001	8082
Aroclor 1254	150		20	4.3	ug/kg dry	1.00	08/21/09 19:51	JxM	9H21001	8082
Aroclor 1260	120		20	4.3	ug/kg dry	1.00	08/21/09 19:51	JxM	9H21001	8082
Aroclor 1262	ND		20	4.3	ug/kg dry	1.00	08/21/09 19:51	JxM	9H21001	8082
Aroclor 1268	ND		20	4.3	ug/kg dry	1.00	08/21/09 19:51	JxM	9H21001	8082
Decachlorobiphenyl	*128 %*		*Surr Limits:*	*(34-148%)*			*08/21/09 19:51*	*JxM*	*9H21001*	*8082*
Tetrachloro-m-xylene	*83 %*		*Surr Limits:*	*(35-134%)*			*08/21/09 19:51*	*JxM*	*9H21001*	*8082*
General Chemistry Parameters										
Percent Solids	81		0.010	NR	%	1.00	08/22/09 07:45	LTT	9H21089	Dry Weight

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Work Order: RSH0587

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 08/20/09
Reported: 08/24/09 10:46

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSH0587-14 (H-8 - Solid)						**Sampled: 08/20/09 10:40**		**Recvd: 08/20/09 13:40**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND		20	4.0	ug/kg dry	1.00	08/21/09 20:20	JxM	9H21001	8082
Aroclor 1221	ND		20	4.0	ug/kg dry	1.00	08/21/09 20:20	JxM	9H21001	8082
Aroclor 1232	ND		20	4.0	ug/kg dry	1.00	08/21/09 20:20	JxM	9H21001	8082
Aroclor 1242	ND		20	4.4	ug/kg dry	1.00	08/21/09 20:20	JxM	9H21001	8082
Aroclor 1248	ND		20	4.0	ug/kg dry	1.00	08/21/09 20:20	JxM	9H21001	8082
Aroclor 1254	79		20	4.3	ug/kg dry	1.00	08/21/09 20:20	JxM	9H21001	8082
Aroclor 1260	50		20	4.3	ug/kg dry	1.00	08/21/09 20:20	JxM	9H21001	8082
Aroclor 1262	ND		20	4.3	ug/kg dry	1.00	08/21/09 20:20	JxM	9H21001	8082
Aroclor 1268	ND		20	4.3	ug/kg dry	1.00	08/21/09 20:20	JxM	9H21001	8082
Decachlorobiphenyl	*106 %*		*Surr Limits: (34-148%)*				*08/21/09 20:20*	*JxM*	*9H21001*	*8082*
Tetrachloro-m-xylene	*86 %*		*Surr Limits: (35-134%)*				*08/21/09 20:20*	*JxM*	*9H21001*	*8082*
General Chemistry Parameters										
Percent Solids	81		0.010	NR	%	1.00	08/22/09 07:47	LTT	9H21089	Dry Weight

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Work Order: RSH0587

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 08/20/09
Reported: 08/24/09 10:46

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSH0587-15 (H-9 - Solid)						**Sampled: 08/20/09 10:50**		**Recvd: 08/20/09 13:40**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND		20	4.0	ug/kg dry	1.00	08/21/09 20:35	JxM	9H21001	8082
Aroclor 1221	ND		20	4.0	ug/kg dry	1.00	08/21/09 20:35	JxM	9H21001	8082
Aroclor 1232	ND		20	4.0	ug/kg dry	1.00	08/21/09 20:35	JxM	9H21001	8082
Aroclor 1242	ND		20	4.4	ug/kg dry	1.00	08/21/09 20:35	JxM	9H21001	8082
Aroclor 1248	ND		20	4.0	ug/kg dry	1.00	08/21/09 20:35	JxM	9H21001	8082
Aroclor 1254	56		20	4.3	ug/kg dry	1.00	08/21/09 20:35	JxM	9H21001	8082
Aroclor 1260	86		20	4.3	ug/kg dry	1.00	08/21/09 20:35	JxM	9H21001	8082
Aroclor 1262	ND		20	4.3	ug/kg dry	1.00	08/21/09 20:35	JxM	9H21001	8082
Aroclor 1268	ND		20	4.3	ug/kg dry	1.00	08/21/09 20:35	JxM	9H21001	8082
Decachlorobiphenyl	*123 %*		*Surr Limits: (34-148%)*				*08/21/09 20:35*	*JxM*	*9H21001*	*8082*
Tetrachloro-m-xylene	*86 %*		*Surr Limits: (35-134%)*				*08/21/09 20:35*	*JxM*	*9H21001*	*8082*
General Chemistry Parameters										
Percent Solids	80		0.010	NR	%	1.00	08/22/09 07:49	LTT	9H21089	Dry Weight

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Work Order: RSH0587

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 08/20/09
Reported: 08/24/09 10:46

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracte	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
General Chemistry Parameters									
Dry Weight	9H21089	RSH0587-01	10.00	g	10.00	g	08/21/09 23:00	LTT	Dry Weight
Dry Weight	9H21089	RSH0587-02	10.00	g	10.00	g	08/21/09 23:00	LTT	Dry Weight
Dry Weight	9H21089	RSH0587-03	10.00	g	10.00	g	08/21/09 23:00	LTT	Dry Weight
Dry Weight	9H21089	RSH0587-04	10.00	g	10.00	g	08/21/09 23:00	LTT	Dry Weight
Dry Weight	9H21089	RSH0587-05	10.00	g	10.00	g	08/21/09 23:00	LTT	Dry Weight
Dry Weight	9H21089	RSH0587-06	10.00	g	10.00	g	08/21/09 23:00	LTT	Dry Weight
Dry Weight	9H21089	RSH0587-07	10.00	g	10.00	g	08/21/09 23:00	LTT	Dry Weight
Dry Weight	9H21089	RSH0587-08	10.00	g	10.00	g	08/21/09 23:00	LTT	Dry Weight
Dry Weight	9H21089	RSH0587-09	10.00	g	10.00	g	08/21/09 23:00	LTT	Dry Weight
Dry Weight	9H21089	RSH0587-10	10.00	g	10.00	g	08/21/09 23:00	LTT	Dry Weight
Dry Weight	9H21089	RSH0587-11	10.00	g	10.00	g	08/21/09 23:00	LTT	Dry Weight
Dry Weight	9H21089	RSH0587-12	10.00	g	10.00	g	08/21/09 23:00	LTT	Dry Weight
Dry Weight	9H21089	RSH0587-13	10.00	g	10.00	g	08/21/09 23:00	LTT	Dry Weight
Dry Weight	9H21089	RSH0587-14	10.00	g	10.00	g	08/21/09 23:00	LTT	Dry Weight
Dry Weight	9H21089	RSH0587-15	10.00	g	10.00	g	08/21/09 23:00	LTT	Dry Weight
Polychlorinated Biphenyls by EPA Method 8082									
8082	9H21001	RSH0587-04	30.04	g	10.00	mL	08/21/09 07:30	CXM	3550B GC
8082	9H21001	RSH0587-02	30.09	g	10.00	mL	08/21/09 07:30	CXM	3550B GC
8082	9H21001	RSH0587-07	30.14	g	10.00	mL	08/21/09 07:30	CXM	3550B GC
8082	9H21001	RSH0587-14	30.25	g	10.00	mL	08/21/09 07:30	CXM	3550B GC
8082	9H21001	RSH0587-09	30.29	g	10.00	mL	08/21/09 07:30	CXM	3550B GC
8082	9H21001	RSH0587-12	30.31	g	10.00	mL	08/21/09 07:30	CXM	3550B GC
8082	9H21001	RSH0587-10	30.34	g	10.00	mL	08/21/09 07:30	CXM	3550B GC
8082	9H21001	RSH0587-05	30.47	g	10.00	mL	08/21/09 07:30	CXM	3550B GC
8082	9H21001	RSH0587-11	30.49	g	10.00	mL	08/21/09 07:30	CXM	3550B GC
8082	9H21001	RSH0587-01	30.52	g	10.00	mL	08/21/09 07:30	CXM	3550B GC
8082	9H21001	RSH0587-03	30.54	g	10.00	mL	08/21/09 07:30	CXM	3550B GC
8082	9H21001	RSH0587-08	30.57	g	10.00	mL	08/21/09 07:30	CXM	3550B GC
8082	9H21001	RSH0587-15	30.60	g	10.00	mL	08/21/09 07:30	CXM	3550B GC
8082	9H21001	RSH0587-13	30.70	g	10.00	mL	08/21/09 07:30	CXM	3550B GC
8082	9H21001	RSH0587-06	30.88	g	10.00	mL	08/21/09 07:30	CXM	3550B GC

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Robbinsville, NJ 08691

Work Order: RSH0587

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 08/20/09
Reported: 08/24/09 10:46

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Polychlorinated Biphenyls by EPA Method 8082											
Blank Analyzed: 08/21/09 (Lab Number:9H21001-BLK1, Batch: 9H21001)											
Aroclor 1016			17	3.2	ug/kg wet	ND					
Aroclor 1221			17	3.2	ug/kg wet	ND					
Aroclor 1232			17	3.2	ug/kg wet	ND					
Aroclor 1242			17	3.6	ug/kg wet	ND					
Aroclor 1248			17	3.2	ug/kg wet	ND					
Aroclor 1254			17	3.5	ug/kg wet	ND					
Aroclor 1260			17	3.5	ug/kg wet	ND					
Aroclor 1262			17	3.5	ug/kg wet	ND					
Aroclor 1268			17	3.5	ug/kg wet	ND					
Surrogate: Decachlorobiphenyl					*ug/kg wet*		*109*	*34-148*			
Surrogate: Tetrachloro-m-xylene					*ug/kg wet*		*85*	*35-134*			
LCS Analyzed: 08/21/09 (Lab Number:9H21001-BS1, Batch: 9H21001)											
Aroclor 1016		160	17	3.2	ug/kg wet	146	89	59-154			
Aroclor 1221			17	3.2	ug/kg wet	ND		0-200			
Aroclor 1232			17	3.2	ug/kg wet	ND		0-200			
Aroclor 1242			17	3.6	ug/kg wet	ND		0-200			
Aroclor 1248			17	3.2	ug/kg wet	ND		0-200			
Aroclor 1254			17	3.5	ug/kg wet	ND		0-200			
Aroclor 1260		160	17	3.5	ug/kg wet	179	109	51-179			
Aroclor 1262			17	3.5	ug/kg wet	ND		0-200			
Aroclor 1268			17	3.5	ug/kg wet	ND		0-200			
Surrogate: Decachlorobiphenyl					*ug/kg wet*		*110*	*34-148*			
Surrogate: Tetrachloro-m-xylene					*ug/kg wet*		*96*	*35-134*			
LCS Dup Analyzed: 08/21/09 (Lab Number:9H21001-BSD1, Batch: 9H21001)											
Aroclor 1016		170	17	3.3	ug/kg wet	136	82	59-154	7	50	
Aroclor 1221			17	3.3	ug/kg wet	ND		0-200		200	
Aroclor 1232			17	3.3	ug/kg wet	ND		0-200		200	
Aroclor 1242			17	3.6	ug/kg wet	ND		0-200		200	
Aroclor 1248			17	3.3	ug/kg wet	ND		0-200		200	
Aroclor 1254			17	3.5	ug/kg wet	ND		0-200		200	
Aroclor 1260		170	17	3.5	ug/kg wet	172	103	51-179	4	50	
Aroclor 1262			17	3.5	ug/kg wet	ND		0-200		200	
Aroclor 1268			17	3.5	ug/kg wet	ND		0-200		200	

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSH0587

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 08/20/09
Reported: 08/24/09 10:46

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Polychlorinated Biphenyls by EPA Method 8082											
LCS Dup Analyzed: 08/21/09 (Lab Number:9H21001-BSD1, Batch: 9H21001)											
Surrogate: Decachlorobiphenyl					*ug/kg wet*		*104*	*34-148*			
Surrogate: Tetrachloro-m-xylene					*ug/kg wet*		*92*	*35-134*			

[redacted]

Chain of Custody Record

6A South Gold Drive
Robbinsville, NJ 08691

Temperature on Receipt _____
Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4121 (1009)

Client: PARS ENVIRONMENTAL

Project Manager: DAN TROY (GZA) MIKE MOORE (PARS)

Date: 8/20/09

Chain of Custody Number: 133258

Address: 535 WASHINGTON ST

Telephone Number (Area Code)/Fax Number: (716) 635-2300 (609) 890-7277

Lab Number:

Page 1 of 2

Sampler

City: BUFFALO | State: NY | Zip Code: 14203

Site Contact:

Lab Contact:

Project Name and Location (State): NF AFVL, NIAGARA FALLS, NY

Carrier/Waybill Number:

Contract/Purchase Order/Quote No.: 62A #21.0056522.00

Analysis (Attach list if more space is needed): PCB - 8082

Special Instructions/ Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	PCB - 8082
G-1	8/20/09	8:30				X	X						X
G-2		8:40				X	X						X
G-3		8:50				X	X						X
G-4		9:00				X	X						X
G-5		9:10				X	X						X
G-6		9:20				X	X						X
H-1		9:30				X	X						X
H-2		9:40				X	X						X
H-3		9:50				X	X						X
H-4		10:00				X	X						X
H-5		10:10				X	X						X
H-6		10:20				X	X						X

Matrix: Containers & Preservatives

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other 5 days

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: [signature]	8/20/09	1340	1. Received By: [signature]	8/20/09	1540
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments: Bill & Send reports to PARS Environmental Attn: Michael Moore 609-890-7277

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TAL-4124 (1007)

Client: GZA	Project Manager: DAN TROY	Date: 8/20/09	Chain of Custody Number: 133259
Address: 535 WASHINGTON ST	Telephone Number (Area Code)/Fax Number: (716) 685-2300	Lab Number	Page 2 of 2
City: BUFFALO; State: NY; Zip Code: 14203	Site Contact	Lab Contact	
Project Name and Location (State): NE AFRL - NIAGARA FALLS, NY	Carrier/Waybill Number		
Contract/Purchase Order/Quote No.: GZA FILE # 21.0056522			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil		Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAcy NaOH		PCBs											Special Instructions/ Conditions of Receipt
H-7	8/20/09	10:00				X		X							X											
H-8	↓	10:40				X		X							X											
H-9	↓	10:50				X		X							X											

Analysis (Attach list if more space is needed)

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other 5 days

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	8/20/09	1346	1. Received By: [signature]	8/20/09	1340
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments: Bill + Send reports to PARS Environmental Attn: Michael Moore 609-890-7277

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Analytical Report

Work Order: RSI0385

Project Description

Niagara Falls, NY - Armed Forces Reserve Center

For:

Michael Moore

PARS Environmental, Inc.

6A South Gold Drive

Robbinsville, NJ 08691

Sally Hoffman

Project Manager

Sally.Hoffman@testamericainc.com

Thursday, September 17, 2009

Revision: 1

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exception to NELAP requirements are noted in this report. Persuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project manager who has signed this report.

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PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0385

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number [none]

Received: 09/10/09
Reported: 09/17/09 14:53

TestAmerica Buffalo
Current Certifications

As of 1/27/2009

STATE	Program	Cert # / Lab ID
Arkansas	CWA, RCRA, SOIL	88-0686
California*	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida*	NELAP CWA, RCRA	E87672
Georgia*	SDWA,NELAP CWA, RCRA	956
Illinois*	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas*	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana*	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY0044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA,CWA, RCRA	036-999-337
New Hampshire*	NELAP SDWA, CWA	233701
New Jersey*	NELAP,SDWA, CWA, RCRA,	NY455
New York*	NELAP, AIR, SDWA, CWA, RCRA,CLP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania*	NELAP CWA,RCRA	68-00281
Tennessee	SDWA	02970
Texas*	NELAP CWA, RCRA	T104704412-08-TX
USDA	FOREIGN SOIL PERMIT	S-41579
USDOE	Department of Energy	DOECAP-STB
Virginia	SDWA	278
Washington*	NELAP CWA,RCRA	C1677
Wisconsin	CWA, RCRA	998310390
West Virginia	CWA,RCRA	252

*As required under the indicated accreditation, the test results in this report meet all NELAP requirements for parameters for which accre ditation is required or available. Any exceptions to NELAP requirements are noted in this report.

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0385

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/10/09
Reported: 09/17/09 14:53

Case Narrative

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

There are pertinent documents appended to this report, 2 pages, are included and are an integral part of this report.

Reproduction of this analytical report is permitted only in its entirety. This report shall not be reproduced except in full without the written approval of the laboratory.

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

PARS Environmental, Inc. 6A South Gold Drive Robbinsville, NJ 08691	Work Order: RSI0385 Project: Niagara Falls, NY - Armed Forces Reserve Center Project Number: [none]	Received: 09/10/09 Reported: 09/17/09 14:53

DATA QUALIFIERS AND DEFINITIONS

>	Result is greater than the indicated value.
D08	Dilution required due to high concentration of target analyte(s)
HFT	The holding time for this test is immediate. It was analyzed in the laboratory as soon as possible after receipt.
J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
P14	Preserved in Sample Control with Sulfuric Acid using lot number 1.0 mls. LOT#9005 .
QSU	Sulfur (EPA 3660) clean-up performed on extract.
Z3	The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.
NR	Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0385

Project. Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/10/09
Reported: 09/17/09 14:53

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSI0385-01 (W-1 - Water)					**Sampled: 09/10/09 13:30**			**Recvd: 09/10/09 15:00**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254 [2C]	88	QSU, D08	4.9	NR	ug/L	10.0	09/15/09 12:14	JxM	9I13004	8082
General Chemistry Parameters										
pH	8.00	HFT	NR	0.00	SU	1.00	09/15/09 00:59	JME	9I15005	9040
HCN Released From Waste	8.40	J	10 0	0 0030	mg/L	1.00	09/17/09 12:32	RJP	9I17080	Section 7.3
Flashpoint	>176		50.0	50.0	°F	1.00	09/16/09 12:32	RJP	9I16055	1010
H2S Released From Waste	10.0		10.0	0.6	mg/L	1.00	09/17/09 08:30	RJP	9I17077	Section 7.3
Sample ID: RSI0385-02 (W-1 - Water)					**Sampled: 09/15/09 11:40**			**Recvd: 09/15/09 13:50**		
General Chemistry Parameters										
Oil and Grease	46.8		5.0	2.2	mg/L	1.00	09/15/09 15:10	JME	9I15118	1664A

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0385

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/10/09
Reported: 09/17/09 14:53

Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
W-1	RSI0385-01	Water	09/10/09 13:30	09/10/09 15:00	
W-1	RSI0385-02	Water	09/15/09 11:40	09/10/09 15:00	P14

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0385

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/10/09
Reported: 09/17/09 14:53

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSI0385-01 (W-1 - Water)					**Sampled: 09/10/09 13:30**			**Recvd: 09/10/09 15:00**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016 [2C]	ND	QSU, D08	4.9	NR	ug/L	10.0	09/15/09 12:14	JxM	9I13004	8082
Aroclor 1221 [2C]	ND	QSU, D08	4.9	NR	ug/L	10.0	09/15/09 12:14	JxM	9I13004	8082
Aroclor 1232 [2C]	ND	QSU, D08	4.9	NR	ug/L	10.0	09/15/09 12:14	JxM	9I13004	8082
Aroclor 1242 [2C]	ND	QSU, D08	4.9	NR	ug/L	10.0	09/15/09 12:14	JxM	9I13004	8082
Aroclor 1248 [2C]	ND	QSU, D08	4.9	NR	ug/L	10.0	09/15/09 12:14	JxM	9I13004	8082
Aroclor 1254 [2C]	88	QSU, D08	4.9	NR	ug/L	10.0	09/15/09 12:14	JxM	9I13004	8082
Aroclor 1260 [2C]	ND	QSU, D08	4.9	NR	ug/L	10.0	09/15/09 12:14	JxM	9I13004	8082
Aroclor 1262 [2C]	ND	QSU, D08	4.9	NR	ug/L	10.0	09/15/09 12:14	JxM	9I13004	8082
Aroclor 1268 [2C]	ND	QSU, D08	4.9	NR	ug/L	10.0	09/15/09 12:14	JxM	9I13004	8082
Decachlorobiphenyl [2C]	*	*QSU, D08, Z3*	*Surr Limits: (12-137%)*				*09/15/09 12:14*	*JxM*	*9I13004*	*8082*
Tetrachloro-m-xylene [2C]	*	*QSU, D08, Z3*	*Surr Limits: (35-121%)*				*09/15/09 12:14*	*JxM*	*9I13004*	*8082*
General Chemistry Parameters										
pH	8.00	HFT	NA	0.00	SU	1.00	09/15/09 00:59	JME	9I15005	9040
HCN Released From Waste	8.40	J	10.0	0.0030	mg/L	1.00	09/17/09 12:32	RJP	9I17080	Section 7.3
Flashpoint	>176		50.0	50.0	°F	1.00	09/16/09 12:32	RJP	9I16055	1010
H2S Released From Waste	10.0		10.0	0.6	mg/L	1.00	09/17/09 08:30	RJP	9I17077	Section 7.3

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0385

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/10/09
Reported: 09/17/09 14:53

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSI0385-02 (W-1 - Water)					**Sampled: 09/15/09 11:40**			**Recvd: 09/15/09 13:50**		
General Chemistry Parameters										
Oil and Grease	46.8		5.0	2.2	mg/L	1.00	09/15/09 15:10	JME	9I15118	1664A

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0385

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received 09/10/09
Reported: 09/17/09 14:53

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracte	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
General Chemistry Parameters									
1010	9I16055	RSI0385-01	50.00	mL	50.00	mL	09/16/09 12:32	RJP	No Prep Flashpoint
1664A	9I15118	RSI0385-02	1,000.00	mL	1,000.00	mL	09/15/09 15:10	JME	No prep Oil and Grease
9040	9I15005	RSI0385-01	50.00	mL	50.00	mL	09/15/09 00:59	JME	No prep pH
Section 7.3	9I17077	RSI0385-01	200.00	mL	200.00	mL	09/17/09 08:30	RJP	Reactivity
Section 7.3	9I17080	RSI0385-01	5.00	mL	5.00	mL	09/17/09 12:32	RJP	Reactivity
Polychlorinated Biphenyls by EPA Method 8082									
8082	9I13004	RSI0385-01	1,020.00	mL	10.00	mL	09/14/09 07:30	BML	3510C GC

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0385

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: (none)

Received: 09/10/09
Reported: 09/17/09 14:53

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Polychlorinated Biphenyls by EPA Method 8082											
Blank Analyzed: 09/15/09 (Lab Number:9I13004-BLK1, Batch: 9I13004)											
Aroclor 1016			0.50	NR	ug/L	ND					QSU
Aroclor 1221			0.50	NR	ug/L	ND					QSU
Aroclor 1232			0.50	NR	ug/L	ND					QSU
Aroclor 1242			0.50	NR	ug/L	ND					QSU
Aroclor 1248			0.50	NR	ug/L	ND					QSU
Aroclor 1254			0.50	NR	ug/L	ND					QSU
Aroclor 1260			0.50	NR	ug/L	ND					QSU
Aroclor 1262			0.50	NR	ug/L	ND					QSU
Aroclor 1268			0.50	NR	ug/L	ND					QSU
Surrogate: Decachlorobiphenyl					*ug/L*		*58*	*12-137*			*QSU*
Surrogate: Tetrachloro-m-xylene					*ug/L*		*72*	*35-121*			*QSU*
LCS Analyzed: 09/15/09 (Lab Number:9I13004-BS1, Batch: 9I13004)											
Aroclor 1016		5.0	0.50	NR	ug/L	5.97	119	61-123			QSU
Aroclor 1221			0.50	NR	ug/L	ND					QSU
Aroclor 1232			0.50	NR	ug/L	ND					QSU
Aroclor 1242			0.50	NR	ug/L	ND					QSU
Aroclor 1248			0.50	NR	ug/L	ND					QSU
Aroclor 1254			0.50	NR	ug/L	ND					QSU
Aroclor 1260		5.0	0.50	NR	ug/L	5.17	103	52-128			QSU
Aroclor 1262			0.50	NR	ug/L	ND					QSU
Aroclor 1268			0.50	NR	ug/L	ND					QSU
Surrogate: Decachlorobiphenyl					*ug/L*		*54*	*12-137*			*QSU*
Surrogate: Tetrachloro-m-xylene					*ug/L*		*95*	*35-121*			*QSU*
Matrix Spike Analyzed: 09/15/09 (Lab Number:9I13004-MS1, Batch: 9I13004)											
QC Source Sample: RSI0279-03											
Aroclor 1016	ND	5.0	0.50	NR	ug/L	6.89	138	61-123			
Aroclor 1221	ND		0.50	NR	ug/L	ND					
Aroclor 1232	ND		0.50	NR	ug/L	ND					
Aroclor 1242	ND		0.50	NR	ug/L	ND					
Aroclor 1248	ND		0.50	NR	ug/L	ND					
Aroclor 1254	ND		0.50	NR	ug/L	ND					
Aroclor 1260	ND	5.0	0.50	NR	ug/L	4.02	80	52-128			
Aroclor 1262	ND		0.50	NR	ug/L	ND					
Aroclor 1268	ND		0.50	NR	ug/L	ND					

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0385

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number [none]

Received: 09/10/09
Reported: 09/17/09 14:53

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Polychlorinated Biphenyls by EPA Method 8082											
Matrix Spike Analyzed: 09/15/09 (Lab Number:9I13004-MS1, Batch: 9I13004)											
QC Source Sample: RSI0279-03											
Surrogate: Decachlorobiphenyl					*ug/L*		*66*	*12-137*			
Surrogate: Tetrachloro-m-xylene					*ug/L*		*91*	*35-121*			
Matrix Spike Dup Analyzed: 09/15/09 (Lab Number:9I13004-MSD1, Batch: 9I13004)											
QC Source Sample: RSI0279-03											
Aroclor 1016	ND	5.0	0.50	NR	ug/L	7.01	140	61-123	2	50	
Aroclor 1221	ND		0.50	NR	ug/L	ND					
Aroclor 1232	ND		0.50	NR	ug/L	ND					
Aroclor 1242	ND		0.50	NR	ug/L	ND					
Aroclor 1248	ND		0.50	NR	ug/L	ND					
Aroclor 1254	ND		0.50	NR	ug/L	ND					
Aroclor 1260	ND	5.0	0.50	NR	ug/L	4.33	87	52-128	7	50	
Aroclor 1262	ND		0.50	NR	ug/L	ND					
Aroclor 1268	ND		0.50	NR	ug/L	ND					
Surrogate: Decachlorobiphenyl					*ug/L*		*74*	*12-137*			
Surrogate: Tetrachloro-m-xylene					*ug/L*		*92*	*35-121*			

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0385

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/10/09
Reported: 09/17/09 14:53

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
General Chemistry Parameters											
LCS Analyzed: 09/15/09 (Lab Number:9I15005-BS1, Batch: 9I15005)											
pH		7.00	NA	0.00	SU	6.99	100	99.3-100.8			
Duplicate Analyzed: 09/15/09 (Lab Number:9I15005-DUP1, Batch: 9I15005)											
QC Source Sample: RSI0385-01											
pH	8.00		NA	0.00	SU	7.97			0.4		
General Chemistry Parameters											
Blank Analyzed: 09/15/09 (Lab Number:9I15118-BLK1, Batch: 9I15118)											
Oil and Grease			5.0	2.2	mg/L	ND					
LCS Analyzed: 09/15/09 (Lab Number:9I15118-BS1, Batch: 9I15118)											
Oil and Grease		25.0	5.0	2.2	mg/L	23.5	94	78-114			
LCS Analyzed: 09/15/09 (Lab Number:9I15118-BS2, Batch: 9I15118)											
Oil and Grease		20.0	5.0	2.2	mg/L	16.3	82	78-114			
General Chemistry Parameters											
LCS Analyzed: 09/16/09 (Lab Number:9I16055-BS1, Batch: 9I16055)											
Flashpoint		81.0	50.0	50.0	°F	80.0	99	97.5-102.5			
General Chemistry Parameters											
Blank Analyzed: 09/17/09 (Lab Number:9I17077-BLK1, Batch: 9I17077)											
H2S Released From Waste			10.0	0.6	mg/L	ND					
LCS Analyzed: 09/17/09 (Lab Number:9I17077-BS1, Batch: 9I17077)											
H2S Released From Waste		570	10.0	0.6	mg/L	70.2	12	10-100			
Duplicate Analyzed: 09/17/09 (Lab Number:9I17077-DUP1, Batch: 9I17077)											
QC Source Sample: RSI0385-01											
H2S Released From Waste	10.0		10.0	0.6	mg/L	10.0			0	20	
General Chemistry Parameters											
Blank Analyzed: 09/17/09 (Lab Number:9I17080-BLK1, Batch: 9I17080)											
HCN Released From Waste			10.0	0.0030	mg/L	ND					
LCS Analyzed: 09/17/09 (Lab Number:9I17080-BS1, Batch: 9I17080)											

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0385

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/10/09
Reported: 09/17/09 14:53

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
General Chemistry Parameters											
LCS Analyzed: 09/17/09 (Lab Number:9I17080-BS1, Batch: 9I17080)											
HCN Released From Waste		1000	10.0	0.0030	mg/L	**111**	11	10-100			
Duplicate Analyzed: 09/17/09 (Lab Number:9I17080-DUP1, Batch: 9I17080)											
QC Source Sample: RSI0385-01											
HCN Released From Waste	8.40		10.0	0.0030	mg/L	7.60			10	20	J

CHAIN-OF-CUSTODY RECORD

W.O. #_____
(for lab use only)

Sample I.D.	Date/Time Sampled	Matrix (A=Air, S=Soil, GW=Ground W., SW=Surface W., WW=Waste W., DW=Drinking W., P=Product, Other (specify))	ANALYSIS REQUIRED																												Total # of Cont.	Note #
W - 1	9/10/09 1:30	WW												X																	2	

PRESERVATIVE (Cl - HCl, M-Methanol, N - HNO3, S - H2SO4, Na - NaOH, O - Other)

CONTAINER TYPE (P-Plastic, G-Glass, V-Vial, T-Teflon, O-Other)

RELINQUISHED BY: (AFFILIATION)	DATE/TIME	RECEIVED BY: (AFFILIATION)
[illegible]	9/10/09 3:00	[illegible] 9/10/09 1500
RELINQUISHED BY: (AFFILIATION)	DATE/TIME	RECEIVED BY: (AFFILIATION)
RELINQUISHED BY: (AFFILIATION)	DATE/TIME	RECEIVED BY: (AFFILIATION)

NOTES: (Unless otherwise noted, all samples have been refrigerated to 4° C)
Specify "Other" preservatives and containers types in this space.

Hold 1 Liter

PROJECT MANAGER: _____ EXT: _____

Collected by
GZA GEOENVIRONMENTAL, INC.
~~Laboratory Division~~

~~108 Cedar Street~~
~~Holbrook, MA 01748~~
~~(781) 278-8700~~
FAX (508) 435-9912

TURNAROUND TIME: 5 day Standard Rush__ Days. Approved by _____

LAB USE: TEMP. OF COOLER 4.8 °C Temp Blank ___ Cooler Air ___

GZA FILE NO: 21.0056522.00
PROJECT NF AFRC
LOCATION Niagara Falls, NY
COLLECTOR(S) Michael Kress

Client: Pars Environmental
~~TASK NO.~~ P.O. NO. _____
6A South Gold Drive
Robbinsville, NJ 08691
Attn: Michael Moore 609-890-7277

SHEET ___ OF ___

~~Anchorage~~ Buffalo
10 Hazelwood Drive
Amherst, New York 14228

Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Michael Moore	Site Contact: Tom Dobinson	Date: 9/15/09	COC No:
Pars Environmental, Inc.	Tel/Fax:	Lab Contact: Sally Hoffman	Carrier: GZA to drop off @ Lab	____ of ____ COCs
6A South Gold Drive	Analysis Turnaround Time			Job No.
Robbinsville	Calendar (C) or Work Days (W) _____			
(609) 890-7277 Phone	TAT if different from Below _____			
(609) 890-9116 FAX	☐ 2 weeks			SDG No.
Project Name: Niagara Falls AFRC	☐ 1 week			
Site:	☐ 2 days			
PO#	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Call Sally Hoffman													Sample Specific Notes:
W-1	9/15/09	11:40	W		1															3rd 1 Liter Amber
																				taken From
																				Pipe Cleaning
																				waste Water

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant Poison B ☐ Unknown ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company	Date/Time	Received by:	Company:	Date/Time
[signature]	GZA	9/15/09 1350	[signature]	[signature]	9/15/09 1350
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

8.3-C Same Day

TestAmerica

Analytical Report

Work Order: RSI0518

Project Description

Niagara Falls, NY - Armed Forces Reserve Center

For:

Michael Moore

PARS Environmental, Inc.

6A South Gold Drive

Robbinsville, NJ 08691

Sally Hoffman

Project Manager

Sally.Hoffman@testamericainc.com

Tuesday, September 22, 2009

Revision: 1

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exception to NELAP requirements are noted in this report. Persuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory All questions regarding this test report should be directed to the TestAmerica Project manager who has signed this report.

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PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order RSI0518

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/15/09
Reported: 09/22/09 11 48

TestAmerica Buffalo
Current Certifications

As of 1/27/2009

STATE	Program	Cert # / Lab ID
Arkansas	CWA, RCRA, SOIL	88-0686
California*	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida*	NELAP CWA, RCRA	E87672
Georgia*	SDWA,NELAP CWA, RCRA	956
Illinois*	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas*	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana*	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY0044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA,CWA, RCRA	036-999-337
New Hampshire*	NELAP SDWA, CWA	233701
New Jersey*	NELAP,SDWA, CWA, RCRA,	NY455
New York*	NELAP, AIR, SDWA, CWA, RCRA,CLP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania*	NELAP CWA,RCRA	68-00281
Tennessee	SDWA	02970
Texas*	NELAP CWA, RCRA	T104704412-08-TX
USDA	FOREIGN SOIL PERMIT	S-41579
USDOE	Department of Energy	DOECAP-STB
Virginia	SDWA	278
Washington*	NELAP CWA,RCRA	C1677
Wisconsin	CWA, RCRA	998310390
West Virginia	CWA,RCRA	252

*As required under the indicated accreditation, the test results in this report meet all NELAP requirements for parameters for which accre ditation is required or available. Any exceptions to NELAP requirements are noted in this report.

PARS Environmental, Inc. 6A South Gold Drive Robbinsville, NJ 08691	Work Order: RSI0518 Project: Niagara Falls, NY - Armed Forces Reserve Center Project Number: [none]	Received: 09/15/09 Reported: 09/22/09 11:48

Case Narrative

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

A pertinent document is appended to this report, 1 page, is included and is an integral part of this report

Reproduction of this analytical report is permitted only in its entirety. This report shall not be reproduced except in full without the written approval of the laboratory.

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

PARS Environmental, Inc. 6A South Gold Drive Robbinsville, NJ 08691	Work Order: RSI0518 Project: Niagara Falls, NY - Armed Forces Reserve Center Project Number: [none]	Received: 09/15/09 Reported 09/22/09 11:48

DATA QUALIFIERS AND DEFINITIONS

B	Analyte was detected in the associated Method Blank.
J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated
P6	Sample received unpreserved, however the sample was analyzed within 7 days per EPA recommendation
R2	The RPD exceeded the acceptance limit.
ZX	Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.
NR	Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0518

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/15/09
Reported: 09/22/09 11 48

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSI0518-01 (W-2 - Water)					**Sampled: 09/15/09 15:00**			**Recvd: 09/15/09 17:25**		
TCLP Volatile Organic Compounds by EPA Method 1311/8260B										
Benzene	14	P6	1.0	0.41	ug/L	1.00	09/17/09 17:45	DHC	9I17059	8260B TCLP
TCLP Semivolatile Compounds by EPA Method 1311/8270C										
2-Methylphenol	18	J	20	0.91	ug/L	1 00	09/18/09 17 11	JLG	9I17031	8270C TCLP
TCLP Metals										
Arsenic	0.0061	J, B	0.0500	0.0037	mg/L	1.00	09/18/09 00 04	DAN	9I15009	6010B TCLP
Barium	0.0860	B	0.0020	0.0001	mg/L	1.00	09/18/09 00 04	DAN	9I15009	6010B TCLP
Chromium	0.0021	J, B	0 0040	0.0009	mg/L	1.00	09/18/09 00:04	DAN	9I15009	6010B TCLP

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0518

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number [none]

Received 09/15/09
Reported. 09/22/09 11:48

Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
W-2	RSI0518-01	Water	09/15/09 15:00	09/15/09 17.25	

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0518

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number [none]

Received: 09/15/09
Reported: 09/22/09 11 48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSI0518-01 (W-2 - Water)						Sampled: 09/15/09 15:00		Recvd: 09/15/09 17:25		
TCLP Volatile Organic Compounds by EPA Method 1311/8260B										
1,1-Dichloroethene	ND	P6	1.0	0.29	ug/L	1.00	09/17/09 17:45	DHC	9I17059	8260B TCLP
1,2-Dichloroethane	ND	P6	1.0	0 21	ug/L	1.00	09/17/09 17:45	DHC	9I17059	8260B TCLP
2-Butanone (MEK)	ND	P6	5 0	1.3	ug/L	1.00	09/17/09 17:45	DHC	9I17059	8260B TCLP
Benzene	14	P6	1.0	0.41	ug/L	1 00	09/17/09 17:45	DHC	9I17059	8260B TCLP
Carbon Tetrachloride	ND	P6	1.0	0.27	ug/L	1 00	09/17/09 17:45	DHC	9I17059	8260B TCLP
Chlorobenzene	ND	P6	1.0	0.32	ug/L	1.00	09/17/09 17:45	DHC	9I17059	8260B TCLP
Chloroform	ND	P6	1.0	0.34	ug/L	1.00	09/17/09 17:45	DHC	9I17059	8260B TCLP
Tetrachloroethene	ND	P6	1.0	0.36	ug/L	1.00	09/17/09 17:45	DHC	9I17059	8260B TCLP
Trichloroethene	ND	P6	1.0	0.46	ug/L	1 00	09/17/09 17:45	DHC	9I17059	8260B TCLP
Vinyl chloride	ND	P6	1.0	0.24	ug/L	1.00	09/17/09 17:45	DHC	9I17059	8260B TCLP
1,2-Dichloroethane-d4	*100 %*	*P6*	*Surr Limits: (66-137%)*				*09/17/09 17:45*	*DHC*	*9I17059*	*8260B TCLP*
4-Bromofluorobenzene	*106 %*	*P6*	*Surr Limits: (73-120%)*				*09/17/09 17:45*	*DHC*	*9I17059*	*8260B TCLP*
Toluene-d8	*99 %*	*P6*	*Surr Limits: (71-126%)*				*09/17/09 17:45*	*DHC*	*9I17059*	*8260B TCLP*
TCLP Semivolatile Compounds by EPA Method 1311/8270C										
1,4-Dichlorobenzene	ND		40	0.62	ug/L	1.00	09/18/09 17:11	JLG	9I17031	8270C TCLP
2,4,5-Trichlorophenol	ND		20	4.0	ug/L	1.00	09/18/09 17:11	JLG	9I17031	8270C TCLP
2,4,6-Trichlorophenol	ND		20	4.0	ug/L	1.00	09/18/09 17:11	JLG	9I17031	8270C TCLP
2,4-Dinitrotoluene	ND		20	1.8	ug/L	1 00	09/18/09 17:11	JLG	9I17031	8270C TCLP
2-Methylphenol	18	J	20	0.91	ug/L	1.00	09/18/09 17:11	JLG	9I17031	8270C TCLP
3 & 4 Methylphenol	ND		40	2.3	ug/L	1.00	09/18/09 17:11	JLG	9I17031	8270C TCLP
Hexachlorobenzene	ND		20	1.8	ug/L	1.00	09/18/09 17:11	JLG	9I17031	8270C TCLP
Hexachlorobutadiene	ND		20	10	ug/L	1.00	09/18/09 17:11	JLG	9I17031	8270C TCLP
Hexachloroethane	ND		20	11	ug/L	1.00	09/18/09 17:11	JLG	9I17031	8270C TCLP
Nitrobenzene	ND		20	2.2	ug/L	1.00	09/18/09 17:11	JLG	9I17031	8270C TCLP
Pentachlorophenol	ND		40	21	ug/L	1.00	09/18/09 17:11	JLG	9I17031	8270C TCLP
Pyridine	ND		100	6.4	ug/L	1.00	09/18/09 17:11	JLG	9I17031	8270C TCLP
2,4,6-Tribromophenol	*95 %*		*Surr Limits: (52-132%)*				*09/18/09 17:11*	*JLG*	*9I17031*	*8270C TCLP*
2-Fluorobiphenyl	*86 %*		*Surr Limits: (48-120%)*				*09/18/09 17.11*	*JLG*	*9I17031*	*8270C TCLP*
2-Fluorophenol	*51 %*		*Surr Limits: (20-120%)*				*09/18/09 17:11*	*JLG*	*9I17031*	*8270C TCLP*
Nitrobenzene-d5	*79 %*		*Surr Limits: (46-120%)*				*09/18/09 17:11*	*JLG*	*9I17031*	*8270C TCLP*
Phenol-d5	*38 %*		*Surr Limits: (16-120%)*				*09/18/09 17:11*	*JLG*	*9I17031*	*8270C TCLP*
p-Terphenyl-d14	*69 %*		*Surr Limits: (24-136%)*				*09/18/09 17:11*	*JLG*	*9I17031*	*8270C TCLP*
TCLP Herbicides by EPA Method 1311/8151A										
2,4-D	ND		2.0	0.44	ug/L	1 00	09/19/09 11:18	GFD	9I17030	8151A TCLP
Silvex (2,4,5-TP)	ND		2.0	0.46	ug/L	1.00	09/19/09 11:18	GFD	9I17030	8151A TCLP
2,4-Dichlorophenylacetic acid	*24 %*		*Surr Limits: (19-128%)*				*09/19/09 11:18*	*GFD*	*9I17030*	*8151A TCLP*
TCLP Pesticides by EPA Method 1311/8081A										
Chlordane [2C]	ND		2.0	0.12	ug/L	1.00	09/18/09 19:14	tch	9I17037	8081 TCLP
Endrin [2C]	ND		0.20	0 055	ug/L	1.00	09/18/09 19:14	tch	9I17037	8081 TCLP
gamma-BHC (Lindane) [2C]	ND		0.20	0.024	ug/L	1 00	09/18/09 19:14	tch	9I17037	8081 TCLP
Heptachlor [2C]	ND		0.20	0 034	ug/L	1.00	09/18/09 19:14	tch	9I17037	8081 TCLP
Heptachlor epoxide [2C]	ND		0.20	0.021	ug/L	1 00	09/18/09 19:14	tch	9I17037	8081 TCLP
Methoxychlor [2C]	ND		0.20	0 056	ug/L	1.00	09/18/09 19:14	tch	9I17037	8081 TCLP
Toxaphene [2C]	ND		2.0	0.48	ug/L	1.00	09/18/09 19:14	tch	9I17037	8081 TCLP

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0518

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/15/09
Reported: 09/22/09 11:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSI0518-01 (W-2 - Water) - cont.						**Sampled: 09/15/09 15:00**		**Recvd: 09/15/09 17:25**		
TCLP Pesticides by EPA Method 1311/8081A - cont.										
Decachlorobiphenyl [2C]	*93 %*		*Surr Limits: (15-139%)*				*09/18/09 19:14*	*tch*	*9I17037*	*8081 TCLP*
Tetrachloro-m-xylene [2C]	*44 %*		*Surr Limits: (30-139%)*				*09/18/09 19:14*	*tch*	*9I17037*	*8081 TCLP*
TCLP Metals										
Arsenic	0.0061	J, B	0.0500	0.0037	mg/L	1.00	09/18/09 00:04	DAN	9I15009	6010B TCLP
Barium	0.0860	B	0.0020	0.0001	mg/L	1.00	09/18/09 00:04	DAN	9I15009	6010B TCLP
Cadmium	ND		0.0010	0.0003	mg/L	1.00	09/18/09 00:04	DAN	9I15009	6010B TCLP
Chromium	0.0021	J, B	0.0040	0.0009	mg/L	1.00	09/18/09 00:04	DAN	9I15009	6010B TCLP
Lead	ND		0.0060	0.0010	mg/L	1.00	09/18/09 00:04	DAN	9I15009	6010B TCLP
Selenium	ND		0.0150	0.0087	mg/L	1.00	09/18/09 11:37	LMH	9I15009	6010B TCLP
Silver	ND		0.0030	0.0012	mg/L	1.00	09/18/09 00:04	DAN	9I15009	6010B TCLP
Mercury	ND		0.0002	0.0001	mg/L	1.00	09/18/09 16:11	MXM	9I18056	7470A TCLP

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0518

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/15/09
Reported: 09/22/09 11:48

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracte	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
TCLP Herbicides by EPA Method 1311/8151A									
8151A TCLP	9I17030	RSI0518-01	250.00	mL	10 00	mL	09/17/09 15:00	LTT	8151A Aq Prep
TCLP Metals									
6010B TCLP	9I15009	RSI0518-01	50.00	mL	50.00	mL	09/17/09 07:25	KCW	3010A
7470A TCLP	9I18056	RSI0518-01	30 00	mL	50.00	mL	09/18/09 11.00	MXM	7470A
TCLP Pesticides by EPA Method 1311/8081A									
8081 TCLP	9I17037	RSI0518-01	250.00	mL	10 00	mL	09/17/09 15:00	KMB	3510C GC
TCLP Semivolatile Compounds by EPA Method 1311/8270C									
8270C TCLP	9I17031	RSI0518-01	250.00	mL	1.00	mL	09/17/09 15:00	KMB	3510C MB
TCLP Volatile Organic Compounds by EPA Method 1311/8260B									
8260B TCLP	9I17059	RSI0518-01	5.00	mL	5.00	mL	09/17/09 10:00	DHC	5030B MS

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0518

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/15/09
Reported: 09/22/09 11:48

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
TCLP Volatile Organic Compounds by EPA Method 1311/8260B											
Blank Analyzed: 09/17/09 (Lab Number:9I17059-BLK1, Batch: 9I17059)											
1,1-Dichloroethene			1.0	0.29	ug/L	ND					
1,2-Dichloroethane			1.0	0.21	ug/L	ND					
2-Butanone (MEK)			5.0	1.3	ug/L	ND					
Benzene			1.0	0.41	ug/L	ND					
Carbon Tetrachloride			1.0	0.27	ug/L	ND					
Chlorobenzene			1.0	0.32	ug/L	ND					
Chloroform			1.0	0.34	ug/L	ND					
Tetrachloroethene			1.0	0.36	ug/L	ND					
Trichloroethene			1.0	0.46	ug/L	ND					
Vinyl chloride			1.0	0.24	ug/L	ND					
Surrogate: 1,2-Dichloroethane-d4					*ug/L*		*103*	*66-137*			
Surrogate: 4-Bromofluorobenzene					*ug/L*		*107*	*73-120*			
Surrogate: Toluene-d8					*ug/L*		*99*	*71-126*			
LCS Analyzed: 09/17/09 (Lab Number:9I17059-BS1, Batch: 9I17059)											
1,1-Dichloroethene		25	1.0	0.29	ug/L	26.6	106	65-138			
1,2-Dichloroethane		25	1.0	0.21	ug/L	25.3	101	75-127			
2-Butanone (MEK)		120	5.0	1.3	ug/L	115	92	57-140			
Benzene		25	1.0	0.41	ug/L	25.8	103	71-124			
Carbon Tetrachloride		25	1.0	0.27	ug/L	26.4	106	72-134			
Chlorobenzene		25	1.0	0.32	ug/L	24.3	97	72-120			
Chloroform		25	1.0	0.34	ug/L	24.8	99	73-127			
Tetrachloroethene		25	1.0	0.36	ug/L	25.7	103	74-122			
Trichloroethene		25	1.0	0.46	ug/L	25.1	100	74-123			
Vinyl chloride		25	1.0	0.24	ug/L	24.7	99	65-133			
Surrogate: 1,2-Dichloroethane-d4					*ug/L*		*99*	*66-137*			
Surrogate: 4-Bromofluorobenzene					*ug/L*		*107*	*73-120*			
Surrogate: Toluene-d8					*ug/L*		*100*	*71-126*			

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Reported: 09/22/09 11:48

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
TCLP Semivolatile Compounds by EPA Method 1311/8270C											
Blank Analyzed: 09/18/09 (Lab Number:9I17031-BLK1, Batch: 9I17031)											
1,4-Dichlorobenzene			10	0.16	ug/L	ND					
2,4,5-Trichlorophenol			5.0	0.99	ug/L	ND					
2,4,6-Trichlorophenol			5.0	0.99	ug/L	ND					
2,4-Dinitrotoluene			5.0	0.45	ug/L	ND					
2-Methylphenol			5.0	0.23	ug/L	ND					
3 & 4 Methylphenol			10	0.58	ug/L	ND					
Hexachlorobenzene			5.0	0.45	ug/L	ND					
Hexachlorobutadiene			5.0	2.6	ug/L	ND					
Hexachloroethane			5.0	2.8	ug/L	ND					
Nitrobenzene			5.0	0.54	ug/L	ND					
Pentachlorophenol			10	5.1	ug/L	ND					
Pyridine			25	1.6	ug/L	ND					
Surrogate: 2,4,6-Tribromophenol					*ug/L*		*77*	*52-132*			
Surrogate: 2-Fluorobiphenyl					*ug/L*		*75*	*48-120*			
Surrogate: 2-Fluorophenol					*ug/L*		*47*	*20-120*			
Surrogate: Nitrobenzene-d5					*ug/L*		*71*	*46-120*			
Surrogate: Phenol-d5					*ug/L*		*35*	*16-120*			
Surrogate: p-Terphenyl-d14					*ug/L*		*60*	*24-136*			
Blank Analyzed: 09/18/09 (Lab Number:9I17031-BLK2, Batch: 9I17031)											
1,4-Dichlorobenzene			40	0.62	ug/L	ND					
2,4,5-Trichlorophenol			20	4.0	ug/L	ND					
2,4,6-Trichlorophenol			20	4.0	ug/L	ND					
2,4-Dinitrotoluene			20	1.8	ug/L	ND					
2-Methylphenol			20	0.91	ug/L	ND					
3 & 4 Methylphenol			40	2.3	ug/L	ND					
Hexachlorobenzene			20	1.8	ug/L	ND					
Hexachlorobutadiene			20	10	ug/L	ND					
Hexachloroethane			20	11	ug/L	ND					
Nitrobenzene			20	2.2	ug/L	ND					
Pentachlorophenol			40	21	ug/L	ND					
Pyridine			100	6.4	ug/L	ND					
Surrogate: 2,4,6-Tribromophenol					*ug/L*		*81*	*52-132*			
Surrogate: 2-Fluorobiphenyl					*ug/L*		*81*	*48-120*			

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
TCLP Semivolatile Compounds by EPA Method 1311/8270C											
Blank Analyzed: 09/18/09 (Lab Number:9I17031-BLK2, Batch: 9I17031)											
Surrogate: 2-Fluorophenol					*ug/L*		*49*	*20-120*			
Surrogate: Nitrobenzene-d5					*ug/L*		*74*	*46-120*			
Surrogate: Phenol-d5					*ug/L*		*37*	*16-120*			
Surrogate: p-Terphenyl-d14					*ug/L*		*64*	*24-136*			
Blank Analyzed: 09/18/09 (Lab Number:9I17031-BLK3, Batch: 9I17031)											
1,4-Dichlorobenzene			40	0.62	ug/L	ND					
2,4,5-Trichlorophenol			20	4.0	ug/L	ND					
2,4,6-Trichlorophenol			20	4.0	ug/L	ND					
2,4-Dinitrotoluene			20	1.8	ug/L	ND					
2-Methylphenol			20	0.91	ug/L	ND					
3 & 4 Methylphenol			40	2.3	ug/L	ND					
Hexachlorobenzene			20	1.8	ug/L	ND					
Hexachlorobutadiene			20	10	ug/L	ND					
Hexachloroethane			20	11	ug/L	ND					
Nitrobenzene			20	2.2	ug/L	ND					
Pentachlorophenol			40	21	ug/L	ND					
Pyridine			100	6.4	ug/L	ND					
Surrogate: 2,4,6-Tribromophenol					*ug/L*		*90*	*52-132*			
Surrogate: 2-Fluorobiphenyl					*ug/L*		*85*	*48-120*			
Surrogate: 2-Fluorophenol					*ug/L*		*50*	*20-120*			
Surrogate: Nitrobenzene-d5					*ug/L*		*80*	*46-120*			
Surrogate: Phenol-d5					*ug/L*		*36*	*16-120*			
Surrogate: p-Terphenyl-d14					*ug/L*		*72*	*24-136*			
Blank Analyzed: 09/18/09 (Lab Number:9I17031-BLK4, Batch: 9I17031)											
1,4-Dichlorobenzene			40	0.62	ug/L	ND					
2,4,5-Trichlorophenol			20	4.0	ug/L	ND					
2,4,6-Trichlorophenol			20	4.0	ug/L	ND					
2,4-Dinitrotoluene			20	1.8	ug/L	ND					
2-Methylphenol			20	0.91	ug/L	ND					
3 & 4 Methylphenol			40	2.3	ug/L	ND					
Hexachlorobenzene			20	1.8	ug/L	ND					
Hexachlorobutadiene			20	10	ug/L	ND					
Hexachloroethane			20	11	ug/L	ND					

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
TCLP Semivolatile Compounds by EPA Method 1311/8270C											
Blank Analyzed: 09/18/09 (Lab Number:9I17031-BLK4, Batch: 9I17031)											
Nitrobenzene			20	2.2	ug/L	ND					
Pentachlorophenol			40	21	ug/L	ND					
Pyridine			100	6.4	ug/L	ND					
Surrogate: 2,4,6-Tribromophenol					*ug/L*		*87*	*52-132*			
Surrogate: 2-Fluorobiphenyl					*ug/L*		*86*	*48-120*			
Surrogate: 2-Fluorophenol					*ug/L*		*54*	*20-120*			
Surrogate: Nitrobenzene-d5					*ug/L*		*81*	*46-120*			
Surrogate: Phenol-d5					*ug/L*		*39*	*16-120*			
Surrogate: p-Terphenyl-d14					*ug/L*		*73*	*24-136*			
LCS Analyzed: 09/18/09 (Lab Number:9I17031-BS1, Batch: 9I17031)											
1,4-Dichlorobenzene		100	10	0.16	ug/L	49 6	50	25-120			
2,4,5-Trichlorophenol		100	5.0	0.99	ug/L	79 8	80	64-126			
2,4,6-Trichlorophenol		100	5.0	0.99	ug/L	75.0	75	64-120			
2,4-Dinitrotoluene		100	5.0	0 45	ug/L	79.1	79	50-125			
2-Methylphenol		100	5.0	0 23	ug/L	60 7	61	43-120			
3 & 4 Methylphenol		100	10	0.58	ug/L	58.7	59	41-120			
Hexachlorobenzene		100	5 0	0.45	ug/L	70.0	70	38-131			
Hexachlorobutadiene		100	5 0	2.6	ug/L	37.7	38	23-120			
Hexachloroethane		100	5.0	2.8	ug/L	44.6	45	20-120			
Nitrobenzene		100	5.0	0.54	ug/L	57.3	57	50-120			
Pentachlorophenol		100	10	5.1	ug/L	79.9	80	39-136			
Pyridine		100	25	1.6	ug/L	47.1	47	10-120			
Surrogate: 2,4,6-Tribromophenol					*ug/L*		*69*	*52-132*			
Surrogate: 2-Fluorobiphenyl					*ug/L*		*65*	*48-120*			
Surrogate: 2-Fluorophenol					*ug/L*		*35*	*20-120*			
Surrogate: Nitrobenzene-d5					*ug/L*		*55*	*46-120*			
Surrogate: Phenol-d5					*ug/L*		*26*	*16-120*			
Surrogate: p-Terphenyl-d14					*ug/L*		*56*	*24-136*			
LCS Dup Analyzed: 09/18/09 (Lab Number:9I17031-BSD1, Batch: 9I17031)											
1,4-Dichlorobenzene		100	10	0.16	ug/L	67 1	67	25-120	30	36	
2,4,5-Trichlorophenol		100	5 0	0.99	ug/L	105	105	64-126	27	18	R2
2,4,6-Trichlorophenol		100	5.0	0 99	ug/L	102	102	64-120	30	19	R2

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
TCLP Semivolatile Compounds by EPA Method 1311/8270C											
LCS Dup Analyzed: 09/18/09 (Lab Number:9I17031-BSD1, Batch: 9I17031)											
2,4-Dinitrotoluene		100	5.0	0.45	ug/L	107	107	50-125	30	20	R2
2-Methylphenol		100	5.0	0.23	ug/L	84.2	84	43-120	32	27	R2
3 & 4 Methylphenol		100	10	0.58	ug/L	80.3	80	41-120	31	30	R2
Hexachlorobenzene		100	5.0	0.45	ug/L	94.7	95	38-131	30	15	R2
Hexachlorobutadiene		100	5.0	2.6	ug/L	54.4	54	23-120	36	44	
Hexachloroethane		100	5.0	2.8	ug/L	60.2	60	20-120	30	46	
Nitrobenzene		100	5.0	0.54	ug/L	83.6	84	50-120	37	24	R2
Pentachlorophenol		100	10	5.1	ug/L	112	112	39-136	34	37	
Pyridine		100	25	1.6	ug/L	64.7	65	10-120	31	49	
Surrogate: 2,4,6-Tribromophenol					*ug/L*		*96*	*52-132*			
Surrogate: 2-Fluorobiphenyl					*ug/L*		*87*	*48-120*			
Surrogate: 2-Fluorophenol					*ug/L*		*49*	*20-120*			
Surrogate: Nitrobenzene-d5					*ug/L*		*81*	*46-120*			
Surrogate: Phenol-d5					*ug/L*		*36*	*16-120*			
Surrogate: p-Terphenyl-d14					*ug/L*		*72*	*24-136*			

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
TCLP Herbicides by EPA Method 1311/8151A											
Blank Analyzed: 09/19/09 (Lab Number:9I17030-BLK1, Batch: 9I17030)											
2,4-D			0.50	0.11	ug/L	ND					
Silvex (2,4,5-TP)			0.50	0.12	ug/L	ND					
Surrogate: 2,4-Dichlorophenylacetic					*ug/L*		*45*	*19-128*			
Blank Analyzed: 09/19/09 (Lab Number:9I17030-BLK2, Batch: 9I17030)											
2,4-D			2.0	0.44	ug/L	ND					
Silvex (2,4,5-TP)			2.0	0.46	ug/L	ND					
Surrogate: 2,4-Dichlorophenylacetic					*ug/L*		*18*	*19-128*			*ZX*
Blank Analyzed: 09/19/09 (Lab Number:9I17030-BLK3, Batch: 9I17030)											
2,4-D			2.0	0.44	ug/L	ND					
Silvex (2,4,5-TP)			2.0	0.46	ug/L	ND					
Surrogate: 2,4-Dichlorophenylacetic					*ug/L*		*17*	*19-128*			*ZX*
LCS Analyzed: 09/19/09 (Lab Number:9I17030-BS1, Batch: 9I17030)											
2,4-D		2.0	0.50	0.11	ug/L	2.71	135	32-150			
Silvex (2,4,5-TP)		2.0	0.50	0.12	ug/L	1.40	70	25-137			
Surrogate: 2,4-Dichlorophenylacetic					*ug/L*		*34*	*19-128*			
LCS Dup Analyzed: 09/19/09 (Lab Number:9I17030-BSD1, Batch: 9I17030)											
2,4-D		2.0	0.50	0.11	ug/L	1.67	83	32-150	48	50	
Silvex (2,4,5-TP)		2.0	0.50	0.12	ug/L	1.14	57	25-137	21	35	
Surrogate: 2,4-Dichlorophenylacetic					*ug/L*		*33*	*19-128*			

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Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
TCLP Pesticides by EPA Method 1311/8081A											
Blank Analyzed: 09/18/09 (Lab Number:9I17037-BLK1, Batch: 9I17037)											
Chlordane			0.50	0.029	ug/L	ND					
Endrin			0.050	0.014	ug/L	ND					
gamma-BHC (Lindane)			0.050	0.0060	ug/L	ND					
Heptachlor			0.050	0.0085	ug/L	ND					
Heptachlor epoxide			0.050	0.0053	ug/L	ND					
Methoxychlor			0.050	0.014	ug/L	ND					
Toxaphene			0.50	0.12	ug/L	ND					
Surrogate: Decachlorobiphenyl					*ug/L*		*63*	*15-139*			
Surrogate: Tetrachloro-m-xylene					*ug/L*		*35*	*30-139*			
Blank Analyzed: 09/18/09 (Lab Number:9I17037-BLK2, Batch: 9I17037)											
Chlordane			2.0	0.12	ug/L	ND					
Endrin			0.20	0.055	ug/L	ND					
gamma-BHC (Lindane)			0.20	0.024	ug/L	ND					
Heptachlor			0.20	0.034	ug/L	0.23					
Heptachlor epoxide			0.20	0.021	ug/L	ND					
Methoxychlor			0.20	0.056	ug/L	ND					
Toxaphene			2.0	0.48	ug/L	ND					
Surrogate: Decachlorobiphenyl					*ug/L*		*100*	*15-139*			
Surrogate: Tetrachloro-m-xylene					*ug/L*		*52*	*30-139*			
Blank Analyzed: 09/18/09 (Lab Number:9I17037-BLK3, Batch: 9I17037)											
Chlordane			2.0	0.12	ug/L	ND					
Endrin			0.20	0.055	ug/L	ND					
gamma-BHC (Lindane)			0.20	0.024	ug/L	ND					
Heptachlor			0.20	0.034	ug/L	ND					
Heptachlor epoxide			0.20	0.021	ug/L	ND					
Methoxychlor			0.20	0.056	ug/L	ND					
Toxaphene			2.0	0.48	ug/L	ND					
Surrogate: Decachlorobiphenyl					*ug/L*		*95*	*15-139*			
Surrogate: Tetrachloro-m-xylene					*ug/L*		*48*	*30-139*			
LCS Analyzed: 09/18/09 (Lab Number:9I17037-BS1, Batch: 9I17037)											
Endrin		0.50	0.050	0.014	ug/L	0.506	101	43-134			
gamma-BHC (Lindane)		0.50	0.050	0.0060	ug/L	0.451	90	68-120			

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
TCLP Pesticides by EPA Method 1311/8081A											
LCS Analyzed: 09/18/09 (Lab Number:9I17037-BS1, Batch: 9I17037)											
Heptachlor		0.50	0.050	0 0085	ug/L	0.310	62	52-120			B
Heptachlor epoxide		0.50	0.050	0 0053	ug/L	0.486	97	65-120			
Methoxychlor		0.50	0 050	0.014	ug/L	0.394	79	52-142			
Surrogate: Decachlorobiphenyl					*ug/L*		*78*	*15-139*			
Surrogate: Tetrachloro-m-xylene					*ug/L*		*40*	*30-139*			
LCS Dup Analyzed: 09/18/09 (Lab Number:9I17037-BSD1, Batch: 9I17037)											
Endrin		0.50	0.050	0.014	ug/L	0.480	96	43-134	5	50	
gamma-BHC (Lindane)		0.50	0.050	0.0060	ug/L	0.427	85	68-120	5	50	
Heptachlor		0.50	0.050	0.0085	ug/L	0.282	56	52-120	10	50	B
Heptachlor epoxide		0.50	0.050	0.0053	ug/L	0.462	92	65-120	5	50	
Methoxychlor		0.50	0.050	0.014	ug/L	0.375	75	52-142	5	50	
Surrogate: Decachlorobiphenyl					*ug/L*		*73*	*15-139*			
Surrogate: Tetrachloro-m-xylene					*ug/L*		*34*	*30-139*			

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
TCLP Metals											
Blank Analyzed: 09/17/09 (Lab Number:9I15009-BLK1, Batch: 9I15009)											
Arsenic			0.0500	0.0037	mg/L	0.0076					B,J
Barium			0.0020	0.0001	mg/L	0 0003					B,J
Cadmium			0.0010	0.0003	mg/L	ND					
Chromium			0.0040	0.0009	mg/L	0.0010					B,J
Lead			0.0060	0.0010	mg/L	0 0012					B,J
Selenium			0.0150	0 0087	mg/L	ND					
Silver			0.0030	0.0012	mg/L	ND					
LCS Analyzed: 09/17/09 (Lab Number:9I15009-BS1, Batch: 9I15009)											
Arsenic		1 00	5.00	0.0037	mg/L	1.02	102	80-120			J,B
Barium		1.00	100	0.0001	mg/L	0 988	99	80-120			J,B
Cadmium		1.00	1.00	0.0003	mg/L	1.00	100	80-120			
Chromium		1.00	5.00	0.0009	mg/L	0.971	97	80-120			J,B
Lead		1.00	5.00	0 0010	mg/L	0.996	100	80-120			J,B
Selenium		1.00	1.00	0.0087	mg/L	1.03	103	80-120			
Silver		1.00	5.00	0.0012	mg/L	0.977	98	80-120			J
Matrix Spike Analyzed: 09/18/09 (Lab Number:9I15009-MS1, Batch: 9I15009)											
QC Source Sample: RSI0518-01											
Arsenic	0.00611	1.00	5.00	0 0037	mg/L	1 04	103	70-130			J,B
Barium	0.0860	1.00	100	0.0001	mg/L	1.09	100	70-130			J,B
Cadmium	ND	1.00	1.00	0 0003	mg/L	0.990	99	70-130			J
Chromium	0.00212	1.00	5.00	0.0009	mg/L	0.979	98	70-130			J,B
Lead	ND	1.00	5.00	0.0010	mg/L	0.989	99	70-130			J,B
Selenium	ND	1.00	1.00	0.0087	mg/L	1.02	102	70-130			
Silver	ND	1.00	5.00	0.0012	mg/L	0.991	99	70-130			J
Matrix Spike Dup Analyzed: 09/18/09 (Lab Number:9I15009-MSD1, Batch: 9I15009)											
QC Source Sample: RSI0518-01											
Arsenic	0 00611	1 00	5.00	0.0037	mg/L	1.04	103	70-130	0 3	20	J,B
Barium	0.0860	1 00	100	0.0001	mg/L	1.10	101	70-130	0 9	20	J,B
Cadmium	ND	1 00	1.00	0.0003	mg/L	0.998	100	70-130	0.8	20	J
Chromium	0.00212	1.00	5.00	0.0009	mg/L	0.991	99	70-130	1	20	J,B
Lead	ND	1.00	5.00	0 0010	mg/L	1.00	100	70-130	1	20	J,B
Selenium	ND	1.00	1 00	0.0087	mg/L	1.03	103	70-130	1	20	
Silver	ND	1.00	5 00	0.0012	mg/L	1.00	100	70-130	1	20	J
TCLP Metals											
Blank Analyzed: 09/18/09 (Lab Number:9I18056-BLK1, Batch: 9I18056)											

Chain of Custody Record

TAL 4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client: Pars Environmental	Project Manager: Mike Moore	Date: 9/15/09	Chain of Custody Number: 134026
Address: 6A South Gold Drive	Telephone Number (Area Code)/Fax Number: 609-890-7277	Lab Number	Page 1 of 1
City: Robbinsville; State: NJ; Zip Code: 08691	Site Contact	Lab Contact: Sally Hoffman	
Project Name and Location (State): Niagara Falls AFRC	Carrier/Waybill Number		
Contract/Purchase Order/Quote No			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil		Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt
W-2	9/15/09	1500		X												

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☒ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	9/15/09	1725	1. Received By: [signature]	9/15/09	1725
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments: 2060

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Analytical Report

Work Order: RSI0517

Project Description

Niagara Falls, NY - Armed Forces Reserve Center

For:

Michael Moore

PARS Environmental, Inc.

6A South Gold Drive

Robbinsville, NJ 08691

Sally Hoffman

Project Manager

Sally.Hoffman@testamericainc.com

Thursday, September 24, 2009

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exception to NELAP requirements are noted in this report. Persuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project manager who has signed this report.

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PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0517

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/15/09
Reported: 09/24/09 10:32

TestAmerica Buffalo
Current Certifications

As of 1/27/2009

STATE	Program	Cert # / Lab ID
Arkansas	CWA, RCRA, SOIL	88-0686
California*	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida*	NELAP CWA, RCRA	E87672
Georgia*	SDWA,NELAP CWA, RCRA	956
Illinois*	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas*	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana*	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY0044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA,CWA, RCRA	036-999-337
New Hampshire*	NELAP SDWA, CWA	233701
New Jersey*	NELAP,SDWA, CWA, RCRA,	NY455
New York*	NELAP, AIR, SDWA, CWA, RCRA,CLP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania*	NELAP CWA,RCRA	68-00281
Tennessee	SDWA	02970
Texas*	NELAP CWA, RCRA	T104704412-08-TX
USDA	FOREIGN SOIL PERMIT	S-41579
USDOE	Department of Energy	DOECAP-STB
Virginia	SDWA	278
Washington*	NELAP CWA,RCRA	C1677
Wisconsin	CWA, RCRA	998310390
West Virginia	CWA,RCRA	252

*As required under the indicated accreditation, the test results in this report meet all NELAP requirements for parameters for which accre ditation is required or available. Any exceptions to NELAP requirements are noted in this report.

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0517

Project Niagara Falls, NY - Armed Forces Reserve Center
Project Number: (none)

Received 09/15/09
Reported: 09/24/09 10 32

Case Narrative

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

A pertinent document is appended to this report, 1 page, is included and is an integral part of this report.

Reproduction of this analytical report is permitted only in its entirety. This report shall not be reproduced except in full without the written approval of the laboratory.

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

PARS Environmental, Inc. 6A South Gold Drive Robbinsville, NJ 08691	Work Order: RSI0517 Project: Niagara Falls, NY - Armed Forces Reserve Center Project Number: [none]	Received: 09/15/09 Reported: 09/24/09 10:32

DATA QUALIFIERS AND DEFINITIONS

>	Result is greater than the indicated value.
B	Analyte was detected in the associated Method Blank.
B1	Analyte was detected in the associated method blank. Analyte concentration in the sample is greater than 10x the concentration found in the method blank.
D07	Dilution required due to the nature of the TCLP matrix
D08	Dilution required due to high concentration of target analyte(s)
J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
R2	The RPD exceeded the acceptance limit.
Z3	The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.
ZX	Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.
NR	Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

ADDITIONAL COMMENTS

Results are reported on a wet weight basis unless otherwise noted.

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0517

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/15/09
Reported: 09/24/09 10:32

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSI0517-01 (S-2 - Solid)					Sampled: 09/15/09 15:30			Recvd: 09/15/09 17:25		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254 [2C]	290000	D08	28000	5900	ug/kg dry	1000	09/17/09 11:52	JxM	9I16033	8082
TCLP Pesticides by EPA Method 1311/8081A										
Heptachlor [2C]	0.11	J	0.20	0.034	ug/L	1.00	09/18/09 18:02	tch	9I17037	8081 TCLP
Heptachlor epoxide [2C]	0.16	J	0.20	0.021	ug/L	1.00	09/18/09 18:02	tch	9I17037	8081 TCLP
TCLP Metals										
Arsenic	0.0054	J	0.0500	0.0037	mg/L	1.00	09/18/09 20:17	DAN	9I17106	6010B TCLP
Barium	1.10	B, B1	0.0020	0.0001	mg/L	1.00	09/18/09 20:17	DAN	9I17106	6010B TCLP
Cadmium	0.0188		0.0010	0.0003	mg/L	1.00	09/18/09 20:17	DAN	9I17106	6010B TCLP
Chromium	0.0342	B	0.0040	0.0009	mg/L	1.00	09/18/09 20:17	DAN	9I17106	6010B TCLP
Lead	0.0662	B	0.0060	0.0010	mg/L	1.00	09/18/09 20:17	DAN	9I17106	6010B TCLP
General Chemistry Parameters										
Percent Solids	60		0.010	NR	%	1.00	09/16/09 14:18	CJM	9I16037	Dry Weight
Oil and Grease	1010	B	8.4	3.7	mg/kg dry	1.00	09/16/09 12:33	RMM	9I16031	1664A
Corrosivity	7.45		NR	0.00	SU	1.00	09/22/09 23:30	MDM	9I23018	9040
Flashpoint	>176		50.0	50.0	°F	1.00	09/18/09 18:00	RJP	9I18137	1010
H2S Released From Waste	20.1		10.0	0.6	mg/kg	1.00	09/17/09 08:30	RJP	9I17078	Section 7.3
Sample ID: RSI0517-02 (S-3 - Solid)					Sampled: 09/15/09 16:00			Recvd: 09/15/09 17:25		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254 [2C]	490		20	4.3	ug/kg dry	1.00	09/17/09 11:33	JxM	9I16033	8082
TCLP Metals										
Barium	0.797	B, B1	0.0020	0.0001	mg/L	1.00	09/18/09 19:20	DAN	9I17107	6010B TCLP
Cadmium	0.0031		0.0010	0.0003	mg/L	1.00	09/18/09 19:20	DAN	9I17107	6010B TCLP
Chromium	0.0317	B	0.0040	0.0009	mg/L	1.00	09/18/09 19:20	DAN	9I17107	6010B TCLP
Lead	0.0312	B	0.0060	0.0010	mg/L	1.00	09/18/09 19:20	DAN	9I17107	6010B TCLP
Selenium	0.0099	J	0.0150	0.0087	mg/L	1.00	09/18/09 19:20	DAN	9I17107	6010B TCLP
General Chemistry Parameters										
Percent Solids	80		0.010	NR	%	1.00	09/16/09 14:20	CJM	9I16037	Dry Weight
Oil and Grease	670	B	6.3	2.8	mg/kg dry	1.00	09/16/09 12:33	RMM	9I16031	1664A
Corrosivity	8.00		NR	0.00	SU	1.00	09/22/09 23:30	MDM	9I23018	9040
Flashpoint	>176		50.0	50.0	°F	1.00	09/18/09 18:00	RJP	9I18137	1010
H2S Released From Waste	10.0		10.0	0.6	mg/kg	1.00	09/17/09 08:30	RJP	9I17078	Section 7.3

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0517

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/15/09
Reported: 09/24/09 10:32

Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
S-2	RSI0517-01	Solid	09/15/09 15:30	09/15/09 17:25	
S-3	RSI0517-02	Solid	09/15/09 16:00	09/15/09 17:25	
TRIP BLANK	RSI0517-03	Water	09/15/09	09/15/09 17:25	

PARS Environmental, Inc
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0517

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received 09/15/09
Reported: 09/24/09 10:32

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSI0517-01 (S-2 - Solid)						Sampled: 09/15/09 15:30		Recvd: 09/15/09 17:25		
TCLP Volatile Organic Compounds by EPA Method 1311/8260B										
1,1-Dichloroethene	ND	D07	10	2.9	ug/L	10.0	09/20/09 19:49	NMD	9I18067	8260B TCLP
1,2-Dichloroethane	ND	D07	10	2.1	ug/L	10.0	09/20/09 19:49	NMD	9I18067	8260B TCLP
2-Butanone (MEK)	ND	D07	50	13	ug/L	10.0	09/20/09 19:49	NMD	9I18067	8260B TCLP
Benzene	ND	D07	10	4.1	ug/L	10.0	09/20/09 19:49	NMD	9I18067	8260B TCLP
Carbon Tetrachloride	ND	D07	10	2.7	ug/L	10.0	09/20/09 19:49	NMD	9I18067	8260B TCLP
Chlorobenzene	ND	D07	10	3.2	ug/L	10.0	09/20/09 19:49	NMD	9I18067	8260B TCLP
Chloroform	ND	D07	10	3.4	ug/L	10.0	09/20/09 19:49	NMD	9I18067	8260B TCLP
Tetrachloroethene	ND	D07	10	3.6	ug/L	10.0	09/20/09 19:49	NMD	9I18067	8260B TCLP
Trichloroethene	ND	D07	10	4.6	ug/L	10.0	09/20/09 19:49	NMD	9I18067	8260B TCLP
Vinyl chloride	ND	D07	10	2.4	ug/L	10.0	09/20/09 19:49	NMD	9I18067	8260B TCLP
1,2-Dichloroethane-d4	*101 %*	*D07*	*Surr Limits: (66-137%)*				*09/20/09 19:49*	*NMD*	*9I18067*	*8260B TCLP*
4-Bromofluorobenzene	*100 %*	*D07*	*Surr Limits: (73-120%)*				*09/20/09 19:49*	*NMD*	*9I18067*	*8260B TCLP*
Toluene-d8	*103 %*	*D07*	*Surr Limits: (71-126%)*				*09/20/09 19:49*	*NMD*	*9I18067*	*8260B TCLP*
TCLP Semivolatile Compounds by EPA Method 1311/8270C										
1,4-Dichlorobenzene	ND		40	0.62	ug/L	1.00	09/18/09 16:24	JLG	9I17031	8270C TCLP
2,4,5-Trichlorophenol	ND		20	4.0	ug/L	1.00	09/18/09 16:24	JLG	9I17031	8270C TCLP
2,4,6-Trichlorophenol	ND		20	4.0	ug/L	1.00	09/18/09 16:24	JLG	9I17031	8270C TCLP
2,4-Dinitrotoluene	ND		20	1.8	ug/L	1.00	09/18/09 16:24	JLG	9I17031	8270C TCLP
2-Methylphenol	ND		20	0.91	ug/L	1.00	09/18/09 16:24	JLG	9I17031	8270C TCLP
3 & 4 Methylphenol	ND		40	2.3	ug/L	1.00	09/18/09 16:24	JLG	9I17031	8270C TCLP
Hexachlorobenzene	ND		20	1.8	ug/L	1.00	09/18/09 16:24	JLG	9I17031	8270C TCLP
Hexachlorobutadiene	ND		20	10	ug/L	1.00	09/18/09 16:24	JLG	9I17031	8270C TCLP
Hexachloroethane	ND		20	11	ug/L	1.00	09/18/09 16:24	JLG	9I17031	8270C TCLP
Nitrobenzene	ND		20	2.2	ug/L	1.00	09/18/09 16:24	JLG	9I17031	8270C TCLP
Pentachlorophenol	ND		40	21	ug/L	1.00	09/18/09 16:24	JLG	9I17031	8270C TCLP
Pyridine	ND		100	6.4	ug/L	1.00	09/18/09 16:24	JLG	9I17031	8270C TCLP
2,4,6-Tribromophenol	*88 %*		*Surr Limits: (52-132%)*				*09/18/09 16:24*	*JLG*	*9I17031*	*8270C TCLP*
2-Fluorobiphenyl	*79 %*		*Surr Limits: (48-120%)*				*09/18/09 16:24*	*JLG*	*9I17031*	*8270C TCLP*
2-Fluorophenol	*45 %*		*Surr Limits: (20-120%)*				*09/18/09 16:24*	*JLG*	*9I17031*	*8270C TCLP*
Nitrobenzene-d5	*71 %*		*Surr Limits: (46-120%)*				*09/18/09 16:24*	*JLG*	*9I17031*	*8270C TCLP*
Phenol-d5	*35 %*		*Surr Limits: (16-120%)*				*09/18/09 16:24*	*JLG*	*9I17031*	*8270C TCLP*
p-Terphenyl-d14	*62 %*		*Surr Limits: (24-136%)*				*09/18/09 16:24*	*JLG*	*9I17031*	*8270C TCLP*
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016 [2C]	ND	D08	28000	5400	ug/kg dry	1000	09/17/09 11:52	JxM	9I16033	8082
Aroclor 1221 [2C]	ND	D08	28000	5400	ug/kg dry	1000	09/17/09 11:52	JxM	9I16033	8082
Aroclor 1232 [2C]	ND	D08	28000	5400	ug/kg dry	1000	09/17/09 11:52	JxM	9I16033	8082
Aroclor 1242 [2C]	ND	D08	28000	6000	ug/kg dry	1000	09/17/09 11:52	JxM	9I16033	8082
Aroclor 1248 [2C]	ND	D08	28000	5400	ug/kg dry	1000	09/17/09 11:52	JxM	9I16033	8082
Aroclor 1254 [2C]	290000	D08	28000	5900	ug/kg dry	1000	09/17/09 11:52	JxM	9I16033	8082
Aroclor 1260 [2C]	ND	D08	28000	5900	ug/kg dry	1000	09/17/09 11:52	JxM	9I16033	8082
Aroclor 1262 [2C]	ND	D08	28000	5900	ug/kg dry	1000	09/17/09 11:52	JxM	9I16033	8082
Aroclor 1268 [2C]	ND	D08	28000	5900	ug/kg dry	1000	09/17/09 11:52	JxM	9I16033	8082
Decachlorobiphenyl [2C]	*	*D08,Z3*	*Surr Limits: (34-148%)*				*09/17/09 11:52*	*JxM*	*9I16033*	*8082*
Tetrachloro-m-xylene [2C]	*	*D08,Z3*	*Surr Limits: (35-134%)*				*09/17/09 11:52*	*JxM*	*9I16033*	*8082*
TCLP Herbicides by EPA Method 1311/8151A										
2,4-D	ND		2.0	0.44	ug/L	1.00	09/19/09 10:19	GFD	9I17030	8151A TCLP

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0517

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/15/09
Reported: 09/24/09 10:32

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSI0517-01 (S-2 - Solid) - cont.						Sampled: 09/15/09 15:30		Recvd: 09/15/09 17:25		
TCLP Herbicides by EPA Method 1311/8151A - cont.										
Silvex (2,4,5-TP)	ND		2.0	0.46	ug/L	1.00	09/19/09 10:19	GFD	9I17030	8151A TCLP
2,4-Dichlorophenylacetic acid	*8 %*	*ZX*	*Surr Limits: (19-128%)*				*09/19/09 10:19*	*GFD*	*9I17030*	*8151A TCLP*
TCLP Pesticides by EPA Method 1311/8081A										
Chlordane [2C]	ND		2.0	0.12	ug/L	1.00	09/18/09 18:02	tch	9I17037	8081 TCLP
Endrin [2C]	ND		0.20	0.055	ug/L	1.00	09/18/09 18:02	tch	9I17037	8081 TCLP
gamma-BHC (Lindane) [2C]	ND		0.20	0.024	ug/L	1.00	09/18/09 18:02	tch	9I17037	8081 TCLP
Heptachlor [2C]	0.11	J	0.20	0.034	ug/L	1.00	09/18/09 18:02	tch	9I17037	8081 TCLP
Heptachlor epoxide [2C]	0.16	J	0.20	0.021	ug/L	1.00	09/18/09 18:02	tch	9I17037	8081 TCLP
Methoxychlor [2C]	ND		0.20	0.056	ug/L	1.00	09/18/09 18:02	tch	9I17037	8081 TCLP
Toxaphene [2C]	ND		2.0	0.48	ug/L	1.00	09/18/09 18:02	tch	9I17037	8081 TCLP
Decachlorobiphenyl [2C]	*97 %*		*Surr Limits: (15-139%)*				*09/18/09 18:02*	*tch*	*9I17037*	*8081 TCLP*
Tetrachloro-m-xylene [2C]	*43 %*		*Surr Limits: (30-139%)*				*09/18/09 18:02*	*tch*	*9I17037*	*8081 TCLP*
TCLP Metals										
Arsenic	0.0054	J	0.0500	0.0037	mg/L	1.00	09/18/09 20:17	DAN	9I17106	6010B TCLP
Barium	1.10	B, B1	0.0020	0.0001	mg/L	1.00	09/18/09 20:17	DAN	9I17106	6010B TCLP
Cadmium	0.0188		0.0010	0.0003	mg/L	1.00	09/18/09 20:17	DAN	9I17106	6010B TCLP
Chromium	0.0342	B	0.0040	0.0009	mg/L	1.00	09/18/09 20:17	DAN	9I17106	6010B TCLP
Lead	0.0662	B	0.0060	0.0010	mg/L	1.00	09/18/09 20:17	DAN	9I17106	6010B TCLP
Selenium	ND		0.0150	0.0087	mg/L	1.00	09/18/09 20:17	DAN	9I17106	6010B TCLP
Silver	ND		0.0030	0.0012	mg/L	1.00	09/18/09 20:17	DAN	9I17106	6010B TCLP
Mercury	ND		0.0002	0.0001	mg/L	1.00	09/18/09 16:21	MXM	9I18057	7470A TCLP
General Chemistry Parameters										
Percent Solids	60		0.010	NR	%	1.00	09/16/09 14:18	CJM	9I16037	Dry Weight
Oil and Grease	1010	B	8.4	3.7	mg/kg dry	1.00	09/16/09 12:33	RMM	9I16031	1664A
Corrosivity	7.45		NA	0.00	SU	1.00	09/22/09 23:30	MDM	9I23018	9040
HCN Released From Waste	ND		10.0	0.0030	mg/kg	1.00	09/17/09 12:32	RJP	9I17079	Section 7.3
Flashpoint	>176		50.0	50.0	°F	1.00	09/18/09 18:00	RJP	9I18137	1010
H2S Released From Waste	20.1		10.0	0.6	mg/kg	1.00	09/17/09 08:30	RJP	9I17078	Section 7.3

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0517

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: (none)

Received: 09/15/09
Reported: 09/24/09 10:32

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSI0517-02 (S-3 - Solid)						**Sampled: 09/15/09 16:00**		**Recvd: 09/15/09 17:25**		
TCLP Volatile Organic Compounds by EPA Method 1311/8260B										
1,1-Dichloroethene	ND	D07	10	2.9	ug/L	10.0	09/20/09 20:13	NMD	9I18067	8260B TCLP
1,2-Dichloroethane	ND	D07	10	2.1	ug/L	10.0	09/20/09 20:13	NMD	9I18067	8260B TCLP
2-Butanone (MEK)	ND	D07	50	13	ug/L	10.0	09/20/09 20:13	NMD	9I18067	8260B TCLP
Benzene	ND	D07	10	4.1	ug/L	10.0	09/20/09 20:13	NMD	9I18067	8260B TCLP
Carbon Tetrachloride	ND	D07	10	2.7	ug/L	10.0	09/20/09 20:13	NMD	9I18067	8260B TCLP
Chlorobenzene	ND	D07	10	3.2	ug/L	10.0	09/20/09 20:13	NMD	9I18067	8260B TCLP
Chloroform	ND	D07	10	3.4	ug/L	10.0	09/20/09 20:13	NMD	9I18067	8260B TCLP
Tetrachloroethene	ND	D07	10	3.6	ug/L	10.0	09/20/09 20:13	NMD	9I18067	8260B TCLP
Trichloroethene	ND	D07	10	4.6	ug/L	10.0	09/20/09 20:13	NMD	9I18067	8260B TCLP
Vinyl chloride	ND	D07	10	2.4	ug/L	10.0	09/20/09 20:13	NMD	9I18067	8260B TCLP
1,2-Dichloroethane-d4	*103 %*	*D07*	*Surr Limits: (66-137%)*				*09/20/09 20:13*	*NMD*	*9I18067*	*8260B TCLP*
4-Bromofluorobenzene	*100 %*	*D07*	*Surr Limits: (73-120%)*				*09/20/09 20:13*	*NMD*	*9I18067*	*8260B TCLP*
Toluene-d8	*102 %*	*D07*	*Surr Limits: (71-126%)*				*09/20/09 20:13*	*NMD*	*9I18067*	*8260B TCLP*
TCLP Semivolatile Compounds by EPA Method 1311/8270C										
1,4-Dichlorobenzene	ND		40	0.62	ug/L	1.00	09/18/09 16:47	JLG	9I17031	8270C TCLP
2,4,5-Trichlorophenol	ND		20	4.0	ug/L	1.00	09/18/09 16:47	JLG	9I17031	8270C TCLP
2,4,6-Trichlorophenol	ND		20	4.0	ug/L	1.00	09/18/09 16:47	JLG	9I17031	8270C TCLP
2,4-Dinitrotoluene	ND		20	1.8	ug/L	1.00	09/18/09 16:47	JLG	9I17031	8270C TCLP
2-Methylphenol	ND		20	0.91	ug/L	1.00	09/18/09 16:47	JLG	9I17031	8270C TCLP
3 & 4 Methylphenol	ND		40	2.3	ug/L	1.00	09/18/09 16:47	JLG	9I17031	8270C TCLP
Hexachlorobenzene	ND		20	1.8	ug/L	1.00	09/18/09 16:47	JLG	9I17031	8270C TCLP
Hexachlorobutadiene	ND		20	10	ug/L	1.00	09/18/09 16:47	JLG	9I17031	8270C TCLP
Hexachloroethane	ND		20	11	ug/L	1.00	09/18/09 16:47	JLG	9I17031	8270C TCLP
Nitrobenzene	ND		20	2.2	ug/L	1.00	09/18/09 16:47	JLG	9I17031	8270C TCLP
Pentachlorophenol	ND		40	21	ug/L	1.00	09/18/09 16:47	JLG	9I17031	8270C TCLP
Pyridine	ND		100	6.4	ug/L	1.00	09/18/09 16:47	JLG	9I17031	8270C TCLP
2,4,6-Tribromophenol	*88 %*		*Surr Limits: (52-132%)*				*09/18/09 16:47*	*JLG*	*9I17031*	*8270C TCLP*
2-Fluorobiphenyl	*78 %*		*Surr Limits: (48-120%)*				*09/18/09 16:47*	*JLG*	*9I17031*	*8270C TCLP*
2-Fluorophenol	*43 %*		*Surr Limits: (20-120%)*				*09/18/09 16:47*	*JLG*	*9I17031*	*8270C TCLP*
Nitrobenzene-d5	*69 %*		*Surr Limits: (46-120%)*				*09/18/09 16:47*	*JLG*	*9I17031*	*8270C TCLP*
Phenol-d5	*34 %*		*Surr Limits: (16-120%)*				*09/18/09 16:47*	*JLG*	*9I17031*	*8270C TCLP*
p-Terphenyl-d14	*68 %*		*Surr Limits: (24-136%)*				*09/18/09 16:47*	*JLG*	*9I17031*	*8270C TCLP*
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016 [2C]	ND		20	4.0	ug/kg dry	1.00	09/17/09 11:33	JxM	9I16033	8082
Aroclor 1221 [2C]	ND		20	4.0	ug/kg dry	1.00	09/17/09 11:33	JxM	9I16033	8082
Aroclor 1232 [2C]	ND		20	4.0	ug/kg dry	1.00	09/17/09 11:33	JxM	9I16033	8082
Aroclor 1242 [2C]	ND		20	4.4	ug/kg dry	1.00	09/17/09 11:33	JxM	9I16033	8082
Aroclor 1248 [2C]	ND		20	4.0	ug/kg dry	1.00	09/17/09 11:33	JxM	9I16033	8082
Aroclor 1254 [2C]	490		20	4.3	ug/kg dry	1.00	09/17/09 11:33	JxM	9I16033	8082
Aroclor 1260 [2C]	ND		20	4.3	ug/kg dry	1.00	09/17/09 11:33	JxM	9I16033	8082
Aroclor 1262 [2C]	ND		20	4.3	ug/kg dry	1.00	09/17/09 11:33	JxM	9I16033	8082
Aroclor 1268 [2C]	ND		20	4.3	ug/kg dry	1.00	09/17/09 11:33	JxM	9I16033	8082
Decachlorobiphenyl [2C]	*86 %*		*Surr Limits: (34-148%)*				*09/17/09 11:33*	*JxM*	*9I16033*	*8082*
Tetrachloro-m-xylene [2C]	*86 %*		*Surr Limits: (35-134%)*				*09/17/09 11:33*	*JxM*	*9I16033*	*8082*
TCLP Herbicides by EPA Method 1311/8151A										
2,4-D	ND		2.0	0.44	ug/L	1.00	09/19/09 10:49	GFD	9I17030	8151A TCLP

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Work Order: RSI0517

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/15/09
Reported: 09/24/09 10:32

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSI0517-02 (S-3 - Solid) - cont.						Sampled: 09/15/09 16:00		Recvd: 09/15/09 17:25		
TCLP Herbicides by EPA Method 1311/8151A - cont.										
Silvex (2,4,5-TP)	ND		2.0	0.46	ug/L	1.00	09/19/09 10:49	GFD	9I17030	8151A TCLP
2,4-Dichlorophenylacetic acid	*5 %*	*ZX*	*Surr Limits: (19-128%)*				*09/19/09 10:49*	*GFD*	*9I17030*	*8151A TCLP*
TCLP Pesticides by EPA Method 1311/8081A										
Chlordane [2C]	ND		2.0	0.12	ug/L	1.00	09/18/09 18:38	tch	9I17037	8081 TCLP
Endrin [2C]	ND		0.20	0.055	ug/L	1.00	09/18/09 18:38	tch	9I17037	8081 TCLP
gamma-BHC (Lindane) [2C]	ND		0.20	0.024	ug/L	1.00	09/18/09 18:38	tch	9I17037	8081 TCLP
Heptachlor [2C]	ND		0.20	0.034	ug/L	1.00	09/18/09 18:38	tch	9I17037	8081 TCLP
Heptachlor epoxide [2C]	ND		0.20	0.021	ug/L	1.00	09/18/09 18:38	tch	9I17037	8081 TCLP
Methoxychlor [2C]	ND		0.20	0.056	ug/L	1.00	09/18/09 18:38	tch	9I17037	8081 TCLP
Toxaphene [2C]	ND		2.0	0.48	ug/L	1.00	09/18/09 18:38	tch	9I17037	8081 TCLP
Decachlorobiphenyl [2C]	*89 %*		*Surr Limits: (15-139%)*				*09/18/09 18:38*	*tch*	*9I17037*	*8081 TCLP*
Tetrachloro-m-xylene [2C]	*40 %*		*Surr Limits: (30-139%)*				*09/18/09 18:38*	*tch*	*9I17037*	*8081 TCLP*
TCLP Metals										
Arsenic	ND		0.0500	0.0037	mg/L	1.00	09/18/09 19:20	DAN	9I17107	6010B TCLP
Barium	0.797	B, B1	0.0020	0.0001	mg/L	1.00	09/18/09 19:20	DAN	9I17107	6010B TCLP
Cadmium	0.0031		0.0010	0.0003	mg/L	1.00	09/18/09 19:20	DAN	9I17107	6010B TCLP
Chromium	0.0317	B	0.0040	0.0009	mg/L	1.00	09/18/09 19:20	DAN	9I17107	6010B TCLP
Lead	0.0312	B	0.0060	0.0010	mg/L	1.00	09/18/09 19:20	DAN	9I17107	6010B TCLP
Selenium	0.0099	J	0.0150	0.0087	mg/L	1.00	09/18/09 19:20	DAN	9I17107	6010B TCLP
Silver	ND		0.0030	0.0012	mg/L	1.00	09/18/09 19:20	DAN	9I17107	6010B TCLP
Mercury	ND		0.0002	0.0001	mg/L	1.00	09/18/09 16:36	MXM	9I18058	7470A TCLP
General Chemistry Parameters										
Percent Solids	80		0.010	NR	%	1.00	09/16/09 14:20	CJM	9I16037	Dry Weight
Oil and Grease	670	B	6.3	2.8	mg/kg dry	1.00	09/16/09 12:33	RMM	9I16031	1664A
Corrosivity	8.00		NA	0.00	SU	1.00	09/22/09 23:30	MDM	9I23018	9040
HCN Released From Waste	ND		10.0	0.0030	mg/kg	1.00	09/17/09 12:32	RJP	9I17079	Section 7.3
Flashpoint	>176		50.0	50.0	°F	1.00	09/18/09 18:00	RJP	9I18137	1010
H2S Released From Waste	10.0		10.0	0.6	mg/kg	1.00	09/17/09 08:30	RJP	9I17078	Section 7.3

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Work Order: RSI0517

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/15/09
Reported: 09/24/09 10:32

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSI0517-03 (TRIP BLANK - Water)					**Sampled: 09/15/09**			**Recvd: 09/15/09 17:25**		
TCLP Volatile Organic Compounds by EPA Method 1311/8260B										
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	09/20/09 20:36	NMD	9I18067	8260B TCLP
1,2-Dichloroethane	ND		1.0	0.21	ug/L	1.00	09/20/09 20:36	NMD	9I18067	8260B TCLP
2-Butanone (MEK)	ND		5.0	1.3	ug/L	1.00	09/20/09 20:36	NMD	9I18067	8260B TCLP
Benzene	ND		1.0	0.41	ug/L	1.00	09/20/09 20:36	NMD	9I18067	8260B TCLP
Carbon Tetrachloride	ND		1.0	0.27	ug/L	1.00	09/20/09 20:36	NMD	9I18067	8260B TCLP
Chlorobenzene	ND		1.0	0.32	ug/L	1.00	09/20/09 20:36	NMD	9I18067	8260B TCLP
Chloroform	ND		1.0	0.34	ug/L	1.00	09/20/09 20:36	NMD	9I18067	8260B TCLP
Tetrachloroethene	ND		1.0	0.36	ug/L	1.00	09/20/09 20:36	NMD	9I18067	8260B TCLP
Trichloroethene	ND		1.0	0.46	ug/L	1.00	09/20/09 20:36	NMD	9I18067	8260B TCLP
Vinyl chloride	ND		1.0	0.24	ug/L	1.00	09/20/09 20:36	NMD	9I18067	8260B TCLP
1,2-Dichloroethane-d4	*103 %*		*Surr Limits: (66-137%)*				*09/20/09 20:36*	*NMD*	*9I18067*	*8260B TCLP*
4-Bromofluorobenzene	*102 %*		*Surr Limits: (73-120%)*				*09/20/09 20:36*	*NMD*	*9I18067*	*8260B TCLP*
Toluene-d8	*102 %*		*Surr Limits: (71-126%)*				*09/20/09 20:36*	*NMD*	*9I18067*	*8260B TCLP*

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Reported 09/24/09 10:32

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracte	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
General Chemistry Parameters									
1010	9I18137	RSI0517-01	50.00	g	50 00	mL	09/18/09 18:00	RJP	No Prep Flashpoint
1010	9I18137	RSI0517-02	50.00	g	50 00	mL	09/18/09 18.00	RJP	No Prep Flashpoint
1664A	9I16031	RSI0517-01	1.00	g	1.00	mL	09/16/09 09:37	RMM	Oil and Grease
1664A	9I16031	RSI0517-02	1.00	g	1.00	mL	09/16/09 09:37	RMM	Oil and Grease
9040	9I23018	RSI0517-01	20.00	g	20 00	mL	09/22/09 23:30	MDM	LpH
9040	9I23018	RSI0517-02	20.00	g	20.00	mL	09/22/09 23:30	MDM	LpH
Dry Weight	9I16037	RSI0517-01	10 00	g	10.00	g	09/16/09 10:35	CJM	Dry Weight
Dry Weight	9I16037	RSI0517-02	10.00	g	10.00	g	09/16/09 10:35	CJM	Dry Weight
Section 7.3	9I17078	RSI0517-01	200.00	g	200.00	mL	09/17/09 08:30	RJP	Reactivity
Section 7.3	9I17078	RSI0517-02	200.00	g	200 00	mL	09/17/09 08:30	RJP	Reactivity
Section 7.3	9I17079	RSI0517-01	5.00	g	5.00	mL	09/17/09 12:32	RJP	Reactivity
Section 7.3	9I17079	RSI0517-02	5.00	g	5.00	mL	09/17/09 12:32	RJP	Reactivity
Polychlorinated Biphenyls by EPA Method 8082									
8082	9I16033	RSI0517-01	30.15	g	10.00	mL	09/16/09 15:10	LTT	3550B GC
8082	9I16033	RSI0517-02	30.91	g	10.00	mL	09/16/09 15 10	LTT	3550B GC
TCLP Herbicides by EPA Method 1311/8151A									
8151A TCLP	9I17030	RSI0517-01	250.00	mL	10.00	mL	09/17/09 15:00	LTT	8151A Aq. Prep
8151A TCLP	9I17030	RSI0517-02	250.00	mL	10.00	mL	09/17/09 15:00	LTT	8151A Aq. Prep
TCLP Metals									
6010B TCLP	9I17106	RSI0517-01	50.00	mL	50.00	mL	09/18/09 07 30	MLD	3010A
6010B TCLP	9I17107	RSI0517-02	50.00	mL	50.00	mL	09/18/09 07:30	MLD	3010A
7470A TCLP	9I18057	RSI0517-01	30.00	mL	50.00	mL	09/18/09 11 00	MXM	7470A
7470A TCLP	9I18058	RSI0517-02	30 00	mL	50.00	mL	09/18/09 11:00	MXM	7470A
TCLP Pesticides by EPA Method 1311/8081A									
8081 TCLP	9I17037	RSI0517-01	250.00	mL	10.00	mL	09/17/09 15:00	KMB	3510C GC
8081 TCLP	9I17037	RSI0517-02	250.00	mL	10.00	mL	09/17/09 15:00	KMB	3510C GC
TCLP Semivolatile Compounds by EPA Method 1311/8270C									
8270C TCLP	9I17031	RSI0517-01	250.00	mL	1.00	mL	09/17/09 15.00	KMB	3510C MB
8270C TCLP	9I17031	RSI0517-02	250.00	mL	1.00	mL	09/17/09 15:00	KMB	3510C MB
TCLP Volatile Organic Compounds by EPA Method 1311/8260B									
8260B TCLP	9I18067	RSI0517-01	5.00	mL	5 00	mL	09/18/09 10:43	JRS	5030B MS TCLP
8260B TCLP	9I18067	RSI0517-02	5.00	mL	5.00	mL	09/18/09 10:43	JRS	5030B MS TCLP
8260B TCLP	9I18067	RSI0517-03	5.00	mL	5.00	mL	09/18/09 10:43	JRS	5030B MS TCLP

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Work Order: RSI0517

Project: Niagara Falls, NY - Armed Forces Reserve Center
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Received: 09/15/09
Reported: 09/24/09 10:32

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
TCLP Volatile Organic Compounds by EPA Method 1311/8260B											
Blank Analyzed: 09/20/09 (Lab Number:9I18067-BLK1, Batch: 9I18067)											
1,1-Dichloroethene			10	2.9	ug/L	ND					D07
1,2-Dichloroethane			10	2.1	ug/L	ND					D07
2-Butanone (MEK)			50	13	ug/L	ND					D07
Benzene			10	4.1	ug/L	ND					D07
Carbon Tetrachloride			10	2.7	ug/L	ND					D07
Chlorobenzene			10	3.2	ug/L	ND					D07
Chloroform			10	3.4	ug/L	ND					D07
Tetrachloroethene			10	3.6	ug/L	ND					D07
Trichloroethene			10	4.6	ug/L	ND					D07
Vinyl chloride			10	2.4	ug/L	ND					D07
Surrogate: 1,2-Dichloroethane-d4					*ug/L*		*103*	*66-137*			*D07*
Surrogate: 4-Bromofluorobenzene					*ug/L*		*102*	*73-120*			*D07*
Surrogate: Toluene-d8					*ug/L*		*102*	*71-126*			*D07*
LCS Analyzed: 09/20/09 (Lab Number:9I18067-BS1, Batch: 9I18067)											
1,1-Dichloroethene		25	1.0	0.29	ug/L	24.0	96	65-138			
1,2-Dichloroethane		25	1.0	0.21	ug/L	24.1	96	75-127			
2-Butanone (MEK)		120	5.0	1.3	ug/L	124	99	57-140			
Benzene		25	1.0	0.41	ug/L	23.6	94	71-124			
Carbon Tetrachloride		25	1.0	0.27	ug/L	24.2	97	72-134			
Chlorobenzene		25	1.0	0.32	ug/L	23.4	94	72-120			
Chloroform		25	1.0	0.34	ug/L	23.7	95	73-127			
Tetrachloroethene		25	1.0	0.36	ug/L	25.6	102	74-122			
Trichloroethene		25	1.0	0.46	ug/L	24.2	97	74-123			
Vinyl chloride		25	1.0	0.24	ug/L	22.4	89	65-133			
Surrogate: 1,2-Dichloroethane-d4					*ug/L*		*104*	*66-137*			
Surrogate: 4-Bromofluorobenzene					*ug/L*		*107*	*73-120*			
Surrogate: Toluene-d8					*ug/L*		*106*	*71-126*			

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
TCLP Semivolatile Compounds by EPA Method 1311/8270C											
Blank Analyzed: 09/18/09 (Lab Number:9I17031-BLK1, Batch: 9I17031)											
1,4-Dichlorobenzene			10	0.16	ug/L	ND					
2,4,5-Trichlorophenol			5.0	0.99	ug/L	ND					
2,4,6-Trichlorophenol			5.0	0.99	ug/L	ND					
2,4-Dinitrotoluene			5.0	0.45	ug/L	ND					
2-Methylphenol			5.0	0.23	ug/L	ND					
3 & 4 Methylphenol			10	0.58	ug/L	ND					
Hexachlorobenzene			5.0	0.45	ug/L	ND					
Hexachlorobutadiene			5.0	2.6	ug/L	ND					
Hexachloroethane			5.0	2.8	ug/L	ND					
Nitrobenzene			5.0	0.54	ug/L	ND					
Pentachlorophenol			10	5.1	ug/L	ND					
Pyridine			25	1.6	ug/L	ND					
Surrogate: 2,4,6-Tribromophenol					*ug/L*		*77*	*52-132*			
Surrogate: 2-Fluorobiphenyl					*ug/L*		*75*	*48-120*			
Surrogate: 2-Fluorophenol					*ug/L*		*47*	*20-120*			
Surrogate: Nitrobenzene-d5					*ug/L*		*71*	*46-120*			
Surrogate: Phenol-d5					*ug/L*		*35*	*16-120*			
Surrogate: p-Terphenyl-d14					*ug/L*		*60*	*24-136*			
Blank Analyzed: 09/18/09 (Lab Number:9I17031-BLK2, Batch: 9I17031)											
1,4-Dichlorobenzene			40	0.62	ug/L	ND					
2,4,5-Trichlorophenol			20	4.0	ug/L	ND					
2,4,6-Trichlorophenol			20	4.0	ug/L	ND					
2,4-Dinitrotoluene			20	1.8	ug/L	ND					
2-Methylphenol			20	0.91	ug/L	ND					
3 & 4 Methylphenol			40	2.3	ug/L	ND					
Hexachlorobenzene			20	1.8	ug/L	ND					
Hexachlorobutadiene			20	10	ug/L	ND					
Hexachloroethane			20	11	ug/L	ND					
Nitrobenzene			20	2.2	ug/L	ND					
Pentachlorophenol			40	21	ug/L	ND					
Pyridine			100	6.4	ug/L	ND					
Surrogate: 2,4,6-Tribromophenol					*ug/L*		*81*	*52-132*			
Surrogate: 2-Fluorobiphenyl					*ug/L*		*81*	*48-120*			

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
TCLP Semivolatile Compounds by EPA Method 1311/8270C											
Blank Analyzed: 09/18/09 (Lab Number:9I17031-BLK2, Batch: 9I17031)											
Surrogate: 2-Fluorophenol					*ug/L*		*49*	*20-120*			
Surrogate: Nitrobenzene-d5					*ug/L*		*74*	*46-120*			
Surrogate: Phenol-d5					*ug/L*		*37*	*16-120*			
Surrogate: p-Terphenyl-d14					*ug/L*		*64*	*24-136*			
Blank Analyzed: 09/18/09 (Lab Number:9I17031-BLK3, Batch: 9I17031)											
1,4-Dichlorobenzene			40	0.62	ug/L	ND					
2,4,5-Trichlorophenol			20	4.0	ug/L	ND					
2,4,6-Trichlorophenol			20	4.0	ug/L	ND					
2,4-Dinitrotoluene			20	1.8	ug/L	ND					
2-Methylphenol			20	0.91	ug/L	ND					
3 & 4 Methylphenol			40	2.3	ug/L	ND					
Hexachlorobenzene			20	1.8	ug/L	ND					
Hexachlorobutadiene			20	10	ug/L	ND					
Hexachloroethane			20	11	ug/L	ND					
Nitrobenzene			20	2.2	ug/L	ND					
Pentachlorophenol			40	21	ug/L	ND					
Pyridine			100	6.4	ug/L	ND					
Surrogate: 2,4,6-Tribromophenol					*ug/L*		*90*	*52-132*			
Surrogate: 2-Fluorobiphenyl					*ug/L*		*85*	*48-120*			
Surrogate: 2-Fluorophenol					*ug/L*		*50*	*20-120*			
Surrogate: Nitrobenzene-d5					*ug/L*		*80*	*46-120*			
Surrogate: Phenol-d5					*ug/L*		*36*	*16-120*			
Surrogate: p-Terphenyl-d14					*ug/L*		*72*	*24-136*			
Blank Analyzed: 09/18/09 (Lab Number:9I17031-BLK4, Batch: 9I17031)											
1,4-Dichlorobenzene			40	0.62	ug/L	ND					
2,4,5-Trichlorophenol			20	4.0	ug/L	ND					
2,4,6-Trichlorophenol			20	4.0	ug/L	ND					
2,4-Dinitrotoluene			20	1.8	ug/L	ND					
2-Methylphenol			20	0.91	ug/L	ND					
3 & 4 Methylphenol			40	2.3	ug/L	ND					
Hexachlorobenzene			20	1.8	ug/L	ND					
Hexachlorobutadiene			20	10	ug/L	ND					
Hexachloroethane			20	11	ug/L	ND					

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
TCLP Semivolatile Compounds by EPA Method 1311/8270C											
Blank Analyzed: 09/18/09 (Lab Number:9I17031-BLK4, Batch: 9I17031)											
Nitrobenzene			20	2.2	ug/L	ND					
Pentachlorophenol			40	21	ug/L	ND					
Pyridine			100	6.4	ug/L	ND					
Surrogate: 2,4,6-Tribromophenol					*ug/L*		*87*	*52-132*			
Surrogate: 2-Fluorobiphenyl					*ug/L*		*86*	*48-120*			
Surrogate: 2-Fluorophenol					*ug/L*		*54*	*20-120*			
Surrogate: Nitrobenzene-d5					*ug/L*		*81*	*46-120*			
Surrogate: Phenol-d5					*ug/L*		*39*	*16-120*			
Surrogate: p-Terphenyl-d14					*ug/L*		*73*	*24-136*			
LCS Analyzed: 09/18/09 (Lab Number:9I17031-BS1, Batch: 9I17031)											
1,4-Dichlorobenzene		100	10	0 16	ug/L	49.6	50	25-120			
2,4,5-Trichlorophenol		100	5.0	0 99	ug/L	79.8	80	64-126			
2,4,6-Trichlorophenol		100	5.0	0.99	ug/L	75.0	75	64-120			
2,4-Dinitrotoluene		100	5 0	0 45	ug/L	79.1	79	50-125			
2-Methylphenol		100	5.0	0.23	ug/L	60.7	61	43-120			
3 & 4 Methylphenol		100	10	0.58	ug/L	58.7	59	41-120			
Hexachlorobenzene		100	5.0	0.45	ug/L	70.0	70	38-131			
Hexachlorobutadiene		100	5.0	2.6	ug/L	37.7	38	23-120			
Hexachloroethane		100	5.0	2 8	ug/L	44.6	45	20-120			
Nitrobenzene		100	5.0	0.54	ug/L	57.3	57	50-120			
Pentachlorophenol		100	10	5.1	ug/L	79.9	80	39-136			
Pyridine		100	25	1 6	ug/L	47.1	47	10-120			
Surrogate: 2,4,6-Tribromophenol					*ug/L*		*69*	*52-132*			
Surrogate: 2-Fluorobiphenyl					*ug/L*		*65*	*48-120*			
Surrogate: 2-Fluorophenol					*ug/L*		*35*	*20-120*			
Surrogate: Nitrobenzene-d5					*ug/L*		*55*	*46-120*			
Surrogate: Phenol-d5					*ug/L*		*26*	*16-120*			
Surrogate: p-Terphenyl-d14					*ug/L*		*56*	*24-136*			
LCS Dup Analyzed: 09/18/09 (Lab Number:9I17031-BSD1, Batch: 9I17031)											
1,4-Dichlorobenzene		100	10	0 16	ug/L	67.1	67	25-120	30	36	
2,4,5-Trichlorophenol		100	5.0	0.99	ug/L	105	105	64-126	27	18	R2
2,4,6-Trichlorophenol		100	5 0	0 99	ug/L	102	102	64-120	30	19	R2

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
TCLP Semivolatile Compounds by EPA Method 1311/8270C											
LCS Dup Analyzed: 09/18/09 (Lab Number:9I17031-BSD1, Batch: 9I17031)											
2,4-Dinitrotoluene		100	5.0	0.45	ug/L	107	107	50-125	30	20	R2
2-Methylphenol		100	5.0	0.23	ug/L	84.2	84	43-120	32	27	R2
3 & 4 Methylphenol		100	10	0.58	ug/L	80.3	80	41-120	31	30	R2
Hexachlorobenzene		100	5.0	0.45	ug/L	94.7	95	38-131	30	15	R2
Hexachlorobutadiene		100	5.0	2.6	ug/L	54.4	54	23-120	36	44	
Hexachloroethane		100	5.0	2.8	ug/L	60.2	60	20-120	30	46	
Nitrobenzene		100	5.0	0.54	ug/L	83.6	84	50-120	37	24	R2
Pentachlorophenol		100	10	5.1	ug/L	112	112	39-136	34	37	
Pyridine		100	25	1.6	ug/L	64.7	65	10-120	31	49	
Surrogate: 2,4,6-Tribromophenol					*ug/L*		*96*	*52-132*			
Surrogate: 2-Fluorobiphenyl					*ug/L*		*87*	*48-120*			
Surrogate: 2-Fluorophenol					*ug/L*		*49*	*20-120*			
Surrogate: Nitrobenzene-d5					*ug/L*		*81*	*46-120*			
Surrogate: Phenol-d5					*ug/L*		*36*	*16-120*			
Surrogate: p-Terphenyl-d14					*ug/L*		*72*	*24-136*			

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Polychlorinated Biphenyls by EPA Method 8082											
Blank Analyzed: 09/17/09 (Lab Number:9I16033-BLK1, Batch: 9I16033)											
Aroclor 1016			16	3.2	ug/kg wet	ND					
Aroclor 1221			16	3.2	ug/kg wet	ND					
Aroclor 1232			16	3.2	ug/kg wet	ND					
Aroclor 1242			16	3.5	ug/kg wet	ND					
Aroclor 1248			16	3.2	ug/kg wet	ND					
Aroclor 1254			16	3.4	ug/kg wet	ND					
Aroclor 1260			16	3.4	ug/kg wet	ND					
Aroclor 1262			16	3.4	ug/kg wet	ND					
Aroclor 1268			16	3.4	ug/kg wet	ND					
Surrogate: Decachlorobiphenyl					*ug/kg wet*		*101*	*34-148*			
Surrogate: Tetrachloro-m-xylene					*ug/kg wet*		*124*	*35-134*			
LCS Analyzed: 09/17/09 (Lab Number:9I16033-BS1, Batch: 9I16033)											
Aroclor 1016		160	16	3.2	ug/kg wet	202	124	59-154			
Aroclor 1221			16	3.2	ug/kg wet	ND					
Aroclor 1232			16	3.2	ug/kg wet	ND					
Aroclor 1242			16	3.5	ug/kg wet	ND					
Aroclor 1248			16	3.2	ug/kg wet	ND					
Aroclor 1254			16	3.5	ug/kg wet	ND					
Aroclor 1260		160	16	3.5	ug/kg wet	188	115	51-179			
Aroclor 1262			16	3.5	ug/kg wet	ND					
Aroclor 1268			16	3.5	ug/kg wet	ND					
Surrogate: Decachlorobiphenyl					*ug/kg wet*		*97*	*34-148*			
Surrogate: Tetrachloro-m-xylene					*ug/kg wet*		*118*	*35-134*			
LCS Dup Analyzed: 09/17/09 (Lab Number:9I16033-BSD1, Batch: 9I16033)											
Aroclor 1016		160	16	3.2	ug/kg wet	200	124	59-154	1	50	
Aroclor 1221			16	3.2	ug/kg wet	ND					
Aroclor 1232			16	3.2	ug/kg wet	ND					
Aroclor 1242			16	3.5	ug/kg wet	ND					
Aroclor 1248			16	3.2	ug/kg wet	ND					
Aroclor 1254			16	3.4	ug/kg wet	ND					
Aroclor 1260		160	16	3.4	ug/kg wet	184	114	51-179	2	50	
Aroclor 1262			16	3.4	ug/kg wet	ND					
Aroclor 1268			16	3.4	ug/kg wet	ND					

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Polychlorinated Biphenyls by EPA Method 8082											
LCS Dup Analyzed: 09/17/09 (Lab Number:9I16033-BSD1, Batch: 9I16033)											
Surrogate: Decachlorobiphenyl					*ug/kg wet*		*96*	*34-148*			
Surrogate: Tetrachloro-m-xylene					*ug/kg wet*		*120*	*35-134*			

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
TCLP Herbicides by EPA Method 1311/8151A											
Blank Analyzed: 09/19/09 (Lab Number:9I17030-BLK1, Batch: 9I17030)											
2,4-D			0.50	0.11	ug/L	ND					
Silvex (2,4,5-TP)			0.50	0.12	ug/L	ND					
Surrogate: 2,4-Dichlorophenylacetic					*ug/L*		*45*	*19-128*			
Blank Analyzed: 09/19/09 (Lab Number:9I17030-BLK2, Batch: 9I17030)											
2,4-D			2.0	0.44	ug/L	ND					
Silvex (2,4,5-TP)			2.0	0.46	ug/L	ND					
Surrogate: 2,4-Dichlorophenylacetic					*ug/L*		*18*	*19-128*			*ZX*
Blank Analyzed: 09/19/09 (Lab Number:9I17030-BLK3, Batch: 9I17030)											
2,4-D			2.0	0.44	ug/L	ND					
Silvex (2,4,5-TP)			2.0	0.46	ug/L	ND					
Surrogate: 2,4-Dichlorophenylacetic					*ug/L*		*17*	*19-128*			*ZX*
LCS Analyzed: 09/19/09 (Lab Number:9I17030-BS1, Batch: 9I17030)											
2,4-D		2.0	0.50	0.11	ug/L	2.71	135	32-150			
Silvex (2,4,5-TP)		2.0	0.50	0.12	ug/L	1.40	70	25-137			
Surrogate: 2,4-Dichlorophenylacetic					*ug/L*		*34*	*19-128*			
LCS Dup Analyzed: 09/19/09 (Lab Number:9I17030-BSD1, Batch: 9I17030)											
2,4-D		2.0	0.50	0.11	ug/L	1.67	83	32-150	48	50	
Silvex (2,4,5-TP)		2.0	0.50	0.12	ug/L	1.14	57	25-137	21	35	
Surrogate: 2,4-Dichlorophenylacetic					*ug/L*		*33*	*19-128*			

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
TCLP Pesticides by EPA Method 1311/8081A											
Blank Analyzed: 09/18/09 (Lab Number:9I17037-BLK1, Batch: 9I17037)											
Chlordane			0.50	0.029	ug/L	ND					
Endrin			0.050	0.014	ug/L	ND					
gamma-BHC (Lindane)			0.050	0.0060	ug/L	ND					
Heptachlor			0.050	0.0085	ug/L	ND					
Heptachlor epoxide			0.050	0.0053	ug/L	ND					
Methoxychlor			0.050	0.014	ug/L	ND					
Toxaphene			0.50	0.12	ug/L	ND					
Surrogate: Decachlorobiphenyl					*ug/L*		*63*	*15-139*			
Surrogate: Tetrachloro-m-xylene					*ug/L*		*35*	*30-139*			
Blank Analyzed: 09/18/09 (Lab Number:9I17037-BLK2, Batch: 9I17037)											
Chlordane			2.0	0.12	ug/L	ND					
Endrin			0.20	0.055	ug/L	ND					
gamma-BHC (Lindane)			0.20	0.024	ug/L	ND					
Heptachlor			0.20	0.034	ug/L	0.23					
Heptachlor epoxide			0.20	0.021	ug/L	ND					
Methoxychlor			0.20	0.056	ug/L	ND					
Toxaphene			2.0	0.48	ug/L	ND					
Surrogate: Decachlorobiphenyl					*ug/L*		*100*	*15-139*			
Surrogate: Tetrachloro-m-xylene					*ug/L*		*52*	*30-139*			
Blank Analyzed: 09/18/09 (Lab Number:9I17037-BLK3, Batch: 9I17037)											
Chlordane			2.0	0.12	ug/L	ND					
Endrin			0.20	0.055	ug/L	ND					
gamma-BHC (Lindane)			0.20	0.024	ug/L	ND					
Heptachlor			0.20	0.034	ug/L	ND					
Heptachlor epoxide			0.20	0.021	ug/L	ND					
Methoxychlor			0.20	0.056	ug/L	ND					
Toxaphene			2.0	0.48	ug/L	ND					
Surrogate: Decachlorobiphenyl					*ug/L*		*95*	*15-139*			
Surrogate: Tetrachloro-m-xylene					*ug/L*		*48*	*30-139*			
LCS Analyzed: 09/18/09 (Lab Number:9I17037-BS1, Batch: 9I17037)											
Endrin		0.50	0.050	0.014	ug/L	0.506	101	43-134			
gamma-BHC (Lindane)		0.50	0.050	0.0060	ug/L	0.451	90	68-120			

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
TCLP Pesticides by EPA Method 1311/8081A											
LCS Analyzed: 09/18/09 (Lab Number:9I17037-BS1, Batch: 9I17037)											
Heptachlor		0.50	0.050	0.0085	ug/L	0.310	62	52-120			B
Heptachlor epoxide		0.50	0.050	0.0053	ug/L	0.486	97	65-120			
Methoxychlor		0.50	0.050	0.014	ug/L	0.394	79	52-142			
Surrogate: Decachlorobiphenyl					*ug/L*		*78*	*15-139*			
Surrogate: Tetrachloro-m-xylene					*ug/L*		*40*	*30-139*			
LCS Dup Analyzed: 09/18/09 (Lab Number:9I17037-BSD1, Batch: 9I17037)											
Endrin		0.50	0.050	0.014	ug/L	0.480	96	43-134	5	50	
gamma-BHC (Lindane)		0.50	0.050	0.0060	ug/L	0.427	85	68-120	5	50	
Heptachlor		0.50	0.050	0.0085	ug/L	0.282	56	52-120	10	50	B
Heptachlor epoxide		0.50	0.050	0.0053	ug/L	0.462	92	65-120	5	50	
Methoxychlor		0.50	0.050	0.014	ug/L	0.375	75	52-142	5	50	
Surrogate: Decachlorobiphenyl					*ug/L*		*73*	*15-139*			
Surrogate: Tetrachloro-m-xylene					*ug/L*		*34*	*30-139*			

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
TCLP Metals											
Blank Analyzed: 09/18/09 (Lab Number:9I17106-BLK1, Batch: 9I17106)											
Arsenic			0.0500	0.0037	mg/L	ND					
Barium			0.0020	0.0001	mg/L	0.0177					B
Cadmium			0.0010	0.0003	mg/L	ND					
Chromium			0.0040	0.0009	mg/L	0.0017					J,B
Lead			0.0060	0.0010	mg/L	0.0019					J,B
Selenium			0.0150	0.0087	mg/L	0.0155					B
Silver			0.0030	0.0012	mg/L	ND					
Blank Analyzed: 09/18/09 (Lab Number:9I17106-BLK2, Batch: 9I17106)											
Arsenic			0.0500	0.0037	mg/L	ND					
Barium			0.0020	0.0001	mg/L	ND					
Cadmium			0.0010	0.0003	mg/L	ND					
Chromium			0.0040	0.0009	mg/L	ND					
Lead			0.0060	0.0010	mg/L	ND					
Selenium			0.0150	0.0087	mg/L	ND					
Silver			0.0030	0.0012	mg/L	ND					
LCS Analyzed: 09/18/09 (Lab Number:9I17106-BS1, Batch: 9I17106)											
Arsenic		1.00	0.0500	0.0037	mg/L	1.06	106	80-120			
Barium		1.00	0.0020	0.0001	mg/L	1.05	105	80-120			B
Cadmium		1.00	0.0010	0.0003	mg/L	1.04	104	80-120			
Chromium		1.00	0.0040	0.0009	mg/L	1.00	100	80-120			B
Lead		1.00	0.0060	0.0010	mg/L	1.03	103	80-120			B
Selenium		1.00	0.0150	0.0087	mg/L	1.03	103	80-120			B
Silver		1.00	0.0030	0.0012	mg/L	1.00	100	80-120			
Matrix Spike Analyzed: 09/18/09 (Lab Number:9I17106-MS1, Batch: 9I17106)											
QC Source Sample: RSI0517-01											
Arsenic	0.00545	1.00	0.0500	0.0037	mg/L	1.09	108	70-130			
Barium	1.10	1.00	0.0020	0.0001	mg/L	2.12	102	70-130			B
Cadmium	0.0188	1.00	0.0010	0.0003	mg/L	0.984	96	70-130			
Chromium	0.0342	1.00	0.0040	0.0009	mg/L	0.977	94	70-130			B
Lead	0.0662	1.00	0.0060	0.0010	mg/L	1.03	96	70-130			B
Selenium	ND	1.00	0.0150	0.0087	mg/L	1.01	101	70-130			B
Silver	ND	1.00	0.0030	0.0012	mg/L	1.05	105	70-130			
Matrix Spike Dup Analyzed: 09/18/09 (Lab Number:9I17106-MSD1, Batch: 9I17106)											
QC Source Sample: RSI0517-01											
Arsenic	0.00545	1.00	0.0500	0.0037	mg/L	1.07	106	70-130	2	20	
Barium	1.10	1.00	0.0020	0.0001	mg/L	2.10	100	70-130	1	20	B

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Received: 09/15/09
Reported: 09/24/09 10:32

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
TCLP Metals											
Matrix Spike Dup Analyzed: 09/18/09 (Lab Number:9I17106-MSD1, Batch: 9I17106)											
QC Source Sample: RSI0517-01											
Cadmium	0.0188	1.00	0.0010	0.0003	mg/L	0.960	94	70-130	2	20	
Chromium	0.0342	1.00	0.0040	0.0009	mg/L	0.959	93	70-130	2	20	B
Lead	0.0662	1.00	0.0060	0.0010	mg/L	1.00	94	70-130	2	20	B
Selenium	ND	1.00	0.0150	0.0087	mg/L	0.995	100	70-130	2	20	B
Silver	ND	1.00	0.0030	0.0012	mg/L	1.03	103	70-130	1	20	
TCLP Metals											
Blank Analyzed: 09/18/09 (Lab Number:9I17107-BLK1, Batch: 9I17107)											
Arsenic			0.0500	0.0037	mg/L	ND					
Barium			0.0020	0.0001	mg/L	0.0120					B
Cadmium			0.0010	0.0003	mg/L	ND					
Chromium			0.0040	0.0009	mg/L	0.0019					J,B
Lead			0.0060	0.0010	mg/L	0.0021					J,B
Selenium			0.0150	0.0087	mg/L	ND					
Silver			0.0030	0.0012	mg/L	ND					
Blank Analyzed: 09/18/09 (Lab Number:9I17107-BLK2, Batch: 9I17107)											
Arsenic			0.0500	0.0037	mg/L	ND					
Barium			0.0020	0.0001	mg/L	ND					
Cadmium			0.0010	0.0003	mg/L	ND					
Chromium			0.0040	0.0009	mg/L	ND					
Lead			0.0060	0.0010	mg/L	0.0010					J,B
Selenium			0.0150	0.0087	mg/L	ND					
Silver			0.0030	0.0012	mg/L	ND					
LCS Analyzed: 09/18/09 (Lab Number:9I17107-BS1, Batch: 9I17107)											
Arsenic		1.00	0.0500	0.0037	mg/L	1.10	110	80-120			
Barium		1.00	0.0020	0.0001	mg/L	1.01	101	80-120			B
Cadmium		1.00	0.0010	0.0003	mg/L	1.04	104	80-120			
Chromium		1.00	0.0040	0.0009	mg/L	0.989	99	80-120			B
Lead		1.00	0.0060	0.0010	mg/L	1.03	103	80-120			B
Selenium		1.00	0.0150	0.0087	mg/L	1.06	106	80-120			
Silver		1.00	0.0030	0.0012	mg/L	1.03	103	80-120			
Matrix Spike Analyzed: 09/18/09 (Lab Number:9I17107-MS1, Batch: 9I17107)											
QC Source Sample: RSI0517-02											
Arsenic	ND	1.00	0.0500	0.0037	mg/L	1.10	110	70-130			
Barium	0.797	1.00	0.0020	0.0001	mg/L	1.76	96	70-130			B

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0517

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/15/09
Reported: 09/24/09 10:32

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
TCLP Metals											
Matrix Spike Analyzed: 09/18/09 (Lab Number:9I17107-MS1, Batch: 9I17107)											
QC Source Sample: RSI0517-02											
Cadmium	0.00308	1.00	0.0010	0.0003	mg/L	0.993	99	70-130			
Chromium	0.0317	1.00	0.0040	0.0009	mg/L	0.991	96	70-130			B
Lead	0.0312	1.00	0.0060	0.0010	mg/L	1.02	99	70-130			B
Selenium	0.00987	1.00	0.0150	0.0087	mg/L	1.05	104	70-130			
Silver	ND	1.00	0.0030	0.0012	mg/L	1.04	104	70-130			
Matrix Spike Dup Analyzed: 09/18/09 (Lab Number:9I17107-MSD1, Batch: 9I17107)											
QC Source Sample: RSI0517-02											
Arsenic	ND	1.00	0.0500	0.0037	mg/L	1.09	109	70-130	0.1	20	
Barium	0.797	1.00	0.0020	0.0001	mg/L	1.76	97	70-130	0.2	20	B
Cadmium	0.00308	1.00	0.0010	0.0003	mg/L	0.987	98	70-130	0.6	20	
Chromium	0.0317	1.00	0.0040	0.0009	mg/L	0.990	96	70-130	0.07	20	B
Lead	0.0312	1.00	0.0060	0.0010	mg/L	1.00	97	70-130	1	20	B
Selenium	0.00987	1.00	0.0150	0.0087	mg/L	1.02	101	70-130	2	20	
Silver	ND	1.00	0.0030	0.0012	mg/L	1.05	105	70-130	1	20	
TCLP Metals											
Blank Analyzed: 09/18/09 (Lab Number:9I18057-BLK1, Batch: 9I18057)											
Mercury			0.0002	0.0001	mg/L	ND					
Blank Analyzed: 09/18/09 (Lab Number:9I18057-BLK2, Batch: 9I18057)											
Mercury			0.0002	0.0001	mg/L	ND					
LCS Analyzed: 09/18/09 (Lab Number:9I18057-BS1, Batch: 9I18057)											
Mercury		0.00670	0.0002	0.0001	mg/L	0.00533	80	80-120			
Matrix Spike Analyzed: 09/18/09 (Lab Number:9I18057-MS1, Batch: 9I18057)											
QC Source Sample: RSI0517-01											
Mercury	ND	0.00670	0.0002	0.0001	mg/L	0.00532	79	75-125			
Matrix Spike Dup Analyzed: 09/18/09 (Lab Number:9I18057-MSD1, Batch: 9I18057)											
QC Source Sample: RSI0517-01											
Mercury	ND	0.00670	0.0002	0.0001	mg/L	0.00535	80	75-125	0.6	20	
TCLP Metals											
Blank Analyzed: 09/18/09 (Lab Number:9I18058-BLK1, Batch: 9I18058)											
Mercury			0.0002	0.0001	mg/L	ND					
Blank Analyzed: 09/18/09 (Lab Number:9I18058-BLK2, Batch: 9I18058)											
Mercury			0.0002	0.0001	mg/L	ND					

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Work Order: RSI0517

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/15/09
Reported: 09/24/09 10:32

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
TCLP Metals											
LCS Analyzed: 09/18/09 (Lab Number:9I18058-BS1, Batch: 9I18058)											
Mercury		0.00670	0.0002	0.0001	mg/L	0.00578	86	80-120			
Matrix Spike Analyzed: 09/18/09 (Lab Number:9I18058-MS1, Batch: 9I18058)											
QC Source Sample: RSI0517-02											
Mercury	ND	0.00670	0.0002	0.0001	mg/L	0.00558	83	75-125			
Matrix Spike Dup Analyzed: 09/18/09 (Lab Number:9I18058-MSD1, Batch: 9I18058)											
QC Source Sample: RSI0517-02											
Mercury	ND	0.00670	0.0002	0.0001	mg/L	0.00572	85	75-125	2	20	

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Work Order: RSI0517

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number [none]

Received: 09/15/09
Reported: 09/24/09 10:32

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
General Chemistry Parameters											
Blank Analyzed: 09/16/09 (Lab Number:9I16031-BLK1, Batch: 9I16031)											
Oil and Grease			5.0	2.2	mg/kg wet	37.8					
Blank Analyzed: 09/16/09 (Lab Number:9I16031-BLK2, Batch: 9I16031)											
Oil and Grease			5.0	2.2	mg/kg wet	56.4					
Duplicate Analyzed: 09/16/09 (Lab Number:9I16031-DUP1, Batch: 9I16031)											
QC Source Sample: RSI0151-01											
Oil and Grease	ND		771	339	mg/kg dry	3050				18	B
Duplicate Analyzed: 09/16/09 (Lab Number:9I16031-DUP2, Batch: 9I16031)											
QC Source Sample: RSI0461-01											
Oil and Grease	387		5.8	2.6	mg/kg dry	362			7	18	B
Reference Analyzed: 09/16/09 (Lab Number:9I16031-SRM1, Batch: 9I16031)											
Oil and Grease		1900	5.0	2.2	mg/kg wet	1750	92	0-200			B
General Chemistry Parameters											
Blank Analyzed: 09/17/09 (Lab Number:9I17078-BLK1, Batch: 9I17078)											
H2S Released From Waste			10.0	0.6	mg/kg	ND					
LCS Analyzed: 09/17/09 (Lab Number:9I17078-BS1, Batch: 9I17078)											
H2S Released From Waste		570	10.0	0.6	mg/kg	70.2	12	10-100			
General Chemistry Parameters											
Blank Analyzed: 09/17/09 (Lab Number:9I17079-BLK1, Batch: 9I17079)											
HCN Released From Waste			10.0	0.0030	mg/kg	ND					
LCS Analyzed: 09/17/09 (Lab Number:9I17079-BS1, Batch: 9I17079)											
HCN Released From Waste		1000	10.0	0.0030	mg/kg	111	11	10-100			
General Chemistry Parameters											
LCS Analyzed: 09/18/09 (Lab Number:9I18137-BS1, Batch: 9I18137)											
Flashpoint		81.0	50.0	50.0	°F	80.0	99	97.5-102.5			
General Chemistry Parameters											
LCS Analyzed: 09/23/09 (Lab Number:9I23018-BS1, Batch: 9I23018)											

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Work Order: RSI0517

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number [none]

Received: 09/15/09
Reported: 09/24/09 10:32

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
General Chemistry Parameters											
LCS Analyzed: 09/23/09 (Lab Number:9I23018-BS1, Batch: 9I23018)											
Corrosivity			NA	0.00	SU	7.01		99.3-100.8			
Duplicate Analyzed: 09/23/09 (Lab Number:9I23018-DUP1, Batch: 9I23018)											
QC Source Sample: RSI0694-04											
Corrosivity	7.80		NA	0.00	SU	7.82			0.3		

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: Pars Environmental	Project Manager: Mike Moore	Date: 9/15/09	Chain of Custody Number: 134023
Address: 6A South Gold Drive	Telephone Number (Area Code)/Fax Number: 609-890-7277	Lab Number	Page 1 of 1
City: Robbinsville; State: NJ; Zip Code: 08691	Site Contact	Lab Contact: Sally Hoffman	
Project Name and Location (State): Niagara Falls AFRC	Carrier/Waybill Number		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc NaOH	Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt
S-2	9/15/09	1530				X	X							
S-3	9/15/09	1600				X	X							

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	9/15/09	1725	1. Received By	9/15/09	1725
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

2660

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TestAmerica

Analytical Report

Work Order: RSI0550

Project Description

Niagara Falls, NY - Armed Forces Reserve Center

For:

Michael Moore

PARS Environmental, Inc.

6A South Gold Drive

Robbinsville, NJ 08691

Sally Hoffman

Project Manager

Sally Hoffman@testamericainc.com

Saturday, September 19, 2009

Revision: 2

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exception to NELAP requirements are noted in this report. Persuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project manager who has signed this report.

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PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0550

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/16/09
Reported: 09/19/09 11:47

TestAmerica Buffalo
Current Certifications

As of 1/27/2009

STATE	Program	Cert # / Lab ID
Arkansas	CWA, RCRA, SOIL	88-0686
California*	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida*	NELAP CWA, RCRA	E87672
Georgia*	SDWA,NELAP CWA, RCRA	956
Illinois*	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas*	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana*	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY0044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA,CWA, RCRA	036-999-337
New Hampshire*	NELAP SDWA, CWA	233701
New Jersey*	NELAP,SDWA, CWA, RCRA,	NY455
New York*	NELAP, AIR, SDWA, CWA, RCRA,CLP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania*	NELAP CWA,RCRA	68-00281
Tennessee	SDWA	02970
Texas*	NELAP CWA, RCRA	T104704412-08-TX
USDA	FOREIGN SOIL PERMIT	S-41579
USDOE	Department of Energy	DOECAP-STB
Virginia	SDWA	278
Washington*	NELAP CWA,RCRA	C1677
Wisconsin	CWA, RCRA	998310390
West Virginia	CWA,RCRA	252

*As required under the indicated accreditation, the test results in this report meet all NELAP requirements for parameters for which accre ditation is required or available. Any exceptions to NELAP requirements are noted in this report.

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0550

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/16/09
Reported: 09/19/09 11:47

Case Narrative

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

A pertinent document is appended to this report, 1 page, is included and is an integral part of this report.

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TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

PARS Environmental, Inc. 6A South Gold Drive Robbinsville, NJ 08691	Work Order: RSI0550 Project: Niagara Falls, NY - Armed Forces Reserve Center Project Number [none]	Received: 09/16/09 Reported 09/19/09 11:47

DATA QUALIFIERS AND DEFINITIONS

D08	Dilution required due to high concentration of target analyte(s)
QSU	Sulfur (EPA 3660) clean-up performed on extract.
Z1	Surrogate recovery was above acceptance limits.
Z3	The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information
NR	Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

ADDITIONAL COMMENTS

Results are reported on a wet weight basis unless otherwise noted.

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0550

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/16/09
Reported: 09/19/09 11:47

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSI0550-01 (CS-1 - Solid)						**Sampled: 09/16/09 09:49**		**Recvd: 09/16/09 14:00**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254	330	QSU	21	4.4	ug/kg dry	1.00	09/17/09 15:03	SCH	9I16109	8082
Sample ID: RSI0550-02 (CS-2 - Solid)						**Sampled: 09/16/09 09:53**		**Recvd: 09/16/09 14:00**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254	270		20	4.3	ug/kg dry	1.00	09/17/09 15:18	SCH	9I16109	8082
Sample ID: RSI0550-03 (CS-3 - Solid)						**Sampled: 09/16/09 09:58**		**Recvd: 09/16/09 14:00**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254	170		21	4.4	ug/kg dry	1.00	09/17/09 15:33	SCH	9I16109	8082
Sample ID: RSI0550-04 (CS-4 - Solid)						**Sampled: 09/16/09 10:05**		**Recvd: 09/16/09 14:00**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254	390		19	4.0	ug/kg dry	1.00	09/17/09 15:48	SCH	9I16109	8082
Sample ID: RSI0550-05 (CS-5 - Solid)						**Sampled: 09/16/09 10:20**		**Recvd: 09/16/09 14:00**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254	14000	D08, QSU	1100	230	ug/kg dry	50.0	09/17/09 16:32	SCH	9I16109	8082
Sample ID: RSI0550-06 (CS-6 - Solid)						**Sampled: 09/16/09 10:39**		**Recvd: 09/16/09 14:00**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254	18000	D08, QSU	1200	250	ug/kg dry	50.0	09/17/09 16:47	SCH	9I16109	8082
Sample ID: RSI0550-07 (CS-7 - Solid)						**Sampled: 09/16/09 10:50**		**Recvd: 09/16/09 14:00**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254	14000	D08, QSU	1000	220	ug/kg dry	50.0	09/17/09 17:02	SCH	9I16109	8082
Sample ID: RSI0550-08 (CS-8 - Solid)						**Sampled: 09/16/09 11:05**		**Recvd: 09/16/09 14:00**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254	4800	D08	940	200	ug/kg dry	50.0	09/17/09 17:17	SCH	9I16109	8082
Sample ID: RSI0550-09 (CS-9 - Solid)						**Sampled: 09/16/09 11:25**		**Recvd: 09/16/09 14:00**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254	1900	D08	99	21	ug/kg dry	5.00	09/17/09 17:31	SCH	9I16109	8082
Sample ID: RSI0550-10 (CS-10 - Solid)						**Sampled: 09/16/09 12:00**		**Recvd: 09/16/09 14:00**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254	330		21	4.3	ug/kg dry	1.00	09/17/09 17:46	SCH	9I16109	8082
Sample ID: RSI0550-11 (CS-6 DUP - Solid)						**Sampled: 09/16/09**		**Recvd: 09/16/09 14:00**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254	12000	D08	1200	250	ug/kg dry	50.0	09/17/09 18:01	SCH	9I16109	8082

PARS Environmental, Inc
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Robbinsville, NJ 08691

Work Order: RSI0550

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/16/09
Reported: 09/19/09 11 47

Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
CS-1	RSI0550-01	Solid	09/16/09 09:49	09/16/09 14:00	
CS-2	RSI0550-02	Solid	09/16/09 09:53	09/16/09 14:00	
CS-3	RSI0550-03	Solid	09/16/09 09:58	09/16/09 14:00	
CS-4	RSI0550-04	Solid	09/16/09 10:05	09/16/09 14:00	
CS-5	RSI0550-05	Solid	09/16/09 10:20	09/16/09 14:00	
CS-6	RSI0550-06	Solid	09/16/09 10:39	09/16/09 14:00	
CS-7	RSI0550-07	Solid	09/16/09 10:50	09/16/09 14:00	
CS-8	RSI0550-08	Solid	09/16/09 11:05	09/16/09 14:00	
CS-9	RSI0550-09	Solid	09/16/09 11:25	09/16/09 14:00	
CS-10	RSI0550-10	Solid	09/16/09 12:00	09/16/09 14:00	
CS-6 DUP	RSI0550-11	Solid	09/16/09	09/16/09 14:00	

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0550

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/16/09
Reported: 09/19/09 11:47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSI0550-01 (CS-1 - Solid)						Sampled: 09/16/09 09:49		Recvd: 09/16/09 14:00		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND	QSU	21	4.1	ug/kg dry	1.00	09/17/09 15:03	SCH	9I16109	8082
Aroclor 1221	ND	QSU	21	4.1	ug/kg dry	1.00	09/17/09 15:03	SCH	9I16109	8082
Aroclor 1232	ND	QSU	21	4.1	ug/kg dry	1.00	09/17/09 15:03	SCH	9I16109	8082
Aroclor 1242	ND	QSU	21	4.5	ug/kg dry	1.00	09/17/09 15:03	SCH	9I16109	8082
Aroclor 1248	ND	QSU	21	4.1	ug/kg dry	1.00	09/17/09 15:03	SCH	9I16109	8082
Aroclor 1254	330	QSU	21	4.4	ug/kg dry	1.00	09/17/09 15:03	SCH	9I16109	8082
Aroclor 1260	ND	QSU	21	4.4	ug/kg dry	1.00	09/17/09 15:03	SCH	9I16109	8082
Aroclor 1262	ND	QSU	21	4.4	ug/kg dry	1.00	09/17/09 15:03	SCH	9I16109	8082
Aroclor 1268	ND	QSU	21	4.4	ug/kg dry	1.00	09/17/09 15:03	SCH	9I16109	8082
Decachlorobiphenyl	*91 %*	*QSU*	*Surr Limits: (34-148%)*				*09/17/09 15:03*	*SCH*	*9I16109*	*8082*
Tetrachloro-m-xylene	*83 %*	*QSU*	*Surr Limits: (35-134%)*				*09/17/09 15:03*	*SCH*	*9I16109*	*8082*

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0550

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/16/09
Reported: 09/19/09 11:47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSI0550-02 (CS-2 - Solid)						**Sampled: 09/16/09 09:53**		**Recvd: 09/16/09 14:00**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND		20	4.0	ug/kg dry	1.00	09/17/09 15:18	SCH	9I16109	8082
Aroclor 1221	ND		20	4.0	ug/kg dry	1.00	09/17/09 15:18	SCH	9I16109	8082
Aroclor 1232	ND		20	4.0	ug/kg dry	1.00	09/17/09 15:18	SCH	9I16109	8082
Aroclor 1242	ND		20	4.4	ug/kg dry	1.00	09/17/09 15:18	SCH	9I16109	8082
Aroclor 1248	ND		20	4.0	ug/kg dry	1.00	09/17/09 15:18	SCH	9I16109	8082
Aroclor 1254	270		20	4.3	ug/kg dry	1.00	09/17/09 15:18	SCH	9I16109	8082
Aroclor 1260	ND		20	4.3	ug/kg dry	1.00	09/17/09 15:18	SCH	9I16109	8082
Aroclor 1262	ND		20	4.3	ug/kg dry	1.00	09/17/09 15:18	SCH	9I16109	8082
Aroclor 1268	ND		20	4.3	ug/kg dry	1.00	09/17/09 15:18	SCH	9I16109	8082
Decachlorobiphenyl	*88 %*		*Surr Limits: (34-148%)*				*09/17/09 15:18*	*SCH*	*9I16109*	*8082*
Tetrachloro-m-xylene	*82 %*		*Surr Limits: (35-134%)*				*09/17/09 15:18*	*SCH*	*9I16109*	*8082*

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PARS Environmental, Inc.
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Work Order: RSI0550

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/16/09
Reported: 09/19/09 11:47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSI0550-03 (CS-3 - Solid)					Sampled: 09/16/09 09:58			Recvd: 09/16/09 14:00		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND		21	4.1	ug/kg dry	1.00	09/17/09 15:33	SCH	9I16109	8082
Aroclor 1221	ND		21	4.1	ug/kg dry	1.00	09/17/09 15:33	SCH	9I16109	8082
Aroclor 1232	ND		21	4.1	ug/kg dry	1.00	09/17/09 15:33	SCH	9I16109	8082
Aroclor 1242	ND		21	4.5	ug/kg dry	1.00	09/17/09 15:33	SCH	9I16109	8082
Aroclor 1248	ND		21	4.1	ug/kg dry	1.00	09/17/09 15:33	SCH	9I16109	8082
Aroclor 1254	170		21	4.4	ug/kg dry	1.00	09/17/09 15:33	SCH	9I16109	8082
Aroclor 1260	ND		21	4.4	ug/kg dry	1.00	09/17/09 15:33	SCH	9I16109	8082
Aroclor 1262	ND		21	4.4	ug/kg dry	1.00	09/17/09 15:33	SCH	9I16109	8082
Aroclor 1268	ND		21	4.4	ug/kg dry	1.00	09/17/09 15:33	SCH	9I16109	8082
Decachlorobiphenyl	*91 %*		*Surr Limits: (34-148%)*				*09/17/09 15:33*	*SCH*	*9I16109*	*8082*
Tetrachloro-m-xylene	*82 %*		*Surr Limits: (35-134%)*				*09/17/09 15:33*	*SCH*	*9I16109*	*8082*

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Work Order: RSI0550

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: (none)

Received: 09/16/09
Reported: 09/19/09 11:47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSI0550-04 (CS-4 - Solid)						**Sampled: 09/16/09 10:05**		**Recvd: 09/16/09 14:00**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND		19	3.7	ug/kg dry	1.00	09/17/09 15:48	SCH	9I16109	8082
Aroclor 1221	ND		19	3.7	ug/kg dry	1.00	09/17/09 15:48	SCH	9I16109	8082
Aroclor 1232	ND		19	3.7	ug/kg dry	1.00	09/17/09 15:48	SCH	9I16109	8082
Aroclor 1242	ND		19	4.1	ug/kg dry	1.00	09/17/09 15:48	SCH	9I16109	8082
Aroclor 1248	ND		19	3.7	ug/kg dry	1.00	09/17/09 15:48	SCH	9I16109	8082
Aroclor 1254	390		19	4.0	ug/kg dry	1.00	09/17/09 15:48	SCH	9I16109	8082
Aroclor 1260	ND		19	4.0	ug/kg dry	1.00	09/17/09 15:48	SCH	9I16109	8082
Aroclor 1262	ND		19	4.0	ug/kg dry	1.00	09/17/09 15:48	SCH	9I16109	8082
Aroclor 1268	ND		19	4.0	ug/kg dry	1.00	09/17/09 15:48	SCH	9I16109	8082
Decachlorobiphenyl	*89 %*		*Surr Limits: (34-148%)*				*09/17/09 15:48*	*SCH*	*9I16109*	*8082*
Tetrachloro-m-xylene	*88 %*		*Surr Limits: (35-134%)*				*09/17/09 15:48*	*SCH*	*9I16109*	*8082*

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Work Order: RSI0550

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/16/09
Reported: 09/19/09 11:47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSI0550-05 (CS-5 - Solid)						**Sampled: 09/16/09 10:20**		**Recvd: 09/16/09 14:00**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND	D08, QSU	1100	210	ug/kg dry	50.0	09/17/09 16:32	SCH	9I16109	8082
Aroclor 1221	ND	D08, QSU	1100	210	ug/kg dry	50.0	09/17/09 16:32	SCH	9I16109	8082
Aroclor 1232	ND	D08, QSU	1100	210	ug/kg dry	50.0	09/17/09 16:32	SCH	9I16109	8082
Aroclor 1242	ND	D08, QSU	1100	240	ug/kg dry	50.0	09/17/09 16:32	SCH	9I16109	8082
Aroclor 1248	ND	D08, QSU	1100	210	ug/kg dry	50.0	09/17/09 16:32	SCH	9I16109	8082
Aroclor 1254	14000	D08, QSU	1100	230	ug/kg dry	50.0	09/17/09 16:32	SCH	9I16109	8082
Aroclor 1260	ND	D08, QSU	1100	230	ug/kg dry	50.0	09/17/09 16:32	SCH	9I16109	8082
Aroclor 1262	ND	D08, QSU	1100	230	ug/kg dry	50.0	09/17/09 16:32	SCH	9I16109	8082
Aroclor 1268	ND	D08, QSU	1100	230	ug/kg dry	50.0	09/17/09 16:32	SCH	9I16109	8082
Decachlorobiphenyl	*	*D08, QSU,Z3*	*Surr Limits: (34-148%)*				*09/17/09 16:32*	*SCH*	*9I16109*	*8082*
Tetrachloro-m-xylene	*	*D08, QSU,Z3*	*Surr Limits: (35-134%)*				*09/17/09 16:32*	*SCH*	*9I16109*	*8082*

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Work Order RSI0550

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/16/09
Reported: 09/19/09 11 47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSI0550-06 (CS-6 - Solid)						**Sampled: 09/16/09 10:39**		**Recvd: 09/16/09 14:00**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND	D08, QSU	1200	230	ug/kg dry	50 0	09/17/09 16:47	SCH	9I16109	8082
Aroclor 1221	ND	D08, QSU	1200	230	ug/kg dry	50.0	09/17/09 16:47	SCH	9I16109	8082
Aroclor 1232	ND	D08, QSU	1200	230	ug/kg dry	50.0	09/17/09 16 47	SCH	9I16109	8082
Aroclor 1242	ND	D08, QSU	1200	260	ug/kg dry	50.0	09/17/09 16:47	SCH	9I16109	8082
Aroclor 1248	ND	D08, QSU	1200	230	ug/kg dry	50.0	09/17/09 16:47	SCH	9I16109	8082
Aroclor 1254	18000	D08, QSU	1200	250	ug/kg dry	50.0	09/17/09 16:47	SCH	9I16109	8082
Aroclor 1260	ND	D08, QSU	1200	250	ug/kg dry	50.0	09/17/09 16:47	SCH	9I16109	8082
Aroclor 1262	ND	D08, QSU	1200	250	ug/kg dry	50.0	09/17/09 16:47	SCH	9I16109	8082
Aroclor 1268	ND	D08, QSU	1200	250	ug/kg dry	50.0	09/17/09 16:47	SCH	9I16109	8082
Decachlorobiphenyl	*	*D08, QSU,Z3*	*Surr Limits: (34-148%)*				*09/17/09 16:47*	*SCH*	*9I16109*	*8082*
Tetrachloro-m-xylene	*	*D08, QSU,Z3*	*Surr Limits: (35-134%)*				*09/17/09 16:47*	*SCH*	*9I16109*	*8082*

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Work Order: RSI0550

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: (none)

Received: 09/16/09
Reported: 09/19/09 11:47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSI0550-07 (CS-7 - Solid)						**Sampled: 09/16/09 10:50**		**Recvd: 09/16/09 14:00**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND	D08, QSU	1000	200	ug/kg dry	50.0	09/17/09 17:02	SCH	9I16109	8082
Aroclor 1221	ND	D08, QSU	1000	200	ug/kg dry	50.0	09/17/09 17:02	SCH	9I16109	8082
Aroclor 1232	ND	D08, QSU	1000	200	ug/kg dry	50.0	09/17/09 17:02	SCH	9I16109	8082
Aroclor 1242	ND	D08, QSU	1000	220	ug/kg dry	50.0	09/17/09 17:02	SCH	9I16109	8082
Aroclor 1248	ND	D08, QSU	1000	200	ug/kg dry	50.0	09/17/09 17:02	SCH	9I16109	8082
Aroclor 1254	14000	D08, QSU	1000	220	ug/kg dry	50.0	09/17/09 17:02	SCH	9I16109	8082
Aroclor 1260	ND	D08, QSU	1000	220	ug/kg dry	50.0	09/17/09 17:02	SCH	9I16109	8082
Aroclor 1262	ND	D08, QSU	1000	220	ug/kg dry	50.0	09/17/09 17:02	SCH	9I16109	8082
Aroclor 1268	ND	D08, QSU	1000	220	ug/kg dry	50.0	09/17/09 17:02	SCH	9I16109	8082
Decachlorobiphenyl	*	*D08, QSU,Z3*	*Surr Limits: (34-148%)*				*09/17/09 17:02*	*SCH*	*9I16109*	*8082*
Tetrachloro-m-xylene	*	*D08, QSU,Z3*	*Surr Limits: (35-134%)*				*09/17/09 17:02*	*SCH*	*9I16109*	*8082*

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Work Order: RSI0550

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number [none]

Received 09/16/09
Reported: 09/19/09 11 47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSI0550-08 (CS-8 - Solid)					Sampled: 09/16/09 11:05			Recvd: 09/16/09 14:00		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND	D08	940	180	ug/kg dry	50.0	09/17/09 17:17	SCH	9I16109	8082
Aroclor 1221	ND	D08	940	180	ug/kg dry	50.0	09/17/09 17:17	SCH	9I16109	8082
Aroclor 1232	ND	D08	940	180	ug/kg dry	50 0	09/17/09 17:17	SCH	9I16109	8082
Aroclor 1242	ND	D08	940	200	ug/kg dry	50.0	09/17/09 17 17	SCH	9I16109	8082
Aroclor 1248	ND	D08	940	180	ug/kg dry	50.0	09/17/09 17:17	SCH	9I16109	8082
Aroclor 1254	4800	D08	940	200	ug/kg dry	50.0	09/17/09 17.17	SCH	9I16109	8082
Aroclor 1260	ND	D08	940	200	ug/kg dry	50.0	09/17/09 17:17	SCH	9I16109	8082
Aroclor 1262	ND	D08	940	200	ug/kg dry	50.0	09/17/09 17:17	SCH	9I16109	8082
Aroclor 1268	ND	D08	940	200	ug/kg dry	50 0	09/17/09 17:17	SCH	9I16109	8082
Decachlorobiphenyl	*	*D08,Z3*	*Surr Limits: (34-148%)*				*09/17/09 17:17*	*SCH*	*9I16109*	*8082*
Tetrachloro-m-xylene	*	*D08,Z3*	*Surr Limits: (35-134%)*				*09/17/09 17:17*	*SCH*	*9I16109*	*8082*

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Work Order: RSI0550

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/16/09
Reported: 09/19/09 11:47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSI0550-09 (CS-9 - Solid)						**Sampled: 09/16/09 11:25**		**Recvd: 09/16/09 14:00**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND	D08	99	19	ug/kg dry	5.00	09/17/09 17:31	SCH	9I16109	8082
Aroclor 1221	ND	D08	99	19	ug/kg dry	5.00	09/17/09 17:31	SCH	9I16109	8082
Aroclor 1232	ND	D08	99	19	ug/kg dry	5.00	09/17/09 17:31	SCH	9I16109	8082
Aroclor 1242	ND	D08	99	21	ug/kg dry	5.00	09/17/09 17:31	SCH	9I16109	8082
Aroclor 1248	ND	D08	99	19	ug/kg dry	5.00	09/17/09 17:31	SCH	9I16109	8082
Aroclor 1254	1900	D08	99	21	ug/kg dry	5.00	09/17/09 17:31	SCH	9I16109	8082
Aroclor 1260	ND	D08	99	21	ug/kg dry	5.00	09/17/09 17:31	SCH	9I16109	8082
Aroclor 1262	ND	D08	99	21	ug/kg dry	5.00	09/17/09 17:31	SCH	9I16109	8082
Aroclor 1268	ND	D08	99	21	ug/kg dry	5.00	09/17/09 17:31	SCH	9I16109	8082
Decachlorobiphenyl	*191 %*	*D08,Z1*	*Surr Limits: (34-148%)*				*09/17/09 17:31*	*SCH*	*9I16109*	*8082*
Tetrachloro-m-xylene	*128 %*	*D08*	*Surr Limits: (35-134%)*				*09/17/09 17:31*	*SCH*	*9I16109*	*8082*

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Work Order: RSI0550

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/16/09
Reported: 09/19/09 11:47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSI0550-10 (CS-10 - Solid)						**Sampled: 09/16/09 12:00**		**Recvd: 09/16/09 14:00**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND		21	4.0	ug/kg dry	1.00	09/17/09 17:46	SCH	9I16109	8082
Aroclor 1221	ND		21	4.0	ug/kg dry	1.00	09/17/09 17:46	SCH	9I16109	8082
Aroclor 1232	ND		21	4.0	ug/kg dry	1.00	09/17/09 17:46	SCH	9I16109	8082
Aroclor 1242	ND		21	4.4	ug/kg dry	1.00	09/17/09 17:46	SCH	9I16109	8082
Aroclor 1248	ND		21	4.0	ug/kg dry	1.00	09/17/09 17:46	SCH	9I16109	8082
Aroclor 1254	330		21	4.3	ug/kg dry	1.00	09/17/09 17:46	SCH	9I16109	8082
Aroclor 1260	ND		21	4.3	ug/kg dry	1.00	09/17/09 17:46	SCH	9I16109	8082
Aroclor 1262	ND		21	4.3	ug/kg dry	1.00	09/17/09 17:46	SCH	9I16109	8082
Aroclor 1268	ND		21	4.3	ug/kg dry	1.00	09/17/09 17:46	SCH	9I16109	8082
Decachlorobiphenyl	*100 %*		*Surr Limits: (34-148%)*				*09/17/09 17:46*	*SCH*	*9I16109*	*8082*
Tetrachloro-m-xylene	*84 %*		*Surr Limits: (35-134%)*				*09/17/09 17:46*	*SCH*	*9I16109*	*8082*

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Work Order: RSI0550

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/16/09
Reported: 09/19/09 11:47

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSI0550-11 (CS-6 DUP - Solid)					**Sampled: 09/16/09**			**Recvd: 09/16/09 14:00**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND	D08	1200	230	ug/kg dry	50.0	09/17/09 18:01	SCH	9I16109	8082
Aroclor 1221	ND	D08	1200	230	ug/kg dry	50.0	09/17/09 18:01	SCH	9I16109	8082
Aroclor 1232	ND	D08	1200	230	ug/kg dry	50.0	09/17/09 18:01	SCH	9I16109	8082
Aroclor 1242	ND	D08	1200	250	ug/kg dry	50.0	09/17/09 18:01	SCH	9I16109	8082
Aroclor 1248	ND	D08	1200	230	ug/kg dry	50.0	09/17/09 18:01	SCH	9I16109	8082
Aroclor 1254	12000	D08	1200	250	ug/kg dry	50.0	09/17/09 18:01	SCH	9I16109	8082
Aroclor 1260	ND	D08	1200	250	ug/kg dry	50.0	09/17/09 18:01	SCH	9I16109	8082
Aroclor 1262	ND	D08	1200	250	ug/kg dry	50.0	09/17/09 18:01	SCH	9I16109	8082
Aroclor 1268	ND	D08	1200	250	ug/kg dry	50.0	09/17/09 18:01	SCH	9I16109	8082
Decachlorobiphenyl	*	*D08,Z3*	*Surr Limits: (34-148%)*				*09/17/09 18:01*	*SCH*	*9I16109*	*8082*
Tetrachloro-m-xylene	*	*D08,Z3*	*Surr Limits: (35-134%)*				*09/17/09 18:01*	*SCH*	*9I16109*	*8082*

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Work Order RSI0550

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/16/09
Reported: 09/19/09 11:47

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracte	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
Polychlorinated Biphenyls by EPA Method 8082									
8082	9I16109	RSI0550-01	30.03	g	10.00	mL	09/17/09 08:00	CXM	3550B GC
8082	9I16109	RSI0550-06	30.08	g	10.00	mL	09/17/09 08:00	CXM	3550B GC
8082	9I16109	RSI0550-05	30.12	g	10.00	mL	09/17/09 08:00	CXM	3550B GC
8082	9I16109	RSI0550-03	30.13	g	10.00	mL	09/17/09 08:00	CXM	3550B GC
8082	9I16109	RSI0550-11	30.20	g	10.00	mL	09/17/09 08:00	CXM	3550B GC
8082	9I16109	RSI0550-07	30.28	g	10.00	mL	09/17/09 08:00	CXM	3550B GC
8082	9I16109	RSI0550-08	30.33	g	10.00	mL	09/17/09 08:00	CXM	3550B GC
8082	9I16109	RSI0550-02	30.39	g	10.00	mL	09/17/09 08:00	CXM	3550B GC
8082	9I16109	RSI0550-09	30.41	g	10.00	mL	09/17/09 08:00	CXM	3550B GC
8082	9I16109	RSI0550-04	30.88	g	10.00	mL	09/17/09 08:00	CXM	3550B GC
8082	9I16109	RSI0550-10	30.89	g	10.00	mL	09/17/09 08:00	CXM	3550B GC

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Work Order: RSI0550

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/16/09
Reported: 09/19/09 11:47

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Polychlorinated Biphenyls by EPA Method 8082											
Blank Analyzed: 09/17/09 (Lab Number:9I16109-BLK1, Batch: 9I16109)											
Aroclor 1016			17	3.2	ug/kg wet	ND					QSU
Aroclor 1221			17	3.2	ug/kg wet	ND					QSU
Aroclor 1232			17	3.2	ug/kg wet	ND					QSU
Aroclor 1242			17	3.6	ug/kg wet	ND					QSU
Aroclor 1248			17	3.2	ug/kg wet	ND					QSU
Aroclor 1254			17	3.5	ug/kg wet	ND					QSU
Aroclor 1260			17	3.5	ug/kg wet	ND					QSU
Aroclor 1262			17	3.5	ug/kg wet	ND					QSU
Aroclor 1268			17	3.5	ug/kg wet	ND					QSU
Surrogate: Decachlorobiphenyl					*ug/kg wet*		*97*	*34-148*			*QSU*
Surrogate: Tetrachloro-m-xylene					*ug/kg wet*		*81*	*35-134*			*QSU*
LCS Analyzed: 09/17/09 (Lab Number:9I16109-BS1, Batch: 9I16109)											
Aroclor 1016		160	16	3.2	ug/kg wet	144	88	59-154			QSU
Aroclor 1221			16	3.2	ug/kg wet	ND					QSU
Aroclor 1232			16	3.2	ug/kg wet	ND					QSU
Aroclor 1242			16	3.6	ug/kg wet	ND					QSU
Aroclor 1248			16	3.2	ug/kg wet	ND					QSU
Aroclor 1254			16	3.5	ug/kg wet	ND					QSU
Aroclor 1260		160	16	3.5	ug/kg wet	148	90	51-179			QSU
Aroclor 1262			16	3.5	ug/kg wet	ND					QSU
Aroclor 1268			16	3.5	ug/kg wet	ND					QSU
Surrogate: Decachlorobiphenyl					*ug/kg wet*		*89*	*34-148*			*QSU*
Surrogate: Tetrachloro-m-xylene					*ug/kg wet*		*91*	*35-134*			*QSU*
LCS Dup Analyzed: 09/17/09 (Lab Number:9I16109-BSD1, Batch: 9I16109)											
Aroclor 1016		160	16	3.2	ug/kg wet	147	90	59-154	3	50	QSU
Aroclor 1221			16	3.2	ug/kg wet	ND					QSU
Aroclor 1232			16	3.2	ug/kg wet	ND					QSU
Aroclor 1242			16	3.6	ug/kg wet	ND					QSU
Aroclor 1248			16	3.2	ug/kg wet	ND					QSU
Aroclor 1254			16	3.5	ug/kg wet	ND					QSU
Aroclor 1260		160	16	3.5	ug/kg wet	154	93	51-179	4	50	QSU
Aroclor 1262			16	3.5	ug/kg wet	ND					QSU
Aroclor 1268			16	3.5	ug/kg wet	ND					QSU

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSI0550

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 09/16/09
Reported: 09/19/09 11:47

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Polychlorinated Biphenyls by EPA Method 8082											
LCS Dup Analyzed: 09/17/09 (Lab Number:9I16109-BSD1, Batch: 9I16109)											
Surrogate: Decachlorobiphenyl					*ug/kg wet*		*89*	*34-148*			*QSU*
Surrogate: Tetrachloro-m-xylene					*ug/kg wet*		*90*	*35-134*			*QSU*

[redacted]

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: Pars Environmental	Project Manager: Mike Moore	Date: 9/16/09	Chain of Custody Number: 134024
Address: 6A South Gold Drive	Telephone Number (Area Code)/Fax Number: 609-890-7277	Lab Number:	Page 1 of 1
City: Robbinsville; State: NJ; Zip Code: 08691	Site Contact:	Lab Contact: Sally Hoffman	
Project Name and Location (State): Niag. Falls AFRC	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	PCBs 8082	Special Instructions/ Conditions of Receipt
CS-1	9/16/09	0949				X	X						X	
CS-2		0953												
CS-3		0958												
CS-4		1005												Confirm 3 DAY turnaround w/ Sally Hoffman
CS-5		1020												
CS-6		1039												
CS-7		1050												
CS-8		1105												
CS-9		1125												
CS-10		1200												
CS-6 Dup													Contact	Sally to Confirm Dup.

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other 3 DAY

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: [signature]	9/16/09	1405	1. Received By: [signature]		
2. Relinquished By:			2. Received By: [signature]	9/16/09	2:00 PM
3. Relinquished By:			3. Received By:		

Comments: 2.0°C

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TestAmerica

Analytical Report

Work Order RSJ0561

Project Description

Niagara Falls, NY - Armed Forces Reserve Center

For:

Michael Moore

PARS Environmental, Inc.

6A South Gold Drive

Robbinsville, NJ 08691

Sally Hoffman

Project Manager

Sally.Hoffman@testamericainc.com

Monday, October 12, 2009

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exception to NELAP requirements are noted in this report. Persuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project manager who has signed this report.

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PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSJ0561

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 10/08/09
Reported: 10/12/09 10:25

TestAmerica Buffalo
Current Certifications

As of 1/27/2009

STATE	Program	Cert # / Lab ID
Arkansas	CWA, RCRA, SOIL	88-0686
California*	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida*	NELAP CWA, RCRA	E87672
Georgia*	SDWA,NELAP CWA, RCRA	956
Illinois*	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas*	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana*	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY0044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA,CWA, RCRA	036-999-337
New Hampshire*	NELAP SDWA, CWA	233701
New Jersey*	NELAP,SDWA, CWA, RCRA,	NY455
New York*	NELAP, AIR, SDWA, CWA, RCRA,CLP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania*	NELAP CWA,RCRA	68-00281
Tennessee	SDWA	02970
Texas*	NELAP CWA, RCRA	T104704412-08-TX
USDA	FOREIGN SOIL PERMIT	S-41579
USDOE	Department of Energy	DOECAP-STB
Virginia	SDWA	278
Washington*	NELAP CWA,RCRA	C1677
Wisconsin	CWA, RCRA	998310390
West Virginia	CWA,RCRA	252

*As required under the indicated accreditation, the test results in this report meet all NELAP requirements for parameters for which accre ditation is required or available. Any exceptions to NELAP requirements are noted in this report.

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSJ0561

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 10/08/09
Reported: 10/12/09 10 25

Case Narrative

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

A pertinent document is appended to this report, 1 page, is included and is an integral part of this report.

Reproduction of this analytical report is permitted only in its entirety This report shall not be reproduced except in full without the written approval of the laboratory.

TestAmerica Laboratories, Inc certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

PARS Environmental, Inc. 6A South Gold Drive Robbinsville, NJ 08691	Work Order: RSJ0561 Project: Niagara Falls, NY - Armed Forces Reserve Center Project Number: [none]	Received: 10/08/09 Reported: 10/12/09 10:25

DATA QUALIFIERS AND DEFINITIONS

J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
NR	Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

ADDITIONAL COMMENTS

Results are reported on a wet weight basis unless otherwise noted.

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSJ0561

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: (none)

Received 10/08/09
Reported: 10/12/09 10:25

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSJ0561-01 (CS-11 - Solid)					**Sampled: 10/08/09**			**Recvd: 10/08/09 16:45**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254 [2C]	170		21	4.5	ug/kg dry	1.00	10/10/09 03:44	JxM	9J08145	8082
General Chemistry Parameters										
Percent Solids	77		0.010	NR	%	1.00	10/09/09 13:18	JR	9J09029	Dry Weight
Sample ID: RSJ0561-02 (CS-12 - Solid)					**Sampled: 10/08/09**			**Recvd: 10/08/09 16:45**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254 [2C]	22		21	4.4	ug/kg dry	1.00	10/10/09 03:59	JxM	9J08145	8082
General Chemistry Parameters										
Percent Solids	79		0.010	NR	%	1.00	10/09/09 13:20	JR	9J09029	Dry Weight
Sample ID: RSJ0561-03 (CS-13 - Solid)					**Sampled: 10/08/09**			**Recvd: 10/08/09 16:45**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254 [2C]	800		110	22	ug/kg dry	5.00	10/10/09 04:14	JxM	9J08145	8082
General Chemistry Parameters										
Percent Solids	78		0.010	NR	%	1.00	10/09/09 13:22	JR	9J09029	Dry Weight
Sample ID: RSJ0561-04 (CS-14 - Solid)					**Sampled: 10/08/09**			**Recvd: 10/08/09 16:45**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254 [2C]	6.0	J	21	4.4	ug/kg dry	1.00	10/10/09 04:28	JxM	9J08145	8082
General Chemistry Parameters										
Percent Solids	79		0.010	NR	%	1.00	10/09/09 13:24	JR	9J09029	Dry Weight
Sample ID: RSJ0561-05 (CS-15 - Solid)					**Sampled: 10/08/09**			**Recvd: 10/08/09 16:45**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254 [2C]	7.0	J	21	4.5	ug/kg dry	1.00	10/10/09 04:43	JxM	9J08145	8082
General Chemistry Parameters										
Percent Solids	77		0.010	NR	%	1.00	10/09/09 13:26	JR	9J09029	Dry Weight
Sample ID: RSJ0561-06 (DUPLICATE - Solid)					**Sampled: 10/08/09**			**Recvd: 10/08/09 16:45**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1254 [2C]	16	J	21	4.5	ug/kg dry	1.00	10/10/09 04:58	JxM	9J08145	8082
General Chemistry Parameters										
Percent Solids	78		0.010	NR	%	1.00	10/09/09 13:28	JR	9J09029	Dry Weight

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSJ0561

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 10/08/09
Reported: 10/12/09 10:25

Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
CS-11	RSJ0561-01	Solid	10/08/09	10/08/09 16:45	
CS-12	RSJ0561-02	Solid	10/08/09	10/08/09 16:45	
CS-13	RSJ0561-03	Solid	10/08/09	10/08/09 16:45	
CS-14	RSJ0561-04	Solid	10/08/09	10/08/09 16:45	
CS-15	RSJ0561-05	Solid	10/08/09	10/08/09 16:45	
DUPLICATE	RSJ0561-06	Solid	10/08/09	10/08/09 16:45	

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSJ0561

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 10/08/09
Reported: 10/12/09 10:25

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSJ0561-01 (CS-11 - Solid)					**Sampled: 10/08/09**			**Recvd: 10/08/09 16:45**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016 [2C]	ND		21	4.2	ug/kg dry	1.00	10/10/09 03:44	JxM	9J08145	8082
Aroclor 1221 [2C]	ND		21	4.2	ug/kg dry	1.00	10/10/09 03:44	JxM	9J08145	8082
Aroclor 1232 [2C]	ND		21	4.2	ug/kg dry	1.00	10/10/09 03:44	JxM	9J08145	8082
Aroclor 1242 [2C]	ND		21	4.6	ug/kg dry	1.00	10/10/09 03:44	JxM	9J08145	8082
Aroclor 1248 [2C]	ND		21	4.2	ug/kg dry	1.00	10/10/09 03:44	JxM	9J08145	8082
Aroclor 1254 [2C]	170		21	4.5	ug/kg dry	1.00	10/10/09 03:44	JxM	9J08145	8082
Aroclor 1260 [2C]	ND		21	4.5	ug/kg dry	1.00	10/10/09 03:44	JxM	9J08145	8082
Aroclor 1262 [2C]	ND		21	4.5	ug/kg dry	1.00	10/10/09 03:44	JxM	9J08145	8082
Aroclor 1268 [2C]	ND		21	4.5	ug/kg dry	1.00	10/10/09 03:44	JxM	9J08145	8082
Decachlorobiphenyl [2C]	*87 %*		*Surr Limits: (34-148%)*				*10/10/09 03:44*	*JxM*	*9J08145*	*8082*
Tetrachloro-m-xylene [2C]	*71 %*		*Surr Limits: (35-134%)*				*10/10/09 03:44*	*JxM*	*9J08145*	*8082*
General Chemistry Parameters										
Percent Solids	77		0.010	NR	%	1.00	10/09/09 13:18	JR	9J09029	Dry Weight

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSJ0561

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 10/08/09
Reported: 10/12/09 10:25

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSJ0561-02 (CS-12 - Solid)					Sampled: 10/08/09			Recvd: 10/08/09 16:45		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016 [2C]	ND		21	4.1	ug/kg dry	1.00	10/10/09 03:59	JxM	9J08145	8082
Aroclor 1221 [2C]	ND		21	4.1	ug/kg dry	1.00	10/10/09 03:59	JxM	9J08145	8082
Aroclor 1232 [2C]	ND		21	4.1	ug/kg dry	1.00	10/10/09 03:59	JxM	9J08145	8082
Aroclor 1242 [2C]	ND		21	4.5	ug/kg dry	1.00	10/10/09 03:59	JxM	9J08145	8082
Aroclor 1248 [2C]	ND		21	4.1	ug/kg dry	1.00	10/10/09 03:59	JxM	9J08145	8082
Aroclor 1254 [2C]	22		21	4.4	ug/kg dry	1.00	10/10/09 03:59	JxM	9J08145	8082
Aroclor 1260 [2C]	ND		21	4.4	ug/kg dry	1.00	10/10/09 03:59	JxM	9J08145	8082
Aroclor 1262 [2C]	ND		21	4.4	ug/kg dry	1.00	10/10/09 03:59	JxM	9J08145	8082
Aroclor 1268 [2C]	ND		21	4.4	ug/kg dry	1.00	10/10/09 03:59	JxM	9J08145	8082
Decachlorobiphenyl [2C]	*91 %*		*Surr Limits: (34-148%)*				*10/10/09 03:59*	*JxM*	*9J08145*	*8082*
Tetrachloro-m-xylene [2C]	*76 %*		*Surr Limits: (35-134%)*				*10/10/09 03:59*	*JxM*	*9J08145*	*8082*
General Chemistry Parameters										
Percent Solids	79		0.010	NR	%	1.00	10/09/09 13:20	JR	9J09029	Dry Weight

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSJ0561

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 10/08/09
Reported: 10/12/09 10:25

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSJ0561-03 (CS-13 - Solid)					**Sampled: 10/08/09**			**Recvd: 10/08/09 16:45**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016 [2C]	ND		110	21	ug/kg dry	5.00	10/10/09 04:14	JxM	9J08145	8082
Aroclor 1221 [2C]	ND		110	21	ug/kg dry	5.00	10/10/09 04:14	JxM	9J08145	8082
Aroclor 1232 [2C]	ND		110	21	ug/kg dry	5.00	10/10/09 04:14	JxM	9J08145	8082
Aroclor 1242 [2C]	ND		110	23	ug/kg dry	5.00	10/10/09 04:14	JxM	9J08145	8082
Aroclor 1248 [2C]	ND		110	21	ug/kg dry	5.00	10/10/09 04:14	JxM	9J08145	8082
Aroclor 1254 [2C]	800		110	22	ug/kg dry	5.00	10/10/09 04:14	JxM	9J08145	8082
Aroclor 1260 [2C]	ND		110	22	ug/kg dry	5.00	10/10/09 04:14	JxM	9J08145	8082
Aroclor 1262 [2C]	ND		110	23	ug/kg dry	5.00	10/10/09 04:14	JxM	9J08145	8082
Aroclor 1268 [2C]	ND		110	22	ug/kg dry	5.00	10/10/09 04:14	JxM	9J08145	8082
Decachlorobiphenyl [2C]	*109 %*		*Surr Limits*	*(34-148%)*			*10/10/09 04:14*	*JxM*	*9J08145*	*8082*
Tetrachloro-m-xylene [2C]	*63 %*		*Surr Limits:*	*(35-134%)*			*10/10/09 04:14*	*JxM*	*9J08145*	*8082*
General Chemistry Parameters										
Percent Solids	78		0.010	NR	%	1.00	10/09/09 13:22	JR	9J09029	Dry Weight

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSJ0561

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 10/08/09
Reported: 10/12/09 10:25

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSJ0561-04 (CS-14 - Solid)					Sampled: 10/08/09			Recvd: 10/08/09 16:45		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016 [2C]	ND		21	4.0	ug/kg dry	1.00	10/10/09 04:28	JxM	9J08145	8082
Aroclor 1221 [2C]	ND		21	4.0	ug/kg dry	1.00	10/10/09 04:28	JxM	9J08145	8082
Aroclor 1232 [2C]	ND		21	4.0	ug/kg dry	1.00	10/10/09 04:28	JxM	9J08145	8082
Aroclor 1242 [2C]	ND		21	4.5	ug/kg dry	1.00	10/10/09 04:28	JxM	9J08145	8082
Aroclor 1248 [2C]	ND		21	4.1	ug/kg dry	1.00	10/10/09 04:28	JxM	9J08145	8082
Aroclor 1254 [2C]	6.0	J	21	4.4	ug/kg dry	1.00	10/10/09 04:28	JxM	9J08145	8082
Aroclor 1260 [2C]	ND		21	4.4	ug/kg dry	1.00	10/10/09 04:28	JxM	9J08145	8082
Aroclor 1262 [2C]	ND		21	4.4	ug/kg dry	1.00	10/10/09 04:28	JxM	9J08145	8082
Aroclor 1268 [2C]	ND		21	4.4	ug/kg dry	1.00	10/10/09 04:28	JxM	9J08145	8082
Decachlorobiphenyl [2C]	*93 %*		*Surr Limits: (34-148%)*				*10/10/09 04:28*	*JxM*	*9J08145*	*8082*
Tetrachloro-m-xylene [2C]	*72 %*		*Surr Limits: (35-134%)*				*10/10/09 04:28*	*JxM*	*9J08145*	*8082*
General Chemistry Parameters										
Percent Solids	79		0.010	NR	%	1.00	10/09/09 13:24	JR	9J09029	Dry Weight

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSJ0561

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 10/08/09
Reported: 10/12/09 10:25

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSJ0561-05 (CS-15 - Solid)					**Sampled: 10/08/09**			**Recvd: 10/08/09 16:45**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016 [2C]	ND		21	4.1	ug/kg dry	1.00	10/10/09 04:43	JxM	9J08145	8082
Aroclor 1221 [2C]	ND		21	4.1	ug/kg dry	1.00	10/10/09 04:43	JxM	9J08145	8082
Aroclor 1232 [2C]	ND		21	4.1	ug/kg dry	1.00	10/10/09 04:43	JxM	9J08145	8082
Aroclor 1242 [2C]	ND		21	4.6	ug/kg dry	1.00	10/10/09 04:43	JxM	9J08145	8082
Aroclor 1248 [2C]	ND		21	4.1	ug/kg dry	1.00	10/10/09 04:43	JxM	9J08145	8082
Aroclor 1254 [2C]	7.0	J	21	4.5	ug/kg dry	1.00	10/10/09 04:43	JxM	9J08145	8082
Aroclor 1260 [2C]	ND		21	4.5	ug/kg dry	1.00	10/10/09 04:43	JxM	9J08145	8082
Aroclor 1262 [2C]	ND		21	4.5	ug/kg dry	1.00	10/10/09 04:43	JxM	9J08145	8082
Aroclor 1268 [2C]	ND		21	4.5	ug/kg dry	1.00	10/10/09 04:43	JxM	9J08145	8082
Decachlorobiphenyl [2C]	*86 %*		*Surr Limits: (34-148%)*				*10/10/09 04:43*	*JxM*	*9J08145*	*8082*
Tetrachloro-m-xylene [2C]	*67 %*		*Surr Limits: (35-134%)*				*10/10/09 04:43*	*JxM*	*9J08145*	*8082*
General Chemistry Parameters										
Percent Solids	77		0.010	NR	%	1.00	10/09/09 13:26	JR	9J09029	Dry Weight

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSJ0561

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 10/08/09
Reported: 10/12/09 10:25

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSJ0561-06 (DUPLICATE - Solid)					**Sampled: 10/08/09**			**Recvd: 10/08/09 16:45**		
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016 [2C]	ND		21	4.2	ug/kg dry	1.00	10/10/09 04:58	JxM	9J08145	8082
Aroclor 1221 [2C]	ND		21	4.2	ug/kg dry	1.00	10/10/09 04:58	JxM	9J08145	8082
Aroclor 1232 [2C]	ND		21	4.2	ug/kg dry	1.00	10/10/09 04:58	JxM	9J08145	8082
Aroclor 1242 [2C]	ND		21	4.6	ug/kg dry	1.00	10/10/09 04:58	JxM	9J08145	8082
Aroclor 1248 [2C]	ND		21	4.2	ug/kg dry	1.00	10/10/09 04:58	JxM	9J08145	8082
Aroclor 1254 [2C]	16	J	21	4.5	ug/kg dry	1.00	10/10/09 04:58	JxM	9J08145	8082
Aroclor 1260 [2C]	ND		21	4.5	ug/kg dry	1.00	10/10/09 04:58	JxM	9J08145	8082
Aroclor 1262 [2C]	ND		21	4.5	ug/kg dry	1.00	10/10/09 04:58	JxM	9J08145	8082
Aroclor 1268 [2C]	ND		21	4.5	ug/kg dry	1.00	10/10/09 04:58	JxM	9J08145	8082
Decachlorobiphenyl [2C]	*93 %*		*Surr Limits: (34-148%)*				*10/10/09 04:58*	*JxM*	*9J08145*	*8082*
Tetrachloro-m-xylene [2C]	*70 %*		*Surr Limits: (35-134%)*				*10/10/09 04:58*	*JxM*	*9J08145*	*8082*
General Chemistry Parameters										
Percent Solids	78		0.010	NR	%	1.00	10/09/09 13:28	JR	9J09029	Dry Weight

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSJ0561

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 10/08/09
Reported: 10/12/09 10:25

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracte	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
General Chemistry Parameters									
Dry Weight	9J09029	RSJ0561-01	10.00	g	10.00	g	10/09/09 09:41	JRR	Dry Weight
Dry Weight	9J09029	RSJ0561-02	10.00	g	10.00	g	10/09/09 09:41	JRR	Dry Weight
Dry Weight	9J09029	RSJ0561-03	10.00	g	10.00	g	10/09/09 09:41	JRR	Dry Weight
Dry Weight	9J09029	RSJ0561-04	10.00	g	10.00	g	10/09/09 09:41	JRR	Dry Weight
Dry Weight	9J09029	RSJ0561-05	10.00	g	10.00	g	10/09/09 09:41	JRR	Dry Weight
Dry Weight	9J09029	RSJ0561-06	10.00	g	10.00	g	10/09/09 09:41	JRR	Dry Weight
Polychlorinated Biphenyls by EPA Method 8082									
8082	9J08145	RSJ0561-03	30.14	g	10.00	mL	10/09/09 08:30	CXM	3550B GC
8082	9J08145	RSJ0561-06	30.16	g	10.00	mL	10/09/09 08:30	CXM	3550B GC
8082	9J08145	RSJ0561-01	30.25	g	10.00	mL	10/09/09 08:30	CXM	3550B GC
8082	9J08145	RSJ0561-02	30.51	g	10.00	mL	10/09/09 08:30	CXM	3550B GC
8082	9J08145	RSJ0561-04	30.76	g	10.00	mL	10/09/09 08:30	CXM	3550B GC
8082	9J08145	RSJ0561-05	30.76	g	10.00	mL	10/09/09 08:30	CXM	3550B GC

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSJ0561

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 10/08/09
Reported: 10/12/09 10:25

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Polychlorinated Biphenyls by EPA Method 8082											
Blank Analyzed: 10/10/09 (Lab Number:9J08145-BLK1, Batch: 9J08145)											
Aroclor 1016			17	3.2	ug/kg wet	ND					
Aroclor 1221			17	3.2	ug/kg wet	ND					
Aroclor 1232			17	3.2	ug/kg wet	ND					
Aroclor 1242			17	3.6	ug/kg wet	ND					
Aroclor 1248			17	3.2	ug/kg wet	ND					
Aroclor 1254			17	3.5	ug/kg wet	ND					
Aroclor 1260			17	3.5	ug/kg wet	ND					
Aroclor 1262			17	3.5	ug/kg wet	ND					
Aroclor 1268			17	3.5	ug/kg wet	ND					
Surrogate: Decachlorobiphenyl					*ug/kg wet*		*95*	*34-148*			
Surrogate: Tetrachloro-m-xylene					*ug/kg wet*		*80*	*35-134*			
LCS Analyzed: 10/10/09 (Lab Number:9J08145-BS1, Batch: 9J08145)											
Aroclor 1016		170	17	3.3	ug/kg wet	144	87	59-154			
Aroclor 1221			17	3.3	ug/kg wet	ND					
Aroclor 1232			17	3.3	ug/kg wet	ND					
Aroclor 1242			17	3.6	ug/kg wet	ND					
Aroclor 1248			17	3.3	ug/kg wet	ND					
Aroclor 1254			17	3.5	ug/kg wet	ND					
Aroclor 1260		170	17	3.5	ug/kg wet	184	111	51-179			
Aroclor 1262			17	3.5	ug/kg wet	ND					
Aroclor 1268			17	3.5	ug/kg wet	ND					
Surrogate: Decachlorobiphenyl					*ug/kg wet*		*98*	*34-148*			
Surrogate: Tetrachloro-m-xylene					*ug/kg wet*		*90*	*35-134*			
LCS Dup Analyzed: 10/10/09 (Lab Number:9J08145-BSD1, Batch: 9J08145)											
Aroclor 1016		160	17	3.2	ug/kg wet	140	85	59-154	3	50	
Aroclor 1221			17	3.2	ug/kg wet	ND					
Aroclor 1232			17	3.2	ug/kg wet	ND					
Aroclor 1242			17	3.6	ug/kg wet	ND					
Aroclor 1248			17	3.2	ug/kg wet	ND					
Aroclor 1254			17	3.5	ug/kg wet	ND					
Aroclor 1260		160	17	3.5	ug/kg wet	182	110	51-179	1	50	
Aroclor 1262			17	3.5	ug/kg wet	ND					
Aroclor 1268			17	3.5	ug/kg wet	ND					

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RSJ0561

Project: Niagara Falls, NY - Armed Forces Reserve Center
Project Number: [none]

Received: 10/08/09
Reported: 10/12/09 10:25

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Polychlorinated Biphenyls by EPA Method 8082											
LCS Dup Analyzed: 10/10/09 (Lab Number:9J08145-BSD1, Batch: 9J08145)											
Surrogate: Decachlorobiphenyl					*ug/kg wet*		*97*	*34-148*			
Surrogate: Tetrachloro-m-xylene					*ug/kg wet*		*88*	*35-134*			

Chain of Custody Record

Temperature on Receipt _

Drinking Water? Yes ☐ No ☒

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL 4124 (1207)

Client: Pars Environmental

Project Manager: Mike Moore

Date: 10/8/09

Chain of Custody Number: 159361

Address: 6A South Gold Drive

Telephone Number (Area Code)/Fax Number

Lab Number

Page 1 of 1

City: Robbinsville | State: NJ | Zip Code: 08691

Site Contact

Lab Contact

Analysis (Attach list if more space is needed)

Project Name and Location (State): Niagara Falls AFRC

Carrier/Waybill Number

Contract/Purchase Order/Quote No.

Special Instructions/ Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	HCl	NaOH	ZnAc/NaOH	PCBs 8082
CS-11	10/8/09					X	X				
CS-12											
CS-13											
CS-14											
CS-15											
Dup.											

3 DAY TURNAROUND

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other 3 Day

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Mike D. Moore	10/8/09	4:45	1. Received By: [signature]	10/8/09	6:15
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

20°C

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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APPENDIX D

Disposal Documentation

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COVANTA
ENERGY

100 ENERGY BLVD. @ 56TH STREET
NIAGARA FALLS, NY 14304

CUSTOMER: American Recyclers Co.	TRANSPORTER: Environmental Service Group
ADDRESS: 177 Wales Ave Tonawanda, NY 14150	ADDRESS:
TELEPHONE: 695-6720	TELEPHONE:
LOCATION MATERIAL SHIPPED FROM: TONAWANDA, NY	
QUANTITY & DESCRIPTION: LIQUID WASTE	
ACCOUNT NUMBER: 17	APPROVAL NUMBER: 7158
MATERIAL RECEIVED ON DATE: 10-23-09 TIME: 12:36	
SCALEHOUSE TICKET NO: 466504	
MANIFEST #: 06718	SEAL #:
COMMENTS:	

CERTIFICATE OF DISPOSAL/DESTRUCTION

Certificate of Disposal [X] Certificate of Destruction [ ]
(facility check one)

To the exclusion of the following comments, the listed material has been received and delivered to the refuse pit and/or feed chute for combustion in the unit(s) in accordance with the conditions of the approval to accept said wastes as provided for in the Supplemental Waste Disposal Agreement. The listed material has been processed for energy recovery at Covanta Niagara, LP in accordance with all applicable local, state, and federal regulations. The total weight of the material disposed/destroyed is listed on the scale ticket.

Company:	Covanta Niagara, LP
Address:	100 Energy Blvd. @ 56th Street
City, State, Zip:	Niagara Falls, NY 14304
Contact Name:	Teresa Lepiane
Telephone:	(716) 278-8512

If witnessed complete this section: The placement of these materials into the pit or feed chute was witnessed by:

X Alisa Swiney Covanta Signature X _____ Witness Signature
10/23/09 Date ___/___/___ Date

For further assistance contact your Customer Representative: Glorimar Pellot (973) 882-7185

Note: Some or all of the information contained in this document constitutes trade secret information of the generator, broker or distributor named herein or confidential, proprietary customer subsidiaries or affiliates. Disclosure of this information to any third-parties without prior notice to all parties named on this form, and an opportunity of those parties to request a hearing said disclosure may be prohibited under applicable federal and state laws.

Visit Our Online Customer Center, created with you in mind
www.CovantaSecureServices.com/CustomerCenter

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No.

2. Page 1 of 1

3. Generator's Name and Mailing Address
77th Regional Readiness Command
AERC-CHY-EN Ernie Pyle USARC
East Tutten, NY 11359

77th Regional Readiness Command
Niagara Falls AFRC 9540

4. Generator's Phone (609-[illegible]-7662)

5. Transporter 1 Company Name: Environmental Service Co.

6. US EPA ID Number: [illegible]

A. Transporter's Phone: 716 695 6720

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address
American Recylers Corp
177 Sales Ave
Tonawanda, NY 14150

10. US EPA ID Number: NYD000030889

C. Facility's Phone: 716.695.6720

11. Waste Shipping Name and Description	12. Container No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. Non RCRA Non DOT Regulated Water,	001	TT	01265	
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above
Also Fits: A - C -
B - D -

E. Handling Codes for Wastes Listed Above
A. C.
B. D.

15. Special Handling Instructions and Additional Information
A - X-5110IN
B -
D -

24 Hour Emergency Contact:
INFOTRAC (Caller Must ID ESG) 800-535-5053
Consult ERG#:

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
Guy Glenn Seidel	[signature]			

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Sean P. Winter	[signature]	10	19	95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
Julian MacDougall	[signature]	11	21	95

GENERATOR

TRANSPORTER

FACILITY

TRANSPORTER # 1

CWM

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NY 8 2 1 0 4 2 4 2 7 3
2. Page 1 of: 1
3. Emergency Response Phone: (800) 424-9300
4. Manifest Tracking Number: 006376912 JJK

5. Generator's Name and Mailing Address: NIAGARA FALLS AFRC, 9400 PORTER RD, NIAGARA FALLS NY 14304-1650

Generator's Site Address (if different than mailing address):

Generator's Phone: (716) 297-7909

6. Transporter 1 Company Name: BFE BUFFALO FUEL CORP — U.S. EPA ID Number: NYR000015724

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: CWM CHEMICAL SERVICES, L.L.C., 1550 BALMER RD., MODEL CITY NY 14107 — U.S. EPA ID Number: NYD049836679

Facility's Phone: (716) 288-1650

Site Hdl	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No	10. Containers Type	11. Total Quantity	12. Unit Wt/Vol	13. Waste Codes		
X	1 RQ, POLYCHLORINATED BIPHENYLS, SOLID MIXTURE, 9,UN3432,II NY300167	001	CM	30	K TOT		B007	
	2							
	3.							
	4							

14. Special Handling Instructions and Additional Information: 1. NY300167 - PCB IMPACTED SOIL < 290 PPM PCBS — PCB OUT OF SERVICE DATE: 12-9-01

WEIGHT IN SECTION 11 IS ESTIMATED

81638354

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: CW2 Glenn Seibel — Signature: [signature] — Month 12 Day 04 Year 09

INTL

16. International Shipments: ☐ Import to U.S. ☐ Export from U.S. — Port of entry/exit: — Transporter signature (for exports only): — Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: JOHN GILSILER — Signature: [signature] — Month 12 Day 4 Year 9

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space: ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

qty est actual rec'd 9.3 52 K — Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number:

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1	2	3	4
H132			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: ELLEN CARTER — Signature: [signature] — Month 12 Day 4 Year 09

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Transporter Log

CWM Chemical Services, Inc.
Model City, NY

176669

Cubic Yards

Receipt #

Trailer License Plate # and State

Service Req. #

Profile #

Permit #

Transporter Name

Tractor/Trailor/Roll-off #

Driver's Name

Generator

Scheduled Arrival: Date Time

Actual Arrival: Date Time In Time Out

Arrived during Blackout? Y / N Notified DEC? Y / N

Receiving: Initials Comments

☐ Leaker ☐ Permit Violation ☐ Placarding/Veh. I.D. Violation

☐ Other (specify

☐ Bulk to Landfill ☐ No wet line ☐ Flatbed ☐ Stabilization ☐ Drums ☐ Tanker ☐ Transformers

Laboratory

Time In | Time Out | Initials | Comments

Stabilization

Time In | Time Out | Initials | Gross Wt. | Comments

Landfill

Time In | Time Out | Initials | Comments

Other

Time In | Time Out | Initials | Comments

Aqueous Treatment

Time In | Time Out | Signature (NO Initials) | Comments

Facility Personnel (please initial)

Smoking or eating in prohibited areas

Leaving truck unattended

Failure to obey instructions of facility personnel

Failure to display overweight flag

Failure to wear appropriate PPE

Improper tarping or detarpin

Unsafe driving practices

Overweight upon arrival

Other (specify)

Security Guard Initials:
(Indicating receipt of Wash Bay pass, if necessary)

Driver's Comments

45/5445

NIAGARA FALLS LANDFILL
56th Street & Niagara Falls Blvd
Niagara Falls, NY 14304 (716)282-6381

203061
ENSOL ENGINEERING
661 MAIN STREET
NIAGARA FALLS, NY 14301
Contract: #L07Y01656E

SITE	TICKET	GRID
5B	364584	

WEIGHMASTER: AS00067 ALBERT S

DATE IN	TIME IN
4 December 2009	9:23 am

DATE OUT	TIME OUT
4 December 2009	9:49 am

VEHICLE	ROLL OFF
FAF201	

REFERENCE	ORIGIN
0415936	Inbound -NY-NIAGARA

00 Gross Weight 57,900.00 lb
Tare Weight 26,720.00 lb
Net Weight 31,180.00 lb

NIAGARA FALLS AIR RESERVE B

ASE 15.59 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
15.59	TN	SW-CONT SOIL				
1.00	LS	ENVIRONMENTAL FEE				
1.00	LS	FUEL RECOVERY FEE				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

HAPPY HOLIDAY'S

REPUBLIC SERVICES, INC. ALLIED WASTE

SIGNATURE

RS-F04

FRIDAY 12-4-09 2 TRUCKS 8:30 AM 20 M.N SPREAD 1650

ALLIED WASTE

NON-HAZARDOUS WASTE MANIFEST

0415960

1. Generator's US EPA ID Number	Manifest Document Number	2. Page 1 of
3. Generator's Name and Mailing Address: 9th Regional Support Command Niagara Falls AFRC 5231 South Scott Plaza Fort Dix, NJ 08640		5. Generating Location (if different): Same 9400 Porter Road Niagara Falls, NY 14304
4. Phone ( )		6. Phone ( )
7. Transporter #1 Company Name: Parker Trucking	8. US EPA ID Number	9. Transporter #1's Phone: 716-875-6168
10. Transporter #2 Company Name	11. US EPA ID Number	12. Transporter #2's Phone
13. Designated T/S/D Facility Name and Site Address: Allied Waste Niagara Falls NY 5600 Niagara Falls Boulevard Niagara Falls, NY 14304	14. US EPA ID Number	15. Facility's Phone: 716-285-3544

16. Waste Shipping Name and Description	17. Allied Waste Approval # and Exp. Date	18. Containers No.	18. Containers Type	19. Total Quantity	20. Unit Wt/Vol
Non Hazardous Soil	L07Y916562 exp 09/15/10				
a.					
b.					
c.					
d.					

21. Additional Descriptions for Materials Listed Above

22. Special Handling Instructions and Additional Information

Truck # 201

23. GENERATOR'S CERTIFICATION: I certify the materials described on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste

Printed/Typed Name	Signature	Month	Day	Year
[illegible]				

24. Transporter #1: Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Andrew Deaho		12	4	

25. Transporter #2: Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

26. Discrepancy Indication Space

27. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest (except as noted in Item 19)

Printed/Typed Name	Signature	Month	Day	Year
		12	4	09

GENERATOR

TRANSPORTER

T/S/D FACILITY

TRANSPORTER #2

NIAGARA FALLS LANDFILL
56th Street & Niagara Falls Blvd
Niagara Falls, NY 14304 (716)282-6381

203061
ENSOL ENGINEERING
661 MAIN STREET
NIAGARA FALLS, NY 14301
Contract: #L07Y916562

SITE	TICKET	GRID
5B	384561	

WEIGHMASTER: AS00067 ALBERT E

DATE IN	TIME IN
4 December 2009	9:35 am

DATE OUT	TIME OUT
4 December 2009	9:53 am

VEHICLE	ROLL OFF
PAR243	

REFERENCE	ORIGIN
0415961	Inbound -NY-NIAGARA

00 Gross Weight 61,760.00 lb
Tara Weight 27,100.00 lb
Net Weight 34,660.00 lb

NIAGARA FALLS AIR RESERVE B

17.33 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
17.33	TN	SW-CONT SOIL				
1.00	LD	ENVIRONMENTAL FEE				
1.00	LD	FUEL RECOVERY FEE				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

HAPPY HOLIDAY'S

REPUBLIC SERVICES, INC. ALLIED WASTE

SIGNATURE

RS-F04

1733

NON-HAZARDOUS WASTE MANIFEST

0415961

1. Generator's US EPA ID Number	Manifest Document Number	2. Page 1 of	

3. Generator's Name and Mailing Address 99th Regional Support Command Niagara Falls AFRC 5231 South Scott Plaza Fort Dix, NJ 08640	5. Generating Location (if different) Same 9400 Porter Road Niagara Falls, NY 14304
4. Phone ( )	6. Phone ( )

7. Transporter #1 Company Name Parson Trucking 243	8. US EPA ID Number	9. Transporter #1's Phone 716-875-0165
10. Transporter #2 Company Name	11. US EPA ID Number	12. Transporter #2's Phone
13. Designated TSD Facility Name and Site Address Allied Waste Niagara Falls NY 5600 Niagara Falls Boulevard Niagara Falls, NY 14304	14. US EPA ID Number	15. Facility's Phone 716-295-3344

16. Waste Shipping Name and Description	17. Allied Waste Approval # and Exp. Date	18. Containers No.	18. Containers Type	19. Total Quantity	20. Unit Wt/Vol
Non Hazardous Soil	L07T916562 exp 09/15/10				
a.					
b.					
c.					
d.					

21. Additional Descriptions for Materials Listed Above

22. Special Handling Instructions and Additional Information

#243

23. GENERATOR'S CERTIFICATION: I certify the materials described on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
		12	6	

24. Transporter #1: Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
		12	4	09

25. Transporter #2: Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

26. Discrepancy Indication Space

27. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest (except as noted in item 19)

Printed/Typed Name	Signature	Month	Day	Year
		12	4	09

GENERATOR

TRANSPORTER

T/S/D FACILITY

TRANSPORTER #2

46 / 24,535

NIAGARA FALLS LANDFILL
Sath Street & Niagara Falls Blvd
Niagara Falls NY 14304 (716)285-6351

203061
ENSOL ENGINEERING
661 MAIN STREET
NIAGARA FALLS, NY 14301
Contract: #L007416562

SITE	TICKET	ORIG
58	364000	

WEIGHMASTER: 4500067 ALBERT S

DATE IN	TIME IN
4 December 2009	1:15:25 pm

DATE OUT	TIME OUT
4 December 2009	1:17:42 pm

VEHICLE	ROLL OFF
FAF201	

REFERENCE	ORIGIN
415542	Inbound [illegible]-NIAGARA

GV Gross Weight 67,740.00 lb
Tare Weight 26,400.00 lb
Net Weight 41,340.00 lb

NIAGARA FALLS LF RESERVE

ASF 20.67 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
20.67	TN	SW-CONT SOIL				
1.00	LD	ENVIRONMENTAL FEE				
1.00	LD	FUEL RECOVERY FEE				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

REPUBLIC SERVICES, INC. ALLIED WASTE

SIGNATURE

RS-F04

ALLIED WASTE

20.67

NON-HAZARDOUS WASTE MANIFEST

0415962

1. Generator's US EPA ID Number	Manifest Document Number	2. Page 1 of	

GENERATOR

3. Generator's Name and Mailing Address 99th Regional Support Command Niagara Falls AFRC 3331 South Scott Plaza Fort Dix, NJ 08640 4. Phone ( )	6. Generating Location (if different) Same 9400 Porter Road Niagara Falls, NY 14304 5. Phone ( )

7. Transporter #1 Company Name Fonzie Trucking	8. US EPA ID Number	9. Transporter #1's Phone 716-875-6165
10. Transporter #2 Company Name	11. US EPA ID Number	12. Transporter #2's Phone
13. Designated T/S/D Facility Name and Site Address Allied Waste Niagara Falls NY 5600 Niagara Falls Boulevard Niagara Falls, NY 14304	14. US EPA ID Number	15. Facility's Phone 716-285-3344

16. Waste Shipping Name and Description	17. Allied Waste Approval # and Exp. Date	18. Containers No.	18. Containers Type	19. Total Quantity	20. Unit Wt/Vol
Non Hazardous Soil	LOTY916562 exp 09/15/10				
a.					
b.					
c.					
d.					

21. Additional Descriptions for Materials Listed Above #201

22. Special Handling Instructions and Additional Information

23. **GENERATOR'S CERTIFICATION:** I certify the materials described on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste

Printed/Typed Name	Signature	Month	Day	Year

TRANSPORTER

24. Transporter #1: Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Andy Dean				

25. Transporter #2: Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

T/S/D FACILITY

26. Discrepancy Indication Space

27. **Facility Owner or Operator:** Certification of receipt of waste materials covered by this manifest (except as noted in Item 19)

Printed/Typed Name	Signature	Month	Day	Year

TRANSPORTER #2

46 / 2480

NIAGARA FALLS LANDFILL
56th Street & Niagara Falls Blvd
Niagara Falls, NY 14304 (716)285-5354

203001
ENSOL ENGINEERING
661 MAIN STREET
NIAGARA FALLS, NY 14301
Contract: #LCMM-1562

SITE	TICKET	GRID
56	[illegible]	

WEIGHMASTER: [illegible]

DATE IN	TIME IN
4 December 2007	[illegible]

DATE OUT	TIME OUT
4 December 2007	[illegible]

VEHICLE	ROLL OFF
[illegible]	

REFERENCE	ORIGIN
[illegible]	[illegible]

OC Gross Weight 65,780.00 lb
< Tare Weight 28,900.00 lb
Net Weight 37,880.00 lb

NIAGARA FALLS AIR RESERVE D

18.94 Tn

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
18.94	TN	SW-CONT SOIL				
1.00	LD	ENVIRONMENTAL FEE				
1.00	LC	FUEL RECOVERY FEE				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

HAPPY HOLIDAYS

REPUBLIC SERVICES, INC. ALLIED WASTE

SIGNATURE

RS-F04

18.94

0415963

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID Number	Manifest Document Number	2. Page 1 of

GENERATOR

3. Generator's Name and Mailing Address: 914th Tactical Support Command Niagara Falls AFRC
5231 South Scott Plaza
Fort Dix, NJ 08640

4. Phone ( )

5. Generating Location (if different): Same
9400 Porter Road
Niagara Falls, NY 14304

6. Phone ( )

7. Transporter #1 Company Name	8. US EPA ID Number	9. Transporter #1's Phone: 716-875-6168
10. Transporter #2 Company Name	11. US EPA ID Number	12. Transporter #2's Phone
13. Designated T/S/D Facility Name and Site Address: Allied Waste Niagara Falls NY 5600 Niagara Falls Boulevard Niagara Falls, NY 14304	14. US EPA ID Number	15. Facility's Phone: 716-285-3344

16. Waste Shipping Name and Description	17. Allied Waste Approval # and Exp. Date	18. Containers No	18. Containers Type	19. Total Quantity	20. Unit Wt/Vol
Non Hazardous Soil	L077916562 exp 09/15/10				
a.					
b.					
c.					
d.					

21. Additional Descriptions for Materials Listed Above

22. Special Handling Instructions and Additional Information

23. **GENERATOR'S CERTIFICATION:** I certify the materials described on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year

TRANSPORTER

24. Transporter #1: Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
		12	1	07

25. Transporter #2: Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

T/S/D FACILITY

26. Discrepancy Indication Space

27. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest (except as noted in Item 19)

Printed/Typed Name	Signature	Month	Day	Year

TRANSPORTER #2

To order more forms go to: www.cgxsolutions.com/alliedwaste

46/34604

NIAGARA FALLS LANDFILL
25th Street & Niagara Falls Blvd
Niagara Falls NY 14304 (716)282-0381

30300
ENSOL ENGINEERING
651 MAIN STREET
NIAGARA FALLS, NY 14301
Contract. #LC7Y016502

SITE	TICKET	GRID
SP	384017	

WEIGHMASTER: AS0006 ALBERT S

DATE IN	TIME IN
4 December 2007	11:04 am

DATE OUT	TIME OUT
4 December 2007	11:17 am

VEHICLE	ROLL OFF
FAR217	

REFERENCE	ORIGIN
041562H	Inbound -NY-NIAGARA

Gross Weight 64,740.00 lb
Tare Weight 25,760.00 lb
Net Weight 38,980.00 lb

NIAGARA FALLS AIR RESERVE B

ASE 17.47 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
19.47	TN	SW-CONT SOIL				
1.00	LD	ENVIRONMENTAL FEE				
1.00	LD	FUEL RECOVERY FEE				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

HAPPY HOLIDAYS

REPUBLIC SERVICES, INC. ALLIED WASTE

SIGNATURE

SNS-F24

19-49

NON-HAZARDOUS WASTE MANIFEST

0415964

1. Generator's US EPA ID Number | Manifest Document Number | 2. Page 1 of

3. Generator's Name and Mailing Address: West Regional Support Command, Niagara Falls AFRC
5231 South Scott Plaza
Fort Dix, NJ 08640

4. Phone ( )

5. Generating Location (if different): Same
9400 Porter Road
Niagara Falls, NY 14304

6. Phone ( )

7. Transporter #1 Company Name: Parlso Trucking

8. US EPA ID Number

9. Transporter #1's Phone: 716-875-6105

10. Transporter #2 Company Name

11. US EPA ID Number

12. Transporter #2's Phone

13. Designated T/S/D Facility Name and Site Address:
Allied Waste Niagara Falls NY
5600 Niagara Falls Boulevard
Niagara Falls, NY 14304

14. US EPA ID Number

15. Facility's Phone: 716-285-3344

16. Waste Shipping Name and Description	17. Allied Waste Approval # and Exp. Date	18. Containers No.	18. Containers Type	19. Total Quantity	20. Unit Wt/Vol
Non Hazardous Soil	L07Y916562 exp 09/15/10				
a.					
b.					
c.					
d.					

21. Additional Descriptions for Materials Listed Above

22. Special Handling Instructions and Additional Information

23. GENERATOR'S CERTIFICATION: I certify the materials described on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Print...d/Typed Name | Signature | Month | Day | Year

GENERATOR

24. Transporter #1: Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

25. Transporter #2: Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

TRANSPORTER

26. Discrepancy Indication Space

27. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest (except as noted in Item 19)

Printed/Typed Name | Signature | Month | Day | Year

T/S/D FACILITY

TRANSPORTER #2

467546

NIAGARA FALLS LANDFILL
56th Street & Niagara Falls Blvd
Niagara Falls, NY 14304 (716)282-6084

200761
ENSOL ENGINEERING
661 MAIN STREET
NIAGARA FALLS, NY 14301
Contract: #L007916SCE

SITE	TICKET	GRID
SE	364612	

WEIGHMASTER: ASCUNCE ALBERT

DATE IN	TIME IN
4 December 2007	11:24 AM
DATE OUT	**TIME OUT**
4 December 2007	11:55 AM

VEHICLE	ROLL OFF
PAR201	

REFERENCE	ORIGIN
0415706	CORNING-NY-NIAGARA

GW Gross Weight 67,960.00 lb
Tare Weight 26,440.00 lb
Net Weight 41,520.00 lb

NIAGARA FALLS HIR ACCOUNT 8

ASE 20.76 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
20.76	TN	SW-CONT SOIL				
1.00	LD	ENVIRONMENTAL FEE				
1.00	LD	FUEL RECOVERY FEE				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

HAPPY HOLIDAYS

REPUBLIC SERVICES, INC. ALLIED WASTE

SIGNATURE Andy

AS-F04

105 -20.76

NON-HAZARDOUS WASTE MANIFEST

0415965

1. Generator's US EPA ID Number	Manifest Document Number	2. Page 1 of	
3. Generator's Name and Mailing Address 99th Regional Support Command Niagara Falls AFRC 5231 South Scott Plaza Fort Dix, NJ 08640 4. Phone ( )		5. Generating Location (if different) Same 9400 Porter Road Niagara Falls, NY 14304 6. Phone ( )	
7. Transporter #1 Company Name Parker Trucking	8. US EPA ID Number	9. Transporter #1's Phone 716-875-6168	
10. Transporter #2 Company Name	11. US EPA ID Number	12. Transporter #2's Phone	
13. Designated T/S/D Facility Name and Site Address Allied Waste Niagara Falls NY 5600 Niagara Falls Boulevard Niagara Falls, NY 14304	14. US EPA ID Number	15. Facility's Phone 716-285-3344	

16. Waste Shipping Name and Description	17. Allied Waste Approval # and Exp. Date	18. Containers No.	18. Containers Type	19. Total Quantity	20. Unit Wt/Vol
Non Hazardous Soil	L077916362 exp 09/15/10				
a.					
b.					
c.					
d.					

21. Additional Descriptions for Materials Listed Above

F201

22. Special Handling Instructions and Additional Information

23. GENERATOR'S CERTIFICATION: I certify the materials described on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[signature]	[illegible]	[illegible]	[illegible]

24. Transporter #1: Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Andy Deahn	[signature]	[illegible]	[illegible]	[illegible]

25. Transporter #2: Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

26. Discrepancy Indication Space

27. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest (except as noted in Item 19)

Printed/Typed Name	Signature	Month	Day	Year
	[signature]		[illegible]	[illegible]

GENERATOR

TRANSPORTER

T/S/D FACILITY

TRANSPORTER #2

4675473

NIAGARA FALLS LANDFILL
Frank Street & Niagara Falls Blvd
Niagara Falls, NY 14304 (716)282-6981

C05061
ENCOL ENGINEERING
561 MAIN STREET
NIAGARA FALLS, NY 14301
Contract: WLC[illegible]

SITE	TICKET	GRID
58	38[illegible]	

WEIGHMASTER: [illegible]

DATE IN	TIME IN
December [illegible]	[illegible]

DATE OUT	TIME OUT
December [illegible]	[illegible]

VEHICLE	ROLL OFF
[illegible]243	

REFERENCE	ORIGIN
[illegible]	[illegible]

GO Gross Weight 48,920.00 lb
Tare Weight 26,920.00 lb
Net Weight 21,100.00 lb

NIAGARA FALLS AIR RESERVE A

ASE 10.55 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
10.55	TN	SW-CONT SOIL				
1.00	LD	ENVIRONMENTAL FEE				
1.00	LI	FUEL RECOVERY FEE				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

HAPPY HOLIDAYS!

REPUBLIC SERVICES, INC. ALLIED WASTE

SIGNATURE

RS-F04

10.55

NON-HAZARDOUS WASTE MANIFEST

0415966

GENERATOR

1. Generator's US EPA ID Number
Manifest Document Number
2. Page 1 of

3. Generator's Name and Mailing Address
99th Regional Support Command, Niagara Falls AFRC
5231 South Scott Plaza
Fort Dix, NJ 08640
4. Phone ( )

5. Generating Location (if different)
Same
9400 Porter Road
Niagara Falls, NY 14304
6. Phone ( )

7. Transporter #1 Company Name: Parisso Trucking
8. US EPA ID Number
9. Transporter #1's Phone: 716-875-6168

10. Transporter #2 Company Name
11. US EPA ID Number
12. Transporter #2's Phone

13. Designated T/S/D Facility Name and Site Address
Allied Waste Niagara Falls NY
5600 Niagara Falls Boulevard
Niagara Falls, NY 14304
14. US EPA ID Number
15. Facility's Phone: 716-285-3344

16. Waste Shipping Name and Description	17. Allied Waste Approval # and Exp. Date	18. Containers No.	18. Containers Type	19. Total Quantity	20. Unit Wt/Vol
Non Hazardous Soil	0789 16562 exp 09/15/10				
a.					
b.					
c.					
d.					

21. Additional Descriptions for Materials Listed Above

22. Special Handling Instructions and Additional Information

243

23. GENERATOR'S CERTIFICATION: I certify the materials described on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste

Printed/Typed Name | Signature | Month | Day | Year

TRANSPORTER

24. Transporter #1: Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

25. Transporter #2: Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

T/S/D FACILITY

26. Discrepancy Indication Space

27. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest (except as noted in Item 19)

Printed/Typed Name | Signature | Month | Day | Year

TRANSPORTER #2

To order more forms go to: www.cpxsolutions.com/alliedwaste/

APPENDIX E

NJDOT Highway Work Permit

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STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
100 SENECA STREET
BUFFALO, NY 14203
WWW.DOT.STATE.NY.US

ALAN E. TAYLOR, P.E.
REGIONAL DIRECTOR

STANLEY GEE
ACTING COMMISSIONER

Dear Permittee:

Attached is the approved Highway Work Permit you requested along with supporting documents. It is important to pay particular attention to the circled items on the *Construction Restriction List* included in the packet. The circled items on this list are conditions that must be followed as part of the permit. Failure to follow the directions under the circled conditions voids the permit.

Upon completion of work or expiration of the permit, please **sign and date the original permit** in the space provided. **Return** the signed copy to the Resident Engineer whose name and address is noted in the rectangular area labeled ' **IMPORTANT**' on the face of the permit.

Note: ***Adopt a Highway*** permits are valid for two years. Upon completion, you may be eligible to extend this permit type by calling the phone number in the rectangular area labeled ' **IMPORTANT**' on the face of the permit.

Thank you for your assistance. If you have any questions please call (716) 847-3286.

Very truly yours,

Greg Ruhland
Regional Permits Engineer – R-05

PERM 42 (5/09)

STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION

HIGHWAY WORK PERMIT

05-09-0068

Permit Fee: $ 100.00
Insurance Fee: $ 0.00
Total Received: $ 100.00
Check or M.O. No.: 13524

PERM 17 on file 12/15/2009

5

Permit No.: 09-0068
Project Identification No.:
Expiration Date: 09/16/2009
SH No.:
Deposit Rec. for $ 0.00
Check or M.O. No.:
Dated: / /

*Permittee: PARS ENVIRONMENTAL
6A SOUTH GOLD DRIVE
ROBBINSVILLE, NY 08691
att:

Estimated Cost of Work Performed in the State Right-of-Way $ 50000.00
Chargeable to Bond No.:
or Undertaking on File: ($ 0.00)

Billing Address: (complete if different from above)

Return of Deposit Made Payable to: (complete if different from Permittee)

Under the provisions of the Highway Law or Vehicle & Traffic Law, permission is hereby granted to the permittee to:
Excavate soil in drainage ditch along Porter Rd. in Niagara Falls. NYSDEC is overseeing the project, which involves the cleanup of PCB's that discharged to the ditch from the adjacent Armed Forces Reserve Center.
SEE CIRCLED NOS ON ATTACHED CONST. RESTRICTION LIST: 6,7,11,48,45,54

THE PERMITTEE IS RESPONSIBLE FOR TEMPORARY TRAFFIC CONTROL IN ACCORDANCE WITH THE NATIONAL MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND THE NYS SUPPLEMENT. ANYONE WORKING WITHIN THE HIGHWAY RIGHT-OF-WAY SHALL WEAR HIGH-VISIBILITY APPAREL MEETING THE ANSI 107-2004 CLASS II STANDARDS AND A HARD HAT.

County - NIAGARA Municipality - NIAGARA FALLS Route # - 182

as set forth and represented in the attached application at the particular location or area, or over the routes as stated therein, if required; and pursuant to the conditions and regulations general or special, and methods of performing work, if any; all of which are set forth in the application and form of this permit.

Dated at: BUFFALO, N.Y.
Date Signed: 08/25/2009

Commissioner of Transportation

By CHARLES J. MORGANTE

IMPORTANT

THIS PERMIT, WITH APPLICATION AND DRAWING (OR COPIES THEREOF) ATTACHED SHALL BE PLACED IN THE HANDS OF THE CONTRACTOR BEFORE ANY WORK BEGINS.
THE HIGHWAY WORK PERMIT SHALL BE AVAILABLE AT THE SITE DURING CONSTRUCTION.
BEFORE WORK IS STARTED AND UPON ITS COMPLETION, THE PERMITTEE ABSOLUTELY MUST NOTIFY THE RESIDENT ENGINEER,

MIKE LYDLE
(716)438-2396

5055 JUNCTION RD
LOCKPORT, NEW YORK 14094

UPON COMPLETION OF WORK AUTHORIZED, THE FOLLOWING WILL BE COMPLETED, SIGNED BY THE PERMITTEE AND DELIVERED TO THE RESIDENT ENGINEER.

Work authorized by this permit has been completed Refund of deposit or return/release of bond is requested.

DATE PERMITTEE AUTHORIZED AGENT (If Any)

Work authorized by this permit has been satisfactorily completed and is accepted. **Reverse side of this form must be completed.**

- ☐ Refund of Deposit is authorized
- ☐ Return of Bond is authorized
- ☐ Amount charged against Bond may be released
- ☐ Retain Bond for future permits
- ☐ Forfeit of Guarantee Deposit is authorized
- ☐ Other

☐ Mailing address of refund has been verified.
If different, list new address below.

DATE RESIDENT ENGINEER

The Regional Office will forward this form to the Main Office with the appropriate box checked.

- ☐ Permit closed
- ☐ Bond returned/released
- ☐ Refund of Guarantee Deposit on this permit is authorized
- ☐ Forfeit Guarantee Deposit to NYSDOT
- ☐ Other

INSPECTION REPORT

For each Highway Work Permit issued, inspections will be performed. The following report must be completed for each site visit, indicating the date, inspector, and hours spent on inspection. If the total inspection time exceeds 1 hour, then a **FIN 12** (PERMIT INSPECTION FOR DEPARTMENT SERVICES) is **REQUIRED**.

INSPECTION REPORT

		HOURS WORKED BY DATE										HOURS	
Name	Date											Regular	Overtime
	R												
	O												
Name	Date											Regular	Overtime
	R												
	O												
Name	Date											Regular	Overtime
	R												
	O												
R = Regular Time, O = Overtime											TOTAL HOURS		

INSTRUCTIONS;

1. NAME: Name of inspector.
2. DATE: Day inspected.
3. R: The number of Regular hours spent on inspection for that day.
4. O: The number of Overtime hours spent on inspection for that day.
5. HOURS: Add across rows for R and O.
6. TOTAL HOURS: Add the columns for R and O.

COMMENTS/OBSERVATIONS

_____

_____

_____

_____

_____

_____

I HEREBY CERTIFY THAT THE INFORMATION CONTAINED ABOVE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

NAME _____

TITLE _____

TO: Regional Permit Engineer DATE SENT: 8-24-09

FROM: Paul Uebelhoer – Niagara County

PERMITTEE: PARS ENVIRONMENTAL

ROUTE NO: 182 TOWN/VILLAGE: NIAGARA FALLS CTY: NIAGARA

BOND INFORMATION

ORIGINAL BOND IS _____ ATTACHED _____ ON FILE WITH REGION 5/MAIN OFFICE

NOTE: Bond No./Bond Amt / Bond Amt of Bond to be applied to this permit to be noted on application.

UTILITY INFORMATION

Review Completed: ☐ PIN # _____ D# _____

REQUEST FOR REVIEW BY NYSDOT UNITS

REVIEW REQUEST BY: Hydraulics: ____ *T&S:* ____ *Landscape:* ____ *Soils:* ____ *Other:* _____

CHECK INFORMATION / INSURANCE INFORMATION

ACCOUNT NAME *(AS IT APPEARS ON CHECK)*: PARS ENVIRONMENTAL

Ck No & Date 13524 8/19/09 Date of Receipt: 8/20/09 Check Amt: 100.00

If fee to be charged *(utility permits)*: Account # _____ Perm.Fee: $ 100.00

If Perm 17 is effect: Account # in Perm 17 log ATTACHED Ins. Fee: $ —

NYSDOT FORMS ATTACHED TO ISSUED PERMIT BY RESIDENCY:

PERM 41-1d: Method of Performing Work. General Conditions
PERM 41-2a: Method of Performing Work, Electric Light or Power Lines Crossing Highways
PERM 41-3a:, Method of Performing Work, Excavating Near Trees, etc.
Figure 7: Detail of a Curb Transition

CONSTRUCTION RESTRICTIONS

Please CIRCLE any of the following conditions that apply:

1. The line shall be sleeved within the New York State right-of-way. The sleeve shall be a minimum of 5 ft. below the pavement and a minimum depth of 3 ft. below any existing ditch invert.

2. The boring pit and receiving pit shall be located behind the normal ditch line or toe of slope and in no instance shall the edge of the excavation, nearest the pavement, be less than 10 ft., measured laterally, from the edge of the shoulder. Hydraulic jet boring will not be allowed.

3. Small diameter services (2 in. inside diameter or smaller) may be placed without sleeving with the understanding that in the future, if remedial or repair work is necessary on this line, this work must be accomplished by some other means than open cutting the highway pavement.

4. All underground utilities within the New York State right-of-way will have minimum cover of 60 in. in the pavement area and placed 36 in. below finished grade in other portions of the right-of-way. In all cases, utilities will be installed as close to the outer limits of the right-of-way as possible.

5. All utility poles or vaults that are placed or replaced within the New York State right-of-way will be offset 30 ft. from the edge of pavement where sufficient right-of-way exists or as close to the outer limits of the right-of-way as possible where it does not.

6. All damaged or disturbed areas, that are the result of the work done by this permit, will be returned to original condition or better.

7. Maintenance and protection of traffic shall be in conformance with the Federal Manual of Uniform Traffic Control Devices and New York Supplement.

8. All work must be coordinated with and final location may be adjusted by the New York State Department of Transportation Engineer-in-Charge of the construction project. NYSDOT EIC NAME/FIELD OFF PH NO: _____

9. Before any work is started, the NYSDOT Utilities Engineer must be notified at (716) 847-3221.

10. Any work within the New York State right-of-way involving tree removal or tree trimming must be coordinated with the New York State Department of Transportation Regional Landscape Architect, at (716) 847-3865.

11. No stockpiling or storage of any materials and no parking of equipment during non-working hours will be allowed on pavement or shoulders.

12. Any changes made by the New York State Department of Transportation on the submitted drawing are marked in RED.

13. Pavement replacement as per attached sketch.

20. When hot plant mix is unavailable, QPR2000, modified stockpile patching material or equivalent, shall be used.

21. The existing pole(s) must be removed under this permit.

22. Ditch lines must be restored to their original slope (side slopes) and flow line under the permit. This also includes rip-rap restoration where required.

23. All the current requirements of the following shall apply: Occupational Safety and Health Administration; Accommodation of Utilities Within the State Right-of-Way; Federal Department of Labor, Safety and Health Standards; New York Code of Rules and Regulations; and the New York State Department of Labor. Industrial Code Rules 23 and 753.

24. All participants must wear the required safety gear (hardhats and ANSI class II high visibility vests) and conform to all requirements of the Adopt-A Highway Program.

25. All Adopt-A-Highway work within the New York State right-of-way must be coordinated with a Department of Transportation Representative. A Department Safety Representative must be present at your first scheduled session. Please refer to the attached sheet and contact the person indicated to arrange that meeting.

26. Closure of lanes can begin at _____ AM PM. (Insert time and circle one)

27. All traffic control devices must be removed from the State highway and all lanes reopened to traffic by _____ AM PM. (Insert time and circle one)

28. FIVE (5) business days BEFORE any work is STARTED; NITTEC Operations MUST BE NOTIFIED at (716) 847-2070.

31. The permittee shall notify the Geo-Technical Unit (Soils Bureau) (716) 667-1711 of any excavation in excess of 5 ft. BEFORE start of work.

32. All restoration work requirements shall comply with New York State Department of Transportation Specifications including material and/or workmanship. Restoration work shall progress without undue delay after the prime utility work is installed.

33. Unsatisfactory performance under one permit will halt the issuance of subsequent permits until the requirements of the earlier permit have been satisfied.

34. Open cuts must be backfilled in accordance with NYSDOT STANDARD SPECIFICATION. Item 204.02, Controlled Low Strength Material to the top of subgrade. The subbase and asphalt must be replaced to match existing (See Drwg No. 7). FLY ASH IS PROHIBITED.

35. Written permission must be obtained from the owner of the bridge or utility poles that the banner or decorations will be attached. The low point of the banner shall be a minimum of 18 ft. above the high point of the pavement.

36. The point of intersection of the driveway radius or flare with the edge of pavement SHALL NOT BE ANY LOCATED CLOSER THAN 5 FT. from the adjacent property line.

37. The existing drainage patterns shall not be altered. A(an)_____inch diameter Corrugated Metal Pipe (CMP) or smooth interior corrugated polyethylene pipe (HDPE) that meets NYSDOT standards shall be installed under each drive as shown on the attached sketch. Flared end-sections are required in open ditch.

38. The drive shall consist of gravel and/or rock to provide necessary stabilization & a cleaning effect on the tires of the vehicles using the drive.

39. The blacktop shall be a minimum of 4 in. depth of compacted material consisting of 2 ½ in. of base & 1 ½ in. top w/in the right-of-way w/ 8" subbase.

40. A concrete drive will be a minimum of 6 in. depth of concrete with mesh reinforcing at its midpoint within the right-of-way.

41. NO SIGNS WITH ANY COMMERCIAL ADVERTISEMENT in the text are allowed on the State right-of-way.

42. A minimum of 15 ft. should be provided between the ROW line & the near edge of a building, structure, or appurtenance serving vehicular traffic.

43. Any accumulation of material on the state highway pavement, shoulders, etc., resulting from utilization of drive is a violation of the Vehicle &Traffic Law & MUST be removed as soon as possible.

44. The surface of the drive shall slope down from the edge of pavement to the center of ditch line at 0.75 in. per foot or shall conform to the existing shoulder slope.

45. BEFORE ANY WORK IS STARTED, the Assistant Resident Engineer as indicated (by check mark) below MUST BE CONTACTED

ASSISTANT RESIDENT ENGINEERS

___	**HEATHER HORTH**	**CATTARAUGUS COUNTY RESIDENCY**	**- (716) 945-4562**
___	**PETE CALHOUN**	**CHAUTAUQUA COUNTY RESIDENCY**	**- (716) 753-2821**
___	**KIM KNOLL**	**NORTH ERIE RESIDENCY**	**- (716) 683-3476**
___	**BRIAN SKOK**	**SOUTH ERIE RESIDENCY**	**- (716) 649-2157**
_X_	**PAUL UEBELHOER**	**NIAGARA COUNTY RESIDENCY**	**- (716) 438-2396**

46. It shall be the property owner's responsibility for ALL maintenance of the culvert, including cleaning. The property owner shall also be responsible for any replacement culvert if the original culvert must be removed for any reason.

47. See attached Annual Maintenance Permit Requirements sheet for restrictions & conditions to be followed.

48. See attached Annual Service Permit Requirements sheet for restrictions & conditions to be followed.

49. Sub-contractors working in the NYSDOT right-of-way must obtain separate Highway Work Permits.

50. The attached Utility Notification form must be completed and faxed to the appropriate residency.

51. When the work starts, notification MUST be given to the Geotechnical Unit (716) 667-1711.

52. See attached Restrictions for the Erection of Temporary Signs, Banners, and Similar Overhead Devices over State Highways sheet.

53. ADDITIONAL RESTRICTIONS / COMMENTS:

_____

_____

_____

_____

54. Any and all accidents occurring in the work zone established for the work to be performed under this permit shall be reported to the Assistant Resident Engineer as indicated above.

NOTE TO RESIDENCY ENGINEERS:

If your additional restrictions/comments are concise and short enough, they will be typed directly onto the face of the permit and the construction restrictions listing of numbers will not show #53. If they are too lengthy to fit on the face of the permit, they will be written onto the construction restriction listing that is sent to the permittee along with the issued permit. Therefore, please be as concise as reasonably possible without omitting any essential wording.

PERM 33 (8/01)

STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION
HIGHWAY WORK PERMIT APPLICATION FOR NON-UTILITY WORK

PREPARE 3 COPIES
(photocopies acceptable)

Application is hereby made for a highway work permit:

Name PARS Environmental, Inc

Address 6A South Gold Drive

City Robbinsville State NJ Zip 08691

Federal I.D. No. or Social Security No. 223696865

Applicant Telephone No. 609-890-7277

Contact person in case of emergency Michael Moore

Telephone No. of contact person 609-890-7277

For Joint application, name and address of Second Applicant below:

Name

Address

City State Zip

Project Identification No.

Highway Work Permit No. 05-09-0068

RETURN PERMIT TO (If different from above):

Name SAME

Address

City State Zip

RETURN OF DEPOSIT/BOND TO (Complete only if different from permittee):

Name

Address

City State Zip

1. Estimated cost of work being performed in state highway right-of-way $ $50,000.00

2. Anticipated duration of work: From 09/14 20, 09 thru 09/16, 20 09, to apply to the operation(s) checked on the reverse side.

3. Protective Liability Insurance covered by Policy No. BINDER351996 ; expires on 12/15 20 09

4. A $20.00 fee will be charged for checks returned by the bank.

PROPOSED WORK (Brief description): Excavate soil in the drainage ditch along Porter Road in Niagara Falls, NY. NYSDEC is overseeing the project, which involves the cleanup of PCB's that discharged to the ditch from the adjacent Armed Forces Reserve Center.

ATTACHED: Plans X Specifications

LOCATION: State Route 182 State Highway

between Reference Marker 182-5401-2027 and Reference Marker 182-5401-2031

Town of: Niagara Falls County of: Niagara

SEQR REQUIREMENTS (Check appropriate item):

☐ Exempt ☐ Ministerial ☐ Type 11 ☐ EIS or DEIS Lead Agency

If project is identified to be ministerial, exempt, or TYPE 11, no further action is required.

If project is determined to be other than ministerial, exempt, or TYPE 11, refer to M.A.P.7.12-2, Appendix A SEQR REQUIREMENTS FOR HIGHWAY WORK PERMITS.

Acceptance of the requested permit subjects the permittee to the restrictions, regulations and obligations stated on this application and on the permit.

Applicant Signature Date 8/19/09 20 .

Second Applicant Signature Date 20 .

Approval recommended 8-21- 20 09, By Resident Engineer Residency No. 5-5

Approved 8/25 20 09, By Regional Traffic Engineer Region No. 5

PERMIT IS ISSUED CONTINGENT UPON LOCAL REQUIREMENTS BEING SATISFIED.

CHECK TYPE OF OPERATION	Permit Fee	Insurance Fee	Perm 17 or Under Taking	Total Amount of Fee and/or Insurance	Guarantee Deposit and/or Bond Amount
5. ☐ Single job – Permit issued for each job					
a. ☐ Driveway or roadway					
1. ☐ Residential	$ 15	$ 25			
2. ☐ Commercial – Minor	550	175			
a. ☐ Home Business	100	75			
3. ☐ Commercial – Major – (Less than 100,000 square feet Gross Building Area)	1400	N/A			
4. ☐ Commercial – Major – (100,000 square feet Gross Building Area and Greater)	Actual cost with Minimum of $2000 upon permit app.	N/A			
5. ☐ Subdivision Street	900	N/A			
6. ☐ Temporary access road or street	200	150			
b. ☑ Improvement					
1. ☐ Residential	15	25			
2. ☐ Commercial					
Check additional description below:					
a. ☐ Install sidewalk, curb paving, stabilized shoulder, drainage, etc.	200	150			
b. ☑ Grade, seed, improve land contour, clear land of brush, etc.	100	75	PIT	100	
c. ☐ Resurface existing roadway or driveway	50	50			
d. ☐ Annual resurfacing of residential and commercial roadways or driveways.					
1. ☐ Per County	150	N/A			
2. ☐ Per Region	400	N/A			
c. ☐ Tree Work					
1. ☐ Residential	15	25			
2. ☐ Commercial (not required for pruning if utility has annual maintenance permit)	25	50			
Check additional description below:					
a. ☐ Removal or planting					
b. ☐ Pruning, applying chemicals to stumps, etc.					
3. ☐ Vegetation control for advertising signs	150/sign	75			
d. ☐ Miscellaneous Construction					
1. ☐ Beautifying ROW – (for Civic Groups only)	NC	25			
2. ☐ Temporary signs, banners, holiday decorations					
a. ☐ Not-for-profit organizations	NC	25			
b. ☐ Organizations other than not-for-profit	25	25			
3. ☐ Traffic control signals	500	175			
4. ☐ Warning and entrance signs	25	50			
5. ☐ Miscellaneous – Requiring substantial review	400	175			
6. ☐ Miscellaneous	25	50			
6. ☐ Encroachment caused by D.O.T. acquisition of property	25	50			
7. ☐ Compulsory permit required for work performed at the request of D.O.T.					
a. ☐ Building demolition or moving requested by D.O.T.	NC	25			
1. ☐ Demolition 2. ☐ Moving					
b. ☐ Improvement to meet Department standards	NC	25			
8. ☐ Miscellaneous	25	25			
9. ☐ Adopt a Highway	NC	N/A			

Guarantee Deposit Check Number or Bond Number _____ _____

FIGURE 1
SITE LOCATION MAP
9400 PORTER ROAD
NIAGARA FALLS, NEW YORK

PARS ENVIRONMENTAL, INC.
ROBBINSVILLE, NEW JERSEY

DR. BY: KN	SCALE: NOT TO SCALE	JOB No.: 722-04
CK'D. BY: MM	DATE: 8/4/09	FILE NO.: 722-04
REV. NO. –	REV. DATE: –	FIGURE NO.: 1

FIGURE 2
SITE PLAN
9400 PORTER ROAD
NIAGARA FALLS, NEW YORK

PARS ENVIRONMENTAL, INC.
ROBBINSVILLE, NEW JERSEY

DR. BY: KN	SCALE: 1" = 200'	JOB No.: 722-04
CK'D. BY: MM	DATE: 8/3/09	FILE NO.: 722-04
REV. NO. -	REV. DATE: 8/4/09	FIGURE NO.: 2

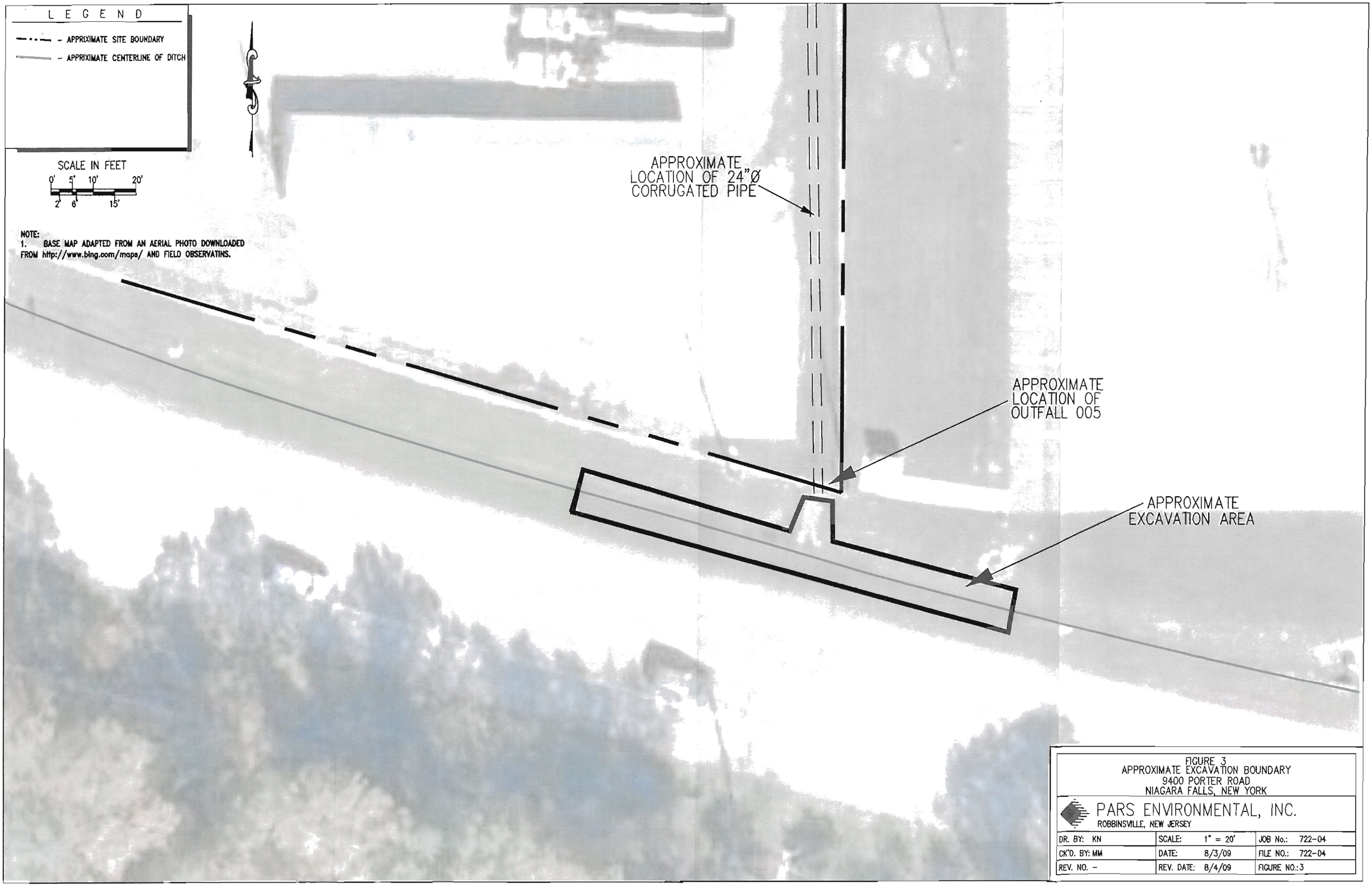
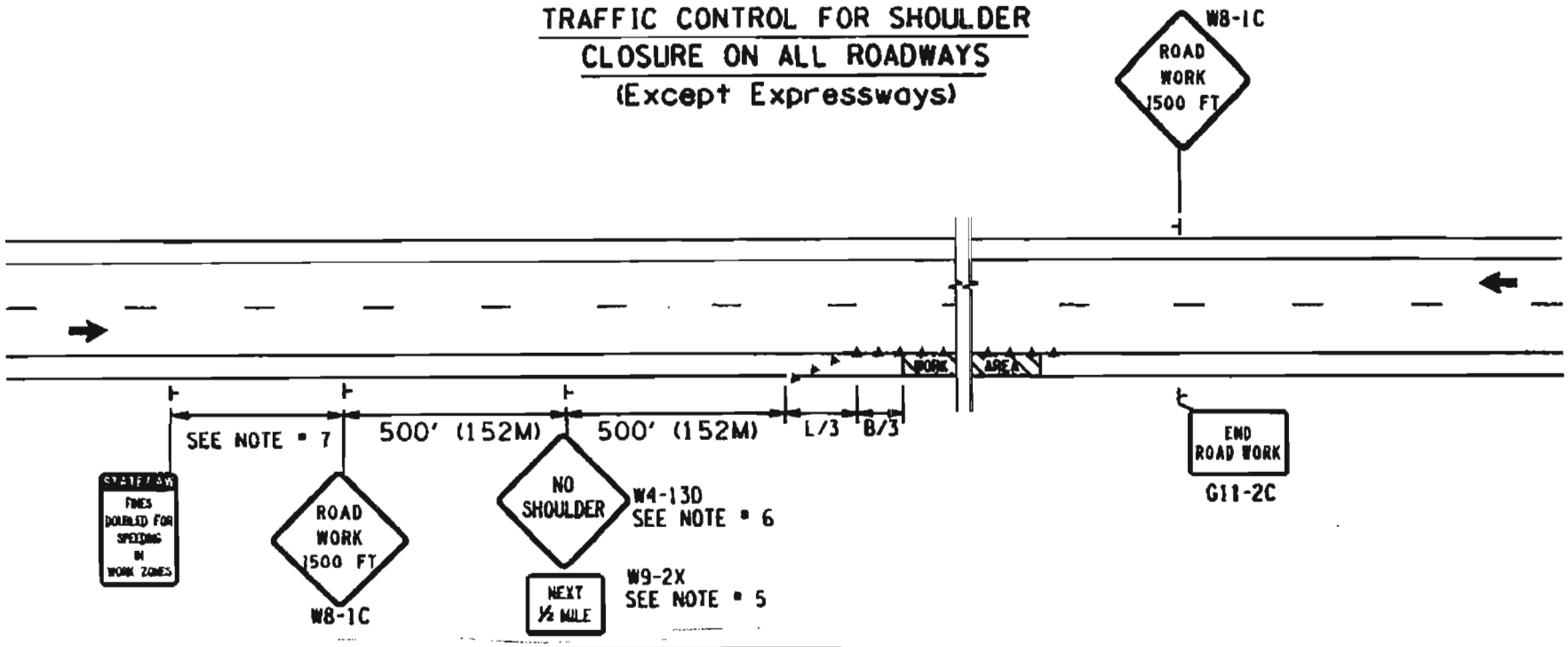


FIGURE 3
APPROXIMATE EXCAVATION BOUNDARY
9400 PORTER ROAD
NIAGARA FALLS, NEW YORK

PARS ENVIRONMENTAL, INC.
ROBBINSVILLE, NEW JERSEY

DR. BY: KN	SCALE: 1" = 20'	JOB No.: 722-04
CK'D. BY: MM	DATE: 8/3/09	FILE NO.: 722-04
REV. NO. –	REV. DATE: 8/4/09	FIGURE NO.: 3

TRAFFIC CONTROL FOR SHOULDER CLOSURE ON ALL ROADWAYS
(Except Expressways)



NOTES:
1. LEGEND: ▲ DELINEATION DEVICE
2. "L" APPROX. = TRANSITION LENGTH SEE TABLE I, STANDARD TAPER LENGTHS (PAGE 57)
3. "B" APPROX. = BUFFER ZONE SEE TABLE I, STANDARD TAPER LENGTHS (PAGE 57)
4. THE MAXIMUM SPACING BETWEEN DELINEATION DEVICES SHALL BE EQUIVALENT TO THE NUMERICAL VALUE OF THE SPEED LIMIT OR 40 LF. (12M) MAX.
5. DISTANCES LESS THAN ONE MILE SHOULD BE STATED TO THE NEAREST QUARTER MILE. DISTANCES BETWEEN ONE AND THREE MILES SHOULD BE STATED TO THE NEAREST HALF MILE. DISTANCES OVER THREE MILES SHOULD BE TO THE NEAREST WHOLE MILE.
6. ADDITIONAL W4-13 SIGNS, SUPPLEMENTED WITH W9-2 AUXILIARY MILEAGE SIGNS STATING THE DISTANCE TO THE END OF THE CONDITION, SHOULD BE PLACED AT SUITIBLE LOCATIONS, AND AT APPROPRIATE INTERVALS, WHERE THE CONDITION EXTENDS FOR A CONSIDERABLE DISTANCE. WHERE AN ADDITIONAL SIGN IS PLACED WITHIN ONE THOUSAND FEET OF THE END OF THE CONDITION, THE AUXILIARY MILEAGE SIGN SHOULD BE OMITTED.
7. INSTALL SIGN 1000 FT (304M) UPSTREAM OF THE FIRST WARNING SIGN ON HIGHWAYS WITH THE 85th PERCENTILE SPEEDS EQUAL TO OR GREATER THAN 45 MPH AND 300 -500 FT (91M-152M) UPSTREAM FOR SPEEDS UNDER 45 MPH.

TABLE V
GUIDELINES FOR LENGTHS OF LONGITUDINAL BUFFER SPACES

SPEED MPH (KMPH)	RECOMMENDED DISTANCE FT(M)	MINIMUM REQUIRED DISTANCE FT(M)
20(30)	125(30)	30(10)
25(40)	150(45)	70(21)
30(50)	200(65)	100(30)
35(60)	250(85)	125(40)
40(65)	325(100)	150(45)
45(70)	400(115)	210(65)
50(80)	475(140)	280(85)
55(90)	550(170)	360(110)
60(100)	650(250)	460(140)
65(110)	725(250)	550(170)
70(120)	850(290)	675(205)

- Recommended Distance is based on the AASHTO stopping sight distance per EI 85-010
- Minimum Required Distance is based on the AASHTO braking distance portion of the stopping sight distance.

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APPENDIX F

Clean Fill Documentation

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Facility DEC ID 8-1844-00020

PERMIT

Under the Environmental Conservation Law (ECL)

Permittee and Facility Information

Permit Issued To:
SEVEN SPRINGS GRAVEL PRODUCTS
8479 SEVEN SPRINGS RD
BATAVIA, NY 14020
(716) 343-4336

Facility:
SEVEN SPRINGS GRAVEL PRODUCTS
8472 SEVEN SPRINGS RD
BATAVIA, NY 14020

Facility Location: in STAFFORD in GENESEE COUNTY
Facility Principal Reference Point: NYTM-E: 244.8 NYTM-N: 4765.6
Latitude: 43°00'00.8" Longitude: 78°07'51.1"
Project Location: East of Seven Springs Road, 3,300 ft. south of Rt 33
Authorized Activity:
Permit to mine unconsolidated material from a 30-acre permit term area, within a 30-acre Life of Mine. Approved operations include screening and crushing.

Permit Authorizations

Mined Land Reclamation - Under Article 23, Title 27
Permit ID 8-1844-00020/00001 (Mined Land ID 80276)
Renewal Effective Date: 10/13/2006 Expiration Date: 10/12/2011

NYSDEC Approval

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, and all conditions included as part of this permit.

Permit Administrator: JOHN L COLE, Deputy Regional Permit Administrator
Address: NYSDEC REGION 8 HEADQUARTERS
6274 EAST AVON-LIMA RD
AVON, NY 14414

Authorized Signature: John L Cole Date 10 / 12 / 2006

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Facility DEC ID 8-1844-00020

Distribution List

Minerals
TOWN OF BATAVIA
Thomas Giles

Permit Components

MINED LAND RECLAMATION PERMIT CONDITIONS

GENERAL CONDITIONS, APPLY TO ALL AUTHORIZED PERMITS

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

Permit Attachments

Permit Sign

MINED LAND RECLAMATION PERMIT CONDITIONS

1. **Conformance With Plans** All activities authorized by this permit must be in strict conformance with the approved plans submitted by the applicant or applicant's agent as part of the permit application. Such plans were approved by Joseph G. Bucci Jr., Mined Land Reclamation Specialist 1, on August 31, 2006 and consist of the following items: see Conformance with Plans - Addenda

2. **Conformance with Plans - Addenda**

- Mining Permit Application dated January 24, 2006.
- Organizational Report Form dated February 7, 2005.
- Environmental Assessment Forms received September 9, 1987, February 19, 1998, September 14, 1999 and January 24, 2006.
- Mined Land Use Plan Renewal and Modification dated December 2005.
- Mining Plan Map dated December 2005.
- Reclamation Plan Map dated December 2005.
- Cross Sections dated December 2005.

* Mining and Reclamation Plan narratives dated September 8, 1998 with revisions received December 14, 1998 and September 14, 1999, including Appendix B (Pollution Prevention Plan), "Standard and Specifications for Dust Control" and Grassed Waterway Construction Details.

* December 18, 2000 Amendment - Mining permit term area and mining phases.

* September 14, 1999 letter from P. Bauter to M. Migliore.

* December 31, 1998 letter from P. Bauter to S. Army.

* December 14, 1998 letter from P. Bauter to S. Army.

3. **Post Sign and Permit** The enclosed permit and permit sign must be conspicuously posted in a publicly accessible location at the project site. They must be visible, legible and protected from the elements at all times.

4. **Strip and Stockpile Soils for Reclamation** Prior to the excavation of previously undisturbed areas, topsoil and overburden shall be stripped, stockpiled separately, and used for reclamation of mined areas. These stockpiles shall be seeded to establish a vegetative cover within 30 days, or as soon as practicable following their construction. The permittee shall locate all overburden stockpiles within the permitted area of the approved Life of Mine. Sufficient quantities of topsoil must be retained on the site for use in reclamation, unless prior approval is granted by the department.

5. **No Unpermitted Discharge Outside Limits of Mine** There shall be no natural swales or channels or constructed features such as ditches, pipes, etc., that are capable of discharging waters to any offsite areas or to any areas outside the limits of the Life of Mine except those explicitly described and shown in the narrative and graphic portions of the approved Mined Land Use Plan. All silt laden water and storm water generated on, or running across, the site shall be retained within the approved project area. The permittee must comply with all applicable State Pollutant Discharge Elimination System (SPDES) permit requirements and provide necessary notifications for off-site point source discharges.

6. **Fueling of Equipment and Reporting of Spills** Fueling of equipment shall be controlled to prevent spillage. Any spillage of fuels, waste oils, other petroleum products or hazardous materials shall be reported to the department's Spill Hotline number (1-800-457-7362) within 2 hours. The permittee shall retain the department's Spill Response number for immediate access in the permittee's office and at the mine site.

7. **File Termination Notice** If the permittee decides to discontinue operation, a termination notice must be filed 60 days prior to the scheduled temporary or permanent cessation of mining.

8. **No Deviation From Approved Plan** The permittee shall not deviate or depart from the approved mined land use plan without approval by the department of an alteration or modification thereto.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Facility DEC ID 8-1844-00020

9. **Archaeological or Structural Remains** If any archaeological or structural remains are encountered during excavation, the permittee must immediately cease, or cause to cease, all work in the area of the remains and notify

Regional Permit Administrator
NYSDEC REGION 8 HEADQUARTERS
6274 EAST AVON-LIMA RD
AVON, NY14414

Work shall not resume until written permission to do so has been received from the department.

10. **Bond, Surety to Remain in Force** Any required reclamation bond or other surety, in an amount determined by the department, shall be maintained in full force and effect. Such a bond or other surety shall not be terminated until the reclamation of the mined area is approved by the department in writing.

11. **Maintain Area Markers for Permit Term** The permittee shall provide permanent markers such as stakes, posts or other devices acceptable to the Department to identify and delineate the permit area, as outlined on the approved Mining Plan Map. These markers are to be installed prior to the start of mining and shall be maintained for the duration of the permit term.

12. **Minimum 25 ft. Separation from Property Line** No mining activity of any kind, including clearing and grubbing, shall occur within 25 feet of any adjacent property line or right-of-way. When mining is conducted lower than the adjacent property, the distance from the floor of the mine to the nearest property line shall be no closer than 25 feet plus 1½ times the depth of the excavation, except where otherwise noted in the approved Mined Land Use Plan.

13. **Mining Operation Periods** All mining, reclamation and associated activities (including but not limited to: excavating, grading, processing operations, stockpiling operations, haulage operations, and maintenance operations) shall be limited to the following times: Monday through Friday 7 a.m. to 7 p.m., Saturdays 7 a.m. to 5 p.m. Operation of the mine is prohibited on Sundays and legal holidays.

14. **Dust Control** Water or other approved dust palliatives must be applied to haulageways and other parts of the mine, as often as necessary, to prevent visible dust from leaving the mine property.

GENERAL CONDITIONS - Apply to ALL Authorized Permits:

1. **Facility Inspection by The Department** The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Facility DEC ID 8-1844-00020

2. **Relationship of this Permit to Other Department Orders and Determinations** Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

3. **Applications For Permit Renewals, Modifications or Transfers** The permittee must submit a separate written application to the Department for permit renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing. Submission of applications for permit renewal, modification or transfer are to be submitted to:

Regional Permit Administrator
NYSDEC REGION 8 HEADQUARTERS
6274 EAST AVON-LIMA RD
AVON, NY14414

4. **Submission of Renewal Application** The permittee must submit a renewal application at least 30 days before permit expiration for the following permit authorizations: Mined Land Reclamation.

5. **Permit Modifications, Suspensions and Revocations by the Department** The Department reserves the right to modify, suspend or revoke this permit. The grounds for modification, suspension or revocation include:

a. materially false or inaccurate statements in the permit application or supporting papers;

b. failure by the permittee to comply with any terms or conditions of the permit;

c. exceeding the scope of the project as described in the permit application;

d. newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;

e. noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

6. **Permit Transfer** Permits are transferrable unless specifically prohibited by statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification
The permittee, excepting state or federal agencies, expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees, and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in

compliance or not in compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under Article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

Item B: Permittee's Contractors to Comply with Permit
The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits
The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

Item D: No Right to Trespass or Interfere with Riparian Rights
This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.

P 327888

CARMEN M. PARISO, INC.

3649 River Road
Tonawanda, NY 14150

OFFICE 875-6168 FAX 875-4121

JOB# 2635

CUSTOMER: MATRIX

DATE: 10/19/09

LOAD LOCATION: SEVEN SPRINGS

DUMP LOCATION: PORTER AVE

HIRED TRUCK COMPANY:

TRUCK #/DRIVER: 179 MARY

- [x] DUMP TRUCK SERVICE
- [ ] DUMP TRAILER SERVICE
- [ ] OTHER

MATERIAL HAULED: Clay Fill

JOB START
JOB FINISH
TRAVEL TIME
[ ] LUNCH [ ] NO LUNCH
TOTAL

LD #	TICKET #	WEIGHT	WAIT TIME ON JOB IN - OUT	REMARKS SPECIFY: ON "HOLD" @ PLANT, TOLLS, DUMP LOCATIONS, ETC.
1		19.32	-	
2		22.70	-	
3			-	
4			-	
5			-	
6			-	
7			-	
8			-	
9			-	
10			-	
11			-	
12			-	2 GT TOLLS
13			-	
14			-	
15			-	

OUR RESPONSIBILITY ENDS AT THE CURB

CUSTOMER'S SIGNATURE: _____

RETURN THIS ORIGINAL TO PARISO

10/19/2009 MON 10:35 FAX 008/011

P 304718

CARMEN M. PARISO, INC.

3649 River Road
Tonawanda, NY 14150

OFFICE 875-6168 FAX 875-2012

JOB # 25438

CUSTOMER: MATRIX

DATE: 10/14/09

LOAD LOCATION: Seven Springs

DUMP LOCATION: Porter [redacted]/N. Falls

HIRED TRUCK COMPANY:

TRUCK #/DRIVER: 238 LORI H

JOB START: 7:30

JOB FINISH: —

TRAVEL TIME: —

☒ DUMP TRUCK SERVICE
☐ DUMP TRAILER SERVICE
☐ OTHER

☐ LUNCH ☐ NO LUNCH

MATERIAL HAULED: Clay fill

TOTAL: —

LD #	TICKET #	WEIGHT	WAIT TIME ON JOB IN - OUT	REMARKS SPECIFY: ON "HOLD" @ PLANT, TOLLS, DUMP LOCATIONS, ETC.
1	209327	23.06	8:15-8:20	
2	209352	19.90	-	
3	209370	20.66		
4			-	
5				
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PARS
Environmental
Inc.

SITE INSPECTION REPORT

Niagara Falls Armed Forces Reserve Center Building 2 and Former Fire Protection Main 9400 Porter Road Niagara Falls, Niagara County, NY

Volume I of IV

Contract # GS-10F-0094W
Delivery Order # W912QR-10-F-0316 & W912QR-10-F-03222

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JUNE 2011

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STATEMENT OF TECHNICAL REVIEW

PARS Environmental, Inc. has completed the final Site Inspection Report for the evaluation of potential impacts at the Niagara Falls US Armed Forces Reserve Center located in Niagara Falls, New York (New York State Department of Environmental Conservation Spill # 0803478).

Notice is hereby given that an independent technical review has been conducted that is appropriate to the level of risk and complexity inherent in the project. During the independent technical review, compliance with established policy, principles and procedures, utilizing justified and valid assumptions, was verified. This included review of assumptions; methods, procedures and materials used in analyses; the appropriateness of data used and level of data obtained; and reasonableness of the results including whether the product meets the customer's needs consistent with the law and existing US Army Corp policy.

Significant concerns and explanation of the resolutions are documented within the project file. As noted above, all concerns resulting from the independent technical review of the project have been considered.

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6/1/2011
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1.0 INTRODUCTION

The United States Corps of Engineers (USACE), Louisville District has retained the services of PARS Environmental, Inc. (PARS) to conduct a site inspection at the Niagara Falls Armed Forces Reserve Center (AFRC). The AFRC is located at 9400 Porter Road in Niagara Falls, New York, hereinafter the "Site." The Site was most recently used for industrial purposes and the expected future use will be for commercial or industrial purposes. A Site Location Map and Site Plan are included as Figure 1 and Figure 2, respectively.

The inspection was performed in accordance with the *Quality Assurance Project Plan/Sampling Plan* (PARS, November 2010). The purpose of the site inspection was to evaluate potential impacts associated with the former underground storage tanks (USTs) at Building 2 and former fire protection main. The construction of the fire protection water main was also evaluated as part of the project.

Inspection activities consisted of a geophysical survey over an approximate one acre portion of the Site at the locations of the former USTs at Building 2 and in the vicinity of the former fire protection main. Exploratory excavations were performed to investigate the former fire protection main. Additionally, soil and water sampling was performed to evaluate potential impacts related to the former USTs and the former fire protection main.

2.0 BACKGROUND

2.1 SITE SETTING

The Niagara Falls AFRC is an approximate 19.5 acre parcel located on the southern portion of Niagara Township, in Niagara Falls, Niagara County, New York. The Site is bound to the south by Porter Road and the property located immediately south of Porter Road is undeveloped forested land. Niagara Falls International Airport is located immediately north and east of the Site. Other properties in the vicinity of the Site are used primarily for commercial purposes.

2.2 TOPOGRAPHY AND DRAINAGE

Based on the Tonawanda West United States Geologic Service (USGS) topographic quadrangle, the elevation of the Site is approximately 575 feet above mean sea level. Topography at the Site is relatively flat with a slight gradient to the west/southwest.

Surface and storm water drainage is directed to Cayuga Creek located immediately west of the Site. Cayuga Creek is a tributary of the Niagara River, which is located south of the Site.

2.3 GEOLOGY

The Site is located in the Erie-Ontario Lowlands Physiographic Province. The region is characterized by relatively flat topography and dissected by the east-west trending Niagara Escarpment, which is located about five miles north of the Site.

The Niagara Falls area is underlain by glacial sediment consisting mainly of till and lacustrine silt and clay, approximately 5 to 80 feet thick. The glacial deposits overlay weathered dolomite and limestone of the Lockport Group (Niagaran Series of Middle Silurian age). The Lockport Group is underlain by approximately 100 feet of shale and limestone (Clinton Group), which is underlain by about 110 feet of sandstone and shale (Medina Group).

Soils encountered during the inspection consisted of non-cohesive fill material from 0 to 4 feet below ground surface (bgs). Fill material at some probe locations extended from 8 to 13 feet bgs. The fill material encountered was comprised of a coarse-grained mixture of sand and gravel with varying amounts of fine-grained silt and clay. Varying amounts of brick, slag, concrete, rebar, asphalt and wood were observed within this matrix. Native surficial soils are comprised of silty clay with trace fine sand. Borings were not advanced beyond 13 feet bgs as part of the inspection activities.

2.4 HYDROGEOLOGY

The Site is underlain by the Lakemont silty clay loam and the Fonda mucky silt loam. Both soil types are fine to moderately fine-textured and have a low permeability. These soils are subject to ponding and the water table in the vicinity of the Site is at a depth of less than four feet below ground surface (Environmental Condition of Property Report, CH2MHill, June 2007).

The glacial deposits at the Site act as a confining unit for the weathered bedrock below. The hydraulic properties in the Lockport dolomite and limestone are related to secondary porosity and permeability due to the presence of fractures and solutioning. The main water-bearing zones in the Lockport Group are the weathered bedrock surface and horizontal fracture zones near stratigraphic contacts. The rock matrix transmits negligible amounts of groundwater because primary porosity is very low.

Groundwater was encountered at depths ranging from 2 to 6 feet bgs in soil probes and exploratory excavations during field activities. It is likely that the coarse-grained fill material overlying the less-permeable native fine-grained clay is creating the perched groundwater conditions at the Site.

2.5 HISTORY OF OPERATIONS

The United States Government acquired the Site in 1955 and the United States Navy used the Site to service helicopters and airplanes. Most of the buildings at the Site were constructed by 1956. The Army obtained the Site from the Navy in 1962, and from 1970 to 1975, it was used to service Nike Missiles from missile batteries around New York State.

The Site was most recently occupied by the 277th Quartermaster Company, the 865th Combat Support Hospital, the 1982nd Forward Surgical Unit and Area Maintenance Support Activity 76. A small presence was also maintained by personnel of the Department of Public Works (DPW), Fort Drum, New York (*Environmental Condition of Property Report*, CH2MHill, June 2007).

2.6 PREVIOUS INVESTIGATIONS

Six USTs were reportedly present along the eastern and western sides of former Building 2. Additionally, a vehicle fueling area was located immediately west of the building. No documents were available regarding the USTs and fueling area.

An investigation of the fire protection main was performed by United States Army Reserve (USAR) in 2008. Product was observed discharging from the 6-inch diameter cast iron line into the 24-inch diameter corrugated storm sewer along the eastern portion of the Site. The cast iron line was subsequently capped. The drain valve for the cast iron line was uncovered and dislodged during the investigation. Product was observed in the excavation. A sample was collected and the product was identified as diesel fuel. Low concentrations of polychlorinated biphenyls (PCBs) also were detected in the product sample.

A yellow substance was observed discharging from an outfall (Outfall No. 5) into the drainage swale at the southeast corner of the Site. As part of the investigation, a sediment sample was collected from the 24-inch diameter storm sewer adjacent to the cast iron pipe. A sample of the yellow substance was also collected from the drainage swale. The sample results revealed that the sediment in the pipe and the yellow substance present in the swale contained detectable levels of PCBs. The New York State Department of Environmental Conservation (NYSDEC) was notified and Spill # 0803478 was assigned for the discharge.

The *Site Plan Domestic Water and Fire Service* (April 1982) shows that the 6-inch cast iron line (fire protection main) was connected to a drain in the center of a 500,000-gallon reservoir. The 6-inch cast iron line was used to drain the reservoir into the 24-inch corrugated metal storm sewer line along the eastern boundary of the Site. A 10-inch fire protection main appears to be connected to the drain in the reservoir. This fire protection main was a pump suction line that was connected to the fire pump room in former Building 2. The approximate location of the fire protection main (6-inch and 10-inch lines) and reservoir are shown in Figure 3. Additionally, a copy of the *Site Plan Domestic Water and Fire Service* is included in Appendix A.

The USACE and the USAR 99th Regional Support Command (99th RSC) retained the services of PARS to investigate and remediate the drainage swale at Outfall No. 5. The 24-inch diameter storm sewer was cleaned and approximately 134 tons of PCB-impacted soil was excavated from the drainage swale as part of the remedial action.

PCB concentrations in the post-excavation soil samples from the drainage swale were below the maximum contaminant level of 1.0 milligram per kilogram (mg/kg) that was established by the NYSDEC. Investigation and remediation activities are outlined in the *Remedial Action Report* (PARS, March 2010).

3.0 GEOPHYSICAL SURVEY

3.1 SURVEY METHODOLOGY

AMEC Geomatrix, Inc. (AMEC) was retained to perform a geophysical survey over an area of approximately one acre at the locations of the former USTs adjacent to Building 2 and in the vicinity of the 6-inch diameter cast iron fire protection water main. The geophysical survey was performed on November 22, 2010.

A reference grid was laid out in the area of the geophysical survey to facilitate data collection along evenly spaced lines approximately three feet apart. The grid was marked with orange and white spray paint at select coordinate locations. Grid locations are depicted in Figure 4.

A Geonics EM61 (EM61) was used to provide a general geophysical characterization of the Site and to assist in the delineation of potential subsurface anomalies (i.e., buried metallic or metallic-containing objects). The EM61 unit is a high sensitivity, high resolution time domain electromagnetic (TDEM) metal detector that can detect both ferrous and non-ferrous metallic objects with an investigation depth of up to ten feet bgs.

The EM61 unit transmitter coil generates a pulsed primary electromagnetic field at a rate of 150 pulses per second, inducing eddy currents into the subsurface. The decay rates of these eddy currents are then measured by two rectangular receiver coils and at a relatively long time frame after termination of the primary pulse. The decay rates of the eddy currents are longer for metal objects than for soils. Data was recorded digitally by a data logger at a rate of approximately two measurements per foot along the survey lines. The instrument responses are recorded in units of millivolts (mV).

3.2 SURVEY RESULTS

Three anomalies were identified within the footprint of former Building 2 and were labeled Anomalies A through C. These anomalies were identified as a non-distinct feature and may be debris from the former building.

An anomaly, labeled Anomaly D, was identified immediately east of Building 21. Based on a review of historic utility maps for the Site, this anomaly appears to be an underground water meter vault for the fire protection system. Two linear anomalies trending in an east-west direction were identified immediately east of Anomaly D. Historic utility maps identify these linear anomalies as fire protection lines (see Appendix A).

A linear anomaly trending north-south was identified in central portion of the survey area. Additionally, a linear anomaly was identified in the southwest corner of the survey area. Based on historic utility maps, these linear anomalies appear to be sanitary sewer lines.

A linear anomaly generally trending north-south was identified in the eastern portion of the survey area. This geophysical anomaly was identified as a storm sewer line based on historic utility maps for the Site.

An approximate 150-foot long linear anomaly was identified in the general vicinity of the cast iron fire protection main that terminates at the 24-inch diameter corrugated metal storm sewer line. The amplitude of the geophysical response diminishes in a westerly direction, which indicates that the depth of the pipe increases to the west or the pipe is absent.

A copy of the geophysical survey report prepared by AMEC is included in Appendix B. Anomalies identified as part of the geophysical survey were located using a digital global positioning system (GPS) and these anomalies are depicted in Figure 4.

4.0 EXPLORATORY EXCAVATIONS

4.1 EXCAVATION/SAMPLING METHODOLOGY

Based on the findings of the geophysical survey, previous investigations and field observations, 12 exploratory excavations (TP-1 through TP-12) were completed at the Site on December 7 and 8, 2010. Prior to initiating the field activities, Dig Safe New York was contacted to locate underground utilities in the work area. A site-specific health and safety plan was developed and implemented in the field.

A Doosan DX 35Z track-mounted excavator was used to complete excavation activities. The locations of the exploratory excavations are depicted in Figure 4.

The purpose of the excavation activities was to inspect the cast iron fire protection main, which was connected to a former 500,000-gallon reservoir and discharged to the 24-inch diameter corrugated metal storm sewer line on the eastern portion of the Site. The scope of work of the exploratory excavations included the following.

- Locate and remove the drain valve for the cast iron pipe located approximately 8 to 10 feet west of the 24-inch diameter storm sewer line.
- Locate and uncover a drain at the center of the former reservoir and locate the western end of the cast iron pipe in the vicinity of former Building 2.
- If present, recover and containerize accessible product from the cast iron pipe.
- Inspect the footprint of former Building 2 and Anomalies A through C, which were identified as part of the geophysical survey.

Seven exploratory excavation locations were marked in the field using the grid coordinate system from the geophysical survey. These excavation locations were designated TP-1 through TP-6, TP-9 and TP-10. Additional exploratory excavations were completed based on field observations and were designated TP-7, TP-8, TP-11, and TP-12. TP-1 was performed in the area of geophysical anomalies A, B and C, where shallow refusal was encountered following several attempts to install a soil probe (SP-22).

Exploratory excavation logs were prepared summarizing the general subsurface conditions that were observed at each location. These logs are based on visual observations of the soils and include a summary description of the soils using color and composition. Soils were field screened using a Organic Vapor Monitor (OVM) equipped with a photoionization detector (PID) and a 10.6 eV ultraviolet lamp. No volatile organics were detected with the OVM during excavation activities. The excavation logs including field screening results are included as Appendix C.

Excavated soils were returned to the excavation and compacted with the bucket of the excavator.

4.2 EXPLORATORY EXCAVATION FINDINGS

The following is a summary of field observations at each exploratory excavation.

TP-1 – Excavated to an approximate depth of 4 feet bgs where refusal was encountered due to the presence of the presumed foundation of former Building 2 and structural rebar. An approximate 4-inch diameter steel pipe was observed in the west wall of the excavation. Two additional pipes (both approximately 2-inches in diameter) were observed under the 4-inch diameter steel pipe in an approximate southeast-northwest orientation. These pipes were situated in a "void" that was filled with water. No sheen or apparent odor was noted in the water.

A soil sample for laboratory analysis was collected from TP-1 at a depth of 0 to 4 feet bgs. The sample was analyzed for Target Compound List (TCL) volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), Target Analyte List (TAL) metals and PCBs.

TP-2 – Excavated to an approximate depth of 3.5 feet bgs. The cast iron pipe was not visibly identified at this location due to perched water infiltrating into the excavation. The pipe was located by sounding methods using a measuring tape and the excavator bucket. Perched groundwater was measured at approximately 2 feet bgs. No sheen or apparent odor was noted in the water.

TP-3 – Excavated to an approximate depth of 4 feet bgs. The top of the 6-inch cast iron pipe was observed and measured at approximately 3.5 feet bgs. Perched groundwater was measured at approximately 2.1 feet bgs. No sheen or apparent odor was noted in the water.

TP-4 - Excavated to an approximate depth of 4 feet bgs. The top of the 6-inch diameter cast iron pipe was observed and measured at approximately 3.3 feet bgs. Perched groundwater was measured at approximately 2.2 feet bgs. No sheen or apparent odor was noted in the water.

TP-5 - Excavated to an approximate depth of 4 feet bgs. An obstruction was encountered in approximate alignment with the cast iron pipe observed at TP-3 and TP-4. However, the 10-inch diameter pump suction line depicted in the *Site Plan Domestic Water and Fire Service* was not visibly identified due to perched water infiltrating into the excavation. The top of the obstruction was measured at approximately 3.7 feet bgs. Perched groundwater was measured at approximately 2.4 feet bgs. No sheen or apparent odor was noted in the water.

TP-6 and TP-7 – Excavated to an approximate depth of 4.5 feet and 5.0 feet, respectively. The 10-inch diameter pipe was not observed at these locations. Perched water was not encountered in these two exploratory excavations

TP-8 - Excavated to an approximate depth of 4.2 feet bgs. The 10-inch diameter pipe was not encountered at this location. Perched groundwater was measured at approximately 2.2 feet bgs. A slight sheen was observed on the water surface. Total organic vapors were not detected with the OVM.

TP-9 - Excavated to an approximate depth of 6 feet bgs. The 10-inch diameter pipe was not encountered. A partial concrete foundation was observed in the southern portion of the excavation. Perched groundwater was measured at approximately 4 feet bgs and a slight sheen was observed on the water surface. No organic vapors were detected with the OVM.

TP-10 - Excavated to an approximate depth of 2.5 feet bgs where refusal was encountered due to the presence of a concrete slab and structural rebar from former Building 2. No sheen or apparent odor was noted in the water.

TP-11 – Excavated from the west end of TP-4 towards TP-8, in an east-west orientation.
The 6-inch diameter pipe was uncovered to the west, where it terminated at a concrete catch basin. The catch basin is presumed to be the 500,000-gallon reservoir drain. Water was observed flowing from the 6-inch diameter pipe located to the east, into the catch basin. Perched groundwater was measured east of the catch basin at approximately 2.5 feet bgs.
A sample of the water was collected from the pipe for laboratory analysis. The sample was analyzed for TCL VOCs, TCL SVOCs, TAL metals and PCBs.

TP-12 – Excavated from the 24-inch diameter corrugated pipe westward to the intersection of TP-2. Two valves were observed during the excavation at approximately 2.5 feet bgs. The first valve was uncovered approximately 26 feet west of the eastern fence line and did not appear to be connected to the pipe. The second valve was exposed approximately 32 feet west of the eastern fence line.

Approximately 3 feet east of TP-2, petroleum product was observed within the fill material and on the groundwater surface. Perched water was measured at approximately 2.3 feet bgs. A sample of the impacted groundwater was collected at TP-12 for laboratory analysis. The sample was analyzed for TCL VOCs, TCL SVOCs, TAL metals and PCBs.

A drum vacuum was used to remove petroleum impacted water from TP-12. Five 55-gallon drums of water were filled and staged at the Site for waste characterization and disposal. Product nodules and a sheen were still observed on the groundwater surface after pumping.

4.3 EXPLORATORY EXCAVATION SAMPLE RESULTS

Several SVOCs were detected in the soil sample collected from TP-1 at concentrations exceeding the NYSDEC Unrestricted and Restricted Use Soil Cleanup Objectives. Additionally, chromium, iron and PCBs were detected in the soil sample at concentrations exceeding the Unrestricted Use Soil Cleanup Objectives. Laboratory results are summarized in Table 2 and the laboratory report is included in Volume III.

Toluene, naphthalene, 2,4-dimethylphenol, 4-methylphenol, benzo(a)anthracene, carbazole, phenol, PCBs and chromium were detected at concentrations exceeding the NYSDEC Class GA Objective in the water sample flowing from the 6-inch diameter pipe at TP-11. Water results are summarized in Table 3 and the laboratory report is included in Volume IV.

Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, PCBs and chromium were detected in the water sample at concentrations exceeding the NYSDEC Class GA Objective in the groundwater sample collected at TP-12. Laboratory results are summarized in Table 3 and the laboratory report is included in Volume IV.

4.4 WASTE CHARACTERIZATION AND DISPOSAL

A composite water sample was collected from the 55-gallon drums. The composite water sample was analyzed for TCL VOCs, TCL SVOCs, TAL metals and PCBs. A copy of the waste characterization laboratory results are included in Appendix D.

On February 28, 2011, the 55-gallon drums were transported to the Chemical Waste Management (CMW) facility in Model City, New York and disposed of as a non-hazardous waste. Waste disposal documentation is included as Appendix E.

5.0 SOIL PROBE SAMPLING

5.1 SOIL PROBE METHODOLOGY

Twenty-one soil probes, designated as SP-1 through SP-21, were completed on December 6 and 7, 2010 using a Geoprobe 54 OUD track-mounted rig equipped with a pneumatic hammer. The purpose of the soil probes was to evaluate potential environmental impacts related to the former USTs, vehicle refueling area and the 6-inch diameter fire protection water main. Soil probe locations are depicted in Figure 4.

The soil probes were advanced using direct-push methods via a 2-inch diameter macro-core sampler that was driven continuously at 48-inch intervals. A dedicated acetate sampler liner was used between sampling intervals. Material recovered in each acetate sample liner was screened for total organic vapors using an OVM equipped with a PID and a 10.6 eV ultraviolet lamp.

Following field screening, when sufficient sample recovery was obtained, representative portions of the recovered soils were placed in zip-lock bags for further classification and headspace analysis. The headspace in the bag above each collected soil sample was screened for total organic vapors. No total organic vapors were detected in the headspace screened soils, with the exception of the headspace sample result of 5.8 parts per millivolt measured at SP-2 from 6-8 feet bgs. Soils from the macro-core sleeves were returned to the boreholes.

Soil probe logs were prepared summarizing the general subsurface conditions that were observed and encountered at each probe location. These logs are based on visual observations of the recovered soils and include a summary description of the soils using color and composition. Soil probe logs including sample headspace results are included as Appendix F.

A soil sample for laboratory analysis was collected at each probe location and was analyzed for TCL VOCs, TCL SVOCs, TAL metals and PCBs. The soil sample collected at SP-2 was biased toward the depth interval with organic vapor headspace readings (6-8 feet bgs). Subsurface soil samples were collected from probes in the vicinity of the former USTs and surface soil samples were collected in the vicinity of the 6-inch diameter cast iron line.

5.2 SOIL PROBE ANALYTICAL RESULTS

Acetone was detected at a concentration exceeding the Unrestricted Use Soil Cleanup Objectives for the compound of 50 micrograms per kilogram (µg/kg) in five soil samples (SP-5-2-4, SP-6-2-4, SP-9-2-4, SP-17-4-8, and SP-19-0-4). No other VOCs were detected in the samples at concentrations exceeding the applicable Unrestricted or Restricted Use Soil Cleanup Objectives.

No SVOCs were detected at concentrations exceeding the Unrestricted or Restricted Use Soil Cleanup Objectives in the soil samples collected from the probes.

Barium, beryllium, chromium, iron, manganese, nickel and zinc were detected in the soil samples at concentrations exceeding the Unrestricted Use Soil Cleanup Objectives. Barium was detected in soil sample SP-17-4-8 at a concentration of 418 mg/kg, which exceeded the Residential and Commercial Restricted Use Soil Cleanup Objective of 400 mg/kg. Chromium was detected at concentrations exceeding the Residential Restricted Use Cleanup Objective of 180 mg/kg in soil samples SP-13-0-2, SP-14-2-4, SP-16-0-2, SP-18-0-4, SP-19-0-4 and SP-21-0-4. Manganese was detected in soil sample SP-7-4-8, SP-14-2-4, SP-15-0-4 and SP-18-0-4 at concentrations exceeding the Residential Restricted Use Soil Cleanup Objective.

PCBs were detected at concentrations exceeding the Unrestricted Soil Cleanup Objective in seven samples (SP-13-0-2, SP-14-2-4, SP-16-0-2 SP-18-0-4, SP-19-0-4, SP-20-0-4 and SP-21-0-4). PCBs were detected in soil sample SP-13-0-2, SP-16-0-2 SP-18-0-4, SP-19-0-4, and SP-21-0-4 at concentrations exceeding the Residential and Commercial Restricted Use Soil Cleanup Objective of 1,000 µg/kg.

A summary of sample analysis is included in Table 1. Soil analytical results are summarized in Table 2 and the laboratory reports are included in Volume II and III.

6.0 QUALITY CONTROL/QUALITY ASSURANCE

6.1 ANALYTICAL METHODS, PROCEDURES & CALIBRATION

Soil and groundwater samples were collected for laboratory analysis as part of the project. Laboratory analysis was performed by Test America Laboratories in Amherst, New York (NY Certification # NY455). Samples were analyzed for TCL VOCs, TCL SVOCs, TAL metals and PCBs in accordance with United States Environmental Protection Agency (USEPA) methods. USEPA methods used are summarized in Table 1.

Laboratory instruments and equipment were calibrated following SW-846 analytical method protocols. Initial calibrations and calibration checks were performed at a frequency specified in each analytical method.

Method blanks and instrument blanks were used by the laboratory to evaluate data quality. The purpose of the method blank is to assess contamination introduced during sample preparation. Method blanks are prepared and analyzed in the same manner as the field samples. Instrument blanks are analyzed with field samples to assess the presence or absence of instrument contamination. The frequency of instrument blanks is defined by the analytical method. The laboratory reports provided by Test America Laboratories are included in Volume II through Volume IV. The laboratory reports were prepared in accordance with the New York Analytical Services Protocol (Category B deliverable)

6.2 FIELD QUALITY CONTROL

Field quality control and quality assurance procedures outlined in the *Quality Assurance Project Plan/Sampling Plan* (PARS, November 2010) were implemented as part of the project. These procedures included field calibration of equipment, field decontamination of equipment and sample management.

An OVM was used to field screen soils for total organic vapors. The OVM was calibrated daily in accordance with manufacturer specifications using a gas standard of isobutylene at an equivalent concentration of 100 parts per million. Ambient air was used to establish background organic vapor concentrations.

Samples were collected in laboratory grade sample containers. The samples were immediately transferred to insulated coolers provided by the laboratory. A chain-of-custody form was used to trace the path of sample containers from the Site to the laboratory.

Two field duplicate soil samples were collected to assess the variability of a matrix at a specific sampling point and to assess the reproducibility of the sampling method. The field duplicate samples are separate aliquots of the same sample; prior to dividing the sample into "sample" and "duplicate" aliquots, the samples were homogenized (except for the VOC aliquots). Duplicate samples of SP-8-4-6 and SP-17-4-8 were collected in the field. The duplicate soil sample results are summarized in Table 2. Overall, detected compounds and concentrations were consistent for the sample and field duplicate sample.

The analytical test results for the soil samples were compared to NYSDEC, 6 NYCRR, Subpart 375-6, Unrestricted Soil Cleanup Objectives (December 14, 2006) and NYSDEC Final Commissioners Policy, CP-51, Supplemental Soil Cleanup Objectives (October 21, 2010).

The analytical test results for the water samples were compared to NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations dated October 1993; Revised June 1998; ERRATA Sheet dated January 1999 and Addendum dated April 2000 (Class GA Objective).

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 CONCLUSIONS

PARS was retained by the USACE, Louisville District to conduct a site inspection at the Niagara Falls AFRC located at 9400 Porter Road in Niagara Falls, New York. The Site was most recently used for industrial purposes and the expected future use is industrial or commercial.

The purpose of the site inspection was to evaluate potential impacts associated with the former USTs at Building 2 and former fire protection water main. Inspection activities consisted of a geophysical survey and exploratory excavations. Soil and water sampling was also performed as part of the inspection activities.

A geophysical survey was performed at the Site on November 22, 2010. Three anomalies (Anomalies A through C) were identified within the footprint of former Building 2. These anomalies were non-distinct features and were identified as debris from the former building. An anomaly, labeled Anomaly D, was identified immediately east of Building 21. This anomaly appears to be an underground water meter vault for the fire protection system. An approximate 150-foot long linear anomaly was identified in the general vicinity of the fire protection main that terminates at the 24-inch diameter corrugated storm sewer line. No anomalies consistent with USTs were identified as part of the geophysical survey.

On December 7 and 8, 12 exploratory excavations (TP-1 through TP-12) were completed at the Site based on the findings of the geophysical survey, previous investigations and field observations. TP-1 was installed at the location of Anomalies A through C and refusal was encountered at 4 feet bgs due to the presence of the presumed foundation of former Building 2, structural rebar and steel pipes.

A soil sample for laboratory analysis was collected from TP-1. Several SVOCs were detected in the sample at concentrations exceeding the NYSDEC Unrestricted and Restricted Use Soil Cleanup Objectives. No other compounds were detected in the sample at concentrations above the Restricted Use Soil Cleanup Objectives. Chromium, iron and PCBs were detected at concentrations exceeding the Unrestricted Use Soil Cleanup Objectives. Elevated SVOCs in the sample from TP-1 are likely attributed to the debris and fill material related to former Building 2. SVOCs were not detected in any of the soil probe samples at concentrations exceeding the Unrestricted Use or Restricted Use Soil Cleanup Objectives.

The 6-inch diameter cast iron fire protection water main was encountered at TP-2, TP-3, TP-4, TP-11 and TP-12. The 10-inch pump suction line from the reservoir to the fire pump room at former Building 2 was not encountered. At TP-11, the 6-inch diameter pipe terminated at a concrete catch basin presumed to be the 500,000-gallon reservoir drain. A sample was collected from the water that was observed flowing from the 6-inch diameter line. Several compounds including toluene, naphthalene, PCBs and chromium were detected in the water sample at concentrations exceeding the NYSDEC Class GA Objectives.

Two valves were observed at TP-12. The first valve was uncovered approximately 26 feet west of the eastern fence line and did not appear to be connected to the cast iron pipe. The second valve was connected to the cast iron pipe. Petroleum product was observed within the fill material and on the groundwater surface at TP-12. A sample of the impacted groundwater was collected for laboratory analysis. Several compounds, including PCBs and chromium, were detected in the water sample at concentrations exceeding the NYSDEC Class GA Objectives. A drum vacuum was used to remove petroleum impacted water. Five 55-gallon drums of water were generated and the drums were transported as non-hazardous waste to the CMW facility in Model City, New York.

Twenty-one soil probes (SP-1 through SP-21) were completed on December 6 and 7, 2010. One soil sample was collected from each probe for laboratory analysis. Acetone was detected at a concentration exceeding the Unrestricted Use Soil Cleanup Objective in samples SP-5-2-4, SP-6-2-4, SP-9-2-4, SP-17-4-8, and SP-19-0-4. This compound was identified as a possible laboratory contaminant. No other VOCs or SVOCs were detected at concentrations exceeding the Unrestricted or Restricted Use Soil Cleanup Objective in the soil probe samples.

Several metals were detected at concentrations exceeding the Unrestricted Use Soil Cleanup Objectives. Barium was detected in soil sample SP-17-4-8 at a concentration that exceeds the Residential and Commercial Restricted Use Soil Cleanup Objectives. Manganese and chromium were detected in several soil samples at concentrations exceeding the Residential Restricted Use Soil Cleanup Objectives. Metals detected in the samples are commonly found in fill material that is prevalent in the region. This fill material contains slag and asphalt, which was encountered in the soil probes installed as part of the site inspection.

PCBs were detected in soil samples SP-13-0-2, SP-16-0-2, SP-18-0-4, SP-19-0-4 and SP-21-0-4 at concentrations exceeding the Residential and Commercial Restricted Use Soil Cleanup Objective. PCBs were detected at concentrations exceeding the Unrestricted Soil Cleanup Objective in seven of the soil probe samples (SP-13-0-2, SP-14-2-4, SP-16-0-2, SP-18-0-4, SP-19-0-4, SP-20-0-4 and SP-21-0-4).

7.2 RECOMMENDATIONS

Based on the results of the site inspection, an investigation of the petroleum product and groundwater impacts identified at the Site is warranted. The purpose of the investigation is to identify a potential source and to delineate soil and groundwater impacts.

The following recommendations are based upon the completed inspection activities and the results of the soil and water analytical data. A draft report was submitted to the NYSDEC on March 28, 2011. Comments were received from the NYSDEC on May 20, 2011. These comments have been incorporated into the recommendations. Additionally, a copy of the comments received from NYSDEC is included in Appendix G.

NYSDEC requires that the remedial party achieve, where feasible, the Unrestricted Soil Cleanup Objectives for petroleum related contaminants listed in 6 NYCRR Table 375-6.8(a). The remedial party may propose Restricted Use Cleanup Objectives in accordance with any of the general approaches if cleanup to the Unrestricted Soil Cleanup Objectives is not feasible.

Investigation activities will include the installation of 16 “primary” and 14 “secondary” soil probes. Proposed soil probes will be field screened for VOCs using an OVM equipped with a PID. One surface and subsurface soil sample will be collected from each probe location. The samples from the “secondary” probe locations will be submitted to the laboratory and placed on hold pending the results of the “primary” soil sample results. The proposed locations of “primary” and “secondary” soil probes are shown in Figure 5. Samples from the “primary” soil probe locations will be submitted for TCL VOCs, SVOCs, PCBs and TCL metals. The sample analysis for the “secondary” samples will be based the results of the “primary” samples.

The proposed groundwater investigation will include the installation of nine temporary micro-well points. A groundwater sample will be collected from each temporary point and will be analyzed for TCL VOCs, SVOCs, PCBs and TAL metals. Proposed micro-well locations that will be installed at primary and secondary soil probe locations are depicted in Figure 5.

It is recommended that the petroleum product that was observed within the fill material at TP-12 be removed as an interim remedial action (IRA). This IRA is recommended because of the close proximately of the petroleum product to the 24-inch corrugated metal storm sewer line along the eastern boundary of the Site. Additional remediation may be required based on the findings of the proposed investigation. The IRA will include the excavation of approximately 50 tons of impacted soil and the removal of impacted groundwater. The portion of the 6-inch diameter cast iron fire protection water main that is uncovered will also be removed as part of the IRA. Post-excavation soil samples will be collected from the excavation and will be analyzed for TCL VOCs, SVOCs, PCBs and TAL metals. Backfill with clean soil that is similar to the material excavated and cap with approximately 4 to 6” of crushed stone.

After the completion of the investigation, a remedial investigation report and feasibility study will be prepared for the Site. Additionally a Human Health Risk Assessment (HHRA) will be performed to evaluate potential impacts to human health from exposure to soil and groundwater. The objective of the HHRA is to evaluate potential risks to human health under current and reasonably foreseeable future conditions. The risk assessment will be conducted in accordance with current regulations and guidelines set forth by the USEPA. The risk assessment will include the following four components: hazard identification, exposure assessment, toxicity assessment, and risk characterization.

FIGURES

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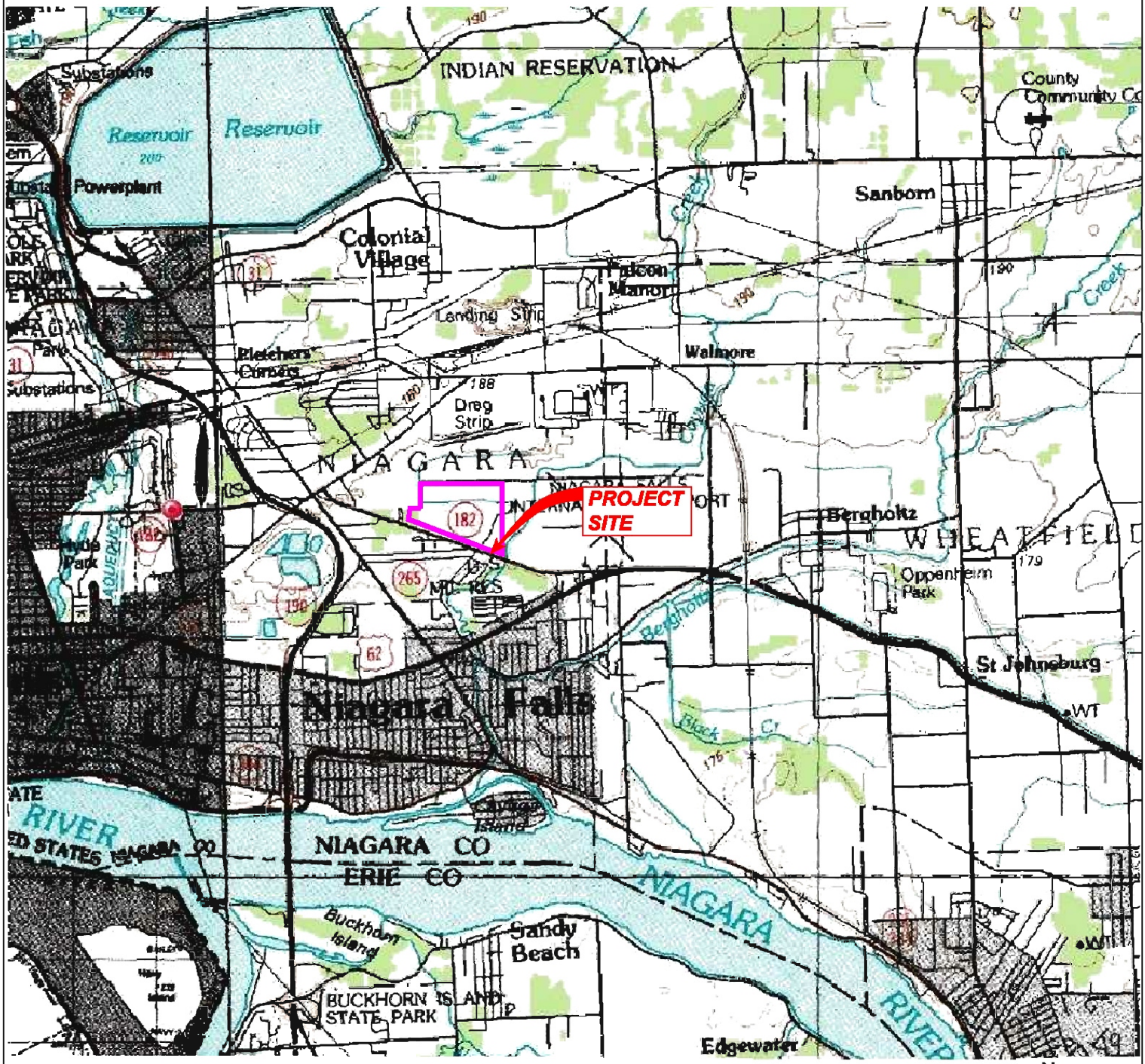

0 500 1000 2000

SCALE IN FEET

N W E S

NOTE:
BASE MAP ADAPTED FROM U.S.G.S. TOPOGRAPHIC MAPS DOWNLOADED FROM TERRASERVER.MICROSOFT.COM

FIGURE 1
SITE LOCATION MAP
USAFRC
NIAGARA FALLS, NEW YORK

PARS ENVIRONMENTAL, INC.
ROBBINSVILLE, NEW JERSEY

DR. BY: KN	SCALE: 1" = 2,000'	JOB No.: 773-04
CK'D. BY: MM	DATE: 1/10/10	FILE NO.: 773-04
REV. NO. –	REV. DATE: –	FIGURE NO.:1

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OUTFALL No. 1
OUTFALL No. 1 SAMPLING LOCATION
CAYUGA CREEK
OUTFALL No. 2
OUTFALL No. 3
DISCHARGE TO CAYUGA CREEK FROM DRAINAGE SWALE
DRAINAGE SWALE
DRAINAGE SWALE
BUILDING 4
BUILDING 24
BUILDING 23
BUILDING 22
BUILDING 19
BUILDING 18
BUILDING 25
BUILDING 20
BUILDING 21
BUILDING 26
PORTER ROAD
DRAINAGE SWALE
OUTFALL No. 4
DRAINAGE SWALE
OUTFALL No. 5
APPROXIMATE PROPERTY LINE
NORTH
0 60 120 240
SCALE IN FEET

LEGEND:

SANITARY SEWER LOCATION

STORM SEWER LOCATION WITH FLOW DIRECTION

NOTES:

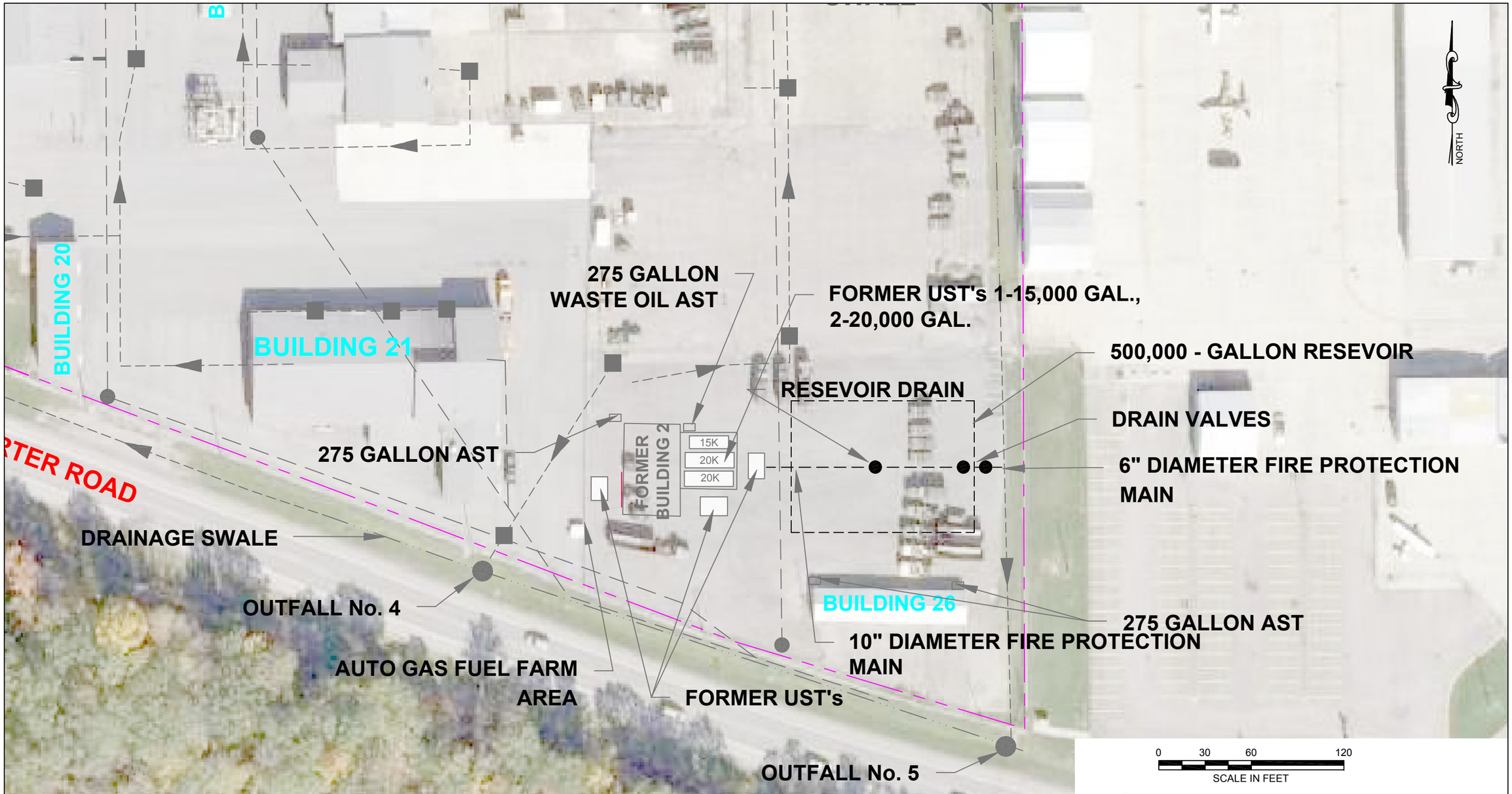
1. BASE MAP ADAPTED FROM A 2008 AERIAL PHOTO AND PROPERTY LINE DOWNLOADED FROM http://www.bing.com/maps/I AND FIELD OBSERVATIONS.

2. THE SIZE AND LOCATION OF EXISTING SITE FEATURES SHOULD BE CONSIDERED APPROXIMATE.

FIGURE 2
SITE PLAN
USAFRC
NIAGARA FALLS, NEW YORK

PARS ENVIRONMENTAL, INC.
ROBBINSVILLE, NEW JERSEY

DR. BY: KN	SCALE: 1" = 120'	JOB No.: 773-04
CK'D. BY: MM	DATE: 1/12/10	FILE NO.: 773-04
REV. NO. –	REV. DATE: 10/25/10	FIGURE NO.: 2



LEGEND:

SANITARY SEWER LOCATION

STORM SEWER LOCATION WITH FLOW DIRECTION

DRAINAGE OUTFALL LOCATION

NOTES:

1. BASE MAP ADAPTED FROM A 2008 AERIAL PHOTO AND PROPERTY LINE DOWNLOADED FROM http://www.bing.com/maps/I AND FIELD OBSERVATIONS.

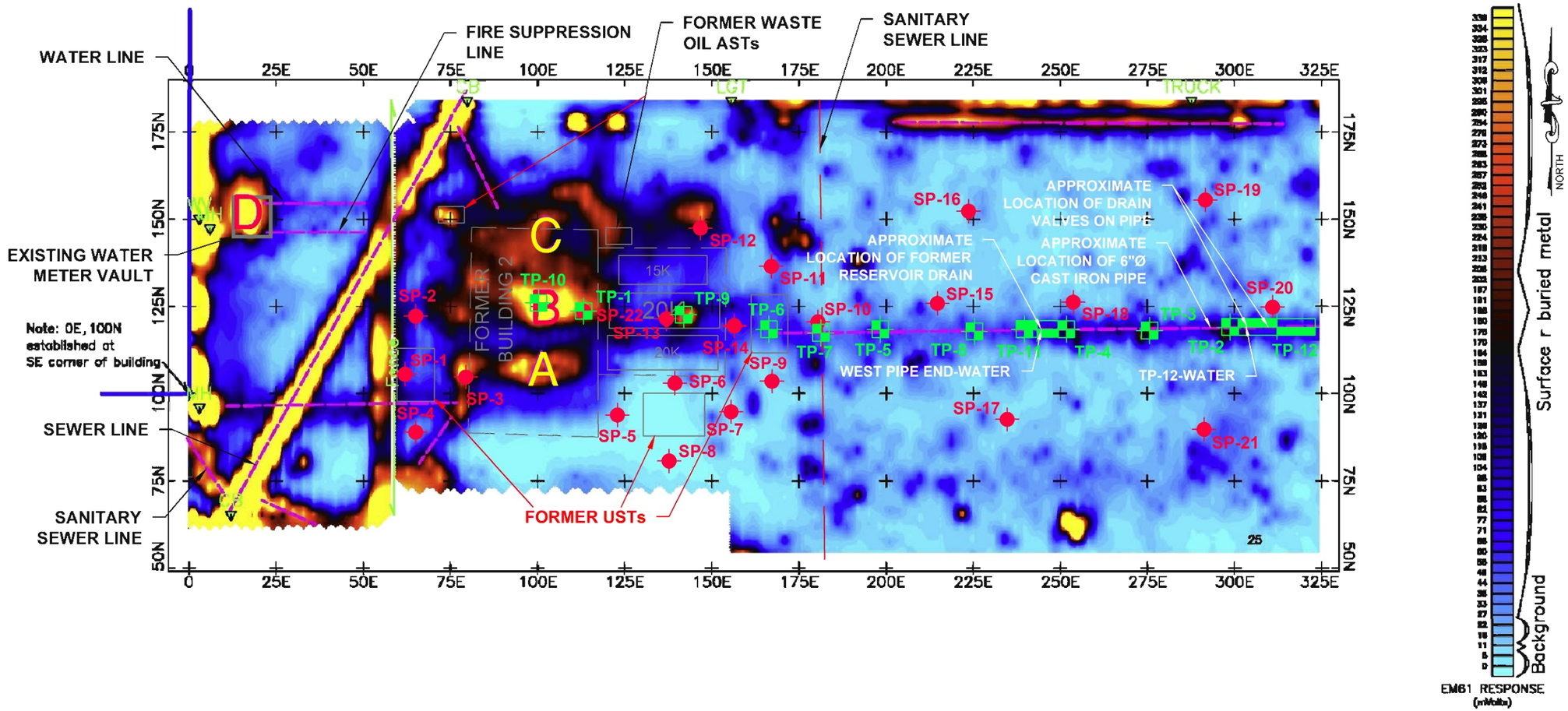
2. THE SIZE AND LOCATION OF EXISTING SITE FEATURES SHOULD BE CONSIDERED APPROXIMATE.

3. LOCATION FOR FIRE PROTECTION MAIN AND DRAINS IS BASED ON THE GEOPHYSICAL SURVEY AND HISTORIC MAPS.

FIGURE 3
FORMER USTs AND FIRE PROTECTION LOCATION MAP
USAFRC
NIAGARA FALLS, NEW YORK

PARS ENVIRONMENTAL, INC.
ROBBINSVILLE, NEW JERSEY

DR. BY: KN	SCALE: 1" = 60'	JOB No.: 773-04
CK'D. BY: MM	DATE: 1/12/10	FILE NO.: 773-04
REV. NO. –	REV. DATE: 3/16/11	FIGURE NO.: 3



LEGEND:

SP-19 — APPROXIMATE LOCATION AND DESIGNATION OF SOIL PROBE COMPLETED ON DECEMBER 6 & 7, 2010 (21 LOCATIONS)

TP-8 — APPROXIMATE LOCATION AND DESIGNATION OF EXPLORATORY EXCAVATION COMPLETED ON DECEMBER 7 & 8, 2010 (12 LOCATIONS)

TP-1 SP-22 — APPROXIMATE LOCATION AND DESIGNATION OF SOIL PROBE CONVERTED TO A EXPLORATORY EXCAVATION DUE TO SUBSURFACE REFUSAL FOLLOWING SEVERAL ATTEMPTS COMPLETED ON DECEMBER 7, 2010

C — GEOPHYSICAL ANOMALY DISCUSSED IN REPORT

INTERPRETED LINEAR ANOMALY

NOTES:

1. BASE MAP ADAPTED FROM GEOPHYSICAL SURVEY PERFORMED BY AMEC GEOMATRIX, INC. DATED NOVEMBER 30, 2010

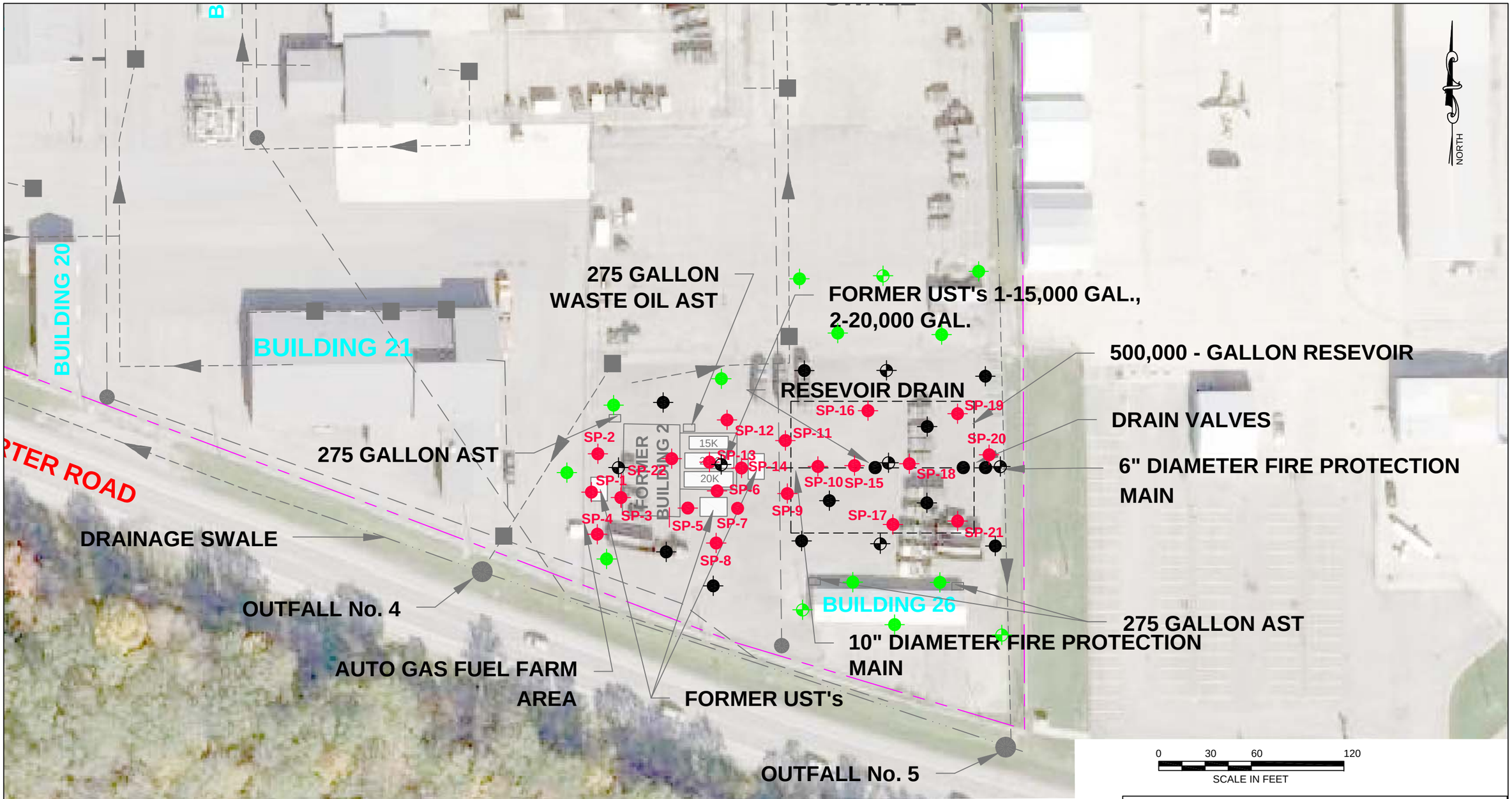
2. THE SIZE AND LOCATION OF EXISTING SITE FEATURES SHOULD BE CONSIDERED APPROXIMATE.

0 15 30 60
SCALE

FIGURE 4
GEOPHYSICAL SURVEY/SAMPLE LOCATION MAP
9400 PORTER ROAD
NIAGARA FALLS, NEW YORK

PARS ENVIRONMENTAL, INC.
ROBBINSVILLE, NEW JERSEY

DR. BY: KN	SCALE: 1" = 30'	JOB No.: 773-04
CK'D. BY: MM	DATE: 1/17/11	FILE NO.: 773-04
REV. NO. -	REV. DATE: 3/16/11	FIGURE NO.: 4



LEGEND:

- SP-19 APPROXIMATE LOCATION OF SOIL PROBE COMPLETED ON DECEMBER 6 & 7 2010
- PROPOSED PRIMARY SOIL PROBE LOCATION
- PROPOSED PRIMARY SOIL PROBE AND MICRO-WELL LOCATION
- PROPOSED SECONDARY SOIL PROBE LOCATION
- SANITARY SEWER LOCATION
- STORM SEWER LOCATION WITH FLOW DIRECTION
- DRAINAGE OUTFALL LOCATION
- PROPOSED SECONDARY SOIL PROBE AND MICRO-WELL LOCATION

NOTES:

1. BASE MAP ADAPTED FROM A 2008 AERIAL PHOTO AND PROPERTY LINE DOWNLOADED FROM http://www.bing.com/maps/I AND FIELD OBSERVATIONS.

2. THE SIZE AND LOCATION OF EXISTING SITE FEATURES SHOULD BE CONSIDERED APPROXIMATE.

3. LOCATION FOR FIRE PROTECTION MAIN AND DRAINS IS BASED ON THE GEOPHYSICAL SURVEY AND HISTORIC MAPS.

FIGURE 5
PROPOSED SAMPLE LOCATIONS
USAFRC
NIAGARA FALLS, NEW YORK

PARS ENVIRONMENTAL, INC.
ROBBINSVILLE, NEW JERSEY

DR. BY: KN	SCALE: 1" = 60'	JOB No.: 773-04
CK'D. BY: MM	DATE: 1/12/10	FILE NO.: 773-04
REV. NO. -	REV. DATE: 6/1/11	FIGURE NO.: 5

TABLES

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Table 1
Analytical Sample Summary Table
Niagara Falls Armed Forces Reserve Center
Niagara Falls, New York

Sample Identification	Date Collected	VOCs EPA Method 8260-TCL	SVOCs EPA Method 8270 - TCL	TAL Metals EPA Method SW 846	PCBs EPA Method 8082
Soil Probe Samples					
SP-1-5-7	12/6/2010	X	X	X	X
SP-2-6-8	12/6/2010	X	X	X	X
SP-3-4-6	12/6/2010	X	X	X	X
SP-4-2-4	12/6/2010	X	X	X	X
SP-5-2-4	12/6/2010	X	X	X	X
SP-6-2-4	12/6/2010	X	X	X	X
SP-7-4-6	12/6/2010	X	X	X	X
SP-8-4-6	12/6/2010	X	X	X	X
SP-9-2-4	12/6/2010	X	X	X	X
SP-10-2-4	12/6/2010	X	X	X	X
SP-11-2-4	12/6/2010	X	X	X	X
SP-12-6-10	12/6/2010	X	X	X	X
SP-13-0-2	12/7/2010	X	X	X	X
SP-14-2-4	12/7/2010	X	X	X	X
SP-15-0-4	12/7/2010	X	X	X	X
SP-16-0-2	12/7/2010	X	X	X	X
SP-17-4-8	12/7/2010	X	X	X	X
SP-18-0-4	12/7/2010	X	X	X	X
SP-19-0-4	12/7/2010	X	X	X	X
SP-20-0-4	12/7/2010	X	X	X	X
SP-21-0-4	12/7/2010	X	X	X	X
TP-1-0-4*	12/7/2010	X	X	X	X
Water Samples					
West Pipe End - Water	12/8/2010	X	X	X	X
TP-12 - Water	12/8/2010	X	X	X	X

Notes:
1. NA = Not Applicable
2. SP-1-5-7 = (SP-1), Sample Type and Location, (5-7) Sample Depth below Ground Surface
   SP = Soil Probe. TP = Test Pit
3. VOCs = Volatile Organic Compounds
4. SVOCs = Semi-Volatile Organic Compounds
5. TCL = Target Compound List
6. TAL = Target Analyte List
7. PCBs = Polychlorinated Biphenyls
8. * TP-1-0-4 = SP-22 was converted to a test pit exploration due to subsurface refusal

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Table 2
Soil Analytical Testing Results Summary
Niagara Falls Armed Forces Reserve Center
Niagara Falls, New York

Parameter	Unrestricted Use Soil Cleanup Objectives	Restricted Residential Soil Cleanup Objectives	Restricted Commercial Soil Cleanup Objectives	SP-1-5-7 12/06/2010 Result	SP-2-6-8 12/06/2010 Result	SP-3-4-6 12/06/2010 Result	SP-4-2-4 12/06/2010 Result	SP-5-2-4 12/06/2010 Result	SP-6-2-4 12/06/2010 Result	SP-7-4-6 12/06/2010 Result	SP-8-4-6 12/06/2010 Result	SP-8 (DUP-1) 12/06/2010 Result	SP-9-2-4 12/06/2010 Result	SP-10-2-4 12/06/2010 Result	SP-11-2-4 12/06/2010 Result	SP-12-6-10 12/06/2010 Result
Volatile Organic Compounds - EPA Method 8260 TCL (ug/kg)																
Acetone	50	**100,000**	*500,000*	7.1 J	ND	31 J	38	70	120	38	38	49	100	45	48	44
Methylene Chloride	50	**100,000**	*500,000*	25	12	32	29	35	31	31	30	20	27	24	38	25
Toluene	700	**100,000**	*500,000*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,000	**41,000**	*390,000*	ND	31	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.3 J
Xylenes, total	260	**100,000**	*500,000*	ND	23	3.2 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	15
Isopropylbenzene	2,300	**NV**	*NV*	ND	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.5 J
Methylcyclohexane	NV	**NV**	*NV*	ND	66	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	3,900	**100,000**	*500,000*	ND	42	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	8,400	**52,000**	*190,000*	ND	29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.9 J
4-Isopropyltoluene	10,000 [11]	**NV**	*NV*	ND	7.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3,600	**52,000**	*190,000*	1.4 J	130	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11
sec-Butylbenzene	11,000	**100,000**	*500,000*	ND	5.3 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	100,000	**NV**	*NV*	ND	ND	ND	ND	16 J	28 J	ND	ND	ND	27 J	8.9 J	ND	ND
n-Butylbenzene	12,000	**NV**	*NV*	ND	13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	12,000	**100,000**	*500,000*	ND	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	230
Total VOCs	NV	**NV**	*NV*	33.5	392.8	66.2	67.0	121.0	179.0	69.0	68.0	69.0	154.0	69.0	86.0	335
Total VOC TICs	NV	**NV**	*NV*	41.1	2140	14	11	17	14	12	12	8.1	12	10	14	51
Semi-Volatile Organic Compounds - EPA Method 8270 (ug/kg)																
Naphthalene	12,000	**100,000**	*500,000*	ND	410	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	690
2-Methylnaphthalene	410 [11]	**NV**	*NV*	ND	410	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	100,000	**100,000**	*500,000*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	20,000	**100,000**	*500,000*	ND	25 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	30,000	**100,000**	*500,000*	17 J	39 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	100,000	**100,000**	*500,000*	48 J	170 J	ND	ND	ND	66 J	ND	ND	ND	ND	ND	25 J	33 J
Anthracene	100,000	**100,000**	*500,000*	ND	50 J	ND	ND	ND	22 J	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100,000	**100,000**	*500,000*	51 J	210	ND	ND	ND	190 J	ND	ND	ND	ND	22 J	33 J	33 J
Pyrene	100,000	**100,000**	*500,000*	46 J	180 J	ND	ND	ND	130 J	ND	ND	ND	ND	14 J	24 J	23 J
Benzo(a)anthracene	1,000	**1,000**	*5,600*	20 J	91 J	ND	ND	ND	89 J	ND	ND	ND	ND	ND	16 J	18 J
Dibenzo(a,h)anthracene	330	**330**	*560*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	50000 [11]	**NV**	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	100 J	ND	ND	ND
Carbazole	NV	**NV**	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	1,000	**3,900**	*56,000*	27 J	94	ND	ND	ND	78 J	ND	ND	ND	ND	ND	ND	17 J
Benzo(b)fluoranthene	1,000	**1,000**	*5,600*	34 J	110 J	ND	ND	ND	120 J	ND	ND	ND	ND	13 J	14 J	ND
Benzo(k)fluoranthene	800	**3,900**	*56,000*	12 J	39 J	ND	ND	ND	37 J	ND	ND	ND	ND	ND	ND	ND
Biphenyl	NV	**NV**	*NV*	ND	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	1,000	**1,000**	*1,000*	23 J	85 J	ND	ND	ND	85 J	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	500	**500**	*5,600*	19 J	38 J	ND	ND	ND	40 J	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	100,000	**100,000**	*500,000*	26 J	51 J	ND	ND	ND	50 J	ND	ND	ND	ND	ND	ND	ND
Total SVOCs	NV	**NV**	*NV*	323	2,034	ND	ND	ND	908	ND	ND	ND	100	49	112	814
Total SVOC TICs	NV	**NV**	*NV*	1,550	19,150	ND	ND	3,000	7,350	ND	ND	ND	ND	220	1600	690
TAL Metals - EPA Method SW 846 (mg/kg)																
Aluminum	NV	**NV**	*NV*	2,290 B	2,460 B	17,600 B	21,200 B	27,600 B	21,000 B	20,500 B	17,400 B	15,300 B	23,500 B	9,870 B	13,600 B	21,110 B
Antimony	NV	**NV**	*NV*	ND	ND	ND	ND	ND	1.0 J	ND	ND	ND	ND	ND	ND	ND
Arsenic	13	**16**	*16*	2.0 J	4.8	6.4	2.8	7.1	5.7	7.6	5.7	3.7	3.4	1.9 J	2.1 J	4.8
Barium	350	**400**	*400*	11.6	14	105	151	171	130	179	41.2	89.4	106	71.9	84.2	152
Beryllium	7.2	**590**	*590*	0.115 J	0.105 J	0.950	1.39	1.95	1.14	1.12	0.903	0.771	1.15	0.456	0.583	1.27
Cadmium	2.5	**9.3**	*9.3*	0.186 J	0.169 J	0.221 J	0.109 J	0.156 J	0.251 J	0.185 J	0.182 J	0.151 J	0.153 J	0.157 J	0.169 J	0.146 J
Calcium	NV	**NV**	*NV*	95,000 B	78,300 B	16,800 B	2,020 B	2,090 B	5,850 B	10,700 B	49,300 B	44,100 B	1,570 B	3,040 B	4,300 B	18,900 B
Chromium	30	**180**	*1,500*	3.45	7.12	23.5	27.6	38	29.8	29.5	24.1	22.0	30.8	11.2	15	29.8
Cobalt	30 [11]	**NV**	*NV*	2.03	1.96	13.8	11.5	26.8	14.6	18.2	14.3	14.3	23.1	2.4	3.28	19.3
Copper	50	**270**	*270*	8.7	6.1	23.1	21.6	34.3	22.4	33	24.7	21.1	30.7	7.1	7.3	30.4
Iron	2000 [11]	**NV**	*NV*	5,690 B	5,360 B	26,800 B	31,900 B	44,600 B	37,900 B	35,300 B	29,300 B	25,100 B	31,600 B	8,600 B	16,100 B	34,500 B
Lead	63	**400**	*1,000*	8	6.3	13.4	15	14.9	17.8	14.4	9.7	8.0	7.5	11.7	8.5	16.6
Magnesium	NV	**NV**	*NV*	50,500	31,200	10,500	8,210	9,580	8,000	14,800	14,000	12,200	8,100	2,130	2,850	10,800
Manganese	1,600	**2,000**	*10,000*	298 B	222 B	291 B	186 B	476 B	266 B	**2,470 B**	475 B	587 B	432 B	84.0 B	162 B	782 B
Mercury	0.18	**0.81**	*2.8*	ND	ND	0.0132 J	0.0423	0.0451	0.0492	0.0341	ND	0.0100	0.0218 J	0.0685	0.0703	0.0394
Nickel	30	**310**	*310*	5.24 J	5.04 J	33.7	33.2	48.8	34.3	42.4	34.6	33.3	37.7	9.53	11.5	42.8
Potassium	NV	**NV**	*NV*	485	659	1,600	1,770	2,450	2,040	1,980	2,260	2,240	1,700	1,240	1,460	2,180
Selenium	3.9	**180**	*1,500*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	NV	**NV**	*NV*	151 J	134 J	136 J	298	347	141 J	294	322	278	150 J	111 J	112 J	341
Vanadium	100 [11]	**NV**	*NV*	6.11	5.96	29.7	33.9	47.4	39.6	38.7	32.1	26.8	32.3	9.58	12.5	38.1
Zinc	109	**10,000**	*10,000*	44.6 B	30.6 B	62.3 B	72.0 B	100	84.5 B	69.5 B	61.7 B	56.6 B	74.0 B	30.1 B	35.9 B	72.1 B
Polychlorinated Biphenyls - EPA Method 8082 (ug/kg)																
Aroclor 1248	NV	**NV**	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	51	ND
Aroclor 1254	NV	**NV**	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	NV	**NV**	*NV*	ND	ND	ND	ND	ND	ND	29	ND	ND	ND	ND	25	ND
Total PCBs	100*	**1000***	*1,000**	ND	ND	ND	ND	ND	ND	29	ND	ND	ND	ND	76	ND

Table 2
Soil Analytical Testing Results Summary
Niagara Falls Armed Forces Reserve Center
Niagara Falls, New York

Parameter	Unrestricted Use Soil Cleanup Objectives	Restricted Residential Soil Cleanup Objectives	Restricted Commercial Soil Cleanup Objectives	SP-13-0-2 12/07/2010 Result	SP-14-2-4 12/07/2010 Result	SP-15-0-4 12/07/2010 Result	SP-16-0-2 12/07/2010 Result	SP-17-4-8 12/07/2010 Result	SP-17 (DUP-2) 12/07/2010 Result	SP-18-0-4 12/07/2010 Result	SP-19-0-4 12/07/2010 Result	SP-20-0-4 12/07/2010 Result	SP-21-0-4 12/07/2010 Result	TP-1-0-4* 12/07/2010 Result
Volatile Organic Compounds - EPA Method 8260 TCL (ug/kg)														
Acetone	50	**100,000**	*500,000*	10 J	19 J	19 J	ND	52	69	11 J	340	29	13	7.6 J
Methylene Chloride	50	**100,000**	*500,000*	5.9	5.2 J	6.6	4.6 J	5.9 J	4.1 J	7.8	5.4 J	4.1 J	4.7 J	4.6 J
Toluene	700	**100,000**	*500,000*	ND	ND	ND	ND	ND	ND	ND	ND	1.6 J	ND	ND
Ethylbenzene	1,000	**41,000**	*390,000*	ND	ND	ND	ND	ND	ND	ND	1.9 J	2.6 J	ND	ND
Xylenes, total	260	**100,000**	*500,000*	ND	ND	ND	ND	ND	ND	ND	5.2 J	8.3 J	ND	ND
Isopropylbenzene	2,300	**NV**	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylcyclohexane	NV	**NV**	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	3,900	**100,000**	*500,000*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	8,400	**52,000**	*190,000*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Isopropyltoluene	10,000 [11]	**NV**	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3,600	**52,000**	*190,000*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	11,000	**100,000**	*500,000*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	100,000	**NV**	*NV*	ND	ND	ND	ND	ND	7.1	ND	ND	ND	ND	ND
n-Butylbenzene	12,000	**NV**	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	12,000	**100,000**	*500,000*	ND	1.3 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total VOCs	NV	**NV**	*NV*	15.9	25.5	25.6	4.6	57.9	84.3	18.8	352.5	45.6	13.0	12.2
Total VOC TICs	NV	**NV**	*NV*	10	8.9	9.8	8.6	12	8.4	9.5	8.1	7.1	7.3	6.5
Semi-Volatile Organic Compounds - EPA Method 8270 (ug/kg)														
Naphthalene	12,000	**100,000**	*500,000*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	410 [11]	**NV**	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	100,000	**100,000**	*500,000*	ND	32 J	ND	ND	ND	ND	ND	ND	ND	ND	3,000 J
Acenaphthene	20,000	**100,000**	*500,000*	ND	22 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	30,000	**100,000**	*500,000*	ND	47 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	100,000	**100,000**	*500,000*	ND	330	ND	ND	ND	ND	660 J	1,100 J	ND	ND	5,400 J
Anthracene	100,000	**100,000**	*500,000*	ND	92 J	ND	ND	ND	ND	160 J	200 J	ND	ND	1,900 J
Fluoranthene	100,000	**100,000**	*500,000*	1,300 J	510	ND	ND	27 J	25 J	800 J	1,600 J	ND	ND	16,000
Pyrene	100,000	**100,000**	*500,000*	1,200 J	480	14 J	ND	25 J	23 J	800 J	1,400 J	ND	ND	15,000
Benzo(a)anthracene	1,000	**1,000**	*5,600*	960 J	290	ND	ND	16 J	19 J	420 J	790 J	ND	ND	***10,000***
Dibenzo(a,h)anthracene	330	**330**	*560*	ND	38 J	ND	ND	ND	ND	ND	ND	ND	ND	***2,300 J***
Bis(2-ethylhexyl)phthalate	50000 [11]	**NV**	*NV*	6,600 JB	170 JB	150 JB	ND	160 JB	160 JB	1500 JB	1800 JB	1300 JB	7,500 JB	ND
Carbazole	NV	**NV**	*NV*	ND	24 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	1,000	**3,900**	*56,000*	690 J	230	ND	ND	ND	ND	420 J	690 J	ND	ND	**9,700**
Benzo(b)fluoranthene	1,000	**1,000**	*5,600*	1,000 J	260	ND	ND	16 J	ND	450 J	740 J	ND	ND	***14,000***
Benzo(k)fluoranthene	800	**3,900**	*56,000*	ND	110 J	ND	ND	ND	ND	ND	ND	ND	ND	**6,500 J**
Biphenyl	NV	**NV**	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	1,000	**1,000**	*1,000*	960 J	250	ND	ND	ND	15 J	390 J	680 J	ND	ND	***14,000***
Indeno(1,2,3-cd)pyrene	500	**500**	*5,600*	ND	110 J	ND	ND	ND	ND	210 J	320 J	ND	ND	***8,800 J***
Benzo(g,h,i)perylene	100,000	**100,000**	*500,000*	730 J	120 J	ND	ND	ND	ND	280 J	380 J	ND	ND	12,000
Total SVOCs	NV	**NV**	*NV*	13,440	3,075	164	ND	244	242	6,090	9,700	1,300	7,500	118,600
Total SVOC TICs	NV	**NV**	*NV*	ND	ND	580	9,400	ND	ND	ND	ND	ND	ND	7,600
TAL Metals - EPA Method SW 846 (mg/kg)														
Aluminum	NV	**NV**	*NV*	10,700	24,000	32,100	15,500	17,400	15,800	11,400	13,200	15,100	9,810	9,970
Antimony	NV	**NV**	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	13	**16**	*16*	6.0	6.5	2.4	6.1	6.3	2.7	8.1	6.8	5.0	6.1	4.1
Barium	350	**400**	*400*	98.6	194	249	107	***418***	168	104	133	90.3	81.3	153
Beryllium	7.2	**590**	*590*	1.38	4.71	8.21	1.96	0.926	0.800	1.38	0.81	1.27	0.637	1.23
Cadmium	2.5	**9.3**	*9.3*	0.48	0.353	0.061 J	0.216 J	0.152 J	0.114	0.554	0.25 J	0.168 J	0.791	0.800
Calcium	NV	**NV**	*NV*	168,000 B	203,000 B	268,000 B	225,000 B	50,700 B	49,500 B	173,000 B	157,000 B	44,000 B	138,000 B	116,000 B
Chromium	30	**180**	*1,500*	**682**	**379**	31.4	**1,040**	24.2	22.3	**797**	**969**	119	**720**	165
Cobalt	30 [11]	**NV**	*NV*	3.73	6.41	2.44	3.47	16.2	13.6	5.63	5.83	10.4	11.8	4.68
Copper	50	**270**	*270*	9.5	25.4	4.8	11	24.9	18.5	108	45.3	16	19.5	13
Iron	2000 [11]	**NV**	*NV*	6,750	24,700	4,360	4,140	31,000	23,800	22,200	10,900	16,200	20,900	11,200
Lead	63	**400**	*1,000*	27.3	18.3	3.6	11.2	9.5	8.5	42.4	17	7.8	31.5	39.4
Magnesium	NV	**NV**	*NV*	62,800 B	20,900 B	8,020 B	46,400 B	11,500 B	11,500 B	52,600 B	45,200 B	9,010 B	44,900 B	39,600 B
Manganese	1,600	**2,000**	*10,000*	1,090 B	**2,670 B**	**3,450 B**	1,130 B	722 B	576 B	**4,150 B**	1,230 B	845 B	679 B	771 B
Mercury	0.18	**0.81**	*2.8*	0.0205 J	0.0452	ND	ND	0.0109 J	ND	ND	0.0163 J	0.0146 J	0.0259	0.124
Nickel	30	**310**	*310*	13.8	20.7	1.66 J	19.8	35.8	32.0	41.7	29.9	25.1	32.6	12.8
Potassium	NV	**NV**	*NV*	874	1,650	2,440	635	2,420	2,790	722	885	1,710	716	1,210
Selenium	3.9	**180**	*1,500*	ND	1.4 J	2.1 J	ND	ND	ND	ND	ND	ND	ND	0.7 J
Sodium	NV	**NV**	*NV*	328 B	690 B	930 B	616 B	271 B	290 B	329 B	443 B	154 B	289 B	254 B
Vanadium	100 [11]	**NV**	*NV*	17.1	22.3	5.64	25.7	32.3	26.9	23.4	29.8	22.1	26.7	15.3
Zinc	109	**10,000**	*10,000*	79.2 B	36.8 B	0.6 B	30.5 B	55 B	51.5 B	124 B	40.5 B	43.9 B	170 B	124 B
Polychlorinated Biphenyls - EPA Method 8082 (ug/kg)														
Aroclor 1248	NV	**NV**	*NV*	ND	ND	ND	ND	ND	ND	ND	620	ND	ND	ND
Aroclor 1254	NV	**NV**	*NV*	1,700	230	9.8	1,400	21	15	1800	540	65	650	700
Aroclor 1260	NV	**NV**	*NV*	840	67	ND	1,600	ND	ND	760	190	40	410	210
Total PCBs	100*	**1000***	*1,000**	***2,540***	297	9.8	***3,000***	21	15	***2,560***	***1,350***	105	***1,060***	910

Table 2
Soil Analytical Testing Results Summary
Niagara Falls Armed Foreces Reserve Center
Niagara Falls, New York

Notes:

1. Compounds detected in one or more samples are presented on this table.
2. Analytical testing completed by Test America Laboratories.
3. ug/kg = micrograms per kilogram; mg/kg = milligrams per kilogram
4. ND indicates compound was not detected above method detection limits.
5. NV = no value.
6. Shading indicates value exceeds Unrestricted Use Soil Cleanup Objectives.
7. **Bold** indicates value exceeds the Restricted Residential Soil Cleanup Objectives.
8. *Italics* indicates value exceeds the Restricted Commercial Soil Cleanup Objectives.
9. A duplicate sample (DUP-1) was collected at soil probe location SP-8. Values shown are the higher of the two analytical results.
10. *Soil cleanup objective is for the sum of the Aroclor compound concentrations detected (Total PCBs).
11. Soil cleanup objective used is from NYSDEC Final Commissioners Policy, CP-51, dated October 21, 2010.
12. J= Analyte detected at a level less than the Reporting Limit, but greater than or equal to the Method Detection Limit.
13. B= Analyte was detected in the associated Method Blank.

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Table 3
Water Analytical Testing Results Summary
Niagara Falls Armed Forces Reserve Center
Niagara Falls, New York

Parameter	Class GA Criteria	West Pipe End Water	TP-12-Water
Volatile Organic Compounds - EPA Method 8260 TCL (ug/L)			
2-Butanone (MEK)	50	2.7	ND
Acetone	50	18	ND
cis-1,2-Dichloroethene	5	0.99	ND
Trichloroethene	5	4.1	ND
Vinyl Chloride	2	1.9	ND
Toluene	5	13	ND
Xylenes (total)	5 [6]	2.5	ND
Naphthalene	10	89	ND
Total VOCs	NV	132.19	ND
Total VOC TICs	NV	37.9	415
Semi-Volatile Organic Compounds - EPA Method 8270 (ug/L)			
2,4-Dimethylphenol	1	3.7	ND
2-Methylnaphthalene	NV	16	ND
4-Methylphenol	1	44	ND
Acenaphthene	20	9.8	ND
Anthracene	50	6.8	ND
Benzo [a] anthracene	0.002*	2	8.3
Benzo [a] pyrene	ND	ND	4.9
Benzo [b] fluoranthene	0.002*	ND	7.3
Carbazole	5	92	ND
Chrysene	0.002*	ND	9.4
Dibenzofuran	NV	17	ND
Fluoranthene	50	10	20
Fluorene	50	27	ND
Naphthalene	10 *	87	ND
Phenanthrene	50 *	49	ND
Phenol	1	330	ND
Total SVOCs	NV	694.3	49.9
Total SVOC TICs	NV	985	18,790
PCBs - EPA Method 8082 (ug/L)			
Aroclor 1254	NV	6.1	1.7
Aroclor 1260	NV	0.94	0.72
Total PCBs	0.09 [11]	7.04	2.42
Dissolved Metals - EPA Method SW 846 (mg/L)			
Aluminum	NV	0.529	0.621
Barium	1	0.0278	0.0173
Calcium	NV	62.8	74.7
Chromium	0.05	0.0706	0.215
Copper	0.2	ND	0.0025
Iron	0.3	0.031	ND
Magnesium	35*	0.154	ND
Manganese	0.3	0.0018	0.0004
Nickel	0.1	0.0067	0.0015
Potassium	NV	21	3.03
Sodium	20	12.3	2.7
Vanadium	NV	0.0044	0.0104
Zinc	2*	0.0137	0.0042

Notes:
1. Compounds detected in one or more samples are presented on this table.
2. Analytical testing completed by Test America Laboratories.
3. NYSDEC Class GA criteria obtained from Division of Water Technical and Operational Guidance Series (TOGS 1.1.1), June 1998, dated October 1993, revised June 1998, January 1999 errata sheet and April 2000 addendum.
4. ug/L = micrograms per liter; mg/L = miligrams per liter
5. Shading indicates values exceeding NYSDEC Class GA groundwater criteria.
6. Class GA criteria shown is for total xylene concentration.
7. ND = compound was not detected.
8. * indicates a Guidance Value instead of a Standard Value.
9. NV = no value.
10. ND = non-detectable concentration by approved analytical methods.
11. Groundwater criteria is for the sum of the Aroclor compound concentrations detected (Total PCBs).

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APPENDIX A

Site Plan Domestic Water and Fire Services

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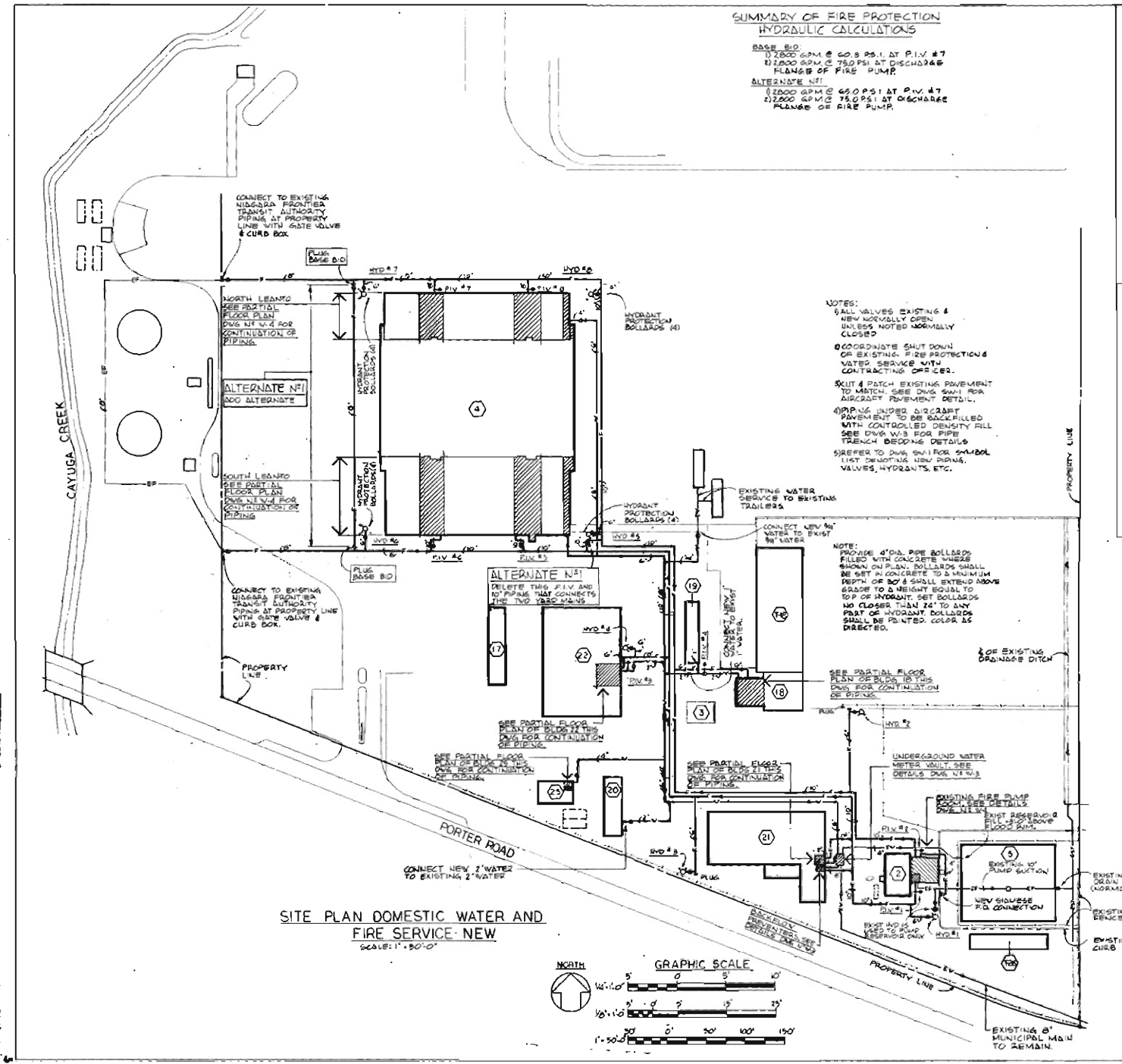
SUMMARY OF FIRE PROTECTION HYDRAULIC CALCULATIONS

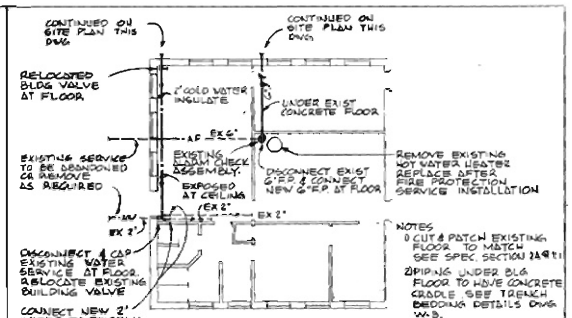
BASE BID:
1) 2800 GPM @ 60.8 PSI AT P.I.V. #7
2) 2800 GPM @ 75.0 PSI AT DISCHARGE FLANGE OF FIRE PUMP.

ALTERNATE Nº1
1) 2800 GPM @ 65.0 PSI AT P.I.V. #7
2) 2800 GPM @ 75.0 PSI AT DISCHARGE FLANGE OF FIRE PUMP.

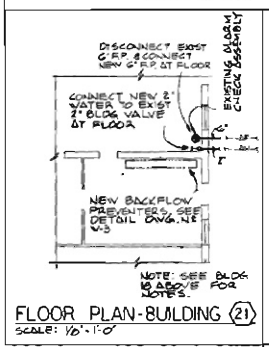


SITE PLAN DOMESTIC WATER AND FIRE SERVICE - NEW
SCALE: 1" = 30'-0"

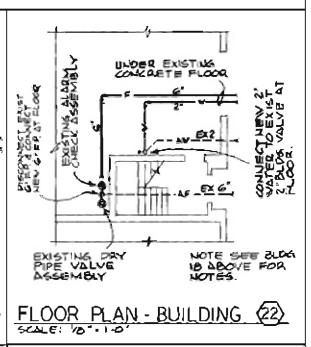
NOTES:
1) ALL VALVES EXISTING & NEW NORMALLY OPEN UNLESS NOTED NORMALLY CLOSED
2) COORDINATE SHUT DOWN OF EXISTING FIRE PROTECTION & WATER SERVICE WITH CONTRACTING OFFICER.
3) CUT & PATCH EXISTING PAVEMENT TO MATCH. SEE DWG SW-1 FOR AIRCRAFT PAVEMENT DETAIL.
4) PIPING UNDER AIRCRAFT PAVEMENT TO BE BACKFILLED WITH CONTROLLED DENSITY FILL SEE DWG W-3 FOR PIPE TRENCH BEDDING DETAILS
5) REFER TO DWG SW-1 FOR SYMBOL LIST DENOTING NEW PIPING, VALVES, HYDRANTS, ETC.



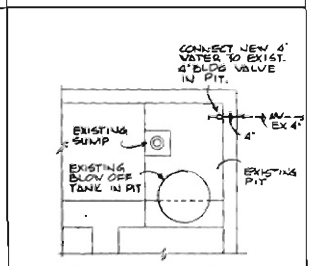
FLOOR PLAN - BUILDING (18)
SCALE: 1/8" = 1'-0"



FLOOR PLAN - BUILDING (21)
SCALE: 1/8" = 1'-0"



FLOOR PLAN - BUILDING (22)
SCALE: 1/8" = 1'-0"



FLOOR PLAN BUILDING (25)
SCALE: 1/4" = 1'-0"

REVISION	DATE	DESCRIPTION	BY

Robinson & Wilcox, Inc. Consulting Engineers Syracuse, N.Y.

DEPARTMENT OF THE ARMY
OFFICE OF THE ENGINEER
FORT DRUM, NEW YORK

DESIGNED BY: R.C.G.
DRAWN BY: T.J.H.
CHECKED BY: F.A.T.
SUBMITTED BY:
SUBMITTED: R.C.G.
DATE: 11-6-80
APPROVED: 11-6-80

U.S. ARMY SUPPORT CENTER
NIAGARA FALLS, NEW YORK
CONTRACT Nº DACA51-79-C-0066
SITE PLAN DOMESTIC WATER AND FIRE SERVICE - NEW

SCALE AS SHOWN
DRAWING NUMBER W-2 SHEET OF 4 37

INDEX OF STRUCTURES

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2	OLD BOILER HOUSE		26	FUEL OIL TANK
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4	HANGER		29	JET FUEL PUMP HOUSE
5	RESERVOIR		30	JET FUEL LOADING STAND
6	PUMP HOUSE WATER		31	JET FUEL UNLOADING STAND
7			32	JET FUEL SEPARATOR HOUSE
8	WATER METER PIT		33	NORTH JET FUEL
11			34	SOUTH JET FUEL
12	P.E. STORAGE SHED		35	AV/GAS PUMP HOUSE
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18	TRANSP. & MOTOR POOL		37	AV/GAS LOADING DOCK
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24	SENTRY HOUSE		44	MO/GAS PUMP
			T23	QUARTERMASTER WHSE.
			T26	POST ENGINEERS WHSE.

REMARKS

C

APPENDIX B

Geophysical Survey Report

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90 B John Muir Drive
Amherst, New York 14228
(716) 565-0624 • Fax (716) 565-0625

November 30, 2010

Christopher Boron
Senior Project Manager
GZA GeoEnvironmental of New York
535 Washington Street
11th Floor
Buffalo, New York 14203

Transmitted via email to: Christopher Boron [christopher.boron@gza.com]

Dear Mr. Boron:

Subject: Geophysical Survey Results
Niagara Falls Army Reserve Base
Niagara Falls, NY

1.0 INTRODUCTION

This letter report presents the results of the geophysical investigation performed for GZA GeoEnvironmental of NY (GZA) in support of their environmental investigation of "Building 2 UST's" at the Niagara Falls Armed Forces Reserve Center located at 9400 Porter Avenue in Niagara Falls, NY (the Site). We understand that historical information compiled by others suggests the possibility that Underground Storage Tanks (UST's) may be present within the study area.

The geophysical investigation was designed to geophysically characterize the subsurface and focus a follow-up intrusive investigation. The information provided herein is intended to assist GZA with their assessment of potential environmental concerns at the Site. The objective for the geophysical survey was to explore for anomalies indicative of underground storage tanks (USTs). AMEC Geomatrix, Inc. performed data acquisition on November 22, 2010.

2.0 METHODOLOGY

A reference grid was installed at the site to facilitate data acquisition along lines spaced three feet apart. The grid was marked with orange and white spray paint with select coordinates labeled to allow subsequent work if necessary. Grid coordinate 0E,100N was established at the southeast corner of "Building 2". Grid North was taken as the direction parallel to the east wall of this building.

The site was geophysically surveyed using the Geonics EM61. The EM61 unit is a high sensitivity, high resolution time domain electromagnetic (TDEM) metal detector that can detect both ferrous and nonferrous metallic objects. It has an approximate investigation depth of 10 feet. The processing console is contained in a backpack worn by the operator which is interfaced to a digital data logger. The transmitter and two receiver coils are located on a two-wheeled cart that is pulled by the operator.

The device's transmitter coil generates a pulsed primary EM field at a rate of 150 pulses per second, inducing eddy currents into the subsurface. The decay rates of these eddy currents are measured by two, 3.28 foot by 1.64 foot (1 meter by ½ meter) rectangular receiver coils. By taking the measurements at a relatively long time frame after termination of the primary pulse, the response is practically independent of the survey area's terrain conductivity. Specifically, the decay rates of the eddy currents are much longer for metals than for normal soils allowing the discrimination of the two.

EM61 in use (photo not from this site)

Data are collected from the EM61's two receiver coils. One of the receiver coils is located coincident to the transmitter coil. The other receiver coil is located 1.31 feet (0.4 meters) above the transmitter coil. Data from the top receiver coil are stored on Channel 1 of a digital data logger. Data from the bottom receiver coil are stored on Channel 2 of the data logger. Channel 1 and Channel 2 data are simultaneously recorded at each station location. The instrument responses are recorded in units of milliVolts (mV). Data were recorded digitally by a data logger at a rate of approximately 2 measurements per foot along the survey lines which were spaced 3 feet apart.

3.0 RESULTS

The EM61 data for the site are shown in Figure 1. The color bar to the right of the map indicates the colors associated with the respective measured values. Areas suspected to be free of buried metals are shown as color shades of blue. All areas exhibiting a response greater than background (0 to 25 mVolts) likely contain buried metals. These areas are depicted in shades of dark blue through yellow on the figure.

Several linear anomalies are observed in the geophysical data and are denoted with dashed lines on Figure 1. A notable linear anomaly is the one associated with a 6 inch pipe that was previously found on the far eastern portion of the Site. A linear anomaly is observed to trend east-west from this pipe at least 150 feet. The amplitude of the geophysical response diminishes towards the west suggesting that the depth to the pipe increases in the western direction (Note however that ground elevation was not surveyed and the absolute elevation grade of the pipe may differ).

Numerous buried metal anomalies are observed in the geophysical data shown on Figure 1. Several large buried metal anomalies are observed in the western portion of the gravel area (east of the fence). While three anomalies are labeled **A**, **B** and **C** in this area it should be noted that these designations are not necessarily distinct: they may comprise one large anomaly extending approximately 75 feet east-west and north-south. This anomalous area may represent UST(s) and/or other buried metals.

An additional anomaly, labeled **D** on Figure 1 is observed in the asphalt lot immeditelt east of Building 2. Two subtle linear anomalies appear associated with Anomaly D. Anomaly D may represent a UST or other buried metals.

Any of the additional above background responses may be significant from an environmental perspective however they are more likely associated with miscellaneous buried metals.

4.0 LIMITATIONS

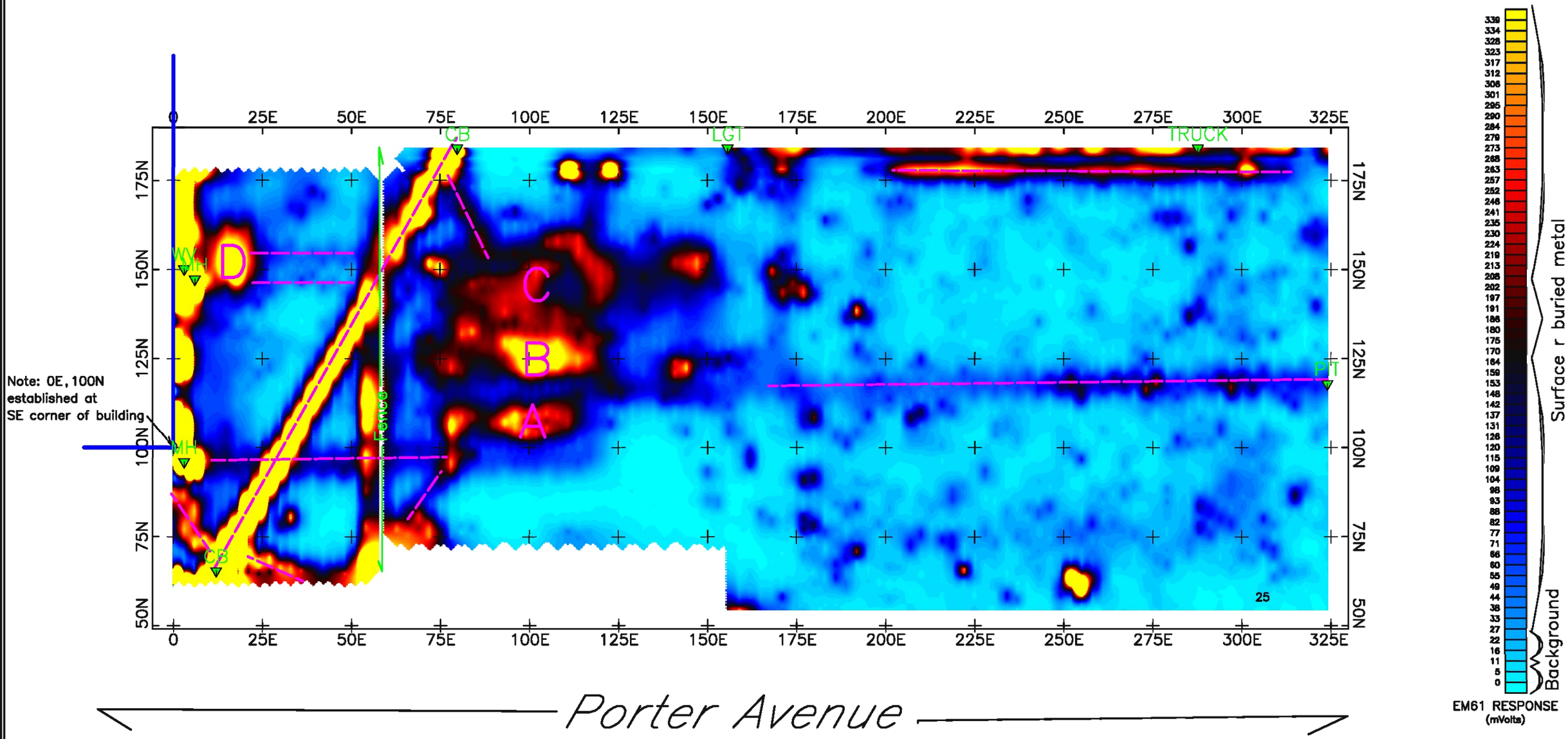
The geophysical methods used during this survey are established, indirect techniques for non-destructive subsurface reconnaissance exploration. As these instruments utilize indirect methods, they are subject to inherent limitations and ambiguities. Metallic surface features (reinforced concrete pads, electrical wires, scrap metal, etc.) preclude reliable non-invasive data/results beneath, and in the immediate vicinity of, the surface features. Targets such as buried drums, buried tanks, conduits, etc. are detectable only if they produce recognizable anomalies or patterns against the background geophysical data collected. As with any remote

sensing technique, the anomalies identified during a geophysical survey should be further investigated by other techniques such as historical aerial photography, test pit excavation and/or test boring, if warranted.

Please do not hesitate to contact us if you have any questions or require additional information.

Sincerely yours,
AMEC GEOMATRIX, INC.

John Luttinger
Senior Geophysicist



D Geophysical Anomaly discussed in report

Interpreted linear anomaly

Scale 1:360

0 25 50

(feet)

Grid North

N

Figure 1

Geophysical Survey Results
Color Contours of EM61 Data
(mVolts)

Niagara Falls Armed Forces Reserve Center
Building 2 UST's
Niagara Falls, NY
GZA

AMEC Geomatrix (716) 565-0624

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APPENDIX C

Exploratory Excavation Logs

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EXPLORATORY EXCAVATION FIELD LOG

Project Description	Niagara Falls Armed Forces Reserve Center	Location No:	TP-1
Project location:	Niagara Falls, New York	Location:	See Site Plan
GZA Representativ	John Beninati	File No:	21.0056522.10
Contractor:	Matrix	Date:	12/7/2010
		Weather:	Cloudy/Light Snow, 29°
Operator:	Pat Bliek	Ground elev.:	
Make: Doosan	Model: DX 35Z		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	
0.5			(FILL) Brown, SAND & GRAVEL, some Silt, trace asphalt, trace crushed concrete, trace brick fragments, trace rebar.	
1				
1.5			Note: An approximate 4" diameter steel pipe was observed in the west wall of the excavation approximately 4 feet bgs. Two additional approximate 2" diameter pipes were observed under the 4" steel pipe in an approximate southeast/northwest orientation. These pipes were situated in a "void", which was filled with water. Water observed did not appear to have a sheen and had no apparent odor. Volatile organic vapors were not detected with the photo-ionization detector (PID).	
2				
2.5				
3				
3.5				
4			Rebar and presumed historic foundation observed in bottom of excavation.	
4.5			End of TP-1 at 4.0' bgs.	
5				
5.5				
6				
6.5				
7				
7.5				
8				
8.5			1.5' North	
9			6'	
9.5				
10				

REMARKS: BGS = Below Ground Surface.

EXPLORATORY EXCAVATION FIELD LOG

Project Description	Niagara Falls Armed Forces Reserve Center	Location No:	TP-2
Project location:	Niagara Falls, New York	Location:	See Site Plan
GZA Representativ	John Beninati	File No:	21.0056522.10
Contractor:	Matrix	Date:	12/8/2010
		Weather:	Partly Sunny, 20°
Operator:	Pat Bliek	Ground elev.:	
Make: Doosan	Model: DX 35Z		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	
0.5			(FILL) Brown, SAND & GRAVEL, some Silt, moist.	
1				
1.5				
2			Crushed concrete and slag fill.	
2.5			Grades to:..wet.	
3				
3.5			Reddish brown, Silty CLAY, trace fine Sand, moist.	
4			End of TP-2 at 3.5' bgs.	
4.5			Note: Pipe was not visible due to perched groundwater quickly infiltrating the excavation. Pipe was located by sounding with the use of a measuring tape and the excavator bucket.	
5				
5.5				
6				
6.5				
7				
7.5				
8				
8.5				
9			1.5' North 6'	
9.5				
10				

REMARKS: BGS = Below Ground Surface.

EXPLORATORY EXCAVATION FIELD LOG

Project Description	Niagara Falls Armed Forces Reserve Center	Location No:	TP-3
Project location:	Niagara Falls, New York	Location:	See Site Plan
GZA Representativ	John Beninati	File No:	21.0056522.10
Contractor:	Matrix	Date:	12/8/2010
		Weather:	Partly Sunny, 20°
Operator:	Pat Bliek	Ground elev.:	
Make: Doosan	Model: DX 35Z		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	
0.5			(FILL) Brown, SAND & GRAVEL, some Silt, trace brick, trace crushed concrete, trace slag fragments.	
1				
1.5				
2				
2.5			Grades to wet at 2.1' bgs. Reddish brown, Silty CLAY, trace fine Sand, moist. (at 2.2' bgs)	
3				
3.5			Top of 6" pipe observed at approx. 3.5' bgs.	
4				
4.5			End of TP-3 at 4' bgs.	
5				
5.5				
6				
6.5				
7				
7.5				
8				
8.5				
9			1.5' North	
9.5			6'	
10				

REMARKS: BGS = Below Ground Surface.

EXPLORATORY EXCAVATION FIELD LOG

Project Description	Niagara Falls Armed Forces Reserve Center	Location No:	TP-4
Project location:	Niagara Falls, New York	Location:	See Site Plan
GZA Representativ	John Beninati	File No:	21.0056522.10
Contractor:	Matrix	Date:	12/8/2010
		Weather:	Partly Sunny, 20°
Operator:	Pat Bliek	Ground elev.:	
Make: Doosan	Model: DX 35Z		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	
0.5			(FILL) Brown, SAND & GRAVEL, some Silt, trace crushed concrete, trace wood fragments.	
1				
1.5				
2				
2.5			Grades to wet at 2.2' bgs.	
3			Reddish brown, Silty CLAY, trace fine Sand, moist.	
3.5			Top of 6" pipe observed at approx. 3.3' bgs.	
4				
4.5			End of TP-3 at 4' bgs.	
5				
5.5				
6				
6.5				
7				
7.5				
8				
8.5				
9			← North	
9.5			4'	
10			1.5'	

REMARKS: BGS = Below Ground Surface.

EXPLORATORY EXCAVATION FIELD LOG

Project Description	Niagara Falls Armed Forces Reserve Center	Location No:	TP-5
Project location:	Niagara Falls, New York	Location:	See Site Plan
GZA Representativ	John Beninati	File No:	21.0056522.10
Contractor:	Matrix	Date:	12/8/2010
		Weather:	Partly Sunny, 20°
Operator:	Pat Bliek	Ground elev.:	
Make: Doosan	Model: DX 35Z		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	
0.5			(FILL) Brown, SAND & GRAVEL, trace asphalt, trace concrete fragments, trace brick, trace slag fragments. Concrete slab observed in bottom of excavation.	
1				
1.5				
2				
2.5			Grades to wet at 2.4' bgs.	
3				
3.5				
4				
4.5			End of TP-3 at 4' bgs. Note: At approx. 2.2 bgs, a 6" clay tile pipe was observed running north/south through the test pit. Test pit was moved approx. 2' east to a depth of 4' bgs. An obstruction was encountered in-line with the confirmed pipe (TP-3 & TP4) but could not be visually confirmed due to rapid infiltration of perched groundwater.	
5				
5.5				
6				
6.5				
7				
7.5				
8				
8.5			1.5'	
9				
9.5			North 6'	
10				

REMARKS: BGS = Below Ground Surface.

EXPLORATORY EXCAVATION FIELD LOG

Project Description	Niagara Falls Armed Forces Reserve Center	Location No:	TP-6
Project location:	Niagara Falls, New York	Location:	See Site Plan
GZA Representativ	John Beninati	File No:	21.0056522.10
Contractor:	Matrix	Date:	12/8/2010
		Weather:	Partly Sunny, 20°
Operator:	Pat Bliek	Ground elev.:	
Make: Doosan	Model: DX 35Z		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	
0.5			(FILL) Brown, SAND & GRAVEL, trace asphalt, trace concrete, trace brick fragments.	
1				
1.5				
2			Reddish brown, Silty CLAY, trace fine Sand, moist.	
2.5				
3				
3.5				
4				
4.5				
5			End of TP-6 at 4.5'	
5.5				
6				
6.5				
7				
7.5				
8				
8.5			1.5'	
9				
9.5			North 10'	
10				

REMARKS: BGS = Below Ground Surface.

EXPLORATORY EXCAVATION FIELD LOG

Project Description	Niagara Falls Armed Forces Reserve Center	Location No:	TP-7
Project location:	Niagara Falls, New York	Location:	See Site Plan
GZA Representativ	John Beninati	File No:	21.0056522.10
Contractor:	Matrix	Date:	12/8/2010
		Weather:	Partly Sunny, 20°
Operator:	Pat Bliek	Ground elev.:	
Make: Doosan	Model: DX 35Z		

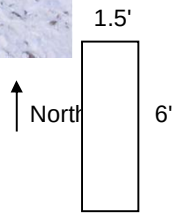
DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	
0.5			(FILL) Brown, SAND & GRAVEL, some Silt.	
1				
1.5				
2				
2.5			Reddish brown, Silty CLAY, trace fine Sand, moist.	
3				
3.5				
4				
4.5				
5			End of TP-7 at 5.0'	
5.5				
6				
6.5				
7				
7.5				
8				
8.5			1.5'	
9				
9.5			North 10'	
10				

REMARKS: BGS = Below Ground Surface.

EXPLORATORY EXCAVATION FIELD LOG

Project Description	Niagara Falls Armed Forces Reserve Center	Location No:	TP-8
Project location:	Niagara Falls, New York	Location:	See Site Plan
GZA Representativ	John Beninati	File No:	21.0056522.10
Contractor:	Matrix	Date:	12/8/2010
		Weather:	Partly Sunny, 20°
Operator:	Pat Bliek	Ground elev.:	
Make: Doosan	Model: DX 35Z		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	
0.5			(FILL) Brown, SAND & GRAVEL, trace Silt, trace asphalt, trace concrete fragments, trace brick fragments.	
1				
1.5				
2				
2.5			Grades to:..wet at 2.3' bgs. Slight sheen observed (12/9/10)	
3				
3.5			Reddish brown, Silty CLAY, trace fine Sand, moist.	
4				
4.5			End of TP-8 at 4.2'	
5				
5.5				
6				
6.5				
7				
7.5				
8				
8.5				
9				
9.5				
10				



REMARKS: BGS = Below Ground Surface.

EXPLORATORY EXCAVATION FIELD LOG

Project Description	Niagara Falls Armed Forces Reserve Center	Location No:	TP-9
Project location:	Niagara Falls, New York	Location:	See Site Plan
GZA Representativ	John Beninati	File No:	21.0056522.10
Contractor:	Matrix	Date:	12/8/2010
		Weather:	Partly Sunny, 20°
Operator:	Pat Bliek	Ground elev.:	
Make: Doosan	Model: DX 35Z		

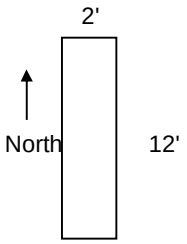
DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	
0.5			(FILL) Brown, SAND & GRAVEL, some Silt, trace rebar, trace wood, trace concrete fragments, trace brick fragments.	
1				
1.5				
2				
2.5			Recycled concrete fill.	
3				
3.5				
4				
4.5			Grades to:..wet. Slight sheen observed (12/9/10) Partial concrete foundation in southern portion of excavation observed.	
5				
5.5				
6				
6.5			End of TP-9 at 6.0' bgs.	
7				
7.5				
8				
8.5			1.5'	
9			North 9'	
9.5				
10				

REMARKS: BGS = Below Ground Surface.

EXPLORATORY EXCAVATION FIELD LOG

Project Description	Niagara Falls Armed Forces Reserve Center	Location No:	TP-10
Project location:	Niagara Falls, New York	Location:	See Site Plan
GZA Representativ	John Beninati	File No:	21.0056522.10
Contractor:	Matrix	Date:	12/8/2010
		Weather:	Partly Sunny, 20°
Operator:	Pat Bliek	Ground elev.:	
Make: Doosan	Model: DX 35Z		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	
0.5			(FILL) Brown, SAND & GRAVEL, some Silt, trace asphalt, trace concrete fragments, trace brick fragments.	
1				
1.5				
2			Concrete slab with rebar approx. 1.5' bgs.	
2.5				
3			End of TP-10 at 2.5' bgs.	
3.5				
4				
4.5				
5				
5.5				
6				
6.5				
7				
7.5				
8				
8.5				
9				
9.5				
10				



REMARKS: BGS = Below Ground Surface.

EXPLORATORY EXCAVATION FIELD LOG

Project Description	Niagara Falls Armed Forces Reserve Center	Location No:	TP-11
Project location:	Niagara Falls, New York	Location:	See Site Plan
GZA Representativ	John Beninati	File No:	21.0056522.10
Contractor:	Matrix	Date:	12/8/2010
		Weather:	Partly Sunny, 20°
Operator:	Pat Bliek	Ground elev.:	
Make: Doosan	Model: DX 35Z		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	
0.5			(FILL) Brown, SAND & GRAVEL, some Silt, trace rebar, trace brick fragments. Concrete slab observed in bottom of excavation.	
1				
1.5				
2				
2.5				
3				
3.5			Reddish brown, Silty CLAY, trace fine Sand, moist.	
4				
4.5			End of TP-11 at 3.5 to 4.0' bgs. Note: TP-11 was excavated between TP-4 and TP-8 in an east/west orientation. Pipe identified in TP-4 was excavated to the west until it entered a catch basin. Water was observed flowing from the pipe.	
5				
5.5				
6				
6.5				
7				
7.5				
8				
8.5			1.5'	
9				
9.5			North 9'	
10				

REMARKS: BGS = Below Ground Surface.

EXPLORATORY EXCAVATION FIELD LOG

Project Description	Niagara Falls Armed Forces Reserve Center	Location No:	TP-12
Project location:	Niagara Falls, New York	Location:	See Site Plan
GZA Representativ	John Beninati	File No:	21.0056522.10
Contractor:	Matrix	Date:	12/8/2010
		Weather:	Partly Sunny, 20°
Operator:	Pat Bliek	Ground elev.:	
Make: Doosan	Model: DX 35Z		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	
0.5			(FILL) Brown, SAND & GRAVEL, some Silt.	
1				
1.5				
2				
2.5			Top of 6" pipe observed at approx. 2.5' bgs.	
3			Reddish brown, Silty CLAY, moist.	
3.5			End of TP-12 at 3' bgs. Note: The 6" pipe was excavated from the eastern outfall location westward toward TP-2 (approx. 32' long excavation). Two valves were observed during excavation at approximately 2.5' bgs. The first valve was excavated approx. 6' east of the eastern fence. The second valve was exposed approx. 32' west of the eastern fence. Upon excavation, approx. 3' east of TP-2, petroleum product was observed flowing from the fill material above the perched water table measured at 2.2-2.3' bgs.	
4				
4.5				
5				
5.5				
6				
6.5				
7				
7.5				
8				
8.5			2'	
9				
9.5			← 32' North	
10				

REMARKS: BGS = Below Ground Surface.

APPENDIX D

Waste Classification Analytical Results

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RTL0706

Project: NF Armed Forces Reserve Center WATERS
Project Number: [none]

Received: 12/08/10
Reported: 12/23/10 09:02

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTL0706-02 (TP-12 - Water)						**Sampled: 12/08/10 15:00**		**Recvd: 12/08/10 17:25**		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND	D02	4.0	3.3	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
1,1,2,2-Tetrachloroethane	ND	D02	4.0	0.85	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
1,1,2-Trichloroethane	ND	D02	4.0	0.92	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
1,1,2-Trichlorotrifluoroethane	ND	D02	4.0	1.2	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
1,1-Dichloroethane	ND	D02	4.0	1.5	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
1,1-Dichloroethene	ND	D02	4.0	1.2	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
1,2,4-Trichlorobenzene	ND	D02	4.0	1.6	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
1,2,4-Trimethylbenzene	ND	D02	4.0	3.0	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
1,2-Dibromo-3-chloropropane	ND	D02	4.0	1.6	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
1,2-Dibromoethane (EDB)	ND	D02	4.0	2.9	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
1,2-Dichlorobenzene	ND	D02	4.0	3.2	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
1,2-Dichloroethane	ND	D02	4.0	0.86	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
1,2-Dichloropropane	ND	D02	4.0	2.9	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
1,3,5-Trimethylbenzene	ND	D02	4.0	3.1	ug/l	4.00	12/10/10 15:42	DHC	10L0846	8260B
1,3-Dichlorobenzene	ND	D02	4.0	3.1	ug/l	4.00	12/10/10 15:42	DHC	10L0846	8260B
1,4-Dichlorobenzene	ND	D02	4.0	3.4	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
2-Butanone (MEK)	ND	D02	40	5.3	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
2-Hexanone	ND	D02	20	5.0	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
4-Isopropyltoluene	ND	D02	4.0	1.2	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
4-Methyl-2-pentanone (MIBK)	ND	D02	20	8.4	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Acetone	ND	D02	40	12	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Benzene	ND	D02	4.0	1.6	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Bromodichloromethane	ND	D02	4.0	1.5	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Bromoform	ND	D02	4.0	1.0	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Bromomethane	ND	D02	4.0	2.8	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Carbon disulfide	ND	D02	4.0	0.78	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Carbon Tetrachloride	ND	D02	4.0	1.1	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Chlorobenzene	ND	D02	4.0	3.0	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Chlorodibromomethane	ND	D02	4.0	1.3	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Chloroethane	ND	D02	4.0	1.3	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Chloroform	ND	D02	4.0	1.3	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Chloromethane	ND	D02	4.0	1.4	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
cis-1,2-Dichloroethene	ND	D02	4.0	3.2	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
cis-1,3-Dichloropropene	ND	D02	4.0	1.4	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Cyclohexane	ND	D02	4.0	0.72	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Dichlorodifluoromethane	ND	D02	4.0	2.7	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Ethylbenzene	ND	D02	4.0	3.0	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Isopropylbenzene	ND	D02	4.0	3.2	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Methyl Acetate	ND	D02	4.0	2.0	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Methyl tert-Butyl Ether	ND	D02	4.0	0.64	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Methylcyclohexane	ND	D02	4.0	0.64	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Methylene Chloride	ND	D02	4.0	1.8	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Naphthalene	ND	D02	4.0	1.7	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
n-Butylbenzene	ND	D02	4.0	2.6	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
n-Propylbenzene	ND	D02	4.0	2.8	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
sec-Butylbenzene	ND	D02	4.0	3.0	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RTL0706

Project: NF Armed Forces Reserve Center WATERS
Project Number: (none)

Received: 12/08/10
Reported: 12/23/10 09:02

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTL0706-02 (TP-12 - Water) - cont.						**Sampled: 12/08/10 15:00**		**Recvd: 12/08/10 17:25**		
Volatile Organic Compounds by EPA 8260B - cont.										
Styrene	ND	D02	4.0	2.9	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
tert-Butylbenzene	ND	D02	4.0	3.2	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Tetrachloroethene	ND	D02	4.0	1.5	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Toluene	ND	D02	4.0	2.0	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
trans-1,2-Dichloroethene	ND	D02	4.0	3.6	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
trans-1,3-Dichloropropene	ND	D02	4.0	1.5	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Trichloroethene	ND	D02	4.0	1.8	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Trichlorofluoromethane	ND	D02	4.0	3.5	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Vinyl chloride	ND	D02	4.0	3.6	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Xylenes, total	ND	D02	8.0	2.6	ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
1,2-Dichloroethane-d4	*114 %*	*D02*	*Surr Limits: (66-137%)*				*12/10/10 15:42*	*DHC*	*10L0846*	*8260B*
4-Bromofluorobenzene	*104 %*	*D02*	*Surr Limits: (73-120%)*				*12/10/10 15:42*	*DHC*	*10L0846*	*8260B*
Toluene-d8	*119 %*	*D02*	*Surr Limits: (71-126%)*				*12/10/10 15:42*	*DHC*	*10L0846*	*8260B*
Tentatively Identified Compounds by EPA 8260B										
Naphthalene, decahydro-2,6-dimethyl- (001618-22-0)	**36**	D02	Ret Time: 10.398		ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
tetradecane (629-59-4)	**48**	D02	Ret Time: 11.779		ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Tridecane, 7-methyl- (026730-14-3)	**110**	D02	Ret Time: 10.836		ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Undecane, 2,6-dimethyl- (017301-23-4)	**24**	D02	Ret Time: 10.343		ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Unknown01 (none)	**22**	D02	Ret Time: 10.629		ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Unknown02 (none)	**24**	D02	Ret Time: 10.702		ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Unknown03 (none)	**34**	D02	Ret Time: 10.915		ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Unknown04 (none)	**21**	D02	Ret Time: 11.444		ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Unknown05 (none)	**66**	D02	Ret Time: 11.627		ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Unknown06 (none)	**30**	D02	Ret Time: 11.876		ug/L	4.00	12/10/10 15:42	DHC	10L0846	8260B
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND	D02	48	4.6	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
2,4,6-Trichlorophenol	ND	D02	48	5.9	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
2,4-Dichlorophenol	ND	D02	48	4.9	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
2,4-Dimethylphenol	ND	D02	48	4.8	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
2,4-Dinitrophenol	ND	D02	96	21	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
2,4-Dinitrotoluene	ND	D02	48	4.3	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
2,6-Dinitrotoluene	ND	D02	48	3.8	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
2-Chloronaphthalene	ND	D02	48	4.4	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
2-Chlorophenol	ND	D02	48	5.1	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
2-Methylnaphthalene	ND	D02	48	5.8	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
2-Methylphenol	ND	D02	48	3.8	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
2-Nitroaniline	ND	D02	96	4.0	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
2-Nitrophenol	ND	D02	48	4.6	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
3,3'-Dichlorobenzidine	ND	D02	48	3.8	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
3-Nitroaniline	ND	D02	96	4.6	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
4,6-Dinitro-2-methylphenol	ND	D02	96	21	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RTL0706

Project: NF Armed Forces Reserve Center WATERS
Project Number: (none)

Received: 12/08/10
Reported: 12/23/10 09:02

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTL0706-02 (TP-12 - Water) - cont.						**Sampled: 12/08/10 15:00**		**Recvd: 12/08/10 17:25**		
Semivolatile Organics by GC/MS - cont.										
4-Bromophenyl phenyl ether	ND	D02	48	4.3	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
4-Chloro-3-methylphenol	ND	D02	48	4.3	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
4-Chloroaniline	ND	D02	48	5.7	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
4-Chlorophenyl phenyl ether	ND	D02	48	3.4	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
4-Methylphenol	ND	D02	96	3.5	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
4-Nitroaniline	ND	D02	96	2.4	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
4-Nitrophenol	ND	D02	96	15	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Acenaphthene	ND	D02	48	3.9	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Acenaphthylene	ND	D02	48	3.7	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Acetophenone	ND	D02	48	5.2	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Anthracene	ND	D02	48	2.7	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Atrazine	ND	D02	48	4.4	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Benzaldehyde	ND	D02	48	2.6	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Benzo(a)anthracene	**8.3**	D02,J	48	3.5	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Benzo(a)pyrene	**4.9**	D02,J	48	4.5	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Benzo(b)fluoranthene	**7.3**	D02,J	48	3.3	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Benzo(ghi)perylene	ND	D02	48	3.4	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Benzo(k)fluoranthene	ND	D02	48	7.0	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Biphenyl	ND	D02	48	6.3	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Bis(2-chloroethoxy)methane	ND	D02	48	3.4	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Bis(2-chloroethyl)ether	ND	D02	48	3.8	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
2,2'-Oxybis(1-Chloropropane)	ND	D02	48	5.0	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Bis(2-ethylhexyl) phthalate	ND	D02	48	17	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Butyl benzyl phthalate	ND	D02	48	4.0	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Caprolactam	ND	D02	48	21	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Carbazole	ND	D02	48	2.9	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Chrysene	**9.4**	D02,J	48	3.2	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Dibenzo(a,h)anthracene	ND	D02	48	4.0	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Dibenzofuran	ND	D02	96	4.9	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Diethyl phthalate	ND	D02	48	2.1	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Dimethyl phthalate	ND	D02	48	3.5	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Di-n-butyl phthalate	ND	D02	48	3.0	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Di-n-octyl phthalate	ND	D02	48	4.5	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Fluoranthene	**20**	D02,J	48	3.8	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Fluorene	ND	D02	48	3.5	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Hexachlorobenzene	ND	D02	48	4.9	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Hexachlorobutadiene	ND	D02	48	6.5	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Hexachlorocyclopentadiene	ND	D02	48	5.7	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Hexachloroethane	ND	D02	48	5.7	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Indeno(1,2,3-cd)pyrene	ND	D02	48	4.5	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Isophorone	ND	D02	48	4.1	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Naphthalene	ND	D02	48	7.3	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Nitrobenzene	ND	D02	48	2.8	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RTL0706

Project: NF Armed Forces Reserve Center WATERS
Project Number: [none]

Received: 12/08/10
Reported: 12/23/10 09:02

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTL0706-02 (TP-12 - Water) - cont.						**Sampled: 12/08/10 15:00**		**Recvd: 12/08/10 17:25**		
Semivolatile Organics by GC/MS - cont.										
N-Nitrosodi-n-propylamine	ND	D02	48	5.2	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
N-Nitrosodiphenylamine	ND	D02	48	4.9	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Pentachlorophenol	ND	D02	96	21	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Phenanthrene	ND	D02	48	4.2	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Phenol	ND	D02	48	3.8	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Pyridine	ND	D02	240	3.9	ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
2,4,6-Tribromophenol	*123 %*	*D02*	*Surr Limits: (52-132%)*				*12/13/10 14:19*	*MKP*	*10L0912*	*8270C*
2-Fluorobiphenyl	*105 %*	*D02*	*Surr Limits: (48-120%)*				*12/13/10 14:19*	*MKP*	*10L0912*	*8270C*
2-Fluorophenol	*35 %*	*D02*	*Surr Limits: (20-120%)*				*12/13/10 14:19*	*MKP*	*10L0912*	*8270C*
Nitrobenzene-d5	*109 %*	*D02*	*Surr Limits: (46-120%)*				*12/13/10 14:19*	*MKP*	*10L0912*	*8270C*
Phenol-d5	*29 %*	*D02*	*Surr Limits: (16-120%)*				*12/13/10 14:19*	*MKP*	*10L0912*	*8270C*
p-Terphenyl-d14	*68 %*	*D02*	*Surr Limits: (24-136%)*				*12/13/10 14:19*	*MKP*	*10L0912*	*8270C*
Semivolatile Organics TICs by GC/MS										
Decahydro-4,4,8,9,10-pentamethylnaphthalene (080655-44-3)	310	D02	Ret Time: 8.883		ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Eicosane (000112-95-8)	1500	D02	Ret Time: 11.896		ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Heneicosane (000629-94-7)	1500	D02	Ret Time: 12.244		ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Heptadecane (000629-78-7)	1400	D02	Ret Time: 10.646		ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Hexadecane, 2,6,10-trimethyl- (055000-52-7)	3800	D02	Ret Time: 10.668		ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Nonadecane (000629-92-5)	1400	D02	Ret Time: 11.517		ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Octadecane (593-45-3)	1300	D02	Ret Time: 11.1		ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Pentadecane, 4-methyl- (002801-87-8)	490	D02	Ret Time: 9.316		ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Tridecane (000629-50-5)	520	D02	Ret Time: 8.264		ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Tridecane, 5-propyl- (055045-11-9)	2000	D02	Ret Time: 10.379		ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Tridecane, 7-methyl- (026730-14-3)	1100	D02	Ret Time: 8.071		ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Undecane, 2,6-dimethyl- (017301-23-4)	440	D02	Ret Time: 7.639		ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Unknown01 (none)	260	D02	Ret Time: 9.48		ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Unknown02 (none)	400	D02	Ret Time: 10.844		ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Unknown03 (none)	290	D02	Ret Time: 10.88		ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Unknown04 (none)	360	D02	Ret Time: 11.474		ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Unknown05 (none)	250	D02	Ret Time: 12.169		ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Unknown06 (none)	690	D02	Ret Time: 12.57		ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Unknown07 (none)	470	D02	Ret Time: 12.87		ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Unknown08 (none)	310	D02	Ret Time: 13.163		ug/L	10.0	12/13/10 14:19	MKP	10L0912	8270C
Polychlorinated Biphenyls by EPA Method 8082										
Aroclor 1016	ND	QSU	0.62	NR	ug/L	1.00	12/13/10 08:43	tchro	10L0909	8082
Aroclor 1221	ND	QSU	0.62	NR	ug/L	1.00	12/13/10 08:43	tchro	10L0909	8082
Aroclor 1232	ND	QSU	0.62	NR	ug/L	1.00	12/13/10 08:43	tchro	10L0909	8082

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

PARS Environmental, Inc.
6A South Gold Drive
Robbinsville, NJ 08691

Work Order: RTL0706

Project: NF Armed Forces Reserve Center WATERS
Project Number: (none)

Received: 12/08/10
Reported: 12/23/10 09:02

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTL0706-02 (TP-12 - Water) - cont.						**Sampled: 12/08/10 15:00**		**Recvd: 12/08/10 17:25**		
Polychlorinated Biphenyls by EPA Method 8082 - cont.										
Aroclor 1242	ND	QSU	0.62	NR	ug/L	1.00	12/13/10 08:43	tchro	10L0909	8082
Aroclor 1248	ND	QSU	0.62	NR	ug/L	1.00	12/13/10 08:43	tchro	10L0909	8082
Aroclor 1254	1.7	QSU	0.62	NR	ug/L	1.00	12/13/10 08:43	tchro	10L0909	8082
Aroclor 1260	0.72	QSU	0.62	NR	ug/L	1.00	12/13/10 08:43	tchro	10L0909	8082
Decachlorobiphenyl	*62 %*	*QSU*	*Surr Limits: (12-137%)*				*12/13/10 08:43*	*tchro*	*10L0909*	*8082*
Tetrachloro-m-xylene	*81 %*	*QSU,C8*	*Surr Limits: (35-121%)*				*12/13/10 08:43*	*tchro*	*10L0909*	*8082*
Dissolved Metals by SW 846 Series Methods										
Aluminum	**0.621**	P7	0.200	0.045	mg/L	1.00	12/13/10 17:51	LMH	10L0927	6010B
Antimony	ND	P7	0.0200	0.0068	mg/L	1.00	12/13/10 17:51	LMH	10L0927	6010B
Arsenic	ND	P7	0.0100	0.0056	mg/L	1.00	12/13/10 17:51	LMH	10L0927	6010B
Barium	**0.0173**	P7	0.0020	0.0005	mg/L	1.00	12/13/10 17:51	LMH	10L0927	6010B
Beryllium	ND	P7	0.0020	0.0003	mg/L	1.00	12/13/10 17:51	LMH	10L0927	6010B
Cadmium	ND	P7	0.0010	0.0003	mg/L	1.00	12/13/10 17:51	LMH	10L0927	6010B
Calcium	**74.7**	P7, B	0.5	0.1	mg/L	1.00	12/13/10 17:51	LMH	10L0927	6010B
Chromium	**0.215**	P7	0.0040	0.0009	mg/L	1.00	12/13/10 17:51	LMH	10L0927	6010B
Cobalt	ND	P7	0.0040	0.0006	mg/L	1.00	12/13/10 17:51	LMH	10L0927	6010B
Copper	**0.0025**	J, P7	0.0100	0.0015	mg/L	1.00	12/13/10 17:51	LMH	10L0927	6010B
Iron	ND	P7	0.050	0.019	mg/L	1.00	12/13/10 17:51	LMH	10L0927	6010B
Lead	ND	P7	0.0050	0.0030	mg/L	1.00	12/13/10 17:51	LMH	10L0927	6010B
Magnesium	ND	P7	0.200	0.043	mg/L	1.00	12/13/10 17:51	LMH	10L0927	6010B
Manganese	**0.0004**	J, P7, B	0.0030	0.0002	mg/L	1.00	12/13/10 17:51	LMH	10L0927	6010B
Nickel	**0.0015**	J, P7	0.0100	0.0013	mg/L	1.00	12/13/10 17:51	LMH	10L0927	6010B
Potassium	**3.03**	P7	0.500	0.200	mg/L	1.00	12/13/10 17:51	LMH	10L0927	6010B
Selenium	ND	P7	0.0150	0.0087	mg/L	1.00	12/13/10 17:51	LMH	10L0927	6010B
Silver	ND	P7	0.0030	0.0017	mg/L	1.00	12/13/10 17:51	LMH	10L0927	6010B
Sodium	**2.7**	P7	1.0	0.3	mg/L	1.00	12/13/10 17:51	LMH	10L0927	6010B
Thallium	ND	P7	0.0200	0.0102	mg/L	1.00	12/13/10 17:51	LMH	10L0927	6010B
Vanadium	**0.0104**	P7	0.0050	0.0011	mg/L	1.00	12/13/10 17:51	LMH	10L0927	6010B
Zinc	**0.0042**	P7, J, B	0.0100	0.0017	mg/L	1.00	12/13/10 17:51	LMH	10L0927	6010B
Mercury	ND		0.0002	0.0001	mg/L	1.00	12/17/10 13:43	JRK	10L1471	7470A

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APPENDIX E

Waste Disposal Documentation

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FRANK'S VACUUM TRUCK SERVICE, INC.
4500 Royal Avenue • Niagara Falls, New York 14303
(716) 284-2132

125548

DATE [illegible]

NYDEC #9A-332
EPA ID # NYD982792814

PICK UP (SHIPPER)		DELIVERY (CONSIGNEE)	
NAME	99 TH REGIONAL SUPPORT	NAME	CHEMICAL WASTE
STREET	8410 PORTER ROAD	STREET	1600 BALMER ROAD
CITY / STATE / ZIP CODE	NIAGARA FALLS, NY	CITY / STATE / ZIP CODE	[illegible]
CONTACT NAME	CHRIS ROHON [illegible]	CONTACT NAME	BM CALLAHAN/GARY [illegible]
SCHEDULED TIME	[illegible] 0700	SCHEDULED TIME	[illegible]

ADDITIONAL INFORMATION

CUSTOMER P.O. NO.	WORK ORDER NUMBER	MANIFEST NUMBER	BILLING REFERENCE
[illegible]			
LOAD NUMBER	**TRACTOR NUMBER**	**TRAILER NUMBER**	**DRIVER'S NAME**
10:04		125-B	[illegible]

NUMBER & TYPES	WEIGHT OR VOLUME	HAZ. MAT.	DESCRIPTION OF WASTE(S) PER 49 CFR	CUSTOMER CODE #
6			Per Manifest	

TYPE (CIRCLE ONE)	PLACARDS PROVIDED OR AFFIXED		WHEN "RQ" QUANTITY RELEASED INTO ENVIRONMENT, IMMEDIATELY NOTIFY NAT. RESPONSE CENTER - 800-424-8802 AND 911 EMERGENCY SYSTEM OR LOCAL OPERATOR	EMERGENCY RESPONSE PHONE NUMBER:
TANK (S/S) (R/L)				
VAC				
DUMP	SHIPPER'S CHECK LIST			
VAN	☐ DOT LABELS APPLIED AND SECURE	☐ DOT AUTHORIZED CONTAINERS		
ROLL-OFF				
FLATBED	☐ PROPER DOT NAME ON ALL PACKAGES	☐ CHECKED FOR PROPER SEALING		

PICK UP

ARRIVAL DATE _____

ARRIVAL TIME 10:15 AM/PM RELEASE TIME 12:15 AM/PM

TRAILER EMPTY UPON ARRIVAL ☐ YES ☑ NO
(If not, explain below)

DIP MEASUREMENT (Tankers Only) _____ INCHES

COMMENTS: (EXPLAIN ALL DELAYS) Live load

SHIPPERS CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

TITLE

SHIPPER'S SIGNATURE

DELIVERY

DRIVER _____ DATE _____

ARRIVAL TIME 12:20 AM/PM RELEASE TIME 12:20 AM/PM

TRAILER EMPTY UPON DEPARTURE ☑ YES ☐ NO
(If no, explain below)

COMMENTS: (EXPLAIN ALL DELAYS) _____

I, THE UNDERSIGNED, CERTIFY THAT THE ABOVE INFORMATION IS TRUE AND COMPLETE.

X [signature]

CONSIGNEE'S SIGNATURE

CWM

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	NY 8 2 1 0 4 2 4 2 7 3	1	(800) 424-9300	125548 RX 05/03/11

5. Generator's Name and Mailing Address
99TH REG SUPPORT COMMAND C/O GZA GEOENVIRO
535 WASHINGTON STREET 11TH FLOOR Attn: Chris Boron
BUFFALO NY 14203
Generator's Phone: (716) 844-7050

Generator's Site Address (if different than mailing address)
99TH REGIONAL SUPPORT COMMAND
9400 PORTER RD
NIAGARA FALLS NY 14304

6. Transporter 1 Company Name: Frank's Vacuum Truck Service — U.S. EPA ID Number: NYD982792814

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
CWM CHEMICAL SERVICES, L.L.C.
1550 BALMER RD.
MODEL CITY NY 14107
Facility's Phone: (716) 286-1550
U.S. EPA ID Number: NYD049836679

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON DOT REGULATED MATERIAL -02 107415NY	6	DM	1,650	P	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
1. 107415NY - NON HAZ WATER FROM TP-12 EXCAVATION
ER SERVICE CONTRACTED BY WASTE MANAGEMENT SERVICE REQUEST # _____
81643878-02

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name | Signature | Month | Day | Year

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Edward Ubiles — Signature: Edward Ubiles — Month: 12 Day: 28 Year: 11
Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Generator signed in section 18: did not date manifest
Manifest Reference Number:
17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

H135

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Glen Stidel — Signature: [signature] — Month | Day | Year

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

169-BLC-O 5 11977 (Rev. 6/06) James J. Lis

DESIGNATED FACILITY'S COPY 2/28/11

APPENDIX F

Soil Probe Logs

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Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Pat Bliek	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 12/6/10	END DATE: 12/6/10	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	40	(FILL) Brown, fine to coarse GRAVEL, some Silt, trace Asphalt fragments, wet.		0
1						
2						
3						0
4						
	S-2	4-7	40	(FILL) Grades to:..some Sand, moist to wet.		0
5						
6				(FILL) Brown, fine to coarse SAND, trace Silt, moist.		
7						0
				Refusal at 7.0' bgs.		
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

NOTES: 1) MiniRae 2000 organic vapor meter used to field screen and headspace soil samples.
2) bgs = below ground surface.

General Notes: 1) Stratification lines represent approximate boundary between soil types, transitions may be gradual.
2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Pat Bliek	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 12/6/10	END DATE: 12/6/10	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	37	(FILL) Brown, fine to coarse GRAVEL, some fine to coarse Sand, trace Silt, trace Brick fragments, moist.	Headspace result = 1.4 ppm (0-4' bgs)	5.4
1						
2						0.2
3						
4						
	S-2	4-8	37	(FILL) Brown to dark brown, fine to coarse SAND, trace fine Gravel, wet.	Slight petroleum odor observed.	1.5
5						
6						1.7
7						
8						
	S-3	8-12	83		Headspace result = 5.8 ppm (8-12' bgs)	1.8
9				Reddish brown, Silty CLAY, trace fine to medium Sand, moist. (NATIVE)		
10						0
11						
12						
13				End of SP-2 at 12.0' bgs.		
14						
15						
16						
17						
18						
19						
20						

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Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Pat Bliek	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 12/6/10	END DATE: 12/6/10	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	75	(FILL) Brown, fine to coarse SAND, trace Gravel, trace Brick fragments, moist.	Headspace result = 0.0 ppm (0-4' bgs)	0
1				Brown, Silty CLAY, trace fine Sand, moist. (NATIVE)		
2						
						0
3						
4						
	S-2	4-8	60	Grades to:..reddish brown. (NATIVE)		0
5						
6						
						0
7						
8				End of SP-3 at 8.0' bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

NOTES: 1) MiniRae 2000 organic vapor meter used to field screen and headspace soil samples.
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2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Pat Bliek	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 12/6/10	END DATE: 12/6/10	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	50	(FILL) Brown, fine to coarse GRAVEL, some fine to coarse Sand, trace Clay, trace Wood, trace Brick fragments, moist.	Headspace result = 0.0 ppm (0-4' bgs)	0
1				Gray to dark gray, Silty CLAY, trace fine Sand, moist. (NATIVE)		
2						
						0
3						
4						
	S-2	4-8	100	Brown, Silty CLAY, trace fine Sand, moist. (NATIVE)	Headspace result = 0.0 ppm (4-8' bgs)	0
5						
6						
						0
7						
8						
				End of SP-4 at 8.0' bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

NOTES: 1) MiniRae 2000 organic vapor meter used to field screen and headspace soil samples.
2) bgs = below ground surface.

General Notes: 1) Stratification lines represent approximate boundary between soil types, transitions may be gradual.
2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Pat Bliek	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 12/6/10	END DATE: 12/6/10	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	34	(FILL) Dark brown, fine to coarse GRAVEL, some fine to coarse Sand, trace Brick fragments, moist.		0
1				Dark grayish brown, Silty CLAY, trace fine Sand, trace Organics, moist. (NATIVE)		
2						
						0
3						
4						
	S-2	4-8	100	Grades to:..reddish brown. (NATIVE)		0
5						
6						
						0
7						
8				End of SP-5 at 8.0' bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

NOTES: 1) MiniRae 2000 organic vapor meter used to field screen and headspace soil samples.
2) bgs = below ground surface.

General Notes: 1) Stratification lines represent approximate boundary between soil types, transitions may be gradual.
2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Pat Bliek	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 12/6/10	END DATE: 12/6/10	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	56	(FILL) Brown, fine to coarse GRAVEL, some fine to coarse Sand, trace Brick fragments, moist.	Headspace result = 0.0 ppm (0-4' bgs)	0
1						
				Grayish brown, Silty CLAY, trace fine Sand, trace Organics, moist. (NATIVE)		
2						
						0
3						
4						
	S-2	4-8	100	Grades to:..reddish brown. (NATIVE)	Headspace result = 0.0 ppm (4-8' bgs)	0
5						
6						
						0
7						
8						
				End of SP-6 at 8.0' bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

NOTES: 1) MiniRae 2000 organic vapor meter used to field screen and headspace soil samples.
2) bgs = below ground surface.

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Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Pat Bliek	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 12/6/10	END DATE: 12/6/10	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	62	(FILL) Dark brown, fine to coarse SAND, some fine to coarse Gravel, trace Brick fragments, trace Slag fragments, trace Concrete fragments, moist.	Headspace result = 0.0 ppm (0-4' bgs)	0
1						
2				Grayish brown, Silty CLAY, trace fine Sand, moist. (NATIVE)		0
3						
4						
	S-2	4-8	100	Grades to:..reddish brown. (NATIVE)	Headspace result = 0.0 ppm (4-8' bgs)	0
5						
6						0
7						
8				End of SP-7 at 8.0' bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

NOTES: 1) MiniRae 2000 organic vapor meter used to field screen and headspace soil samples.
2) bgs = below ground surface.

General Notes: 1) Stratification lines represent approximate boundary between soil types, transitions may be gradual.
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Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Pat Bliek	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 12/6/10	END DATE: 12/6/10	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	66	(FILL) Dark brown, fine to coarse SAND, trace fine to coarse Gravel, trace Brick fragments, moist.	Headspace result = 0.0 ppm (0-4' bgs)	0.6
1				Grayish brown, Silty CLAY, trace fine Sand, moist. (NATIVE)		
2						
						0
3						
4						
	S-2	4-8	100		Headspace result = 0.0 ppm (4-8' bgs)	0
5				Grades to:..reddish brown. (NATIVE)		
6						
						0
7						
8						
				End of SP-8 at 8.0' bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

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2) bgs = below ground surface.

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2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Pat Bliek	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 12/6/10	END DATE: 12/6/10	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	68	(FILL) Dark brown, fine to coarse SAND, trace fine to coarse Gravel, moist.	Headspace result = 0.0 ppm (0-4' bgs)	0
1						
2				(FILL) Grayish brown, fine to coarse GRAVEL, some fine to coarse Sand, moist.		
3				Grayish brown, Silty CLAY, trace fine Sand, trace Organics, moist. (NATIVE)		0
4						
	S-2	4-8	100	Grades to:..reddish brown. (NATIVE)	Headspace result = 0.0 ppm (4-8' bgs)	0
5						
6						
7						0
8						
				End of SP-9 at 8.0' bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

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C - Rock Core Sample

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Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Pat Bliek	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 12/6/10	END DATE: 12/6/10	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	68	(FILL) Dark brown, fine to coarse SAND, trace fine to corase	Headspace result =	0
1				Gravel, trace Brick fragments, moist.	0.0 ppm (0-4' bgs)	
				(FILL) Grayish brown, fine to coarse SAND & GRAVEL, some Silt,		
2				trace Slag fragments, trace Concrete fragments, moist.		
				Grayish brown, Silty CLAY, trace fine Sand, moist. (NATIVE)		0
3						
4						
	S-2	4-8	100	Grades to:..reddish brown. (NATIVE)	Headspace result =	0
5					0.0 ppm (4-8' bgs)	
6						
						0
7						
8						
	S-3	8-12	100			0
9						
10						
						0
11						
12						
				End of SP-10 at 12.0' bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

NOTES: 1) MiniRae 2000 organic vapor meter used to field screen and headspace soil samples.
2) bgs = below ground surface.

General Notes: 1) Stratification lines represent approximate boundary between soil types, transitions may be gradual.
2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Pat Bliek	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 12/6/10	END DATE: 12/6/10	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	58	(FILL) Dark brown, fine to coarse SAND, trace fine to medium Gravel, moist.	Black to dark gray mottling from approx. 1.5-4.0' bgs. Headspace result = 0.0 ppm (0-4' bgs)	0
1						
				Grayish brown, Silty CLAY, trace fine Sand, moist. (NATIVE)		
2						
						0
3						
4						
	S-2	4-8	100	Grades to:..reddish brown. (NATIVE)	Headspace result = 0.0 ppm (4-8' bgs)	0
5						
6						
						0
7						
8						
				End of SP-11 at 8.0' bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

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DATE	TIME	WATER	CASING

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CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	50	(FILL) Dark brown, fine to coarse SAND, some fine to medium	Headspace result =	0
1				Gravel, moist.	0.0 ppm (0-4' bgs)	
				(FILL) Grayish brown, fine to medium GRAVEL, some fine to coarse		
2				Sand, moist.		
				Gray to dark grayish brown, Silty CLAY, trace fine Sand, moist.		0
3				(NATIVE)		
4						
	S-2	4-8	50	Grades to:..trace Organics. (NATIVE)		0
5						
6						
						0
7						
8						
	S-3	8-12	62			0
9				Grades to:..reddish brown. (NATIVE)		
10						
						0
11						
12						
				End of SP-12 at 12.0' bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

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WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	50	(FILL) Dark brown to grayish brown, fine to coarse SAND, some fine to medium Gravel, trace Silt, trace Brick fragments moist.	Headspace result = 0.0 ppm (0-4' bgs)	0
1						
2						0
3						
4						
	S-2	4-8	56	(FILL) Brown, to grayish brown, fine to coarse SAND, some Clay & Silt, trace fine to coarse Gravel, moist.	Headspace result = 0.0 ppm (4-8' bgs)	0
5						
6						0
7				(FILL) Grades to:..wet.		
8						
	S-3	8-12	37	(FILL) Grades to:..brown, trace fine to medium Gravel.	Headspace result = 0.0 ppm (8-12' bgs)	0
9						
10						0
11						
12						
	S-4	12-13	50			0
13				Refusal at 13.0' bgs.		
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

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Niagara Falls, NY

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DRILLER:	Pat Bliek	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 12/7/10	END DATE: 12/7/10	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	50	(FILL) Brown and gray, fine to coarse SAND, some Silt, trace fine to medium Gravel, trace Slag fragments, moist.	Headspace result = 0.0 ppm (0-4' bgs)	0
1						
2						
3				Brownish gray, Silty CLAY, trace fine to medium Sand, trace Organics, moist. (NATIVE)		0
4						
	S-2	4-8	100	Grades to:..reddish gray. (NATIVE)	Headspace result = 0.0 ppm (4-8' bgs)	0
5						
6						
7						0
8				End of SP-14 at 8.0' bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

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2) bgs = below ground surface.

General Notes: 1) Stratification lines represent approximate boundary between soil types, transitions may be gradual.
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DRILLER:	Pat Bliek	GROUND SURFACE ELEVATION:	NA DATUM NA
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WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	50	(FILL) Brown to dark brown, fine to coarse SAND, some fine Gravel, trace Silt, trace Slag fragments, moist.		0
1						
2						
				Grayish brown with dark gray staining, Silty CLAY, trace fine to medium Sand, moist. (NATIVE)		0
3						
4						
	S-2	4-8	100	Grades to:..reddish brown. (NATIVE)		0
5						
6						
						0
7						
8						
				End of SP-15 at 8.0' bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

NOTES: 1) MiniRae 2000 organic vapor meter used to field screen and headspace soil samples.
2) bgs = below ground surface.

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Niagara Falls, NY

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START DATE: 12/7/10	END DATE: 12/7/10	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	50	(FILL) Dark brown, fine to coarse SAND, some Silt, trace fine to medium Gravel, trace Brick fragments, moist.		0
1				(FILL) Light gray, Sandy SILT, trace fine to coarse Gravel, trace Brick fragments, moist.		
2						0
3						
4				Grayish brown, Silty CLAY, trace fine Sand, moist. (NATIVE)		
	S-2	4-8	100	Grades to:..reddish brown. (NATIVE)	Headspace result = 0.0 ppm (4-8' bgs)	0
5						
6						0
7						
8				End of SP-16 at 8.0' bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

NOTES: 1) MiniRae 2000 organic vapor meter used to field screen and headspace soil samples.
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Niagara Falls, NY

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DRILLER:	Pat Bliek	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 12/7/10	END DATE: 12/7/10	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	50	(FILL) Dark brown, fine to coarse SAND, trace fine to medium Gravel, trace Silt, moist.	Headspace result = 0.0 ppm (0-4' bgs)	0
1				(FILL) Tan, Sandy SILT, trace fine to medium Gravel, moist.		
2						
				(FILL) Light gray, fine to coarse SAND, trace fine Gravel, wet.		0
3						
				Grayish brown, Silty CLAY, trace fine to medium Sand, moist. (NATIVE)		
4						
	S-2	4-8	46	Grades to:..reddish brown. (NATIVE)		0
5						
6						
						0
7						
8						
				End of SP-17 at 8.0' bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

NOTES: 1) MiniRae 2000 organic vapor meter used to field screen and headspace soil samples.
2) bgs = below ground surface.

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DRILLER:	Pat Bliek	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 12/7/10	END DATE: 12/7/10	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	48	(FILL) Dark gray, fine to coarse GRAVEL, moist.	Headspace result = 0.0 ppm (0-4' bgs)	0
1				(FILL) Brown to grayish brown, fine to coarse SAND, some Silt, trace fine Gravel, moist.		
2						
						0
3						
4						
	S-2	4-8	100	Grayish brown, Silty CLAY, trace fine to medium Sand, moist. (NATIVE)		0
5				Grades to:..reddish brown. (NATIVE)		
6						
						0
7						
8						
				End of SP-18 at 8.0' bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

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Niagara Falls, NY

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START DATE: 12/7/10	END DATE: 12/7/10	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	56	(FILL) Dark brown, fine to coarse SAND, trace fine Gravel, trace Brick fragments, moist.	Headspace result = 0.0 ppm (0-4' bgs)	0
1				(FILL) Light gray, Silty SAND, trace fine Gravel, moist.		
2						0
3				Gray to reddish brown, Silty CLAY, trace fine to medium Sand, moist. (NATIVE)		
4						
	S-2	4-8	75	Grades to:..reddish brown. (NATIVE)	Headspace result = 0.0 ppm (4-8' bgs)	0
5						
6						0
7						
8				End of SP-19 at 8.0' bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

NOTES: 1) MiniRae 2000 organic vapor meter used to field screen and headspace soil samples.
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Niagara Falls, NY

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DRILLER:	Pat Bliek	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 12/7/10	END DATE: 12/7/10	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	50	(FILL) Dark brown, fine to coarse SAND, trace fine Gravel, moist.		0
1						
				(FILL) Tan, SAND & GRAVEL, trace Silt, moist.		
2				Light grayish brown, Silty CLAY, trace fine to medium Sand, moist. (NATIVE)		0
3						
4						
	S-2	4-8	75	Grades to:..reddish brown. (NATIVE)	Headspace result = 0.0 ppm (4-8' bgs)	0
5						
6						0
7						
8				End of SP-20 at 8.0' bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

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WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	42	(FILL) Brown to dark brown, fine to coarse SAND, trace fine to medium Gravel, trace Slag fragments, trace Concrete fragments, moist.	Headspace result = 0.0 ppm (0-4' bgs)	0
1						
2				(FILL) Grades to:..light gray and tan, wet.		
3						0
4						
	S-2	4-8	58	Reddish brown, Silty CLAY, trace fine to medium Sand, moist. (NATIVE)	Headspace result = 0.0 ppm (4-8' bgs)	0
5						
6						
7						0
8				End of SP-21 at 8.0' bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

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C - Rock Core Sample

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APPENDIX G

Comments from NYSDEC (May 20, 2011)

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-----Original Message-----
From: Salvatore Calandra [mailto:sacaland@gw.dec.state.ny.us]
Sent: Friday, May 20, 2011 3:54 PM
To: Dellolio, Laura A CTR CTR USAR 99TH RRC -NA-
Subject: Re: Niagara Falls AFRC Site Inspection Report (UNCLASSIFIED)

Laura,

After reviewing the Site Inspection Report by Pars, Inc., we have the following comments:

1) The clean up guidance for PCB oil spills can be found in CP-51 (The Contaminated Soil Policy). Since this is not a brownfield site, the guidance is 1 ppm for surface soils and 10 ppm for subsurface soils.

2) A sheen was found at TP-8 and TP-9. We request additional investigation around these locations to identify the nature and source of the sheen.

3) The contractor proposed an interim remedial action for the petroleum product found at TP-12. We request further clarification as to what this entails. Will this include the removal of petroleum contaminated fill or only the removal of the product/water mixture?

Thank you for your assistance with the clean up of this site. If you have any questions for me, please call me at 716-851-7220.

Sal

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Final

Radiological Assessment Report

Niagara Falls U.S. Army Reserve Center (NY046)
9400 Porter Road
Niagara Falls, New York 14304

Contract No. W52P1J-11-D-0090-0001

Prepared For:

Rock Island Contracting Center

Rock Island Arsenal

Rock Island, IL 61299

Prepared By:

222 Valley Creek Blvd., Suite 210

Exton, PA 19341

December 2011

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Final
Radiological Assessment Report

Niagara Falls U.S. Army Reserve Center (NY046)
9400 Porter Road
Niagara Falls, New York, 14304

Authored By: _____ Date: 12/12/11

Frank Tarantello, Characterization Manager

Reviewed By: _____ Date: 12/12/11

Ted Adams, Field Team Lead

Approved By: _____ Date: 12/12/11

Dan Caputo, PhD, CHP, Project Manager

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Appendix H *Analytical Results*

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LIST OF ACRONYMS

AMSA	Area Maintenance Support Activity
ASME	American Society of Mechanical Engineers
BRAC	Base Realignment and Closure
CAM	Chemical Agent Monitors
CFR	Code of Federal Regulations
CM	Characterization Manager
CoC	Chain of Custody
COTR	Contracting Officers Technical Representative
CSH	Combat Support Hospital
DoD	Department of Defense
DOE	Department of Energy
DOT	Department of Transportation
ECP	Environmental Condition of Property
ELAP	Environmental Laboratory Accreditation Program
EPA	Environmental Protection Agency
ES	EnergySolutions, LLC
ES&H	Environmental Safety and Health
FP	Field Procedure
GEL	General Engineering Laboratories
ICAM	Improved Chemical Agent Monitors
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
MARSSIM	Multi Agency Radiation Survey and Site Investigation Manual
MEP	Military Equipment Parking
MVPA	Military Vehicle Parking Area
NELAC	National Environmental Laboratory Accreditation Conference
NIST	National Institute of Standards Technology
NQA-1	Nuclear Quality Assurance Level -1
NRC	Nuclear Regulatory Commission
PM	Project Manager
POC	Point of Contact
POL	Petroleum Oils Lubricants
POV	Privately Owned Vehicle
QA	Quality Assurance
QC	Quality Control
QSM	Quality Systems Manual
RADIAC	Radiation Detection, Indication And Computation
RAM	Radioactive Material
RCT	Radiation Control Technician
RSO	Radiation Safety Officer
TGA	T.G. Adams and Associates Inc.
TPMC	TerranearPMC, LLC

TABLE OF CONTENTS (CONTINUED)

USARC	U.S. Army Reserve Center
USEPA	U.S. Environmental Protection Agency

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1.0 EXECUTIVE SUMMARY

1.1 INTRODUCTION

This Report describes objectives, procedures, and findings of the Radiological Assessment activities conducted at the Niagara Falls U.S. Army Reserve Center (USARC) (Facility ID NY046) located in Niagara Falls, New York, hereafter referred to as the "Niagara Falls USARC Site" or "the site".

This report was prepared by TerranearPMC, LLC (TPMC) of Exton, Pennsylvania, to fulfill the requirements of Contract W52P1J-11-D-0090, Delivery Order No. 0001 with the U.S. Army – Rock Island Contracting Command, Rock Island Arsenal, Illinois. This radiological assessment work is carried out to support the Base Realignment and Closure (BRAC) process.

1.2 PROJECT OVERVIEW

TPMC, along with its subcontractors, formed three survey teams, each consisting of a Team Lead, Radiation Control Technician (RCT), and RCT Sampler/Shipper to perform radiological assessments of multiple BRAC sites across the country. Team #1 performed the site assessment for the Niagara Falls USARC Site.

Assessment of the site began with a review of available historical information prior to mobilization in the field. This information was used to help determine the survey approach and methodology for the field team. Upon arrival at the Niagara Falls USARC Site, the team performed visual inspections of the facility and conducted interviews with key site personnel to obtain additional information used to refine the survey approach. Any new information obtained during the site interview and visual inspections was incorporated into the survey design to more accurately assess the site for potential radiological contamination, residual radioactive materials, or other radiological anomalies.

Once the survey approach was defined, the team conducted radiological surveys for gamma and alpha/beta radiation using hand-held instruments. In addition, the field team obtained smear/wipe samples at various locations for offsite laboratory analysis to determine the presence of removable alpha, beta, and Tritium radioactivity. The on-site assessment activities were performed on September 27-28, 2011.

1.3 FINDINGS AND RECOMMENDATIONS

After review of the site Environmental Condition of Property (ECP) Report (ECP, 2007), related site historical documents, personnel interviews, site inspections, visual walk downs, and surveys, indications were found of past storage or use of radiological commodities at the Niagara Falls USARC Site. This included radioactive signs posted in Building 18 and past storage of commodities including both Radiation Detection, Indication And Computation (RADIAC) meters and monitoring equipment (e.g., Chemical Agent Monitors (CAMs) and Improved Chemical Agent Monitors (ICAMs)). Per historical data reviewed for this site, the following Army Reserve Units were listed as occupants (ECP, 2007): 277th Quartermaster Company, 865th Combat Support Hospital, 1982nd Forward Surgical Unit, and Area Maintenance Support Activity (AMSA) 76. Due to the nature of material and equipment typically utilized by military units, it should be assumed that there was some low level radiological materials associated with the illumination of various types of military equipment (e.g., weapon sights,

compasses, aiming circles, etc.). However, no evidence was found to suggest that radiological commodities were improperly managed at the site, or that radiological material was released.

The radiological survey data included thirty-five (35) direct alpha, beta, and gamma radiation measurements, thirty-five (35) smear samples for alpha /beta radioactivity, and three (3) Tritium smear samples sent to the offsite laboratory for analysis. The surveys did not identify any locations where radiation survey measurements exceed the Nuclear Regulatory Commission (NRC) Regulatory Guide (Reg Guide) 1.86 limits.

The radiological assessment results support the finding that the Niagara Falls USARC Site does not currently possess radioactive materials or contain residual radioactivity above the Reg Guide 1.86 limits. Based on the historical information and supporting survey results, the site may be considered radiologically non-impacted in accordance with NRC NUREG 1575/EPA 402-R-97-016, Multi-Agency Radiation Survey and site Investigation Manual (MARSSIM), Revision 1 guidance.

2.0 PROJECT BACKGROUND

2.1 SITE HISTORY, LOCATION AND FEATURES

The Niagara Falls USARC Site consists of 19.5 acres acquired by the Army from the US Navy in 1962. The US Government originally acquired the property in 1955. The Niagara Falls USARC Site consists of eleven (11) buildings and three (3) parking/equipment storage areas. In addition, a concrete guardhouse is located north of the entrance to the property from Porter Road. A military equipment parking (MEP) area is located on the eastern side of the Property and a military vehicle parking area (MVPA) is located west of the MEP. A privately-owned vehicle (POV) parking area is located west of Building 4. The property was used for vehicle maintenance; storage of equipment such as tents, clothing, boots, vests, and similar materials; minor medical supplies; vehicle maintenance tools; petroleum, oils, lubricants (POLs); and batteries and tires for the 865th CSH, the 1982nd Forward Surgical Unit, and the 277th QMC. The 865th CSH used the property one weekend each month for drill (classroom) training (ECP, 2007).

The Niagara Falls USARC is comprised of the following buildings and parking areas:

- Building 4 – Hanger, Buildings 4N and 4S – 85,550 ft^2
- Building 17 - POL Shed/AST - 1,000 ft^2
- Building 18 - OMS and AMSA - 9,720 ft^2
- Building 19 - Equipment Storage - 1,600 ft^2
- Building 20 - Equipment Storage - 2,133 ft^2
- Building 21 - Equipment Storage/Vehicle Maintenance - 13,055 ft^2
- Building 22 - Equipment Storage/Classroom/Administrative - 20,733 ft^2
- Building 23 - Equipment Storage - 2,058 ft^2
- Building 24 - Equipment Storage - 2,400 ft^2
- Building 25 - Equipment Storage - 1,504 ft^2
- Building 26 - Equipment Storage - 2,150 ft^2
- Military Equipment Parking (MEP) Lot
- Privately Owned Vehicle (POV) Parking Lot
- Military Vehicle Parking Area (MVPA)

A site aerial view is provided in Figure 2-1.

2.2 AREAS OF CONCERN

After review of the site ECP Report and related site historical documents, personnel interviews, site inspections, visual walk downs, and surveys, indicators were found of past storage or use of radiological commodities at the Niagara Falls USARC Site. These commodities included both RADIAC meters and monitoring equipment (e.g. CAMs and ICAMs). Per historical data reviewed for this site, the following Army Reserve Units were listed as occupants (ECP, 2007): 277th Quartermaster Company, 865th Combat Support Hospital, 1982nd Forward Surgical Unit, and AMSA 76. Due to the nature of material and equipment typically utilized by military units, it was assumed that some low-level radiological materials associated with the illumination of various types of military equipment (e.g., weapon sites, compasses, aiming circles, etc.) were likely used or stored at the site. However, no evidence was found to suggest that radiological commodities were improperly managed at the site, or that radiological material was released.

Figure 2-1
Site Aerial View

Niagara Falls U.S. Army Reserve Center (NY046)
9400 Porter Road
Niagara Falls, New York, 14304

Note: Red outline shows approximate location of property boundary.

3.0 PROJECT ORGANIZATION

3.1 PROJECT TEAM

TPMC was tasked by the U.S. Army – Rock Island Contracting Center, Rock Island Arsenal, Illinois, to perform radiological assessments at multiple Army Reserve BRAC sites across the country under contract number W52P1J-11-D-0090-0001. TPMC performed the site assessments with assistance from subcontractors Energy*Solutions,* LLC (ES); T.G. Adams and Associates, Inc. (TGA); and General Engineering Laboratories, LLC (GEL). Due to the number of sites, tight schedule, and geographic separation of the sites, TPMC utilized three teams to execute the site assessments fieldwork.

Field Team #1 performed the site assessment for the Niagara Falls USARC Site. The field team was supported by dedicated project personnel in the home office. Key positions and responsibilities for this site assessment are listed below, and assigned personnel are listed in Table 3-1.

Project Manager (PM) – Overall management responsibility for the project. The PM is responsible for providing adequate resources (budget and staff), and functions as the single point of contact (POC) for the project team. The PM is also responsible for quality of technical performance and deliverables while maintaining schedule and budget.

Characterization Manager (CM) –Responsible for ensuring analytical samples, results, data, and records are properly documented and stored; as well as coordinating field activities with Field Team Leads. The CM also develops the Final and final site assessment reports.

Data Quality Manager – Responsible for ensuring data quality, and reviews data packages from the field and laboratory.

Environmental, Safety and Health (ES&H) Manager – Responsible for management of all site safety personnel, conduct of audits of work for safety and health considerations, preparation of Activity Hazard Analysis, conduct and documentation of periodical project safety assessments and inspections, and conduct of safety training.

Radiation Safety Officer (RSO) – Responsible for ensuring that field teams are implementing radiological policies and procedures; and complying with all radioactive material license/permit conditions, and radiological safety requirements. In addition, the RSO performs radiological protection and safety audits, reviews required radiological health and safety documents, and maintains radiation safety controls.

Database Manager – Responsible for providing and maintaining document-sharing platform, offsite laboratory data management and supporting site assessment report preparation.

Group Field Team Lead –Maintains a presence at the site at all times during field activities and provides technical direction and guidance to RCT and Sampler/Shipper personnel during execution of field activities.

RCT – Responsible for on-site environmental monitoring and radiological control programs in accordance with applicable regulatory guidelines. The RCT leads the field radiological survey activities, ensures properly calibrated and operational field instruments, and oversees sample collection and preparation of documentation related to radiological data generated from field measurements.

Sampler/Shipper –Manages and coordinates on-site activities associated with the collection, packaging, and handling of samples generated as a result of the site assessment activities. The Sampler/Shipper also provides Department of Transportation (DOT) and NRC compliant handling and shipment of radioactive calibration sources and samples during field activities.

Table 3-1
Project Team Personnel

Name	Position/Role	Relevant Experience (Years)
Dan Caputo	Project Manager	22
Frank Tarantello	Characterization Manager	21
Robert Brounstein	ES&HManager	23
Mark Tepperman	Data Quality Manager	25
Kinshuk Shroff	Database Manager	10
Ted Adams	RSO & Group Field Team #1 Lead	31
Joe Wise	Group Field Team #2 Lead	26
Stan Stevens	Group Field Team #3 Lead	30

3.2 SUBCONTRACTOR SUPPORT

TPMC teamed with key subcontractors to provide manpower, specialized technical support, and analytical services. Table 3-2 identifies the project subcontractors and their respective roles and responsibilities.

Table 3-2
Subcontractor Support

Name	Role/Responsibility
Energy*Solutions*, LLC (ES)	Professional Labor support and radiation instrumentation
T.G. Adams and Associates Inc. (TGA)	Professional Labor support and radiation instrumentation
General Engineering Laboratories, LLC (GEL)	Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP) approved analytical laboratory services

4.0 OBJECTIVES AND RADIOLOGICAL ASSESSMENT METHODOLOGY

The overall objective of the BRAC Site Radiological Assessments is to conduct visual inspections, interviews, radiation surveys, smear/wipe sampling, and analysis for both fixed and removable contamination at multiple BRAC locations in the continental U.S. This particular report presents the results of the site assessment performed at the Niagara Falls USARC Site.

4.1 RADIOLOGICAL ASSESSMENT METHODOLOGY

For this project, radiological assessment methodology included reviewing available historical and current information; performing visual inspections; conducting interviews; conducting general radiation surveys; obtaining smear and wipe survey samples; laboratory analysis of smear/wipe samples; and evaluation / interpretation of the analytical results. However, no evidence was found to suggest that radiological commodities were improperly managed at the site, or that radiological material was released. Therefore, the Niagara Falls USARC Site qualified for the simplified assessment procedure of Appendix B of MARSSIM.

The site assessment and scoping survey was performed in accordance with the MARSSIM guidance document (NRC NUREG 1575) protocols. Survey action levels for alpha and beta radiation levels were obtained from NRC Reg Guide 1.86. In accordance with industry practice, the area gamma radiation survey action limit was based on an "indistinguishable from background" determination that is normally 2-3 times ambient background radiation levels. The site did not have a history of radiological releases, accidents, or radioactive waste disposal; and thus the survey was intended to support a MARSSIM non-impacted site determination.

4.2 FIELDWORK ACTIVITIES

Fieldwork activities may be grouped into two categories:

1. Pre-mobilization Activities
2. Field Activities

4.2.1 Pre-Mobilization Activities

Pre-mobilization activities included those actions required to ensure the team is fully prepared to perform their job tasks upon arrival at the project site.

TPMC separated the pre-mobilization phase into the following activities:

1. Historical Due Diligence
2. Staffing and Training
3. Procurement Actions
4. Project Scheduling
5. Shipment of Equipment and Supplies

4.2.1.1 Historical Due Diligence

TPMC initiated due diligence review by researching the ECP Report for the site. In addition, available Army literature regarding radioactive commodity use and storage was reviewed. The site review and associated documentation were logged and referenced for use in field activities. The results of the historical due diligence review for the subject site are documented in the Historical Review Checklist, Appendix A.

4.2.1.2 Staffing and Training

As described in Section 3.0 of this report, TPMC fully staffed this project with qualified personnel along with key select subcontractors. TPMC delegated full responsibility and authority to the PM regarding project performance and management of project staff. The PM had direct access to top-level management of TPMC and the subcontractors so that contract, management, and staff needs were immediately met. In addition, key personnel were selected based on their expertise, credentials, DoD and client experience, communication skills, flexibility, and history/institutional knowledge.

TPMC management, technical support personnel, and field teams worked together as a fully integrated team. The infrastructure to accomplish this was in place and employed existing TPMC corporate processes and procedures. The TPMC corporate RSO/ES&H manager conducted initial radiological, and health and safety training to field personnel. Project personnel received awareness training on the following topics:

- General Employee Training
- Hazardous Communications
- Personnel Protective Equipment
- Blood-Borne Pathogens
- Site-Specific Radiation Worker Training
- Confined Space
- Applicable Site-Required Training, if required
- Radiological Field Procedures and related forms

4.2.1.3 Procurement Actions

TPMC's Procurement Manager controlled the purchase, leasing and subcontracting for material, equipment, and manpower support required for this project. Procured items included, but were not limited to, the following items:

- Ludlum Model 19 MicroR (μR) survey meter (area Gamma Radiation)
- Ludlum Model 2360 Dual Alpha/Beta rate meter with logging capabilities
- Ludlum Model 43-89 / 43-93 Dual Alpha/Beta rate meter with scintillation detector
- Ludlum Model 2221 coupled with Ludlum Model 44-9 (Beta Activity)
- Ludlum Model 2221 coupled with Ludlum Model 43-90 (Alpha Activity)
- Instrumentation check sources (Thorium-230, Technetium-99 and Cesium-137)
- Purchase of airline tickets
- Hotel reservations
- Car/SUV rentals
- Subcontracted RCT support
- Support tools (i.e. hand-tools, masslin mops, flashlights, etc)
- Recording equipment/documents
- Communication devices (two-way radios for site communication)
- Digital cameras with media
- Personnel Protective Equipment

4.2.1.4 Schedule

TPMC prepared a comprehensive project schedule to cover all required tasks and activities related to this project. During the project, TPMC continually updated the schedule and reported

any changes or extensions to the Army Contracting Officers Technical Representative (COTR) as required.

4.2.1.5 Shipment of Supplies

To expedite field activities while decreasing the amount of equipment and supplies carried by field staff during initial mobilization, TPMC shipped field supplies to each team's initial survey location. These materials and supplies included items listed in Section 4.2.1.3.

Radioactive check sources were transported in full compliance with DOT 49 CFR Part 173 as excepted radioactive materials, instrument and article shipments; and were shipped by a trained and experience hazardous material shipper assigned to each team.

4.2.2 Field Activities

Field activities were grouped into the following categories:

- Site Walkdown
  - Interviews with key POCs
  - Visual Inspection of site
- Documentation of Survey Approach
- Radiation Surveys
  - Area gamma radiation measurements
  - Direct alpha/beta measurements (total contamination)
  - Qualitative removable alpha/beta contamination (large area wipes)
  - Quantitative removable alpha/beta contamination (100 cm^2 smear samples; dry for alpha /beta and wet for Tritium analysis)
- Shipment of Samples to Offsite Laboratory

4.2.2.1 Site Walkdown including Visual Inspection and Interviews with key POCs

Upon arrival on-site, the TPMC Team Lead met with site personnel to gather background information regarding the site, and to receive site-specific training/indoctrination as required. The team conducted a visual inspection of the site to identify any radioactive commodities, radiation use areas, or locations where radiation could be present. If any such material/equipment was identified, it was inventoried with a detailed description and location, to reduce the risk of a loss of identified material/equipment. These photos can be found in Appendix B.

4.2.2.2 Documentation of Survey Approach

The Team Leads used historical due diligence reviews, visual inspections, and interviews to refine the overall survey strategy ultimately implemented at the site. This approach was controlled via TPMC Procedure BRAC-Field Procedure (FP) – 01, "Survey Approach Preparation / Documentation" and documented via Attachment C, "Survey Approach Documentation Form". The Survey Approach Documentation Form for this site is provided in Appendix C.2.

4.2.2.3 Radiation Surveys

Each of the TPMC Field Teams was provided the necessary equipment and supplies to perform the radiological assessment surveys in accordance with methodology previously defined. The types of analyses, instrumentation, and detection methods are detailed in Table 4-1 below.

Table 4-1
Portable Instrumentation for BRAC Site Deployment

Type of Measurement	Type of Instrument	Detection Method
Direct measurements for total contamination	Ludlum Model 2221 rate meter with Ludlum Model 44-9 probe	Geiger-Mueller (G-M)
Direct measurements for total contamination	Ludlum Model 2221 rate meter with Ludlum Model 43-90 probe	Scintillation
Direct measurements for total contamination	Ludlum Model 2360 rate meter with Ludlum Model 43-89 or 43-93 probe	Scintillation
Wipe tests for removable contamination	Ludlum Model 2360 rate meter with Ludlum Model 43-89 or 43-93 probe	Scintillation
Wipe tests for removable contamination	Ludlum Model 2221 rate meter with Ludlum Model 44-9 probe Ludlum Model 2221 rate meter with Ludlum Model 43-90 probe	Geiger-Mueller (G-M) Scintillation
Low-level radiation exposure rate survey	Ludlum Model 19 MicroR Meter	Sodium Iodide (NaI) Scintillator

Prior to taking survey measurements, each team chose a low-background location as a temporary base of operations to conduct instrument quality control and performance checks. The temporary base was the area where smear/wipe samples were counted and instrument performance verified prior to use.

The team first proceeded to areas of the site where radioactive material (RAM) or contamination could be present (e.g., former RAM storage/use areas as described in the Survey Approach). The team then surveyed areas with a lower likelihood of contamination using the MARSSIM graded approach protocol.

The radiological evaluation included an area radiation survey with a MicroR meter (minimum thirty (30) exposure rate measurements) and a contamination survey consisting of three components: fixed contamination (minimum thirty (30) direct measurements), qualitative removable contamination (large area wipes, as appropriate), and quantitative removable contamination (100 cm^2 smear tests; minimum thirty (30) dry wipes for gross alpha/beta and three (3) wet smears for Tritium). The qualitative removable contamination measurements were used to sample a large area to determine if any removable contamination was detectable above ambient background levels. If contamination was detected with a large area wipe or a direct measurement, the team expanded their survey area to gather quantitative data in the location where contamination was found. If radon progeny was suspected as the source of contamination, the large area wipe or smears were allowed to decay and re-counted to verify that radon progeny was the source of elevated readings.

In order to ensure consistency with MARSSIM and meet project data quality objectives, a minimum of thirty (30) smear samples were collected at the site and at least that many direct radiation measurements for a minimum of sixty (60) documented data points per site. An additional three (3) wet Tritium (H-3) smears were collected for a 10:1 dry-to-wet smear ratio.

While on-site, direct measurements and dry qualitative smear samples results were compared to applicable Reg Guide 1.86 Table 1 Limits. Radiation exposure rate levels were compared to site ambient background levels. Radiological surveys were documented on a standardized survey form that included information on the instrumentation, background levels, measurement type, survey location (maps and/or photos), and survey results. The dry qualitative smear sample results were only used as indicators of the potential for removable contamination or radon progeny, and were only documented on the field data collection worksheets. These samples were sent to an offsite laboratory for quantitative analysis for comparison against the action levels and are presented in this report.

Survey documentation was prepared by the RCT Surveyor and peer reviewed by the Team Lead to ensure complete capture of information while on-site. Wet and dry smears were shipped overnight to the selected offsite vendor laboratory, GEL (a DoD ELAP Accredited facility), for quantitative radiological (gross alpha, beta, and Tritium) analysis. Chain of Custody (CoC) forms were completed for all samples and are included in Appendix D. Three-day turn-around times were required for sample analyses to ensure the timeliness of the data for incorporation into the Final report.

At the conclusion of each day's field activities, a brief status report was compiled listing on-site personnel, actions accomplished, significant findings, and planned activities for the following day, as applicable, and submitted to the COTR and BRAC office POCs. Copies of these Daily Reports can be found in Appendix E.

In addition, at the conclusion of each day's activities, field notes, data sheets, and logs were transmitted to the Characterization Manager for quality data review.

4.2.2.4 Sample Custody and Control

The handling and transport of samples destined for the analysis at GEL was coordinated by the Team Lead. As a result, each sample was tracked/controlled on a CoC form and properly labeled.

Tritium samples were placed inside plastic vials, which in turn were placed inside plastic bags to ensure the smears remained moist during transit. The alpha/beta smears were placed into a plastic bag and sealed. The samples were then packaged in a Federal Express (FedEx) overnight pouch with air bills completed for shipment of the applicable BRAC site samples to GEL. Since the sample media were not suspected of being a hazardous material per DOT, the shipment was handled as non-regulated sample media and turned over to FedEx.

5.0 SAMPLE COLLECTION AND ANALYTICAL LAB SCOPE

5.1 REMOVABLE SMEAR SAMPLING

A total of thirty-eight (38) quantitative smear samples (100 cm^2 smear tests) were taken at the site. This included thirty-five (35) dry smear samples were collected and analyzed for removable alpha/beta contamination, and three (3) wet smear samples taken and analyzed for Tritium contamination. The following sections provide details of the sample collection and analytical methods.

5.2 SAMPLE IDENTIFICATION

A unique sample numbering system was used to identify each sample collected and submitted for laboratory analysis. This system, documented in FP09-R0-TPMC, provided a tracking procedure that enabled data retrieval and use and ensured that the sample numbers were not duplicated. The sample identification (ID) numbers were documented on sample field sheets. Sample ID numbers were used on sample labels or tags, field data sheets and/or logbooks, CoC records, and any other applicable documentation used during the project.

5.3 SAMPLE CONTAINERS, PRESERVATION, AND HOLDING TIMES

Gross alpha/beta smear samples were placed in plastic bags per GEL direction. Tritium smears were placed in plastic vials containing a small quantity of de-ionized water per GEL instructions. Preservation and holding times did not apply to these samples.

5.4 ANALYTICAL METHODS

Samples were sent to GEL for analysis. These samples were analyzed for the following parameters, using the corresponding methods:

- Tritium by Liquid Scintillation: GL-RAD-A-002
- Gross Alpha/Beta by Gas-Flow Proportional Counting: EPA 900.0/SW846 9310/SM 7110B Modified

5.5 QUALITY ASSURANCE/QUALITY CONTROL

Quality Control (QC) was maintained on this project at all stages including instrument use / handling, sample integrity, and analytical laboratory data.

5.5.1 Instrument Use / Handling

In order to maintain consistency in application of field requirements, the teams performed their field activities in accordance with the approved TPMC procedures and policies, as well as the corresponding training that was provided prior to mobilization of each of the teams.

The team was issued survey instruments, each of which was calibrated by a National Institute of Standards & Technology (NIST) certified offsite facility. Copies of the calibration certificates used for this project are included as Appendix F.3, “Instrument Calibration Sheets”. In addition, each day the team RCT performed Instruments Checks (pre and post survey) to ensure the instruments were operating within the established range. Instrument use and calibration was

controlled via TPMC procedure, FP19-R0-TPMC, "Calibration and Maintenance of Survey Instruments".

As data was collected by the team, the Team Lead provided oversight with regard to the survey methods used, as well as the data sheets generated during execution of the field work. Essentially the Team Lead functioned as first-line reviewer for the project.

5.5.2 *Preserving Sample Integrity*

Sample integrity was maintained through the use of CoC forms and controlled by procedure FP09-R0-TPMC, Sample Identification Tracking". Sample tracking was controlled by procedure FP10-R0-TPMC, "Sample Container Preparation and Sample Preservation". In addition, the Team Lead functioned as an independent reviewer during generation of the CoC forms.

5.5.3 *GEL Laboratories Data Generation and Review*

GEL Laboratories has a mature Quality Assurance (QA) program that has been audited and certified by many organizations including: DoD Quality Systems Manual (QSM) ELAP, National Environmental Laboratory Accreditation Conference (NELAC), American Society of Mechanical Engineers Nuclear Quality Assurance, Level -1 (ASME/NQA-1), and International Organization for Standardization/International Electrotechnical Commission (ISO/IEC) Guide 17025. The high standards built as part of GEL's QA program were directly applied to the handling, analysis, and data reporting associated with the smear samples generated by this project.

In addition, TPMC personnel routinely reviewed all data packages to ensure the completeness and accuracy of each of the sample reports. This review was performed with the express goal to ensure that the sample results received accurately and completely matched the parameters of the site's sample locations.

6.0 SUMMARY OF FIELD INVESTIGATION AND LABORATORY RESULTS

This section provides a summary of field and laboratory observations, results, data, and interpretation results associated with the site assessment. Summarized results of both field and laboratory activities are provided in Table 6-1. This is followed by a brief discussion of the supporting data that was obtained during this project. The supporting data is included in the appendices due to size limitations.

6.1 RESULTS SUMMARY

Table 6-1 provides a summary record of the data obtained in the field along with the corresponding analytical results from the GEL offsite analytical laboratory. Note that the shaded areas highlight those values exceeding Reg Guide 1.86 limits that are described in more detail in Section 6.2.3 and Table 6-3. The details of the survey locations and survey notes/high results narrative are provided in Appendix G, Field Data and Notes.

Table 6-1
Summary Results Table

Survey Location Number	Contamination					Exposure Rate	
	Direct Field (dpm/100 cm^2)		Removable / Smear Lab (dpm/100 cm^2)			Surface Contact	One meter Above Surface
	α	β	α	β	Tritium	(µR/hr)	(µR/hr)
Location / Area: L1 - Building 18							
1	8	426	ND	ND	ND	8	9
2	8	233	ND	ND	-	8	8
3	8	355	ND	ND	ND	5	4
4	8	-61	ND	ND	-	4	4
5	13	-239	ND	ND	-	5	6
6	18	106	ND	ND	-	4	4
7	3	446	ND	ND	-	4	5
8	3	152	ND	ND	-	5	6
Location / Area: L2 - Building 19							
9	8	203	ND	ND	-	5	5
10	8	314	ND	ND	-	4	5
Location / Area: L3 - Building 20							
11	13	35	ND	ND	-	8	7
12	3	71	ND	2.94	ND	8	9
Location / Area: L4 - Building 22							
13	13	426	ND	ND	-	8	8
Location / Area: L5 - Building 21							
14	-1	213	ND	ND	-	7	7
15	18	86	ND	ND	-	7	7
16	8	-77	ND	ND	-	6	7
17	18	324	ND	ND	-	8	8
18	8	30	ND	ND	-	8	8
Location / Area: L6 - Building 25							
19	33	492	ND	ND	-	7	7
Location / Area: L7 - Building 23							
20	18	223	ND	ND	-	5	4
Location / Area: L8 - Building 24							
21	28	172	ND	ND	-	5	6
Location / Area: L9 - Building 26							
22	23	157	ND	ND	-	5	3

Survey Location Number	Contamination					Exposure Rate	
	Direct Field (dpm/100 cm^2)		Removable / Smear Lab (dpm/100 cm^2)			Surface Contact	One meter Above Surface
	α	β	α	β	Tritium	(μR/hr)	(μR/hr)
Location / Area: L10 - Building 17							
23	13	187	ND	ND	-	4	3
Location / Area: L11 - Building 4							
24	-1	182	ND	ND	-	12	14
25	23	274	ND	ND	-	14	15
26	23	20	ND	ND	-	6	7
27	13	71	ND	ND	ND	7	7
28	-1	5	ND	ND	-	10	10
29	13	208	ND	ND	-	10	10
30	13	50	ND	ND	-	7	8
31	13	-16	ND	ND	-	8	9
32	18	309	ND	ND	-	7	7
33	-1	167	ND	ND	-	11	7
34	3	116	ND	ND	-	7	7
35	13	-198	ND	ND	-	5	7

Background Measurements		
α (cpm)	β (cpm)	γ (μR/hr)
0.3	174	8

Notes:

Negative results occur when a previously determined counting instrument background value is subtracted from a sample value that is less than the background value. Negative values represent a portion of the statistical distribution of negative and positive values around zero for samples containing very little or no detectable radioactivity.

ND - Analyte was analyzed for, but not detected above the detection limit. Detection limit is lower than the site assessment criteria shown in Table 6-2. Laboratory data package is provided in Appendix H.

- Samples not collected.

dpm – disintegrations per minute, cpm – counts per minutes , cm^2 – square centimeters
μR – microroentgen, hr - hour

= Results exceed the site assessment criteria shown in Table 6-2.

The data in Table 6-1 was compared to Reg Guide 1.86 criteria and, where applicable, the data are highlighted to indicate values that exceeded the acceptable criteria. The criteria used to evaluate both field and laboratory analytical data is summarized in Table 6-2 below. Any exceedances from Table 6-1 are described in further detail in Section 6.2.3 and Table 6-3.

Table 6-2
Site Assessment Criteria

	Direct Measurements	Removable / Smear Measurements	Exposure Rates
Alpha (dpm/100 cm^2)	**100**	**20**	**-**
Beta (dpm/100 cm^2)	**1000**	**200**	**-**
Tritium (dpm/100 cm^2)	**5000**	**1,000**	**-**
Gamma (µR/hr)	**-**	**-**	**> 2-3 x Background**

Note: Alpha, Beta, and Tritium values extracted from NRC Regulatory Guide 1.86
dpm – disintegrations per minute
cpm – counts per minutes
cm^2 – square centimeters
µR – microroentgen
hr - hour

6.2 FIELD INVESTIGATION RESULTS

6.2.1 Site Interviews / Visual Inspection

The ECP report did indicate previous use of radioactive commodities (e.g. RADIAC meters, CAMs and ICAMs) being stored at the Warehouse Storage Cages on site. The team conducted a visual inspection of the site that resulted in no areas identified as suspect, or requiring additional investigation. TPMC identified radioactive signs at the site including outside the vault and the Instrumentation Repair Shop/Office located in Building 18. The visual inspections and interviews verified that there were no radioactive commodities on site. The result of the visual inspection is documented in Appendix C.1, "Visual Inspection / Site Survey Checklist".

In addition to the visual inspection, the Team Lead conducted site interviews with on-site POCs, Charles DeMarti and Carlos Torres. The result of this interview is recorded in the Survey Approach Documentation Form provided in Appendix C.2.

6.2.2 Final Survey Approach

The survey approach included in Appendix C.2 provides the general survey methods used by the team. The team then included findings from the site interviews and visual inspections to further refine the site-specific survey approach. This survey approach refinement took into account the review of the ECP, interviews conducted, and a visual inspection performed during facility walk-downs. Large area smears and exposure rate measurements were obtained in accessible facility areas to determine locations with radiation or radioactive material exceeding ambient background levels. A total of thirty-five (35) smears for alpha/beta analysis were taken in a representative cross section of the facility with a focus on those areas with the highest potential for contamination. In addition, three (3) Tritium smears were taken. Fixed-point alpha and beta measurements were taken at each smear location with additional attention given to areas with previously stored radioactive commodities. Specific survey / smear sample locations are provided in Appendix G.4, "Survey Sketches". In addition Appendix C.2, Survey Approach Documentation Form was used to document changes or discoveries in the field that were used to refine the survey approach. Based upon the visual inspections and interviews, the Survey Approach was amended to incorporate an added focus on Building 4 and Building 18. As a

result five additional measurements were taken for both the direct check and smear measurements increasing the total from thirty (30) to thirty-five (35).

6.2.3 *Field Measurements*

All field measurements obtained by the survey team are included within Appendix G of this report. These measurements were documented in the site's Survey Record, Appendix G.2, where the following data was recorded.

- Total (fixed and removable) Alpha (cpm and dpm/100 cm^2)
- Total (fixed and removable) Beta (cpm and dpm/100 cm^2)
- Removable / Smear (cpm/100 cm^2 and dpm/100 cm^2)
  - Note: This was a qualitative measurement used by field personnel that is superseded by analytical data received by GEL Laboratories.
- Removable Large Area Wipes (cpm)
- Area gamma radiation exposure rate measurements on contact and at one meter vertically off the floor (μR/hr)

The survey record tool was set up to convert "cpm" values to "dpm" using instrument specific calibration sheets, enabling the Field Team to see in real-time the corresponding field measurements in disintegrations per minute (dpm) for direct comparison with the Reg Guide 1.86 limits (Table 6-2).

In addition to the Survey Record, the Sample Description Log is included as Appendix G.3. This document provides additional description of the survey location in addition to the information provided in the Survey Record. Survey Sketches, Appendix G.5 are also included to provide a pictorial representation of the specific locations where direct measurements and smear samples were taken.

Direct Field alpha/beta measurements, which assess both fixed and removable radioactivity, were found to be within the Reg Guide 1.86 limits. Some initial alpha/beta smear results, which assess the removable radioactivity, were slightly elevated and are documented in Appendix G.4. These field smear results are qualitative in nature and ultimately superseded by the more definitive laboratory analytical results shown in Table 6-1 and discussed in Section 6.3. The off-site laboratory results were all below the Reg Guide 1.86 limits.

6.3 *LABORATORY RESULTS*

All laboratory results are included within Appendix H. In addition to the analytical results, this appendix includes: Certificate of Analysis Report, QC Summary, copy of CoC as received by the lab, Sample Receipt and Review Form, and a listing of GEL's current certifications.

These results, which were received from GEL Laboratories, support the initial team findings that there are no areas displaying radioactivity in excess of the respective actions levels. All sample results were less than the most restrictive Reg Guide 1.86 removable contamination limits of 20 dpm/100 cm^2 alpha, 200 dpm/100 cm^2 beta, or 1,000 dpm/100 cm^2 Tritium. As a result, no additional investigation was warranted.

7.0 CONCLUSIONS

All data collected and survey results support the conclusion that there is no evidence of radiological contamination or radioactive material present at the Niagara Falls USARC Site. This information supports the conclusion that the Niagara Falls USARC Site is considered radiologically non-impacted with respect to the MARSSIM guidance document.

8.0 RECOMMENDATIONS

TPMC recommends using the results of this BRAC Site Radiological Assessment as evidence that the Niagara Falls USARC Site is free of excess radiological contamination and unsecured radioactive material. Thus the site can be considered radiologically non-impacted and available for unrestricted use relative to radiological hazards.

9.0 REFERENCES

Historical Documents

ECP, 2007, Environmental Condition of Property Report, at Niagara Falls U.S. Army Reserve Center, (NY046), Niagara Falls, NY, July 2007

TPMC Procedures

- FP01-R0-TPMC, Gamma Surveys, Effective 7/01/11
- FP02-R0-TPMC, Alpha Surveys, Effective 7/01/11
- FP05-R0-TPMC, Baseline Sampling and Background Determinations, Effective 7/01/11
- FP06-R0-TPMC, Environmental Sampling_BRAC, NO EFFECTIVE DATE/SIG
- FP07-R0-TPMC, Surface Soil Sampling, Effective 7/01/11
- FP09-R0-TPMC, Sample Identification Tracking, Effective 7/01/11
- FP10-R0-TPMC, Sample Container Preparation and Sample Preservation, Effective 7/01/11
- FP14-R0-TPMC, Low Level Radiation Exposure Rate of Dose Rate Surveys, Effective 7/01/11
- FP19-R0-TPMC, Calibration and Maintenance of Survey Instruments, Effective 7/01/11
- FP20-R0-TPMC, Handling, Storage, and Disposal of Radioactive Materials, Effective 7/01/11
- FP22-R0-TPMC, Radioactivity Check Source Accountability, Effective 7/01/11
- FP24-R0-TPMC, Alpha Counting, Effective 7/01/11
- FP25-R0-TPMC, Beta-Gamma Counting, Effective 7/01/11
- FP32-R0-TPMC, General Radiological Survey, Effective 7/01/11
- FP36-R0-TPMC, Radiation Work Permit, Effective 7/01/11
- TerranearPMC, LLC Corporate Environ mental, Safety, and Health Program, Revision 3, August 2010
- BRAC Survey Approach Preparation / Documentation Procedure

Other References

DoD, DOE, USEPA, and Nuclear Regulatory Commission (NRC), 2000, *Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM), NUREG-1575, Rev.1, EPA 402-R-97-016, Rev. 1, DOE/EH-0624, Rev. 1*, August.

U.S. Atomic Energy Commission Regulatory Guide, NRC Reg Guide 1.86, *Termination Of Operating Licenses for Nuclear Reactors*, June 1974

APPENDIX A

HISTORICAL REVIEW CHECKLIST

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SITE HISTORICAL DATA REVIEW

Validation of MARSSIM Appendix B Approach

BRAC Site: Niagara Falls USARC (NY046), Niagara Falls, NY

Team 1 Lead / Reviewer: Ted Adams **Date Reviewed: 9/24/11**

Brief historical summary:

The Niagara Falls USARC (NY046) is a 19.5-acre parcel of land located at 9400 Porter Road in Niagara Falls Township, Niagara Falls, NY. A review of history ownership indicated that the Army acquired the property from the US Navy in 1962. The US Government acquired the property in 1955.

The Niagara Falls USARC consists of 11 buildings and three parking/equipment storage areas. In addition, a concrete guardhouse is located north of the entrance to the Property from Porter Road. A military equipment parking (MEP) area is located on the eastern side of the Property and a military vehicle parking area (MVPA) is located west of the MEP. A privately owned vehicle (POV) parking area is located west of Building 4. The Property was used for vehicle maintenance; storage of equipment such as tents, clothing, boots, vests, and similar materials; minor medical supplies; vehicle maintenance tools; petroleum, oils, lubricants (POLs); batteries and tires for the 865th CSH, the 1982nd Forward Surgical Unit, and the 277th QMC. The 865th CSH used the Property one weekend each month for drill (classroom) training.

The Niagara Falls USARC is comprised of the following structures:

Building 4 - Hanger and Buildings 4N and 4S – 85,550 ft^2
Building 17- POL Shed/AST - 1,000 ft^2
Building 18 -OMS and AMSA - 9,720 ft^2
Building 19- Equipment Storage - 1,600 ft^2
Building 20- Equipment Storage - 2,133 ft^2
Building 21- Equipment Storage/Vehicle Maintenance - 13,055 ft^2
Building 22- Equipment Storage/Classroom/Administrative - 20,733 ft^2
Building 23- Equipment Storage - 2,058 ft^2
Building 24 -Equipment Storage - 2,400 ft^2
Building 25 - Equipment Storage - 1,504 ft^2
Building 26 - Equipment Storage - 2,150 ft^2
Military Equipment Parking (MEP) Lot

Privately Owned Vehicle (POV) Parking Lot
Military Vehicle Parking Area (MVPA)

Building 4

Building 4 is an 85,500 ft² building constructed in 1956. It is a large, metal-framed hanger having two-story brick buildings attached to the north (Building 4N) and the south (Building 4S) sides. All roofs are rubber-coated.

The 865th CSH and the 277th QmC used the hangar and Buildings 4S and 4 N to store equipment, such as tents, clothing, boots, vests, and other similar materials; and minor medical supplies and tools, and for classroom training, readiness and administrative purposes.

The Building also had administrative offices, a mailroom, bathrooms, a garage, and air compressor room. The second floor of Building 4S also had offices, classrooms, a conference room, a chapel/prayer room a family support room, a computer server room, bathrooms, and a mechanical room.

The first floor of the Building 4N was used by the 1982nd Forward Surgical Unit for supply/tools storage. The first floor of Building 4N had a functioning kitchen, boiler/mechanical room, offices, an empty flight locker room, and equipment storage areas. The second floor of Building 4N consisted mainly of classrooms and some offices, a mechanical room, a janitorial room, and bathrooms.

Building 17

Building 17 consists of a POL shed and an aboveground storage tank (AST). The POL shed is a concrete block building, having a metal roof, constructed in 1993. Supplies of POL and antifreeze are stored in this shed. Attached to the east side of the POL Shed is an18-inch-high concrete containment wall, having a metal roof. A 528-gallon steel waste oil AST is located inside this containment.

Building 18

Building 18 is an L-shaped, single-story, 9,720 ft² structure constructed in 1956 and expanded in the 1990s. It is a metal-framed and concrete block structure having a metal and brick exterior. The southern part of the building, constructed in 1956, housed the 277th QmC Organizational Maintenance Shop (OMS). The shop was used for vehicle maintenance and for the storage of related equipment, tools, POL and hazardous waste prior to offsite disposal by a licensed contractor. The remainder of the building added in the 1990s, is of metal frame construction and houses AMSA 76. That part of Building 18 is used for vehicle maintenance, storage of related equipment, tools, used POL other

chemicals and vehicle battery recharging. A storage room in side the AMSA building contained a vehicle battery recharging station.

Building 19

Building 19 is a single-story 1,600 ft² structure built in 1956 of a concrete foundation and a metal frame and roof. It was used to store equipment belonging to the 277th QmC.

Building 20

Building 20 is a single-story 2,133 ft² structure constructed in 1956 of concrete and brick veneer and an asphalt-coated metal roof. It was used for storage of equipment for the 277th QMC and had an electronics service room in the northern part of the building and an unused vehicle battery storage room at the south end of the building.

Building 21

Building 21 is a single-story 13,055 ft² structure built in 1956 of concrete block and brick exterior and a shingled roof. The 277th QmC used it to maintain vehicles, to store equipment and for classroom training and administration. Building 21 also has a boiler room, classrooms, offices, bathrooms, and storage areas that were previously used.

Two maintenance bays are located on the eastside of the building where equipment was stored and light vehicle maintenance was performed.

Building 22

Building 22 is a two-story, 20,703 ft² structure constructed in 1956 of concrete block and brick veneer and a shingled, rubber-coated roof. The building was used for equipment storage of the 277th QmC, classroom training, and administrative tasks. The building also has a kitchen and dining hall that was used during drill weekends (once a month). The second story consists of classrooms and office space, a storage room for flight gear, and bathrooms.

Building 23

Building 23 is a single-story 2,058 ft² structure constructed in 1956 of metal frame and metal roof and siding. It was used for storage of equipment belonging to the 277th QmC.

Building 24

Building 24 is a single-story 2, 400 ft² structure constructed in 1993 of metal frame and metal roof and siding. The 865th CSH used it to store equipment and materials.

Building 25

Building 25 is a single story, 1,054 ft² structure constructed in 1956 of concrete block and brick exterior and an asphalt coated roof. It was formerly used as the heating plant for the Property. Building 25 was recently used to store equipment belonging to the Fort Drum DPW.

Building 26

Building 26 is a single-story 2,150 ft² structure constructed in 1960 of metal frame and metal siding and roof. It is primarily used to store equipment belonging to the 277th QmC.

Potential for radioactive commodity use, handling, or storage:

As documented in Section 6.10 of the ECP, "Based on the site reconnaissance and interviews with the USAR Center personnel, there were/may be monitoring equipment on the Property which contains small quantities of sealed radioactive material. The northern, enclosed section of Building 20, where electronic equipment was stored had a "Radioactive" sticker on the door as abundant caution. Property personnel were unsure of the nature of the instruments in this room; the room reportedly contained RADIAC meters, which were used to monitor radiation, and reportedly contained small amounts of radium in sealed units. The RADIAC meters at the site were sent annually to the Tobyhanna Army Depot for calibration. Based on the above information, there is minimal likelihood of a release to the environment. The equipment is serviced offsite and this is minimal likelihood of a release to the environment."

As documented in Section 8.1 of the ECP, the conclusion regarding radioactive materials was similar to that stated in Section 6.10 but also added, "Based on available information, a radiological survey has not been performed for the Property."

As documented in Section 6.8 of the ECP, "a radon survey was performed at the Niagara Falls USARC from August 5-11, 1998. The testing found radon levels between 0.1 and 0.2 pCi/L which is below the USEPA recommended action level."

USEPA recommends 4 pCi/L as a limit for further consideration of additional testing and/or mitigation.

Documents reviewed:

Final Environmental Condition of Property Report for Niagara Falls USAR Center (CH2M Hill, July 2007).

Findings, if any:

Based on the review of the Niagara Falls ECP and related information, there still may be radiological monitoring equipment (RADIAC, ICAMs, CAMs, etc.), which contain sealed radioactive sources, stored onsite (Building 20).

Conclusion:

Although the ECP Report states that "there may be monitoring equipment (RADIAC) on the Property, which contains small quantities of sealed radioactive material, these commodities and their related sealed sources when properly used, maintained, and stored should not pose a threat to worker or public health and safety or the environment.

Therefore, the Niagara Falls USARC in Niagara Falls, NY qualifies for the simplified assessment procedure of Appendix B of MARSSIM.

However, to validate this approach, the visual inspections and surveys of the Niagara Falls USARC buildings will focus on the locations where these meters and other radiological commodities such as RADIAC monitoring equipment, ICAMs and CAMs were used or stored. The inspection will also focus on looking for radioactive postings/signs that may indicate that radioactive commodities or material were used or stored on the Niagara Falls USARC site.

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APPENDIX B
SITE PHOTOS

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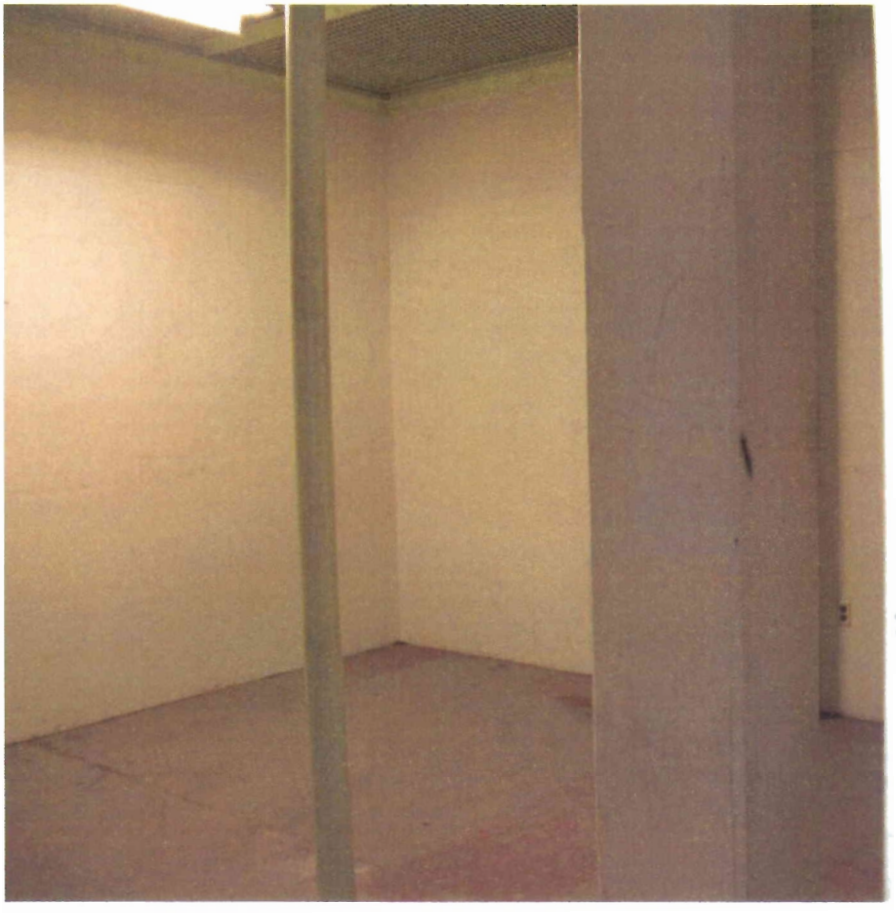
NIAGARA FALLS USARC



BUILDING 4 - INSIDE ROOM 555

FORMER RADIAC/CAMs/ICAMs STORAGE LOCATION

NIAGARA FALLS USARC

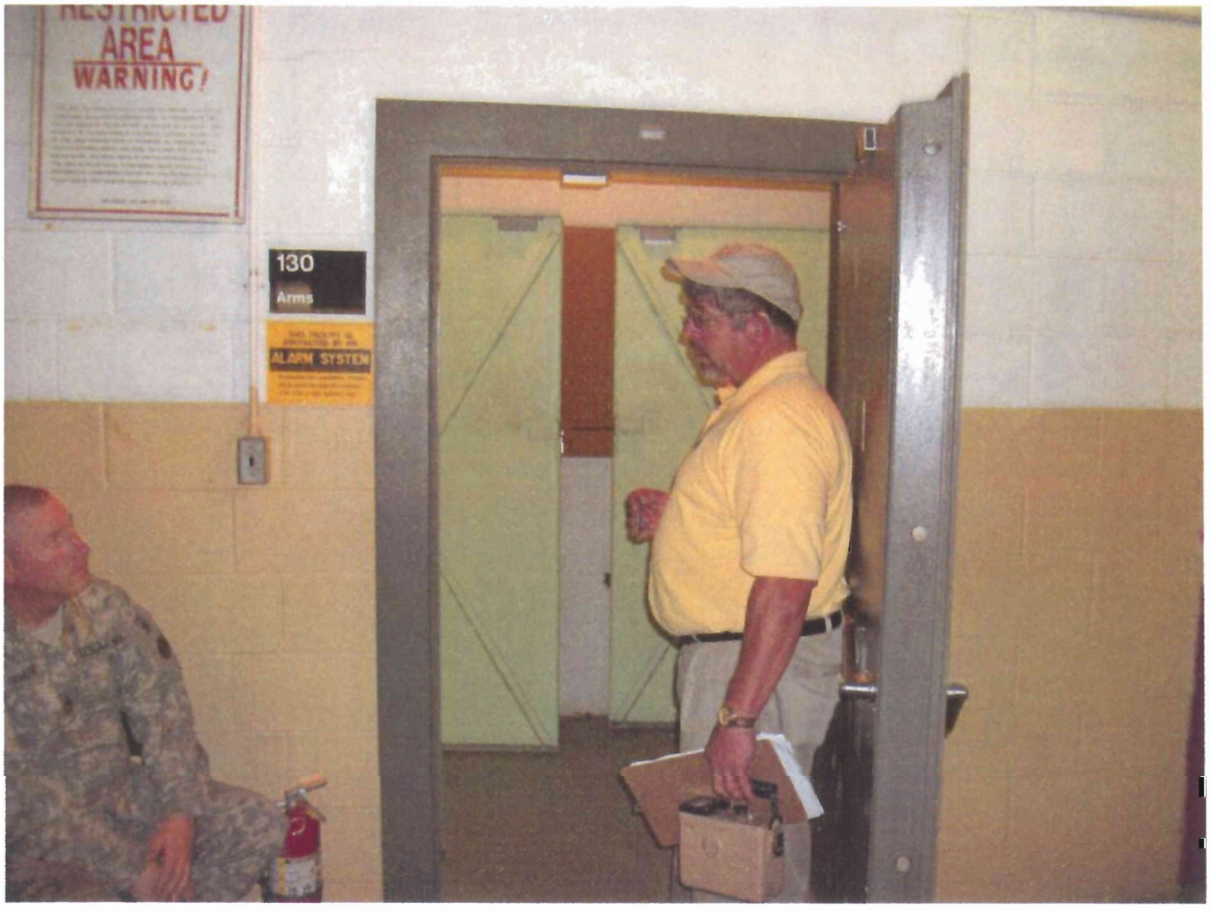
BUILDING 4 - INSIDE SUPPLY AREA NORTH SIDE - FIRST FLOOR

(HRN L11A33-33ab)

NIAGARA FALLS USARC

BUILDING 4 - INSIDE 2nd FLOOR NORTH SIDE

NIAGARA FALLS USARC



BUILDING 4 - INSIDE ARMS ROOM 130 - ROOMS 554 and 555

FORMER RADIAC/CAMs/ICAMs STORAGE LOCATION

NIAGARA FALLS USARC

BUILDING 4 - INSIDE

(HRN L9A27-27ab)

NIAGARA FALLS USARC

BUILDING 4 - INSIDE MAIN HALL NORTH SIDE - FIRST FLOOR

(HRN L11A32-32ab)

NIAGARA FALLS USARC

BUILDING 4 - INSIDE ROOM 554

(HRN L11A25-25ab)

NIAGARA FALLS USARC

BUILDING 4 - OUTSIDE

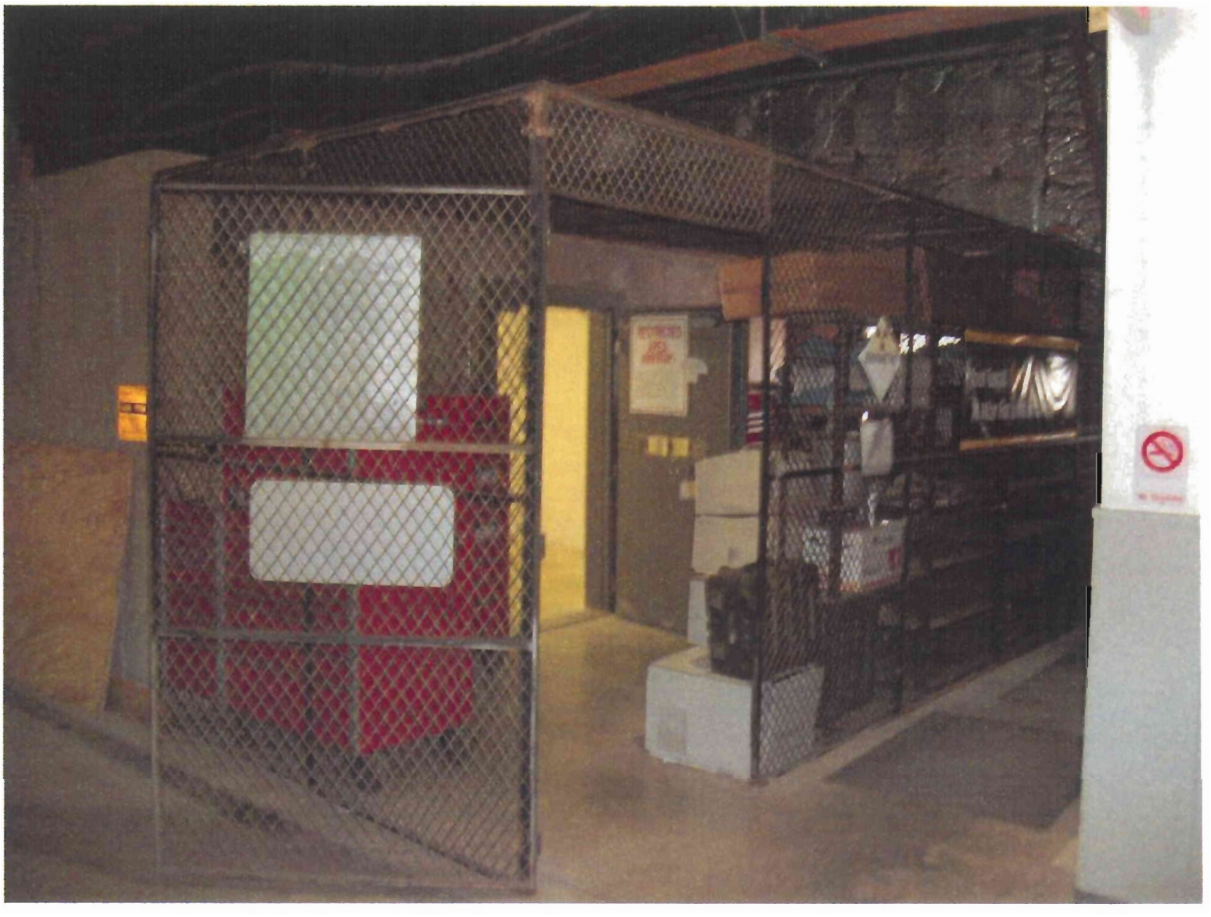
NIAGARA FALLS USARC

BUILDING 17 - INSIDE

NIAGARA FALLS USARC

BUILDING 17 - OUTSIDE

NIAGARA FALLS USARC



BUILDING 18 - INSIDE LOOKING AT CAGE DOOR WITH RAD POSTING

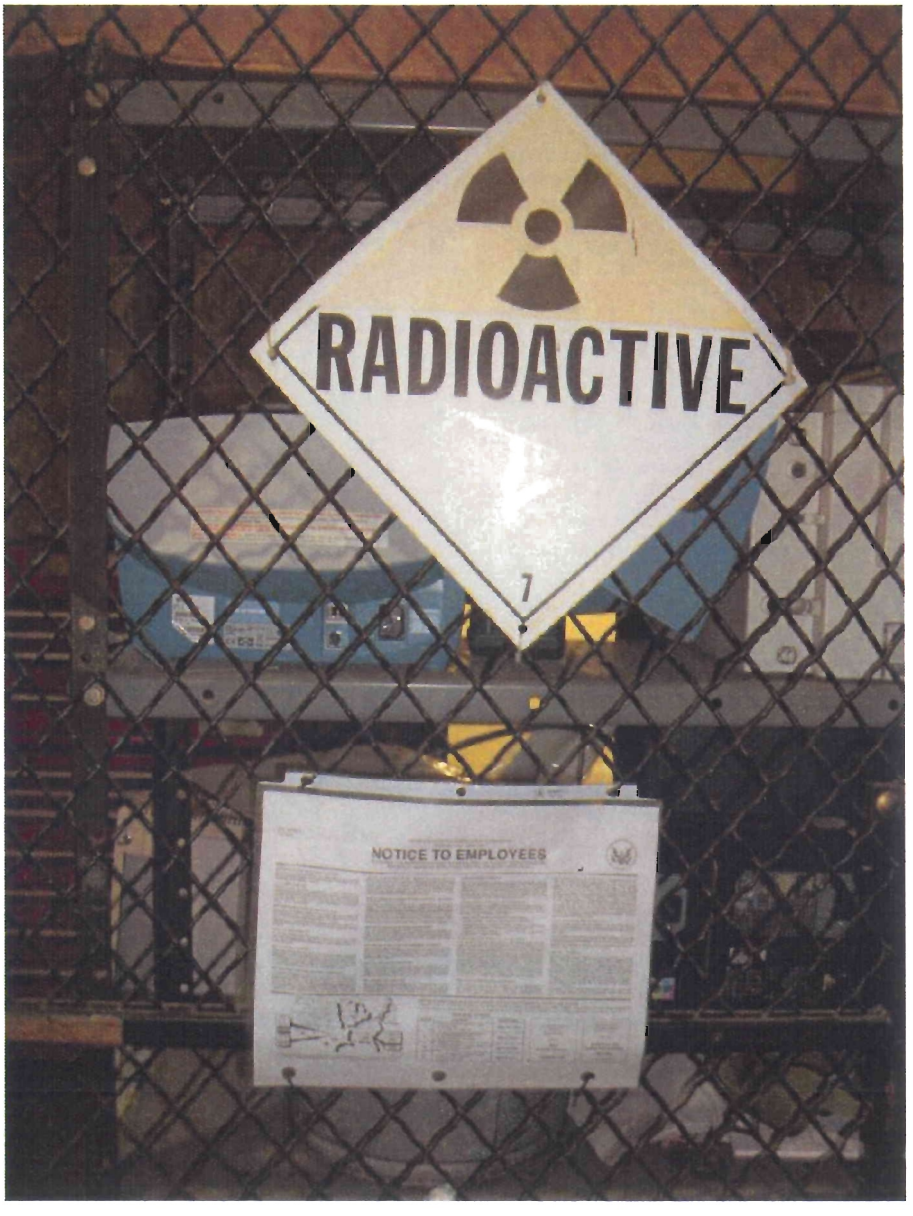
(HRN - L1A1-1ab)

NIAGARA FALLS USARC

BUILDING 18 - INSIDE - RADIOACTIVE MATERIALS SIGN ON INSTRUMENT REPAIR SHOP/OFFICE - SOUTH END BAY FLOOR IN FRONT OF CAGE

(HRN L1A8-8ab)

NIAGARA FALLS USARC



BUILDING 18 - INSIDE- RADIOACTIVE MATERIALS PLACARD AND NRC FORM 3

NIAGARA FALLS USARC

BUILDING 18 - INSIDE-VAULT DOOR

NIAGARA FALLS USARC

BUILDING 18 - INSIDE LOOKING AT MAINTENANCE AREA

NIAGARA FALLS USARC

BUILDING 18 - INSIDE - INSIDE VAULT - PREVIOUS RADIAC/CAMs/ICAMs STORAGE LOCATION - (HRN-L1A2-2ab)

NIAGARA FALLS USARC

BUILDING 18 - OUTSIDE

NIAGARA FALLS USARC

BUILDING 18 - OUTSIDE

NIAGARA FALLS USARC

BUILDING 18 - OUTSIDE

NIAGARA FALLS USARC

BUILDING 19 - INSIDE

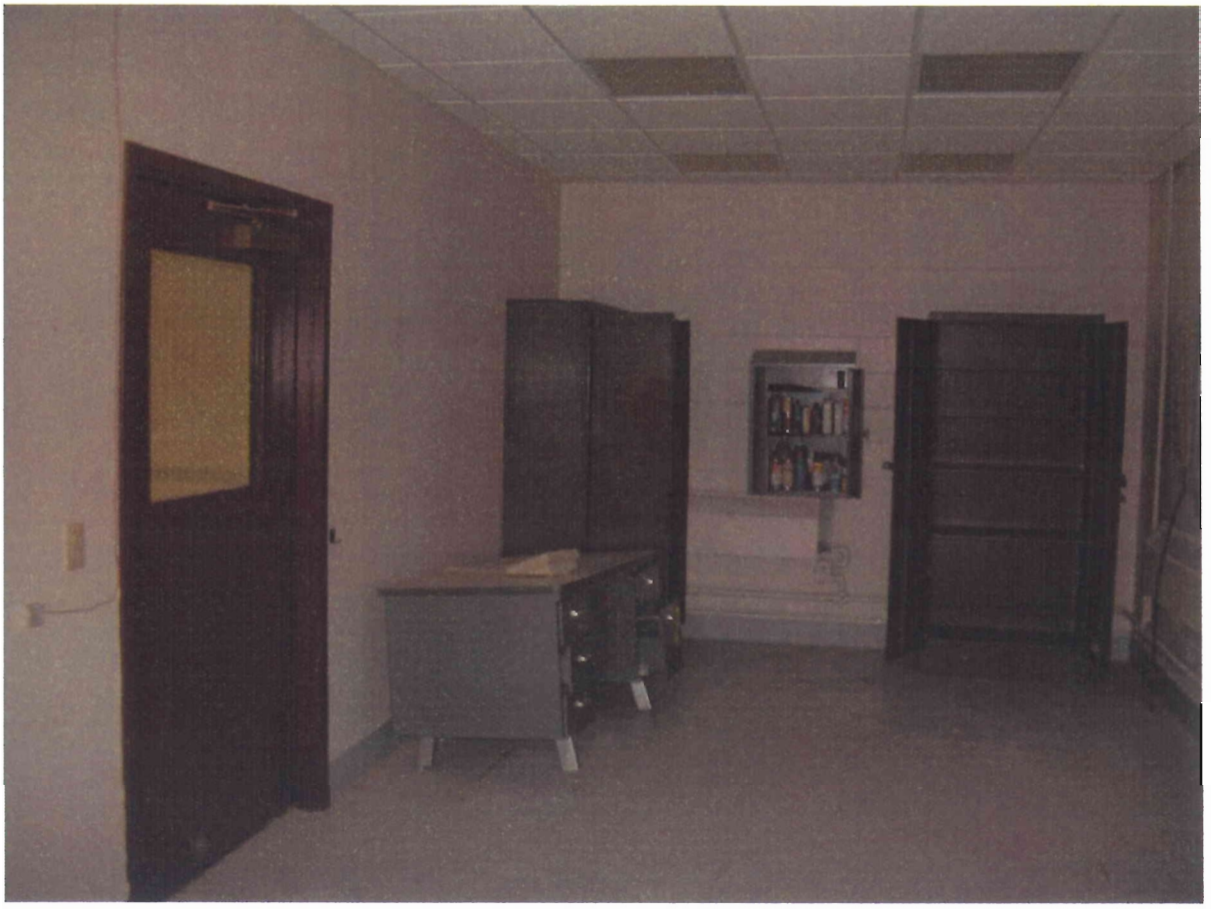
NIAGARA FALLS USARC

BUILDING 19 - OUTSIDE

NIAGARA FALLS USARC

BUILDING 19 - INSIDE - (HRA L10A-10ab)

NIAGARA FALLS USARC



BUILDING 20 - INSIDE - PREVIOUS STORAGE LOCATION FOR RADIAC/CAMs/ICAMs

NIAGARA FALLS USARC

BUILDING 20 - INSIDE

NIAGARA FALLS USARC

BUILDING 21 - INSIDE CLASSROOM

NIAGARA FALLS USARC

BUILDING 21 - OUTSIDE

NIAGARA FALLS USARC

BUILDING 22 - INSIDE - COLD STORAGE VAULT DOOR

NIAGARA FALLS USARC

BUILDING 22 - INSIDE CLASSROOM

NIAGARA FALLS USARC

BUILDING 22 - INSIDE - ROOM 210 COLD STORAGE VAULT

(HRN L4A13-13ab)

NIAGARA FALLS USARC

BUILDING 22 - OUTSIDE

NIAGARA FALLS USARC

BUILDING 23 - OUTSIDE

NIAGARA FALLS USARC

BUILDING 23 - INSIDE

NIAGARA FALLS USARC

BUILDING 24 - INSIDE (HRA L8A21-21ab)

NIAGARA FALLS USARC

BUILDING 24 - OUTSIDE

NIAGARA FALLS USARC

BUILDING 25 - INSIDE

NIAGARA FALLS USARC

BUILDING 25 - INSIDE

NIAGARA FALLS USARC

BUILDING 25 - OUTSIDE

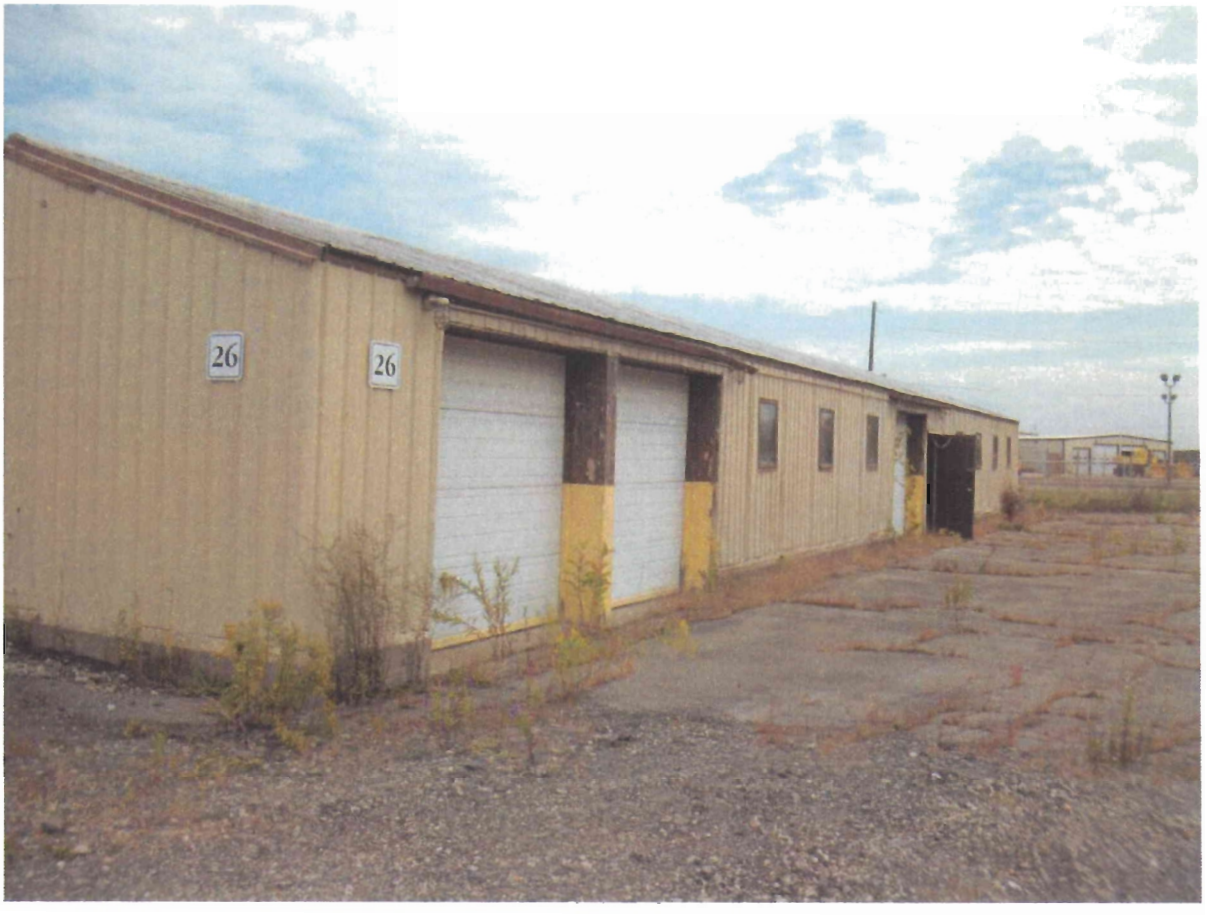
NIAGARA FALLS USARC

BUILDING 26 - INSIDE

NIAGARA FALLS USARC

BUILDING 26 - INSIDE

NIAGARA FALLS USARC



BUILDING 26 - OUTSIDE

APPENDIX C
SITE WALKDOWN DATA SHEETS

C.1 – Visual Inspection / Site Survey Checklist

C.2 – Survey Approach

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Visual Inspection Checklist

BRAC Site Location: Niagara Falls USARC (NY046), Niagara Falls, NY **Date: 09/27-28/11**

Team 1 Lead: Ted Adams

Item #	Area of Review	Sat	Unsat	N/A
	Key Indicators to look for			
1	Stain spots in vault, storage, supply room. Could be indication of an instrument or equipment that broke at some point in the past.-**NO**			X
2	Presence of stored liquids.-**YES- Building 18**	X		
3	Signs that may have radioactive material. (Exit Signs, etc.)-**NO**			X
4	Any areas marked, or previously marked, with RAD signs.-**YES, Bldg 18-Cage outside of vault and the Instrumentation Repair Shop/Office**		X	
5	Identified any radioactive commodities? (What are they, condition, etc.)-**NO***			X
6	Problems accessing site? (Can't contact POC, scheduling conflict, etc.)-**NO**			X
7	Any areas at site not accessible? (Locked Connex, area, storage cabinet, etc.)-**NO**			X
8	Any radioactive signage? (Is the radioactive commodity there or is it historical in nature)-**YES, See Item #4-ICAMS/CAMS previously stored in Bldg 18, 29, and 4 were relocated to the new USARC facility on the US Armed Forces Installation and stored in a locked/secured arms vault approximately a month ago***		X	
	Areas with higher potential of radiological components			
9	Rooms that may have previously stored ammunition or explosives. (Could be an indication of potential DU.)-**YES, Bldg 4, Arms Vault Room 130, Room 554**	X		
10	Medical rooms where x-ray equipment was stored or used.-**YES, Bldg 4-No X-ray equipment present**	X		
11	Areas that CBRN detecting equipment may have been stored. (Storage, supply, vault)-**YES, Bldg 18- cage outside of vault, instrumentation Repair Room/Office; Bldg 20 (north end) and Bldg 4-Room 130, Vault Room 555**	X		
12	Maintenance areas, especially where maintenance of big guns or missiles may have taken place.-**YES, Building 4 Hangar- Nike Missile Support Center**	X		
13	Areas where geological survey team stored equipment. (Engineer and FA units sometimes had a team.)-**NO**			X
14	Small arms storage areas. (Indication of tritium site use and store.)-**YES, Bldg 4- Arms Room 130 Room 554**	X		
15	NOTE: DU rounds are only common in large caliber guns such as 25MM			X

	Bradley, 50MM Gatlin Gun, and Tank Rounds. These rounds are service rounds and normally not used for training.-**NO**			
	*Survey/inspection of the various vaults and Communications Repair Room in the new USARC buildings on the USAF Installation were performed on 9/28/11. Two ICAMS with missing Ni-63 sources were found in the Communications Repair Room/Office in Bldg. Directs, smears, large area wipes and exposure rate measurements were taken in the arms storage vault currently storing the ICAMs (Ni-63 sealed source)/CAMs (Am-241 sealed source) and compasses (H-3 source). Could not find the beryllium disk that was reported to have a radioactive materials sign on it per Carlos Torres, onsite RSO. See Daily Log for more details			

Name / Signature: Ted Adams/TGA

Survey Approach

Documentation Form

BRAC Site: Niagara Falls USARC, NY **Date: 09/24/11**

Team 1 Lead: Ted Adams **Amended 09/27/11**

Personnel Interviewed:

Charles DeMarti, AFOS 347-219-9643

Carlos Torres, Onsite RSO

Narrative Documenting Baseline Survey Approach.

A review of the Niagara Falls USARC Environmental Conditions of Property (ECP) dated July 2007 indicated that the site was comprised of 11 buildings.

Building 4
Building 17
Building 18
Building 19
Building 20
Building 21
Building 22
Building 23
Building 24
Building 25
Building 26

The Niagara Falls USARC primarily functioned as an administrative, logistical, and educational facility with limited maintenance of military vehicles in the OMS Building (Building 18). The site was historically used by reservists for drill activities on various weekends throughout the year.

The Niagara Falls USARC Environmental Conditions of Property (CH2M Hill July 2007) documented the possibility of radiological monitoring instrumentation still

being stored onsite. It also stated the no radiological survey has ever been performed on the site.

Site Inspection and Interviews

Visual inspections of the Niagara Falls USARC site/buildings, and related interviews with the USARC personnel and POCs were conducted on 9/27 and 9/28/11.

Personnel Interviewed:

- Charles DeMarti, AFOS
- Carlos Torres, Site RSO

Items Identified:

As a result of the visual inspections/interviews, the following items were identified:

Three CBN storage areas (Buildings 4, 18, 20) were identified.

Building 4

The Arms Vault (Room 130) contained two other rooms (Room 554 and 555. Room 554 was used for the storage of weapons. Room 555 was used for the storage of the NBC monitoring equipment (ICAMs and CAMs). No radioactive signs or posting were found in the Arms Vault Door or in Room 554. No radiological commodities (ICAMs, CAMs, RADIAC monitoring equipment) were found in these rooms.

Building 18

An NRC Form 3 "Notice to Employees" and a Caution Radioactive Materials Class 7 placard were found on the cage outside of the NBC storage vault. A Caution Radioactive Materials posting/sign was found on the outside door of the Instrumentation Repair Shop/Office in Building 18 were NBC monitoring equipment was repaired. No radiological commodities (ICAMs, CAMs, RADIAC monitoring equipment) were found in these rooms.

Building 20

No CAMs, ICAMs, or RADIAC monitoring equipment were found in the north end of the building. No radioactive sign/postings were found in this building.

CAMs and ICAMs previously stored in these buildings/rooms were transferred to the new Niagara Falls USARC located on the US Armed Forces Reserved Installation approximately a month ago (August 2011).

Recommended Approach

The basic survey approach according to the Scope of Work is to obtain 30 direct alpha and beta measurements, 30 dry smears for removable alpha and beta activities, 30 exposure rate measurements, and 3 wet smears for removable Tritium activity at each site. Exposure rate measurements and large area wipes (LAWs) are to be taken as part of the survey locations/areas where direct measurements and smears are taken and at other locations/areas identified the discretion of the Team Lead.

Based on the review of the EPC, the following site specific survey approach was initially developed for the Niagara Falls USARC:

Building	Directs	Smears (alpha/beta)	Smears (Tritium)	Exposure Rates
4	10	10	1	10
17	1	1	0	1
18	5	5	1	5
19	2	2	0	2
20	2	2	0	2
21	5	5	1	5
22	1	1	0	1
23	1	1	0	1
24	1	1	0	1
25	1	1	0	1
26	1	1	0	1
Total	**30**	**30**	**3**	**30**

Amended Survey Approach as needed:

Based on the visual inspections of the buildings and the interviews with Charles DeMarti and Carlos Torres, POCs, the following changes to the initial Survey Approach were made:

Building 4 (NBC Storage, Vault Room 130)

Two (2) additional directs, 2 additional smears for alpha/beta activities, and 2 additional exposure rate measurements were added to address the identification of the Arms Vault (Room 130) which stored the NBC equipment (Room 555).

Building 18 (NBC Storage, Vault and Instrumentation Repair Room/Office)

Three (3) additional directs, 3 additional smears for alpha/beta activities and 3 additional exposure rate measurements and one (1) additional smear for Tritium were added to address the NBC storage in the vault and the Instrumentation Repair Shop/Office.

Thus, the Survey Approach was amended to reflect a total of 35 direct measurements, 35 smears for alpha/beta activities, and 35 exposure rates measurements and 4 smears for Tritium to be taken to address the NBC storage within buildings 4, 18, and 20. Additional Large Area Wipes (LAW) were planned at locations to be selected by the Team Lead.

Building	Directs	Smears (alpha/beta)	Smears (Tritium)	Exposure Rates
4	12	12	1	12
17	1	1	0	1
18	8	8	2	8
19	2	2	0	2
20	2	2	0	2
21	5	5	1	5
22	1	1	0	1
23	1	1	0	1
24	1	1	0	1
25	1	1	0	1
26	1	1	0	1
Total	**35**	**35**	**4**	**35**

Prepared By: Ted Adams/TGA

APPENDIX D
CHAIN OF CUSTODY RECORDS

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Page: 1 of 4
Project #: 34501.02
GEL Quote #: GEIPI-0697
COC Number (1):
PO Number:

GEL Chain of Custody and Analytical Request

GEL Work Order Number: 287310

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Terranear PMC
Phone #: 806-836-1046
Project/Site Name: Niagara Falls USARC
Fax #:
Address: 9400 Porter rd Niagara Falls, NY 14304
Collected by: D. Goddard
Send Results To: Dan Caputo

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Gross α	Gross β									<-- Preservative Type (6)	Comments Note: extra sample is required for sample specific QC
TISILIA1-1AB	9-27-11	11:57	N	N	P				X	X										Building #18
TISILIA2-2AB		12:00							X	X										
TISILIA3-3AB		12:15							X	X										
TISILIA4-4AB		12:19							X	X										
TISILIA5-5AB		12:20							X	X										
TISILIA6-6AB		12:22							X	X										
TISILIA7-7AB		12:27							X	X										
TISILIA8-8AB		12:30							X	X										
TISIL2A9-9AB		12:34							X	X										Building #19
TISIL2A10-10AB	9-27-11	12:38	N	N	P				X	X										

TAT Requested: Normal: ____ Rush: ____ Specify: ____ (Subject to Surcharge)
Fax Results: Yes / No
Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards* No Known Hazards!

Sample Collection Time Zone: Eastern / Central / Mountain / Pacific / Other ____

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1 D. Goddard	9-30-11	16:44	[illegible]	10/01/11	9:25
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Latoya Hughes
Method of Shipment: FedEx
Date Shipped:
Airbill #: 8769-2215-0069
Airbill #:

1.) Chain of Custody Number = Client Determined
2.) QC Codes: N = Normal Sample TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal
5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).
6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp: 22 C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

Page: 2 of 4
Project #: 34501.02
GEL Quote #: GELPIL-0697
COC Number (1):
PO Number:

GEL Chain of Custody and Analytical Request

GEL Work Order Number: 287 310

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Terranear PMC
Phone #: 860-836-1046
Project/Site Name: Niagara Falls USARC
Fax #:
Address: 9400 Porter rd Niagara Falls, NY 14304
Collected by: D Goddard
Send Results To: Dan Caputo

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive	TSCA Regulated	Total number of containers	Gross α	Gross β								<-- Preservative Type (6)	Comments Note: extra sample is required for sample specific QC
TISIL3A11-11AB	9-27-11	12:40	N	N	P				X	X									Building #20
TISIL3A12-12AB		12:44							X	X									
TISIL4A13-13AB		12:50							X	X									Building #22
TISIL5A14-14AB		12:59							X	X									Building #21
TISIL5A15-15AB		13:10							X	X									
TISIL5A16-16AB		13:15							X	X									
TISIL5A17-17AB		13:20							X	X									
TISIL5A18-18AB		13:25							X	X									
TISIL6A19-19AB		13:30							X	X									Building #25
TISIL[illegible]A20-20AB	9-27-11	13:35	N	N	P				X	X									Building #23

TAT Requested: Normal: Rush: Specify: (Subject to Surcharge)
Fax Results: Yes / No
Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards No Known Hazards!

Sample Collection Time Zone: Eastern Pacific Central Other _____ Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1 D Goddard	9-30-11	16:44	1 [illegible]	10/4/11	9:25
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Latoya Hughs
Method of Shipment: Fed Ex
Date Shipped:
Airbill #: 8769-2215-0069
Airbill #:

1.) Chain of Custody Number = Client Determined
2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal
5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. *8260B* - 3, *6010B/7470A* - 1).
6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp: 22 C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

Page: 3 of 4
Project #: 34501.02
GEL Quote #: GELP11-0697
COC Number (1):
PO Number:

GEL Chain of Custody and Analytical Request

GEL Work Order Number: 287310

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Terranear PMC Phone #: 860-836-1046
Project/Site Name: Niagara Falls USARC Fax #:
Address: 9400 Porter rd Niagara Falls, NY 14304
Collected by: D Goddard Send Results To: Dan Caputo

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive	TSCA Regulated	Total number of containers	Gross α	Gross β	<-- Preservative Type (6)	Comments Note: extra sample is required for sample specific QC
TISIL8A21-21AB	9-27-11	13:35	N	N	P							Building #24
TISIL9A22-22AB	9-28-11	13:40							X	X		Building #26
TISIL10A23-23AB		13:45							X	X		Building #17
TISIL11A24-24AB		13:50							X	X		Building #11
TISIL11A25-25AB		13:55							X	X		
TISIL11A26-26AB		14:00							X	X		
TISIL11A27-27AB		14:05							X	X		
TISIL11A28-28AB		14:10							X	X		
TISIL11A29-29AB		14:15							X	X		
TISIL11A30-30AB	9-28-11	14:20	N	N	P				X	X		

TAT Requested: Normal: ____ Rush: ____ Specify: ____ (Subject to Surcharge) Fax Results: Yes / No Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards No Known Hazards!

Sample Collection Time Zone: Eastern, Central, Mountain, Pacific, Other ____

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1 D Goddard	9-30-11	16:44	1 [illegible]	10/4/11	9:25
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Latoya Hughes
Method of Shipment: Fed Ex Date Shipped:
Airbill #: 8769-2215 0069
Airbill #:

1.) Chain of Custody Number = Client Determined
2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal
5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. *8260B* - 3, *6010B/7470A* - 1).
6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp: 22 C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

Page: 4 of 4
Project #: 34501.02
GEL Quote #: GELPI1-0697
COC Number (1):
PO Number:

GEL Chain of Custody and Analytical Request

GEL Work Order Number: 287310

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Terranear PMC
Phone #: 860-836-1046
Project/Site Name: Niagara Falls USARC
Fax #:
Address: 9400 Porter rd Niagara Falls, NY 14304
Collected by: D Goddard
Send Results To: Dan Laputo

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive	TSCA Regulated	Total number of containers	Gross α	Gross β	Tritium								<-- Preservative Type (6)	Comments Note: extra sample is required for sample specific QC
TISIL11A31-31AB	9-28-11	1430	N	N	P				X	X										Building #4
TISIL11A32-32AB		1435							X	X										
TISIL11A33-33AB		1440							X	X										
TISIL11A34-34AB		1445							X	X										
TISIL11A35-35AB		1450							X	X										
TISIL1A1-1T	9-27-11	1455									X									Building #18
TISIL1A3-3T		1500									X									
TISIL3A12-12T		1505									X									Building #20
TISIL11A27-27T	9-28-11	1540	N	N	P						X									Building #4

TAT Requested: Normal: Rush: Specify: (Subject to Surcharge)
Fax Results: Yes / No
Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards No Known Hazards!

Sample Collection Time Zone: Eastern, Central, Mountain, Pacific, Other _____

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	9-30-11	16:44		10/4/11	9:25
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Latoya Hughes
Method of Shipment: Fed Ex
Date Shipped:
Airbill #: 8269-2215-0069
Airbill #:

1.) Chain of Custody Number = Client Determined
2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal
5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. *8260B* - 3, *6010B/7470A* - 1).
6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp: 22 C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

APPENDIX E
DAILY REPORTS

DAILY REPORTS WERE GENERATED THROUGHOUT THE DURATION OF PROJECT. HOWEVER, ONLY DAILY REPORTS PERTAINING TO NIAGARA FALLS USAR SITE IS PROVIDED HERE.

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PROJECT No. USA 2011-076 Report No: 1 Date: 9/27/11

Name of Contract BRAC 2 – Radiological Site Assessments

Name of Contractor Terranear PMC

DAILY STATUS REPORT

Summary of Current Site Activities

TPMC has mobilized each of the three (3) field teams to begin performance of Radiological Site Assessments for 30 BRAC sites located across the country. Below is a summary of each Team's activities.

Sites Visited / Activities:

Team #1 /

Niagara Falls USARC/AMSA 76: The team arrived at the field site, met with BRAC POC, performed visual inspection, and conducted interviews. Initial results of visual inspection / interviews have resulted in discovery that Radiac & ICAM instrumentation, formerly stored at the site, has since been relocated to the Air Force base that is adjacent to the Niagara Falls site. Since this instrumentation is still US Army property and located in the immediate vicinity of the site, TPMC has made arrangements to obtain access and develop and inventory to be included in the site report. Two areas in Building 18 (Instrumentation Repair Shop / Office and separate Storage Area) were posted with signage indicating past or present use of radiological materials. As a result, the Survey Approach will be designed to focus on these areas.

Team #2 /

None, team is on route to the Jonesboro USARC.

Team #3 /

None, team is preparing for departure scheduled for 9/28/11.

Individuals Onsite / Customer Interaction / Visitors

TPMC personnel / Customer Interaction

Team #1: Team Lead – Ted Adams; Shipper – Dave Goddard; RCT – Marty Willett
Team #2: Team Lead – Joe Wise; RCT / Shipper – Randal Killpack; Field Support – Jesus Jaramillo
Team #3: Team Lead – Dr. Stan Stevens; Shipper – Melinda Soest; RCT – William Carey

Customer Interaction

Team #1:BRAC POC – Ray Palma
Team #2: None, team is on route to the Jonesboro USARC.
Team #3: None, team is preparing for departure scheduled for 9/28/11.

Weather Related / Other Impacts

Team #1 /

Team discovered that BRAC POC Contractor is not available to support the existing schedule reflecting a Friday, September 30th start of field activities at the Mac Arthur USARC site. Latest information is that the Army is working to support field activities at both the Mac Arthur and Middleton USARC sites beginning Monday, October 3rd. The team is awaiting final confirmation regarding this schedule. Providing the team can obtain access to both sites during October 3rd and 4th, the Team Lead believes that by working both sites in parallel with one another, that enough time can be made up in the schedule to prevent the end date from slipping.

PROJECT No. USA 2011-076 Report No: 1 Date: 9/27/11

Name of Contract BRAC 2 – Radiological Site Assessments

Name of Contractor Terranear PMC

DAILY STATUS REPORT

Team #2 /

None to report.

Team #3 /

Team discovered that Survey Instruments were out of calibration. Backup instruments were readily available enabling the team to move forward without any impact to the schedule. Replacement instruments are on order and scheduled to be delivered at the work site.

Planned Activities (Next work day)

Team #1 /

Niagara Falls USARC/AMSA 76: The team will finish site inspections / interviews and continue with field surveys and obtaining smears.

Team #2 /

Jonesboro USARC: The team will arrive at this site, meet with BRAC POC, perform site inspection, and conduct interviews. Field surveys and smear samples will be taken as well time permitting.

Team #3 /

None, team is on route to the Tucson, Arizona for the Allen Hall USARC site.

Significant Findings including Problems Encountered / Deviations

None

Note: Schedule related problems are identified above under "Weather / Other Impacts".

Listing of Attached Documents / Figures

None

Prepared by: Frank A. Tarantello / Frank A. Tarantello / 9/27/2011

Name / Signature / Date

PROJECT No. USA 2011-076 Report No: 2 Date: 9/28/11

Name of Contract BRAC 2 – Radiological Site Assessments

Name of Contractor Terranear PMC

DAILY STATUS REPORT

Summary of Current Site Activities

TPMC has mobilized each of the three (3) field teams to begin performance of Radiological Site Assessments for 30 BRAC sites located across the country. Below is a summary of each Team's activities.

Sites Visited / Activities:

Team #1 /

Niagara Falls USARC/AMSA 76: The team completed all field activities today including all surveys and smears. The two areas in Building 18 (Instrumentation Repair Shop / Office and a separate Storage Area) have postings indicating past use of radiological materials. Initial field results show no indication of residual activity.

As a follow-up to the U.S. Army instruments located offsite, our Team Lead met with the BRAC Field POC and was able to confirm that these are located on an active US Army Reserve Center located adjacent to the Niagara Fall site. This active site is not part of the scope of this project, however TPMC identified two items that warrant inclusion in this daily report.

1. Two areas containing, radiological instrumentation (i.e. ICAM and CAMs), were found to be posted differently. One area was posted "Caution Radiation Hazard", while the other had not radiological postings.
2. Am-241 sources were found to be missing from two ICAMS. These were discovered during visual inspection of the site.

Team #2 /

Jonesboro USARC: The team arrived at the site completed visual inspections and interviews at the site. Initiated taking direct check and smears today with the plan to complete this activity tomorrow. During the visual inspection today, the team discovered the presence of hazardous materials inside a flammable storage cabinet. These items consist of breakthrough solvent, antifreeze, motor oil, and calcium. It is recognized that these items are outside the scope of this project, however TPMC wanted to bring this to attention because the presence of these items appeared to be a surprise, and there were no immediate plans for the materials disposition.

Team #3 /

None, team is on route to the Tucson, Arizona for the Allen Hall USARC site.

Individuals Onsite / Customer Interaction / Visitors

TPMC personnel / Customer Interaction

Team #1: Team Lead – Ted Adams; Shipper – Dave Goddard; RCT – Marty Willett
Team #2: Team Lead – Joe Wise; RCT / Shipper – Randal Killpack; Field Support – Jesus Jaramillo
Team #3: Team Lead – Dr. Stan Stevens; Shipper – Melinda Soest; RCT – William Carey

Customer Interaction

Team #1: Charles DeMartia, onsite POC
Team #2: Aaron Ward, onsite POC
Team #3: None, team is on route to next facility.

PROJECT No. USA 2011-076 Report No: 2 Date: 9/28/11

Name of Contract BRAC 2 – Radiological Site Assessments

Name of Contractor Terranear PMC

DAILY STATUS REPORT

Weather Related / Other Impacts

Team #1 /

The Army is currently working to ensure support at both the Mac Arthur and Middleton USARC sites beginning Monday, October 3rd. At this point, the team is awaiting final confirmation regarding this schedule. Providing the team can obtain access to both sites during October 3rd and 4th, the Team Lead believes that by working both sites in parallel with one another, that enough time can be made up in the schedule to prevent the project's scheduled end date from slipping.

Team #2 /

None to report.

Team #3 /

Team discovered that Survey Instruments were out of calibration. Backup instruments were readily available enabling the team to move forward without any impact to the schedule. Replacement instruments are on order and scheduled to be delivered at the Allen Hall USARC work site.

Planned Activities (Next work day)

Team #1 /

Obtaining confirmation for field support beginning Monday, October 3rd for both the Mac Arthur and Middleton USARC sites.

Team #2 /

Jonesboro USARC: The team will continue with field surveys and smear samples and is planning to complete all field work.

Team #3 /

Team will have arrived at the Allen Hall USARC site and began field work including visual inspection and interviews with key site personnel.

Significant Findings including Problems Encountered / Deviations

None

Note: Schedule related problems are identified above under "Weather / Other Impacts".

PROJECT No. USA 2011-076 Report No: 2 Date: 9/28/11

Name of Contract BRAC 2 – Radiological Site Assessments

Name of Contractor Terranear PMC

DAILY STATUS REPORT

Listing of Attached Documents / Figures
None

Prepared by: Frank A. Tarantello / / 9/28/2011

Name / Signature / Date

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APPENDIX F
QUALITY CONTROL DATA

F.1 – Operating Range

F.2 – Instrument Daily Checks

F.3 – Instrument Calibration Sheets

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TerranearPMC **Initial Alpha, Beta-Gamma and Exposure Rate Operating Range** Team No. : 1

ALPHA Instrument

Date	09/27/11	Technician / Initials	DG
Instrument Model #	2360	Detector Model #	43-93
Instrument Serial #	278616	Detector Serial #	PR308282
Instrument Cal Due	09/07/12	Detector Cal Due	09/07/12
Source Isotope	Th-230	Det Active Area (cm^2)	100
Source ID #	5731-06	Source Activity (µCi)	0.00222
Background cpm 1	0	Source gcpm 1	618
Background cpm 2	1	Source gcpm 2	618
Background cpm 3	0	Source gcpm 3	582
Background cpm 4	0	Source gcpm 4	596
Background cpm 5	1	Source gcpm 5	583
Background cpm 6	1	Source gcpm 6	633
Background cpm 7	0	Source gcpm 7	595
Background cpm 8	0	Source gcpm 8	581
Background cpm 9	0	Source gcpm 9	629
Background cpm 10	0	Source gcpm 10	615
Average Bckgrd cpm	0.3	Average Source gcpm	605.0
Detector Efficiency	0.202	Lower Range (gcpm) -20%	484.0
Cable Length (inches)	30	Upper Range (gcpm) +20%	726.0
Direct Alpha Action Level (gcpm)	**20.5**		

BETA Instrument

Date	09/27/11	Technician / Initials	DG
Instrument Model #	2360	Detector Model #	4393
Instrument Serial #	278616	Detector Serial #	PR308282
Instrument Cal Due	09/07/12	Detector Cal Due	09/07/12
Source Isotope	Tc-99	Det Active Area (cm^2)	100
Source ID #	2718-00	Source Activity (µCi)	0.36306
Background cpm 1	174	Source gcpm 1	138524
Background cpm 2	194	Source gcpm 2	138537
Background cpm 3	182	Source gcpm 3	139119
Background cpm 4	167	Source gcpm 4	138812
Background cpm 5	152	Source gcpm 5	138670
Background cpm 6	170	Source gcpm 6	138391
Background cpm 7	182	Source gcpm 7	138883
Background cpm 8	182	Source gcpm 8	138606
Background cpm 9	160	Source gcpm 9	139270
Background cpm 10	178	Source gcpm 10	138540
Average Bckgrd cpm	174.1	Average Source gcpm	138,735.2
Detector Efficiency	0.197	Lower Range (gcpm) -20%	110988.2
Cable Length (inches)	30	Upper Range (gcpm) +20%	166482.2
Direct Beta Action Level (gcpm)	**371.1**		

Date	09/27/11	Technician / Initials	DG
Instrument Model #	19	Source Isotope	Cs-137
Instrument Serial #	144029	Source ID #	1314
Instrument Cal Due	12/26/11	Source Activity (µCi)	1
Background µR/hr 1	10	Source µR/hr 1	250
Background µR/hr 2	7	Source µR/hr 2	250
Background µR/hr 3	8	Source µR/hr 3	280
Background µR/hr 4	7	Source µR/hr 4	250
Background µR/hr 5	7	Source µR/hr 5	280
Background µR/hr 6	6	Source µR/hr 6	280
Average Bckgrd µR/hr	7.5	Average Source µR/hr	265.0
		Lower Range (gµR/hr) -20%	212.0
		Upper Range (gµR/hr) +20%	318.0

TerranearPMC

DAILY INSTRUMENT PERFORMANCE CHECK LOG

Team No. : 1

Instr. Manufacturer	Ludlum	Model #	Ludlum 2360	Serial #	278616	Cal Due Date	09/07/12
Detector		Model #	Ludlum 43-93	Serial #	PR308282	Cal Due Date	09/07/12
Alpha Source #	5731-06	Isotope	Th-230	Activity (µCi)	0.00222	± 20% Range	483.8-725.6
Beta Source #	2718-00	Isotope	Tc-99	Activity (µCi)	0.36306	± 20% Range	110848.9-166273.3

Detector Efficiency (α) : 0.202 Detector Efficiency (β) : 0.197

Date	Time Pre / Post	Instrument Physical Check Sat (Y / N)	Instrument & Detector in Calibration (Y / N)	Battery Check Sat (Y / N)	Background Alpha (cpm)	Background Beta (cpm)	Background Gamma (µR/hr)	Source Alpha (cpm)	Source Beta (cpm)	Source Gamma (µR/hr)	Response Chk – Init Net Value (cpm, µR)	Response Chk – End Net Value (cpm, µR)	Response Check OK? Technic. Initials
09/27/11	7:00 AM	Y	Y.	Y	0.3	174	N/A	543.0	138735.0	N/A	138561;542.7	N/A	mjw
	5:10 PM	Y	Y	Y	1.0	186	N/A	539.0	132384.0	N/A	N/A	132198;538	mjw
09/28/11	7:00 AM	Y	Y	Y	2.0	174	N/A	528.0	127064.0	N/A	126890;526	N/A	DG
	5:00 PM	Y	Y	Y	1.0	186	N/A	544.0	130121.0	N/A	N/A	129935;543	DG

Alpha and beta background and source counts are measured for one minute

TerranearPMC

DAILY INSTRUMENT PERFORMANCE CHECK LOG

Team No. : 1

Instr. Manufacturer: Ludlum | Model #: Ludlum 19 | Serial #: 144029 | Cal Due Date: 12/26/11

Detector: | Model #: N/A | Serial #: N/A | Cal Due Date: N/A

Gamma Source #: 1314 | Isotope: Cs-137 | Activity (µCi): 1 | ± 20% Range: 206.0-309.0

Source #: | Isotope: | Activity (µCi): | ± 20% Range:

Detector Efficiency (α) : N/A | Detector Efficiency (β) : N/A

Date	Time Pre / Post	Instrument Physical Check Sat (Y / N)	Instrument & Detector in Calibration (Y / N)	Battery Check Sat (Y / N)	Background Alpha (cpm)	Background Beta (cpm)	Background Gamma (µR/hr)	Source Alpha (cpm)	Source Beta (cpm)	Source Gamma (µR/hr)	Response Chk – Init Net Value (cpm, µR)	Response Chk – End Net Value (cpm, µR)	Response Check OK? Technic. Initials
	7:00 AM	Y	Y	Y	N/A	N/A	6	N/A	N/A	265	259	N/A	mjw
09/27/11	5:10 PM	Y	Y	Y	N/A	N/A	7	N/A	N/A	257	N/A	250	mjw
	7:00 AM	Y	Y	Y	N/A	N/A	7	N/A	N/A	310	303	N/A	DG
09/28/11	5:00 PM	Y	Y	Y	N/A	N/A	7	N/A	N/A	288	N/A	281	DG

Alpha and beta background and source counts are measured for one minute

GRIFFIN INSTRUMENTS

CALIBRATION CERTIFICATE FOR 19 SERIAL# 144029

Owner: TG ADAMS

DATE:	12/26/10	LOCATION:	Griffin Inst
TECH:	Joanne Glenn	DATE LAST CAL EXPIRES:	09/13/10
REASON FOR CALIBRATION:	Due for Calibration		

NIST TRACEABLE EQUIPMENT AND SOURCES USED DURING CALIBRATION

PULSER MODEL:	500	PULSER SERIAL:	114512	PULSER CAL DUE:	07/28/11
SOURCE NUMBER:	10250	ISOTOPE:	Cs137	ASSAY DATE:	08/30/07

☑ Fast/Slow Switch working properly ☑ Audio Response ☑ Geotropism AF HV 550 V AL HV A.F.

Input Sensitivity; 35 mV TEMP 65.2 F BARO PRESS: 29.15" HUMIDITY 20%

	A.F.Data	A.F. % ERROR	A.L.Data	A.L. % ERROR
5000 Scale	4	0.0%	A.F.	
5000 Scale	2.6	4.0%	A.F.	
5000 Scale	1	0.0%	A.F.	
500 Scale*	400	0.0%	A.F.	
500 Scale*	250	0.0%	A.F.	
500 Scale*	100	0.0%	A.F.	
250 Scale*	200	0.0%	A.F.	
250 Scale*	125	0.0%	A.F.	
250 Scale*	50	0.0%	A.F.	
50 Scale*	40	0.0%	A.F.	
50 Scale*	25	0.0%	A.F.	
50 Scale*	10	0.0%	A.F.	
25 Scale*	20	0.0%	A.F.	
25 Scale*	12.5	0.0%	A.F.	
25 Scale*	5	0.0%	A.F.	
CPM/uR/Hr	170			

*Pulsed Scale

Is the As Found Data Within 20% of the Set Point?:
◉ Yes ○ No, See Remarks

REMARKS:

Does Instrument Meet Final Acceptance Criteria?: ◉ Yes ○ No

Calibration Sticker Attached?: ◉ Yes ○ No

Date Instrument is Due For Next Calibration: 12/26/11

Performed/Reviewed by: Joanne Glenn Date: 12/26/2010 Entered by: ___ Initials

Calibrations performed to ANSI N323A-1997 standards.

Designer and Manufacturer of Scientific and Industrial Instruments

CERTIFICATE OF CALIBRATION

LUDLUM MEASUREMENTS, INC.
POST OFFICE BOX 810 PH. 325-235-5494
501 OAK STREET FAX NO. 325-235-4672
SWEETWATER, TEXAS 79556, U.S.A.

CUSTOMER D.G. ADAMS & ASSOC. ORDER NO. 20183949

Mfg. Ludlum Measurements, Inc. Model 2360 Serial No. 278616

Mfg. Ludlum Measurements, Inc. Model 43-93 Serial No. PR308282

Cal. Date 7-Sep-11 Cal Due Date 7-Sep-12 Cal. Interval 1 Year Meterface 202-855

Check mark ☑ applies to applicable instr. and/or detector IAW mfg. spec. T. 71 °F RH 30 % Alt 705.8 mm Hg

☑ New Instrument Instrument Received ☐ Within Toler. +-10% ☐ 10-20% ☐ Out of Tol. ☐ Requiring Repair ☐ Other-See comments

☑ Mechanical ck. ☑ Meter Zeroed ☐ Background Subtract ☐ Input Sens. Linearity
☐ F/S Resp. ck ☐ Reset ck. ☑ Window Operation ☑ Geotropism
☑ Audio ck. ☑ Alarm Setting ck. ☑ Batt. ck. (Min. Volt) 2.2 VDC ☑ RS-232 Port OK
☑ Calibrated in accordance with LMI SOP 14.8 rev 12/05/89. ☐ Calibrated in accordance with LMI SOP 14.9 rev 02/07/97.

Instrument Volt Set 750 V

☑ HV Readout (2 points) Ref./Inst. 500 / 514 V Ref./Inst. 1500 / 1496 V

Firmware Version: 39010 N24
Alpha Threshold: 120 mV
Beta Threshold: 3.5 mV
Beta Window: 30 mV
Overload set with Am 241 91 mdpm
Instrument calibrated with a 39" cable.
High voltage set with detector connected

(EEPROM Settings)
User Time: 1.0
Alpha Alarm: 999999
Beta Alarm: 999999
A/B Alarm: 999999
Model 2360 Date: 09/07/2011
Calibration Date Due: 09/07/2012

COMMENTS:

Gamma Calibration: GM detectors positioned perpendicular to source except for M 44-9 in which the front of probe faces source.

RANGE/MULTIPLIER	REFERENCE CAL. POINT	INSTRUMENT REC'D "AS FOUND READING"	INSTRUMENT METER READING*
x1000	400kcpm		400
x1000	100kcpm		100
x100	40kcpm		400
x100	10kcpm		100
x10	4kcpm		400
x10	1kcpm		100
x1	400cpm		400
x1	100cpm		100

*Uncertainty within ± 10% C.F. within ± 20% ALL Range(s) Calibrated Electronically

	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING*		REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING*
Digital Readout	400kcpm		39993 (0)	Log Scale			
	40kcpm		3999 (0)				
	4kcpm		400 (0)				
	400cpm		40 (0)				
	40cpm		4 (0)				

Ludlum Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology, or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques. The calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323-1978 State of Texas Calibration License No. LO-1963

Reference Instruments and/or Sources: ☐ 73410 ☐ 1131 ☐ 781 ☐ 059 ☐ 280 ☐ 60646 ☐ 70897
Cs-137 Gamma S/N ☐ 1162 ☐ G112 ☐ M565 ☐ 5105 ☐ T1008 ☐ T879 ☐ E552 ☐ E551 ☐ 720 ☐ 734 ☐ 1616 ☐ Neutron Am-241 Be S/N T-304

☑ Alpha S/N Pu239 #4337, Th230 #1619 ☑ Beta S/N Tc99 #635/83, Sr90y90 #5030 ☐ Other

☑ m 500 S/N 38120 ☐ Oscilloscope S/N ☑ Multimeter S/N 84260131

Calibrated By: Lemus Ortega Date 7-Sep-11

Reviewed By: Elias Chavez Date 8 Sept 11

This certificate shall not be reproduced except in full, without the written approval of Ludlum Measurements, Inc.
FORM C22S 03/11/2010 Page 1 of 2

AC Inst. Only ☐ Passed Dielectric (Hi-Pot) and Continuity Test ☐ Failed:

Designer and Manufacturer of Scientific and Industrial Instruments

LUDLUM MEASUREMENTS, INC.
POST OFFICE BOX 810 PH. 325-235-5494
501 OAK STREET FAX NO. 325-235-4672
SWEETWATER, TEXAS 79556, U.S.A.

Bench Test Data For Detector

Detector 43-93 Serial No. PR 308282 Order #. 20183949

Customer D.G. ADAMS & ASSOC. Alpha Input Sensitivity 120 mV

Counter 2360 Serial No. 278616 Beta Input Sensitivity 3.5 mV

Count Time 1 Minute Beta Window 30 mV

Other Distance Source to Detector Surface

High Voltage	Background Alpha	Background Beta	Isotope Pu239 Size 30900 dpm Alpha	Isotope Pu239 Size 30900 dpm Beta	Isotope Th 230 Size 5390 dpm Alpha	Isotope Th 230 Size 5390 dpm Beta	Isotope Tc 99 Size 22900 dpm Alpha	Isotope Tc 99 Size 22900 dpm Beta	Isotope Sr90/y90 Size 62543 dpm Alpha	Isotope Sr90/y90 Size 62543 dpm Beta
700	0	66	6486	408	971	139	7	2447	0	1909
725	0	119	6962	460	1084	203	4	3534	2	2538
750	0	159	7110	586	1088	276	6	4509	0	3096
775	0	208	7261	761	1100	406	8	5680	2	3497
800	0	228	7404	1392	1146	516	9	6547	2	3432

☐ Gas Proportional detector count rate decreased ≤ 10% after 15 hour static test using 39" cable.

☐ Gas proportional detector count rate decreased ≤ 10% after 5 hour static test using 39" cable and alpha/beta counter.

Signature Lenna Ortega Date 7-Sep-11

• Serving The Nuclear Industry Since 1962 •

Designer and Manufacturer
of
Scientific and Industrial
Instruments

LUDLUM MEASUREMENTS, INC.
POST OFFICE BOX 810 PH. 325-235-5494
501 OAK STREET FAX NO. 325-235-4672
SWEETWATER, TEXAS 79556, U.S.A.

Pu239	Th230	Tc99	Sr90y90
30,900 dpm/15,700 cpm	5390 dpm/2740 cpm	22,900 dpm/14,300 cpm	8684 dpm/6079 cpm
~23% 4π /~45.3% 2π	~20.2% 4π /~39.7% 2π	~19.7% 4π /~19% 4π (net)	~35.6% 4π /~30.4% 4π (net)
		~31.5% 2π /~30.4% 2π (net)	~50.9% 2π /~48.3% 2π (net)

MJW Technical Services
243 Root St.
Suite 100
Olean, New York 14760
Voice: (716) 372-5300
Fax: (716) 372-5307

Certificate Of Calibration

This Certificate will be accompanied by Calibration Charts or Readings where Applicable

Customer	Instrument
Customer Name: T G Adams and Associates	Manufacturer: Ludlum Measurements
Address: 11 W Main St Springville, NY 14141	Model: 2221 Serial Number: 167001 Detector Manufacturer: Ludlum Measurements
Contact Name: Ted Adams	Det. Model: 43-90 Serial Number: PR124875
Customer PO/ CC. Number: Work Order Number: 2011-2842	Calibration Method: Electronic

Instrument Received: ☑ Within Tolerance ☐ Out of Tolerance ☐ Repairs required ☐ Other (See Comments)

☑ Geotropism ☑ Meter Zero ☑ Mech. Ck. ☑ HV Readout ☑ Battery Check ☑ Reset

☑ Audio ☐ Window Status ☑ FS Response ☐ Linearity ☐ Background Subtract ☐ Alarm Set

Temperature: 71.5 F Humidity: 60 % Pressure: 28.5 In Hg Altitude: 1450 ft

Instrument Calibration

Multiplier\Range	Calibration Point	Instrument Response	
		Before Calibration	After Calibration
X 1	100 cpm	100 cpm	100 cpm
X 1	400 cpm	400 cpm	400 cpm
X 10	1 kcpm	1 kcpm	1 kcpm
X 10	4 kcpm	4 kcpm	4 kcpm
X 100	10 kcpm	10 kcpm	10 kcpm
X 100	40 kcpm	40 kcpm	40 kcpm
X 1K	100 kcpm	100 kcpm	100 kcpm
X 1K	400 kcpm	400 kcpm	400 kcpm
Digital Ratemeter	40 cpm	39 cpm	39 cpm
Digital Ratemeter	400 cpm	400 cpm	400 cpm
Digital Ratemeter	4 kcpm	3.997 kcpm	3.997 kcpm
Digital Ratemeter	40 kcpm	39.964 kcpm	39.964 kcpm
Digital Ratemeter	400 kcpm	399.415 kcpm	399.415 kcpm
Digital Scaler	40 cpm	40 cpm	40 cpm
Digital Scaler	400 cpm	398 cpm	398 cpm
Digital Scaler	4 kcpm	3.994 kcpm	3.994 kcpm
Digital Scaler	40 kcpm	40 kcpm	40 kcpm
Digital Scaler	400 kcpm	399.398 kcpm	399.398 kcpm
Log Scale	50 cpm	50 cpm	50 cpm
Log Scale	500 cpm	500 cpm	500 cpm
Log Scale	5 kcpm	5 kcpm	5 kcpm
Log Scale	50 kcpm	50 kcpm	50 kcpm
Log Scale	500 kcpm	500 kcpm	500 kcpm

Reference instruments and / or Sources

Pulser: 500-2	220108	
Th230	C7-643	

Comments

Inst. Voltage:	650 V	Isotope	Efficiency	Distance
Input Sensitivity:	30 mV	Th230	15.2%	0 inch
Detector		Ref. Voltage 1:	500 V	
Operating voltage:	650 V	Inst. Voltage 1:	500 V	
		Ref. Voltage 2:	1500 V	
		Inst. Voltage 2:	1500 V	

Model 2221 currently set for gross counts

Window: OUT

If applicable the 6 month calibration due date is 12/29/2011

Statement of Certification

MJW Technical Sevices, Inc certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology, or to the calibration facilities of other International Standards organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques. The calibration system conforms to the requirements of ISO/IEC 17025 and ANSI N323. The instrument listed above was inspected prior to shipment and it met all the manufacturer's published operating specifications. (MJW technical Services is not responsible for damage incurred during shipment or use of this instrument).

Instrument Calibrated By: Adam Green

Reviewed By: [signature] Date 7-1-11

Calibration Date: 06/29/2011 Calibration Due: 06/29/2012

MJW Technical Services
243 Root St.
Suite 100
Olean, New York 14760
Voice: (716) 372-5300
Fax: (716) 372-5307

Certificate Of Calibration

This Certificate will be accompanied by Calibration Charts or Readings where Applicable

Customer

Customer Name: T G Adams and Associates

Address: 11 W Main St
Springville, NY 14141

Contact Name: Ted Adams

Customer PO/ CC. Number:

Work Order Number: 2011-2842

Instrument

Manufacturer: Ludlum Measurements

Model: 2221 Serial Number: 157001

Detector Manufacturer: Ludlum Measurements

Det. Model: 44-9 Serial Number: PR060045

Calibration Method: Electronic

Instrument Received: ☑ Within Tolerance ☐ Out of Tolerance ☐ Repairs required ☐ Other (See Comments)

☑ Geotropism ☑ Meter Zero ☑ Mech. Ck. ☑ HV Readout ☑ Battery Check ☑ Reset

☑ Audio ☐ Window Status ☑ FS Response ☑ Linearity ☐ Background Subtract ☐ Alarm Set

Temperature: 71.5 F Humidity: 60 % Pressure: 28.5 In Hg Altitude: 1450 ft

Instrument Calibration

Multiplier\Range	Calibration Point	Instrument Response	
		Before Calibration	After Calibration
X 1	100 cpm	100 cpm	100 cpm
X 1	400 cpm	400 cpm	400 cpm
X 10	1 kcpm	1 kcpm	1 kcpm
X 10	4 kcpm	4 kcpm	4 kcpm
X 100	10 kcpm	10 kcpm	10 kcpm
X 100	40 kcpm	40 kcpm	40 kcpm
X 1K	100 kcpm	100 kcpm	100 kcpm
X 1K	400 kcpm	400 kcpm	400 kcpm
Digital Ratemeter	40 cpm	39 cpm	39 cpm
Digital Ratemeter	400 cpm	400 cpm	400 cpm
Digital Ratemeter	4 kcpm	3.997 kcpm	3.997 kcpm
Digital Ratemeter	40 kcpm	39.964 kcpm	39.964 kcpm
Digital Ratemeter	400 kcpm	399.415 kcpm	399.415 kcpm
Digital Scaler	40 cpm	40 cpm	40 cpm
Digital Scaler	400 cpm	398 cpm	398 cpm
Digital Scaler	4 kcpm	3.994 kcpm	3.994 kcpm
Digital Scaler	40 kcpm	40 kcpm	40 kcpm
Digital Scaler	400 kcpm	399.398 kcpm	399.398 kcpm
Log Scale	50 cpm	50 cpm	50 cpm
Log Scale	500 cpm	500 cpm	500 cpm
Log Scale	5 kcpm	5 kcpm	5 kcpm
Log Scale	50 kcpm	50 kcpm	50 kcpm
Log Scale	500 kcpm	500 kcpm	500 kcpm

Reference Instruments and / or Sources

Pulser: 500-2	220106	
Tc99	C7-642	

Comments

Inst. Voltage:	900 V	Isotope	Efficiency	Distance
Input Sensitivity:	60 mV	Tc99	10.1%	0 inch

Detector
Operating voltage: 900 V

Ref. Voltage 1: 500 V
Inst. Voltage 1: 500 V
Ref. Voltage 2: 1500 V
Inst. Voltage 2: 1500 V

Model 2221 currently set for gross counts
Window: OUT

If applicable the 6 month calibration due date is 12/29/2011

Statement of Certification

MJW Technical Sevices, Inc certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology, or to the calibration facilities of other International Standards organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques. The calibration system conforms to the requirements of ISO/IEC 17025 and ANSI N323. The instrument listed above was inspected prior to shipment and it met all the manufacturer's published operating specifications. (MJW technical Services is not responsible for damage incurred during shipment or use of this instrument).

Instrument Calibrated By: Allen M. Jones

Reviewed By: [signature] Date 7-1-11

Calibration Date: 06/29/2011

Calibration Due: 06/29/2012

Cs-137
1.0 μCi 30.2 yrs
Radioactive Material
Beta/Gamma
Spectrum Techniques
USA/50 and State Licence
Exempt Quantity
MAY 2006

No Certification
Required

ThermoRetec Nuclear Services
7021 Pan American Freeway NE
Albuquerque, NM 87109

ThermoRetec
Smart Solutions. Positive Outcomes.

CERTIFICATE OF CALIBRATION

(505) 345-3461 Phone
(505) 761-5416 Fax
www.thermoretec.com

Electroplated Beta Standard

S.O.# 3580
P.O.# 38070

Description of Standard:

Model No. S-5 Serial No. 2718-00 Isotope Tc-99

Electroplated on polished S.S. disc, 0.79 mm thick.

Total diameter of 4.77 cm and an active diameter of 4.45 cm.

The radioactive material is permanently fixed to the disc by heat treatment without any covering over the active surface.

Measurement Method:

The 2pi beta emission rate was measured using an internal gas flow proportional chamber. Absolute counting of beta particles emitted in the hemisphere above the active surface was verified by counting above, below, and at the operative voltage. The calibration is traceable to NIST by reference to an NIST calibrated beta source S/N 2148/90.

Measurement Result:

The observed beta count rate from the surface of the disc per minute (cpm) on the calibration date was:

504,000 ± 50,400

The total disintegration rate (dpm) assuming 25 % backscatter of beta particles from the surface of the disc, was:

806,000 ± 80,600 (0.363 μCi)

The uncertainty of the measurement is 10 %, which is the sum of random counting error at the 99% confidence level, and the estimated upper limit of systematic error in this measurement.

Calibrated by: ART REUST Reviewed by: Barbara M. Fisher

Calibration Technician: Art Reust Q.A. Representative: Lynne Perry

Calibration Date: 4-04-2000 Reviewed Date: 4/4/00

EBERLINE SERVICES

CERTIFICATE OF CALIBRATION

Electroplated Alpha Standard

S.O.# 6532
P.O.# 1092953

Description of Standard:

Model No. DNS-11 Serial No. 5731-06 Isotope Th-230

Electroplated on polished SS disc, 0.79 mm thick.

Total diameter of 4.77 cm and an active diameter of 4.45 cm.

The radioactive material is permanently fixed to the disc by heat treatment without any covering over the active surface.

Measurement Method:

The 2pi alpha emission rate was measured using an internal gas flow proportional chamber. Absolute counting of alpha particles emitted in the hemisphere above the active surface was verified by counting above, below, and at the operative voltage. The calibration is traceable to NIST by reference to an NIST calibrated alpha source S/N 4001-02.

Measurement Result:

The observed alpha particles emitted from the surface of the disc per minute (cpm) on the calibration date was:

2,500 ± 100

The total disintegration rate (dpm) assuming 1.5% backscatter of alpha particles from the surface of the disc, was:

4,930 ± 197 (0.00222 μCi)

The uncertainty of the measurement is 4 %, which is the sum of random counting error at the 99% confidence level, and the estimated upper limit of systematic error in this measurement.

Calibrated by: ART REUST Reviewed by: Steve Sorby

Calibration Technician: Art Reust Q.A. Manager: Anthony W. Toth

Calibration Date: 10-11-2006 Reviewed Date: 10-12-06

7021 Pan American Freeway NE
Albuquerque, New Mexico 87109-4238
(505) 262-2694 Fax (505) 262-2698
www.eberlineservices.com

APPENDIX G
FIELD DATA AND NOTES

G.1 – Daily Checklists

G.2 – Survey Records

G.3 – Sample Description Logs

G.4 – High Results Narrative

G.5 – Survey Sketches

G.6 – Daily Log

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Attachment D

Daily Checklist / Briefing

BRAC Site Location: Niagara Falls USARC (NY046) **Date: 9/27/11**

Team 1 Lead: Ted Adams

Team Members: **BRAC POCs *(Name / Contact #)*:**

Marty Willett **Charles DeMarti, AFOS 347-219-9643**

Dave Goddard **Carlos Torres, Site RSO**

Item #	Area of Review	Sat	Unsat	N/A
	Health / Safety Communication			
	Communication / Emergency Contact			
1	Team Personnel / RSO contact info available.**Ted Adams, RSO(716-725-5874)**	X		
2	Communication Protocol with Client **(Charles DeMarti (347-219-9643)**	X		
3	Local / Site Emergency Procedures **(911)**	X		
	H&S/Rad Topics			
4	Unique Industrial Hazards (i.e. Be, Asbestos, Heights) **Asbestos**	X		
5	Weather Related (Wind, Heat, Flooding)	X		
6	Animals / Insects	X		
7	Radiation Work Permit (i.e rad conditions, PPE)			X
	Task / Topics			
	General Task Topics			
1	Site POC contacted to discuss site specific hazards	X		
2	Calibration Sources and survey instrumentation in hand	X		
3	Materials checked against inventory	X		
4	Site Interviews conducted	X		
5	Visual inspection conducted	X		
6	Documented Survey Approach completed in the field.	X		
7	Surveys taken per documented survey approach.	X		
8	Smears packaged and shipped to offsite laboratory (GEL).	X		
9	Secondary Waste or rad material/items packaged/disposed properly.			X
10	QA/QC of Survey forms completed & Survey Data Sheets transmitted.	X		
11	Anomalous readings? Explain actions taken to address. **NO**			X
12	Any residual radiation detected, not attributed to NORM to Radon. Explain actions taken to address. Elevated readings for a number of smears for removable beta activity. Smears recounted after a an hour and beta activity decreased. **NO**			X
	Preparation for follow-on activities			

13	Calibration Source Inventory / package / prep for transport	X		
14	Transport materials, instruments, & sources to next location	X		
15	Any indications of radioactive material or residual activity above Reg Guide 1.86 limit. If this is unsatisfactory, then the Team Lead must obtain authorization prior to demobing from the work site. **NO**			X
16	All areas minimally inspected if not surveyed	X		
	Documentation / Forms to be completed			
17	Visual Inspection Checklist	X		
18	Survey Approach Record	X		
19	Daily Checklist / Briefing (This Form)	X		
20	**Survey Record File** - Efficiency and Operating Range - Daily instrument performance check log - Radiological Survey Record - Daily Log - Smear / Measurement Location Descriptions - High Results Narrative - Sketches	 X X X X X X X		
21	Radiation Work Permit			X
	Daily Briefing / Data Transfer			
	Transmit completed data sheets to: - Frank Tarantello: fatarantello@energysolutions.com - Kinshuk Shroff: kshroff@terranearpmc.com	 X X		
	Provide briefing via daily scheduled teleconference.	X		

Miscellaneous Notes: Accomplishments for day; additional actions needed; issues overcome; general notes of days activities; status of work at close of business day.

Need to complete surveys for Building 4, 17, and 26. Prepare smears/COCs for shipment to GEL. Plan for the next site (MacArthur USARC, Springfield, MA)

Signature: Ted Adams/TGA

Attachment D

Daily Checklist / Briefing

BRAC Site Location: Niagara Falls USARC (NY046) **Date: 9/28/11**

Team 1 Lead: Ted Adams

Team Members: **BRAC POCs *(Name / Contact #)*:**

Marty Willett **Charles DeMarti, AFOS 347-219-9643**

Dave Goddard **Carlos Torres, Site RSO**

Item #	Area of Review	Sat	Unsat	N/A
	Health / Safety Communication			
	Communication / Emergency Contact			
1	Team Personnel / RSO contact info available.**Ted Adams, RSO(716-725-5874)**	X		
2	Communication Protocol with Client **(Charles DeMarti (347-219-9643)**	X		
3	Local / Site Emergency Procedures **(911)**	X		
	H&S/Rad Topics			
4	Unique Industrial Hazards (i.e. Be, Asbestos, Heights) **Asbestos**	X		
5	Weather Related (Wind, Heat, Flooding)	X		
6	Animals / Insects	X		
7	Radiation Work Permit (i.e rad conditions, PPE)			X
	Task / Topics			
	General Task Topics			
1	Site POC contacted to discuss site specific hazards	X		
2	Calibration Sources and survey instrumentation in hand	X		
3	Materials checked against inventory	X		
4	Site Interviews conducted	X		
5	Visual inspection conducted	X		
6	Documented Survey Approach completed in the field.	X		
7	Surveys taken per documented survey approach.	X		
8	Smears packaged and shipped to offsite laboratory (GEL).	X		
9	Secondary Waste or rad material/items packaged/disposed properly.			X
10	QA/QC of Survey forms completed & Survey Data Sheets transmitted.	X		
11	Anomalous readings? Explain actions taken to address. **NO**			X
12	Any residual radiation detected, not attributed to NORM to Radon. Explain actions taken to address. Elevated readings for a number of smears for removable beta activity. Smears recounted after a an hour and beta activity decreased. **NO**			X

Title:	**Survey Approach Preparation / Documentation**	*Doc No.*	**BRAC-FP-01 Revision # 0**

	Preparation for follow-on activities			
13	Calibration Source Inventory / package / prep for transport	X		
14	Transport materials, instruments, & sources to next location	X		
15	Any indications of radioactive material or residual activity above Reg Guide 1.86 limit. If this is unsatisfactory, then the Team Lead must obtain authorization prior to demobing from the work site. **NO**			X
16	All areas minimally inspected if not surveyed	X		
	Documentation / Forms to be completed			
17	Visual Inspection Checklist	X		
18	Survey Approach Record	X		
19	Daily Checklist / Briefing (This Form)	X		
20	**Survey Record File** - Efficiency and Operating Range - Daily instrument performance check log - Radiological Survey Record - Daily Log - Smear / Measurement Location Descriptions - High Results Narrative - Sketches	 X X X X X X X		
21	Radiation Work Permit			X
	Daily Briefing / Data Transfer			
	Transmit completed data sheets to: - Frank Tarantello: fatarantello@energysolutions.com - Kinshuk Shroff: kshroff@terranearpmc.com	 X X		
	Provide briefing via daily scheduled teleconference.	X		

Miscellaneous Notes: Accomplishments for day; additional actions needed; issues overcome; general notes of days activities; status of work at close of business day.

Prepare smears/COCs for shipment to GEL. Plan for the next site (MacArthur USARC, Springfield, MA)

Signature: Ted Adams/TGA

TerranearPMC **Radiological Survey Record**

Date : 9/27-28/2011 Team No. : 1

Site Name : Niagara Falls USARC Survey No. : T1S1

Survey Description : Direct, wet and dry smears, microR readings and large area wipe surveys to determine the radiological condition of the areas of the building.

Location / Area : L1 - Building 18; L2-Building 19; L3- Building 20; L4-Building 22; L5-Building 21; L6-Building 25; L7-Building 23; L8- Building 24; L9-Building 26 ; L10-Building 17; L11-Building 4.

Meter/Probe Model	Meter/Probe Serial #	Probe Active Area (cm^2)	Cal. Date	Efficiency (c/d)		Background (cpm or µR/hr)			MDA (dpm/100 cm^2)	
				α	β	α	β	χ	α	β
Ludlum 2360	278616	100	09/07/11	0.202	0.197	0.3	174	N/A	23	245
Ludlum 19	144029	N/A	12/26/10	N/A	N/A	N/A	N/A	8	N/A	N/A
Ludlum 43-93	PR308282	100	09/07/12	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Instrument Notes: **Ludlum 43-93 (#PR308282) with Ludlum 2360 (278616)**
For MDA calculations, the background sample time is assumed to be 10 minutes and source time 1 minute

	Contamination													Exposure Rate	
	Direct Field (gcpm)		Direct Field (dpm / 100 cm^2)		Removable / Smear Field (cpm / 100 cm^2)		Removable / Smear Field (dpm / 100 cm^2)		Removable Lg Area Wipe Field (cpm)		Removable / Smear Lab (dpm /100 cm^2)			Contact (µR/hr)	One meter elevation (µR/hr)
	α	β	α	β	α	β	α	β	α	β	α	β	Tritium		
L1 - Building 18															
1	2	258	8	426	2	240	8	335	4	295	1-ab	1-ab		8	9
2	2	220	8	233	2	287	8	573	3	295	2-ab	2-ab	2-T	8	8
									6	238					
3	2	244	8	355	1	150	3	-122	1	129	3-ab	3-ab	3-T	5	4
4	2	162	8	-61	2	160	8	-72	1	168	4-ab	4-ab		4	4
5	3	127	13	-239	2	146	8	-143			5-ab	5-ab		5	6
6	4	195	18	106	0	167	-1	-36			6-ab	6-ab		4	4
7	1	262	3	446	1	200	3	131	1	238	7-ab	7-ab		4	5
8	1	204	3	152	1	243	3	350	1	206	8-ab	8-ab		5	6
L2 - Building 19															
9	2	214	8	203	1	212	3	192			9-ab	9-ab		5	5
10	2	236	8	314	2	217	8	218	2	240	10-ab	10-ab		4	5

Survey Notes: **A Ludlum 43-93 w/ active area of 100 cm^2 is assumed in direct field dpm/100cm^2 calculations. Dose rates were collected in every room.**
*** Removable/Smear Field values are qualitative measurements.**
U - Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Surveyed by: M Willett MJW 9/27/11
Name Initial Date

Reviewed by: Ted Adams TGA 9/29/11
Name Initial Date

TerranearPMC

Radiological Survey Form

(continuation sheet)

Date : 9/27-28/2011 Team No. : 1

Site Name : Niagara Falls USARC Survey No. : T1S1

Survey Description : Direct, wet and dry smears, microR readings and large area wipe surveys to determine the radiological condition of the areas of the building.

Location / Area : L1 - Building 18; L2-Building 19; L3- Building 20; L4-Building 22; L5-Building 21; L6-Building 25; L7-Building 23; L8- Building 24; L9-Building 26 ; L10-Building 17; L11-Building 4.

	Contamination													Exposure Rate	
	Direct (cpm)		Direct Field (dpm / 100 cm^2)		Removable / Smear (cpm / 100 cm^2)		Removable / Smear Field (dpm / 100 cm^2)		Removable Lg Area Wipe Field (cpm)		Removable / Smear Lab (dpm / 100 cm^2)			Contact (µR/hr)	one meter (µR/hr)
	α	β	α	β	α	β	α	β	α	β	α	β	Tritium		
L3 - Building 20															
11	3	181	13	35	2	161	8	-66			11-ab	11-ab		8	7
12	1	188	3	71	2	204	8	152	1	190	12-ab	12-ab	12-T	8	9
L4 - Building 22															
13	3	258	13	426	3	258	13	426	2	203	13-ab	13-ab		8	8
									4	193					
									2	173				7	7
									2	184				7	8
									2	261				8	8
									4	238					
L5 - Building 21															
14	0	216	-1	213	3	194	13	101			14-ab	14-ab		7	7
15	4	191	18	86	4	180	18	30	2	170	15-ab	15-ab		7	7
16	2	159	8	-77	1	162	3	-61	5	177	16-ab	16-ab		6	7
									5	188				7	7
17	4	238	18	324	2	162	8	-61	2	168	17-ab	17-ab		8	8
									4	156				5	5
									1	158				7	8
									5	229				7	8
18	2	180	8	30	2	180	8	30	3	179	18-ab	18-ab		8	8

Survey Notes:

A Ludlum 43-93 w/ active area of 100 cm^2 is assumed in direct field dpm/100cm^2 calculations. Dose rates were collected in every room.

*** Removable/Smear Field values are qualitative measurements.**

U - Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

	Name	Initial	Date
Surveyed by:	M. Willett	MJW	9/27/11
Reviewed by:	Ted Adams	TGA	9/29/11

TerranearPMC

Radiological Survey Form
(continuation sheet)

Date : 9/27-28/2011 Team No. : 1

Site Name : Niagara Falls USARC Survey No. : T1S1

Survey Description : Direct, wet and dry smears, microR readings and large area wipe surveys to determine the radiological condition of the areas of the building.

Location / Area : L1 - Building 18; L2-Building 19; L3- Building 20; L4-Building 22; L5-Building 21; L6-Building 25; L7-Building 23; L8- Building 24; L9-Building 26 ; L10-Building 17; L11-Building 4.

	Contamination													Exposure Rate	
	Direct (cpm)		Direct Field (dpm / 100 cm²)		Removable / Smear (cpm / 100 cm²)		Removable / Smear Field (dpm / 100 cm²)		Removable Lg Area Wipe Field (cpm)		Removable / Smear Lab (dpm / 100 cm²)			Contact (µR/hr)	one meter (µR/hr)
	α	β	α	β	α	β	α	β	α	β	α	β	Tritium		
L6 - Building 25															
19	7	271	33	492	2	210	8	182	5	258	19-ab	19-ab		7	7
L7 - Building 23															
20	4	218	18	223	4	212	18	192	0	186	20-ab	20-ab		5	4
									1	196				5	5
L8 - Building 24															
21	6	208	28	172	3	221	13	238			21-ab	21-ab		5	6
L9 - Building 26															
22	5	205	23	157	2	213	8	197	1	127	22-ab	22-ab		5	3
L10 - Building 17															
23	3	211	13	187	4	184	18	50	0	229	23-ab	23-ab		4	3
L11- Building 4															
24	0	210	-1	182	2	193	8	96	1	178	24-ab	24-ab		12	14
25	5	228	23	274	4	218	18	223	3	210	25-ab	25-ab	25-T	14	15
26	5	178	23	20	1	203	3	147	1	205	26-ab	26-ab		6	7
27	3	188	13	71	2	222	8	243	0	208	27-ab	27-ab		7	7
28	0	175	-1	5	1	169	3	-26	2	190	28-ab	28-ab		10	10
29	3	215	13	208	2	207	8	167	1	220	29-ab	29-ab		10	10
30	3	184	13	50	2	181	8	35	1	191	30-ab	30-ab		7	8
31	3	171	13	-16	2	184	8	50	3	167	31-ab	31-ab		8	9
32	4	235	18	309	2	224	8	253	4	208	32-ab	32-ab		7	7
33	0	207	-1	167	3	221	13	238	1	230	33-ab	33-ab		11	7
34	1	197	3	116	2	201	8	137	1	207	34-ab	34-ab		7	7

Survey Notes: **A Ludlum 43-93 w/ active area of 100 cm² is assumed in direct field dpm/100cm² calculations. Dose rates were collected in every room.**

	Name	Initial	Date
Surveyed by:	M. Willett	MJW	9/27/11
Reviewed by:	Ted Adams	TGA	9/29/11

TerranearPMC

Radiological Survey Form

(continuation sheet)

Date : 9/27-28/2011 Team No. : 1

Site Name : Niagara Falls USARC Survey No. : T1S1

Survey Description : Direct, wet and dry wipe, micorR, and large are wipe surveys to provide determine the radiological condition of area 1 of the building.

Location / Area : **L1** - Building 18; **L2**-Building 19; **L3**- Building 20; **L4**-Building 22; **L5**-Building 21; **L6**-Building 25; **L7**-Building 23; **L8**- Building 24; **L9**-Building 26 ; **L10**-Building 17; **L11**-Building 4.

	Contamination													Exposure Rate	
	Direct (cpm)		Direct Field (dpm / 100 cm^2)		Removable / Smear (cpm / 100 cm^2)		Removable / Smear Field (dpm / 100 cm^2)		Removable Lg Area Wipe Field (cpm)		Removable / Smear Lab (dpm / 100 cm^2)			Contact (µR/hr)	one meter (µR/hr)
	α	β	α	β	α	β	α	β	α	β	α	β	Tritium		
L11- Building 4 (cont)															
35	3	135	13	-198	2	181	8	35	0	201	35-ab	35-ab		5	7
36															
37															
38															
39															
40															
41															
42															
43															
44															
45															
46															
47															
48															
49															
50															

Survey Notes: **A Ludlum 43-93 w/ active area of 100 cm^2 is assumed in direct field dpm/100cm^2 calculations. Dose rates were collected in every room.**

Surveyed by: M. Willett MJW 9/27/11
Name Initial Date

Reviewed by: Ted Adams TGA 9/29/11
Name Initial Date

SAMPLE LOCATION DESCRIPTION LOG

BRAC Site Desc: Niagara Falls USARC - T1S1

x	Survey #	Data Type (Direct, Smear, LAW, H3)	Lab Sample ID	Description of Location (Samples collected in the middle of the room unless otherwise noted.)
L1 - Building 18				
1	T1S1L1A1	Direct, smear, LAW	T1S1L1A1-1ab	Building 18, inside cage door with rad posting, floor, LAW
2	T1S1L1A2	Direct, smear, LAW, H3	T1S1L1A2-2ab, 2-T	Building 18, Inside vault, previous radiac and icam storage location. LAW of shelves and vault floor, Tritium smear (2-T) on floor
3	T1S1L1A3	Direct, smear, LAW, H3	T4S1L1A3-3ab, 3-T	Building 18, Instrument Maintenance office, rad posting on door, floor. LAW shelves. Tritium smear (3-T)
4	T1S1L1A4	Direct, smear, LAW	T1S1L1A4-4ab	Building 18, south end lockers and storage shelves. LAW shelves
5	T1S1L1A5	Direct, smear	T1S1L1A5-5ab	Building 18 north end office floor, desks
6	T1S1L1A6	Direct, smear	T1S1L1A6-6ab	Building 18 battery storage room floor
7	T1S1L1A7	Direct, smear, LAW	T1S1L1A7-7ab	Building 18 center bay floor ,LAW of floor
8	T1S1L1A8	Direct, smear, LAW	T1S1L1A8-8ab	Building 18, south end bay floor in front of cages, LAW of cage off rear office
L2 - Building 19				
9	T1S1L2A9	Direct, smear	T1S1L2A9-9ab	Building 19, floor in northend room
10	T1S1L2A10	Direct, smear, LAW	T1S1L2A10-10ab	Building 19, floor in southend room, LAW floor
L3 - Building 20				
11	T1S1L3A11	Direct, smear	T1S1L3A11-11ab	Building 20, maintenance and instrument repair facility, floor center room
12	T1S1L3A12	Direct, smear, LAW, H3	T4S1L3A12-12ab, 12-T	Building 20, floor in old instrument repair facility. LAW shelves, Tritium smear (12-T)
L4 - Building 22				
13	T1S1L4A13	Direct, smear, LAW	T1S1L4A13-13ab	Building 22, floor in room 210-cold storage vault, LAW rms 205,207A, 206A+B, 203, lower level; kitchen, dinning area, supply warehouse, e. bay, NW bay
L5 - Building 21				
14	T1S1L5A14	Direct, smear	T1S1L5A14-14ab	Building 21, room 104
15	T1S1L5A15	Direct, smear, LAW	T1S1L4A15-15ab	Building 21, room 108, LAW desks and table tops
16	T1S1L5A16	Direct, smear, LAW	T1S1L4A16-16ab	Building 21, room 117, LAW desks/shelves, room 112, 115
17	T1S1L5A17	Direct, smear, LAW	T1S1L4A17-17ab	Building 21, room 116, LAW bench tops, floor, NE bay floor, woodworking/office room (SE corner of bldg)
18	T1S1L5A18	Direct, smear, LAW	T1S1L5A18-18ab	Building 21, SE corner storage room floor. LAW S. side office
L6 - Building 25				
19	T1S1L6A19	Direct, smear, LAW	T1S1L6A19-19ab	Building 25, center bay floor, LAW of bench/office
L7 - Building 23				
20	T1S1L7A20	Direct, smear, LAW	T1S1L7A20-20ab	Building 23, south bay floor. LAW shelves, table tops, N. end bay floor
L8 - Building 24				
21	T1S1L8A21	Direct, smear	T1S1L8A21-21ab	Building 24, floor
L9 - Building 26				
22	T1S1L9A22	Direct, smear, LAW	T1S1L9A22-22ab	Building 26, floor, LAW of floor
L10 - Building 17				
23	T1S1L10A23	Direct, smear, LAW	T1S1L10A23-23ab	Building 17, floor, LAW of floor
L11- Building 4				
24	T1S1L11A24	Direct, smear, LAW	T1S1L11A24-24ab	Building 4, north side. Vault room 554, floor, LAW of floor
25	T1S1L11A25	Direct, smear, LAW, H3	T1S1L11A25-25ab, 25-T	Building 4, north side. Vault room 555, floor, LAW of floor, Tritium (25-T)
26	T1S1L11A26	Direct, smear, LAW	T1S1L11A26-26ab	Building 4, Hanger (center of building). Floor, LAW of floor. East end
27	T1S1L11A27	Direct, smear, LAW	T1S1L11A27-27ab	Building 4, hanger (center of building). Floor, LAW of floor, west end/ middle

SAMPLE LOCATION DESCRIPTION LOG

BRAC Site Desc: Niagara Falls USARC - T1S1

Log Continued

x	Survey #	Data Type (LAW, Wipe, Direct, GADR, CDR)	Lab Sample ID	Description of Location (Samples collected in the middle of the room unless otherwise noted.)
28	T1S1L11A28	Direct, smear, LAW	T1S1L11A28-28ab	Building 4, south side. Main hall, east on 1st floor. Floor, LAW of floor
29	T1S1L11A29	Direct, smear, LAW	T1S1L11A29-29ab	Building 4, south side. Main hall,westend on 1st floor. Floor, LAW of floor
30	T1S1L11A30	Direct, smear, LAW	T1S1L11A30-30ab	Building 4, south side. Main hall,westend on 2nd floor. Floor, LAW of floor
31	T1S1L11A31	Direct, smear, LAW	T1S1L11A31-31ab	Building 4, south side. Main hall,east end on 2nd floor. Floor, LAW of floor
32	T1S1L11A32	Direct, smear, LAW	T1S1L11A32-32ab	Building 4,north side. Main hall, east end on 1st floor. Floor, LAW of floor
33	T1S1L11A33	Direct, smear, LAW	T1S1L11A33-33ab	Building 4, north side. Supply room on 1st floor. Floor, LAW of shelves/floor
34	T1S1L11A34	Direct, smear, LAW	T1S1L11A34-34ab	Building 4, north side. Room 263 on 2nd floor. Floor, LAW of shelves/floor
35	T1S1L11A35	Direct, smear, LAW	T1S1L11A35-35ab	Building 4, north side. West end. Room 239 on 2nd floor. Floor, LAW of shelves/floor

HIGH RESULTS NARRATIVE

BRAC Site Desc: Niagara Falls USARC - T1S1

Sample Location	Remarks
L1A1	**Building 18, inside cage door with rad posting, floor.** Results of field smear counts taken at this location on 9/27/11, indicated that smear alpha and beta activity were 8 dpm and 335 dpm respectfully. A recount of the smear taken on 9/28/11 indicated smear activity had diminished to 0 dpm for alpha and 158 dpm for beta. **Explanation: The elevated alpha/beta measurements identified during the initial smear count in the field are most likely due to elevated ambient radiation levels and/or radon and its progeny. Radon and progeny can be present in higher than average ambient levels when buildings are vacant and not ventilated. In addition, as may have been the case at this location, the ground floor slab materials or underlying geology may have slightly higher levels of radium and/or actinide (i.e., uranium decay elements) present.**
L1A2	**Building 18, inside vault, previous radiac/CAMs/ICAMs storage location.** Results of field smear counts taken at this location on 9/27/11, indicated that smear alpha and beta activity were 8 dpm and 573 dpm respectfully. A recount of the smear taken on 9/28/11 indicated smear activity had diminished to 0 dpm for alpha and 169 dpm for beta. See explanation above
L1A8	**Building 18, south end bay, floor in front of cages.** Results of field smear counts taken at this location on 9/27/11, indicated that smear alpha and beta activity were 3 dpm and 350 dpm respectfully. A recount of the smear taken on 9/28/11 indicated smear activity had diminished to 1 dpm for alpha and 159 dpm for beta. See explanation above
L1A10	**Building 19, floor in south end of room.** Results of field smear counts taken at this location on 9/27/11, indicated that smear alpha and beta activity were 8 dpm and 218 dpm respectfully. A recount of the smear taken on 9/28/11 indicated smear activity had diminished to0 dpm for alpha and 173 dpm for beta. See explanation above
L4A13	**Building 22, Room 210, cold storage vault, floor.** Results of field smear counts taken at this location on 9/27/11, indicated that smear alpha and beta activity were 13 dpm and 426 dpm respectfully. A recount of the smear taken on 9/28/11 indicated smear activity had diminished to 2 dpm for alpha and 175 dpm for beta. See explanation above
L8A21	**Building 24, floor.** Results of field smear counts taken at this location on 9/27/11, indicated that smear alpha and beta activity were 13 dpm and 238 dpm respectfully. A recount of the smear taken on 9/28/11 indicated smear activity had diminished to 1 dpm for alpha and 159 dpm for beta. See explanation above
L11A25	**Building 4, northside, Vault Room 554, floor.** Results of field smear counts taken at this location on 9/27/11, indicated that smear alpha and beta activity were 23 dpm and 223 dpm respectfully. A recount of the smear taken on 9/28/11 indicated smear activity had diminished to 1 dpm for alpha and 171 dpm for beta. See explanation above
L9A27	**Building 4, hanger, center, floor.** Results of field smear counts taken at this location on 9/27/11, indicated that smear alpha and beta activity were 8 dpm and 243 dpm respectfully. A recount of the smear taken on 9/28/11 indicated smear activity had diminished to 1 dpm for alpha and 146 dpm for beta. See explanation above
L11A32	**Building 4, northside, main hall, east end on 1st floor.** Results of field smear counts taken at this location on 9/27/11, indicated that smear alpha and beta activity were 8 dpm and 253 dpm respectfully. A recount of the smear taken on 9/28/11 indicated smear activity had diminished to 1 dpm for alpha and 178 dpm for beta. See explanation above
L11A33	**Building 4, northside, supply room on 1st floor.** Results of field smear counts taken at this location on 9/27/11, indicated that smear alpha and beta activity were 13 dpm and 238 dpm respectfully. A recount of the smear taken on 9/28/11 indicated smear activity had diminished to 1 dpm for alpha and 169 dpm for beta. See explanation above

TerranearPMC

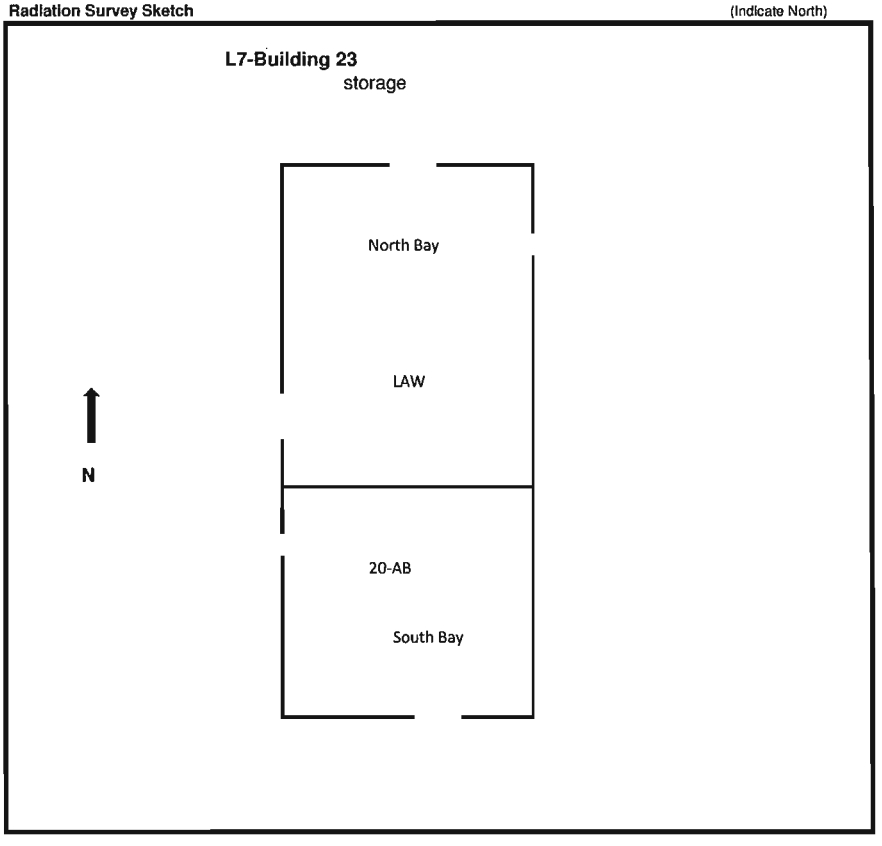
Radiological Survey Record - Survey Locations

BRAC Site Desc: Niagara Falls USARC

Team No. : 1

Survey No. : T1S1L7

Radiation Survey Sketch (Indicate North)



Approx. Scale N/A

Key: Survey Measurements	
LAW	Large Area Wipe
1-AB	Wipe test (100 cm^2), Direct reading (cpm/100cm2) and dose rates (mR/hr) location
H3	Tritium wet swipe location (dpm/100cm2)

Performed by:

MJ Willett

Reviewed by:

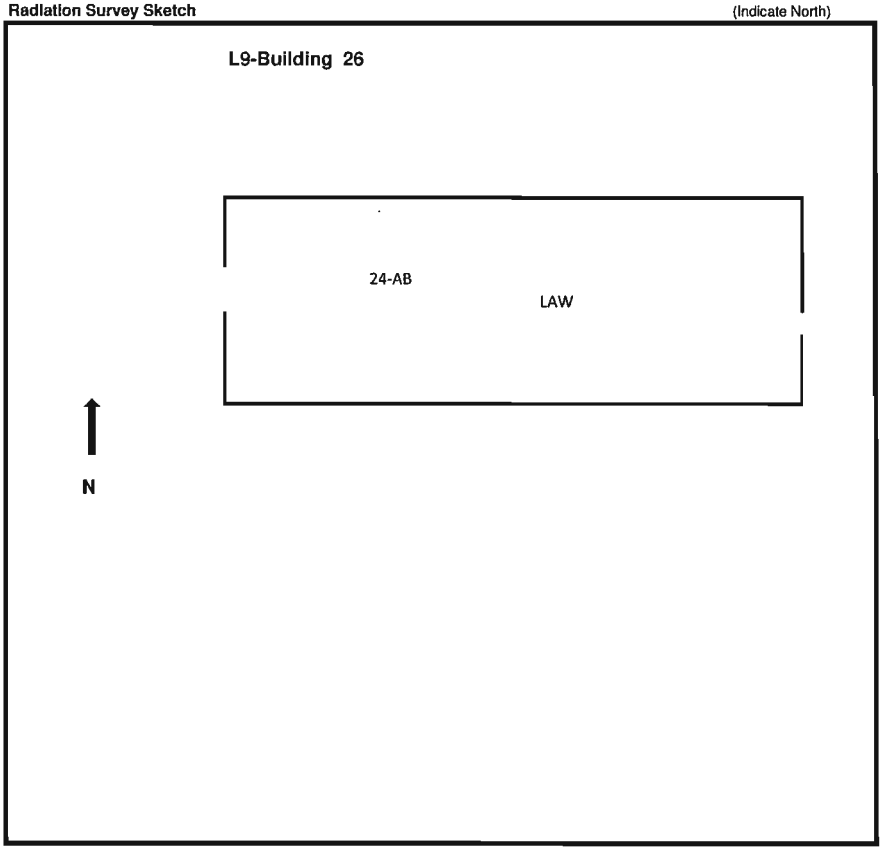
Dave Goddard

BRAC Site Desc: Niagara Falls USARC

Team No. : 1

Radiation Survey Sketch (Indicate North)

Survey No. : T1S1L9



Approx. Scale N/A

Key: Survey Measurements	
LAW	Large Area Wipe
1-AB	Wipe test (100 cm^2), Direct reading (cpm/100cm2) and dose rates (mR/hr) location
M3	Tritium wet swipe location (dpm/100cm2)

Performed by:

MJ Willett

Reviewed by:

Dave Goddard

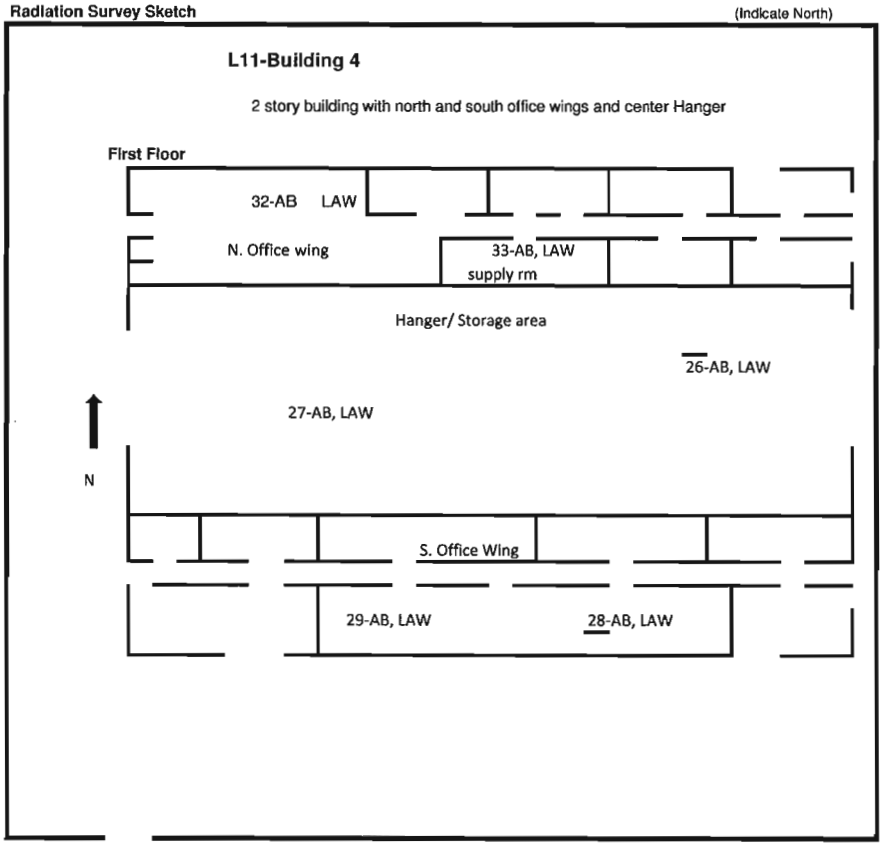
BRAC Site Desc: Niagara Falls USARC

Team No. : 1

Radiation Survey Sketch (Indicate North)

Survey No. : T1S1L11

Approx. Scale N/A



Key: Survey Measurements	
LAW	Large Area Wipe
1-AB	Wipe test (100 cm^2), Direct reading (cpm/100cm2) and dose rates (mR/hr) location
32	Tritium wet swipe location (dpm/100cm2)

Performed by:

MJ Willett

Reviewed by:

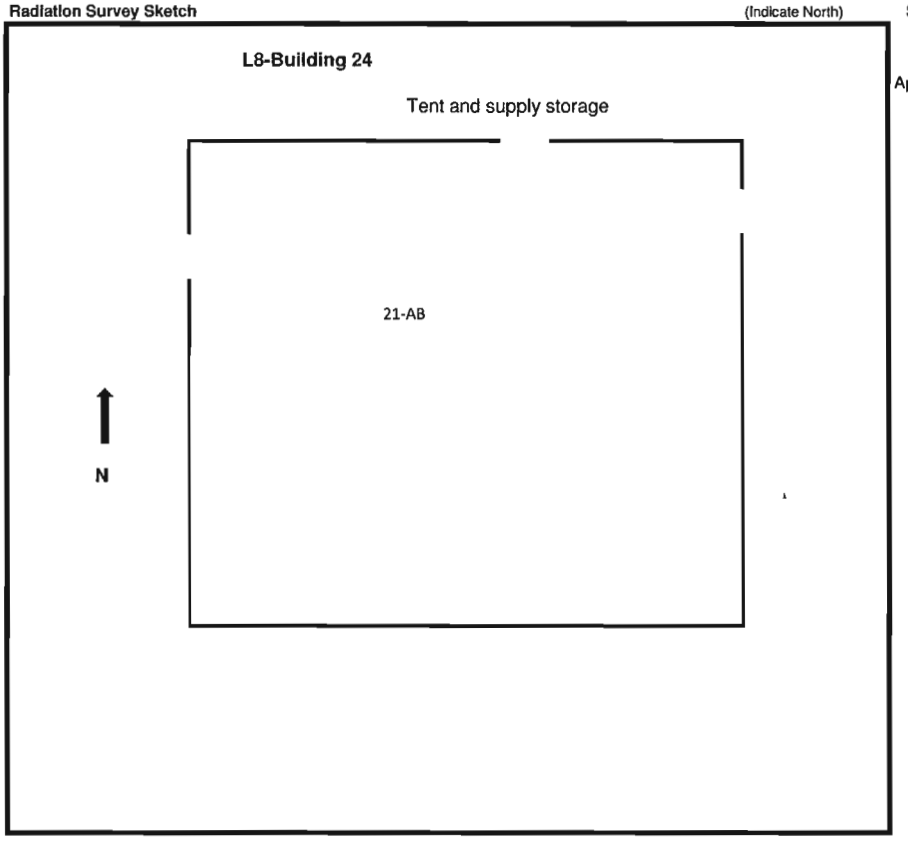
Dave Goddard

BRAC Site Desc: Niagara Falls USARC

Team No. : 1

Radiation Survey Sketch (Indicate North)

Survey No. : T1S1L8



Approx. Scale N/A

Key: Survey Measurements	
LAW	Large Area Wipe
1-AB	Wipe test (100 cm^2), Direct reading (cpm/100cm2) and dose rates (mR/hr) location
H3	Tritium wet swipe location (dpm/100cm2)

Performed by:

MJ Willett

Reviewed by:

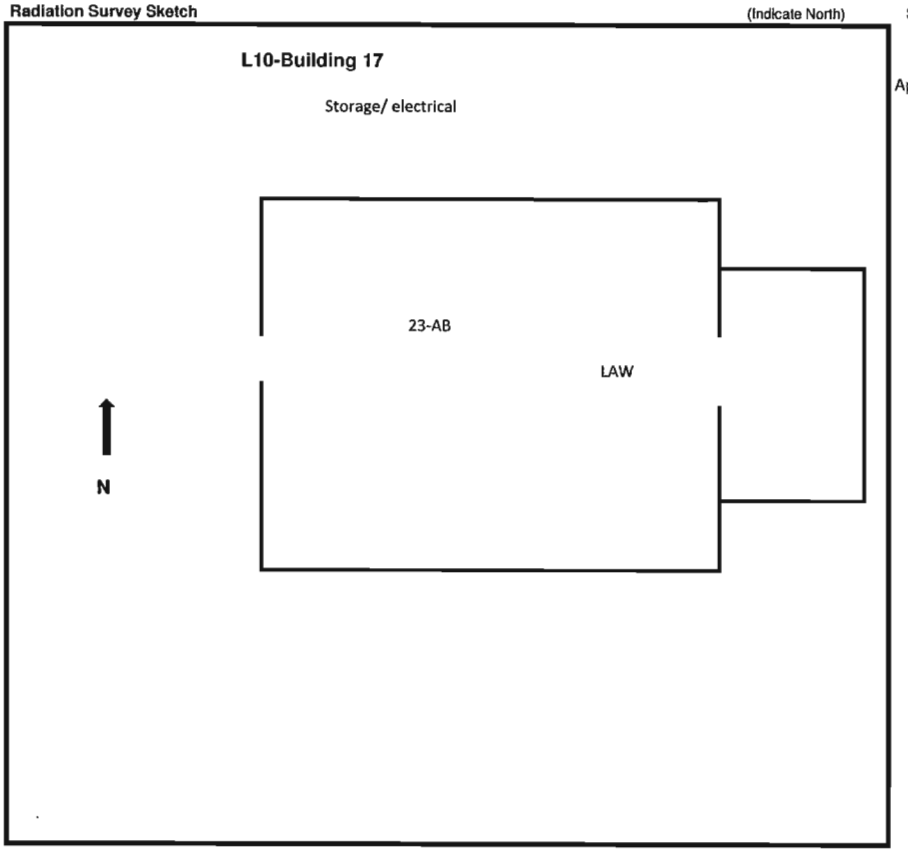
Dave Goddard

BRAC Site Desc: Niagara Falls USARC

Team No. : 1

Radiation Survey Sketch (Indicate North)

Survey No. : T1S1L10



Approx. Scale N/A

Key: Survey Measurements	
LAW	Large Area Wipe
1-AB	Wipe test (100 cm^2), Direct reading (cpm/100cm2) and dose rates (mR/hr) location
3X	Tritium wet swipe location (dpm/100cm2)

Performed by:

MJ Willett

Reviewed by:

Dave Goddard

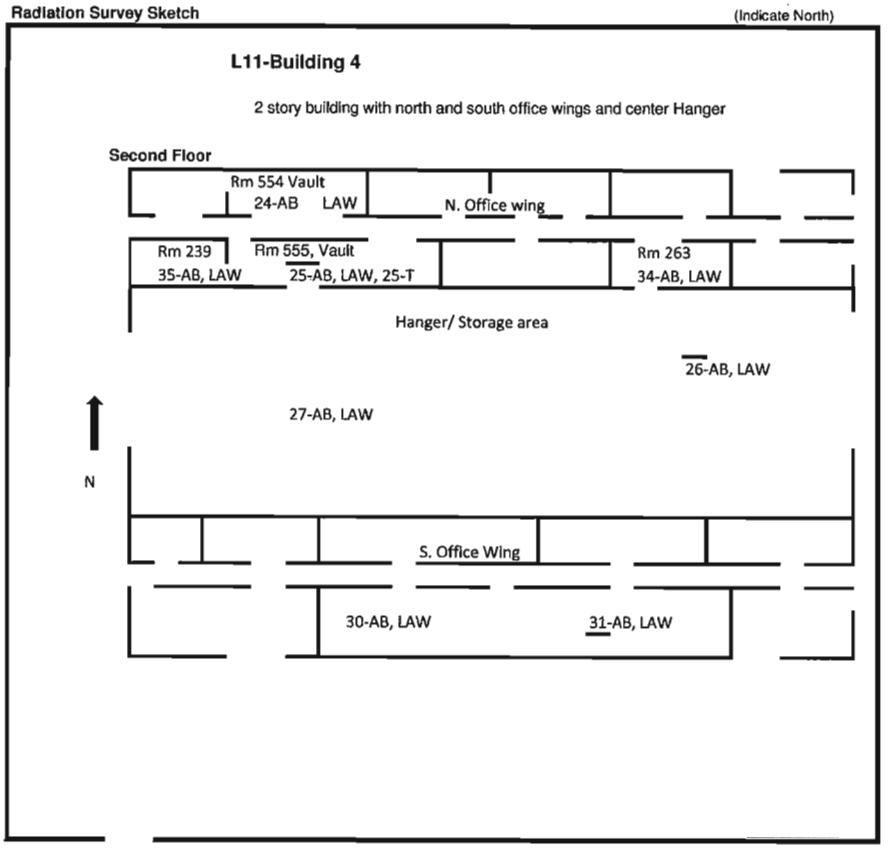
BRAC Site Desc: Niagara Falls USARC

Team No. : 1

Radiation Survey Sketch (Indicate North)

Survey No. : T1S1L11

Approx. Scale N/A



Key: Survey Measurements	
LAW	Large Area Wipe
1-AB	Wipe test (100 cm^2), Direct reading (cpm/100cm2) and dose rates (mR/hr) location
H3	Tritium wet swipe location (dpm/100cm2)

Performed by:

MJ Willett

Reviewed by:

Dave Goddard

TerranearPMC

Radiological Survey Record - Survey Locations

BRAC Site Desc: Niagara Falls USARC

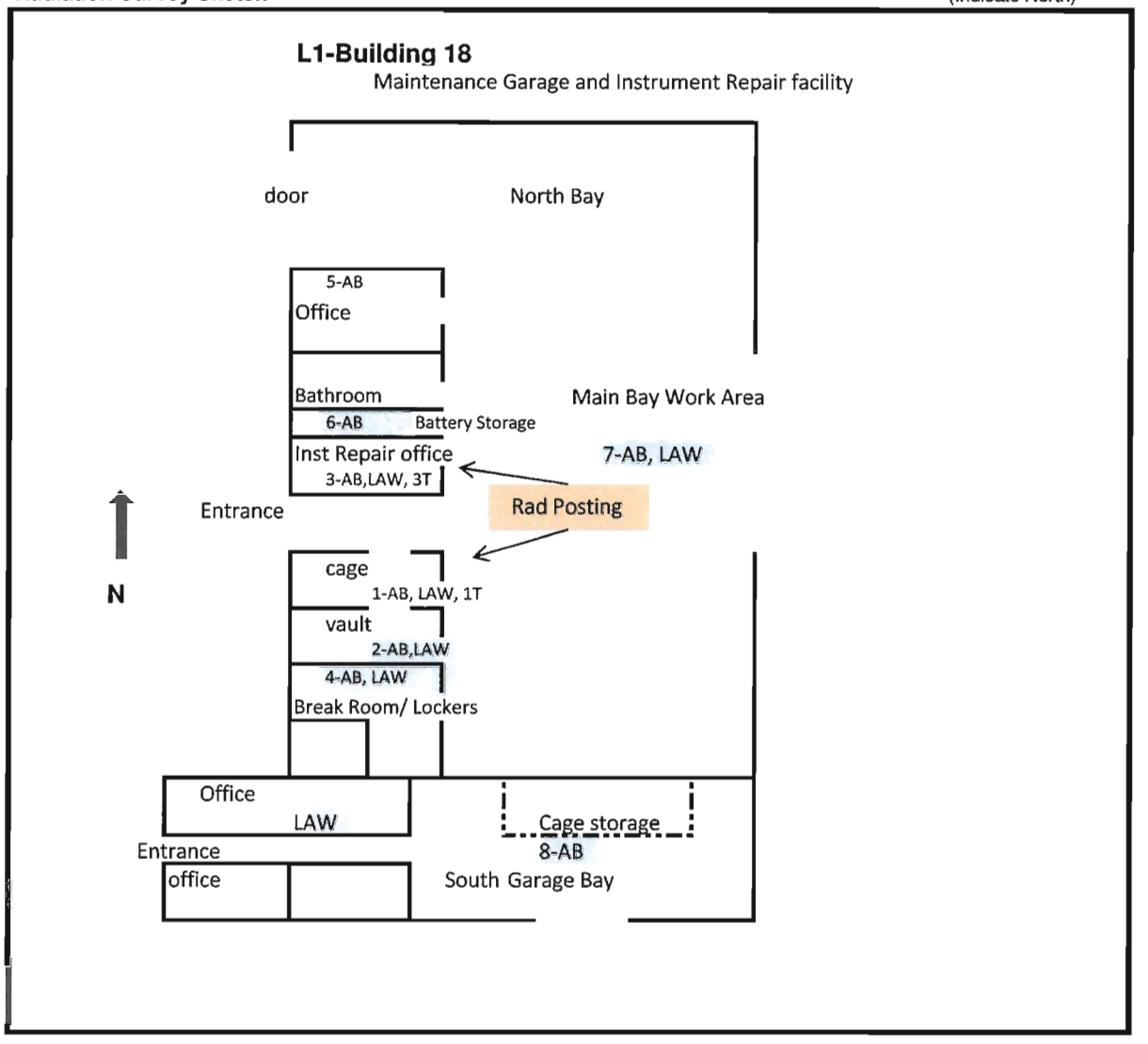
Date : 09/27/11

Team No. : 1

Survey No. : T1S1L1

Radiation Survey Sketch (Indicate North)

Approx. Scale N/A



Key: Survey Measurements	
LAW	Large Area Wipe
1-AB	Wipe test (100 cm^2), Direct reading (cpm/100cm2) and dose rates (mR/hr) location
H3	Tritium wet swipe location (dpm/100cm2)

Performed by:

MJ Willett

Reviewed by:

Dave Goddard

SKETCH 1

BRAC Site Desc: Niagara Falls USARC

Team No. : 1

Radiation Survey Sketch

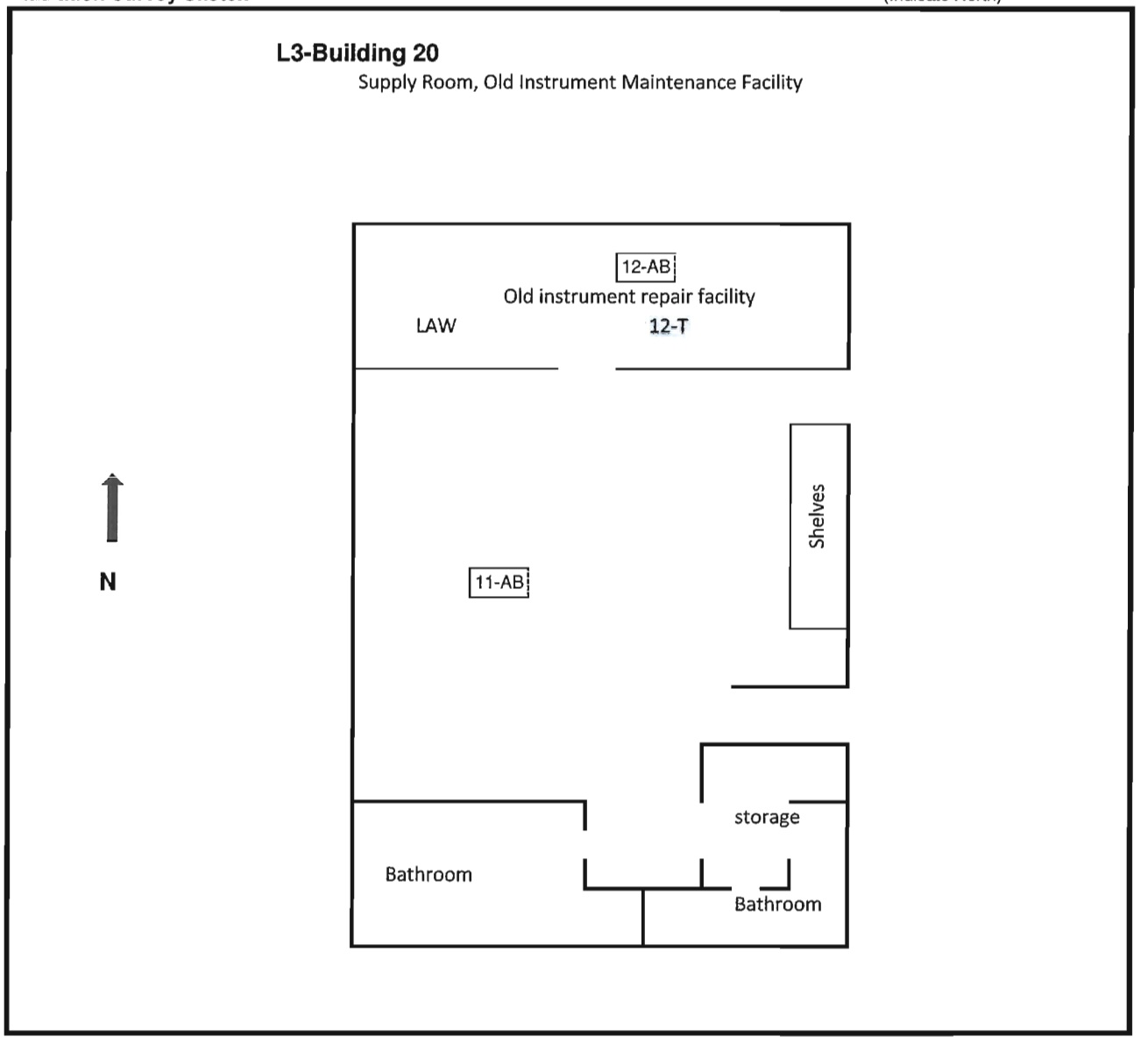
(Indicate North)

Survey No. : T1S1L3

L3-Building 20

Supply Room, Old Instrument Maintenance Facility

Approx. Scale N/A



Key: Survey Measurements	
LAW	Large Area Wipe
1-AB	Wipe test (100 cm^2), Direct reading (cpm/100cm2) and dose rates (mR/hr) location
H3	Tritium wet swipe location (dpm/100cm2)

Performed by:

MJ Willett

Reviewed by:

Dave Goddard

SKETCH 1

BRAC Site Desc: Niagara Falls USARC

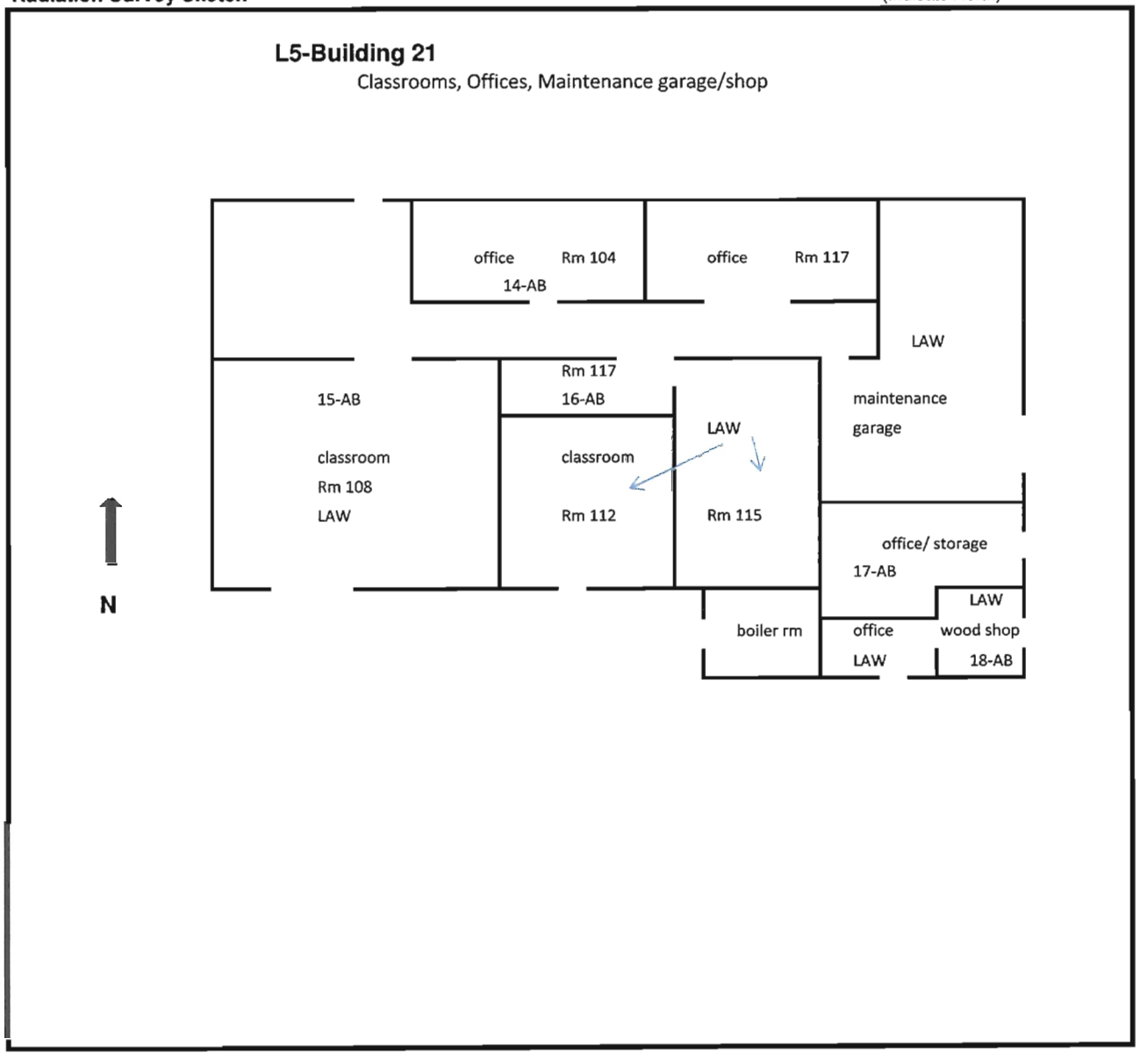
Team No. : 1

Radiation Survey Sketch

(Indicate North)

Survey No. : T1S1L5

Approx. Scale N/A



Key: Survey Measurements	
LAW	Large Area Wipe
1-AB	Wipe test (100 cm^2), Direct reading (cpm/100cm2) and dose rates (mR/hr) location
H3	Tritium wet swipe location (dpm/100cm2)

Performed by:

MJ Willett

Reviewed by:

Dave Goddard

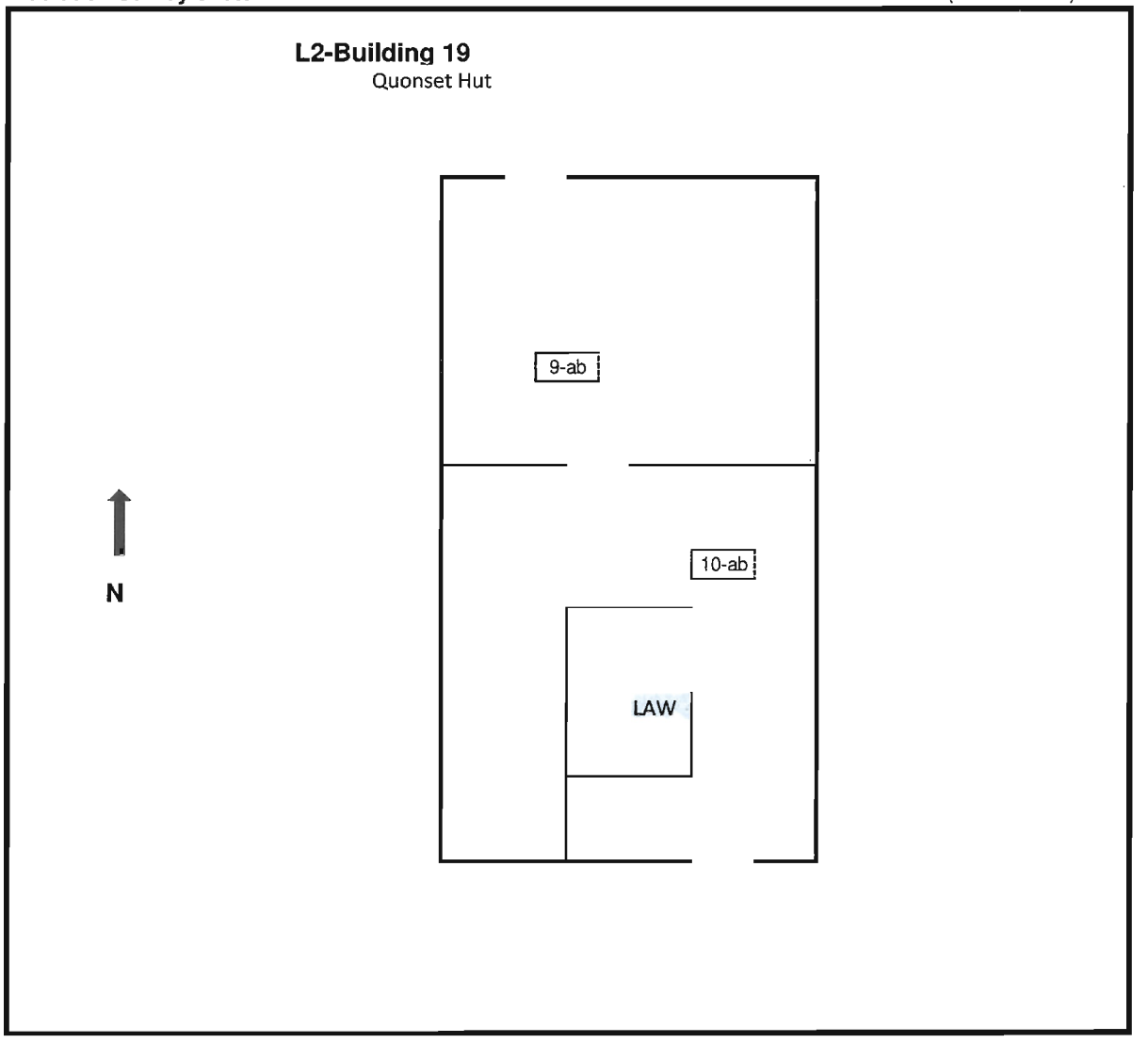
BRAC Site Desc: Niagara Falls USARC

Radiation Survey Sketch (Indicate North)

Team No. : 1

Survey No. : T1S1L2

Approx. Scale N/A



Key: Survey Measurements	
LAW	Large Area Wipe
1-AB	Wipe test (100 cm^2), Direct reading (cpm/100cm2) and dose rates (mR/hr) location
H3	Tritium wet swipe location (dpm/100cm2)

Performed by:

MJ Willett

Reviewed by:

Dave Goddard

SKETCH 1

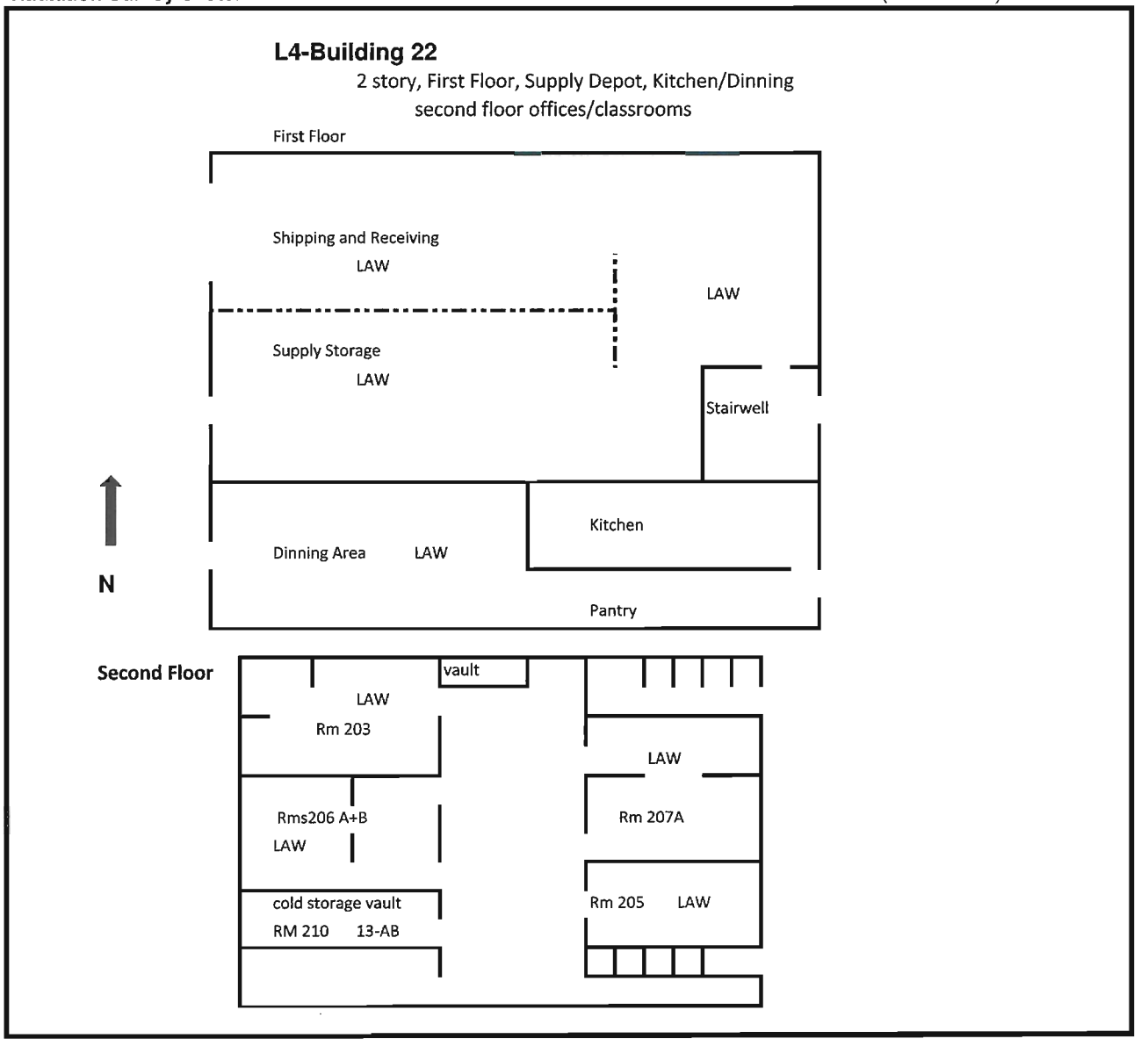
BRAC Site Desc: Niagara Falls USARC

Team No. : 1

Radiation Survey Sketch (Indicate North)

Survey No. : T1S1L4

Approx. Scale N/A



Key: Survey Measurements	
LAW	Large Area Wipe
1-AB	Wipe test (100 cm^2), Direct reading (cpm/100cm2) and dose rates (mR/hr) location
H3	Tritium wet swipe location (dpm/100cm2)

Performed by:

MJ Willett

Reviewed by:

Dave Goddard

SKETCH 1

BRAC Site Desc: Niagara Falls USARC

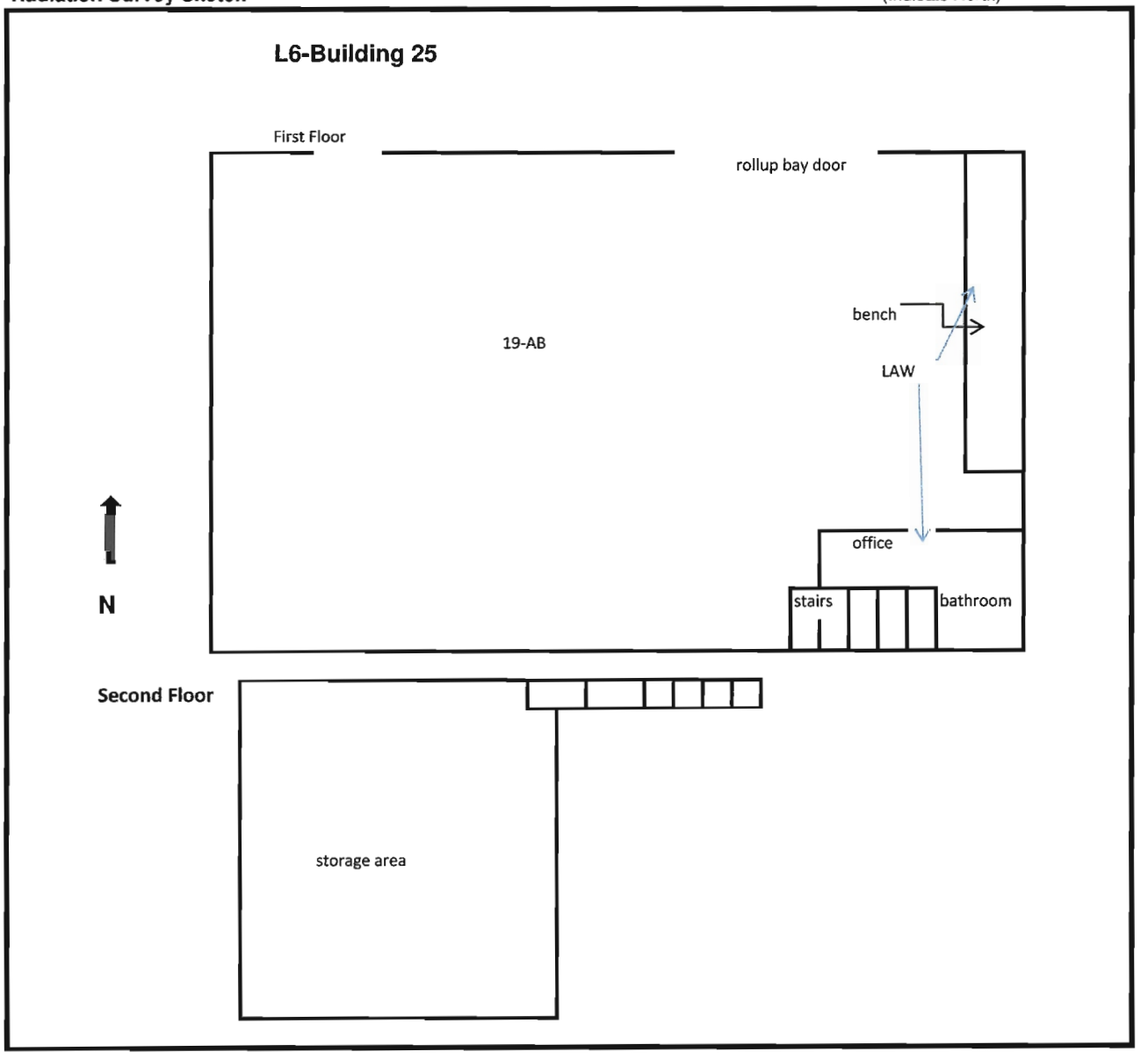
Team No. : 1

Radiation Survey Sketch

(Indicate North)

Survey No. : T1S1L6

Approx. Scale N/A



Key: Survey Measurements	
LAW	Large Area Wipe
1-AB	Wipe test (100 cm^2), Direct reading (cpm/100cm2) and dose rates (mR/hr) location
H3	Tritium wet swipe location (dpm/100cm2)

Performed by:

MJ Willett

Reviewed by:

Dave Goddard

DAILY LOG

BRAC Site Description: **Niagara Falls USARC, (NY046), Niagara Falls, NY**

Team 1

Date/Time	Activity Description
09/27/11	
7:30 am	Arrived onsite. Met/interviewed with Charles DeMarti, AFOS, Site POC (347-219-9643)
8:00 am	Conducted the daily safety briefing and the Daily Checklist/Briefing. Performed the daily instrumentation check. Initiated the visual inspection and walk down of the building with Charles DeMarti to support the completion of the Visual Inspection Checklist. Radiological postings, signs were found on the cage outside of the vault in and on the Instrumentation Repair Room/Office in Building 18. No radiological commodities (ICAMS or CAMS) were found in these rooms. In the past, these rooms were used to store ICAMS and CAMS. The ICAMS and CAMS were moved to the new USARC building in the USARF approximately a month ago. Finalized the Survey Approach Documentation Form.
10:00 am	Met with Carlos Torres, Instrumentation Repair Technician/Site RSO to discuss the radiological postings (Caution Radioactive Materials Class 7 placard and NRC Form 3 posting) on the cage outside of the vault and a Caution Radioactive Materials sign posted on the former Instrumentation Repair Room/Office in Building 18 - Discussed the ICAMS and CAMS were stored in the vault in Building 18 and in Building 20 (north end). ICAMs and CAMs previously stored on the site were transferred over to the new USARC on the USARF and stored in a controlled and secured weapons storage vault. Set up a meeting with Carlos Torres to inspect/survey the ICAMs and CAMs at the new USARC facility.
11:30 pm	Initiated surveys of the 11 buildings in accordance with the Site Survey Approach.
1:00 pm	Participated in the Daily Status Teleconference.
5:30 pm	Completed surveys of Buildings 18, 19, 20, 21, 22, 23, 24, and 25. Planned for completing surveys of Buildings 4, 17, and 19 on 9/28/11. Performed instrumentation checks and packaged up the instrumentation. Field results indicated no contamination or exposure rate measurements of concern including those in the vaults and rooms that stored ICAMs and CAMs (Buildings 18 and 20).
5:45 pm	Performed instrumentation check and packaged instrumentation .
6:00 pm	Departed Site

DAILY LOG

BRAC Site Description: Niagara Falls USARC, (NY046), Niagara Falls, NY

Team 1

Date/Time	Activity Description
09/28/11	
7:30 am	Arrived onsite. Met with Charles DeMarti, AFOS, Site POC (347-219-9643)
8:00 am	Conducted the daily safety briefing and completed the Daily Checklist/Briefing. Performed the daily instrumentation check. Initiated the surveys of Buildings 17 and 26 in accordance with the Site Survey Approach.
9:30 am	Completed surveys of Buildings 17 and 26. NOTE: The activities performed at the Niagara Falls USARF Installation (9:30am-11:30am) were outside the scope of the Niagara Falls USARC and therefore have no bearing on the results of the survey nor the final report of the Niagara Falls USARC. The inspections/survey of the USARC Buildings 2502 and 2503 on the USARF installation were performed as a follow up to discussions with Carlos Torres regarding the small disk of Beryllium and the radiation commodities as a courtesy. Traveled with Charles DeMarti to Niagara Falls USARF Installation to meet with Carlos Torres, Instrumentation Repair Technician/Site RSO and inspect the Communications Repair Room/Office, and Storage Vault in the active USARC AMSA Building 2502 and the Arms Storage Vault located in the active USARC Building 2503 for stored ICAMs and CAMs. - Identified two older CAMs in the Communications Repair Room/Office (Building 2502) with their sources removed and the location of the sealed sources unknown. "Caution Radioactive Hazard" sign was posted on the outside of the Communications Repair Room door. Two "unclaimed" ICAMs were also found in the room. Directs, smears for alpha, beta and tritium), large area wipes (LAWs) and exposure rate measurements were taken on the CAMs and ICAMs. Field results indicated no contamination or exposure rates of concern. - Inspected/surveyed the storage vault (Building 2503) containing ICAMs (containing Ni-63 sources), CAMs (containing Am-241 sources) and compasses (containing H-3 sources). Directs, smears for alpha, beta and tritium), LAWs, and exposure rate measurements were taken. Vault was clean and storage of the radiological commodities appeared to be appropriate. Field results indicated no contamination or exposure rate measurements of concern. - Inspected/surveyed storage vault (Building 2502)previously containing stored ICAMs and CAMs. Directs, smears, LAWs, and exposure rate measurements were taken. Field results indicated no contamination or exposure rate measurements of concern. - Discussed with Carlos Torres the small disk of beryllium that had a radioactive trefoil on it. The disk was being stored in a storage cage in Building 2502. A search to locate the disk was unsuccessful. Requested a copy of the inventory of ICAMs and CAMs currently in storage and a copy of the letter identifying Mr. Torres as the Site RSO.
11:30 am	Completed the inspection and survey of the Vaults and Communication Room/Office of the active USARC AMSA buildings (2502 and 2503) and returned with Charles DeMarti to the old Niagara Falls USARC site.
12:00 pm	Initiated survey of Building 4. Obtained via Sgt. Gehres, access to the Arms Room 130 Vault Rooms 554 and 555 which were the rooms where weapons were stored (Room 544) and the ICAMs and CAMs, were previously stored (Room 454) prior to transfer over to the new USARC building. Directs, smears, LAWs and exposure rates were taken in Rooms 545 and 555. Field results indicated no contamination or exposure rate measurements of concern..
1:00 pm	Participated in the Daily Status Teleconference.
4:00 pm	Completed survey of Building 4. Performed equipment check. Packed up instrumentation. Closed out with Charles DeMarti.
4:30 pm	Departed site.

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APPENDIX H
ANALYTICAL RESULTS

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GEL Laboratories LLC
a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

October 07, 2011

Daniel F. Caputo
TPMC-Energy Solutions
1009 Commerce Park, Suite 100
Oak Ridge, Tennessee 37830

Re: Team 1-Site1 (Niagra Falls USARC/AMSA 76)
Work Order: 287310

Dear Daniel Caputo:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on October 04, 2011. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4707.

Sincerely,

LaToya D. Hughes

LaToya Hughes
Project Manager

Purchase Order: Signed Quote
Enclosures

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 – (843) 556–8171 – www.gel.com

Certificate of Analysis Report
for

TPMC003 TPMC–TerranearPMC, LLC (Project No. 34501)

Client SDG: 287310 GEL Work Order: 287310

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, LaToya Hughes.

Reviewed by LaToya D. Hughes

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: October 6, 2011

Company :	TPMC-Energy Solutions
Address :	1009 Commerce Park, Suite 100
	Oak Ridge, Tennessee 37830
Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L1A1-1AB	Project:	TPMC00300
Sample ID:	287310001	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	27-SEP-11 11:57		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	0.520	2.42	20.0	dpm/Filter		CAS2	10/05/11	1537	1147402	1
Beta	U	0.885	2.46	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: October 6, 2011

Company :	TPMC-Energy Solutions
Address :	1009 Commerce Park, Suite 100
	Oak Ridge, Tennessee 37830
Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L1A2-2AB	Project:	TPMC00300
Sample ID:	287310002	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	27-SEP-11 12:00		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	0.715	2.68	20.0	dpm/Filter		CAS2	10/05/11	1537	1147402	1
Beta	U	-0.385	1.78	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: October 6, 2011

Company :	TPMC-Energy Solutions
Address :	1009 Commerce Park, Suite 100
	Oak Ridge, Tennessee 37830
Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L1A3-3AB	Project:	TPMC00300
Sample ID:	287310003	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	27-SEP-11 12:15		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	0.340	2.79	20.0	dpm/Filter		CAS2	10/06/11	1411	1147402	1
Beta	U	0.372	2.12	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: October 6, 2011

Company :	TPMC-Energy Solutions
Address :	1009 Commerce Park, Suite 100
	Oak Ridge, Tennessee 37830
Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L1A4-4AB	Project:	TPMC00300
Sample ID:	287310004	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	27-SEP-11 12:19		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	0.275	2.15	20.0	dpm/Filter		CAS2	10/06/11	1411	1147402	1
Beta	U	1.22	2.97	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: October 6, 2011

Company :	TPMC-Energy Solutions
Address :	1009 Commerce Park, Suite 100
	Oak Ridge, Tennessee 37830
Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L1A5-5AB	Project:	TPMC00300
Sample ID:	287310005	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	27-SEP-11 12:20		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	0.0598	2.34	20.0	dpm/Filter		CAS2	10/05/11	1537	1147402	1
Beta	U	1.54	2.12	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: October 6, 2011

Company :	TPMC-Energy Solutions
Address :	1009 Commerce Park, Suite 100
	Oak Ridge, Tennessee 37830
Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L1A6-6AB	Project:	TPMC00300
Sample ID:	287310006	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	27-SEP-11 12:22		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	-0.461	2.58	20.0	dpm/Filter		CAS2	10/06/11	1411	1147402	1
Beta	U	0.350	2.45	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: October 6, 2011

Company :	TPMC-Energy Solutions
Address :	1009 Commerce Park, Suite 100
	Oak Ridge, Tennessee 37830
Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L1A7-7AB	Project:	TPMC00300
Sample ID:	287310007	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	27-SEP-11 12:27		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	-0.324	2.42	20.0	dpm/Filter		CAS2	10/06/11	1411	1147402	1
Beta	U	0.899	2.46	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: October 6, 2011

Company :	TPMC-Energy Solutions
Address :	1009 Commerce Park, Suite 100
	Oak Ridge, Tennessee 37830
Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L1A8-8AB	Project:	TPMC00300
Sample ID:	287310008	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	27-SEP-11 12:30		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	0.138	2.23	20.0	dpm/Filter		CAS2	10/05/11	1537	1147402	1
Beta	U	-0.567	2.45	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: October 6, 2011

Company :	TPMC-Energy Solutions
Address :	1009 Commerce Park, Suite 100
	Oak Ridge, Tennessee 37830
Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L2A9-9AB	Project:	TPMC00300
Sample ID:	287310009	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	27-SEP-11 12:34		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	0.309	2.68	20.0	dpm/Filter		CAS2	10/06/11	1411	1147402	1
Beta	U	0.0451	1.78	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

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Report Date: October 6, 2011

Company :	TPMC-Energy Solutions
Address :	1009 Commerce Park, Suite 100
	Oak Ridge, Tennessee 37830
Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L2A10-10AB	Project:	TPMC00300
Sample ID:	287310010	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	27-SEP-11 12:38		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	0.237	2.09	20.0	dpm/Filter		CAS2	10/05/11	1538	1147402	1
Beta	U	-0.146	2.01	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

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Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L3A11-11AB	Project:	TPMC00300
Sample ID:	287310011	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	27-SEP-11 12:40		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	0.263	2.19	20.0	dpm/Filter		CAS2	10/06/11	1412	1147402	1
Beta	U	0.00796	2.20	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

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Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L3A12-12AB	Project:	TPMC00300
Sample ID:	287310012	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	27-SEP-11 12:44		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	2.28	2.36	20.0	dpm/Filter		CAS2	10/05/11	1544	1147402	1
Beta		2.94	2.88	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

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Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L4A13-13AB	Project:	TPMC00300
Sample ID:	287310013	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	27-SEP-11 12:50		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	0.430	2.45	20.0	dpm/Filter		CAS2	10/05/11	1544	1147402	1
Beta	U	-0.345	2.32	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

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Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L5A14-14AB	Project:	TPMC00300
Sample ID:	287310014	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	27-SEP-11 12:59		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	0.542	2.23	20.0	dpm/Filter		CAS2	10/06/11	1412	1147402	1
Beta	U	-1.0	2.45	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

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Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L5A15-15AB	Project:	TPMC00300
Sample ID:	287310015	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	27-SEP-11 13:10		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	-0.188	2.63	20.0	dpm/Filter		CAS2	10/05/11	1544	1147402	1
Beta	U	-0.727	3.73	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

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Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L5A16-16AB	Project:	TPMC00300
Sample ID:	287310016	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	27-SEP-11 13:15		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	0.200	2.00	20.0	dpm/Filter		CAS2	10/06/11	1412	1147402	1
Beta	U	0.366	2.08	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

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Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L5A17-17AB	Project:	TPMC00300
Sample ID:	287310017	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	27-SEP-11 13:20		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	0.136	2.22	20.0	dpm/Filter		CAS2	10/05/11	1544	1147402	1
Beta	U	0.414	2.07	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

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Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L5A18-18AB	Project:	TPMC00300
Sample ID:	287310018	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	27-SEP-11 13:25		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	0.235	1.93	20.0	dpm/Filter		CAS2	10/05/11	1544	1147402	1
Beta	U	-0.154	2.29	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

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Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L6A19-19AB	Project:	TPMC00300
Sample ID:	287310019	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	27-SEP-11 13:30		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	0.150	2.11	20.0	dpm/Filter		CAS2	10/05/11	1544	1147402	1
Beta	U	0.374	2.19	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

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Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L7A20-20AB	Project:	TPMC00300
Sample ID:	287310020	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	27-SEP-11 13:35		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	0.262	1.80	20.0	dpm/Filter		CAS2	10/05/11	1544	1147402	1
Beta	U	0.457	2.29	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

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Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L8A21-21AB	Project:	TPMC00300
Sample ID:	287310021	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	27-SEP-11 13:35		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	-0.0805	2.79	20.0	dpm/Filter		CAS2	10/05/11	1527	1147404	1
Beta	U	-0.483	2.12	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

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	Oak Ridge, Tennessee 37830
Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L9A22-22AB	Project:	TPMC00300
Sample ID:	287310022	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	28-SEP-11 13:40		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	1.01	2.36	20.0	dpm/Filter		CAS2	10/05/11	1527	1147404	1
Beta	U	1.05	2.88	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

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Company :	TPMC-Energy Solutions
Address :	1009 Commerce Park, Suite 100
	Oak Ridge, Tennessee 37830
Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L10A23-23AB	Project:	TPMC00300
Sample ID:	287310023	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	28-SEP-11 13:45		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	-0.0809	2.79	20.0	dpm/Filter		CAS2	10/06/11	1518	1147404	1
Beta	U	-0.0473	2.12	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

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Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L11A24-24AB	Project:	TPMC00300
Sample ID:	287310024	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	28-SEP-11 13:50		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	-0.156	2.15	20.0	dpm/Filter		CAS2	10/06/11	1518	1147404	1
Beta	U	-0.508	2.97	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

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Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L11A25-25AB	Project:	TPMC00300
Sample ID:	287310025	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	28-SEP-11 13:55		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	1.54	2.63	20.0	dpm/Filter		CAS2	10/05/11	1527	1147404	1
Beta	U	-1.86	3.73	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

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Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L11A26-26AB	Project:	TPMC00300
Sample ID:	287310026	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	28-SEP-11 14:00		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	-0.0703	2.58	20.0	dpm/Filter		CAS2	10/05/11	1527	1147404	1
Beta	U	0.991	2.45	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

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Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L11A27-27AB	Project:	TPMC00300
Sample ID:	287310027	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	28-SEP-11 14:05		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	0.925	2.22	20.0	dpm/Filter		CAS2	10/05/11	1527	1147404	1
Beta	U	0.827	2.07	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

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Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L11A28-28AB	Project:	TPMC00300
Sample ID:	287310028	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	28-SEP-11 14:10		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	-0.488	2.58	20.0	dpm/Filter		CAS2	10/06/11	1518	1147404	1
Beta	U	1.86	2.45	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

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Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L11A29-29AB	Project:	TPMC00300
Sample ID:	287310029	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	28-SEP-11 14:15		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	0.156	2.11	20.0	dpm/Filter		CAS2	10/05/11	1527	1147404	1
Beta	U	-0.042	2.19	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

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Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L11A30-30AB	Project:	TPMC00300
Sample ID:	287310030	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	28-SEP-11 14:20		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	0.250	1.80	20.0	dpm/Filter		CAS2	10/05/11	1527	1147404	1
Beta	U	1.29	2.29	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

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Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L11A31-31AB	Project:	TPMC00300
Sample ID:	287310031	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	28-SEP-11 14:30		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	0.697	2.17	20.0	dpm/Filter		CAS2	10/05/11	1527	1147404	1
Beta	U	0.783	2.05	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

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Certificate of Analysis

Report Date: October 6, 2011

Company :	TPMC-Energy Solutions
Address :	1009 Commerce Park, Suite 100
	Oak Ridge, Tennessee 37830
Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L11A32-32AB	Project:	TPMC00300
Sample ID:	287310032	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	28-SEP-11 14:35		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	-0.306	2.42	20.0	dpm/Filter		CAS2	10/06/11	1519	1147404	1
Beta	U	-0.211	2.46	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: October 6, 2011

Company :	TPMC-Energy Solutions
Address :	1009 Commerce Park, Suite 100
	Oak Ridge, Tennessee 37830
Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L11A33-33AB	Project:	TPMC00300
Sample ID:	287310033	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	28-SEP-11 14:40		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	0.293	2.55	20.0	dpm/Filter		CAS2	10/05/11	1528	1147404	1
Beta	U	1.23	2.49	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: October 6, 2011

Company :	TPMC-Energy Solutions
Address :	1009 Commerce Park, Suite 100
	Oak Ridge, Tennessee 37830
Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L11A34-34AB	Project:	TPMC00300
Sample ID:	287310034	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	28-SEP-11 14:45		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	0.299	2.68	20.0	dpm/Filter		CAS2	10/06/11	1519	1147404	1
Beta	U	1.10	1.78	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: October 6, 2011

Company :	TPMC-Energy Solutions
Address :	1009 Commerce Park, Suite 100
	Oak Ridge, Tennessee 37830
Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L11A35-35AB	Project:	TPMC00300
Sample ID:	287310035	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	28-SEP-11 14:50		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
GFPC, Gross A/B, filter "As Received"											
Alpha	U	0.329	1.85	20.0	dpm/Filter		CAS2	10/05/11	1528	1147404	1
Beta	U	0.113	2.14	200	dpm/Filter						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 900.0/SW846 9310/SM 7110B Modified	

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: October 6, 2011

Company :	TPMC-Energy Solutions
Address :	1009 Commerce Park, Suite 100
	Oak Ridge, Tennessee 37830
Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L1A1-1T	Project:	TPMC00300
Sample ID:	287310036	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	27-SEP-11 14:55		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis											
LSC, Direct Tritium, Filter "As Received"											
Tritium	U	5.38	14.2		dpm/Filter		MYM1	10/06/11	0410	1147545	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	GL-RAD-A-002	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: October 6, 2011

Company :	TPMC-Energy Solutions
Address :	1009 Commerce Park, Suite 100
	Oak Ridge, Tennessee 37830
Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L1A3-3T	Project:	TPMC00300
Sample ID:	287310037	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	27-SEP-11 15:00		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis											
LSC, Direct Tritium, Filter "As Received"											
Tritium	U	-2.89	21.5		dpm/Filter		MYM1	10/06/11	0426	1147545	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	GL-RAD-A-002	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: October 6, 2011

Company :	TPMC-Energy Solutions
Address :	1009 Commerce Park, Suite 100
	Oak Ridge, Tennessee 37830
Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L3A12-12T	Project:	TPMC00300
Sample ID:	287310038	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	27-SEP-11 15:05		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis											
LSC, Direct Tritium, Filter "As Received"											
Tritium	U	8.20	14.9		dpm/Filter		MYM1	10/06/11	0442	1147545	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	GL-RAD-A-002	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: October 6, 2011

Company :	TPMC-Energy Solutions
Address :	1009 Commerce Park, Suite 100
	Oak Ridge, Tennessee 37830
Contact:	Daniel F. Caputo
Project:	Team 1-Site1 (Niagra Falls USARC/AMSA 76)

Client Sample ID:	T1S1L11A27-27T	Project:	TPMC00300
Sample ID:	287310039	Client ID:	TPMC003
Matrix:	Swipe		
Collect Date:	28-SEP-11 15:40		
Receive Date:	04-OCT-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis											
LSC, Direct Tritium, Filter "As Received"											
Tritium	U	8.88	31.9		dpm/Filter		MYM1	10/06/11	0458	1147545	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	GL-RAD-A-002	

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: October 6, 2011
Page 1 of 2

TPMC-Energy Solutions
1009 Commerce Park, Suite 100
Oak Ridge, Tennessee

Contact: Daniel F. Caputo

Workorder: 287310

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 1147402										
QC1202501581 287310001 DUP										
Alpha	U	0.520	U	0.720	dpm/Filter	0.00			N/A CAS2	10/05/11 15:50
Beta	U	0.885	U	0.600	dpm/Filter	0.00			N/A	
QC1202501580 MB										
Alpha			U	0.697	dpm/Filter					10/05/11 15:44
Beta			U	0.783	dpm/Filter					
Batch 1147404										
QC1202501589 287310021 DUP										
Alpha	U	-0.0805	U	0.261	dpm/Filter	0.00			N/A CAS2	10/05/11 15:46
Beta	U	-0.483	U	-0.332	dpm/Filter	0.00			N/A	
QC1202501588 MB										
Alpha			U	-0.133	dpm/Filter					10/05/11 15:27
Beta			U	0.823	dpm/Filter					
Rad Liquid Scintillation										
Batch 1147545										
QC1202501970 LCS										
Tritium	232			221	dpm/Filter		95.2	(75%-125%)	MYM1	10/06/11 06:36
QC1202501971 LCSD										
Tritium	232			221	dpm/Filter	0.369	95.6	(0%-20%)		10/06/11 06:52
QC1202501969 MB										
Tritium			U	2.92	dpm/Filter					10/06/11 06:20

Notes:
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L Analyte present. Reported value may be biased low. Actual value is expected to be higher.

QC Summary

Workorder: **287310**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

M	M if above MDC and less than LLD
M	Matrix Related Failure
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Gamma Spectroscopy--Uncertain identification
UL	Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

There are no "Data Exception Reports" associated with this analytical report.

Page: 1 of 4
Project #: 34501.02
GEL Quote #: GEIP11-0697
COC Number (1):
PO Number:

GEL Chain of Custody and Analytical Request

GEL Work Order Number: 287310

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Terranear PMC Phone #: 806-8361046
Project/Site Name: Niagara Falls USARC Fax #:
Address: 9400 Porter rd Niagara Falls, NY 14304
Collected by: D. Goddard Send Results To: Dan Caputo

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive	TSCA Regulated	Total number of containers	Gross α	Gross β									<-- Preservative Type (6)	Comments Note: extra sample is required for sample specific QC
TISIL1A1-1AB	9-27-11	11:57	N	N	P				X	X										Building #18
TISIL1A2-2AB		12:00							X	X										
TISIL1A3-3AB		12:15							X	X										
TISIL1A4-4AB		12:19							X	X										
TISIL1A5-5AB		12:20							X	X										
TISIL1A6-6AB		12:22							X	X										
TISIL1A7-7AB		12:27							X	X										
TISIL1A8-8AB		12:30							X	X										
TISIL2A9-9AB		12:34							X	X										Building #19
TISIL2A10-10AB	9-27-11	12:38	N	N	P				X	X										

TAT Requested: Normal: ____ Rush: ____ Specify: ____ (Subject to Surcharge) Fax Results: Yes / (No) Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards No Known Hazards!

Sample Collection Time Zone: (Eastern) Central Mountain Pacific Other ____

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1 D. Goddard	9-30-11	16:44	[illegible]	10/01/11	9:25
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Latoya Hughes
Method of Shipment: FedEx Date Shipped:
Airbill #: 8769-2215-0069
Airbill #:

1.) Chain of Custody Number = Client Determined
2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal
5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. *8260B* - 3, *6010B/7470A* - 1).
6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal Intact? *YES* *NO*
Cooler Temp: 22 C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

Page: 2 of 4
Project #: 34501.02
GEL Quote #: GELP11-0697
COC Number (1):
PO Number:

GEL Chain of Custody and Analytical Request

GEL Work Order Number: 287310

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Terranear PMC Phone #: 860-836-1046
Project/Site Name: Niagara Falls USARC Fax #:
Address: 9400 Porter rd Niagara Falls, NY 14304
Collected by: D Goddard Send Results To: Dan Caputo

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Radioactive	TSCA Regulated	Total number of containers	Gross α	Gross β								<-- Preservative Type (6)	Comments Note: extra sample is required for sample specific QC
TISIL3A11-11AB	9-27-11	12:40	N	N	P				X	X									Building #20
TISIL3A12-12AB		12:44							X	X									
TISIL4A13-13AB		12:50							X	X									Building #22
TISIL5A14-14AB		12:59							X	X									Building #21
TISIL5A15-15AB		13:10							X	X									
TISIL5A16-16AB		13:15							X	X									
TISIL5A17-17AB		13:20							X	X									
TISIL5A18-18AB		13:25							X	X									
TISIL6A19-19AB		13:30							X	X									Building #25
TISIL7A20-20AB	9-27-11	13:35	N	N	P				X	X									Building #23

TAT Requested: Normal: Rush: Specify: (Subject to Surcharge) Fax Results: Yes / No Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards No Known Hazards!

Sample Collection Time Zone: Eastern, Central, Mountain, Pacific, Other _____

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1 D Goddard	9-30-11	16:44	1 [illegible]	10/4/11	9:25
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Latoya Hughs
Method of Shipment: Fed Ex Date Shipped:
Airbill #: 8769-2215-0069
Airbill #:

1.) Chain of Custody Number = Client Determined
2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal
5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. *8260B* - 3, *6010B/7470A* - 1).
6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp: 22 C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

Page: 3 of 4
Project #: 34501.02
GEL Quote #: GELP11-0697
COC Number (1):
PO Number:

GEL Chain of Custody and Analytical Request

GEL Work Order Number: 287310

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Terranear PMC
Phone #: 860-836-1046
Project/Site Name: Niagara Falls USARC
Fax #:
Address: 9400 Porter rd Niagara Falls, NY 14304
Collected by: D Goddard
Send Results To: Dan Caputo

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive	TSCA Regulated	Total number of containers	Gross α	Gross β								<-- Preservative Type (6)	Comments Note: extra sample is required for sample specific QC
TISIL8A21-21AB	9-27-11	13:35	N	N	P														Building #24
TISIL9A22-22AB	9-28-11	13:40							X	X									Building #26
TISIL10A23-23AB		13:45							X	X									Building #17
TISIL11A24-24AB		13:50							X	X									Building #11
TISIL11A25-25AB		13:55							X	X									
TISIL11A26-26AB		14:00							X	X									
TISIL11A27-27AB		14:05							X	X									
TISIL11A28-28AB		14:10							X	X									
TISIL11A29-29AB		14:15							X	X									
TISIL11A30-30AB	9-28-11	14:20	N	N	P				X	X									

TAT Requested: Normal: Rush: Specify: (Subject to Surcharge) Fax Results: Yes / (No) Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards No Known Hazards!

Sample Collection Time Zone: (Eastern) Central Mountain Pacific Other _____

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1 D Goddard	9-30-11	16:44	1 [illegible]	10/4/11	9:25
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Latoya Hughes
Method of Shipment: FedEx
Date Shipped:
Airbill #: 8769-2215 0069
Airbill #:

1.) Chain of Custody Number = Client Determined
2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal
5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).
6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp: 22 C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

Page: 4 of 4
Project #: 34501.02
GEL Quote #: GELP11-0697
COC Number (1):
PO Number:

GEL Chain of Custody and Analytical Request

GEL Work Order Number: 287310

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Terranear PMC Phone #: 860-836-1046
Project/Site Name: Niagara Falls USARC Fax #:
Address: 9400 Porter rd Niagara Falls, NY 14304
Collected by: D Goddard Send Results To: Dan Caputo

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive	TSCA Regulated	Total number of containers	Gross α	Gross β	Tritium								<-- Preservative Type (6)	Comments Note: extra sample is required for sample specific QC
TISILI1A31-31AB	9-28-11	1430	N	N	P				X	X										Building #4
TISILI1A32-32AB		1435							X	X										
TISILI1A33-33AB		1440							X	X										
TISILI1A34-34AB		1445							X	X										
TISILI1A35-35AB		1450							X	X										
TISILIA1-1T	9-27-11	1455									X									Building #18
TISILIA3-3T		1500									X									
TISIL3A12-12T		1505									X									Building #20
TISILI1A27-27T	9-28-11	1540	N	N	P						X									Building #4

TAT Requested: Normal: Rush: Specify: (Subject to Surcharge) Fax Results: Yes / No Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards* No Known Hazards!

Sample Collection Time Zone: Eastern, Central, Mountain, Pacific, Other

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1 [signature]	9-30-11	1644	[signature]	10/4/11	9:25
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Latoya Hughes
Method of Shipment: Fed Ex Date Shipped:
Airbill #: 8269-2215-0069
Airbill #:

1.) Chain of Custody Number = Client Determined
2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal
5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).
6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp: 22 C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: TPMC	SDG/AR/COC/Work Order: 287308, 287309, 287310, 287311
Received By: Sharita Whitlock	Date Received: 10/4/11 @ 9:25

Suspected Hazard Information	Yes	No	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
COC/Samples marked as radioactive?		✓	Maximum Counts Observed*:
Classified Radioactive II or III by RSO?		✓	
COC/Samples marked containing PCBs?		✓	
Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		✓	

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓	✓		Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Samples requiring cold preservation within (0 ≤ 6 deg. C)?		✓		Preservation Method: 22° Ice bags Blue ice Dry ice None Other (describe)
2a	Daily check performed and passed on IR temperature gun?	✓			Temperature Device Serial #: 51050004 Secondary Temperature Device Serial # (If Applicable):
3	Chain of custody documents included with shipment?	✓			
4	Sample containers intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
5	Samples requiring chemical preservation at proper pH?		✓		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		✓		Sample ID's and containers affected:
7	Are Encore containers present?		✓		(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	✓			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	✓			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			✓	Sample ID's affected: See Attached Sheet
11	Number of containers received match number indicated on COC?	✓			Sample ID's affected:
12	Are sample containers identifiable as GEL provided?	✓			
13	COC form is properly signed in relinquished/received sections?	✓			
14	Carrier and tracking number.				Circle Applicable: FedEx Air FedEx Ground UPS Field Services Courier Other 8769 2215 0069 8758 3117 6708 8758 3117 3087 8769 2215 0058

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials YML Date 10/5/11 Page 1 of 1

List of current GEL Certifications as of 06 October 2011

State	Certification
Arizona	AZ0766
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	E87156 (FL/NELAP)
Connecticut	PH–0169
DoD ELAP – A2LA	2567.01
Florida – NELAP	E87156
Foreign Soils Permit USDA	P330–09–00191
Georgia	E87156 (FL/NELAP)
Georgia SDWA	967
Hawaii	E87156 (FL/NELAP)
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046 (AI33904)
Louisiana SDWA	LA110006
Maryland	270
Massachusetts	M–SC012
Mississippi	E87156 (FL/NELAP)
Nevada	SC00012
New Hampshire	2054
New Jersey – NELAP	SC002
New Mexico	E87156 (FL/NELAP)
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–11–4
Utah – NELAP	SC00012
Vermont	VT87156
Virginia	00151
Washington	C780–11
Wisconsin	999887790

DEPARTMENT OF THE ARMY
HEADQUARTERS, U.S. ARMY JOINT MUNITIONS COMMAND
1 ROCK ISLAND ARSENAL
ROCK ISLAND, IL 61299-6000

REPLY TO
ATTENTION OF:

AMSJM-SF

MEMORANDUM FOR HQDA, ACSIM, BRAC Division (Ms. Lynne Anderson),
600 Army Pentagon, Washington, DC 20310-0600

SUBJECT: Results from the Radiological Survey at the Niagara Falls U.S. Army Reserve Center, Niagara Falls, NY

1. On 12 December 2011, we completed the final status survey work for the radiological release at the Niagara Falls, NY U.S. Army Reserve Center in compliance with the accepted federal government protocol (MARSSIM Class 3). The enclosed Radiological Survey Report provides an evaluation of radiological materials used and the summary of findings and results. The report concludes that no further action is required with respect to the radioactive devices or materials identified. We conclude the site is free of radiological concerns.

2. Our point of contact for questions or comments is Mr. Michael Kurth, AMSJM-SF, (309) 782-8423, electronic mail michael.f.kurth.civ@mail.mil.

Encl

STEPHANIE A. CHRISTIE
Director, Safety/Rad Waste Directorate

Printed On Recycled Paper

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New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau A, 11th Floor
625 Broadway, Albany, New York 12233-7015
Phone: (518) 402-9625 • **Fax:** (518) 402-9627
Website: www.dec.ny.gov

Joe Martens
Commissioner

March 23, 2012

Mr. Michael Moore, CPG
Senior Project Manager
PARS Environmental, Inc.
500 Horizon Drive, Suite 540
Robbinsville, NJ 08691

Re: Remedial Investigation/Interim Remedial Action Report and Human Health Risk Assessment Report for Niagara Falls Armed Forces Reserve Center (Site ID: 932152)

Dear Mr. Moore:

The New York State Department of Environmental Conservation and the New York State Department of Health (State) is in receipt of the above report dated January 24, 2012.

Technical and editorial comments are provided in the attachment to this letter, and should be addressed prior to the final issuance of this document.

Please contact me at (518) 402-9620 or cbng@gw.dec.state.ny.us. should you have any questions.

Sincerely yours,

Mr. Chek Beng Ng, P.E.
Environmental Engineer 2
Remedial Bureau A, Section C

Attachment

cc: J. Swartwout, DEC
L. Dellolio, USAR
N. Freeman, DOH

COMMENTS FOR THE REMEDIAL INVESTIGATION/INTERIM REMEDIAL ACTION REPORT AND HUMAN HEALTH RISK ASSESSMENT NIAGARA FALLS ARMED FORCES RESERVE CENTER (SITE ID: 932152)

1. Page 5, Section 2.7: Were any surface and/or subsurface soil samples taken from Outfall No. 5? If so, please state what was detected, and the concentrations of chemicals observed that was above the Part 375 Unrestricted and Commercial Cleanup Levels.

2. Page 5, Section 2.7: At the end of the second and third paragraphs, please state what were the 'low' and 'detectable' levels of PCB. A range of values and the detected concentrations would suffice.

3. Page 6, Last Paragraph: From previous conversation, it was thought that the fill material was brought in from a nearby quarry? It would be helpful to state the origin of the fill in this paragraph. Also, if the site was NOT used for any activities that would cause any kind of metal contamination (i.e. metal fabrication or machining), it would helpful to state the fact here.

4. Figure 5: It is suggested that a 'spider map' be created to show the detected soil and groundwater concentrations on the Figure themselves, pointing to the location where they were detected. Bolded numbers could be used to indicate exceedance above Commercial Cleanup Levels for ease of viewing and interpretation.

5. In the Tables section (or in the corresponding text), please elaborate what the sample designations. For instance, SP-22-10-12 means soil boring at location SP-22 from 10 inches to 12 inches below ground surface?

6. Page 24, Section 7.6.2: It should be mentioned that since the facility is fenced in, trespassing into the property is limited to only building personnel and not the general public.

7. Page 45, Section 9.1.1: The document indicates that SVOC's detected in the drainage swale near Outfall 4 are commonly found in ditches that receive storm water runoff from asphalt paved surfaces. It should be confirmed that Outfall 4 only receives surface water from the AFRC parking lot and that no other discharges (i.e. floor drains in existing building) are contributing to the outflow of Outfall 4.

PARS
Environmental
Inc.

FINAL - REMEDIAL INVESTIGATION/ INTERIM REMEDIAL ACTION REPORT AND HUMAN HEALTH RISK ASSESSMENT

Niagara Falls Armed Forces Reserve Center
9400 Porter Road
Niagara Falls, NY

VOLUME I OF II

Contract No. W912QR-11-D-0022
Delivery Order No. 001 (Item No. 0004)

PREPARED FOR
U.S Army Corps of Engineers-Louisville District
600 Dr. Martin Luther King, Jr. Place
Louisville, KY 40202

PREPARED BY
PARS Environmental, Inc.
500 Horizon Center, Suite 540
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PARS PROJECT NO. 773-04

APRIL 2012

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VOLUME II OF II
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STATEMENT OF TECHNICAL REVIEW

PARS Environmental, Inc. has completed the Final Remedial Investigation/Interim Remedial Action Report and Human Health Risk Assessment for the Niagara Falls Armed Forces Reserve Center (AFRC).

Notice is hereby given that an independent technical review has been conducted that is appropriate to the level of risk and complexity inherent in the project. During the independent technical review, compliance with established policy, principles and procedures, utilizing justified and valid assumptions, was verified. This included review of assumptions; methods, procedures and materials used in analyses; the appropriateness of data used and level of data obtained; and reasonableness of the results including whether the product meets the customer's needs consistent with the law and existing US Army Corp policy.

Significant concerns and explanation of the resolutions are documented within the project file. As noted above, all concerns resulting from the independent technical review of the project have been considered.

Senior Project Manager
Michael D. Moore, P.G.

4/11/12
Date

Independent Technical Review Team Leader
Thomas P. Dobinson

4/11/12
Date

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1.0 INTRODUCTION

The United States Corps of Engineers (USACE), Louisville District has retained the services of PARS Environmental, Inc. (PARS), under Contract No. W912QR-11-D-0022, Delivery Order No. 001, to conduct a remedial investigation (RI), human health risk assessment (HHRA), feasibility study and interim remedial action (IRA) at the Niagara Falls Armed Forces Reserve Center (AFRC). The AFRC is located at 9400 Porter Road in Niagara Falls, New York, hereinafter the "Site." A Site Location Map and Site Plan are included as Figure 1 and Figure 2, respectively.

On August 21, 2011, a notice of 30 day period for comment was advertised in the Buffalo News for the remedial investigation at the Site. The public notice completed in accordance with Section 120 (h) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCA). A document repository for public review of files related to the investigation was established at the Niagara Falls Public Library located in Niagara Falls, New York. No public comments were received pertaining to the Site. The public notice ad proof is included in Appendix I.

An investigation was conducted of soil and groundwater in the vicinity of six former underground storage tanks (USTs), former vehicle fueling area and the cast iron fire protection main that discharged to a 24-inch corrugated metal storm sewer line on the eastern boundary of the Site. The scope of work completed for this project was based on the approved Quality Assurance Project Plan (QAPP)/Sampling Plan (PARS, September 2011). The investigation was performed to investigate a potential source of the discharge that occurred at Outfall No. 5 into the drainage swale at the southeast corner of the Site in 2008 (see Section 2.7).

The New York State Department of Environmental Conservation (NYSDEC) was notified on June 24, 2008 and Spill # 0803478 was assigned for the discharge

An IRA in the area of the fire protection main was also performed based on the findings of the site inspection conducted in November and December 2010. Residual product was observed within the fill material in an exploratory excavation (TP-12) installed adjacent to the 24-inch corrugated metal storm sewer line. A sample of impacted groundwater was collected and several compounds, including polychlorinated biphenyls (PCBs), were detected at concentrations exceeding the New York State Department of Environmental Conservation (NYSDEC) Class GA Objectives. The IRA included the removal of approximately 50 tons of soil, as well as residual product and groundwater with a visible sheen.

Based on the findings of the remedial investigation, a HHRA was performed. The objective of the HHRA was to evaluate potential risks to human health under current and reasonably foreseeable future conditions. The risk assessment was completed in accordance with the regulations and guidelines set forth by the United States Environmental Protection Agency (USEPA) and the USACE. Additionally, a feasibility study/remedial action alternatives evaluation was performed to evaluate remediation at the Site.

On March 23, 2012, NYSDEC and the NY Department of Health (NYDOH) issued comments on the draft RI/IRA/HHRA Report. Comments have been incorporated into the final report. A copy of the letter from NYSDEC and responses are included in Appendix J.

2.0 BACKGROUND

2.1 SITE SETTING

The Niagara Falls AFRC is an approximate 19.5 acre parcel located on the southern portion of Niagara Township, in Niagara Falls, Niagara County, New York. The Site is bound to the south by Porter Road and the property located immediately south of Porter Road is undeveloped forested land. Niagara Falls International Airport is located immediately north and east of the Site. Other properties in the vicinity of the Site are used primarily for commercial purposes.

2.2 TOPOGRAPHY AND DRAINAGE

The Site is located on the USGS 7.5-minute Tonawanda West topographic map. Topography at the Site is relatively flat with a slight gradient to the west/southwest. The elevation at the Site is approximately 575 feet above mean sea level.

The Site is located within the Niagara Watershed. Surface and storm water drainage is to Cayuga Creek located immediately west of the Site. Cayuga Creek is an intermittent tributary of the Niagara River. Storm sewer lines, drainage swales and outfalls are depicted in Figure 2.

2.3 CLIMATE

According to the National Oceanic and Atmospheric Administration (NOAA), the average monthly temperature ranges from 24.8º Fahrenheit in February to 71.6º Fahrenheit in July. The annual mean temperature is 47.8º Fahrenheit. The lowest temperature recorded in Niagara Falls was -15º Fahrenheit and the highest temperature was 97º Fahrenheit.

The average annual precipitation is 33.93 inches and the average monthly precipitation ranges from 2.32 inches in February to 3.52 inches in September.

2.4 GEOLOGY

The Site is located in the Erie-Ontario Lowlands Physiographic Province. The region is characterized by relatively flat topography and dissected by east-west trending escarpments. The Site is located about 5 miles south of the Niagara Escarpment (*Environmental Condition of Property Report*, CH2MHill, June 2007).

The Niagara Falls area is underlain by glacial sediment consisting mainly of till and lacustrine silt and clay, which is approximately 5 to 80 feet thick. The glacial deposits overlay weathered dolomite and limestone of the Lockport Group (Niagaran Series of Middle Silurian age). The Lockport Group is underlain by approximately 100 feet of shale and limestone (Clinton Group), which is underlain by 110 feet of sandstone and shale (Medina Group).

Soils encountered during the site inspection consisted of non-cohesive fill from 0 to 4 feet below ground surface (bgs). Fill material at some probe locations extended from 8 to 13 feet bgs. The fill material encountered was comprised of a coarse-grained mixture of sand and gravel with varying amounts of fine-grained silt and clay. Varying amounts of brick, slag, concrete, rebar, asphalt and wood were observed within this matrix. Native surficial soils are comprised of silty clay with trace fine sand. Borings were not advanced beyond 13 feet bgs as part of the inspection activities.

2.5 HYDROGEOLOGY

The Site is underlain by the Lakemont silty clay loam and the Fonda mucky silt loam. Both soil types are fine-to moderately fine-textured and have a low permeability. These soils are subject to ponding and the water table in the vicinity of the Site is at a depth of less than 4 feet bgs (*Environmental Condition of Property Report*, CH2MHill, June 2007).

The glacial deposits at the Site act as a confining unit for the weathered bedrock below. The hydraulic properties in the Lockport dolomite and limestone are related to secondary porosity and permeability owing to the presence of factures and solutioning. The main water-bearing zones in the Lockport Group are the weathered bedrock surface and horizontal fracture zones near stratigraphic contacts. The rock matrix transmits negligible amounts of groundwater because primary porosity is very low. The horizontal hydraulic conductivity of the weathered bedrock is estimated at 40 feet per day.

Groundwater was encountered at depths ranging from 2 to 6 feet bgs in soil probes and exploratory excavations during the site inspection. It is likely that the coarse-grained fill material overlying the less-permeable native fine-grained clay is creating the perched groundwater conditions at the Site.

2.6 HISTORY OF OPERATIONS

The United States Government acquired the Site in 1955 and the United States Navy used the Site to service helicopters and airplanes. Most of the buildings at the Site were constructed by 1956. The Army obtained the Site from the Navy in 1962. From 1970 to 1975, the Site was used to service Nike Missiles from missile batteries around the state of New York.

The Site was most recently occupied by the 277th Quartermaster Company, the 865th Combat Support Hospital, the 1982nd Forward Surgical Unit and Area Maintenance Support Activity 76. A small presence was also maintained by personnel of the Department of Public Works (DPW), Fort Drum, New York (*Environmental Condition of Property Report*, CH2MHill, June 2007). No personnel or units have occupied the Site as of September 15, 2011 per Base Realignment and Closure (BRAC) law.

2.7 PREVIOUS INVESTIGATIONS

A yellow substance was observed discharging from the 24-inch diameter corrugated storm sewer at outfall (Outfall No. 5) into the drainage swale at the southeast corner of the Site. An investigation was performed by United States Army Reserve (USAR) in 2008.

The New York State Department of Environmental Conservation (NYSDEC) was notified on June 24, 2008 and Spill # 0803478 was assigned for the discharge. Product was observed discharging from the 6-inch diameter cast iron fire protection main into the 24-inch diameter corrugated storm sewer and the 6-inch line was capped. The drain valve for the 6-inch line was uncovered and dislodged in June 2008. After dislodging the valve, product was observed in the excavated hole. A sample was collected and the product was identified as diesel fuel. PCBs were detected in the sample at a concentration of 2.1 mg/kg (Aroclor 1254).

As part of the investigation, a sediment sample was collected from the 24-inch diameter storm sewer adjacent to the cast iron pipe. A sample of the yellow substance was also collected from the drainage swale. The sample results revealed that the sediment in the pipe and the yellow substance present in the swale contained detectable levels of PCBs. PCB concentrations in the sediment and yellow substance were 220 mg/kg (Aroclor 1254) and 2.81 mg/kg (Aroclor 1254), respectively.

Storm Sewer and Drainage Swale Investigation/Remediation

The USACE and the USAR 99th Regional Support Command (99th RSC) retained the services of PARS to investigate and remediate the drainage swale at Outfall No. 5. The 24-inch diameter storm sewer was also cleaned as part of the remedial action. Approximately 134 tons of PCB impacted soil was excavated from the drainage swale.

PCB concentrations in the post-excavation soil samples at Outfall No. 5 and from the drainage swale were below the maximum contaminant level of 1 milligram per kilogram (mg/kg) that was established by the NYSDEC. Investigation and remediation activities are outlined in the *Remedial Action Report* (PARS, March 2010).

Site Inspection

Six USTs were reportedly present along the eastern and western sides of former Building 2. Additionally, a vehicle fueling area was located immediately west of the building. No documentation was available regarding the closure of these USTs and fueling area.

In November and December 2010, PARS conducted a site inspection to evaluate potential impacts associated with the former USTs at Building 2 and the fire protection main. Inspection activities consisted of a geophysical survey, exploratory excavations and soil and water sampling. The findings were outlined in the *Site Inspection Report* (PARS, June 2011).

The geophysical survey noted three anomalies identified as debris from former Building 2. An approximate 150-foot long linear anomaly was identified in the general vicinity of the fire protection main that terminates at the 24-inch diameter corrugated storm sewer line. No anomalies consistent with USTs were identified as part of the geophysical survey.

Twelve exploratory excavations (TP-1 through TP-12) were completed based on the findings of the geophysical survey, previous investigations and field observations. A soil sample for laboratory analysis was collected from TP-1. Several SVOCs were detected in the sample at concentrations exceeding the NYSDEC Unrestricted and Restricted Use Soil Cleanup Objectives.

The 6-inch diameter cast iron fire protection water main was encountered in six exploratory excavations (TP-2, TP-3, TP-4, TP-11 and TP-12). At TP-11, the 6-inch diameter pipe terminated at a concrete catch basin presumed to be the 500,000-gallon reservoir drain. A sample was collected from the water flowing from the 6-inch diameter line into the concrete catch basin. Several compounds including toluene, naphthalene, PCBs and chromium were detected in the water sample at concentrations exceeding the NYSDEC Class GA Objectives. Petroleum product and a heavy sheen was observed within the fill material and on the groundwater surface in one of the exploratory excavations (TP-12). Several compounds, including PCBs, were detected in a water sample collected from TP-12 at concentrations exceeding the NYSDEC Class GA Objectives. A drum vacuum was used to remove petroleum impacted water from the excavation.

Twenty-one soil probes were completed as part of the site inspection. One soil sample was collected from each probe for laboratory analysis. Acetone, metals and PCBs were detected in several samples at concentrations exceeding the Unrestricted Use Soil Cleanup Objective. Several metals were detected at concentrations exceeding the Restricted Use Soil Cleanup Objectives. Soil probe and test pit locations from the Site Inspection are shown on Figure 3.

PARS recommended conducting an investigation to further evaluate soil and groundwater impacts at the locations of the former USTs at Building 2 and in the vicinity of the fire protection main. Additionally, PARS recommended that the residual petroleum product observed within the fill material at TP-12 be removed part of an IRA because of the close proximately of the residual product to the 24-inch corrugated metal storm sewer line.

In September 2011, PARS submitted a QAPP/Sampling Plan for the RI/IRA to NYSDEC. Comments received from the NYSDEC Case Manager, Chek Ng, stated that fill material brought on-site may be the cause of the elevated concentrations for certain metals in the soil, which should nullify any concerns for high metal content in the soils. The origin of the fill material is unknown, but the fill material does contain some slag. Iron blast slag and open hearth slag from production of carbon steel is commonly found throughout western New York. Slag from steel production facilities in the area was commonly used as fill material in the region. Comments received from NYSDEC are included in Appendix J.

3.0 SOIL INVESTIGATION

Prior to initiating the field activities, Dig Safe New York was contacted to locate the underground utilities in the public right-of-way. The soil investigation was performed as outlined in the approved QAPP/Sampling Plan. As instructed by USAR and based on NYSDEC workplan comments, metals were eliminated as a potential contaminant of concern at the Site because of regional fill material. Therefore, soil samples were not analyzed for metals.

3.1 SOIL INVESTIGATION METHODS

3.1.1 Soil Probes

Thirty soil probes (16 primary and 14 secondary) were completed on September 26, 27 and 28, 2011 using a Geoprobe 54 OUD track-mounted rig equipped with a pneumatic hammer. Soil boring locations are depicted in Figure 4. Soil probe logs are included in Appendix A.

The soil probes were advanced using direct-push methods via a 2-inch diameter, 48-inch long macro-core sampler that was driven continuously at 48-inch intervals. A dedicated acetate sampler liner was used between sampling intervals.

Material recovered in each acetate sample liner was field screened for total organic vapors using an OVM (MiniRAE 2000) equipped with a photo-ionization detector (PID) and a 10.6 eV ultraviolet lamp. The OVM used was calibrated daily in accordance with manufacturer's specifications using a gas standard of isobutylene at an equivalent concentration of 100 parts per million (ppm). Ambient air at the Site was used to establish background organic vapor concentrations.

Following field screening, when sufficient sample recovery was obtained, representative portions of the recovered soils were placed in zip-lock bags for further classification and headspace analysis. The headspace in the bag above each collected soil sample was screened for total organic vapors. With the exception of the headspace sample result of 38.6 parts per million (ppm) measured at SP-49 from 0-4 feet bgs, total organic vapor concentrations were non-detect in the headspace screening of the soil samples collected during the investigation.

Two soil samples were selected for submittal to the laboratory from each of the 30 probes completed. One sample was collected from the upper 4 feet and a second sample was collected from an interval between 4 feet and the bottom of the probe. Soil samples collected from the primary soil probe locations were submitted for TCL VOCs, TCL SVOCs and PCBs analysis. Soil samples from the secondary soil probe locations were submitted to the laboratory and placed on hold. Secondary soil probe samples were analyzed at select locations based on the results from the primary soil sample locations. Samples were each given a unique sample designation [(e.g., SP-22-2-4 = SP (soil probe); 22 (sample location); 2-4 (sample depth in feet)].

Upon probe completion, the soil probe holes were backfilled with the soil cuttings.

3.1.2 Outfall Soil Sampling

At the request of NYSDEC, a surface soil sample was collected at the discharge location of Outfall 4 on September 27, 2011. The soil sample was collected immediately below the vegetative cover at the discharge location within the drainage swale along Porter Road. No standing water was present in the swale at the time of sampling and there was no flow from Outfall 4. The sample was analyzed for TCL VOCs, TCL SVOCs and PCBs. The location of the soil sample collected at the outfall is depicted in Figure 4.

3.2 SOIL SAMPLE RESULTS

Findings of the laboratory testing of the soil samples analyzed are presented in the following subsections. An analytical results summary table is included in Table 1. The analytical results for the soil samples are summarized on Table 2. The analytical laboratory reports are provided in Volume II.

The analytical test results for the soil samples were compared to:

- NYSDEC, 6 NYCRR, Subpart 375-6, Unrestricted Soil Cleanup Objectives (USCOs) and Commercial Soil Cleanup Objectives (CSCOs), effective December 14, 2006; and
- NYSDEC Final Commissioners Policy, CP-51, Supplemental Soil Cleanup Objectives (SSCOs) dated October 21, 2010 (CP-51 SCGs).

3.2.1 Soil Probes

Volatile Organic Compounds

Acetone was detected in soil sample SP-23-2-4 at a concentration of 60 micrograms per kilogram (µg/kg) which slightly exceeds the USCO for the compound of 50 µg/kg. Acetone did not exceed the CSCO for the compound of 500,000 µg/kg. Acetone is a common laboratory contaminant and is not considered a contaminant of concern at the Site. All other detected VOCs were at concentrations below their respective USCOs and CSCO.

Based on primary soil sample results, secondary soil probe samples were not submitted for VOC analysis.

Semi-volatile Organic Compounds

Several SVOCs were detected at concentrations exceeding their respective USCO in soil samples SP-25-2-4 and SP-25-6-8. Dibenzo(a,h)anthracene and benzo(a)pyrene were also detected at concentrations exceeding their respective CSCO in these two samples.

Six SVOCs were detected at concentrations exceeding their respective USCO in soil sample SP-29-1-3. Benzo(a)pyrene was also detected at a concentration exceeding the CSCO in this sample. Benzo(b)fluoranthene was detected at a concentration exceeding the USCO in SP-37-1-3.

Based on primary soil sample results, 6 secondary soil probe samples (SP-41-1-3, SP-41-6-8, SP-50-1-3, SP-50-6-8, SP-51-1-3, and SP-51-6-8) were taken of hold and tested for SVOCs. No SVOCs were detected in these secondary soil probe samples at concentrations exceeding the respective USCO.

Polychlorinated Biphenyls
Total PCB concentrations exceeding the USCO of 100 µg/kg were identified in the following 5 samples; SP-28-1-3 (1,100 µg/kg), SP-29-1-3 (320 µg/kg), SP-30-1-3 (150 µg/kg), SP-32-2-4 (410 µg/kg) and SP-33-0-2 (940 µg/kg). The concentration of PCBs detected at SP-28-1-3 (1,100 µg/kg) also exceeds the CSCO of 1,000 µg/kg.

Based on primary soil sample results, 8 secondary soil probe samples (SP-41-1-3, SP-41-6-8, SP-47-1-3, SP-47-6-8, SP-50-1-3, SP-50-6-8, SP-51-1-3, and SP-51-6-8) were taken of hold and tested for PCBs. PCBs were not detected above MDLs in the 8 secondary soil probe samples.

3.2.2 Outfall Sampling

Volatile Organic Compounds
VOCs were not detected above MDLs in the soil sample from Outfall 4.

Semi-Volatile Organic Compounds
Nine SVOCs were detected at concentrations exceeding the respective USCO and 5 SVOCs were detected at concentrations exceeding the respective CSCO.

Polychlorinated Biphenyls
Total PCBs were detected in the outfall sample at a concentration of 210 µg/kg, which exceeds the USCO for the compound of 100 µg/kg. PCBs were not detected in the sample above the CSCO of 1,000 µg/kg, which was the cleanup objective established by NYSDEC for the previous remediation of the drainage swale.

4.0 GROUND WATER INVESTIGATION

The groundwater investigation was performed as outlined in the approved QAPP/Sampling Plan. As instructed by USAR and based on correspondence with NYSDEC workplan comments, metals were eliminated as a potential contaminant of concern at the Site because of regional fill material. Therefore, groundwater samples were not analyzed for metals.

4.1 SAMPLE METHODS

On September 26 and 27, 2011, nine temporary microwells were installed in the open probe-holes at SP-22, 25, 30, 32, 34, 36, 42, 46 and 49. The locations of the temporary microwells are depicted in Figure 4.

The microwells were constructed using one-inch diameter Schedule 40 PVC casing and screen. Groundwater was encountered in temporary microwells at a depth of 3-4 feet bgs. A peristaltic pump was used to purge the microwells prior to sampling to remove suspended particulates and to ensure that a representative groundwater sample was collected. Microwells located at SP-36, SP-42 and SP-49 were not purged due to limited recharge.

Eight groundwater samples were collected from the 9 temporary microwells using disposable Teflon© bailers. The temporary microwell installed at soil probe location SP-46 was dry following several attempts to collect a sample. Groundwater samples from SP-22, SP-25, SP-30, SP-32, SP-36 were analyzed for VOCs, SVOCs, and PCBs. Samples collected at SP-42 and SP-49 were not analyzed for SVOCs and PCBs due to insufficient groundwater recharge.

4.2 SAMPLE RESULTS

Findings of the laboratory testing of the soil samples analyzed are presented in the following subsections. An analytical results summary table is included in Table 1. The analytical results for the groundwater samples are summarized on Table 3. The analytical laboratory reports are provided in Volume II.

The analytical test results for the groundwater samples were compared to:

- NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1. Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations dated October 1993; Revised June 1998; ERRATA Sheet dated January 1999; and Addendum dated April 2000 (Class GA criteria).

Volatile Organic Compounds

Benzene was detected at SP-49 and trichlorofluoromethane was detected at SP-22 at concentrations slightly exceeding the respective Class GA criteria. No other VOCs were detected in the groundwater samples at concentrations exceeding the respective Class GA criteria.

Semi-Volatile Organic Compounds
Four SVOCs were detected at concentrations exceeding the respective Class GA criteria at 3 locations (SP-22, SP-25 and SP-34). These compounds are benzo(a)anthracene, benzo(b)fluoranthene, chrysene, and indeno(1,2,3-cd)pyrene.

Polychlorinated Biphenyls
Total PCBs were detected in groundwater samples from locations SP-30, SP-32 and SP-36 at concentrations exceeding the Class GA Criteria for the compound of 0.09 µg/kg. PCB concentrations in these three samples were 0.77 µg/kg (SP-30), 3 µg/kg (SP-32), and 13 µg/kg (SP-36). PCBs were not detected in the other groundwater samples at concentrations above the laboratory MDL.

5.0 INTERIM REMEDIAL ACTION

5.1 INTERIM REMEDIAL ACTION METHODOLOGY

On September 29, 2011, PARS performed IRA activities at the Site. Photographs taken during the IRA are included in Appendix B of this report.

As part of the IRA, an approximately 10-foot (north-south) by 12-foot (east-west) area was excavated to a depth of approximately 5 feet bgs in the vicinity of the former exploratory excavation, TP-12. Excavation boundaries are depicted in Figure 5.

Excavation activities were performed using a small track excavator. Approximately 6 to 12 inches of surficial stone material was removed and stockpiled for reuse as cover, following backfill of the excavation. Approximately 40 tons of soil was removed from the excavation and stockpiled within an impoundment made of polyethylene sheeting and hay bales. The soil pile was covered and secured using polyethylene sheeting upon completion of excavation activities. A waste composite sample was collected from the soil pile following excavation activities and analyzed for TCLP VOCs, SVOCs, metals, and PCBs, pH, and ignitability. Analytical results for the waste composite sample are included in Volume II.

During soil excavation activities, perched groundwater was observed at approximately 2 feet bgs. Perched groundwater exhibiting a surface sheen was pumped from the excavation using a vacuum truck operated by Environmental Service Group, Inc. (ESG) of Tonawanda, New York. Approximately 2,000-gallons of groundwater was removed from the excavation and properly disposed of at Covanta Energy in Niagara Falls, New York. Waste disposal documentation is included in Appendix C.

At the completion of soil removal activities, an approximate 8-foot long section of the 6-inch diameter cast iron fire protection main was removed from within the limits of the excavation. The open endsof the pipe were fitted with a Fernco and PVC cap prior to backfilling. The section of pipe that was removed appeared to be in good condition with no holes observed.

On December 8, 2011, the stockpiled soil from the excavation was loaded onto trucks and transported to the Allied Waste Niagara Falls Landfill, Division of Republic Services in Niagara Falls, New York. Disposal documentation is included in Appendix C.

The excavation was backfilled with approximately 40 tons of clay from Seven Springs Gravel Products, LLC in Batavia, New York. The clay backfill material was placed into the excavation in approximately 1-foot thick lifts and compacted using the bucket of the excavator. Once at grade, the gravel material initially removed was placed over the top of the backfilled excavation. Clean Fill documentation is provided in Appendix D.

5.2 CONFIRMATORY SOIL SAMPLING

Five confirmatory soil samples, four (4) sidewall samples and one (1) bottom of excavation sample, were collected from the excavation. The confirmatory soil samples were analyzed for TCL VOCs, TCL SVOCs and PCBs. The samples were analyzed for TCL VOCs, TCL SVOCs and PCBs. Sample locations are depicted in Figure 5.

VOCs, SVOCs and PCBs were not detected in the confirmatory samples at concentrations exceeding the applicable USCOs and CSCOs. The analytical results for the soil samples are summarized in Table 2. The analytical laboratory report is provided in Volume II.

6.0 TECHNICAL OVERVIEW

6.1 RELIABILITY OF ANALYTICAL DATA

A total of 47 soil samples, including one duplicate sample, were collected as part of the investigation and remediation. Forty-two (42) were collected as part of the investigation and five (5) confirmatory soil samples were collected as part of the interim remedial action. Nine groundwater samples, including one (1) duplicate sample were also collected during the investigation phase of the project.

The reliability of data generated for this report was evaluated and is presented in two sections. The first section addresses conformance with the field-sampling event and the second section addresses laboratory conformance during analysis of the samples.

The analytical test results for the soil samples were compared to NYSDEC, 6 NYCRR, Subpart 375-6, Unrestricted Soil Cleanup Objectives (USCOs) and Commercial Soil Cleanup Objectives (CSCOs), effective December 14, 2006; and NYSDEC Final Commissioners Policy, CP-51, Supplemental Soil Cleanup Objectives (October 21, 2010).

The analytical test results for the water samples were compared to NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations dated October 1993; Revised June 1998; ERRATA Sheet dated January 1999 and Addendum dated April 2000 (Class GA Objective).

6.1.1 Field Event Conformance

Field quality control and quality assurance procedures outlined in the *Quality Assurance Project Plan/Sampling Plan* (PARS, September 2011) were implemented as part of the project. These procedures included field calibration of equipment, field sampling procedures, field decontamination of equipment and sample management.

An OVM was used to field screen soils for total organic vapors. The OVM was calibrated daily in accordance with manufacturer specifications using a gas standard of isobutylene at an equivalent concentration of 100 ppm. Ambient air was used to establish background organic vapor concentrations.

Samples were collected in laboratory provided sample containers. The samples were immediately transferred to insulated coolers, provided by the laboratory, containing ice. A chain-of-custody form was used to trace the path of sample containers from the Site to the laboratory.

One field duplicate soil sample was collected to assess the variability of a matrix at a specific sampling point and to assess the reproducibility of the sampling method. The field duplicate sample was a separate aliquot of the same sample. Prior to dividing the sample into "sample" and "duplicate" aliquots, the samples were homogenized (except for the VOC aliquots). A duplicate sample of SP-34-6-8 was collected. The duplicate soil sample results are summarized in Table 2. Overall, detected compounds and concentrations were consistent for the sample and field duplicate sample.

One field duplicate groundwater sample was collected as part of the remedial investigation by alternately filling the laboratory sample containers during sample collection. A duplicate sample of SP-34-110926 was collected. The duplicate groundwater sample results are summarized in Table 3. Overall, detected compounds and concentrations were consistent for the sample and field duplicate sample.

A soil rinsate sample (rinsate-soil) and a groundwater rinsate sample (rinsate-groundwater) were collected as part of the remedial investigation by passing analyte-free water through the sampling equipment into sample containers. The rinsate samples were analyzed for TCL VOCs, TCL SVOCS and PCBs. No compounds were detected in the rinsate samples at concentrations above the laboratory method detection limits. Rinsate sample results are summarized in Table 2 and 3. The laboratory analytical results are included in Volume II.

Trip blanks were prepared by the laboratory and accompanied the groundwater samples. Two trip blanks were analyzed for TCL VOCs. Methylene chloride was detected in both of the trip blanks. Methylene chloride was detected at concentrations below the Class GA Objective and was not detected in any of the groundwater samples, which indicates laboratory contamination of the samples. Analytical results for the trip blanks are summarized in Table 3. The laboratory analytical results are included in Volume II.

6.1.2 Laboratory Conformance

Soil and groundwater samples were collected for laboratory analysis as part of the project. Laboratory analysis was performed by TestAmerica Laboratories in Amherst, New York (NY Certification # NY455). Samples were analyzed for TCL VOCs, TCL SVOCs and PCBs in accordance with United States Environmental Protection Agency (USEPA) methods as summarized in Table 1.

Laboratory instruments and equipment were calibrated following SW-846 analytical method protocols. Initial calibrations and calibration checks were performed at a frequency specified in each analytical method.

Method blanks and instrument blanks were used by the laboratory to evaluate data quality. The purpose of the method blank is to assess contamination introduced during sample preparation. Method blanks are prepared and analyzed in the same manner as the field samples. Instrument blanks are analyzed with field samples to assess the presence or absence of instrument contamination. The frequency of instrument blanks is defined by the analytical method. The laboratory reports provided by Test America Laboratories are included in Volume II. The laboratory reports were prepared in accordance with the New York Analytical Services Protocol (Category B deliverable).

Analytical results with analytes identified in both the method or instrument blanks and the field sample are qualified with a “B” qualifier. Compounds identified with a “B” qualifier in soil samples were chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, phenanthrene and benzo(g,h,i)perylene. Compounds identified in groundwater samples with a “B” qualifier were di-n-butyl phthalate and phenanthrene.

Analytical results qualified with a “J” qualifer indicate that the results are estimated. The concentration detected falls between the method detection limit (MDL) and the reporting limit (RL). The MDL is the lowest concentration that the instrument can detect an analyte and the RL is the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision.

7.0 HUMAN HEALTH RISK ASSESSMENT

7.1 HHRA OBJECTIVES

The objective of the HHRA is to evaluate potential risks to human health under current and reasonably foreseeable future conditions. The risk assessment is consistent with the regulations and guidelines set forth by the USEPA and the USACE.

The evaluation of human health risks was divided into four major sections: hazard identification, exposure assessment, toxicity assessment and risk characterization. Risks were examined with respect to exposure to chemicals detected in subsurface soil and groundwater at the Site or under the influence of the Site.

7.2 IDENTIFICATION/SELECTION OF CHEMICALS OF POTENTIAL CONCERN

The first step in the risk assessment process was to identify Site-related chemicals. Site-related chemicals selected for quantitative evaluation were defined as Chemicals of Potential Concern (CPCs). CPCs were identified based on analytical results collected as part of remedial investigation activities (see Sections 2.7, 3.0 and 4.0).

One surface soil sample was collected from Outfall 004 during the Remedial Investigation. This sample was not used in the risk assessment because SVOCs from the swale are not suspected to be from a point source release. The SVOCs detected in the sample from the drainage swale are commonly found in ditches that receive storm water runoff from asphalt paved surfaces. PCBs were detected in this sample at a concentration that exceeds the USCO for the compound of 100 µg/kg, but less than the cleanup objective established by the NYSDEC for the remediation of the swale of 1,000 µg/kg.

In addition to the samples collected during the Remedial Investigation, groundwater and subsurface soil samples collected during the Site Inspection in November 2010 (*Site Inspection Report*, PARS, June 2011) and post-excavation subsurface soil sample results collected in 2009 from the drainage swale excavation *(Remedial Action Report*, PARS, March 2010) were also used to evaluate subsurface CPCs. The drainage swale is dry most of the time; therefore, all post-excavation sample results from the ditch remediation were analyzed in the risk assessment as subsurface soil. Analytical result summary tables for samples used for the CPC selection are included in Appendix F.

7.3 INITIAL SCREENING

The analytical results from the sampling events were evaluated and compared to applicable regulatory standards. Compounds detected at concentrations above the applicable standards were selected as part of the initial screening process.

The following subsections outline the findings of the sampling events.

7.3.1 Soil

Soil sample results were compared to the applicable NYSDEC USCO and the NYSDEC CSCO, which are more stringent than the EPA RSL. A compound was selected for secondary screening if the concentration exceeded the USCO which are the more conservative cleanup objective. All soil samples collected were evaluated as subsurface soil, which is defined as any soil sample collected at a depth greater than 1.0 feet bgs.

The compounds that were detected at concentrations above the applicable USCO in subsurface soils were acetone, benzo(a)anthracene, dibenz(a,h)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene and PCBs (Aroclor 1254 and Aroclor 1260). These compounds were selected for further evaluation as CPCs using the secondary screening process (see Section 7.4).

7.3.2 Groundwater

Groundwater sample results were compared to the NYSDEC Class GA criteria. The compounds that were detected at concentrations above the criteria were benzene, naphthalene, toluene, trichlorofloromethane, 2,4-dimethylphenol, 4-methylphenol, 2-methylnaphthalene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, carbazole, chrysene, indeno(1,2,3-cd)pyrene, phenol and PCBs (Aroclor 1254 and 1260). These compounds were selected for further evaluation as CPCs using the secondary screening process (Section 7.4).

7.4 SECONDARY SCREENING

All compounds selected as part of the initial screening process, which were detected at concentrations above the applicable USCO, were carried into the secondary screening process. Evaluation of compounds for the secondary screening process is based on the guidelines set forth in the USEPA *Risk Assessment Guidance for Superfund, Volume I, Human Health Evaluation Manual (RAGS).*

The frequency of detection, mean, range, and maximum detection concentration were calculated for each compound and media type. The frequency of detection was calculated by dividing the total number of samples collected during the sampling events by the total number of detections for each compound. The range is the minimum and maximum detected concentration for the compound for all sampling events.

The mean was calculated for each compound by adding the detected concentrations and dividing by the total number of samples. If the compound was not detected in the sample, one half the method detection limit was used. For field duplicate samples, the average compound concentration or one half the method detection limit was used for the sample location to calculate the mean. Samples denoted with the lab qualifier J and B were also used in the risk assessment. A description of these qualifiers is listed in Section 6.1.2.

The 95% upper concentration limit (UCL) was calculated using PRO UCL 4.1 Software developed by Lockheed Martin and the USEPA (*Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites)* using the appropriate statistical method based on the distribution of data. All detected and non-detected concentrations were included. In some cases, there was an insufficient number of detections and the 95% UCL could not be calculated for the compound.

Based on the distribution of statistical data for some of the groundwater and subsurface soil samples, the Pro UCL Software recommended using the 97.5% UCL, which yields a more conservative assessment. The results of the 95% and 97.5% UCL calculations are included in Appendix G.

The 95% UCL was used as the exposure point concentration (EPC) for each compound. The EPC is an estimate of the mean concentration of a compound found in a specific medium at an exposure point. If the compound was selected for additional analysis in the HHRA, the 95% UCL was used as the EPC for the rest of assessment. If the 95% UCL could not be determined, the maximum detected concentration for the compound was used as the EPC.

The maximum detected concentration for each compound identified as part of the initial screening process was compared to the respective Regional Screening Level (RSL) presented in the USEPA Regional Screening Tables. Groundwater samples were compared to the RSL Tapwater Supporting Table and subsurface soil samples were compared to the RSL Industrial Soil Table. The RSL is a chemical-specific, conservative, risk-based concentration for individual contaminants in air, drinking water and soil that may warrant further investigation or site cleanup. The RSL was used for the secondary screening selection to ensure a conservative assessment. RSL values and results of the secondary screening calculations are presented in Tables 4 and Table 5. CPCs identified as part of the secondary screening process are shown in Table 6.

7.4.1 Evaluation of Subsurface Soil Compounds

Based on the initial screening of subsurface soil samples, compounds evaluated using the secondary screening process were acetone, benzo(a)anthracene, dibenz(a,h)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, Aroclor 1254 and Aroclor 1260. The maximum detected concentration was compared to the RSL presented in the USEPA Regional Screening Tables for Industrial Soil. The RSL values are shown in Table 4.

Acetone was detected in 37 of the 52 subsurface soil samples at concentrations ranging from 0.0019 to 0.34 milligrams per kilogram (mg/kg). The 95% UCL was calculated to be 0.037 mg/kg using the 95% KM (Percentile Bootstrap) Method. The maximum detected concentration of 0.34 mg/kg was less than the industrial soil RSL for acetone of 630,000 mg/kg. Acetone is not considered a CPC at the Site.

Benzo(a)anthracene was detected in 43 of the 65 subsurface soil samples at concentrations ranging from 0.0034to 10.0 mg/kg. The 97.5% UCL was calculated using the KM Chebyshev Method and was determined to be 1.575 mg/kg. The maximum detected concentration of 10.0 mg/kg was greater than the industrial soil RSL for benzo(a)anthracene of 2.1 mg/kg. Therefore, benzo(a)anthracene is considered a CPC at the Site.

Dibenz(a,h)anthracene was detected in 15 of the 65 subsurface soil samples at concentrations ranging from 0.01 to 2.3 mg/kg. The 95% UCL was calculated using the KM Chebyshev Method and was determined to be 0.257 mg/kg. The maximum detected concentration of 2.3 mg/kg was greater than the industrial soil RSL for dibenz(a,h)anthracene of 0.21 mg/kg. Therefore, dibenz(a,h)anthracene is considered a CPC at the Site.

Chrysene was detected in 40 of the 65 subsurface soil samples at concentrations ranging from 0.0079 to 9.7 mg/kg. The 97.5% UCL was determined to be 1.54 mg/kg using the KM Chebyshev Method. The maximum detected concentration of 9.7 mg/kg was less than the industrial soil RSL for chrysene of 210 mg/kg. Chrysene is not considered a CPC at the Site.

Benzo(b)fluoranthene was detected in 49 of the 65 subsurface soil samples at concentrations ranging from 0.0045 to 14.0 mg/kg. The 97.5% UCL was determined to be 2.052 mg/kg using the KM Chebyshev Method. The maximum detected concentration of 14.0 mg/kg was greater than the industrial soil RSL for benzo(b)fluoranthene of 2.1 mg/kg. Benzo(b)fluoranthene is considered a CPC at the Site.

Benzo(k)fluoranthene was detected in 44 of the 65 subsurface soil samples at concentrations ranging from 0.0024-6.5 mg/kg. The 97.5% UCL was determined to be 0.966 mg/kg using the KM Chebyshev Method. The maximum detected concentration of 6.5 mg/kg was less than the industrial soil RSL for benzo(k)fluoranthene of 21.0 mg/kg. Benzo(k)fluoranthene is not considered a CPC at the Site.

Benzo(a)pyrene was detected in 40 of the 65 subsurface soil samples at concentrations ranging from 0.007 to 14.0 mg/kg. The 97.5% UCL was determined to be 1.992 mg/kg using the KM Chebyshev Method. The maximum detected concentration of 14.0 mg/kg was greater than the industrial soil RSL for benzo(a)pyrene of 0.210 mg/kg. Benzo(a)pyrene is considered a CPC at the Site.

Indeno(1,2,3-cd)pyrene was detected in 36 of the 65 subsurface soil samples at concentrations ranging from 0.0062 to 8.8 mg/kg. The 97.5% UCL was determined to be 1.131 mg/kg using the KM Chebyshev Method. The maximum detected concentration of 8.8 mg/kg was greater than the industrial soil RSL for indeno(1,2,3-cd)pyrene of 2.1 mg/kg. Indeno(1,2,3-cd)pyrene is considered a CPC at the Site.

Aroclor 1254 was detected in 27 of the 82 subsurface soil samples at concentrations ranging from 0.007 to 15.0 mg/kg. The 95% UCL was determined to be 1.241 mg/kg using the KM Percentile Bootstrap Method. The maximum detected concentration of 15.0 mg/kg was greater than the industrial soil RSL for Aroclor 1254 of 0.74 mg/kg. Aroclor 1254 is considered a CPC at the Site.

Aroclor 1260 was detected in 16 of the 82 subsurface soil samples at concentrations ranging from 0.025 to 1.6 mg/kg. The 95% UCL was determined to be 0.158 mg/kg using the KM Percentile Bootstrap Method. The maximum detected concentration of 1.6 mg/kg was greater than the industrial soil RSL for Aroclor 1260 of 0.74 mg/kg. Aroclor 1260 is considered a CPC at the Site.

7.4.2 Evaluation of Groundwater Compounds

Compounds evaluated as part of the secondary screening process for groundwater were benzene, naphthalene, toluene, trichlorofloromethane, 2,4-dimethylphenol, 4-methylphenol, 2-methylnaphthalene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, carbazole, chrysene, indeno(1,2,3-cd)pyrene, phenol and PCBs (Aroclor 1254 and 1260). The maximum detected concentration was compared to the RSL presented in the USEPA Regional Screening Tables for tap water. The RSL values are shown in Table 5.

Benzene was detected in 1 of the 10 groundwater samples at a concentration of 1.6 µg/L. The 95% UCL was not calculated because only one distinct data value was in the data set. The maximum detected concentration of 1.6 µg/L was greater than the tap water RSL for benzene of 0.41 µg/L. Therefore, benzene is considered a CPC at the Site.

Naphthalene was detected in 2 of the 8 groundwater samples at concentrations of 3.8 to 13.0 µg/L. The 95% UCL was not calculated because only two distinct values were in the data set. The maximum detected concentration of 13.0 µg/L was greater than the tap water RSL for naphthalene of 0.14 µg/L. Therefore, naphthalene is considered a CPC at the Site.

Toluene was detected in 2 of the 10 groundwater samples at concentrations of 2.7 and 89.0 µg/L. The 95% UCL was not calculated because only two distinct values were in the data set. The maximum detected concentration of 89.0 µg/L was less than the tap water RSL for toluene of 2,300 µg/L. Therefore, toluene is not considered a CPC at the Site.

Trichlorofloromethane was detected in 2 of the 10 groundwater samples at concentrations of 1.75 and 6.3 µg/L. The 95% UCL was not calculated because only two distinct values were in the data set. The maximum detected concentration of 6.3 µg/L was less than the tap water RSL for trichlorofloromethane of 1,300 µg/L. Therefore, trichlorofloromethane is not considered a CPC at the Site.

2,4-Dimethylphenol was detected in 1 of the 8 groundwater samples at a concentrations of 3.7 µg/L. The 95% UCL was not calculated because only one distinct value was in the data set. The maximum detected concentration of 3.7 µg/L was less than the tap water RSL for 2,4-dimethylphenol of 730 µg/L. Therefore, 2,4-dimethylphenol is not considered a CPC at the Site.

4-Methylphenol was detected in 1 of the 8 groundwater samples at a concentration of 44.0 µg/L. The 95% UCL was not calculated because only one distinct value was in the data set. There is no tap water RSL for 4-methylphenol. In addition, no quantitative data exists from the USEPA for a toxicity assessment. Therefore, 4-methylphenol will not be included as a CPC at the Site.

2-Methylnaphthalene was detected in 1 of the 8 groundwater samples at a concentration of 16.0 µg/L. The 95% UCL was not calculated because only one distinct value was in the data set. The maximum detected concentration of 16.0 µg/L was less than the tap water RSL for 2-methylnaphthalene of 150 µg/L. Therefore, 2-methylnaphthalene is not considered a CPC at the Site.

Benzo(a)anthracene was detected in 2 of the 8 groundwater samples at concentrations of 0.44 and 8.3 µg/L. The 95% UCL was determined to be 3.653 µg/L using the Kaplan-Meier BCA Method. The maximum detected concentration of 8.3 µg/L was greater than the tap water RSL for benzo(a)anthracene of 0.029 µg/L. Therefore, benzo(a)anthracene is considered a CPC at the Site.

Benzo(b)fluoranthene was detected in 2 of the 8 groundwater samples at concentrations of 1.1 and 7.3 µg/L. The 95% UCL was determined to be 7.3 µg/L using the Kaplan-Meier BCA Method. The maximum detected concentration of 7.3µg/L is greater the RSL for benzo(b)fluoranthene of 0.029 µg/L. Therefore, benzo(b)fluoranthene is considered a CPC at the Site.

Carbazole was detected in 4 of the 8 groundwater samples at concentrations ranging from 0.41 to 92.0 µg/L. The 95% UCL was calculated using the 95% KM (t) Method and was determined to be 35.42 µg/L. There is no tap water RSL for carbazole. In addition, no quantitative data exists from the USEPA for a toxicity assessment. Therefore, carbazole will not be included as a CPC at the Site.

Benzo(a)pyrene was detected in 2 of the 8 groundwater samples at concentrations of 0.95 and 4.9 µg/L. The 95% UCL was not calculated because only two distinct values were in the data set. The maximum detected concentration of 4.9 µg/L was greater than the tap water RSL for benzo(a)pyrene of 0.0029 µg/L. Therefore, benzo(a)pyrene is considered a CPC at the Site.

Chrysene was detected in 5 of the 8 groundwater samples at concentrations ranging from 0.41 to 2.229 µg/L. The 95% UCL was calculated using the 99% KM Chebyshev Method and was determined to be 13.29 µg/L. When limited data are available or when the data are extremely variable, the 95% UCL can be greater than the highest detected concentration. Since the calculated UCL is unrealistic, the maximum detected concentration of 2.229 µg/L will be used as the EPC. The maximum detected concentration of 2.229 µg/L was less than the tap water RSL for chrysene of 2.9 µg/L. Therefore, chrysene is not considered a CPC at the Site.

Indeno(1,2,3-cd)pyrene was detected in 1 of the 8 groundwater samples at a concentration of 0.91 µg/L. The 95% UCL was not calculated because only one distinct value was in the data set. The maximum detected concentration of 0.91 µg/L is greater the RSL for indeno(1,2,3-cd)pyrene of 0.029 µg/L. Therefore, indeno(1,2,3-cd)pyrene is considered a CPC at the Site.

Phenol was detected in 1 of the 8 groundwater samples at a concentration of 330 µg/L. The 95% UCL was not calculated because only one distinct value was in the data set. The maximum detected concentration of 330 µg/L is less than the RSL for phenol of 11,000 µg/L. Therefore, phenol is not considered at CPC at the Site.

Aroclor 1254 was detected in 3 of the 8 groundwater samples at concentrations ranging from 1.7 to 6.1 µg/L. The 95% UCL determined to be 3.472 µg/L using KM(t) Method. The maximum detected concentration of 6.1 µg/L is greater the RSL for Aroclor 1254 of 0.034 µg/L. Therefore, Aroclor 1254 is considered a CPC at the Site.

Aroclor 1260 was detected in 5 of the 8 groundwater samples at concentrations ranging from 0.52 to 13.0 µg/L. The 95% UCL was calculated using the 97.5% KM (Chebyshev) method and was determined to be 12.29 µg/L. The maximum detected concentration of 13.0 µg/L is greater than the RSL for Aroclor 1260 of 0.034 µg/L. Therefore, Aroclor 1260 is considered a CPC at the Site.

7.5 SUMMARY OF CPC SELECTION

All compounds identified through the secondary screening process as CPCs will be considered in the risk assessment. A summary table showing the final selected compounds for each medium is shown in Table 6.

The CPCs identified in subsurface soil are benzo(a)anthracene, dibenz(a,h)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, Aroclor 1254 and Aroclor 1260.

The CPCs identified in groundwater are benzene, naphthalene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, Aroclor 1254 and Aroclor 1260.

7.6 EXPOSURE ASSESSMENT

7.6.1 Characterization of Exposure Setting

An exposure assessment was conducted to identify the potential for human contact to compounds detected in soil and ground water at the Site. Current land use and future planned land use conditions were examined to evaluate actual and potential exposures. The physical and geologic conditions at the Site are described in Section 2.0.

7.6.2 Potentially Exposed Population

The Site is currently vacant and adjacent to an airport. Changes in the season do not affect the activities at the Site and there are no residential or recreational activities. The proposed future reuse within the impacted area includes a paved parking lot and commercial building. There is no anticipated future use of the Site for residential purposes. Therefore, residential populations will not be considered as part of the assessment. While a trespasser might gain access to the Site, they would not come into contact with subsurface soil or groundwater and will not be considered as part of the risk assessment. The Site is secured by a chain link fence and locked gate. Therefore, it is unlikely that a trespasser would gain access to the Site.

Based on types of current and future human activity and land use patterns in the vicinity of the Site, the following populations will be evaluated in the risk assessment: commercial/industrial workers and construction workers.

7.6.3 Identification of Exposure Pathway – Subsurface Soils

Release of potential compounds of concern in subsurface soil may result in exposure to individuals through three major pathways (direct contact, inhalation and ingestion).

7.6.3.1 Dermal Exposure through Direct Contact

Direct contact with contaminated soil through construction may result in dermal exposure. Both organic and inorganic compounds may be absorbed through the skin from exposure to soil. Future use of the Site is commercial/industrial; therefore, the potential exists for direct exposure by construction crews and other workers performing intrusive activities at the Site. Dermal exposure to subsurface soil by the construction worker and commercial/industrial worker will be considered as a pathway of concern.

7.6.3.2 Inhalation from Particulates

If the correct conditions exist, contaminated soils can become airborne resulting in exposure through inhalation.

While the Site does contain some vegetation and grass, there is a potential for land disturbance during construction activities that may allow soil particulates to become airborne. Based on this information, inhalation from soil particulates is considered a pathway of concern for future construction and commercial/industrial workers at the Site.

7.6.3.3 Incidental Ingestion

Incidental ingestion of soil can occur in adults by consuming or placing in one's mouth objects, food, cosmetics, cigarettes and hands that may have either come in direct contact with soil or been contaminated with soil particulates carried by the wind. Therefore, incidental ingestion is considered a pathway of concern and will be analyzed for the construction and commercial/industrial worker.

7.6.3.4 Vapor Intrusion to Indoor Air Pathway from Soil

Subsurface soil sample results were compared to the screening levels in the USEPA OSWER *Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance* (USEPA, 2002a). Compounds detected in subsurface soil samples do not have screening levels; therefore, vapor intrusion to indoor air from subsurface soils will not be considered in this risk assessment.

7.6.4 Identification of Exposure Pathway – Groundwater

Release of CPCs to groundwater may result in exposure to individuals through three major pathways, including ingestion of groundwater as a drinking source, inhalation of vapor phase chemicals through showering or bathing and dermal exposure through direct contact of groundwater.

7.6.4.1 Drinking Source

Contaminated water used for drinking or cooking can cause exposure to individuals and population. Drinking water at the Niagara Falls AFRC is derived from public water. In addition, incidental ingestion of exposed groundwater during construction activities or trenching would be extremely rare, sporadic and difficult to quantify. Therefore, the pathway of ingestion of groundwater is not a potential risk.

7.6.4.2 Inhalation of Volatiles through Bathing and Other Tasks or Exposed Groundwater

The relatively high temperature of water used for showering tends to produce rapid volatilization of chemicals from domestic water into the confined volume of a bathroom. The current and future use of the Site is for commercial/industrial use; therefore, the pathway of inhalation exposure through bathing and other domestic tasks is not a concern to the worker.

Since future use of the Site is industrial/commercial and depth to water varies from 2.0 to 6.0 feet bgs, it is possible for groundwater to be exposed during excavation and trenching work. Therefore, the pathway of inhalation will be considered for exposed groundwater to the construction worker.

Contaminants with molecular weights less than 200 g/mol and a Henry's Law constant greater than $1.0E^{-5}$ atm-m^3/mol have the highest potential for volatilization (EPA, 1996).

Only two of the eight CPCs identified in groundwater have molecular weights less than 200 g/mol and Henry's Law Constant greater than $1.0E^{-5}$ atm-m^3/mol. Volatilization of contaminants from groundwater will be considered as a pathway of concern for benzene and naphthalene.

7.6.4.3 Dermal Exposure

Direct dermal exposure to groundwater can cause both inorganic and organic contaminants in water to be absorbed through the skin. Potential dermal exposure to groundwater could occur during drilling, excavation and other construction activities at the Site. Therefore, dermal exposure to groundwater to the construction worker will be considered as a pathway of concern.

7.6.4.4 Vapor Intrusion to Indoor Air from Groundwater

In accordance with USEPA OSWER *Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance* (USEPA, 2002a), benzene and naphthalene in groundwater were selected in the primary screening level as contaminants with potential toxic and volatile properties for vapor intrusion.

The maximum detected concentrations in groundwater samples for benzene and naphthalene were 1.6 and 8.4 ug/L, respectively. These concentrations were compared to the Tier II Screening Tables for target groundwater concentration. The target groundwater concentration is defined as the concentration corresponding to target indoor air concentration where the soil gas to indoor air attenuation factor is equal to 0.001 and partitioning across the water table obeys Henry's Law.

The Tier II groundwater screening levels for benzene and naphthalene are 5.0 and 150 ug/L, respectively. Since the maximum detected concentrations of benzene and naphthalene in groundwater do not exceed these levels, vapor intrusion to indoor air from groundwater will not be considered in this risk assessment.

7.6.5 Summary of Exposure Pathways

A summary of potential exposure pathways at the Site is outlined in Table 7. After examining current and reasonably foreseeable future uses of the Site, as well as contaminated media and the nature of the contaminants, five pathways of exposure have been identified. These exposures are dermal exposure to subsurface soil and groundwater, inhalation of subsurface soil particulates, incidental ingestion of subsurface soil and inhalation of groundwater. The construction worker will be examined for all pathways. The industrial/commercial worker will be examined for exposure to subsurface soil via dermal exposure, inhalation of particulates and incidental ingestion.

7.6.6 Estimation of Exposure

Once potential exposure pathways and potentially-exposed populations have been identified, the degree of exposure must be estimated as part of the assessment. The degree of exposure is evaluated by determining the contaminant concentrations that the population may be exposed, as well as the duration of the exposure and exposure pathways. These steps are necessary to estimate the dose of the contaminant to the exposed individual. This analysis is presented in the following subsections.

7.6.6.1 Estimation of Exposure Point Concentrations

To quantitatively estimate the risk of exposure to an individual, the concentration of the CPC must be known or estimated. This concentration is referred to as the EPC.

The EPC calculations follow the guidance of USEPA regulations, which recommends using the 95 % UCL of the mean concentration. The 95% UCL was calculated using the recommended PRO UCL 4.0 software. EPC values are shown in Section 7.4.1 and 7.4.2. All calculations are included in Appendix G. For data sets that could not be tested for normality due to the small sample size, the maximum detected concentration was used as the EPC. The EPCs for all CPCs are included in Table 4 and Table 5.

Quantitative exposure estimates are derived by combining EPCs with information describing the extent, frequency and duration of exposure for each receptor of concern. An overview of the approach used to quantify exposures is presented in the following subsection. The approach is consistent with guidance provided by the USEPA.

7.6.6.2 Reasonable Maximum Exposure

Based on USEPA risk assessment guidance, exposures are quantified by estimating the Reasonable Maximum Exposure (RME) associated with each pathway of concern. The RME is the maximum exposure that is reasonably expected to occur at a site under both current and future land-use conditions. The RME or intake estimate for a given pathway is derived by combining the EPC for each compound with reasonable maximum values describing the extent, frequency and duration of exposure (USEPA, 1989b). The RME is intended to place a conservative upper-bound limit on the potential risk.

The general equation used for calculating chemical intake in this risk assessment is:

$$\text{Intake} = \frac{C \times CR \times RAF \times EF \times ED}{BW \times AT \times CF}$$

Where:

Intake	daily intake averaged over the exposure period
C	concentration of the chemical in the exposure medium (EPC)
CR	contact rate for the medium of concern
RAF	relative absorption factor
EF	exposure frequency

ED duration of exposure
BW body weight of the exposed individual (estimated)
AT average timing (for carcinogens, 70 years, for non-carcinogens, the equivalent of the exposure duration)
CF units conversion factor (365 days/year)

Intake calculations were performed for the construction worker and commercial/industrial worker at the Site. In accordance with the RAGS guidelines and to ensure a conservative estimation for the commercial/industrial worker, the exposure frequency was 250 days. The exposure duration was 25 years. For the construction worker, the exposure frequency was 180 days and the exposure duration was 0.5 years. The average time period for lifetime exposure was 70 years (25,550 days) for carcinogenic risk. The body weight used for an adult is 70 kilograms, which is the standard default value for body weight. Additional values specific to each pathway are detailed in the next subsection.

7.6.7 Calculation of Intake

Below are the equations used to calculate total intakes for the identified potential pathways.

Dermal exposure from subsurface soil (worker)

$$DA_{event} = C_{soil} \times CF \times AF \times ABS_d$$

$$\text{Dermal absorbed dose (mg/kg-day)} = \frac{DA \times EF \times ED \times EV \times SA}{BW \times AT}$$

DA Absorbed dose per event (mg/cm^2-event)
C_{soil} Chemical concentration (EPC in mg/kg)
CF Conversion factor
AF Soil to Skin Adherence Factor
ABS Absorption Factor
EF Exposure frequency (days/year)
ED Exposure duration (years)
EV Event frequency (events/day)
SA Skin surface area available for contact
BW Body weight
AT Averaging Time

The EPC was expressed in mg/kg and varied for each specific compound. The skin surface available for contact by a worker assumed exposure of the head, hands and arms of an adult male (3,300 cm^2) as recommended by RAGS. The soil to skin adherence factor was assumed to be 0.2 mg/cm^2 for the industrial worker and 0.3 mg/cm^2 for the construction worker. (RAGS, Part E-Exhibit 3-5 and the *Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites*, USEPA 2002). The absorption factor (ABS) value varies for each compound and was obtained from the Regional Screening Level Soil Table. Calculations for dermal exposure from subsurface soil are presented in Tables 8 and 9.

Inhalation exposure from subsurface soil (worker)

$$\text{Exposure concentration (ug/m}^3\text{)} = \frac{CA \times ET \times EF \times ED}{AT}$$

Where:

CA Chemical concentration in air (ug/m^3)
ET Exposure time (hours/day)
EF Exposure frequency (days/year)
ED Exposure duration
AT Averaging Time

The inhalation exposure equation was taken from *RAGS Part F: Supplemental Guidance for Inhalation Risk Assessments*. The EPC was converted to ug/m^3 and varied for each specific compound. The average time was calculated by converting the exposure duration to total amount of hours exposed. Exposure concentration calculations for inhalation from subsurface soil are presented in Tables 10 and 11.

In order to convert the concentration of compounds in soil to air, the soil concentration was divided by a calculated particle emission factor (PEF). To model outdoor air particulate concentrations of CPCs, a generic particulate emission factor was developed based on the method described in the *Soil Screening Guide* (USEPA 1996b) and the *Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites* (USEPA, 2002). The particulate emission factor describes the fraction of each COPC in surface or exposed subsurface soil that becomes airborne in particulate form. The PEF was calculated at 6.83E8 using values obtained from Table 4-5: Derivation of the PEF- Commercial/Industrial Scenario from the *Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites* (USEPA, 2002).

$$PEF = Q/C \times \frac{3{,}600 \text{ sec/hour}}{0.036 \times (1-V) \times (U_m/U_t)^3 \times F(x)}$$

Q/C Ratio of the geometric mean air concentration to the emission flux at the center of a square source, calculated using Site specific information to be 47.07 (g/m^2-s)(kg/m^3)
V Fraction of vegetative cover (50%)
U_m Mean annual wind speed (4.69 m/s)
U_t Equivalent threshold wind speed at 7 m (11.32 m/s)
F(x) Function of wind speed over threshold wind speed (0.194)

Incidental ingestion from subsurface soil (worker)

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times CF \times FI \times EF \times ED}{BW \times AT}$$

CS Chemical concentration (EPC)
IR Ingestion rate (mg of soil per day)
CF Conversion factor
FI Fraction Ingested from Contaminated Source
EF Exposure frequency
ED Exposure duration
BW Body weight
AT Averaging Time

The EPC was expressed in mg/kg and varied for each specific compound. The ingestion rate was assumed to be 100 mg/day for the commercial/industrial worker and 330 mg/day for the construction worker based on *RAGS Part A* (USEPA, 1992) and the *Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites* (USEPA 2002). The conversion factor was 10^{-6} mg/kg. The fraction ingested from a contaminated source was assumed to be 100%. Absorbed dose calculations for incidental ingestion from sub surface soil are presented in Tables 12 and 13.

Inhalation of volatiles from exposed groundwater (worker)

$$\text{Exposure concentration (ug/m}^3\text{)} = \frac{CA \times ET \times EF \times ED}{AT}$$

Where:
CA Chemical concentration in air (ug/m^3)
ET Exposure time (hours/day)
EF Exposure frequency (days/year)
ED Exposure duration
AT Averaging Time

The inhalation exposure equation was taken from *RAGS Part F: Supplemental Guidance for Inhalation Risk Assessments*. The EPC was converted to ug/m^3 and varied for each specific compound. The average time was calculated by converting the exposure duration to total amount of hours exposed. Exposure concentration calculations for inhalation from groundwater are presented in Table 14.

In order to convert the concentration of compounds in groundwater to air, guidance provided by the Virginia Department of Environmental Quality (VDEQ), *Exposures of Workers to Volatiles in a Construction/Utility Trench*, was used. Using Equation 3-1 from the VDEQ guidance, the airborne concentration of a contaminant in a trench is calculated below.

$$C_{trench} = C_{groundwater} \times VF$$

Where:

C_{trench}	Concentration of the contaminant in the trench (ug/m^3)
$C_{groundwater}$	Concentration of the contaminant in groundwater (ug/L)
VF	Volatilization factor (L/m^3)

The volatilization factor was calculated for each compound using the Equation 3-4: VF for Groundwater Less Than or Equal to 15 Feet and default values provided in Table 3.8 in the VDEQ guidance

$$VF = \frac{K_i \times A \times F \times 10^{-3} \times 10^{4} \times 3{,}600}{ACH \times V}$$

Where:

K_i	Overall mass transfer coefficient of contaminant (cm/s)
A	Area of the trench floor (m^2)
F	Fraction of floor through which contaminant can enter (unitless)
ACH	Air changes per hour (h^{-1})
V	Volume of trench (m^3)
10^{-3}	Conversion factor (L/cm^3)
10^4	Conversion factor (cm^2/m^2)
3,600	Conversion factor (s/hr)

The K_i values are compound specific and values were obtained from Table 3.8 of the VDEQ guidance. The trench was assumed to be 3 feet wide by 8 feet long by 8 feet deep. It was assumed that there are two air changes per hour.

Dermal exposure from groundwater (worker)

$$\text{Dermal Absorbed dose (mg/kg-day)} = \frac{DA_{event} \times EV \times ED \times EF \times SA}{BW \times AT}$$

DA_{event}	Absorbed dose per event (mg/cm^2-event)
EV	Event frequency
ED	Exposure duration
EF	Exposure frequency
SA	Skin averaging surface
BW	Body weight
AT	Averaging Time

The EPC was expressed in milligrams per cubic centimeter (mg/cm^3) and varied for each specific compound. The skin surface available for contact by an adult worker was $3{,}300cm^2$, as recommended by RAGS Part E, Exhibit 2. Body weight was assumed to be 70 kg. Absorbed dose calculations for dermal exposure from groundwater are presented in Table 15. When the event duration is less than the time it takes for a compound to reach a steady state, the following equation is used:

$$DA_{event} = 2 \times FA \times Kp \times CW \times \sqrt{[(6 \times J_{event} \times T_{event}) / \pi]}$$

FA Fraction absorbed from water
Kp Dermal permeability coefficient
CW Chemical concentration in water
J_{event} Lag time per event
T_{event} Event duration

The fraction absorbed from water is chemical specific and was obtained from RAGS Part E, Exhibit B-3. The dermal permeability constant (Kp) varied for each compound. Kp values were obtained from RAGS Part E: Exhibit B5. The J_{event} is the chemical specific lag time between exposure events located in RAGS Part E, Appendix B. The T_{event} is the hours per event and was assumed to be 0.58 in accordance with RAGS Part E, Exhibit 3-2.

7.7 TOXICITY ASSESSMENT

7.7.1 Hazard Identification

The purpose of the toxicity assessment is to define the relationship between the dose of a compound and the probability that a carcinogenic or non-carcinogenic effect will occur. The toxicity assessment is divided into two parts: hazard identification and dose-response evaluation. As stated in RAGS, hazard identification is the process of determining whether exposure to a compound will cause an increase in the incidence of a particular adverse health effect and whether the health effect is likely to occur in humans. The dose-response evaluation quantifies the toxicological information and characterizes the relationship between the dose of a compound and the incidence of adverse health effects in a population. Toxicity values are expressed as reference doses (RfD) for oral non-carcinogenic effects and slope factors for carcinogenic effects.

Each compound was classified by its degree of carcinogenetic properties. This information was obtained from the USEPA Integrated Risk Information System (IRIS). The USEPA uses a weight of evidence narrative to define the level of a carcinogen (Guidelines for Carcinogenic Risk Assessment, 2005). However, the compounds used in this risk assessment are still listed with IRIS under the old alphanumerical classification system (USEPA, 1986). Ratings for the compounds evaluated as part of the risk assessment are included in Tables 16 through 23.

Alphanumerical USEPA Cancer Classification:

A- Human Carcinogen: There is enough evidence to conclude that it can cause cancer in humans.

B1- Probable Human Carcinogen: There is limited evidence that it can cause cancer in humans, but at present it is not conclusive.

B2- Probable Human Carcinogen: There is inadequate evidence that it can cause cancer in humans, but at present it is far from conclusive.

C- Possible Human Carcinogen: There is limited evidence that it can cause cancer in animals in the absence of human data, but at present it is not conclusive.

D- Not classifiable as to Human Carcinogenicity: There is no evidence at present that it causes cancer in humans.

E- Evidence of Non-Carcinogenicity for Humans: There is strong evidence that it does not cause cancer in humans.

All subsurface soil compounds identified in this risk assessment were rated as B2 by the USEPA classification system. Therefore all toxicity values were evaluated as carcinogens.

In the groundwater compounds, benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, Aroclor 1254 and Aroclor 1260 were rated as B2 by the USEPA classification system. Benzene was rated an A. All toxicity values were evaluated as carcinogens.

Although Aroclor 1254 is rated as a B2 carcinogen, risk characterization data exists for non-cancer risk to dermal exposure. Therefore, Aroclor 1254 will examined for carcinogenic and non-carcinogenic risk to dermal exposure.

Naphthalene was rated a C by the USEPA classification system. Risk characterization data for naphthalene is only available as non-cancer risk for dermal exposure, but carcinogenic risk characterization data does exist for inhalation exposure. Therefore, naphthalene in groundwater is evaluated as a non-carcinogen for dermal exposure and as a carcinogen for inhalation exposure.

Summaries of the Agency for Toxic Substances & Diseases Registry (ATSDR) toxicological profiles (ToxFAQs™) were reviewed to determine possible health effects from chronic exposure. The ToxFAQs™ are included in Appendix H.

7.7.2 Dose Response Evaluation

The hierarchy of sources for identifying dose-response values was followed using the guidelines set forth in Memorandum: *Human Health Toxicity Values in Superfund Risk Assessments* which replaces the guidelines of RAGS Part A. The USEPA IRIS database was first consulted for all compounds. For compounds not available through IRIS, the USEPA Provisional Peer Reviewed Toxicity Values (PPRTVs) and California EPA values (CALEPA) were consulted.

Using the recommended equations for each pathway, the absorbed dose for each CPC was calculated for all carcinogens and non-carcinogens. The slope factor for each compound was obtained from the Regional Screening Level Tables. The slope factor was adjusted for all dermal routes of exposure to subsurface soil to represent the absorbed amount and not the administered. In accordance with RAGS Part E, Exhibit 4-1, toxicity factors for PCBs and PAHs were not adjusted for exposure to groundwater. Therefore only benzene required adjustment. The slope factor for benzene was divided by the oral absorbed efficiency value, which was obtained from the RSL tables. The calculated absorbed dose for the compounds is presented in Tables 16, 17 and 23.

7.8 RISK CHARACTERIZATION

The exposure analysis and toxicity assessment are integrated to develop both the quantitative and qualitative risk evaluations. The average daily intakes calculated as part of the exposure assessment were combined with the dose-response values from the toxicity assessment. The methodology used to quantitatively assess carcinogenic risk is described in detail in the following subsection.

All compounds with potential carcinogenic effects were evaluated based on guidance from the USEPA RAGs. An individual upper-bound excess lifetime cancer risk was calculated by multiplying the calculated estimated daily intake by the appropriate carcinogenic slope factor (CSF) for each compound. The total lifetime cancer risk for simultaneous exposure to all chemicals within a pathway was calculated by using the summation of each individual chemical.

Non-carcinogens were evaluated based on guidance from the USEPA RAGS. A non-cancer hazard quotient was calculated by dividing the calculated exposure intake by the appropriate reference dose for each compound.

The USEPA has developed an estimate of the potential risk for carcinogenic compounds. Potential carcinogenic effects are expressed as a probability or risk of cancer resulting from exposure to a compound. The USEPA considers a cancer risk value greater than 1.0E-4 to 1.0E-6 to represent a potentially unacceptable level of risk (*EPA Memo: Role of the Baseline Risk Assessment in Superfund Remedy Selection Decisions*).

The non-cancer hazard quotient assumes that there is a level of exposure below which it is unlikely for even sensitive populations to experience adverse health effects. At this point, the hazard quotient would equal one. If the exposure level exceeds this threshold, there may be a concern for potential non-cancer effects.
Receptors may have contact with more than one contaminated medium. The risks of these

exposures are summed and evaluated to provide a complete characterization of health risks associated with contamination at the Site. The risk characterization summary tables are included as Tables 26 and 27.

7.8.1 Summary of Risk – Subsurface Soil – Commercial/Industrial Worker

The total carcinogenic risk for the future commercial/industrial worker exposure to dermal contact from subsurface soil is 5.23E-05. Cancer risks for dermal contact from subsurface soil for each carcinogenic compound are summarized in Table 16. Benzo(a)pyrene had the highest lifetime cancer risk of dermal contact from subsurface soil (3.4E-05).

The total carcinogenic risk for the commercial/industrial worker exposure to inhalation of particles from subsurface soil is 2.58E-08. Cancer risks for inhalation of particles from subsurface soil for each carcinogenic compound are summarized in Table 18. Indeno(1,2,3-cd)pyrene had the highest lifetime cancer risk of inhalation from sub surface soil particulates (1.21E-08).

The total carcinogenic risk for the commercial/industrial worker exposure to ingestion from subsurface soil is 7.90E-06. Cancer risks for ingestion from subsurface soil for each carcinogenic compound are summarized in Table 20. Benzo(a)pyrene had the highest lifetime cancer risk from ingestion of subsurface soil (5.08E-06).

The total cancer risk for workers from exposure to subsurface soil is 6.0E-05. This value is within the acceptable range set by USEPA from 1E-04 to 1E-06. Total cancer risk for workers from exposure to subsurface soil is summarized in Table 26.

7.8.2 Summary of Risk – Subsurface Soil – Construction Worker

The total carcinogenic risk for the construction worker exposure to dermal contact from subsurface soil is 1.13E-06. Cancer risks for dermal contact from subsurface soil for each carcinogenic compound are summarized in Table 17. Benzo(a)pyrene had the highest lifetime cancer risk of dermal contact from subsurface soil (7.2E-07).

The total carcinogenic risk for the construction worker exposure to inhalation of particles from subsurface soil is 1.02E-08. Cancer risks for inhalation of particles from subsurface soil for each carcinogenic compound are summarized in Table 19. Benzo(a)pyrene had the highest lifetime cancer risk of inhalation from sub surface soil particulates (5.45E-09).

The total carcinogenic risk for the construction worker exposure to ingestion from subsurface soil is 3.77E-07. Cancer risks for ingestion from subsurface soil for each carcinogenic compound are summarized in Table 21. Benzo(a)pyrene had the highest lifetime cancer risk from ingestion of subsurface soil (2.42E-07).

The total cancer risk for workers from exposure to subsurface soil is 1.5E-06. This value is within the acceptable range set by USEPA from 1E-04 to 1E-06. Total cancer risk for workers from exposure to subsurface soil is summarized in Table 26.

7.8.3 Summary of Risk – Groundwater – Carcinogenic – Construction Worker

The total carcinogenic risk for the construction worker exposure to inhalation of volatiles from groundwater is 3.29E-04. Cancer risks for the future worker exposure to inhalation of volatiles from groundwater for each carcinogenic compound are summarized in Table 22. Naphthalene had the highest lifetime cancer risk of inhalation of volatiles from groundwater (3.10E-04).

The total carcinogenic risk for the construction worker exposure to dermal contact from groundwater is 1.75E-05. Cancer risks for worker exposure to dermal contact from groundwater for each carcinogenic compound are summarized in Table 23. Benzo(a)pyrene had the highest lifetime cancer risk of dermal contact from groundwater (1.67E-05).

The total cancer risk for workers from exposure to groundwater is 3.5E-04. This value is slightly outside the acceptable range set by USEPA of 1E-04 to 1E-06. Total cancer risk for workers from exposure to groundwater is summarized in Table 26.

7.8.4 Summary of Risk – Groundwater – Non Carcinogenic - Worker

The total non-carcinogenic risk for the future worker exposure to dermal contact from groundwater is 7.25E-06. Non cancer risks are summarized in Table 27.

The total non-carcinogenic risk for the future worker exposure to groundwater is 7.3E-05, which is less than the hazard quotient of 1 set by the USEPA. Total non-cancer risks for workers exposed to groundwater is summarized in Table 27.

7.8.5 Summary of Risk – Subsurface Soil – Non Carcinogenic - Worker

The total non-carcinogenic risk for the commercial/industrial worker exposure to dermal contact from subsurface soil is 2.01E-02. Non cancer risks are summarized in Table 24.

The total non-carcinogenic risk for the construction worker exposure to subsurface soil is 4.33E-04, which is less than the hazard quotient of 1 set by the USEPA. Total non-cancer risks for workers exposed to subsurface soil is summarized in Table 27.

7.9 UNCERTAINTY IN RISK ESTIMATES

The interpretation of risk estimates is subject to a number of uncertainties as a result of conservative assumptions inherent in risk assessments. Quantitative human health risk estimates are based on numerous conservative assumptions. These conservative estimates lead to uncertainty in exposure and toxicity. Major sources of uncertainty and their potential effects are detailed in Table 28.

Exposure point concentrations for each compound were calculated utilizing the 95% UCL. In some instances, due to statistical distribution, the 97.5% UCL was calculated, yielding even more conservative numerical estimates of concentrations at the Site.

Dermal cancer slope factors (CSFd) and reference doses (RfDd) were not listed in the USEPA Regional Screening Tables or the IRIS database. To obtain the correct dermal doses, the ingestion dose values were converted following guidelines presented in RAGS Part A.

The tap water RSLs are calculated using residential land use assumptions. As such, these RSLs are not reflective of industrial exposures and may overestimate exposures via the water pathways.

8.0 REMEDIAL ALTERNATIVES EVALUATION/FEASIBILITY STUDY

8.1 REMEDIAL ACTION OBJECTIVES

Remedial measures for the Site must satisfy Remedial Action Objectives (RAOs) in accordance with the NYSDEC Technical Guidance for Site Investigation and Remediation. The RAOs are statements that convey the goals for minimizing or eliminating substantial risks to public health and the environment. The RAOs for the Site are as follows:

Subsurface Soil

- Prevent ingestion/direct contact with contaminated soil;
- Prevent inhalation of, or exposure from contaminants volatilizing from contamination in soil; and
- Prevent migration of contaminants that would result in groundwater or surface water contamination.

Groundwater

- Prevent ingestion of groundwater with contaminants levels exceeding drinking water standards;
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater;
- Restore groundwater aquifer to pre-disposal/pre-release conditions, to the extent practical; and
- Prevent the discharge of contaminants to surface water.

The results of the HHRA (see Section 7.0) concluded that there is an unacceptable risk associated with the potential exposure of construction workers to groundwater via inhalation.

8.2 REMEDIAL ALTERNATIVE EVALUATION CRITERIA

In addition to achieving the RAOs, the Site remedy must be evaluated in accordance with NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010. Specifically, the guidance states “When proposing an appropriate remedy, the person responsible for conducting the investigation and/or remediation should identify and develop a remedial action that is based on the following criteria”.

1. Short-Term Impacts and Effectiveness: This criterion addresses the impacts of the alternative during the construction and implementation phase until the remedial action objectives are met. Factors to be evaluated include protection of the community during the remedial actions; protection of workers during the remedial actions; and the time required achieving the remedial action objectives.

2. Long-Term Effectiveness and Permanence: This criterion addresses the long-term protection of human health and the environment after completion of the remedial action. An assessment is made of the effectiveness of the remedial action in managing the risk posed by untreated wastes and the long-term reliability of the remedial action.

3. Reduction of Toxicity, Mobility, and Volume: This criterion addresses NYSDEC's preference for selecting "remedial technologies that permanently and significantly reduce the toxicity, mobility and volume" of the contaminants of concern at a site. This evaluation consists of assessing the extent that the treatment technology destroys toxic contaminants, reduces mobility of the contaminants using irreversible treatment processes, and/or reduces the total volume of contaminated media.

4. Implementability: This criterion addresses the technical and administrative feasibility of implementing an alternative and the availability of services and materials. Technical feasibility refers to the ability to construct and operate a remedial action for the specific conditions at a site and the availability of necessary equipment and technical specialists. Technical feasibility also includes the future operation and maintenance, replacement and monitoring that may be required for a remedial action. Administrative feasibility refers to compliance with applicable rules, regulations, statutes and the ability to obtain permits or approvals from other government agencies or offices; and the availability of adequate capacity at permitted treatment, storage and disposal facilities and related services.

5. Compliance with Applicable or Relevant and Appropriate Standard Criteria and Guidance (SCGs) and Remediation Goals: This criterion is used to evaluate the extent to which each alternative may achieve the RAOs which were outlined in Section 8.1.

6. Overall Protection of Human Health and the Environment: This criterion provides an overall assessment of protection with respect to long-term and short-term effectiveness and compliance with cleanup goals.

7. Cost: The estimated capital costs, long-term operation and maintenance costs, and environmental monitoring costs are evaluated. The comparative cost estimates are intended to reflect actual costs with an accuracy of +50 percent to -30 percent.

8.3 LAND USE EVALUATION

In developing and screening remedial alternatives, NYSDEC Part 375 regulations require that the reasonableness of the anticipated future land be factored into the evaluation. The future land use for the Site is restricted commercial usage.

Although the Site is to be used for commercial purposes, evaluating a more restricted-use scenario is required. DER-10 guidance also requires the evaluation of a "no-action" alterative to provide a baseline for comparison against other alternatives. Since an IRA has been completed for the Site, the following alternatives were evaluated.

- No Action (Alternative No. 1);

- Implementation of a Site Management Plan (Alternative No. 2); and
- Unrestricted Use Cleanup (Alternative No. 3).

The following section discusses the evaluation of these alternatives.

8.3 ALTERNATIVE EVALUATION

8.3.1 No Further Action

Under this alternative, the Site would remain in its current state, with no additional controls in-place.

Short-Term Impacts and Effectiveness: There are potential short-term impacts associated with this alternative. Future subsurface construction activities at the Site could result in potential exposure to groundwater contamination at levels deemed unacceptable according to the HHRA.

Long-Term Effectiveness and Permanence: The no further action alternative involves no additional equipment, institutional/engineering controls or facilities subject to maintenance.

Reduction of Toxicity, Mobility, and Volume: The IRA completed at the Site has reduced the toxicity, mobility and volume of contaminants at the Site.

Implementability: No technical or administrative implementability issues are associated with the no further action alternative.

Compliance with Applicable or Relevant and Appropriate SCGs and Remediation Goals:
Under the current and reasonably anticipated future use scenario, this alternative is not expected to meet the chemical-specific SCGs for the identified soil (i.e., CSCOs) and groundwater (i.e., Class GA criteria) at all locations and it does not meet the RAOs for the construction worker exposure scenario, as there is potential exposure to groundwater at levels deemed unacceptable by unknowing workers according to the HHRA.

Overall Protection of Human Health and the Environment: As the Site exists, there is a potential for worker exposure to groundwater levels via inhalation at levels deemed unacceptable according to the HHRA.

Cost: There would be no capital or long-term operation, maintenance or monitoring costs associated with the no further action alternative.

8.3.2 Implementation of a Site Management Plan

The second alternative is a Site Management Plan (SMP), which would be developed to address contaminated soil and groundwater remaining at the Site in the event subsurface activities were performed (i.e., site upgrades, utility repair, new construction, etc.).

Short-Term Impacts and Effectiveness: This alternative is considered an adequate remedy related to short-term impacts and effectiveness. The risks associated with direct contact with soil and

groundwater contaminants from future construction activities would be prevented as the SMP would address the methods and practices for dealing with contamination encountered, decontamination of equipment, particulate vapor release, dust monitoring, etc. The implementation of this alternative will be effective in preventing exposure to workers and construction personnel and meet the RAOs for soil.

Long-Term Effectiveness and Permanence: This alternative would have long-term effectiveness in managing the risks associated with exposure to soil and groundwater contaminants through implementation of the SMP.

Reduction of Toxicity, Mobility, and Volume: This alternative does not involve the removal and/or treatment of soil contamination although the SMP would identify how to properly handle and manage contaminated soil and groundwater when and if encountered.

If construction or excavation activities are conducted; any soil, groundwater or material generated will be managed and disposed in accordance with the SMP.

Implementability: This alternative is readily implementable on a technical basis.

Compliance with Applicable or Relevant and Appropriate SCGs and Remediation Goals: This alternative is not expected to meet the chemical-specific SCGs for the identified soil (i.e., CSCOs) and groundwater (i.e., Class GA criteria) contamination at all locations contamination, unless these materials are removed for disposal due to planned maintenance or construction activities. These would be managed in accordance with the SMP and would meet the RAOs.

Overall Protection of Human Health and the Environment: This alternative is considered an adequate remedy to reduce the risk or exposure for human health. Implementation of this alternative would result in eliminating potential exposure to contaminants during construction or excavation activities. Although the alternative will not meet the chemical SCGs, it will manage soil, groundwater or materials generated during maintenance or construction activities.

Cost: Total capital costs for this alternative are estimated to total approximately $13,200 for the preparation and implementation of a SMP as shown in Appendix H. Annual costs associated with the SMP, which include inspection and verification of institutional and engineering controls and submittal of an annual Periodic Review Report is approximately $3,360, which has a net present value (assuming 30 years) of approximately $83,200.

8.3.3 Unrestricted Use Soil Cleanup & Groundwater Removal

The Unrestricted Use alternative would necessitate remediation of soil and fill material where concentrations exceed the USCOs. For unrestricted use scenarios, excavation and off-Site disposal of impacted soil and fill is generally regarded as the most applicable remedial measure. This alternative assumes that those non-building areas which exceed USCOs would be excavated and disposed at an approved off-Site landfill. During the excavations, groundwater encountered would also be captured, stored and disposed of off-Site (assumed disposal into the City of Niagara Falls sanitary sewer system).

Based on the Site analytical data from this and previous investigations, it is estimated that an approximately 20,500 square foot area or 3,034 cubic yards of soil would be excavated and 92,000 gallons of perched groundwater would be pumped from the excavations. The soil and groundwater would be disposed of off-site.

Short-Term Impacts and Effectiveness: There are several potential short-term impacts associated with this alternative.

There is potential for impacts to human health (workers and construction personnel) due to direct contact, potential vapor and particulate releases during excavation. Thus, field personnel would wear appropriate personal protective equipment during excavation in order to limit health risks due to exposure to contaminants and physical hazards and monitoring would be required in order to mitigate potential conditions.

Contamination of equipment used for excavation purposes could carry contamination off-site. Therefore, equipment would require decontamination prior to removal, as necessary, in order to avoid the transport of contaminants.

Human health and the environment would be protected under this alternative for soils and it would remove potential source areas of groundwater contamination. This alternative is expected to meet the RAOs for the soils at completion of the excavation because the soil contamination will be removed from the Site. Confirmatory soil sampling would be performed to verify the effectiveness of the alternative.

Long-Term Effectiveness and Permanence: This alternative is considered an adequate, reliable and permanent remedy for soil and groundwater and, as such, the risks involved with the migration of contaminants and direct contact with soil and groundwater contaminants would be reduced. Remediation of contaminated soils could be completed within about 1 month.

Reduction of Toxicity, Mobility, and Volume: This alternative involves the removal and off-site disposal of the impacted soil and groundwater. The toxicity, mobility and volume of this contamination will be reduced by excavation of contaminated soils. Additionally, impacted groundwater would be containerized and treated via the City of Niagara Falls sanitary sewer treatment plant.

Implementability: This alternative is implementable on a technical basis with standard construction

methods and equipment. Materials and services necessary for construction are readily available

Compliance with Applicable or Relevant and Appropriate SCGs and Remediation Goals: This alternative is expected to meet the RAOs and chemical-specific SCGs for the soils.

Overall Protection of Human Health and the Environment: This alternative is considered to be protective of human health and the environment.

Cost: Total capital costs for this alternative are estimated to total approximately $ 335,800 for remediation to Unrestricted SCOs as shown in Appendix H. The quantities and cost associated assumptions, estimated for comparative purposes, are presented in Appendix H.

8.4 COMPARATIVE ANALYSIS OF REMEDIAL ALTERNATIVES

The remedial alternatives discussed in Section 8.3 are compared below on the basis of the six (6) environmental and one (1) cost criteria, based on the detailed analysis provided above.

Short Term Impacts and Effectiveness

Alternative No. 3 involves excavation work, which could possibly cause exposure to contamination during remediation. Alternatives No. 1 and No. 2 would not cause disruption to the facility. Alternatives No. 2 and 3 would reduce potential exposures to existing soil contamination and Alternative No. 2 would properly manage materials generated from scheduled maintenance or construction activities.

Alternative Nos. 2 and 3 are expected to achieve the RAOs, however Alternative No. 1 will not.

Long Term Effectiveness and Permanence

Alternative Nos. 2 and 3 are considered to be adequate, reliable remedies for the management and/or remediation of soil contamination. The risks involved with the exposure to contaminants or direct contact with soil contaminants, although considered low, would still exist with Alterative No. 1.

Reduction of Toxicity, Mobility and Volume

Alternative No. 3 provides for the greatest reduction of toxicity, mobility and volume of soil and groundwater contamination, as the majority of the contamination would be removed and disposed of off-site.

Alternatives Nos. 1 and 2 will not reduce the toxicity, mobility and volume of the contamination; however, Alternative No. 2 will reduce the risk of exposure to contaminants should they be encountered during scheduled or planned maintenance or construction activities performed at the Site. Should contaminants be encountered, the SMP would identify management, handling and disposal procedures.

Implementability
Alternatives No. 1, 2 and 3 are technically and administratively implementable and can be implemented with readily available methods, equipment, materials and/or services.

Compliance with Applicable or Relevant and Appropriate SCGs and Remedial Goals
Alternative No. 3 is expected to achieve compliance with the chemical-specific SCGs for soil. Alternatives No. 2 and 3 will achieve compliance with RAOs and Alternative No. 1 will not achieve compliance with the RAOs related to the construction worker exposure scenario.

Overall Protection of Human Health and the Environment
Alternative No. 1 involves taking no further action. As the Site exists, there is a potential for construction worker exposure to groundwater levels via inhalation act at levels deemed unacceptable according to the HHRA.

Alternative No. 2 involves the implementation of a SMP. It is considered an adequate remedy to reduce the risk of exposure for human health. Implementation of this alternative would result in eliminating potential exposure to contaminants during construction or excavation activities. Although the alternative will not meet the chemical SCGs, it will manage soil, groundwater or materials generated during maintenance or construction activities.

Alternative No. 3 involves the removal of the contaminated soil and groundwater, and would be the most protective of human health and the environment.

Cost
Alternative No. 1, which involves taking no further action, has the lowest capital and O&M cost as there will be no additional remedial activities completed.

Alternative No. 2, which is the implementation of a SMP, has the second highest capital cost of approximately $13,200. O&M costs would associated with Alternative No. 2 include annual inspection and report preparation which are approximately $3,360.

Alternative No. 3, which includes removal of contaminated soil and groundwater, has the highest capital cost estimated at approximately $335,800 for remediation to Unrestricted SCOs. There is no long term O&M cost associated with Alternative No. 3.

8.5 RECOMMENDED REMEDIAL MEASURE

Based on the alternative evaluation, the IRA completed at the Site and that the only exposure scenario identified by the HHRA as concern was exposure to impacted groundwater by construction workers, the implementation of a Site Management Plan would satisfy the RAOs for the Site. Accordingly, the implementation of a Site Management Plan is the recommended as the remedial alternative for the Site. The future owner will be responsible for developing and implementing the Site Management Plan, which will be based on the planned redevelopment and use of the Site.

9.0 CONCLUSIONS/RECOMMENDATIONS

9.1 CONCLUSIONS

The USACE, Louisville District retained the services of PARS to conduct a RI, IRA, HHRA and feasibility study at the Niagara Falls Armed Forces Reserve Center located at 9400 Porter Road in Niagara Falls, New York. The RI and IRA were conducted in accordance with the approved *QAPP/Sampling Plan* (PARS, September 2011).

9.1.1 Soil Samples

On September 26 through September 28, 2011, thirty soil probes (16 primary locations and 14 secondary locations) were advanced at the Site using direct push methods via a 2-inch diameter macro-core sampler. Soil boring locations are shown in Figure 4 and soil probe logs are included in Appendix A.

Two samples were collected for laboratory analysis from each of the probes. Soil samples collected from the primary locations were submitted for TCL VOCs, TCL SVOCs and PCBs analysis. Secondary soil samples were analyzed at select locations based on the results of the primary samples.

Acetone was detected in soil sample SP-23-2-4 at a concentration slightly exceeding the USCO for the compound of 50 µg/kg. Acetone is a common laboratory contaminant and is not considered a contaminant of concern at the Site. All other detected VOCs were at concentrations below their respective USCO and CSCO.

Six SVOCs were detected at concentrations exceeding their respective USCO in soil sample SP-29-1-3. Benzo(a)pyrene was also detected at a concentration exceeding the CSCO in this sample. Benzo(b)fluoranthene was detected at a concentration exceeding the USCO in soil sample SP-37-1-3. SVOCs were not detected in any other samples at concentrations exceeding the respective USCO and CSCO.

Total PCB concentrations exceeding the USCO were identified in 5 samples (SP-28-1-3, SP-29-1-3, SP-30-1-3, SP-32-2-4 and SP-33-0-2. The concentration of PCBs detected at SP-28-1-3 also exceeds the CSCO of 1,000 µg/kg. PCBs were not detected in the remaining samples at concentrations exceeding the USCO and CSCO.

At the request of NYSDEC, a surface soil sample was collected at Outfall 4. The soil sample was collected immediately below the vegetative cover within the drainage swale along Porter Road. The sample was analyzed for TCL VOCs, TCL SVOCs and PCBs. Nine SVOCs were detected at concentrations exceeding the respective USCO and 5 SVOCs were detected at concentrations exceeding the respective CSCO. The SVOCs detected in the sample from the drainage swale are commonly found in ditches that receive storm water runoff from asphalt paved surfaces. Based on maps of the storm water drainage system for the Site, discharge to Outfall No. 4 is only from runoff from parking areas.

Total PCBs were detected in the outfall sample at a concentration of 210 µg/kg. This concentration exceeded the USCO for the compound of 100 µg/kg, but not the CSCO of 1,000 µg/kg, which was the cleanup objective established by NYSDEC for the previous remediation of the drainage swale.

9.1.2 Groundwater Samples

On September 26 and 27, 2011, 9 temporary microwells were installed in the open probe-holes at SP-22, 25, 30, 32, 34, 36, 42, 46 and 49. Groundwater was encountered in temporary microwells at a depth of 3-4 feet bgs. The locations of the microwells are depicted in Figure 4.

Eight groundwater samples were collected from the 9 temporary microwells using disposable Teflon© bailers. The temporary microwell installed at soil probe location SP-46 was dry following several attempts to collect a sample. Groundwater samples were analyzed for VOCs, SVOCs, and PCBs. Samples collected at SP-42 and SP-49 were not analyzed for SVOCs and PCBs due to insufficient groundwater recharge.

Benzene was detected at SP-49 and trichlorofluoromethane was detected at SP-22 at concentrations slightly exceeding the respective Class GA criteria. No other VOCs were detected in the groundwater samples at concentrations exceeding the respective Class GA criteria.

Four SVOCs were detected at concentrations exceeding the respective Class GA criteria at 3 locations (SP-22, SP-25 and SP-34). These compounds are benzo(a)anthracene, benzo(b)fluoranthene, chrysene, and indeno(1,2,3-cd)pyrene.

Total PCBs were detected in groundwater samples from locations SP-30, SP-32 and SP-36 at concentrations exceeding the Class GA Criteria for the compound of 0.09 µg/L. PCB concentrations in these three samples were 0.77 µg/L (SP-30), 3 µg/L (SP-32), and 13 µg/L (SP-36). PCBs were not detected in the other groundwater samples at concentrations above the laboratory MDL.

9.1.3 Interim Remedial Action

An IRA was performed on September 29, 2011. As part of the IRA, an approximately 10-foot (north-south) by 12-foot (east-west) area was excavated to a depth of approximately 5 feet bgs in the vicinity of the former exploratory excavation, TP-12. Approximately 40 tons of soil was removed from the excavation and stockpiled.

During soil excavation activities, perched groundwater was observed at approximately 2 feet bgs. Perched groundwater exhibiting a surface sheen was pumped from the excavation using a vacuum truck. Approximately 2,000-gallons of groundwater was removed from the excavation and properly disposed.

At the completion of soil removal activities, an approximate 8-foot long section of the 6-inch diameter cast iron fire protection main was removed from within the limits of the excavation. The open ends of the pipe were fitted with a Fernco and PVC cap prior to backfilling. On December 8, 2011, the stockpiled soil from the excavation was loaded onto trucks and transported off-Site for proper disposal.

Five confirmatory soil samples, four (4) sidewall samples and one (1) bottom of excavation sample, were collected from the excavation. The confirmatory soil samples were analyzed for TCL VOCs, TCL SVOCs and PCBs. VOCs, SVOCs and PCBs were not detected in the confirmatory samples at concentrations exceeding the applicable USCOs and CSCOs.

9.1.4 Human Health Risk Assessment

A HHRA was conducted at the Site to evaluate potential risks to human health under current and reasonably foreseeable future conditions from exposure to VOCs, SVOCs and PCBs in subsurface soils and groundwater. CPCs identified are presented in Table 6.

Potential exposure pathways were examined in the exposure assessment. Exposure point concentrations (EPCs) were calculated for each CPC with a potential pathway for exposure (see Tables 4 and 5). The EPC was used to calculate an absorbed dose or intake for each compound and potential pathway (see Tables 8 through 15). Each calculated absorbed dose or intake was compared to slope factors for carcinogenic compounds as part of the toxicity assessment (see Tables 16 through 23) or the reference dose for non-cancer (see Tables 24 and 25). The final quantitative cancer risk was calculated in the risk characterization summary (see Table 26) and the quantitative non-cancer risk was calculated in the risk characterization summary (see Table 27).

The USEPA has developed an estimate of the potential risk for carcinogenic compounds. Potential carcinogenic effects are expressed as a probability or risk of cancer resulting from exposure to a compound. The USEPA considers a cancer risk value greater than 1.0E-4 to 1.0E-6 to represent a potentially unacceptable level of risk (*EPA Memo: Role of the Baseline Risk Assessment in Superfund Remedy Selection Decisions*).

Under current or future conditions, the commercial/industrial and construction worker exposures to the individual subsurface soil pathways at the Site do not pose an unacceptable risk for carcinogens. The construction workers total potential exposure to groundwater is slightly above the USEPA acceptable carcinogenic risk range of greater than 1.0E-4 to 1.0E-6.

9.1.5 Remedial Alternatives Assessment/Feasibility Study

Potential remedial alternatives were evaluated based on the RAOs for the Site and criteria set forth in the NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010. The criteria include Short-Term Impacts and Effectiveness, Long-Term Effectiveness and Permanence, Reduction of Toxicity, Mobility and Volume, Implementability, Compliance with Applicable or Relevant and Appropriate SCGs and Remediation Goals, Overall Protection of Human Health and the Environment, and Cost.

Based on the evaluation, the IRA completed at the Site and that the only exposure scenario identified by the HHRA as concern was exposure to impacted groundwater by construction workers, the implementation of a Site Management Plan would satisfy the RAOs for the Site.

9.2 RECOMMENDATIONS

Based on the above conclusions, it has been determined that a Site Management Plan should be prepared and implemented at the Site to limit exposure to construction workers. Development and implementation of the Site Management Plan will be the responsibility of the future landowner and the plan will be based on the planned redevelopment and use of the Site.

10.0 REFERENCES

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FIGURES

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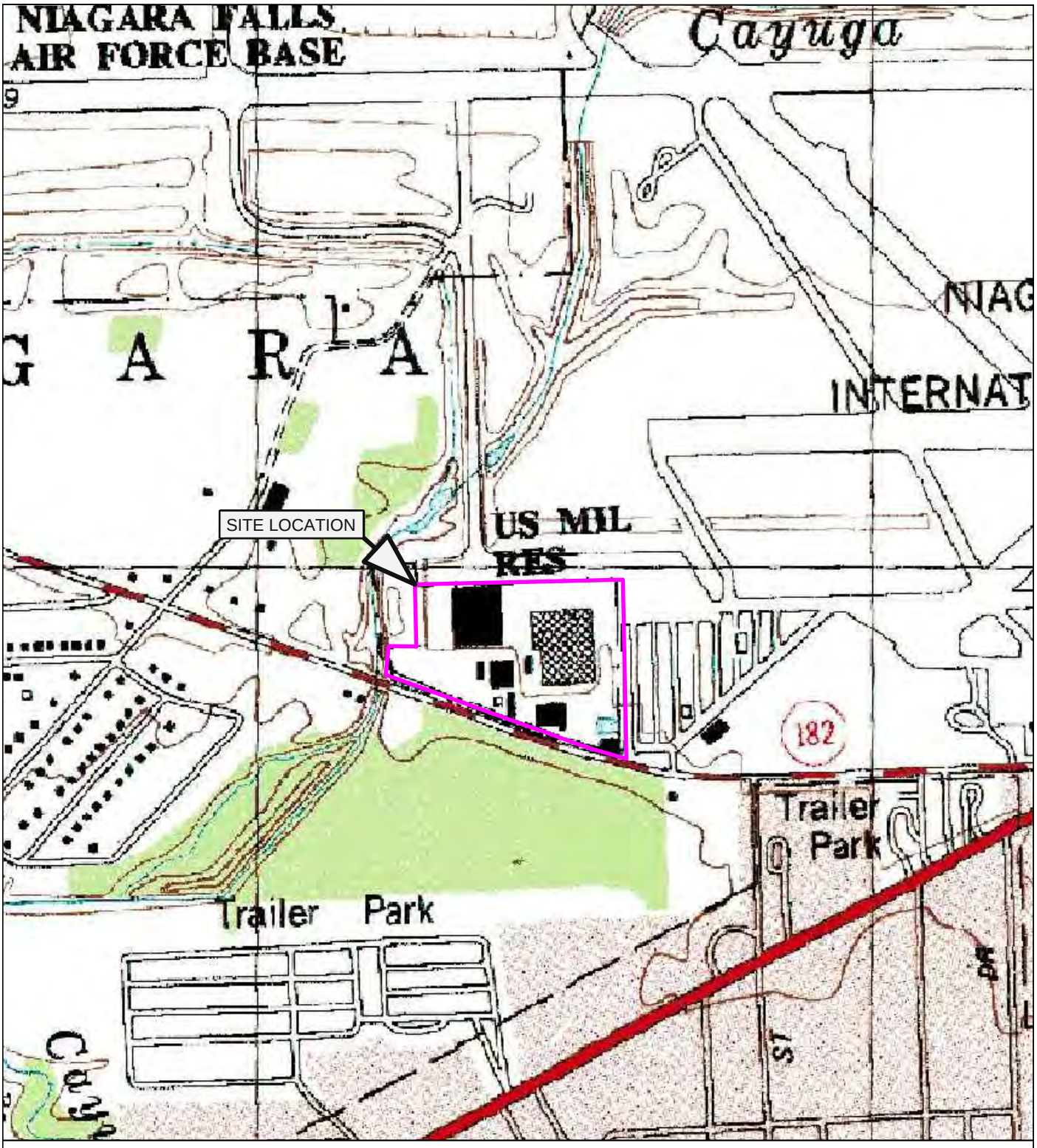
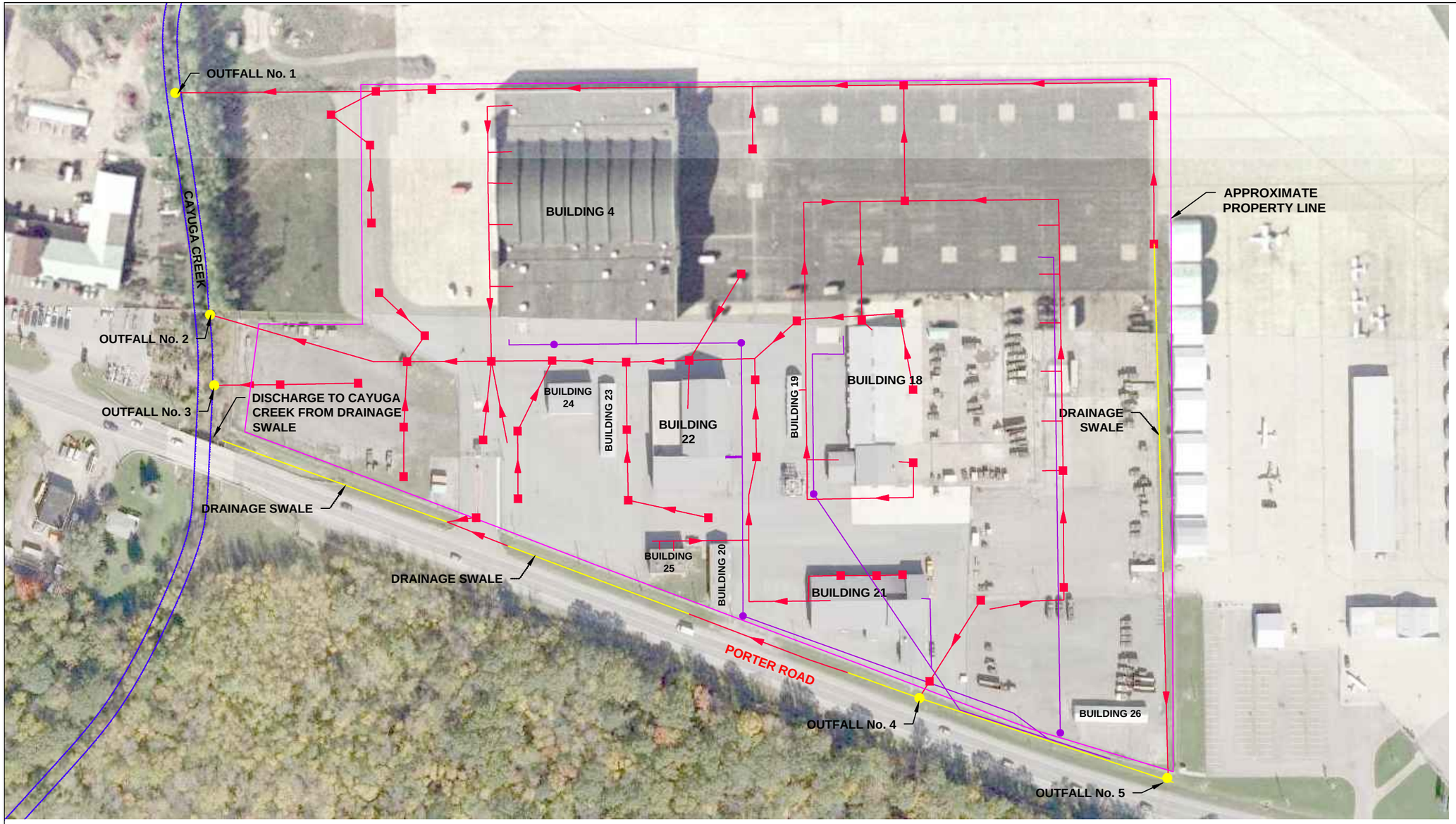


FIGURE 1
SITE LOCATION MAP
NIAGARA FALLS AFRC COMPLEX
NIAGARA FALLS, NEW YORK

PARS ENVIRONMENTAL, INC.
ROBBINSVILLE, NEW JERSEY

DR. BY: JA	SCALE: 1"=750'	JOB No.: 828-01
CK'D. BY: TD	DATE: 11/29/11	FILE NO.: 828-01
REV. NO. --	REV. DATE: --	FIGURE NO.:1



LEGEND:

- SANITARY SEWER LOCATION
- STORM SEWER LOCATION WITH FLOW DIRECTION

NOTES:

1. BASE MAP ADAPTED FROM AN AERIAL PHOTOGRAPH DOWNLOADED FROM http://www.bing.com/maps/, AND FIELD OBSERVATIONS.

2. THE SIZE AND LOCATION OF EXISTING SITE FEATURES SHOULD BE CONSIDERED APPROXIMATE.

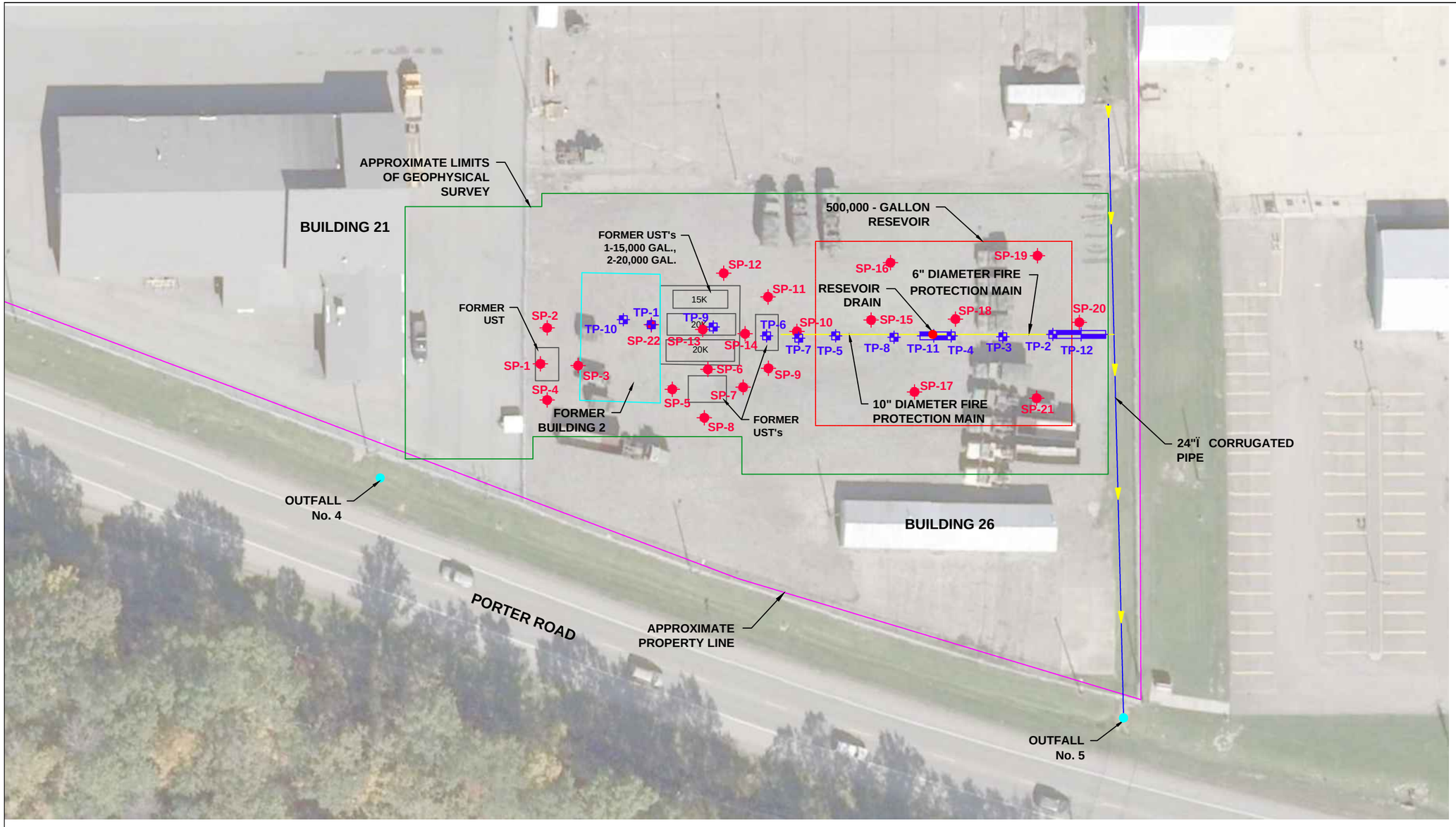
SCALE IN FEET

0 50 100 150

FIGURE 2
SITE PLAN
USAFRC
NIAGARA FALLS, NEW YORK

PARS ENVIRONMENTAL, INC.
ROBBINSVILLE, NEW JERSEY

DR. BY: JA	SCALE: 1"=150'	JOB No.: 727-04
CK'D. BY: TD	DATE: 11/29/11	FILE NO.: 727-04
REV. NO. --	REV. DATE: --	FIGURE NO.:2



LEGEND:

SP-19 — APPROXIMATE LOCATION AND DESIGNATION OF SOIL PROBE COMPLETED ON DECEMBER 6 & 7, 2010 (21 LOCATIONS)

TP-3 — APPROXIMATE LOCATION AND DESIGNATION OF TEST PIT COMPLETED ON DECEMBER 7 & 8, 2010 (12 LOCATIONS)

TP-1 / SP-22 — APPROXIMATE LOCATION AND DESIGNATION OF SOIL PROBE SP-22 CONVERTED TO TEST PIT, TP-1 DUE TO SUBSURFACE REFUSAL FOLLOWING SEVERAL ATTEMPTS COMPLETED ON DECEMBER 7, 2010.

NOTES:

1. BASE MAP ADAPTED FROM AN AERIAL PHOTOGRAPH DOWNLOADED FROM http://www.bing.com/maps/, AND FIELD OBSERVATIONS.

2. THE SIZE AND LOCATION OF EXISTING SITE FEATURES SHOULD BE CONSIDERED APPROXIMATE.

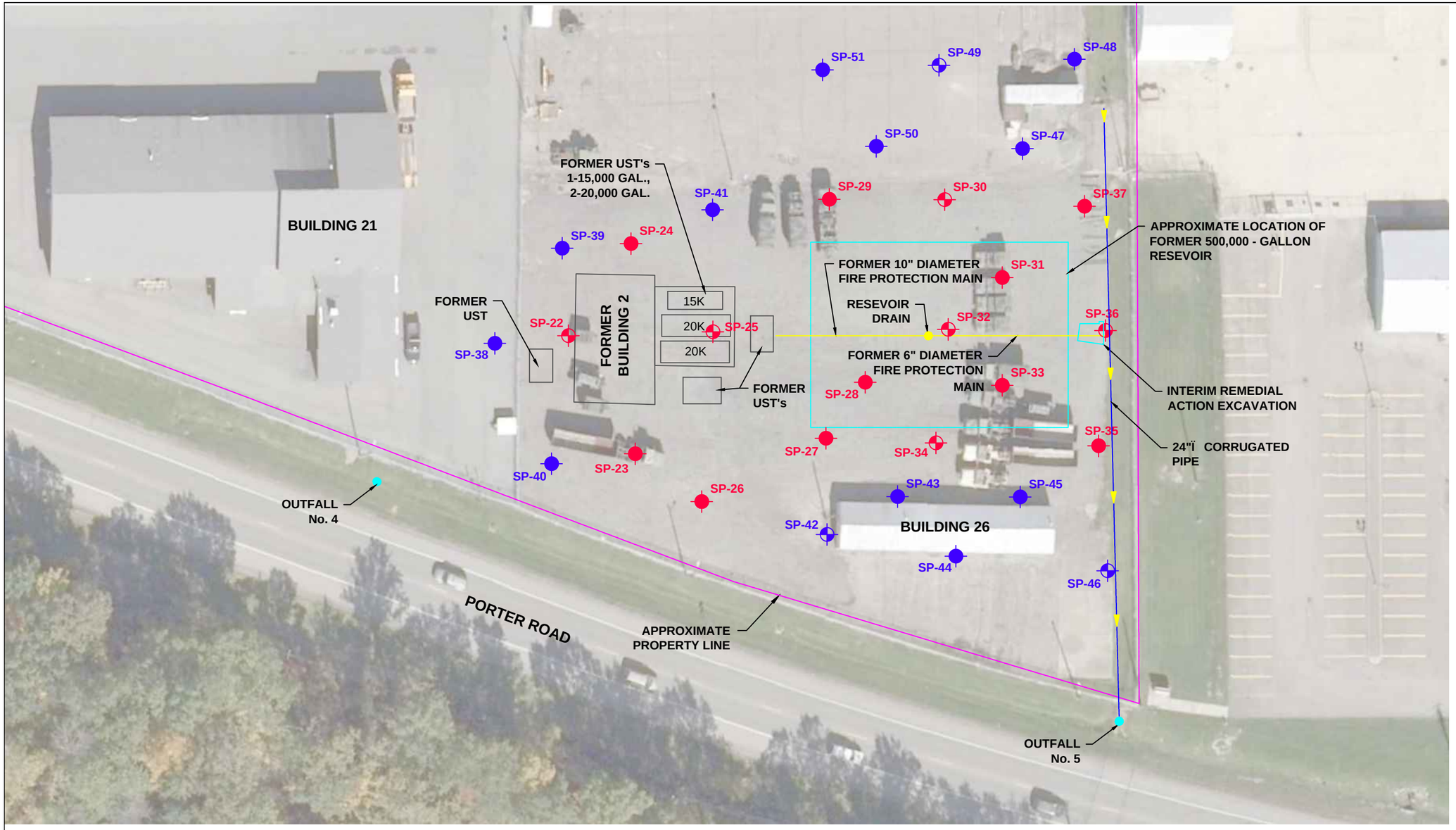
SCALE IN FEET

0 10 20 30 40 50

FIGURE 3
SOIL SAMPLE LOCATION MAP – DECEMBER 2010
NIAGARA FALLS AFRC COMPLEX
NIAGARA FALLS, NEW YORK

PARS ENVIRONMENTAL, INC.
ROBBINSVILLE, NEW JERSEY

DR. BY: JA	SCALE: 1"=50'	JOB No.: 727-04
CK'D. BY: TD	DATE: 11/29/11	FILE NO.: 727-04
REV. NO. --	REV. DATE: --	FIGURE NO.:3



LEGEND:

SP-26 — APPROXIMATE LOCATION AND DESIGNATION OF PRIMARY SOIL PROBE

SP-34 — APPROXIMATE LOCATION AND DESIGNATION OF PRIMARY SOIL PROBE WITH TEMPORARY PIEZOMETER INSTALLED

SP-40 — APPROXIMATE LOCATION AND DESIGNATION OF SECONDARY SOIL PROBE

SP-42 — APPROXIMATE LOCATION AND DESIGNATION OF SECONDARY SOIL PROBE WITH TEMPORARY PIEZOMETER INSTALLED

NOTES:

1. BASE MAP ADAPTED FROM AN AERIAL PHOTOGRAPH DOWNLOADED FROM http://www.bing.com/maps/, AND FIELD OBSERVATIONS.

2. THE SIZE AND LOCATION OF EXISTING SITE FEATURES SHOULD BE CONSIDERED APPROXIMATE.

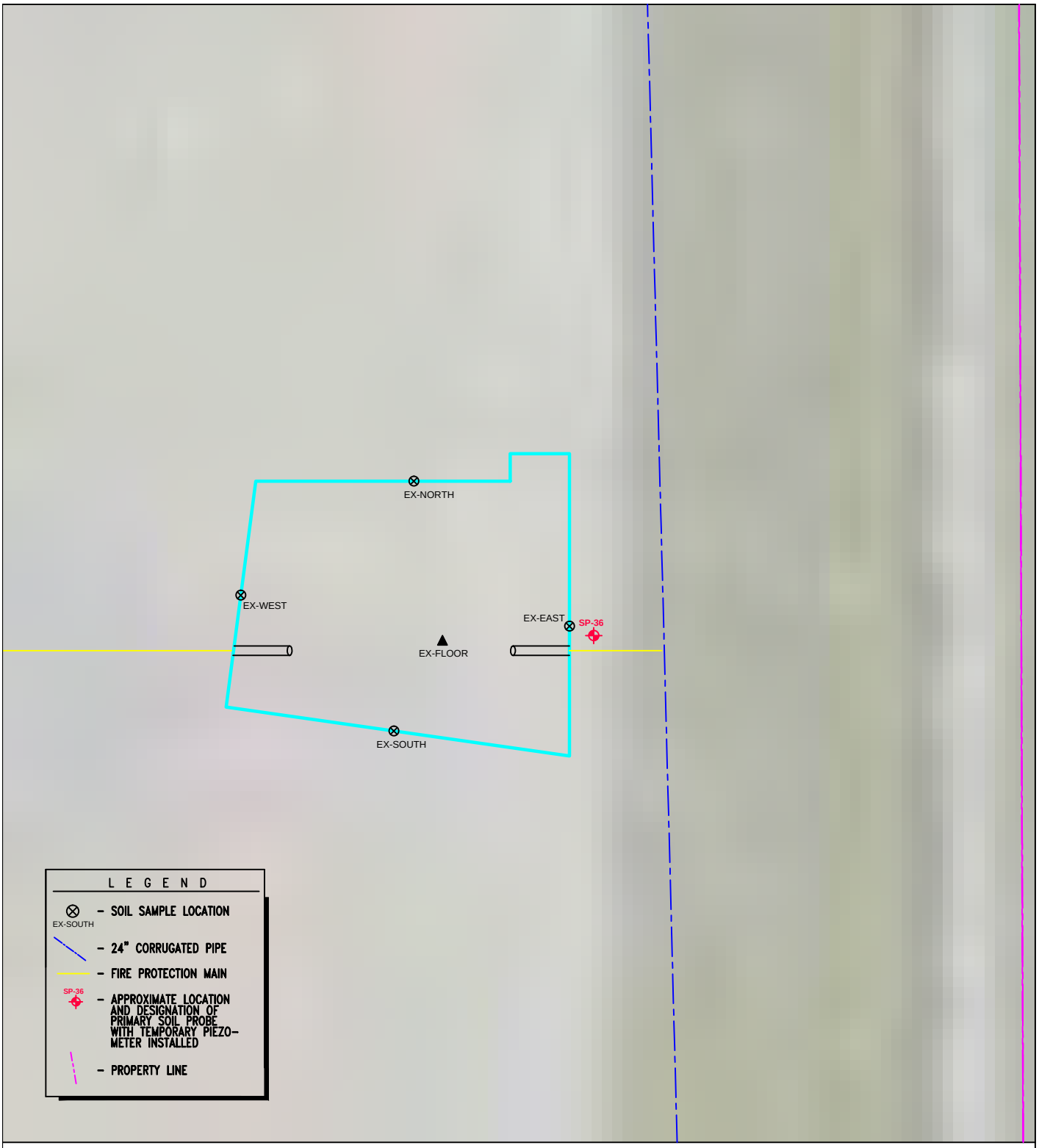
SCALE IN FEET

0 10 20 30 40 50

FIGURE 4
SOIL SAMPLE LOCATION MAP – SEPTEMBER 2011
NIAGARA FALLS AFRC COMPLEX
NIAGARA FALLS, NEW YORK

PARS ENVIRONMENTAL, INC.
ROBBINSVILLE, NEW JERSEY

DR. BY: JA	SCALE: 1"=50'	JOB No.: 727-04
CK'D. BY: TD	DATE: 11/29/11	FILE NO.: 727-04
REV. NO. --	REV. DATE: --	FIGURE NO.:4



SCALE IN FEET

0 1 2 3 4 5

FIGURE 5
EXCAVATION LOCATION MAP
NIAGARA FALLS AFRC COMPLEX
NIAGARA FALLS, NEW YORK

PARS ENVIRONMENTAL, INC.
ROBBINSVILLE, NEW JERSEY

DR. BY: JA	SCALE: 1"=5'	JOB No.: 727-04
CK'D. BY: TD	DATE: 11/29/11	FILE NO.: 727-04
REV. NO. --	REV. DATE: --	FIGURE NO.:5

TABLES

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Table 1
Analytical Results Summary Table
Niagara Falls Armed Forces Reserve Center
Niagara Falls, New York

Sample Identification	Date Collected	VOCs EPA Method 8260-TCL	SVOCs EPA Method 8270 - TCL	PCBs EPA Method 8082	Waste Characterization
Soil Probe Samples					
SP-22-2-4	9/26/2011	X	X	X	
SP-22-10-12	9/26/2011	X	X	X	
SP-23-2-4	9/26/2011	X	X	X	
SP-23-6-8	9/26/2011	X	X	X	
SP-24-2-4	9/26/2011	X	X	X	
SP-24-8-10	9/26/2011	X	X	X	
SP-25-2-4	9/26/2011	X	X	X	
SP-25-6-8	9/26/2011	X	X	X	
SP-26-1-3	9/26/2011	X	X	X	
SP-26-6-8	9/26/2011	X	X	X	
SP-27-2-4	9/26/2011	X	X	X	
SP-27-6-8	9/26/2011	X	X	X	
SP-28-1-3	9/26/2011	X	X	X	
SP-28-6-8	9/26/2011	X	X	X	
SP-29-1-3	9/26/2011	X	X	X	
SP-29-6-8	9/26/2011	X	X	X	
SP-30-1-3	9/27/2011	X	X	X	
SP-30-10-12	9/27/2011	X	X	X	
SP-31-1-3	9/27/2011	X	X	X	
SP-31-8-10	9/27/2011	X	X	X	
SP-32-2-4	9/26/2011	X	X	X	
SP-32-8-10	9/26/2011	X	X	X	
SP-33-0-2	9/27/2011	X	X	X	
SP-33-8-10	9/27/2011	X	X	X	
SP-34-2-4	9/26/2011	X	X	X	
SP-34-6-8	9/26/2011	X	X	X	
SP-35-1-3	9/27/2011	X	X	X	
SP-35-6-8	9/27/2011	X	X	X	
SP-36-1-3	9/27/2011	X	X	X	
SP-36-8-10	9/27/2011	X	X	X	
SP-37-1-3	9/27/2011	X	X	X	
SP-37-4-6	9/27/2011	X	X	X	
SP-41-1-3	9/28/2011		X	X	
SP-41-6-8	9/28/2011		X	X	
SP-47-1-3	9/27/2011			X	
SP-47-6-8	9/27/2011			X	
SP-50-1-3	9/28/2011		X	X	
SP-50-6-8	9/28/2011		X	X	
SP-51-1-3	9/28/2011		X	X	
SP-51-6-8	9/28/2011		X	X	
OUTFALL 004	9/27/2011	X	X	X	
Soil Excavation Samples					
EX-NORTH	9/29/2011	X	X	X	
EX-SOUTH	9/29/2011	X	X	X	
EX-EAST	9/29/2011	X	X	X	
EX-WEST	9/29/2011	X	X	X	
EX-FLOOR	9/29/2011	X	X	X	
WC-1-SOIL	9/29/2011				X'
Groundwater Samples					
SP-22-110926	9/26/2011	X	X	X	
SP-25-110926	9/26/2011	X	X	X	
SP-30-110927	9/27/2011	X	X	X	
SP-32-110926	9/26/2011	X	X	X	
SP-34-110926	9/26/2011	X	X	X	
SP-36-110927	9/27/2011	X	X	X	
SP-42-110927	9/27/2011	X	X	X	
SP-49-110927	9/27/2011	X	X	X	

Notes:
1. SP-22-2-4 = (SP-22), type of sample and number from which sample was obtained, (2-4) depth of sample below ground surface. SP = soil probe.
2. VOCs = Volatile Organic Compounds
3. SVOCs = Semi-Volatile Organic Compounds
4. TCL = Target Compound List
5. TAL = Target Analyte List
6. PCBs = Polychlorinated Biphenyls
7. Waste characterization sample (WC-1-SOIL) was analyzed for the following parameters: TCLP VOCs, SVOCs, RCRA Metals, PCBs, pH, and Ignitability.

Table 2
Draft Soil Analytical Results
Niagara Falls Armed Forces Reserve Center
Niagara Falls, New York

	Unrestricted	Restricted Commmercial	SP-22-2-4	SP-22-10-12	SP-23-2-4	SP-23-6-8	SP-24-2-4	SP-24-8-10	SP-25-2-4	SP-25-6-8	SP-26-1-3	SP-26-6-8	SP-27-2-4	SP-27-6-8
Parameter	Soil Cleanup	Soil Cleanup												
	Objectives	Objectives	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds - EPA Method 8260 TCL (ug/kg)														
Acetone	50	*500,000*	ND	7.1 J	60	22 J	28 J	ND	ND	ND	27 J	6.7 J	ND	ND
Methylcyclohexane	NV	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1,300	*150,000*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	50	*500,000*	4.9 J	5.6 J	4.8 J	5.1 J	5.1 J	3.9 J	5.1 J	5.6 J	4.6 J	4.8 J	4.9 J	5.0 J
2-Butanone (MEK)	100,000	*NV*	ND	ND	7.5 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Semi-Volatile Organic Compounds - EPA Method 8270 TCL (ug/kg)														
Naphthalene	12,000	*500,000*	ND	51 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	410 [7]	*NV*	ND	12 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methylphenol	NV	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	100,000	*500,000*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	20,000	*500,000*	ND	68 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	30,000	*500,000*	ND	96 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	100,000	*500,000*	500 J	210 J	ND	ND	ND	ND	5100 J	3300 J	ND	ND	83 J	ND
Anthracene	100,000	*500,000*	ND	97 J	ND	ND	ND	ND	1300 J	ND	ND	ND	ND	ND
Fluoranthene	100,000	*500,000*	830 J	250	ND	ND	ND	ND	7100 J	7000 J	16 J	ND	80 J	ND
Pyrene	100,000	*500,000*	590 J	160 J	ND	ND	ND	ND	4900 J	6100 J	11 J	ND	40 J	ND
Benzo(a)anthracene	1,000	*5,600*	650 J	110 J	12 J	ND	21 J	ND	3600 J	5600 J	14 J	ND	37 J	ND
Dibenzo(a,h)anthracene	330	*560*	ND	14 J	ND	ND	30 J	ND	**630 J**	**1200 J**	ND	ND	10 J	ND
Dibenzofuran	7,000	*NV*	ND	31 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	NV	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-octyl phthalate	NV	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butyl phthalate	NV	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	50,000 [7]	*NV*	ND	ND	ND	88 J	ND	ND	ND	ND	ND	ND	ND	ND
Carbazole	NV	*NV*	ND	17 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	1,000	*56,000*	670 JB	100 JB	11 JB	ND	29 JB	ND	3500 JB	5400 JB	14 JB	ND	45 JB	ND
Benzo(b)fluoranthene	1,000	*5,600*	590 J	91 J	16 J	11 J	ND	11 J	4100 J	5600 J	19 J	12 J	59 J	15 J
Benzo(k)fluoranthene	800	*56,000*	420 J	64 J	13 J	11 J	ND	13 J	1700 J	3100 J	16 J	12 J	27 J	9.1 J
Biphenyl	NV	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	1,000	*1,000*	550 J	90 J	13 J	9.5 J	ND	ND	**3200 J**	**5800 J**	15 J	9.9 J	39 J	ND
Indeno(1,2,3-cd)pyrene	500	*5,600*	280 J	32 J	ND	ND	30 J	ND	1200 J	2100 J	9.3 J	8.8 J	23 J	ND
Benzo(g,h,i)perylene	100,000	*500,000*	310 J	33 J	ND	ND	35 J	ND	1400 J	2500 J	ND	9.8 J	26 J	ND
Polychlorinated Biphenyls - EPA Method 8082 (ug/kg)														
Aroclor 1254	NV	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	NV	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total PCBs	100*	*1,000**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 2
Draft Soil Analytical Results
Niagara Falls Armed Forces Reserve Center
Niagara Falls, New York

	Unrestricted	Restricted Commmercial	SP-28-1-3	SP-28-6-8	SP-29-1-3	SP-29-6-8	SP-30-1-3	SP-30-10-12	SP-31-1-3	SP-31-8-10	SP-32-2-4	SP-32-8-10	SP-33-0-2	SP-33-8-10
Parameter	Soil Cleanup	Soil Cleanup												
	Objectives	Objectives	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds - EPA Method 8260 TCL (ug/kg)														
Acetone	50	*500,000*	ND	9.7 J	7.3 J	ND	12 J	ND	ND	ND	ND	30	ND	ND
Methylcyclohexane	NV	*NV*	ND	ND	ND	ND	3.0 J	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1,300	*150,000*	ND	ND	ND	ND	ND	<	ND	ND	ND	ND	ND	ND
Methylene Chloride	50	*500,000*	4.7 J	5.8 J	7.8	5.6 J	3.8 JB	2.9 JB	4.3 JB	3.2 JB	5.6 J	5.2 J	ND	ND
2-Butanone (MEK)	100,000	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Semi-Volatile Organic Compounds - EPA Method 8270 TCL (ug/kg)														
Naphthalene	12,000	*500,000*	ND	ND	ND	ND	17 J	ND	7.7 J	ND	ND	ND	ND	ND
2-Methylnaphthalene	410 [7]	*NV*	ND	ND	ND	ND	9.3 J	ND	ND	ND	ND	ND	52 J	ND
4-Methylphenol	NV	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	100,000	*500,000*	ND	ND	ND	32 J	22 J	ND	15 J	ND	ND	ND	68 J	ND
Acenaphthene	20,000	*500,000*	ND	ND	ND	ND	25 J	ND	3.0 J	ND	ND	ND	ND	ND
Fluorene	30,000	*500,000*	ND	ND	ND	33 J	26 J	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	100,000	*500,000*	15 J	18 J	1800 J	360	320 B	8.8 JB	96 JB	6.6 JB	88 J	ND	190 JB	ND
Anthracene	100,000	*500,000*	ND	ND	ND	97 J	52 J	ND	28 J	ND	22 J	ND	88 J	ND
Fluoranthene	100,000	*500,000*	36 J	77 J	3100 J	570	630 B	17 JB	250 B	13 JB	180 J	ND	560 JB	5.5 JB
Pyrene	100,000	*500,000*	25 J	57 J	2000 J	350	430 B	12 JB	170 JB	11 JB	120 J	ND	440 JB	4.9 JB
Benzo(a)anthracene	1,000	*5,600*	27 J	46 J	1700 J	210 J	260 B	14 JB	150 JB	15 JB	97 J	11 J	330 JB	9.1 JB
Dibenzo(a,h)anthracene	330	*560*	ND	12 J	ND	29 J	ND	ND	ND	ND	20 J	ND	ND	ND
Dibenzofuran	7,000	*NV*	ND	ND	ND	19 J	16 J	ND	6.4 J	ND	ND	ND	28 J	ND
Diethyl phthalate	NV	*NV*	ND	ND	ND	ND	14 JB	12 JB	16 JB	11 JB	ND	ND	ND	9.8 JB
Di-n-octyl phthalate	NV	*NV*	ND	ND	ND	ND	32 J	32 J	38 J	30 J	ND	ND	310 J	31 J
Di-n-butyl phthalate	NV	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	50,000 [7]	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbazole	NV	*NV*	ND	ND	ND	15 J	53 J	4.1 J	14 J	3.7 J	ND	ND	74 J	3.6 J
Chrysene	1,000	*56,000*	25 JB	47 JB	2300 JB	200 J	290 B	17 JB	140 JB	14 JB	110 JB	10 JB	380 JB	7.9 JB
Benzo(b)fluoranthene	1,000	*5,600*	40 J	72 J	3500 J	210 J	440 B	18 JB	190 JB	20 JB	140 J	14 J	740 JB	12 JB
Benzo(k)fluoranthene	800	*56,000*	19 J	35 J	1700 J	110 J	180 JB	16 JB	82 JB	15 JB	64 J	13 J	360 JB	10 JB
Biphenyl	NV	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	1,000	*1,000*	26 J	54 J	**2900 J**	160 J	290 B	15 JB	130 JB	15 JB	98 J	14 J	490 JB	7.0 JB
Indeno(1,2,3-cd)pyrene	500	*5,600*	16 J	27 J	1400 J	86 J	120 JB	10 JB	56 JB	10 JB	45 J	ND	210 JB	7.6 JB
Benzo(g,h,i)perylene	100,000	*500,000*	15 J	28 J	1800 J	91 J	120 JB	7.8 JB	57 JB	11 JB	52 J	ND	400 JB	8.8 JB
Polychlorinated Biphenyls - EPA Method 8082 (ug/kg)														
Aroclor 1254	NV	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	NV	*NV*	1,100	ND	320	ND	150 J	ND	ND	ND	410	ND	940	ND
Total PCBs	100*	*1,000**	1,100	ND	320	ND	150	ND	ND	ND	410	ND	940	ND

Table 2
Draft Soil Analytical Results
Niagara Falls Armed Forces Reserve Center
Niagara Falls, New York

	Unrestricted	Restricted Commmercial	SP-34-2-4	SP-34-6-8	SP-34-6-8 (DUP)	SP-35-1-3	SP-35-6-8	SP-36-1-3	SP-36-8-10	SP-37-1-3	SP-37-4-6	SP-41-1-3	SP-41-6-8	SP-47-1-3
Parameter	Soil Cleanup	Soil Cleanup												
	Objectives	Objectives	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds - EPA Method 8260 TCL (ug/kg)														
Acetone	50	*500,000*	ND	6.7 J	ND	ND	ND	27 J	17 J	19 J	29 J	NT	NT	NT
Methylcyclohexane	NV	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NT	NT	NT
Tetrachloroethene	1,300	*150,000*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NT	NT	NT
Methylene Chloride	50	*500,000*	6.9	5.9 J	3.9 J	ND	ND	2.9 JB	ND	2.9 J	ND	NT	NT	NT
2-Butanone (MEK)	100,000	*NV*	ND	ND	ND	ND	ND	5.2 J	ND	ND	ND	NT	NT	NT
Semi-Volatile Organic Compounds - EPA Method 8270 TCL (ug/kg)														
Naphthalene	12,000	*500,000*	33 J	ND	ND	ND	ND	5.7 J	ND	45 J	ND	ND	ND	NT
2-Methylnaphthalene	410 [9]	*NV*	38 J	ND	ND	ND	ND	4.1 J	ND	28 J	ND	ND	ND	NT
4-Methylphenol	NV	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	17 J	ND	NT
Acenaphthylene	100,000	*500,000*	ND	ND	ND	ND	ND	9.0 J	ND	9.8 J	ND	ND	ND	NT
Acenaphthene	20,000	*500,000*	ND	ND	ND	ND	ND	4.3 J	ND	160 J	ND	ND	ND	NT
Fluorene	30,000	*500,000*	ND	ND	ND	ND	ND	12 J	ND	320	ND	ND	ND	NT
Phenanthrene	100,000	*500,000*	120 J	ND	ND	7.7 JB	ND	89 JB	4.5 JB	2,400 B	10 JB	ND	ND	NT
Anthracene	100,000	*500,000*	ND	ND	ND	ND	ND	22 J	ND	690	ND	ND	ND	NT
Fluoranthene	100,000	*500,000*	140 J	ND	ND	27 JB	7.9 JB	130 JB	5.8 JB	2,700 B	17 JB	ND	ND	NT
Pyrene	100,000	*500,000*	89 J	ND	ND	20 JB	6.0 JB	98 JB	5.1 JB	1,700 B	9.8 JB	ND	ND	NT
Benzo(a)anthracene	1,000	*5,600*	66 J	15 J	15 J	23 JB	8.9 JB	55 JB	9.4 JB	950 B	13 JB	ND	21 J	NT
Dibenzo(a,h)anthracene	330	*560*	13 J	ND	ND	ND	ND	ND	ND	64 J	ND	ND	19 JB	NT
Dibenzofuran	7,000	*NV*	24 J	ND	ND	ND	ND	6.1 J	ND	190 J	ND	ND	ND	NT
Diethyl phthalate	NV	*NV*	ND	ND	ND	11 JB	7.4 JB	13 JB	12 JB	7.9 JB	10 JB	ND	ND	NT
Di-n-octyl phthalate	NV	*NV*	ND	ND	ND	30 J	28 J	ND	31 J	31 J	ND	ND	ND	NT
Di-n-butyl phthalate	NV	*NV*	ND	ND	ND	ND	ND	ND	ND	380	ND	ND	ND	NT
Bis(2-ethylhexyl)phthalate	50,000 [9]	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NT
Carbazole	NV	*NV*	ND	ND	ND	3.6 J	ND	14 J	4.4 J	230	ND	ND	ND	NT
Chrysene	1,000	*56,000*	78 J	14 JB	13 JB	24 JB	10 JB	62 JB	9.6 JB	940 B	9.7 JB	ND	24 J	NT
Benzo(b)fluoranthene	1,000	*5,600*	81 J	16 J	19 J	46 JB	20 JB	97 JB	8.8 JB	1,200 B	18 JB	ND	24 J	NT
Benzo(k)fluoranthene	800	*56,000*	40 J	14 J	12 J	24 JB	11 JB	43 JB	8.1 JB	620 B	16 JB	ND	29 J	NT
Biphenyl	NV	*NV*	ND	ND	ND	ND	ND	ND	ND	17 J	ND	ND	ND	NT
Benzo(a)pyrene	1,000	*1,000*	59 J	14 J	14 J	30 JB	11 JB	63 JB	7.3 JB	920 B	11 JB	ND	17 J	NT
Indeno(1,2,3-cd)pyrene	500	*5,600*	38 J	ND	ND	17 JB	7.4 JB	30 JB	6.2 JB	270 B	9.0 JB	ND	19 JB	NT
Benzo(g,h,i)perylene	100,000	*500,000*	52 J	ND	ND	19 JB	6.9 JB	32 JB	6.0 JB	290 B	7.9 JB	ND	15 JB	NT
Polychlorinated Biphenyls - EPA Method 8082 (ug/kg)														
Aroclor 1254	NV	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	NV	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total PCBs	100*	*1,000**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 2
Draft Soil Analytical Results
Niagara Falls Armed Forces Reserve Center
Niagara Falls, New York

	Unrestricted	Restricted Commmercial	SP-47-6-8	SP-50-1-3	SP-50-6-8	SP-51-1-3	SP-51-6-8	EX-NORTH	EX-SOUTH	EX-EAST	EX-WEST	EX-FLOOR	OUTFALL 004	RINSATE-SOIL
Parameter	Soil Cleanup	Soil Cleanup												
	Objectives	Objectives	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds - EPA Method 8260 TCL (ug/kg)														
Acetone	50	*500,000*	NT	NT	NT	NT	NT	44	17 J	17 J	29	ND	ND	ND
Methylcyclohexane	NV	*NV*	NT	NT	NT	NT	NT	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1,300	*150,000*	NT	NT	NT	NT	NT	2.4 JB	2.4 JB	2 JB	1.8 JB	2 JB	ND	ND
Methylene Chloride	50	*500,000*	NT	NT	NT	NT	NT	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	100,000	*NV*	NT	NT	NT	NT	NT	ND	ND	ND	ND	ND	ND	ND
Semi-Volatile Organic Compounds - EPA Method 8270 TCL (ug/kg)														
Naphthalene	12,000	*500,000*	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	390 J	ND
2-Methylnaphthalene	410 [7]	*NV*	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	460 J	ND
4-Methylphenol	NV	*NV*	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	100,000	*500,000*	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	180 J	ND
Acenaphthene	20,000	*500,000*	NT	21 J	ND	ND	ND	ND	ND	ND	ND	ND	4,500	ND
Fluorene	30,000	*500,000*	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	5,400	ND
Phenanthrene	100,000	*500,000*	NT	750 J	160 J	ND	ND	ND	ND	ND	ND	85 J	56,000 B	ND
Anthracene	100,000	*500,000*	NT	160 J	ND	ND	ND	ND	ND	ND	ND	41 J	19,000	ND
Fluoranthene	100,000	*500,000*	NT	1,000 J	260 J	ND	19 J	ND	18 J	ND	ND	580	190,000	ND
Pyrene	100,000	*500,000*	NT	740 J	200 J	ND	ND	ND	18 J	ND	ND	550	160,000	ND
Benzo(a)anthracene	1,000	*5,600*	NT	410 J	140 J	ND	ND	ND	26 J	ND	ND	320	**120,000**	ND
Dibenzo(a,h)anthracene	330	*560*	NT	ND	ND	ND	ND	ND	20 J	ND	ND	47 J	ND	ND
Dibenzofuran	7,000	*NV*	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,400 J	ND
Diethyl phthalate	NV	*NV*	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-octyl phthalate	NV	*NV*	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butyl phthalate	NV	*NV*	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	50,000 [7]	*NV*	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbazole	NV	*NV*	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	8,600	ND
Chrysene	1,000	*56,000*	NT	390 J	120 J	ND	ND	ND	15 J	ND	ND	290	**120,000**	ND
Benzo(b)fluoranthene	1,000	*5,600*	NT	420 J	150 J	ND	ND	4.8 J	32 J	ND	ND	290	**120,000**	ND
Benzo(k)fluoranthene	800	*56,000*	NT	280 J	89 J	ND	ND	4.2 J	22 J	ND	ND	170 J	49,000 B	ND
Biphenyl	NV	*NV*	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	1,000	*1,000*	NT	380 J	130 J	ND	ND	ND	28 J	ND	ND	270	**82,000 B**	ND
Indeno(1,2,3-cd)pyrene	500	*5,600*	NT	230 JB	93 JB	ND	ND	ND	26 J	ND	ND	130 J	**28,000 B**	ND
Benzo(g,h,i)perylene	100,000	*500,000*	NT	230 JB	97 JB	ND	17 JB	ND	27 J	ND	ND	140 J	29,000 B	ND
Polychlorinated Biphenyls - EPA Method 8082 (ug/kg)														
Aroclor 1254	NV	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	70 J	ND	ND
Aroclor 1260	NV	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	210	ND
Total PCBs	100*	*1,000**	ND	ND	ND	ND	ND	ND	ND	ND	ND	70	210	ND

Table 2
Draft Soil Analytical Results
Niagara Falls Armed Forces Reserve Center
Niagara Falls, New York

Notes:
1. Compounds detected in one or more samples are presented on this table. Refer to Attachment C for list of all compounds included in analysis.
2. Analytical testing completed by Test America Laboratories.
3. ug/kg = part per billion; mg/kg = parts per million
4. < indicates compound was not detected above method detection limits.
5. B = Compound was found in the blank and sample.
6. J = Result is less than the reporting limit but greater or equal to the method detection limit and the concentration is an approximate value.
7. NV = no value.
8. NT = not tested.
9. Shading indicates value exceeds Unrestricted Use Soil Cleanup Objectives.
10. **Bold** indicates value exceeds Restricted Commercial Use Soil Cleanup Objectives.
11. A duplicate sample (DUP-1) was collected at soil probe location SP-34, 6 to 8 feet.
12. *Soil cleanup objective is for the sum of the Aroclor compound concentrations detected (Total PCBs).
13. Soil cleanup objectives (SCOs) are from NYSDEC Part 375, Subpart 375-6: Unrestricted Use Soil Cleanup Objectives and the Supplemetal Soil Cleanup Objectives (SSCOs) are from NYSDEC Final Commissioners Policy, CP-51, Dated October 21, 2010.

Table 3
Groundwater Analytical Results
Niagara Falls Armed Forces Reserve Center
Niagara Falls, New York

Parameter	Class GA Criteria	SP-22-110926	SP-25-110926	SP-30-110927	SP-32-110926	SP-34-110926	SP-34-110926 (DUP)	SP-36-110927	SP-42-110927
Volatile Organic Compounds - EPA Method 8260 TCL (ug/L)									
2-Butanone (MEK)	50	ND	ND	ND	ND	ND	ND	ND	3.8 J
Acetone	50	ND	5.8 J	ND	3.0 J	3.4 J	3.8 J	6.6 J	23
Benzene	1	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	NV	0.32 J	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	NV	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND
Methylcyclohexane	NV	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	5	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	ND	ND	ND	0.58 J	ND	ND	ND	ND
Trichlorofluoromethane	5	6.3	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	5	ND	ND	ND	ND	ND	ND	ND	ND
Total VOCs	NV	6.6	5.8	ND	3.6	3.4	3.8	0.0	26.8
Semi-Volatile Organic Compounds - EPA Method 8270 (ug/L)									
2,4-Dimethylphenol	1	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	NV	ND	ND	ND	ND	ND	ND	ND	ND
4-Methylphenol	1	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	20	3.3 J	ND	ND	ND	ND	ND	ND	ND
Anthracene	50	0.91 J	0.43 J	ND	ND	ND	ND	ND	ND
Benzo [a] anthracene	0.002*	0.49 J	0.85 J	ND	ND	0.44 J	0.35 J	ND	ND
Benzo [a] pyrene	ND	ND	0.95 J	ND	ND	ND	ND	ND	ND
Benzo [b] fluoranthene	0.002*	ND	1.1 J	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	NV	ND	0.79 J	ND	ND	ND	ND	ND	ND
Carbazole	5	1.9 J	0.41 J	ND	ND	ND	ND	ND	ND
Chrysene	0.002*	0.39 J	0.77 J	ND	ND	0.43 J	0.47 J	ND	ND
Dibenzofuran	NV	1.2 J	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	50	4.0 J	ND	ND	ND	ND	ND	ND	ND
Di-n-butyl-phthalate	NV	0.5 JB	0.46 JB	ND	0.47 JB	0.33 JB	0.44 JB	0.74 J	ND
Dibenz(a,h)anthracene	NV	ND	0.67 J	ND	ND	ND	ND	ND	ND
Fluoranthene	50	1.7 J	1.2 J	0.45 J	ND	0.90 J	0.77 J	ND	ND
Fluorene	50	2.8 J	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	ND	0.91 J	ND	ND	ND	ND	ND	ND
Naphthalene	10 *	3.8 J	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	50 *	3.7 J	0.59 J	ND	ND	0.44 J	0.44 JB	ND	ND
Pyrene	50	1.5 J	1.2 J	ND	ND	0.99 J	0.83 J	ND	ND
Total SVOCs	NV	26.2	10.3	0.5	0.5	3.5	3.3	0.7	0.0
PCBs - EPA Method 8082 (ug/L)									
Aroclor 1254	NV	ND	ND	ND	2	ND	ND	ND	ND
Aroclor 1260	NV	ND	ND	0.77	1	D	ND	13	ND
Total PCBs	0.09 [11]	0.0	0.0	0.77	3.0	0.0	0.0	13.0	0.0

Table 3
Groundwater Analytical Results
Niagara Falls Armed Forces Reserve Center
Niagara Falls, New York

Parameter	Class GA Criteria	SP-49-110927	RINSATE	TRIP BLANK 1	TRIP BLANK 2
Volatile Organic Compounds - EPA Method 8260 TCL (ug/L)					
2-Butanone (MEK)	50	ND	ND	ND	ND
Acetone	50	ND	ND	ND	ND
Benzene	1	1.6	ND	ND	ND
Carbon disulfide	NV	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ND	ND	ND	ND
Cyclohexane	NV	0.95 J	ND	ND	ND
Ethylbenzene	5	1.3	ND	ND	ND
Methylcyclohexane	NV	1.1	ND	ND	ND
Methylene chloride	5	ND	ND	0.62 J	0.66 J
Toluene	5	2.7	ND	ND	ND
Trichloroethene	5	ND	ND	ND	ND
Trichlorofluoromethane	5	ND	ND	ND	ND
Total Xylenes	5	1.8 J	ND	ND	ND
Total VOCs	NV	6.7	ND	0.62	0.66
Semi-Volatile Organic Compounds - EPA Method 8270 (ug/L)					
2,4-Dimethylphenol	1	ND	ND	NT	NT
2-Methylnaphthalene	NV	ND	ND	NT	NT
4-Methylphenol	1	ND	ND	NT	NT
Acenaphthene	20	ND	ND	NT	NT
Anthracene	50	ND	ND	NT	NT
Benzo [a] anthracene	0.002*	ND	ND	NT	NT
Benzo [a] pyrene	ND	ND	ND	NT	NT
Benzo [b] fluoranthene	0.002*	ND	ND	NT	NT
Benzo(g,h,i)perylene	NV	ND	ND	NT	NT
Carbazole	5	ND	ND	NT	NT
Chrysene	0.002*	ND	ND	NT	NT
Dibenzofuran	NV	ND	ND	NT	NT
Diethyl phthalate	50	ND	ND	NT	NT
Di-n-butyl-phthalate	NV	ND	ND	NT	NT
Dibenz(a,h)anthracene	NV	ND	ND	NT	NT
Fluoranthene	50	ND	ND	NT	NT
Fluorene	50	ND	ND	NT	NT
Indeno(1,2,3-cd)pyrene	0.002	ND	ND	NT	NT
Naphthalene	10 *	ND	ND	NT	NT
Phenanthrene	50 *	ND	ND	NT	NT
Pyrene	50	ND	ND	NT	NT
Total SVOCs	NV	0.0	0.0	0.0	0.0
PCBs - EPA Method 8082 (ug/L)					
Aroclor 1254	NV	ND	ND	NT	NT
Aroclor 1260	NV	ND	ND	NT	NT
Total PCBs	0.09 [11]	0.0	0.0	0.0	0.0

Table 3
Groundwater Analytical Results
Niagara Falls Armed Forces Reserve Center
Niagara Falls, New York

Notes:
1. Compounds detected in one or more samples are presented on this table.
2. Analytical testing completed by Test America Laboratories.
3. NYSDEC Class GA criteria obtained from Division of Water Technical and Operational Guidance Series (TOGS 1.1.1)
4. ug/L = part per billion (ppb); mg/L = part per million (ppm)
5. Shading indicates values exceeding NYSDEC Class GA groundwater criteria.
6. Class GA criteria shown is for total xylene concentration.
7. < = compound was not detected.
8. * indicates a Guidance Value instead of a Standard Value.
9. NV = no value.
10. ND = non-detectable concentration by approved analytical methods.
11. Groundwater criteria is for the sum of the Aroclor compound concentrations detected (Total PCBs).

Table 4
Secondary Screening Process - Subsurface Soil CPC Selection
USACE Niagara - Niagara Falls, NY

Analyte	CAS Number	Frequency of Detection	Mean of Detected (mg/kg)	Range of Detected(mg/kg)	95% UCL (mg/kg)	Max. Detect (mg/kg)	EPC (mg/kg)	RSL (mg/kg)	CPC
Acetone	67-64-1	37/52	0.039	0.0019-0.34	0.037[a]	0.34	0.037	630,000	N
Benzo(a)anthracene	56-55-3	43/65	0.645	0.0034-10.0	1.575[b]	10.0	1.575	2.1	Y
Dibenzo(a,h)anthracene	53-70-3	15/65	0.296	0.01-2.3	0.257[c]	2.3	0.257	0.21	Y
Chrysene	218-01-9	40/65	0.678	0.0079-9.7	1.54[b]	9.7	1.540	210	N
Benzo(b)fluoranthene	205-99-2	49/65	0.716	0.0045-14.0	2.052[b]	14.0	2.052	2.1	Y
Benzo(k)fluoranthene	207-08-9	44/65	0.365	0.0024-6.5	0.966[b]	6.5	0.966	21	N
Benzo(a)pyrene	50-32-8	40/65	0.806	0.007-14.0	1.992[b]	14.0	1.992	0.210	Y
Indeno(1,2,3-cd)pyrene	193-39-5	36/65	0.445	0.0062-8.8	1.131[b]	8.80	1.131	2.1	Y
Aroclor 1254	11097-69-1	27/82	2.201	0.007-15.0	1.241[a]	15.0	1.241	0.74	Y
Aroclor 1260	11096-82-5	16/82	0.450	0.025-1.6	0.158[a]	1.60	0.158	0.74	Y

Notes:

mg/kg - Milligrams per Kilogram
UCL- Upper Concentration Limit
EPC - Exposure Point Concentration
RSL - Risk Based Concentration (USEPA Regional Screening Level (RSL) Tables for Industrial Soil, June 2011)
CPC - Contaminant of Potential Concern
Y - Yes
N- No
a- Calculated using the 95% KM (Percentile Bootstrap) Method
b- Calculated using the 97.5% KM (Chebyshev) Method
c- Calculated using the 95% KM (Chebyshev) Method

Table 5
Secondary Screening Process - Ground Water CPC Selection
USACE Niagara - Niagara Falls, New York

Analyte	CAS Number	Frequency of Detection	Mean of Detected (ug/L)	Range of Detected(ug/L)	95% UCL (ug/L)	Max. Detect (ug/L)	EPC (ug/L)	RSL (ug/L)	CPC
Benzene	71-43-2	1/10	NA	NA	NC	1.6	1.6	0.41	Y
Naphthalene	91-20-3	2/8	8.40	3.8-13.0	NC	8.4	8.4	0.14	Y
Toluene	108-88-3	2/10	45.85	2.7-89.0	NC	89.0	89.0	2,300	N
Trichlorofloromethane	75-69-4	2/10	4.025	1.75-6.3	NC	6.3	6.3	1,300	N
2,4-Dimethylphenol	105-67-9	1/8	NA	NA	NC	3.7	3.7	730	N
4-Methylphenol	106-44-5	1/8	NA	NA	NC	44.0	44.0	NS	N
2-Methylnaphthalene	91-57-6	1/8	NA	NA	NC	16.0	16.0	150	N
Benzo(a)anthracene	56-55-3	5/8	2.416	0.44-8.3	3.653[a]	8.30	3.653	0.029	Y
Benzo(b)fluoranthene	205-99-2	2/8	4.2	1.1-7.3	7.3[a]	7.3	7.30	0.029	Y
Carbazole	86-74-8	4/8	23.690	0.41-92	35.42[b]	92.0	35.42	NS	N
Benzo(a)pyrene	50-32-8	2/8	2.925	0.95-4.9	NC	4.9	4.90	0.0029	Y
Chrysene	218-01-9	5/8	2.229	0.155-2.229	13.29[c]	2.23	2.230	2.9	N
Indeno(1,2,3-cd)pyrene	193-39-5	1/8	NA	NA	NC	0.91	0.91	0.029	Y
Phenol	108-95-2	1/8	NA	NA	NC	330	330	11,000	N
PCBs									
Aroclor 1254	11097-69-1	3/8	3.267	1.7-6.1	3.472[b]	6.1	3.47	0.034	Y
Aroclor 1260	11096-82-5	5/8	3.246	0.52-13.0	12.29[d]	13.0	12.29	0.034	Y

Notes:

ug/L - Micrograms per liter
UCL- Upper Concentration Limit
EPC - Exposure Point Concentration
RSL - Regional Screening Level (USEPA Regional Screening Level (RSL) Tables for Tap Water, June 2011)
CPC - Contaminant of Potential Concern
Y- Yes
N- No
NA- Not enough detected data available
NC- Not calculated because only one detected value.
NS- No RSL is available for the compound.
a- Calculated using the 95% KM (BCA) method
b- Calculated using the 95% KM (t) method
c- Calculated using the 99%KM (Chebyshev) method
d- Calculated using the 97.5% KM (Chebyshev) method

Table 6
Final CPC Selection
USACE Niagara - Niagara Falls, New York

Chemicals of Potential Concern	
Sub Surface Soil	Groundwater
Benzo(a)anthracene	Benzene
Dibenz(a,h)anthracene	Naphthalene
Benzo(b)fluoranthene	Benzo(a)anthracene
Benzo(a)pyrene	Benzo(b)fluoranthene
Indeno(1,2,3-cd)pyrene	Benzo(a)pyrene
Aroclor 1254	Indeno(1,2,3-cd)pyrene
Aroclor 1260	Aroclor 1254
	Aroclor 1260

Table 7
Summary of Potential Exposure Pathways
USACE Niagara - Niagara Falls, New York

Potentially Exposed Population	Exposure Route, Medium, Exposure Point	Pathway Selected for Evaluation	Reason for Selection
Worker	Dermal exposure to sub surface soil	Yes	Future use of the Site is industrial/commerical, therefore the potential exists for future workers to come in contact with soil during excavation or construction activities.
Worker	Inhalation of sub surface soil particulates from wind	Yes	Future use of the Site is industrial/commerical, therefore the potential for land disturbance could cause future workers to come in contact with soil particulates.
Worker	Incidental ingestion of sub surface soil	Yes	Future use of the Site is industrial/commerical, therefore the potential exists for future workers to come in contact with soil during excavation or construction activities.
Worker	Accidental Ingestion of groundwater	No	Future use of the Site is industrial/commerical, and groundwater at the Site is derived from public water. In addition, incidental ingestion of exposed groundwater during construction activities would be extremely rare and sporadic.
Worker	Inhalation of volatiles through bathing and other domestic tasks; inhalation of exposed groundwater	Yes	Future use of the Site is industrial/commericial, therefore no residential water use will occur at the Site. However, exposed groundwater could occur during construction activites.
Worker	Dermal exposure to groundwater	Yes	Future use of the Site is industrial/commercial, therefore the potential exists for future workers to come in contact with the groundwater during construction activities at the Site.

Table 8
Exposure Assessment - Subsurface Soil - Dermal
USACE Niagara - Niagara Falls, New York

Dermal Contact with Chemicals in Sub Surface Soil (Adult Commercial/Industrial Worker Scenario)					
Compound	EPC (mg/kg)	DA (mg/cm^2)	Absorbed Dose (mg/kg-day)	Absorption factor	Carcinogen
Benzo(a)anthracene	1.575	4.10E-08	4.72E-07	0.13	Y
Dibenz(a,h)anthracene	0.257	6.68E-09	7.71E-08	0.13	Y
Benzo(b)fluoranthene	2.052	5.34E-08	6.15E-07	0.13	Y
Benzo(a)pyrene	1.992	5.18E-08	5.97E-07	0.13	Y
Indeno(1,2,3-cd)pyrene	1.131	2.94E-08	3.39E-07	0.13	Y
Aroclor 1254	1.241	3.47E-08	4.01E-07	0.14	Y
Aroclor 1260	0.158	4.42E-09	5.10E-08	0.14	Y

Notes:

Calculated dosage is absorbed dose, not the intake dose

DA= C x CF x AF x ABS

Absorbed dose(mg/kg-day) = DA x EF x ED X EV X SA / BW X AT

Equation from RAGS Part A- Chapter 6

C = chemical concentration (EPC) mg/kg (varies per compound)

CF= Conversion factor (10E-6 kg/mg)

AF= Soil to Skin Adherence Factor (mg/cm^2), Assume 0.2 for adult worker(RAGS, Part E, Exhibit 3-5; Updated Dermal Exposure Assessment

SA = Skin surface area available for contact (cm^2/event) Assume 3,300 cm^2 for average adult (Updated Dermal Exposure Assessment Guidance)

ABS= Absorption Factor, varies per compound, use values presented in Regional Screening Level Industrial Soil Table, June 2011

EF= Exposure frequency (days per/year), assume 250 (RAGS Part E Exhibit 3-5)

ED= Exposure duration, 25 years (RAGS Part E, Exhibit 3-5)

EV= Event frequency, assume 1 (RAGS Part E, Exhibit 3-5)

BW= Body weight, assume 70kg (RAGS)

AT= Averaging Time (period over which exposure is average, days) For non-carcinogenic ED x 365 days/year; for carcinogens 70 years x 365 days/year)

EPC- Exposure Point Concentration

Table 9
Exposure Assessment - Subsurface Soil - Dermal
USACE Niagara - Niagara Falls, New York

Dermal Contact with Chemicals in Sub Surface Soil (Adult Construction Worker Scenario)					
Compound	EPC (mg/kg)	DA (mg/cm^2)	Absorbed Dose (mg/kg-day)	Absorption factor	Carcinogen
Benzo(a)anthracene	1.575	6.14E-08	1.02E-08	0.13	Y
Dibenz(a,h)anthracene	0.257	1.00E-08	1.66E-09	0.13	Y
Benzo(b)fluoranthene	2.052	8.00E-08	1.33E-08	0.13	Y
Benzo(a)pyrene	1.992	7.77E-08	1.29E-08	0.13	Y
Indeno(1,2,3-cd)pyrene	1.131	4.41E-08	7.32E-09	0.13	Y
Aroclor 1254	1.241	5.21E-08	8.66E-09	0.14	Y
Aroclor 1260	0.158	6.64E-09	1.10E-09	0.14	Y

Notes:

Calculated dosage is absorbed dose, not the intake dose

DA= C x CF x AF x ABS

Absorbed dose(mg/kg-day) = DA x EF x ED X EV X SA / BW X AT

Equation from RAGS Part A- Chapter 6

C = chemical concentration (EPC) mg/kg (varies per compound)

CF= Conversion factor (10E-6 kg/mg)

AF= Soil to Skin Adherence Factor (mg/cm^2), Assume 0.3 for construction worker(RAGS, Part E, Exhibit 3-3; Activity Specific Surface Area Weighted)

SA = Skin surface area available for contact (cm^2/event) Assume 3,300 cm^2 for average adult (Updated Dermal Exposure Assessment Guidance)

ABS= Absorption Factor, varies per compound, use values presented in Regional Screening Level Industrial Soil Table, November 2011

EF= Exposure frequency (days per/year), assume 180 (Exhibit 1-2: Summary of Default Exposure Factors for Site Specific Soil Screening Evaluations, Soil Guidance USEPA 2002)

ED= Exposure duration, 0.5 years (Exhibit 1-2: Summary of Default Exposure Factors for Site Specific Soil Screening Evaluations, Soil Guidance USEPA 2002)

EV= Event frequency, assume 1 (RAGS Part E, Exhibit 3-5)

BW= Body weight, assume 70kg (RAGS)

AT= Averaging Time (period over which exposure is average, days) For non-carcinogenic ED x 365 days/year; for carcinogens 70 years x 365 days/year)

EPC- Exposure Point Concentration

Table 10
Exposure Assessment - Subsurface Soil - Inhalation
USACE Niagara - Niagara Falls, New York

Inhalation of Soil Particulates from Sub Surface Soil (Commercial/Industrial Worker)					
Compound	CS (mg/m^3)	CA(ug/m^3)	Exposure concentration(ug/m^3)	Carcinogen	Molecular Weight
Benzo(a)anthracene	1.47E+01	2.15E-05	4.92E-06	Y	228.29
Dibenz(a,h)anthracene	2.93E+00	4.28E-06	9.78E-07	Y	278.35
Benzo(b)fluoranthene	2.12E+01	3.10E-05	7.08E-06	Y	252.3
Benzo(a)pyrene	2.06E+01	3.01E-05	6.87E-06	Y	252.32
Indeno(1,2,3-cd)pyrene	1.28E+01	1.87E-05	4.27E-06	Y	276.3
Aroclor 1254	1.66E+01	2.44E-05	5.57E-06	Y	328.0
Aroclor 1260	2.31E+00	3.38E-06	7.73E-07	Y	357.7

Notes:

Calculated dosage is absorbed dose, not the intake dose

EC (ug/m3) = CA x ET x EF x ED / AT

Equation from RAGS Part F- Equation 6

EC = Exposure concentration ($ug/m^{3)}$

CS= Soil concentration converted to ug/m3; varies per compound; Calculated EPC converted to ug/m^3 (EPC X molecular weight X 0.0409)

CA= Concentration of particulates in air; CS/PEF; PEF calculated fromTable 4-5: Derivation of the PEF- Commericial/Industrial Scenario

ET = Exposure time (hours/day), Assume 8

EF= Exposure frequency (days per/year), Assume 250

ED= Exposure duration (years) , Assume 25

AT= Averaging Time (ED in years X 365 days/year X 24 hours/day)

EPC- Exposure Point Concentration

Table 11
Exposure Assessment - Subsurface Soil - Inhalation
USACE Niagara - Niagara Falls, New York

Inhalation of Soil Particulates from Sub Surface Soil (Construction Worker Scenerio)					
Compound	CS (mg/m^3)	CA(ug/m^3)	Exposure concentration(ug/m^3)	Carcinogen	Molecular Weight
Benzo(a)anthracene	1.47E+01	2.15E-05	3.54E-06	Y	228.29
Dibenz(a,h)anthracene	2.93E+00	4.28E-06	7.04E-07	Y	278.35
Benzo(b)fluoranthene	2.12E+01	3.10E-05	5.10E-06	Y	252.3
Benzo(a)pyrene	2.06E+01	3.01E-05	4.95E-06	Y	252.32
Indeno(1,2,3-cd)pyrene	1.28E+01	1.87E-05	3.08E-06	Y	276.3
Aroclor 1254	1.66E+01	2.44E-05	4.01E-06	Y	328.0
Aroclor 1260	2.31E+00	3.38E-06	5.56E-07	Y	357.7

Notes:

Calculated dosage is absorbed dose, not the intake dose

EC (ug/m3) = CA x ET x EF x ED / AT

Equation from RAGS Part F- Equation 6

EC = Exposure concentration ($ug/m^{3)}$

CS= Soil concentration converted to ug/m3; varies per compound; Calculated EPC converted to ug/m^3 (EPC X molecular weight X 0.0409)

CA= Concentration of particulates in air; CS/PEF; PEF calculated fromTable 4-5: Derivation of the PEF- Commericial/Industrial Scenario

ET = Exposure time (hours/day), Assume 8

EF= Exposure frequency (days per/year), Assume 180

ED= Exposure duration (years) , Assume 0.5

AT= Averaging Time (ED in years X 365 days/year X 24 hours/day)

EPC- Exposure Point Concentration

Table 12
Exposure Assessment - Subsurface Soil - Ingestion
USACE Niagara - Niagara Falls, New York

Incidental Ingestion of Sub Surface Soil (Commercial/Industrial Worker Scenario)			
Compound	EPC (mg/kg)	Absorbed Dose (mg/kg-day)	Carcinogen
Benzo(a)anthracene	1.575	5.50E-07	Y
Dibenz(a,h)anthracene	0.257	8.98E-08	Y
Benzo(b)fluoranthene	2.052	7.17E-07	Y
Benzo(a)pyrene	1.992	6.96E-07	Y
Indeno(1,2,3-cd)pyrene	1.131	3.95E-07	Y
Aroclor 1254	1.241	4.34E-07	Y
Aroclor 1260	0.158	5.52E-08	Y

Notes:

Intake(mg/kg-day) = CS x IR x CF x FI x EF x ED / BW X AT

Equation from RAGS Part A- Chapter 6 (Exhibit 6-14)

CS = chemical concentration in soil (EPC) mg/kg (varies per compound)

IR= Ingestion rate (mg soil per day); For adults, assume 100 mg per day

CF = Conversion factor, 10^{-6} kg/mg

FI= Fraction Ingested from Contaminated Source, Pathway-specific value, Assume 100%

EF= Exposure frequency, 250 (days per/year)

ED= Exposure duration, 25 years

BW= Body weight, assume 70 kg (RAGS)

AT= Averaging Time (period over which exposure is average, days) For non-carcinogenic ED x 365 days/year; for carcinogens 70 years x 365 days/year)

EPC- Exposure Point Concentration

Table 13
Exposure Assessment - Subsurface Soil - Ingestion
USACE Niagara - Niagara Falls, New York

Incidental Ingestion of Sub Surface Soil (Construction Worker Scenario)			
Compound	EPC (mg/kg)	Absorbed Dose (mg/kg-day)	Carcinogen
Benzo(a)anthracene	1.575	2.62E-08	Y
Dibenz(a,h)anthracene	0.257	4.27E-09	Y
Benzo(b)fluoranthene	2.052	3.41E-08	Y
Benzo(a)pyrene	1.992	3.31E-08	Y
Indeno(1,2,3-cd)pyrene	1.131	1.88E-08	Y
Aroclor 1254	1.241	2.06E-08	Y
Aroclor 1260	0.158	2.62E-09	Y

Notes:

Intake(mg/kg-day) = CS x IR x CF x FI x EF x ED / BW X AT

Equation from RAGS Part A- Chapter 6 (Exhibit 6-14)

CS = chemical concentration in soil (EPC) mg/kg (varies per compound)

IR= Ingestion rate (mg soil per day); For construction, assume 330 mg per day

CF = Conversion factor, 10^{-6} kg/mg

FI= Fraction Ingested from Contaminated Source, Pathway-specific value, Assume 100%

EF= Exposure frequency, 180 (days per/year)

ED= Exposure duration, 0.5 years

BW= Body weight, assume 70 kg (RAGS)

AT= Averaging Time (period over which exposure is average, days) For non-carcinogenic ED x 365 days/year; for carcinogens 70 years x 365 days/year)

EPC- Exposure Point Concentration

Table 14
Exposure Assessment - Inhalation - Groundwater
USACE Niagara - Niagara Falls, New York

Inhalation of Volatiles from Exposed Groundwater (Construction Worker)					
Compound	CW (ug/L)	CT(ug/m^3)	Exposure concentration(ug/m^3)	Volatilization Factor	Carcinogen
Benzene	1.6	1.50E+01	2.46E+00	9.35E+00	Y
Naphthalene	8.4	5.54E+01	9.11E+00	6.60E+00	N

Notes:

Calculated dosage is absorbed dose, not the intake dose

EC (ug/m3) = CT x ET x EF x ED / AT

Equation from RAGS Part F- Equation 6

EC = Exposure concentration (ug/m^3)

CW= Water concentration (EPC)

CT= Concentration of contaminant in trench; calculated from Equation 3.1: Airborne Concentration of a Contaminant in a Trench (VF x CW)

ET = Exposure time (hours/day), Assume 8

EF= Exposure frequency (days per/year), Assume 180

ED= Exposure duration (years) , Assume 0.5

AT= Averaging Time (ED in years X 365 days/year X 24 hours/day)

EPC- Exposure Point Concentration

Table 15
Exposure Assessment - Dermal - Ground Water
USACE Niagara - Niagara Falls, New York

Dermal Contact with Chemicals in Ground Water (Construction Worker Scenario)								
Compound	EPC (ug/L)	CW (mg/cm^3)	FA	Kp	J_{event}	DA_{event}	Absorbed Dose	Carcinogen
Benzene	1.6	1.60E-06	1.00E+00	1.50E-02	2.90E-01	2.72E-08	4.52E-09	Y
Naphthalene	8.4	8.40E-06	1.00E+00	4.70E-02	5.60E-01	6.22E-07	1.45E-05	N
Benzo(a)anthracene	3.653	3.65E-06	1.00E+00	4.70E-01	2.03E+00	5.14E-06	8.54E-07	Y
Benzo(b)fluoranthene	7.30	7.30E-06	1.00E+00	7.00E-01	2.77E+00	1.79E-05	2.98E-06	Y
Benzo(a)pyrene	4.9	4.90E-06	1.00E+00	7.00E-01	2.69E+00	1.18E-05	1.97E-06	Y
Indeno(1,2,3-cd)pyrene	0.91	9.00E-07	6.00E-01	1.00E+00	3.78E+00	6.98E-07	1.16E-07	Y
Aroclor 1254	3.47	3.47E-06	7.00E-01	4.50E-01	7.21E+00	3.67E-07	6.09E-08	Y
Aroclor 1260	12.29	1.22E-05	5.00E-01	3.84E-01	1.33E+01	2.23E-07	3.71E-08	Y

Notes:

Calculated dosage is absorbed dose, not the intake dose

Dermally Absorbed dose(mg/kg-day) = DA_{event} x EV x ED x EF x SA / BW x AT

Equation from RAGS Part E- Chapter 3

DA_{event}= 2 x FA x Kp x CW √ [(6 x j_{event} x t_{event}) / pi]

FA= Fraction absorbed water (chemical specific, obtained from RAGS Part E, Appendix B)

Kp= Dermal permeability coefficient of compound in water (chemical specific, obtained from RAGS Part E, Appendix B)

Cw= Chemical concentration in water (EPC converted to mg/cm^3)

J_{event}= Lag time per event (hr/event) Chemical specific, obtained from Appendix B

T_{event}= Event duration (hr/event) assume 0.58 (RAGS Part E Exhibit 3-2)

EV= Event frequency (events/day) assume 1 (RAGS Part E Exhibit 3-2)

EF= Exposure frequency (days per/year), assume 180 (Exhibit 1-2: Summary of Default Exposure Factors for Site Specific Soil Screening Evaluations, Soil Guidance USEPA 2002)

ED= Exposure duration, 0.5 years (Exhibit 1-2: Summary of Default Exposure Factors for Site Specific Soil Screening Evaluations, Soil Guidance USEPA 2002)

SA= Skin surface area (cm^2), assume 3,300 (RAGS Part E Exhibit 3-2)

BW= Body weight, assume 70kg (RAGS)

AT= Averaging Time (period over which exposure is average, days). For carcinogens 70 years x 365 days / year; for non-carcinogens ED X 365 days/year

EPC- Exposure Point Concentration

Table 16
Carcinogenic Risk Calculations
Subsurface Soil - Dermal
USACE Niagara - Niagara Falls, New York

Cancer Risk Calculations for Sub Surface Soil - Dermal (Commercial/Industrial Worker Scenario)

Compound	Absorbed Dose (mg/kg-day)	Slope Factor (mg/kg-day)	Source	Oral Absorbed Efficiency (ABSderm)	Adjusted Slope Factor (mg/kg-day)	Carcinogen	Cancer Risk
Benzo(a)anthracene	4.72E-07	7.30E-01	ECAO	1.3E-01	5.62E+00	B2	2.7E-06
Dibenz(a,h)anthracene	7.71E-08	7.30E+00	ECAO	1.3E-01	5.62E+01	B2	4.3E-06
Benzo(b)fluoranthene	6.15E-07	7.30E-01	ECAO	1.3E-01	5.62E+00	B2	3.5E-06
Benzo(a)pyrene	5.97E-07	7.30E+00	IRIS	1.3E-01	5.62E+01	B2	3.4E-05
Indeno(1,2,3-cd)pyrene	3.39E-07	7.30E-01	ECAO	1.3E-01	5.62E+00	B2	1.9E-06
Aroclor 1254	4.01E-07	2.00E+00	S	1.4E-01	1.43E+01	B2	5.7E-06
Aroclor 1260	5.10E-08	2.00E+00	S	1.4E-01	1.43E+01	B2	7.3E-07
Total Cancer Risk							**5.23E-05**

Notes:

Absorbed dose calculated in Table 8

Equations and information obtained from RAGS Part E

Cancer Risk (Absorbed dose x adjusted slope factor)

Oral Absorbed Efficiency values obtained from Exhibit 3-4, RAGS Part E

Adjusted slope factor represents the absorbed amount and not the administered; (Slope factor / ABSderm)

Standard USEPA Cancer Classification

B2- Probable Human Carcinogen: There is inadequate evidence that it can cause cancer in humans but at present it is far from conclusive.

IRIS= Integrated Risk Information System

ECAO= Environmental Criteria and Assessment Office

S= The User's Guide for the RSL Screening Level Table states that the upper bound slope factor of 2.0 mg/kg per day should be used.

Table 17
Carcinogenic Risk Calculations
Subsurface Soil - Dermal
USACE Niagara - Niagara Falls, New York

Cancer Risk Calculations for Sub Surface Soil - Dermal (Construction Worker Scenario)

Compound	Absorbed Dose (mg/kg-day)	Slope Factor (mg/kg-day)	Source	Oral Absorbed Efficiency (ABSderm)	Adjusted Slope Factor (mg/kg-day)	Carcinogen	Cancer Risk
Benzo(a)anthracene	1.02E-08	7.30E-01	ECAO	1.3E-01	5.62E+00	B2	5.7E-08
Dibenz(a,h)anthracene	1.66E-09	7.30E+00	ECAO	1.3E-01	5.62E+01	B2	9.3E-08
Benzo(b)fluoranthene	1.33E-08	7.30E-01	ECAO	1.3E-01	5.62E+00	B2	7.5E-08
Benzo(a)pyrene	1.29E-08	7.30E+00	IRIS	1.3E-01	5.62E+01	B2	7.2E-07
Indeno(1,2,3-cd)pyrene	7.32E-09	7.30E-01	ECAO	1.3E-01	5.62E+00	B2	4.1E-08
Aroclor 1254	8.66E-09	2.00E+00	S	1.4E-01	1.43E+01	B2	1.2E-07
Aroclor 1260	1.10E-09	2.00E+00	S	1.4E-01	1.43E+01	B2	1.6E-08
Total Cancer Risk							**1.13E-06**

Notes:

Absorbed dose calculated in Table 9

Equations and information obtained from RAGS Part E

Cancer Risk (Absorbed dose x adjusted slope factor)

Oral Absorbed Efficiency values obtained from Exhibit 3-4, RAGS Part E

Adjusted slope factor represents the absorbed amount and not the administered; (Slope factor / ABSderm)

Standard USEPA Cancer Classification

B2- Probable Human Carcinogen: There is inadequate evidence that it can cause cancer in humans but at present it is far from conclusive.

IRIS= Integrated Risk Information System

ECAO= Environmental Criteria and Assessment Office

S= The User's Guide for the RSL Screening Level Table states that the upper bound slope factor of 2.0 mg/kg per day should be used.

Table 18
Carcinogenic Risk Calculations
Subsurface Soil - Inhalation
USACE Niagara - Niagara Falls, New York

Cancer Risk Calculations for Sub Surface Soil - Inhalation (Commercial/Industrial Worker Scenario)

Compound	Exposure concentration(ug/m^3)	IUR(ug/m^3)$^{-1}$	Source	Carcinogen	Cancer Risk
Benzo(a)anthracene	4.92E-06	1.10E-04	CALEPA	B2	5.41E-10
Dibenz(a,h)anthracene	9.78E-07	1.20E-03	CALEPA	B2	1.17E-09
Benzo(b)fluoranthene	7.08E-06	1.10E-04	CALEPA	B2	7.79E-10
Benzo(a)pyrene	6.87E-06	1.10E-03	CALEPA	B2	7.56E-09
Indeno(1,2,3-cd)pyrene	1.10E-04	1.10E-04	CALEPA	B2	1.21E-08
Aroclor 1254	5.57E-06	5.70E-04	S	B2	3.17E-09
Aroclor 1260	7.73E-07	5.70E-04	S	B2	4.41E-10
Total Cancer Risk					**2.58E-08**

Notes:

Exposure concentration calculated in Table 10

Cancer Risk (Exposure concentration X IUR)

IUR= Slope factor for inhalation risk obtained from RSL Tables, source listed in "Source" column

Standard USEPA Cancer Classification

B2- Probable Human Carcinogen: There is inadequate evidence that it can cause cancer in humans but at present it is far from conclusive.

Cal EPA- California EPA

S- User's Guide to RSL Tables

Table 19
Carcinogenic Risk Calculations
Subsurface Soil - Inhalation
USACE Niagara - Niagara Falls, New York

Cancer Risk Calculations for Sub Surface Soil - Inhalation (Construction Worker Scenario)

Compound	Exposure concentration(ug/m^3)	IUR(ug/m^3)$^{-1}$	Source	Carcinogen	Cancer Risk
Benzo(a)anthracene	3.54E-06	1.10E-04	CALEPA	B2	3.89E-10
Dibenz(a,h)anthracene	7.04E-07	1.20E-03	CALEPA	B2	8.45E-10
Benzo(b)fluoranthene	5.10E-06	1.10E-04	CALEPA	B2	5.61E-10
Benzo(a)pyrene	4.95E-06	1.10E-03	CALEPA	B2	5.45E-09
Indeno(1,2,3-cd)pyrene	3.08E-06	1.10E-04	CALEPA	B2	3.39E-10
Aroclor 1254	4.01E-06	5.70E-04	S	B2	2.29E-09
Aroclor 1260	5.56E-07	5.70E-04	S	B2	3.17E-10
Total Cancer Risk					**1.02E-08**

Notes:

Exposure concentration calculated in Table 11

Cancer Risk (Exposure concentration X IUR)

IUR= Slope factor for inhalation risk obtained from RSL Tables, source listed in "Source" column

Standard USEPA Cancer Classification

B2- Probable Human Carcinogen: There is inadequate evidence that it can cause cancer in humans but at present it is far from conclusive.

Cal EPA- California EPA

S- User's Guide to RSL Tables

Table 20
Carcinogenic Risk Calculations
Subsurface Soil - Ingestion
USACE Niagara - Niagara Falls, New York

Cancer Risk Calculations for Sub Surface Soil - Ingestion (Commercial/Industrial Scenario)

Compound	Absorbed Dose (mg/kg-day)	Slope Factor (mg/kg-day)	Source	GI Absorption Value (ABSgi)	Absorbed Slope Factor (mg/kg-day)	Carcinogen	Cancer Risk
Benzo(a)anthracene	5.50E-07	7.30E-01	ECAO	1.0E+00	7.30E-01	B2	4.02E-07
Dibenz(a,h)anthracene	8.98E-08	7.30E+00	ECAO	1.0E+00	7.30E+00	B2	6.56E-07
Benzo(b)fluoranthene	7.17E-07	7.30E-01	ECAO	1.0E+00	7.30E-01	B2	5.23E-07
Benzo(a)pyrene	6.96E-07	7.30E+00	IRIS	1.0E+00	7.30E+00	B2	5.08E-06
Indeno(1,2,3-cd)pyrene	3.95E-07	7.30E-01	ECAO	1.0E+00	7.30E-01	B2	2.88E-07
Aroclor 1254	4.34E-07	2.00E+00	S	1.0E+00	2.00E+00	B2	8.68E-07
Aroclor 1260	5.52E-08	2.00E+00	S	1.0E+00	2.00E+00	B2	1.10E-07
Total Cancer Risk							**7.9E-06**

Notes:

Absorbed dose calculated in Table 12

Cancer Risk (Absorbed dose x adjusted slope factor)

ABSgi= GI absorption values , fraction of contaminant absorbed in GI tract obtained from RSL Tables

Absorbed slope factor represents the absorbed amount and not the administered; (Oral Slope factor / ABSgi)

Standard USEPA Cancer Classification

B2- Probable Human Carcinogen: There is inadequate evidence that it can cause cancer in humans but at present it is far from conclusive.

IRIS= Integrated Risk Information System

ECAO= Environmental Criteria and Assessment Office

S= The User's Guide for the RSL Screening Level Table states that the upper bound slope factor of 2.0 mg/kg per day should be used.

Table 21
Carcinogenic Risk Calculations
Subsurface Soil - Ingestion
USACE Niagara - Niagara Falls, New York

Cancer Risk Calculations for Sub Surface Soil - Ingestion (Construction Scenario)

Compound	Absorbed Dose (mg/kg-day)	Slope Factor (mg/kg-day)	Source	GI Absorption Value (ABSgi)	Absorbed Slope Factor (mg/kg-day)	Carcinogen	Cancer Risk
Benzo(a)anthracene	2.62E-08	7.30E-01	ECAO	1.0E+00	7.30E-01	B2	1.91E-08
Dibenz(a,h)anthracene	4.29E-09	7.30E+00	ECAO	1.0E+00	7.30E+00	B2	3.13E-08
Benzo(b)fluoranthene	3.41E-08	7.30E-01	ECAO	1.0E+00	7.30E-01	B2	2.49E-08
Benzo(a)pyrene	3.31E-08	7.30E+00	IRIS	1.0E+00	7.30E+00	B2	2.42E-07
Indeno(1,2,3-cd)pyrene	1.88E-08	7.30E-01	ECAO	1.0E+00	7.30E-01	B2	1.37E-08
Aroclor 1254	2.06E-08	2.00E+00	S	1.0E+00	2.00E+00	B2	4.12E-08
Aroclor 1260	2.62E-09	2.00E+00	S	1.0E+00	2.00E+00	B2	5.24E-09
Total Cancer Risk							**3.77E-07**

Notes:

Absorbed dose calculated in Table 13

Cancer Risk (Absorbed dose x adjusted slope factor)

ABSgi= GI absorption values , fraction of contaminant absorbed in GI tract obtained from RSL Tables

Absorbed slope factor represents the absorbed amount and not the administered; (Oral Slope factor / ABSgi)

Standard USEPA Cancer Classification

B2- Probable Human Carcinogen: There is inadequate evidence that it can cause cancer in humans but at present it is far from conclusive.

IRIS= Integrated Risk Information System

ECAO= Environmental Criteria and Assessment Office

S= The User's Guide for the RSL Screening Level Table states that the upper bound slope factor of 2.0 mg/kg per day should be used.

Table 22
Carcinogenic Risk Calculations
Groundwater - Inhalation - Worker
USACE Niagara - Niagara Falls, New York

Cancer Risk Calculations for Groundwater- Inhalation- Worker Scenario

Compound	Exposure concentration(ug/m^3)	IUR(ug/m^3)$^{-1}$	Source	Carcinogen	Cancer Risk
Benzene	2.44E+00	7.80E-06	IRIS	A	1.90E-05
Naphthalene	9.11E+00	3.40E-05	Cal EPA	C	3.10E-04
Total Cancer Risk					**3.29E-04**

Notes:

Exposure concentration calculated in Table 14

Cancer Risk (Exposure concentration x IUR)

IUR= Slope factor for inhalation risk obtained from RSL Tables, sources are listed in the "Source" column.

Standard USEPA Cancer Classification

A-Human Carcinogen: There is enough evidence to conclude that it can cause cancer in humans.

C- Possible Human Carcinogen: There is limited evidence that it can cause cancer in animals in the absence of human data, but at present it is not conclusive.

Cal EPA- California EPA

IRIS- USEPA Integrated Risk Information System

Table 23
Risk Characterization
Ground Water - Dermal
USACE Niagara - Niagara Falls, New York

Cancer Risk Calculations for Ground Water- Dermal- (Construction Worker)

Compound	Absorbed Dose (mg/kg)	Slope Factor	Source	Oral Absorbed Efficiency (ABS_{GI})	Adjusted Slope Factor (mg/kg)	Carcinogen	Cancer Risk
Benzene	4.52E-09	5.5E-02	IRIS	100%	5.50E-02	A	2.49E-10
Benzo(a)anthracene	8.54E-07	7.3E-01	ECAO	86%	NA	B2	6.23E-07
Benzo(b)fluoranthene	2.98E-06	7.3E-01	ECAO	86%	NA	B2	2.18E-06
Benzo(a)pyrene	1.97E-06	7.3E+00	IRIS	86%	NA	B2	1.44E-05
Indeno(1,2,3-cd)pyrene	1.16E-07	7.3E-01	ECAO	86%	NA	B2	8.47E-08
Aroclor 1254	6.09E-08	2.0E+00	S	74%	NA	B2	1.22E-07
Aroclor 1260	3.71E-08	2.0E+00	S	74%	NA	B2	7.42E-08
Total Cancer Risk							**1.75E-05**

Notes:

Absorbed dose calculated in Table 15

Adjusted slope factor represents the absorbed amount and not administered; (Slope factor / ABS_{GI})

Cancer Risk (Absorbed dose x adjusted slope factor)

IRIS- Integrated Risk Information System

ECAO- Environmental Criteria and Assessment Office

USEPA Carcinogen Classification

A- Human Carcinogen: There is enough evidence to conclude that it can cause cancer in humans.

B2- Probable Human Carcinogen: There is inadequate evidence that it can cause cancer in humans but at present it is far from conclusive.

Total Cancer Risk is the sum of risk for individual compounds

NA= In accordance with RAGS Part E, Exhibit 4-1, PAHs and PCBs should not be adjusted.

Table 24
Risk Characterization - Non Cancer
Ground Water - Dermal
USACE Niagara - Niagara Falls, New York

Non-Cancer Risk Calculations for Ground Water- Dermal (Construction Worker)

Compound	Absorbed Dose (mg/kg)	RfD	Source	Oral Absorbed Efficiency (ABS_{GI})	AbsorbedRfD(mg/kg)	Carcinogen	Non Cancer Risk
Naphthalene	1.45E-07	2.0E-02	IRIS	100%	2.00E-02	C	7.25E-06
Total Non-Cancer Risk							**7.25E-06**

Notes:

Absorbed dose calculated in Table 15

Adjusted slope factor represents the absorbed amount and not administered; (Reference dose oral x ABS_{GI})

Non Cancer Risk (Absorbed dose / Absorbed reference dose)

IRIS- Integrated Risk Information Systme

ECAO- Environmental Criteria and Assessment Office

USEPA Carcinogen Classification

C- Possible Human Carcinogen: There is limited evidence that it can cause cancer in animals in the absence of human data, but at present it is not conclusive.

Total Non- Cancer Risk is the sum of risk for individual compounds

Table 25
Risk Characterization - Non Cancer
Soil - Dermal
USACE Niagara - Niagara Falls, New York

Non-Cancer Risk Calculations for Ground Water- Dermal (Construction Worker)

Compound	Exposed Population	Absorbed Dose (mg/kg)	RfD	Source	Oral Absorbed Efficiency (ABS_{GI})	AbsorbedRfD(mg/kg)	Non Cancer Risk
Aroclor 1254	Commerical/Industrial Worker	4.01E-07	2.0E-05	IRIS	100%	2.00E-05	2.01E-02
Aroclor 1254	Construction Worker	8.66E-09	2.0E-05	IRIS	100%	2.00E-05	4.33E-04
Total Non-Cancer Risk							**2.01E-02**

Notes:

Absorbed dose calculated in Tables 8 and 9

Adjusted slope factor represents the absorbed amount and not administered; (Reference dose oral x ABS_{GI})

Non Cancer Risk (Absorbed dose / Absorbed reference dose)

IRIS- Integrated Risk Information Systme

Total Non- Cancer Risk is the sum of risk for individual compounds

Table 26
Risk Characterization Summary Table
USACE Niagara - Niagara Falls, New York

Media	Population	Cancer Risk	Principal Contributing Pathway
Sub Surface Soil	Commercial/Industrial Worker	5.2E-05	Dermal contact
Sub Surface Soil	Commercial/Industrial Worker	2.6E-08	Inhalation
Sub Surface Soil	Commercial/Industrial Worker	7.9E-06	Ingestion
Total Sub Surface Soil Risk- Commercial/Industrial Worker		**6.0E-05**	
Sub Surface Soil	Construction Worker	1.1E-06	Dermal contact
Sub Surface Soil	Construction Worker	1.0E-08	Inhalation
Sub Surface Soil	Construction Worker	3.8E-07	Ingestion
Total Sub Surface Soil Risk- Construction Worker		**1.5E-06**	
Groundwater	Construction Worker	1.8E-05	Dermal contact
Groundwater	Construction Worker	3.3E-04	Inhalation
Total Groundwater Risk- Worker		**3.5E-04**	

Table 27
Risk Characterization Summary Table
USACE Niagara - Niagara Falls, New York

Media	Population	Non Cancer Risk	Principal Contributing Pathway
Sub Surface Soil	Commercial/Industrial Worker	2.0E-02	Dermal contact
Total Sub Surface Soil Risk- Commercial/Industrial Worker		**2.0E-02**	
Sub Surface Soil	Construction Worker	4.3E-04	Dermal contact
Total Sub Surface Soil Risk- Construction Worker		**4.3E-04**	
Groundwater	Construction Worker	7.3E-06	Dermal contact
Total Groundwater Risk- Construction Worker		**7.3E-06**	

Table 28
Potential Sources of Uncertainty
USACE Niagara - Niagara Falls, New York

Uncertainty	Effect	Justification
Exposure point concentration	Overestimate	The 95% UCL was calculated for each compound at the Site and used as the EPC in the risk assesment calculations. In addition, for sub surface soil, the 97.5% UCL was selected for a better statistical average, which yielded even more conservative estimates.
Probability of exposure pathways	Overestimate	As a conservative estimate, the future resident was evaluated in the HHRA. The current property has non-residential use.
Exposure assumptions (frequency, duration, time)	Overestimate	Parameters selected are conservative estimates of exposure
Degradation of chemicals	Overestimate	All intake calculations and risk estimates are based on recent chemical concentrations. Concentrations will tend to decrease over time as a result of degradation.
Extrapolation of animal toxicity data to humans	Unknown	Animal studies typically involve high dose exposures, while humans are exposed to low doses in the environment
Industrial RSL are not available for groundwater	Overestimate	Residential groundwater screening levels are used in the risk assessment, since industrial groundwater levels are not available. This makes the exposure estimates much more conservative.

APPENDIX A

Soil Probe Logs

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Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/26/11	END DATE: 9/26/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	60	(FILL) Brown, fine to medium GRAVEL, some fine to coarse Sand,	Headspace result =	0
1				trace Silt, trace Brick fragments, moist.	0 ppm (0-4' bgs)	
2						
						0
3						
4						
	S-2	4-8	60	(FILL) Brown, fine to medium SAND, some Gravel, little Clay, wet.	Headspace result =	0
5					0 ppm (4-8' bgs)	
				(FILL) Brown, Silty CLAY, little fine to medium Sand, wet.		
6						
				(FILL) Brown, Silty SAND, wet.		0
7						
8						
	S-3	8-12	60		Headspace result =	0
9					0 ppm (8-12' bgs)	
10				(FILL) Brown fine SAND, trace Silt, wet.		
						0
11						
				Reddish brown, Silty CLAY, trace fine to medium Sand, moist.		
12						
				End of SP-22 at 12.0 feet bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

NOTES: 1) MiniRae 2000 organic vapor meter used to field screen and headspace soil samples.
2) bgs = below ground surface.

General Notes:
1) Stratification lines represent approximate boundary between soil types, transitions may be gradual.
2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/26/11	END DATE: 9/26/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER		CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	60	(FILL) Brown, fine to medium GRAVEL, some fine to coarse	Headspace result =	0
1				Sand, trace Silt, moist.	0 ppm (0-4' bgs)	
				Reddish brown, Silty CLAY, trace fine to medium Sand, moist.		
2						
						0
3						
4						
	S-2	4-8	100		Headspace result =	0
5					0 ppm (4-8' bgs)	
6						
						0
7						
8						
	S-3	8-12	100		Headspace result =	0
9					0 ppm (8-12' bgs)	
10						
						0
11						
12						
				End of SP-23 at 12.0' bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

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Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/26/11	END DATE: 9/26/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	75	(FILL) Brown, fine to medium GRAVEL, some fine to coarse	Headspace result =	0
1				Sand, trace Silt, moist.	0 ppm (0-4' bgs)	
				Reddish brown, Silty CLAY, trace fine to medium Sand, moist.		
2						
						0
3						
4						
	S-2	4-8	100		Headspace result =	0
5					0 ppm (4-8' bgs)	
6						
						0
7						
8						
	S-3	8-12	100		Headspace result =	0
9					0 ppm (8-12' bgs)	
10						
						0
11						
12						
				End of SP-24 at 12.0' bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

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2) bgs = below ground surface.

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Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/26/11	END DATE: 9/26/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	75	(FILL) Brown, fine to medium GRAVEL, some fine to coarse Sand, little Silt, trace Clay, trace Brick fragments, moist.	Headspace result = 0 ppm (0-4' bgs)	0
1						
2						0
3						
4						
	S-2	4-8	50	(FILL) Grayish brown, fine SAND, some Gravel, little Silt, moist.	Headspace result = 0 ppm (4-8' bgs)	0
5						
6						0
7				Grades to:..wet.		
8						
	S-3	8-11.5	<5		Headspace result = 0 ppm (8-11.5' bgs)	0
9						
10						0
11						
12				Refusal at 11.5 feet bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

NOTES: 1) MiniRae 2000 organic vapor meter used to field screen and headspace soil samples.
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Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/26/11	END DATE: 9/26/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	60	(FILL) Brown, fine to medium SAND and GRAVEL, some Silt, trace Clay, moist.	Headspace result = 0 ppm (0-4' bgs)	0
1				Reddish brown, Silty CLAY, trace fine to medium Sand, moist.		
2						
						0
3						
4						
	S-2	4-8	100		Headspace result = 0 ppm (4-8' bgs)	0
5						
6						
						0
7						
8						
	S-3	8-12	100		Headspace result = 0 ppm (8-12' bgs)	0
9						
10						
						0
11						
12						
				End of SP-26 at 12.0' bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

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Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/26/11	END DATE: 9/26/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	40	(FILL) Brown, fine to medium SAND and GRAVEL, trace Silt, moist.	Headspace result = 0 ppm (0-4' bgs)	0
1				(FILL) Light gray, some Silt. (Crushed Concrete)		
2						0
3				(FILL) Brown, fine to medium SAND, some Gravel, trace Silt, moist.		
4						
	S-2	4-8	100	Reddish brown, Silty CLAY, trace fine to medium Sand, moist.	Headspace result = 0 ppm (4-8' bgs)	0
5						
6						0
7				Grades to:..wet.		
8						
	S-3	8-12	100		Headspace result = 0 ppm (8-12' bgs)	0
9						
10						0
11						
12						
				End of SP-27 at 12.0' bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

NOTES: 1) MiniRae 2000 organic vapor meter used to field screen and headspace soil samples.
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GZA GEOENVIRONMENTAL OF NEW YORK
535 WASHINGTON ST. 11TH FL.
BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

Soil Probe SP- 28
SHEET 1 OF 1
FILE No. 21.0056522.20
CHECKED BY : CZB

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/26/11	END DATE: 9/26/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	40	(FILL) Brown, fine to medium SAND and GRAVEL, trace Silt, moist.	Headspace result = 0 ppm (0-4' bgs)	0
1						
2						
3						0
4				(FILL) Grades to:..gray, some Silt, wet. (Crushed Concrete)		
	S-2	4-8	100	Reddish brown, Silty CLAY, trace fine to medium Sand, moist.	Headspace result = 0 ppm (4-8' bgs)	0
5						
6						
7						0
8						
	S-3	8-12	50		Headspace result = 0 ppm (8-12' bgs)	0
9						
10						
11						0
12						
				End of SP-28 at 12.0' bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

NOTES: 1) MiniRae 2000 organic vapor meter used to field screen and headspace soil samples.
2) bgs = below ground surface.

General Notes:
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2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/26/11	END DATE: 9/26/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	50	(FILL) Brown, fine to medium GRAVEL, some fine to coarse Sand, trace Silt, moist.	Headspace result = 0 ppm (0-4' bgs)	0
1						
2						
3						0
4						
	S-2	4-8	100	Reddish brown, Silty CLAY, trace fine to medium Sand, moist.	Headspace result = 0 ppm (4-8' bgs)	0
5						
6						
				Reddish brown, Clayey SILT, trace fine to medium Sand, wet.		0
7						
				Reddish brown, Silty CLAY, trace fine to medium Sand, moist.		
8						
	S-3	8-12	100		Headspace result = 0 ppm (8-12' bgs)	0
9						
10						
						0
11						
12						
				End of SP-29 at 12.0' bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

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2) bgs = below ground surface.

General Notes:
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2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/27/11	END DATE: 9/27/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	25	(FILL) Gray, fine to medium SAND and GRAVEL, some Silt, trace Clay, moist.	Headspace result = 0 ppm (0-4' bgs)	0
1						
2						0
3						
4						
	S-2	4-8	100	(FILL) Grayish brown, fine to coarse SAND, trace Gravel, trace Silt, moist.	Headspace result = 0 ppm (4-8' bgs)	0
5				Reddish brown, Silty CLAY, trace fine to medium Sand, moist.		
6						0
7						
8						
	S-3	8-12	100		Headspace result = 0 ppm (8-12' bgs)	0
9						
10						0
11						
12				End of SP-30 at 12.0' bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

NOTES: 1) MiniRae 2000 organic vapor meter used to field screen and headspace soil samples.
2) bgs = below ground surface.

General Notes:
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2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/27/11	END DATE: 9/27/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	45	(FILL) Gray, GRAVEL, some fine to medium Sand, moist.	Headspace result = 0 ppm (0-4' bgs)	0
1						
				(FILL) Brownish gray, fine to medium SAND, some Gravel, wet.		
2						
						0
3						
4				Reddish brown, Silty CLAY, trace fine to medium Sand, moist.		
	S-2	4-8	90		Headspace result = 0 ppm (4-8' bgs)	0
5						
6						
						0
7						
8						
	S-3	8-12	90		Headspace result = 0 ppm (8-12' bgs)	0
9						
10						
						0
11						
12						
				End of SP-31 at 12.0' bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

NOTES: 1) MiniRae 2000 organic vapor meter used to field screen and headspace soil samples.
2) bgs = below ground surface.

General Notes:
1) Stratification lines represent approximate boundary between soil types, transitions may be gradual.
2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/26/11	END DATE: 9/26/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	40	(FILL) Dark brown, fine to medium GRAVEL, some fine to coarse Sand, trace Silt, moist.	Headspace result = 0 ppm (0-4' bgs)	0
1						
2				(FILL) Grades to:..brown.		0
3						
4						
	S-2	4-8	100	Reddish brown, Silty CLAY, trace fine to medium Sand, moist.	Headspace result = 0 ppm (4-8' bgs)	0
5						
6				Reddish brown, Clayey SILT, trace fine to medium Sand, wet.		0
7						
8						
	S-3	8-12	100	Reddish brown, Silty CLAY, trace fine to medium Sand, moist.	Headspace result = 0 ppm (8-12' bgs)	0
9						
10						0
11						
12				End of SP-32 at 12.0' bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

NOTES: 1) MiniRae 2000 organic vapor meter used to field screen and headspace soil samples.
2) bgs = below ground surface.

General Notes:
1) Stratification lines represent approximate boundary between soil types, transitions may be gradual.
2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/27/11	END DATE: 9/27/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	30	(FILL) Brown, fine to medium SAND and GRAVEL, some Silt,	Headspace result =	0
1				trace Clay, moist.	0 ppm (0-4' bgs)	
2						
				Grades to:..wet.		0
3						
4						
	S-2	4-8	90	Reddish brown, Silty CLAY, trace fine to medium Sand, moist.	Headspace result =	0
5					0 ppm (4-8' bgs)	
6						
						0
7						
8						
	S-3	8-12	90		Headspace result =	0
9					0 ppm (8-12' bgs)	
10						
						0
11						
12						
				End of SP-33 at 12.0' bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

NOTES: 1) MiniRae 2000 organic vapor meter used to field screen and headspace soil samples.
2) bgs = below ground surface.

General Notes:
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2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/26/11	END DATE: 9/26/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	50	(FILL) Dark brown, fine to medium GRAVEL, some fine to coarse Sand, trace Silt, moist.	Headspace result = 0 ppm (0-4' bgs)	0
1						
2				(FILL) Grades to:..gray, some Silt. (Crushed Concrete)		0
3						
4				(FILL) Grades to:..wet.		
	S-2	4-8	100	Grayish brown to reddish brown, Silty CLAY, trace fine to medium Sand, moist.	Headspace result = 0 ppm (4-8' bgs)	0
5						
6				Grades to:..reddish brown.		
7						0
8				Reddish brown, Clayey SILT, trace fine to medium Sand, wet.		
	S-3	8-12	100	Reddish brown, Silty CLAY, trace fine to medium Sand, moist.	Headspace result = 0 ppm (8-12' bgs)	0
9						
10						0
11						
12						
13				End of SP-34 at 12.0' bgs.		
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

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GZA GEOENVIRONMENTAL OF NEW YORK
535 WASHINGTON ST. 11TH FL.
BUFFALO, NEW YORK
ENGINEERS AND SCIENTISTS

Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

Soil Probe SP- 35
SHEET 1 OF 1
FILE No. 21.0056522.20
CHECKED BY : CZB

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/27/11	END DATE: 9/27/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	50	(FILL) Brown, fine to medium SAND and GRAVEL, some Silt,	Headspace result =	0
1				trace Clay, moist.	0 ppm (0-4' bgs)	
				(FILL) Reddish brown, Silty CLAY, trace fine Sand, moist.		
2						
						0
3						
				(FILL) Gray, fine to medium SAND, some Gravel, wet.		
4						
	S-2	4-8	90	Reddish brown, Silty CLAY, trace fine to medium Sand, moist.	Headspace result =	0
5					0 ppm (4-8' bgs)	
6						
						0
7						
8						
	S-3	8-12	90		Headspace result =	0
9					0 ppm (8-12' bgs)	
10						
						0
11						
12						
				End of SP-35 at 12.0' bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

NOTES: 1) MiniRae 2000 organic vapor meter used to field screen and headspace soil samples.
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Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/27/11	END DATE: 9/27/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	50	(FILL) Brown, fine to medium SAND and GRAVEL, some Silt,	Headspace result =	0
1				trace Clay, moist.	0 ppm (0-4' bgs)	
				(FILL) Brown, Silty CLAY, trace fine to medium Sand, moist.		
2						
						0
3						
				(FILL) Grades to:..dark brown to black.	Slight weathered	
4				(FILL) Brown, fine to medium SAND, trace Silt, wet.	petroleum odor.	
	S-2	4-8	90	Reddish brown, Silty CLAY, trace fine to medium Sand, moist.	Headspace result =	0
5					0 ppm (4-8' bgs)	
6						
						0
7						
8						
	S-3	8-10	100		Headspace result =	0
9					0 ppm (8-10' bgs)	
10						
				Refusal at 10.0' bgs.		0
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

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Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/27/11	END DATE: 9/27/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	75	(FILL) Gray, GRAVEL, some fine to medium Sand, moist.	Headspace result =	0
1				(FILL) Reddish brown, Silty CLAY, some fine to medium Sand,	0 ppm (0-4' bgs)	
				trace Gravel, moist.		
2				Reddish brown, Silty CLAY, trace fine to medium Sand, moist.		
						0
3						
4						
	S-2	4-6	100		Headspace result =	0
5					0 ppm (4-6' bgs)	
6					Concrete in end	
				Refusal at 6.0' bgs.	of sample.	
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

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Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/28/11	END DATE: 9/28/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	50	Asphalt to 0.5' bgs.	Headspace result =	0
1				(FILL) Gray, GRAVEL, some fine to medium Sand, moist.	0 ppm (0-4' bgs)	
				(FILL) Brown, fine to medium SAND and GRAVEL, some Silt,		
2				trace Clay, moist.		
						0
3						
				(FILL) Tan, fine to medium SAND, trace Silt, moist.		
4				Reddish brown, Silty CLAY, trace fine to medium Sand, moist.		
	S-2	4-8	100		Headspace result =	0
5					0 ppm (4-8' bgs)	
6						
						0
7						
8						
	S-3	8-12	100		Headspace result =	0
9					0 ppm (8-12' bgs)	
10						
						0
11						
12						
				End of SP-38 at 12.0' bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

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Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/28/11	END DATE: 9/28/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER		CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	40	(FILL) Brown, fine to medium SAND and GRAVEL, some Silt, trace Clay, moist.	Headspace result = 0 ppm (0-4' bgs)	0
1				Reddish brown, Silty CLAY, trace fine to medium Sand, moist.		
2						
						0
3						
4						
	S-2	4-8	100		Headspace result = 0 ppm (4-8' bgs)	0
5						
6						
						0
7						
8						
	S-3	8-12	100		Headspace result = 0 ppm (8-12' bgs)	0
9						
10						
						0
11						
12						
				End of SP-39 at 12.0' bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

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Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/28/11	END DATE: 9/28/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	75	(FILL) Brown, fine to medium SAND and GRAVEL, trace Silt, trace Clay, wet.	Headspace result = 0 ppm (0-4' bgs)	0
1				Reddish brown, Silty CLAY, trace fine to medium Sand, moist.		
2						
3						0
4						
	S-2	4-8	90		Headspace result = 0 ppm (4-8' bgs)	0
5						
6						
7						0
8						
	S-3	8-12	90		Headspace result = 0 ppm (8-12' bgs)	0
9						
10						
11						0
12						
				End of SP-40 at 12.0' bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

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Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/28/11	END DATE: 9/28/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	40	(FILL) Dark brown, fine to medium GRAVEL, some fine to coarse Sand, trace Silt, wet.	Headspace result = 0 ppm (0-4' bgs)	0
1						
2						
3						0
4				Dark yellowish brown, Silty CLAY, trace fine to medium Sand, moist.		
	S-2	4-8	100		Headspace result = 0 ppm (4-8' bgs)	0
5				Grades to:..reddish brown.		
6						
7						0
8						
	S-3	8-12	100	Grades to:..little fine to medium Sand, trace Gravel, wet.	Headspace result = 0 ppm (8-12' bgs)	0
9						
10						
				Grades to:..trace fine to medium Sand, moist.		0
11						
12						
				End of SP-41 at 12.0' bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

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C - Rock Core Sample

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Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/27/11	END DATE: 9/27/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	60	(FILL) Gray, GRAVEL, some fine to medium Sand, moist.	Headspace result = 0 ppm (0-4' bgs)	0
1				Dark brown and gray, Silty CLAY, trace fine to medium Sand, moist.		
2						
						0
3						
				Grades to:..light yellowish brown.		
4						
	S-2	4-8	100		Headspace result = 0 ppm (4-8' bgs)	0
5						
6						
						0
7						
				Grades to:..reddish brown, moist to wet.		
8						
	S-3	8-12	100		Headspace result = 0 ppm (8-12' bgs)	0
9						
10						
						0
11						
12						
				End of SP-42 at 12.0' bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

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Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/28/11	END DATE: 9/28/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	75	(FILL) Gray, GRAVEL, some fine to medium Sand, trace Silt, moist.	Headspace result = 0 ppm (0-4' bgs)	0
1						
				Dark yellowish brown, Silty CLAY, trace fine to medium Sand, moist.		
2						
						0
3						
4						
	S-2	4-8	100	Grades to:..reddish brown.	Headspace result = 0 ppm (4-8' bgs)	0
5						
6						
						0
7						
8						
	S-3	8-12	75		Headspace result = 0 ppm (8-12' bgs)	0
9						
10						
						0
11						
12						
				End of SP-43 at 12.0' bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

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Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/28/11	END DATE: 9/28/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	60	(FILL) Gray, GRAVEL, some fine to medium Sand, trace Silt, moist.	Headspace result = 0 ppm (0-4' bgs)	0
1						
				Dark yellowish brown, Silty CLAY, trace fine to medium Sand, moist.		
2						
						0
3						
4						
	S-2	4-8	90	Grades to:..reddish brown.	Headspace result = 0 ppm (4-8' bgs)	0
5						
6						
						0
7						
8						
	S-3	8-12	100		Headspace result = 0 ppm (8-12' bgs)	0
9						
10						
						0
11						
12						
				End of SP-44 at 12.0' bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

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Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/28/11	END DATE: 9/28/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	50	(FILL) Gray, GRAVEL, some fine to medium Sand, trace Silt, moist.	Headspace result = 0 ppm (0-4' bgs)	0
1						
				Dark yellowish brown, Silty CLAY, trace fine to medium Sand, moist.		
2						
						0
3						
4						
	S-2	4-8	100	Grades to:..reddish brown.	Headspace result = 0 ppm (4-8' bgs)	0
5						
6						
						0
7						
8						
	S-3	8-12	100		Headspace result = 0 ppm (8-12' bgs)	0
9						
10						
						0
11						
12						
				End of SP-45 at 12.0' bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

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C - Rock Core Sample

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Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/27/11	END DATE: 9/27/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	50	Asphalt to 0.5' bgs.	Headspace result =	0
1				(FILL) Gray, GRAVEL, some fine to coarse Sand, moist.	0 ppm (0-4' bgs)	
2				(FILL) Brown, fine to coarse SAND, some Gravel, trace Silt,		
				moist.		0
3						
4						
	S-2	4-8	100	Reddish brown, Silty CLAY, trace fine to medium Sand, moist.	Headspace result =	0
5					0 ppm (4-8' bgs)	
6						
						0
7						
8						
	S-3	8-12	100		Headspace result =	0
9					0 ppm (8-12' bgs)	
10						
						0
11						
12						
				End of SP-46 at 12.0' bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

NOTES: 1) MiniRae 2000 organic vapor meter used to field screen and headspace soil samples.
2) bgs = below ground surface.

General Notes:
1) Stratification lines represent approximate boundary between soil types, transitions may be gradual.
2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/27/11	END DATE: 9/27/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	60	(FILL) Gray, GRAVEL, some fine to medium Sand, moist.	Headspace result =	0
1				Reddish brown, Silty CLAY, trace fine to medium Sand, moist.	0 ppm (0-4' bgs)	
2						
						0
3						
4						
	S-2	4-8	100		Headspace result =	0
5					0 ppm (4-8' bgs)	
6						
						0
7						
8						
	S-3	8-12	100		Headspace result =	0
9					0 ppm (8-12' bgs)	
10						
						0
11						
12						
				End of SP-47 at 12.0' bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

NOTES: 1) MiniRae 2000 organic vapor meter used to field screen and headspace soil samples.
2) bgs = below ground surface.

General Notes:
1) Stratification lines represent approximate boundary between soil types, transitions may be gradual.
2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/28/11	END DATE: 9/28/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	80	Reddish brown, Silty CLAY, trace fine to medium Sand, moist.	Headspace result = 0 ppm (0-4' bgs)	0
1						
2						
3						0
4				Reddish brown, Clayey SILT, trace fine fo medium Sand, wet.		
	S-2	4-8	100		Headspace result = 0 ppm (4-8' bgs)	0
5						
6				Reddish brown, Silty CLAY, trace fine to medium Sand, moist.		
7						0
8						
	S-3	8-12	90	Reddish brown, Clayey SILT, trace fine fo medium Sand, wet.	Headspace result = 0 ppm (8-12' bgs)	0
9						
10				Reddish brown, Silty CLAY, trace fine to medium Sand, moist.		
11						0
12						
13				End of SP-48 at 12.0' bgs.		
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

NOTES: 1) MiniRae 2000 organic vapor meter used to field screen and headspace soil samples.
2) bgs = below ground surface.

General Notes:
1) Stratification lines represent approximate boundary between soil types, transitions may be gradual.
2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/27/11	END DATE: 9/27/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	60	(FILL) Gray, GRAVEL, some fine to medium Sand, moist.	Headspace result =	25.5
1				(FILL) Light brown, fine SAND, trace Silt, wet.	38.6 ppm (0-4' bgs)	
				(FILL) Dark brown, Sandy SILT, trace Gravel, moist.		
2						
				Reddish brown, Silty CLAY, trace fine to medium Sand, moist.		0
3						
4						
	S-2	4-8	90		Headspace result =	0
5					0 ppm (4-8' bgs)	
6						
						0
7						
8						
	S-3	8-12	90		Headspace result =	0
9					0 ppm (8-12' bgs)	
10						
						0
11						
12						
				End of SP-49 at 12.0' bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

NOTES: 1) MiniRae 2000 organic vapor meter used to field screen and headspace soil samples.
2) bgs = below ground surface.

General Notes:
1) Stratification lines represent approximate boundary between soil types, transitions may be gradual.
2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/28/11	END DATE: 9/28/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	80	(FILL) Gray, GRAVEL, some fine to medium Sand, trace Silt, moist.	Headspace result = 0 ppm (0-4' bgs)	0
1						
				Dark yellowish brown, Silty CLAY, trace fine to medium Sand, moist.		
2						
						0
3						
4						
	S-2	4-8	100	Grades to:..reddish brown.	Headspace result = 0 ppm (4-8' bgs)	0
5						
6						
						0
7						
8						
	S-3	8-12	100		Headspace result = 0 ppm (8-12' bgs)	0
9						
10						
						0
11						
12						
				End of SP-50 at 12.0' bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

NOTES: 1) MiniRae 2000 organic vapor meter used to field screen and headspace soil samples.
2) bgs = below ground surface.

General Notes:
1) Stratification lines represent approximate boundary between soil types, transitions may be gradual.
2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Niagara Falls Armed Forces Reserve Center
Niagara Falls, NY

CONTRACTOR:	Matrix Environmental Technologies	BORING LOCATION:	See Location Plan
DRILLER:	Mark Janus	GROUND SURFACE ELEVATION:	NA DATUM NA
START DATE: 9/28/11	END DATE: 9/28/11	GZA GEOENVIRONMENTAL REPRESENTATIVE:	J. Beninati

WATER LEVEL DATA

DATE	TIME	WATER	CASING

TYPE OF DRILL RIG:	Geoprobe 54 DT track mounted rig
CASING SIZE AND DIAMETER:	2" diameter by 48" long
OVERBURDEN SAMPLING METHOD:	Direct push
ROCK DRILLING METHOD:	NA

DEPTH	SAMPLE INFORMATION Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	FIELD SCREENING RESULTS (ppm)
	S-1	0-4	40	Topsoil to 0.5' bgs.	Headspace result =	0
1				Dark gray, Silty CLAY, trace fine to medium Sand, moist.	0 ppm (0-4' bgs)	
2				Grades to:..reddish brown.		
						0
3						
4						
	S-2	4-8	100		Headspace result =	0
5					0 ppm (4-8' bgs)	
6						
						0
7						
				Reddish brown, Clayey SILT, trace fine fo medium Sand, wet.		
8						
	S-3	8-12	100	Reddish brown, Silty CLAY, trace fine to medium Sand, moist.	Headspace result =	0
9					0 ppm (8-12' bgs)	
10						
						0
11						
12						
				End of SP-51 at 12.0' bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

NOTES: 1) MiniRae 2000 organic vapor meter used to field screen and headspace soil samples.
2) bgs = below ground surface.

General Notes:
1) Stratification lines represent approximate boundary between soil types, transitions may be gradual.
2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

APPENDIX B
Photographs

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Photograph 1 – Area of IRA prior to excavation as viewed from the west.

Photograph 2 – Excavation and 6" Fire Protection Main as viewed from the southeast.

Photograph 3 – Pumping of Fire Protection Main prior to removal.

Photograph 4 – Capped end of the Fire Protection Main.

Photograph 5 – Backfilled excavation as viewed from the west.

Photograph 6 – Stockpiled and covered soil as viewed from the east.

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APPENDIX C

Waste Disposal Documentation

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12885419

NIAGARA FALLS LANDFILL
56th Street & Niagara Falls Blvd
Niagara Falls, NY 14304 (716)282-6381

203061
ENSOL ENGINEERING
661 MAIN STREET
NIAGARA FALLS, NY 14301
Contract: 42151118910

SITE	TICKET	GRID
5B	459261	

WEIGHMASTER: AS00067 ALBERT S

DATE IN	TIME IN
8 December 2011	10:27 am

DATE OUT	TIME OUT
8 December 2011	10:55 am

VEHICLE	ROLL OFF
FAR12	

REFERENCE	ORIGIN
0568945	Inbound -NY-NIAGARA

00 Gross Weight 54,940.00 lb
Tare Weight 26,140.00 lb
Net Weight 28,800.00 lb

NIAGARA FALLS ARMY RESERVE

~~14.40 TN~~

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
14.40	TN	SW-CONST DEBRIS				
1.00	LD	ENVIRONMENTAL FEE				
1.00	LD	FUEL RECOVERY FEE				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

HAVE A NICE DAY

REPUBLIC SERVICES

REV 11/09

SIGNATURE Jeff Kiyanski

RS-FI

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

0568945

Please print or type.

GENERATOR

1. Generator's US EPA ID Number
Manifest Document Number
2. Page 1 of

3. Generator's Name and Mailing Address
99th Regional Support Command, Niagara Falls AFRC
5231 South Scott Plaza
Fort Dix, NJ 08640
4. Phone ( )

5. Generating Location (if different)
Same
9400 Porter Road
Niagara Falls, NY 14304
6. Phone ( )

7. Transporter #1 Company Name
Pariso Trucking PL1 #12

8. US EPA ID Number

9. Transporter #1's Phone
716-875-6168

10. Transporter #2 Company Name

11. US EPA ID Number

12. Transporter #2's Phone

13. Designated T/S/D Facility Name and Site Address
Allied Waste Niagara Falls NY
5600 Niagara Falls Boulevard
Niagara Falls, NY 14304

14. US EPA ID Number

15. Facility's Phone
716-285-3344

16. Waste Shipping Name and Description	17. Allied Waste Approval # and Exp. Date	18. Containers No.	18. Containers Type	19. Total Quantity	20. Unit Wt/Vol
Non Hazardous Asphalt & Gravel	421511 18910 Exp 6 30 2012				
a.					
b.					
c.					
d.					

21. Additional Descriptions for Materials Listed Above

22. Special Handling Instructions and Additional Information

23. **GENERATOR'S CERTIFICATION:** I certify the materials described on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name: [illegible]
Signature: [illegible]
Month 12 Day 8 Year 11

TRANSPORTER

24. **Transporter #1:** Acknowledgement of Receipt of Materials

Printed/Typed Name: CLIFF KACZMAREK
Signature: [illegible]
Month 12 Day 8 Year 11

25. **Transporter #2:** Acknowledgement of Receipt of Materials

Printed/Typed Name:
Signature:
Month Day Year

T/S/D FACILITY

26. Discrepancy Indication Space

27. **Facility Owner or Operator:** Certification of receipt of waste materials covered by this manifest (except as noted in Item 19)

Printed/Typed Name:
Signature: [illegible]
Month 12 Day 8 Year 11

TRANSPORTER #2

COM000033

12885458

NIAGARA FALLS LANDFILL
56th Street & Niagara Falls Blvd
Niagara Falls, NY 14304 (716)282-6381

203061
ENSOL ENGINEERING
661 MAIN STREET
NIAGARA FALLS, NY 14301
Contract: 42151118910

SITE 5B	TICKET 459300	GRID
WEIGHMASTER AS00067 ALBERT S		
DATE IN 8 December 2011		TIME IN 11:58 am
DATE OUT 8 December 2011		TIME OUT 12:20 pm
VEHICLE FAR12		ROLL OFF
REFERENCE 0568946	ORIGIN Inbound -NY-NIAGARA	

00 Gross Weight 37,980.00 lb
Tare Weight 26,100.00 lb
Net Weight 11,880.00 lb

NIAGARA FALLS ARMY RESERVE

BASE 5.94 TN

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
5.94	TN	SW-CONST DEBRIS				
1.00	LD	ENVIRONMENTAL FEE				
1.00	LD	FUEL RECOVERY FEE				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

HAVE A NICE DAY

REPUBLIC SERVICES

REV 11/09

SIGNATURE Cliff Kenyon

RS-F

REPUBLIC SERVICES, INC.

NON-HAZARDOUS WASTE MANIFEST

Please print or type.

0568946

1. Generator's US EPA ID Number	Manifest Document Number	2. Page 1 of

GENERATOR

3. Generator's Name and Mailing Address
99th Regional Support Command, Niagara Falls AFRC
5231 South Scott Plaza
Fort Dix, NJ 08640
4. Phone ( )

5. Generating Location (if different)
Same
9400 Porter Road
Niagara Falls, NY 14304
6. Phone ( )

7. Transporter #1 Company Name	8. US EPA ID Number	9. Transporter #1's Phone
Pariso Trucking PL1 #12		716-875-6168
10. Transporter #2 Company Name	11. US EPA ID Number	12. Transporter #2's Phone
13. Designated T/S/D Facility Name and Site Address Allied Waste Niagara Falls NY 5600 Niagara Falls Boulevard Niagara Falls, NY 14304	14. US EPA ID Number	15. Facility's Phone 716-285-3344

16. Waste Shipping Name and Description	17. Allied Waste Approval # and Exp. Date	18. Containers No.	18. Containers Type	19. Total Quantity	20. Unit Wt/Vol
Non Hazardous Asphalt & Gravel	421511 18910 Exp 6 30 2012				
a.					
b.					
c.					
d.					

21. Additional Descriptions for Materials Listed Above

22. Special Handling Instructions and Additional Information

23. **GENERATOR'S CERTIFICATION:** I certify the materials described on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[illegible]	12	8	11

TRANSPORTER

24. **Transporter #1:** Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Cliff Kaczmarek	Cliff Kaczmarek	12	8	11

25. **Transporter #2:** Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

T/S/D FACILITY

26. Discrepancy Indication Space

27. **Facility Owner or Operator:** Certification of receipt of waste materials covered by this manifest (except as noted in Item 19)

Printed/Typed Name	Signature	Month	Day	Year
	[illegible]	12	15	11

TRANSPORTER #2

COM000033

APPENDIX D

Clean Fill Documentation

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SEVEN SPRINGS GRAVEL PRODUCTS, LLC
8479 Seven Springs Road
Batavia, New York 14020

Telephone (585) 343-4336

No. 76874

CUSTOMER: Pariso Logistic

BILLING ADDRESS:

CITY: STATE: ZIP:

DESTINATION ADDRESS:

PRODUCT DESCRIPTION: Sc. Clay fill CU. YARDS:

DATE: GROSS 72140 lb
TARE 28500 lb
GROSS: NET 43640 lb
TARE:
NET: 03:42PM 09/29/2011

C.O.D.'S ONLY

PRODUCT: COST $ _____ × 21.82 TONS = $ _____

FREIGHT: CHG. $ _____ × _____ TONS = $ _____

OTHER: _____

SUBTOTAL _____

TAX _____

TOTAL $

CUSTOMER SIGNATURE: Rio

DRIVER SIGNATURE: TRUCK NO. 1

WEIGHMASTER SIGNATURE: Karen LICENSE # 180112

Seven Springs Gravel Products, LLC shall not be held liable for any loss after acceptance of a load.

SEVEN SPRINGS GRAVEL PRODUCTS, LLC
8479 Seven Springs Road
Batavia, New York 14020

Telephone (585) 343-4336

No. 76880

CUSTOMER: Pariso Logistic

BILLING ADDRESS:

CITY: STATE: ZIP:

DESTINATION ADDRESS:

PRODUCT DESCRIPTION: Sc. Clay fill CU. YARDS:

DATE: GROSS 64600 lb
GROSS: TARE 25200 lb
TARE: NET 39400 lb
NET: 12:37PM 09/29/2011

C.O.D.'S ONLY

PRODUCT: COST $ _____ × 19.20 TONS = $ _____

FREIGHT: CHG. $ _____ × _____ TONS = $ _____

OTHER: _____

SUBTOTAL _____

TAX _____

TOTAL $

CUSTOMER SIGNATURE: Rio

DRIVER SIGNATURE: TRUCK NO. 2

WEIGHMASTER SIGNATURE: Karen LICENSE # 180112

Seven Springs Gravel Products, LLC shall not be held liable for any loss after acceptance of a load.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Facility DEC ID 8-1844-00020

PERMIT

Under the Environmental Conservation Law (ECL)

Permittee and Facility Information

Permit Issued To:
SEVEN SPRINGS GRAVEL PRODUCTS
8479 SEVEN SPRINGS RD
BATAVIA, NY 14020
(716) 343-4336

Facility:
SEVEN SPRINGS GRAVEL PRODUCTS
8472 SEVEN SPRINGS RD
BATAVIA, NY 14020

Facility Location: in STAFFORD in GENESEE COUNTY
Facility Principal Reference Point: NYTM-E: 244.8 NYTM-N: 4765.6
Latitude: 43°00'00.8" Longitude: 78°07'51.1"
Project Location: East of Seven Springs Road, 3,300 ft. south of Rt 33
Authorized Activity:
Permit to mine unconsolidated material from a 30-acre permit term area, within a 30-acre Life of Mine. Approved operations include screening and crushing.

Permit Authorizations

Mined Land Reclamation - Under Article 23, Title 27
Permit ID 8-1844-00020/00001 (Mined Land ID 80276)
Renewal Effective Date: 10/13/2006 Expiration Date: 10/12/2011

NYSDEC Approval

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, and all conditions included as part of this permit.

Permit Administrator: JOHN L COLE, Deputy Regional Permit Administrator
Address: NYSDEC REGION 8 HEADQUARTERS
6274 EAST AVON-LIMA RD
AVON, NY 14414

Authorized Signature: John L Cole Date 10 / 12 / 2006

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Facility DEC ID 8-1844-00020

Distribution List

Minerals
TOWN OF BATAVIA
Thomas Giles

Permit Components

MINED LAND RECLAMATION PERMIT CONDITIONS

GENERAL CONDITIONS, APPLY TO ALL AUTHORIZED PERMITS

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

Permit Attachments

Permit Sign

MINED LAND RECLAMATION PERMIT CONDITIONS

1. **Conformance With Plans** All activities authorized by this permit must be in strict conformance with the approved plans submitted by the applicant or applicant's agent as part of the permit application. Such plans were approved by Joseph G. Bucci Jr., Mined Land Reclamation Specialist 1, on August 31, 2006 and consist of the following items: see Conformance with Plans - Addenda

2. **Conformance with Plans - Addenda**

* Mining Permit Application dated January 24, 2006.
* Organizational Report Form dated February 7, 2005.
* Environmental Assessment Forms received September 9, 1987, February 19, 1998, September 14, 1999 and January 24, 2006.
* Mined Land Use Plan Renewal and Modification dated December 2005.
* Mining Plan Map dated December 2005.
* Reclamation Plan Map dated December 2005.
* Cross Sections dated December 2005.

* Mining and Reclamation Plan narratives dated September 8, 1998 with revisions received December 14, 1998 and September 14, 1999, including Appendix B (Pollution Prevention Plan), "Standard and Specifications for Dust Control" and Grassed Waterway Construction Details.

* December 18, 2000 Amendment - Mining permit term area and mining phases.

* September 14, 1999 letter from P. Bauter to M. Migliore.

* December 31, 1998 letter from P. Bauter to S. Army.

* December 14, 1998 letter from P. Bauter to S. Army.

3. **Post Sign and Permit** The enclosed permit and permit sign must be conspicuously posted in a publicly accessible location at the project site. They must be visible, legible and protected from the elements at all times.

4. **Strip and Stockpile Soils for Reclamation** Prior to the excavation of previously undisturbed areas, topsoil and overburden shall be stripped, stockpiled separately, and used for reclamation of mined areas. These stockpiles shall be seeded to establish a vegetative cover within 30 days, or as soon as practicable following their construction. The permittee shall locate all overburden stockpiles within the permitted area of the approved Life of Mine. Sufficient quantities of topsoil must be retained on the site for use in reclamation, unless prior approval is granted by the department.

5. **No Unpermitted Discharge Outside Limits of Mine** There shall be no natural swales or channels or constructed features such as ditches, pipes, etc., that are capable of discharging waters to any offsite areas or to any areas outside the limits of the Life of Mine except those explicitly described and shown in the narrative and graphic portions of the approved Mined Land Use Plan. All silt laden water and storm water generated on, or running across, the site shall be retained within the approved project area. The permittee must comply with all applicable State Pollutant Discharge Elimination System (SPDES) permit requirements and provide necessary notifications for off-site point source discharges.

6. **Fueling of Equipment and Reporting of Spills** Fueling of equipment shall be controlled to prevent spillage. Any spillage of fuels, waste oils, other petroleum products or hazardous materials shall be reported to the department's Spill Hotline number (1-800-457-7362) within 2 hours. The permittee shall retain the department's Spill Response number for immediate access in the permittee's office and at the mine site.

7. **File Termination Notice** If the permittee decides to discontinue operation, a termination notice must be filed 60 days prior to the scheduled temporary or permanent cessation of mining.

8. **No Deviation From Approved Plan** The permittee shall not deviate or depart from the approved mined land use plan without approval by the department of an alteration or modification thereto.

9. **Archaeological or Structural Remains** If any archaeological or structural remains are encountered during excavation, the permittee must immediately cease, or cause to cease, all work in the area of the remains and notify

Regional Permit Administrator
NYSDEC REGION 8 HEADQUARTERS
6274 EAST AVON-LIMA RD
AVON, NY14414

Work shall not resume until written permission to do so has been received from the department.

10. **Bond, Surety to Remain in Force** Any required reclamation bond or other surety, in an amount determined by the department, shall be maintained in full force and effect. Such a bond or other surety shall not be terminated until the reclamation of the mined area is approved by the department in writing.

11. **Maintain Area Markers for Permit Term** The permittee shall provide permanent markers such as stakes, posts or other devices acceptable to the Department to identify and delineate the permit area, as outlined on the approved Mining Plan Map. These markers are to be installed prior to the start of mining and shall be maintained for the duration of the permit term.

12. **Minimum 25 ft. Separation from Property Line** No mining activity of any kind, including clearing and grubbing, shall occur within 25 feet of any adjacent property line or right-of-way. When mining is conducted lower than the adjacent property, the distance from the floor of the mine to the nearest property line shall be no closer than 25 feet plus1½ times the depth of the excavation, except where otherwise noted in the approved Mined Land Use Plan.

13. **Mining Operation Periods** All mining, reclamation and associated activities (including but not limited to: excavating, grading, processing operations, stockpiling operations, haulage operations, and maintenance operations) shall be limited to the following times: Monday through Friday 7 a.m. to 7 p.m., Saturdays 7 a.m. to 5 p.m. Operation of the mine is prohibited on Sundays and legal holidays.

14. **Dust Control** Water or other approved dust palliatives must be applied to haulageways and other parts of the mine, as often as necessary, to prevent visible dust from leaving the mine property.

GENERAL CONDITIONS - Apply to ALL Authorized Permits:

1. **Facility Inspection by The Department** The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71- 0301 and SAPA 401(3).

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

2. Relationship of this Permit to Other Department Orders and Determinations Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

3. Applications For Permit Renewals, Modifications or Transfers The permittee must submit a separate written application to the Department for permit renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing. Submission of applications for permit renewal, modification or transfer are to be submitted to:

Regional Permit Administrator
NYSDEC REGION 8 HEADQUARTERS
6274 EAST AVON-LIMA RD
AVON, NY14414

4. Submission of Renewal Application The permittee must submit a renewal application at least 30 days before permit expiration for the following permit authorizations: Mined Land Reclamation.

5. Permit Modifications, Suspensions and Revocations by the Department The Department reserves the right to modify, suspend or revoke this permit. The grounds for modification, suspension or revocation include:

a. materially false or inaccurate statements in the permit application or supporting papers;

b. failure by the permittee to comply with any terms or conditions of the permit;

c. exceeding the scope of the project as described in the permit application;

d. newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;

e. noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

6. Permit Transfer Permits are transferrable unless specifically prohibited by statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification
The permittee, excepting state or federal agencies, expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees, and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in

compliance or not in compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under Article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

Item B: Permittee's Contractors to Comply with Permit
The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits
The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

Item D: No Right to Trespass or Interfere with Riparian Rights
This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.

P 327888

CARMEN M. PARISO, INC.

3649 River Road
Tonawanda, NY 14150

OFFICE 875-6168 FAX 875-4121

JOB# 25639

CUSTOMER: MATRIX

DATE: 10/19/09

LOAD LOCATION: SEVEN SPRINGS

DUMP LOCATION: PORTER AVE

HIRED TRUCK COMPANY:

TRUCK #/DRIVER: 1191 MARY

- [x] DUMP TRUCK SERVICE
- [ ] DUMP TRAILER SERVICE
- [ ] OTHER

MATERIAL HAULED: Clay Fill

JOB START
JOB FINISH
TRAVEL TIME
[ ] LUNCH [ ] NO LUNCH
TOTAL

LD #	TICKET #	WEIGHT	WAIT TIME ON JOB IN - OUT	REMARKS SPECIFY: ON "HOLD" @ PLANT, TOLLS, DUMP LOCATIONS, ETC.
1		19.32	-	
2		22.70	-	
3				
4			-	
5			-	
6			-	
7			-	
8			-	
9			-	
10			-	
11			-	
12			-	2 GT TOLLS
13			-	
14			-	
15			-	

OUR RESPONSIBILITY ENDS AT THE CURB

CUSTOMER'S SIGNATURE: _____

RETURN THIS ORIGINAL TO PARISO

P 304718

CARMEN M. PARISO, INC.

3649 River Road
OFFICE 875-6168 Tonawanda, NY 14150 FAX 875-4121

JOB# 25438

CUSTOMER: MATRIX

DATE: 10/14/09

LOAD LOCATION: Seven Springs

DUMP LOCATION: Porter [redacted]/N. Falls

HIRED TRUCK COMPANY:

TRUCK #/DRIVER: 238 LORI H.

JOB START: 7:30

JOB FINISH: —

TRAVEL TIME: —

☒ DUMP TRUCK SERVICE
☐ DUMP TRAILER SERVICE
☐ OTHER

☐ LUNCH ☐ NO LUNCH

MATERIAL HAULED: Clay fill

TOTAL: —

LD #	TICKET #	WEIGHT	WAIT TIME ON JOB IN - OUT	REMARKS SPECIFY: ON "HOLD" @ PLANT, TOLLS, DUMP LOCATIONS, ETC.
1	209327	23.06	8:15-8:20	
2	209352	19.90	-	
3	209370	20.66		
4			-	
5			-	
6			-	
7			-	
8			-	
9			-	
10			-	
11			-	
12			-	
13			-	
14			-	
15			-	

OUR RESPONSIBILITY ENDS AT THE CURB

CUSTOMER'S SIGNATURE:

RETURN THIS ORIGINAL TO PARISO

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APPENDIX E

Analytical Result Summary Tables

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Table 2
DRAFT - Soil Analytical Testing Results Summary
Niagara Falls Armed Forces Reserve Center
Niagara Falls, New York

Parameter	Unrestricted Soil Cleanup Objectives	Restricted Commmercial Soil Cleanup Objectives	SP-22-2-4 Result	SP-22-10-12 Result	SP-23-2-4 Result	SP-23-6-8 Result	SP-24-2-4 Result	SP-24-8-10 Result	SP-25-2-4 Result	SP-25-6-8 Result	SP-26-1-3 Result	SP-26-6-8 Result	SP-27-2-4 Result	SP-27-6-8 Result	SP-28-1-3 Result	SP-28-6-8 Result	SP-29-1-3 Result	SP-29-6-8 Result
Volatile Organic Compounds - EPA Method 8260 TCL (ug/kg)																		
Acetone	50	*500,000*	<	7.1 J	60	22 J	28 J	<	<	<	27 J	6.7 J	<	<	<	9.7 J	7.3 J	<
Methylcyclohexane	NV	*NV*	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Tetrachloroethene	1,300	*150,000*	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Methylene Chloride	50	*500,000*	4.9 J	5.6 J	4.8 J	5.1 J	5.1 J	3.9 J	5.1 J	5.6 J	4.6 J	4.8 J	4.9 J	5.0 J	4.7 J	5.8 J	7.8	5.6 J
2-Butanone (MEK)	100,000	*NV*	<	<	7.5 J	<	<	<	<	<	<	<	<	<	<	<	<	<
Semi-Volatile Organic Compounds - EPA Method 8270 TCL (ug/kg)																		
Naphthalene	12,000	*500,000*	<	51 J	<	<	<	<	<	<	<	<	<	<	<	<	<	<
2-Methylnaphthalene	410 [9]	*NV*	<	12 J	<	<	<	<	<	<	<	<	<	<	<	<	<	<
4-Methylphenol	NV	*NV*	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Acenaphthylene	100,000	*500,000*	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	32 J
Acenaphthene	20,000	*500,000*	<	68 J	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Fluorene	30,000	*500,000*	<	96 J	<	<	<	<	<	<	<	<	<	<	<	<	<	33 J
Phenanthrene	100,000	*500,000*	500 J	210 J	<	<	<	<	5100 J	3300 J	<	<	83 J	<	15 J	18 J	1800 J	360
Anthracene	100,000	*500,000*	<	97 J	<	<	<	<	1300 J	<	<	<	<	<	<	<	<	97 J
Fluoranthene	100,000	*500,000*	830 J	250	<	<	<	<	7100 J	7000 J	16 J	<	80 J	<	36 J	77 J	3100 J	570
Pyrene	100,000	*500,000*	590 J	160 J	<	<	<	<	4900 J	6100 J	11 J	<	40 J	<	25 J	57 J	2000 J	350
Benzo(a)anthracene	1,000	*5,600*	650 J	110 J	12 J	<	21 J	<	3600 J	5600 J	14 J	<	37 J	<	27 J	46 J	1700 J	210 J
Dibenzo(a,h)anthracene	330	*560*	<	14 J	<	<	30 J	<	**630 J**	**1200 J**	<	<	10 J	<	<	12 J	<	29 J
Dibenzofuran	7,000	*NV*	<	31 J	<	<	<	<	<	<	<	<	<	<	<	<	<	19 J
Diethyl phthalate	NV	*NV*	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Di-n-octyl phthalate	NV	*NV*	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Di-n-butyl phthalate	NV	*NV*	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Bis(2-ethylhexyl)phthalate	50,000 [9]	*NV*	<	<	<	88 J	<	<	<	<	<	<	<	<	<	<	<	<
Carbazole	NV	*NV*	<	17 J	<	<	<	<	<	<	<	<	<	<	<	<	<	15 J
Chrysene	1,000	*56,000*	670 JB	100 JB	11 JB	<	29 JB	<	3500 JB	5400 JB	14 JB	<	45 JB	<	25 JB	47 JB	2300 JB	200 J
Benzo(b)fluoranthene	1,000	*5,600*	590 J	91 J	16 J	11 J	<	11 J	4100 J	5600 J	19 J	12 J	59 J	15 J	40 J	72 J	3500 J	210 J
Benzo(k)fluoranthene	800	*56,000*	420 J	64 J	13 J	11 J	<	13 J	1700 J	3100 J	16 J	12 J	27 J	9.1 J	19 J	35 J	1700 J	110 J
Biphenyl	NV	*NV*	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Benzo(a)pyrene	1,000	*1,000*	550 J	90 J	13 J	9.5 J	<	<	**3200 J**	**5800 J**	15 J	9.9 J	39 J	<	26 J	54 J	**2900 J**	160 J
Indeno(1,2,3-cd)pyrene	500	*5,600*	280 J	32 J	<	<	30 J	<	1200 J	2100 J	9.3 J	8.8 J	23 J	<	16 J	27 J	1400 J	86 J
Benzo(g,h,i)perylene	100,000	*500,000*	310 J	33 J	<	<	35 J	<	1400 J	2500 J	<	9.8 J	26 J	<	15 J	28 J	1800 J	91 J
Polychlorinated Biphenyls - EPA Method 8082 (ug/kg)																		
Aroclor 1254	NV	*NV*	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Aroclor 1260	NV	*NV*	<	<	<	<	<	<	<	<	<	<	<	<	1,100	<	320	<
Total PCBs	100*	*1,000**	<	<	<	<	<	<	<	<	<	<	<	<	1,100	<	320	<

Notes:
1. Compounds detected in one or more samples are presented on this table. Refer to Attachment C for list of all compounds included in analysis.
2. Analytical testing completed by Test America Laboratories.
3. ug/kg = part per billion; mg/kg = parts per million
4. < indicates compound was not detected above method detection limits.
5. B = Compound was found in the blank and sample.
6. J = Result is less than the reporting limit but greater or equal to the method detection limit and the concentration is an approximate value.
7. NV = no value.
8. NT = not tested.
9. Shading indicates value exceeds Unrestricted Use Soil Cleanup Objectives.
10. **Bold** indicates value exceeds Restricted Commercial Use Soil Cleanup Objectives.
11. A duplicate sample (DUP-1) was collected at soil probe location SP-34, 6 to 8 feet. Values shown are the higher of the two analytical results.
12. *Soil cleanup objective is for the sum of the Aroclor compound concentrations detected (Total PCBs).
13. Soil cleanup objectives (SCOs) are from NYSDEC Part 375, Subpart 375-6: Unrestricted Use Soil Cleanup Objectives and the Supplemetal Soil Cleanup Objectives (SSCOs) are from NYSDEC Final Commissioners Policy, CP-51, Dated October 21, 2010.

Parameter	Unrestricted Soil Cleanup Objectives	Restricted Commmercial Soil Cleanup Objectives	SP-30-1-3 Result	SP-30-10-12 Result	SP-31-1-3 Result	SP-31-8-10 Result	SP-32-2-4 Result	SP-32-8-10 Result	SP-33-0-2 Result	SP-33-8-10 Result	SP-34-2-4 Result	SP-34-6-8 Result	SP-35-1-3 Result	SP-35-6-8 Result	SP-36-1-3 Result	SP-36-8-10 Result	SP-37-1-3 Result	SP-37-4-6 Result
Volatile Organic Compounds - EPA Method 8260 TCL (ug/kg)																		
Acetone	50	*500,000*	12 J	<	<	<	<	30	<	<	<	6.7 J	<	<	27 J	17 J	19 J	29 J
Methylcyclohexane	NV	*NV*	3.0 J	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Tetrachloroethene	1,300	*150,000*	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Methylene Chloride	50	*500,000*	3.8 JB	2.9 JB	4.3 JB	3.2 JB	5.6 J	5.2 J	<	<	6.9	5.9 J	<	<	2.9 JB	<	2.9 J	<
2-Butanone (MEK)	100,000	*NV*	<	<	<	<	<	<	<	<	<	<	<	<	5.2 J	<	<	<
Semi-Volatile Organic Compounds - EPA Method 8270 TCL (ug/kg)																		
Naphthalene	12,000	*500,000*	17 J	<	7.7 J	<	<	<	<	<	33 J	<	<	<	5.7 J	<	45 J	<
2-Methylnaphthalene	410 [9]	*NV*	9.3 J	<	<	<	<	<	52 J	<	38 J	<	<	<	4.1 J	<	28 J	<
4-Methylphenol	NV	*NV*	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Acenaphthylene	100,000	*500,000*	22 J	<	15 J	<	<	<	68 J	<	<	<	<	<	9.0 J	<	9.8 J	<
Acenaphthene	20,000	*500,000*	25 J	<	3.0 J	<	<	<	<	<	<	<	<	<	4.3 J	<	160 J	<
Fluorene	30,000	*500,000*	26 J	<	<	<	<	<	<	<	<	<	<	<	12 J	<	320	<
Phenanthrene	100,000	*500,000*	320 B	8.8 JB	96 JB	6.6 JB	88 J	<	190 JB	<	120 J	<	7.7 JB	<	89 JB	4.5 JB	2,400 B	10 JB
Anthracene	100,000	*500,000*	52 J	<	28 J	<	22 J	<	88 J	<	<	<	<	<	22 J	<	690	<
Fluoranthene	100,000	*500,000*	630 B	17 JB	250 B	13 JB	180 J	<	560 JB	5.5 JB	140 J	<	27 JB	7.9 JB	130 JB	5.8 JB	2,700 B	17 JB
Pyrene	100,000	*500,000*	430 B	12 JB	170 JB	11 JB	120 J	<	440 JB	4.9 JB	89 J	<	20 JB	6.0 JB	98 JB	5.1 JB	1,700 B	9.8 JB
Benzo(a)anthracene	1,000	*5,600*	260 B	14 JB	150 JB	15 JB	97 J	11 J	330 JB	9.1 JB	66 J	15 J	23 JB	8.9 JB	55 JB	9.4 JB	950 B	13 JB
Dibenzo(a,h)anthracene	330	*560*	<	<	<	<	20 J	<	<	<	13 J	<	<	<	<	<	64 J	<
Dibenzofuran	7,000	*NV*	16 J	<	6.4 J	<	<	<	28 J	<	24 J	<	<	<	6.1 J	<	190 J	<
Diethyl phthalate	NV	*NV*	14 JB	12 JB	16 JB	11 JB	<	<	<	9.8 JB	<	<	11 JB	7.4 JB	13 JB	12 JB	7.9 JB	10 JB
Di-n-octyl phthalate	NV	*NV*	32 J	32 J	38 J	30 J	<	<	310 J	31 J	<	<	30 J	28 J	<	31 J	31 J	<
Di-n-butyl phthalate	NV	*NV*	<	<	<	<	<	<	<	<	<	<	<	<	<	<	380	<
Bis(2-ethylhexyl)phthalate	50,000 [9]	*NV*	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Carbazole	NV	*NV*	53 J	4.1 J	14 J	3.7 J	<	<	74 J	3.6 J	<	<	3.6 J	<	14 J	4.4 J	230	<
Chrysene	1,000	*56,000*	290 B	17 JB	140 JB	14 JB	110 JB	10 JB	380 JB	7.9 JB	78 J	14 JB	24 JB	10 JB	62 JB	9.6 JB	940 B	9.7 JB
Benzo(b)fluoranthene	1,000	*5,600*	440 B	18 JB	190 JB	20 JB	140 J	14 J	740 JB	12 JB	81 J	16 J	46 JB	20 JB	97 JB	8.8 JB	1,200 B	18 JB
Benzo(k)fluoranthene	800	*56,000*	180 JB	16 JB	82 JB	15 JB	64 J	13 J	360 JB	10 JB	40 J	14 J	24 JB	11 JB	43 JB	8.1 JB	620 B	16 JB
Biphenyl	NV	*NV*	<	<	<	<	<	<	<	<	<	<	<	<	<	<	17 J	<
Benzo(a)pyrene	1,000	*1,000*	290 B	15 JB	130 JB	15 JB	98 J	14 J	490 JB	7.0 JB	59 J	14 J	30 JB	11 JB	63 JB	7.3 JB	920 B	11 JB
Indeno(1,2,3-cd)pyrene	500	*5,600*	120 JB	10 JB	56 JB	10 JB	45 J	<	210 JB	7.6 JB	38 J	<	17 JB	7.4 JB	30 JB	6.2 JB	270 B	9.0 JB
Benzo(g,h,i)perylene	100,000	*500,000*	120 JB	7.8 JB	57 JB	11 JB	52 J	<	400 JB	8.8 JB	52 J	<	19 JB	6.9 JB	32 JB	6.0 JB	290 B	7.9 JB
Polychlorinated Biphenyls - EPA Method 8082 (ug/kg)																		
Aroclor 1254	NV	*NV*	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Aroclor 1260	NV	*NV*	150 J	<	<	<	410	<	940	<	<	<	<	<	<	<	<	<
Total PCBs	100*	*1,000**	150	<	<	<	410	<	940	<	<	<	<	<	<	<	<	<

Notes:
1. Compounds detected in one or more samples are presented on this table. Refe
2. Analytical testing completed by Test America Laboratories.
3. ug/kg = part per billion; mg/kg = parts per million
4. < indicates compound was not detected above method detection limits.
5. B = Compound was found in the blank and sample.
6. J = Result is less than the reporting limit but greater or equal to the method de
7. NV = no value.
8. NT = not tested.
9. Shading indicates value exceeds Unrestricted Use Soil Cleanup Objectives.
10. **Bold** indicates value exceeds Restricted Commercial Use Soil Cleanup Obje
11. A duplicate sample (DUP-1) was collected at soil probe location SP-34, 6 to
12. *Soil cleanup objective is for the sum of the Aroclor compound concentratio
13. Soil cleanup objectives (SCOs) are from NYSDEC Part 375, Subpart 375-6
CP-51, Dated October 21, 2010.

Parameter	Unrestricted Soil Cleanup Objectives	Restricted Commmercial Soil Cleanup Objectives	SP-41-1-3 Result	SP-41-6-8 Result	SP-47-1-3 Result	SP-47-6-8 Result	SP-50-1-3 Result	SP-50-6-8 Result	SP-51-1-3 Result	SP-51-6-8 Result	EX-NORTH Result	EX-SOUTH Result	EX-EAST Result	EX-WEST Result	EX-FLOOR Result	OUTFALL 004 Result
Volatile Organic Compounds - EPA Method 8260 TCL (ug/kg)																
Acetone	50	*500,000*	NT	NT	NT	NT	NT	NT	NT	NT	44	17 J	17 J	29	<	<
Methylcyclohexane	NV	*NV*	NT	NT	NT	NT	NT	NT	NT	NT	<	<	<	<	<	<
Tetrachloroethene	1,300	*150,000*	NT	NT	NT	NT	NT	NT	NT	NT	2.4 JB	2.4 JB	2 JB	1.8 JB	2 JB	<
Methylene Chloride	50	*500,000*	NT	NT	NT	NT	NT	NT	NT	NT	<	<	<	<	<	<
2-Butanone (MEK)	100,000	*NV*	NT	NT	NT	NT	NT	NT	NT	NT	<	<	<	<	<	<
Semi-Volatile Organic Compounds - EPA Method 8270 TCL (ug/kg)																
Naphthalene	12,000	*500,000*	<	<	NT	NT	<	<	<	<	<	<	<	<	<	390 J
2-Methylnaphthalene	410 [9]	*NV*	<	<	NT	NT	<	<	<	<	<	<	<	<	<	460 J
4-Methylphenol	NV	*NV*	17 J	<	NT	NT	<	<	<	<	<	<	<	<	<	<
Acenaphthylene	100,000	*500,000*	<	<	NT	NT	<	<	<	<	<	<	<	<	<	180 J
Acenaphthene	20,000	*500,000*	<	<	NT	NT	21 J	<	<	<	<	<	<	<	<	4,500
Fluorene	30,000	*500,000*	<	<	NT	NT	<	<	<	<	<	<	<	<	<	5,400
Phenanthrene	100,000	*500,000*	<	<	NT	NT	750 J	160 J	<	<	<	<	<	<	85 J	56,000 B
Anthracene	100,000	*500,000*	<	<	NT	NT	160 J	<	<	<	<	<	<	<	41 J	19,000
Fluoranthene	100,000	*500,000*	<	<	NT	NT	1,000 J	260 J	<	19 J	<	18 J	<	<	580	190,000
Pyrene	100,000	*500,000*	<	<	NT	NT	740 J	200 J	<	<	<	18 J	<	<	550	160,000
Benzo(a)anthracene	1,000	*5,600*	<	21 J	NT	NT	410 J	140 J	<	<	<	26 J	<	<	320	**120,000**
Dibenzo(a,h)anthracene	330	*560*	<	19 JB	NT	NT	<	<	<	<	<	20 J	<	<	47 J	<
Dibenzofuran	7,000	*NV*	<	<	NT	NT	<	<	<	<	<	<	<	<	<	2,400 J
Diethyl phthalate	NV	*NV*	<	<	NT	NT	<	<	<	<	<	<	<	<	<	<
Di-n-octyl phthalate	NV	*NV*	<	<	NT	NT	<	<	<	<	<	<	<	<	<	<
Di-n-butyl phthalate	NV	*NV*	<	<	NT	NT	<	<	<	<	<	<	<	<	<	<
Bis(2-ethylhexyl)phthalate	50,000 [9]	*NV*	<	<	NT	NT	<	<	<	<	<	<	<	<	<	<
Carbazole	NV	*NV*	<	<	NT	NT	<	<	<	<	<	<	<	<	<	8,600
Chrysene	1,000	*56,000*	<	24 J	NT	NT	390 J	120 J	<	<	<	15 J	<	<	290	**120,000**
Benzo(b)fluoranthene	1,000	*5,600*	<	24 J	NT	NT	420 J	150 J	<	<	4.8 J	32 J	<	<	290	**120,000**
Benzo(k)fluoranthene	800	*56,000*	<	29 J	NT	NT	280 J	89 J	<	<	4.2 J	22 J	<	<	170 J	49,000 B
Biphenyl	NV	*NV*	<	<	NT	NT	<	<	<	<	<	<	<	<	<	<
Benzo(a)pyrene	1,000	*1,000*	<	17 J	NT	NT	380 J	130 J	<	<	<	28 J	<	<	270	**82,000 B**
Indeno(1,2,3-cd)pyrene	500	*5,600*	<	19 JB	NT	NT	230 JB	93 JB	<	<	<	26 J	<	<	130 J	**28,000 B**
Benzo(g,h,i)perylene	100,000	*500,000*	<	15 JB	NT	NT	230 JB	97 JB	<	17 JB	<	27 J	<	<	140 J	29,000 B
Polychlorinated Biphenyls - EPA Method 8082 (ug/kg)																
Aroclor 1254	NV	*NV*	<	<	<	<	<	<	<	<	<	<	<	<	70 J	<
Aroclor 1260	NV	*NV*	<	<	<	<	<	<	<	<	<	<	<	<	<	210
Total PCBs	100*	*1,000**	<	<	<	<	<	<	<	<	<	<	<	<	70	210

Notes:
1. Compounds detected in one or more samples are presented on this table. Refe
2. Analytical testing completed by Test America Laboratories.
3. ug/kg = part per billion; mg/kg = parts per million
4. < indicates compound was not detected above method detection limits.
5. B = Compound was found in the blank and sample.
6. J = Result is less than the reporting limit but greater or equal to the method de
7. NV = no value.
8. NT = not tested.
9. Shading indicates value exceeds Unrestricted Use Soil Cleanup Objectives.
10. **Bold** indicates value exceeds Restricted Commercial Use Soil Cleanup Obje
11. A duplicate sample (DUP-1) was collected at soil probe location SP-34, 6 to
12. *Soil cleanup objective is for the sum of the Aroclor compound concentratio
13. Soil cleanup objectives (SCOs) are from NYSDEC Part 375, Subpart 375-6
CP-51, Dated October 21, 2010.

Table 3
DRAFT - Water Analytical Testing Results Summary
Niagara Falls Armed Forces Reserve Center
Niagara Falls, New York

Parameter	Class GA Criteria	SP-22-110926	SP-25-110926	SP-30-110927	SP-32-110926	SP-34-110926	SP-36-110927	SP-42-110927	SP-49-110927
Volatile Organic Compounds - EPA Method 8260 TCL (ug/L)									
2-Butanone (MEK)	50	<	<	<	<	<	<	3.8 J	<
Acetone	50	<	5.8 J	<	3.0 J	3.8 J	6.6 J	23	<
Benzene	1	<	<	<	<	<	<	<	1.6
Carbon disulfide	NV	0.32 J	<	<	<	<	<	<	<
Cyclohexane	NV	<	<	<	<	<	<	<	0.95 J
Ethylbenzene	5	<	<	<	<	<	<	<	1.3
Methylcyclohexane	NV	<	<	<	<	<	<	<	1.1
Methylene chloride	5	<	<	<	<	<	<	<	<
Toluene	5	<	<	<	<	<	<	<	2.7
Trichloroethene	5	<	<	<	0.58 J	<	<	<	<
Trichlorofluoromethane	5	6.3	<	<	<	<	<	<	<
Total Xylenes	5	<	<	<	<	<	<	<	1.8 J
Semi-Volatile Organic Compounds - EPA Method 8270 (ug/L)									
2,4-Dimethylphenol	1	<	<	<	<	<	<	NS	NS
2-Methylnaphthalene	NV	<	<	<	<	<	<	NS	NS
4-Methylphenol	1	<	<	<	<	<	<	NS	NS
Acenaphthene	20	3.3 J	<	<	<	<	<	NS	NS
Anthracene	50	0.91 J	0.43 J	<	<	<	<	NS	NS
Benzo [a] anthracene	0.002*	0.49 J	0.85 J	<	<	0.44 J	<	NS	NS
Benzo [a] pyrene	ND	<	0.95 J	<	<	<	<	NS	NS
Benzo [b] fluoranthene	0.002*	<	1.1 J	<	<	<	<	NS	NS
Benzo(g,h,i)perylene	NV	<	0.79 J	<	<	<	<	NS	NS
Carbazole	5	1.9 J	0.41 J	<	<	<	<	NS	NS
Chrysene	0.002*	0.39 J	0.77 J	<	<	0.43 J	<	NS	NS
Dibenzofuran	NV	1.2 J	<	<	<	<	<	NS	NS
Diethyl phthalate	50	4.0 J	<	<	<	<	<	NS	NS
Di-n-butyl-phthalate	NV	0.5 JB	0.46 JB	<	0.47 JB	0.44 JB	0.74 J	NS	NS
Dibenz(a,h)anthracene	NV	<	0.67 J	<	<	<	<	NS	NS
Fluoranthene	50	1.7 J	1.2 J	0.45 J	<	0.90 J	<	NS	NS
Fluorene	50	2.8 J	<	<	<	<	<	NS	NS
Indeno(1,2,3-cd)pyrene	0.002	<	0.91 J	<	<	<	<	NS	NS
Naphthalene	10 *	3.8 J	<	<	<	<	<	NS	NS
Phenanthrene	50 *	3.7 J	0.59 J	<	<	0.44 J	<	NS	NS
Pyrene	50	1.5 J	1.2 J	<	<	0.99 J	<	NS	NS
PCBs - EPA Method 8082 (ug/L)									
Aroclor 1254	NV	<	<	<	2	<	<	NS	NS
Aroclor 1260	NV	<	<	0.77	1	<	13	NS	NS
Total PCBs	0.09 [11]	0.0	0.0	0.77	3.0	0.0	13.0	NS	NS

Notes:
1. Compounds detected in one or more samples are presented on this table.
2. Analytical testing completed by Test America Laboratories.
3. NYSDEC Class GA criteria obtained from Division of Water Technical and Operational Guidance Series (TOGS 1.1.1), June 1998, dated October 1993, revised June 1998, January 1999 errata sheet and April 2000 addendum.
4. ug/L = part per billion (ppb); mg/L = part per million (ppm)
5. Shading indicates values exceeding NYSDEC Class GA groundwater criteria.
6. Class GA criteria shown is for total xylene concentration.
7. < = compound was not detected.
8. * indicates a Guidance Value instead of a Standard Value.
9. NV = no value.
10. ND = non-detectable concentration by approved analytical methods.
11. Groundwater criteria is for the sum of the Aroclor compound concentrations detected (Total PCBs).

Table 2
Soil Analytical Testing Results Summary
Niagara Falls Armed Forces Reserve Center
Niagara Falls, New York

Parameter	Unrestricted Use Soil Cleanup Objectives	Restricted Residential Soil Cleanup Objectives	Restricted Commercial Soil Cleanup Objectives	SP-1-5-7 12/06/2010 Result	SP-2-6-8 12/06/2010 Result	SP-3-4-6 12/06/2010 Result	SP-4-2-4 12/06/2010 Result	SP-5-2-4 12/06/2010 Result	SP-6-2-4 12/06/2010 Result	SP-7-4-6 12/06/2010 Result	SP-8-4-6 12/06/2010 Result	SP-8 (DUP-1) 12/06/2010 Result	SP-9-2-4 12/06/2010 Result	SP-10-2-4 12/06/2010 Result	SP-11-2-4 12/06/2010 Result	SP-12-6-10 12/06/2010 Result
Volatile Organic Compounds - EPA Method 8260 TCL (ug/kg)																
Acetone	50	**100,000**	*500,000*	7.1	ND	31	38	70	120	38	38	49	100	45	48	44
Methylene Chloride	50	**100,000**	*500,000*	25	12	32	29	35	31	31	30	20	27	24	38	25
Toluene	700	**100,000**	*500,000*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1,000	**41,000**	*390,000*	ND	31	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.3
Xylenes, total	260	**100,000**	*500,000*	ND	23	3.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	15
Isopropylbenzene	2,300	**NV**	*NV*	ND	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.5
Methylcyclohexane	NV	**NV**	*NV*	ND	66	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	3,900	**100,000**	*500,000*	ND	42	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	8,400	**52,000**	*190,000*	ND	29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.9
4-Isopropyltoluene	10,000 [11]	**NV**	*NV*	ND	7.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3,600	**52,000**	*190,000*	1.4	130	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11
sec-Butylbenzene	11,000	**100,000**	*500,000*	ND	5.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	100,000	**NV**	*NV*	ND	ND	ND	ND	16	28	ND	ND	ND	27	8.9	ND	ND
n-Butylbenzene	12,000	**NV**	*NV*	ND	13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	12,000	**100,000**	*500,000*	ND	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	230
Total VOCs	NV	**NV**	*NV*	33.5	392.8	66.2	67.0	121.0	179.0	69.0	68.0	69.0	154.0	77.9	86.0	335
Total VOC TICs	NV	**NV**	*NV*	41.1	2140	14	11	17	14	12	12	8.1	12	10	14	51
Semi-Volatile Organic Compounds - EPA Method 8270 (ug/kg)																
Naphthalene	12,000	**100,000**	*500,000*	ND	410	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	690
2-Methylnaphthalene	410 [11]	**NV**	*NV*	ND	410	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	100,000	**100,000**	*500,000*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	20,000	**100,000**	*500,000*	ND	25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	30,000	**100,000**	*500,000*	17	39	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	100,000	**100,000**	*500,000*	48	170	ND	ND	ND	66	ND	ND	ND	ND	ND	25	33
Anthracene	100,000	**100,000**	*500,000*	ND	50	ND	ND	ND	22	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100,000	**100,000**	*500,000*	51	210	ND	ND	ND	190	ND	ND	ND	ND	22	33	33
Pyrene	100,000	**100,000**	*500,000*	46	180	ND	ND	ND	130	ND	ND	ND	ND	14	24	23
Benzo(a)anthracene	1,000	**1,000**	*5,600*	20	91	ND	ND	ND	89	ND	ND	ND	ND	ND	16	18
Dibenzo(a,h)anthracene	330	**330**	*560*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	50000 [11]	**NV**	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	ND	ND	ND
Carbazole	NV	**NV**	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	1,000	**3,900**	*56,000*	27	94	ND	ND	ND	78	ND	ND	ND	ND	ND	ND	17
Benzo(b)fluoranthene	1,000	**1,000**	*5,600*	34	110	ND	ND	ND	120	ND	ND	ND	ND	13	14	ND
Benzo(k)fluoranthene	800	**3,900**	*56,000*	12	39	ND	ND	ND	37	ND	ND	ND	ND	ND	ND	ND
Biphenyl	NV	**NV**	*NV*	ND	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	1,000	**1,000**	*1,000*	23	85	ND	ND	ND	85	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	500	**500**	*5,600*	19	38	ND	ND	ND	40	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	100,000	**100,000**	*500,000*	26	51	ND	ND	ND	50	ND	ND	ND	ND	ND	ND	ND
Total SVOCs	NV	**NV**	*NV*	323	2,034	ND	ND	ND	907	ND	ND	ND	100	49	112	814
Total SVOC TICs	NV	**NV**	*NV*	1,550	19,150	ND	ND	3,000	7,350	ND	ND	ND	ND	220	1600	690
TAL Metals - EPA Method SW 846 (mg/kg)																
Aluminum	NV	**NV**	*NV*	2,290	2,460	17,600	21,200	27,600	21,000	20,500	17,400	15,300	23,500	9,870	13,600	ND
Antimony	NV	**NV**	*NV*	ND	ND	ND	ND	ND	1.0	ND	ND	ND	ND	ND	ND	ND
Arsenic	13	**16**	*16*	2.0	4.8	6.4	2.8	7.1	5.7	7.6	5.7	3.7	3.4	1.9	2.1	4.8
Barium	350	**400**	*400*	11.6	14	105	151	171	130	179	41.2	89.4	106	71.9	84.2	152
Beryllium	7.2	**590**	*590*	0.115	0.105	0.950	1.39	1.95	1.14	1.12	0.903	0.771	1.15	0.456	0.583	1.27
Cadmium	2.5	**9.3**	*9.3*	0.186	0.169	0.221	0.109	0.156	0.251	0.185	0.182	0.151	0.153	0.157	0.169	0.146
Calcium	NV	**NV**	*NV*	95,000	78,300	16,800	2,020	2,090	5,850	10,700	49,300	44,100	1,570	3,040	4,300	18,900
Chromium	30	**180**	*1,500*	3.45	7.12	23.5	27.6	38	29.8	29.5	24.1	22.0	30.8	11.2	15	29.8
Cobalt	30 [11]	**NV**	*NV*	2.03	1.96	13.8	11.5	26.8	14.6	18.2	14.3	14.3	23.1	2.4	3.28	19.3
Copper	50	**270**	*270*	8.7	6.1	23.1	21.6	34.3	22.4	33	24.7	21.1	30.7	7.1	7.3	30.4
Iron	2000 [11]	**NV**	*NV*	5,690	5,360	26,800	31,900	44,600	37,900	35,300	29,300	25,100	31,600	8,600	16,100	34,500
Lead	63	**400**	*1,000*	8	6.3	13.4	15	14.9	17.8	14.4	9.7	8.0	7.5	11.7	8.5	16.6
Magnesium	NV	**NV**	*NV*	50,500	31,200	10,500	8,210	9,580	8,000	14,800	14,000	12,200	8,100	2,130	2,850	10,800
Manganese	1,600	**2,000**	*10,000*	298	222	291	186	476	266	**2,470**	475	587	432	84	162	782
Mercury	0.18	**0.81**	*2.8*	ND	ND	0.0132	0.0423	0.0451	0.0492	0.0341	ND	0.0100	0.0218	0.0685	0.0703	0.0394
Nickel	30	**310**	*310*	5.24	5.04	33.7	33.2	48.8	34.3	42.4	34.6	33.3	37.7	9.53	11.5	42.8
Potassium	NV	**NV**	*NV*	485	659	1,600	1,770	2,450	2,040	1,980	2,260	2,240	1,700	1,240	1,460	2,180
Selenium	3.9	**180**	*1,500.0*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	NV	**NV**	*NV*	151	134	136	298	347	141	294	322	278	150	111	112	341
Vanadium	100 [11]	**NV**	*NV*	6.11	5.96	29.7	33.9	47.4	39.6	38.7	32.1	26.8	32.3	9.58	12.5	38.1
Zinc	109	**10,000**	*10,000*	44.6	30.6	62.3	72	100	84.5	69.5	61.7	56.6	74	30.1	35.9	72.1
Polychlorinated Biphenyls - EPA Method 8082 (ug/kg)																
Aroclor 1248	NV	**NV**	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	51	ND
Aroclor 1254	NV	**NV**	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	NV	**NV**	*NV*	ND	ND	ND	ND	ND	ND	29	ND	ND	ND	ND	25	ND
Total PCBs	100*	**1000***	*1,000**	ND	ND	ND	ND	ND	ND	29	ND	ND	ND	ND	76	ND

Table 2
Soil Analytical Testing Results Summary
Niagara Falls Armed Forces Reserve Center
Niagara Falls, New York

Parameter	Unrestricted Use Soil Cleanup Objectives	Restricted Residential Soil Cleanup Objectives	Restricted Commercial Soil Cleanup Objectives	SP-13-0-2 12/07/2010 Result	SP-14-2-4 12/07/2010 Result	SP-15-0-4 12/07/2010 Result	SP-16-0-2 12/07/2010 Result	SP-17-4-8 12/07/2010 Result	SP-17 (DUP-2) 12/07/2010 Result	SP-18-0-4 12/07/2010 Result	SP-19-0-4 12/07/2010 Result	SP-20-0-4 12/07/2010 Result	SP-21-0-4 12/07/2010 Result	TP-1-0-4* 12/07/2010 Result
Volatile Organic Compounds - EPA Method 8260 TCL (ug/kg)														
Acetone	50	**100,000**	*500,000*	10	19	19	ND	52	69	11	340	29	13	7.6
Methylene Chloride	50	**100,000**	*500,000*	5.9	5.2	6.6	4.6	5.9	4.1	7.8	5.4	4.1	4.7	4.6
Toluene	700	**100,000**	*500,000*	ND	ND	ND	ND	ND	ND	ND	ND	1.6	ND	ND
Ethylbenzene	1,000	**41,000**	*390,000*	ND	ND	ND	ND	ND	ND	ND	1.9	2.6	ND	ND
Xylenes, total	260	**100,000**	*500,000*	ND	ND	ND	ND	ND	ND	ND	5.2	8.3	ND	ND
Isopropylbenzene	2,300	**NV**	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylcyclohexane	NV	**NV**	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	3,900	**100,000**	*500,000*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	8,400	**52,000**	*190,000*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Isopropyltoluene	10,000 [11]	**NV**	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3,600	**52,000**	*190,000*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	11,000	**100,000**	*500,000*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	100,000	**NV**	*NV*	ND	ND	ND	ND	ND	7.1	ND	ND	ND	ND	ND
n-Butylbenzene	12,000	**NV**	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	12,000	**100,000**	*500,000*	ND	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total VOCs	NV	**NV**	*NV*	15.9	25.5	25.6	4.6	57.9	80.2	18.8	352.5	45.6	17.7	12.2
Total VOC TICs	NV	**NV**	*NV*	10	8.9	9.8	8.6	12	8.4	9.5	8.1	7.1	7.3	6.5
Semi-Volatile Organic Compounds - EPA Method 8270 (ug/kg)														
Naphthalene	12,000	**100,000**	*500,000*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	410 [11]	**NV**	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	100,000	**100,000**	*500,000*	ND	32	ND	ND	ND	ND	ND	ND	ND	ND	3,000
Acenaphthene	20,000	**100,000**	*500,000*	ND	22	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	30,000	**100,000**	*500,000*	ND	47	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	100,000	**100,000**	*500,000*	ND	330	ND	ND	ND	ND	660	1,100	ND	ND	5,400
Anthracene	100,000	**100,000**	*500,000*	ND	92	ND	ND	ND	ND	160	200	ND	ND	1,900
Fluoranthene	100,000	**100,000**	*500,000*	1,300	510	ND	ND	27	25	800	1,600	ND	ND	16,000
Pyrene	100,000	**100,000**	*500,000*	1,200	480	14	ND	25	23	800	1,400	ND	ND	15,000
Benzo(a)anthracene	1,000	**1,000**	*5,600*	960	290	ND	ND	16	19	420	790	ND	ND	***10,000***
Dibenzo(a,h)anthracene	330	**330**	*560*	ND	38	ND	ND	ND	ND	ND	ND	ND	ND	***2,300***
Bis(2-ethylhexyl)phthalate	50000 [11]	**NV**	*NV*	6,600	170	150	ND	160	160	1,500	1,800	1,300	7,500	ND
Carbazole	NV	**NV**	*NV*	ND	24	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	1,000	**3,900**	*56,000*	690	230	ND	ND	ND	ND	420	690	ND	ND	**9,700**
Benzo(b)fluoranthene	1,000	**1,000**	*5,600*	**1,000**	260	ND	ND	16	ND	450	740	ND	ND	***14,000***
Benzo(k)fluoranthene	800	**3,900**	*56,000*	ND	110	ND	ND	ND	ND	ND	ND	ND	ND	**6,500**
Biphenyl	NV	**NV**	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	1,000	**1,000**	*1,000*	960	250	ND	ND	ND	15	390	680	ND	ND	***14,000***
Indeno(1,2,3-cd)pyrene	500	**500**	*5,600*	ND	110	ND	ND	ND	ND	210	320	ND	ND	***8,800***
Benzo(g,h,i)perylene	100,000	**100,000**	*500,000*	730	120	ND	ND	ND	ND	280	380	ND	ND	12,000
Total SVOCs	NV	**NV**	*NV*	13,440	3,115	164	ND	244	242	6,090	9,700	1,300	7,500	118,600
Total SVOC TICs	NV	**NV**	*NV*	ND	ND	580	9,400	ND	ND	ND	ND	ND	ND	7,600
TAL Metals - EPA Method SW 846 (mg/kg)														
Aluminum	NV	**NV**	*NV*	10,700	24,000	32,100	15,500	17,400	15,800	11,400	13,200	15,100	9,810	9,970
Antimony	NV	**NV**	*NV*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	13	**16**	*16*	6.0	6.5	2.4	6.1	6.3	2.7	8.1	6.8	5.0	6.1	4.1
Barium	350	**400**	*400*	98.6	194	249	107	***418***	168	104	133	90.3	81.3	153
Beryllium	7.2	**590**	*590*	1.38	4.71	8.21	1.96	0.926	0.800	1.38	0.81	1.27	0.637	1.23
Cadmium	2.5	**9.3**	*9.3*	0.48	0.353	0.061	0.216	0.152	0.114	0.554	0.25	0.168	0.791	0.800
Calcium	NV	**NV**	*NV*	168,000	203,000	268,000	225,000	50,700	49,500	173,000	157,000	44,000	138,000	116,000
Chromium	30	**180**	*1,500*	**682**	**379**	31.4	**1,040**	24.2	22.3	**797**	**969**	119	**720**	165
Cobalt	30 [11]	**NV**	*NV*	3.73	6.41	2.44	3.47	16.2	13.6	5.63	5.83	10.4	11.8	4.68
Copper	50	**270**	*270*	9.5	25.4	4.8	11	24.9	18.5	108	45.3	16	19.5	13
Iron	2000 [11]	**NV**	*NV*	6,750	24,700	4,360	4,140	31,000	23,800	22,200	10,900	16,200	20,900	11,200
Lead	63	**400**	*1,000*	27.3	18.3	3.6	11.2	9.5	8.5	42.4	17	7.8	31.5	39.4
Magnesium	NV	**NV**	*NV*	62,800	20,900	8,020	46,400	11,500	11,500	52,600	45,200	9,010	44,900	39,600
Manganese	1,600	**2,000**	*10,000*	1,090	**2,670**	**3,450**	1,130	722	576	**4,150**	1,230	845	679	771
Mercury	0.18	**0.81**	*2.8*	0.0205	0.0452	ND	ND	0.0109	ND	ND	0.0163	0.0146	0.0259	0.124
Nickel	30	**310**	*310*	13.8	20.7	1.66	19.8	35.8	32.0	41.7	29.9	25.1	32.6	12.8
Potassium	NV	**NV**	*NV*	874	1,650	2,440	635	2,420	2,790	722	885	1,710	716	1,210
Selenium	3.9	**180**	*1,500.0*	ND	1.4	2.1	ND	ND	ND	ND	ND	ND	ND	0.7
Sodium	NV	**NV**	*NV*	328	690	930	616.0	271	290	329	443	154	289	254
Vanadium	100 [11]	**NV**	*NV*	17.1	22.3	5.64	25.7	32.3	26.9	23.4	29.8	22.1	26.7	15.3
Zinc	109	**10,000**	*10,000*	79.2	36.8	0.6	30.5	55	52	124	40.5	43.9	170	124
Polychlorinated Biphenyls - EPA Method 8082 (ug/kg)														
Aroclor 1248	NV	**NV**	*NV*	ND	ND	ND	ND	ND	ND	ND	620	ND	ND	ND
Aroclor 1254	NV	**NV**	*NV*	1,700	230	9.8	1,400	21	15	1800	540	65	650	700
Aroclor 1260	NV	**NV**	*NV*	840	67	ND	1,600	ND	ND	760	190	40	410	210
Total PCBs	100*	**1000***	*1,000**	***2,540***	297	9.8	***3,000***	21	15	***2,560***	***1,350***	105	***1,060***	910

Table 2
Soil Analytical Testing Results Summary
Niagara Falls Armed Foreces Reserve Center
Niagara Falls, New York

Notes:

1. Compounds detected in one or more samples are presented on this table.
2. Analytical testing completed by Test America Laboratories.
3. ug/kg = micrograms per kilogram; mg/kg = milligrams per kilogram
4. ND indicates compound was not detected above method detection limits.
5. NV = no value.
6. Shading indicates value exceeds Unrestricted Use Soil Cleanup Objectives.
7. **Bold** indicates value exceeds the Restricted Residential Soil Cleanup Objectives.
8. *Italics* indicates value exceeds the Restricted Commercial Soil Cleanup Objectives.
9. A duplicate sample (DUP-1) was collected at soil probe location SP-8. Values shown are the higher of the two analytical results.
10. *Soil cleanup objective is for the sum of the Aroclor compound concentrations detected (Total PCBs).
11. Soil cleanup objective used is from NYSDEC Final Commissioners Policy, CP-51, dated October 21, 2010.

Table 3
Water Analytical Testing Results Summary
Niagara Falls Armed Forces Reserve Center
Niagara Falls, New York

Parameter	Class GA Criteria	West Pipe End Water	TP-12-Water
Volatile Organic Compounds - EPA Method 8260 TCL (ug/L)			
2-Butanone (MEK)	50	2.7	ND
Acetone	50	18	ND
cis-1,2-Dichloroethene	5	0.99	ND
Trichloroethene	5	4.1	ND
Vinyl Chloride	2	1.9	ND
Toluene	5	13	ND
Xylenes (total)	5 [6]	2.5	ND
Naphthalene	10	89	ND
Total VOCs	NV	132.19	ND
Total VOC TICs	NV	37.9	415
Semi-Volatile Organic Compounds - EPA Method 8270 (ug/L)			
2,4-Dimethylphenol	1	3.7	ND
2-Methylnaphthalene	NV	16	ND
4-Methylphenol	1	44	ND
Acenaphthene	20	9.8	ND
Anthracene	50	6.8	ND
Benzo [a] anthracene	0.002*	2	8.3
Benzo [a] pyrene	ND	ND	4.9
Benzo [b] fluoranthene	0.002*	ND	7.3
Carbazole	5	92	ND
Chrysene	0.002*	ND	9.4
Dibenzofuran	NV	17	ND
Fluoranthene	50	10	20
Fluorene	50	27	ND
Naphthalene	10 *	87	ND
Phenanthrene	50 *	49	ND
Phenol	1	330	ND
Total SVOCs	NV	694.3	49.9
Total SVOC TICs	NV	985	18,790
PCBs - EPA Method 8082 (ug/L)			
Aroclor 1254	NV	6.1	1.7
Aroclor 1260	NV	0.94	0.72
Total PCBs	0.09 [11]	7.04	2.42
Dissolved Metals - EPA Method SW 846 (mg/L)			
Aluminum	NV	0.529	0.621
Barium	1	0.0278	0.0173
Calcium	NV	62.8	74.7
Chromium	0.05	0.0706	0.215
Copper	0.2	ND	0.0025
Iron	0.3	0.031	ND
Magnesium	35*	0.154	ND
Manganese	0.3	0.0018	0.0004
Nickel	0.1	0.0067	0.0015
Potassium	NV	21	3.03
Sodium	20	12.3	2.7
Vanadium	NV	0.0044	0.0104
Zinc	2*	0.0137	0.0042

Notes:
1. Compounds detected in one or more samples are presented on this table.
2. Analytical testing completed by Test America Laboratories.
3. NYSDEC Class GA criteria obtained from Division of Water Technical and Operational Guidance Series (TOGS 1.1.1), June 1998, dated October 1993, revised June 1998, January 1999 errata sheet and April 2000 addendum.
4. ug/L = micrograms per liter; mg/L = miligrams per liter
5. Shading indicates values exceeding NYSDEC Class GA groundwater criteria.
6. Class GA criteria shown is for total xylene concentration.
7. ND = compound was not detected.
8. * indicates a Guidance Value instead of a Standard Value.
9. NV = no value.
10. ND = non-detectable concentration by approved analytical methods.
11. Groundwater criteria is for the sum of the Aroclor compound concentrations detected (Total PCBs).

Table 2
Post Excavation Soil Results - September 2009
9400 Porter Road
Niagara Falls, New York

Sample Location		CS-1	CS-2	CS-3	CS-4	CS-5	CS-6	CS-6 (DUP)	CS-7
Laboratory Sample ID	Maximum	RSI0550-01	RSI0550-02	RSI0550-03	RSI0550-04	RSI0550-05	RSI0550-06	RSI0550-11	RSI0550-07
Sample Date	Contaminant	9/16/2009	9/16/2009	9/16/2009	9/16/2009	9/16/2009	9/16/2009	9/16/2009	9/16/2009
Sample Depth (ft bgs)	Level	1.0-1.25	1.0-1.25	1.0-1.25	1.0-1.25	1.0-1.25	1.0-1.25	1.0-1.25	1.0-1.25
PCBs (mg/kg)									
EPA Method 8082	1.0	0.33	0.27	0.17	0.39	**14**	**18**	**12**	**14**

Sample Location		CS-8	CS-9	CS-10
Laboratory Sample ID	Maximum	RSI0550-08	RSI0550-09	RSI0550-10
Sample Date	Contaminant	9/16/2009	9/16/2009	9/16/2009
Sample Depth (ft)	Level	1.0-1.25	1.0-1.25	1.0-1.25
PCBs (mg/kg)				
EPA Method 8082	1.0	**4.8**	**1.9**	0.33

Notes:

Samples detected at levels exceeding the Maximum Contaminant Level are shown in bold and underlined [**thus**].

mg/kg Milligrams per kilogram
ND Non-detect

Sampling Information:
Samples were collected in 8 oz glass containers.
Samples were placed in iced coolers at approximately 4°C.

Table 3
Post-Excavation Soil Results - October 2009
9400 Porter Road
Niagara Falls, New York

Sample Location		CS-11	CS-12	CS-13	CS-14	CS-14(DUP)	CS-15
Laboratory Sample ID	Maximum	RSJ0561-01	RSJ0561-02	RSJ0561-03	RSJ0561-04	RSJ0561-06	RSJ0561-05
Sample Date	Contaminant	10/8/2009	10/8/2009	10/8/2009	10/8/2009	10/8/2009	10/8/2009
Sample Depth (ft bgs)	Level	2.0-2.25	2.0-2.25	2.0-2.25	2.0-2.25	2.0-2.25	2.0-2.25
PCBs (mg/kg)							
EPA Method 8082	1.0	0.170	0.022	0.800	0.006 J	0.016 J	0.007 J

Notes:

mg/kg Milligrams per kilogram
ND Non-detect
J Analyte detected at a level less than the Reporting Limit and greater than the Method Detection Limit.

Sampling Information:
Samples were collected in 8 oz glass containers.
Samples were placed in iced coolers at approximately 4°C.

APPENDIX F

Pro UCL 4.0 Software Outputs

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Benzene	D_Benzene	Naphthaler	D_Naphtha	Toluene	D_Toluene	Trichloroflu	D_Trichlorc	2,4-Dimeth	D_2,4-Dim	4-Methylph	D_4-Methy	2-Methlyna	D_2-Methly	Benzo(a)ar	D_Benzo(a	Benzo(b)flu
2	0.205	0	3.8	1	0.255	0	6.3	1	0.255	0	0.18	0	0.305	0	0.49	1	0.17
3	0.205	0	0.385	0	0.255	0	0.44	0	0.255	0	0.18	0	0.305	0	0.85	1	1.1
4	0.205	0	0.375	0	0.255	0	0.44	0	0.25	0	0.18	0	0.295	0	0.18	0	0.17
5	0.205	0	0.375	0	0.255	0	0.44	0	0.25	0	0.18	0	0.295	0	0.18	0	0.17
6	0.205	0	0.36	0	0.255	0	0.44	0	0.24	0	0.17	0	0.285	0	0.44	1	0.16
7	0.205	0	0.36	0	0.255	0	0.44	0	0.235	0	0.17	0	0.285	0	0.17	0	0.16
8	0.205	0	13	1	0.255	0	0.44	0	3.7	1	44	1	16	1	2	1	0.8
9	1.6	1	0.85	0	2.7	1	0.44	0	2.4	0	1.75	0	2.9	0	8.3	1	7.3
10	0.205	0			89	1	0.44	0									
11	0.8	0			1	0	1.75	1									

	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
1	D_Benzo(b	Benzo(a)py	D_Benzo(a	Carbazole	D_Carbazo	Chrysene	D_Chrysen	Indeno(1,2,	D_Indeno(1	Phenol	D_Phenol	Aroclor 125	D_Aroclor 1	Aroclor 126	D_Aroclor 1260	
2	0	0.235	0	1.9	1	0.39	1	0.235	0	0.195	0	0.12	0	0.12	0	
3	1	0.95	1	0.41	1	0.77	1	0.91	1	0.195	0	0.12	0	0.12	0	
4	0	0.235	0	0.15	0	0.165	0	0.235	0	0.195	0	0.125	0	0.77	1	
5	0	0.235	0	0.15	0	0.165	0	0.235	0	0.195	0	2	1	1	1	
6	0	0.225	0	0.43	1	0.43	1	0.225	0	0.185	0	0.12	0	0.12	0	
7	0	0.22	0	0.14	0	0.155	1	0.22	0	0.185	0	0.12	0	13	1	
8	0	1.1	0	92	1	0.8	0	1.1	0	330	1	6.1	1	0.94	1	
9	1	4.9	1	1.45	0	9.4	1	2.25	0	1.9	0	1.7	1	0.52	1	
10																
11																

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Acetone	D_Acetone	Benzo(a)ar	D_Benzo(a	Dibenzo(a,	D_Dibenzo	Chrysene	D_Chrysen	Benzo(b)flu	D_Benzo(b	Benzo(k)flu	D_Benzo(k	Benzo(a)py	D_Benzo(a	Indeno(1,2	D_Indeno(1	Aroclor 125	D_Aroclor	Aroclor 126	D_Aroclor	PE Aroclor
2	0.0055	0	0.65	1	0.052	0	0.67	1	0.59	1	0.42	1	0.55	1	0.28	1	0.051	0	0.11	0	0.33
3	0.0071	1	0.11	1	0.014	1	0.1	1	0.091	1	0.064	1	0.09	1	0.032	1	0.056	0	0.12	0	0.27
4	0.06	1	0.012	1	0.00269	0	0.011	1	0.016	1	0.013	1	0.013	1	0.0061	0	0.056	0	0.12	0	0.17
5	0.022	1	0.00175	0	0.0012	0	0.001	0	0.011	1	0.011	1	0.0095	1	0.0028	0	0.052	0	0.12	0	0.39
6	0.028	1	0.021	1	0.03	1	0.029	1	0.002	0	0.0011	0	0.00245	0	0.03	1	0.048	0	0.11	0	14
7	0.0025	0	0.00175	0	0.0012	0	0.001	0	0.011	1	0.013	1	0.0024	0	0.00275	0	0.048	0	0.11	0	15
8	0.0023	0	3.6	1	0.63	1	3.5	1	4.1	1	1.7	1	3.2	1	1.2	1	0.022	0	0.048	0	14
9	0.00245	0	5.6	1	1.2	1	5.4	1	5.6	1	3.1	1	5.8	1	2.1	1	0.023	0	0.05	0	4.8
10	0.027	1	0.014	1	0.0012	0	0.014	1	0.019	1	0.016	1	0.015	1	0.0093	1	0.0225	0	0.05	0	1.9
11	0.0067	1	0.0017	0	0.00175	0	0.001	0	0.012	1	0.012	1	0.0098	1	0.0088	1	0.026	0	0.06	0	0.33
12	0.0027	0	0.037	1	0.01	1	0.045	1	0.059	1	0.027	1	0.039	1	0.023	1	0.0285	0	0.065	0	0.17
13	0.00255	0	0.00185	0	0.00125	0	0.00105	0	0.015	1	0.0091	1	0.00255	0	0.00295	0	0.0235	0	0.055	0	0.022
14	0.0025	0	0.027	1	0.0012	0	0.025	1	0.04	1	0.019	1	0.026	1	0.016	1	0.0235	0	1.1	1	0.8
15	0.0097	1	0.046	1	0.012	1	0.047	1	0.072	1	0.035	1	0.054	1	0.027	1	0.0255	0	0.055	0	0.011
16	0.0073	1	1.7	1	0.13	0	2.3	1	3.5	1	1.7	1	2.9	1	1.4	1	0.027	0	0.32	1	0.007
17	0.00245	0	0.21	1	0.029	1	0.2	1	0.21	1	0.11	1	0.16	1	0.086	1	0.0275	0	0.06	0	
18	0.012	1	0.26	1	0.0015	0	0.29	1	0.44	1	0.18	1	0.29	1	0.12	1	0.024	0	0.15	1	
19	0.00245	0	0.014	1	0.00115	0	0.017	1	0.018	1	0.016	1	0.015	1	0.01	1	0.0245	0	0.055	0	
20	0.00225	0	0.15	1	0.0013	0	0.14	1	0.19	1	0.082	1	0.13	1	0.056	1	0.0285	0	0.065	0	
21	0.00235	0	0.015	1	0.0011	0	0.014	1	0.02	1	0.015	1	0.015	1	0.01	1	0.022	0	0.049	0	
22	0.0028	0	0.097	1	0.02	1	0.11	1	0.14	1	0.064	1	0.098	1	0.045	1	0.0275	0	0.41	1	
23	0.03	1	0.011	1	0.00115	0	0.01	1	0.014	1	0.013	1	0.014	1	0.0027	0	0.023	0	0.05	0	
24	0.00235	0	0.33	1	0.0011	0	0.38	1	0.74	1	0.36	1	0.49	1	0.21	1	0.027	0	0.94	1	
25	0.00245	0	0.0091	1	0.00115	0	0.0079	1	0.012	1	0.01	1	0.007	1	0.0076	1	0.022	0	0.049	0	
26	0.0029	0	0.066	1	0.013	1	0.078	1	0.081	1	0.04	1	0.059	1	0.038	1	0.029	0	0.065	0	
27	0.0067	1	0.015	1	0.0012	0	0.014	1	0.016	1	0.014	1	0.014	1	0.0029	0	0.0225	0	0.05	0	
28	0.0245	0	0.023	1	0.00115	0	0.024	1	0.046	1	0.024	1	0.03	1	0.017	1	0.0285	0	0.065	0	
29	0.0023	0	0.0089	1	0.0011	0	0.01	1	0.02	1	0.011	1	0.011	1	0.0074	1	0.024	0	0.055	0	
30	0.027	1	0.055	1	0.00115	0	0.062	1	0.097	1	0.043	1	0.063	1	0.03	1	0.0285	0	0.065	0	
31	0.017	1	0.0094	1	0.00105	0	0.0096	1	0.0088	1	0.0081	1	0.0073	1	0.0062	1	0.0224	0	0.0495	0	
32	0.019	1	0.95	1	0.064	1	0.94	1	1.2	1	0.62	1	0.92	1	0.27	1	0.0265	0	0.06	0	
33	0.029	1	0.013	1	0.0013	0	0.0097	1	0.018	1	0.016	1	0.011	1	0.009	1	0.0265	0	0.06	0	
34	0.044	1	0.0018	0	0.00125	0	0.00105	0	0.00205	0	0.00115	0	0.00255	0	0.0029	0	0.0305	0	0.065	0	
35	0.017	1	0.021	1	0.019	1	0.024	1	0.024	1	0.029	1	0.017	1	0.019	1	0.0285	0	0.065	0	
36	0.029	1	0.41	1	0.0065	0	0.39	1	0.42	1	0.28	1	0.38	1	0.23	1	0.0275	0	0.06	0	
37	0.00245	0	0.14	1	0.006	0	0.12	1	0.15	1	0.089	1	0.13	1	0.093	1	0.028	0	0.06	0	
38	0.0024	0	0.00175	0	0.0012	0	0.001	0	0.002	0	0.0011	0	0.00245	0	0.00285	0	0.028	0	0.06	0	
39	0.0071	1	0.0018	0	0.00125	0	0.00105	0	0.00205	0	0.00115	0	0.00255	0	0.0029	0	0.0295	0	0.065	0	
40	0.00255	0	0.0018	0	0.0012	0	0.00105	0	0.0048	1	0.0042	1	0.0025	0	0.00285	0	0.029	0	0.065	0	
41	0.0155	0	0.026	1	0.02	1	0.015	1	0.032	1	0.022	1	0.028	1	0.026	1	0.03	0	0.065	0	
42	0.038	1	0.00175	0	0.0012	0	0.001	0	0.00195	0	0.0011	0	0.00245	0	0.0028	0	0.059	0	0.065	0	
43	0.07	1	0.00175	0	0.0012	0	0.001	0	0.00195	0	0.0011	0	0.00245	0	0.0028	0	0.0305	0	0.065	0	
44	0.12	1	0.32	1	0.047	1	0.29	1	0.29	1	0.17	1	0.27	1	0.13	1	0.0245	0	0.055	0	
45	0.038	1	0.01	0	0.0011	0	0.0135	0	0.034	1	0.012	1	0.0115	0	0.0098	0	0.026	0	0.055	0	
46	0.0435	1	0.0455	0	0.0012	0	0.047	0	0.11	1	0.039	1	0.0425	0	0.019	0	0.07	1	0.11	1	
47	0.1	1	0.0019	0	0.0013	0	0.0011	0	0.00215	0	0.0012	0	0.00265	0	0.00305	0	0.00195	0	0.0043	0	
48	0.045	1	0.0185	0	0.0125	0	0.0105	0	0.0205	0	0.0115	0	0.0255	0	0.0295	0	0.00215	0	0.0047	0	
49	0.048	1	0.024	0	0.0165	0	0.014	0	0.027	0	0.0155	0	0.0335	0	0.0385	0	0.00235	0	0.005	0	
50	0.044	1	0.089	1	0.00135	0	0.078	1	0.12	1	0.037	1	0.085	1	0.04	1	0.0022	0	0.00475	0	
51	0.01	1	0.0018	0	0.00125	0	0.00105	0	0.002	0	0.00115	0	0.0025	0	0.0029	0	0.0029	0	0.0065	0	
52	0.019	1	0.001675	0	0.00115	0	0.005025	0	0.0019	0	0.001075	0	0.002375	0	0.0027	0	0.00235	0	0.0065	0	
53	0.0019	1	0.00185	0	0.00125	0	0.00105	0	0.00205	0	0.00115	0	0.00255	0	0.00295	0	0.00225	0	0.029	1	
54	0.0029	0	0.0018	0	0.0022	0	0.00105	0	0.013	1	0.00115	0	0.0025	0	0.00285	0	0.002025	0	0.00445	0	
55	0.0605	1	0.16	1	0.0013	0	0.0011	0	0.014	1	0.0024	1	0.0026	0	0.003	0	0.0022	0	0.0049	0	
56	0.011	1	0.018	1	0.00135	0	0.017	1	0.0045	1	0.0025	1	0.00275	0	0.00315	0	0.00215	0	0.0048	0	
57	0.34	1	0.96	1	0.055	0	0.69	1	1	1	0.055	0	0.96	1	0.135	0	0.051	1	0.025	1	
58	0.029	1	0.29	1	0.038	1	0.23	1	0.26	1	0.11	1	0.25	1	0.11	1	0.0024	0	0.0065	0	
59	0.013	1	0.0034	1	0.00115	0	0.001	0	0.0019	0	0.0011	0	0.00235	0	0.0027	0	1.7	1	0.84	1	
60	0.0076	1	0.1	0	0.07	0	0.06	0	0.14	0	0.075	0	0.14	0	0.16	0	0.23	1	0.067	1	
61			0.0175	1	0.001225	0	0.001025	0	0.0155	1	0.001125	0	0.0025	0	0.00285	0	0.0098	1	0.00455	0	
62			0.42	1	0.012	0	0.42	1	0.45	1	0.0115	0	0.39	1	0.21	1	1.4	1	1.6	1	
63			0.79	1	0.0145	0	0.69	1	0.74	1	0.0135	0	0.68	1	0.32	1	0.018	1	0.004825	0	
64			0.0155	0	0.0105	0	0.009	0	0.0175	0	0.01	0	0.022	0	0.025	0	1.8	1	0.76	1	
65			0.095	0	0.065	0	0.055	0	0.105	0	0.06	0	0.135	0	0.155	0	0.54	1	0.19	1	
66			10	1	2.3	1	9.7	1	14	1	6.5	1	14	1	8.8	1	0.065	1	0.04	1	
67																	0.65	1	0.41	1	
68																	0.7	1	0.21	1	
69																					
70																					
71																					
72																					
73																					
74																					
75																					
76																					
77																					
78																					
79																					
80																					
81																					
82																					
83																					

	V	W	X	Y	Z	AA	AB	AC	AD
1	D_PE Aroc	PE Aroclor	D_PE Aroc	Combined	D_Combin	Combined	D_ Combined Aroclor 1260		
2	1	0.0022	0	0.051	0	0.11	0		
3	1	0.00215	0	0.056	0	0.12	0		
4	1	0.0022	0	0.056	0	0.12	0		
5	1	0.002	0	0.052	0	0.12	0		
6	1	0.115	0	0.048	0	0.11	0		
7	1	0.125	0	0.048	0	0.11	0		
8	1	0.11	0	0.022	0	0.048	0		
9	1	0.1	0	0.023	0	0.05	0		
10	1	0.0105	0	0.0225	0	0.05	0		
11	1	0.00215	0	0.026	0	0.06	0		
12	1	0.00225	0	0.0285	0	0.065	0		
13	1	0.0022	0	0.0235	0	0.055	0		
14	1	0.011	0	0.0235	0	1.1	1		
15	1	0.002225	0	0.0255	0	0.055	0		
16	1	0.00225	0	0.027	0	0.32	1		
17				0.0275	0	0.06	0		
18				0.024	0	0.15	1		
19				0.0245	0	0.055	0		
20				0.0285	0	0.065	0		
21				0.022	0	0.049	0		
22				0.0275	0	0.41	1		
23				0.023	0	0.05	0		
24				0.027	0	0.94	1		
25				0.022	0	0.049	0		
26				0.029	0	0.065	0		
27				0.0225	0	0.05	0		
28				0.0285	0	0.065	0		
29				0.024	0	0.055	0		
30				0.0285	0	0.065	0		
31				0.0224	0	0.0495	0		
32				0.0265	0	0.06	0		
33				0.0265	0	0.06	0		
34				0.0305	0	0.065	0		
35				0.0285	0	0.065	0		
36				0.0275	0	0.06	0		
37				0.028	0	0.06	0		
38				0.028	0	0.06	0		
39				0.0295	0	0.065	0		
40				0.029	0	0.065	0		
41				0.03	0	0.065	0		
42				0.059	0	0.065	0		
43				0.0305	0	0.065	0		
44				0.0245	0	0.055	0		
45				0.026	0	0.055	0		
46				0.07	1	0.11	1		
47				0.00195	0	0.0043	0		
48				0.00215	0	0.0047	0		
49				0.00235	0	0.005	0		
50				0.0022	0	0.00475	0		
51				0.0029	0	0.0065	0		
52				0.00235	0	0.0065	0		
53				0.00225	0	0.029	1		
54				0.002025	0	0.00445	0		
55				0.0022	0	0.0049	0		
56				0.00215	0	0.0048	0		
57				0.051	1	0.025	1		
58				0.0024	0	0.0065	0		
59				1.7	1	0.84	1		
60				0.23	1	0.067	1		
61				0.0098	1	0.00455	0		
62				1.4	1	1.6	1		
63				0.018	1	0.004825	0		
64				1.8	1	0.76	1		
65				0.54	1	0.19	1		
66				0.065	1	0.04	1		
67				0.65	1	0.41	1		
68				0.7	1	0.21	1		
69				0.33	1	0.0022	0		
70				0.27	1	0.00215	0		
71				0.17	1	0.0022	0		
72				0.39	1	0.002	0		
73				14	1	0.115	0		
74				15	1	0.125	0		
75				14	1	0.11	0		
76				4.8	1	0.1	0		
77				1.9	1	0.0105	0		
78				0.33	1	0.00215	0		
79				0.17	1	0.00225	0		
80				0.022	1	0.0022	0		
81				0.8	1	0.011	0		
82				0.011	1	0.002225	0		
83				0.007	1	0.00225	0		

	A	B	C	D	E	F	G	H	I	J	K	L
1				General UCL Statistics for Data Sets with Non-Detects								
2			User Selected Options									
3			From File	P:\projects\USACE-Louisville, KY.773\773-04\HHRA\Pro UCL Software Outputs\Groundwater Input.wst								
4			Full Precision	OFF								
5			Confidence Coefficient	95%								
6			Number of Bootstrap Operations	2000								
7												
8												
9	Benzene											
10												
11				General Statistics								
12			Number of Valid Observations			8			Number of Distinct Observations			2
13												
14			Raw Statistics						Log-transformed Statistics			
15			Minimum			0.205			Minimum of Log Data			-1.585
16			Maximum			1.6			Maximum of Log Data			0.47
17			Mean			0.379			Mean of log Data			-1.328
18			Median			0.205			SD of log Data			0.726
19			SD			0.493						
20			Coefficient of Variation			1.3						
21			Skewness			2.828						
22												
23												
24				Warning: There are only 2 Distinct Values in this data								
25				There are insufficient Distinct Values to perform some GOF tests and bootstrap methods.								
26				Those methods will return a 'N/A' value on your output display!								
27												
28				It is necessary to have 4 or more Distinct Values to compute bootstrap methods.								
29				However, results obtained using 4 to 9 distinct values may not be reliable.								
30				It is recommended to have 10-15 or more observations for accurate and meaningful bootstrap results.								
31												
32				Relevant UCL Statistics								
33			Normal Distribution Test						Lognormal Distribution Test			
34			Shapiro Wilk Test Statistic			0.419			Shapiro Wilk Test Statistic			0.419
35			Shapiro Wilk Critical Value			0.818			Shapiro Wilk Critical Value			0.818
36			Data not Normal at 5% Significance Level						Data not Lognormal at 5% Significance Level			
37												
38			Assuming Normal Distribution						Assuming Lognormal Distribution			
39			95% Student's-t UCL			0.71			95% H-UCL			0.743
40			95% UCLs (Adjusted for Skewness)						95% Chebyshev (MVUE) UCL			0.71
41			95% Adjusted-CLT UCL (Chen-1995)			0.853			97.5% Chebyshev (MVUE) UCL			0.874
42			95% Modified-t UCL (Johnson-1978)			0.739			99% Chebyshev (MVUE) UCL			1.195
43												
44			Gamma Distribution Test						Data Distribution			
45			k star (bias corrected)			1.046			Data do not follow a Discernable Distribution (0.05)			
46			Theta Star			0.363						
47			MLE of Mean			0.379						
48			MLE of Standard Deviation			0.371						
49			nu star			16.73						
50			Approximate Chi Square Value (.05)			8.479			Nonparametric Statistics			

	A	B	C	D	E	F	G	H	I	J	K	L
51					Adjusted Level of Significance	0.0195					95% CLT UCL	0.666
52					Adjusted Chi Square Value	7.045					95% Jackknife UCL	N/A
53											95% Standard Bootstrap UCL	N/A
54					Anderson-Darling Test Statistic	2.546					95% Bootstrap-t UCL	N/A
55					Anderson-Darling 5% Critical Value	0.728					95% Hall's Bootstrap UCL	N/A
56					Kolmogorov-Smirnov Test Statistic	0.534					95% Percentile Bootstrap UCL	N/A
57					Kolmogorov-Smirnov 5% Critical Value	0.299					95% BCA Bootstrap UCL	N/A
58			**Data not Gamma Distributed at 5% Significance Level**								95% Chebyshev(Mean, Sd) UCL	1.139
59											97.5% Chebyshev(Mean, Sd) UCL	1.468
60			**Assuming Gamma Distribution**								99% Chebyshev(Mean, Sd) UCL	2.114
61					95% Approximate Gamma UCL	0.749						
62					95% Adjusted Gamma UCL	0.901						
63												
64			**Potential UCL to Use**								Use 95% Chebyshev (Mean, Sd) UCL	1.139
65												
66	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
67	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
68	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
69												

	A	B	C	D	E	F	G	H	I	J	K	L
1				General UCL Statistics for Data Sets with Non-Detects								
2			User Selected Options									
3			From File	WorkSheet.wst								
4			Full Precision	OFF								
5			Confidence Coefficient	95%								
6			Number of Bootstrap Operations	2000								
7												
8												
9	Benzene											
10												
11						General Statistics						
12						Number of Valid Data	8		Number of Detected Data			1
13						Number of Distinct Detected Data	1		Number of Non-Detect Data			7
14									Percent Non-Detects			87.50%
15												
16						Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!						
17						It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).						
18												
19						The data set for variable Benzene was not processed!						
20												
21												

	A	B	C	D	E	F	G	H	I	J	K	L
1				General UCL Statistics for Data Sets with Non-Detects								
2			User Selected Options									
3			From File	WorkSheet.wst								
4			Full Precision	OFF								
5			Confidence Coefficient	95%								
6			Number of Bootstrap Operations	2000								
7												
8												
9	Benzene											
10												
11						General Statistics						
12						Number of Valid Data	8		Number of Detected Data			1
13						Number of Distinct Detected Data	1		Number of Non-Detect Data			7
14									Percent Non-Detects			87.50%
15												
16						Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!						
17						It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).						
18												
19						The data set for variable Benzene was not processed!						
20												
21												

	A	B	C	D	E	F	G	H	I	J	K	L
1				General UCL Statistics for Data Sets with Non-Detects								
2			User Selected Options									
3			From File	P:\projects\USACE-Louisville, KY.773\773-04\HHRA\Pro UCL Software Outputs\Subsurface Input.wst								
4			Full Precision	OFF								
5			Confidence Coefficient	95%								
6			Number of Bootstrap Operations	2000								
7												
8												
9	Combined Aroclor 1254											
10												
11						General Statistics						
12						Number of Valid Data	82			Number of Detected Data		27
13						Number of Distinct Detected Data	24			Number of Non-Detect Data		55
14										Percent Non-Detects		67.07%
15												
16						Raw Statistics				Log-transformed Statistics		
17						Minimum Detected	0.007			Minimum Detected		-4.962
18						Maximum Detected	15			Maximum Detected		2.708
19						Mean of Detected	2.201			Mean of Detected		-1.102
20						SD of Detected	4.486			SD of Detected		2.208
21						Minimum Non-Detect	0.00195			Minimum Non-Detect		-6.24
22						Maximum Non-Detect	0.059			Maximum Non-Detect		-2.83
23												
24						Note: Data have multiple DLs - Use of KM Method is recommended				Number treated as Non-Detect		61
25						For all methods (except KM, DL/2, and ROS Methods),				Number treated as Detected		21
26						Observations < Largest ND are treated as NDs				Single DL Non-Detect Percentage		74.39%
27												
28						UCL Statistics						
29						Normal Distribution Test with Detected Values Only				Lognormal Distribution Test with Detected Values Only		
30						Shapiro Wilk Test Statistic	0.517			Shapiro Wilk Test Statistic		0.962
31						5% Shapiro Wilk Critical Value	0.923			5% Shapiro Wilk Critical Value		0.923
32						Data not Normal at 5% Significance Level				Data appear Lognormal at 5% Significance Level		
33												
34						Assuming Normal Distribution				Assuming Lognormal Distribution		
35						DL/2 Substitution Method				DL/2 Substitution Method		
36						Mean	0.733			Mean		-3.543
37						SD	2.744			SD		2.298
38						95% DL/2 (t) UCL	1.237			95% H-Stat (DL/2) UCL		1.054
39												
40						Maximum Likelihood Estimate(MLE) Method	N/A			Log ROS Method		
41						MLE yields a negative mean				Mean in Log Scale		-5.086
42										SD in Log Scale		3.279
43										Mean in Original Scale		0.726
44										SD in Original Scale		2.746
45										95% t UCL		1.231
46										95% Percentile Bootstrap UCL		1.262
47										95% BCA Bootstrap UCL		1.445
48												
49						Gamma Distribution Test with Detected Values Only				Data Distribution Test with Detected Values Only		
50						k star (bias corrected)	0.34			Data Follow Appr. Gamma Distribution at 5% Significance Level		

	A	B	C	D	E	F	G	H	I	J	K	L
51					Theta Star	6.473						
52					nu star	18.36						
53												
54					A-D Test Statistic	1.138	Nonparametric Statistics					
55					5% A-D Critical Value	0.841				Kaplan-Meier (KM) Method		
56					K-S Test Statistic	0.841					Mean	0.731
57					5% K-S Critical Value	0.181					SD	2.728
58	Data follow Appr. Gamma Distribution at 5% Significance Level										SE of Mean	0.307
59											95% KM (t) UCL	1.241
60	Assuming Gamma Distribution										95% KM (z) UCL	1.236
61			Gamma ROS Statistics using Extrapolated Data								95% KM (jackknife) UCL	1.234
62					Minimum	0.007					95% KM (bootstrap t) UCL	1.488
63					Maximum	15					95% KM (BCA) UCL	1.307
64					Mean	2.257					95% KM (Percentile Bootstrap) UCL	1.259
65					Median	2.3					95% KM (Chebyshev) UCL	2.069
66					SD	2.548					97.5% KM (Chebyshev) UCL	2.648
67					k star	0.905					99% KM (Chebyshev) UCL	3.785
68					Theta star	2.496						
69					Nu star	148.3	Potential UCLs to Use					
70					AppChi2	121.2					95% KM (t) UCL	1.241
71					95% Gamma Approximate UCL	2.763						
72					95% Adjusted Gamma UCL	2.773						
73	Note: DL/2 is not a recommended method.											
74												
75	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
76	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
77	For additional insight, the user may want to consult a statistician.											
78												
79												
80	Combined Aroclor 1260											
81												
82	General Statistics											
83					Number of Valid Data	82					Number of Detected Data	16
84					Number of Distinct Detected Data	15					Number of Non-Detect Data	66
85											Percent Non-Detects	80.49%
86												
87	Raw Statistics						Log-transformed Statistics					
88					Minimum Detected	0.025					Minimum Detected	-3.689
89					Maximum Detected	1.6					Maximum Detected	0.47
90					Mean of Detected	0.45					Mean of Detected	-1.459
91					SD of Detected	0.466					SD of Detected	1.333
92					Minimum Non-Detect	0.002					Minimum Non-Detect	-6.215
93					Maximum Non-Detect	0.125					Maximum Non-Detect	-2.079
94												
95	Note: Data have multiple DLs - Use of KM Method is recommended										Number treated as Non-Detect	71
96	For all methods (except KM, DL/2, and ROS Methods),										Number treated as Detected	11
97	Observations < Largest ND are treated as NDs										Single DL Non-Detect Percentage	86.59%
98												
99	UCL Statistics											
100	Normal Distribution Test with Detected Values Only						Lognormal Distribution Test with Detected Values Only					

	A	B	C	D	E	F	G	H	I	J	K	L
101					Shapiro Wilk Test Statistic	0.847					Shapiro Wilk Test Statistic	0.946
102					5% Shapiro Wilk Critical Value	0.887					5% Shapiro Wilk Critical Value	0.887
103					**Data not Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**	
104												
105					**Assuming Normal Distribution**						**Assuming Lognormal Distribution**	
106					DL/2 Substitution Method						DL/2 Substitution Method	
107					Mean	0.107					Mean	-3.809
108					SD	0.263					SD	1.822
109					95% DL/2 (t) UCL	0.156					95% H-Stat (DL/2) UCL	0.22
110												
111					Maximum Likelihood Estimate(MLE) Method	N/A					Log ROS Method	
112					**MLE yields a negative mean**						Mean in Log Scale	-5.312
113											SD in Log Scale	2.353
114											Mean in Original Scale	0.0915
115											SD in Original Scale	0.268
116											95% t UCL	0.141
117											95% Percentile Bootstrap UCL	0.144
118											95% BCA Bootstrap UCL	0.153
119												
120					**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**	
121					k star (bias corrected)	0.762					**Data appear Gamma Distributed at 5% Significance Level**	
122					Theta Star	0.591						
123					nu star	24.38						
124												
125					A-D Test Statistic	0.261					**Nonparametric Statistics**	
126					5% A-D Critical Value	0.768					Kaplan-Meier (KM) Method	
127					K-S Test Statistic	0.768					Mean	0.108
128					5% K-S Critical Value	0.222					SD	0.261
129					**Data appear Gamma Distributed at 5% Significance Level**						SE of Mean	0.0298
130											95% KM (t) UCL	0.158
131					**Assuming Gamma Distribution**						95% KM (z) UCL	0.157
132					Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL	0.154
133					Minimum	0.025					95% KM (bootstrap t) UCL	0.169
134					Maximum	1.6					95% KM (BCA) UCL	0.181
135					Mean	0.453					95% KM (Percentile Bootstrap) UCL	0.167
136					Median	0.45					95% KM (Chebyshev) UCL	0.238
137					SD	0.201					97.5% KM (Chebyshev) UCL	0.294
138					k star	3.884					99% KM (Chebyshev) UCL	0.404
139					Theta star	0.117						
140					Nu star	636.9					**Potential UCLs to Use**	
141					AppChi2	579.4					95% KM (t) UCL	0.158
142					95% Gamma Approximate UCL	0.498						
143					95% Adjusted Gamma UCL	0.499						
144	**Note: DL/2 is not a recommended method.**											
145												
146	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
147	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
148	**For additional insight, the user may want to consult a statistician.**											
149												

	A	B	C	D	E	F	G	H	I	J	K	L
1				**General UCL Statistics for Data Sets with Non-Detects**								
2			**User Selected Options**									
3			From File	P:\projects\USACE-Louisville, KY.773\773-04\HHRA\Pro UCL Software Outputs\Subsurface Input.wst								
4			Full Precision	OFF								
5			Confidence Coefficient	95%								
6			Number of Bootstrap Operations	2000								
7												
8												
9	**Acetone**											
10												
11						**General Statistics**						
12						Number of Valid Data	59			Number of Detected Data		37
13						Number of Distinct Detected Data	28			Number of Non-Detect Data		22
14										Percent Non-Detects		37.29%
15												
16				**Raw Statistics**						**Log-transformed Statistics**		
17						Minimum Detected	0.0019			Minimum Detected		-6.266
18						Maximum Detected	0.34			Maximum Detected		-1.079
19						Mean of Detected	0.039			Mean of Detected		-3.761
20						SD of Detected	0.057			SD of Detected		0.998
21						Minimum Non-Detect	0.00225			Minimum Non-Detect		-6.097
22						Maximum Non-Detect	0.0245			Maximum Non-Detect		-3.709
23												
24				Note: Data have multiple DLs - Use of KM Method is recommended						Number treated as Non-Detect		39
25				For all methods (except KM, DL/2, and ROS Methods),						Number treated as Detected		20
26				Observations < Largest ND are treated as NDs						Single DL Non-Detect Percentage		66.10%
27												
28						**UCL Statistics**						
29				**Normal Distribution Test with Detected Values Only**						**Lognormal Distribution Test with Detected Values Only**		
30						Shapiro Wilk Test Statistic	0.53			Shapiro Wilk Test Statistic		0.981
31						5% Shapiro Wilk Critical Value	0.936			5% Shapiro Wilk Critical Value		0.936
32				**Data not Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**		
33												
34				**Assuming Normal Distribution**						**Assuming Lognormal Distribution**		
35						DL/2 Substitution Method				DL/2 Substitution Method		
36						Mean	0.0253			Mean		-4.768
37						SD	0.0484			SD		1.58
38						95% DL/2 (t) UCL	0.0358			95% H-Stat (DL/2) UCL		0.0582
39												
40						Maximum Likelihood Estimate(MLE) Method	N/A			Log ROS Method		
41				**MLE yields a negative mean**						Mean in Log Scale		-4.553
42										SD in Log Scale		1.323
43										Mean in Original Scale		0.0256
44										SD in Original Scale		0.0483
45										95% t UCL		0.0361
46										95% Percentile Bootstrap UCL		0.0368
47										95% BCA Bootstrap UCL		0.0433
48												
49				**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**		
50						k star (bias corrected)	1.032			**Data Follow Appr. Gamma Distribution at 5% Significance Level**		

	A	B	C	D	E	F	G	H	I	J	K	L
51					Theta Star	0.0378						
52					nu star	76.36						
53												
54					A-D Test Statistic	0.888	**Nonparametric Statistics**					
55					5% A-D Critical Value	0.775					Kaplan-Meier (KM) Method	
56					K-S Test Statistic	0.775					Mean	0.0253
57					5% K-S Critical Value	0.149					SD	0.048
58	**Data follow Appr. Gamma Distribution at 5% Significance Level**										SE of Mean	0.00634
59											95% KM (t) UCL	0.0359
60			**Assuming Gamma Distribution**								95% KM (z) UCL	0.0357
61			Gamma ROS Statistics using Extrapolated Data								95% KM (jackknife) UCL	0.0347
62					Minimum	1E-12					95% KM (bootstrap t) UCL	0.0459
63					Maximum	0.34					95% KM (BCA) UCL	0.0397
64					Mean	0.0301					95% KM (Percentile Bootstrap) UCL	0.037
65					Median	0.022					95% KM (Chebyshev) UCL	0.0529
66					SD	0.0471					97.5% KM (Chebyshev) UCL	0.0649
67					k star	0.23					99% KM (Chebyshev) UCL	0.0883
68					Theta star	0.131						
69					Nu star	27.11	**Potential UCLs to Use**					
70					AppChi2	16.24					95% KM (Percentile Bootstrap) UCL	0.037
71					95% Gamma Approximate UCL	0.0503						
72					95% Adjusted Gamma UCL	0.0509						
73	**Note: DL/2 is not a recommended method.**											
74												
75	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
76	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
77	**For additional insight, the user may want to consult a statistician.**											
78												
79												
80	**Benzo(a)anthracene**											
81												
82					**General Statistics**							
83					Number of Valid Data	65					Number of Detected Data	43
84					Number of Distinct Detected Data	40					Number of Non-Detect Data	22
85											Percent Non-Detects	33.85%
86												
87					**Raw Statistics**		**Log-transformed Statistics**					
88					Minimum Detected	0.0034					Minimum Detected	-5.684
89					Maximum Detected	10					Maximum Detected	2.303
90					Mean of Detected	0.645					Mean of Detected	-2.431
91					SD of Detected	1.78					SD of Detected	1.959
92					Minimum Non-Detect	0.00168					Minimum Non-Detect	-6.392
93					Maximum Non-Detect	0.1					Maximum Non-Detect	-2.303
94												
95	Note: Data have multiple DLs - Use of KM Method is recommended										Number treated as Non-Detect	46
96	For all methods (except KM, DL/2, and ROS Methods),										Number treated as Detected	19
97	Observations < Largest ND are treated as NDs										Single DL Non-Detect Percentage	70.77%
98												
99					**UCL Statistics**							
100					**Normal Distribution Test with Detected Values Only**		**Lognormal Distribution Test with Detected Values Only**					

	A	B	C	D	E	F	G	H	I	J	K	L
101					Shapiro Wilk Test Statistic	0.407					Shapiro Wilk Test Statistic	0.941
102					5% Shapiro Wilk Critical Value	0.943					5% Shapiro Wilk Critical Value	0.943
103					**Data not Normal at 5% Significance Level**						**Data not Lognormal at 5% Significance Level**	
104												
105					**Assuming Normal Distribution**						**Assuming Lognormal Distribution**	
106					DL/2 Substitution Method						DL/2 Substitution Method	
107					Mean	0.429					Mean	-3.677
108					SD	1.474					SD	2.508
109					95% DL/2 (t) UCL	0.734					95% H-Stat (DL/2) UCL	1.614
110												
111					Maximum Likelihood Estimate(MLE) Method	N/A					Log ROS Method	
112					**MLE yields a negative mean**						Mean in Log Scale	-3.831
113											SD in Log Scale	2.601
114											Mean in Original Scale	0.427
115											SD in Original Scale	1.474
116											95% t UCL	0.732
117											95% Percentile Bootstrap UCL	0.743
118											95% BCA Bootstrap UCL	0.919
119												
120					**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**	
121					k star (bias corrected)	0.331					**Data do not follow a Discernable Distribution (0.05)**	
122					Theta Star	1.947						
123					nu star	28.48						
124												
125					A-D Test Statistic	3.03					**Nonparametric Statistics**	
126					5% A-D Critical Value	0.851					Kaplan-Meier (KM) Method	
127					K-S Test Statistic	0.851					Mean	0.428
128					5% K-S Critical Value	0.146					SD	1.462
129					**Data not Gamma Distributed at 5% Significance Level**						SE of Mean	0.184
130											95% KM (t) UCL	0.735
131					**Assuming Gamma Distribution**						95% KM (z) UCL	0.73
132					Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL	0.732
133					Minimum	1E-12					95% KM (bootstrap t) UCL	1.162
134					Maximum	10					95% KM (BCA) UCL	0.779
135					Mean	0.431					95% KM (Percentile Bootstrap) UCL	0.746
136					Median	0.018					95% KM (Chebyshev) UCL	1.228
137					SD	1.473					97.5% KM (Chebyshev) UCL	1.575
138					k star	0.0974					99% KM (Chebyshev) UCL	2.255
139					Theta star	4.428						
140					Nu star	12.66					**Potential UCLs to Use**	
141					AppChi2	5.668					97.5% KM (Chebyshev) UCL	1.575
142					95% Gamma Approximate UCL	0.964						
143					95% Adjusted Gamma UCL	0.982						
144	**Note: DL/2 is not a recommended method.**											
145												
146	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
147	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
148	**For additional insight, the user may want to consult a statistician.**											
149												
150												

	A	B	C	D	E	F	G	H	I	J	K	L
151	Dibenzo(a,h)anthracene											
152												
153						General Statistics						
154					Number of Valid Data	65				Number of Detected Data		15
155					Number of Distinct Detected Data	14				Number of Non-Detect Data		50
156										Percent Non-Detects		76.92%
157												
158					Raw Statistics					Log-transformed Statistics		
159					Minimum Detected	0.01				Minimum Detected		-4.605
160					Maximum Detected	2.3				Maximum Detected		0.833
161					Mean of Detected	0.296				Mean of Detected		-3
162					SD of Detected	0.645				SD of Detected		1.743
163					Minimum Non-Detect	0.00105				Minimum Non-Detect		-6.859
164					Maximum Non-Detect	0.13				Maximum Non-Detect		-2.04
165												
166					Note: Data have multiple DLs - Use of KM Method is recommended					Number treated as Non-Detect		62
167					For all methods (except KM, DL/2, and ROS Methods),					Number treated as Detected		3
168					Observations < Largest ND are treated as NDs					Single DL Non-Detect Percentage		95.38%
169												
170						UCL Statistics						
171					Normal Distribution Test with Detected Values Only					Lognormal Distribution Test with Detected Values Only		
172					Shapiro Wilk Test Statistic	0.521				Shapiro Wilk Test Statistic		0.783
173					5% Shapiro Wilk Critical Value	0.881				5% Shapiro Wilk Critical Value		0.881
174					Data not Normal at 5% Significance Level					Data not Lognormal at 5% Significance Level		
175												
176					Assuming Normal Distribution					Assuming Lognormal Distribution		
177					DL/2 Substitution Method					DL/2 Substitution Method		
178					Mean	0.0722				Mean		-5.821
179					SD	0.326				SD		2.122
180					95% DL/2 (t) UCL	0.14				95% H-Stat (DL/2) UCL		0.0645
181												
182					Maximum Likelihood Estimate(MLE) Method	N/A				Log ROS Method		
183					MLE yields a negative mean					Mean in Log Scale		-7.403
184										SD in Log Scale		2.912
185										Mean in Original Scale		0.0687
186										SD in Original Scale		0.327
187										95% t UCL		0.136
188										95% Percentile Bootstrap UCL		0.146
189										95% BCA Bootstrap UCL		0.185
190												
191					Gamma Distribution Test with Detected Values Only					Data Distribution Test with Detected Values Only		
192					k star (bias corrected)	0.343				Data do not follow a Discernable Distribution (0.05)		
193					Theta Star	0.864						
194					nu star	10.29						
195												
196					A-D Test Statistic	2.264				Nonparametric Statistics		
197					5% A-D Critical Value	0.82				Kaplan-Meier (KM) Method		
198					K-S Test Statistic	0.82				Mean		0.0763
199					5% K-S Critical Value	0.238				SD		0.323
200					Data not Gamma Distributed at 5% Significance Level					SE of Mean		0.0414

	A	B	C	D	E	F	G	H	I	J	K	L
201											95% KM (t) UCL	0.145
202				**Assuming Gamma Distribution**							95% KM (z) UCL	0.144
203				Gamma ROS Statistics using Extrapolated Data							95% KM (jackknife) UCL	0.142
204					Minimum	1E-12					95% KM (bootstrap t) UCL	1.606
205					Maximum	2.3					95% KM (BCA) UCL	0.157
206					Mean	0.284					95% KM (Percentile Bootstrap) UCL	0.156
207					Median	0.294					95% KM (Chebyshev) UCL	0.257
208					SD	0.326					97.5% KM (Chebyshev) UCL	0.335
209					k star	0.251					99% KM (Chebyshev) UCL	0.488
210					Theta star	1.13						
211					Nu star	32.64				**Potential UCLs to Use**		
212					AppChi2	20.58					95% KM (Chebyshev) UCL	0.257
213					95% Gamma Approximate UCL	0.45						
214					95% Adjusted Gamma UCL	0.455						
215	**Note: DL/2 is not a recommended method.**											
216												
217				**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**								
218				**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**								
219				**For additional insight, the user may want to consult a statistician.**								
220												
221												
222	**Chrysene**											
223												
224					**General Statistics**							
225					Number of Valid Data	65					Number of Detected Data	40
226					Number of Distinct Detected Data	32					Number of Non-Detect Data	25
227											Percent Non-Detects	38.46%
228												
229				**Raw Statistics**						**Log-transformed Statistics**		
230					Minimum Detected	0.0079					Minimum Detected	-4.841
231					Maximum Detected	9.7					Maximum Detected	2.272
232					Mean of Detected	0.678					Mean of Detected	-2.345
233					SD of Detected	1.794					SD of Detected	1.948
234					Minimum Non-Detect	0.001					Minimum Non-Detect	-6.908
235					Maximum Non-Detect	0.06					Maximum Non-Detect	-2.813
236												
237	Note: Data have multiple DLs - Use of KM Method is recommended										Number treated as Non-Detect	43
238	For all methods (except KM, DL/2, and ROS Methods),										Number treated as Detected	22
239	Observations < Largest ND are treated as NDs										Single DL Non-Detect Percentage	66.15%
240												
241					**UCL Statistics**							
242				**Normal Distribution Test with Detected Values Only**						**Lognormal Distribution Test with Detected Values Only**		
243					Shapiro Wilk Test Statistic	0.426					Shapiro Wilk Test Statistic	0.922
244					5% Shapiro Wilk Critical Value	0.94					5% Shapiro Wilk Critical Value	0.94
245				**Data not Normal at 5% Significance Level**						**Data not Lognormal at 5% Significance Level**		
246												
247				**Assuming Normal Distribution**						**Assuming Lognormal Distribution**		
248					DL/2 Substitution Method						DL/2 Substitution Method	
249					Mean	0.419					Mean	-3.999
250					SD	1.439					SD	2.75

	A–E	F	G–K	L
251	95% DL/2 (t) UCL	0.717	95% H-Stat (DL/2) UCL	2.669
252				
253	Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
254	**MLE yields a negative mean**		Mean in Log Scale	-4.07
255			SD in Log Scale	2.755
256			Mean in Original Scale	0.418
257			SD in Original Scale	1.439
258			95% t UCL	0.716
259			95% Percentile Bootstrap UCL	0.732
260			95% BCA Bootstrap UCL	0.873
261				
262	**Gamma Distribution Test with Detected Values Only**		**Data Distribution Test with Detected Values Only**	
263	k star (bias corrected)	0.335	**Data do not follow a Discernable Distribution (0.05)**	
264	Theta Star	2.022		
265	nu star	26.83		
266				
267	A-D Test Statistic	2.812	**Nonparametric Statistics**	
268	5% A-D Critical Value	0.848	Kaplan-Meier (KM) Method	
269	K-S Test Statistic	0.848	Mean	0.421
270	5% K-S Critical Value	0.151	SD	1.427
271	**Data not Gamma Distributed at 5% Significance Level**		SE of Mean	0.179
272			95% KM (t) UCL	0.72
273	**Assuming Gamma Distribution**		95% KM (z) UCL	0.715
274	Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	0.718
275	Minimum	0.0079	95% KM (bootstrap t) UCL	1.287
276	Maximum	9.7	95% KM (BCA) UCL	0.724
277	Mean	0.498	95% KM (Percentile Bootstrap) UCL	0.729
278	Median	0.147	95% KM (Chebyshev) UCL	1.202
279	SD	1.421	97.5% KM (Chebyshev) UCL	1.54
280	k star	0.451	99% KM (Chebyshev) UCL	2.204
281	Theta star	1.104		
282	Nu star	58.63	**Potential UCLs to Use**	
283	AppChi2	42.03	97.5% KM (Chebyshev) UCL	1.54
284	95% Gamma Approximate UCL	0.695		
285	95% Adjusted Gamma UCL	0.7		
286	**Note: DL/2 is not a recommended method.**			
287				
288	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**			
289	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**			
290	**For additional insight, the user may want to consult a statistician.**			
291				
292				
293	**Benzo(b)fluoranthene**			
294				
295	**General Statistics**			
296	Number of Valid Data	65	Number of Detected Data	49
297	Number of Distinct Detected Data	42	Number of Non-Detect Data	16
298			Percent Non-Detects	24.62%
299				
300	**Raw Statistics**		**Log-transformed Statistics**	

	A–E	F	G–K	L
301	Minimum Detected	0.0045	Minimum Detected	-5.404
302	Maximum Detected	14	Maximum Detected	2.639
303	Mean of Detected	0.716	Mean of Detected	-2.503
304	SD of Detected	2.218	SD of Detected	1.973
305	Minimum Non-Detect	0.0019	Minimum Non-Detect	-6.266
306	Maximum Non-Detect	0.14	Maximum Non-Detect	-1.966
307				
308	Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	47
309	For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	18
310	Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	72.31%
311				
312	**UCL Statistics**			
313	**Normal Distribution Test with Detected Values Only**		**Lognormal Distribution Test with Detected Values Only**	
314	Shapiro Wilk Test Statistic	0.365	Shapiro Wilk Test Statistic	0.923
315	5% Shapiro Wilk Critical Value	0.947	5% Shapiro Wilk Critical Value	0.947
316	**Data not Normal at 5% Significance Level**		**Data not Lognormal at 5% Significance Level**	
317				
318	**Assuming Normal Distribution**		**Assuming Lognormal Distribution**	
319	DL/2 Substitution Method		DL/2 Substitution Method	
320	Mean	0.542	Mean	-3.352
321	SD	1.945	SD	2.393
322	95% DL/2 (t) UCL	0.945	95% H-Stat (DL/2) UCL	1.608
323				
324	Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
325	**MLE yields a negative mean**		Mean in Log Scale	-3.441
326			SD in Log Scale	2.438
327			Mean in Original Scale	0.541
328			SD in Original Scale	1.945
329			95% t UCL	0.943
330			95% Percentile Bootstrap UCL	0.963
331			95% BCA Bootstrap UCL	1.194
332				
333	**Gamma Distribution Test with Detected Values Only**		**Data Distribution Test with Detected Values Only**	
334	k star (bias corrected)	0.31	**Data do not follow a Discernable Distribution (0.05)**	
335	Theta Star	2.313		
336	nu star	30.35		
337				
338	A-D Test Statistic	4.198	**Nonparametric Statistics**	
339	5% A-D Critical Value	0.859	Kaplan-Meier (KM) Method	
340	K-S Test Statistic	0.859	Mean	0.542
341	5% K-S Critical Value	0.137	SD	1.93
342	**Data not Gamma Distributed at 5% Significance Level**		SE of Mean	0.242
343			95% KM (t) UCL	0.945
344	**Assuming Gamma Distribution**		95% KM (z) UCL	0.94
345	Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	0.944
346	Minimum	1E-12	95% KM (bootstrap t) UCL	1.573
347	Maximum	14	95% KM (BCA) UCL	1.001
348	Mean	0.541	95% KM (Percentile Bootstrap) UCL	0.996
349	Median	0.02	95% KM (Chebyshev) UCL	1.596
350	SD	1.945	97.5% KM (Chebyshev) UCL	2.052

	A	B	C	D	E	F	G	H	I	J	K	L
351					k star	0.115					99% KM (Chebyshev) UCL	2.948
352					Theta star	4.717						
353					Nu star	14.91	**Potential UCLs to Use**					
354					AppChi2	7.201					97.5% KM (Chebyshev) UCL	2.052
355				95% Gamma Approximate UCL		1.121						
356				95% Adjusted Gamma UCL		1.14						
357	**Note: DL/2 is not a recommended method.**											
358												
359	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
360	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
361	**For additional insight, the user may want to consult a statistician.**											
362												
363												
364	**Benzo(k)fluoranthene**											
365												
366	**General Statistics**											
367					Number of Valid Data	65					Number of Detected Data	44
368					Number of Distinct Detected Data	35					Number of Non-Detect Data	21
369											Percent Non-Detects	32.31%
370												
371	**Raw Statistics**						**Log-transformed Statistics**					
372					Minimum Detected	0.0024					Minimum Detected	-6.032
373					Maximum Detected	6.5					Maximum Detected	1.872
374					Mean of Detected	0.365					Mean of Detected	-3.095
375					SD of Detected	1.107					SD of Detected	1.839
376					Minimum Non-Detect	0.00108					Minimum Non-Detect	-6.835
377					Maximum Non-Detect	0.075					Maximum Non-Detect	-2.59
378												
379	Note: Data have multiple DLs - Use of KM Method is recommended										Number treated as Non-Detect	51
380	For all methods (except KM, DL/2, and ROS Methods),										Number treated as Detected	14
381	Observations < Largest ND are treated as NDs										Single DL Non-Detect Percentage	78.46%
382												
383	**UCL Statistics**											
384	**Normal Distribution Test with Detected Values Only**						**Lognormal Distribution Test with Detected Values Only**					
385					Shapiro Wilk Test Statistic	0.375					Shapiro Wilk Test Statistic	0.916
386					5% Shapiro Wilk Critical Value	0.944					5% Shapiro Wilk Critical Value	0.944
387	**Data not Normal at 5% Significance Level**						**Data not Lognormal at 5% Significance Level**					
388												
389	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
390					DL/2 Substitution Method						DL/2 Substitution Method	
391					Mean	0.249					Mean	-4.143
392					SD	0.923					SD	2.321
393					95% DL/2 (t) UCL	0.44					95% H-Stat (DL/2) UCL	0.596
394												
395					Maximum Likelihood Estimate(MLE) Method	N/A					Log ROS Method	
396	**MLE yields a negative mean**										Mean in Log Scale	-4.287
397											SD in Log Scale	2.373
398											Mean in Original Scale	0.248
399											SD in Original Scale	0.923
400											95% t UCL	0.439

	A	B	C	D	E	F	G	H	I	J	K	L
401											95% Percentile Bootstrap UCL	0.455
402											95% BCA Bootstrap UCL	0.587
403												
404				**Gamma Distribution Test with Detected Values Only**							**Data Distribution Test with Detected Values Only**	
405					k star (bias corrected)	0.319					**Data do not follow a Discernable Distribution (0.05)**	
406					Theta Star	1.145						
407					nu star	28.05						
408												
409					A-D Test Statistic	4.782					**Nonparametric Statistics**	
410					5% A-D Critical Value	0.855					Kaplan-Meier (KM) Method	
411					K-S Test Statistic	0.855					Mean	0.249
412					5% K-S Critical Value	0.144					SD	0.916
413				**Data not Gamma Distributed at 5% Significance Level**							SE of Mean	0.115
414											95% KM (t) UCL	0.44
415				**Assuming Gamma Distribution**							95% KM (z) UCL	0.438
416					Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL	0.44
417					Minimum	1E-12					95% KM (bootstrap t) UCL	0.871
418					Maximum	6.5					95% KM (BCA) UCL	0.475
419					Mean	0.252					95% KM (Percentile Bootstrap) UCL	0.443
420					Median	0.015					95% KM (Chebyshev) UCL	0.749
421					SD	0.922					97.5% KM (Chebyshev) UCL	0.966
422					k star	0.102					99% KM (Chebyshev) UCL	1.392
423					Theta star	2.464						
424					Nu star	13.27					**Potential UCLs to Use**	
425					AppChi2	6.075					97.5% KM (Chebyshev) UCL	0.966
426					95% Gamma Approximate UCL	0.55						
427					95% Adjusted Gamma UCL	0.56						
428	**Note: DL/2 is not a recommended method.**											
429												
430				**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**								
431				**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**								
432				**For additional insight, the user may want to consult a statistician.**								
433												
434												
435	**Benzo(a)pyrene**											
436												
437					**General Statistics**							
438					Number of Valid Data	65					Number of Detected Data	40
439					Number of Distinct Detected Data	35					Number of Non-Detect Data	25
440											Percent Non-Detects	38.46%
441												
442				**Raw Statistics**							**Log-transformed Statistics**	
443					Minimum Detected	0.007					Minimum Detected	-4.962
444					Maximum Detected	14					Maximum Detected	2.639
445					Mean of Detected	0.806					Mean of Detected	-2.359
446					SD of Detected	2.406					SD of Detected	2.009
447					Minimum Non-Detect	0.00235					Minimum Non-Detect	-6.053
448					Maximum Non-Detect	0.14					Maximum Non-Detect	-1.966
449												
450	Note: Data have multiple DLs - Use of KM Method is recommended										Number treated as Non-Detect	50

	A	B	C	D	E	F	G	H	I	J	K	L
451	For all methods (except KM, DL/2, and ROS Methods),										Number treated as Detected	15
452	Observations < Largest ND are treated as NDs										Single DL Non-Detect Percentage	76.92%
453												
454						UCL Statistics						
455						Normal Distribution Test with Detected Values Only					Lognormal Distribution Test with Detected Values Only	
456						Shapiro Wilk Test Statistic	0.376				Shapiro Wilk Test Statistic	0.926
457						5% Shapiro Wilk Critical Value	0.94				5% Shapiro Wilk Critical Value	0.94
458						Data not Normal at 5% Significance Level					Data not Lognormal at 5% Significance Level	
459												
460						Assuming Normal Distribution					Assuming Lognormal Distribution	
461						DL/2 Substitution Method					DL/2 Substitution Method	
462						Mean	0.499				Mean	-3.723
463						SD	1.918				SD	2.484
464						95% DL/2 (t) UCL	0.896				95% H-Stat (DL/2) UCL	1.436
465												
466						Maximum Likelihood Estimate(MLE) Method	N/A				Log ROS Method	
467						MLE yields a negative mean					Mean in Log Scale	-4.035
468											SD in Log Scale	2.724
469											Mean in Original Scale	0.497
470											SD in Original Scale	1.919
471											95% t UCL	0.894
472											95% Percentile Bootstrap UCL	0.907
473											95% BCA Bootstrap UCL	1.169
474												
475						Gamma Distribution Test with Detected Values Only					Data Distribution Test with Detected Values Only	
476						k star (bias corrected)	0.311				Data do not follow a Discernable Distribution (0.05)	
477						Theta Star	2.588					
478						nu star	24.91					
479												
480						A-D Test Statistic	3.091				Nonparametric Statistics	
481						5% A-D Critical Value	0.854				Kaplan-Meier (KM) Method	
482						K-S Test Statistic	0.854				Mean	0.499
483						5% K-S Critical Value	0.151				SD	1.903
484						Data not Gamma Distributed at 5% Significance Level					SE of Mean	0.239
485											95% KM (t) UCL	0.898
486						Assuming Gamma Distribution					95% KM (z) UCL	0.893
487						Gamma ROS Statistics using Extrapolated Data					95% KM (jackknife) UCL	0.896
488						Minimum	0.007				95% KM (bootstrap t) UCL	1.774
489						Maximum	14				95% KM (BCA) UCL	0.948
490						Mean	0.68				95% KM (Percentile Bootstrap) UCL	0.919
491						Median	0.394				95% KM (Chebyshev) UCL	1.541
492						SD	1.886				97.5% KM (Chebyshev) UCL	1.992
493						k star	0.461				99% KM (Chebyshev) UCL	2.878
494						Theta star	1.475					
495						Nu star	59.9				Potential UCLs to Use	
496						AppChi2	43.1				97.5% KM (Chebyshev) UCL	1.992
497						95% Gamma Approximate UCL	0.944					
498						95% Adjusted Gamma UCL	0.952					
499	Note: DL/2 is not a recommended method.											
500												

	A	B	C	D	E	F	G	H	I	J	K	L
501	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
502	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
503	For additional insight, the user may want to consult a statistician.											
504												
505												
506	Indeno(1,2,3-cd)pyrene											
507												
508	General Statistics											
509					Number of Valid Data	65				Number of Detected Data		36
510					Number of Distinct Detected Data	33				Number of Non-Detect Data		29
511										Percent Non-Detects		44.62%
512												
513	Raw Statistics						Log-transformed Statistics					
514					Minimum Detected	0.0062				Minimum Detected		-5.083
515					Maximum Detected	8.8				Maximum Detected		2.175
516					Mean of Detected	0.445				Mean of Detected		-2.789
517					SD of Detected	1.498				SD of Detected		1.775
518					Minimum Non-Detect	0.0027				Minimum Non-Detect		-5.915
519					Maximum Non-Detect	0.16				Maximum Non-Detect		-1.833
520												
521	Note: Data have multiple DLs - Use of KM Method is recommended									Number treated as Non-Detect		55
522	For all methods (except KM, DL/2, and ROS Methods),									Number treated as Detected		10
523	Observations < Largest ND are treated as NDs									Single DL Non-Detect Percentage		84.62%
524												
525	UCL Statistics											
526	Normal Distribution Test with Detected Values Only						Lognormal Distribution Test with Detected Values Only					
527					Shapiro Wilk Test Statistic	0.318				Shapiro Wilk Test Statistic		0.923
528					5% Shapiro Wilk Critical Value	0.935				5% Shapiro Wilk Critical Value		0.935
529	Data not Normal at 5% Significance Level						Data not Lognormal at 5% Significance Level					
530												
531	Assuming Normal Distribution						Assuming Lognormal Distribution					
532					DL/2 Substitution Method					DL/2 Substitution Method		
533					Mean	0.251				Mean		-4.115
534					SD	1.129				SD		2.178
535					95% DL/2 (t) UCL	0.485				95% H-Stat (DL/2) UCL		0.414
536												
537					Maximum Likelihood Estimate(MLE) Method	N/A				Log ROS Method		
538	MLE yields a negative mean									Mean in Log Scale		-4.541
539										SD in Log Scale		2.448
540										Mean in Original Scale		0.247
541										SD in Original Scale		1.13
542										95% t UCL		0.481
543										95% Percentile Bootstrap UCL		0.517
544										95% BCA Bootstrap UCL		0.695
545												
546	Gamma Distribution Test with Detected Values Only						Data Distribution Test with Detected Values Only					
547					k star (bias corrected)	0.331	Data do not follow a Discernable Distribution (0.05)					
548					Theta Star	1.344						
549					nu star	23.84						
550												

	A	B	C	D	E	F	G	H	I	J	K	L
551					A-D Test Statistic	3.5			**Nonparametric Statistics**			
552					5% A-D Critical Value	0.848					Kaplan-Meier (KM) Method	
553					K-S Test Statistic	0.848					Mean	0.25
554					5% K-S Critical Value	0.158					SD	1.121
555		**Data not Gamma Distributed at 5% Significance Level**									SE of Mean	0.141
556											95% KM (t) UCL	0.486
557			**Assuming Gamma Distribution**								95% KM (z) UCL	0.482
558				Gamma ROS Statistics using Extrapolated Data							95% KM (jackknife) UCL	0.484
559					Minimum	0.0062					95% KM (bootstrap t) UCL	1.318
560					Maximum	8.8					95% KM (BCA) UCL	0.555
561					Mean	0.403					95% KM (Percentile Bootstrap) UCL	0.509
562					Median	0.293					95% KM (Chebyshev) UCL	0.865
563					SD	1.11					97.5% KM (Chebyshev) UCL	1.131
564					k star	0.546					99% KM (Chebyshev) UCL	1.653
565					Theta star	0.738						
566					Nu star	71.04			**Potential UCLs to Use**			
567					AppChi2	52.64					97.5% KM (Chebyshev) UCL	1.131
568					95% Gamma Approximate UCL	0.544						
569					95% Adjusted Gamma UCL	0.548						
570	**Note: DL/2 is not a recommended method.**											
571												
572	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
573	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
574	**For additional insight, the user may want to consult a statistician.**											
575												

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APPENDIX G

ATSDR ToxFAQs™

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ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

BENZENE

CAS # 71-43-2

Division of Toxicology and Environmental Medicine ToxFAQs™ August 2007

This fact sheet answers the most frequently asked health questions (FAQs) about benzene. For more information, call the ATSDR Information Center at 1-800-232-4636. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It is important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

HIGHLIGHTS: Benzene is a widely used chemical formed from both natural processes and human activities. Breathing benzene can cause drowsiness, dizziness, and unconsciousness; long-term benzene exposure causes effects on the bone marrow and can cause anemia and leukemia. Benzene has been found in at least 1,000 of the 1,684 National Priority List sites identified by the Environmental Protection Agency (EPA).

What is benzene?

Benzene is a colorless liquid with a sweet odor. It evaporates into the air very quickly and dissolves slightly in water. It is highly flammable and is formed from both natural processes and human activities.

Benzene is widely used in the United States; it ranks in the top 20 chemicals for production volume. Some industries use benzene to make other chemicals which are used to make plastics, resins, and nylon and other synthetic fibers. Benzene is also used to make some types of rubbers, lubricants, dyes, detergents, drugs, and pesticides. Natural sources of benzene include emissions from volcanoes and forest fires. Benzene is also a natural part of crude oil, gasoline, and cigarette smoke.

What happens to benzene when it enters the environment?

❏ Industrial processes are the main source of benzene in the environment.
❏ Benzene can pass into the air from water and soil.
❏ It reacts with other chemicals in the air and breaks down within a few days.
❏ Benzene in the air can attach to rain or snow and be carried back down to the ground.
❏ It breaks down more slowly in water and soil, and can pass through the soil into underground water.
❏ Benzene does not build up in plants or animals.

How might I be exposed to benzene?

❏ Outdoor air contains low levels of benzene from tobacco smoke, automobile service stations, exhaust from motor vehicles, and industrial emissions.
❏ Vapors (or gases) from products that contain benzene, such as glues, paints, furniture wax, and detergents, can also be a source of exposure.
❏ Air around hazardous waste sites or gas stations will contain higher levels of benzene.
❏ Working in industries that make or use benzene.

How can benzene affect my health?

Breathing very high levels of benzene can result in death, while high levels can cause drowsiness, dizziness, rapid heart rate, headaches, tremors, confusion, and unconsciousness. Eating or drinking foods containing high levels of benzene can cause vomiting, irritation of the stomach, dizziness, sleepiness, convulsions, rapid heart rate, and death.

The major effect of benzene from long-term exposure is on the blood. Benzene causes harmful effects on the bone

marrow and can cause a decrease in red blood cells leading to anemia. It can also cause excessive bleeding and can affect the immune system, increasing the chance for infection.

Some women who breathed high levels of benzene for many months had irregular menstrual periods and a decrease in the size of their ovaries, but we do not know for certain that benzene caused the effects. It is not known whether benzene will affect fertility in men.

How likely is benzene to cause cancer?

Long-term exposure to high levels of benzene in the air can cause leukemia, particularly acute myelogenous leukemia, often referred to as AML. This is a cancer of the blood-forming organs. The Department of Health and Human Services (DHHS) has determined that benzene is a known carcinogen. The International Agency for Research on Cancer (IARC) and the EPA have determined that benzene is carcinogenic to humans.

How can benzene affect children?

Children can be affected by benzene exposure in the same ways as adults. It is not known if children are more susceptible to benzene poisoning than adults.

Benzene can pass from the mother's blood to a fetus. Animal studies have shown low birth weights, delayed bone formation, and bone marrow damage when pregnant animals breathed benzene.

How can families reduce the risks of exposure to benzene?

Benzene exposure can be reduced by limiting contact with gasoline and cigarette smoke. Families are encouraged not to smoke in their house, in enclosed environments, or near their children.

Is there a medical test to determine whether I've been exposed to benzene?

Several tests can show if you have been exposed to benzene. There is a test for measuring benzene in the breath; this test must be done shortly after exposure. Benzene can also be measured in the blood; however, since benzene disappears rapidly from the blood, this test is only useful for recent exposures.

In the body, benzene is converted to products called metabolites. Certain metabolites can be measured in the urine. The metabolite S-phenylmercapturic acid in urine is a sensitive indicator of benzene exposure. However, this test must be done shortly after exposure and is not a reliable indicator of how much benzene you have been exposed to, since the metabolites may be present in urine from other sources.

Has the federal government made recommendations to protect human health?

The EPA has set the maximum permissible level of benzene in drinking water at 5 parts benzene per billion parts of water (5 ppb).

The Occupational Safety and Health Administration (OSHA) has set limits of 1 part benzene per million parts of workplace air (1 ppm) for 8 hour shifts and 40 hour work weeks.

References

Agency for Toxic Substances and Disease Registry (ATSDR). 2007. Toxicological Profile for Benzene (Update). Atlanta, GA: U.S. Department of Public Health and Human Services, Public Health Service.

Where can I get more information? For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology and Environmental Medicine, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-800-232-4636, FAX: 770-488-4178. ToxFAQs Internet address via WWW is http://www.atsdr.cdc.gov/toxfaq.html. ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

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NAPHTHALENE
CAS # 91-20-3

1-METHYLNAPHTHALENE
CAS # 90-12-0

2-METHYLNAPHTHALENE
CAS # 91-57-6

Division of Toxicology ToxFAQs™ August 2005

This fact sheet answers the most frequently asked health questions (FAQs) about naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It is important you understand this information because these substances may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

HIGHLIGHTS: Exposure to naphthalene, 1-methylnaphthalene, or 2-methylnaphthalene happens mostly from breathing air contaminated from the burning of wood, tobacco, or fossil fuels, industrial discharges, or moth repellents. Exposure to large amounts of naphthalene may damage or destroy some of your red blood cells. Naphthalene has caused cancer in animals. Naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene have been found in at least 687, 36, and 412, respectively, of the 1,662 National Priority List sites identified by the Environmental Protection Agency (EPA).

What are naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene?

Naphthalene is a white solid that evaporates easily. Fuels such as petroleum and coal contain naphthalene. It is also called white tar, and tar camphor, and has been used in mothballs and moth flakes. Burning tobacco or wood produces naphthalene. It has a strong, but not unpleasant smell. The major commercial use of naphthalene is in the manufacture of polyvinyl chloride (PVC) plastics. Its major consumer use is in moth repellents and toilet deodorant blocks.

1-Methylnaphthalene and 2-methylnaphthalene are naphthalene-related compounds. 1-Methylnaphthalene is a clear liquid and 2-methylnaphthalene is a solid; both can be smelled in air and in water at very low concentrations.

1-Methylnaphthalene and 2-methylnaphthalene are used to make other chemicals such as dyes and resins. 2-Methylnaphthalene is also used to make vitamin K.

What happens to naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene when they enter the environment?

- ❑ Naphthalene enters the environment from industrial and domestic sources, and from accidental spills.
- ❑ Naphthalene can dissolve in water to a limited degree and may be present in drinking water from wells close to hazardous waste sites and landfills.
- ❑ Naphthalene can become weakly attached to soil or pass through soil into underground water.
- ❑ In air, moisture and sunlight break it down within 1 day. In water, bacteria break it down or it evaporates into the air.
- ❑ Naphthalene does not accumulate in the flesh of animals or fish that you might eat.
- ❑ 1-Methylnaphthalene and 2-methylnaphthalene are expected to act like naphthalene in air, water, or soil because they have similar chemical and physical properties.

How might I be exposed to naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene?

- ❑ Breathing low levels in outdoor air.
- ❑ Breathing air contaminated from industrial discharges or smoke from burning wood, tobacco, or fossil fuels.
- ❑ Using or making moth repellents, coal tar products, dyes or inks could expose you to these chemicals in the air.
- ❑ Drinking water from contaminated wells.
- ❑ Touching fabrics that are treated with moth repellents containing naphthalene.
- ❑ Exposure to naphthalene, 1-methylnaphthalene and 2-methylnaphthalene from eating foods or drinking beverages is unlikely.

How can naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene affect my health?

Exposure to large amounts of naphthalene may damage or destroy some of your red blood cells. This could cause you to have too few red blood cells until your body replaces the destroyed cells. This condition is called hemolytic anemia. Some symptoms of hemolytic anemia are fatigue, lack of appetite, restlessness, and pale skin. Exposure to large amounts of naphthalene may also cause nausea, vomiting, diarrhea, blood in the urine, and a yellow color to the skin. Animals sometimes develop cloudiness in their eyes after swallowing high amounts of naphthalene. It is not clear whether this also develops in people. Rats and mice that breathed naphthalene vapors daily for a lifetime developed irritation and inflammation of their nose and lungs. It is unclear if naphthalene

causes reproductive effects in animals; most evidence says it does not.

There are no studies of humans exposed to 1-methylnaphthalene or 2-methylnaphthalene.

Mice fed food containing 1-methylnaphthalene and 2-methylnaphthalene for most of their lives had part of their lungs filled with an abnormal material.

How likely are naphthalene, 1-methylnaphthalene, or 2-methylnaphthalene to cause cancer?

There is no direct evidence in humans that naphthalene, 1-methylnaphthalene, or 2-methylnaphthalene cause cancer. However, cancer from naphthalene exposure has been seen in animal studies. Some female mice that breathed naphthalene vapors daily for a lifetime developed lung tumors. Some male and female rats exposed to naphthalene in a similar manner also developed nose tumors.

Based on the results from animal studies, the Department of Health and Humans Services (DHHS) concluded that naphthalene is reasonably anticipated to be a human carcinogen. The International Agency for Research on Cancer (IARC) concluded that naphthalene is possibly carcinogenic to humans. The EPA determined that naphthalene is a possible human carcinogen (Group C) and that the data are inadequate to assess the human carcinogenic potential of 2-methylnaphthalene.

How can naphthalene, 1-methylnaphthalene, or 2-methylnaphthalene affect children?

Hospitals have reported many cases of hemolytic anemia in children, including newborns and infants, who either ate naphthalene mothballs or deodorants cakes or who were in close contact with clothing or blankets stored in naphthalene mothballs. Naphthalene can move from a pregnant woman's blood to the unborn baby's blood. Naphthalene has been detected in some samples of breast milk from the general U.S. population, but not at levels that are expected to be of concern.

There is no information on whether naphthalene has affected development in humans. No developmental abnormalities were observed in the offspring from rats, mice, and rabbits fed naphthalene during pregnancy.

We do not have any information on possible health effects of 1-methylnaphthalene or 2-methylnaphthalene on children.

How can families reduce the risks of exposure to naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene?

❑ Families can reduce the risks of exposure to naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene by avoiding smoking tobacco, generating smoke during cooking, or using fireplaces or heating appliances in the their homes.

❑ If families use naphthalene-containing moth repellents, the material should be enclosed in containers that prevent vapors from escaping, and kept out of the reach from children.

❑ Blankets and clothing stored with naphthalene moth repellents should be aired outdoors to remove naphthalene odors and washed before they are used.

❑ Families should inform themselves of the contents of air deodorizers that are used in their homes and refrain from using deodorizers with naphthalene.

Is there a medical test to determine whether I've been exposed to naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene?

Tests are available that measure levels of these chemicals and their breakdown products in samples of urine, feces, blood, maternal milk, or body fat. These tests are not routinely available in a doctor's office because they require special equipment, but samples can be sent to special testing laboratories. These tests cannot determine exactly how much naphthalene, 1-methylnaphthalene, or 2-methylnaphthalene you were exposed to or predict whether harmful effects will occur. If the samples are collected within a day or two of exposure, then the tests can show if you were exposed to a large or small amount of naphthalene, 1-methylnaphthalene, or 2-methylnaphthalene.

Has the federal government made recommendations to protect human health?

The EPA recommends that children not drink water with over 0.5 parts per million (0.5 ppm) naphthalene for more than 10 days or over 0.4 ppm for any longer than 7 years. Adults should not drink water with more than 1 ppm for more than 7 years. For water consumed over a lifetime (70 years), the EPA suggests that it contain no more than 0.1 ppm naphthalene.

The Occupational Safety and Health Administration (OSHA) set a limit of 10 ppm for the level of naphthalene in workplace air during an 8-hour workday, 40-hour workweek. The National Institute for Occupational Safety and Health (NIOSH) considers more than 500 ppm of naphthalene in air to be immediately dangerous to life or health. This is the exposure level of a chemical that is likely to impair a worker's ability to leave a contaminate area and therefore, results in permanent health problems or death.

References

Agency for Toxic Substances and Disease Registry (ATSDR). 2005. Toxicological Profile for Naphthalene, 1-Methylnaphthalene, and 2-Methylnaphthalene (Update). Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

Where can I get more information? For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs Internet address via WWW is http://www.atsdr.cdc.gov/toxfaq.html. ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

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POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)

Agency for Toxic Substances and Disease Registry ToxFAQs September 1996

This fact sheet answers the most frequently asked health questions (FAQs) about polycyclic aromatic hydrocarbons (PAHs). For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. This information is important because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

SUMMARY: Exposure to polycyclic aromatic hydrocarbons usually occurs by breathing air contaminated by wild fires or coal tar, or by eating foods that have been grilled. PAHs have been found in at least 600 of the 1,430 National Priorities List sites identified by the Environmental Protection Agency (EPA).

What are polycyclic aromatic hydrocarbons?

(Pronounced pŏl′ĭ-sī′klĭk ăr′ə-măt′ĭk hī′drə-kar′bənz)

Polycyclic aromatic hydrocarbons (PAHs) are a group of over 100 different chemicals that are formed during the incomplete burning of coal, oil and gas, garbage, or other organic substances like tobacco or charbroiled meat. PAHs are usually found as a mixture containing two or more of these compounds, such as soot.

Some PAHs are manufactured. These pure PAHs usually exist as colorless, white, or pale yellow-green solids. PAHs are found in coal tar, crude oil, creosote, and roofing tar, but a few are used in medicines or to make dyes, plastics, and pesticides.

What happens to PAHs when they enter the environment?

- PAHs enter the air mostly as releases from volcanoes, forest fires, burning coal, and automobile exhaust.
- PAHs can occur in air attached to dust particles.
- Some PAH particles can readily evaporate into the air from soil or surface waters.
- PAHs can break down by reacting with sunlight and other chemicals in the air, over a period of days to weeks.
- PAHs enter water through discharges from industrial and wastewater treatment plants.
- Most PAHs do not dissolve easily in water. They stick to solid particles and settle to the bottoms of lakes or rivers.
- Microorganisms can break down PAHs in soil or water after a period of weeks to months.
- In soils, PAHs are most likely to stick tightly to particles; certain PAHs move through soil to contaminate underground water.
- PAH contents of plants and animals may be much higher than PAH contents of soil or water in which they live.

How might I be exposed to PAHs?

- Breathing air containing PAHs in the workplace of coking, coal-tar, and asphalt production plants; smokehouses; and municipal trash incineration facilities.
- Breathing air containing PAHs from cigarette smoke, wood smoke, vehicle exhausts, asphalt roads, or agricultural burn smoke.
- Coming in contact with air, water, or soil near hazardous waste sites.
- Eating grilled or charred meats; contaminated cereals, flour, bread, vegetables, fruits, meats; and processed or pickled foods.
- Drinking contaminated water or cow's milk.

- Nursing infants of mothers living near hazardous waste sites may be exposed to PAHs through their mother's milk.

How can PAHs affect my health?

Mice that were fed high levels of one PAH during pregnancy had difficulty reproducing and so did their offspring. These offspring also had higher rates of birth defects and lower body weights. It is not known whether these effects occur in people.

Animal studies have also shown that PAHs can cause harmful effects on the skin, body fluids, and ability to fight disease after both short- and long-term exposure. But these effects have not been seen in people.

How likely are PAHs to cause cancer?

The Department of Health and Human Services (DHHS) has determined that some PAHs may reasonably be expected to be carcinogens.

Some people who have breathed or touched mixtures of PAHs and other chemicals for long periods of time have developed cancer. Some PAHs have caused cancer in laboratory animals when they breathed air containing them (lung cancer), ingested them in food (stomach cancer), or had them applied to their skin (skin cancer).

Is there a medical test to show whether I've been exposed to PAHs?

In the body, PAHs are changed into chemicals that can attach to substances within the body. There are special tests that can detect PAHs attached to these substances in body tissues or blood. However, these tests cannot tell whether any health effects will occur or find out the extent or source of your exposure to the PAHs. The tests aren't usually available in your doctor's office because special equipment is needed to conduct them.

Has the federal government made recommendations to protect human health?

The Occupational Safety and Health Administration (OSHA) has set a limit of 0.2 milligrams of PAHs per cubic meter of air (0.2 mg/m^3). The OSHA Permissible Exposure Limit (PEL) for mineral oil mist that contains PAHs is 5 mg/m^3 averaged over an 8-hour exposure period.

The National Institute for Occupational Safety and Health (NIOSH) recommends that the average workplace air levels for coal tar products not exceed 0.1 mg/m^3 for a 10-hour workday, within a 40-hour workweek. There are other limits for workplace exposure for things that contain PAHs, such as coal, coal tar, and mineral oil.

Glossary

Carcinogen: A substance that can cause cancer.

Ingest: Take food or drink into your body.

References

Agency for Toxic Substances and Disease Registry (ATSDR). 1995. Toxicological profile for polycyclic aromatic hydrocarbons. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

Where can I get more information? For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs Internet address via WWW is http://www.atsdr.cdc.gov/toxfaq.html ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

POLYCHLORINATED BIPHENYLS

Division of Toxicology ToxFAQs™ February 2001

This fact sheet answers the most frequently asked health questions (FAQs) about polychlorinated biphenyls. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

HIGHLIGHTS: Polychlorinated biphenyls (PCBs) are a mixture of individual chemicals which are no longer produced in the United States, but are still found in the environment. Health effects that have been associated with exposure to PCBs include acne-like skin conditions in adults and neurobehavioral and immunological changes in children. PCBs are known to cause cancer in animals. PCBs have been found in at least 500 of the 1,598 National Priorities List sites identified by the Environmental Protection Agency (EPA).

What are polychlorinated biphenyls?

Polychlorinated biphenyls are mixtures of up to 209 individual chlorinated compounds (known as congeners). There are no known natural sources of PCBs. PCBs are either oily liquids or solids that are colorless to light yellow. Some PCBs can exist as a vapor in air. PCBs have no known smell or taste. Many commercial PCB mixtures are known in the U.S. by the trade name Aroclor.

PCBs have been used as coolants and lubricants in transformers, capacitors, and other electrical equipment because they don't burn easily and are good insulators. The manufacture of PCBs was stopped in the U.S. in 1977 because of evidence they build up in the environment and can cause harmful health effects. Products made before 1977 that may contain PCBs include old fluorescent lighting fixtures and electrical devices containing PCB capacitors, and old microscope and hydraulic oils.

What happens to PCBs when they enter the environment?

❏ PCBs entered the air, water, and soil during their manufacture, use, and disposal; from accidental spills and leaks during their transport; and from leaks or fires in products containing PCBs.

❏ PCBs can still be released to the environment from hazardous waste sites; illegal or improper disposal of industrial wastes and consumer products; leaks from old electrical transformers containing PCBs; and burning of some wastes in incinerators.

❏ PCBs do not readily break down in the environment and thus may remain there for very long periods of time. PCBs can travel long distances in the air and be deposited in areas far away from where they were released. In water, a small amount of PCBs may remain dissolved, but most stick to organic particles and bottom sediments. PCBs also bind strongly to soil.

❏ PCBs are taken up by small organisms and fish in water. They are also taken up by other animals that eat these aquatic animals as food. PCBs accumulate in fish and marine mammals, reaching levels that may be many thousands of times higher than in water.

How might I be exposed to PCBs?

❏ Using old fluorescent lighting fixtures and electrical devices and appliances, such as television sets and refrigerators, that were made 30 or more years ago. These items may leak small amounts of PCBs into the air when they get hot during operation, and could be a source of skin exposure.

❏ Eating contaminated food. The main dietary sources of PCBs are fish (especially sportfish caught in contaminated lakes or rivers), meat, and dairy products.

❏ Breathing air near hazardous waste sites and drinking contaminated well water.

❏ In the workplace during repair and maintenance of PCB transformers; accidents, fires or spills involving transformers, fluorescent lights, and other old electrical devices; and disposal of PCB materials.

How can PCBs affect my health?

The most commonly observed health effects in people exposed to large amounts of PCBs are skin conditions such as acne and rashes. Studies in exposed workers have shown changes in blood and urine that may indicate liver damage. PCB exposures in the general population are not likely to result in skin and liver effects. Most of the studies of health effects of PCBs in the general population examined children of mothers who were exposed to PCBs.

Animals that ate food containing large amounts of PCBs for short periods of time had mild liver damage and some died. Animals that ate smaller amounts of PCBs in food over several weeks or months developed various kinds of health effects, including anemia; acne-like skin conditions; and liver, stomach, and thyroid gland injuries. Other effects

of PCBs in animals include changes in the immune system, behavioral alterations, and impaired reproduction. PCBs are not known to cause birth defects.

How likely are PCBs to cause cancer?

Few studies of workers indicate that PCBs were associated with certain kinds of cancer in humans, such as cancer of the liver and biliary tract. Rats that ate food containing high levels of PCBs for two years developed liver cancer. The Department of Health and Human Services (DHHS) has concluded that PCBs may reasonably be anticipated to be carcinogens. The EPA and the International Agency for Research on Cancer (IARC) have determined that PCBs are probably carcinogenic to humans.

How can PCBs affect children?

Women who were exposed to relatively high levels of PCBs in the workplace or ate large amounts of fish contaminated with PCBs had babies that weighed slightly less than babies from women who did not have these exposures. Babies born to women who ate PCB-contaminated fish also showed abnormal responses in tests of infant behavior. Some of these behaviors, such as problems with motor skills and a decrease in short-term memory, lasted for several years. Other studies suggest that the immune system was affected in children born to and nursed by mothers exposed to increased levels of PCBs. There are no reports of structural birth defects caused by exposure to PCBs or of health effects of PCBs in older children. The most likely way infants will be exposed to PCBs is from breast milk. Transplacental transfers of PCBs were also reported In most cases, the benefits of breast-feeding outweigh any risks from exposure to PCBs in mother's milk.

How can families reduce the risk of exposure to PCBs?

❏ You and your children may be exposed to PCBs by eating fish or wildlife caught from contaminated locations. Certain states, Native American tribes, and U.S. territories have issued advisories to warn people about PCB-contaminated fish and fish-eating wildlife. You can reduce your family's exposure to PCBs by obeying these advisories.

❏ Children should be told not play with old appliances, electrical equipment, or transformers, since they may contain PCBs.

❏ Children should be discouraged from playing in the dirt near hazardous waste sites and in areas where there was a transformer fire. Children should also be discouraged from eating dirt and putting dirty hands, toys or other objects in their mouths, and should wash hands frequently.

❏ If you are exposed to PCBs in the workplace it is possible to carry them home on your clothes, body, or tools. If this is the case, you should shower and change clothing before leaving work, and your work clothes should be kept separate from other clothes and laundered separately.

Is there a medical test to show whether I've been exposed to PCBs?

Tests exist to measure levels of PCBs in your blood, body fat, and breast milk, but these are not routinely conducted. Most people normally have low levels of PCBs in their body because nearly everyone has been environmentally exposed to PCBs. The tests can show if your PCB levels are elevated, which would indicate past exposure to above-normal levels of PCBs, but cannot determine when or how long you were exposed or whether you will develop health effects.

Has the federal government made recommendations to protect human health?

The EPA has set a limit of 0.0005 milligrams of PCBs per liter of drinking water (0.0005 mg/L). Discharges, spills or accidental releases of 1 pound or more of PCBs into the environment must be reported to the EPA. The Food and Drug Administration (FDA) requires that infant foods, eggs, milk and other dairy products, fish and shellfish, poultry and red meat contain no more than 0.2-3 parts of PCBs per million parts (0.2-3 ppm) of food. Many states have established fish and wildlife consumption advisories for PCBs.

References

Agency for Toxic Substances and Disease Registry (ATSDR). 2000. Toxicological profile for polychlorinated biphenyls (PCBs). Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

Where can I get more information? For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs™ Internet address is http://www.atsdr.cdc.gov/toxfaq.html . ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

APPENDIX H
Capital Costs

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Table I-1
Cost Estimate Summary
Alternative 1: No Further Action

Item No.	Description	Capital Costs	Present Worth of O&M Costs
1	No Further Action		
TOTAL		$ -	$ -

Net Present Worth

Capital Costs	$ -
Net Present Value of O&M Costs	$ -
TOTAL NET PRESENT WORTH =	$ -

Notes:
1.) Refer to the attached pages for descriptions of the cost estimate assumptions.
2.) Present Worth of O&M costs were calculated for a 5-year duration, using a 3% return on investment.
3.) Total costs are rounded to the nearest $1,000.

ASSUMPTIONS:
1) No further action would be required at the Site.

Table I-2
Cost Estimate Summary
Alternative 2: Implementation of Site Mangement Plan

Item No.	Description	Capital Costs	Present Worth of O&M Costs
1	Develop Site Management Plan	$ 11,000	
2	Annual Inspection to verify institutional & engineering controls	$ -	$ 800
3	Annual Certification Report	$ -	$ 2,000
		$ -	
TOTAL		$ 11,000	$ 2,800

Subtotal	$ 11,000
Contingency/Administration Cost (20%)	$ 2,200
Net Present Worth	
Capital Costs	$ 13,200
Net Present Value of Annual O&M Costs	$ 70,000
TOTAL NET PRESENT WORTH =	$ 83,200

Notes:
1.) Refer to the attached pages for cost estimate assumptions.
2) Total costs are rounded to the nearest $1,000.

ASSUMPTIONS:
1) Site Manangement Plan (SMP) to be developed based on NYSDEC template.
2) SMP and its requirements will need to be implemented for 30 yrs.
3) Institutional and engineering controls to be covered by SMP include soil and groundwater.
4) Inspection and certification requirements are to be conducted by third engineering firm.
5) One annual inspection to be completed to fulfill requirement of SMP that the institutional and engineering controls implemented remain in place and effective.
6) One annual Periodic Review Report will be submitted annually.
7) Costs associated with annual inspection and Periodic Review Report are considered to the O&M costs assiciated with the implementation of the SMP.
8) Contingency/Administration cost to cover costs inccured by the facility as part of implementation of the SMP.

ESTIMATED INSTALLATION COSTS - Implementation of a Site Management Plan

NO.	ITEM	ESTIMATED QUANTITY	UNIT (EA, LF, LS)	UNIT PRICE	ESTIMATED COST
1	SMP Development (average labor cost per hour)	90	HR	$100.	$9,000
2	Preproduction, shipping and communication costs	1	LS	$1,000.	$1,000
3	Project Management Time	8	HR	$125.	$1,000
				SUBTOTAL INSTALLATION COSTS:	$11,000
				TOTAL INSTALLATION COST	**$11,000**

ESTIMATED ANNUAL O & M COSTS

NO.	ITEM	ESTIMATED QUANTITY	UNIT (EA, LF, LS)	UNIT PRICE	ESTIMATED COST
1	Annual inspection to verify institutional and engineering controls are in place				
	and effective.	8	hours	$100.	$800
2	Annual Periodic Review Report preparation.	1	lump sum	$2,000.	$2,000
				SUBTOTAL O & M COSTS:	$2,800
				CONTINGENCY COSTS 20.0%	$560
				TOTAL O & M COSTS:	**$3,360**

ADDITIONAL COMMENTS

*

*

GZA	Computed By
*	Checked By
*	Approved By

ESTIMATED NET PRESENT VALUE

ITEM	COST
CAPITAL COST	$11,000
5-YEAR NPV	$25,991
10-YEAR NPV	$38,359
30-YEAR NPV	$69,659

NPV RATES:

6.00% DISCOUNT RATE

2.00% INFLATION RATE

Table I-3
Cost Estimate Summary
Alternative 3: Soil & Groundwater Removal and Off-Site Disposal

Item No.	Description	Capital Costs	Present Worth of O&M Costs
1	Waste Characteristic Coordination, Sampling and Analysis	$6,000	$ -
2	Soil Excavation, Off-Site Disposal and Backfilling Activities	$ 248,000	$ -
3	Groundwater Containerization, Sampling and Disposal	$ 15,000	$ -
4	Excavation Field Oversight and Management	$ 18,000	$ -
5	Final Reporting	$ 5,000	$ -
TOTAL		$ -	$ -

Net Present Worth

Capital Costs	$292,000
15% Contingency Cost	$43,800
Net Present Worth of Annual O&M Costs	$ -
TOTAL NET PRESENT WORTH =	$335,800

Notes:
1) Refer to the attached pages for descriptions and details of the cost estimate.
2) Total costs are rounded to the nearest $1,000.
3) Estimated unit rates based on RS Means 2011 - Site Work & Landscape Cost Data unless otherwise noted.
4) City location factor of 0.982 applied to RS Means 2011 unit rates for Niagara Falls, New York.

ASSUMPTIONS:
1) Assumed area of excavation totals about 20,500 square feet (sf).
2) Excavation will include soil from approximately 0 to 4 feet bgs with total estimated volume of 3,034 cubic yards (cy).
3) Excavator with 2 cy bucket will directly load non-hazardous soil into dump trucks for delivery to disposal facility.
4) Disposal facility for non-hazardous soil within 15 mile of site for 25 cy capacity trucks for 2.5 hr round trip travel.
5) Clean structural fill source located within 5 miles of site. Backfill will be placed directly into excavation.
6) 105 hp dozer and vibratory roller to spread and compact structural fill in 12-inch lifts.
7) Approximately 4 days to excavate soil and 3 days to backfill and compact.
8) Field oversight done at 8-hrs per day and project management at about 15% of field oversight time.
9) Groundwater volume of about 92,000 gallons containerized in 5 approximate 20,000 gallon frac-tanks.
10) Containerized groundwater to be discharged into City of Niagara Falls sanitary sewer after authorization.
11) Frac-tank daily rental rate includes costs for delivery, pick up and clean out.
12) Waste charicteristic unit rates include coordination, soil sample collection, field oversight and laboratory analysis
13) Up to 20 soil samples collected for confirmatory analysis including VOCs, SVOCs, PCBs and metals.

ESTIMATED INSTALLATION COSTS - Soil & Groundwater Removal and Off-Site Disposal

NO.	ITEM	ESTIMATED QUANTITY	UNIT (EA, LF, LS)	UNIT PRICE	ESTIMATED COST
1	Mobilization / Demobilization of heavy machinery (RSM 01 54 36 0020)	6	Ea	$228.81	$1,373
2	Excavation and direct load with 2 cy bucket (RSM 31 23 16.42 0260 plus 15%)	3034	CY	$2.02	$6,129
3	Transportation to disposal facility (average of RSM 02 81 20 1260 & 1270)	1830	Mile	$5.35	$9,791
4	Non-hazardous soil disposal (Engineering Judgment and Knowledge of local costs)	3034	CY	$42.	$127,428
5	Imported clean structural fill (RSM 31 05 16.10 0600 and 0900)	3034	CY	$32.75	$99,364
6	Bulldozer to spread structural fill (RSM 31 23 23.14 3000)	3034	CY	$0.95	$2,882
7	Compaction with vibratory roller and 3 passes (RSM 31 23 23.23 5080)	3034	CY	$0.37	$1,123
8	Waste characteristic analysis (4 total samples based on engineering judgment)	4	Ea	$1,500.	$6,000
9	Confirmatory soil sampling for VOCs, SVOCs, PCBs, metals	20	Ea	$400.	$8,000
10	Field oversight labor (based on 8-hr day)	64	Hr	$80.	$5,120
11	Project Management (assume 15% of field staff)	9.5	Hr	$125.	$1,188
12	Equipment, shipping, communication, misc.	8	Day	$400.	$3,200
13	20,000 gallon Frac-tank rental assume 5 total for 14 days	70	Day	$100.	$7,000
14	Groundwater analysis of Frac-tank	5	Ea	$500.	$2,500
15	Permit, coordination, equipment, labor to discharge groundwater to sanitary sewer	5	Ea	$1,000.	$5,000
16	Final Report for Soil and groundwater off-site disposal	1	Ea	$5,000.	$5,000

SUBTOTAL INSTALLATION COSTS: $291,098

TOTAL INSTALLATION COST **$291,098**

ESTIMATED ANNUAL O & M COSTS

NO.	ITEM	ESTIMATED QUANTITY	UNIT (EA, LF, LS)	UNIT PRICE	ESTIMATED COST

SUBTOTAL O & M COSTS: $0

CONTINGENCY COSTS 20.0% $0

TOTAL O & M COSTS: **$0**

ADDITIONAL COMMENTS

*

*

GZA	Computed By
*	Checked By
*	Approved By

ESTIMATED NET PRESENT VALUE

ITEM	COST
CAPITAL COST	$291,098
5-YEAR NPV	$291,098
10-YEAR NPV	$291,098
30-YEAR NPV	$291,098

NPV RATES:

6.00% DISCOUNT RATE

2.00% INFLATION RATE

GZA GeoEnvironmental of New York
Engineers and Scientists

Page No. 1

Project Niagara Falls Armed Forces Reserve Center			File No. 21.0056522.20
Location Niagara Falls, NY	Date 12/7/11	By D. Troy	
Subject Soil and Groundwater Removal & Off-Site Disposal	Checked 12/7/11	By CZB	
Based on Previous soil/water analytical results	Revised	By	

Assume Excavation to include soils from 0-4 ft BGS in Area shown on Fig —
Assume Soils are not Hazardous and can be directly loaded into Dump trucks for delivery to disposal facility (Assume 10-15 miles). No stockpiling will be required

Assume backfill material delivered and directly placed into excavation — no stockpiling
Soils placed in 12-inch lifts spread with Dozer and compacted with 10-ton Roller

Assume No Asphalt pavement after Excavation/Backfilling. No utilities to be encountered/repaired

Assume waste characteristic sampling at frequency of ONE per 2500 ton of soil

Area 1 = 145' x 65' = 9425 ft²
Area 2 = 195' x 50' = 9750 ft²
Area 3 = ½ x 35' x 75' = 1312.5 ft²

Assume 0-4 ft soil removed from EXCAVATION

$V_1 = (9425\ ft^2 \times 4\ ft)/(27\ ft^3/cy) = 1396\ cy$

$V_2 = (9750\ ft^2 \times 4\ ft)/27 = 1444\ cy$

$V_3 = (1312.5\ ft^2 \times 4\ ft)/27 = 194\ cy$

Total Volume = 3034 cy

Convert to tonnage $3034\ cy \left(\frac{1.6\ ton}{cy}\right) \cong 4850\ ton$

Following Costs are BASED ON RS MEANS 2011 - SITE WORK AND LANDSCAPE COST DATA.
NIAGARA FALLS LOCATION FACTOR = 98.2 %

EXCAVATOR: Assume 2cy bucket, track mounted excavator. Excavated soil placed directly into Dump trucks for transport to disposal facility

MOB/DEMOB 01 54 36 0020 $233/mob $233 x 2 x 0.982 = $457.61

SAY $460

Excavation: 31 23 16.42 0260 $1.76/cy x 3034cy x 0.982 x 1.15

31 23 16.42 0020 (Add 15% for direct load into trucks) = $6030

MEANS estimate 165 cy/hr = Assume 100 cy/hr to directly load. (Engineering judgement)

Capacity = $3034\ cy \frac{hr}{100\ cy} = \frac{30.4\ hr}{8\ hr}\ day = 3.8\ day$ — SAY 4 day to Excavate.

WASTE SOIL TRANSPORTATION / DISPOSAL

Assume soil is non Hazardous and can be disposed @ municipal or c/D Landfill

Transportation: Assume truckload = 25 cy or 18 tons

Value ranges between 02 81 20 1260 and 1270 = \$3.85/mile to \$7.05/mile

Assume average ∴ (3.85 + 7.05)/2 = \$5.45/mile

Assume disposal facility within 15 miles.

Total yards = 3034/25 = 122 trucks × \$5.45/mile × 15 mile/truck × 1.982 = \$9793.9

(Assumes 30 trucks per day with one excavator) = SAY \$9800

Disposal RSMEANS 02 65 10 2050/2055 range between \$140 & \$440/cy

Assume soil is non Hazardous and can be used as daily cover @ landfill

Based on Engineering Judgement and knowledge of Area assume \$55/cy : \$55/cy × 3034 cy = \$166870

SAY 167,000

CLEAN IMPORTED BACKFILL

Assume clean imported select structural fill to be placed/compacted - EXCAVATION
Assume Quarry Source within 5-10 miles of site.

RSMEANS 31 05 16.10 0600 \$28.50/cy

\$28.50/cy × 0.982 × 3034 cy = \$84912.56

Add \$4.87/5 mile haul: Assume 3034 × \$4.87 × 0.982 ≈ \$14509.6

SAY: Additional \$

SAY 99,422 TOTAL

Project		File No.
Location	Date	By
Subject	Checked	By
Based on	Revised	By

Compaction of Backfill soils.

Assume imported clean fill dumped directly into excavation. Fill spread with Dozer to 12-inch lifts, compacted with 10-Ton vibratory roller.

DOZER - Assume 105 HP. Place in 14" loose lifts - cu

Structural Backfill = 31 23 23.14 3000 - 50 ft sand and gravel

$0.97 L.C.Y ∴ $0.97/cy × 0.982 × 3034 cy = $2890

Say $3000

Daily output = 1350 lcy/day ∴ 3034 cy / 1350 lcy = 2.24 day

Assume 3 days to spread

Compaction: Assume smooth drum roller - 3 passes minimum 12" lifts

31 23 23.23 5080 = $0.38/ECY × 0.982 × 3034 = $1132

3500 ECY/day

Assume 3 days due to dozer requirements

WASTE CHARACTERISTICS SAMPLING

Assume full suite of analysis including TCLP VOCs/SVOCs/metals
Total PCB's ≈ $1500/sample

Assume 1 sample @ 500 cy, 1@ 1000 cy × 1/25

SAY 4 samples total = 1500×4 = $6000

Mobilization Fee DOZER / Compactor ~ $ 233 × 4 × 0.982 = $915

SAY $1000

Project		File No.
Location	Date	By
Subject	Checked	By
Based on	Revised	By

OVERSIGHT FOR EXCAVATION OF SOIL.

Assume Excavation ≈ 100 cy/hr ∴ $\frac{3034\,cy}{100\,cy/hr} \times \frac{1\,day}{8\,hr} = 3.8$ days SAY 4 Days

Assume R/T Soil disposal time = 2.5 hrs

$\frac{3034\,cy}{4\,days} = 758\,\frac{cy}{day}\ \frac{Truck}{25\,cy} = 30\,\frac{trucks}{day}$ ∴ $30^{truck}/2.5\,hr = 12$ trucks needed/Day

Dozer capacity = 1350 LCY/day ∴ 3034/1350 = 2.25 days SAY 3 days.

Compactor — SAY 3 days due to capacity of Dozer.

Labor Oversight - Assume 4 + 3 = 7 days total @ 8 hr/day = 56 hrs ✓

PM oversight = 15% Field Staff ≈ 8 hrs ✓

Equipment includes OVM, Dust monitor, PPE, shipping etc = $200/day ✓

Confirmatory Sampling

GROUNDWATER COLLECTION / SAMPLING AND DISPOSAL.

Based on previous field investigations:
Assume Eastern half of excavation will encounter ground water from 2-4 ft BGS
western portion of excavation will have minimal g.w infiltrate to 4 ft BGS.

To account for infiltration of G.W from areas outside of excavation areas assume total volume of G.W as follows:

Excavation Area x 2 ft x 0.3 (porosity) =

20,500 ft^2 x 2 ft x 0.3 = 12300 ft^3 x $\frac{7.48 gal}{cf}$ ≈ 92,000 gallons

Assume Containerize in Frac tank, sample and dispose to N.F sanitary sewer.
Assume G.W will be able to be discharged to sanitary for a fee.

Baker tank approx 20,000 gallons ∴ Assume 5 tanks required

Sampling each tank about $500 ∴ $2500 cost for analysis

Assume $100 / day Frac tank rental – Assume 2 weeks for 5 tanks

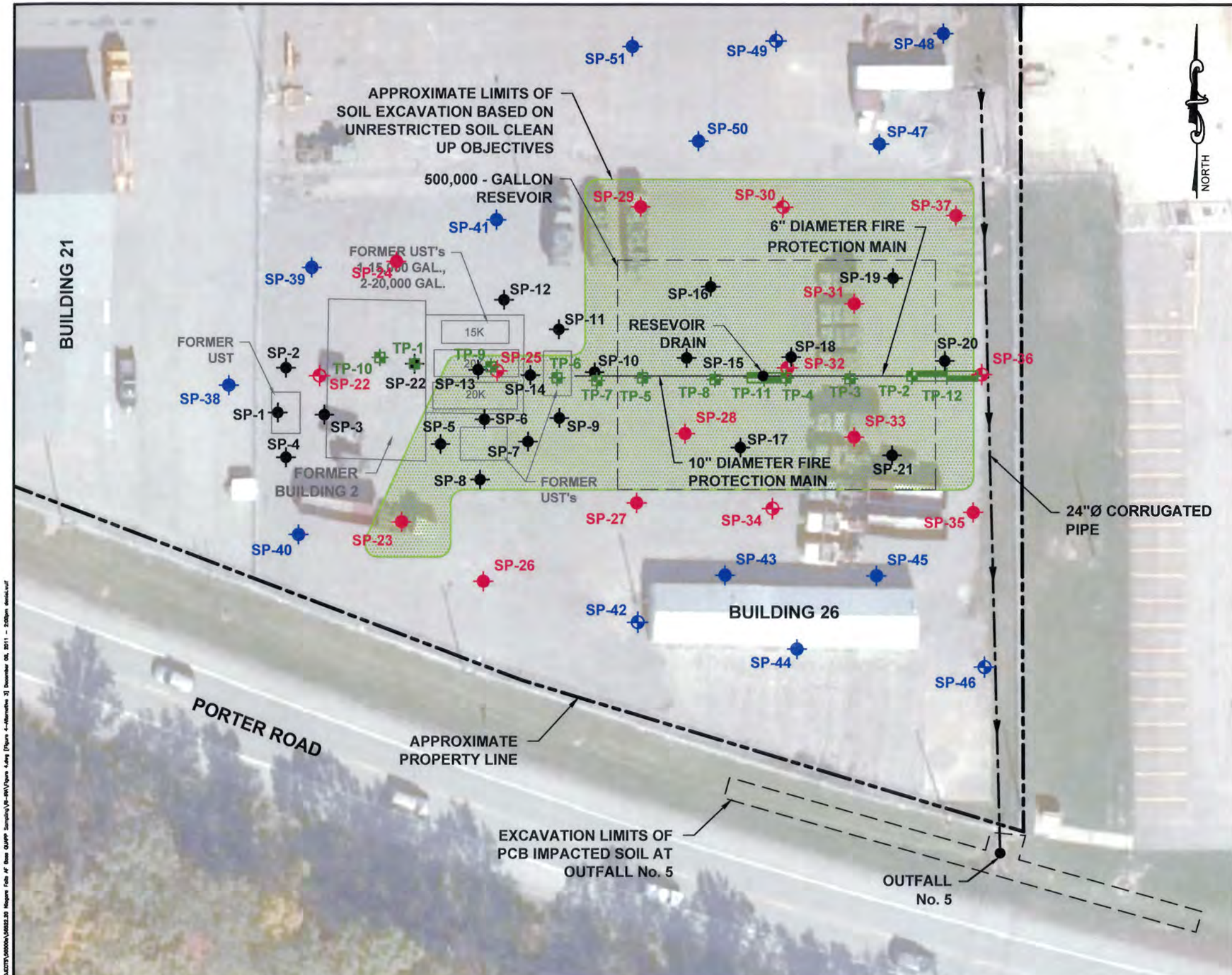
14 days x 5 x $100/day = $7,000

Assume $2000 for coordination, permit, equipment for discharge of containerized g.w into Niagara Falls sanitary sewer.

TOTAL G.W costs:

$ 7,000
+ 2500
+ 2000
11500

Assume $12,000



LEGEND:

- SP-19 — APPROXIMATE LOCATION AND DESIGNATION OF SOIL PROBE COMPLETED ON DECEMBER 6 & 7, 2010 (21 LOCATIONS)
- TP-3 — APPROXIMATE LOCATION AND DESIGNATION OF TEST PIT COMPLETED ON DECEMBER 7 & 8, 2010 (12 LOCATIONS)
- TP-1 / SP-22 — APPROXIMATE LOCATION AND DESIGNATION OF SOIL PROBE SP-22 CONVERTED TO TEST PIT, TP-1 DUE TO SUBSURFACE REFUSAL FOLLOWING SEVERAL ATTEMPTS COMPLETED ON DECEMBER 7, 2010.
- SP-26 — APPROXIMATE LOCATION AND DESIGNATION OF PRIMARY SOIL PROBE COMPLETED IN SEPTEMBER 2011 (10 LOCATIONS)
- SP-34 — APPROXIMATE LOCATION AND DESIGNATION OF PRIMARY SOIL PROBE COMPLETED IN SEPTEMBER 2011 WITH TEMPORARY PIEZOMETER INSTALLED (6 LOCATIONS)
- SP-40 — APPROXIMATE LOCATION AND DESIGNATION OF SECONDARY SOIL PROBE COMPLETED IN SEPTEMBER 2011 (11 LOCATIONS)
- SP-42 — APPROXIMATE LOCATION AND DESIGNATION OF SECONDARY SOIL PROBE COMPLETED IN SEPTEMBER 2011 WITH TEMPORARY PIEZOMETER INSTALLED (3 LOCATIONS)
- APPROXIMATE LIMITS OF SOIL EXCAVATION BASED ON UNRESTRICTED SOIL CLEAN UP OBJECTIVES

NOTES:

1. BASE MAP ADAPTED FROM AN AERIAL PHOTOGRAPH DOWNLOADED FROM http://www.bing.com/maps/, AND FIELD OBSERVATIONS.

2. THE SIZE AND LOCATION OF EXISTING SITE FEATURES SHOULD BE CONSIDERED APPROXIMATE.

0 20 40 80
SCALE IN FEET

NO.	ISSUE/DESCRIPTION	BY	DATE

NIAGARA FALLS AFRC
9400 PORTER ROAD
NIAGARA FALLS, NEW YORK

REMEDIAL INVESTIGATION AND INTERIM REMEDIAL ACTION

ALTERNATIVE 3
SOIL AND GROUNDWATER REMOVAL AND OFF-SITE DISPOSAL

PREPARED BY:
GZA GeoEnvironmental of N.Y.
Engineers and Scientists
535 WASHINGTON STREET 11th FLOOR
BUFFALO, NEW YORK 14203
(716) 685-2300

PREPARED FOR:
PARS ENVIRONMENTAL, INC

PROJ MGR: CZB	REVIEWED BY:	CHECKED BY:	FIGURE
DESIGNED BY:	DRAWN BY: DEW	SCALE: AS SHOWN	4
DATE NOVEMBER 2011	PROJECT NO. 21.0056522.20	REVISION NO.	

UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA GEOENVIRONMENTAL, INC. (GZA). THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR USE BY GZA'S CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY THE CLIENT OR OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.

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APPENDIX I
PUBLIC NOTICE AD PROOF

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THE BUFFALO NEWS

-Ad Proof-

This is the proof of your ad scheduled to run on the dates indicated below.

Please confirm placement prior to deadline, by contacting your account rep at (716) 849-5535.

Date:	**08/17/11**
Account #:	**525230**
Company Name:	**PARS Environmental Incc**
Contact:	
Address:	**500 Horizon Dr. Suite 540** **Robbinsville, NJ 08691**
Telephone:	**(609) 890-7277**
Fax:	

Ad ID:	747761
Start:	08/21/11
Stop:	08/21/11
Total Cost:	$380.92
# of Lines:	39
# of Inserts:	1.07
Ad Class:	750
Account Rep:	Marcy Lombardo
Phone #	(716) 849-5535
Email:	mlombardo@buffnews.com

Run Dates:
Buffalo News (P1) 08/21/11
Web-BuffNews/Buffalo.com (P6) 08/21/11

Ad proof

NOTICE OF 30-DAY PERIOD FOR PUBLIC COMMENT

The Department of the Army has initiated a Remedial Investigation at the Niagara Falls Armed Forces Reserve Center, 9400 Porter Road, Niagara Falls, NY. In compliance with Section 120(h) of the Comprehensive Environmental Response, Compensation and Liability Act, the Army has prepared a document repository for public review and comment at the Niagara Falls Public Library 1425 Main Street, Niagara Falls, NY 14305, 716-286-4894.

Written comments shall be received and considered until September 23, 2011, and should be directed to: Ms. Laura Dell'Olio via e-mail, laura.dellolio@usar.army.mil or at the following address: 99th RSC-DPW-ENV, 5231 South Scott Plaza, Joint Base McGuire-Dix-Lakehurst, NJ, 08640.

THE BUFFALO NEWS

-Affidavit-

Lisa Stephan-Kozlowski of the City of Buffalo, New York, being duly sworn, deposes and says that he/she is Principal Clerk of THE BUFFALO NEWS INC., Publisher of THE BUFFALO NEWS, a newspaper published in said city, that the notice of which the annexed printed slip taken from said newspaper is a copy, was inserted and published therein **1** times, the first insertion being on **08/21/2011** and the last insertion being on **08/21/2011**

Lisa Stephan-Kozlowski

Dates Ad Ran:

Buffalo News (P1) 08/21/11

Sworn to before me this 25th day of, August 2011

Shukriyyah Hawkins

Notary Public, Erie County, New York

SHUKRIYYAH HAWKINS
Notary Public, State of New York
Qualified in Erie County
My Commission Expires 9/30/13

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M-7PM*
AM-6PM*
FF
12PM-5PM*
OFF
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Samples, Artwork,
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ries **& So Much More!**
Everything MUST GO!
Note: All Fixtures, includ-
ing (6) Galt Electric Rug
Displays (20 Arms Each),
Nourison & Masland Dis-
plays, Racks, Pallet Rack-
ing, Rolling Ladders, etc.
to be sold at auction.

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Assets of Total Team Ware. All will be sold at 50+% off including: Thousands of Men's, women's and Children's competition and practice swim suits by Speedo Dolfin, Tyr & Nike Also loads of fins, goggles, nose plugs, foam safety equipment, athletic bags, Flip flops, jackets, T-shirts, absorbent towels, Sweat shirts and much more by Tritan, Finis & Zoomers. Don't miss this sale and great savings. All must Go ! Any remaining unsold items will be sold at auction on September 16th at 10am. Terms cash, check, Master or Visa. Visit our web site for photos and deails.

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August 28th 1pm at Russells Tree & Shrub Farm 9800 Transit Rd. Amherst, NY.

Join us for the second annual benefit Auction hosted by Russells. We will sell hundreds of shrubs, trees and plants without reserve. All proceeds will go to the American Cancer Society. Terms: cash or charge cards. Don't miss this fine sale for a great cause. Sale by

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General

Restaurant Equipment AUCTION! Former Santora's Location 600 Delaware St, Tonawanda, NY Wed. Aug. 24 @ 10AM **Restaurant Equipment:** Walk In Cooler, Mini Walk In Freezer, (2) Pizza Ovens, Range Guard System, (2) Hoods, Refrigerator, Sub Units, Two Burner Flat Grill Oven, Chargrill, Pitco Fryers, 2 Dr. Keg Cooler, Warming Box, Warmers, Grease Trap, Microwave, 3 Bay Sink, Slicer, Stainless Prep Stands & Work Tables, Scale, Shelves, Tray Racks, (6) Bar Stools, (7) Sect. of Booth, **Office Equipment:** LG & Dynex Flat Screen TVs, Camera System, Credit Card Machine, Slip Printers, Phones & a KSU, Hanging Lights, Signs, Décor **& SO MUCH MORE! See web for more info!**

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FOUND CAT:, black & white, w/collar, East Delavan & Roma. 893-7761

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FOUND Kitten: black & white. East Delavan & Roma. 893-7761.

731 Lost

LOST Cat, Lg., med. grey, E. River Rd. bet. Ransom & Whitehaven. 560-9603

LOST: Cat, orange male tabby, Fri., Aug. 12, North Buffalo area, may answer to "Kiwi." 837-4839.

REWARD

LOST: Dog, Erie County Fair Camping area, red Merle Border Collie female, 1 blue eye, people-shy. Call 330-605-9696

741 Voice Personals

HOT & Wild Local SIngles Browse & Respond FREE 716-852-5800 Straight 716-852-4800 Curious? Use Code 7657, 18+

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Erie County Medical Center Corporation
Purchasing G-140
462 Grider Street
Buffalo, New York 14215

REQUEST FOR PROPOSAL

will be received at the above address.

RFP # 21121

FLEXIBLE SPENDING ACCOUNT SERVICES & COBRA PLAN ADMINISTRATION

APPLICATION TO OPEN AUGUST 31, 2011 @ 10:00 AM

In accordance with the specifications on file at the above address. ECMCC reserves the right to reject any or all "RFP'S" and waive any Informalities. Any inquiries contact ECMCC Purchasing (716) 898-3250

Notices

NOTICE OF 30-DAY PERIOD FOR PUBLIC COMMENT

The Department of the Army has initiated a Remedial Investigation at the Niagara Falls Armed Forces Reserve Center, 9400 Porter Road, Niagara Falls, NY. In compliance with Section 120(h) of the Comprehensive Environmental Response, Compensation and Liability Act, the Army has prepared a document repository for public review and comment at the Niagara Falls Public Library 1425 Main Street, Niagara Falls, NY 14305, 716-286-4894.

Written comments shall be received and considered until September 23, 2011, and should be directed to: Ms. Laura Dell'Olio via e-mail, laura.dellolio@usar.army.mil or at the following address: 99th RSC-DPW-ENV, 5231 South Scott Plaza, Joint Base McGuire-Dix-Lakehurst, NJ, 08640.

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JUMBLE

THAT SCRAMBLED WORD GAME
by David L. Hoyt and Jeff Knurek

Unscramble these six Jumbles, one letter to each square, to form six ordinary words.

IFTIEN

HCPTYA

ENMYOK

FINEUS

TTYNWE

GNEAEG

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Sign Up for the IAFLOFCI (OFFICIAL) Jumble Facebook fan club

Now arrange the circled letters to form the surprise answer, as suggested by the above cartoon.

PRINT YOUR ANSWER IN THE CIRCLES BELOW

THE

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Crossword Solution

CHICA MING ABBES BETTE
EAGAN FAVOR PRIZE OMAHA
ERODE ANIMA PADRE FOXES
STREAMLINES AHEADOFTIME
TRILLS PALMS BOSE
GEMS TEA XLS FEN SUBS
RTE PEN LACE RODAN CEP
ENAMOR COMA STIRS OGLER
GALAS EATIN CUTE ROMANY
CHAGRIN REBA ESA
KOBE NAH ONENESS DENNED
GNU DODO ICI EMTS WOE
BAZAAR PEACOCK QUA MTNS
UMA GWEN LOUNGER
DYORAK WELL NISEI KETCH
LAVAS MESSY INTL MEDIUM
ILE KRAIT FLEE WAD EEO
VEND OIL DAB AIL ODDS
ETAL CURIA VIDEOS
GOPHERBALLS CLOSESHAVES
OREOS ATALE ROILS AGILE
SNORT GOREN INLET RELIC
HENNY SNARE DEES ASEAT

Jumble Solution

FINITE MONKEY TWENTY
PATCHY INFUSE ENGAGE

His new patented broom was such a hit that it was this —

SWEEPING THE NATION

741786

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APPENDIX J
NYSDEC COMMENTS

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Tom Dobinson

From: Dellolio, Laura A CTR CTR USAR 99TH RRC -NA- <laura.dellolio@usar.army.mil>
Sent: Tuesday, September 06, 2011 9:36 AM
To: Michael Moore; Tom Dobinson
Subject: FW: sampling and analysis plan for Niagara Falls AFRC (UNCLASSIFIED)
Signed By: laura.dellolio@usar.army.mil

Follow Up Flag: Follow up
Flag Status: Flagged

Classification: UNCLASSIFIED
Caveats: NONE

Here's the official comments from the State. I don't see anything eye raising.

Thank you,
Laura Dell'Olio
609-562-7661

-----Original Message-----
From: Chek Ng [mailto:cbng@gw.dec.state.ny.us]
Sent: Friday, September 02, 2011 4:34 PM
To: Dellolio, Laura A CTR CTR USAR 99TH RRC -NA-
Subject: Re: sampling and analysis plan for Niagara Falls AFRC (UNCLASSIFIED)

Laura,

It was nice meeting you as well. I am including the following comments for the sake of completeness. In the case where this plan will not be revised, please make a note of the comment and add it in the investigation report. Please feel free to forward this to GZA (Consultant). A copy of this email has been made into the permanent electronic record in the State.

a) Page 7, Section 3.2: It is mentioned that the depth of soil borings will be based on field observations. From the meeting, it was my understanding that the soil boring will be done until the water table, which could vary from location to location due to a perched groundwater table.

b) Page 16, Section 6.2.2: Please add that the MS/MSD duplicates wil be collected at a frequency of 5% (1 in 20 samples).

c) Page 17, Section 7.2: The State's Part 375 Soil Cleanup Guidance separates out commercial and industrial use. As such, the COPCs need to be compared to either commercial OR industrial standards. From my discussion, it seems that the end use will most likely be industrial, so the

contamination numbers should be compared to industrial use.

d) As mentioned in your email below, Outfall 4 sediment will be sampled for VOCs, SVOCs, metals, and PCB. Please also mention in the final report that the Outfalls 1, 2 and 3 will not be sampled due to accessibility issues caused by the Cayuga Creek and the outfall's position beneath the river water line.

e) Analysis of soil in the report should also mentioned that there are fill material that was brought from the nearby quarry into the site which may caused high readings for certain metals in the soil. This should nullify any concerns for the high metal content in the soil.

Regards,

Chek Beng Ng, P.E.
Environmental Engineer 2
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 11th Floor
Albany NY 12233-7015
Phone: (518) 402-9620
Fax: (518) 402-9627>>> "Dellolio, Laura A CTR CTR USAR 99TH RRC -NA-" <laura.dellolio@usar.army.mil> 9/1/2011 10:44 AM >>>
Classification: UNCLASSIFIED
Caveats: NONE

Hello Chek,

Good to make your acquaintance last week.

I was wondering if you were going to be providing formal comments to the work plan. We have added a sediment sample for outfall 4 to the workplan for analysis of VOCs, SVOCs, metals, and PCBS. Were there any other comments?

Thank you,

Laura Dell'Olio
Installation Restoration Program Coordinator

99th RSC, DPW Environmental Division
Contractor, PB&A Inc.
609-562-7661 (office)
919-270-7376 (cell)

Please take a moment and tell us how we are doing...

http://ice.disa.mil/index.cfm?fa=card&service_provider_id=118861&site_id=961

&service_category_id=32

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

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New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau A, 11th Floor
625 Broadway, Albany, New York 12233-7015
Phone: (518) 402-9625 • **Fax:** (518) 402-9627
Website: www.dec.ny.gov

Joe Martens
Commissioner

March 23, 2012

Mr. Michael Moore, CPG
Senior Project Manager
PARS Environmental, Inc.
500 Horizon Drive, Suite 540
Robbinsville, NJ 08691

Re: Remedial Investigation/Interim Remedial Action Report and Human Health Risk Assessment Report for Niagara Falls Armed Forces Reserve Center (Site ID: 932152)

Dear Mr. Moore:

The New York State Department of Environmental Conservation and the New York State Department of Health (State) is in receipt of the above report dated January 24, 2012.

Technical and editorial comments are provided in the attachment to this letter, and should be addressed prior to the final issuance of this document.

Please contact me at (518) 402-9620 or cbng@gw.dec.state.ny.us. should you have any questions.

Sincerely yours,

Mr. Chek Beng Ng, P.E.
Environmental Engineer 2
Remedial Bureau A, Section C

Attachment

cc: J. Swartwout, DEC
L. Dellolio, USAR
N. Freeman, DOH

COMMENTS FOR THE REMEDIAL INVESTIGATION/INTERIM REMEDIAL ACTION REPORT AND HUMAN HEALTH RISK ASSESSMENT NIAGARA FALLS ARMED FORCES RESERVE CENTER (SITE ID: 932152)

1. Page 5, Section 2.7: Were any surface and/or subsurface soil samples taken from Outfall No. 5? If so, please state what was detected, and the concentrations of chemicals observed that was above the Part 375 Unrestricted and Commercial Cleanup Levels.

2. Page 5, Section 2.7: At the end of the second and third paragraphs, please state what were the 'low' and 'detectable' levels of PCB. A range of values and the detected concentrations would suffice.

3. Page 6, Last Paragraph: From previous conversation, it was thought that the fill material was brought in from a nearby quarry? It would be helpful to state the origin of the fill in this paragraph. Also, if the site was NOT used for any activities that would cause any kind of metal contamination (i.e. metal fabrication or machining), it would helpful to state the fact here.

4. Figure 5: It is suggested that a 'spider map' be created to show the detected soil and groundwater concentrations on the Figure themselves, pointing to the location where they were detected. Bolded numbers could be used to indicate exceedance above Commercial Cleanup Levels for ease of viewing and interpretation.

5. In the Tables section (or in the corresponding text), please elaborate what the sample designations. For instance, SP-22-10-12 means soil boring at location SP-22 from 10 inches to 12 inches below ground surface?

6. Page 24, Section 7.6.2: It should be mentioned that since the facility is fenced in, trespassing into the property is limited to only building personnel and not the general public.

7. Page 45, Section 9.1.1: The document indicates that SVOC's detected in the drainage swale near Outfall 4 are commonly found in ditches that receive storm water runoff from asphalt paved surfaces. It should be confirmed that Outfall 4 only receives surface water from the AFRC parking lot and that no other discharges (i.e. floor drains in existing building) are contributing to the outflow of Outfall 4.

4/9/2012
Response to NYSDEC and DOH comments from letter dated March 23, 2012.

1. Add statement that post-excavation samples from Outfall No. 2 and the drainage swale were below the Maximum Contaminant Level of 1 mg/kg, which was established by NYSDEC.

2. Added detected PCB concentrations to report.

3. Add statement to report about the suspected origin of the fill material.

4. Adding tables to the figures showing detected soil and groundwater contaminants will result in figures that are cluttered because of the close proximately of the boring locations.

5. A description of the sample designations is included in Table 1. Also, added a sentence to Section 3.1.1 regarding sample designations.

6. Added a sentence to Section 7.6.2 about the property being secured by a fence and locked gates.

7. Added a sentence to Section 9.1.1 about storm water runoff to Outfall No. 4.

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New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau A, 11th Floor
625 Broadway, Albany, New York 12233-7015
Phone: (518) 402-9625 • **Fax:** (518) 402-9627
Website: www.dec.ny.gov

Joe Martens
Commissioner

April 23, 2012

Mr. Michael Moore, CPG
Senior Project Manager
PARS Environmental, Inc.
500 Horizon Drive, Suite 540
Robbinsville, NJ 08691

Re: Final Remedial Investigation/Interim Remedial Action Report and Human Health Risk Assessment Report for Niagara Falls Armed Forces Reserve Center (Site ID: 932152)

Dear Mr. Moore:

The New York State Department of Environmental Conservation and the New York State Department of Health (State) is in receipt of the above report dated April 2012.

All the technical comments have been adequately addressed and included in the final report. As such, this report is approved for public release.

Please contact me at (518) 402-9620 or cbng@gw.dec.state.ny.us. should you have any questions.

Sincerely yours,

Mr. Chek Beng Ng, P.E.
Environmental Engineer 2
Remedial Bureau A, Section C

cc: J. Swartwout, DEC
L. Dellolio, USAR
N. Freeman, DOH

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Spill Incidents Database Search Details

Spill Record

Administrative Information

DEC Region: 9
Spill Number: 0803478

Spill Date/Time

Spill Date: 06/24/2008 Spill Time: 09:00:00 AM
Call Received Date: 06/24/2008 Call Received Time: 10:10:00 AM

Location

Spill Name: NIAGARA FALLS ARMY RESERVE
Address: 9400 PORTER ROAD
City: NIAGARA FALLS County: NIAGARA

Spill Description

Material Spilled	Amount Spilled	Resource Affected
PCB OIL	UNKNOWN	Soil

Cause: Other
Source: Institutional, Educational, Gov., Other
Waterbody:

Record Close

Date Spill Closed: 05/17/2012
"Date Spill Closed" means the date the spill case was closed by the case manager in the Department of Environmental Conservation (the Department). The spill case was closed because either; a) the records and data submitted indicate that the necessary cleanup and removal actions have been completed and no further remedial activities are necessary, or b) the case was closed for administrative reasons (e.g., multiple reports of a single spill consolidated into a single spill number). The Department however reserves the right to require additional remedial work in relation to the spill, if in the future it determines that further action is necessary.

If you have questions about this reported incident, please contact the Regional Office where the incident occurred.

Refine Current Search

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ASBESTOS VISUAL INSPECTION REPORT

99TH REGIONAL SUPPORT COMMAND
UNITED STATES ARMY RESERVE
FORT DIX, NEW JERSEY

NIAGARA FALLS ARMED FORCES RESERVE CENTER

NIAGARA FALLS, NEW YORK

(USAR FACID: NY046 - SITE CODE: 36555)

July 2012

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ASBESTOS VISUAL INSPECTION REPORT

NIAGARA FALLS US ARMED FORCES RESERVE CENTER

(NY046) - (36555)

9400 PORTER ROAD

NIAGARA FALLS, NEW YORK

Prepared By

Small Business Group, Inc.
10179 Highway 78
Ladson, South Carolina 29456

Submitted to

United States Army Corps of Engineers
Savannah District

Prepared for

99TH REGIONAL SUPPORT COMMAND
UNITED STATES ARMY RESERVE
FORT DIX, NEW JERSEY

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1. SUMMARY:

Asbestos Building Inspector from the Small Business Group (SBG) of Ladson, SC conducted a visual inspection to identify suspect asbestos containing material (ACM) located at the Niagara Falls Army Reserve Center located at 9400 Porter Road in Niagara, NY. The inspection was conducted on July 25-30, 2012 utilizing modified Asbestos Hazard Emergency Response Act (AHERA) guidelines. The results of the inspections provide an inventory of assumed and/or confirmed suspect ACM in the buildings at this site. No sampling was conducted during this visual inspection.

Inspector is certified by an EPA accredited training center under AHERA guidelines as a Building Inspector and licensed as required by the state of New York. A copy of the inspector license is located in the back of this report.

2. FINDINGS:

Ninety-five suspect materials were identified in the twelve structures located at this site. Information on each structure is listed below. The assumed and/or confirmed ACM located at this site is listed in the Summary Table as Appendix A. Appendix B contains a drawing showing the floor plan of each building that contained suspect materials.

3. STRUCTURES:

- Building GS-1: Guard shack is a 60 square foot wood with a shingled roof constructed in 1980's.
- Building 4: Hanger is an 85,500 square-foot building, with a large metal framed hanger with 2-story brick buildings attached on the north and south sides. All roofs are rubber coated. Constructed in 1956.
- Building 17: Storage Building is an approximately 30 square-foot concrete- block structure with a corrugated fiberglass panel roof constructed in 1980's.
- Building 18: AMSA 76 / Motor pool is a 9,720 square-foot metal framed and concrete block structure with metal and brick exterior constructed in 1980's.
- Building 19: Storage Quonset Hut is a 1,600 square foot metal-framed structure with metal roof constructed in 1956.
- Building 20: Electronics Storage is a 2,133 square-foot concrete block structure with brick exterior, constructed in 1956.

- Building 21: 277th Quartermasters HQ is a 13,055 square foot building concrete block structure with brick exterior and shingled roofing constructed in 1956.
- Building 22: Dining Hall / Storage Building is an approximately 20,703 square foot concrete block structure with brick exterior and shingles and rubber coated roofing, constructed in 1956.
- Building 23: Storage Building is an approximately 2,058 square foot metal framed structure with metal siding and roof, constructed in 1956.
- Building 24: Storage building is an approximately 2,400 square foot metal framed structure with metal siding and roof constructed in 1993.
- Building 25: Former Power Plant Building is an approximately 1,504 square foot concrete block structure with brick exterior, an assumed inaccessible roof, constructed in 1956.
- Building 26: Storage Building is an approximately 2,150 square foot metal framed structure with metal siding and roof, constructed in 1960.

4. OBSERVATIONS:

Fibrous vent duct insulation (H-11) located in Room 216C of Building 4S is damaged and needs to be repaired/removed when possible. Inspector sprayed encapsulant on material during the inspection as a temporary measure. All ACM identified in 2004 EEG report remains in buildings, although some materials are in different quantities.. Building room numbers were either assigned by the inspector during the inspection or taken from actual rooms and are shown on the attached drawing (Appendix B). A thorough and diligent inspection was conducted of this structure but some unidentified or inaccessible materials may still be present (i.e. wall voids, pipe chases, etc.). If previously unidentified suspect materials are found during renovation/demolition activities, samples should be taken to verify asbestos content prior to disturbance. Material quantities in this report are estimated and should be verified prior to any abatement activities.

5. SITE BUILDING PHOTOS:

Building 4: Hanger & Admin
4N on left - 4S on right of hanger

Building 17: Storage Building

Building 18: Motor Pool

Building 19: Storage Building

Building 20: Electrical Storage

Building 21: Admin Building

Building 22: Mess Hall / Storage

Building 23: Storage Building (left)
Building 24: Storage Building (right)

Building 25: Former Power Plant

Building 26: Storage Building

Building GS-1: Guard Shack

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MATERIAL SUMMARY TABLE

Building 4N - Hanger/North Administrative Offices

HA#	Material Description	Friability	Total Quantity	Condition	Potential for Contact	Locations	Status
1	Dark brown coving mastic	NA	3,090 LF	Good	NA	Throughout building	**Confirmed non-ACM*** * 2004 EEG Inspection
2	Gray fittings (TSI) cloth wrapped	NA	300 Ea	Good	NA	Rooms 102B, 103, 103B, 104, 104A, 105, 107, 108A, 108B. 109, 109A, 109C, 111, 112, 117, 118, 118A, 118B, 119, 120, 121, 219, 221, 223, 225, H100, H102, S001, S002, Hanger	**Confirmed non-ACM*** * 2004 EEG Inspection
3	Sheetrock/joint compound	NA	19,071 SF	Good	NA	Throughout building	**Confirmed non-ACM*** * 2004 EEG Inspection
4	Piping aircell (TSI)	F	1,650 LF	Good	High	Rooms 102, 102A, 102B, 103, 103A, 105, 107, 109A, 111, 112, 117, 118, 118A, 118B, 119, 120, 121, 203, 208, 214, 219, 221, 223, 225, H100, H101, H103	**Confirmed ACM*** *2004 EEG Inspection
5	9" Dark brown floor tile /mastic	NF	3,900 SF	Good	High	Rooms 102, 102A, 103, 103A, 103B, 104, 104A, 105, 107, 108A, 109, 109A, 109B, 109C, 117, 118B, 201, 202, 202A, 204, 204A, 205, 207, 208, 212, 216, 216B, 219, 223	**Assumed ACM**
7	Acoustical tiles/smooth & pin holes	NA	13,78 SF	Good	NA	Rooms 104, 104A, 105	**Confirmed non ACM*** * 2004 EEG Inspection
8	White fibrous pipe (TSI)	F	250 LF	Good	High	Room 102A, 102B, 103, 103B, 121, H100, H101, H103	**Confirmed ACM*** * 2004 EEG Inspection
10	12" Tan floor tile with brown and white marbling/ mastic	NA	9750 SF	Good	NA	Rooms 103B, 109A, 118A, 117, 117A, 120, 206, 214, 221,225, H100, H101, H102, H200, H201, H202, S001, S002	**Confirmed Non-ACM*** * 2004 EEG Inspection

HA = Homogeneous Area N F= Non-friable
F= Friable SF = Square Feet LF = linear Feet

APPENDIX A

MATERIAL SUMMARY TABLE

Building 4N - Hanger/North Administrative Offices

HA#	Material Description	Friability	Total Quantity	Condition	Potential for Contact	Locations	Status
12	Spray on insulation (TSI) on Hanger doors	NA	9,000 SF	Good	NA	Hanger	**Confirmed Non-ACM*** * 2004 EEG Inspection
13	Spray on insulation (TSI) on Hanger end walls	NA	6,500 SF	Good	NA	Hanger	**Confirmed Non-ACM*** * 2004 EEG Inspection
14	Fire Doors	NF	19 EA	Good	Low	Rooms 115, S001, S002 & throughout the Hanger	**Assumed ACM**
15	9" Green with white striped floor tile / mastic	NF	84 SF	Good	High	Room 115	**Assumed ACM**
16	Stair tread/ tan mastic	NF	260 SF	Good	High	Rooms S001, S002	**Assumed ACM**
17	Gray coving / mastic	NF	120 LF	Good	Moderate	Room 221	**Assumed ACM**
18	Ceiling Tiles with short irregular grooves and pin holes	F	9246 SF	Good	Moderate	Rooms 102, 104, 104A, 105, 109, 117, 202, 202A, 201, 203, 204, 204A, 206, 207, 208, 212, 216, 216A, 216B, 221	**Assumed ACM**
19	Vault door	NF	1 EA	Good	Low	Room 103C	**Assumed ACM**
20	Black coving / mastic	NF	632 LF	Good	Moderate	Rooms 103, 118A, 118B, 203, 219, 223	**Assumed ACM**
21	Green coving / mastic	NF	676 LF	Good	Moderate	Rooms 102, 102A, 205, 208, 212	**Assumed ACM**
22	Tan carpet mastic	NF	2218 SF	Good	Low	Rooms 104, 104A, 105, 216, 216A, 216B	**Assumed ACM**
23	Brown exterior window caulking	NF	1,675 LF	Good	Moderate	Exterior	**Assumed ACM**

HA = Homogeneous Area N F= Non-friable
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APPENDIX A

MATERIAL SUMMARY TABLE

Building 4S - Hanger/South Administrative Offices

HA#	Material Description	Friability	Total Quantity	Condition	Potential for Contact	Locations	Status
1	Dark brown coving mastic	NA	4,870 LF	Good	NA	Throughout building	**Confirmed non-ACM*** * 2004 EEG Inspection
2	Gray fittings (TSI) cloth wrapped	NF	555 EA	Good	NA	Room 100, 101, 102, 102A, 102B, 103, 103A, 104, 105, 106, 107, 110, 110A, 110B, 111, 121, 121A, 122, 122A, 122B, 122C. 122D, 124, 124A, 216, 216A, 216C, 216D, 216E, E001, E002, S001, S002, H101	**Confirmed Non-ACM*** * 2004 EEG Inspection
3	Sheetrock/joint compound	NA	37,780 SF	Good	NA	Throughout building	**Confirmed non-ACM*** * 2004 EEG Inspection
4	Pipe aircell (TSI)	F	2,450 LF	Good	Low	Rooms 100, 101, 102, 102A, 102B, 103, 104, 105, 106, 107, 110A, 110B, 111, 121, 121A, 124, 124A, 122, 122A, 122B, 122C, 122D, 216, 216B, 216C, 216D, 216F, E001, E002, H101,	**Confirmed ACM*** * 2004 EEG Inspection
5	9" Dark brown floor tile /mastic	NF	9,500 SF	Good	High	Rooms 102, 103, 106, 107, 121, 124, 124A, 130, 144, 206, 210, 211, 214, 216B, 216B, 216C, 228, 228A, 229, 244, 250, 251, 252, 253, 253A, 255, 257, 257A, 258, 259, 260, 261, 262, 263, 264, 272, 273A, 274, 275, 281, 282	**Assumed ACM**
6	Acoustical tiles/grooves & pin holes	NA	584 SF	Good	NA	Rooms 128, 129, 144	**Confirmed non-ACM*** * 2004 EEG Inspection
7	Acoustical tiles/smooth & pin holes	NA	2,405 SF	Good	NA	Room 102A, 242, 243, 244, 246, 265	**Confirmed non-ACM*** * 2004 EEG Inspection
8	White fibrous pipe (TSI)	F	200 LF	Good	Moderate	Rooms 102, 102B, 103, 104, 105, 106, 111, H101, E002	**Confirmed ACM*** * 2004 EEG Inspection

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APPENDIX A

MATERIAL SUMMARY TABLE

Building 4S - Hanger/South Administrative Offices

HA#	Material Description	Friability	Total Quantity	Condition	Potential for Contact	Locations	Status
9	Black mastic under 12" Lt. brown floor tile w/brown & white marbling	NF	11,446 SF	Good	High	Rooms 102B, 104, 111, 121A, 122, 122A, 122B, 122C, 212, 216, 216A, 216C, 216E, 224, 230, 231, 232, 232A, 232B, 235, 236, 237, 237A, 238, 239, 240, 241, 242, 243, 244, 246, 247, 248, E001, H200, H201, H204, S001, S002	**Confirmed ACM* (Floor tile mastic only)** (Floor tile is non-ACM) * 2004 EEG Inspection
10	12" Tan floor tile with brown and white marbling/ mastic	NA	3,490 SF	Good	NA	Rooms 103, 202, 265, 266, 268, 270, H101	**Confirmed Non-ACM*** * 2004 EEG Inspection
11	Fibrous vent duct insulation	F	200 SF	Damaged (10%)	Moderate	Room 216C	**Confirmed ACM*** * 2004 EEG Inspection
14	Fire doors	NF	3 EA	Good	Low	Room E001	**Assumed ACM**
16	Stair tread/ tan mastic	NF	300 SF	Good	Moderate	Room S001, S002	**Assumed ACM**
17	Gray coving / mastic	NF	117 LF	Good	Moderate	Rooms 121A, 122B, 122C	**Assumed ACM**
18	Ceiling tiles w/short irregular grooves & pinholes	F	17,059 SF	Good	Moderate	Room 121, 122, 122A, 122B, 122C, 122D,202, 209, 210, 211, 212, 228, 230, 231, 232A, 235, 236, 237, 237A, 238, 243, 244, 246, 251, 252, 253, 257, 257A, 258, 259, 261, 262, 263, 264, 265, 266, 268, 270, 273, 273A, 275, 274, 281, 282, H200, H201, H204	**Assumed ACM**
19	Vault door	NF	1 EA	Good	Low	Room 255	**Assumed ACM**
20	Black coving / mastic	NF	288 LF	Good	Moderate	Rooms 107, 216B, 250, 253, 255	**Assumed ACM**
21	Green coving / mastic	NF	304 LF	Good	Moderate	Rooms 211, 261, 262, 282	**Assumed ACM**
22	Tan carpet mastic	NF	1,148 SF	Good	Low	Rooms 243, 246, 247, 248	**Assumed ACM**

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APPENDIX A

MATERIAL SUMMARY TABLE

Building 4S - Hanger/South Administrative Offices

HA#	Material Description	Friability	Total Quantity	Condition	Potential for Contact	Locations	Status
23	Brown exterior window caulking	NF	1,600 LF	Good	Moderate	Exterior	**Assumed ACM**
24	Tar and Gravel Roof	NF	345 SF	Good	Low	Room 109 Roof	**Assumed ACM**

Building 17 - Storage Building

HA#	Material Description	Friability	Total Quantity	Condition	Potential for Contact	Locations	Status
1	Interior door caulk	NF	17 LF	Good	Moderate	Room 100	**Assumed ACM**

Building 18 - AMSA 76 Motorpool

HA#	Material Description	Friability	Total Quantity	Condition	Potential for Contact	Locations	Status
1	Sheetrock / joint compound	NA	8,120 SF	Good	NA	Throughout building	**Confirmed non-ACM*** * 2004 EEG Inspection
2	Window glazing	NA	290 LF	Damaged	NA	Rooms 100, 104, 107, 108	**Confirmed non-ACM*** * 2004 EEG Inspection
3	12" Beige floor tile w/tan & white heavy marbling/mastic	NF	512 SF	Good	High	Rooms 101, 103, 106	**Assumed ACM**
4	Tan coving / mastic	NF	215 LF	Good	Moderate	Rooms 100, 101, 105, 106	**Assumed ACM**
5	Dark brown coving/ mastic	NF	140 LF	Good	Moderate	Rooms 107, 108, 109	**Assumed ACM**
6	12" White floor tile with light brown marbling / mastic	NF	640 SF	Good	High	Rooms 107, 108, 109	**Assumed ACM**
7	White interior door caulk	NF	120 LF	Good	Moderate	Rooms 110, 114, 115, H100	**Assumed ACM**
8	12" white floor tile with gray streaks / mastic	NF	885 SF	Good	High	Rooms 112, 114, 115, H100	**Assumed ACM**
9	6" gray coving / mastic	NF	240 LF	Good	Moderate	Rooms 111, 112, 114, 115, H100	**Assumed ACM**

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APPENDIX A

MATERIAL SUMMARY TABLE

Building 18 - AMSA 76 Motorpool

HA#	Material Description	Friability	Total Quantity	Condition	Potential for Contact	Locations	Status
10	Dark brown caulk	NF	325 LF	Good	Moderate	Exterior windows	**Assumed ACM**
11	Gray caulk	NF	70 LF	Good	Moderate	Exterior Doors	**Assumed ACM**
12	Gray shingles / felt paper	NF	4,800	Good	Low	Roof	**Assumed ACM**

Building 19 - Quonset Hut Storage

HA#	Material Description	Friability	Total Quantity	Condition	Potential for Contact	Locations	Status
1	Sheetrock joint compound	F	1,575 SF	Damaged (10%)	High	Rooms 100, 101, 102, 103, 104, 105	**Confirmed ACM*** * 2004 EEG Inspection
2	Silver sealer mastic	NF	1,600 SF	Good	Moderate	Entire roof	**Confirmed ACM*** * 2004 EEG Inspection

Building 20 - Electronics Storage

HA#	Material Description	Friability	Total Quantity	Condition	Potential for Contact	Locations	Status
1	12" White floor tile with gray streaks	NF	1,695 SF	Good	High	Rooms 100, 101, 105, E001	**Assumed ACM**
2	6" Gray coving mastic	NF	245 LF	Good	Moderate	Rooms 100, 101, 105, E001	**Assumed ACM**
3	Sheetrock / Joint Compound	F	2,360 SF	Good	High	Rooms 100, 101, 103, 104, 105, 106, E001	**Assumed ACM**
4	Ceiling tile	F	1,800 SF	Good	Moderate	Rooms 100, 101, 103, 104, 105, 106	**Assumed ACM**
5	Dark brown caulk	NF	124 LF	Good	Moderate	Exterior windows	**Assumed ACM**
6	White caulk	NF	70 LF	Good	Moderate	Exterior Doors	**Assumed ACM**
7	Gray shingles / tar paper	NF	3,200 SF	Good	Low	Roof	**Assumed ACM**

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APPENDIX A

MATERIAL SUMMARY TABLE

Building 21 - Administrative Building

HA#	Material Description	Friability	Total Quantity	Condition	Potential for Contact	Locations	Status
1	12" Light brown floor tile with heavy black and white marbling /mastic	NA	6,506 SF	Good	NA	Throughout building	**Confirmed non-ACM*** * 2004 EEG Inspection
2	12" Acoustical tiles	NA	1,204 SF	Good	NA	100, 103, L1, H100, E001,	**Confirmed non-ACM*** * 2004 EEG Inspection
3	9" dark brown floor tile w/red & white streaks	NF	210 SF	Good	High	Room 127	**Assumed ACM**
4	12" Tan floor tile w/brown, white & beige marbling	NA	920 SF	Good	NA	Room 117, H100	**Confirmed non-ACM*** * 2004 EEG Inspection
5	Sheetrock / Joint compound	NA	3960 SF	Good	NA	Throughout building	**Confirmed non-ACM*** * 2004 EEG Inspection
6	12" Green floor tile w/green & white streaks	NF	440 SF	Good	High	Room 108	**Confirmed ACM*** **(tile is ACM -mastic is not)** * 2004 EEG Inspection
7	Dark brown coving /mastic	NF	1,100 LF	Good	Moderate	Rooms 100, 101, 104, 104A, 112, 115, 116, 117, 118, 120, 128, E001, H100, H101	**Confirmed ACM*** * 2004 EEG Inspection
8	Acoustical tile mastic	NA	547 SF	Good	NA	Rooms 100, 101, 103, L 1, E001, H100	**Confirmed non-ACM*** * 2004 EEG Inspection
9	Gray door caulk	NF	1,307	Good	Moderate	Rooms 100, 101, 103, 104, 104A, 108, 109, 109A, 109B, 112, 115, 117, 118, 119, 120, 121, 122, 123, 127, 128, L 1, L 3, E001, H100, H101, Exterior	**Assumed ACM**
10	Tan carpet mastic	NF	468 SF	Good	Low	Room 100, 103	**Assumed ACM**
11	Green coving / mastic	NF	120 LF	Good	Moderate	Room 100, 103, 109C	**Assumed ACM**
12	12" white floor tile w/gray streaks & mastic	NF	1637 SF	Good	High	Rooms 109, 109A, 109C, L 1	**Assumed ACM**

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APPENDIX A

MATERIAL SUMMARY TABLE

Building 21 - Administrative Building

HA#	Material Description	Friability	Total Quantity	Condition	Potential for Contact	Locations	Status
13	6" Gray coving/mastic	NF	100 LF	Good	Low	Rooms 109, 121	**Assumed ACM**
14	Ceiling tile short groves & pin holes	F	5,595 SF	Good	High	Rooms 100, 101, 103, 104, 104A, 109A, 118, 120, 128, L 1, E001, H100, H101	**Assumed ACM**
15	Dark green coving/mastic	NF	100 LF	Good	Moderate	Room 108	**Assumed ACM**
16	Ceiling tile with rough texture	F	525 SF	Good	High	Room 112	**Assumed ACM**
17	Black coving/mastic	NF	60 LF	Good	Moderate	Room 127	**Assumed ACM**
18	Brown window caulk	NF	880 LF	Good	Moderate	Exterior	**Assumed ACM**

Building 22 - Dining Hall / Storage

HA#	Material Description	Friability	Total Quantity	Condition	Potential for Contact	Locations	Status
1	Sheetrock / Joint compound	NA	5589 SF	Good	NA	Throughout building	**Confirmed non-ACM*** * 2004 EEG Inspection
2	Acoustical tile smooth with small uniformed holes	NA	2396 SF	Good	NA	Rooms 201, 202, 203, 204, 204A	**Confirmed non-ACM*** * 2004 EEG Inspection
3	Dark brown acoustical tile mastic	NA	599 SF	Good	NA	Rooms 201, 202, 203, 204, 204A	**Confirmed non-ACM*** * 2004 EEG Inspection
4	Acoustical tiles irregular grooves	NA	15 SF	Good	NA	Room 202	**Confirmed non -ACM*** * 2004 EEG Inspection
5	Acoustical tile with large and small pin holes	NA	NA	NA	NA	Removed	**Confirmed non-ACM*** * 2004 EEG Inspection
6	Acoustical tile with pin holes rough surfaces	NA	NA	NA	NA	Removed	**Confirmed non-ACM*** * 2004 EEG Inspection
7	Cork insulation	F	264 SF	Good	High	Room 210	**Confirmed ACM*** * 2004 EEG Inspection

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APPENDIX A

MATERIAL SUMMARY TABLE

Building 22 - Dining Hall / Storage

HA#	Material Description	Friability	Total Quantity	Condition	Potential for Contact	Locations	Status
8	Gray mud fittings (TSI)	F	11 SF (11 ea)	Good	Moderate	Room 103	**Confirmed ACM*** * 2004 EEG Inspection
9	12" Lt. brown floor tile w/black & white marbling/mastic	NA	2,592 SF	Good	NA	Rooms 103, 105, 106, 107, 108	**Confirmed non-ACM*** * 2004 EEG Inspection
10	12" white floor tile w/gray streaks & mastic	NF	4,650 SF	Good	High	Rooms 101, 102, 201, 202, 203, 203A, 204, 204A, 205, 206, 206A, 206B, H200	**Assumed ACM**
11	Ceiling tile with short grooves and pin holes	F	3,490 SF	Good	Moderate	Room 101, 102, 201, 202, 203, 204, 204A, 205, 206, 206A, 206B, 208, 212, H200	**Assumed ACM**
12	12" Tan floor tile with brown marbling/mastic	NF	45 SF	Good	High	Room 103	**Assumed ACM**
13	Dark brown coving /mastic	NF	425 LF	Good	Moderate	Room 103, 105, 106, 107, 108	**Assumed ACM**
14	Black stair tread/mastic	NF	140 SF	Good	Moderate	Stairways S001, S002	**Assumed ACM**
15	Gray coving / mastic	NF	1,015 LF	Good	Moderate	Room 201, 202, 203, 203A, 204, 204A, 205, 206, 206A, 208, 212, H200	**Assumed ACM**
16	Vault Door	NF	1 EA	Good	Low	Room 209	**Assumed ACM**
17	Shingles / Roofing	NF	10,060 SF	Good	Low	Roof	**Assumed ACM**
18	Brown window caulking	NF	1506 LF	Good	Moderate	Exterior side of windows	**Assumed ACM**
19	Green coving /mastic	NF	85 LF	Good	Moderate	Stairways S001, S002	**Assumed ACM**

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APPENDIX A

MATERIAL SUMMARY TABLE

Building 23 - Storage Builing

HA#	Material Description	Friability	Total Quantity	Condition	Potential for Contact	Locations	Status
1	Sheetrock / joint compound	NA	505 SF	Good	NA	Rooms 100, 101	**Confirmed non-ACM*** * 2004 EEG Inspection
2	Silver/black mastic	NF	2,100 SF	Good	Low	Roof	**Confirmed ACM*** * 2004 EEG Inspection
3	Black coving / mastic	NF	20 LF	Good	Moderate	Rooms 100, 101	**Assumed ACM**

Building 25 - Former Power Plant Building

HA#	Material Description	Friability	Total Quantity	Condition	Potential for Contact	Locations	Status
1	Window glazing	NA	312 LF	Good	NA	Rooms 100, 101	**Confirmed non-ACM*** * 2004 EEG Inspection
2	Exterior White caulk	NF	90 LF	Good	Moderate	Exterior doors and windows	**Assumed ACM**
3	Roofing	NF	1,500 SF	Good	Low	Roof	**Assumed ACM**

Building 26 - Storage Building

HA#	Material Description	Friability	Total Quantity	Condition	Potential for Contact	Locations	Status
1	Silver roof sealer	NF	2,500 SF	Good	Low	Entire roof	**Confirmed ACM*** * 2004 EEG Inspection

Building GS1 - Guard Shack

HA#	Material Description	Friability	Total Quantity	Condition	Potential for Contact	Locations	Status
1	White interior door caulking	NF	24 LF	Good	Moderate	Room 100	**Assumed ACM**
2	Gray interior window caulking	NF	34 LF	Good	Moderate	Room 100	**Assumed ACM**
3	RoofingTar & gravel	NF	96 SF	Good	Low	Roof	**Assumed ACM**
4	White window glazing	NF	37 LF	Good	Moderate	Exterior windows	**Assumed ACM**
5	White window putty	NF	9 LF	Good	Moderate	Exterior southside window	**Assumed ACM**

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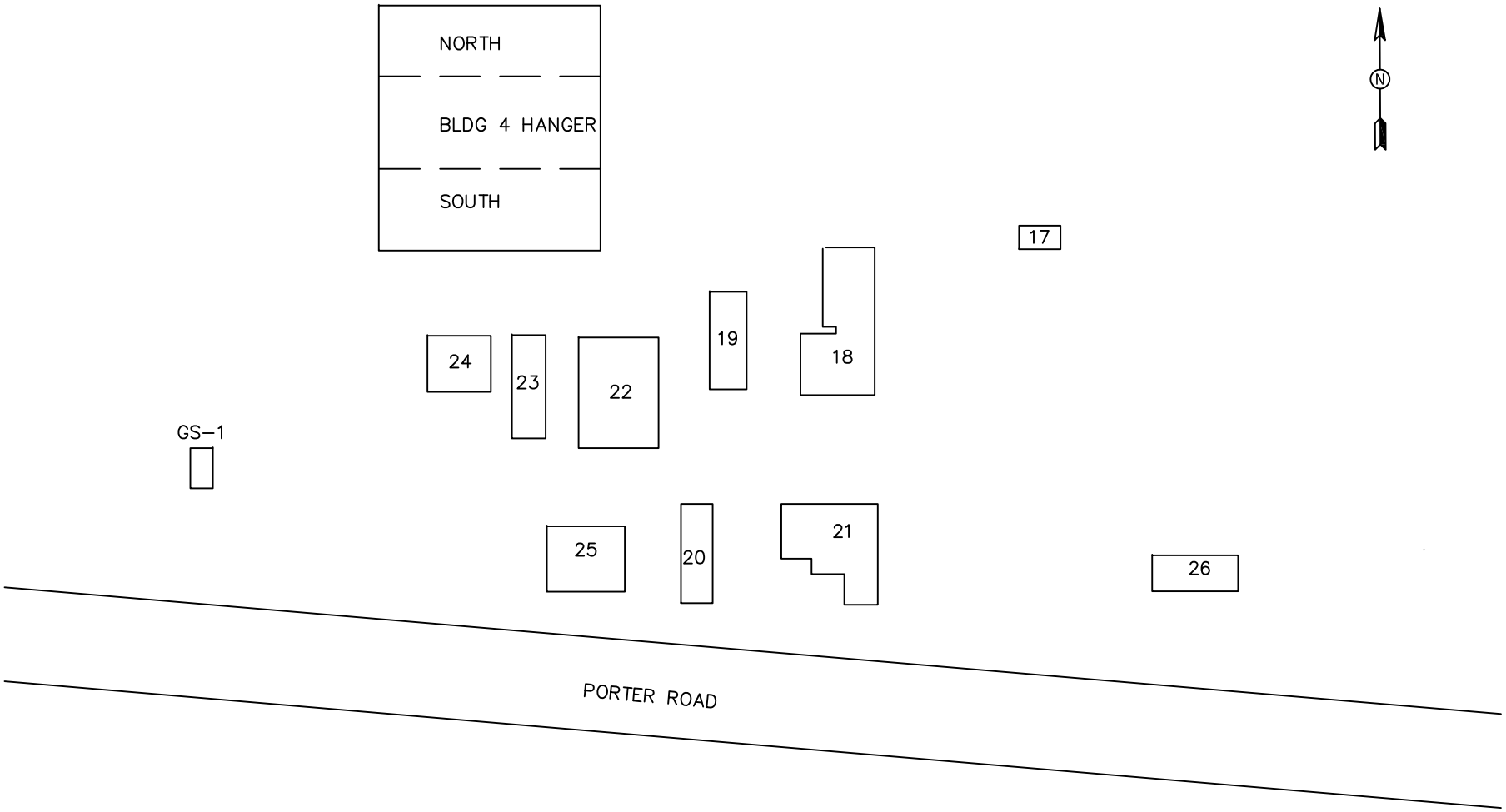
APPENDIX A



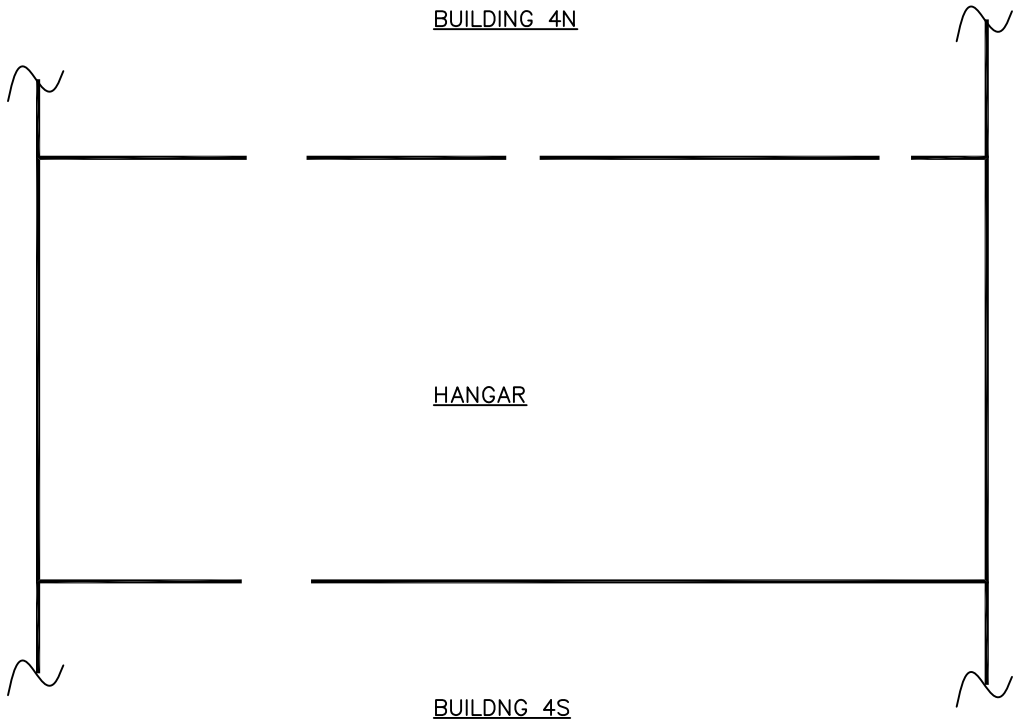
SBG-EEG

7301 RIVERS AVE., SUITE 245
N. CHARLESTON SC 29406-4643
(843) 573-7140

APPENDIX B
SITE MAP
ARC NIAGARA FALLS (NY046)
NIAGARA FALLS, NEW YORK

DATE	PREPARED BY	DRAWN BY	REV
AUG 2012	M. MOLTZEN	L. C. DIASIO	–

SCALE	DWG NUMBER	SHEET
NONE	SBG_NY046-SM_07-2012	1 OF 17



LEGEND

(XXX) -- Indicates unique room number assigned by inspector

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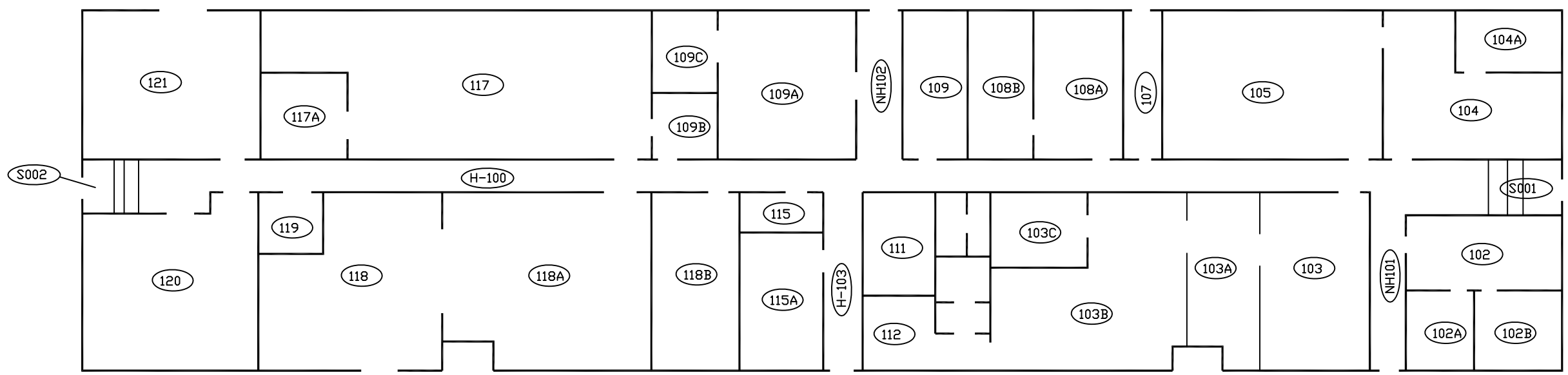
APPENDIX B
ASBESTOS SAMPLE LOCATIONS
HANGAR
ARC NIAGARA FALLS (NY046)
NIAGARA FALLS, NEW YORK

DATE	PREPARED BY	DRAWN BY	REV
AUG 2012	M. MOLTZEN	L. C. DIASIO	–

SCALE	DWG NUMBER	SHEET
NONE	SBG_NY046-hangr_07-2012	2 OF 17



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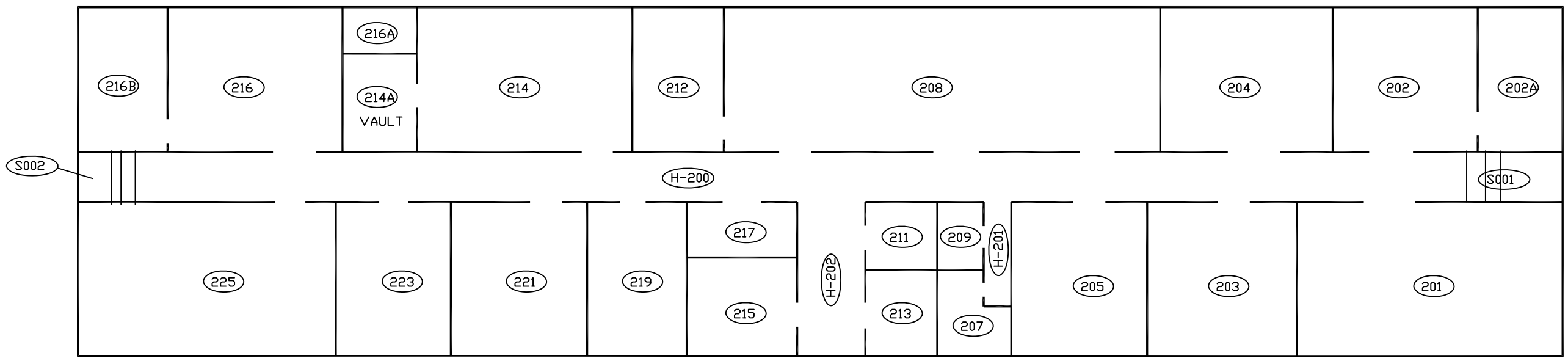
APPENDIX B
ASBESTOS SAMPLE LOCATIONS
BUILDING 4N, FIRST FLOOR
ARC NIAGARA FALLS (NY046)
NIAGARA FALLS, NEW YORK

DATE	PREPARED BY	DRAWN BY	REV
AUG 2012	M. MOLTZEN	L. C. DIASIO	–
SCALE	DWG NUMBER	SHEET	
NONE	SBG_NY046-B4N.FL1_07-2012	3 OF 17	



LEGEND

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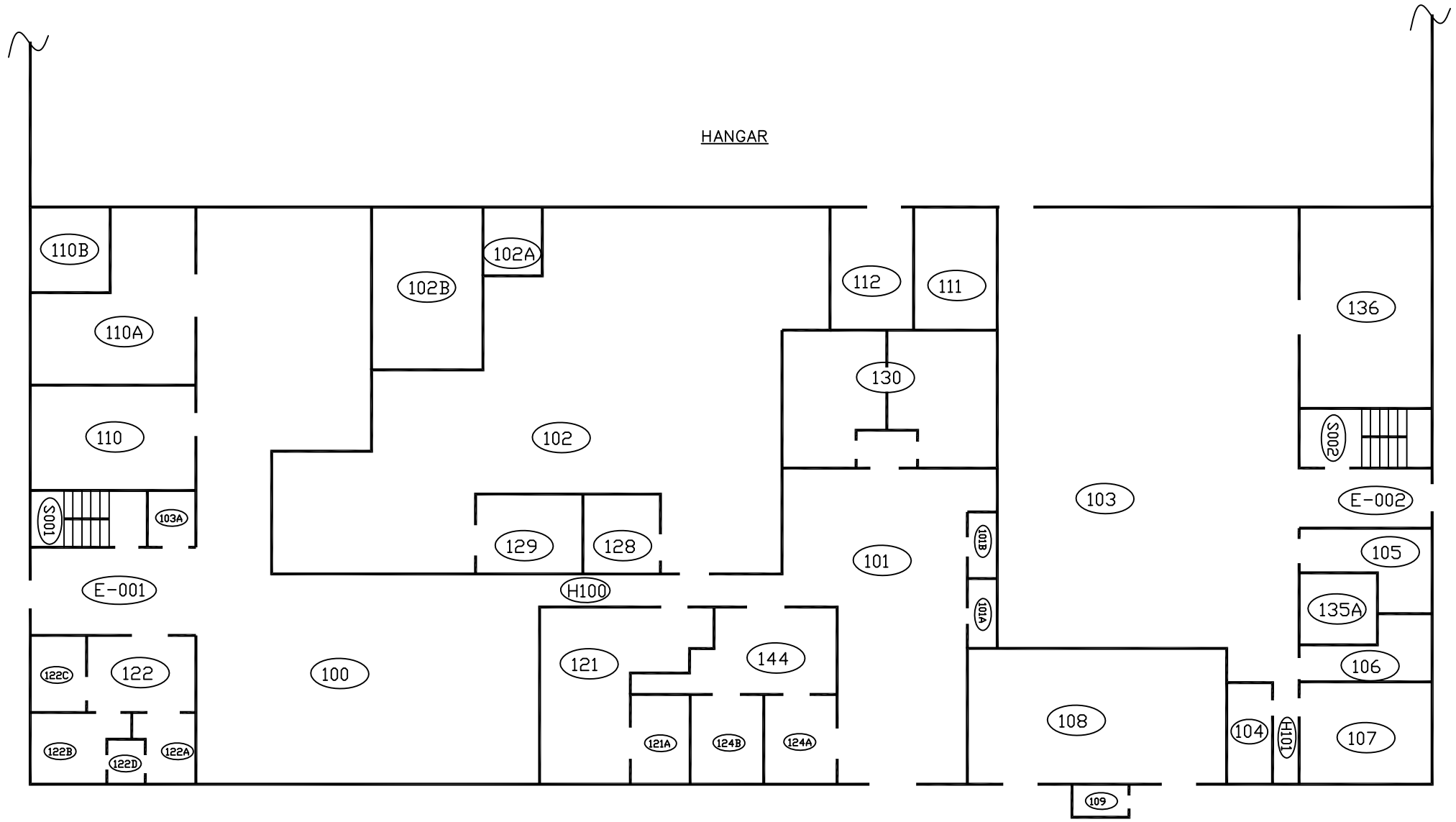
APPENDIX B
ASBESTOS SAMPLE LOCATIONS
BUILDING 4N, SECOND FLOOR
ARC NIAGARA FALLS (NY046)
NIAGARA FALLS, NEW YORK

DATE	PREPARED BY	DRAWN BY	REV
AUG 2012	M. MOLTZEN	L. C. DIASIO	–
SCALE NONE	DWG NUMBER SBG_NY046-B4N.FL2_07-2012	SHEET 4 OF 17	



BUILDNG 4S

LEGEND

(XXX) -- Indicates unique room number assigned by inspector

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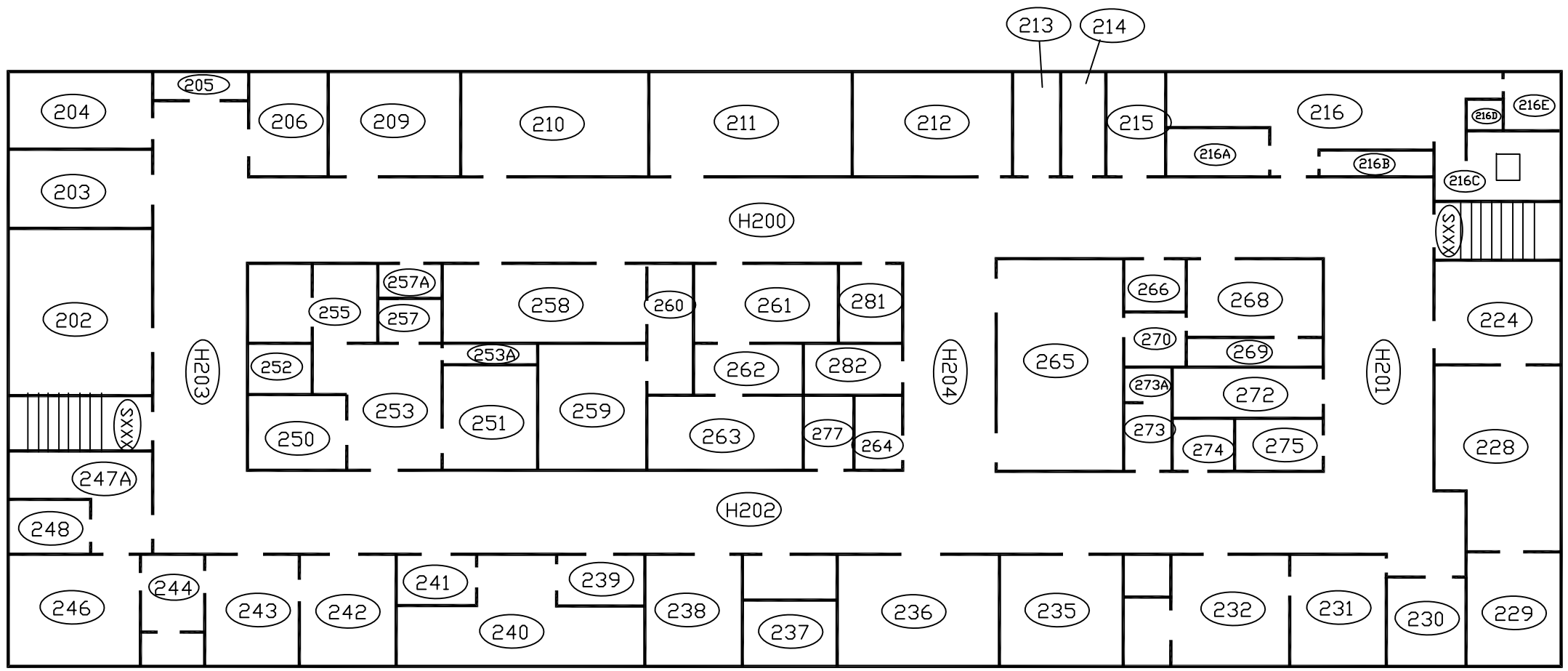
APPENDIX B
ASBESTOS SAMPLE LOCATIONS
BUILDING 4S, FIRST FLOOR
ARC NIAGARA FALLS (NY046)
NIAGARA FALLS, NEW YORK

DATE	PREPARED BY	DRAWN BY	REV
AUG 2012	M. MOLTZEN	L. C. DIASIO	–
SCALE NONE	DWG NUMBER SBG_NY046-B4S.FL1_07-2012	SHEET 5 OF 17	



LEGEND

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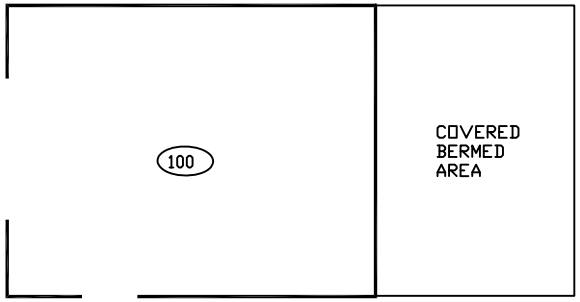
APPENDIX B
ASBESTOS SAMPLE LOCATIONS
BUILDING 4S, SECOND FLOOR
ARC NIAGARA FALLS (NY046)
NIAGARA FALLS, NEW YORK

DATE	PREPARED BY	DRAWN BY	REV
AUG 2012	M. MOLTZEN	L. C. DIASIO	–
SCALE NONE	DWG NUMBER SBG_NY046-B4S.FL2_07-2012	SHEET 6 OF 17	



LEGEND

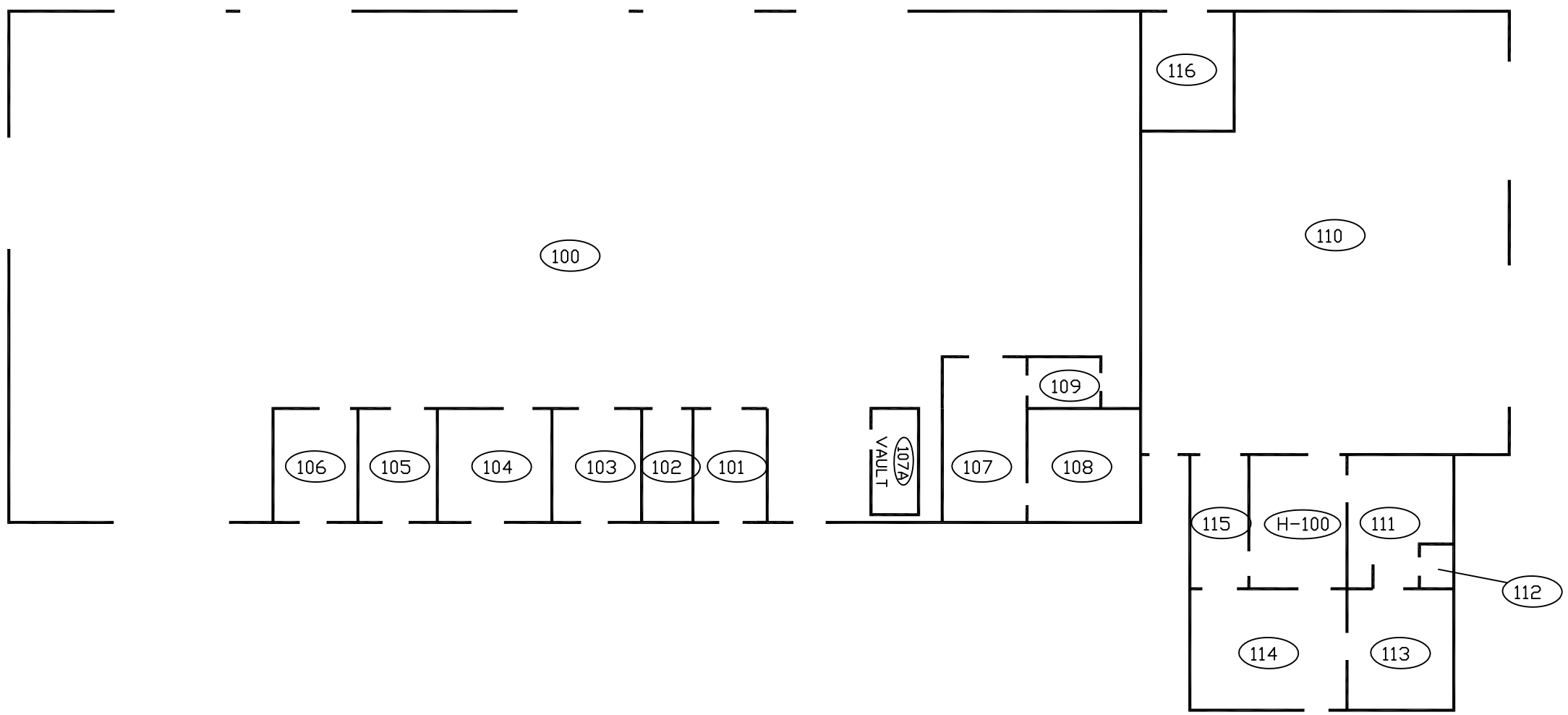
XXX -- Indicates unique room number assigned by inspector

SBG-EEG
7301 RIVERS AVE., SUITE 245
N. CHARLESTON SC 29406-4643
(843) 573-7140

APPENDIX B
ASBESTOS SAMPLE LOCATIONS
BUILDING 17
ARC NIAGARA FALLS (NY046)
NIAGARA FALLS, NEW YORK

DATE	PREPARED BY	DRAWN BY	REV
AUG 2012	M. MOLTZEN	L. C. DIASIO	–

SCALE	DWG NUMBER	SHEET
NONE	SBG_NY046-B17_07-2012	7 OF 17



LEGEND

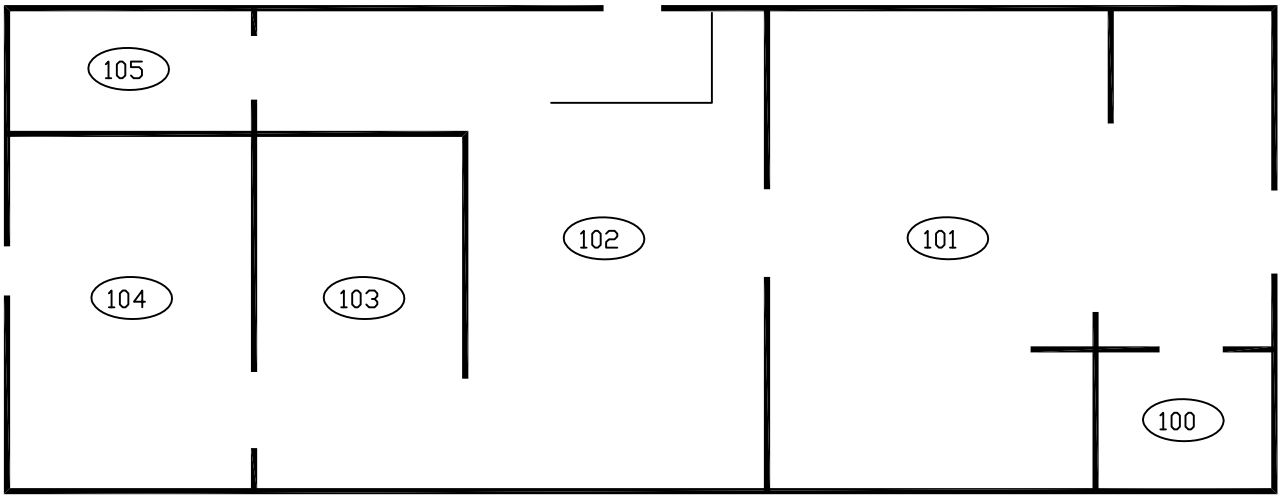
(XXX) -- Indicates unique room number assigned by inspector

SBG-EEG

7301 RIVERS AVE., SUITE 245
N. CHARLESTON SC 29406-4643
(843) 573-7140

APPENDIX B
ASBESTOS SAMPLE LOCATIONS
BUILDING 18
ARC NIAGARA FALLS (NY046)
NIAGARA FALLS, NEW YORK

DATE	PREPARED BY	DRAWN BY	REV
AUG 2012	M. MOLTZEN	L. C. DIASIO	–
SCALE NONE	DWG NUMBER SBG_NY046-B18_07-2012	SHEET 8 OF 17	



LEGEND

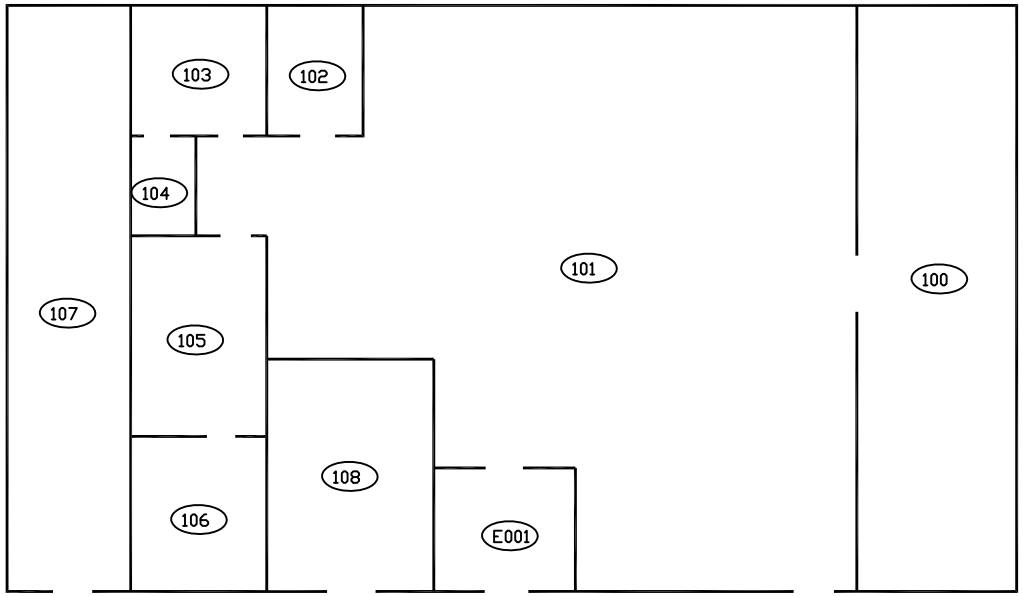
(XXX) -- Indicates unique room number assigned by inspector

SBG-EEG
7301 RIVERS AVE., SUITE 245
N. CHARLESTON SC 29406-4643
(843) 573-7140

APPENDIX B
ASBESTOS SAMPLE LOCATIONS
BUILDING 19
ARC NIAGARA FALLS (NY046)
NIAGARA FALLS, NEW YORK

DATE	PREPARED BY	DRAWN BY	REV
AUG 2012	M. MOLTZEN	L. C. DIASIO	–

SCALE	DWG NUMBER	SHEET
NONE	SBG_NY046-B19_07-2012	9 OF 17



LEGEND

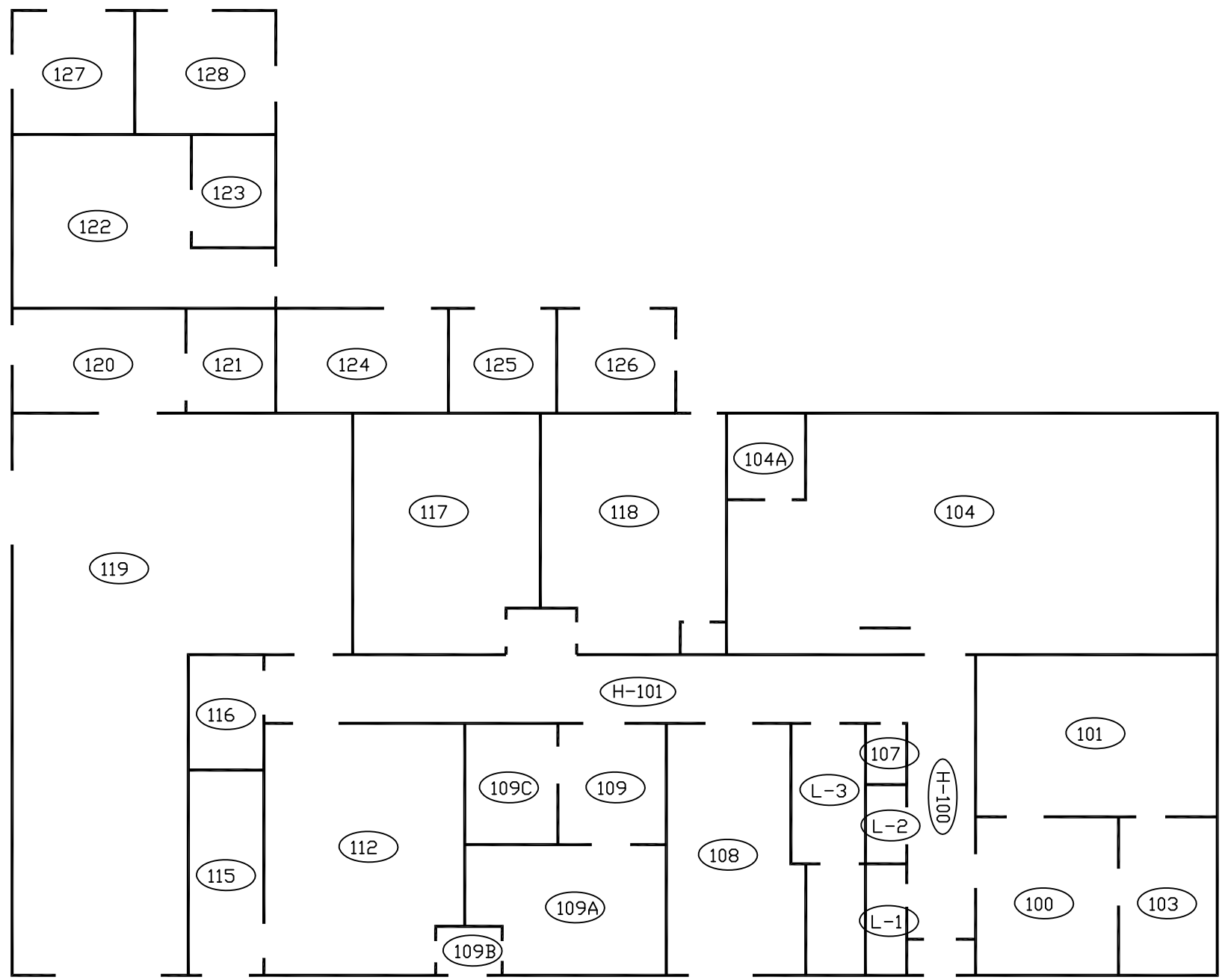
XXX -- Indicates unique room number assigned by inspector

SBG-EEG
7301 RIVERS AVE., SUITE 245
N. CHARLESTON SC 29406-4643
(843) 573-7140

APPENDIX B
ASBESTOS SAMPLE LOCATIONS
BUILDING 20
ARC NIAGARA FALLS (NY046)
NIAGARA FALLS, NEW YORK

DATE	PREPARED BY	DRAWN BY	REV
AUG 2012	M. MOLTZEN	L. C. DIASIO	–

SCALE	DWG NUMBER	SHEET
NONE	SBG_NY046-B20_07-2012	10 OF 17



LEGEND

(XXX) -- Indicates unique room number assigned by inspector

SBG-EEG

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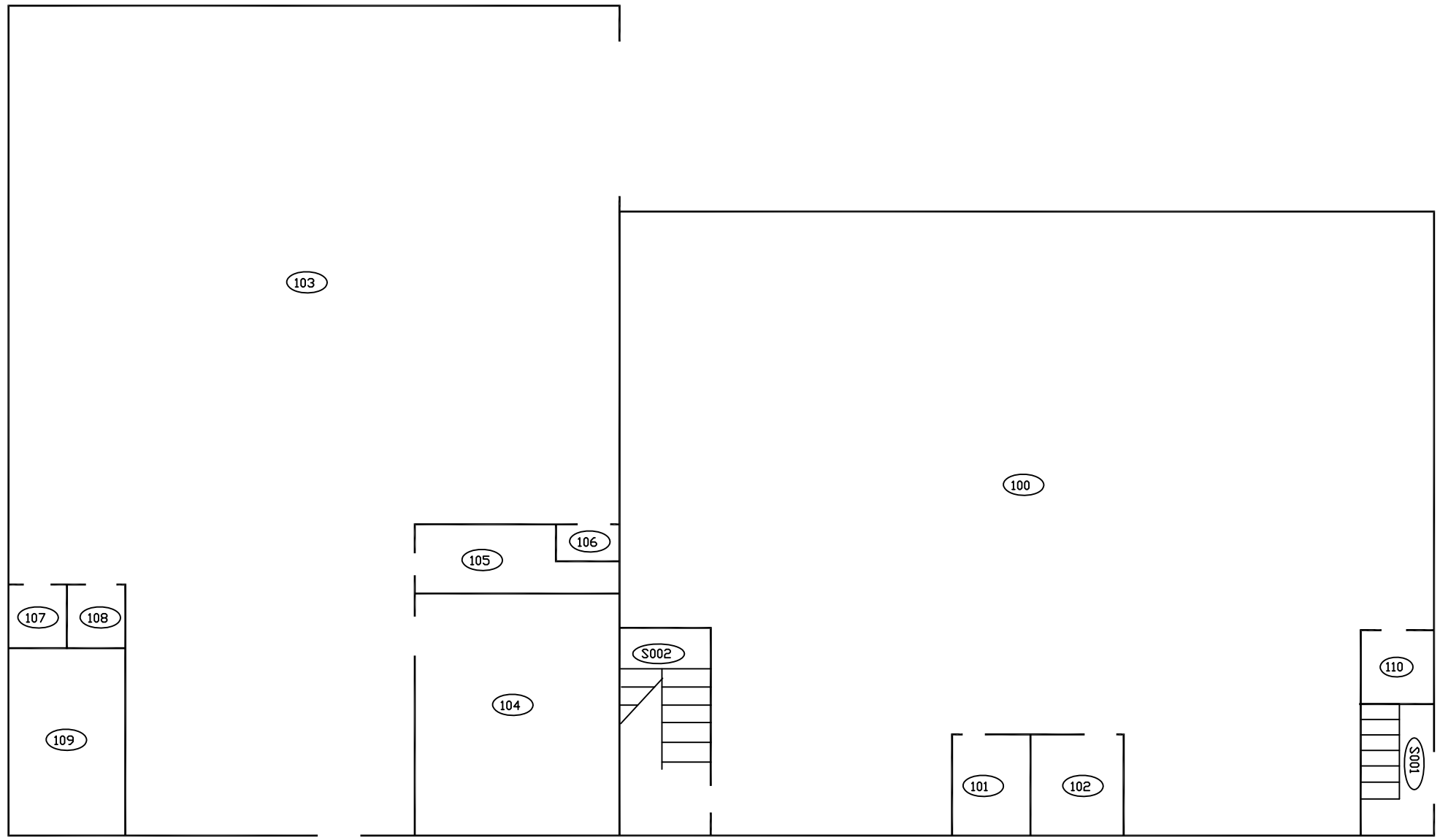
N. CHARLESTON SC 29406-4643
(843) 573-7140

APPENDIX B
ASBESTOS SAMPLE LOCATIONS
BUILDING 21
ARC NIAGARA FALLS (NY046)
NIAGARA FALLS, NEW YORK

DATE	PREPARED BY	DRAWN BY	REV
AUG 2012	M. MOLTZEN	L. C. DIASIO	–
SCALE NONE	DWG NUMBER SBG_NY046-B21_07-2012	SHEET 11 OF 17	



LEGEND

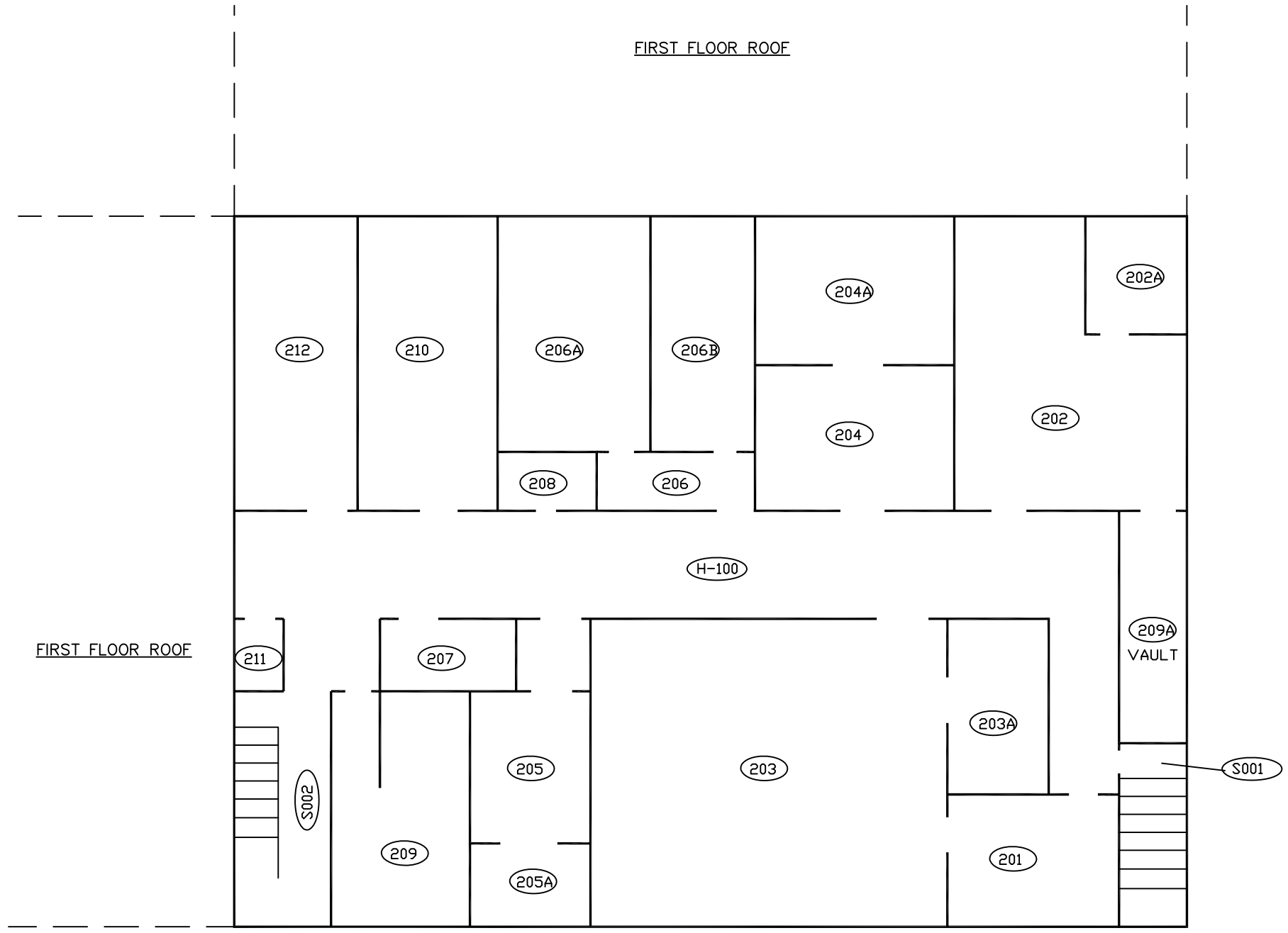
XXX -- Indicates unique room number assigned by inspector

SBG-EEG

7301 RIVERS AVE., SUITE 245
N. CHARLESTON SC 29406-4643
(843) 573-7140

APPENDIX B
ASBESTOS SAMPLE LOCATIONS
BUILDING 22, FIRST FLOOR
ARC NIAGARA FALLS (NY046)
NIAGARA FALLS, NEW YORK

DATE	PREPARED BY	DRAWN BY	REV
AUG 2012	M. MOLTZEN	L. C. DIASIO	–
SCALE NONE	DWG NUMBER SBG_NY046-B22.FL1_07-2012	SHEET 12 OF 17	



LEGEND

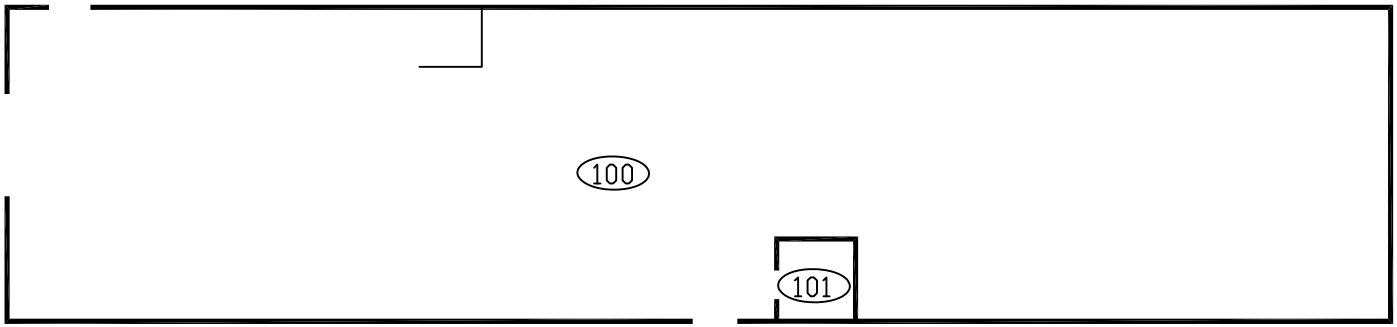
(XXX) -- Indicates unique room number assigned by inspector

SBG-EEG

7301 RIVERS AVE., SUITE 245
N. CHARLESTON SC 29406-4643
(843) 573-7140

APPENDIX B
ASBESTOS SAMPLE LOCATIONS
BUILDING 22, SECOND FLOOR
ARC NIAGARA FALLS (NY046)
NIAGARA FALLS, NEW YORK

DATE	PREPARED BY	DRAWN BY	REV
AUG 2012	M. MOLTZEN	L. C. DIASIO	–
SCALE NONE	DWG NUMBER SBG_NY046-B22.FL2_07-2012	SHEET 13 OF 17	



LEGEND

(XXX) -- Indicates unique room number assigned by inspector

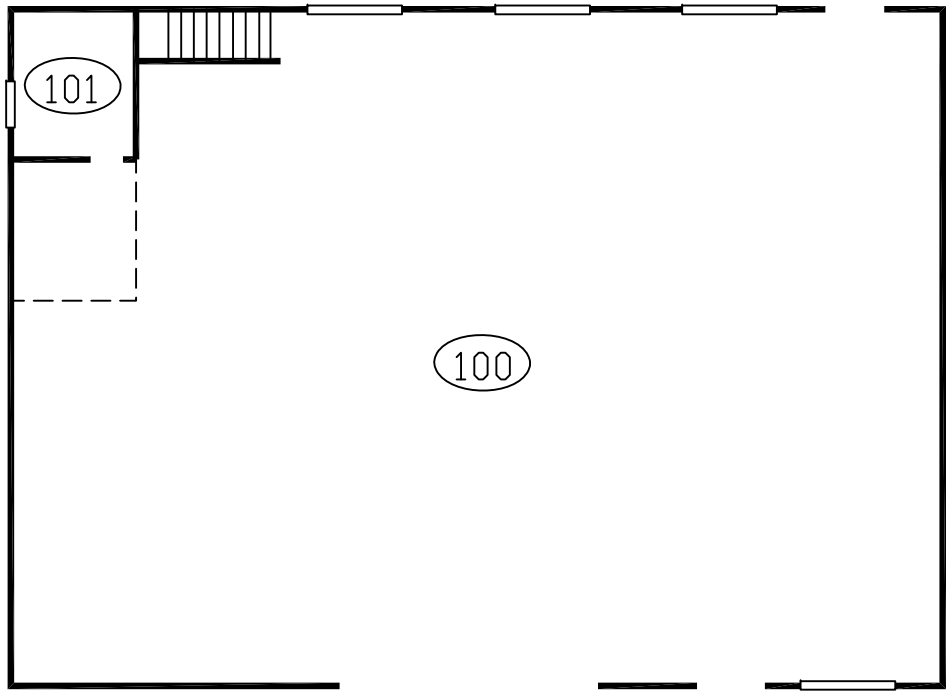
SBG-EEG

7301 RIVERS AVE., SUITE 245
N. CHARLESTON SC 29406-4643
(843) 573-7140

APPENDIX B
ASBESTOS SAMPLE LOCATIONS
BUILDING 23
ARC NIAGARA FALLS (NY046)
NIAGARA FALLS, NEW YORK

DATE	PREPARED BY	DRAWN BY	REV
AUG 2012	M. MOLTZEN	L. C. DIASIO	–

SCALE	DWG NUMBER	SHEET
NONE	SBG_NY046-B23_07-2012	14 OF 17



LEGEND

(XXX) -- Indicates unique room number assigned by inspector

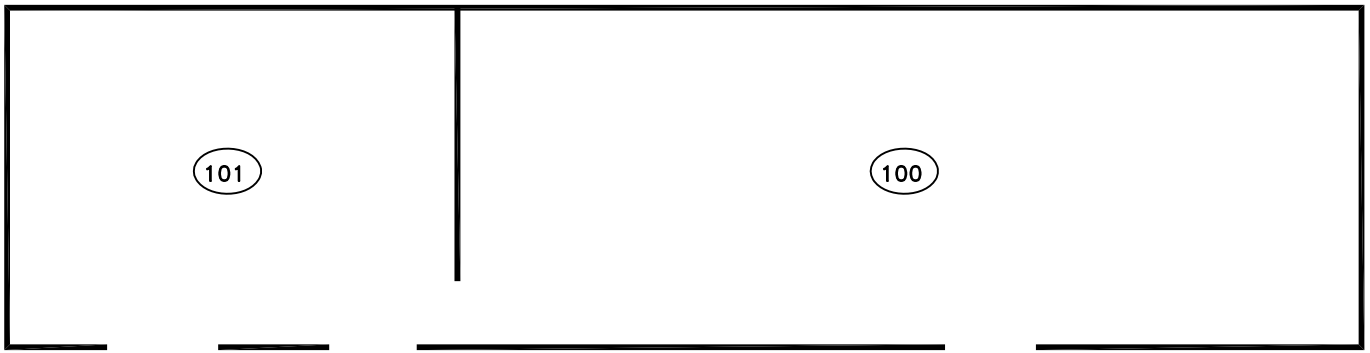
SBG-EEG

7301 RIVERS AVE., SUITE 245
N. CHARLESTON SC 29406-4643
(843) 573-7140

APPENDIX B
ASBESTOS SAMPLE LOCATIONS
BUILDING 25
ARC NIAGARA FALLS (NY046)
NIAGARA FALLS, NEW YORK

DATE	PREPARED BY	DRAWN BY	REV
AUG 2012	M. MOLTZEN	L. C. DIASIO	–

SCALE	DWG NUMBER	SHEET
NONE	SBG_NY046-B25_07-2012	15 OF 17



LEGEND

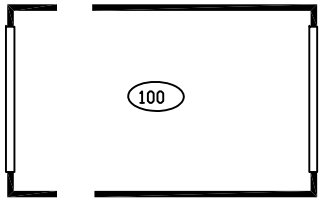
XXX -- Indicates unique room number assigned by inspector

SBG-EEG
7301 RIVERS AVE., SUITE 245
N. CHARLESTON SC 29406-4643
(843) 573-7140

APPENDIX B
ASBESTOS SAMPLE LOCATIONS
BUILDING 26
ARC NIAGARA FALLS (NY046)
NIAGARA FALLS, NEW YORK

DATE	PREPARED BY	DRAWN BY	REV
AUG 2012	M. MOLTZEN	L. C. DIASIO	–

SCALE	DWG NUMBER	SHEET
NONE	SBG_NY046-B26_07-2012	16 OF 17



LEGEND

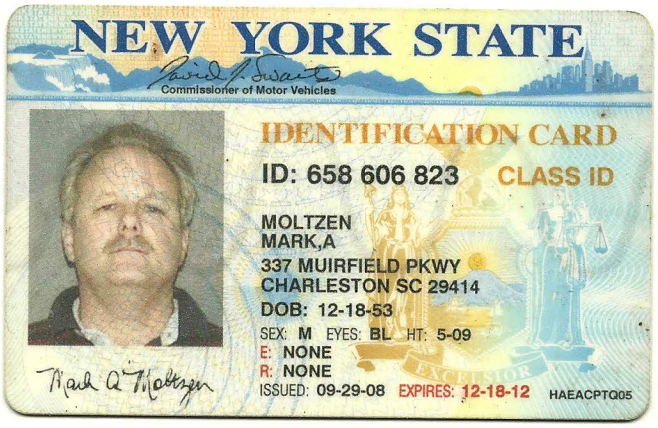
(XXX) -- Indicates unique room number assigned by inspector

SBG-EEG
7301 RIVERS AVE., SUITE 245
N. CHARLESTON SC 29406-4643
(843) 573-7140

APPENDIX B
ASBESTOS SAMPLE LOCATIONS
GUARDSHACK (GS-1)
ARC NIAGARA FALLS (NY046)
NIAGARA FALLS, NEW YORK

DATE	PREPARED BY	DRAWN BY	REV
AUG 2012	M. MOLTZEN	L. C. DIASIO	–

SCALE	DWG NUMBER	SHEET
NONE	SBG_NY046-GS1_07-2012	17 OF 17



NEW YORK STATE

Commissioner of Motor Vehicles

IDENTIFICATION CARD

ID: 658 606 823 CLASS ID

MOLTZEN
MARK,A
337 MUIRFIELD PKWY
CHARLESTON SC 29414
DOB: 12-18-53
SEX: M EYES: BL HT: 5-09
E: NONE
R: NONE
ISSUED: 09-29-08 EXPIRES: 12-18-12 HAEACPTQ05

APPENDIX E

RESUME OF ENVIRONMENTAL PROFESSIONAL

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MICHAEL P. DICKINSON, PG, REPA, CES
Senior Hydrogeologist/Environmental Property Assessor

EDUCATION

University of Georgia, Athens, Georgia
Bachelor of Science in Geology - 1992
Graduate Level Coursework in Hydrogeology - 1993

PROFESSIONAL REGISTRATION

Registered Professional Geologist, TN - 1998
Registered Environmental Property Assessor, REPA #6023 – 2004
Certified Environmental Scientist, CES #8374 - 2009
ISO-14001 Certified, Currently performing audits to obtain lead auditor certification
OSHA - 40-hour Hazardous Waste Health and Safety Certified - 1996
OSHA - 8-hour Refresher Training - 2009
OSHA - Supervisory Training - 1994

PROFESSIONAL HISTORY

XCEL Engineering, Inc., Senior Environmental Property Assessor, April 2009 to present
Engineering & Environment, Inc., Senior Hydrogeologist, 2003 to April 2009
Atlanta Environmental Management, Inc., Project Geologist, 1994 - 2003
HydroVision, Inc., Field Hydrogeologist, 1993 - 1994
Applied Engineering & Science, Inc, Field Hydrogeologist, 1993 - 1994

EXPERIENCE

XCEL Engineering, Inc., Oak Ridge, Tennessee. Mr. Dickinson acts as the Senior Environmental Property Assessor, performing All Appropriate Inquiry (AAI) compliant Environmental Condition of Property (ECP) Reports for the US Army Reserve Command. He is involved in the BRAC closure process, producing all due diligence documentation for each property. This includes drafting Finding of Suitability to transfer (FOST) reports, Record of Environmental Consideration (REC) documentation, Disposal Reports, Record on Non Applicability (RONA), and assessing the property for potential Phase II requirements.

Engineering & Environment, Inc., Atlanta, Georgia. Mr. Dickinson worked as a contractor for the Installation Management Command - Army Reserve Office (IMCOM-ARO) and was responsible for managing/producing Phase I and Phase II Environmental Baseline Surveys (EBSs) for Army Reserve properties - U.S. and Puerto Rico. He was responsible for managing the Tier 1 Real Property Exchange (RPX) program, including collection of EBS data and production of reports. Mr. Dickinson was also highly involved in the NEPA process including development of Finding of Suitability to transfer (FOST) reports and Record of Environmental Consideration (REC) documentation.

Atlanta Environmental Management, Inc., Atlanta, Georgia. As a Senior Hydrogeologist, Mr. Dickinson was involved in all aspects of environmental consulting and environmental compliance, creating environmental solutions for government and private industry clients.

Specifically, he was responsible for managing and producing reports, including Phase I, Phase II ESAs, CAP - Part A, CAP - Part B, sampling and analysis plans, workplans, corrective action plans, and site safety and health plans.

HydroVision, Inc., Atlanta, Georgia. Mr. Dickinson was responsible for conducting field investigations, including soil, groundwater, sludge, and surface water sample collection. He was also involved in the technical review of documents and interpretation of hydrogeologic data.

Applied Engineering & Science, Inc., Atlanta, Georgia. Mr. Dickinson performed various field activities such as soil, groundwater, sludge, and surface water sampling, as well as soil gas surveys. One of his duties included calibration and inventory of all field equipment.

AFFILIATIONS

State of Tennessee Department of Commerce and Insurance
National Registry of Environmental Professionals
ANSI-RAB National Accreditation Program
HAZWOPER

XCEL Engineering *A Service-Disabled, Veteran-Owned Small Business*

XCEL: STATEMENT OF INDEPENDENT TECHNICAL REVIEW

ENVIRONMENTAL CONDITION OF PROPERTY REPORTS
In Support of the U.S. Army Reserve Command

U.S. ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT

XCEL has completed the (**Final**) submittal of the ***Environmental Condition of Property Update Report for Niagara Falls USAR Center (NY046), Niagara Falls, New York*** under **Contract No. W912QR-08-D-0026, Delivery Order No. 0012**. Notice is hereby given that an independent technical review (ITR) has been conducted that is appropriate to the level of risk and complexity inherent in the project, as defined in the *Quality Control Plan.* During the independent technical review, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of assumptions; methods, procedures, and material used in analyses; alternatives evaluated (where applicable); the appropriateness of data used and level of data obtained; and reasonableness of the results, including whether the product meets the customer's needs consistent with the law and existing Corps policy.

ECP Team (list Report Authors)	ITR Team (list ITRT Members)
Michael Dickinson, Author	Paul Rollinson, ITRT Leader
	Crystal Longdon, Project Manager
	Terry Farmer, QA Leader

Any significant concerns and the explanation of the resolution of such concerns are documented on the *XCEL Team Statement of Significant ITRT Comments* located within the project file. All concerns resulting from ITR of the document have been considered and satisfactorily resolved.

Certifications:

Paul Rollinson, ECP ITRT Leader Paul W. Rollinson *Signature & Date* ***12/5/12***	**Terry Farmer, ECP QA Leader** Terry Farmer *Signature & Date* ***12/5/12***
Crystal Longdon, ECP Project Manager Crystal Longdon *Signature & Date* ***12/5/12***	**Iqbal Ahmed or R. J. Zimmerman, Principal with the Firm** I. Ahmed *Signature & Date* ***12/5/12***

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