CONSTRUCTION CERTIFICATION REPORT FOR

BUFFALO LAKESIDE COMMERCE PARK BUFFALO'S UNION SHIP CANAL REDEVELOPMENT - PHASE I BUFFALO, NEW YORK

prepared for:

Erie County Industrial Development Agency Buffalo, New York

prepared by:



October 2006

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FOR BUFFALO LAKESIDE COMMERCE PARK BUFFALO'S UNION SHIP CANAL REDEVELOPMENT – PHASE 1 BUFFALO, NEW YORK

Prepared For: ERIE COUNTY INDUSTRIAL DEVELOPMENT AGENCY BUFFALO, NEW YORK

> Prepared By: URS CORPORATION BUFFALO, NEW YORK

> > September 2006

ENGINEER CERTIFICATION

I certify that the Remedial Action Work Plans prepared for the Hanna Furnace Site Subparcel 1, by Malcolm Pirnie dated February 2002 and for Subparcel 2 by O'Brien & Gere Engineers Inc. dated November 2002, were implemented, that construction activities were completed substantially in accordance with these Department-approved Remedial Action Work Plans and that the activities were personally witnessed by persons under my supervision.

NEW YORA PROFESSION

TABLE OF CONTENTS

1.0	INTR	ODUCTION	1
	1.1	Purpose of Report	1
	1.2	Site Background	1
2.0	CONS	TRUCTION ACTIVITIES AFFECTING SOIL MANAGEMENT	3
	2.1	General Right-of-Way Excavation	3
	2.2	Utilities Excavation	6
	2.3	NAPL Areas Excavations/Pipeline	7
	2.4	Previously Undelineated Petroleum-Impacted Soil/Fill Material	9
		2.4.1 Sanitary Sewer Manhole No. 8 (MH-8) 1	0
		2.4.2 Sanitary Sewer Manhole No. 11 (MH-11) 1	0
		2.4.3 "Duct Bank"	1
	2.5	Metals-Impacted Soil/Fill Material1	2
		2.5.1 Barium "Hot Spot" 1	2
		2.5.2 Cyanide "Hot Spot" 1	3
	2.6	Underground Storage Tanks 1	4
		2.6.1 Underground Storage Tank No. 11	4
		2.6.2 Underground Storage Tank No. 21	4
	2.7	Other Soil Management Issues 1	5
		2.7.1 South Buffalo Railway Berm1	5
		2.7.2 Diesel Spill	6
		2.7.3 Sanitary Sewer Manhole No. 8 (MH-8) Test Pit 1	7
	2.8	Backfill1	7
	2.9	Groundwater Management1	.7
3.0	LABC	PRATORY ANALYTICAL DATA 1	.9
	3.1	NAPL Areas Excavations/Pipeline	9
	3.2	Previously Undelineated Petroleum-Impacted Soil/Fill Material	21
		3.2.1 Sanitary Sewer Manhole No. 8 (MH-8)	21
		3.2.2 Sanitary Sewer Manhole No. 11 (MH-11)	21
		3.2.3 "Duct Bank"	22
	3.3	Metals-Impacted Soil/Fill Material	22
		3.3.1 Barium "Hot Spot"	22
		3.3.2 Cyanide "Hot Spot"	
	3.4	Underground Storage Tanks	23

		3.4.1 Underground Storage Tank No. 1	
		3.4.2 Underground Storage Tank No. 2	
	3.5	Other Soil Management Issues	
		3.5.1 South Buffalo Railway Berm	
		3.5.2 Sanitary Sewer Manhole No. 8 (MH-8) Test Pit	
	3.6	Miscellaneous Groundwater	
4.0	REFE	ERENCES	

TABLES

(Following the References)

Table 1	Site Specific Action Levels
Table 2	Summary of Surface Soil Analytical Results
Table 3	Summary of Subsurface Soil Analytical Results
Table 4	Summary of Barium Analytical Results
Table 5	Summary of Cyanide Analytical Results

FIGURES

Site Plan
Unique Soils Management Areas
Typical Sections (1 of 2)
Typical Sections (2 of 2)
Soil Characterization Sampling Location Plan (1 of 2)
Soil Characterization Sampling Location Plan (2 of 2)

APPENDICES

(Following the Figures)

Appendix A	Data From Previous Investigations
Appendix B	General Excavation – Soil Characterization Information (TB-05 through TB-10)
Appendix C	Analytical Results – Supplemental Barium and Cyanide Sampling (TB-08 and TB-10)
Appendix D	NAPL Areas Pre-excavation Disposal Characterization Laboratory Analytical Results

- Appendix E NAPL Area No. 3 "Bermed Stripped Soil" Laboratory Analytical Results
- Appendix F NAPL Areas Excavations Confirmation Soil Samples Laboratory Analytical Results
- Appendix G NAPL Areas Additional Predisposal Characterization Laboratory Analytical Results and Disposal Facility Approval
- Appendix H NAPL Area Pipeline Laboratory Analytical Results
- Appendix I Sanitary Sewer Manhole No. 8 Predisposal Characterization Laboratory Analytical Results and Disposal Facility Approval
- Appendix J Sanitary Sewer Manhole No. 11 Predisposal Characterization Laboratory Analytical Results
- Appendix K "Duct Bank" Excavation Confirmation Soil Samples Laboratory Analytical Results
- Appendix L Barium "Hot Spot" Predisposal Characterization Laboratory Analytical Results and Disposal Facility Approval
- Appendix M Cyanide "Hot Spot" Predisposal Characterization Laboratory Analytical Results and Disposal Facility Approval
- Appendix N Underground Storage Tank No. 1 Predisposal Characterization Laboratory Analytical Results, Disposal Facility Approval, and Excavation Confirmation Soil Samples Laboratory Analytical Results
- Appendix O Underground Storage Tank No. 2 Drum Disposal Bills of Lading
- Appendix P South Buffalo Railway Berm Characterization Laboratory Analytical Results
- Appendix Q Sanitary Sewer Manhole No. 8 Test Pits Confirmation Soil Samples Laboratory Analytical Results
- Appendix R Clean Fill Verification Letters
- Appendix S March 2, 2004 NYSDEC Letter Approving Groundwater Management pH Increase
- Appendix T Erie County Sewer District Predisposal Characterization Laboratory Analytical Results
- Appendix U Carbon Filter Influent and Effluent Laboratory Analytical Results
- Appendix V NAPL Areas Groundwater Laboratory Analytical Results

1.0 INTRODUCTION

1.1 <u>Purpose of Report</u>

The purpose of this Construction Certification Report is to provide pertinent information necessary to document that site activities conducted during Phase 1 of the redevelopment of the former Hanna Furnace Corporation property were performed in conformance with the Soils Management Plan (SMP) developed for this site (see URS 2003). This document is not intended as a certification of the construction work associated with the installation of subsurface utilities and roadways.

Now identified as Buffalo Lakeside Commerce Park, this property is currently being redeveloped through the Erie County Industrial Development Agency (ECIDA). Acting on behalf of the ECIDA, URS Corporation (URS) provided project engineer oversight for all site activities performed from September 2003 through October 2004. Destro & Brothers Concrete Company, Inc. (Destro) was retained by ECIDA as the project's general contractor. Destro subcontracted the on-site environmental work to Nature's Way Environmental Consultants & Contractors, Inc. (Nature's Way). The New York State Department of Environmental Conservation (NSYDEC) provided regulatory agency oversight during this phase of the project.

1.2 <u>Site Background</u>

The former Hanna Furnace Corporation site is a vacant industrial property of approximately 113 acres which encircles the eastern portion of the Union Ship Canal. Situated along the eastern shore of Lake Erie at the southern edge of the City of Buffalo, New York, this property is bordered on the west by New York State Route 5, on the south by the Lackawanna Commerce Park, on the east by railroad tracks, and on the north by wetland areas and the former Shenango Steel property. For the purposes of redevelopment, the property has been divided into four parcels (Parcels 1 through 4). Phase 1 of redevelopment, which involved an approximate 24-acre portion of Parcels 1 and 2 (here referred to as the "Site"), has been completed (see Figure 1). This portion of the property was once part of the railroad yard and main manufacturing area for

the former Hanna Furnace Corporation facility. Structures formerly located on the Site included several production buildings, four blast furnaces, and various support structures.

The Buffalo Union Steel Corporation purchased the former railroad yard and manufacturing area in 1900. The Union Ship Canal was constructed in 1910 to service the facility. Pig iron manufacturing commenced between 1900 to 1915 with the construction of the blast furnaces. Following construction of the blast furnaces the property was acquired from the Buffalo Union Steel Corporation by the Hanna Furnace Company. In 1929, the National Steel Company purchased the property and the new corporate entity became known as the Hanna Furnace Corporation.

Iron ore, lime, coke, and other raw materials were delivered via the canal and stockpiled on concrete pads along the south side of the canal (i.e., Parcel 3), north of the Site. The pig iron manufactured on site was transported to customers via the railroad.

In 1982, all operations at the property ceased. The Jordan Foster Scrap Corporation purchased the property in 1983 and subsequently dismantled many of the on-site structures. After filing for bankruptcy in 1986, the Jordan Foster Scrap Corporation leased the property to the Equity Scrap Processing Company. In 1998, the City of Buffalo gained title to the property and on-site structure demolition continued up until the initiation of redevelopment activities.

Since 1982, various agencies and environmental consultants have conducted numerous investigations of the Site in an attempt to characterize the nature and extent of on-site contamination. Site-Specific Action Levels (SSALs) were established for individual compounds to help determine whether excavated soil/fill material could be reused on site. The SSALs, as presented in Table 1, were approved by both the New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH), and were developed using the laboratory analytical results from previous investigations in conjunction with the NYSDEC's Technical and Administrative Guidance Memorandum (TAGM) No. 4046 guidelines plus a review of site conditions and anticipated future use. The site-specific SMP was developed to establish the procedures necessary to protect workers during redevelopment

activities as well as the protocols to be followed during the excavation and handling of soil and groundwater encountered during operations.

2.0 CONSTRUCTION ACTIVITIES AFFECTING SOIL MANAGEMENT

The primary purpose of Phase 1 of the former Hanna Furnace Corporation property redevelopment effort was construction of the infrastructure (i.e., roadways, utilities, etc.) for the Site. As part of the construction, it was necessary to excavate on-site soil/fill materials, which needed to be properly managed in accordance with the SMP.

Soil/fill was regularly field tested for pH by URS field personnel at the time of excavation. Any excavated soil/fill with a pH between 6.5 and 9.0 was reused on site as nonutility trench subgrade fill or in the berms. Per the SMP, if the pH was greater than 9.0, but less than 12.5, the excavated material could only be reused on site as non-utility trench subgrade fill, but this type of material was never encountered. If the pH was greater than 12.5, then the excavated soil/fill was to be classified as hazardous and stockpiled on site pending off-site disposal, but again, this circumstance never occurred. Any excavated soil suspected of being petroleum-impacted was temporarily staged on site on polyethylene sheeting and covered by polyethylene sheeting. These stockpiles were maintained pending sample collection and characterization to determine if the material could be reused on site or must be disposed of offsite at a licensed facility.

2.1 General Right-of-Way Excavation

A major part of the Phase 1 redevelopment involved the construction of a system of streets and sidewalks providing access onto, and throughout, the Site (see Figures 1 and 2). Excavation within the general right-of-way (ROW) for these streets was required in preparation for the backfill and installation of base materials necessary for proper roadway construction, as shown on Figures 3 and 4.

As part of the construction of the infrastructure for the first phase of development at the former Union Ship Canal Site, approximately 20,000 cubic yards of soil/fill materials were to be excavated for construction of utilities and roadways. In accordance with the NYSDEC-approved SMP for the project, soil samples were to be collected at a frequency of one per 2,000 cubic yards of soil to be excavated. This required that a minimum of 10 samples be collected and analyzed for the Target Compound List (TCL) of organics and the Target Analyte List (TAL) of metals. The results of the analyses we re to be compared to the Site Specific Action Levels (SSALs) contained in the SMP (Table 1) and, then managed accordingly.

As agreed, the NYSDEC allowed URS to utilize the results of soil samples collected during previous investigations from borings located within, or near, the proposed Right-of-Way for the utility/roadways to satisfy this requirement. As shown on Figures 5 and 6, a total of 8 surface soil sampling locations and 10 soil borings were identified within the proposed roadway alignment and/or within 50 feet of it. Whereas the overall number of samples was sufficient to satisfy the SMP requirements, most of the borings and/or sampling points were located within the northern portion of the proposed roadway. Consequently, it was determined that some additional borings should be installed and sampled to characterize soils in the southern portion of the proposed roadway. As a result, during March 2003, URS installed six additional soil borings (i.e. SB-05 to SB- 10) at the approximate locations shown on Figures 5 and 6. These borings were extended to the proposed excavation depth, through the fill materials into the underlying native soils, or to a depth of 10 feet, whichever was greater. A composite sample of the fill materials was collected from each boring and submitted to a NYSDOH certified laboratory for analysis.

The results of the analyses for the samples collected during the previous investigations are contained in Appendix A. The results for the samples collected during this project are contained in Appendix B. A summary of the analytical results for the surface and subsurface soil samples is presented in Tables 2 and 3, respectively. As indicated in these tables, the contaminant concentrations in all the previous samples were below the SSALs. Additionally, the same was true for all the recent samples with the exception of samples from TB-08 and TB-10 which exceeded the SSALS for barium (652 mg/kg vs 500 mg/kg) and total cyanide (101 mg/kg vs 50 mg/kg), respectively.

In order to investigate the extent of the barium and cyanide contamination, a series of soil borings was installed on a radial grid pattern at distances of 10, 20 and 30 feet around each of the two borings with a composite sample of the fill material being collected in each boring. These samples were analyzed for barium and/or cyanide, as applicable to that location. Maps showing the location of the supplemental soil borings relative to TB-08 and TB-10 are contained in Appendix C. The analytical data for these samples also is contained in Appendix C and, summarized in Table 4 for TB-08 and Table 5 for TB-10. As shown in the tables, none of the supplemental samples indicated barium or cyanide at concentrations that exceeded the SSALs. Consequently, it was agreed with the Department that only the soils around each of the two original borings (i.e. TB-08 and TB-10) needed to be excavated and disposed offsite in a permitted landfill.

The laboratory analytical results established that the contaminant concentrations detected in the native soil and fill to be excavated from within the general ROW did not exceed the Site SSALs, with the exception of the two areas around TB-08 and TB-10.. Therefore, in accordance with the SMP, the native soil/fill was assumed to be "clean" and reusable on site within Parcels 1 and 2 (but not within the utility trenches) as either subgrade fill or as part of the above grade berms, depending on the soil/fill's pH levels. During the period of September 2003 through October 2004, excavation within the general ROW for the construction of on-site roads "A", "B", "C", "D" and "E" (see Figure 1) and the accompanying sidewalks was completed. In addition to continuous visual and olfactory inspection, URS field personnel conducted periodic field checks for the presence of volatile organic compounds (VOCs) using a photoionization detector (PID). Soil samples were collected, placed in Ziploc bags, and allowed to warm inside a heated vehicle or directly in the sun (depending on the season). The PID was then used to measure VOC concentrations within the headspace of the bag. URS field personnel also used portable field instruments or pH paper strips to measure soil pH. All excavated soil/fill, other than the exceptions discussed in subsequent sections below, was determined to be reusable on site as either non-utility trench subgrade fill or as part of the berms. Destro reused this material to construct part of the above grade berms encircling the Site.

Section III of the SMP included provisions for managing "significantly different" (i.e., visually, PID readings, olfactory, etc.) material encountered during excavation. Although some

areas of petroleum-impacted soil/fill material were encountered during ROW excavation, it was not "significantly different" from material identified in previous Site investigations.

2.2 <u>Utilities Excavation</u>

In addition to the construction of streets and sidewalks, subsurface utilities were installed as part of the Site's infrastructure. Sanitary sewer, storm sewer, and water lines were installed beneath or alongside the streets throughout the Site and connected to existing off-site services. A "utility corridor" paralleling on-site roads was also constructed for the purpose of future utility installations (primarily natural gas, telephone, and electric).

Excavation of native soil/fill was required to pre-specified depths in preparation for the installation of piping and the backfill of base materials necessary for proper utility construction. Excavation depths reached 15-20 feet below existing grade for extensive sections of the sanitary sewer, particularly along "D" and "C" roads (it is not the intent of this report to provide as-built drawings of the subsurface utilities; however, they can be provided upon request). As previously stated, laboratory analytical results established that the contaminant concentrations detected in the native soil and fill to be excavated from these areas, with the exception of the fill materials immediately around TB-08 and TB-10, did not exceed the Site SSALs. Therefore, the native soil/fill was assumed to be "clean" and was reused on site, dependent on pH, as detailed above.

From September 2003 through October 2004, excavation and installation of the sanitary sewer, storm sewer, water line, and utility corridor was completed. URS field personnel conducted field checks of pH and for the presence of VOCs. With a few exceptions, which are discussed in subsequent sections, all soil/fill excavated during utility installation was determined to be reusable on site as either non-utility trench subgrade fill or in the berms. Destro reused this material to construct part of the above grade berms encircling the Site. As indicated above, previously undelineated petroleum-impacted soil/fill material was encountered in a few areas (i.e., sanitary sewer manhole No. 8 [MH-8], sanitary sewer manhole No. 11 [MH-11], and the "duct bank") and managed according to the SMP (i.e., temporarily staged on-site prior to off-site disposal).

2.3 <u>NAPL Areas Excavations/Pipeline</u>

Previous subsurface investigations had identified three areas north of "C" Road where petroleum-related non-aqueous phase liquid (NAPL) was present in the soil (see Figures 1 and 2). These areas were identified as NAPL Areas No. 1, No. 2, and No. 3. The SMP developed for the Site required that these areas be excavated and the material either treated on site or disposed of off site at a licensed facility.

Further investigation by previous consultants/contractors delineated the presumed extent of these NAPL areas. In total, it was estimated that approximately 1,388 cubic yards of material was impacted by the NAPL and would need to be excavated. The estimated NAPL areas' boundaries were subsequently surveyed and staked. However, the final extent of NAPL area excavation was, pursuant to Section II, Part 6.6 of the SMP, to "be established in the field based on visual evidence of NAPL" and a NYSDEC representative was "required to approve the extent of excavation."

On separate occasions in November and December 2003, Nature's Way advanced borings using a direct-push drill rig within the NAPL areas. Representative soil samples were collected for laboratory analysis for the purpose of pre-excavation characterization of the impacted soil for off-site disposal approval. The laboratory analytical results are included in Appendix D.

Between February 2003 and August 2004, excavation of the three NAPL areas was completed. Based on previous investigations, NAPL Area No. 1 was excavated to a depth of approximately 5 feet below grade. NAPL Areas No. 2 and No. 3 were excavated to a depth of approximately 8-12 feet below grade. Upon reaching the groundwater table (approximately 4-5 feet below grade), each excavation was continually dewatered throughout the soil removal process. At Nature's Way's discretion, excavated soil was either loaded directly into trucks for transportation and disposal off site or temporarily staged on site in a polyethylene-lined bermed area and covered by polyethylene sheeting. If the soil moisture content was deemed to be

excessive, then the trucks were lined with polyethylene sheeting for transport to the disposal facility.

The entire soil column delineated by previous investigations, from the existing ground surface to the final depth, was excavated and disposed of from NAPL Areas No. 1 and No. 2. While the top 4 feet of NAPL Area No. 3 was assumed to be "clean" and was stripped off and staged separately onsite, subsequent laboratory analysis of this "stripped soil" indicated exceedances of the Site SSALs (see Appendix E). As a result, this soil was also eventually disposed of offsite. Based primarily on visual and olfactory inspection, significantly more impacted soil was encountered than anticipated, particularly in NAPL Areas No. 2 and No. 3. The final extent of the NAPL areas' excavation exceeded the previously delineated boundaries. Inspection of NAPL area soil by URS field personnel using a PID was also regularly conducted, but because of the type (primarily semi-volatile organic compounds [SVOCs]) and the highly weathered nature of contaminants the PID exhibited low readings, not truly indicative of actual SVOC concentrations. URS field personnel consulted regularly with Mr. David Locey of the NYSDEC regarding each expansion of the NAPL areas. The final extent of each excavation was determined by Mr. Locey based on the physical evidence. Confirmation soil samples from the sidewalls and floors of each NAPL area were collected to further corroborate the final excavation limits. The laboratory analytical results for these samples are included in Appendix F.

In total, approximately 3,520 tons of NAPL-impacted soil were excavated and disposed of off site at the Waste Management disposal facility in Chaffee, New York. The total volume of NAPL-impacted soil was not transported off site for disposal at one time. In the interim, Nature's Way, under direction from ECIDA, switched disposal facilities in order to control costs. The remaining approximately 3,653 tons of NAPL-impacted soil were excavated and disposed of off site at the Ensol disposal facility in Tonawanda, New York. Disposal approvals and additional predisposal laboratory analytical results are included in Appendix G.

On May 27, 2004, during expansion of the NAPL Area No. 2 excavation to the south, a 24-inch-diameter iron pipe was uncovered approximately 4 feet below grade oriented in an east/west direction. A small hole was opened in the top of the pipe, and inspection revealed petroleum-impacted sludge and water within it. Pursuant to the NYSDEC's request, the lateral

extent of this pipe was traced by excavating test pits along its length to the east and west of NAPL Area No. 2. The pipe extended approximately 450 feet to the west of NAPL Area No. 2 and approximately 500 feet to the east. Once the limits were defined, the pipe was then opened at regular intervals and cleaned using a sewer jet/vacuum truck. The pipe sludge was staged on site in a polyethylene-lined bermed area and covered by polyethylene sheeting pending off-site disposal. Due to its proximity to the NAPL areas, this contaminated material was considered to be from the same source and, therefore, final NAPL area disposal volumes include this material. The pipe liquid, which included the petroleum-impacted sludge/water and the wash water, was transferred to on-site Baker tanks pending on-site treatment and discharge. Visual and olfactory inspection of the soil/fill material excavated from the test pits used for the pipeline delineation and cleaning did not indicate obvious contamination. Therefore, the NYSDEC approved the use of this material to backfill the test pits.

The NAPL Area pipeline extended eastward beyond the Phase 1 project boundary onto the Phase 2 project site (see Figure 2). Due to the initiation of Phase 2 Union Ship Canal Redevelopment construction, it was not possible to complete the pipe cleaning to its eastern limit. Cleaning of the pipe was halted by the ECIDA on August 5, 2004 at approximately 300 feet east of NAPL Area No. 2 and the pipe end was plugged with sandbags. ECIDA and the NYSDEC agreed that completion of the pipe cleaning to the east would be postponed until a later, unspecified date. Pursuant to a request from ECIDA and NYSDEC, a water sample was collected at the location where cleaning was halted for laboratory analysis (see Appendix H). The test pit located approximately 300 feet east of NAPL Area No. 2 was backfilled using existing material by the Phase 2 Contractor per the ECIDA's request and marked for future reference.

2.4 Previously Undelineated Petroleum-Impacted Soil/Fill Material

During excavation for the construction and installation of utilities, previously undelineated petroleum-impacted soil/fill material was encountered in the areas described below. All material was managed in accordance with the SMP.

2.4.1 Sanitary Sewer Manhole No. 8 (MH-8)

While approaching sanitary sewer manhole No. 8 (MH-8) from the west during excavation of the sanitary sewer, unanticipated petroleum-impacted soil was encountered on November 18, 2003 to an approximate depth of 16 feet below grade from roadway station C7+60 to C8+10 (see Figure 2). Based on visual and olfactory inspection results, URS directed Destro to temporarily stage this material on site. The material was underlain and covered by polyethylene sheeting. It was obvious, due to the extent of contamination, that this material could not be reused on site; therefore, characterization sampling for Site reuse was deemed unnecessary. Nature's Way collected soil samples for laboratory analysis for predisposal characterization laboratory analytical results are included in Appendix I.

In total, approximately 124 tons of MH-8 soil were excavated and disposed of off site at the Waste Management disposal facility in Chaffee, New York.

2.4.2 Sanitary Sewer Manhole No. 11 (MH-11)

On December 1, 2003, during excavation for the sanitary sewer in the vicinity of manhole No. 11 (MH-11) previously undelineated petroleum-impacted soil was encountered to an approximate depth of 12 to 14 feet below grade from roadway station B13+40 to B11+35 (see Figure 2). Based on visual and olfactory inspection, URS initially directed Destro to temporarily stage this material on site in separate piles pending characterization for possible on-site reuse, the material was underlain and covered by polyethylene sheeting. Like the MH-8 material, it was obvious (due to the extent of contamination) that this material would not be able to be reused on site and, therefore, characterization sampling for Site reuse was unnecessary. Once it became apparent that there was a significant volume of material that had to be staged, Destro was directed to construct a large polyethylene-lined bermed area where all MH-11 petroleum-impacted soil could be staged in one pile. Nature's Way collected soil samples for laboratory analysis for predisposal characterization (see Appendix J).

In total, approximately 1,728 tons of MH-11 soil were excavated and disposed of off site at the Waste Management disposal facility in Chaffee, New York. Approximately 154 tons of MH-11 soil were excavated and disposed of off site at the Ensol disposal facility in Tonawanda, New York.

2.4.3 <u>"Duct Bank"</u>

Also on December 1, 2003, during excavation for the sanitary sewer in the vicinity of MH-11, an east/west oriented subsurface structure was encountered and unintentionally broken open during operations. Referred to as the "duct bank" (see Figure 2), this structure was located approximately 3 to 4 feet below grade. Constructed of a concrete floor and sides with steel plates across its top, this structure measured approximately 4 feet wide by 6 feet deep and resembled a utility duct tunnel. An unknown, but significant, volume of water with a heavy petroleum sheen was contained within the duct bank, which spilled into the sanitary sewer excavation when the duct bank was broken open. This water was managed in the same manner as all water encountered during excavation and pumped into on-site Baker tanks pending treatment and/or discharge. Sludge-type material was also present within the structure. Upon notification, the NYSDEC requested that the lateral extent of the duct bank be determined, that any petroleumimpacted contents, both liquid and solid, be disposed of or treated as appropriate, and that the duct bank be thoroughly cleaned and then backfilled with clean fill. Other remnants of the duct bank were discovered in a small, naturally-formed "sink hole" approximately 600 feet to the west where it appeared that the duct bank's roof had collapsed. The duct bank was also unearthed as far east as NAPL Area No. 2 (approximately 500 feet away) when NAPL Area No. 2 was being expanded to the south. Visual inspection indicated that the duct bank extended further west and east beyond these remnants noted above. Further inspection using test pits revealed that earthen barriers had formed in some locations to the west and east of MH-11 during the collapse of the duct bank's roof. These barriers had effectively restricted the petroleum-impacted area to a stretch of duct bank measuring from approximately 100 feet to the west of MH-11 to approximately 120 feet to the east.

Cleaning and backfilling of the impacted sections of the duct bank was completed on March 10-17 and 25, 2004. The water within the duct bank was managed pursuant to the procedures established for all other water encountered during Site operations. Some soil/fill material initially excavated from the top of the duct bank was considered to be reusable on site and was added to the berms, but the majority of material, based on visual and olfactory inspection, was temporarily staged on site pending off-site transportation and disposal at a licensed facility. Similar to the MH-11 "hot spot", it was obvious, due to the extent of contamination, that this material would not be able to be reused on site; therefore, characterization sampling for Site reuse was unnecessary. Due to its proximity to the MH-11 "hot spot", the duct bank contamination was considered to be from the same source and this material was staged with the MH-11 soil within the polyethylene-lined bermed area. Predisposal sampling characterization for the duct bank material was conducted along with the MH-11 characterization. The total volume disposed of from MH-11 includes the duct bank material.

The eastern section of the duct bank, from MH-11 eastward approximately 120 feet, was the more contaminated section. Once this section was dewatered and the solids were removed, Nature's Way proceeded to pressure wash the walls and floor. During this process, a petroleum sheen and product was observed infiltrating through some cracks in the duct bank's south wall. The NYSDEC requested additional excavation along the south side of the south wall (i.e., outside the duct bank) to determine the source of the sheen and product. Petroleum-impacted soil was encountered during this excavation work and subsequently removed and staged in the polyethylene-lined bermed area pending off-site transportation and disposal. Confirmatory soil samples were collected from this excavation by Nature's Way, per NYSDEC request, and submitted for laboratory analysis (see Appendix K).

2.5 <u>Metals-Impacted Soil/Fill Material</u>

2.5.1 <u>Barium "Hot Spot"</u>

As discussed previously, the investigations had identified a localized area in the vicinity of TB-8 (survey station C7+37) with concentrations of barium in excess of Site SSALs (see Figure 2). Therefore, it was necessary to excavate this "hot spot" and dispose of the material off site at a licensed facility.

On November 17, 2003, Destro excavated the barium "hot spot". Measuring approximately 10 feet by 10 feet by 16 feet deep, this material was staged temporarily on site in one pile underlain and covered by polyethylene sheeting.

Nature's Way collected predisposal characterization samples for laboratory analysis. The disposal facility's approval and predisposal characterization laboratory analytical results are included in Appendix L.

In total, approximately 84 tons of barium-impacted soil were excavated and disposed of off site at the Waste Management disposal facility in Chaffee, New York.

2.5.2 Cyanide "Hot Spot"

Additionally, the investigations had identified a localized area in the vicinity of TB-10 (survey station B14+30) with concentrations of cyanide in excess of Site SSALs (see Figure 2). Therefore, it was necessary to excavate this "hot spot" and dispose of the material off site at a licensed facility.

On March 30, 2004, Destro excavated the cyanide "hot spot". Measuring approximately 10 feet by 10 feet by 13 feet deep, this material was staged temporarily on site in one pile underlain and covered by polyethylene sheeting.

Nature's Way collected predisposal characterization samples for laboratory analysis. Disposal facility approvals and predisposal characterization laboratory analytical results are included in Appendix M.

In total, approximately 107 tons of cyanide-impacted soil were excavated with approximately 20 tons being disposed off site at the Waste Management disposal facility in Chaffee, New York and, approximately 87 tons being disposed off site at the Ensol disposal facility in Tonawanda, New York.

2.6 Underground Storage Tanks

2.6.1 <u>Underground Storage Tank No. 1</u>

On March 24, 2004, during excavation of the ROW for "B" Road, a previously unknown underground storage tank (UST) was uncovered. URS subsequently notified Mr. David Locey of the NYSDEC. Located at survey station B11+60 (see Figure 2), the tank measured 48 inches in diameter by 120 inches long, which equates to a volume of approximately 1,000 gallons. An unknown liquid was in the tank and there was significant petroleum odor. Tank liquid was collected with a clear bailer, which appeared to be predominantly water with a heavy petroleum sheen or minimal product layer (~0.25-inches thick). A small diameter (~0.5-inch) leak evident along the bottom of one end was plugged. Nature's Way utilized their vacuum truck to remove the contents of the tank, which were transferred to an on-site Baker tank for future treatment. The tank was excavated and moved to the polyethylene-lined bermed area pending transportation and off-site disposal.

Once the tank was moved to the bermed area, Destro excavated petroleum-impacted soil at this location, presumably caused by the leaking UST. An area measuring approximately 10 feet by 18 feet by 5 feet deep was excavated and staged separately within the bermed area. Nature's Way continued to use the vacuum truck to transfer petroleum-impacted water from the excavation to an on-site Baker tank. At the NYSDEC's request, excavation confirmation soil samples and predisposal characterization soil samples were collected for laboratory analysis. The disposal facility's approval and the laboratory analytical results are included in Appendix N.

In total, approximately 34 tons of soil were excavated and disposed of off site at the Waste Management disposal facility in Chaffee, New York.

2.6.2 <u>Underground Storage Tank No. 2</u>

On June 10, 2004, during excavation of the utility corridor along the west side of "B" Road, an unknown UST was uncovered. Located at survey station B12+30 (see Figure 2), the

tank measured 48 inches in diameter by 72 inches long, which equates to a volume between 500 and 1,000 gallons. Approximately 30 gallons of unknown liquid was in the tank. One end of the UST had been damaged when it was uncovered, but no spillage was evident. This end of the tank was propped up to prevent any fluid leakage. Destro notified Nature's Way, who was not present on site, and URS attempted unsuccessfully to contact Mr. David Locey of the NYSDEC. The UST was then secured for the night.

On June 11, 2004, Nature's Way pumped the liquid contents of the UST to a 55-gallon drum. After checking the UST with a lower explosive limit (LEL) meter for explosivity, one end of the tank was cut open for easier access. Tank sludge was removed and placed in a second 55-gallon drum, and the tank's interior was wiped down. The drums were sealed and staged on site with the UST within the polyethylene-lined bermed area pending transportation and disposal off site. Since no contamination was evident in the soil encircling the UST, no confirmatory soil samples were requested by the NYSDEC.

On September 30, 2004, the two 55-gallon drums were transported off site by Nature's Way and delivered on October 1, 2004 to Industrial Oil Tank Services, Inc. in Oriskany, New York for processing/disposal (see Appendix O).

2.7 Other Soil Management Issues

2.7.1 South Buffalo Railway Berm

Beginning September 16, 2003, during excavation of the general ROW for "D" Road, it became necessary to excavate through the railroad berm of the former South Buffalo Railway, which is located within the City of Lackawanna (see Figure 1). This soil/fill material was not suspected of being contaminated but, because it originated from the City of Lackawanna area of the Site, laboratory analysis was conducted before it was reused in the berms, which were to be located on City of Buffalo property (see Appendix P). The results confirmed that this material could be reused on site as either non-utility trench subgrade fill or in the berms. Destro reused this material as part of the above grade berm located along the southern boundary of the Site.

2.7.2 Diesel Spill

On November 6, 2003, Destro was conducting normal sanitary sewer excavation and construction operations along "C" Road. The trench was being dewatered directly to the ground to the north of "C" Road because the water's pH was within acceptable limits in this area. Excavated soil/fill material was being transported by Destro's trucks to the above grade berm to the east of "D" Road, along the southern property boundary. The trucks' route along a dirt road was in close proximity to the water discharge area. Later in the day, URS field personnel noticed a heavy sheen on the pooled discharge water. Further inspection revealed that one of Destro's truck's fuel tanks had been punctured during transit between the excavation area and the berm, resulting in a release of diesel fuel.

URS instructed Destro to contact the NYSDEC and report the spill. This spill was assigned NYSDEC spill number 0375387. Nature's Way applied absorbent pads on the pooled water to control some of the sheen. The following day, Ms. Francine Gallego of the NYSDEC arrived on site to investigate the diesel spill. She instructed Destro to excavate the top few inches of dirt road in specific areas, determined by her, where petroleum sheen or product was present. This material was then staged on site and underlain and covered by polyethylene sheeting pending sampling, off-site transport, and disposal.

In total, approximately 20 tons of diesel-impacted soil were transported off site and disposed of at the Waste Management disposal facility in Chaffee, New York, but this volume is not included with the final Phase 1 totals. Costs associated with the handling, sampling, and disposal of this material were the responsibility of Destro only.

As indicated on the NSYDEC website, spill number 0375387 was closed by the NYSDEC on July 29, 2004.

2.7.3 Sanitary Sewer Manhole No. 8 (MH-8) Test Pit

On July 9, 2004, at the NYSDEC's request, Nature's Way excavated two test pits (see Figure 2) in the immediate vicinity of sanitary sewer manhole No. 8 (MH-8). The purpose of these test pits was to determine if the contamination encountered and excavated in November 2003 (see Section 2.4.1) had been effectively removed. Located northeast and southeast of MH-8, each test pit measured approximately 4 feet by 15 feet by 15-16 feet deep. Soil samples were collected from each pit in Ziploc bags and allowed to warm in the sun. PID measurements of each bag's headspace for VOCs indicated no contamination.

At the NYSDEC's request, soil samples were collected for laboratory analysis (see Appendix Q) as confirmation of the visual and olfactory evidence. The test pits were subsequently backfilled with the excavated material pursuant to NYSDEC approval.

2.8 Backfill

Virgin clean fill material was delivered on site from recognized commercial suppliers to backfill all excavations to final grade. No additional testing was necessary for this material, but a certificate authenticating the fill was virgin material was required from each supplier (see Appendix R).

2.9 Groundwater Management

According to Section III, page C-3 of the SMP, "(s)should it be necessary to dewater the excavations, the water can be discharged onto the ground unless staining or elevated PID readings are observed in the excavation, a sheen is present on the water surface or if the pH is less than 6.5 or greater than 8.5."

Elevated pH and/or sheen on the groundwater surface were prevalent conditions during the course of this project. As a result, a significant volume of groundwater was dewatered, virtually continuously during operations, from on-site excavations into Baker tanks for storage and subsequent processing/treatment. There were very few locations where the groundwater's pH was within the originally established acceptable range for direct discharge onto the ground (e.g., the south end of "D" Road, a short middle section of "C" Road, and the west end of "A" Road).

If elevated pH was the only concern, then Nature's Way would mix muriatic acid with the groundwater stored in the Baker tank to neutralize the pH to within the originally established acceptable range. The groundwater was then discharged directly onto the ground while the effluent was monitored for pH by URS or Nature's Way field personnel. Initially, it was acceptable to discharge this treated groundwater to any on-site area away from the work zone. In an effort to control costs due to the significantly increased, and unanticipated, volume of on-site groundwater needing pH treatment, the ECIDA petitioned the NYSDEC for a more lenient pH limit. When the NYSDEC agreed and raised the acceptable pH limit to 11.0 on March 2, 2004 (see Appendix S), it then became necessary to discharge the groundwater, whether directly from the excavation or from Baker tanks, to specific pre-approved areas. Eventually, all groundwater was discharged to an infiltration trench located south of "C" Road designed and constructed in July 2004 explicitly for this purpose.

If a sheen was present on the groundwater surface during excavation then, regardless of pH, this water was pumped into Baker tanks pending treatment and/or disposal. Following pH neutralization (if necessary), the groundwater would be allowed to settle in the Baker tank so any sheen would concentrate on the water's surface. It was the accepted and approved practice to then decant the lower 90% (approximately) of the Baker tank groundwater volume directly onto the ground in approved on-site areas. The effluent was monitored for pH and sheen; discharge was halted if sheen was observed in the effluent. The remaining Baker tank groundwater volume (approximately 10%) was subsequently treated by two methods during this project: either through disposal directly to the Erie County Sewer District (ECSD) or through carbon filtration prior to on-site discharge.

A limit was established for the total volume of stored groundwater that could be discharged to the ECSD. This water was discharged directly by Nature's Way to an ECSD sewer manhole located east of "D" Road either through pumping/gravity drain directly from the Baker

tanks or via vacuum truck transfer. ECSD's disposal approvals and the predisposal characterization laboratory analytical results for this groundwater are included in Appendix T. When the approved volume of groundwater to be discharged to the ECSD was reached, then two 1,000-pound carbon filter vessels were used to treat this type of groundwater for the remainder of the project. Nature's Way would accumulate a sufficient volume of groundwater with sheen in Baker tanks before utilizing this method. Pilot tests were conducted before each use of the carbon filters where pre- and post-carbon filter water samples were collected and submitted for laboratory analysis (see Appendix U). During actual discharge operations, the effluent was monitored for sheen by URS or Nature's Way field personnel. This water was discharged to the same locations used for the decanted water mentioned previously.

3.0 LABORATORY ANALYTICAL DATA

As required by the SMP and/or requested by the NYSDEC, soil and groundwater samples were collected at various times during the course of this project and submitted for laboratory analysis. The purposes of these soil samples included characterization for possible Site reuse, predisposal characterization, and confirmation of excavation limits. Groundwater samples were collected for predisposal characterization, characterization to determine treatment options, determination of pre- and post-carbon filtration concentrations, and characterization of possible contaminants and their concentrations for future reference.

Nature's Way utilized two laboratories during the course of this project, Paradigm Environmental Services, Inc. of Rochester, New York (NYSDOH ELAP #10958) and PSC Analytical Services, Inc. of Burlington, Ontario, Canada (NYSDOH ELAP #10756). Both laboratories are accredited under the New York State Department of Health Environmental Laboratory Approval Program (NYSDOH ELAP).

3.1 <u>NAPL Areas Excavations/Pipeline</u>

Soil samples were collected for laboratory analysis from the NAPL areas on numerous occasions for a variety of reasons. On November 6, 2003 and again on December 12, 2003,

Nature's Way used a direct-push drill rig to collect representative soil samples from all three NAPL areas for predisposal characterization. Because the volume of material to be disposed of kept increasing during excavation, the disposal facilities required more laboratory analysis. In addition, Nature's Way switched disposal facilities during the NAPL areas' excavation, and the new disposal facility required their own laboratory analysis. As a result, additional predisposal characterization soil samples were collected from the NAPL areas on February 29, 2004, May 18, 2004, May 28, 2004, June 28, 2004, and July 16, 2004. The laboratory analytical results for predisposal characterization are included in Appendix G.

Based on the results from previous investigations, it had been assumed that the top 4 feet of NAPL Area No. 3 was "clean" and able to be reused on site. This material was stripped off during excavation operations and staged separately near the berm pending laboratory analysis. Soil samples were collected on March 3, 2004. However, the laboratory analytical results indicated exceedances of Site SSALs (see Appendix B). The NYSDEC requested additional samples and analysis as confirmation, which were collected on March 25, 2004. The laboratory analysis of these samples confirmed the Site SSAL exceedances. As a result, this stripped bermed material was included with the other NAPL areas' soil for off-site disposal.

Representative soil samples were collected from all three NAPL areas and submitted for laboratory analysis to confirm the excavation limits established by URS and NYSDEC field personnel through visual and olfactory observations. Samples were collected from all sidewalls and the floors of each NAPL area. Because NAPL Areas No. 2 and No. 3 were extended beyond their original presumed limits, additional confirmation samples were necessary. Confirmation soil samples were collected from NAPL Area No. 1 on February 16, 2004 (they were re-sampled on March 3, 2004 due to a laboratory mix-up). NAPL Area No. 2 was sampled on February 18, 2004 (and re-sampled on March 3, 2004 due to a laboratory mix-up) and July 30, 2004. Confirmation soil samples were collected from NAPL Area No. 3 on March 3, 2004, August 5, 2004, and August 9, 2004. The laboratory analytical results for excavation limits' confirmation sampling are included in Appendix F.

Samples were collected on several occasions for laboratory analysis to determine treatment options for containerized NAPL groundwater. On February 18, 23, and 24, 2004,

samples of containerized NAPL groundwater were collected from on-site Baker tanks to determine the feasibility of decanting the majority of this water directly to the ground without carbon filtration. On March 3, 2004, pursuant to a request from the NYSDEC, a groundwater sample was collected directly from NAPL Area No. 3 for the same purpose. The laboratory analytical results are included in Appendix V.

On August 5, 2004, prior to temporarily backfilling the NAPL Area pipeline test pit located approximately 300 feet east of NAPL Area No. 2, the ECIDA and NYSDEC requested a groundwater sample be collected to characterize possible contaminants and their respective concentrations. The laboratory analytical results are included in Appendix H.

3.2 <u>Previously Undelineated Petroleum-Impacted Soil/Fill Material</u>

3.2.1 Sanitary Sewer Manhole No. 8 (MH-8)

As stated previously, due to the extent of petroleum impact to the soil encountered during sanitary sewer excavation in the vicinity of MH-8, it was obvious that this material would not be able to be reused on site and, therefore, characterization sampling for Site reuse was unnecessary.

On December 3, 2003, representative soil samples were collected from the stockpiles excavated from the vicinity of MH-8 and submitted for laboratory analysis for predisposal characterization (see Appendix I).

3.2.2 Sanitary Sewer Manhole No. 11 (MH-11)

As previously stated, it was obvious (due to the extent of contamination encountered during sanitary sewer excavation in the vicinity of MH-11) that this material would not be able to be reused on site; therefore, characterization sampling for Site reuse was unnecessary.

On March 4, 2004, representative soil samples were collected from the stockpiles excavated from the vicinity of MH-11 and submitted for laboratory analysis for predisposal characterization. Additional predisposal characterization soil samples were collected on March 24, 2004 and April 5, 2004. The laboratory analytical results for predisposal characterization are included in Appendix J.

3.2.3 <u>"Duct Bank"</u>

Characterization sampling for Site reuse was also unnecessary for the excavated duct bank material. In addition, predisposal sampling characterization for the duct bank material was included with the MH-11 stockpiled material. However, the NYSDEC requested confirmation soil samples be collected from an additional excavation along the south side of the south wall (i.e., outside the duct bank). These samples were collected for laboratory analysis on March 16, 2004 and the results are included in Appendix K.

3.3 <u>Metals-Impacted Soil/Fill Material</u>

3.3.1 Barium "Hot Spot"

On March 22, 2004, soil samples were collected from the barium-impacted soil stockpile for laboratory analysis for predisposal characterization. The laboratory analytical results are included in Appendix L.

3.3.2 Cyanide "Hot Spot"

On March 31, 2004, soil samples were collected from the cyanide-impacted soil stockpile for laboratory analysis for predisposal characterization. The laboratory analytical results are included in Appendix M.

3.4 <u>Underground Storage Tanks</u>

3.4.1 <u>Underground Storage Tank No. 1</u>

As stated previously, once the UST was removed to the polyethylene-lined bermed area, Destro excavated petroleum-impacted soil from an area measuring approximately 10 feet by 18 feet by 5 feet deep. Pursuant to the NYSDEC's request, confirmation soil samples were collected from the excavation on March 25, 2004 for laboratory analysis. Also on March 25, 2004, soil samples were collected from the stockpiled excavated soil for laboratory analysis for predisposal characterization. The laboratory analytical results for both are included in Appendix N.

3.4.2 <u>Underground Storage Tank No. 2</u>

As stated previously, once the UST was removed to the polyethylene-lined bermed area, no contamination was evident in the soil encircling the tank. As a result, no confirmatory soil samples were requested by the NYSDEC.

3.5 Other Soil Management Issues

3.5.1 South Buffalo Railway Berm

As stated previously, characterization sampling of this stockpiled soil was necessary to determine possible Site reuse. Soil samples were collected for laboratory analysis on October 7, 2003 and the results are included in Appendix P.

3.5.2 Sanitary Sewer Manhole No. 8 (MH-8) Test Pit

During test pit excavation on July 9, 2004, the NYSDEC requested the collection of soil samples to confirm the visual and olfactory evidence indicating no contamination prior to backfilling. The laboratory analytical results are included in Appendix Q.

3.6 <u>Miscellaneous Groundwater</u>

At various times during the course of this project, it was necessary to treat groundwater stored in on-site Baker tanks which was impacted by a petroleum sheen. Two methods were used for this purpose: direct disposal to the ECSD and carbon filtration.

Predisposal characterization groundwater samples were collected on December 3, 2003 from on-site Baker tanks and submitted for laboratory analysis prior to discharge to the ECSD (see Appendix R).

Prior to utilizing carbon filtration, Nature's Way was required to collect groundwater samples from the influent and effluent of the carbon filters to verify that the effluent concentrations were within acceptable limits. Pre- and post-carbon filter groundwater samples were collected on November 10, 25, and 26, 2003, December 30, 2003, and February 26, 2004. The laboratory analytical results are included in Appendix U.

On several occasions, NAPL areas groundwater was collected for laboratory analysis to determine if it was feasible to decant it directly to the ground without prior treatment. These groundwater samples were collected on February 18, 23, and 24, 2004, and March 3, 2004. The laboratory analytical results are included in Appendix V.

4.0 **REFERENCES**

URS Corporation, 2003. Erie County Industrial Development Agency Buffalo's Union Ship Canal Phase 1 Soils Management Plan, Volume 3 of 3. May. **TABLES**

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TABLE 1

BUFFALO'S UNION SHIP CANAL REDEVELOPMENT – PHASE 1 SITE SPECIFIC ACTION LEVELS

·····	Highest Valu	le At Parcel 2	Soil Cleanup	Eastern U.S. Background	Site Specific Action Levels	
Parameter	Surface Soil	Subsurf Soil	Guidelines	Range	Levels	
Total VOCs (ppm)			-			
Total VOCs	0.278 (3)	0.777 (5)	NA		10	
SVOC (ppm)						
Total SVOCs	2,772	63.92	500		500	
Pesticides/PCBs (ppm)						
Total Pesticides	No Data	No Data			10	
Total PCBs (surface to 1 ft) Total PCBs (greater than 1 ft)	0.443	0.031	1 _10		1 10	
Metals (ppm)						
Aluminum	33500	66500	SB	33000		
Antimony	51.5	48.2	SB	NA		
Arsenic	29.3	59.8	7.5 or SB		50	
Barium	381	722	300 or SB		500	
Beryllium	6.7	12.5	0.16 or SB	0-1.75		
Cadmium	10.8	7.5	(10)		20	
Calcium	205000	266000	SB	130-35000		
Chromium	416	88.8	(50)		200	
Cobalt	10.2	9.9	30 or SB	2.5-60		
Copper	4310	1530	25 or SB	1-50		
Iron	163000	189000	2000 or SB	2000-550000		
Lead	1480	1890	(1000)		1000	
Magnesium	44100	37500	SB	100-5000		
Manganese	6670	4560	SB	50-5000		
Mercury	4.4	0.54	0.1		1	
Nickel	56.6	21.5	13 or SB	0.5-25		
Potassium	3380	5280	SB	8500-43000		
Selenium	12.4	41.9	2 or SB		50	
Silver	5.3	2.7	SB		1000	
Sodium	1300	1400	SB	6000-8000		
Fhallium	10.9	12.2	SB	NA		
/anadium	67.5	98.5	150 or SB	1-300		
Zinc	1460	982	20 or SB	9-50		
Syanide	1.5	32.3	NA	NA	50	

NOTES:

Bold - Site-specific action levies (SSALs)

NC - No Criteria Established

NA - Not Available

NO - Naturally occurring compound.

SB - Site Background

Soil cleanup guidelines and Eastern U.S. background ranges were obtained from NYSDEC TAGM #4046 (1/24/94). Value in parentheses are NYSDEC revised values for non-residential sites but have not yet been incorporated into TAGM #4046.

TABLE 2 BUFFALO'S UNION SHIP CANAL REDEVELOPMENT - PHASE1 SUMMARY OF SURFACE SOIL ANALYTICAL RESULTS

Location ID				MPI (1999)			MPI (2000) Debris Piles			
	Sample ID				Comp	Comp	Grab	Grab	Grab	Grab	
	SB-4	SB-5	SB-11	<u>SB-35</u>	<u>SS-11</u>	<u>SS-14</u>	SS-15	SS-18			
Matrix	(4)		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	
Depth Interval	. ,		-	-	-	- 1/28/99	2/23/00	2/24/00	-	-	
Date Sample			1/25/99	1/25/99	1/28/99	1/28/99	2/23/00	2/24/00	2/24/00	2/24/00	
	Units	SSAL									
Total VOCs	ppm	10	NA	NA	NA	NA	0.021	0.002	0.005	0.005	
Total SVOCs	ppm	500	5.186	6.820	1.788	12.810	1.133	6.230	17.156	5.392	
Total Pesticides		10	NA	NA	NA	NA	-	0.005	0.011		
Total PCBs (surface to 1ft)		1	NA	NA	NA	NA	-		-		
Total PCBs (>1ft)		10	NA	NA	NA	NA	-	-	-	-	
Metals											
Aluminum	ppm		30,400	22,700	21,300	24,000	4,010	7,670	7,300	6,600	
Antimony	ppm		-	-	7.65	9.02	-	-	-	-	
Arsenic	ppm	50	-	-	-	-	6.3	-	3.7	3.0	
Barium	ppm	500	350	247	222	204	40.2	71.3	80.3	87.8	
Beryllium	ppm		7.45	5.21	5.29	4.12	-	-	0.73	0.92	
Cadmium	ppm	20		6.7	-	0.707	-	1.4	1.9	1.5	
Calcium	ppm		163,000	118,000	154,000	125,000	52,900	65,100	62,100	52,100	
Chromium	ppm	200	12.2	127	24.5	20.7	8.2	13.2	13.3	17.6	
Cobalt	ppm		1.89	5.55	5.88	5.15	-	6.7	4.5	5.2	
Copper	ppm		27.7	40.9	49.7	51.2	11.0	14.7	39.0	49.1	
Iron	ppm		13,700	79,300	80,800	77,000	7,910	14,300	13,700	13,300	
Lead	ppm	1000	33.9	185	1,120	177	15.2	22.4	188	117	
Magnesium	ppm		38,200	23,500	20,900	12,500	17,700	19,200	9,470	11,500	
Manganese	ppm		2,320	3,530	2,670	2,690	230	422	510	610	
Mercury	ppm	1	-	-	-	-	-	0.12	0.30	0.48	
Nickel	ppm		14.2	34.1	24.8	25	7.7	15.6	13.5	18.1	
Potassium	ppm		2,010	1,570	1,560	1,490	1,100	1,870	1,470	1,270	
Selenium	ppm	50	-	-	-	-	33.1	33.2	21.4	24.0	
Silver	ppm	1000	1,170	1,020	662	531		-	-	-	
Sodium	ppm		6.26	30.1	14.8	19.6	-	230	-	-	
Thallium	ppm		-	-	-	-	-	-	2.7	-	
Vanadium	ppm		75.8	322	331	393	16.4	15.9	13.4	13.3	
Zinc	ppm		76	320	330	390	63.8	66.5	192	108	
Cyanide	ppm	50	2.17	11.4	21.2	10.1	-	-	-	-	

TABLE 2 BUFFALO'S UNION SHIP CANAL REDEVELOPMENT - PHASE1 SUMMARY OF SURFACE SOIL ANALYTICAL RESULTS

Location ID		OB&G Samples						
Sample ID			SB-02	SB-05	SB-08	SB-09	SB-10	SB-11
Matrix			Soil	Soil	Soil	Soil	Soil	Soil
Depth Interval	(ft)		0-0.5'	0-0.5'	0-0.5'	0-0.5	0-0.5'	0-0.5
Date Sample	d		8/10/01	8/9/01	8/2/01	7/31/01	7/31/01	7/31/01
Parameter	Units	SSAL						
Total VOCs	ppm	10	NA	NA	NA	0.278	NA	NA
Total SVOCs	ppm	500	11.056	0.9	1.778	42.29	26.74	2.4
Total Pesticides		10	NA	NA	NA	NA	NA	NA
Total PCBs (surface to 1ft)		1	NA	NA	NA	NA	NA	NA
Total PCBs (>1ft)		10	NA	NA	NA	NA	NA	NA
Metals								
Aluminum	ppm		8,260	2,010	3,320	31,600	12,000	2,030
Antimony	ppm		1.11	10.6	12.5	6.2	30.2	10.8
Arsenic	ppm	50	9.0	1.8	1.3	18.3	14.7	1.8
Barium	ppm	500	87.9	26.1	28.9	284	145	20.9
Beryllium	ppm		1.1	0.077	0.20	6.7	1.9	0.16
Cadmium	ppm	20	0.46	0.14	0.35	2.1	6.6	0.38
Calcium	ppm		47,600	1,130	5,330	185,000	47,900	7,110
Chromium	ppm	200	20.8	6.8	10.6	18.2	27.1	9.5
Cobalt	ppm		2.4	0.52	1.9	4.2	6.9	1.1
Copper	ppm		64.5	5.1	23.1	96.6	150	16.4
Iron	ppm		28,800	1,800	12,000	28,700	94,600	10,500
Lead	ppm	1000	190	21.8	41.5	169	408	49.4
Magnesium	ppm		9,230	647	2,410	30,200	5,630	906
Manganese	ppm		1,180	33.5	189	2530	3860	148
Mercury	ppm	1	0.29	0.099	0.070	0.47	3.1	0.072
Nickel	ppm		13.1	2.1	8.6	8.2	19.0	2.2
Potassium	ppm		2,320	1,700	1,180	2,110	1,910	333
Selenium	ppm	50	1.1	0.89	1.0	2.4	0.98	0.90
Silver	ppm	1000	2.1	1.8	2.1	2.1	2.0	1.8
Sodium	ppm		543	134	161	914	432	359
Thallium	ppm		2.1	1.8	1.6	2.1	1.5	1.5
Vanadium	ppm		17.4	3.3	1.1	10.6	9.8	0.30
Zinc	ppm		304	96.8	88.0	196	1340	67.3
Cyanide	ppm	50	-		-		-	-

TABLE 3 BUFFALO'S UNION SHIP CANAL REDEVELOPMENT - PHASE1 SUMMARY OF SUBSURFACE SOIL ANALYTICAL RESULTS

Location ID		MPI					OB&G			
Sample ID	Comp SB-4	Comp SB-5	Comp SB-11	Comp SB-35	SB-02	SB-05	SB-08	SB-09		
Matrix			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth Interval		-	-	-	-	6-8'	4-6'	4-6'	6-8'	
Date Sample	d		1/25/99	1/25/99	1/28/99	1/28/99	10/10/01	8/9/01	8/2/01	7/31/01
Parameter	Units	SSAL								
Total VOCs	ppm	10	NA	NA	NA	NA	NA	NA	NA	0.084
Total SVOCs	ppm	500	1.639	0.199	-	-	NA	NA	1.936	1.59
Total Pesticides		10	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (surface to 1ft)		1	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (>1ft)		10	NA	NA	NA	NA	NA	NA	NA	NA
Metals										
Aluminum	ppm		28,800	27,600	43,200	43,100	13,500	5,120	10,200	38,200
Antimony	ppm		-	-	10.3	-	23.0	0.96	24.7	20.2
Arsenic	ppm	50	-	-	-	-	11.0	3.8	7.5	15.4
Barium	ppm	500	289	274	389	264	97.3	64.1	133	348
Beryllium	ppm		4.91	4.63	7.6	6.17	2.5	0.75	1.1	7.4
Cadmium	ppm	20	-	-	-	-	1.9	0.53	3.2	0.56
Calcium	ppm		154,000	156,000	255,000	193,000	83,700	22,700	53,100	220,000
Chromium	ppm	200	4.36	14.4	20.2	4.7	11.1	8.0	32.2	10.2
Cobalt	ppm		3.08	3.34	4.93	4.56	5.1	0.80	9.0	3.0
Copper	ppm		10.7	26.5	13.8	8.49	26.2	31.2	73.4	8.4
Iron	ppm		20,600	32,800	25,400	29,900	16,500	9,580	80,500	11,600
Lead	ppm	1000	9.78	62.7	24.4	15.3	25.1	102	200	12.8
Magnesium	ppm		12,600	13,400	26,800	14,000	7,620	3,690	12,000	15,900
Manganese	ppm		2,030	2,440	5,150	2,480	670	428	2,350	3,600
Mercury	ppm	1	1	-	-	-	0.083	0.19	0.072	0.19
Nickel	ppm		8.71	17.8	23.8	13.7	12.9	4.5	15.1	13.4
Potassium	ppm		1,140	1,830	2,970	1,420	1,390	1,260	1,340	3,090
Selenium	ppm	50	-	-	-	-	41.9	1.1	1.0	3.0
Silver	ppm	1000	-		-	-	3.8	2.2	1.1	2.3
Sodium	ppm		521	562	746	443	206	196	376	897
Thallium	ppm		-	-	-	-	3.8	2.2	3.8	3.4
Vanadium	ppm		11.2	17	24.8	19.3	18.1	8.7	10.5	6.4
Zinc	ppm		40.2	182	37	475	87.5	559	415	33.6
Cyanide	ppm	50	17.4	20.1	32.7	20.9	7.7	7.8	14.0	1.5

TABLE 3 BUFFALO'S UNION SHIP CANAL REDEVELOPMENT - PHASE1 SUMMARY OF SUBSURFACE SOIL ANALYTICAL RESULTS

Location ID	OB	&G			U	RS		· · · · · · · · · · · · · · · · · · · 		
Sample ID	SB-10	SB-11	TB-5	TB-6	TB-7	TB-8	ТВ-9	TB-10		
Matrix		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	
Depth Interval	(ft)		0.5-2'	4-6'	2-4'	2-4'	8-10'	6-8'	4-6'	6-8'
Date Sample			7/31/01	7/31/01	2/20/03	2/21/03	2/24/03	2/24/03	2/25/03	2/25/03
Parameter	Units	SSAL							•	
Total VOCs	ppm	10	NA	NA	-	0.002	0.006	0.006	-	-
Total SVOCs	ppm	500	5.546	NA	2.236	2.500	0.110	0.110	-	-
Total Pesticides		10	NA	NA	-	-	-	-	-	-
Total PCBs (surface to 1ft)		1	NA	NA	-	-	-	-	-	-
Total PCBs (>1ft)		10	NA	NA	-	-	-	-	-	-
Metals							<u></u>			
Aluminum	ppm		10,300	13,400	5,690	27,400	34,700	43,000	24,000	45,500
Antimony	ppm		40.4	16.1	0.62	0.62	0.86	0.68	0.89	1.1
Arsenic	ppm	50	10.3	6.6	0.55	0.54	0.76	0.59	0.79	0.94
Barium	ppm	500	200	77.6	64.3	207	291	652	233	467
Beryllium	ppm		1.7	2.2	0.60	4.1	6.3	7.5	3.9	7.2
Cadmium	ppm	20	4.5	0.40	0.050	0.049	0.069	0.054	0.071	0.085
Calcium	ppm		36,900	55,600	8,980	119,000	229,000	259,000	172,000	309,000
Chromium	ppm	200	24.2	6.3	12.0	21.7	5.1	11.7	2.7	6.3
Cobalt	ppm		7.4	2.9	5.2	5.3	2.3	3.0	1.4	2.7
Copper	ppm		88.7	8.7	9.7	18.9	0.48	0.38	0.50	0.60
Iron	ppm		129,000	21,800	24,600	102,000	2,230	8,310	2,300	3,310
Lead	ppm	1000	146	10.5	0.32	9.4	0.45	0.35	0.46	0.55
Magnesium	ppm		3,320	6,060	636	7,960	13,500	19,900	9,360	16,100
Manganese	ppm		2,900	809	222	2,790	2,390	4,370	1,250	3,230
Mercury	ppm	1	0.44	0.13	0.08	0.18	0.11	0.09	0.12	0.14
Nickel	ppm		10.0	10.7	0.25	0.25	0.34	0.27	0.36	0.43
Potassium	ppm		1,160	1,080	412	2,440	1,860	3,510	1,170	2,260
Selenium	ppm	50	0.97	1.3	0.62	0.62	0.86	0.68	0.89	1.1
Silver	ppm	1000	1.9	2.7	0.45	0.44	5.4	4.5	3.1	5.7
Sodium	ppm		273	203	437	570	972	585	507	1,880
Thallium	ppm		9.0	2.7	0.80	0.79	1.1	0.86	1.1	1.4
Vanadium	ppm		9.7	13.4	19.1	28.3	8.4	26.1	6.1	9.4
Zinc	ppm		982	90.1	25.9	300	0.17	0.14	0.18	0.21
Cyanide	ppm	50	0.90	0.96	0.20	2.72	0.95	1.27	11.6	<u>ੇ</u> 101

TABLE 4 BUFFALO'S UNION SHIP CANAL REDEVELOPMENT - PHASE1 SB-8 SUPPLEMENTAL SAMPLING SUMMARY OF BARIUM RESULTS

Locati	on ID					SE	3-8			
Samp	ole ID		30N	10N	20SE	40SE	30W	10W	10E	30E
Mat	trix		Soil							
Depth Int	terval (ft)		0-4'	0-4'	0-4'	0-4'	0-16'	0-16'	0-16'	0-16'
Date Sa	ampled		8/14/03	8/14/03	8/14/03	8/14/03	8/14/03	8/14/03	8/14/03	8/14/03
Parameter	Units	SSAL								
Metals										
Barium	ppm	500	102	63.6	175	233	252	317	174	217

NA : NOT ANALYZED - : NOT DETECTED

TABLE 4 BUFFALO'S UNION SHIP CANAL REDEVELOPMENT - PHASE1 SB-8 SUPPLEMENTAL SAMPLING SUMMARY OF BARIUM RESULTS

Locati	on ID					SE	3-8			
Samp			40SW	30S	20SW	10S	20NE	40NE	40NW	20NW
Mat			Soil							
Depth Int	erval (ft)		0-10'	0-4'	0-4'	0-4'	0-4'	0-4'	0-4'	
Date Sa			8/14/03	8/14/03	8/14/03	8/14/03	8/14/03	8/14/03	8/14/03	8/14/03
Parameter	Units	SSAL								
Metals										
Barium	ppm	500	317	164	186	113	115	158	112	51.9

: Value exceeds SSAL criteria NA : NOT ANALYZED - : NOT DETECTED

TABLE 5 BUFFALO'S UNION SHIP CANAL REDEVELOPMENT - PHASE1 SB-10 SUPPLEMENTAL SAMPLING SUMMARY OF CYANIDE RESULTS

Locati	ion ID					SB	-10			
Samp	ole ID		30N	10N	10S	30S	30W	10W	40NW	20NW
Ma	trix		Soil							
Depth In	terval (ft)		0-4'	0-4'	0-10'	0-6'	0-10'	0-10'	0-12'	0-4'
Date Sa	ampled		8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/13/03	8/13/03
Parameter	Units	SSAL								
Metals										
Cyanide	ppm	50	2.81	0.526	6.74	22.8	6.77	2.62	8.79	1.08

: Value exceeds SSAL criteria NA : NOT ANALYZED - : NOT DETECTED

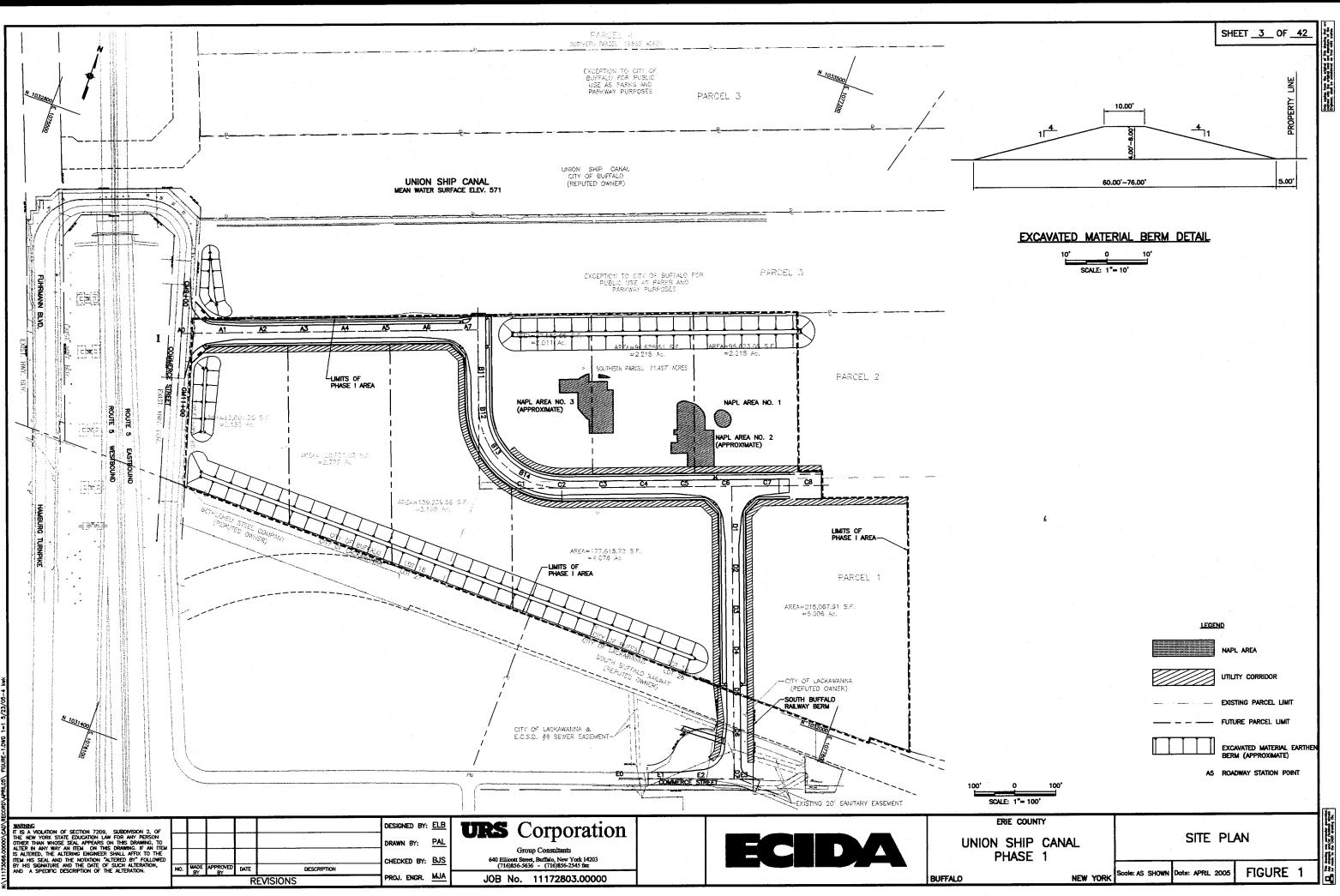
TABLE 5 BUFFALO'S UNION SHIP CANAL REDEVELOPMENT - PHASE1 SB-10 SUPPLEMENTAL SAMPLING SUMMARY OF CYANIDE RESULTS

Locati	ion ID					SB	-10			
Samp	ole ID		20SE	40SE	10E	30E	40SW	20SW	20NE	40NE
Ma	trix		Soil							
Depth Int	terval (ft)		0-4'	0-6'	0-4'	0-4'	0-6'	0-4'	0-4'	0-4'
Date Sa	ampled		8/13/03	8/13/03	8/13/03	8/13/03	8/13/03	8/13/03	8/13/03	8/13/03
Parameter	Units	SSAL								
Metals										
Cyanide	ppm	50	6.60	0.683	0.840	2.90	20.5	14.5	1.01	2.71

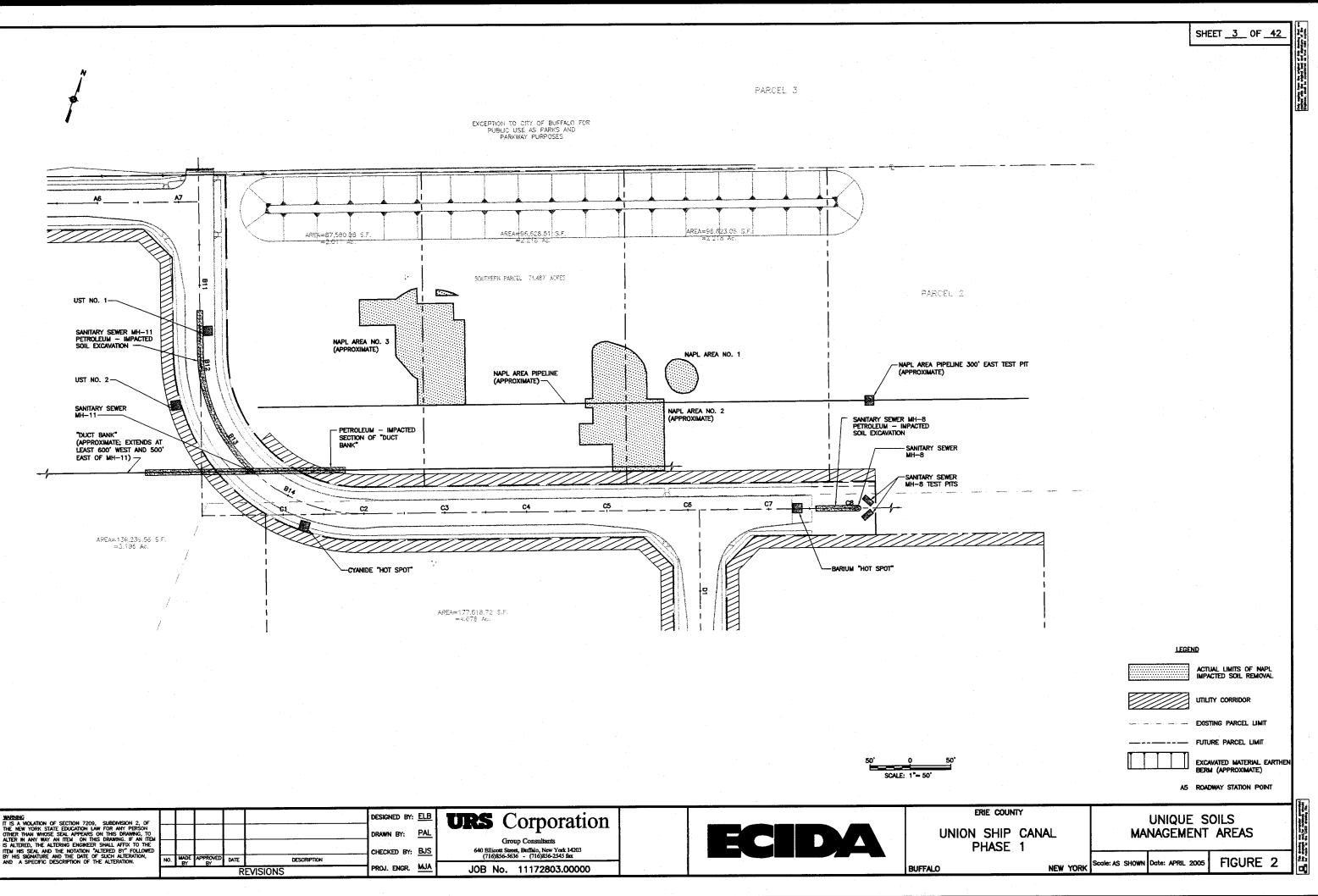
: Value exceeds SSAL criteria NA : NOT ANALYZED - : NOT DETECTED Page 2 of 2

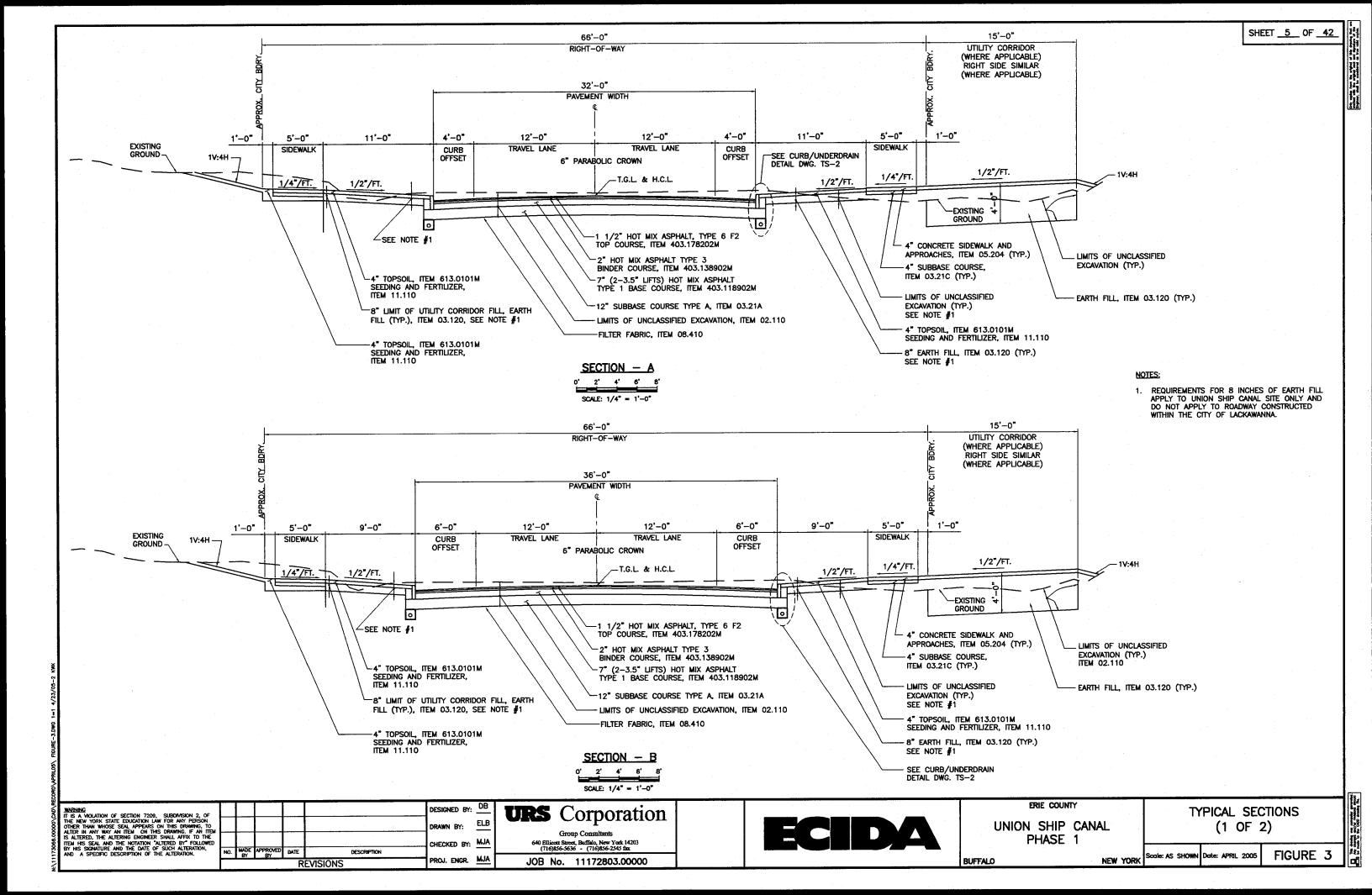
FIGURES

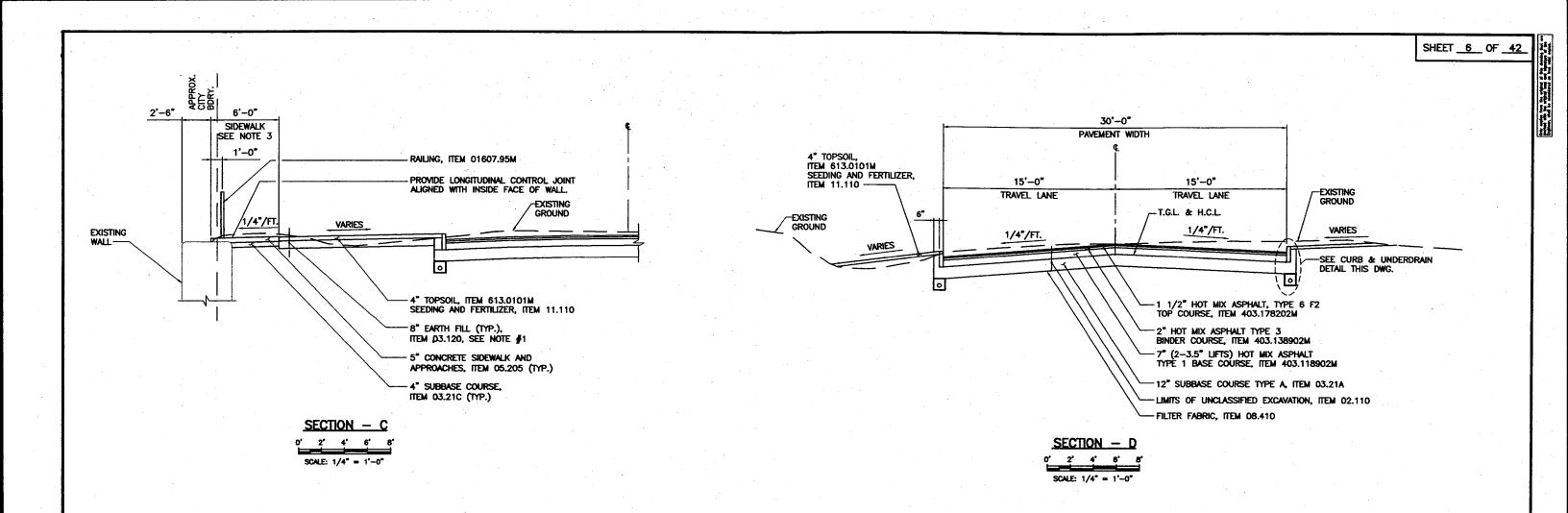
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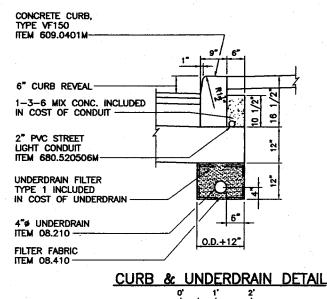


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SCALE: 3/4*=1'-0*

	TABL	LE OF SECT	IONS
BEGIN © STATION	END & STATION	APPLICABLE SECTION	REMARKS
A0+14	A7+24.74	A	SECTION C APPLIES TO LEFT SIDEWALK
B9+60	B9+97	A	
B9+97	B14+97.67	B	
C2+00	C7+53.44	- A	
D0+00	D7+11.68	A	SIDEWALKS ARE NOT APPLICABLE SOUTH OF STA. D 4+85, LEFT AND RIGHT SIDE
E0+70	E2+91	D	
F1+00	F1+60	D	

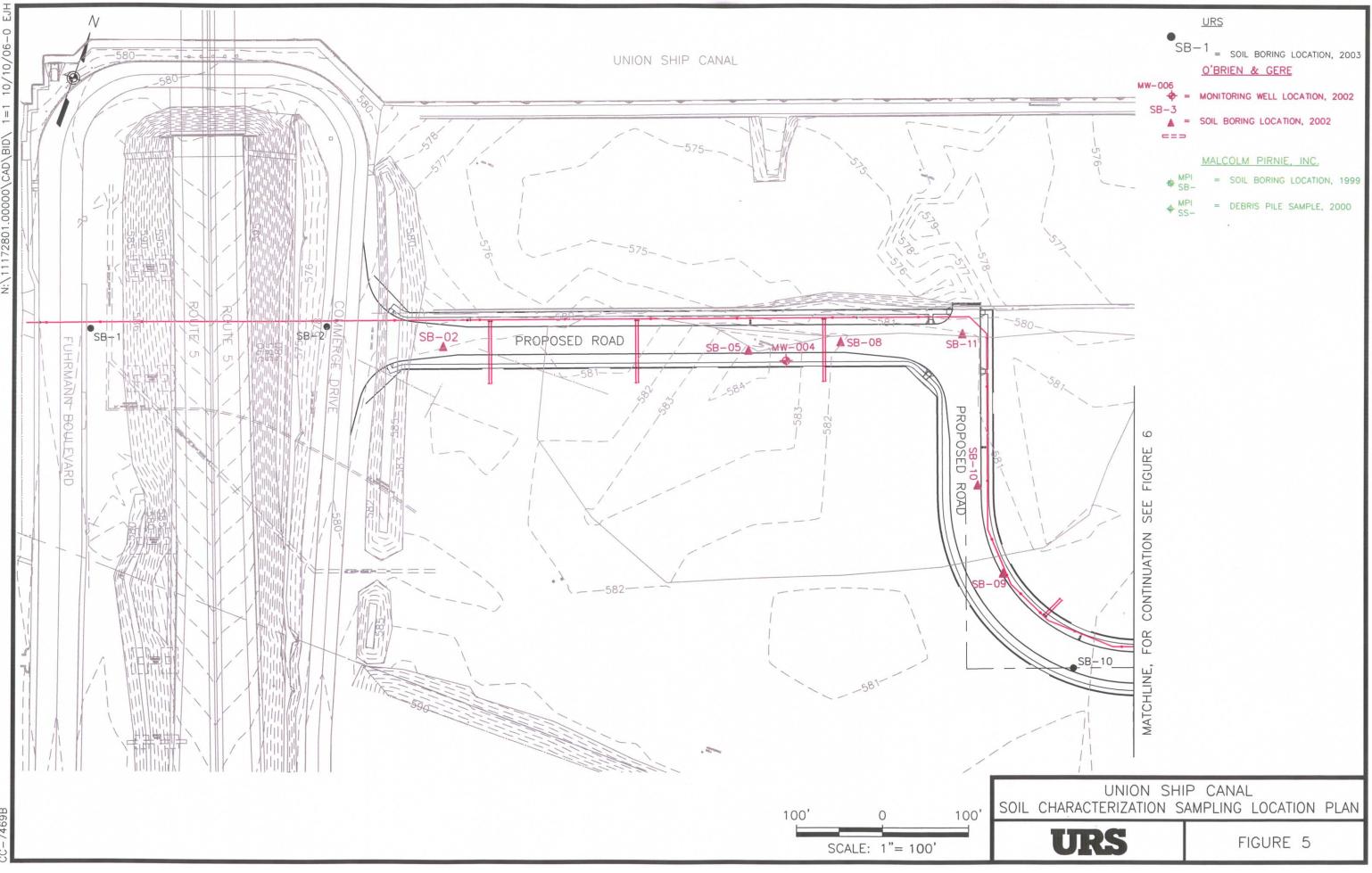
								· · · · ·		· · · · · · · · · · · · · · · · · · ·	
WARNING IT IS A VIOLATION OF SECTION 7209, SUBDAYSION 2, OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON OTHER THAN WHORS SELL APPEARS ON THIS DRWING, TO ALTER IN ANY WAY AN TIEM ON THIS DRWING, IS AN TEU IS ALTERED. THE ALTERING ENGINEER SHALL AFFX TO THE IS ALTERED. THE ALTERING ENGINEER SHALL AFFX TO THE THEM HIS SEAL AND THE NOTATION "ALTERED BY FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.	APPROVED	ATE	DESCRIPTION	DESIGNED BY DRAWN BY: CHECKED BY	ELB	URS Corporation Group Consultants 640 Ellicott Street, Buffalo, New York 14203 (710825-5636 - (710825-2545 fm	ECIDA	UNION	erie county I SHIP CANAL PHASE 1	TYPICAL SEC (2 OF 2	
	1 51 1	REVIS	IONS	PROJ. ENGR.	MJA	JOB No. 11172803.00000		BUFFALO	NEW YORK	Scale: AS SHOWN Date: MAY 2003	FIGURE 4

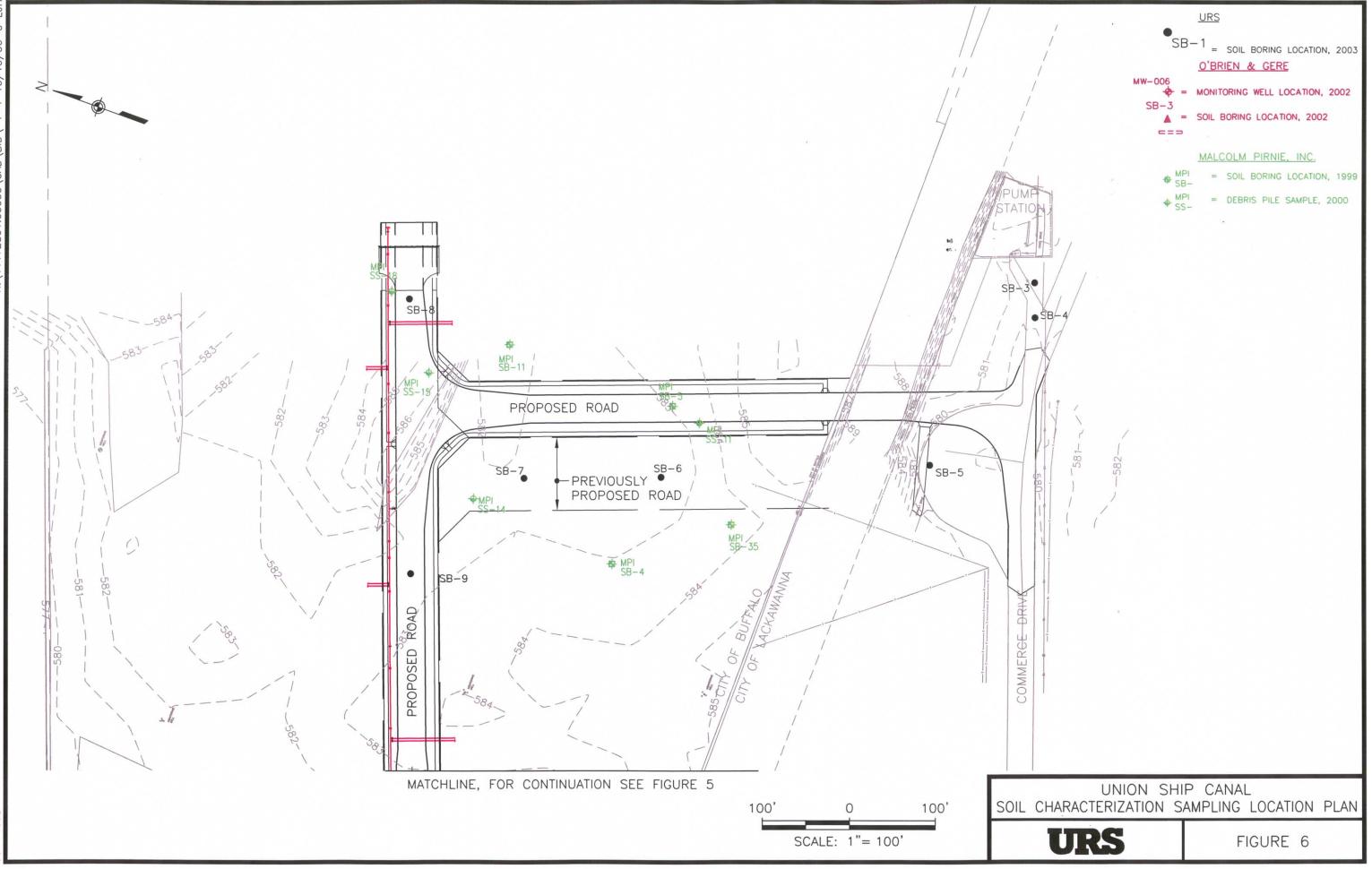
NOTES:

1. REQUIREMENTS FOR 8 INCHES OF EARTH FILL APPLY TO UNION SHIP CANAL SITE ONLY AND DO NOT APPLY TO ROADWAY CONSTRUCTED WITHIN THE CITY OF LACKAWANNA.



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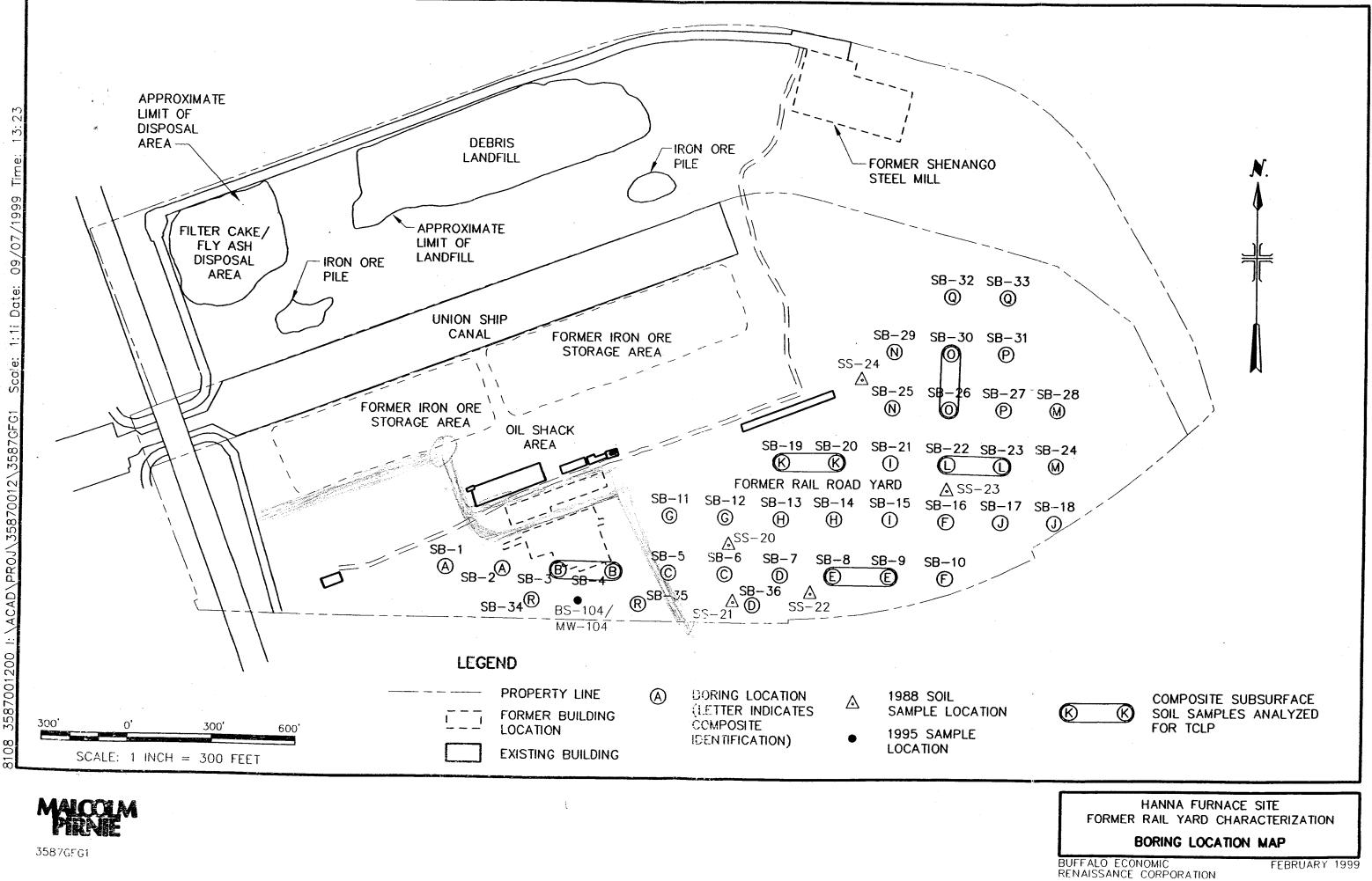


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APPENDIX A

DATA FROM PREVIOUS INVESTIGATIONS

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FEBRUARY 1999

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	Table 1													
Buffalo Econo	mic Renaissance Corporation													
H	anna Furnace Site													
Summary of	Composite Sample Locations													
Sample Numbers	Borings in Composite													
A1, A2	SB-1 and SB-2													
> B1, B2	SB-3 and SB-4													
→ C1, C2	SB-5 and SB-6													
D1, D2	SB-7 and SB-36													
E1, E2 SB-8 and SB-9 F1, F2 SB-10 and SB-16														
F1, F2 SB-10 and SB-16														
$ \begin{array}{c} F1, F2 \\ \hline G1, G2 \\ \end{array} \begin{array}{c} SB-10 \\ \hline SB-11 \\ and \\ SB-12 \\ \end{array} \begin{array}{c} SB-16 \\ \hline SB-12 \\ \end{array} $														
H1, H2	SB-13 and SB-14													
I1, I2	SB-15 and SB-21													
J1, J2	SB-17 and SB-18													
K1, K2	SB-19 and SB-20													
L1, L2	SB-22 and SB-23													
M1, M2	SB-24 and SB-28													
N1, N2	SB-25 and SB-29													
O1, O2	SB-26 and SB-30													
P1, P2	SB-27 and SB-31													
Q1, Q2	SB-32 and SB-33													
→ R1, R2	SB-34 and SB-35													
Note: Sample numbers A1 through R1	are surface soil samples collected from the													
0 to 2 feet depth interval. Samples A2 t	hrough R2 are subsurface soil samples													
collected from the 2-feet to base of fill it	nterval.													

SEE MALCORM PIRNIE BURING LOCATION MAP FOR BORING AND COMPOSITE LOCATIONS

																	÷			
										Table 3						· · · ·				
								Buffa	lo Economic	Renaissanc	e Corporati	ion								
										a Furnace Si										
									Summary o	f Analytical	Results									
Sample Location				T					composite Sa	amples - Sur	face Soil			,						
	A-1	(B-1)	C-1	D-1	E-1	F-1	G-1	H-1	I-1	J-1	K-1	L-1	M-1	N-1	0-1	P-1	Q-1		TION	T
Collection Date	1/25/99	1/25/99	1/25/99	1/27/99	1/27/99	1/27/99	1/28/99	1/28/99	1/28/99	1/26/99	1/26/99	1/28/99	1/27/99	1/29/99	1/29/99			<u>(R-1)</u>	TAGM	Background
PAHs/Phenolic Compounds (ug/											1.20/77	1.20177	1121133	1/29/99	1/29/99	1/29/99	1/29/99	1/28/99	4046	Concentrations
Naphthalene	120 J	100 J	130 J		T	1	1	1	1	89 J	76 J	1	· · · · · ·	1			· · · · · · · · · · · · · · · · · · ·			
-Methylnaphthalene	91 J	96 J	210 J	65 J						94 J	80 J						65 J		13000	NA
Acenaphthylene	200 J									1	003						· ·		36400	NA
cenaphthene	400	140 J					1			74 J	100 J							130 J	41000	NA
henanthrene	1500	560	460 J	160 J	730		78 J		99 J	240 J	1100	310 J			1/0.1		130 J		50000	NA
nthracene	530	170 J			180 J					79 J	330	1			160 J		1200	310	50000	NA
luoranthene	200 J	470	630	290 J	680		220 J	83 J	110 J	660	1600	78 J 590	130 1	110.1	200.1		340	110 J	50000	NA
yrene ()	5200	680	820	350	590		270 J	120 J	110 J	710	1500	460	120 J	110 J	280 J	120 J	1700	2000	50000	NA
enzo(a)anthracene	3700	250 J	390 J	230 J	320 J		180 J	75 J		520	880		130 J		310		1600	2200	50000	NA
hrysene	3300	410	530 J	290 J	280 J		240 J	84 J	88 J	700	880 880	270 J	95 J	93 J	170 J	78 J	980	1400	224	NA
enzo(b)fluoranthene	6400	700	930 J	510	340 J		410	150 J	120 J	130Ú	1300	290 J 400	100 J	120 J	190 J	82 J	990	1400	400	NA
enzo(k)fluoranthene	1900	250 J	560 J	260 J ·				1.50.	1203	450		400	170 J	260 J	260 J	150 J	1400	1800	1100	NA
enzo(a)pyrene	5100	430	480 J	470	260 J		210 J	100 J	73 J	430 810	350 920	200 T	100 1				520	660	1100	NA
deno(1,2,3-cd)pyrene	3700	430	560 J	430				1.00.5	133	650	920 550	280 J	100 J	150 J	220 J	110 J	990	1200	61	NA
ibenzo(a,h)anthracene	960		560 J							050	220						460	750	3200	NA
enzo(g,h,i)perylene	4100	500	560 J	480	120 J		180 J			700	1	200 J		00 Y				170 J	14	NA
/letals (mg/kg)		5186	6820				1788			100		200 J		99 J	150 J	95 J	480	680	50000	NA
luminum	24800	30400	22700	25300	20800	37400	21300	16600	20400	20900	17600	01100			an an an an a'			12810		·推荐,在1774年,1995年1月1日年初,1997年(1997年) 1997年
ntimony				6.99		8.48	7.65	15.1	12.8	1	17600	21100	23900	45700	29100	26600	16300	24000	SB	33000
rsenic				15.4		0.10	7.05	15.1	21.9	7.78		9.26	11.2		7.4	10.1	7.42	9.02	SB	NA
arium	193	350	247	220	194	338	222	174	127	100	100				61.7				7.5 or SB	3 - 12
eryllium	4.19	7.45	5.21	4.78	3.05	5.39	5.29	2.88	2.18	160	192	220	252	238	365	272	80.7	204	300 or SB	15 - 600
admium			6.7			5.57	5.27	7.3	2.10	3.43	3.04	5.64	3.68	6.86	6.62	4.92	1.44	4.12	.016 or SB	0 - 1.75
alcium	119000	163000	118000	137000	102000	191000	154000	77100	48000	8	00700	1.19						0.707	1 or SB	0.1-1
hromium	24.5	12.2	127	42.8	51.2	23.2	24.5	54.7		123000	88700	158000	82500	212000	194000	139000	73400	125000	SB	130-35000
obalt	3.79	1.89	5.55	6.26	12.7	5.64	5.88	13.4	86.3	38.4	65.7	18.2	48.5	6.89	20.3	23.4	78.2	20.7	10 or SB	1.5 - 40
opper	31.7	27.7	40.9	42.8	44.6	39.1	49.7	48.2	15.7 108	5.9	7.5	5.79	9.56	4.75	4.12	7.24	7.03	5.15	30 or SB	2.5 - 60
yanide, Total	6.67	2.17	11.4	16.5						120	181	39.1	48.6	20.1	168	96.4	98.9	51.2	25 or SB	1 - 50
no	57200	13700	79300	82500	3.35	10.4	21.2	5.58	3.52	8.18	7.64	10.2	4.34	28.8	3.54	3.76	11.3	10.1	1600 ²	NA
ead	170	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			60100	59900	80800	202000	236000	65100	70400	137000	193000	23800	56200	114000	103000	77000	2000 or SE	2000 - 550000
agnesium	9270	33.9	185	97.2	203	115	1120	220	285	274	611	116	208	22.1	245	218	618	177	400^2	
anganese		38200	23500	20400	16400	18800	20900	11400	5890	18100	16400	10900	10700	15400	23900	16100	14100	12500		4 - 500
ercury	2590	2320	3530	2860	2110	3920	2670	5750	4590	2950	3030	3340	5250	1900	10400	2020	1950	2690	SB	100 - 5000
ckel	0.21								0.047	l				0.026	10400	2020	0.025	2090	SB	50 - 5000
tassium	20.5	14.2	34.1	30.2	35.8	28.9	24.8	53.5	96.9	33.3	40.6	24.8	52.7	11.9	52.1	23.7		25	0.1	0.001 - 0.2
ver	1290	2010	1570	1730	1710	2310	1560	1420	1110	1050	1250	969	1880	11.9	2090	1530	42.8	25	13 or SB	0.5 - 25
dium	429	1170	1020	579	370	796	662	456	264	557	512	396	702	454	2090 944	1	715	1490	SB	8500 - 43000
inadium	19.7	6.26	30.1	27.3	37.5	26.6	14.8	66.3	48.9	26.4	37.3	18.3	54.9	14.9	17.2	434	191	531	SB	NA
nc	343	75.8	322	266	251	412	331	1050	1100	1150	1020	233	582	63.7	17.2	27.8	44.4	19.6	SB	6000 - 8000
tes:	340	76	320	270	250	410	330	1100	1100	1200	1000	233	580	64		446	472		150 or SB	1 - 300
res: HS - Polycyclic Aromatic Hydroc								L						<u></u>	130	450	470	390	20 or SB	9 - 50

PAHS - Polycyclic Aromatic Hydrocarbons. Blank space denotes analyte was not detected. Only compounds detected in at least one sample included in table. NA - No NYSDEC TAGM 4046 Soil Background Concentration. SB - Site Background.

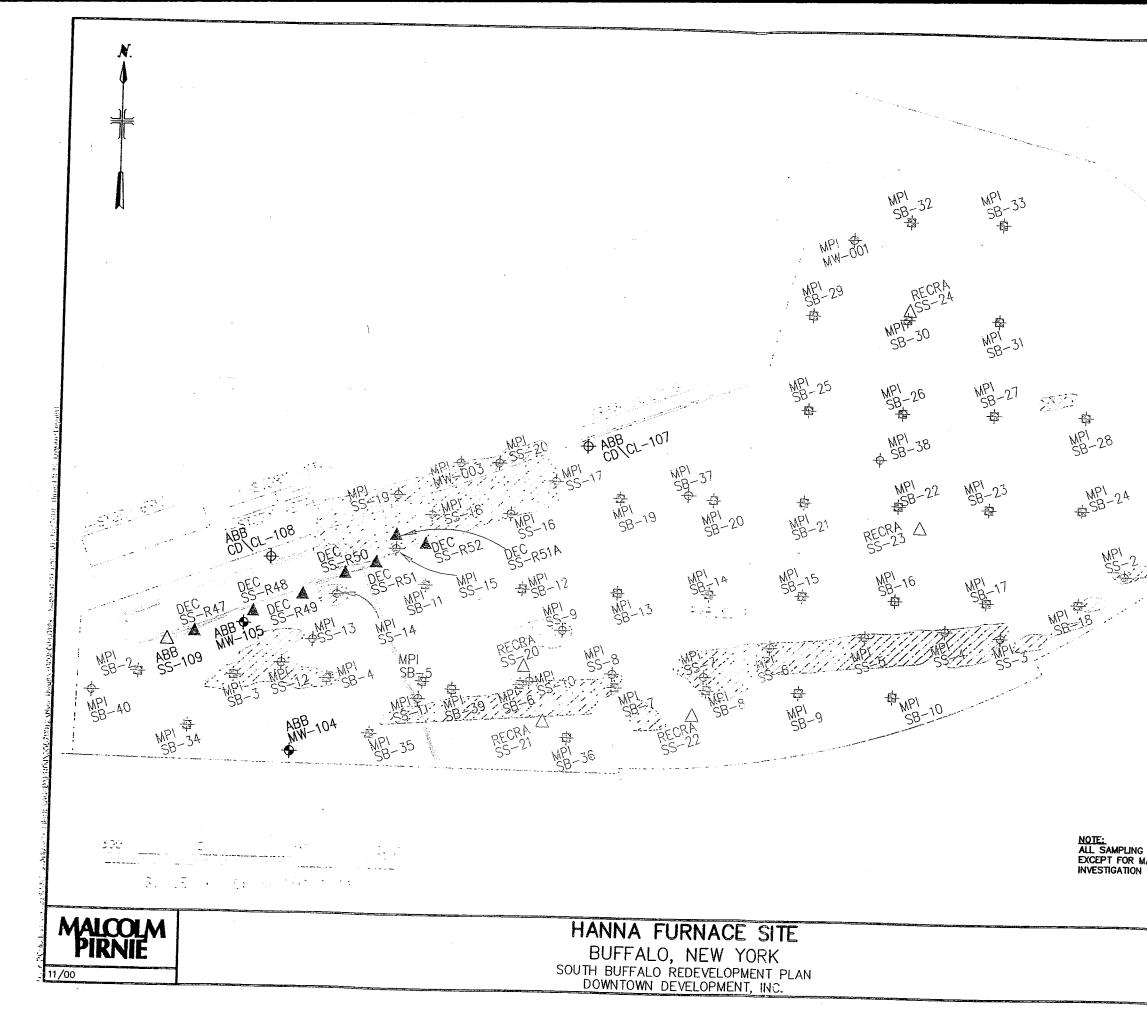
J - Estimated concentrations.
I - Background concentrations from NYSDEC TAGM 4046.
2 - USEPA Region 3 Soil Screening Levels (SSLs).
Shading indicates that concentration exceeds Guidance Value, and the background range is used when there is no Guidance Value.

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$ \begin{array}{c} hereacc(k) hyperhene \\ hereacc(k) hyperhene \\ hereacc(k) hyperhene \\ hereacc(k) hyperhene \\ hor (k) = 1 \\ $	Benzo(b)fluoranthene	650	220 J			390						1						1			
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instance	Antimony				1				1		55500	50500	54000			40900		12200	45100		
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$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Cyanide, Total	8.04	17.4																i		
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$\frac{112}{11} = \frac{112}{112} = \frac{11}{113} = \frac{113}{113} = \frac{113}{113} = \frac{113}{113} = \frac{113}{111} = $										(1	1	1				443	SB	
	Zinc												1		17.2		1				
	Notes:	9.05	40.2	102	107	197	1040	37	1670	1030	331	445	90.3	683		11.1	263	101	475	20 or SB	9 - 50

Notes: PAHS - Polycyclic Aromatic Hydrocarbons. Blank space denotes analyte was not detected. Only compounds detected in at least one sample included in table. NA - No NYSDEC TAGM 4046 Soil Background Concentration. SB - Site Background.

J - Estimated concentrations.

I - Background concentrations from NYSDEC TAGM 4046.
 2 - USEPA Region 3 Soil Screening Levels (SSLs).
 Shading indicates that concentration exceeds Guidance Value, and the background range is used when there is no Guidance Value.



-(4 -)- (-)	11N-4	33-
т ў	MN-4	ARECRA SURFACE WATER/SEDEMENT SW/SD-SAMPLE PAIR, 1988
	MP1 -002	$\Delta_{P-}^{\text{RECRA}} = \frac{\text{POND WATER/SEDEMENT}}{\text{SAMPLE PAIR, 1988}}$
·	÷, a.	RECRA = MONITORING WELL MW- (DESTROYED), 1988
		<u>NEW YORK STATE DEPARTMENT</u> OF ENVIRONMENTAL CONSERVATION
đ	SST SST	$\Delta \Delta SS = SURFACE SOIL SAMPLE, 1994 SS = SURFACE SOIL SAMPLE, 1994$
2	en de la companya de La companya de la comp	ABB ENVIRONMENTAL SERVICES, INC.
in the state		Φ_{MW-}^{ABB} = Monitoring well location, 1995
		$\Delta \frac{ABB}{SS-} = \frac{SURFACE}{LOCATION} \frac{SOIL}{1995}$
		$\Delta_{SW/SD-}^{ABB} = \begin{array}{c} SURFACE WATER/SEDEMENT \\ SAMPLE LOCATION, 1995 \end{array}$
		$\oplus ABB$ = TEST PIT LOCATION, 1995 TP-
		Φ ABB = STRUCTURE SEDEMENT/ CD/CL = LIQUID SAMPLE, 1995
		MALCOLM PIRNIE, INC.
		$ \frac{P}{P} = SOL BORING LOCATION, 1999 $
		☆MPI = SHALLOW BORING, 2000
		.↓MPI = MONITORING WELL 2000
	NS ARE ESTIMATED PIRNIE, 2000	
ON LOCATION		
		= SOIL/FILL PILE
		FIGURE 2–1
		SITE SAMPLING
	LOCAT	TIONS BY INVESTIGATION

LEGEND US_GEOLOGICAL_SURVEY

RECRA ENVIRONMENTAL, INC.

 $\Delta_{\rm SS-}^{\rm RECRA}$ = SURFACE SOIL SAMPLE, 1988

 ϕ_{TB-}^{USGS} = SOIL BORING, 1982

MALCOLM PIRNIE

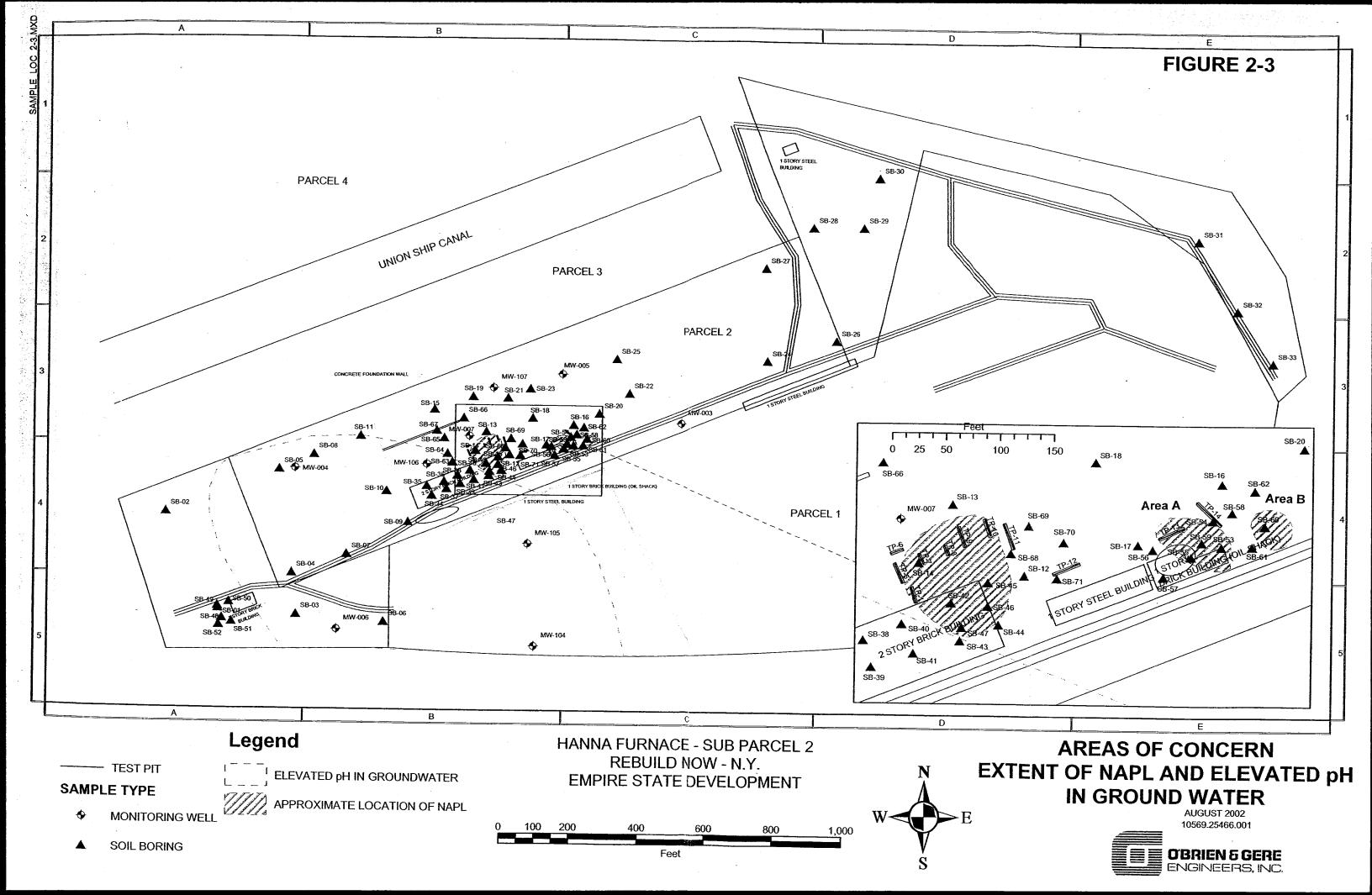
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TABLE 3-2

SUMMARY OF ANALYTICAL RESULTS - FILL PILES

										5	SUPPLEN	TENTAL	INVESTIC	GATION		:.								
	Т —							<u>-</u>	H	ANNA FU	JRNACE	- FORMI	ER RAILR	DAD YAI	RD AREA	L								
PARAMETER ⁽¹⁾	SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	SS-7	SS-8	SS-9	SS-10	SAMP SS-11	LE LOCA	ATION Duplicate	66 12		SS-15		1					NYSDEC	EASTERN U.S
	2/23/00		2/23/00	2/23/00	2/23/00	2/23/00	2/23/00	2/23/00	2/23/00	2/22/00	2/22/00	2/24/00	(00 10)					the second s	SS-18			TRIP BLANK	TAGM	BACKGROUN
VOFATIEF ORGANIC CO	MPOUN	DS (ug/ke									12/25/00	1 21 24/00	(33-12)	2/24/00	2/24/00	2/24/00	2/24/00	2/24/00	2/24/00	2/24/00	2/24/00	2/25/00	VALUES ⁽²⁾	RANGE ⁽²⁾
Chloromethane		1		16			T	ACTIN CONTRACTOR			T T													
Carbon Disulfide			2 J	1	1	+	1	<u> </u>	<u> </u>	<u> </u>	<u> </u>	ļ			<u> </u>								-	-
cis-1,2-Dichloroethene			· · · · ·	5 J	1		<u> </u>		<u> </u>	 				ļ									2,700	-
Chloroform	2 J	2 J		2 J	+	<u> </u>			7 J	2 J		<u> </u>		<u> </u>	<u> </u>			<u> </u>					-	-
2-Butanone				19 J		<u> </u>	+	<u> </u>	<u> </u>		2 J	10			<u> </u>	2 J		4 J	4 J	2 J	6 J	-	300	-
Trichloroethene		-		220 J	1	1			<u> </u>			12		<u> </u>	· ·	Į							300	-
Benzene					<u>†</u>			<u> </u>	11J		<u> </u>	 	<u> </u>		<u> </u>			L					700	-
-Methyl-2-pentanone	4 J		-	4 J	2 J	+	<u> </u>			<u> </u>	<u> </u>		<u> </u>	<u> </u>	l								_	-
etrachloroethene	1 J			2 J		<u> </u>			<u> </u>	<u>_</u>			<u> </u>		ļ			L					1000	-
,1,2,2-Tetrachloroethane	1					1			59 J		<u> </u>		<u> </u>	<u> </u>									1400	-
oluene	3	81	3 J	13 J	51	2 J	4 J	4 J			10.7			ļ									600	-
thylbenzene		<u> </u>		<u> </u>	†		+ - + J	+ - + J	60 J 33 J	6 J	19 J	2 J	15	2 J	2 J	51	3 J	14 J	5 J		6 J		1,500	-
tyrene					+	<u> </u> -							ļ										5,500	-
-Xylene and p-Xylene	2 J				1	<u> </u>			20 J				<u>↓</u>										-	-
EMI-VOLATILE ORGAN Methylphenol	IC COM	POUNDS	(110/120)						28 J														1,200	-
Methylphenol					T	120 1	T T														and the second			
aphthalene		· · ·	170 J	71 J	240 J	720														1		NA	900	-
Methylnaphthalene			92 J	83 J	170 J	430										54 J		320 J	42 J		67 J	NA	13000	_
cenaphthylene			130 J		95 J	210 J		(())										210 J				NA	36400	-
6-Dinitrotoluene			1503		<u>, 75</u>	210 J		66 J										150 J			170 J	NA	41000	_
cenaphthene			220 J	140 J	320 J	690	01.1											120 J				NA	1000	
Jibenzofuran			210 J	69 J	340 J	670	91 J								74 J	260 J		260 J	120 J		47 J	NA	50000	-
luorene			310 J	120 J	430	900	47 J								_	87 J		200 J	48 J		57 J	NA	6,200	
henanthrene	290 J	74 J	2,300	1,400 J	4,200	6,000	74 J								69 J	150 J		210 J	83 J			NA	50000	-
nthracene	74 J	62 J	640	320 J	1,000	2,500	1,200 200 J	<u>43 J</u>		230 J	150 J	61 J	230 J	670	740	1,700	230 J	2,000	720	98 J	1,100	NA	50,000	
arbazole		02.0	160 J	90 J	290 J	570							57 J	190 J	220 J	420	64 J	510	190 J		340 J	NA	50,000	
i-n-butylphthalate			100.5	120 J	56 J	570	_210 J							40 J		99 J		170 J	52 J		47 J	NA		_
luoranthene	470	120 J	1,700	1,600 J	2,400	9.500	- 100 T											47 J	64 J			NA	8100	-
yrene	460	140 J	6,700	1,000 J	2,400 9,700 J	8,500	4,100 J	53 J		520 J	280 J	120 J	450 J	1,900	1,000	1,800	750	1,800	730	260 J	2,300	NA	50,000	-
utylbenzylphthalate		140 3	0,700	540 J	9,700 J	8,500 J	3,400 J	78 J		530 J	250 J	110 J	600 J	2,100 J	1,100 J	4,300 J	920 J	4,100 J	810	410 J	3,200 J	NA	50,000	
	340 J **	86 J	Sec. 100.00		Sector Sector	March States				Tabl 12 and 1/ and 1/				790 J		130 J						NA	50000	
nrysene	340 J	110 J		2900J	45300月餐	13570037	11,100.J4			31093	86 J	64 J	460.9	1000	540 1	1400J	1990 J	¥2,000 J	440		1:400 37	NA	225	
s(2-Ethylhexyl)phthalate	56 J	52 J	150 J				51300JS	68 J		350 J	97 J	66 J	- 510.1	1-200.0	\$\$20J	1,600 J		2.200 J			1,400 J	NA	400	
enzo(b)fluoranthene	410			440 J	650 J	320 J	220 J	50 J	51 J	200 J	57 J	41 J		210 J	47 J	200 J	190 J	350 J	73 J	84 J	64 J	NA	50,000	
enzo(k)fluoranthene	170 J	220 J	700 1	21500J	25,400 J	15.300 J		160 J		510 J	110 J	89 J	920 J	1,200 J#	570 J		and the second se	#2,200 J*	510		2,000 J	NA	1,100	
		55 J	700 J	480 J	1,600 J s	2.1,500 J.	750 J	52 J		150 J	39 J		350 J	490 J	260 J	700 J	240 J	860 J	210 J		780 J	NA	1,100	
eno(1,2,3-cd)pyrene	6,280 JAS		st;400 Ja	980 Jan	#4;200£J#	#4;000 J *	£1,600 J			370 J	64 J	57 J	800 J			1300.						NA	61	
benzo(a,h)anthracene		250 J	1,000 J		2,700 J		1,000 J	170 J		210 J			520 J	410 J	280 J		290 J	1,200 J	240 J	- ALCONTRACTOR	790 J	NA		-
enzo(ghi)perylene		(00 -			780 J											1,5003		.,2003	2103		2 270 J	NA NA	3,200	
	89 J	600 J	1,000 J	670 J	3,000 J	2,700 J	1,200 J	250 J		230 J			640 J	540 J	320 J		390 J	1,300 J	240 J	ł	950 J	NA NA	14	-
ites:											1,133					sult is below				L	7JU J	INA	50,000	
) Only those parameters having found at a minimum of one lo) Soil Cleanup Guidelines and I TAGM 4046 (1/24/94). Value sites but have not yet been inco	cation are s Easter U.S. in parenthe	hown. Background eses are NY	d Range fro SDEC rev	m NYSDI	EC	idential					4 - 1 - 2		NA - Not An Blank space Shaded/bold	alyzed indicates a	6,230 nalyte was i	17./56 not detected	4.9 <i>1</i> 4	TOMO SUNC	: 5,392]j					

MALCOLM PIRNIE						- · ·						TABL	E 3-2	<u></u>		.	<u> </u>					<u></u>	•	
PIRNIE						•			5	SUMMAR	RY OF AN	ALYTIC	AL RESUL	TS - FIL	L PILES									
									н				INVESTIG ER RAILRO		D ADEA	-								
						·····						LE LOCA		JAD IAP	U AREA								NUCERIC	EASTEDNIC
PARAMETER ⁽¹⁾	SS-1	SS-2	. SS-3	SS-4	SS-5	SS-6	SS-7	SS-8	SS-9	SS-10	SS-11		Duplicate	CC 12	1000	SS-15	00 10	0.00	00.10	00.40	1 00 00		NYSDEC	EASTERN U.S. BACKGROUND
	2/23/00			2/23/00		2/23/00	2/23/00	2/23/00	2/23/00	2/23/00	2/23/00	2/24/00	(86 12)	2/24/00	2/24/00	2/24/00	SS-16	SS-17	SS-18	SS-19		TRIP BLANK		RANGE ⁽²⁾
PESTICIDES//PGBS(ug/k	g)													212400	2124/00	2/24/00	2/24/00	2/24/00	2/24/00	2/24/00	2/24/00	2/25/00	VALUES ⁽²⁾	<u></u>
Aldrin	1		T	500 J		2.9 J		Second second																
4,4'-DDE							1			7.9 J	<u> </u>	+		3.9 J	<u> </u>	2.6 J	201			 	12.01	NA	41	
4,4'-DDT			8.0 J			1	1		†	10.9 J				3.93	4.7 J	10.9 J 10.8 J	3.9 J	20 T			. 13.8 J	• NA	2100	
alpha-Chlordane				500		29.3			[4.73	10.81	<u> </u>	32 J	ļ		15 J	NA	2100	
gamma-Chlordane					1		1	1			1	+	†			<u> </u>	2.1 J					NA	540	
Heptachlor				3.2 J		1	· · · ·	1			<u> </u>	· · · ·	<u> </u> -				<u></u>			[1	NA	540	
Aroclor 1254					1	1200		1	1		1	1	<u>├</u> ────	<u> </u>	<u> </u>	<u> </u>	<u> </u>		<u> </u>		<u> </u>	NA	20	
Aroclor 1260				3820			<u> </u>	<u> </u>			1	1	<u> </u>			<u> </u>	<u> </u>			<u> </u>	1.1	NA	1000	
METALS (mg/kg)																		1490				NA	1000	- Ref. 201 av 201 av 202 av 202 av Ref. 201 av 202
Aluminum	5,810	28,600	21,000	10,500	11,600	2,950	7,350	25,500		4,950	4,010	5,230	7,250	7,700	7,670	7,300	4,830	4,680						
Antimony			·							.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1,010	5,250	1,250	7,700	1,070	7,500	4,030	4,080 7.2 J	0,000	5,460	6,480	NA	SB	33,000
Arsenic	6.31	4.8		5.5	6.3	10.6	5.3		17.9	4.6	6.3			5.4	<u> </u>	3.7	3.6	22.9	3.0			NA	SB	
Barium	75.4 J	3316J		327 J.s.	175 J	53.1 J	55.5 J	150 J	83.7 J	65.7 J	40.2 J	49.5 J	83.5 J	96.1 J	71.3	80.3 J	60.4 J	298 J	5.0 87.8 J	5501	86.6 J	NA	7.5 or SB	3 - 12
Beryllium		\$ 6 5	5320	0.74 B				450	14					20.15	- /1.5	0.73 B	00.43	270 J	07.0 J	33.01	1 0.00	NA NA	300 or SB	15 - 600
Cadmium	4.6 J	2.3 J	4.5 J	5.3 J	4.6 J	1993	1.7 J	2.6 J	2.0 J	2.5 J		2.2 J	1.4 J	3.3 J	1.4 J	1.9 J	3.1 J	1997	1.5 J	1.4 J	3.7 J	NA NA	.016 or SB	0 - 1.75
Calcium		209,000	124,000#	22,600	29,400	14,200	±65,700	±157,000 s	24,500	23,800	52.900	64,100			65 100		56,300-			1.4 J		NA NA	(10) SB	0.1 - 1
Chromium	11.7 J	17.3 J	45.4 J	28.9 J	81.1 J	193 J	11.5 J	10.2 J	20.7 J	10.1 J	8.2	31.3 J	32.8 J	22.0 J	13.2 J	13.3 J	13.0 J	38.4 J	17.6 J	9.53	42.9 J	NA	(50)	<u>130 - 35,000</u> <u>1.5 - 40</u>
Cobalt	9.6 B	L	5.0 B	13.5	11.2 B	15.9	8.6		7.7 B	5.6				6.4 B	6.7 B	4.5 B	6.5 B	13.1	5.2B	5.0 B	6.7 B	NA	30 or SB	2.5 - 60
Copper	⊶46 ∃¥J£	13.2	20.9 J			583Ja		9.4	15.3	22.9 J	11.0	19.9 J	11.5	Ø023	14.7		62534	19.1 19501:Jac	3.2 D		69:4 J	NA	25 or SB	1 - 50
ron	56,900	18,500	258,000	27,400	47,800	244,000	17,200	25,400	20,100	16,700	7.910	21,000	10:900	20,300	214,300		20,200		13,300	13,100	27,800	NA	2,000 or SB	2,000 - 550,000
Lead	80.2 J	38.1 J	93.4 J	89.0 J	571 J	89.4 J	20.5 J	29.3 J	46.8 J	85.6 J	15.2 J	49.0 J	61.8 J	121 J	22.4 J	188 J	136 J	766 J	117 J	46.1 J	208 J	NA	(1000)	4 - 500
Magnesium	4,830			6,000	\$8,660	3,070	¥12,400×	11,400	4,740	6,620	17,700	13,900			19,200						1413005	NA	(1000) SB	100 - 5,000
Manganese	1,240	3,320	1,770	426	777	2,410	413	1,300	194	303	230	741	1,470	419	422	510	395	1,310	610	304	384	NA	SB	50 - 5,000
Mercury	0.49 J			-054J												030J				0.17.1		NA	0.1	0.001 - 0.2
Nickel	29.01			6419713			2014 1 5		#1785	\$15:4'J	7.7 J	9.2 J				1351	M 430X	139801	1840F	12.1 J	\$11903m	NA	13 or SB	0.001 - 0.2
Potassium	1,110 B	4,970	3,270	2,170	2,510		1,050 B	3,120	2,100	696 B	1,100 B	872 B	1,430	1,910	1,870	1,470	1,410	1,360	1,270	1,500	1,450	NA	SB	8,500 - 43,000
Selenium	23	-35.2(J	Carbon to a second	UST	2123J		237J.	\$28.0 Ja.	109J.	153J	33110		920					.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			1,450	NA NA	3B 2 or SB	0.1 - 3.9
Sodium		675 B	-⁄532 B							291 B			301 B		230 B							NA	SB	6,000 - 8,000
Thallium							2.4 J	4.8 J								2.7 J					┢╧╍╍╍╌┥	NA	SB	0,000 - 0,000
/anadium	27.0	No. of Concession, Name	8.7 B	22.6	25.3	9.0 B	14.9	9.9 B	44.2	12.7	16.4	15.9	15.0	17.2	15.9	12.4	18.6	17.6	13.3	14.6	22.9		150 or SB	1 - 300
Zinc	6435	1339 A	261 J	264 J	第299 7章	864 9	2643J	101 9	933D	462 J 2	63.8 J		15.0	239 5	665 J	1924	151 ST	23809	STO2153	64751M	105492	NA	20 or SB	9 - 50
,		3.5	12.0			3.6		12.7					1.7	3.0				281 B. 9192 B. 928	1.199 - Y.Y. Contained			NA	20 01 30	9-30
lotes: 1) Only those parameters having found at a minimum of one 1			poratory det	tection limi	it, and						······································	-		an estimate	nstrument [e value. Re	Detection Li esult is belo	imit and Co w quantitat	ontact Requision limit bu	ired Detect it above zer	ion Limit. ^{10.}	:			<u> </u>
found at a minimum of one le Soil Cleanup Guidelines and			d Darra C		50								NA - Not A1	-										
2) Soil Cleanup Guidelines and TAGM 4046 (1/24/04) Value	caster U.S.	Backgroun	ia Kange fr	om NYSDI	EC								Blank space											
TAGM 4046 (1/24/94). Valu				used values	s for nonres	sidential							Shaded/bold	text indica	tes guidanc	e criteria c	or backgrou	nd range w	as exceeded	d.				
sites but have not yet been inc	-																_	-						
Soil cleanup guideline or back	ground rang	e not avail	able.																					



	· ·	TAI	BLE 2-4			<u>.</u>	
		SUMMARY OF DEBRIS	PILE CHARAC	FERISTICS			
		SUPPLEMENTA					
Depris Pile ID No.	Sample ID	HANNA FURNACE - FORM	IER RAILROAD PID Screening Results	YARD ARE Sampled Depth (ft bgs)	Estimated Area (ft ²)	Estimated Depth	Estimated Volume (yd
DP-1	SS-12	C & D debris, concrete rubble, rebar,	0.2	3-5	20,394	2	1,510
	SS-13	sand and gravel	0.2	2-4	20,374		1,510
							-
DP-2	· · · · · · · · · · · · · · · · · · ·	C & D debris, sand and gravel			154	2	11+
DP-3	SS-8 ⁽²⁾	C & D debris, concrete, sand and gravel	0.2	3-5	28,680	3.5	3,717
	SS-10		0.2	3-5			
	SS-11		0.2	3-5			
DP-4	<u>SS-9</u>	Stone, gravel	0.2	4-6	6,790	2	503
DP-5		C & D debris, concrete, sand and gravel,	silt	·····	3,416	3	316
DP-6	SS-3	C & D debris, sand, gravel, silt,	0.2	3-5	56,502	3	6,278
	SS-4		0.2	2-4			
	SS-5		0.2	2-4			
	SS-6		0.2	3-5		· · · · · · · · · · · · · · · · · · ·	
	SS-7		0.2	2-4			
DP-7		Lime flux, slag	· · · · · · · · · · · · · · · · · · ·		2,575	2.5	238
DP-8		Trash, tires			400	2	30

3587-001-200

TABLE 2-4

SUMMARY OF DEBRIS PILE CHARACTERISTICS

SUPPLEMENTAL INVESTIGATION HANNA FURNACE - FORMER RAILROAD YARD AREA

Depris Pile ID No.	Sample ID	Debris Pile Contents	PID Screening Results	Sampled Depth (ft bgs)	Estimated Area (ft ²)	Estimated Depth	Estimated Volume (yd ²
DP-9		C & D debris, wood, concrete, sand,			1,295	2	96
		misc. metal			· · · · · · · · · · · · · · · · · · ·		
DP-10	SS-2	C & D debris, concrete, rebar, brick,	0.5	2-4	2,311	2	171
		asphalt					
DP-11		C & D debris, concrete, sand and gravel		· .	862	- 2	64
DP-12		C & D debris, concrete, sand and gravel	· · · · · · · · · · · · · · · · · · ·		646	2	48
DP-13		C & D debris, concrete, sand and gravel			1,233	2	91
DP-15		Slag, railroad ties			2,194	3	244
DP-16		Wood, metal, debris,			433	2	32
DP-17		Sand			909	4.5	9.
DP-18		Sinter,			884	5	164
DP-23	SS-15	C & D debris, concrete, sand and gravel	0.4	3-5	81,100	3	9,011
	SS-16		0.2	2-4			
	SS-17		1.6 / 0.2 ⁽³⁾	3-5			
	SS-18		0.2	4-6			
	SS-19		0.2	3-5			
	SS-20		0.2	3-5			

TABLE 2-4

SUMMARY OF DEBRIS PILE CHARACTERISTICS

SUPPLEMENTAL INVESTIGATION HANNA FURNACE - FORMER RAILROAD YARD AREA

Depris Pile ID No.	Sample ID	Debris Pile Contents	PID Screening Results	Sampled Depth (ft bgs)	Estimated Area (ft ²)	Estimated Depth	Estimated Volume (yd ³)
DP-A	SS-1	Fill as slag, gravel, RR ties, tires, metal	0.2	2-4	7,500	4.5	1,250
DP - B	SS-14	Fill as sand, gravel, brick, misc. metal	0.2	0-3	150	2	11

NOTES:

X

Sampled debris piles indicated by shaded / stipple pattern.

(1) All debris piles sampled above grade unless noted.

(2) White fill material sampled below grade surface at SS-8 per NYSDEC request.

(3) Elevated PID reading measured in proximity to RR tie within excavation.



Table 4Hanna Furnace Subparcel 2Surface Soil SamplesVolatile Organic Compound Data

تهديد مورا محادرة

in month

A Lot

	Sample ID	Site-Specific	NYS TAGM 4046				
	Sample Depth	Action	Recommended	SB-09	SB-13	SB-18	
	Sample Depth Sample Date	Level	Soil Cleanup	0.0 - 0.5 ft	0.0 - 0.5 ft	0.0 - 0.5 A	
	Units			07/31/2001	07/30/2001	07/30/2001	
Compound	Matrix	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	
1,1,1-Trichloroethane		<u> </u>		SOLID	SOLID	SOLID	
1,1,2,2-Tetrachloroethane		1 	0.8	0.014 U	0.011 U	0.013 U	
1,1,2-Trichloro-1,2,2-trifluoroethane			0.6	0.014 U	0.011 U	0.013 U	
1,1,2-Trichloroethane	NACCONTRACTOR CONTRACTOR	1 00000 <u>0</u> 000000000000000000000000000000	6	0.014 U	0.011 U	0.013 U	
1,1-Dichloroethane			NC	0.014 U	0.011 U	0.013 U	
1,1-Dichloroethene		1	0.2	0.014 U	0.011 U	0.013 U	
1,2,4-Trichlorobenzene		ļ.	0.4	0,014 U	0.011 U	0.013 U	
1,2-Dibromo-3-chloropropane	Hiddeligeneration	1 	3.4	0.014 U	0.011 U	0.013 U	
1,2-Dibromoethane (EDB)		i	NC	0.014 U	0.011 U	0.013 U	
1,2-Dichlombenzene		1	NC	0.014 U	0.011 U	0.013 U	
1,2-Dichloroethane		1	79	0.014 U	0.011 U	0.013 U	
1,2-Dichloropropane	NG NG SANTAN NA ANA ANA ANA ANA ANA ANA ANA ANA	1	0.1	0.014 U	0.011 U	0.013 U	
1,3-Dichlorobenzene		1	NC	0.014 U	0.011 U	00130	
1,4-Dichlombenzene		1	1.6	0.014 U	0.011 U	0.013 U	
		1	8,5	0.014 U	0.011 U	00130	
2-Butanone (MEK)		1	0,3	0.04	0.011 U	0.027	
2-Hexanone		1	NC	0.014 U	0011 U		
4-Methyl-2-pentanone (MIBK)		1	l	0.014 U	0.011 U	0.013 U	
Acetone		1	0.2	0.14	0.04	0.013 U	****
Benzene		1	0.06	0.014 U	0.011 U	0.12	
Bromodichloromethane		1	NC	0.014U	0.0111	0.013 U	
Bromoform		1	NC	0.014 U	0.011 U	0.013 U	
Bromomethane		1	NC	0.014 U		0.013 U	
Carbon disulfide	• • • • • • • • • • • • • • • • • • • •	1	2,7	0.016	0.011 U	0.013 U	
Carbon tetrachloride		1	0.6		0.002 J	0.005 J	
Chlorobenzene	******************************	••••••••••••••••••••••••••••••••••••••	1.7	0.014 1	0.011 U	0.013 U	
Chloroethane			1.7	0.014 U	0.011 U	0.013 U	
Chloroform	neeneneer soon soot soot s	1	0.3	0.014 U	0.011 U	0.013 U	
Chloromethane		- 1	NC	0.014 U	0.011 U	0.013 U	
Cyclohexane		2017-00000000000000000000000000000000000	NC	0.014 U	0011U	0.013 U	
Dibromochloromethane			NC	0.014 U	0.011 U	0.013 U	
Dichlorodifluoromethane		1		0.014 U	0.011 U	0.013 U	
Ethylbenzene		• •	NC	0.014 U	0.011 U	0.013 U	
Isopropylbenzene			5.5	1 600 0	0.011 U	0.013 U	
Methyl acetate		l Maggiogosososososososososos	5	0.014 U	0.011 U	0.013 U	
Methyl tert butyl ether			NC	0.014 UI	0.011 UJ	0.013 UJ	
OTES: U - Not detected, J - Esti		1	0.12	0.014 U	0.011 U	0.013 U	

NC - No screening value available, [] - Exceeds Site-Specific Action Level, () - Exceeds NYS TAGM 4046 - Recommended Soil Cleanup.

Page 1 of 1



Table 4 Hanna Furnace Subparcel 2 Surface Soil Samples Volatile Organic Compound Data

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Matrix SOLD SOLD SOLD Med PySchense 1 NC 0.01 U 0.01 U 0.01 U Med PySchense 1 0.1 0.01 U 0.01 U 0.01 U 0.01 U Med PySchense 1 0.1 0.01 U 0.01 U 0.01 U 0.01 U Med PySchense 1 1.5 0.04 U 0.01 U 0.01 U 0.01 U Med PySchense 1 1.5 0.04 U 0.01 U 0.01 U 0.01 U Med PySchense 1 0.1 0.01 U 0.01 U 0.01 U 0.01 U Med PySchense 1 0.2 0.01 U 0.01 U </th <th>Compound</th> <th>Sample ID Sample Depth Sample Date Units Matrix</th> <th>Site-Specific Action Level mg/Kg</th> <th>NYS TAGM 4046 Recommended Soil Cleanup mg/Kg</th> <th>5B-09 0.0 - 0.5 ft 07/31/2001 mg/Kg</th> <th>SB-13 0.0 - 0.5 ft 07/30/2001 mg/Kg</th> <th>SB-18 0.0 - 0.5 ft 07/30/2001 mg/Kg</th>	Compound	Sample ID Sample Depth Sample Date Units Matrix	Site-Specific Action Level mg/Kg	NYS TAGM 4046 Recommended Soil Cleanup mg/Kg	5B-09 0.0 - 0.5 ft 07/31/2001 mg/Kg	SB-13 0.0 - 0.5 ft 07/30/2001 mg/Kg	SB-18 0.0 - 0.5 ft 07/30/2001 mg/Kg
Methyline abolic a b boli U b01 U		Matrix		······	SOLID	SOLID	SOLID
Syme NC ODIAU ODIU			•			0.011 U	0.013 U
Templosite NC 0014 U 0011 U 001 U <t< td=""><td></td><td></td><td></td><td></td><td>0.014 U</td><td>0.011 U</td><td>9.013 U</td></t<>					0.014 U	0.011 U	9.013 U
Tobase 1 1.3 0.011 0.011 Tridioretties 3.3 0.014 0.011 0.001 Tridioretties 1 3.7 0.014 0.011 0.011 Variational 1 NC 0.014 0.011 0.011 0.011 Variational 1 NC 0.014 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011		Militan and the second second	•		0.014 U	0.011 U	0.013 U
Total 1 1 3 0.024 0.011 0.001 Tradiantities 1 5.7 0.014 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011			1		0.014 U	0.011 U	
Tradiontionandiane 1 0.7 0.04 U 0.01 U 0.01 U Viryi diolaid 1 0.2 0.04 U 0.01 U <td></td> <td></td> <td>1</td> <td></td> <td>0.024</td> <td>0.011 U</td> <td></td>			1		0.024	0.011 U	
The second state and st			1	0.7	0.014 U	0.011 U	
Viry incolut 1 0.2 0.01 U 0.01 U <td></td> <td></td> <td>1</td> <td></td> <td>0.014 U</td> <td></td> <td></td>			1		0.014 U		
Xylene (olu) 1 1.2 0.49 0.011 U 0.013 U cir.12.016/horednei 1 0.23 0.014 U 0.011 U 0.013 U mier.12.2016/horednei 1 NC 0.014 U 0.011 U 0.013 U mier.12.2016/horednei 1 NC 0.014 U 0.011 U 0.013 U mier.12.2016/horednei 1 NC 0.014 U 0.011 U 0.013 U mier.12.2016/horednei 1 NC 0.014 U 0.011 U 0.013 U Teisl VOCs 10 NC 0.014 U 0.011 U 0.013 U			1	02	0.014 U		
Best 12-0 followscheme 1 0.23 0.014 U 0.011 U 0.013 U mmo-12-Dicklorecheme 1 0.3 0.014 U 0.011 U 0.013 U 0.013 U mmo-12-Dicklorecheme 1 0.3 0.014 U 0.011 U 0.013 U 0.014 U 0.011 U 0.013 U mmo-12-Dicklorecheme 1 NC 0.014 U 0.011 U 0.013 U mmo-13-Dicklorecheme 1 NC 0.014 U 0.011 U 0.013 U Test VOC+ 10 NC 0.271 0.04 U 0.151			1	1.2			
Circle Johnstongopyelee I NC Ool (U Ool (U <th< td=""><td></td><td></td><td>1</td><td>0.25</td><td></td><td></td><td></td></th<>			1	0.25			
TES: U-No descret L Epignet star			1				
Image: 13-Dickhorpropage I NC IOII U IOII U Total VOC: 10 NC 0.271 0.042 0.151			1		*****		
Teal VOCi 10 NC 0271 DOC2 0151	trans-1,3-Dichloropropene		1				
	Total VOCs		10				
DTES: U - Not detected, J - Estimated value, Not analyzed. NC - No screening value available, [] - Exceeds Site-Specific Action Level (), Exceeds NYS TA CALLOG (), Exceeds 100							
VTES: U-Not detected, J-Estimated value, Not analyzed. NC - No screening value available, []-Exceeds Site-Sneefific Action Level (), Exceeds NVS TaCkk 1046 Barray 4446 H B							
DTES: U - Not detected, J - Estimated value, Not analyzed. NC - No screening value available, [] - Exceeds Site-Specific Action Level (), Exceeds NVS Ta Chil 1046 B more relation in the							
DTES: U - Not detected, J - Estimated value, Not analyzed. NC - No acroening value available, [] - Exceeds Site-Specific Action Level () - Exceeds NVS Tachd and a Burner of the inci-							
OTES: U-Not detected, J-Estimated value, Not analyzed. NC - No acrossing value available, []-Exceeds Site-Snecific Action Level ()-Exceeds NVS Ta Ch4 and 6. Busersen to 10. 11. 01.	•						
Source and the second	OTES: U - Not detected, J NC - No screening	- Estimated value,	Not analyzed. ceeds Site-Specific A	Action Level, () - Exceeds	NYS TAGM 4046 - 1	Recommended Soil Cle	keanup.

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Table 5 Hanna Furnace Subparcel 2 Surface Soil Samples Semivolatile Organic Compound Data

	Sample ID Sample Depth Sample Date	Site-Specific Action Level	NYS TAGM 4046 Recommended Soil Cleanup	SB-01 0.0 - 0.5 ft 07/31/2001	SB-02 0.0 - 0.5 ft 08/10/2001	SB-03 0.0 - 0.5 ft 08/01/2001	SB-04 0.0 - 0.5 ft	SB-05 0.0 = 0.5 ft	SB-06 0.0 - 0.5 ft	SB-07 0,0 - 0,5 ft	SB-08 0.0 - 0.5 ft
	Units	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	08/09/2001	08/09/2001	08/01/2001	08/09/2001	08/02/2001
Compound	Matrix			SOLID	SOLID	SOLID	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID
1,1'-Biphenyl		NC	NC	1.1 J	0.34 U	0.39 U	0.14 J				
2,2'-oxybia(1-Chloropropane)		NC	NC	10 U	0341	0.39 (J)	0.34U	0.33 U 0.33 U	0.37 U	0,38 U	0.33 U
2,4,5-Trichlorophenol		NC	0.1	26 U	0.84 U	0.98 U	0.86 U	0.83 U 0.83 U	0.37 ()]	0.38 U	tu eeo
2,4,6-Trichlorophenol		NC	NC	10 U	0.34 U	0.39 LJ	0.34 []	0.33 U	0.92 U	0.95 U	0.83 U
2,4-Dichlorophenol		NC	0.4	10 U	0.34 U	0.39 U	0.34 U	0.33 U	0.37 U	0.38 U	0.33 U
2,4-Dimethylphonol		NC	NC	10 U	0,341)	0391	0340	0.33 U 0.33 U	0.37 U	0,38 U	0.33 U
2,4-Dinitrophenol		NC	0.2	26 UJ	0.84 U	0.98 U	0.86 U	0.83 U	0.37 U	0.31 U	0.33 U
2,4-Dinitrotoluene		NC	NC	10 UJ	034 U	0.39 U	0.88 U 0.34 U		0.92 U	0.95 U	0.83 U
2,6-Dinitrotoluene		NC	••••••••••••••••••••••••••••••••••••••	10 U	0.34 U	0.39 U	0.34 U	033 U	0370	U MLD	0.33 U
2-Chloronsphthalene		NC	NC	10 U	034U	U 910	0.34 U 0.34 U	0.33 U	0.37 U	0.38 U	0.33 U
2-Chlorophenol	******	NC	0.8	10 U	0.34 U	0.39 U	0.34 U	033U	0370	038.U	0.33 U
2-Methylnaphthalene		NC	36.4	51	0.087 J	0.13 J	0.34 0	0.33 U	0.37 U	0.38 U	0.33 U
2-Methylphenol	****	NC	0.1	10 U	0.34 U	0.13 J 0.39 U	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	0.33 U	0.193	0.11 J	0.33 U
2-Nitroaniline		NC	0.43	10 U	0.84 U		0.34 U	0.33 U	0.37 U	0.3 8 U	0.33 U
2-Nitrophenol		NC	0.33	10 U	0.34 U	0.98 U	0.86 U	0.83 U	0.92 U	0.95 U	0,83 U
3,3-Dichlombenzidine		NC	NC	100	0.34 U	0.39 U 0.39 U	0.34 U	0.33 U	0.37 U	0.38 U	0.33 U
3-Nitroaniline	************************************	NC	0.5	26 U	0.84 U	************************************	034 UJ	033 U	0.37 U	0.38 UJ	033 U
4,6-Dinitro-2-methylphenol		NC	NC	26 U	0.84 [J	0.98 U 0.98 U	0.86 U	0.83 U	0.92 U	0.95 U	0.83 U
4-Bromophenyl phenyl ether		NC	NC	10 U	0.34 U	000000000000000000000000000000000000000	0. 86 U	0. \$3 (J	0.92 U	0.95 U	0.83 U
4-Chloro-3-methylphenol		NC	0.24	100		0.39 U	0.34 U	0.33 U	0.37 U	0.38 U	0.33 U
4-Chloroaniline		NC	0.22	10 U	0,34 U 0,34 U	0.39U	0.34 U	0.33 U	0.3710	0.38 U	0.33 U
4-Chlorophenyl phenyl ether		NC	NC	10 U	0,34 U	0.39 U	0.34 U	0.33 U	0.37 U	0.38 U	0.33 U
4-Methylphenol		NC	0,9	10 U	*********************************	0.391	034 U	0,33 U	0.37 U	0,38 U	0.33 U
4-Nitroaniline		NC	NC	100 26U	0.34 U 0.84 U	0.39 U	0.34 U	0.33 U	0.37 U	0.38 U	0.33 U
4-Nitrophenol		NC	0.1	26 U 26 U	0.84 U	0.91 U	0.86 U	U £8.0	0 <i>9</i> 2 U	0.95 U	0.83 U
Acenaphthene		NC	50	200 131	0.84 U 0.062 J	0.98 U 039 U	0.86 U	0.83 U	0.92 U	0.95 U	0.83 UJ
Acenaphthylene	***************************************	NC	41	17]	0.002 J 0.11 J	*******************************	0.21 J	0.33 U	037 U	0.1 5 J	0.33 U
Acetophenone		NC	NC	177	0.11J 034 U	0.45 0.068 <i>1</i>	0.43 0.34 U	0.33 U	0.59	0.96	0.33 U
Anthracene		NC	50	34 J	0.19 J	0.46		0.33 U	0.0791	0.38 U	031 U
Atrazine		NC	NC	10 U	0.19J	0.46 0.39 U	1.4 0.34 U	0.33 U	0.66	0.99	0.33 U
Benzo(a)anthracene		NC**	0.224**	(270 J)	(0.89)	(0.68)		0.33 U	0370	038 U	033 U
Benzaldehyde		NC	NC	10U	(0.89) 034U	0.3913	(1.2 J) 034 (JJ	0.33 U	(0.64)	(5.7 J)	0.086 J
Benzo(a)pyrene		NC**	0.061**	(240 J)	(0.91 J)	20000000000000000000000000000	200300000000000000000000000000000000000	0.33 U	0.371	0.38 UI	0.33 U
Benzo(b)fluoranthene		NC**	0.224**	(270J)	(1,2,7)	(0.6 J) (0.62 J)	(1.4 J)	0.034 J	(0.56 J)	(5.6 J)	(0.077 J)
Benzo(ghi)perylene		NC	50	(75 J)	0.27 J		(22J)	0.065 J	(0.66 J)	(5.9.1)	0,11 J
	- Estimated value,		50	(131)	0,273	0.47 J	0.7 J	0.33 U	0.35 J	1.73	0.045 J

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Table 5 Hanna Furnace Subparcel 2 Surface Soil Samples Semivolatile Organic Compound Data

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Compound	Sample ID Sample Depth Sample Date Units Matrix	Site-Specific Action Level mg/Kg	NYS TAGM 4046 Recommended Soil Cleanup mg/Kg	SB-01 0.0 - 0.5 ft 07/31/2001 mg/Kg	SB-02 0.0 - 0.5 A 08/10/2001 mg/Kg	SB-03 0.0 • 0.5 ft 08/01/2001 mg/Kg	SB-04 0.0 - 0.5 ft 08/09/2001 mg/Kg	SB-05 D:0-0.3 ft 08/09/2001 mg/Kg	SB-06 0.0 - 0.5 ft 08/01/2001 mg/Kg	SB-07 0.0 - 0.5 ft 08/09/2001 mg/Kg	SB-08 0.0 - 0.5 ft 08/02/2001 mg/Kg
Benzo(k)fluoranthene		NC**		SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Bis (2-chloroethoxy) methane	880.808.808.808.808.808.808.808.808.80	NC**	0.224**	(330 J)	(1 J)	(0.57 J)	(1.2 J)	0.049 J	(0.56 J)	(7.6 J)	0.13 J
Bis (2-chloroethyl) ether		NC	NC NC	10 U	0.34 U	0.39 U	0.34 U	0.33 U	0.37 U	0, 38 U	033 U
Bis(2-ethylhexyl)phthalate		NC		10 U	0.34 U	0.39 U	0.34 U	0.33 U	0.37 U	0.38 U	0.33 U
Butyl benzyl phthalate		NC	50	2.91	0.61	0.048 J	L E1:0	0.48	0.26 J	1.13	0.251
Caprolactam		NC	50	10 U	0.34 U	0.39 U	0.34 UJ	0.33 U	0.37 U	0.38 U	0.33 U
Carbazole			NC	10 U	0.34 U	0.39 U	0.34 U	031U	0.37 LI	038 U	0.13 U
Chrysene		NC NC**	NC	6.6 J	0.074 J	0.081 J	0.16 J	0.33 U	0.19 J	0.42	0.33 U
Di-n-butyl phthalate		444444444444666666666666	0.4**	(270 J)	(1)	(0.78.)	(1.13)	0.053 J	(0.68.)	(6.1 <i>.</i>)	0.11 J
Di-n-octyl phthalate	800000000000000000000000000000000000000	NC	8.1	10 U	0.34 U	0.39 U	0.34 U	0.33 U	0.37 U	0.38 U	0.33 U
Dibenzo(a, h)anthracene		NC	50	10 U	034 UI	0.39 UJ	0.34 UI	033U	0.17 UI	034 UI	0.33 U
Dibenzofuran		NC**	0.014**	(37 J)	0.34 UJ	(0.25 J)	0.34 UJ	0.33 U	(0.18 J)	(1.1.7)	0.33 U
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		NC	6.2	(9.2 J)	0.058 J	0.0 <b>8</b> 1 J	0.85	0.33 U	0.074 5	9.151	0.064 J
Diethyl phthalate	00000000000000000000000000000000000000	NC	7.1	10 U	0.34 U	0.39 U	0.34 U	0.33 U	0.37 U	0.38 U	0.33 U
Dimethyl phthalate		NC	2	10 U	0.34 U	0.39 U	034 U	033 U	0.37 U	038 U	
Fluomnthene		NC	50	(460 J)	1.6	1.2	1.5	0.084 J	0.7	. 8.8	031 U
Fluorene		NC	<b>5</b> 0	793	0 061 J	0.39 U	0.18 J	033 U	0.17 U	0.171	0.19 J
Hexachlorobenzene		NC	0.41	10 U	0.34 U -	0.39 U	0,34 U	0.33 U	0.37 U	*********************	0.054 J
Hexachlorobstudiene		NC	NC	10 U	0.34 U	0.39 U	0.34 U	0.33 U	0.37 U	0.38 U	0.33 U
Hexachlorocyclopentadiene		NC	NC	10 U	0.34 U	0.39 U	0.34 U	0.33 U	0.37 U	0.38 LJ	U 160
Hexachloroethane		NC	NC	10 U	0.34 U	0.39 LI	0.34 U	0,33 U	0.37 U	0.38 U	0.33 U
Indeno(1,2,3-cd)pyrene		NC**	3.2**	(110 J)	0.48 J	0.64 J	0.94 J	0.036 J	AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	0.38 U	0.33 U
Isophorone		NC	44	100	0,34 U	0.39 U	0.34U	0,0307	0.47 J	2.9 J	0,068 J
N-Nitrosodipropylamine		NC	NC	10 U	0.34 U	0.39 U	0.34 U	0.33 U	0371	038 LJ	0.13 U
N-Nitrosodiphenylamine		NC	NĊ	10 U	034U	039 U	0340	033 U 033 U	0.37 U 037 U	0.38 U	0.33 U
Naphthalene		NC	13	8.1 J	0.084 J	0.11 J	1.1	0.33 U	*************************	038 U	0.33 U
Nitrobenzene		NC	02	101	0.34 U	039 U	0.14 U		0.17 J	0.11 J	0.33 U
Pentachiorophenol		NC	1	26 U	0.84 U	0.98 UJ	0.86 U	0.33 U	0370	038.0	0.33 U
Phenanthrene		NC	50	(170 J)	0.77	0.48	18	0.83 U 0.034 J	0.92 UJ	0.95 U	0.83 U
Phenol		NC	0.03	(1.2 J)	0.34 U	0.39 U	0,34 U	0.33 U	0.361	48	0,2 J
Pyrene		NC	50	(460 J)	161	0.92	2.13	an a	0.37 U	0.3 <b>8</b> U	(0.097 J)
Total carcinogenic PAHs		NC	10	(1527)	5.48	4.14	8,04	0.065 J	0.71	111	0.29 J
Total PAHs		NC	500	(2771.5 }	10314	8.36	16.53	0.237	3.75	(34.9 )	0.581
Total SVOCs		500	NC	[2794 ]	11.056	8.638	19,81	0.42	7.48	63,52	1.36
TOTAL 3 YOU'S			 6668888888888888888888888888888888	<b>1</b>	••••••••••••••••••••••••••••••••••••••	8, u, 6 	17.6  	0.9	8,083	65.19	1.775



# Table 5Hanna Furnace Subparcel 2Surface Soil SamplesSemivolatile Organic Compound Data

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	Sample ID Sample Depth Sample Date	Site-Specific Action Level	NYS TAGM 4046 Recommended Soil Cleanup	SB-09 0.0 - 0.5 ft 07/31/2001	SB-10 0.0 - 0.5 ft 07/31/2001	SB-11 0.0 - 0.5 ft 08/02/2001	SB-12 0.0 - 0.5 ft 08/02/2001	SB-13 0.0 - 0.5 ft 07/30/2001	SB-14 0.0 - 0.5 <del>R</del> 07/31/2001	SB-15 0.0 - 0.5 ft 08/02/2001	SB-17 0.0 - 0.5 ft 08/01/2001
Compound	Units Matrix	mg/Kg	mg/Kg	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID
1,1'-Biphenyi	••••••••••••••••••••••••••••••••••••••	NC	NC	1.1 U	0.36 U	0.33 U	0.15 J	0.35 U	0.04 J	0.33 U	·
2,2'-oxybia(1-Chloropropane)		NC	NC	1.1 121	0.36 UJ	0.33 UJ	0.35 1/1	0.35 UJ	0.35 UJ	0.33 UI	0.061 J
2,4,5-Trichlorophenol		NC	0.1	2.7 U	0.92 U	0.83 U	0.89 U	0.89 U	0.89 U	000000000000000000000000000000000000000	0.38 UJ
2,4,6-Trichlorophenol		NC	NC	1.10	0,36 LJ	0.33 U	03510	0.17 U	0.890 0.35U	0.83 U	0.95 U
2,4-Dichlorophenol	- - -	NC	0.4	1. <b>1 U</b>	0.36 U	0.33 U	0.35 U	0.35 U	0.35 U	U 600	038U
2,4-Dimethylphenol		NC	NC	1.1 U	0,36 U	0,33 U	0350	0.35 U 0.35 U		0.33 U	0.38 U
2,4-Dinitrophenol	bissis noolo noon on noo on noon pr	NC	0.2	2.7 U	0.92 U	0.83 U	0.89 U	0.89 U	0.351	033 U	0.38 U
2,4-Dinitrotoluene		NC	NC	1.1 U	036 U	0.33 ()	0.35 U		0.89 U	0.83 U	0.95 U
2,6-Dinitrotoluene	****************************	NC		1.1 U	0,36 U	0.33 U	0.35 U	035U	035U	0330	038 U
2-Chioronaphthalene		NC	NC	1.10	0.36 U	0.33 U	0.35 U 0.35 U	0.35 U 0.35 U	0.35 U	0.33 U	0.38 U
2-Chlorophenoi		NC	0,8	1.1 U	0.36 U	0.33 U	0.35 U	*************************************	0350	033 U	0.38 U
2-Methylnaphthalene		NC	36,4	0.12.)	0.12.1	0.33 U	12	0.35 U	0.35 U	0.33 U	0.38 U
2-Methylphenol		NC	0.1	1.1 U	0.36 U	0.33 U	0.35 U	0.094 J	0211	0.07 J	0.37 J
2-Nitroaniline		NC	0.43	2.7 U	0.92 U	0.53 U		0.35 U	0.35 U	0.33 U	0.38 U
2-Nitrophenol		NC	0.33	1.1 U	0.36 U	0.33 U	0.89 U	0 89 U	0.89 U	0. <b>8</b> 3 U	095U
3,3-Dichlorobenzidine		NC	NC	1.10	0.36 UJ		0.35 U	0.35 U	0,35 U	0.33 U	0.38 U
3-Nitroaniline		NC	0,5	2.7 U	0.92 U	033 U	035 UJ	035 U	035យ	0.33 U	0.38 UJ
4,6-Dinitro-2-methylphenol		NC	NC	2.7U 2.7U		0.83 U	0.89 U	0.89 U	0.89 U	0.83 U	0.95 U
4-Bromophenyl phenyl ether		NC	NC	400000000000000000000000000000000000000	0.92 U	U 88.0	0.89 U	0. <b>8</b> 9 U	0. <b>8</b> 9 U	0. <b>8</b> 3 U	¢.95 U
4-Chloro-3-methylphenol		NC	0.24	1.1 U 1.1 U	0.36 U	0.33 U	0.35 U	0.35 U	0.35 U	0.33 U	0.38 U
4-Chloroaniline		NC	AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	********************	0.36 U	U 62.0	0.35 U	035 U	0.351)	0.33 U	0.38 U
4-Chlorophenyl phenyl ether		NC	0.22	1.1 U	0.36 U	0.33 U	0.35 U	0.35 U	0.35 U	0.33 U	0.38 U
4-Methylphenol		NC	NC	1.1 U	036U	0.33 Ü	0,35 U	0.35 U	0,35U	0,33 U	0.38 U
4-Nippaniline		NC	0.9	1.1 U	0.36 U	0.33 U	0.045 J	0.35 U	0.35 U	0.33 U	0.38 U
4-Nitrophenol		NC	NC	2.7 U	0.92 U	0.83 U	0 89 U	0.89 U	0.89 U	O.BJ U	0.95 U
Acenaphthene		NC	0.1 \$0	2.7 U	0.92 U	0.83 UJ	0.89 UJ	0.89 U	0.89 U	0.83 UJ	0.95 U
Acenaphthylene		NC		0.21	0.065 1	0.034 J	0.082 J	0.071 J	0.111	033 U	0.09 J
Acetophenone		NC NC	41 NC	1.5	1.8	. 0.33 U	0.1 J	0.15 J	1.2	0.33 U	1,3
Anthracene			25-1425-2626262626262626	110	0.063 1	0.034 J	0.35 U	0.043 J	0.077 J	0.043 J	0.079 J
Atrazne		NC NC	50 NC	1.4	2.1	0.33 U	0,26 J	0.22 J	1.3	0.052 J	1.4
Benzo(a)anthracene		NC**		1.10	036 U	0.33 U	0.35 U	0.35 U	0.35 U	0.33 U	038 U
Benzaldehyde		NC**	0.224**	(3.3 )	(2.9 J)	t 990,0	(L3 J)	(0.64 )	(1.3 J)	0.19 J	(1.3 J)
Benzo(a)pyrene			NC	1.10	0.36 U	0.33 U	035 U	0.35 U	0.35 U	0.33 U	0.3 <b>8 U</b>
Benzo(a)pyrene Benzo(b)fluoranthene		NC**	0.061**	(3.2)	(2.3 J)	(0.16 J)	(1.6 Л)	(0.55 J)	(1.5 J)	(0.19 Л)	(1.4 J)
		NC**	0.224**	(0)	(2,4,1)	0.14 J	(225)	(0.54 J)	(221)	(0.27 J)	(2.2 J)
Benzo(ghi)perylene NOTES: U - Not detected, J	- Estimated value,	NC	50	3.8	0.65 J	0.066 J	1.9 J	0.6 J	0.43 J	0.088 J	0.56 J

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### Table 5 Hanna Furnace Subparcel 2 Surface Soil Samples Semivolatile Organic Compound Data

ompound	Sample ID Sample Depth Sample Date Units Matrix	Site-Specific Action Level mg/Kg	NYS TAGM 4046 Recommended Soil Cleanup mg/Kg	SB-09 0.0 - 0.5 ft 07/31/2001 mg/Kg	SB-10 0.0+0.5 ft 07/31/2001 mg/Kg	SB-11 0.0-0.5 ft 08/02/2001 mg/Kg	SB-12 0.0 - 0.5 ft 08/02/2001 mg/Kg	SB-13 0.0 - 0.5 ft 07/30/2001 mg/Kg	SB-14 0.0 - 0.5 ft 07/31/2001 mg/Kg	SB-15 0.0 - 0.5 ft 08/02/2001 mg/Kg	SB-17 0.0 - 0.5 ft 08/01/2001 mg/Kg
Benzo(k)fluoranthene	Mauix			SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Bis (2-chloroethoxy) methane		NC**	0.224**	(2.9)	(2.3 J)	0.16 J	(2.1 J)	(0.48 J)	(1.9.J)	0.21 J	(1.3 J)
Bis (2-chloroethyl) ether		NC	NC	110	0.36 U	0.33 U	0.35 U	0.35 U	0.35 U	033 U	(1.3.J) 031 U
Bis(2-ethylhexyl)phthalate		NC	NC	1.1 U	0.36 U	0.33 U	0.35 U	0.35 U	0.35 U	0.33 U	0.38 U
Butyl benzyl phthalate		NC	50	031	0.36 UJ	12	0.35 L))	0.073 J	0.076.1	0.66	0.380
Caprolactam		NC	50	1.1 U	0.36 UJ	0.33 U	0.35 UJ	0.35 U	0.35 UJ	0,33 U	0.27 J 0.38 UJ
Carbazole		NC	NC	1.1 U	0,36 U	U ££.0	0,35 U	035U	0351)	0330	ana
Chrysene		NC NC**	NC	0.36 J	0.16 J	0.33 U	0.12 J	0.093 J	0.23 J	0.33 U	0.38.U 0.25 J
Di-n-butyl phthalate		NC** NC	0.4**	(35)	(3:1)	0.113	(1.5.))	(0.72 )	(1.6.7)	0.23 1	(1.5.I)
Di-n-octyl phthalate		NC NC	8.1	1.1 U	0.36 U	0.33 U	0.35 U	0.35 U	0.2 J	0.33 U	0.38 U
Dibenzo(a,h)anthracene			50	1.1 U	0.36 UJ	0331)	035 UI	035 UJ	0.35 UI	033 U	0.38 UJ
Dibenzofuran		NC**	0.014**	(1.6)	(0.48 J)	0.33 U	0.35 UJ	(0.26 J)	(0.32 Л)	(0.059 J)	(0.33 J)
Diethyl phthalate		NC	6.2	0.13 J	0.064 J	0.13 U	0.23 J	0.062 1	0.111	0.033.1	(0.353) 0,143
Dimethyl phthalate	Maanii Maadaaaaaaaaaaaaaa	NC	7.1	1.I U	0.36 U	0.33 U	0.35 U	0.35 U	0.35 U	0.33 U	0.38 U
Fluoranthene		NC	2	1.10	0.36 U	0.33 U	0.35 U	0.15 U	0.35 U	0.33 U	0.38 U 0.38 U
Fluorene	999999999999999999999999999999	NC	50	5.5	4.1	0.11 J	0.63	1.2	1.9	0.33 J	4.56 G
Hexachlorobenzene		NC	50	0.17 J	0 048 J	0.33 U	0.11J	0.06 J	0.095 J	0.33 U	0.38 U
Hexachlorobutadiene		NC	0.41	1.1 U	0.36 U	0.33 U	0.35 U	0.35 U	0.35 U	0.33 U	0.38 U
Hexachlorocyclopentadiene		NC	NC	1.1 U	0.36 U	0.33 U	0.35 U	0.35 U	0.35 U	0.33 [J	0.36 U
Hexachlorgethane		NC	NC	1.1 UJ	0.36 U	0.33 U	0.35 U	0.35 U	0.35 U	0.33 U	0.38 U
Indeno(1,2,3-cd)pyrene		NC	NC	1.1 U	0.36 U	0.33 U	0.35 U	0.35 U	035U	033 U	0.38U 038U
Bophorone		NC**	3.2**	(4.3 )	1.13	0.12 J	2 J	0.68 1	0.8 J	0.14 J	0.81 J
N-Nitrosodipropylamine		NC	44	1.1 U	0,36 U	0.39 U	0,35 U	035U	0.35 U	0331	0.38 U
N-Nitrosodiphenylamine		NC	NC	1.1 U	0.36 U	0.33 U	0.35 U	0.35 U	0.35 U	0.33 U	0.38 U
Naphthalene		NC	NC	1.I U	0.36 U	033 U	035.U	035 U	0.35 ()	03310	0.38 U
Nicobenzeue		NC	13	0.11 J	0.094 J	0.33 U	0.65	0.082 J	0.22 J	0.056 J	0.33 J
Pentachlorophenol		NC	02	1.1 U	0.36 U	0.33 U	035 U	0.15 U	0.35 U	0.33 U	0.38 U
Phenanthrene		NC NC	1	2.7 U	0.92 U	0.83 U	0.89 U	UJ <b>0</b> 8.0	0.89 U	0.83 U	0.95 UJ
Phenol		NC	50	22	1.1	0.057 J	11	0.75	12	0.271	0.77
Pyrene		NC	0.03	1.1 U	0.36 U	0.33 U	0.35 U	0.35 U	0.35 U	0.33 U	0.38 U
Total carcinogenic PAHs		NC	<b>5</b> 0	47	123	0.11 J	t <b>8 3</b>	0.93	0.97 J	0317	0.76 J
Total PAHs		NC NC	10	(21.8 )	(14,58)	0.789	(10.7)	3,87	9.62	1.289	8,84
Total SVOCs		200200000000000000000000000000000000000	500	41.5	26.457	1.166	18.532	8.027	17.255	2.465	16.22
	••••••••••••••••••••••••••••••••••••	500	NC	42.29	26.744	2.4	19.077	8.298	17.988	3.201	17.02

NOTES:

U - Not detected, J - Estimated value, -- - Not analyzed. NC - No screening value available, [] - Exceeds Site-Specific Action Level, () - Exceeds NYS TAGM 4046 - Recommended Soil Cleanup. ** - Carcinogenic PAH

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Page 2 of 5 CONTINUED



# Table 7Hanna Furnace Subparcel 2Surface Soil SamplesInorganic Data

	Sample ID Sample Depth Sample Date Units	Site-Specific Action Level mg/Kg	NYS TAGM 4046 Recommended Soil Cleanup mg/Kg	SB-01 0.0 - 0.5 ft 07/31/2001	SB-02 0.0 = 0.5 ft 08/10/2001	SB-03 0.0 - 0.5 ft 08/01/2001	SB-04 0.0 - 0.5 ft 08/09/2001	SB-05 0.0 - 0.5 ft 08/09/2001	SB-06 0.0 - 0.5 ft 08/01/2001	SB-07 0.0 - 0.5 ft 08/09/2001	SB-08 0.0 - 0.5 ft 08/02/2001
Compound	Matrix	mg/ Kg	mg/Kg	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID
Aluminum	<b>**</b>	NC	SB	26500	8260	30800	19800	2010	28500	25200	3320
Antimony		NC	\$B	8.0J	111	1123	12.6 UJ	10.6 UJ	1971	13.4 UJ	12.5 UJ
Arsenic		50	7.5	(13.8 J)	(9.0)	(12.0 J)	(17.6)	1.8 U	(12.8 J)	5.3	1.3
Barium		500	300	225	87.9	212	150	26.1	265	238	28.9
Beryllium		NC	0.16	(5.1)	(1.1)	(5.8)	(3.6 )	0.077	(5.5 ) ⁻	(4.7 )	(0.20)
Cadmium		20	10*	2,0	0,46	2,1	ioú	0,14	2.7	ÌA Ú	0,35
Calcium		NC	SB	161000 J	47600 J	169000 J	82700 J	1130 J	159000 J	149000 J	5330
Chromium		200	50*	17.0	20.8 ]	17.0	20.9 ]	5.81	19.6	27.4.1	10.6
Cobalt		NC	30	3.7	2.4	5.1	5.2	0.52	5,4	2.9	1.9
Соррег		NC	25	(61.0 J)	(64.5 J)	(32,1 J)	(90.0 J)	5.13	(60.2.1)	(69.9 J)	23.1 J
Cyanide		50	NC						-		
lron		NC	2000	(30100 J)	(28800 )	(41200 Л)	(78600 )	1800	(59400 J)	(41800)	(12000 )
Lead	eneren en e	1000	1000*	152 J	190	68.9 J	119	21.8	109 J	117	41.5 J
Magnesium		NC	SB	17200 J	92303	15400 J	5920 \$	647 J	19900 1	16300 J	2410
Manganese		NC	SB	2450 J	1180	1810 J	2610	33.5	2680 J	4240	189
Mercury		1	0.1	(0.14.)	(0.29 )	0.089	0.091	0.099 U	0.094 U	(0.17)	0.070
Nickel		NC	13	8.1	(13.1 )	7.1	(41.4 )	2.1	7.2	(47.2)	8.6
Potassium		NC	SB	1570	2320 1	1410	870 J	1700 J	2160	19101	1180
Selenium		50	2	0.83 UJ	1.1 UJ	0.96 UJ	1.0 UJ	0.89 UJ	(10.5 J)	1.1 UJ	1.0 UJ
Silver		1000	SB	1.5	2.1 U	14	2.1 U	1. <b>5</b> U	1.6	22 U	2.10
Sodium		NC	SB	827	543	601	242	134	916	601	161
Thellium		NÇ	SB	1.7 UJ	2.1 UJ	1903	2.1 UJ	1. <b>S UJ</b>	2.0 UI	2.2 UJ	1.6.1
Vanadium		NC	150	8.3 U	17.4	9.6 U	41.3	3,3	10.0 U	25.9	1.1
Zine		NC	20	(230 J)	(304 J)	(170 J)	(483 5)	(96.8.1)	(289 J)	(296 J)	 (1 0.88)
								, in the second s			
NC - No scr	•	Exceeds Site-Specific	: Action Level, () - Exceeds which have not yet been in	NYS TAGM 4046 corporated into TA	- Recommended Soil C GM 4046.	leanup,			Page	1 of 5	File Number: 5509 ;



# Table 7 Hanna Furnace Subparcel 2 Surface Soil Samples Inorganic Data

	Sample ID Sample Depth Sample Date	Site-Specific Action Level	NYS TAGM 4046 Recommended Soit Cleanup	SB-09 0.0 - 0.5 ft 07/31/2001	SB-10 07/31/2001	SB-11 0,0=0.5 ft 08/02/2001	SB-12 0.0 - 0.5 ft 08/02/2001	SB-13 0.0 - 0.5 ft 07/30/2001	SB-14 0.0 - 0.5 ft 07/3 1/2001	SB-15 0.0 - 0.5 ft 08/02/2001	SB-16 0.0 - 0.5 ft
ompound	Unitz Matrix	mg/Kg	mg/Kg	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID	mg/Kg	08/01/2001 mg/Kg
Aluminum		NC	SB	31600	12000	2030	9100			SOLID	SOLID
Antimoay		NC	SB	62]	30.2 1	10.8 UJ	5151	8540	8650	2390	23000
Arsenic		50	7.5	(18.3 J)	(14.7 J)	1,8 Ŭ	(22.4)	25.8 J	31.13	33.8 J	21.3 ]
Barium		500	300	284	145	20.9	(22.4 ) 299	1.9 U	2.9 J	3.3	(17.2 J)
Beryllium		NC	0.16	(6.7 )	(1.9)	0.16		82.4	177	35.9	247
Cadmium		20	10*	2,1	6.6	0.10	(1.3)	(1.6)	(1.5 )	(0.48 )	(4.2 )
Calcium		NC	SB	185000 J	47900 J	7110	9.1	2.0	<b>6</b> ,0	3.1	s.7
Chromium		200	 50*	18.2	27.1	93	66000	58900 J	35600 J	30000	145000 J
Cobalt	*********	NC	30	4.2	6,9	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Q416 ))	117	41.5	32.0	32:8
Copper		NC	25	 (96.6 J)		1.1	10.2	6.2	7.1	4.2	5.5
Cyanide		50	NC	(30,01)	(150 J)	1641	(4310 J)	(15 <b>8 /</b> )	(1130 J)	(69.1 J)	<del>(664</del> J)
lron		NC	2000			 				-	1.5 J
Lead		1000	1000*	(28700 J)	(94600 J)	(10500)	(125000 )	(\$4100 J)	(\$7600 5)	(110000)	(66700 J)
Magnesam		NC	1000* SB	169 J	408 J	49,4 J	([1120 J])	51,1 J	463 3	353 J	326 J
Manganese		NC	~~~~~~~~~~~	30200 J	5630 J	906	13900	34301	4490 \$	6980	30900 J
Mercury		1	SB 0.1	2530 J	3860 J	148	3000	1610 J	2700 J	1730	3170 J
Nickel		I NC		(0.47.)	(31 B	0.072	(0.67 )	(0.30 )	(1.8 P	0.090 U	([4.4.])
Potassium		NC NC	13	8.2	(19.0)	2.2	(33.6)	1.3	(31.5)	(17.4)	(14.6)
Selenium			SB	2110	1910	233	679	886	1050	281	2580
Silver		50	2	(2.4 J)	0.98 UJ	0.90 tJ	1.1 UJ	0.96 UJ	0.90 UJ	0.95 UJ	1.9 J
Sodium		1000	SB	2.1	2.0	1.5U	5.3	1.90	1,1	1.9 U	2.3
Thallium		NC	SB	914	432	359	326	215	247	113	956
Vanadium		NC	\$B	2.I UJ	153	153	9,43	151	4.13	10,9 J	21 W
Zinc		NC	150	10.6 U	9.8 U	0.30	11.1 U	9.6 U	9.0 U	9.5 U	10.6 U
ZINC		NC	20	(196 J)	(1340 J)	(67,1 J)	(1150 J)	(342 J)	(1140 J)	(99.1.1)	(892 ))
	· · · · · · · · · · · · · · · · · · ·										
								, and the second se			
OTES: U - Not detecte	d, J - Estimated value,	- Not analyzed.									
NC - No screen * - indicates N	ing value available, [ ] - E YSDEC revised values for	scoods Site-Specific	Action Level, () - Exceed which have not yet been in	is NYS TAGM 4046	- Recommended Soil Cl 7M 4046	canup.					
SB - Site Back				sector and the tree	ATT TOTO,					-	



#### Table 8 Hanna Furnace Subparcel 2 Subsurface Soil Samples Volatile Organic Compound Data

	Sample ID	Site-Specific Action	NYS TAGM 4046 Recommended Soil Cleanup	SB-09 6.0 - 8.0 ft	SB-13 0.5 - 2.0 ft	SB-14 6.0 - 8.0 ft	SB-16 2.0 - 4.0 ft	SB-18 2.0 - 4.0 ft	
	Sample Depth Sample Date	Level	Son Cleanup	07/31/2001	07/30/2001	07/31/2001	08/01/2001	07/30/2001	
	Units	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	
pound	Matrix		~~ <del>,</del>	SOLID	SOLID	SOLID	SOLID	SOLID	
1.1.1-Trichloroethane		· · · · · · · · · · · · · · · · · · ·	0.8	0.025 U	0.018 U	0.028 U	0.015 U	0.013 U	
1,1,2,2-Tetrachloroethane		· i	0.6	0.025 U	0.01 <b>8</b> U	0.02 <b>8</b> U	0.015 U	0.013 U	
1,1,2-Trichloro-1,2,2-trifluoroethane		1	6	0.025 U	0.018 U	0.028 U	0.015 U	0.013 U	
1,1,2-Trichloroethane		· · · ·	NC	0.025 U	0.018 U	0.028 U	0.015 U	0.002 1	
1,1-Dichloroethane		1	0.2	0.025 U	0.018 U	0.028 U	0.015 U	0.013 U	
1.1-Dichloroethene			0.4	0.025 U	0,018 U	0.028 V	0.015 U	0,013 U	
1,2,4-Trichlorobenzene		1	3,4	0.025 U	0.018 U	0.028 U	0.015 U	0.013 U	
1.2-Dibromo-3-chloropropane		1	NC	0.025 U	0.018 U	0.028 U	0,015 U	0.013 U	
1,2-Dibromoethane (EDB)		1	NC	0.025 U	0.018 U	.0.028 U	0,015 U	0,013 U	
1,2-Dichlombenzene			79	0.025 U	0.018 U	0,028 U	0.015 U	0.013 U	
1,2-Dichloroethane		1	0,1	0.025 U	0.018 U	0.02 <b>8</b> U	0.015 U	0.013 U	
.2-Dichlompropane		i	NC	0.025 U	0.01 <b>3</b> U	0.028 U	0.015 U	0.013 U	
,3-Dichlorobenzene		1	1.6	0.025 U	0.01 <b>8</b> U	0.028 U	0.015 U	0.013 U	
"4-Dichlorubenzene		, j	8,5	0.025 U	0.01 <b>8</b> U	0.0 <b>28</b> U	0.015 U	0.013 U	
2-Butanone (MEK)		00000000000000000000000000000000000000	0.3	0.025 U	0.018 U	0.028 U	0.015 U	0.013 UJ	
-Butanone (MER)		- 1	NC	0.025 U	0:01 <b>s</b> U	0.028 U	0.015 U	0011U	
-Hexandre I-Methyl-2-pentanone (MIBK)		2000000 <b>1</b>	1	0.025 U	0.018 U	0.028 U	0.015 U	0.004 J	
Acetone		Î	0.2	0.06	0.033	0.07 J	0.035	0.079	
Benzene		1 1	0.06	0.025 U	0.018 U	0.028 U	0.002 J	0.013 U	
Benzene Brumodichloromethane			NC	0.025 U	0.018 U	0.02 <b>8</b> U	0.015 U	0.013 U	
Bromoform		1 1	NC	0.025 U	0.018 U	0.028 U	0.015 U	0.001 J	ana ana ing katalah kat
		·	NC	0.025 U	0.018 U	0,028 U	0,015 U	0.013 U	
Bromomethane Carbon disulfide		1 1	2.7	0.024 J	0.003 J	0.028 U	0.015 U	0.031	ana ang ang ang ang ang ang ang ang ang
Carbon disuitide		, i	0.6	0.025 U	0.018 U	0.028 U	0.015 U	0.013 U	
Chlorobenzene		99999990000000000000000000000000000000	1.7	0.025 U	0.018 U	0.028 U	0.015 U	0.013 U	
Chioroethane		- 1	1.9	0.025 U	0,018 U	0.028 U	0.015 U	0.013 U	
Chloroform		2000-000-000-000-000-000-000-000-000-00	0.3	0.025 U	0.018 U	0.028 U	0.015 U	0.013 U	
Chloromethane		1	NC	0.025 U	0.01 <b>5 U</b>	0.02 <b>8</b> U	0015 U	0013 U	
		1 t	NC	0.025 U	0.018 U	0.028 U	0.015 U	0.013 U	000000000000000000000000000000000000000
Cyclohexane Dibromochloromethane		- I	NC	0.025 U	001 <b>8</b> U	0.02 <b>8</b> U	0.015 U	0 013 U	
Dichlorodifluoromethane		1	NC	0.025 U	0.018 U	0.028 U	0.015 U	0.013 U	
Ethylbenzene		·	55	0.025 U	0.01 <b>8</b> U	0.017 J	0 015 U	0.013 U	
Enyroenzane isopropyibenzene		1	5	0.025 U	0.018 U	0.028 U	0.015 U	0.013 U	2010100200000000000000
Methyl acetate		i	NC	0.025 UJ	0.018 UJ	0.02 <b>4</b> UI	0.015 UI	0.013 UI	
Methyl tert butyl ether		1 1	0.12	0.025 U	0.01 <b>8 U</b>	0.028 U	0.015 U	0.013 U	

U - Not detected, J - Estimated value, --- Not analyzed. NOTES:

NC - No screening value available, [] - Exceeds Site-Specific Action Level, () - Exceeds NYS TAGM 4046 - Recommended Soil Cleanup.

1 of 1 Page

File Number: 5509.28602



# Table 8 Hanna Furnace Subparcel 2 Subsurface Soil Samples Volatile Organic Compound Data

Compound	Sample ID Sample Depth Sample Date Units Matrix	Site-Specific Action Level mg/Kg	NYS TAGM 4046 Recommended Soil Cleanup mg/Kg	SB-09 6.0-8.0 ft 07/31/2001 mg/Kg SOLID	SB-13 0.5 - 2.0 ft 07/30/2001 mg/Kg SOLID	SB-14 6.0 - 8.0 ft 07/3 1/2001 mg/Kg	SB-16 2.0 - 4.0 ft 08/01/2001 mg/Kg	SB-18 2.0 - 4.0 ft 07/30/2001 mg/Kg			
Methylcyclohexane	IVIAU IX					SOLID	SOLID	SOLID			
Methylene chloride	1999 - De la constantina de la constant	در در در در در در در ویژه در ارزی	NC 0.1	0.025 U 0.025 U	0.018 U	0.18 J	t 200.0	0.013 U			
Styrene		1	NC	0.025 U	0.011 U 0.015 U	0.028 U	0.015 U	0013U			
Teunchlomethene		į	1.4	0.025 U	0.018 U	0.028 U 0.42 J	0.015 U 0.015 U	0.013 U 0.013 U		*****	
Toluene		1	1.5	0.025 U	0.018 U	0.005 J	0.004 J	0,002 J			
Trichloroethene		1	0.7	0.025 U	0.018 U	0.004 J	0.015 U	0,013 U		Kanadan karasasasas	leiteite istoppo stop moor
Trichlorofluoromethane		1	NC	0.025 U	0.018 U	0.028 U	0.015 U	0.013 U			
Vinyl chloride		1	02	0.025 U	0.018 U	0.028 U	0.015 U	0.013 U			
Xylene (total)			1.2	0.025 U	0.018 U	0.081 J	0.003 J	0.013 U			
cis-1,2-Dichloroethene		1	0:25	0.025 U	0.018 U	0.028 U	0.015 U	0.013 U			
cis-1,3-Dichloropropylene		1	NC	0.025 U	0.018 U	0.02 <b>8 U</b>	0.015 U	0.013 U			
trans-1,2-Dichloroethene		1	0,J	0.025 U	0.01 <b>8 U</b>	0.028 U	0.015 U	0.013 U			
trans-1,3-Dichloropropene		i	NC	0.025 U	0.018 U	0.028 U	0.015 U	0.013 U			
Total VOCs		10	NC	0.084	0.036	0.777	0.05	0.119			
								,			
NOTES: U - Not detected, J - NC - No screening v te Printed: 11/06/2002 11:54:18	Estimated value, value available, [] - E	- Not analyzed. acceeds Site-Specific	Action Level, ( ) – Excess	Is NYS TAGM 4046	- Recommended Soil C	Севпир.			Page 1	of 1 C	CONTINUED



# Table 9Hanna Furnace Subparcel 2Subsurface Soil SamplesSemivolatile Organic Compound Data

	Sample ID Sample Depth Sample Date Units	Site-Specific Action Level mg/Kg	NYS TAGM 4046 Recommended Soil Cleanup mg/Kg	COMP-38-39 1.0 - 1.5 ft 03/26/2002 mg/kg	COMP-40-41 1.5 - 2.0 ft 03/26/2002 mg/kg SOLID	SB-06 4.0 - 6.0 ft 08/01/2001 mg/Kg	5B-08 4.0 - 6.0 ft 08/02/2001	5B-09 6.0 - 8.0 ft 07/31/2001 mg/Kg	SB-10 0.5 - 2.0 ft 07/3 1/2001 mg/Kg	SB-13 0.5 - 2.0 ft 07/30/2001 mg/Kg	SB-14 6.0 - 8.0 ft 07/31/2001 mg/Kg
ompound	Matrix	mg/xg	ing/ Kg	SOLID		SOLID	mg/Kg SOLID	SOLID	SOLID	SOLID	SOLID
1,1'-Biphenyl		NC	NC	0.39 U	0.45 U	0.55 U	0.36 U	0.63 U	0.37 U	0.48 U	0.66 UJ
2,2'-oxybia(1-Chioropropane)		NC	NC	0.39 UJ	0.45 UJ	0.55 UJ	0.36 LJ	0.63 UJ	0.17 UJ	0.48 LJJ	0.66 UJ
2,4,5-Trichlorophenol		NC	0.1	0.39 U	0.45 U	1.4 U	0.91 U	1.6 U	0.94 U	1.2 U	1.7 UJ
2,4,6-Trichlorophenol		NC	NC	0.39 U	0.45 U	0.55 U	0, <b>36</b> U	0.63 U	0.37 U	0.48 LJ	0.66 UI
2,4-Dichlorophenol		NC	0.4	0.39 U	0,45 U	0.55 U	0.36 U	0.63 U	0.37 U	0.48 U	0.66 U
2,4-Dimethylphonol		NC	NC	0,39 U	0.45 U	0.55 U	0.36 U	0.63 U	0.37 U	0,45 U	0.66 U
2,4-Dinitrophenol		NC	0.2	0.95 UJ	1.1 ឃ	1.4 U	0.91 U	1.6 U	0.94 U	1.2 U	1.7 UI
2,4-Dinitrotoluene		NC	NC	0 39 U	0,45 U	0.55 U	0.36 U	0.63 U	03713	0.46 U	0.66 UJ
2,6-Dinitrotoluene		NC	1	0.39 U	0.45 U	0.55 U	0,36 U	0.63 U	0.37 U	0.48 U	0.66 UJ
2-Chloronaphthalene		NC	NC	039 U	0.45 U	0.55 U	0.36 U	0.63 U	037U	0.45 U	0.66 (J)
2-Chlorophenol		NC	0.8	0.39 U	0.45 U	0.55 U	0.36 U	0.63 U	0.37 U	0.48 U	0,66 U
2-Methylnaphthalene		NC	36.4	0.04 J	0.071 J	0.55 U	0.36 U	0.63 U	L 690.0	0.46 U	23
2-Methylphenol		NC	0.1	0.39 U	0,45 U	0.55 U	0.36 U	0.63 U	0.37 U	0.48 Ŭ	0.66 U
2-Nitroaniline		NC	0,43	0.95 U	110	1. <b>4 U</b>	0.91 U	1.6U	0.94 U	1.2 U	1.7 UI
2-Nitrophenol		NC	0,33	0.39 U	0.45 U	0.55 U	0.36 U	0.63 U	0.37 U	0.48 U	0.66 U
3.3-Dichlorobenzidine		NC	NC	0 39 U	0.45 U	0.55 U	036U	0 63 U	0,37 U	0.48 U	0.66 UJ
3-Nitroaniline		NC	0,5	0.95 U	1.1 U	1.4 U	0.91 U	1.6 U	0.94 U	1.2 U	1.7 UJ
4,6-Diniero-2-methylphenol		NC	NC	0.95 U	110	1.4 U	091U	1.6 U	0.94 U	120	1.7 UJ
4-Bromophenyl phenyl ether		NC	NC	0.39 U	0.45 U	0.55 U	0.36 U	0.63 U	0.37 U	0.48 U	0.66 UJ
4-Chloro-3-methylphenol		NC	0.24	0.39 U	0,45 U	0,55 U	0.36 U	0.63 U	0.3713	0.48 U	0.65 U
4-Chloroaniline		NC	0.22	0.39 U	0.45 U	0.55 U	0.36 U	0.63 U	0.37 U	0.48 U	0.66 U
4-Chlorophenyl phenyl ether		NC	NC	039U	0,45 U	0.55 U	0.36 U	0,61 U	0,37 U	0,48 U	0.66 UI
4-Methylphenol		NC	0.9	0.39 U	0.45 U	0.55 U	0.36 U	0.63 U	0.37 U	0.48 U	0.66 U
4-Nitroaniline		NC	NC	0.95 U	1.1 U	1.4U	0.91 U	1.6 U	0.94 U	1.20	1.7 យ
4-Nitrophenol	00000000000000000000000000000000000000	NC	0.1	0.95 UJ	1.1 UJ	1.4 U	0.91 UJ	1.6 U	0.94 U	1.2 U	1.7 UJ
Acensphthene		NC	50	0 39 U	0.015 J	0.55 U	0.36 U	0.63 U	0.37 U	0.46 U	0. <b>56 UJ</b>
Acenaphthylene		NC	41	0.39 U	0.45 U	0.067 J	0.36 U	0.63 U	0.28 J	0.48 U	0.66 UJ
Acetophenone		NC	NC	0.39 U	0.45 U	0.056 J	0:045 J	0.12 J	0.37 U	0.055 J	0.66 U
Anthracene	aan dareed a rooten hid ad a hoof (1999). A	NC	50	0.39 U	0.04 J	0.55 U	0.36 U	0.63 U	0.21 J	0.48 U	0.66 UJ
Atrazine		NC	NC	0.39 U	0.45 U	0.55 U	0,36 U	0. <b>63 U</b>	0.37 U	0. <b>48 U</b>	tU 860
Benzo(a)anthracene	x0,000,000,000,000,000,000,000,000,000,	NC**	0.224**	0.025 J	0.11 J	0.113	0.064 J	0.14 J	(0.45 )	0.48 U	0.66 UJ
Benzaidchyde		NC	NC	0:39 U	0.45 U	0.55.U	0.36 U	0.63 U	0.37 U	0.48 U	0.66 U
Benzo(a)pyrene		NC**	0.061**	0,015 J	0.052 J	(0.14 Л)	(0.076 J)	(0.1 Ĵ)	(0.43 )	0.48 U	0.66 UJ
Benno(b)fluoranthene		NC**	0.224**	0.015 J	0.053 J	0.17 J	0.13	Q.1 J	(0,44.)	0. <b>48 U</b>	0.66 UJ
Benzo(ghi)perylene		NC	50	0,01 J	0,037 J	0.12 J	0.038 J	0.63 U	0.52	0.48 U	0.66 UJ

Page 1 of 2

File Number: 5509.28602



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# Table 9Hanna Furnace Subparcel 2Subsurface Soil SamplesSemivolatile Organic Compound Data

	Sample ID Sample Depth Sample Date	Site-Specific Action Level	NYS TAGM 4046 Recommended Soil Cleanup	COMP-38-39 1.0 - 1.5 ft 03/26/2002	COMP-40-41 1.5 - 2.0 ft 03/26/2002	SB-06 4.0 - 6.0 ft 08/01/2001	SB-08 4.0 - 6.0 ft 08/02/2001	SB-09 6.0 - 8.0 ft 07/31/2001	SB-10 0.5 - 2.0 ft 07/31/2001	SB-13 0.5 - 2.0 ft 07/30/2001	SB-14 6.0 - 8.0 ft 07/31/2001 mg/Kg SOLID
ompound	Units Matrix	mg/Kg	mg/Kg	mg/kg SOLID	mg/kg SOLID	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID	
Benzo(k)fluoranthene		NC**	0.224**	0.015 J	0.058 J	0,15 J	0.095 J				
Bis (2-chlomethoxy) methane		NC	NC	0.39 U	0.45 LJ	0.15J 0.55 U	0.36 U	0.11 J 0.63 U	(0.44 )	0.48 U	0.66 UJ
Bis (2-chloroethyl) ether		NC	NC	0.39 U	0.45 U	0.55 U	0,36 U	0.63 U	0.37 U 0.37 U	0.48 U	0.66 U
Bis(2-ethylhexyl)phthalate		NC	50	0.017 J	0 15 J	0351	0.00	0.03 U	0.370 0.12 <i>1</i>	0.48 U 0.48 U	0.66 U
Butyl benzyl phthalate		NC	50	0.39 U	0,45 U	0.55 U	0.36 U	0.63 U	0.123 0.37 U	0.48 U 0.48 U	0.66 UJ
Caprolactam		NC	NC	0.39 U	0,45 U	0.55 U	0.36U	0.63 U	0.37 U 0.37 U	0.48 U 0.48 [j	0.66 UJ
Carbazole	energenergenergigener og	NC	NC	0.39 U	0.014 J	0.55 U	0,36 U	0.63 U	0,37 U	0,48 U	0.66 U
Chrysene		NC**	0.4**	0.036 J	4.12.1	0.141	0.17	0.141	(0.370	0.48 U 0.48 U	0.66 UJ
Di-n-butyl phthalate		NC	8.1	0.39 U	0.45 U	0.55 U	0.36 U	0.63 U	(0.32 ) 0.37 U	0.48 U	0.66 UJ 0.66 UJ
Di-n-octyl phthalate		NC	50	0.017 J	0.02 J	035U	036U	0.63 U	0.37 U 0.37 U	0.48 U 0.41 U	0.66 UJ 0.66 UJ
Dibenzo(a,h)anthracene		NC**	0.014**	0.39 U	(0.026 J)	0.55 U	0,36 U	0.63 U	(0.28 Л)	0.48 U	0.66 UJ
Dibenzofuran		NC	6.2	0.016 J	0.068 J	0.55 U	036U	0.63 U	4.37U	0.48 U	0.66 UJ
Diethyl phthalate		NC	7.1	0.39 U	0.45 U	0.55 U	0.36 U	0.63 U	0.37 U	0,48 U	0.66 UJ
Dimethyl phthalate		NC	2	0.39 U	0.45 U	0.55 U	0.36U	0.63 U	0.37 U	0.46 U	0.66 UJ
Fluoranthene		NC	50	0.037 J	0.31 J	0.14 J	0.12 J	0.21 J	0.47	0.058 J	0.66 UJ
Fluorene		NC	50	0.39 U	0.019.1	0.55 U	0.12J	0.63 U	0.47 0.37 U	0.48 U	0.00 UJ 0.66 UJ
Hexachlorobenzene		NC	0.41	0.39 U	0.45 U	0.55 U	0.36 U	0.63 U	0.37 U	0:48 U 0.48 U	0101000000000000000000000
Hexachlorobutadiene		NC	NC	0.39 U	0.45 U	0.55 U	0.36 U	0.63 U	0.37 U	0.48 U	0.66 UJ 0.66 U
Hexachlorocyclopentadiene		NC	NC	0.39 U	0.45 U	0.55 U	0.36 U	0.63 U	0.37 U	0.48 U	0.66 UJ
Hexachloroethane		NC	NC	0.39 U	0.45 U	0.55 U	0.36 U	0.63 U	0.37 U	0.48 U	0,66 U
Indeno(1,2,3-cd)pyrene		NC**	3.2**	0.39 U	0.031 J	0.13 J	0.042 J	0.63 U	0.67	0.48 U	0.66 UJ
Bophorone		NC	44	0,39 U	0,45 U	0.55 U	U 36 U	0.63 U	037U	0,41 U	0.66 U
N-Nitrosodipropylamine	***********************	NC	NC	0.39 U	0.45 U	0.55 U	0.36 U	0.63 U	0.37 U	0.48 U	0,66 U
N-Nitrosodiphenylamine		NC	NC	Q 39 U	0.026 J	0.55 U	0.36 U	0.63 U	0.37 U	0.48 U	0.66 UJ
Naphthalene		NC	13	0.02 J	0.043 J	0.55 U	0,36 U	0,63 U	0.043 J	0.48 U	0,66 U
Nitobenzene		NC	0.2	039 U	0.45 U	0.35 U	036 U	0.63 U	0.17U	0.48 U	0.66 U
Pentachlorophenol	4 men men de de la d Internet de la d	NC	1	0.95 UJ	1.1 UJ	1.4 UJ	0.91 U	1.6 UJ	0.94 UJ	1.2 UJ	1.7 UJ
Phenanthrene		NC	50	0.086 J	0.56	0.55 U	0.096.1	0.161	0.18 J	0.055 J	0.66 UJ
Phenol	-one-one-oc-oc-oc-oc-oc-oc-oc-oc-oc-oc-oc-oc-oc-	NC	0.03	0.39 U	0.45 U	0.55 U	0.36 U	0,63 U	0.37 U	0,48 U	0.66 U
Pyrens		NC	50	0 031 J	0.24 J	0   J J	0.16 J	0.18 J	0.43	0.06 J	0.66 UJ
Total carcinogenic PAHs		NC	10	0,106	0.45	0.84	0.477	0,59	3.23	<u> </u>	
Tonal PAHs		NC	500	0.33	1.785	1.297	0. <b>\$</b> 91	1.14	5.426	0.173	2.3
Total SVOCs		500	NC	0.38	2.063	1.703	1.936	1.59	5.546	0.228	2.3
								,			

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File Number: 5509,28602



### Table 11 Hanna Furnace Subparcel 2 Subsurface Soil Samples Inorganic Data

	Sample ID Sample Depth Sample Date	Site-Specific Action Level	NYS TAGM 4046 Recommended Soil Cleanup	SB-01 4.0 - 6.0 ft 07/31/2001	SB-02 6.0 - 8.0 ft 08/10/2001	SB-03 4.0 - 6.0 ft 08/01/2001	SB-04 2.0 - 4.0 ft 08/09/2001	SB-05 4.0 - 6.0 ft 08/09/2001	SB-06 4.0 - 6.0 ft 08/01/2001	SB-07 4.0 - 6.0 ft 08/09/2001	SB-08 4.0-6.0 ft 08/02/2001
Compound	Units Matrix	mg/Kg	mg/Kg	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID	mg/Kg SOLID
Aluminum		NC	SB	56000	13500 J	47900					
Antimony		NC	SB	24.2.01	23.0 UJ	47900 24.5 UJ	40300	5120	36900	39000	10200
Arsenic		50	7.5	(17.2 J)	(11.0 J)	(16.4 J)	16.3 UJ 2.5	0.961	19.6 111	18.1 UJ	24.7 J
Berium		500	300	(500)	9731	([658 ])	2.5 291	3,8 J 64,1	(19.6 <b>Л</b> )	3.0 U	7.5
Beryllium		NC	0.16	(10.1)	(2.5 J)	(11.4)	(7.5)		G722 D	214	133
Cadmium	Na katalari	20	10*	0.90	1.9 UI	0,42	(,,,) 1,4U	(0.75)	(8,0)	(6.8)	(1.1 )
Calcium		NC	SB	266000 J	83700 J	263000 J	236000 J	0.53	0.27	130	3.2
Chromium		200	50*	10.6	11.13	205000 J 69	236000 3	22700 J	184000 J	197000 J	53100
Cobalt		NC	30	4.3	5,1 J	a.s 3,5	2.5.J 1.4	8.0J	52	392	32.2
Соррет		NC	25	10.1 UJ	(26.2 J)	10.2 UJ	1.4 14.0 J	0.80	2.2	1.8	9.0
Cyanide		50	NC	13.2 J	(28,29) 7.7 J	30.5 J	14.0 J 32.3	(31.2.J) 7.8 J	#2UJ 18.1 J	401	(73.4.))
lion		NC	2000	(24500 J)	(16500 J)	(4260 J)	(11900)	en e		0.28	14,0 J
Lead	www.www.www.www.engine.org/databation	1000	1000*	(24,300 J) 27.3 J	(18500 J) 25.1 J	(42003) 7.9 J	(11900) 18.9	(9580.)	(5690 J)	(13500.)	(80500)
Magnesium		NC	SB	16800 1	7620 1	16900 1	20800 J	102 3690 1	5.1 J 14600 J	552	200 J
Manganese		NC	SB	1650 J	670 J	1940 J	2120	428	1400 J	13300 1	12000
Marcury		1	0.1	0.20 U	0.083 (J)	0.20 U	0.13 U	(0.19.)	0.15 U	, 2520	2350
Nickel		NC	13	2.1	12.9 J	0.52	2.4	(0.19-) 4.5	4,3	0.16 U	0.072
Potassium		NC	SB	975	1390 J	0.32 748	2.4 2090 J	•.5 1260 J	4.3 1110	1.0 1 <b>500 J</b>	(15.1)
Selenium		50	2	(6.8 J)	(41.9 J)	2.0 UJ	(32.1 J)	1-260 J 1.1 UJ	1.6 UJ		1340
Silver		1000	SB	2.7	3.8 UI	4.1 U	2.7 U	2.2 U	1.801	(24.2 J) 3.0 U	1.0 UJ
Sodium		NC	SB	468	206 J	293	<b>601</b>	196	3,30 416	An economica de contra cont	1.1'
Thallium		NC	SB	4.0 UJ	1.8 UI	4,1 UJ	2.7 UI	196 22 UJ	014 ان د.د	622 • • • • •	376
Vanadium		NC	150	20.2 U	18.1 J	9.8	11.4	2,2 03 8,7	4,1	3.0 UJ 14.0	383
Zinc		NC	20	40.3 UJ	(87.5.7)	40. <b>8</b> UJ	(53.1.1)	5.7 (559 J)	4.1 32.7 UJ	14.0 (32.1 J)	10.5 U (415 J)
				,							
								•			
	cted, J - Estimated value,				B					<u></u>	
* - Indicates SB - Site Ba	sening value available, []-] NYSDEC revised values fo ckground.	r nonresidential sites	which have not yet been in	s N 15 1 AGM 4046 corporated into TA	- Recommended Soil C GM 4046.	icanup.			Page	1 of 5	



## Table 11 Hanna Furnace Subparcel 2 Subsurface Soil Samples Inorganic Data

Compound	Sample ID Sample Depth Sample Date Units Matrix	Site-Specific Action Level mg/Kg	NYS TAGM 4046 Recommended Soil Cleanup mg/Kg	SB-09 6.0 - 8.0 ft 07/31/2001 mg/Kg SOLID	SB-10 0.5 - 2.0 ft 07/31/2001 mg/Kg SOLID	SB-11 4.0-6.0 ft 08/02/2001 mg/Kg SOLID	SB-12 2.0 - 4.0 ft 08/02/2001 mg/Kg SOLID	SB-13 0.5 - 2.0 ft 07/30/2001 mg/Kg SOLID	SB-14 6.0 - 8.0 ft 07/3 1/2001 mg/Kg SOLID	SB-15 4.0 - 6.0 ft 08/02/2001 mg/Kg SOLID	SB-16 2.0 - 4.0 ft 08/01/2001 mg/Kg SOLID
Aluminum		NC	SB	38200	10300	13400 J	14100	29500	47800	25900	24700
Antimony		NC	SB	20.2 UJ	40.4 J	16.1 UJ	48.2.1	17.5 J	24.1 UJ	24.5 J	521
Arsenic	, , , , , , , , , , , , , , , , , , ,	50	7.5	(15.4 J)	(10.3 Л)	6.6 J	(16.6)	(8.4 J)	(20.7 Л)	([59.8])	(16.2 J)
Barium		500	300	(348 )	200	77.61	226	256	(324 )	144	156
Beryllium		NC	0.16	(7.4 )	(1.7)	(2.2 Л)	(2.3)	(5.5.)	(8,4.)	(4.4 )	(4.1 )
Cadmium		20	10*	0.56	4,5	0,40 J	75	1.7	0,47	32	0.77
Calcium	an filmen en 1915 - anlere en en en filmere en	NC	SB	220000 J	36900 J	55600 J	57500	182000 J	211000 J	160000	153000 J
Chromium		200	50*	10.2	24.2	ttð	(68.6 )	93	2.1	<b>39.3</b>	7.5
Cobalt	2000-000-000-000-000-000-000-000-000-00	NC	30	3,0	7.4	2.9 J	8,4	5.7	3.5	9,9	5.1
Соррет		NC	25	8.4 UJ	(\$8.7 J)	1.7 W	(1530 J)	(165 J)	1723	(72.2 J)	(62.7 J)
Cyanide		50	NC	1, <b>5 J</b>	0,90 J	0,96 J	5.0 J	12.3 J	8.6 J	3.3 J	2.2 J
lron		NC	2000	(11600 J)	(129000 J)	(21800 J)	(133000)	(57200 J)	(7120 Л)	(79600 )	(23300 J)
Lead		1000	1000*	12.8 J	146 J	10.5 J	([1890 J])	37.6 J	15.9 J	92.0 J	56.7 J
Magnesium		NC	SB	15900 J	3320 J	6060 \$	9820	10500 J	16600 1	11000	37500 J
Manganese		NC	SB	3600 J	2900 J	809 J	2460	1790 J	2070 J	3660	1080 J
Mercury		( ) (	01	0.1 <b>9 U</b>	(0.44.)	0.13 UJ	(0.54.)	(0.11.)	0.17 U	0.12 U	(0,23 )
Nickel		NC	13	13.4 U	10.0	10.7 UJ	(15.4 )	10.6 U	1.8	(18.6)	6,0
Potassium		NC	SB	3090	1160	1080 J	1010	703	1700	2030	2230
Selenium		50	2	(3.0 J)	0.97 UJ	1,3 UJ	1.1 UJ	(2.1 J)	(6.8 J)	1.3 UJ	1.5 UJ
Silver		1000	SB	2.3	1.9 UJ	2.7 UI	2.6	2.6 U	4.0 UJ	2.7 U	3.0 U
Sodium		NC	SB	897	273	203 J	295	284	1200	500	370
Thailium		NC	SB	3.4 UJ	\$0J	2.7 UI	1221	2.6 UI	4.0 UJ	2.7 UI	3.0 UJ
Vanadium		NC	150	6.4	9.7 U	13.4 UJ	10.6 U	13.2 U	15.0	13.3 U	14.9 U
Zinc		NC	20	33 & UJ	(982J)	(90.1 J)	(849 ))	(53 9 J)	40-2 UJ	(2423)	(259 J)
	•										
NC - * - In	ot detected, J - Estimated value, - No screening value available, [] dicates NYSDEC revised values Site Background.	- Exceeds Site-Specif	ic Action Level, () - Exce a which have not yet bee	eds NYS TAGM 404 n incorporated into T/	6 - Recommended Soil AGM 4046.	Cleanup.			Page	2 of 5	File Number: \$509.2



### Table 12 Hanna Furnace Subparcel 2 Subsurface Soil Samples Other Data

	Sample ID Sample Depth Sample Date Units	Site-Specific Action Level	NYS TAGM 4046 Recommended Soil Cleanup	SB-07 4.0 - 6.0 ft 08/09/2001	SB-08 4.0 - 6.0 ft 08/02/2001	SB-09 6.0 - 8.0 ft 07/31/2001	SB-10 0,5 - 2,0 ft 07/31/2001	SB-11 4.0 - 6.0 ft 08/02/2001	SB-12 2.0 - 4.0 ft 0\$/02/2001	SB-13 0.5 - 2.0 ft 07/30/2001	SB-14 6.0 - 8.0 ft 07/31/2001
Compound	Matrix			SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Percent moisture (%) pH (su)		NC NC	NC NC	45.6 —	12.4 10	50.0 11	11.7 8:2	35.0	13,4	30.6 11	51.2 10
£										•	10
	•										
NOTES: U - Not detect NC - No scree	ed, J - Estimated value, ning value available, [] -	Not analyzed. Exceeds Site-Specific	Action Level, () - Exceed	s NYS TAGM 4046	- Recommended Soil C	leanup.					
	2	·				C.			Page	2 of 6	

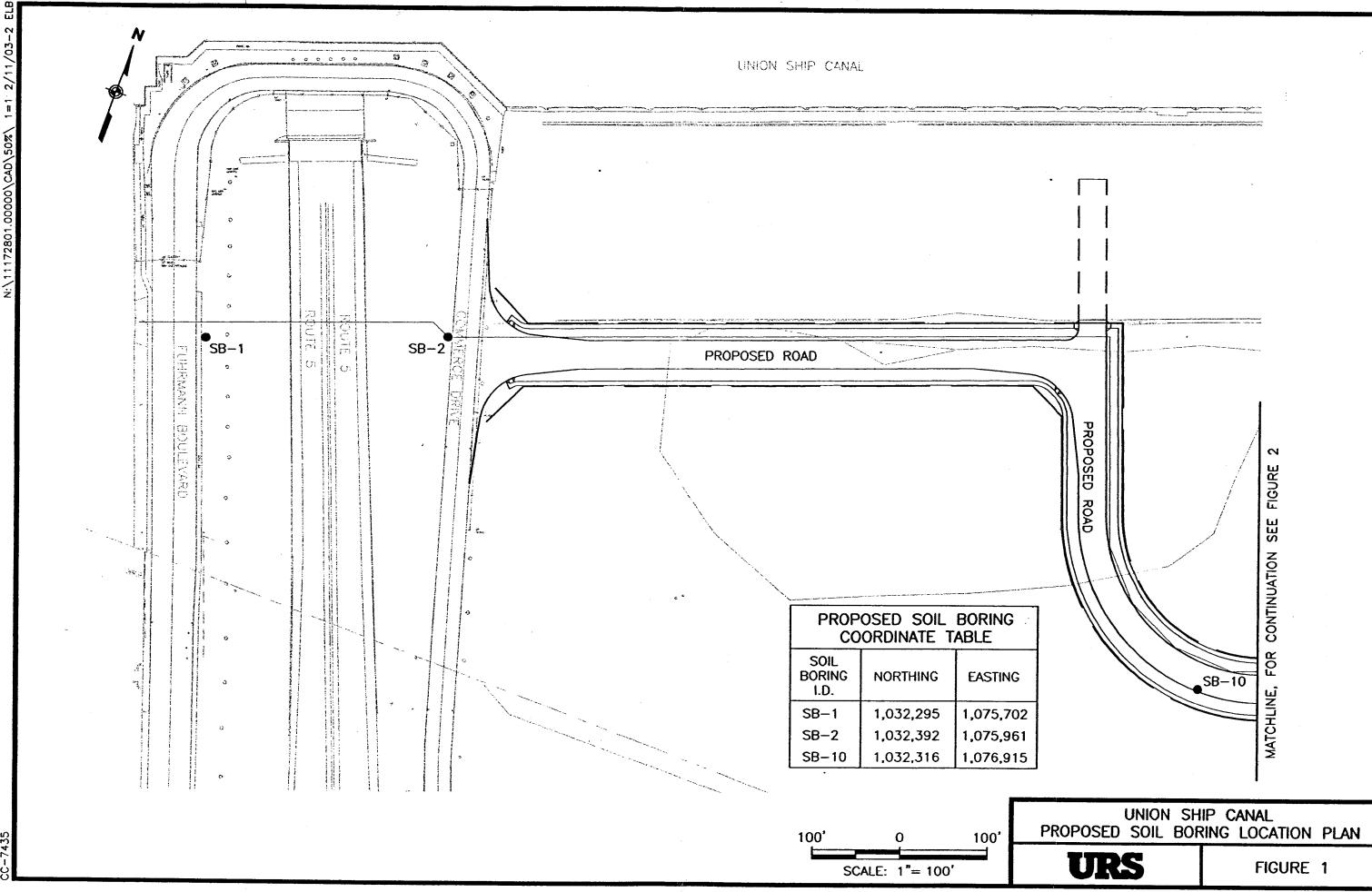
File Number: 5509.28602

## **APPENDIX B**

# GENERAL EXCAVATION – SOIL CHARACTERIZATION INFORMATION

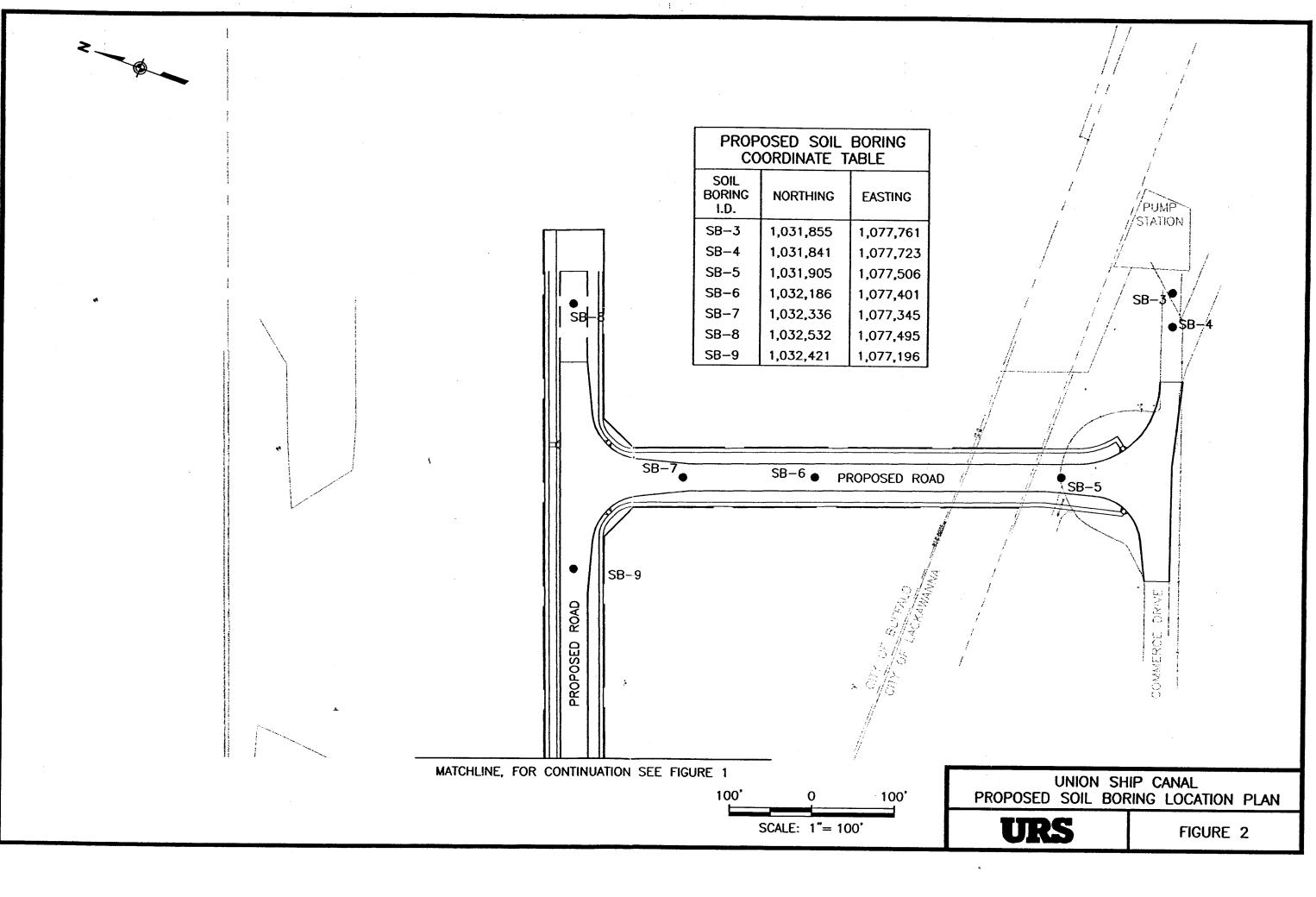
## **APPENDIX B-1**

## SOIL BORING LOGS URS (FEBRUARY 2003)



ELB 50% CAD





N:\11172801.00000\CAD\50%\ 1=1 2/11/03-2 ELB

00-743

N	MALC	OLM					D 1 1 Mar.	•	10 10 10 10 <b>20</b> 10	J.
•	PIR	iolm Nie				Surface Elev.:	Borehole No.:			
Pro	ject N	ame:		Hanna	Furnace	Reference Elev.:				
P	roject	: No.:		3587-	001	Contractor: Maxim	Date Finished:	(-	25.	9 <b>7</b>
	с	lient:		BERC	2	Logged By: KKZ	Method			
	Ì	ation:		2,4 Fu	ıhrman Blvd.		of Boring:	SA	2" S	5
		1				Description and Remarks			T	
				ę						_
				Soil Classification					<b>(</b> %	HNu (ppm) Scan
Depth (BGS)	No.	<b>.</b> 9)	Ę,	lassif				les	Moisture (%)	udd)
epth	Sample No.	Blows (6"	Recovery	oil C		Density/Consistency, Color, Plasticity, Soil T	/Des.	Samples	Mois	<b>P</b>
^	Ň	<b>—</b>	64	s	•	Texture, Fabric, Bedding, Moisture, Other Chara		~		
7		8	12	- a 	0-12	And Black Filty	And	ی ایک (۲۰۰۰ ) ور ایک (۲۰۰۰ )	12	
		12	- 45			und Blown Silty : with Slag + G RAVEL		and a second s		and the second sec
2	11 - 11 - 11 11 - 11 - 11	14								<u>i en essa</u> Transforma
3		14 12	n	1997 - 1997 - 19 1997 - 19	D-8	med / Dalk Brown	SILTU SEAD	an an san S Tarang San	un	
2		IH	10		<u> </u>	Mis Str - Gland	<u> </u>			
4		4			8-12		) writz			13
-1989-1-127 VK	e des fastes et subsetes	30		and a second second	0-3	glac Glavel Med Shown Silty Se	The locate states	allan senata Manana	24	an an and I An
2	particular and the second	22	20		8-3	Slag + BRack				
6-		22		1	3-19	Med to CoAlse Sand			<u>}</u>	1
- Specer of		15		ar t Ar search	1920	alay Bloc Coalse	Sand with	-< + 2, - 4, 2,40	w	i Alitheria
** <b>*</b> [		16 15	20		0-20	Some Slag and go	live			
8		11								i sin
				- 122. 12 - 11	0-12	Che Blue Contre	7. 1 ·Sm-		170	Sandar -
1	<u> </u>	4	n		0-12	Ghay Blue Contse : gland and stag				
10		8					<u> </u>		<u></u>	1
10		10					<b>0</b> 7		Vin	
		3	10		0-2	They Blue Coarse med / Dalk Shown 31	LTV Lanne			N,
12		.4	· · · ·		5-10	Cherry and Blown C	lay YEAN			
	м	4				and the second state of th		age sur barren er A	i ant	
		<u> </u>			· · · · · · · · · · · · · · · · · · ·	<u></u>		$\left[ - \right]$		
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						and a second			$\frac{1}{2}$ or $\frac{1}{2}$	- 1 ² - 14
				<b> </b>					i i i	
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		ļ		<b>I</b>	5	17 KE -1022				<u></u>
	<b> </b>					· · · · · · · · · · · · · · · · · · ·				<u></u>
	┠───									1

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Page ____ of ____

				URS	Co	rpora	tion				TEST BORING	LOG		
											BORING NO:	TB-1		
PROJE	CT:	Unio	n Ship	Canal							SHEET:	1 of 1	··	
CLIENT	:	City	of Buff	alo, D	PW						JOB NO.:	11	17280	00.00
BORING	G CONTRA	сто	R:	SJB	Servio	ces					BORING LOCATION:	W. of f	Rte 5	
GROUN	IDWATER:						CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:	<u>.</u>		··· ·
DATE	TIME	LE	EVEL	TY	PE	TYPE		Split spoon			DATE STARTED:	02/1	7/03	
				1		DIA.		2"			DATE FINISHED:	02/1	7/03	
				1		WT.		140#			DRILLER:	J. Tajd	owsk	i
				1		FALL		30"			GEOLOGIST:	J. Doe	rr	
						* POC	KET PE	NETROMET	ER REA	DING	REVIEWED BY:	D. Len	hardt	
			SAM	PLE						DESCR	IPTION			
DEPTH				BLC	ows	RECOVERY		CONSISTENCY			MATERIAL		REM	ARK
FEET	STRATA	NO.	TYPE	PE	R 6"	RQD	COLOR	HARDNESS			DESCRIPTION	USCS	PID	MOISTUF
	$\times$	1	SS	44	50/4	100%	Black/	Very	0.0-9.6	FILL; 0	.0-2.0; Fine to coarse gravel	-	0.0	Mois
		1	55			N=>50	Gray	Dense		and cor			0.0	
			SS	10	11	80%	Dark	Medium	2.0-4.0	Silty fin	e sand, some medium sand,			
	$\times$	2	22	13	14	N=24	Brown	Dense		-	led gravel		0.0	
5	$\times$	_	66	4	5	60%	Yellow/		4.0-8.0	Coarse	sand, trace finé to medium		0.0	1
	*****	3 -	SS	5	2	N=10	Black		sand ar	nd fine g	ravel		0.0	
	XXXX	4	SS	6	7	75%	Brown			5			0.0	11
	*****	4	55	10	15	N=17							0.0	
	*****	5	00	3	10	70%			8.0-9.6:	;Silt, so	me fine sand, trace fine angular			1
10	$\times$	2	SS	13	2	N=23		▼	gravel		-		0.0	↓
				1	2	50%		Soft	9.6-17.	5: PEAT	, Trace thin partings fine sand	PT		We
		6	SS	2	2	N=4		1	and/or o		ĺ		0.0	@ 9.
				1	2	60%				-				11
		7	SS	3	1	N=5		. ↓					0.0	1
15	******	_		WoH	WoH	20%		Very						1
		8	SS	WoH	3	N=WoH		Soft				🔶	0.0	
			00	2	2	50%		Soft				SP	0.0	1
	*****	9	SS	1	2	N=3				17 5 17	7: Medium to coarse sand		0.0	•
	$\mathcal{U}\mathcal{U}\mathcal{U}$	10	SS	2	5	10%	Gray	Stiff	<u> </u>	17.5-17	T Medium to coarse sand		0.0	1.0 TS
20	IIIII	10	33	4	5	N=9			17.7-2.0	): Silty C	CLAY		0.0	Mois
									End bor	ing at so	cheduled depth of 20'			
25														
	1													
30		1					ľ							
						ŀ								
	[						1							
35														
commer	nts :Boring	advar			•••••			drill rig and			PROJECT NO.	111728	00.00	)
-1/4 ID	1101							no samples			BORING NO.	TB-1		

			1	URS	S Co	rpora	tion		<u></u>		TEST BORING	LOG	·	
											BORING NO:	TB-2		
PROJECT		Unio	n Ship	Canal	1						SHEET:	1 of 1		
CLIENT:			of Buffa								JOB NO.:	11	17280	0.00
BORING C					Servi	ces					BORING LOCATION:	E. of R		
GROUNDV							CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:			
	TIME		EVEL	TY	PE	TYPE		Split spoon		1002	DATE STARTED:	02/1	7/03	
DATE				<u> </u>		DIA.	<b> </b>	2"			DATE FINISHED:	02/1		
						WT.		140#			DRILLER:	J. Tajd		
				<u> </u>		FALL		30"			GEOLOGIST:	J. Doe:		
						ŧ	KET DE	NETROMET		DING	REVIEWED BY:	D. Len		
			SAMF			100						D. Len	larut	
DEPTH			SAMP	7	ows	1				DESCR		<u> </u>		
	TDATA		TYPE	1		RECOVERY		CONSISTENCY			MATERIAL			ARKS
FEET S	TRATA	NU.	TYPE		R 6"	RQD		HARDNESS			DESCRIPTION	USCS	PID	MOISTUR
——X	*****	1	SS	16	50	80%	Brown	1 .			.0-4.0; Fine to coarse gravel		0.0	Mois
	****			38	18	N=88		Dense	some s	ilt _				
X	*****	2	SS	13	14	60%							0.0	
	****			30	25	N=44					▼			
<u> </u>	****	3	SS	13	15	50%	Black/	Medium	4.0-8.0	; Fine to	coarse sand and fine gravel		0.0	
X	$\times$			14	6	N=29	Gray	Dense						
X	$\times$	4	SS	3	2	30%	Blue	Loose					0.0	
¥	$\times$			2	3	N=4					<b>.</b>			▼
	***	5	SS	1	1	40%	Brown	Very	8.0-13.4	4 PEAT,	some wood fragments	PT	0.0	Wet
10	###			1	1	N=2		Soft					•.•	@ 8
	***	6	SS	1/12		0%			10.0-12	.0: No F	ecovery		0.0	
	***	Ŭ	00	1	1	N=<1							0.0	
	****	7	SS	WoH	2	80%	+						0.0	
Ň	Ĩ	·	33	2	3	N=4		<b>-</b>	13.4-16	.5: Silty	Clay, some fine sand, fine		0.0	↓
15	NN	8	SS	16	6	90%	Gray	Stiff	angular	gravel,	trace decayed roots, twigs	CL	0.0	Moist
N	KN	۲ I		6	14	N=12							0.0	
×	$\mathcal{H}\mathcal{H}$	9	ss	10	50/4	100%	Brown						0.0	
N	1110	Ĭ	00			N=>50		Hard	16.5-20	.0: Silty,	sandy CLAY, somefine to	ML	0.0	Dry
Ň	XW	10	SS	40	50/4	N=>50			coarse	angular	gravel and rock fragments, TILL		0.0	
20	1000		00				- ★					🖌	0.0	
									End bor	ing at so	heduled depth of 20'			
							ļ							
25														
							1							
30														
						1								
1														
	1													
35			1			1	1							
35														
										·'r				
Comments								o drill rig and	<u> </u>		PROJECT NO. BORING NO.	111728 TB-2	00.00	

				URS	S Co	rpora	tion				TEST BORING I	_0G		
											BORING NO:	TB-3		
PROJE	СТ:	Unic	on Ship	Cana	1						SHEET:	1 of 1		
CLIENT	:	City	of Buff	alo, D	PW				_		JOB NO.:	1	1172	797
BORING	G CONTRA	сто	R:	SJB	Servi	ces					BORING LOCATION:			
GROUN	IDWATER:						CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:			
DATE	TIME	LI	EVEL		/PE	TYPE		Split spoon			DATE STARTED:	02/1	8/03	
						DIA.		2"			DATE FINISHED:	02/1	8/03	
						WT.		140#			DRILLER:	J. Tajd	lowsk	i
						FALL		30"			GEOLOGIST:	J. Doerr/	T. Bu	rmeie
						* POC	KET PE	NETROMET	ER REA	DING	REVIEWED BY:	D. Len	hardt	
			SAM	PLE				<b>,</b>	· · · · · · ·	DESCR	PTION			
DEPTH					ows	RECOVERY		CONSISTENCY			MATERIAL		RE	MARK
FEET	STRATA	NO.	TYPE	PE	R 6"	RQD	COLOR	HARDNESS			DESCRIPTION	uscs	PID	MOISTU
		1	SS	10	10	70%	Dark	Medium	0.0-6.0	FILL; 0	.0-4.0; Silty loam, some fine sand		0.0	Moi
	$\times$			8	5	N=18	Brown	Dense	0.4-6.0	Cinder a	and ash, some clinker		L	
	$\times$	2	SS	6	6	50%	Black						0.0	
	*****			6	5	N=12								1
5	$\times$	3	SS	2	3	60%		Loose					0.0	We
	$\sim$			4	3	N=7	Brown				•			@
	KUN)	4	SS	3	1	50%	Gray	-	6.0-10.	CLAY	, some silt, plastic, some staining	CL	0.0	•1.0T
	IIBII				2	N=2 50%		Soft	:					-
10	FIN.	5	SS	1	1 2	50% N=3							0.0	*1.251
-10	KIIO			ļ	ł	70%					. ↓	↓		ł
ſ	· L	6	SS	WoH 3	2	70% N=5	Gray/	1.0000	40 7 40	0.007			0.0	*3.0T
	<u>,</u>			7	4	100%	Yellow	Loose			, some fine clay, grading down-	ML	·	*1.0T
k	UIII)	7	SS	6	16	N=16		Stiff		silty fine	CLAY, fining donward to CLAY	CL	0.0	*1.0T
15	MA			2	4	100%		Very	12.5-25	.u. siity i				*<0.5T
	((((((((((((((((((((((((((((((((((((	8	SS	5	7	N=9		Soft					0.0	-0.51
{	ШŊ			6	5	85%	Gray							*<0.5T
{	IIXII	9	SS	4	4	N=9		↓					0.0	-0.01
<b>[</b>	$\dots$			WoH	WoH	100%		Very						•<0.5T
20	11111	10	SS	WoH	WoH	N≃WoH		Soft					0.0	
h				WoH	WoH	100%								•<0.5T
	()))))	11	SS			N=WoH	- ↓						0.0	
	$\dots$	4.2	SS		WoH		Red-							•<0.5T
{	())))	12	55	WoH	3	N=WoH	Brown						0.0	Ver
25	IIIIA	12	SS	1	1	70%	Brown	- ↓			★	🖌	0.0	Mois
	TANY.	13	33	23	3	N≈24		Very	25.0-34	5; silty s	andy CLAY some fine to coarse	ML	0.0	Mois
	11119	14	SS	5	6	70%		Stiff	angular	gravel a	nd rock fragments		0.0	Dry
	41119	14	- 33	10	37	N=16	▼	to					0.0	Mois
	NHN	15	SS	18	19	60%	Gray	Hard					0.0	
30	(IMB			31	3	N=50							0.0	
	HIN	16	SS	32	26	100%						[	0.0	Dry
	MM			50/4		N=>50								
	XXXXX	17	SS	20	27	40%							0.0	
	NoW			26	23	N=53	¥	↓			¥			
35	77777	18	ss	18	50/4	80%	Dark	<b>v</b>	···		· · · · · · · · · · · · · · · · · · ·	┟╌┸╌╎	0.0	
						N=>50	Gray		34.5-40	0: Leva	nna Shale member	VBr	- / -	
								i drill rig and		1	PROJECT NO.	111727	97	
1/4 ID	HSA Sar	noles	collecte	ed for	neotec	chnical ar	chivina. r	o samples			BORING NO.	TB-3		

	<u> </u>			URS	S Co	rpora	tion			TEST BORING	LOG		
										BORING NO:	TB-3		
ROJE	СТ:									SHEET:	2 of 2		<u> </u>
LIENT	:				••• • • •			·		JOB NO.:		7279	7.00
			SAMF	PLE				<u></u>	DESCR				
DEPTH				BLC	ows	RECOVERY		CONSISTENCY		MATERIAL		REM	ARK
FEET	STRATA	NO.	TYPE	PEI	R 6"	RQD	COLOR	HARDNESS		DESCRIPTION	uscs		MOISTU
		SS	19	23	50/4	100%	Dark	Moderately	Skaneateles Fo	ormation, weathered, with clay	VBr	0.0	Dry
		33	19			N=>50	Gray	Hard	seams			0.0	
		ss	20	49	50	80%						0.0	
40				50/2		N=>50	★	. ↓		★	↓	0.0	┥
									End boring at s	cheduled depth of 40'			
									2" monitoring w	vell installed.			
45													
									·	,			
50													
												1	
55													
		ĺ											
					'								
60													
65						1							
			1	ł									
							- 1						
70													
						ĺ							
			1										
76													
75													
_								drill rig and		PROJECT NO.	1117797	7.00	
	d for labora				Jeotec	nnical are	chiving, n	o samples	· · · · · · · · · · · · · · · · · · ·	BORING NO.	TB-3		

				URS	S Co	rpora	tion	<u> </u>			TEST BORING	LOG		
										•	BORING NO:	TB-4		
PROJE	CT:	Unio	n Ship	Canal							SHEET:	1 of 1		
CLIENT	:		of Buff								JOB NO.:	1	1172	797
BORING	G CONTRA				Servio	ces					BORING LOCATION:			
GROUN	DWATER:						CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:			
DATE	TIME	L	EVEL	T T	PE	TYPE		Split spoor			DATE STARTED:	02/1	8/03	
					· · · ·	DIA.	†	2"	1		DATE FINISHED:		8/03	
						WT.	1	140#			DRILLER:	J. Tajo		 i
						FALL	<u> </u>	30"			GEOLOGIST:	T. Bur		
								NETROMET	ER REA	DING	REVIEWED BY:	D. Ler		
			SAM	PLE		1	1				IPTION			
DEPTH				T	ows	RECOVER		CONSISTENCY	<b>~</b>		MATERIAL	1	DE	ARKS
FEET	STRATA	NO.	TYPE		R 6"	RQD		HARDNESS	1		DESCRIPTION	USCS	}	MOISTUR
	XXXXX			20	25	65%	Medium	· · · · · ·		FILLS	Silty clay soil over fine granular		┼───	Mois
	$\times$	1	SS	20	15	45	Brown	201100	1		with silty clay matrix.		0.0	
				8	3	45%	Dark	Loose		9.4701				1
{	$\times$	2	SS	2	1	5	Brown					1	0.0	1
5	$\times$			1	1	35%	1	Very	1				-	1
	$\times$	3	SS		WoH	2		Loose					0.0	
	$\sim\sim\sim\sim$			1	2	40%					<b>*</b>			Wet
	IIWIY	4	SS	2	2	4	Gray	Soft	6.5-11.	): CLAY	, plastic, trace silt, mottled	CL	0.0	@6.
{	1111A			1	2	75%	0.0,	1	vellow		, pland, addo olit, motiloa			*0.5TS
10	WIN	5	SS	2	2	4	Yellow		,				0.0	·2.0TS
	IIIW			2	2	85%	Brown							Mois
		6	SS	2	4	4		↓ ↓	11 0-13	0 CLA	Y, with interbedded silty fine		0.0	
	$\overline{m}$			2	6	100%	1	Stiff	4		-3" thick)			Wet
	HHU	7	SS	9	7	15			• • • • • • • • • • • • • • • • • • • •	.5: Silty	•••••••••••••••••••••••••••••••••••••••		0.0	Very
15	MM			2	3	100%		Medium						Mois
{	XXXV	8	SS	2	3	5	Stiff					_	0.0	
	/////			2	3	100%	Brown		15.5-23	.0: CLA	Y, plastic, sticky			1
		9	SS	2	4	5							0.0	
	11111			2	1	100%		Soft						•0.75TS
20		10	SS	2	1	3		to					0.0	
				WoH	WoH	100%		Very						•<0.5TS
		11	SS	1	1	1		Soft					0.0	
	//////	10	00	WoH	WoH	100%						♥		
	NGES.	12	SS	WoH	WoH	WoH			23.0-28	0: Silty	CLAY, with fine to coarse sand	ML	0.0	Mois
25	UAN.			6	5	100%		Stiff			Gravel content increases			1
{	<i>71117</i>	13	SS	5	5	10		to	with dep	oth			0.0	l
{	KKN			5	8	100%		Very					0.0	1
	KI (A)	14	SS	12	26	20	♥	Stiff				↓	0.0	
	0.00.	15	SS	27	27	35%	Medium	Dense	28.0-34	.0; GRA	VEL, coarse with silty fine	GM	0.0	1
30	0,0	15	55	31	48	58	to		sand ma	atrix			0.0	
	0.0.1			9	17	50%	Very						0.0	1
	001	16	SS	25	26	42	Dense						0.0	1
	0.00			22	29	45%							0.0	
	0.00	17	SS	34	50/4	63	↓					↓	0.0	
35				31	20	65%	Gray		34.0-36	0: Wea	hered SHALE, in a silty clay	VBr		Dry
		18	SS	26	28	46	Brown		matrix				0.0	
Commer	nts :Borina	advai	nced uti					drill rig and			PROJECT NO.	111727	97	L
						****		o samples	·		BORING NO.	TB-4		
			analysis											

				URS	S Co	orpora	tion				TEST BORING	LOG		
											BORING NO:	TB-5		
PROJE	CT:	Unic	on Ship	Cana	ul.						SHEET:	1 of 1		
CLIENT	:	City	of Buff	alo, D	DPW						JOB NO.:		1172	797
BORING	G CONTRA	сто	R:	SJB	Servi	ces					BORING LOCATION:			
GROUN	DWATER:	:					CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:			
DATE	TIME	L	EVEL	T	YPE	TYPE	1	Split spoor			DATE STARTED:	02/2	0/03	
				1		DIA.		2"	1		DATE FINISHED:	02/2	0/03	
						WT.		140#			DRILLER:	J. Tajo	lowsk	i -
						FALL		30"			GEOLOGIST:	T. Bur	meier	
						* POC	KET PE	NETROMET	ER REA	DING	REVIEWED BY:	D. Ler	hardt	
			SAM	PLE						DESCR	IPTION			
DEPTH				BL	ows	RECOVERY	·	CONSISTENCY	·		MATERIAL		RE	ARK
FEET	STRATA	NO.	TYPE	PE	R 6"	RQD	COLOR	HARDNESS	í		DESCRIPTION	USCS	PID	MOISTU
		1	SS	50/4		50%	Black	Dense	0.0-1.0	ASPHA	LT Pavement			Moi
	$\times$					>50			1.0-6.0	Fine gra	anular FILL, coal, in part		0.0	
ß	$\times$	2	SS	15	10	60%		Medium					0.0	1
B	*****			9	7	19		Dense			,		0.0	
5	$\times$	3	SS	4	3	50%		Very					0.0	
<u> </u>	$\sim\sim\sim$			3	2	6		Loose	<u> </u>		▼	_		
{		4	SS	$\begin{vmatrix} 1 \\ 1 \end{vmatrix}$	1	25% 2	Light		6.0-8.0:	Fine sil	ty SAND	SM	0.0	We
	<i></i>			3	3	60%	Gray	Stiff						@6
10	(IMI)	5	SS	4	6	7	Yellow	to Stiff	8.0-11.5	5: Silty C	JLAY	CL	0.0	*03.0T
	XIW			4	8	50%		Sui						Mois
<u>k</u>	77117	6	SS	9	7	17	Brown		trace fin	-			0.0	
	IIII			6	6	70%	Medium			.0: Pine	silty SAND			4
{	()))))	7	SS	11	10	17	Brown		12.0-10	.U. CLA	T		0.0	*2.75T
15	11113			2	2	85%	Gray	Medium	clay bec	comes s	ticky			Ver Mois
		8	SS	3	2	5	Brown	Stiff					0.0	•1.0TS
		9	SS	4	3	100%			several	1/4" thic	k silty sand layers			1.01
		9	33	4	3	7							0.0	*<0.5T
	NIQ.	10	SS	1	2	100%		Soft	18.0-23	.0: Silty	CLAY, trace sand and fine			
20	MM		00	1	2	3		to	gravel				0.0	
N	<u>UNN</u>	11	SS	WoH	1	100%		Very						1
N	NND			1	1	2		Soft					0.0	
	1117	12	ss		WoH	100%						•	0.0	1
{	KHV			WoH		WoH			23.0-32	0: Silty	CLAY with fine to coarse sand	ML/	0.0	
25	HII	13	SS	1	1	50%				gravel.	Gravel content increases with	CL	0.0	
R	71111			10	4	11			depth.					
<u> </u>	(ITH)	14	ss	6	6	60%							0.0	
<u> </u>	302		]	33	50/4	39		Hard						
30	NHA	15	ss	10 21	15	55% 26		to					0.0	mois
<u> </u>	<u>SM</u>				32	36		Dense						
<u> </u>	JUSI	16	SS	7 24	17	40% 41	↓	and			Ţ		0.0	
	HB			 15	30 20		Modium	Very	22.0.00	0. 0.0		-		Wet
	UIU	17	SS	20	20 24	50% 40	Medium			U: Silty	CLAY and angular coarse		0.0	@32
35	4114			34	24 50/3	35%	Brown		gravel					
<u> </u>	MILLA	18	SS			50					Ţ		0.0	
Omment	s Boring		litu han	izina	a truck			drill rig and						L
								o drill rig and lo samples			PROJECT NO.	111727	97	
			analysis		yeulec	annucat af	cinving, f	io samples			BORING NO.	TB-5		

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				URS	S Co	orpora	tion		_		TEST BORING	LOG		
									_		BORING NO:	TB-6		
PROJE	CT:	Uni	on Ship	Cana	it					_	SHEET:	1 of 1		
CLIENT	Г:	City	of Buf	falo, C	WPQ						JOB NO.:	1	1172	797
BORIN	G CONTR	ACTO	DR:	SJB	Servi	ces			<u></u>		BORING LOCATION:			
GROUN	NDWATER	:					CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:			
DATE	TIME	L	EVEL	T	YPE	TYPE		Split spoon			DATE STARTED:	02/2	0/03	
				1		DIA.	1	2"			DATE FINISHED:		1/03	
				1-		WT.		140#			DRILLER:	J. Tajo		i
						FALL		30"			GEOLOGIST:	T. Bun		
				1		* POC	KET PE	NETROMET	ER REA	DING	REVIEWED BY:	D. Len		
			SAM	PLE						DESCR	PTION			•
DEPTH			<u> </u>	BL	ows	RECOVERY	<u> </u>	CONSISTENCY	·····		MATERIAL		REA	ARK
FEET	STRATA	NO.	TYPE	PE	R 6"	RQD	COLOR	HARDNESS			DESCRIPTION	uscs	PID	· · · · · ·
				20	13	85%	Rusty			FILL	on oxide silt to sand size		110	Moi
		1	33	20	34	1	Brown		particle				0.0	
	$\times$	2		15	21	85%				-				1
	$\times$	2	38	17	10	1					,		0.0	
5	$\times$	3	20	4	10	65%	Tan/	Medium	4.0-10.0	): FILL; (	Coarse sand to fine gravel size			1
		3	20	10	6		Gray	Dense			cohesive slag or limestone		0.0	
		4	12	8	4	85%	Blue		ľ		-			1
	$\times$	-	12	8	5	1	Green						0.0	
		5	9	3	4	70%		Loose						1
10	$\times$	J	3	5	2	1							0.0	ł
		6	3	1	1	55%	Dark	Soft	10.0-12	.0: PEA	T; Woody fibers mixed with silt	PT		1
		Ů	5	2	2		Brown		and clay		•		0.0	
	$\mathcal{M}\mathcal{M}$	7	4	3	2	35%	Gray			.0: Silty	CLAY	CL		*1.75T
	IIII		_	2	3		Brown						0.0	Ver
15	UNN)	8	7	WoH	2	60%		Medium	fine silty	sand s	eams @ 14'		0.0	Mois
	RNR			5	5		Yellow	Stiff					0.0	*1.0TS
	NWN	9	30	10	12	55%	Brown	Very Stiff					0.0	1
	1111			18	18		Gray					•	0.0	*<0.5T
h	52555	10	14	3	6	10%	Brown	Medium	18.0-20	0: Claye	ey SILT, trace organics	ML	0.0	
20	XXY			8	7			Stiff					0.0	
`	11113	11	6	2	2	90%		to	20.0-22	.0: CLA)	/	CL	0.0	*1.25TS
	$\overline{m}$			4	5			Stiff					0.0	
[	WAXI	12	7	4	3	100%			22.0-32	0: Silty	CLAY, with fine sand and	ML	0.0	Į
{	KHH			4	2				trace fin	e gravel	1			
25	RUA	13	3	1	1	0%		Soft					0.0	
R	<i>1111</i> 5;			2	1									
	1114	14	3	WoH	1	100%							0.0	
N	HHH			2	1									
	(KAY)	15	2	WoH	1	100%							0.0	mois
30	<u>nen</u>			1	2									
8	144A	16	3			100%							0.0	
Ę	7724			3	3		-+	▼			<b>V</b>		0.0	Wet
	UN	17	8	4	4	100%		Stiff	32.0-34.	00: Silty	CLAY, with fine sand and fine		0.0	@32
	出料			4	5				gravel				v.v	
35	7111	18	100	35	100	50%		Very	34.0-35.	0: CLAY	and Dolostone GRAVEL		0.0	
							<b>*</b>		End bori	ing at 35	;t		0.0	
								drill rig and		1	PROJECT NO.	111727	97	
				d for			abide a s	o samples			BORING NO.	TB-6		

			(	URS	Co	rpora	tion				TEST BORING I	OG	
											BORING NO:	TB-7	
PROJE	ст:	Unic	on Ship	Canal							SHEET:	1 of 1	<u> </u>
CLIENT	<u>:</u>	City	of Buffa	alo, Di	PW						JOB NO.:	11	172800.00
BORING	G CONTRA	сто	R:	SJB	Servio	ces					BORING LOCATION:		
GROUN	DWATER	:					CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:		
DATE	TIME	L	EVEL	TY	'PE	TYPE		Split spoon			DATE STARTED:	02/2	1/03
		1				DIA.		2"			DATE FINISHED:	02/2	1/03
						WT.		140#			DRILLER:	J. Tajd	owski
						FALL		30"			GEOLOGIST:	T. Burr	neier
	-					* POC	KET PEN	ETROMET	ER REA	DING	REVIEWED BY:	D. Len	hardt
			SAMP	PLE	_					DESCR	IPTION		
DEPTH				BLC	ows	RECOVERY		CONSISTENCY			MATERIAL	T	REMARKS
FEET	STRATA	NO.	TYPE	PEF	R 6"	RQD	COLOR	HARDNESS			DESCRIPTION	uscs	PID MOISTUR
	$\times$	1	SS	26	47	90%	Brown	Very	0.0-10.	0: FILL;	0.0-1.0: Silt and gravel		0.0 Mois
	$\times$		00	60	104	N=107	Blue/	Dense	1.0-2.0	Sand, c	lay and fine to coarse slag gravel		0.0
	$\times$	2	SS	26	14	50%	Gray/	Medium	2.0-4.0	Silt to d	coarse gravel size slag		0.0
	$\times$	_		9	6	N=23	Yellow	Dense					<b>v</b> . <b>v</b>
5	$\times$	3	SS	13	12	65%	Brown		4.0-4.7	Iron ox	ide silty sand		0.0
k	$\times$			5	3	N=17	Tan		4.7-8.0	Coarse	sand (slag)		
	$\times$	4	SS	6	5	0%							0.0
	$\times$	<b></b>		5	8	N=10		♥					
	*****	5	SS	4	4	100%	Blue-	Loose	8.0-10.	) Coarse	e Sand and vesicular slag		0.0
10	$\times\!\!\times\!\!\times\!\!\times$			5	7	N=9	Gray				ed at scheduled 10' depth		
15         20         20         25         30													
				_				drill rig and	ollected		PROJECT NO.	1117280 TB-7	00.00
1/4 ID I		nples		_				o samples c	ollected		BORING NO.	TB-7	

PROJECT: Union Ship Canal         City of Buffalo, DPW         BORING CONTRACTOR: SJB Service         GROUNDWATER:         DATE       TIME       LEVEL       TYPE         DATE       TIME       LEVEL       TYPE         DATE       TIME       LEVEL       TYPE         DEPTH       SAMPLE         SAMPLE         DEPTH       STRATA NO.       TYPE       PER 6"         0       2       SS       1       SS       50/2       -         5       3       SS       8       12       15         5       3       SS       6       12         10       5       SS       6       12         11       11       11       11       11         15       5       SS       6       12         20       1       1       1       1         21       1       1       1       1         22       1       1       1       1       1								
City of Buffalo, DPW         BORING CONTRACTOR: SJB Servic         GROUNDWATER:         DATE       TIME       LEVEL       TYPE         DATE       TIME       LEVEL       TYPE         DATE       TIME       LEVEL       TYPE         DATE       TIME       LEVEL       TYPE         DEPTH       FEET       STRATA NO. TYPE       PER 6"         5       SAMPLE         DEPTH       BLOWS         5       SS       50/4         5       SS       8       12         5       SS       6       12         5       SS       6       12         5       SS       6       12       10       S       S       10       20       20					BORING NO:	TB-8		
BORING CONTRACTOR:       SJB Service         GRUNDWATER:       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I </td <td></td> <td></td> <td></td> <td></td> <td>SHEET:</td> <td>1 of 1</td> <td></td> <td></td>					SHEET:	1 of 1		
BORING CONTRACTOR:       SJB Servic         GROUNDWATER:         DATE       TIME       LEVEL       TYPE         DATE       TIME       LEVEL       TYPE         DATE       TIME       LEVEL       TYPE         DEPTH       SAMPLE         DEPTH       BLOWS         FEET       STRATA NO.       TYPE       PER 6"         OPTH       SAMPLE         SAMPLE         0       2       SS       50/4					JOB NO.:		17280	0.00
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	ces				BORING LOCATION:			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	CA	S. SAMPLER	CORE TI	JBE	GROUND ELEVATION:			
DEPTH         STRATA         NO.         TYPE         BLOWS           FEET         STRATA         NO.         TYPE $PER 6"$ 1         SS         12         15           2         SS         50/2         -           5         2         SS         50/4         -           5         3         SS         8         12         16           4         SS         22         12         11         11           6         12         11         11         11         11           5         SS         6         12         12         15           10         SS         5         SS         6         12           15         S         SS         6         12         15           20         S         S         S         S         1         1           20         S         S         S         S         S         1         1           25         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S	TYPE	Split spoon	+		DATE STARTED:	02/2	1/03	
DEPTH         STRATA         NO.         TYPE         BLOWS           FEET         STRATA         NO.         TYPE $PER 6"$ 1         SS         12         15           2         SS         50/2         -           5         2         SS         50/4         -           5         3         SS         8         12         16           4         SS         22         12         11         11           6         12         11         11         11         11           5         SS         6         12         12         15           10         SS         5         SS         6         12           15         S         SS         6         12         15           20         S         S         S         S         1         1           20         S         S         S         S         S         1         1           25         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S	DIA.	2"	1		DATE FINISHED:	02/2		
DEPTH FEET     STRATA     NO.     TYPE     BLOWS PER 6"       1     SS     12     15       50/2     2     SS     50/4       5     2     SS     50/4       5     3     SS     8     12       16     13       4     SS     22     12       10     5     SS     6     12       10     5     SS     6     12       15     1     1     1     1       20     1     1     1     1       25     1     1     1     1	WT.	140#			DRILLER:	J. Tajd	owski	
DEPTH         STRATA         NO.         TYPE         BLOWS           FEET         STRATA         NO.         TYPE $PER 6"$ 1         SS         12         15           2         SS         50/2         -           5         2         SS         50/4         -           5         3         SS         8         12         16           4         SS         22         12         11         11           6         12         11         11         11         11           5         SS         6         12         12         15           10         SS         5         SS         6         12           15         S         SS         6         12         15           20         S         S         S         S         1         1           20         S         S         S         S         S         1         1           25         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S	FALL	30"			GEOLOGIST:	T. Burr		
DEPTH         STRATA         NO.         TYPE         BLOWS           FEET         STRATA         NO.         TYPE $PER 6"$ 1         SS         12         15           2         SS         50/2         -           5         2         SS         50/4         -           5         3         SS         8         12         16           4         SS         22         12         11         11           6         12         11         11         11         11           5         SS         6         12         12         15           10         SS         5         SS         6         12           15         S         SS         6         12         15           20         S         S         S         S         1         1           20         S         S         S         S         S         1         1           25         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S	* POCKET	PENETROMET	ER READIN	١G	REVIEWED BY:	D. Len		
FEET       STRATA       NO.       TYPE $PER6^*$ 1       SS       12       15         5       2       SS       50/4       -         5       2       SS       50/4       -         5       3       SS       8       12         5       3       SS       8       12         6       13       4       SS       22       12         10       5       SS       6       12         10       1       1       1       1         15       1       1       1       1         20       1       1       1       1         21       1       1       1       1         15       1       1       1       1         20       1       1       1       1         22       1       1       1       1         21       1       1       1       1 <td>· · · · · · · · · · · · · · · · · · ·</td> <td></td> <td>DE</td> <td>SCR</td> <td>PTION</td> <td></td> <td></td> <td></td>	· · · · · · · · · · · · · · · · · · ·		DE	SCR	PTION			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	RECOVERY	CONSISTENCY			MATERIAL	1	REN	IARK
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	RQD COL	OR HARDNESS			DESCRIPTION	uscs		MOISTU
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	85% Brov	wn Very	0.0-10.0: F	ILL:	0.0-1.0; Silt to fine gravel			Mois
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	N=>50 Gra				avel and silt, trace coal		0.0	
$ \begin{array}{c} 5 \\ 3 \\ 3 \\ 5 \\ 16 \\ 13 \\ 22 \\ 11 \\ 11 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5 \\ 22 \\ 11 \\ 11 \\ 11 \\ 11 \\ 11 \\ 11 \\ 11$	100% Brov	·····			slag gravel			1
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	N=>50						0.0	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	0%	Medium	4.0-6.0: No	Rec	, vovery			
4     SS     11     11       5     SS     6     12       10     5     SS     22     15	N=28	Dense					0.0	
11     11       10     5       5     SS       6     12       22     15	60%		6.0-8.0Coa	rse s	sand to fine gravel size slag		~~~	We
10     5     SS     22     15	N=23 🕈	↓					0.0	@6
10     22     15       15	60% Rec	1- Dense	8.0-10.0: lr	on o	xide silt to fine sand, trace slag,		0.0	
20	N=34 Brov	vn	sheen				0.0	
20			Boring com	plete	ed at scheduled 10' depth			
35 comments :Boring advanced utilizing a truck -1/4 ID HSA. Samples collected for geotec			ected		PROJECT NO. BORING NO.	1117280 TB-8	00.00	

				URS	Co	rporat	tion				TEST BORING L	.OG		
											BORING NO:	TB-9		
PROJE	CT:	Unio	n Ship	Canal							SHEET:	1 of 1		
CLIENT			of Buffa								JOB NO.:		17280	0.00
······	G CONTRA			SJB		ces					BORING LOCATION:			
	DWATER:	_					CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:			
DATE	TIME		EVEL	TY	PE	TYPE	0,10,	Split spoon			DATE STARTED:	02/2	4/03	
						DIA.		2"			DATE FINISHED:	02/2		····· ,
						WT.		140#			DRILLER:	J. Tajd		
						FALL		30"		<u> </u>	GEOLOGIST:	T. Burr		
							VET DE	NETROMET		DING	REVIEWED BY:	D. Len		
			SAMP			F00		NETROWET				D. Len		
DEDTU			SAMP							DESCR		1		
DEPTH			7000		)WS	RECOVERY		CONSISTENCY			MATERIAL			IARK
FEET	STRATA	NO.	TYPE	PEF				HARDNESS			DESCRIPTION	USCS	PID	MOISTUR
	$\times$	1	SS	25	36	85%	Brown			0: FILL;(	0.0 0.0-2.0; Silt and fine to coarse		0.0	
	$\times$			29	16	N=65			gravel				·	1
		2	ss	6	8	60%			2.0-4.0	Silty sa	indy slag, trace vesicular slag		0.0	
				11	12	N=17	▼	Dense						
5		3	ss	5	5	100%	Gray		4.0-6.0	coarse	sand to fine slag gravel		0.0	We
	*****		-	5	4	N=10								@6
	$\times$	4	ss	5	4	100%	Blue-		6.0-9.0	Coarse	sand to fine gravel		0.0	
	$\times$			7	5	N=11	Green							
	*****	5	SS	6	9	85%							0.0	
10	$\times$	Ŭ	00	12	8	N=21	Black	★	9.0-10.	): Silt ar	d coarse sand size granular fill		0.0	
15														
20														
25														
30														
<u> </u>														
35				ł										
				l		<u> </u>	101/5 5							
·								drill rig and			PROJECT NO.	111728	00.00	
								Samples col /Pesticide.	Iected		BORING NO.	TB-9		

			(	URS	Co	rpora	tion	<u></u>			TEST BORING	LOG		
											BORING NO:	TB-10		
PROJE	CT:	Unio	n Ship (	Canal							SHEET:	1 of 1		
CLIENT			of Buffa			<u>.</u>					JOB NO.:	11	17280	0.00
BORING	G CONTRA	СТО	R:	SJB	Servio	ces					BORING LOCATION:			
GROUN	DWATER:						CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:			
DATE	TIME	L	EVEL	Т	'PE	TYPE		Split spoon			DATE STARTED:	02/2	4/03	
						DIA.		2"			DATE FINISHED:	02/2		
						WT.		140#			DRILLER:	J. Tajd		i
						FALL		30"			GEOLOGIST:	T. Burr		
						* POC	KET PE	NETROMET	ER REA	DING	REVIEWED BY:	D. Len	hardt	
			SAMP	PLE		1				DESCR	PTION		<b></b>	
DEPTH					ows	RECOVERY		CONSISTENCY			MATERIAL		RE	ARKS
FEET	1	NO.	TYPE		R 6"			HARDNESS	1		DESCRIPTION	USCS		MOISTUR
	XXXXX			29	50	100%	Gray	Very		0. EILL -	0.0-2.0;: Silt and fine to coarse			Mois
	$\times$	1	SS	65		N=115			slag gr				0.0	
	$\times$			47	50/4						coarse slag gravel and coal			1
{	$\times$	2	SS		00/4	N=>50			2.0-0.0	0	coal so blug graver and coal		0.0	1
5	$\times$	-+		9	6	60%	4	Medium						1
	$\times$	3	SS	12	9	N=18	Brown		5 5-6 0	Fine er	ind, some silty slag		0.0	Wet
				13	10	65%	Blue-				sand to fine gravel			@ 5.5
	$\otimes$	4	SS	12	12	N=22	Green		5.5 5.0				0.0	
{				5	10	85%					↓			1
10		5	SS	8	6	N=18	. ↓		9.0-10.	0: Silt, tr	ace fine to coarse granular fill		0.0	
	XXXXX				<b></b>			<b>.</b>			ed at scheduled 10' depth	+		
									Doning	oompioe				
15														1
		Ì												
·														
20														
25														
30														1
35														1
Commer	ats Boring	evhc	nced util	izina	atruck	mounter	1 CME 75	5 drill rig and		1	PROJECT NO.	111728	00.00	<u> </u>
								Samples col			BORING NO.	TB-10		
	fro analys	<u></u>												

## **APPENDIX B-2**

# ANALYTICAL RESULTS – BORINGS TB-05 THROUGH TB-10

#### F-531 T-339 P-002 APR 04 '03 09:17

EPA SAMPLE NO.

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VOLATILE ORGANICS ANALYSIS DATA SHEET

1A

	· - · · ·	TB-5 (2-4)
Lab Name: AES, Inc.	Contract:	
Lab Code: AES Case No.:URS0301	SAS No.: SDG	No.: TB-5 (2-4)
Matrix: (soil/water) SOIL	Lab Sample ID:	: TB-5 (2-4)
Sample wt/vol: 5.000 (g/mL) G	Lab File ID: (	
Level: (low/med) LOW	Date Received:	
<pre>% Moisture: not dec. 20.</pre>	Date Analyzed:	
GC Column: RTX502.2 ID: .32 (mm)	Dilution Facto	
Soil Extract Volume: (uL)	Soil Aliquot N	/olume: (uL)

CAS	NO.	

COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

Q

74-87-3Chloromethane	12.	U
74-83-9Bromomethane	12.	U
75-01-4Vinyl Chloride	12.	U.
75-00-3Chloroethane	12.	U
75-09-2Methylene Chloride	6.	U
67-64-1Acetone	12.	U
75-15-0Carbon Disulfide	б.	U
75-35-4l,1-Dichloroethene	6.	ប
75-34-31,1-Dichloroethane	6.	U
156-60-51,2-Dichloroethene-trans	6.	U
67-66-3Chloroform	6.	U
107-06-21,2-Dichloroethane	6.	U
78-93-32-Butanone	12.	U
71-55-61,1,1-Trichloroethane	6.	Ŭ .
56-23-5Carbon Tetrachloride	6.	υ
75-27-4Bromodichloromethane	6.	U
78-87-51,2-Dichloropropane	6.	U
10061-01-5cis-1,3-Dichloropropene	6.	υ
79-01-6Trichloroethene	6.	U
124-48-1Dibromochloromethane	6.	U
79-00-51,1,2-Trichloroethane	6.	U
71-43-2Benzene	6.	U
10061-02-6trans-1,3-Dichloropropene	6.	ע' י
75-25-2Bromoform	6.	U .
108-10-14-Methyl-2-Pentanone	12.	U
591-78-62-Hexanone	12.	U
127-18-4Tetrachloroethene	6.	U
79-34-51,1,2,2-Tetrachlorosthane	б.	ប
103-88-3Toluene	6.	U
108-90-7Chlorobenzene	6.	ប់
100-41-4Ethylbenzene	6.	U
100-42-5Styrene	6.	ט ט
156-59-2l,2-Dichloroethene-cis	6.	υ
106-42-3m,p-Xylenes	6.	U ·
95-47-6o-Xylene	6.	U
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· ·		F-531 T-3	39 P-003 APR 04 '03 0
VOLA	1E TILE ORGANICS ANALYSIS DATA NTATIVELY IDENTIFIED COMPOUN		EPA SAMPLE NO.
Name: AES, Inc Code: AES rix: (soil/wate ple wt/vol: el: (low/med) oisture: not de Column: RTX502. l Extract Volum	Contract: Case No.:URS0301 SAS No.: er) SOIL 5.000 (g/mL) G LOW ec. 20. 2 ID: .32 (mm) he: (uL) CONCEN	Lab Sample Lab File I Date Recei Date Analy Dilution F Soil Aliqu TRATION UN	E ID: TB-5 (2-4) D: C0636 Ved: 02/20/03 Vzed: 02/28/03 Vactor: 1.0 Not Volume: (u)
nber TICs found	1: 0 (ug/L	or ug/Kg)	UG/KG
CAS NUMBER	COMPOUND NAME	RT	EST. CONC. Q
L.			
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		F-531 1	r-339 P-00	14 APR 04 '
•	14	•		TON CAMDIC
	VOLATILE ORGANICS ANALYSIS	ייידיניט איייארו		EPA SAMPLE
	VULLING URGANICS ANALISIS	DATA DUEDI	, ı—	
				TB-6 (2-4
ġm:	e: AES, Inc. Cont	ract:		10-6 (2-4
		No.:	STR N	lo.: TB-5 (2
	(soil/water) SOIL			TB-6 (2-4)
	wt/vol: $5.000 (g/mL) G$	Lab File		
	(low/med) LOW			02/21/03
	ure: not dec. 19.			03/03/03
	mn: RTX502.2 ID: .32 (mm)	Dilution		
	tract Volume: (uL)			lume:
		an an an an Araba a		
	C	ONCENTRATION	UNITS:	
C	• •	ug/L or ug/Kg		ç Q
				~
	74-87-3Chloromethane		. I	.2. U
	74-83-9Bromomethane		1	.2. U
	75-01-4Vinyl Chloride		1	.2. U
	75-00-3Chloroethane			.2. U.
	75-09-2Methylene Chloride		•	6. U
	67-64-1Acetone		. 1	.2. U
	75-15-0Carbon Disulfide			6. U
	75-35-41,1-Dichloroethene			6. U
	75-34-31,1-Dichloroethane			6. U
	156-60-51,2-Dichloroethene			6. Ŭ
	67-66-3Chloroform			6. U
	107-06-21,2-Dichloroethane		e.	6. U(
	78-93-32-Butanone			.2. U: ·.
	71-55-61,1,1,1-Trichloroeth	ane		6. U
	56-23-5Carbon Tetrachlori	de		6. U
	75-27-4Bromodichlorometha	ne		6. U
	78-87-51,2-Dichloropropan	e		6. Ŭ
	10061-01-5cis-1,3-Dichloropr	opene		6. U
	79-01-6Trichloroethene			6. U
	124-48-1Dibromochlorometha	ne		6. U
	79-00-51,1,2-Trichloroeth	ane		6. U
	71-43-2Benzene		:	6. U
•	10061-02-6trans-1,3-Dichloro	propene		6. U,
	75-25-2Bromoform			6. U
	108-10-14-Methyl-2-Pentanc	ne		2. U
	591-78-62-Hexanone		. 1	.2. Ŭ
	127-18-4Tetrachloroethene			6. U
	79-34-51,1,2,2-Tetrachlor	oetnane	•	6 U
	108-88-3Toluene			2 J
	108-90-7Chlorobenzene		• .	6. U
	100-41-4Ethylbenzene	<u> </u>	• •	6. U
	100-42-5Styrene			6. U
	156-59-21,2-Dichloroethene	-C15		6. U
	106-42-3m,p-Xylenes	]	•	6. U
		· · · · ·		6. U
	95-47-6o-Xylene			1 -

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EPA SAMPLE NO.

#### VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

1E

Number TICs found: 0

TB-6(2-4)

Lab Name: AES, Inc. Cont	ract:
Lab Code: AES Case No.: URS0301 SAS	No.: SDG No.: TB-5 (2-4)
Matrix: (soil/water) SOIL	Lab Sample ID: TB-6 (2-4)
Sample wt/vol: 5.000 (g/mL) G	Lab File ID: C0639
Level: (low/med) LOW	Date Received: 02/21/03
<pre>% Moisture: not dec. 19.</pre>	Date Analyzed: 03/03/03
GC Column: RTX502.2 ID: .32 (mm)	Dilution Factor: 1.0
Soil Extract Volume: (uL)	Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

.

CAS NUMBER COMPOUND NAME  $\mathbf{RT}$ EST. CONC. Q , 1. 2._____ •• • 3. . 4.____ 5.____ 6. 7._____ 8.____ 9.____ 10: 1.1 . 12.____ 13.____ 14._____ 15.____ 16. 17. 1.8 . 19.____ 20:_____ 21.____ 22. 23. 24._____ 25.____ 26. 27.____ 28.____ • 29.____ 30._____

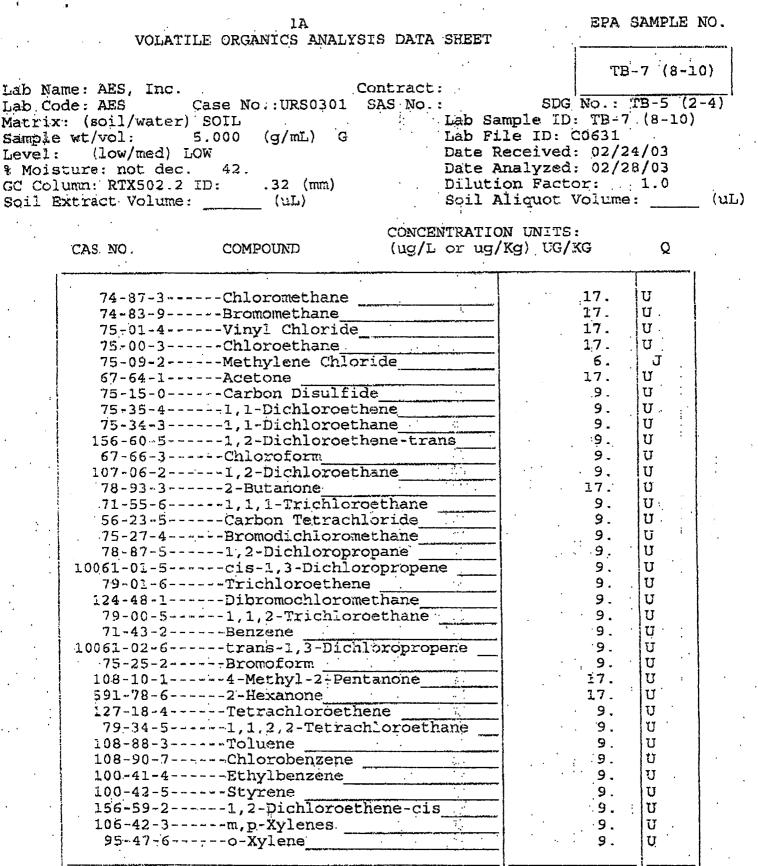
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1/90 Rev.

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FORM I VOA

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APR 04 '03 09:18

F-531 T-339 P-006

1E EPA SAMPLE NO. VOLATILE ORGANICS ANALYSIS DATA SHEET 1. 30 TENTATIVELY IDENTIFIED COMPOUNDS TB 7 (8-10) Lab Name: AES, Inc. Contract: Lab.Code: AES Case No.: UR\$0301 SAS No.: SDG No.: TB-5 (2-4) Matrix: (soil/water) SOIL . : Lab Sample ID: TB-7 (8-10) Sample wt/vol: 5,000 (g/mL) Lab File ID: C0631 G Level: (low/med) LOW Date Received: 02/24/03 & Moisture: not dec. 42. Date Analyzed: 02/28/03 GC Column: RTX502.2 ID: .32 (mm) Dilution Factor: 1.0 Soil Extract Volume: (uL) Soil Aliguot Volume: (uL) -

Number TICs found:

0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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	i				· · · · · · · · · · · ·		NO
		1A	-		EPA	SAMPLE	NO.
. <u>.</u> .	VOLAT.	ILE ORGANICS ANALYS	SIS DATA	SHEET			
		· . ·	· ·	•			
			<b>-</b>			8-8 (6-8	
Lab Na	ame: AES, Inc.		Contract				
		Case No.: URS0301	SAS NO.	: 	SUG NO.:	TB-5 (2)	-4)
Matri:	x: (soil/water)	) SOIL	• •	Lap Sampi	e ID: TB-8	(6-8)	
Sample	e wt/vol:	5.000 (g/mL) G			ID: C0632 eived: 02/2	100	
	: (low/med)						
t MOIS	sture: not dec	. 26.			.yzed: 02/2 Factor:		
GC CO.	lumi: RIX502.2	ID: .32 (mm)	.;				1
SOLL	Extract Volume	: (uL)		SOTT MITC	juot Volume		
			CONCE	TRATION (	NTTOPO-		
: •	07 C 150	GOMDOLET				0	:
•	CAS NO.	COMPOUND	(69)1	or ug/Kg)	UG/ KG	Q.	
	1		+			1	
•	74 07 0	Chloromethane			14.	U U	
		Bromomethane			14.	U	
	74-83-9	Vinyl Chloride	<b>`</b>			1 1	
	/5-01-4	Vinyi Chioride			14.	U	
		Chloroethane	· · · · · · · · · · · · · · · · · · ·		14.	U _	
		Methylene Chlor	ride		б.	ۍ ا	· · ·
•		Acetone			14.	U	
•		Carbon Disulfic			. 7.	U	
		1,1-Dichloroetl			7.	U.	
•		1,1-Dichloroet		<u> </u>	7.	ַ <u>ד</u> ו די	
		l,2-Dichloroet		ດອ	7.	U .	
•		Chloroform			7.	U	
		1,2-Dichloroet	hane		7.	U	
		2-Butanone	•		14.	U	
*	71-55-6	1, 1, 1-Trichlore	oethane	•.	7	U	
•	56-23-5	Carbon Tetrach	loride		7.5	U'	
	75-27-4	Bromodichlorom	ethane		7.	: 0	
	78-87-5	1,2-Dichloropro	opane		7.	់ប	
	10061-01-5	cis-1,3-Dichlo:	ropropen	e :	7.	U	
	79-01-6	Trichloroethen	e:		7.	់ ប	
. '	124-48-1	Dibromochlorom	echane	· ,	7.	· U	
		1,1,2-Trichlor			7	UU	
•		Benzene			7.	υ	
	10061-02-6	trans-1, 3-Dich	loroprop	ene	7.	. U .	
		Bromoform	E		7.	· 😈	
•		4-Methyl-2-Pen	tanone		14.	· Ū	
		2-Hexanone	American a series of the series of the		14.	· U	
•.		Tetrachloroeth	erie		7.	. U	
х.,		1,1,2,2-Tetrac		320	7.	ע	•
•		Toluene			7.	់ប្រ	
.: :		Chlorobenzene			7.	U	
•.	100-41-4	Ethylbenzene			7.	UU	
		Styrene				· u	
			hane		7.	1 -	
	100-09-2	1,2-Dichloroet	nene-C1S		7.	U	
	1 .06+42-3	m,p-Xylenes			7.	U	
:	95-47-6	o-Xylene			7.	ប	
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1E VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS	EPA SAMPLE NO.
Lab Name: AES, Inc. Contract:	TB-8 (6-8)
Lab Code: AES Case No.: URS0301 SAS No.: Matrix: (soil/water) SOIL Lab Sa	SDG No.: TB-5 (2-4)
	ample ID: TB-8 (6-8)
Lough (low/mail) tori	ile ID: C0632
St Majatima, non Jan of	Received: 02/24/03
GC Column: PTYEO2 2 TD 200 ( ) Date A	Analyzed: 02/28/03

Level: (low/ * Moisture: not dec. 20. GC Column: RTX502.2 ID: .32 (mm) Soil Extract Volume: (uL)

Number TICs found: 0

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CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

Dilution Factor: 1.0

Soil Aliquot Volume:

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	0
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4		· ]	-	
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IA         EPA SAMPLE NO.           VOLATTLE ORGANICS ANALYSIS DATA SHEET         TB-9 (4-6)           Lab Code: ABS         Case No.: (RS0301 SAS No.:         SCO No.: TB-5 (2-4)           Matrix: (soil/water) SOLL         Lab Sample ID: TB-9 (4-6)         SCO No.: TB-5 (2-4)           Matrix: (soil/water) SOLL         Lab Sample ID: TB-9 (4-6)         SCO No.: TB-5 (2-4)           Matrix: (soil/water) SOLL         Lab Sample ID: TB-9 (4-6)         Score and State Received: 02/25/03           Level: (low/med) LOW         Date Received: 02/25/03         Date Analyzed: 02/26/03           GC Column: RTXS02.2 ID: .12 (un)         Dilution Pactor: 1.0         Soil Aliquot Volume: (uL)           Soil Extract Volume:         (uL)         CONCENTRATION UNITS:           CAS NO.         COMPOUND         CONCENTRATION UNITS:           76-64-1         Controcthane         18. U           75-15-0         Carbon Disulfide         9. U           75-35-3         9. U         156-60-5           75-56-3         1.1-Dichloroethane         9. U           76-63				F-531 T-339 F	-010	APR 04 '0	3 09:20
VOLATILE ORGANICS ANALYSIS DATA SHEET           TB-9 (4-6).           Lab Name: AES, Inc.           CONTRACT:           SDG No.: TB-5 (2-4)           Matrix: (soil/water) SOIL           Lab Sample TD: TB-9 (4-6).           Sample without Soil		•	1.5		FDA	CAMPLE N	'n
Lab Name: AES, Inc.       Contract:       TB-9 (4-6)         Lab Code: AES       Case No.: URS0301 SAS No.:       SDG No.: TE-5 (2-4)         Matrix: (soil/water) SOIL       Lab Sample ID: TB-9 (4-6)         Sample wt/vol:       5.000 (g/mL) G       Lab File ID: CO33         Level: (low/med) LOW       Date Received: 32/25/03       Date Raceived: 32/25/03         § Moisture: not dec.       44.       Date Raceived: 32/25/03         § C Column: RTX502.2 ID: .32 (mm)       Dilution Factor: 1.0         Soil Extract Volume:       (uL)       Soil Aliquot Volume:       (uL)         CAS NO.       COMPOUND       (ug/L or ug/Kg) UG/KG       Q         74-87-3Chloromathane       18. U       U         75-01-4Viyl Chloride       18. U       U         75-01-2Chloroethane       9. U       G         75-15-0		·			the w	SHALDD N	
Lab Name: AES, Inc. Contract: SDG No.: TB-5 (2-4) Matrix: (soil/water) SOUL Lab Sample ID: TB-9 (4-6) Sample wt/vol: 5.000 (g/mL) G Lab File ID: COG33 We Moisture: not dec. 44. Date Received: 32/25/03 We Moisture: not dec. 44. Date Received: 32/25/03 CC Column: RTX502.2 ID: .32 (mm) Dilution Factor: 1.0 Soil Extract Volume:(uL) Soil Aliquot Volume:(uL) Soil Extract Volume:(uL) Soil Aliquot Volume:(uL) CONCENTRATION UNITS: CAS NO. COMPOUND Government and Soil Aliquot Volume:(uL) 74-87-3Chloromethane18. U 75-00-3Chloromethane18. U 75-00-3Chloromethane18. U 75-00-3Chloromethane18. U 75-00-3Chloromethane18. U 75-00-3Chloromethane18. U 75-15-0Carbon Disulfide9. U 75-35-41, 1-Dichloroethane9. U 107-06-21, 2-Dichloroethane9. U 76-63-31, 2-Dichloroethane9. U 75-27-4Beromodichloromethane9. U 75-27-4Beromodichloromethane9. U 10061-01-51, 2-Dichloroptene9. U 79-01-6Trichloroethane9. U 102-06-21, 2-Dichloroptene9. U 102-06-21, 2-Dichloroptene9. U 102-06-21, 2-Dichloroptene9. U 102-06-21, 2-Dichloroptene9. U 102-06-21, 2-Dichloroptene9. U 102-06-21, 2-Dichloroptene9. U 102-04-2Beromodichloromethane9. U 102-04-2Beromodichloromethane9. U 102-102-6		VOLATI	LE ORGANICS ANALISIS	AIA SALLI	ł		₁
Lab Name: AES, Inc. Contract: SDG No.: TB-5 (2-4) Matrix: (soil/water) SOUL Lab Sample ID: TB-9 (4-6) Sample wt/vol: 5.000 (g/mL) G Lab File ID: COG33 We Moisture: not dec. 44. Date Received: 32/25/03 We Moisture: not dec. 44. Date Received: 32/25/03 CC Column: RTX502.2 ID: .32 (mm) Dilution Factor: 1.0 Soil Extract Volume:(uL) Soil Aliquot Volume:(uL) Soil Extract Volume:(uL) Soil Aliquot Volume:(uL) CONCENTRATION UNITS: CAS NO. COMPOUND Government and Soil Aliquot Volume:(uL) 74-87-3Chloromethane18. U 75-00-3Chloromethane18. U 75-00-3Chloromethane18. U 75-00-3Chloromethane18. U 75-00-3Chloromethane18. U 75-00-3Chloromethane18. U 75-15-0Carbon Disulfide9. U 75-35-41, 1-Dichloroethane9. U 107-06-21, 2-Dichloroethane9. U 76-63-31, 2-Dichloroethane9. U 75-27-4Beromodichloromethane9. U 75-27-4Beromodichloromethane9. U 10061-01-51, 2-Dichloroptene9. U 79-01-6Trichloroethane9. U 102-06-21, 2-Dichloroptene9. U 102-06-21, 2-Dichloroptene9. U 102-06-21, 2-Dichloroptene9. U 102-06-21, 2-Dichloroptene9. U 102-06-21, 2-Dichloroptene9. U 102-06-21, 2-Dichloroptene9. U 102-04-2Beromodichloromethane9. U 102-04-2Beromodichloromethane9. U 102-102-6			· · ·		יד	9 14-6)	
Lab Code: AES       Case No.: URS0301       SAS No.:       SDD No.: TB-5 (2-4)         Matrix: (soil/water) SOIL       Lab Sample ID: TB-9 (4-6)         Sample Vvol:       5.000 (g/mL) G       Lab File ID: C0633         Level: (low/med) LOW       Date Received: 32/25/03         # Moisture: not dec. 44.       Date Ranalyzed: 02/28/03         GC Column: RTX502.2 ID:       .32 (mm)         Soil Extract Volume:       (uL)         Soil Extract Volume:       (uL)         Soil Aliquot Volume:       (uL)         Soil Aliquot Volume:       (uL)         Soil Aliquot Volume:       (uL)         CAS NO.       COMPOUND         (ug/L or ug/Kg) UG/KG       Q         74-87-3Chloromethane       18. U         75-00-3Chloromethane       18. U         75-00-3Chloromethane       9. U         75-15-0Chron Disulfide       9. U         75-35-41, 1-Dichloroethane       9. U         75-55-51, 1-Dichloroethane       9. U         16-60-51, 2-Dichloroethane       9. U         76-62-31, 1-Dichloroethane       9. U         78-93-32-Butchloroethane       9. U         78-93-31, 1, 2-Dichloroethane       9. U         78-671, 1, 1-Trichloroeth							
Matrix:       (soil/water)       Soul       Iab Sample W1/vol:       5.000 (g/mL) G       Lab Sample W1/vol:       5.000 (g/mL) G         Sample w1/vol:       5.000 (g/mL) G       Lab File ID: TB-9 (4-6)         Laber File ID: C6633       Date Analyzed: 02/28/03         @ Koisture: not dec.       44.       Date Analyzed: 02/28/03         GC Colum: RTKS02.2 ID:       32 (mm)       Dilution Factor:       1.0         Soil Extract Volume:       (uL)       Soil Aliguot Volume:       (uL)         CAS NO.       COMPOUND       (ug/L or ug/Kg) UG/KG       Q         74-87-3Chloromethane       18. U       U         75-01-4Vinyl Chloride       18. U       U         75-03-2Chloromethane       18. U       U         75-13Chloromethane       9. U       U         75-34-31, 1-Dichloroethane       9. U       U         75-34-31, 1-Dichloroethane       9. U       U         75-27-4Bromodichloromethane       9. U       U         76-61	Lab Na	me: AES, Inc.				TR-5 /2-	4)
Sample wt/vol:       5.000 (g/mL) G       Lab File ID: Co633 Date Received: 22/25/03         Level:       (low/med) LOW       Date Received: 22/25/03         & Moisture: not dec. 44.       Date Analyzed: 02/28/03         GC Column: RTX502.2 ID:       .32 (mm)       Dilution Factor:       1.0         Soil Extract Volume:       (uL)       Soil Aliquot Volume:       (uL)         CAS NO.       COMPOUND       (ug/L or ug/Kg) UG/KG       Q         74-83-9Chloromethane       18.       U         75-09-2Wathylene Chloride       9.       U         75-09-2Chloromethane       18.       U         75-09-2Chloromethane       9.       U         75-59-2Chloromethane       9.       U         75-50-3Chloromethane       9.       U         75-51-4Dioroethane       9.       U         75-53-4Chloroethane       9.       U         75-56				NO.: SLA	ייסעע פ עייי ני	$10^{-3}$ (4 - 6)	-1
Lievel:       (low/med) LOW       Date Received: 32/25/03         Woisture: not dec.       44.       Date Analyzed: 02/28/03         GC Colum: RTX502.2 ID:       .32 (mm)       Dilution Pactor:       1.0         Soil Extract Volume:       (uL)       Soil Aliquot Volume:       (uL)         CAS NO.       COMPOUND       CONCENTRATION UNITS:       Q         74-87-3Chloromethane       18. U       V         75-01-4Vinyl Chloride       18. U       V         75-01-4Chloromethane       18. U       V         75-01-4Chloromethane       9. U       V         75-02Rromomethane       9. U       V         75-53eChloroethane       9. U       V         75-53Chloroethane       9. U       V         75-541, 2-Dichloroethane       9. U       V         76-631, 2-Dichloroethane       9. U       V         76-27-4Bromodichloromethane       9. U       V         79-01-6						(4-0)	
* Moisture: not dec. 44.       Date Analyzed: 02/28/03         GC Column: RTX502.2 ID: .32 (nm)       Dilution Factor: 1.0         Soil Extract Volume:	Sample	WE/VOL:				5/03	•
GC Column: RTX502.2 ID: .32 (mm)       Dilution Factor: 1.0         Soil Extract Volume:				Date Received	1. 00/2 1. 00/2	22/03	•
Soil Extract Volume:       (uL)       Soil Aliquot Volume:       (uL)         Soil Extract Volume:       (uL)       CONCENTRATION UNITS:       (uL)         CAS NO.       COMPOUND       (ug/L or ug/Kg) UG/KG       Q         74-87-3Chloromethane       18.       U         74-87-3Chloromethane       18.       U         75-00-3Chloromethane       18.       U         75-01-4Vinyl Chloride       18.       U         75-05-2Chloromethane       9.       U         75-15-0Cathon Disulffide       9.       U         75-35-41, 1-Dichloroethane       9.       U         75-60-21, 2-Dichloroethane       9.       U         17-55-61, 2-Dichloroethane       9.       U         78-93-32-Butanone       18.       U         78-93-32-Carbon Tetrachloride       9.       U         78-67-51, 2-Dichloroperpane       9.       U         78-87-5	* MOIS	ture: not dec.	44. 10 20 (mm)	Dilution Fact	1. <i>02/2</i> .or:		
SOLT BALLACT VOLUME:       CLL,         CAS NO.       COMPOUND       CONCENTRATION UNITS:         (ug/L or ug/Kg)       UG/KG       Q         74-87-3Chloromethane       18.       U         75-01-4Vinyl Chloride       18.       U         75-01-4Chloroethane       18.       U         75-01-4Chloroethane       9.       U         75-05-2Chloroethane       18.       U         75-15-0Carbon Disulfide       9.       U         75-35-4							(nL)
CAS NO.       COMPOUND       (ug/L or ug/Kg)       UG/KG       Q         74-87-3Chloromethane       18.       U         74-83-9Bromomethane       18.       U         75-01-4Vinyl Chloride       18.       U         75-01-4Vinyl Chloride       18.       U         75-00-3Chloroethane       18.       U         75-07-2Carbon Disulfide       9.       U         75-35-4Carbon Disulfide       9.       U         75-35-4Chloroethane       9.       U         75-35-4Carbon Disulfide       9.       U         75-35-4Chloroethane       9.       U         75-35-4Chloroform       9.       U         156-60-5Chloroform       9.       U         107-06-2	SOLL S	xtract volume:	(UL)	BOIL MITGOOD	VOLUN		
CAS NO.       COMPOUND       (ug/L or ug/Kg)       UG/KG       Q         74-87-3Chloromethane       18.       U         74-83-9Bromomethane       18.       U         75-01-4Vinyl Chloride       18.       U         75-01-4Vinyl Chloride       18.       U         75-00-3Chloroethane       18.       U         75-07-2Carbon Disulfide       9.       U         75-35-4Carbon Disulfide       9.       U         75-35-4Chloroethane       9.       U         75-35-4Carbon Disulfide       9.       U         75-35-4Chloroethane       9.       U         75-35-4Chloroform       9.       U         156-60-5Chloroform       9.       U         107-06-2			· ~	NTOPNITPATTON LINT I	ς.		
$74-87-3-\dots$ Chloromethane       13.       U $74-83-9-\dots$ Bromomethane       18.       U $75-01-4-\dots$ Vinyl Chloride       18.       U $75-00-3-\dots$ Chloroethane       18.       U $75-00-3-\dots$ Acetone       18.       U $75-09-2-\dots$ Methylene Chloride       9.       U $67-64-1-\dots$ Acetone       18.       U $75-35-4-\dots$ .1.Dichloroethene       9.       U $75-35-4-\dots$ .1.Dichloroethane       9.       U $107-06-2-\dots$ .1.2-Dichloroethane       9.       U $76-33-\dots$ .2.Dichloropethane       9.       U $76-36-\dots$ .1.2.Dichloropethane       9.       U $76-66-\dots$ .1.2.Dichloropethane       9.       U $76-75-\dots$ .1.2.Dichloropethane       9.       U <t< td=""><td>•</td><td></td><td></td><td></td><td></td><td>ο.</td><td></td></t<>	•					ο.	
74-83-9Bromomethane       18.       U         75-01-4Vinyl Chloride       18.       U         75-01-4Vinyl Chloride       18.       U         75-01-4Vinyl Chloride       18.       U         75-01-4Vinyl Chloride       9.       U         75-09-2Methylene Chloride       9.       U         67-64-1Acetone       18.       U         75-15-0Carbon Disulfide       9.       U         75-34-31,1-Dichloroethane       9.       U         75-34-31,2-Dichloroethane       9.       U         156-60-51,2-Dichloroethane       9.       U         167-66-3Choroform       9.       U         78-93-32-Butanone       18.       U         78-93-32-Butanone       9.       U         75-27-4Bromodichloromethane       9.       U         79-01-6		, CAS NO.	COMPOUND	ig/m or ug/ng/ oc		×	۰.
74.83-9Bromomethane       18.       U         75-01-4Vinyl Chloride       18.       U         75-01-4Vinyl Chloride       18.       U         75-01-4Vinyl Chloride       18.       U         75-01-4Vinyl Chloride       9.       U         75-09-2Methylene Chloride       9.       U         67-64-1Acetone       18.       U         75-15-0Carbon Disulfide       9.       U         75-35-41,1-Dichloroethane       9.       U         75-36-31,2-Dichloroethane       9.       U         106-60-51,2-Dichloroethane       9.       U         78-93-32-Butanone       18.       U         78-93-32-Butanone       18.       U         75-27-4Bromodichloromethane       9.       U         75-27-4Bromodichloromethane       9.       U         79-01-6	1				and a second		d na a
74.83-9Bromomethane       18.       U         75-01-4Vinyl Chloride       18.       U         75-01-4Vinyl Chloride       18.       U         75-01-4Vinyl Chloride       18.       U         75-01-4Vinyl Chloride       9.       U         75-09-2Methylene Chloride       9.       U         67-64-1Acetone       18.       U         75-15-0Carbon Disulfide       9.       U         75-35-41,1-Dichloroethane       9.       U         75-36-31,2-Dichloroethane       9.       U         106-60-51,2-Dichloroethane       9.       U         78-93-32-Butanone       18.       U         78-93-32-Butanone       18.       U         75-27-4Bromodichloromethane       9.       U         75-27-4Bromodichloromethane       9.       U         79-01-6		74-97-2	chloromethane	· ·	13.	UU I	
75-01-4Vinyl Chloride       18. U         75-00-3Chloroethane       18. U         75-09-2Methylene Chloride       9. U         67-66-1Acetone       18. U         75-35-4Acetone       18. U         75-35-4Acetone       9. U         75-35-4	••					1 1	
13.01.2       Unit of the end of the						1 · · · · · · · · · · · · · · · · · · ·	
75-09-2Methylene Chloride       9.       0         67-64-1Acetone       18.       0         75-15-0Carbon Disulfide       9.       0         75-35-41,1-Dichloroethene       9.       0         75-36-31,1-Dichloroethene       9.       0         75-36-31,2-Dichloroethene       9.       0         156-60-51,2-Dichloroethene-trans       9.       0         67-66-3Chloroform       9.       0         107-06-2Chloroethane       9.       0         78-93-3Carbon Tetrachloride       9.       0         75-65							
67-64-1Acetone       18.       U         75-15-0Carbon Disulfide       9.       U         75-35-41,1-Dichloroethane       9.       U         75-35-41,1-Dichloroethane       9.       U         75-35-4	- • · · ·						
77-15-0Carbon Disulfide       9.       U         75-35-41,1-Dichloroethene       9.       U         75-34-31,1-Dichloroethene       9.       U         156-60-51,2-Dichloroethene-trans       9.       U         156-60-51,2-Dichloroethene-trans       9.       U         107-06-21,2-Dichloroethene       9.       U         78-93-32-Butanone       18.       U         71-55-61,1,1-Trichloroethane       9.       U         75-27-4Bromodichloromethane       9.       U         78-87-5Carbon Tetrachloride       9.       U         79-01-6Trichloroethene       9.       U         79-01-6	· · · ·						
75-35-41, 1-Dichloroethene       9.       U         75-34-31, 1-Dichloroethane       9.       U         156-60-51, 2-Dichloroethene-trans       9.       U         67-66-3Chloroform       9.       U         107-06-21, 2-Dichloroethane       9.       U         78-93-32-Butanone       9.       U         78-67-51, 2-Dichloroptopane       9.       U         78-87-51, 2-Dichloroptopane       9.       U         79-01-6Tichloroethene       9.       U         79-00-51, 1, 2-Trichloroethane       9.       U         79-00-51, 1, 2-Trichloroethane       9.       U         79-00-51, 1, 2-Trichloroethane       9.       U         1061-02-6trans-1, 3-Dichloropropene       9.       U         79-34-51, 1, 2, 2-Tetrachloroethane       9				······································		1	
75-34-31,1-Dichloroethane       9, U         156-60-51,2-Dichloroethane-trans       9, U         67-66-3Chloroform       9, U         107-06-21,2-Dichloroethane       9, U         78-93-32-Butanone       9, U         71-55-61,1,1-Trichloroethane       9, U         75-27-4Bromodichloromethane       9, U         75-27-4Bromodichloromethane       9, U         75-27-4Bromodichloromethane       9, U         75-27-4Bromodichloromethane       9, U         78-75	1						
156-60-51,2-Dichloroethene-trans       9.       U         67-66-3Chloroform       9.       U         107-06-21,2-Dichloroethane       9.       U         78-93-32-Butanone       18.       U         71-55-61,1,1-Trichloroethane       9.       U         56-23-5Carbon Tetrachloride       9.       U         75-27-4Bromodichloromethane       9.       U         78-87-5Carbon Tetrachloride       9.       U         78-7-4Bromodichloromethane       9.       U         78-7-4Bromodichloromethane       9.       U         78-87-51,2-Dichloropropane       9.       U         78-87-51,2-Dichloropropene       9.       U         79-01-6Trichloroethane       9.       U         79-00-51,1,2-Trichloroethane       9.       U         71-43-2Benzene       9.       U         10061-02-6Trans-1,3-Dichloropropene       9.       U         75-25-2Bromoform       9.       U         108-10-1					9.	U	• •
67-66-3Chloroform       9.       U         107-06-21,2-Dichloroethane       9.       U         78-93-32-Butanone       18.       U         71-55-61,1,1-Trichloroethane       9.       U         56-23-5Carbon Tetrachloride       9.       U         75-27-4Bromodichloromethane       9.       U         78-87-51,2-Dichloropropane       9.       U         10061-01-5cis-1,3-Dichloropropene       9.       U         79-01-6Trichloroethane       9.       U         79-00-51,1,2-Trichloroethane       9.       U         71-43-2Benzene       9.       U         10061-02-6trans-1,3-Dichloropropene       9.       U         75-25-2Bromooform       9.       U         108-10-1Benzene       9.       U         10061-02-6				trans		U	
107-06-21, 2-Dichloroethane       9.       U         78-93-32-Butanone       18.       U         71-55-61, 1, 1, -Trichloroethane       9.       U         56-23-5Carbon Tetrachloride       9.       U         75-27-4Bromodichloromethane       9.       U         78-93-3Carbon Tetrachloride       9.       U         75-27-4Bromodichloromethane       9.       U         78-87-5	ļ.,				9	U	
78-93-32-Butanone       18.       U         71-55-61,1,1-Trichloroethane       9.       U         56-23-5Carbon Tetrachloride       9.       U         75-27-4Bromodichloromethane       9.       U         78-87-51,2-Dichloropropane       9.       U         79-01-6Trichloroethane       9.       U         79-01-6Trichloroethane       9.       U         79-01-6Trichloroethane       9.       U         79-00-51,1,2-Trichloroethane       9.       U         79-00-51,1,2-Trichloroethane       9.       U         70061-02-6Bromoform       9.       U         7001-6					9.	υ	
71-55-61,1,1,1-Trichloroethane       9.       U         56-23-5Carbon Tetrachloride       9.       U         75-27-4Bromodichloromethane       9.       U         78-87-51,2-Dichloropropane       9.       U         10061-01-5cis-1,3-Dichloropropane       9.       U         79-01-6Trichloroethene       9.       U         79-01-6Trichloroethene       9.       U         124-48-1Dibromochloromethane       9.       U         79-00-51,1,2-Trichloroethane       9.       U         79-00-5	- E				18.	υ	
56-23-5Carbon Tetrachloride       9.       U         75-27-4Bromodichloromethane       9.       U         78-87-51,2-Dichloropropane       9.       U         10061-01-5cis-1,3-Dichloropropane       9.       U         79-01-6Trichloroethene       9.       U         124-48-1Dibromochloromethane       9.       U         79-00-51,1,2-Trichloroethane       9.       U         79-00-5	l			ane	9.	U I	
75-27-4Bromodichloromethane       9.       U         78-87-51,2-Dichloropropane       9.       U         10061-01-5cis-1,3-Dichloropropene       9.       U         79-01-6Trichloroethene       9.       U         124-48-1Dibromochloromethane       9.       U         79-00-51,1,2-Trichloroethane       9.       U         71-43-2Benzene       9.       U         10061-02-6trans-1,3-Dichloropropene       9.       U         75-25-2Bromoform       9.       U         108-10-14-Methyl-2-Pentanone       18.       U         127-18-4Tetrachloroethane       9.       U         108-88-3Toluene       9.       U         108-88-3	1					U	
10061-01-5Cis-1,3-Dichloropropene       9.       U         79-01-6Trichloroethene       9.       U         124-48-1Dibromochloromethane       9.       U         79-00-51,1,2-Trichloroethane       9.       U         79-00-5Benzene       9.       U         71-43-2Benzene       9.       U         10061-02-6trans-1,3-Dichloropropene       9.       U         75-25-2Bromoform       9.       U         108-10-14-Methyl-2-Pentanone       18.       U         127-18-4Tetrachloroethane       9.       U         108-88-3Toluene       9.       U         108-90-7Chlorobenzene       9.       U         100-41-4Ethylbenzene       9.       U         100-42-5Styrene       9.       U						1 1	
79-01-6Trichloroethene       9.       U         124-48-1Dibromochloromethane       9.       U         79-00-51,1,2-Trichloroethane       9.       U         71-43-2Benzene       9.       U         10061-02-6trans-1,3-Dichloropropene       9.       U         10061-02-6trans-1,3-Dichloropropene       9.       U         10061-02-6trans-1,3-Dichloropropene       9.       U         108-10-1Benzene       9.       U         108-10-1Bromoform       9.       U         108-10-1Bromoform       9.       U         108-10-1Benzene       9.       U         108-10-1Bromoform       9.       U         108-10-1Benzene       9.       U         108-10-1Benzene       9.       U         108-10-1		78-87-5	1,2-Dichloropropane	9			
124-48-1Dibromochloromethane       9.       U         79-00-51,1,2-Trichloroethane       9.       U         71-43-2Benzene       9.       U         10061-02-6trans-1,3-Dichloropropene       9.       U         10061-02-6trans-1,3-Dichloropropene       9.       U         75-25-2Bromoform       9.       U         108-10-14-Methyl-2-Pentanone       18.       U         109-78-62-Hexanone       18.       U         127-18-4Tetrachloroethene       9.       U         108-88-3Toluene       9.       U         108-88-3				opene			•
79-00-51,1,2-Trichloroethane       9.       U         71-43-2Benzene       9.       U         10061-02-6trans-1,3-Dichloropropene       9.       U         10061-02-6trans-1,3-Dichloropropene       9.       U         75-25-2Bromoform       9.       U         108-10-14-Methyl-2-Pentanone       18.       U         108-10-14-Methyl-2-Pentanone       18.       U         127-18-62-Hexanone       18.       U         127-18-4Tetrachloroethene       9.       U         108-88-3Toluene       9.       U         108-90-7Chlorobenzene       9.       U         100-41-4Ethylbenzene       9.       U         100-42-5Styrene       9.       U	1			-			
71-43-2Benzene       9.       U         10061-02-6trans-1,3-Dichloropropene       9.       U         75-25-2Bromoform       9.       U         108-10-14-Methyl-2-Pentanone       18.       U         108-10-14-Methyl-2-Pentanone       18.       U         591-78-62-Hexanone       18.       U         127-18-4Tetrachloroethene       9.       U         108-88-3Toluene       9.       U         108-90-7Chlorobenzene       9.       U         100-41-4Ethylbenzene       9.       U         100-42-5Styrene       9.       U							
10061-02-6trans-1,3-Dichloropropene       9.       U         75-25-2Bromoform       9.       U         108-10-14-Methyl-2-Pentanone       18.       U         591-78-62-Hexanone       18.       U         127-18-4Tetrachloroethene       9.       U         108-88-3Toluene       9.       U         108-90-7Chlorobenzene       9.       U         100-41-4Ethylbenzene       9.       U         100-42-5Styrene       9.       U	· .			ane		1 1	
75-25-2Bromoform       9.       U         108-10-14-Methyl-2-Pentanone       18.       U         591-78-62-Hexanone       18.       U         127-18-4Tetrachloroethene       9.       U         127-18-4Tetrachloroethene       9.       U         108-88-3Toluene       9.       U         108-90-7Chlorobenzene       9.       U         100-41-4Ethylbenzene       9.       U         100-42-5Styrene       9.       U						. 1	
108-10-14-Methyl-2-Pentanone       18.       U         591-78-62-Hexanone       18.       U         127-18-4Tetrachloroethene       9.       U         79-34-51,1,2,2-Tetrachloroethane       9.       U         108-88-3Toluene       9.       U         108-90-7Chlorobenzene       9.       U         100-41-4Ethylbenzene       9.       U         100-42-5Styrene       9.       U				propene		1 I	
591-78-62-Hexanone       18.       U         127-18-4Tetrachloroethene       9.       U         79-34-51,1,2,2-Tetrachloroethane       9.       U         108-88-3Toluene       9.       U         108-90-7Chlorobenzene       9.       U         100-41-4Ethylbenzene       9.       U         100-42-5Styrene       9.       U						1 1	
127-18-4Tetrachloroethene       9.       U         79-34-51,1,2,2-Tetrachloroethane       9.       U         108-88-3Toluene       9.       U         108-90-7Chlorobenzene       9.       U         100-41-4Ethylbenzene       9.       U         100-42-5Styrene       9.       U				ne	•	1 1	
79-34-51,1,2,2-Tetrachloroethane       9.       U         108-88-3Toluene       9.       U         108-90-7Chlorobenzene       9.       U         100-41-4Ethylbenzene       9.       U         100-42-5Styrene       9.       U	•					4 4	
108-88-3Toluene       9.       U         108-90-7Chlorobenzene       9.       U         100-41-4Ethylbenzene       9.       U         100-42-5Styrene       9.       U		127-18-4	Tetrachloroethene				
108-90-7Chlorobenzene       9.       U         100-41-4Ethylbenzene       9.       U         100-42-5Styrene       9.       U	• •			oethane			
100-41-4Ethylbenzene       9.       U         100-42-5Styrene       9.       U	: .				9.	1 1	
100-42-5Styrene 9. U					· ۲۰	1 4	•
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1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					. כ ס	U U ·	
				-018	2		
		106-42-3	m, p-xylenes		بر م	1 ⁻ 1	!
95-47-69. U		95-47-6	o-xytene		7.	U.	
			A				

FORM I VOA

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Lab Name: AES, Inc	Case No. URS0301 SAS No. r) SOIL 5.000 (g/mL) G LOW c. 44. 2 ID: .32 (mm) e: (uL) CONCE	NDS : Lab Sampl Lab File Date Rece Date Anal Dilution	e ID: TB-9 (4-6 ID: C0633 ived: 02/25/03 yzed: 02/28/03 Factor: 1.0 uot Volume: NITS:	(2-4)
CAS NUMBER	COMPOUND NAME		EST. CONC.	0
1.         2.         3.         4.         5.         6.         7.         8.         9.         10.         11.				

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FORM I VOA-TIC

1/90 Rev.

· (low/med)	5.000 (g/mL) (				.: TB-5 (2
· (low/med)		G		imple ID: T le ID: C06	
sture: not dec	T.OW			Received: 0	
LUMMA DEVENO C	53.			inalyzed: 0	
Extract Volume	2 ID: .32 (mm) ≥: (uL)			on Factor:	
				TTGGOL VOI	ume:
0 H 0 370				N UNITS:	
CAS NO.	COMPOUND	(ug/I	or ng/	Kg) UG/KG	Q
			<u> </u>		
74-87-3	Chloromethane	e		21	. U
74-83-9	Bromomethane	······································		21	5 1
75-01-4	Vinyl Chlorid	de		21 [.]	. υ
75-00-3	Chloroethane			21	. U
75-09-2	Methylene Ch	loride		11	. U
	Acetone		ŀ	21	. U
75-15-0	Carbon Disul	fide		11	. UU
75-35-4	l,l-Dichloroe	ethene		11	. U
75-34-3	1,1-Dichloroe	ethane		<b>11</b>	
156-60-5	1,2-Dichloroe	ethene-tra	178	11	
67-66-3	Chloroform			11	
107-06-2	l,2-Dichloroe	ethane		11	
	2-Butanone	·····		21	1 1
	1,1,1-Trichld	oroethane		11	1 1
75-27 A	Carbon Tetrac	Snioride	{	11	3 (
72-27-4	l,2-Dichloro	omernane		; 11	
70-07-3	cis-1,3-Dich.	propane		11	1 1
79-01-6	Trichloroethe	rorobrobeu	16 <u> </u>	1,1	
124-48-1	Dibromochloro			11	1 · · · · · · · · · · · · · · · · · · ·
79-00-5	1,1,2-Trichle	oroethano		11	
71-43-2	Benzene		4	11	
10061-02-6	trans-1,3-Die	chloropror	iene	11	
75-25-2	Bromoform				í I
	4-Methyl-2-Pe	entanone	······	21	1 1
591-78-6	2-Hexanone			21	
127-18-4	Tetrachloroet	thene		11	
79-34-5	1,1,2,2-Tetra	achloroet}	iané	11	
108-88-3	Toluene			11	4 1
108-90-7	Chlorobenzene	<u>.</u>		11	1 1
100-41-4	Ethylbenzene			1.1	1 1
100-42-5	Styrene			. 11	1
156-59-2	1,2-Dichloroe	ethène-cis	3 * * *	· · · · · · · · · · · · · · · · · · ·	4 1
	m,p-Xylenes		·	11	( 3
106-42-3					

FORM I VOA ٩·

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APR 04 '03 09:21

F-531 T-339 P-012

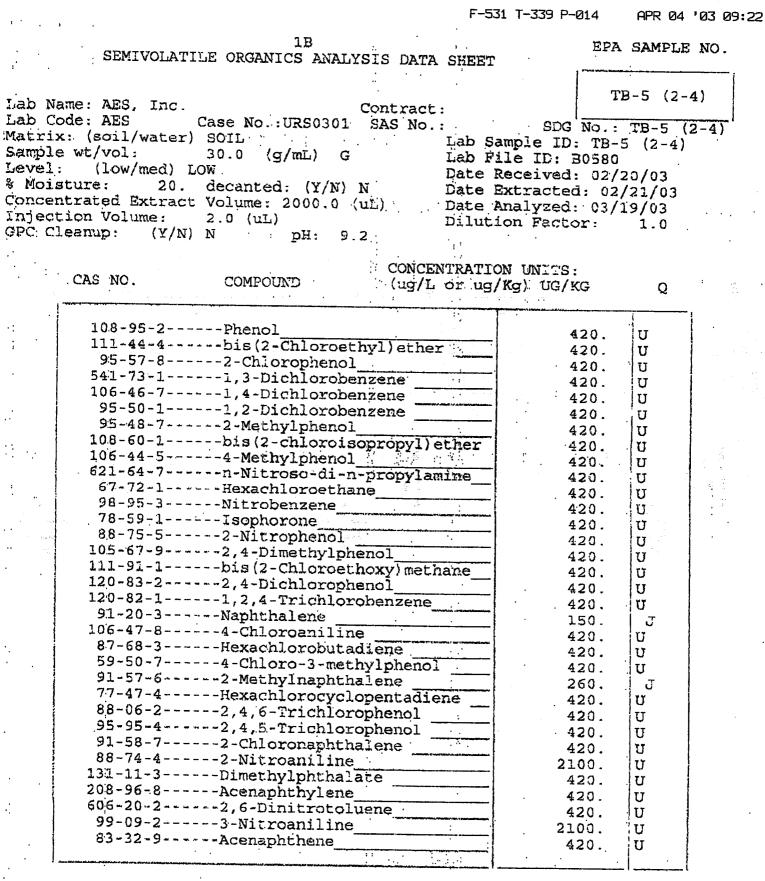
LEEPA SAMPLE NO.VOLATILE ORGANICS ANALYSIS DATA SHEET<br/>TENTATIVELY IDENTIFIED COMPOUNDSTB-10 (6-8)Lab Name: AES, Inc.Contract:Lab Code: AESCase No.: URS0301 SAS No.:SDG No.: TB-5 (2-4)Matrix: (soil/water) SOILLab Sample ID: TB-10 (6-8)Sample wt/vol:5.000 (g/mL) GLab File ID: C0634Level:(low/med) LOWDate Received: 02/25/03% Moisture: not dec.53.Date Analyzed: 02/28/03GC Column: RTX502.2 ID:.32 (mm)Dilution Factor:1.0Soil Extract Volume:(uL)Soil Aliquot Volume:(uL)

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

COMPOUND NAME CAS NUMBER RT EST. CONC. 0 2. 3-4 5.____ 6. 7 -8. 9.____ 10.____ 1.1 -12._____ 13. 14 15. ..... 16.____ 1.7 -18.____ ____ 19.____ 20.____ 21.____ 22. 23. 24.____ 25._____ 27 -28._____ 29. 30.____

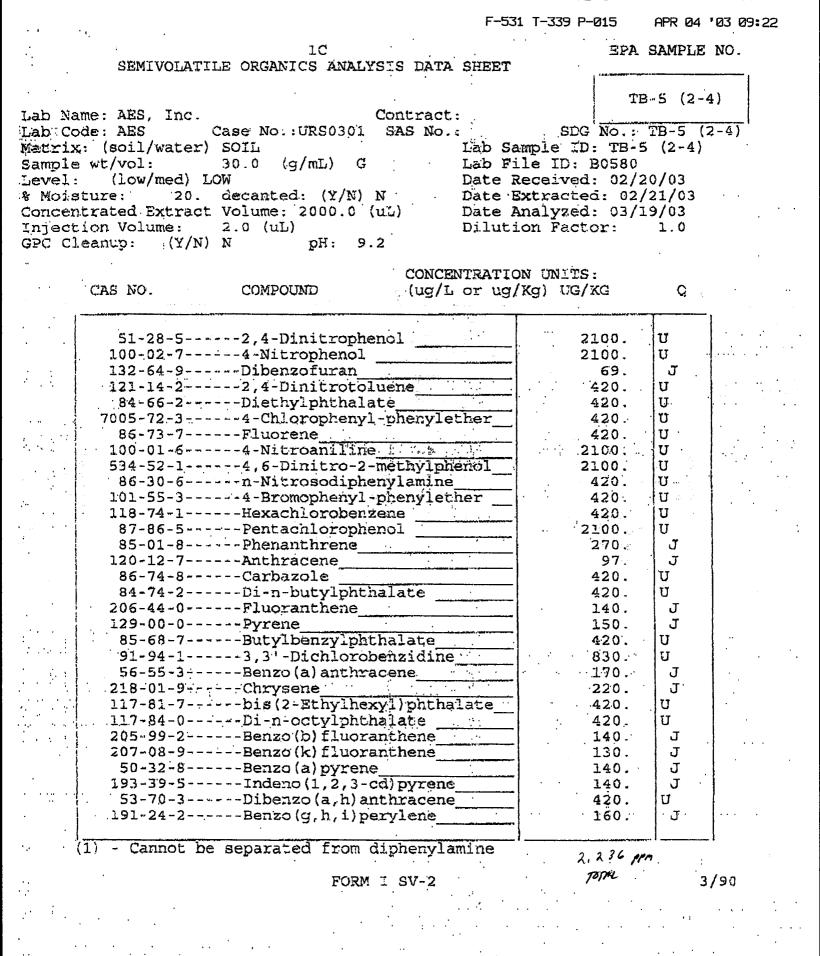
FORM I VOA-TIC

1/90 Rev.





3/90



#### F-531 T-339 P-016 APR 04 '03 09:22

EPA SAMPLE NO.

### SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

'Number TICs found: 9

lF

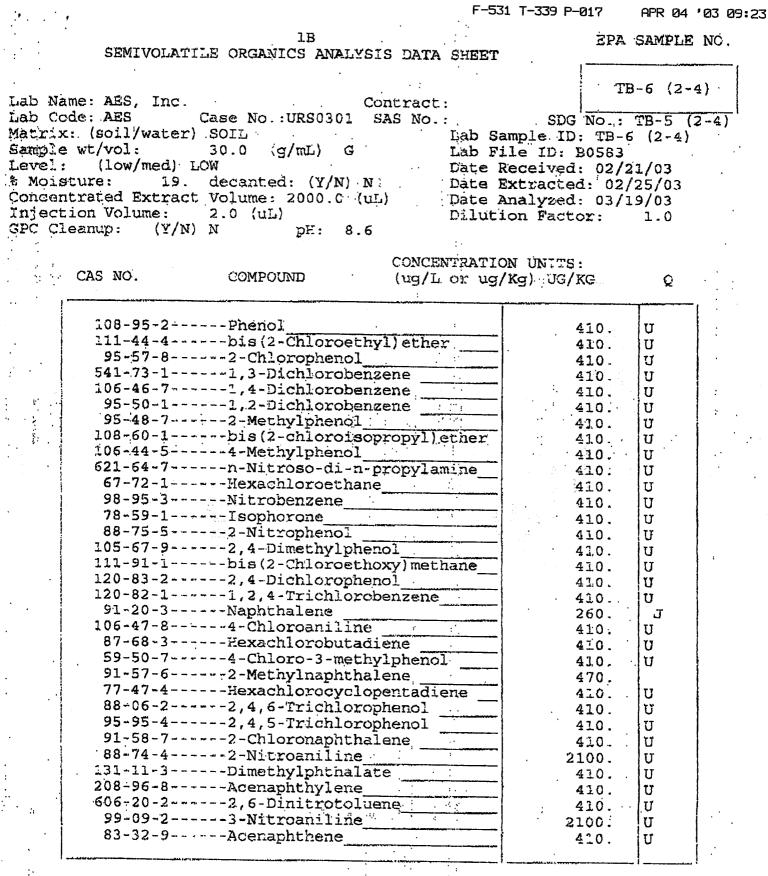
	TB-5 (2-4)
Lab Name: AES, Inc. Contract:	
	SDG No.: TB-5 (2-4)
Matrix: (soil/water) SOIL Lab Sa	mple ID: TB-5 (2-4)
	le ID: B0580
Level: (low/med) LOW Date R	eceived: 02/20/03
* Moisture: 20. decanted: (Y/N) N. Date E	xtracted: 02/21/03
	nalyzed: 03/19/03
	on Factor: 1.0
GPC Cleanup: (Y/N) N pH: 9.2	

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

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CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1	ALDOL CONDENSATE	5.19	5000.	ABJ
2. 90-12-0	ALDOL CONDENSATE Naphthalene, 1-methyl-	16.10	200.	JN
3	DIMETHYLNAPHTHALENE	18.05	200.	J
· · · · · · · ·				-
		20.78	200.	J
	Pentadecane, 2,6,10,14-tetra		200.	JN
.5	UNKNOWN PAH	22.89	200.	J
7	UNKNOWN PAH	25.13	200.	J
	Cyclic octaatomic sulfur		[	JN
9	UNKNOWN	30.25	200.	J
			} 	
1 <del>1 1 1</del> 1		۰ ۲ محمد محمد م		
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FORM I SV-TIC

3/90



FORM I SV-1

3/90

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F-531 T-339 P-018 APR 04 '03 09:23 EPA SAMPLE NO.

CONCENTRATION UNITS:

1CSEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

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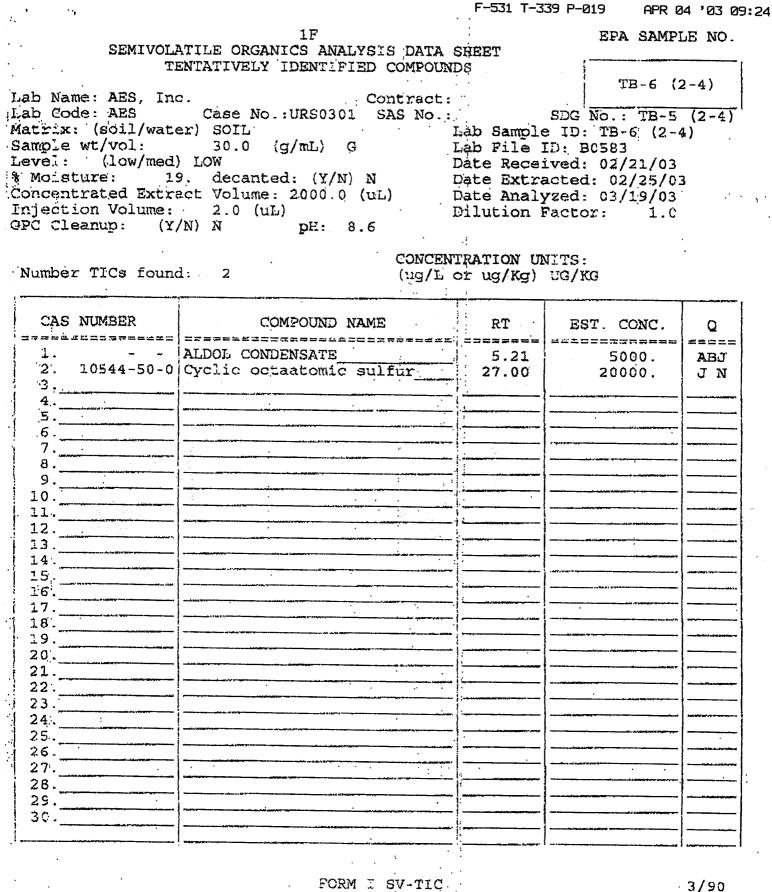
TB-6 (2-4) Contract: Lab Name: AES, Inc. Lab Code: AES Case No.: URS0301 SAS No.: SDG No.: TB-5 (2-4) Matrix: (soil/water) SOIL Lab Sample ID: TB-6 (2-4) Sample wt/vol: Lab File ID: B0583 30.0 (g/mL) GDate Received: 02/21/03 Level: (low/med) LOW % Moisture: 19. decanted: (Y/N) N Date Extracted: 02/25/03 Concentrated Extract Volume: 2000.0 (uL) Date Analyzed: 03/19/03 Injection Volume: 2.0 (uL) Dilution Factor: 1.0 GPC Cleanup: (Y/N) N pH: 8.6 • :

CAS NO.		or ug/Kg) UG/KG	. Q
51-28-5	2,4-Dinitrophenol	2100.	υ
100-02-7	4-Nitrophenol	2100.	υ
	Dibenzofuran	110.	J
121-14-2	2,4-Dinitrotoluene	410.	U
84-66-2	Diethylphthalate	410.	U
7005-72-3	4-Chlorophenyl-phenylet	ner 410.	ប
	Fluorene	410.	ប
100-01-6	4-Nitroaniline	2100.	U.
	4,6-Dinitro-2-methylphe	nol 2100.	υ
86-30-6	n-Nicrosodiphenylamine	410.	ប
101-55-3	4-Bromophenyl-phenyleth	er 410.	U
118-74-1	Hexachlorobenzene	410.	Ū
87-86-5	Pentachlorophenol	2100.	U
85-01-8	Phenanthrene	340.	JJ
120-12-7	Anthracene	410.	U
86-74-8	Carbazole	410.	U
84-74-2	Di-n-butylphthalate	410.	ט
	Fluoranthene	170.	J
129-00-0	Pyrene	140.	J
85-68-7	Butylbenzylphthalate	410.	ប
91-94-1	3,3'-Dichlorobenzidine	820-	ប
-56-55-3	Benzo (a) anthracene	170.	J
218-01-9	Chrysene	190.	J
	bis(2-Ethylhexyl)phthal	ate 410.	U
117-84-0	Di-n-octylphthalate	410.	U
	Benzo(b)fluoranthene	150.	J
207-08-9	Benzo(k) fluoranthene	120.	J
	Benzo (a) pyrene	150.	J
193-39-5	Indeno(1,2,3-cd)pyrene	120.	J
53-70-3	Dibenzo (a, h) anthracene		U
	Benzo (g, h, i) perylene	110.	J
) - Cannot b	pe separated from diphenylam	ine 2.500 p	

## FORM I SV-2

2.500 pm DAML

3/90



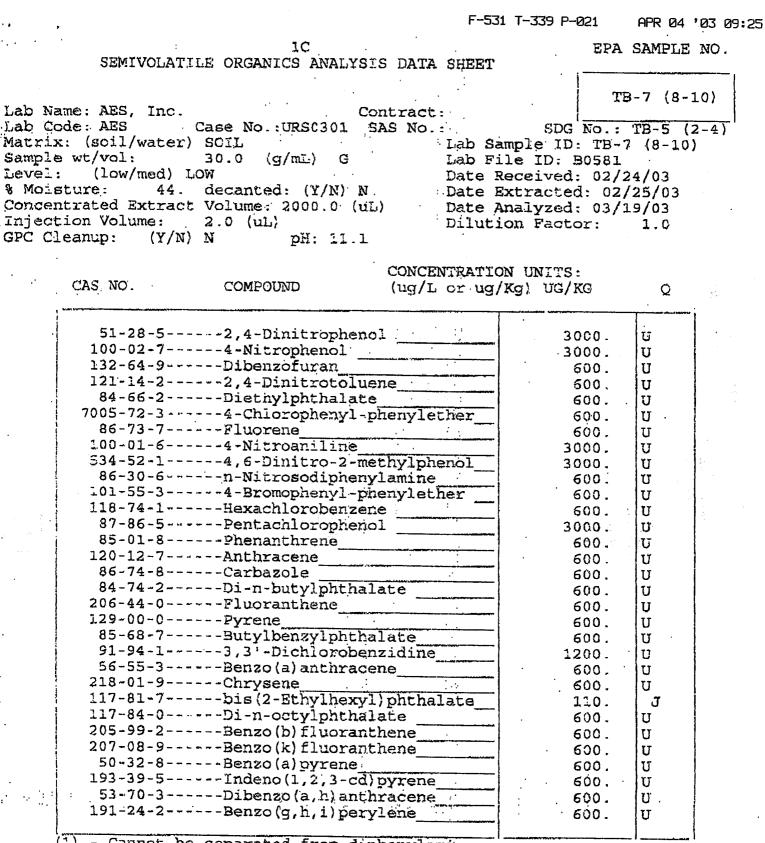
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IB         EPA SAMPLE NO.           SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET           TE-7 (8-10)           Lab Nome: AES, Inc.         Contract:           SIG No.: INFOSOL SAS No.:         SIG No.: TD-5 (2-4)           Matrix: (soll/water) SOIL         Lab Sample wt/vol:         30.0 (g/mL)         Lab Sample wt/vol:         SIG No.: TD-5 (2-4)           Matrix: (soll/water) SOIL         Lab Sample wt/vol:         SIG No.: TD-5 (2-4)           Matrix: (soll/water) SOIL         Lab Sample wt/vol:         SIG No.: TD-5 (2-4)           Matrix: (soll/water) SOIL         Lab Sample wt/vol:         SIG No.: TD-5 (2-4)           Matrix: (soll/water) SOIL         Lab Sample wt/vol:         SIG No.: TD-5 (2-4)           Concentrated Strater Volume: 2000.0 (ul)         Date Received: 02/24/03           Date Sample wt/vol:         SIG No.: TD-5 (2-4)           CONCENTRATION UNITS:           CONCENTRATION UNITS:           CONCENTRATION UNITS:           CONCENTRATION UNITS:           CONPOUND      <	• •	F-53	1 T-339 P-020	APR 104 '	03 09:24
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET         Lab Name: AES, Inc.       Contract:         Lab Code: AES       Case No.:URS0301 SAB No.:         Sample wird:       SDG No.: TE-5 (2-4)         Matrix: (sol/(water) SOLL       Lab Sample ID: TE-7 (8-10)         Sample wird:       30.0 (g/mL) G       Lab File ID: B05B1         Level:       (low/mcd) LOW       Date Received: 02/25/03         Concentrated Extract Volume: 2.0 (L)       Dilution Pactors: 1.0         GPC Cleanup:       (Y/N) N       pH: 11.1         CONCENTRATION UNITS:       CONCENTRATION UNITS:         CAS NO.       COMPOUND       (ug/L or ug/Kg) UG/KG       Q         108-95-2 Phenol.       600. U       55-57-6		1 R	גמיס	SAMDT.P	NO
Lab Name: AES, Inc.         Contract:         TB-7 (8-10)           Lab Code: AES         Case No.: URS0301 SAS No.:         SDG No.: TE-5 (2-4)           Matrix: (soil/water) SOLL         Lab Sample ID: TB-7 (8-10)         Lab Simple TD: TB-7 (8-10)           Sample wt/vol:         30.0 (g/mL) G         Lab Simple TD: TB-7 (8-10)           Level:         (low/med) LOW         Date Received: 02/24/03           % Moisture:         44. decanted: (Y/N) N         Date Extracted: 03/15/03           Concentrated Extract Volume: 2000.0 (uL)         Date Analyzed: 03/15/03           Injection Volume:         2.0 (uL)         Dilution Pactor: 1.0           GPC Cleanup: (Y/N) N         DS: 57.8				لتقليك مدامو وي	
Lab Name: ABS, Inc. Contract: SDG No.: TB-5 (2-4) Matrix: (soil/water) SOL Lab Sample ID: TB-7 (8-10) Sample wL/vol: 30.0 (g/mL) G Lab File ID: B0581 Level: (low/med) LOW Date Received: 02/24/03 % Mojsture: 44. decanted: (Y/N) Date Extracted: 02/25/03 Concentrated Extracts Volume: 2000.0 (uL) Date Analyzed: 03/19/03 Injection Volume: 2.0 (uL) Date Analyzed: 03/19/03 Injection Volume: 2.0 (uL) Date Nalyzed: 03/19/03 Injection Volume: 2.0 (uL) Date Malyzed: 03/19/03 Mojsture: (Y/N) N pE: 11.1 CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q 108-95-2Phenol 600. U 111-44-4bis (2-Chloroethyl) ether 600. U 95-50-12-Chlorophenol 600. U 106-66-71, 4-Dichlorobenzene 600. U 106-66-7		ATTACTUATION OF ANALYTICS MANIPLE SUBSET	1	·····	1
Lab Name: AES, Inc. Contract: SDG No.: TB-5 (2-4) Matrix: (soil/water) SOLL Lab Sample ID: TB-7 (8-10) Sample wL/vol: 30.0 (g/mL) G Lab File ID: B0581 Level: (low/med) LOW Date Received: 02/25/03 Concentrated Extracted: (2/25/03 Concentrated Extracted: 02/25/03 Concentrated Extracted: 02/25/03 Concentrated: 02/25/03 Concentrated: 02/25/	:	~	י.	-7 (8-1	o)
Lab         Code: ABS         Case No.:URS0301         SAS No.: I         Std (No.: TB-5 (2-4))           Matrix: (soll/water) SOIL         Lab Sample ID: TB-7 (8-10)         Sample wt/vol:         30.0 (g/mL) G         Lab Sample ID: TB-7 (8-10)           Sample wt/vol:         30.0 (g/mL) G         Lab Sample ID: TB-7 (8-10)         Date Extracted: 02/24/03           & Moisture:         44. decanted: (Y/N) N         Date Extracted: 02/25/03           Concentrated Extract Volume:         2.00(0)         UL)         Dilution Factor:         1.0           GPC Cleanup:         (Y/N) N         pH: 11.1         Dilution Factor:         1.0           GPC Cleanup:         (Y/N) N         pH: 11.1         CONCENTRATION UNITS:         000. U           GAS NO.         COMPOUND         (ug/L or ug/Rg) UG/KG         Q           108-95-2Phenol         600. U         600. U         55.57.8Phenol         600. U           511-1Dis(2-Chlorosthyl)ether         600. U         600. U         600. U         600. U           95-57-1	Lab Nar	ne: AES. Inc. Contract:			
Matrix:       (soil/vater) SOIL       Lab       Lab       Sample wire       10         Sample wire:       30.0 (g/mL) G       Lab File ID: B0581         Level:       (low/med) LOW       Date Received: 02/24/03         % Moisture:       34. decanted: (Y/N) N       Date Ranzyzad: 03/19/03         Injection Volume:       2.0 (uL)       Date Ranzyzad: 03/19/03         GPC Cleanup:       (Y/N) N       pH: 11.1         CONCENTRATION UNITS:       CAS NO.       COMPOUND         (ug/L or ug/Rg) UG/KG       Q         108-95-2Phenol       600. U         111-44-4bis (2-Chlorobehzene       600. U         95-50-12-Chlorophenol       600. U         541-73-11, 4-Dichlorobenzene       600. U         106-66-71, 4-Dichlorobenzene       600. U         95-50-12-2-Methylphenol       600. U         106-66-71, 4-Dichlorobenzene       600. U         106-66-72-Wethylphenol       600. U         106-61-1			SDG No.	TB-5 (2	(-4)
Sample wt/vol:       30.0 (g/mL) G       Lab File ID: B0581         Level:       (low/med) LOW       Date Received: 02/24/03         % Moisture:       44. decanted: (Y/N) N       Date Extracted: 03/19/03         Injection Volume:       2.0 (uL)       Dilution Factor:         Injection Volume:       2.0 (uL)       Dilution Factor:         GPC Cleanup:       (Y/N) N       pH: 11.1         CONCENTRATION UNITS:         CAS NO.       COMPOUND       (ug/L or ug/Kg) UG/KG       Q         108-95-2Phenol       600.       U         95-57-6Phenol       600.       U         95-57-6					
Level: (lov/med) LON Date Received: 02/24/03 Moisture: 44. decented: (Y/N) N Date Extracted: 02/25/03 Concentrated Extract Volume: 2000.0 (uf) Date Analyzed: 03/19/03 Injection Volume: 2.0 (uf) Dilution Factor: 1.0 GPC Cleanup: (Y/N) N pH: 11.1. CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q 108-95-2Phenol 600. U 95-57-82-Chlorophenol 600. U 106-44-52-Chlorophenol 600. U 95-50-11, 4-Dichlorobenzene 600. U 95-50-11, 3-Dichlorobenzene 600. U 95-50-1				(0 40)	
<pre>% Moisture: 44. decanted: (Y/N) N Date Extracted: 02/25/03 Concentrated Extract Volume: 200.0 (uL) Date Analyzed: 03/19/03 Injection Volume: 2.0 (uL) Dilution Factor: 1.0 GPC Cleanup: (Y/N) N pH: 11.1. CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q 108-95-2Phenol. 600. U 111-44-4bis(2-Chlorosthyl)ether 600. U 95-57-82-Chlorosthyl)ether 600. U 95-57-82-Chlorosthyl)ether 600. U 106-46-7</pre>				4/03	
Concentrated Extract Volume: 2.00(1)       Date Analyzed: 03/19/03         Injection Volume: 2.0 (uL)       Dilution Factor: 1.0         GPC Cleanup: (Y/N) N       pH: 11.1.         COMPOUND         CAS NO.       COMPOUND         CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG         CAS NO.       COMPOUND         CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG         Start:					
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	Concent	rated Extract Volume: 2000.0 (uL) Date			. :
GPC Cleanup:       (Y/N) N       pH: 11.1.         CAS NO.       COMPOUND       CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG       Q         108-95-2Phenol.       600.       U         111-44-4bis(2-Chloroethyl)ether       600.       U         95-57-82-Chloroethyl)ether       600.       U         95-57-82-Chloroethyl)ether       600.       U         95-58-12.       3-Dichlorobenzene       600.       U         95-58-72-Methylphenol       600.       U         106-46-7	Inject:	ion Volume: 2.0 (uL) Dilut.			
CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG       Q         108-95-2Phenol       600.       U         111-44bis (2-Chloroethyl)ether       600.       U         95-57-82-Chlorophenol       600.       U         541-73-11,3-Dichlorobenzene       600.       U         106-46-71,4-Dichlorobenzene       600.       U         95-50-11,2-Dichlorobenzene       600.       U         95-64-72-Methylphenol       600.       U         108-60-1Dis (2-chloroisogropyl)ether       600.       U         108-61-1Dis (2-chloroethame       600.       U         95-53					
CAS NO.       COMPOUND       (ug/L or ug/Kg) UG/KG       Q         108-95-2Phenol       600.       U         111-44-4bis (2-Chlorosthyl) ether       600.       U         95-57-82-Chlorosphenol       600.       U         95-57-82-Chlorosphenol       600.       U         106-46-71, 4-Dichlorobenzene       600.       U         95-50-12-Methylphenol       600.       U         95-48-72-Methylphenol       600.       U         108-60-1bis (2-chloroisopropyl) ether       600.       U         108-60-1					
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		CONCENTRATI	ON UNITS:		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	:	CAS NO. COMPOUND (ug/L or ug	/Kg) UG/KG	Q	<i>1</i> / :
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	•	· • • · · · · · · · · · · · · · · · · ·			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	· · · · · [7				
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	inter y 🖡	108-95-2Phenol	600	U	• • • •
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		111-44-4bis(2-Chloroethyl)ether		1 - 1	
106-46-71, 4-Dichlorobenzene       600.       U         95-50-11, 2-Dichlorobenzene       600.       U         95-48-72-Methylphenol       600.       U         108-60-1bis (2-chloroisopropyl)ether       600.       U         106-44-52-Methylphenol       600.       U         621-64-7Nitroso-di.n-propylamine       600.       U         62-72-1Hexachloroethans       600.       U         98-95-3Nitrobenzene       600.       U         98-95-3Nitrophenol       600.       U         101-64-7		95-57-82-Chlorophenol	600.	ប	- 44
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	ä			· · · · · · · · · · · · · · · · · · ·	
95-48-72-Methylphenol       600.       U         108-60-1bis (2-chloroisopropyl)ether       600.       U         106-44-54-Methylphenol       600.       U         621-64-7n-Nitroso-di-n-propylamine       600.       U         67-72-1Hexachloroethane       600.       U         98-95-3Nitrobenzene       600.       U         98-95-3Nitrophenol       600.       U         105-67-92, 4-Dimethylphenol       600.       U         119-1bis (2-Chloroethoxy)methane       600.       U         120-83-22, 4-Dimethylphenol       600.       U         120-83-22, 4-Dichlorophenol       600.       U         120-83-11, 2, 4 - Trichlorobenzene       600.       U         91-20-3	· · · · · · · · · · · · · · · · · · ·	106-46-71,4-Dichlorobenzene	L		• • •
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		95-50-11,2-Dichlorobenzene	•	-	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			1	1	• •
621-64-7n-Nitroso-di-n-propylamine       600.       U         67-72-1Hexachloroethane       600.       U         98-95-3Nitrobenzene       600.       U         78-59-1	\$	108-60-1bis(2-chloroisopropyl)ether		-	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	·	105-44-54-Methylphenol	1		
98-95-3Nitrobenzene       600.       U         78-59-1Isophorone       600.       U         88-75-52-Nitrophenol       600.       U         105-67-92,4-Dimethylphenol       600.       U         111-91-1bis(2-Chloroethoxy)methane       600.       U         120-83-22,4-Dichlorophenol       600.       U         120-83-22,4-Dichlorophenol       600.       U         120-83-21,2,4-Trichlorobenzene       600.       U         91-20-3Naphthalene       600.       U         106-47-84-Chloro-3-methylphenol       600.       U         87-68-3Hexachlorobutadiene       600.       U         91-57-62-Methylnaphthalene       600.       U         91-57-62-Methylnaphthalene       600.       U         91-58-72-X-Methylnaphthalene       600.       U         91-58-72-X,4,5-Trichlorophenol       600.       U         91-58-72-X-Mitroaniline       600.       U         91-58-72-X,4,5-Trichlorophenol       600.       U         91-58-72-X-Nitroaniline       600.       U         928-96-8Acenaphthylene       600.       U         99-09-23-Nitroaniline       3000.       U		621-64-7n-Nitroso-di-n-propylamine			
78-59-1Isophorone       600.       U         88-75-52-Nitrophenol       600.       U         105-67-92,4-Dimethylphenol       600.       U         111-91-1bis(2-Chloroethoxy)methane       600.       U         120-83-22,4-Dichlorophenol       600.       U         120-82-11,2,4-Trichlorobenzene       600.       U         91-20-3Naphthalene       600.       U         106-47-8	•	67-72-1Hexachloroethane	6		·
88-75-52-Nitrophenol       600.       U         105-67-92,4-Dimethylphenol       600.       U         111-91-1bis(2-Chloroethoxy)methane       600.       U         120-83-22,4-Dichlorophenol       600.       U         120-82-11,2,4-Trichlorobenzene       600.       U         91-20-3Naphthalene       600.       U         105-647-84-Chloroaniline       600.       U         87-68-3Hexachlorobutadiene       600.       U         91-57-62-Methylnaphthalene       600.       U         91-57-62-Methylnaphthalene       600.       U         91-57-62-Methylnaphthalene       600.       U         91-58-72,4,5-Trichlorophenol       600.       U         91-58-72,4,5-Trichlorophenol       600.       U         91-58-72-Chloronaphthalene       600.       U         91-58-72-Chloronaphthalene       600.       U         91-58-72-Chloronaphthalene       600.       U         91-11-3Dimethylphthalate       600.       U         92-99-23-Nitroaniline       3000.       U         93-09-23-Nitroaniline       3000.       U         93-09-23-Nitroaniline       600.       U <t< td=""><th></th><td>98-95-3Nitrobenzene</td><td></td><td></td><td></td></t<>		98-95-3Nitrobenzene			
105-67-92,4-Dimethylphenol       600.       U         111-91-1bis(2-Chloroethoxy)methane       600.       U         120-83-22,4-Dichlorophenol       600.       U         120-83-22,4-Dichlorophenol       600.       U         120-83-22,4-Dichlorophenol       600.       U         120-82-11,2,4-Trichlorobenzene       600.       U         91-20-3Naphthalene       600.       U         106-47-84-Chloroaniline       600.       U         87-68-3+Hexachlorobutadiene       600.       U         91-57-62-Methylnaphthalene       600.       U         91-57-62,4,6-Trichlorophenol       600.       U         95-95-42,4,5-Trichlorophenol       600.       U         95-95-42,4,5-Trichlorophenol       600.       U         91-58-72-Chloronaphthalene       600.       U         91-58-72-Nitroaniline       600.       U         131-11-3Dimethylphthalate       600.       U         208-96-82,6-Dinitrotoluene       600.       U         99-09-23-Nitroaniline       3000.       U         83-32-9Acenaphthene       600.       U		/8-59-1Isophorone		1	•••
111-91-1bis (2-Chloroethoxy)methane       600.       U         120-83-22,4-Dichlorophenol       600.       U         120-82-11,2,4-Trichlorobenzene       600.       U         91-20-3Naphthalene       600.       U         106-47-84-Chloroaniline       600.       U         107-68-34-Chloro-3-methylphenol       600.       U         87-68-34-Chloro-3-methylphenol       600.       U         91-57-62-Methylnaphthalene       600.       U         91-57-62-Methylnaphthalene       600.       U         92-59-42,4,6-Trichlorophenol       600.       U         95-95-42,4,5-Trichlorophenol       600.       U         91-58-72-Chloronaphthalene       600.       U         91-58-72,4,5-Trichlorophenol       600.       U         91-58-72,4,5-Trichlorophenol       600.       U         91-58-72,4,5-Trichlorophenol       600.       U         91-58-72,4,5-Trichlorophenol       600.       U         92-96-82,6-Dinitroaniline		88-75-52-Nitrophenol	6	1 -	
120-83-22,4-Dichlorophenol       600.       U         120-82-11,2,4-Trichlorobenzene       600.       U         91-20-3Naphthalene       600.       U         106-47-8Naphthalene       600.       U         107-68-3Naphthalene       600.       U         87-68-3Hexachlorobutadiene       600.       U         91-57-6		105-67-92,4-Dimethylphenol			
120-82-11,2,4-Trichlorobenzene       600.       U         91-20-3Naphthalene       600.       U         106-47-84-Chloroaniline       600.       U         87-68-3Hexachlorobutadiene       600.       U         91-57-62-Methylnaphthalene       600.       U         91-57-62-Methylnaphthalene       600.       U         77-47-4Hexachlorocyclopentadiene       600.       U         91-57-62-Methylnaphthalene       600.       U         77-47-4Hexachlorocyclopentadiene       600.       U         91-57-62-Methylnaphthalene       600.       U         92-95-42,4,5-Trichlorophenol       600.       U         91-58-72-Nitroaniline       3000.       U         91-58-72-Nitroaniline       600.       U         91-58-72-Nitroaniline       3000.       U         131-11-3Dimethylphthalate       600.       U         208-96-8Acenaphthylene       600.       U         99-09-23-Nitroaniline       3000.       U         83-32-9Acenaphthene       600.       U		111-91-1Dis(2-Chloroethoxy)methane		1	
91-20-3Naphthalene       600.       U         106-47-84-Chloroaniline       600.       U         87-68-3Hexachlorobutadiene       600.       U         91-57-64-Chloro-3-methylphenol       600.       U         91-57-62-Methylnaphthalene       600.       U         77-47-4Hexachlorocyclopentadiene       600.       U         88-06-22,4,6-Trichlorophenol       600.       U         95-95-42,4,5-Trichlorophenol       600.       U         91-58-72-Chloronaphthalene       600.       U         91-58-72-Nitroaniline       3000.       U         131-11-3Dimethylphthalate       600.       U         208-96-82,6-Dinitrotoluene       600.       U         99-09-23-Nitroaniline       600.       U         83-32-9Acenaphthene       600.       U	··		1	1	
106-47-84-Chloroaniline       600.       U         87-68-3Hexachlorobutadiene       600.       U         59-50-74-Chloro-3-methylphenol       600.       U         91-57-62-Methylnaphthalene       600.       U         77-47-4Hexachlorocyclopentadiene       600.       U         88-06-22,4,6-Trichlorophenol       600.       U         95-95-42,4,5-Trichlorophenol       600.       U         91-58-72-Chloronaphthalene       600.       U         91-58-72-Chloronaphthalene       600.       U         88-74-42-Nitroaniline       3000.       U         131-11-3Dimethylphthalate       600.       U         208-96-82,6-Dinitrotoluene       600.       U         99-09-23-Nitroaniline       3000.       U         83-32-9Acenaphthene       600.       U	[			1 -	
87-68-3Hexachlorobutadiene       600.       U         59-50-74-Chloro-3-methylphenol       600.       U         91-57-62-Methylnaphthalene       600.       U         77-47-4Hexachlorocyclopentadiene       600.       U         88-06-22,4,6-Trichlorophenol       600.       U         95-95-42,4,5-Trichlorophenol       600.       U         91-58-72,4,5-Trichlorophenol       600.       U         91-58-72-Nitroaniline       600.       U         88-74-42-Nitroaniline       3000.       U         131-11-3Dimethylphthalate       600.       U         208-96-82,6-Dinitrotoluene       600.       U         99-09-23-Nitroaniline       3000.       U         83-32-9Acenaphthene       600.       U	• •				1
59-50-74-Chloro-3-methylphenol       600.       U         91-57-62-Methylnaphthalene       600.       U         77-47-4Hexachlorocyclopentadiene       600.       U         88-06-22,4,6-Trichlorophenol       600.       U         95-95-42,4,5-Trichlorophenol       600.       U         91-58-72.4,5-Trichlorophenol       600.       U         91-58-72.4,5-Trichlorophenol       600.       U         91-58-72.4,5-Trichlorophenol       600.       U         131-11-32-Nitroaniline       3000.       U         131-11-3Dimethylphthalate       600.       U         208-96-8Acenaphthylene       600.       U         99-09-23-Nitroaniline       3000.       U         83-32-9Acenaphthene       600.       U					1
91-57-62-Methylnaphthalene       600.       U         77-47-4Hexachlorocyclopentadiene       600.       U         88-06-22,4,6-Trichlorophenol       600.       U         95-95-42,4,5-Trichlorophenol       600.       U         91-58-72-Chloronaphthalene       600.       U         88-74-42-Nitroaniline       600.       U         131-11-3Dimethylphthalate       600.       U         208-96-82,6-Dinitrotoluene       600.       U         99-09-23-Nitroaniline       600.       U         006-20-23-Nitroaniline       600.       U         99-09-2					· · ·
77-47-4Hexachlorocyclopentadiene       600.       U         88-06-22,4,6-Trichlorophenol       600.       U         95-95-42,4,5-Trichlorophenol       600.       U         91-58-72-Chloronaphthalene       600.       U         88-74-42-Nitroaniline       3000.       U         131-11-3Dimethylphthalate       600.       U         208-96-82,6-Dinitrotoluene       600.       U         99-09-23-Nitroaniline       600.       U         83-32-9Acenaphthene       600.       U		97-50-72-CHLOFO-3-methylpheno1		•	
88-06-22,4,6-Trichlorophenol       600.       U         95-95-42,4,5-Trichlorophenol       600.       U         91-58-72-Chloronaphthalene       600.       U         88-74-42-Nitroaniline       3000.       U         131-11-3Dimethylphthalate       600.       U         208-96-8Acenaphthylene       600.       U         606-20-22,6-Dinitrotoluene       600.       U         99-09-23-Nitroaniline       3000.       U         83-32-9Acenaphthene       600.       U		77-47-4			· · · · · · · ·
95-95-42,4,5-Trichlorophenol       600.       U         91-58-72-Chloronaphthalene       600.       U         88-74-42-Nitroaniline       3000.       U         131-11-3Dimethylphthalate       600.       U         208-96-8Acenaphthylene       600.       U         606-20-22,6-Dinitrotoluene       600.       U         99-09-23-Nitroaniline       3000.       U         83-32-9Acenaphthene       600.       U	• • •				
91-58-72-Chloronaphthalene       600.       U         88-74-42-Nitroaniline       3000.       U         131-11-3Dimethylphthalate       600.       U         208-96-8Acenaphthylene       600.       U         606-20-22,6-Dinitrotoluene       600.       U         99-09-23-Nitroaniline       3000.       U         83-32-9Acenaphthene       600.       U		00-V0-22,4,0-IFICALOROPACHOL			ļ ,
88-74-42-Nitroaniline       3000.       U         131-11-3Dimethylphthalate       600.       U         208-96-8Acenaphthylene       600.       U         606-20-22,6-Dinitrotoluene       600.       U         99-09-23-Nitroaniline       3000.       U         83-32-9Acenaphthene       600.       U		23-33-4		1 -	
131-11-3Dimethylphthalate       600.       U         208-96-8Acenaphthylene       600.       U         606-20-22,6-Dinitrotoluene       600.       U         99-09-23-Nitroaniline       3000.       U         83-32-9Acenaphthene       600.       U					ŀ , · ·
208-96-8Acenaphthylene       600.       U         606-20-22,6-Dinitrotoluene       600.       U         99-09-23-Nitroaniline       3000.       U         83-32-9Acenaphthene       600.       U		00-14-4Dimethylwhthalsta			
606-20-22,6-Dinitrotoluene       600.       U         99-09-23-Nitroaniline       3000.       U         83-32-9Acenaphthere       600.       U	··· ·				
99-09-23-Nitroaniline         3000.         U           83-32-9Acenaphthene         600.         U	1	606.20-2 KCEHADHUNYTEHE			· · ·
83-32-9Acenaphthene 600. U		99-09-2			
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## FORM 1 SV-1

3/90



(1) - Cannot be separated from diphenylamine

FORM I SV-2

3/90

,	<b>y</b> '		F-531 T-33	39 P-022	APR Ø4	'03 Ø9	:25
•	SEMINOL	IF ATILE ORGANICS ANALYSIS DATA	מסמנים	EPA	SAMPL	E NO.	:.
., •	T:	ENTATIVELY IDENTIFIED COMPOUN	DS	TTE	3-7 (8	-10)	
Ĺа	b Name: AES, In b Code: AES trix: (soil/war)	Case No. URS0301 SAS No .	•	SDG NO .	ב מית	12 ()	: *
'Sa 'Le	mple wt/vol: vel: (low/med	er) SOIL 30.0 (g/mL) C ) LOW	Lab Sampie Lab File I Date Recei	ID: 20581 Lved: 02/2	/ (8-1) 24/03	<b>()</b>	
11	JECCION VOIUME:	) LOW 4. decanted: (Y/N) N act Volume: 2000.0 (uL) 2.0 (uL)	Date Extra Date Analy Dilution H	acted: 02/ /zed: 03/1 Factor:	25/03 19/03 1.0		
GP	C Cleanup: (Y	/N) N pH: 11.1	TRATION UN			:	•
, N	umber TICs found		br ug/Kg)	UG/KG	í.		
	CAS NUMBER	COMPOUND NAME	RT =========	EST. CO	1	Q	
~	1 2. 10544-50-0 3	ALDOL CONDENSATE Cyclic octaatomic sulfur UNKNOWN			00.	ABJ J N J	
	4 . 5 . 6 .						•
	7.				·····		•
	9 1 C				· · · · · · · · · · · · · · · · · · ·		
	12.			· · · · · · · · · · · · · · · · · · ·	/ · / ·	·····	
	14 15 16.		·	۱۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰			
	. 7.	······································	······································	**************************************	•		
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### F-531 T-339 P-023 APR 04 '03 09:26

EPA SAMPLE NO. ••

1B SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

	TB-8 (6-8)
Lab Name: AES, Inc. Contract	
Lab Code: AES Case No.: URS0301 SAS No.	: SDG No.: TB-5 (2-4)
Matrix: (soil/water) SOIL	Lab Sample ID: TB-8 (6-8)
Sample wt/vol: 30.0 (g/mL) G	Lab File ID: B0582
Level: (low/med) LOW	Date Received: 02/24/03
<pre>% Moisture: 25. decanted: (Y/N) N</pre>	Date Extracted: C2/25/C3
Concentrated Extract Volume: 2000.C (uL)	Date Analyzed: 03/19/03
Injection Volume: 2.0 (uL)	Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: 10.1	

		CONCENTRA	TION U	NITS:	
CAS NO.	COMPOUND	(ug/L or	ug/Kg)	UG/KG	Q.
108-95-2	Phenol	999		440.	U
	bis (2-Chloroet	hvllether		440.	Ū
95-57-8	2-Chlorophenol	L	· _ ·	440.	Ū
541-73-1	1,3-Dichlorobe	- nzene	<del></del>	440	Ū
	1,4-Dichlorobe			440.	. U
	1,2-Dichlorobe			440.	Ū
	2-Methylphenol			440.	U
	bis(2-chlorois		r	440	U
	4-Methylphenol			440.	ប
	n-Nitroso-di r		2	440	U
	Hexachloroetha			440.	ט
	Nitrobenzene			440.	υ
78-59-1	Isophorone	.1		440.	U
88-75-5	2-Nitrophenol	· · · · ·		440.	U
105-67-9	2,4-Dimethylph	nenol		440.	U
	bis(2-Chloroet			440.	U
120-83-2	2,4-Dichloroph	nenol		440.	U
120-82-1	1,2,4-Trichlon	robenzene		440.	U
91-20-3	Naphthalene			440.	U
	4-Chloroanilii			440.	U
	Hexachlorobuta			440.	U
59-50-7	3-met	thylphenol		440.	U
91-57-6-	2-Methylnapht	halene		440.	U
	Hexachlorocycl			440.	U
	2,4,5-Trichlo			440.	υ
	2,4;5-Trichlo			440.	U
	2-Chloronapht			440.	U
88-74-4-	l-2-Nitroaniline	ê <u>.</u>		2200-	ט
131-11-3-	Dimethylphthal	late		440.	ט (
	Acenaphthylen			440.	υ.
	2, G-Dinitroto			440.	U
	3-Nitroaniline	e		2200.	U
83-32-9-	Acenaphthene_	,		440.	U

FORM I SV-1

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· · · · ·		APR 04 '03 09:26
IC SEMIVOLATILE ORGANICS ANALYSIS DATA SH	EPA	SAMPLE NO.
Läb Name: AES, Inc. Lab Code: AES Case No.:URS0301 SAS No.: Matrix: (soil/water) SOIL Sample wt/vol: 30.0 (g/mL) G Lal Level: (low/med) LOW Moisture: 25. decanted: (Y/N) N Dat Concentrated Extract Volume: 2000.0 (uL) Dat Injection Volume: 2.0 (uL) GPC Cleanup: (Y/N) N PH: 10.1	SDG No.: SDG No.: Sample ID: TB- File ID: B0582 Received: 02/ E Extracted: 02/ E Extracted: 02/ E Analyzed: 03/ ution Factor:	24/03
CAS NO. COMPOUND (ug/L or	TION UNITS: ug/Kg) UG/KG	Q
51-28-52,4-Dinitrophenol         132-64-9Dibenzofuran         121-14-22,4-Dinitrotoluene         84-66-2Diethylphthalate         7005-72-34-Chlorophenyl-phenylether         86-73-7Fluorene         100-01-64-Olinitro-2-methylphenol         86-30-6	440.	U U U U U U U U U U U U U U U U U U U

FORM I SV-2

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* r		F-53:	1 T-339 P-025	APR 04 '03 09:27
SEMIVOLATI TENT	1F LE ORGANICS ANALYS ATIVELY IDENTIFIED	IS DATA SHEET COMPOUNDS		SAMPLE NO.
Lab Name: AES, Inc. Lab Code: AES ( Matrix: (soil/water) Sample wt/vol: Level: (low/med) L( % Moisture: 25. Concentrated Extract Injection Volume: GFC Clearup: (Y/N)	Case No.:URS0301 SOIL 30.0 (g/mL) C OW decanted: (Y/N) N Volume: 2000.0 (u 2.0 (uL)	↓ab Sa Lab F Date I Date I L) Date A Diluta	SDG No.: ample ID: TB-8 ile ID: BC582 Received: 02/2	3 (6-8) 24/03 (25/03

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Number TICs found:

3

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 2. 10544-50-0 3. 	ALDOL CONDENSATE Cyclic octaatomic sulfur UNKNOWN	5.18 26.90 30.25	5000. 300.	==== ABJ J N J
5. 5. 7.				
8 9 10 11.			· · · · · · · · · · · · · · · · · · ·	
.2. .3. .4.				
5 6 27 8.				`` ``
19 30				
22 23 24				
26 7				
29 30				

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FORM I SV-TIC

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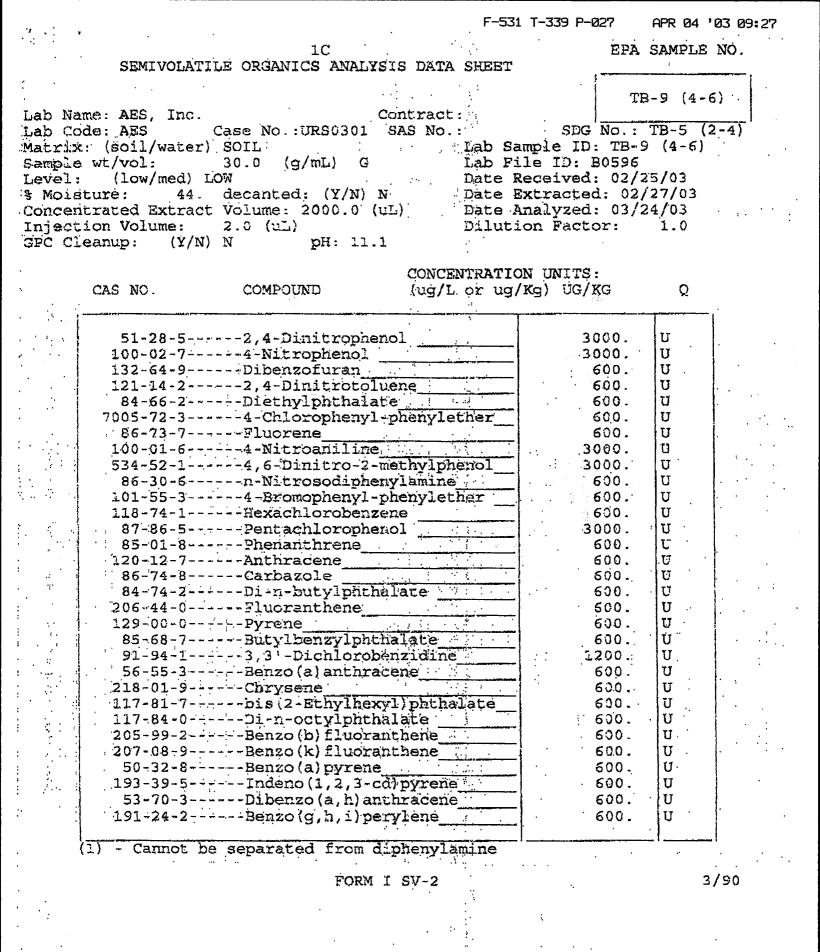
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· ·	18	EPA SAMPLE NO
	SEMIVOLATILE ORGANICS ANA	ALYSIS DATA SHEET
<b>NT</b>		TB-9 (4-6)
Na:	me: AES, Inc. de: AES Case No.:URS030	Contract:
riy.	: (soil/water) SOIL	01 SAS No.: SDG No.: TB-5 (2-4
ple	wt/vol: 30.0 (g/mL)	G Lab Sample ID: TB-9 (4-6) G Lab File ID: B0596
el:	(low/med) LOW	Date Received - 02/25/03
oist	ture: 44. decanted: (Y/N	N) N Date Received: 02/25/03 Date Extracted: 02/27/03 0 (uL) Date Analyzed: 03/24/03
cent	trated Extract Volume: 2000.0	0 (uL) Date Analyzed: 03/24/03
.UIC	eanup: (Y/N) N pH: 1	11.1
	CAS NO. COMPOUND	CONCENTRATION UNITS:
• •		(ug/L or ug/Kg) UG/KG Q
.		
	108-95-2Phenol	600. U
I	111-44-4bis(2-Chloro	oethyl)ether 500 II
	95-57-82-Chlorophen	
	541-73-11,3-Dichloro	obenzene 600 lu
	106-46-71,4-Dichloro	obenzene 600 ltt
	95-50-11.2-Dichloro	obenzene 600 III
	95-48-72-Methylphen	nol600. U
	108-60-1bis(2-chloro	pisopropyl)ether 600. U
	106-44-54-Methylphen	nol600. U
	621-64-7n-Nitroso-di	i-n-propylamine 600. U
	67-72-1Hexachloroet	
.	98-95-3Nitrobenzene	
	78-59-1Isophorone	
ł	88-75-52-Nitropheno	600. U
ſ	105-67-92,4-Dimethyl	
	111-91-1bis(2-Chloro	Iphenol 600. U
	120-83 2 J A Dithland	bethoxy)methane 600. U
1	120-83-22,4-Dichloro	
	120-82-11,2,4-Trichl	
	91-20-3Naphthalene	
	106-47-84-Chloroanil	
	87-68-3Hexachlorobu	itadiene 600. U
1	59-50-74-Chloro-3-m	nethylphenol 600. U
	91-57-62-Methylnaph	nthalene 600. U
· ·	77-47-4Hexachlorocy	clopentadiene 600. U
Į	88-06-22,4,6-Trichle	lorophenol 600. U
· •	95-95-42,4,5-Trichle	lorophenol 500 m
ł	91-58-72-Chloronaph	nthalene 600 II
ļ	88-74-42-Nitroanili	ine 3000 11
l	131-11-3Dimethylphth	halate 600 m
	208-96-8Acenaphthyle	ene600. U
	606-20-22,6-Dinitrot	coluene 600. U
	99-09-23-Nitroanilin	
	83-32-9Acenaphthene	ine 3000. U

FORM I SV-1

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F-531 T-339 P-028 APR 04 '03 09:28

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EPA SAMPLE NO.

SEMIVOLATILE	ORGANICS	ANALYSIS	DATA SHEET	
TENTATI	VELY IDE	NTIFIED CO	ompounds	•

<u>1</u>F

	TB-9 (4-6)
Lab Name: AES, Inc. Contract:	
Lab Code: AES Case No.: URS0301 SAS No.: SDC	3  No.: TB-5  (2-4)
Matrix: (soil/water) SOIL Lab Sample II	D: TB-9 (4~6)
Sample wt/vol: 30.0 (g/mL) G Lab File ID:	B0596
Level: (low/med) LOW Date Received	3: 02/25/03
& Moisture: 44. decanted: (Y/N) N Date Extracte	d: 02/27/03
Concentrated Extract Volume: 2000.0 (uL). Date Analyzed	5: 03/24/03
Injection Volume: 2.0 (uL) Dilution Fact	cor: 1.0
GPC Cleanup: (Y/N) N pH: 11.1	

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	ALDOL CONDENSATE		80CO.	AB
2		•	P.	· ·
3.	A ( NVNN		· · · · · · · · · · · · · · · · · · ·	
4			<u> </u>	·
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.9.				
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12.			······································	:
13		-		
14. 15.			· · · · · · · · · · · · · · · · · · ·	·
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1.7.				
1.8.			·	<del></del>
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27.	w	+ · · · · · · · · · · · · · · · · · · ·		
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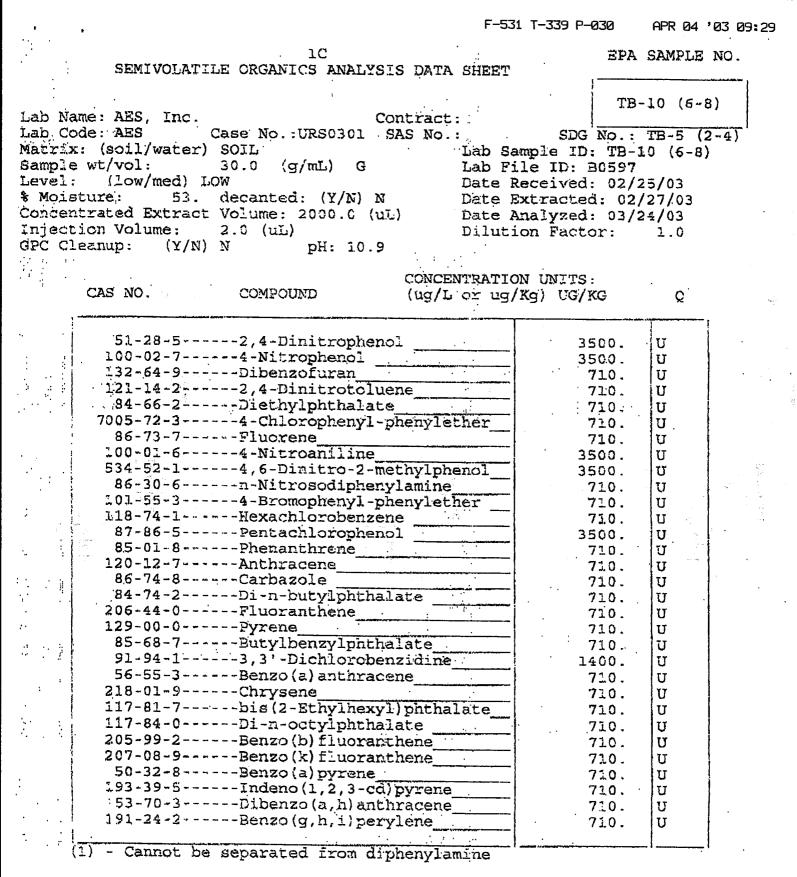
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	· .	18			:	1 76 X # 7 * * *	<b>N</b> *0
• •	SEMIVOLATII	E ORGANICS AN	ALYSIS DATA	SHEET	EPA	SAMPLE	NO.
•							<u> </u>
					TB	-10 (6-	8)
Name:	AES, Inc.		Contract	. :	1		
Code:	AES C	Case No.: URS03	01 SAS No.	:	SDG No.:	TB-5 (	2-4}
111X: ()	SOLL/Water)	SOIL	•	Läb Samp	le ID: TB-1	10 (6-8	)
ple wt	/vol:	30.0 (g/mL)	, G	Lab File	ID: B0597		
et:	(TOM/wea) Tr	JW .		Date Rece	eived: 02/	25/03	
Casture	ted Extract	decanted: (Y/ Volume: 2000.	N $N$ $N$		racted: 02		
ection	Volume:	$2 \Omega (117.)$		Date Ana.	lyzed: 03/:	24/03	•
Clean	$u_{\Sigma}$ : $(Y/N)$	N pH:	10 9	DITRCION	Factor:	1.0	•
	······································		24.3	•			
• •			CONCE	NTRATION I	INTTS -		
CAS	S NO.	COMPOUND			UG/KG	ç	• •
			- • • • • •			×	
	4				:		1
	108-95-2	Phenol	<u> </u>	<u> </u>	710.	U	
	111-44-4	bis(2-Chlor	oethyl)ethe	r	710.	U	
	95-57-8	2-Chlorophe	nol		710.	U	
	071-13-1 106-46-7	1,3-Dichlor	openzene		710.	U	
-		1,4-Dichlor	openzene		710.	ប	ŀ
	95-48-7	1,2-Dichlor 2-Methylphe	openzene		710.	1 .	1
	108-60-1	2 - Mecnyipne:		<u> </u>	710.	U	
~ 7		bis(2-chlore 4-Methylphes	ntaobrobAT)	ecner	710.	U .	[
	521-64-7				710.	U	<b>.</b> .
	67-70-1	n-Nitroso-d Hexachloroe	1-n-propyla	mine	710.	U	1 · ·
	98-95-3	Nitrobenzen	culdité		710.	U	Į
	78-59-1	Isophorone	s <u></u>		710.	U	
i i	88-75-5	2-Nitrophen	~ 1		710.	Ŭ	ي الم
1 1	105-67-9	2,4-Dimethy	JT JT		710.	U	5 S.
	11-97-1	bis(2-Chlore	ipnenor		710.	υ	
Ţ	L20-83-2	2,4-Dichlor	oppeading the	naile	710	5	
1	L20-82-1	1,2,4-Trich	lorobenzene		710.	U	
1	91-20-3	Naphthalene	•		710.	บ บ	
1	L06-47-8	4-Chloroani	line	·	710.	UU ·	
	87-68-3	Hexachlorob	stadiene		710.	υ	[
t	59-50-7	4-Chloro-3-1	pet by 1 pheno	<u>1</u>	710.	U	1
	91-57-6	2-Methylnap	hthalene		710.	υ	
	77-47-4	Hexachlorocy	velopentadi	ene	710.	U	
	88-06-2	2,4,6-Trich	lorophenol		710.	U	
	95-95-4	2,4,5-Trich	lorophenol		710.	U	
	91-58-7	2-Chloronaol	hthalene	•	710	U	
	88-74-4	2-Nitroanil	ine		3500.	U	
I I	131-11-3	Dimethylpht	halate	·····	710.	U	
2	208-96-8	Acenaphthyle	ene	· .	710.	Ŭ	
. [ 6	506-20-2	2,6-Dinitro	toluene		710.	υ.	ł
	99-09-2	3-Nitroanil:	ine		3500.	U	
	83-32-9	Acenaphthene	2		710.	U	
.,	·						
•		· · · · · · · · · · · · · · · · · · ·				<u>-</u> .'	ł
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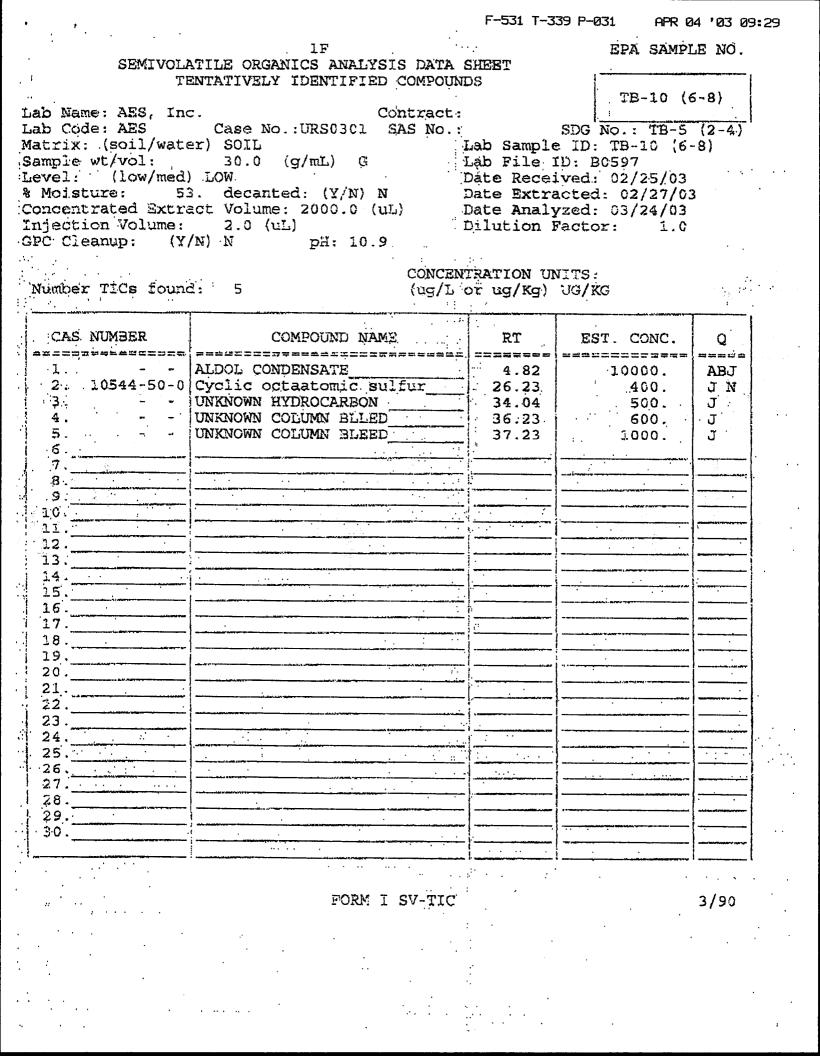
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FORM I SV-2

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EPA SAMPLE NO.

#### APR 04 '03 09:30

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

					•	, 1	TB-5 (2-4)	
Lab Name:	AES, INC.					Contract:	·	
Lab Code:	AES		Case No	r. UR	<b>S 0</b> 30)	SAS No.:	SDG No.:	TB-5 (2-4)
Matrix: (soil/water)	Soil			·		•	Lab Sample ID:	TB-5 (2-4)
Sample wt/vol:	30.0	G					Lab File ID:	B339
% Moisture:	20				·.		Date Received:	02/20/03
Extraction: (SepF/Cont/So	Sonc					• • •	Date Extracted:	02/20/03
Concentrated Extract Volus	10000	uL				•	Date Analyzed:	03/01/03
Injection Volume:	1.5	uL		•			Dilution Factor:	1.0
GPC Cleanup: (Y/N)	N	pH:	8.2		2	• · ·	Sulfur Cleanup: (Y/N)	Y ĝ

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/KG Q

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319-84-6alpha-BHC	2.1	U
319-85-7beta-BHC	2.1	U
319-86-8delta-BHC	2.1	U
58-89-9gamma-BHC(Lindane)	2.1	U se la s
76-44-8Heptachlor	2.1	U
309-00-2Aldrin	2.1	U
1024-57-3Heptachlor epoxide	2.1	. U
959-98-8Endosulfan I	2.1	U
60-57-1Dieldrin	4.2	U
72-55-94,4'-DDF,	4.2	υ
72-20-8Endrin	4.2	ับ
33213-65-9Endosuifan II	4.2	·U
.72-54-84,4'-DDD	4.2	U
1031-07-8Endosulfan Sulfate	4.2	·U
50-29-34,4'-DDT	4.2	U
72-43-5Methoxychlor	: 21	υ
53494-70-5Endrin Ketone	4.2	U
7421-36-3Endrin Aldehyde	4.2	υ
5103-71-9alpita-Chlordane	2.1	ש
5103-74-2gamma-Chlordane	2.1	U
8001-35-2Toxaphene	210	· U
12674-11-2Aroclor 1016	42	U
11104-28-2Arocior 1221	42	Ū
11143-16-5Aroclor 1232	42	U
53469-21-9Aroclar 1242	42	Ū
12672-29-6Aroclor 1248	42	U
11097-69-1Aroclor 1254	42	U
11096-82-5Aroclor 1260	42	U

F-531 T-339 P-033 APR 04 103 09:30

·;	PESTICIDE (	DRGANICS	1D S ANA	ALVSIS D	ata suer	: ۳	EPA SAMPL	e no.	• • :
· ·	• •	,			altr Dialog.	• •	TB-6 (2-4)	•	e arta
•	Lab Name:	ABS, INC				Contract:	· ·		
	Lab Code:	AES		Case No.	URS 0301	SAS No.:	SDG No.,	TB-5 (2-4)	
:	Matrix: (soil/water)	Soil			· · ·		Lab Sample ID:	TB-6 (2-4)	•
••••	Sample wt/vol:	30.0	G		i,		Lab File ID:	B362	
•	% Moisture:	19					Date Received:	02/21/03	•
	Extraction: (SepF/Cont/So	•	•			•••	Date Extracted:	02/25/03	
	Concentrated Extract Volu	10000	υL				Date Analyzed:	03/03/03	
	Injection Volume:	1.5	uL			:	Dilution Factor:	1.0	
•	GPC Cleanup: (Y/N)	N	pH:	8.6			Sulfur Cleanup: (Y/N)	Y	
				~	Set a sub-	· !			

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### CONCENTRATION UNITS:

CAS NO. COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6alpha-BHC	21	U
319-85-7beta-BHC		Ū
319-86-8delta-BHC	Water water and the second sec	U
58-89-9gamma-BHC(Lindane)		U
76-44-8Heptschlor	the second se	
309-00-2Aldrin		
1024-57-3Hcptachlor epoxide		
959-98-8Endosulfan I		
60-57-1Dieldrin		<u> </u>
72-55-94,4'-DDB		J
72-20-8Endria		<u>,</u>
33213-65-9-Endosulfan II		]
72-54-8-44'-DDD	4.1	
1031-07-8Endosulfan Sulfate		<u> </u>
50-29-34;4'-DDT		i
72-43-5Methoxychlor	4.1	}
53494-70-5Endrin Ketone		
7421-36-3Endrin Aldehyde	4.1 (	
5103-71-9alpha-Chlordane		
5103-74-2gamma-Chlordanc	The second design of the secon	
8001-35-2Toxaphene	A DESCRIPTION OF THE OWNER	1
12674-11-2Aroclor 1016	210	·
11104-28-2Aroclor 122!	41 U	
11141-16-5-Aroclor 1232	<u> </u>	
53469-21-9Aroclor 1242	<u>41 U</u>	
12672-29-6Aroclor 1248	<u>41 U</u>	
11097-69-1Aroclor 1254	41 U	
11096-82-5Aroclor 1260	41 U	
	41 10	

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PESTICIDI	E ORGANICS AN	LYSIS D	ATA SHEET	[		<u></u>
				÷	TB-7 (8-10)	i i i
		•	· · · ·	••••••		·····
Lab Name:	AES, INC.		· ·	Contract:	•	
Lab Code:	AES	Case No.	URS 0301	SAS No.:	SDG No.:	TB-5 (2-4)
Matrix: (soil/water)	Soil				Lab Sample ID:	TB-7 (8-10)
Sample wt/vol:	30.0 G		•	• * :	Lab File ID:	<b>B36</b> 3
% Moisture:	42	•			Date Received:	02/24/03
Extraction: (SepF/Cont	So Sonc				Date Extracted:	02/25/03
Concentrated Extract Vo					Date Analyzed:	03/03/03
Service Alter					and musely 2004	:
Injection Volume:	1.5 uL		•		Dilution Factor:	1.0
GPC Cleanup: (Y/N)	N pH:	11.2		. •	Sulfur Cleanup: (Y/A	Ŋ Y
	• • •		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			· · · ·
CAS NO. COM	IPOUND			ATION UNI L or ug/Kg) (		
		•	(u <u>)</u> /:	ισυ αμγκηρι	JG/KG Q	
319-84-6alpha-	the second s			2.9	U .	
319-85-7beta-B	and the second			2.9	U	
319-86-8deltu-I				2.9	U U	
	s-BHC(Lindane)		. : :	2.9	<u> </u>	
76-44-8Heptac				2.9	U	
309-00-2Aldrin		•		2.9	U .	
1024-57-3Hepta				2.9	U	
959-98-8Endos				2.9	U	· · · · ·
60-57-1Dielori		•	1	. 5.8	U	
72-55-94,4'-DE				5.8	U .	
72-20-8Endrin				5.8	U	
33213-65-9Endos	and the second			5,8	U	
72-54-84,4'-DE				5.8	U	
1031-07-8Endos		· .		5.8	U	
50-29-3-4,4'-DE				5.8	U	
72-43-5Methox				29	U	
53494-70-5Endri				5.8		
7421-36-3Endrin				5.8		
		·····		2.9	U	······································
5103-74-2gammi	and the second			2.9	V	·····
8001-35-2Toxap		• .		290	U	
12674-11-2Arocle				58		
.11104-28-2Aroch				58	:. U	:
11141-16-5Aroch				. 58	U	•
53469-21-9Arocic				58	U	
12672-29-6Arocic			. T	- 58	U	
11097-69-1Arock				58		· ·
11096-82-5Arocic	or 1200			. 58	U	

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EPA SAMPLE NO.

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	accounter o	- AIM	eron 194	A MOLI			•
•						TB-S (6-8)	
Lab Name:	AES, INC	, ''			Contract:	L	
Lab Code:	AES	:	Case No.	URS 0301	SAS No.:	SDG No.:	TB-5 (2-4)
Matrix: (soil/water)	Soil		,		•	Lab Sample ID:	'TB-8'(6-8)
Sample wt/vol:	30. <b>0</b>	G				Lab File ID:	B364
% Moisture:	26				• •	Date Received:	02/24/03
Extraction: (SepF/Cont/So	Souc				$c \in \mathcal{R}_{1}^{2}$	Date Extracted:	02/25/03
Concentrated Extract Volum	10000	uL.	:			Date Analyzed:	03/03/03
Injection Volume:	1.5	aL		<b>N</b>		Dilution Factor:	1.0
GPC Cleanup: (Y/N)	N L	pH:	10.1			Sulfur Cleanup: (Y/N)	Y

CONCENTRATION UNITS:

CAS NO.

#### COMPOUND

(ug/L or ug/Kg) UG/KG Q

		· · · ·
319-84-6alpha-BHC	2.3	U
319-85-7beta-BHC	2.3	U
319-86-8delta-BHC	2.3	U
58-89-9gamma-BHC(Lindane)	2.3	U
76-44-8Heptachlor	2.3	U
309-00-2Aldrin	2.3	U
1024-57-3Heptachlor epoxide	2.3	U
959-98-8Endosulfan I	2.3	υ
60-57-1Dieldrin	4.5	U
72-55-94,4'-DDE	4.5	U
72-20-8Endrin	4.5	
33213-65-9Endosulfan 11	4.5	U
72-54-84,4'-DDD	4.5	U
1031-07-8Endosulfan Sulfare	4.5	U
50-29-34,4'-DDT	4.5	U
72-43-5Methoxychlor	23	U
53494-70-5Endrin Ketone	4.5	
7421-36-3Endrin Aldehyde	4.5	
5103-71-9alpha-Chlordane	2.3	U
5103-74-2gamma-Chlordane	2.3	U .
8001-35-2Toxaphene	230	
12674-11-2Aroclor 1016	45	
11104-28-2Arocior 1221	45	
11141-16-5Aroclor 1232	45	
53469-21-9Aroclor 1242	45	U
12672-29-6Arocior 1248	45	<u> </u>
11097-69-1Arocior 1254	45	
11096-82-5Arocior 1260	45	<u>u</u>

FORM (PEST

### APR 04 '03 09:32

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:		· · · · ·	1	0 : C	. : :		EPA SAMPL	E NO.
•	·:	PESTICIDE C	RGANICS A	NALYSIS D	ata sheet	<b>r</b> .: .		1
	u • •	. · . ·				r : :	TB-9 (4-6)	
<i>,</i> ·		Lab Name:	AES, INC.		· · ·	Contract:		<u> </u>
	1. 14.2	Lab Code:	AES			• •		• • • •
		• • • •		Case No.	URS 0301	SAS No.:	SDG No.:	TB-5 (2-4)
	•	Matrix: (soil/water)	Soil		•		Lab Sample ID:	TB-9 (4-6)
•		Sample wt/vol:	30.0 C	3			Lab File ID:	B365
	·.	% Moisture:	44			• •	Date Received:	02/25/03
	ы, _у	Extraction: (SepF/Corr/Sc	Sonc	• •		1	Date Extracted:	
· .	••	Concentrated Extract Volu		4		ел: ••		02/25/03
·		1. († 1. j. )		•	•	·	Date Analyzed:	03/03/03
		Injection Volume:	1.5 u	I.		• • • :	Dilution Factor:	1.0
		GPC Cleanup: (Y/N)	N p	H: 11.1		•	Sulfor Cleanup: (Y/N)	Ŷ
ц ц					CONTONN'S			• •
<		CAS NO. COMPO	DUND	:		CATION UNI L or ug/Kg) (		· · ·
• •		349-84-6alpha-BF	·.					· · · ·
•		319-85-7beta-BH(	and the second se	······		3.0		
		319-86-8delta-BH				3.0	the second se	
·	-	A REAL PROPERTY OF THE OWNER				3.0		
		76-44-8Heptachle	HC(Lindane)	·		3.0		24 E 27
•	· · ·	309-00-2Aldrin	9r			3.0		
•	·		lor cpoxide			3.0		
	•••••••••••••••••••••••••••••••••••••••	959-98-8Endosulf		· · · · · · · · · · · · · · · · · · ·		.3.0		
		60-57-1Dieldrin	22) (			3.0		· · ·
.:		72-55-94,4'-DDE	·			6.0	· · · · · · · · · · · · · · · · · · ·	
:		72-20-8Endrin						
•	•	33213-65-9Endosul	· · · · · · · · · · · · · · · · · · ·		<u> </u>	6.0		
		72-54-84,4'-DDD				6.0		.
	•.	1031-07-8Endosulf				6.0		
		50-29-34,4'-DDT				. 6.0		· · ·
		72-43-5Methoxyc				6.0		
•		53494-70-5Endrin K				30		
4, •		7421-36-3Endrin A				6.0	····	· .
		5103-71-9alpha-Ch				6.0		· · · ·
•		5103-74-2gamma-(	and the second se			3.0	and the second s	
	•	8001-35-2Toxaphe				3.0		
		12674-11-2Aroclor		<u> </u>	·	300		
•		11104-28-2Arocior		•		60	U	_
		11141-16-5Aroclor			········	60	U	-
	.	53469-21-9Arocior				60	U	_
•	•	12672-29-6Aroclor				60	U	<b></b>
		1097-69-1Aroclor				. 60		
• •		i 1096-82-5Aroclor				60		
	Ĺ					60	U ·	_) ·

FORM I PEST

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PESTICIDE ORGANICS	ANAL	.YSIS	DATA	s	HEI	T

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uL

pH:

AES, INC.

AES

Soil

30.0

53

1.5

Ν

Lab Name:

Lab Code:

Matrix: (soil/water)

Extraction: (SepF/Cont/So Sone

Concentrated Extract Volur 10000

Sample wt/vol:

Injection Volume:

GPC Cleanup: (Y/N)

% Moisture:

#### **EPA SAMPLE NO.**

LYSIS DAT:	A SHEET	<b>C</b>	TB-10 (6-8)	• •	
• • • •	· · · ·	Contract:			
Case No. 13	RS 0301	SAS No.:	SDG No.	TB-5 (2-4)	···· · ·
· ·		·. 	Lab Sample ID:	TB-10 (6-8)	• • •
		•	Lab File ID:	B366	, . 
			Date Received:	02/25/03	
•			Date Extracted:	02/25/03	
		• •	Date Analyzed:	03/03/03	· .
· .		•	Dilution Factor:	I.0	•
10.9		•	Sulfur Cleanup: (Y/N)	¥	

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/	L or ug/Kg) UG/KG	Q
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······································		
	3.0	5. U
319-85-7bcta-BHC	3.6	
319-86-8delta-BHC	3.6	the second s
58-89-9gamma-BHC(Lindane)	3.6	
76-44-8Heptachlor	3.6	
309-00-2Aldrin	3.6	
1024-57-3Heptachlor epoxide	3.6	
959-98-8Endosulfan 1	3.6	
60-57-1Dieldrin	7.1	
72-55-94.4'-DDE	7.1	
72-20-8Endrin	7.1	
33213-65-9Bndosulfan II	7.1	·
72-54-84,4'-DDD	7.1	
1031-07-8Endosulfim Sulfate	7.1	<u>.</u>
50-29-34,4'-DDT	7.1	U
72-43-5Methoxychlor	36	
53494-70-5Endrin Ketone	7.1	U
. 7421-36-3Endrin Aldehyde	7.1	
5103-71-9alpha-Chlordane	3.6	
.5103-74-2gamma-Chlordane	3.6	1 -
8001-35-2Toxaphene	360	U
12674-11-2Aroclor 1016	71	U
11104-28-2Arocior 1221	71	<u> </u>
11141-16-5Aroclor 1232	71	
53469-21-9Aroclor 1242		U .
12672-29-6Arocior 1248		U
11097-69-1Aroclor 1254		Ŭ
1096-82-5Aroclor 1260	. 71	U
	71	U

FORM I PEST

			F-531 T-339	P-038 APR 04 '03 0	9:33
	. • 4				•
	• •	U.S. EPA - C	LP	•	•
		1	•	EPA SAMPLE NO.	•
	LNO	RGANIC ANALYSIS	DATA SHEET	DIT CAMELE NO.	
	· · ·		1		
Lab Name: ADIRONI	DACK_ENVIRONM	ENTAL Contrad		TB-5(2-4)	
			<u> </u>	1	_
Lab Code: AES	Case No.	: URS_0301 SAS 1	No.:	SDG No.: TB-5(2-	A )
Matrix (soil/wate	r): SOIL	• • • •	··· · · ·		<b></b>
	· ·		Lab Sample	ID: TB-5(2-4)	•
Level (low/med):	LOW		Date Receiv	ved: 02/20/03	: 1
Solids:		• •		ved: 02/20/03	
	80.0	· · · · ·			· ·
Concentr	ation Units	(ug/L or mg/kg dr	and the second second		
		(agin or mg/kg ar	Y weight):	MG/KG	
CAS No.	Analyte	Concentration C	QM		
7429-90-	5_Aluminum				
7440-36-	0_Antimonyr	5690	P	1. H ¹	· ·.
7440-38-3	2 Arsenic	0.62 0.55 U		•	
7440-39~	3 Barium	64.3	Transfer and F		
7440-41-1		0.60 B	P		
7440-43-9	Cadmium	0.050 U		13au 1	. •
7440-70-2		8980	E P		
7440-47-3		12.0	P		
7440-48-4		5.2 8			
7440-50-8	Copper	9.7	2		
7439-89-6		24600	E* P	•	
7439-92-1 7439-95-4	www.	0.32 U	N P	• • •	; •
7439-96-5		636 B	p_	· · ·	•
7439-97-6		222_	. p		:
7440-02-0	Mercury Nickel	0.08_U	<u>N</u> AV		
7440-09-7		0.25 U	NP		
7782-49-2	_ Potassium_ _ Selenium	412B	EP.		
7440-22-4	_Silver	0.62_U	<u>N</u> P	· .	
7440-23-5	Sodium	0.45_U			•
7440-28-0	Thallium	437_B	<u> </u>		· · · ·
7440-62-2	Vanadium	<u> </u>	NP	· · · · · ·	•
7440-66-6	Zinc	19.1	P	· · ·	•
7440-42-8	Boron	25.9	<u> </u>		÷.
			NR	· · · ·	
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olor Before:	Clari	ty Before:		Montes	
olor After:	· · · ·		··· ·	Texture:	-
	Clari	ty After:		Artifacts:	
omments:					-
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11 ,		· ;	U.S. EPA -	CLP			: •
· · · · · · · · ·		INOR	GANIC ANALYSIS	DATA S	HEBT	EPA SAN	APLE NO.
ab Name: J	DIRONDAC	K_ENVIRONME	NTAL Contr		· .	TB-6	5 (2-4)
					• Manala, and a second		·
			URS_0301 SAS	No.:		SDG No.:	TB-5(2-4)
atrix (soi				Lab	Sample	ID: TB-6(2	2-4}
evel (low/	(med) :	LOW		Date	Receive	ed: 02/21/	03
Solids:	· · · ·	81.0	· · · ·	•		. *. *	•
Cc	ncentrat	ion Units (	ug/L or mg/kg	diar wai		717 (++	
				ary wer	gnc):	MG/KG	* • •
Ċ	AS No.	Analyte	Concentration	c o	M		
74	29-90-5	Aluminum	27400				• 
74	40-36-0	Antimony	0.62	UN			
	40-38-2	Arsenic	0.54	UN			
E E		Barium	207		P	•	
	40-41-7 40-43-9	Beryllium	4.1_		P		
74		Calcium	0.049	U N	P		
	·	Chromium	119000_	E	P		
	40-48-4	Cobalt	21.7		P		
	40-50-8	Copper	<u>5.3</u>	B	. P.		•
74	39-89-6	Iron	192000		P	•	•
	39-92-1	Lead	9.4		P	1. J. 100	• .*
	39-95-4	Magnesium	7960		P		
	39-96-5	Manganese	2790		P		
	39-97-6	Mercury -	0.18	N	AV		
	40-02-0	Nickel	0.25	U N	P		•
	40-09-7	Potassium_	2440	E	P		•
	82-49-2	Selenium	0.62	U. N	P		·
	40-22-4	Silver	0.44	υ	P		
	40-23-5 40-28-0	Soaium	570	BE	P	:	· ·
	40-28-0	Thallium Vanadium	0.79	UN	P		. *
	· · · · · · · · · · · · · · · · · · ·	Zinc	28.3_		P;		••
	40-42-8	Boron			P		
					NR		
· · · · · · · · · · · · · · · · · · ·		f	· ······		i I		1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -
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lor Before	2:	Clari	ty Before:		·	Texture	•
lor After:		•	ty After:		[•]		A
mments:		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	el urcet :		-	Artifact	ts:
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5. 15.	•						

				F-531 T	-339 P-040	APR 04 '03 09:34
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			U.S. EPA - (	°1.∕D	•	
• .			1		EP	A SAMPLE NO.
· · ·		INORG	GANIC ANALYSIS	DATA SHEE		•
•		. ,				
Lab Mana		K ENVIRONMER	VTAL Contra	·		TE-7(8-10)
Wat Neme	- HUIRONDHU			act :		······································
Lab Code	: AES	Case No.:	URS_0301 SAS	No.:	_ SDG	No.: TB-5(2-4)
Matrix (	soil/water)	: SOIL		Lab Sam	ple ID: T	B-7(8-10)
Level (10	ow/med):	LOW		Date Re	ceived: 0	2/24/03
V Solids	:	58.0	· .	•		
•	•			•		
	Concentrat:	ion Units (1	1g/L or mg/kg d	iry weight	): MG/	KG ^{all} shirts and a second second
• • •	, 		·	·····	· · · ·	
• • •	CAS NO.	Analyte	Concentration	C Q	M	
						· · · · ·
		Aluminum	34700		P	
	7440-36-0_	Antimony Arsenic	0.86		P	
• • •	7440-39-3	Barium	0.76	UN	P 	
•	7440-41-7	Beryllium	6.3		P	
	7440-43-9		0.069	U N	P	and the second sec
•	7440-70-2	Calcium	229000	E E	P	
• • •	7440-47-3		5.1		P	
•	7440-48-4	Cobalt	2.3	B	2	
. · :	7440-50-8	Copper	0.48	Ū.	P	
• •	7439-89-6	Iron	2230	E*	P	
<b>;</b> ;	7439-92-1		0.45	<u>J</u> _N	.P	• • • •
	7439-95-4	Magnesium_	13500_	·	.P	•
	7439-96-5	Manganese	2390		P	
· ·	7439-97-6		0.11_	U N	AV	
•		Nickel	034		P_	
		Selenium	1860		P	
•	7440-22-4		0.86	UN	P_	
	7440-23-5			BE	P P	
	7440-28-0	Thallium	1:1		P P	
:	7440-62-2	Vanadium	8.4	в	p	• • •
· ·	7440-66-6	Zinc	0.17	0	P	
	7440-42-8	Boron			NR	:
	-			· · ·		
· · · · · · · · · · · · · · · · · · ·	"		·	· /	. • •	,
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Color Be	tore:	<u> </u>	ity Before:	· · ·	Te	xture:
Color Af	ter:	Ciar	ity After:	. :	7.00	t i foot a
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Comments	:					
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				F-531 T-	-339 P-041	APR 04 '03 09:34
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	• • •	· · ·	U.S. EPA - CI	₽.	•	
	· · · · ·	•	.1			A SAMPLE NO.
	· · · · · · · · · · · · · · · · · · ·	INOR	GANIC ANALYSIS I	DATA SHEET	۰. 	
· · · · · · · · ·	•••		· · · · · · ·			
· · · · · · · · · · · · · · · · · · ·				tika≱o an linin ta ta t tiati		TB-8(6-8)
ab Name:	ADIRONDACI	K_ENVIRONME	NTAL Contrac	3¢,:	i	1
ab Code:	AES	Case No.:	URS_0301 SAS 1	Io.:	SDG 1	No.: TB-5(2-4)
atrix (s	soil/water)	: SOIL		Lab Samp	) le ID: T	8-8(6-8)
.evel (lo		LOW	• •	Date Rec		
• • •					•	
Solids		74.0	֥			
1. 	Contractor	LANG THE LAND 1.	walt an interline		NO I	
	concentrat.	ION UNILS (	ug/L or mg/kg di	ry weight)	: 246/	KG.
		r			÷ }	
	CAS No.	Analyte	Concentration		M	· · · · · · · · ·
•	· · ·		·			
. <u>.</u>	7429-90-5		43000		P_1	••
		Antimony		JN	P	
		Arsenic	0.59 1	JN	P	
	7440-39-3		652		P	
		Beryllium_	7.5		P	
	7440-43-9		0.054		P	· · · · · ·
		Calcium	259000	E	P	
	7440-47-3_		11.7_		P	
		Cobalt		3	P	
	7440-50-8	}	0.38		P	
	7439-89-6	Iron	8310	E*	P	• • • •
· · · · ·		Lead		<u></u>	P	
·	7439-95-4	Magnesium_	19900		P	
• • • • •		Manganese	4370	NT	D	·
	7440-02-0	Mercury Nickel		J N J N	AV	
	7440-09-7	Potassium	3510	E	P   ·	•
	7782-49-2	Selenium	0.58	and leases with the second	· (	
	7440-22-4	Silver	4.5		P P	• • • •
	7440-23-5	Scdium		5 E	P ·	· · · · · · · · · · · · · · · · · · ·
	7440-28-0		0.86		P	
· · · ·	7440-62-2	Vanadium	26.1	· · · · · · · · · · · · · · · · · · ·	P .	
	7440-66-5	Zinc		<u>.</u>	p .	··· ·
	7440-42-8	Boron	·····	· · · · · · · · · · · · · · · · · · ·	NR	• • • • • •
· · · · · · · · · · · · · · · · · · ·	[		j j -		1417	
	· ····································	I	۱ <u>۰</u> ۰۰۰۰۰۰۰۰۰۰۰۰۰۱	<u></u> , ,	i ł	
•						
Color Be	fore:	Clar	ity Before:		Те	xture:
	· · · · · · · · · · · · · · · · · · ·					
Color Aft	ter:	Clar	ity After:	•••	Ar	tifacts:
• • • • • •		·····			• •	
Comments	:	•		n en la	•	• •
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·····			· · · · · · · · · · · · · · · · · · ·		2997-2077-2074-2079-2079-2079-207-207-207-207-207-207-207-207-207-207	4
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· · ·		•	FORM I - I	N	· . •	ILM04.0
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wer, te u	·			F-53	1 T-339 F	-042 APR	04 '03 09:35
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	· · · ·	· .	U.S. SPA	CLP	· · ·	•••••••	
1.0 X.0		TNIOD	1		. منتجم مغوله	EPA SAM	LE NO
	· · ·	TNOR	GANIC ANALYSIS	UATA SH	(EE.J.	;	,
		· · · ·	· · · ·		• • • • • •	79-9	(4-6)
Lab Name	ADIRONDAC	K ENVIRONME	NTAL Contra	act:	• • •		(=-0)
				· · · · · ·	· · · · ·	·	I
Lab Code	: AES	Case No.:	URS_0301 SAS	No :		SDG No .: 7	B-5(2-4)
Matrix (	soil/water)	: SOIL	<i></i>	Lab S	amole :	ID: TB-9'(4-	-6)
Leve_ (]	• •	low		· · ·		ed: 02/25/	1
	· · · ·	, ,	· · ·	Judee	Recerve		
* Solids	1	56.0	• •		:		
	Concentrat	ion Unite (	ug/L or mg/kg d		int'	a Ma liza	
	0011001102003		Tal T or walked o	TTĂ MEIG	me ⁷ :	MG/XG	
4 · · · · · ·							
	CAS No.	Analyte	Concentration	C Q	M		· · · · · · · · · · · · · · · · · · ·
•	7429-90-5	Aluminum					
	7440-36-0	Antimony	24000	UN	P		
	7440-38-2	Arsenic	0.79	U N	P	• •	• •
	7440-39-3	Barium	233	····			
•••••••	7440-41-7		3.9_		P		
	7440-43-9	Cadmium	0.071	บ	P	•	
··· ·· ··· ···	7440-47-3	Chromium	172000	E	P P		
• • • • • • • • •	7440-48-4			8			· · · · · · ·
	7440-50-8	Copper		ับ	P		
	7439-89-6	Iron	2300	E*	P		•••••••••
	7439-92-1	Lead	0.46	U N	P		·· · · · ·
	7439-96-5	Magnesium_ Manganese	9360 1250		P	• •	
··· · · · · · ·	7439-97-6	Mercury	0.12	Ũ N	$- _{AV}^{P} $		• • •
• • • • •	7440-02-0	Nickel	0.36	U N	P		
	7440-09-7	Porassium	1170_	BE	P	•	
	7782-49-2	Selenium	0.89_	Ŭ_N_	P	•	· · · · · · · · · · · · · · · · · · ·
	7440-23-5	Sodium	3.1 507	B B E	P P	•	
	7440-28-0	Thallium	1.1	U N			· · · ·
······································	7440-62-2	Vanadium	6.1	B			· · · · ·
• .	7440-56-6	Zinc	0.18_	U	F		· · · · · · · ·
	7440-42-8	Boron			NR		• • • •
•	·	I	· · · · · · · · · · · · · · · · · · ·	·	t. t. tr		· · · · ·
	• • •				•	•	• •
Color Be	fore:	Clar:	ity Before:	• • •	•	Texture:	
Color Af	+	01	tanan mentana ana	· · · ·	··· ··· ·	• • • •	· · · · · · · · · · · · · · · · · · ·
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Comments	** • • • • • • • • •			, . . , 	• • •	·	
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	INORGAN	C ANALYSIS	DATA SHEE	r	
				· · · ·	TB-10(6-8)
ab Name: ADIRONDAC	K_ENVIRONMENTAI	L Contra	òt:		
ab Code: AES		2 0305 EXS	No.:	QT	OG No.: TB-5(2-4)
	·		1 · . · · · ·		
atrix (soil/water)	: SOIL		Lab Sam	ple ID:	TB-10(6-8)
evel (low/med):	low	•	Date Red	ceived:	02/25/03
		•		. •.	
Solids:	47.0			•	
Concentrat	ion Units (ug/	i or mg/kg d	ry weight	); 🐪 🕅	G/KG
1	[		· ·		• •
CAS No.	Analyte Co	ncentration	c Q	M	
	· · · · · ·			+ ·	••••
7429-90-5_ 7440-36-0	Aluminum Antimony	45500_  1 1	U. N	P P	
	Arsenic		U N	P	
7440-39-3	Barium	467		P	
7440-41-7	Beryllium	7.2	· · · · · · · · · · · · · · · · · · ·	·P_	
7440-43-9	Cadmium		UN	P	
	Calcium			P	
7440-47-3_	Chromium	6.3	· · · · · · · · · · · · · · · · · · ·	• <b>P</b>	
7440-48-4			B	P	
7440-50-8_ 7439-89-6	Copper	0.60	U E*	P : ·	· · · · · ·
7439-92-1	Lead	0 55		P P	· · ·
7439-95-4	Magnesium	16100		p ·	
7439-96-5	Manganese	3230		p_	
17439-97-6	Mercury	0.14	<u>U</u> N	AV ·	
7440-02-0	Nickel	0.43	UN	P_	
7440-09-7	Potassium	2260	E	P_	
7782-49-2	Selenium	$\frac{1}{5.7}$	<u>U</u> <u>N</u>	P_	• • • • •
7440-22-4	Silver			P	
7440-23-5	Sodium		BE	P_	
7440-28-0_ 7440-62-2	Thallium Vanadium	1 .4	U N	P	
7440-62-2	Zinc	9.4	B. U.	P P	
7440-42-3	Boren	0.21	U [	NR	
		<del></del>		INK	<i></i> .
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		• • • • • • • • • •			
olor Before:	Clarity	Before:		• •	Texture:
		· · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		
olor After:	Clarity	AITEr:			Artifacts:
omments:	•	· · · ·			
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•	·	U.S. EPA -	CLP	

	1	CONVENTIONAL		DATA SHEET	
:	LAB NAME: Adiro:	ndack Environmental		Contract:	TB-5 (2-4)
	LAB CODE: AES	Case No.:	URS 0301	SAS No.:	SDG No.: TB-5 (2-4)
} `	Matrix (soil/wate	er): Soil	•	Lab Sample	· ID: 030220B-01
	Level (Low/Med):	Low	• •	Date Recei	ived: 2/20/03
	° Solids:	79.7	et i kan de se		$d^{(1)}(x_{1}) = 1 \qquad \qquad (x_{1}) = (y_{1}, x_{2}) + (y_{2}) = (y_{1}) + (y_{2}) + (y_{$

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	Concentration	¢	Q	Method
otal Solids (TS)				• • • • • • •
ucar Solids (15)			• • • • • •	ASTM 03987
Ash	· · · · ·		• • •	ASTM D482
leating Value				ASTM-D240
hlorine				EPA 9075
bromine	• • • •			BPA 9075
odine		<u> </u>		EPA 9075
gnitability				EPA 1010
orrosivity				EPA 9045
H				and the second
otal Phenols				EPA 9045
eactive Cyanide		i		EPA 9065
eactive Sulfide				SW-846 7.3.2
luorido			·	SW-846 7.3.2.
dtal Cyanide			· ·	EPA 9214
	0.20			EPA 9012
menable Cyanide	0.20	<u>י</u> טי		EPA 9012
· · · · · · · · · · · · · · · · · · ·				1
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Comments

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•	Ū.S.	EPA - CL	<b>e</b>	· · ·
	CONVENTIONALS	1 Analysis	DATA SHEET	<b></b>
LAB NAME: Adirondack	Environmental		CONTRACT:	TB-6 (2-4)
LAB CODE: AES	Case No.:	URS 0301	SAS No :	SDG No.: TB-5 (2-4)
Matrix (soil/water):	Soil		Lab Sample	ID: 030221A-01
Level (Low/Med):	Low	•	Date Recei	ved: 2/21/03
Solide.	80.0	•		

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

·...

Analyte	Concentration	с	Q	Method
Total Solids (TS)	1			ASTM 1)3987
9 Ash			ante a consequenciamente una	ASTM D482
Reating Value				ASTM D240
Chlorine			1	EPA 9075
Hromine				EPA 9075
Iodine				EPA 9075
Ignitability		•	······································	EPA 1010
Corrosivity				EPA 9045
pH · · ·				EPA 9045
Total Phenols				EPA 9065
Reactive Cyanide			•	SW-846 7.3.2.
Reactive Sulfide			· · · · · · · · · · · · · · · · · · ·	SW-846 7.3.2.
Fluoride				EPA 9214
Total Cyanide	2.72			EPA 9012
Amenable Cyanide	0.19	υ.		EPA 9012
			: :	
	1	t		1
				1
				1
		1		<b>1</b>

Comments

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			. EPA - CL	•	· · ·	· · · .	· 	· · · · ·
LAB NAME:	Adirondack	CONVENTIONAL Environmental	•			т <u></u> Б-7	(01-8)	
LAB CODE: Matrix (so		,	URS 0301	SAS No.: Lab	•	SDG No.:		4)

Level (Low/Med): Low

: *:

\$ Solids: 57.7

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Date Received: 2/24/03

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Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	<del>.</del>	Concentration	Ċ	Q	Method
otal Solids (TS)		1			ASTM D3987
Ash			: · · · · ·	······	ASTM : D482
leating Value		1			ASTM D240
hlorine					EPA 9075
romine					EPA 9075
odine	:				EPA 9075
gnitability	• .				EPA 1010
orrosivity				·····	EPA 9045
h	:				EPA 9045
'otal: Phenols	· .				EPA 9065
eactive Cyanide					SW-846 7.3.2
leactive Sulfide	· · · ·				SW-846 7.3.2
luoride		· · ·			EPA 9214
otal Cyanide		0.95			EPA 9012
menable Cyanide		0.95	U		EPA 9012
· · · · · · · · · · · · · · · · · · ·	*	; ;			
	······································				
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		· · ·	CONVENTIONALS	1 ANALYSIS	DATA SHEET	<b></b>	the second s	·····].
	LAB NAME:	Adirondack	Environmental	• • •	CONTRACT:	Т	B-8 (6-8)	
•	LAB CODE:	AES	Case No.:	URS 0301	SAS No.:	SDG N	o.: TB-5	(2-4)
•••	Matrix (soi	il/water):	soil		Lab Sample	= ID:	030224B-0	2
	Lavel (Low	(Med):	том .		Date Recei	ved:	2/24/03	
	8 Solids:		73.6	•				

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Concentration Units (ug/L or mg/Kg dry weight):

mg/Kg .

Analyt:e	Concentration	с	Q	Method
Total Solids (TS)				ASTM D3987
8. Ash			t	ASTM 03987
Heating Value			f	
Chlorine	· · · · · ·		f	ASTM D240
Bromine		<b>}</b> →→→→	<b> </b>	EPA 9075
Iodine		ł		EPA 9075
Ignitability		<b></b>		EPA 9075
Corrosivity		·		BPA 1010
)H		ļ	·	EPA 9045
Total Phenols				EPA 9045
Reactive Cyanide				EPA 9065
Reactive Sulfide			· .	SW-846 7.3.2
Luoride				SW-846 7.3.2
otal Cyanide				EPA 9214
menable Cyanide	1.27	:		EPA 9012
andridole Cyallide	0.21	U '		EPA 9012
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#### U.S. EPA - CLP

	CONVENTIONAL	S ANALYSIS	DATA SHEET		······································	•••
LAS NAME: Adirondack E	avironmental	· · · ·	CONTRACT:		EB-9 (4-6)	• •
LAB CODE: AES	Case No.:	URS 0301	SAS No.:	SDG 1	No.: TB-5 (2-4)	
Matrix (soil/water):	Soil		Lab San	mple ID:	0302258-01	
Level (Low/Med):	Low		Date Re	ceived:	2/25/03	
% Solids:	55.8		•		·	•

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte		Concentration	с	Q [°] .	Method
				¥.	mechoa
Total Solids (TS)					ASTM D3987
Ash					ASTM D482
leating Value				······································	ASTM D240
hlorine		•			EPA 9075
romine					EPA 9075
odine			· · · · · ·	· .	EPA 9075
gnitability .					EPA 1010
Corrosivity					EPA 9045
)H					EPA 9045
otal Phenols				· · ·	EPA 9065
leactive Cyanide		· · · · · · · · · · · · · · · · · · ·			SW-846 7.3.2.
leactive Sulfide	• •		· · · · · · · · · · · ·	· · · · ·	SW-946 7.3.2.
luoride	· · · · · · · · · · · · · · · · · · ·				EPA 9214
otal Cyanide		11.6			EPA 9012
menable Cyanide		2.0	· · · ·		EPA 9012,
	· · · · · · · · · · · · · · · · · · ·				LEA 3012
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	•	1				
	CONVENTIONAL	S ANALYSIS DAYA	SHEET	· ·	· · · · · · ·	
LAB NAME: Adirondack E	nvironmental	CONTR	ACT:		TE-10 (6-8)	•
LAB CODE: AES	Case No.:	UR5 0301 SAS	No.:	SDG	No.: TB-5 (2-4	)
Matrix (soil/water):	soil		Lab Sa	mple ID:	030225B-02	·.
Level (Low/Med):	Low		Date R	eceived:	2/25/03	
<pre>% Solids:</pre>	46.8					
Concentration Units (ug	/L or mg/Kg dry	weight):	mg/Kg	:		
Analyte		Concentration	c ·	Q	Method	• • •
	· · · · · · · · · · · · · · · · · · ·				A CONTRACTOR OF A CONTRACTOR A	••••••
Total Solids (TS)	· · · · · · · · · · · · · · · · · · ·				ASTM 03987	
V Ash Heating Value					ASTM D482	1
Chlorine					ASTM D240	
Bromine					EPA 9075	•
Todine			-{}		EPA 9075 EPA 9075	
Ignitability				•	EPA 1010	•
Corrosivity			I		EPA 9045	
рң			4		EPA 9045	
Total Phenols		· · · · · · · · · · · · · · · · · · ·	1		EPA .9065	
Reactive Cyanide		·			SW-846 7.3.2.1	
Reactive Sulfide		1	1		SW-846.7.3.2.1	
Fluoride		1			EPA 9214	•
Total Cyanide		101	<b>d</b> [		EPA 9012	
Amenable Cyanide		0.36	Ū		EPA 9012	
		1				• •
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Ecology a	Ecology and Environment, Inc.						Laboratory Results			
Analytical Se 4493 Walden Av Lancaster, Nev								NYS ELAP Phone:	10486 (716)	
Lab 030	S Corporation 8153					Alt. C	t Sample SB-8, : 'lient ID:			
Project: Uni	on Ship Canal					C	ollection 8/14/2	003 4:05:00	% 12.60	
Lab 0308153	3-17A	Sample	SAMP	Ma	trix Soil		Test 1_	6010B_TAL_S		
ICP METALS A	NALYSIS BY ME	THOD 6010B			Mei	thod: S	SW6010B	Prep Method: SW30	50B	
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	Analyst	
Barium		102	В	2.20	mg/Kg-dry	1	8/18/2003 6:59:45 P	M OPTIMA_030818B	СМО	

Definitions:

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank DNI - Did not Ignite J - Estimated value, value may not be accurate N - Single Column Analysis P - Post Spike Recovery outside limits

D - Diluted due to maxtrix or extended target compounds E - Result exceeds Highest Calibration Standard Limit - Reporting Limit NC - Not Calculated for values < RL R - RPD outside recovery limits

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### Ecology and Environment, Inc. Analytical Services Center

# Laboratory Results

4493 Wald	en Avenue New York 1408							NYS I Phone:	ELAP 10486 (716)
Client: Lab Project:	URS Corporation <b>0308153</b> Union Ship Canal					Alt. C	t Sample SB-8 Client ID: Collection 8/13/		<b>%</b> 1 <u>1</u> .70
Lab 03	08153-18A	Sample	SAMP	Ma	<b>trix</b> Soil		Test 1	_6010B_TAL_S	
ICP META	LS ANALYSIS BY ME	ETHOD 6010B			Me	thod: S	SW6010B	Prep Method:	SW3050B
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	n Analyst
Barium		63.6	В	2.27	mg/Kg-dry	1	8/18/2003 7:27:40	PM OPTIMA_030818B	СМО

**Definitions:** 

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

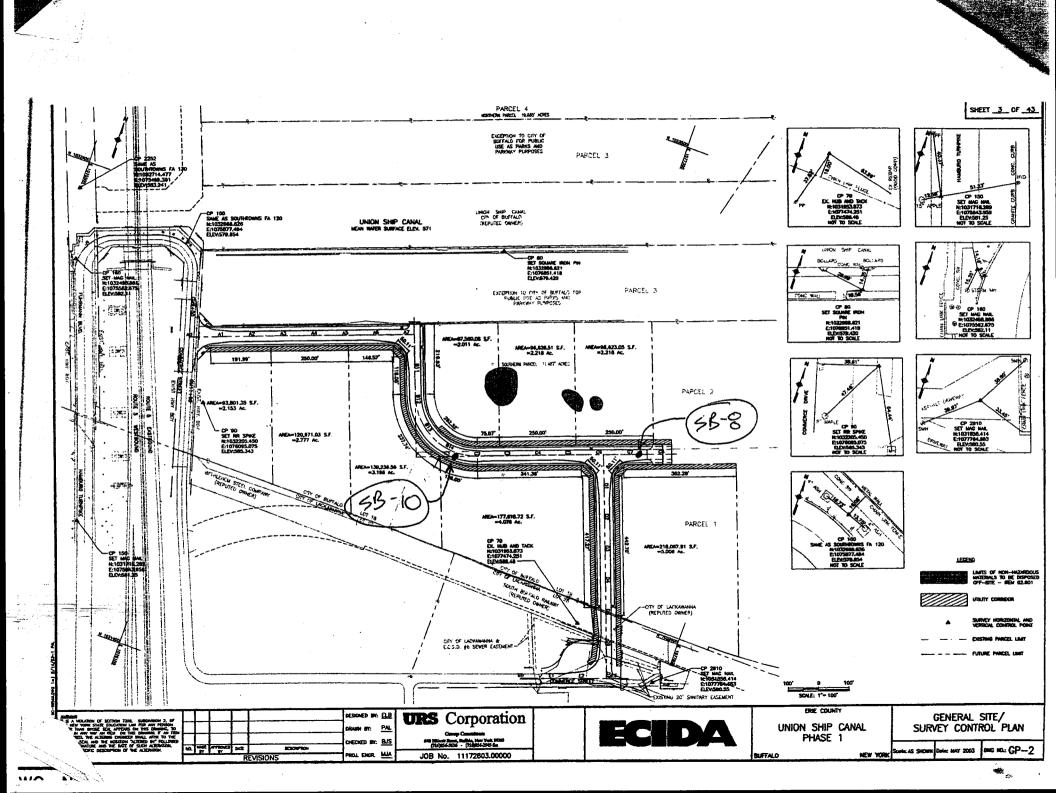
B - Analyte found in Method blank DNI - Did not Ignite J - Estimated value, value may not be accurate N - Single Column Analysis P - Post Spike Recovery outside limits

D - Diluted due to maxtrix or extended target compounds E - Result exceeds Highest Calibration Standard Limit - Reporting Limit NC - Not Calculated for values < RL R - RPD outside recovery limits

# **APPENDIX C**

# ANALYTICAL RESULTS – SUPPLEMENTAL BARIUM AND CYANIDE SAMPLING

**BORINGS TB-08 AND TB-10** 



# Soil Boring Depth Information:

### SB-8 - Sta C7+20+/-

Reference	Proposed Loc.	Depth (ft)
/ 10N	Roadway	4
✓ /10E	Sanitary Trench	16
105	Roadway	4
V 10W	Sanitary Trench	16
20NE	Roadway	4
20SE	Roadway	4
20SW	Roadway	4
20NW	Roadway	4
- 30N	Sidewalk	4
1/ 30E	Sanitary Trench	16
V 30S	Sidewalk	4
V 30W	Sanitary Trench	16
40NE	Roadway	4
🗸 40SE	Sidewalk	4
🖌 40SW	Storm Trench	10
40NW	Sidewalk	4
	subtotal	118

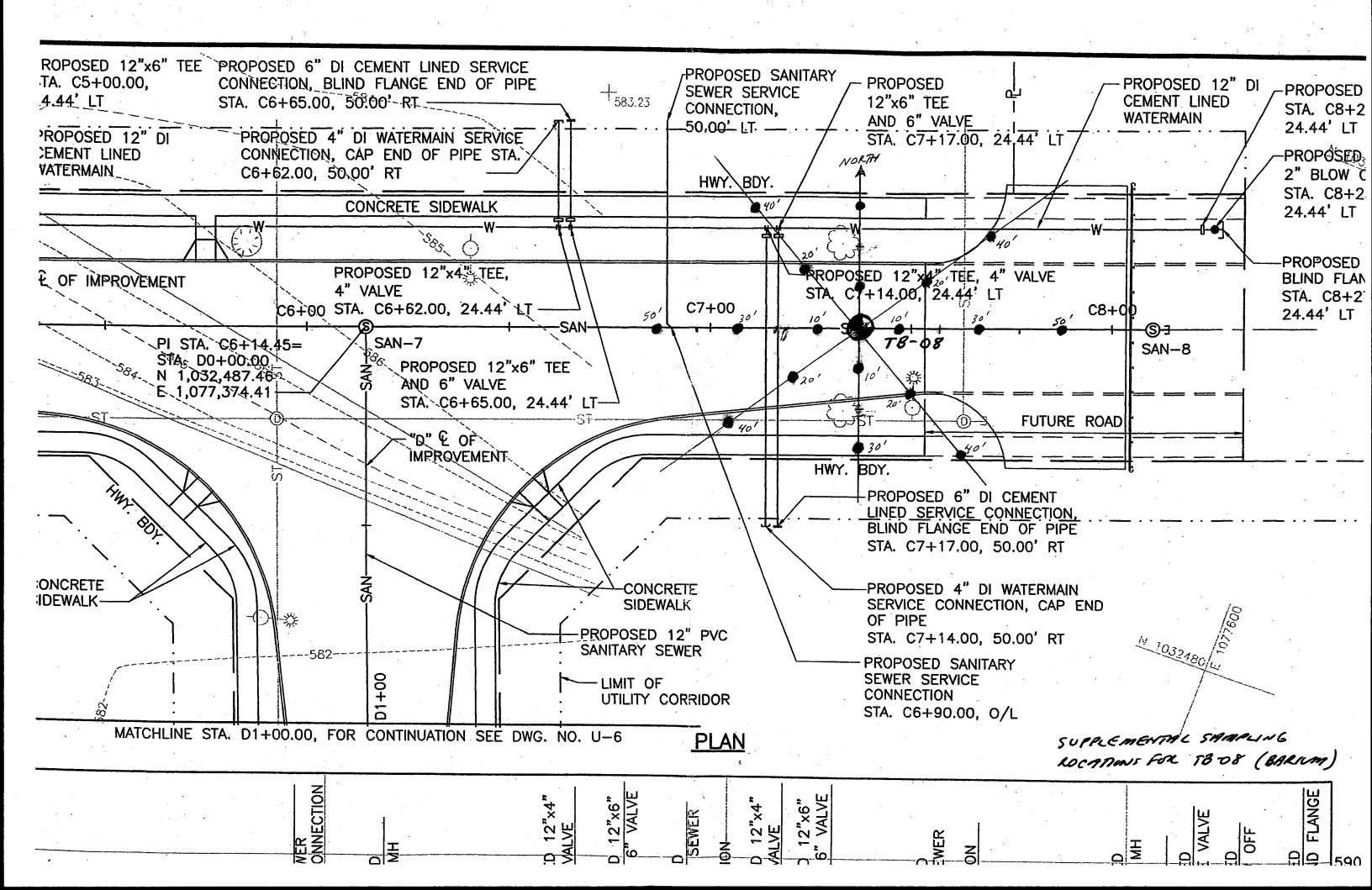
SB-10 - Sta C1+25+/-

8. Š.

	Reference	Proposed Loc.	Depth (ft)
	10N	Roadway	4
	10E	Roadway	4.
	🖌 10S	Storm Trench	10
	10W	Storm Trench	10
	20NE	Roadway	4
	/ 20SE	Greenspace	4
И	20SW	Sidewalk	4
[	20NW	Roadway	4
	30N	Roadway	4
	30E	Roadway	4
ſ	V 30S	Utility Corridor	6
[	30W	Drainage Inlet	10
	40NE	Roadway	.4
-	√ 40SE	Utility Corridor	6
V	40SW	Utility Corridor	6
ſ	40NW	Sanitary Trench	12
	V	subtotal	96

 	1		
	total	214	

Aug 12, 2003



Analytical Services Center

## Laboratory Results

4493 Wald Lancaster,	en Avenue New York 1408							NYS I Phone:	ELAP	10486 (716)
Client: Lab Project:	URS Corporation 0308153 Union Ship Canal					Alt. (	nt Sample SB-4 Client ID: Collection 8/13			<b>%</b> 11.70
Lab 03	08153-18A	Sample	SAMP	Ma	atrix Soil		Test	1_6010B_TAL_S		
ICP META	LS ANALYSIS BY ME	ETHOD 6010B			Me	thod:	SW6010B	Prep Method:	SW3050	)B
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	n A	analyst
Barium		63.6	в	2.27	mg/Kg-dry	1	8/18/2003 7:27:40	PM OPTIMA_030818B		СМО

#### **Definitions:**

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank DNI - Did not Ignite J - Estimated value, value may not be accurate N - Single Column Analysis P - Post Spike Recovery outside limits

## Laboratory Results

4493 Wald	en Avenue							NYS ELA	P 10486
Lancaster,	New York 1408							Phone:	(716)
Client:	URS Corporation					Clien	t Sample SB-	8, 30N 0-4	
Lab	0308153					Alt. C	lient ID:		
Project:	Union Ship Canal					C	ollection 8/14	4/2003 4:05:00	<b>%</b> 12.60
Lab 030	08153-17A	Sample	SAMP	Ma	ıtrix Soil		Test	1_6010B_TAL_S	
ICP META	LS ANALYSIS BY ME	THOD 6010B			Мө	thod: S	SW6010B	Prep Method: SW3	050B
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	Analyst
Barium		102	в	2.20	mg/Kg-dry	1	8/18/2003 6:59:4	5 PM OPTIMA_030818B	СМО

**Definitions:** 

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank
DNI - Did not Ignite
J - Estimated value, value may not be accurate
N - Single Column Analysis
P - Post Spike Recovery outside limits

## Laboratory Results

4493 Walde	ll Services Center en Avenue New York 1408							NYS ELAP Phone:	10486 (716)
Client: Lab Project:	URS Corporation <b>0308153</b> Union Ship Canal					Alt. Cl	ient ID:	- <b>8, 20SE 0-4</b> 4/2003 7:40:00	<b>%</b> 14.60
Lab 03	)8153-19A	Sample	SAMP	Ma	t <b>rix</b> Soil		Test	1_6010B_TAL_S	
ICP META	LS ANALYSIS BY ME	THOD 6010B			Me	thod: S	W6010B	Prep Method: SW30	50B
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	Analyst
Barium		175	В	2.17	mg/Kg-dry	1	8/18/2003 7:32:	19 PM OPTIMA_030818B	СМО

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**Definitions:** 

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

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M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank
DNI - Did not Ignite
J - Estimated value, value may not be accurate
N - Single Column Analysis
P - Post Spike Recovery outside limits

## Laboratory Results

4493 Wald	en Avenue New York 1408								NYS E Phone:	CLAP 10486 (716)
Client: Lab Project:	URS Corporation 0308153 Union Ship Canal					Alt. C	t Sample SE Client ID: Collection 8/1	,		% 21.10
Lab 03	08153-20A	Sample	SAMP	Ma	trix Soil		Test	t 1_6010B_	_TAL_S	
ICP META	LS ANALYSIS BY ME	ETHOD 6010B			Me	thod: S	SW6010B	Prep	Method:	SW3050B
Analyte		Result	Q	Limit	Units	DF	Date		Run Batch	Analyst
Barium		233	В	2.49	mg/Kg-dry	1	8/18/2003 7:37	09 PM OPTI	MA_030818B	СМО

Definitions:

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank
DNI - Did not Ignite
J - Estimated value, value may not be accurate
N - Single Column Analysis
P - Post Spike Recovery outside limits

## Laboratory Results

Analytica 4493 Wald Lancaster,								NYS ELAP Phone:	10486 (716)
Client: Lab Project:	URS Corporation <b>0308153</b> Union Ship Canal					Alt. C	t Sample SB-3 Client ID: Collection 8/14		<b>%</b> 37.90
Lab 03	08153-21A	Sample	SAMP	Ma	t <b>rix</b> Soil		Test	1_6010B_TAL_S	
ICP META	LS ANALYSIS BY ME	THOD 6010B			Ме	thod:	SW6010B	Prep Method: SW30	50B
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	Analyst
Barium		252	В	3.22	mg/Kg-dry	1	8/18/2003 7:42:00	PM OPTIMA_030818B	СМО

Definitions:

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank
DNI - Did not Ignite
J - Estimated value, value may not be accurate
N - Single Column Analysis
P - Post Spike Recovery outside limits

#### Laboratory Results

4493 Wald	en Avenue New York 1408							NYS ELAP Phone:	10486 (716)
Client: Lab Project:	URS Corporation 0308153 Union Ship Canal					Alt. C	t Sample SB- lient ID: ollection 8/1-	<b>-8, 10W 0-16</b> 4/2003 10:20:00	<b>%</b> 37.10
Lab 03	08153-22A	Sample	SAMP	Ma	trix Soil		Test	1_6010B_TAL_S	
ICP META	LS ANALYSIS BY ME	ETHOD 6010B			Me	thod: S	W6010B	Prep Method: SW30	50B
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	Analyst
Barium		317	В	3.06	mg/Kg-dry	1	8/18/2003 7:46:3	6 PM OPTIMA_030818B	СМО

**Definitions:** 

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank
DNI - Did not Ignite
J - Estimated value, value may not be accurate
N - Single Column Analysis
P - Post Spike Recovery outside limits

## Laboratory Results

4493 Wald	al Services Center en Avenue New York 1408	•						NYS ELA Phone:	P 10486 (716)
Client: Lab Project:	URS Corporation 0308153 Union Ship Canal					Alt. C	t Sample SB- lient ID: ollection 8/14	<b>8, 10E 0-16</b> 4/2003 11:25:00	<b>% 28.00</b>
Lab 03	08153-23A	Sample	SAMP	Ma	<b>trix</b> Soil		Test	1_6010B_TAL_S	
ICP META	LS ANALYSIS BY ME	ETHOD 6010B			Me	thod: S	W6010B	Prep Method: SW3	050B
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	Analyst
Barium		174	В	2.62	mg/Kg-dry	1	8/18/2003 7:51:2	2 PM OPTIMA_030818B	СМО

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**Definitions**:

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank
DNI - Did not Ignite
J - Estimated value, value may not be accurate
N - Single Column Analysis
P - Post Spike Recovery outside limits

## Laboratory Results

4493 Wald	ll Services Center en Avenue New York 1408	•						NYS ELA Phone:	AP 10486 (716)
Client: Lab Project:	URS Corporation 0308153 Union Ship Canal					Alt. C	t Sample SB- lient ID: ollection 8/1	- <b>8, 30E 0-16</b> 4/2003 12:30:00	<b>%</b> 33.40
Lab 03	08153-24A	Sample	SAMP	Ma	trix Soil		Test	1_6010B_TAL_S	
ICP META	LS ANALYSIS BY ME	ETHOD 6010B			Mə	thod: S	SW6010B	Prep Method: SW	3050B
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	Analyst
Barium		217	В	2.89	mg/Kg-dry	1	8/18/2003 7:56:0	08 PM OPTIMA_030818B	СМО

Definitions:

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank
DNI - Did not Ignite
J - Estimated value, value may not be accurate
N - Single Column Analysis
P - Post Spike Recovery outside limits

Analytical Services Center

## Laboratory Results

4493 Wald	en Avenue New York 1408							NYS Phone:	ELAP 10486 (716)
Client: Lab Project:	URS Corporation 0308153 Union Ship Canal					Alt. C	t Sample SB-8 lient ID: ollection 8/14/	3, 40SW 0-10	% 32.60
Lab 03	08153-25A LS ANALYSIS BY ME	Sample	SAMP	Ma	trix Soil Me	thad s	Test 1	I_6010B_TAL_S Prep Method:	SW3050B
Analyte		Result	Q	Limit	Units	DF	Date	Run Bate	
Barium		317	в	2.91	mg/Kg-dry	1	8/18/2003 8:00:55	PM OPTIMA_030818B	СМО

Definitions:

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank DNI - Did not Ignite J - Estimated value, value may not be accurate N - Single Column Analysis P - Post Spike Recovery outside limits

## Laboratory Results

4493 Wald	ll Services Center en Avenue New York 1408							NYS ELAP Phone:	10486 (716)
Client: Lab Project:	URS Corporation <b>0308153</b> Union Ship Canal					Alt. C	t Sample SB lient ID: ollection 8/1	- <b>8, 30S 0-4</b> 4/2003 1:30:00	<b>%</b> 12.70
	08153-26A LS ANALYSIS BY ME	Sample ETHOD 6010B	SAMP	Ma	itrix Soil Me	thod: S	Test SW6010B	1_6010B_TAL_S Prep Method: SW30	50B
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	Analyst
Barium		164	В	2.16	mg/Kg-dry	1	8/18/2003 8:14:	50 PM OPTIMA_030818B	СМО

Definitions:

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank DNI - Did not Ignite J - Estimated value, value may not be accurate N - Single Column Analysis

P - Post Spike Recovery outside limits

## Laboratory Results

Analytica 4493 Waldo Lancaster,								NYS E. Phone:	LAP 10486 (716)
Client: Lab Project:	URS Corporation <b>0308153</b> Union Ship Canal					Alt. C	t Sample SB- lient ID: ollection 8/14	<b>8, 20SW 0-4</b> 4/2003 2:20:00	<b>%</b> 17.00
Lab 03	08153-27A	Sample	SAMP	Ma	<b>trix</b> Soil		Test	1_6010B_TAL_S	
ICP META	LS ANALYSIS BY ME	THOD 6010B			Me	thod: S	W6010B	Prep Method: S	W3050B
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	Analyst
Barium		186	В	2.41	mg/Kg-dry	1	8/18/2003 8:19:3	8 PM OPTIMA_030818B	СМО

**Definitions:** 

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank DNI - Did not Ignite J - Estimated value, value may not be accurate N - Single Column Analysis

P - Post Spike Recovery outside limits

## Laboratory Results

4493 Wald	ll Services Center en Avenue New York 1408							NYS EL. Phone:	AP 10486 (716)
Client: Lab Project:	URS Corporation <b>0308153</b> Union Ship Canal					Alt. C	t Sample SB lient ID: ollection 8/1	<b>-8, 10S 0-4</b> 4/2003 2:30:00	<b>%</b> 15.00
Lab 03	08153-28A	Sample	SAMP	Ma	atrix Soil		Test	1_6010B_TAL_S	
ICP META	LS ANALYSIS BY ME	THOD 6010B			Me	thod: S	SW6010B	Prep Method: SW	/3050B
Analyte		Result	Q	Limit	Units	DF	Date	<b>Run Batch</b>	Analyst
Barium		113	В	2.31	mg/Kg-dry	1	8/18/2003 8:24:	31 PM OPTIMA_030818B	СМО

**Definitions:** 

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank
DNI - Did not Ignite
J - Estimated value, value may not be accurate
N - Single Column Analysis
P - Post Spike Recovery outside limits

Ecology and Enviro	nc.			Laboratory Results				
Analytical Services Center 4493 Walden Avenue Lancaster, New York 1408	Ē						NYS ELAP Phone:	10486 (716)
Client:URS CorporationLab0308153Project:Union Ship Canal					Alt. C	t Sample SB-8 Client ID: Collection 8/14/		<b>%</b> 13.70
Lab 0308153-29A	Sample	SAMP	Ma	trix Soil		Test 1	_6010B_TAL_S	
ICP METALS ANALYSIS BY M	ETHOD 6010B			Me	thod: S	SW6010B	Prep Method: SW30	50B
Analyte	Result	Q	Limit	Units	DF	Date	Run Batch	Analyst
Barium	115	В	2.23	mg/Kg-dry	1	8/18/2003 8:29:17	PM OPTIMA_030818B	СМО

**Definitions**:

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank DNI - Did not Ignite J - Estimated value, value may not be accurate
N - Single Column Analysis
P - Post Spike Recovery outside limits

# Laboratory Results

4493 Walder	Services Center n Avenue New York 1408							NYS ELAP Phone:	10486 (716)
Lab Project:	URS Corporation 0308153 Union Ship Canal 8153-30A	Sample	SAMP	Ma	<b>utrix</b> Soil	Alt. C	t Sample SB-4 lient ID: ollection 8/14 Test		<b>%</b> 17.20
	S ANALYSIS BY ME					thod: S	W6010B	Prep Method: SW30	50B
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	Analyst
Barium		158	В	2.32	mg/Kg-dry	1	8/18/2003 8:33:59	PM OPTIMA_030818B	СМО

Definitions:

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank
DNI - Did not Ignite
J - Estimated value, value may not be accurate
N - Single Column Analysis
P - Post Spike Recovery outside limits

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## Laboratory Results

4493 Wald	en Avenue New York 1408							NYS E Phone:	LAP 10486 (716)
Client: Lab Project:	URS Corporation <b>0308153</b> Union Ship Canal					Alt. C	t Sample SB-8, 4 Client ID: Collection 8/14/20		<b>%</b> 16.00
Lab 03	08153-31A	Sample	SAMP	Ma	trix Soil		Test 1_(	6010B_TAL_S	
ICP META	LS ANALYSIS BY ME	ETHOD 6010B			Met	thod:	SW6010B	Prep Method: S	W3050B
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	Analyst
Barium		112	В	2.25	mg/Kg-dry	1	8/18/2003 8:38:46 Pt	M OPTIMA_030818B	СМО

Definitions:

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank DNI - Did not Ignite J - Estimated value, value may not be accurate N - Single Column Analysis

P - Post Spike Recovery outside limits

## Laboratory Results

4493 Walde	ll Services Center en Avenue New York 1408	•						NYS El Phone:	LAP 10486 (716)
Client: Lab Project:	URS Corporation <b>0308153</b> Union Ship Canal					Alt. C	t Sample SB- lient ID: ollection 8/14	<b>8, 20NW 0-4</b> 4/2003 3:30:00	<b>%</b> 10.80
Lab 030	)8153-32A	Sample	SAMP	Ma	<b>atrix</b> Soil		Test	1_6010B_TAL_S	
ICP META	LS ANALYSIS BY MI	ETHOD 6010B			Me	thod: S	W6010B	Prep Method: S	W3050B
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	Analyst
Barium		51.9	В	2.12	mg/Kg-dry	1	8/18/2003 8:43:2	8 PM OPTIMA_030818B	СМО

**Definitions:** 

* - Recovery outside QC limits

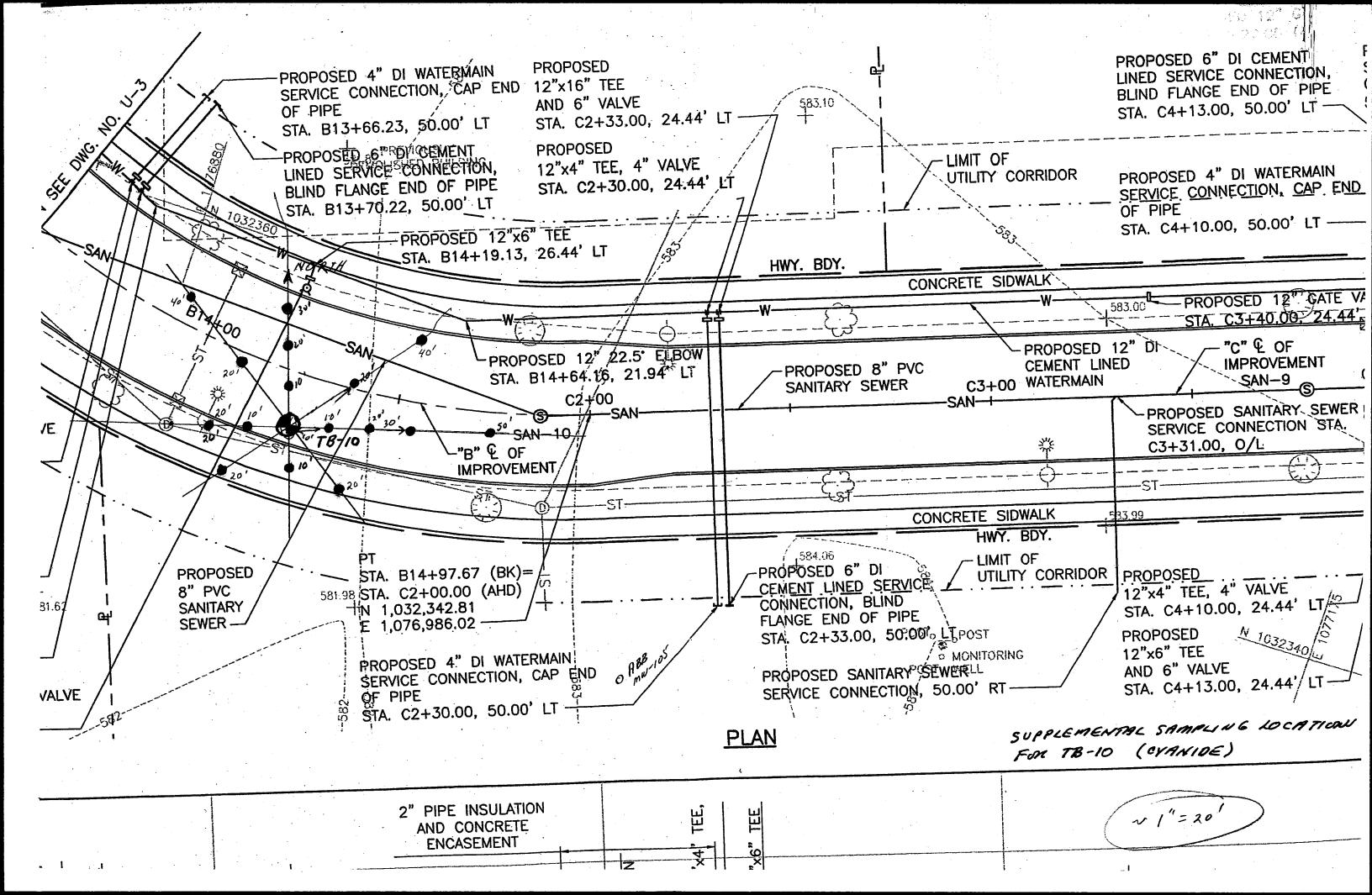
DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank
DNI - Did not Ignite
J - Estimated value, value may not be accurate
N - Single Column Analysis
P - Post Spike Recovery outside limits



## Laboratory Results

4493 Wald	al Services Center en Avenue New York 1408							NYS ELAP Phone:	10486 (716)
Client: Lab Project:	URS Corporation 0308153 Union Ship Canal					Alt. C	t Sample SB Client ID: Collection 8/1	-10, 30N 0-4 2/2003 12:08:00	% 11.20
Lab 03	08153-01A	Sample	SAMP	Ma	<b>trix</b> Soil		Test	1_9012A_CN_S	
CYANIDE,	TOTAL BY METHOD	9012A			Ме	thod:	SW9012A	Prep Method: NA	
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	Analyst
Cyanide		2.81		0.552	mg/Kg-dry	1	8/19/2003 4:17:2	8 PM LACHAT_CN_030819C	LMW

**Definitions:** 

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank
DNI - Did not Ignite
J - Estimated value, value may not be accurate
N - Single Column Analysis
P - Post Spike Recovery outside limits

## Laboratory Results

Analytical Services Center 4493 Walden Avenue Lancaster, New York 1408						NYS ELAF Phone:	9 10486 (716)
Client:URS CorporationLab0308153Project:Union Ship Canal						2/2003 12:20:00	<b>%</b> 15.10
Lab 0308153-02A CYANIDE, TOTAL BY METHOD	Sample 9012A	SAMP	Mat	trix Soil Me	Test thod: SW9012A	1_9012A_CN_S Prep Method: NA	
Analyte	Result	Q	Limit	Units	DF Date	Run Batch	Analyst
Cyanide	0.526	t	0.566	mg/Kg-dry	<b>1</b> 8/19/2003 4:18:2	5 PM LACHAT_CN_030819C	LMW

**Definitions:** 

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank
DNI - Did not Ignite
J - Estimated value, value may not be accurate
N - Single Column Analysis
P - Post Spike Recovery outside limits

## Laboratory Results

4493 Waldo	ll Services Center en Avenue New York 1408	•						NYS ELAF Phone:	P 10486 (716)
Client: Lab Project:	URS Corporation <b>0308153</b> Union Ship Canal					Alt. C	t Sample SB- lient ID: ollection 8/12	<b>10, 10S 0-10</b> 2/2003 3:30:00	<b>%</b> 27.00
Lab 030	08153-03A	Sample	SAMP	Ma	<b>trix</b> Soil		Test	1_9012A_CN_S	
CYANIDE,	TOTAL BY METHOD	9012A			Me	thod: S	W9012A	Prep Method: NA	
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	Analyst
Cyanide		6.74		0.640	mg/Kg-dry	1	8/19/2003 4:19:2	2 PM LACHAT_CN_030819C	LMW

Definitions:

- Recovery outside QC limits
 DF - Dilution Factor
 H - Value Exceeds Maximum Contaminant Level
 M - Matrix Spike Recovery outside limits
 ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank
DNI - Did not Ignite
J - Estimated value, value may not be accurate
N - Single Column Analysis
P - Post Spike Recovery outside limits

## Laboratory Results

4493 Wald	en Avenue New York 1408							NYS ELAF Phone:	9 10486 (716)
Client: Lab Project:	URS Corporation <b>0308153</b> Union Ship Canal					Alt. C	t Sample SB- Client ID: Collection 8/12	<b>10, 30S 0-6</b> 2/2003 4:00:00	<b>%</b> 23.20
Lab 03(	)8153-04A	Sample	SAMP	Ma	atrix Soil		Test	1_9012A_CN_S	
CYANIDE,	TOTAL BY METHOD	9012A			Me	thod:	SW9012A	Prep Method: NA	
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	Analyst
Cyanide		22.8		0.626	mg/Kg-dry	1	8/19/2003 4:20:1	9 PM LACHAT_CN_030819C	LMW

Definitions:

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank
DNI - Did not Ignite
J - Estimated value, value may not be accurate
N - Single Column Analysis
P - Post Spike Recovery outside limits

## Laboratory Results

4493 Wald	en Avenue New York 1408							NYS ELAP Phone:	10486 (716)
Client: Lab Project:	URS Corporation 0308153 Union Ship Canal					Alt. C	lient ID:	10, 30W 0-10 2/2003 5:30:00	<b>%</b> 32.00
Lab 03	08153-05A	Sample	SAMP	Ma	atrix Soil		Test	1_9012A_CN_S	
CYANIDE,	TOTAL BY METHOD	9012A			Me	thod: S	SW9012A	Prep Method: NA	
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	Analyst
Cyanide		6.77		0.694	mg/Kg-dry	1	8/19/2003 4:21:1	6 PM LACHAT_CN_030819C	LMW

**Definitions:** 

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank
DNI - Did not Ignite
J - Estimated value, value may not be accurate
N - Single Column Analysis
P - Post Spike Recovery outside limits

Ecology and Enviro	nc.	Laboratory Results						
Analytical Services Center 4493 Walden Avenue Lancaster, New York 1408							NYS ELAP Phone:	10486 (716)
Client:URS CorporationLab0308153Project:Union Ship Canal					Alt. C	Client ID:	-10, 10W 0-10 3/2003 8:20:00	% 35.90
Lab 0308153-06A	Sample	SAMP	Ma	<b>trix</b> Soil		Test	1_9012A_CN_S	
CYANIDE, TOTAL BY METHOD	9012A			Me	thod:	SW9012A	Prep Method: NA	
Analyte	Result	Q	Limit	Units	DF	Date	Run Batch	Analyst
Cyanide	2.62		0.736	mg/Kg-dry	1	8/19/2003 4:24:	10 PM LACHAT_CN_030819C	LMW

**Definitions:** 

* - Recovery outside QC limits

DF - Dilution Factor H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank DNI - Did not Ignite J - Estimated value, value may not be accurate N - Single Column Analysis P - Post Spike Recovery outside limits

D - Diluted due to maxtrix or extended target compounds E - Result exceeds Highest Calibration Standard Limit - Reporting Limit NC - Not Calculated for values < RL R - RPD outside recovery limits

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## Laboratory Results

4493 Wald	en Avenue New York 1408							NYS ELAF Phone:	• 10486 (716)
Client: Lab Project:	URS Corporation <b>0308153</b> Union Ship Canal					Alt. C	Client ID:	<b>10, 40NW 0-12</b> /2003 9:00:00	<b>%</b> 57.50
Lab 03	08153-07A	Sample	SAMP	Ma	atrix Soil		Test	1_9012A_CN_S	
CYANIDE,	TOTAL BY METHOD	9012A			Me	thod: \$	SW9012A	Prep Method: NA	
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	Analyst
Cyanide		8.79		1.14	mg/Kg-dry	1	8/19/2003 4:27:0	5 PM LACHAT_CN_030819C	LMW

Definitions:

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank
DNI - Did not Ignite
J - Estimated value, value may not be accurate
N - Single Column Analysis
P - Post Spike Recovery outside limits

# Laboratory Results

4493 Walde	ll Services Center en Avenue New York 1408	•						NYS ELAP Phone:	10486 (716)
Client: Lab Project:	URS Corporation <b>0308153</b> Union Ship Canal					Alt. C	lient ID:	<b>10, 20NW 0-4</b> 3/2003 9:20:00	<b>% 1</b> 4.70
Lab 030	)8153-08A	Sample	SAMP	Ma	atrix Soil		Test	1_9012A_CN_S	
CYANIDE,	TOTAL BY METHOD	9012A			Me	thod: S	W9012A	Prep Method: NA	
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	Analyst
Cyanide		1.08		0.564	mg/Kg-dry	1	8/19/2003 4:28:0	3 PM LACHAT_CN_030819C	LMW

Definitions:

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank DNI - Did not Ignite

J - Estimated value, value may not be accurate

N - Single Column Analysis

P - Post Spike Recovery outside limits

# Analytical Services Center

## Laboratory Results

4493 Wald	en Avenue New York 1408							NYS ELAP Phone:	10486 (716)
Client: Lab Project:	URS Corporation 0308153 Union Ship Canal					Alt.	nt Sample SB- Client ID: Collection 8/13	3/2003 9:40:00	<b>% 9.01</b>
	08153-09A TOTAL BY METHOD	Sample 9012A	SAMP	Ma	trix Soil Me	ethod:	SW9012A	1_9012A_CN_S Prep Method: NA	
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	Analyst
Cyanide		6.60		0.544	mg/Kg-dry		1 8/19/2003 4:29:0	2 PM LACHAT_CN_030819C	LMW

**Definitions:** 

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank DNI - Did not Ignite J - Estimated value, value may not be accurate N - Single Column Analysis P - Post Spike Recovery outside limits

## Laboratory Results

**Run Batch** 

1 8/19/2003 4:30:00 PM LACHAT_CN_030819C

10486 (716)

% 8.80

Analyst

LMW

0	y and Enviro		Inc.			Laboratory	Ke
Analytica 4493 Walde	ll Services Cente en Avenue	r				NYS EI	LAP
Lancaster,	New York 1408					Phone:	
Client:	URS Corporation			С	lient Sample SB	-10, 40SE 0-6	
Lab	0308153			A	lt. Client ID:		
Project:	Union Ship Canal				Collection 8/1	3/2003 10:15:00	
Lab 030	08153-10A	Sample	SAMP	Matrix Soil	Test	1_9012A_CN_S	
CYANIDE,	TOTAL BY METHO	D 9012A		Method	I: SW9012A	Prep Method: N	Α

Limit

Units

0.532 mg/Kg-dry

DF

Date

Result Q

0.683

Definitions:

Analyte

Cyanide

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank
DNI - Did not Ignite
J - Estimated value, value may not be accurate
N - Single Column Analysis
P - Post Spike Recovery outside limits

## Laboratory Results

4493 Wald Lancaster,	en Avenue New York 1408							NYS ELAP Phone:	10486 (716)		
Client:URS CorporationClient Sample SB-10, 10E 0-4Lab0308153Alt. Client ID:Project:Union Ship CanalCollection 8/13/2003 12:50:00											
Lab 03	08153-11A	Sample	SAMP	Ma	trix Soil		Test 7	1_9012A_CN_S			
CYANIDE,	TOTAL BY METHOD	9012A			Me	thod:	SW9012A	Prep Method: NA			
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	Analyst		
Cyanide		0.840		0.548	mg/Kg-dry	1	8/19/2003 4:30:58	PM LACHAT_CN_030819C	LMW		

**Definitions:** 

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank DNI - Did not Ignite

J - Estimated value, value may not be accurate

N - Single Column Analysis

P - Post Spike Recovery outside limits

## Laboratory Results

4493 Wald	al Services Center en Avenue New York 1408	•						NYS ELAF Phone:	P 10486 (716)
Client: Lab Project:	URS Corporation 0308153 Union Ship Canal					Alt. C	t Sample SB-1 lient ID: ollection 8/13	10, 30E 0-4 /2003 1:10:00	% 8.33
Lab 03	08153-12A	Sample	SAMP	Ma	<b>ttrix</b> Soil		Test	1_9012A_CN_S	
CYANIDE,	TOTAL BY METHOD	9012A			Me	thod: S	W9012A	Prep Method: NA	
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	Analyst
Cyanide		2.90		0.515	mg/Kg-dry	1	8/19/2003 4:31:56	PM LACHAT_CN_030819C	LMW

**Definitions**:

+ - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank DNI - Did not Ignite J - Estimated value, value may not be accurate N - Single Column Analysis P - Post Spike Recovery outside limits

## Laboratory Results

4493 Wald	n Services Center en Avenue New York 1408							NYS ELAP Phone:	10486 (716)
Client: Lab Project:	URS Corporation <b>0308153</b> Union Ship Canal					Alt. C	t Sample SB- Client ID: Collection 8/13		% 25.90
Lab 03	08153-13A	Sample	SAMP	Ma	trix Soil		Test	1_9012A_CN_S	
CYANIDE,	TOTAL BY METHOD	9012A			Me	thod:	SW9012A	Prep Method: NA	
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	Analyst
Cyanide		20.5	В	0.675	mg/Kg-dry	1	8/21/2003 8:14:33	AM LACHAT_CN_030820A	LMW

**Definitions:** 

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank
DNI - Did not Ignite
J - Estimated value, value may not be accurate
N - Single Column Analysis
P - Post Spike Recovery outside limits

## Laboratory Results

4493 Wald		•						NYS ELAP	
L'ancaster,	New York 1408							Phone:	(716)
Client:	URS Corporation					Clie	nt Sample SB-	10, 20SW 0-4	
Lab	0308153					Alt.	Client ID:		
Project:	Union Ship Canal					(	Collection 8/13	8/2003 2:30:00	% 18.50
Lab 03	08153-14A	Sample	SAMP	Ma	<b>ttrix</b> Soil		Test	1_9012A_CN_S	
CYANIDE,	TOTAL BY METHOD	9012A			Me	thod:	SW9012A	Prep Method: NA	
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	Analyst
Cyanide		14.5	В	0.590	mg/Kg-dry		8/21/2003 8:17:2	5 AM LACHAT_CN_030820A	LMW

**Definitions:** 

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank DNI - Did not Ignite J - Estimated value, value may not be accurate N - Single Column Analysis

P - Post Spike Recovery outside limits

## Laboratory Results

4493 Walde Lancaster,								NYS ELAP Phone:	9 10486 (716)
Client: Lab Project:	URS Corporation 0308153 Union Ship Canal	it Sample SB- Client ID: Collection 8/13	<b>10, 20NE 0-4</b> 3/2003 3:00:00	<b>%</b> 18.70					
Lab 03	08153-15A	Sample	SAMP	Ma	atrix Soil		Test	1_9012A_CN_S	
CYANIDE,	TOTAL BY METHOD	9012A			Me	othod:	SW9012A	Prep Method: NA	
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	Analyst
Cyanide		1.01	В	0.603	mg/Kg-dry	1	8/21/2003 8:18:2	2 AM LACHAT_CN_030820A	LMW

**Definitions:** 

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank
DNI - Did not Ignite
J - Estimated value, value may not be accurate
N - Single Column Analysis
P - Post Spike Recovery outside limits

## Laboratory Results

4493 Wald	en Avenue New York 1408							NYS ELAI Phone:	P 10486 (716)
Client: Lab Project:	10, 40NE 0-4 /2003 3:10:00	<b>%</b> 17.10							
Lab 03	08153-16A	Sample	SAMP	Ma	trix Soil		Test	1_9012A_CN_S	
CYANIDE,	TOTAL BY METHOD	9012A			Me	thod: \$	SW9012A	Prep Method: NA	
Analyte		Result	Q	Limit	Units	DF	Date	Run Batch	Analyst
Cyanide		2.71	В	0.569	mg/Kg-dry	1	8/21/2003 8:19:19	AM LACHAT_CN_030820A	LMW

**Definitions:** 

* - Recovery outside QC limits

DF - Dilution Factor

H - Value Exceeds Maximum Contaminant Level

M - Matrix Spike Recovery outside limits

ND - Not Detected at the Reporting Limit

B - Analyte found in Method blank
DNI - Did not Ignite
J - Estimated value, value may not be accurate
N - Single Column Analysis
P - Post Spike Recovery outside limits

CHA	INC	DF C	US	той	Y REC	- C	۶n»	1	<u> </u>	<del>, ,</del>	TEST	S					C	ł	
PROJECT N 117-2 SAMPLERS	D. BOZ + C (PRINT/SIGN	SITE NA	SITE NAME UNION Ship CAMAL			T. CYAND	BARIUM												
To	AN B	070	$\leq$	Fe-	AZ J	7			BOTTL	E TYP	E AND	PRESE	RVATIN	/E	PAGE 2	<u> </u>	3	<u> </u>	
DELIVERY SE	RVICE:			_ AIRBILL	NO.:		TOTAL NO.# OF CONTAINERS	391455	1541660						REMARKS	SAMPLE TYPE	BEGINNING DEPTH (IM FEET)	ENDING DEPTH (IN FEET)	FIELD LOT NO. #
IDENTIFIER	DATE	TIME	GRAB	· · · · · · · · · · · · · · · · · · ·	AMPLE ID	MATRI	x 23	303	M							SAMI	BEGI	DEPI	FIEI,
3-10, 2050	8/13/03	1430	comp		2050 0-4		<u> </u>	11							-				Γ
3-10, 20NE		1500			20NE 0-4			V					_						
3-10, 40 NE	<u></u>	1510			40NE 0-4'			*	ļ										
3-8, 30N		1605		-	30N 0-4'		1		V										Γ
8, 10N	V	1630			ON 0-4'		1		1										Γ
+8,205£ 5	8/14/03	0740		58-8,7	205E 0-4'		1		1										
1-B, 402		080		58-8,4	OSE OH		1		V										
B, ZOW		0900		50.8,	30W 0-16'		1		V										
18.10W		1020		588,1	OW 0-16'		/		1										
3-8, IDE		1125		5B-8, 1	OF 0-16		1		1										
78, 30E		1230		53-8,3	BOE OH		1		V										
38, 4054		1408		58-8,4	105W 0-10	1	1		1										
-B, 305	V	1330	$\checkmark$	58-8,	305 0-4	しと	1		V										
MATRIX CODES	AA - AMBIE SE - SEDIM SH - HAZAF		ASTE	SL - SLUDGE WP - DRINKIN WW - WASTE	G WATER SO	- GROUN - SOIL - DRILL CI			WL - LEA GS - SOIL WC - DRI		ER	WS - SU	RFACE W	ATER	LH - HAZARDOUS LIQ LF - FLOATING/FREE			V TABL	.E
SAMPLE YPE CODES	TB# - TRIP I SD# - MATI	BLANK RIX SPIKE DUPLIO	CATE	RB# - RINSE FR# - FIELD F		- NORMAL # - MATRD	. ENVIRONN K SPIKE	MENTAL	SAMPLE	(# - SE	QUENTIAL	NUMBER (	FROM 1 TO	O 9) TO A	CCOMMODATE MULTIPLE	SAMPLES	3 IN A SI	NGLE (	DAY
ELINQUISHE	D BY (sig	NATURE)	DAT	E TIME BB20	RECEIVED B	Y psign	1			DATE	TIME				CTIONS ANIDE DETE	213		<u></u>	
RELINQUISHE	D BY (sig	NATURE)	DAT	E TIME	RECEIVED FO	DR LAB	BY (sid	GNATUR		DATE		An	41738	- 6	ANIDE DETE n (rice Cry	ANI	Dz		
Distribution: Or	iginal acco	mpanies sh	ipment.	copy to co	ordinator field fil	es													

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CHAIN	N OF C	US	TODY REC	D	~		11	ESTS	8			U	R	S	)			
PROJECT NO.			SITE NAME UNION Ship	CAN	in l	10121 CUMMIDE							LAB St	5				
11172802.			UNION STEP	- Carit	e+	123											<u> </u>	
SAMPLERS (PRIN		$\mathcal{A}$	1100			BOTTLE TYPE AND PRESERVATIVE							COOLER of					
JONN PSC		qu	A Cost	- <u></u>				TPE A	NU	RESE	HVATIV	E	PAGE	of				
DELIVERY SERVIC	)E:		AIRBILL NO.:		TOTAL NO.# OF CONTAINERS	03 91455							REMARKS	TYPE	BEGINNING DEPTH (IN FEET)	ENDING DEPTH (IN FEET)	0T NO.#	
LOCATION IDENTIFIER DA	TE TIME	COMP/ GRAB	, SAMPLE ID	MATRIX	TOTAL	No								SAMPLE TYPE	BEGINNI DEPTH (I	ENDING DEPTH (I	FIELD LOT NO. (ERPIMS)	
58-10, 30N 8/12	2/03 1208	COMP	58-10, 30N 0-4'	50.1	1			•						+				
SB10, IDN	1220		58-10, IUN 0-4'		1	V	·							1				
56-10, 105	1530		58-10, 105 0-10'		1						++			+				
51510, 305	1600		5B-10, 305 0-6'		1	$\checkmark$			1									
5B-10, 30W	1730		5B-10, 30W 0-10'		1	1					++							
55-10, 10W 8/13	363 0820		58-10, 10W 0-10'		1				1	_	++			1				
50+0,40NW	0900		58-10, 40 NW 0-12		1	$\overline{\mathcal{I}}$		-	1							-+		
58-10, 20NW	0920		58-10, 20 NW 0-4		/	V			1		<u> </u>							
5B-10,205E	0940		58-10, 205E 0-4'		1	/			1									
58-10,4055	1015		5B-10, 405E 06	-	1	$\checkmark$												
50-10, 10E	1250		58-10, IDE 0-4"	1	1				1				······					
5B710, 30E	(310		5B-10, 30E 0-4'		1	1												
5B-10, 405W	1355	$\vee$	5B-10, 405w 0-6			/								1 1			-	
SE SE	- AMBIENT AIR - SEDIMENT - HAZARDOUS SOLID	VASTE	WP - DRINKING WATER SO	(G - GROUND 0 - SOIL C - DRILL CUT		G	/L - Leacha S - Soil Gas /C - Drilling	- 1		WS - SUF	EAN WATE RFACE WA TER FIELD	TER	LH - HAZARDOUS LIC LF - FLOATING/FREE			/ TABLE		
	# - TRIP BLANK # - MATRIX SPIKE DUP	ICATE		# - NORMAL E S# - MATRIX S		IENTAL S	AMPLE (	# - SEQUEN		NUMBER (F	ROM 1 TC	9) TO A	CCOMMODATE MULTIPLE	SAMPLES		NGLE D/	AY)	
RELINQUISHED B		DAT	E TIME RECEIVED E	BY (SIGNA	TURE)		DAT						TIONS				-	
Auto	3al	8/14/	63 1820 Junise	Q.	les			12 187						TED				
REEINQUISHED BY	(SIGNATURE)	DAT	E TIME RECEIVED F	OR LAB	BY (sig	NATURE		E TIN		An	4143	5/4	NIPE DETER	nio	ź			
• • • • •				<u>    ()</u>		í						$\mathcal{O}$						
Distribution: Origina	l accompanies s	hipment,	copy to coordinator field fi	iles	•													
RSF-075C/1 OF 1/CofCR/GCM																		

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				TODY				¥					-				R	T		
PROJECT N		<b>A A A A A</b>		SITE NAME UNION S Autos	~	_		DARIUM								LAB_S	+ 2			-
SAMPLERS	(PRINT/SIGN		<u> </u>	UNION S	<u>u.p</u>	CAL	JAI	12								COOLER		. /	/	
Jon.	N BC	DYD		duttes	1				BOTT	LE TY	PEA		RESE	RVATI	VF		<u>3</u>	2	 >	
		···	$\sim$		<u></u>		ц	145		Τ									1	T
DELIVERY SE	RVICE:	2		_ AIRBILL NO.:		<u></u>	NO.#	0								DEMARKO	TYPE	G FEET	FEED	
LOCATION IDENTIFIER	DATE	TIME	COMP/ GRAB	SAMPLE I	)	MATE	TOTAL NO.# OI	303								REMARKS	SAMPLE	BEGINNING DEPTH (IN FEET)	ENDING DEPTH (IN FEET)	ELEI DI OTTO -
5B-8, 205m	8/14/03	1420	comp.	5B-8, 2054				17				+							66	+
B-8,105		1430		58-8,105	0-4'	17	1	1				1	+		<u> </u>					┼
B-8, ZONE		1500		58-8, 20NE	0-4	·	1	1		1	1			+				+		+
B-B, 40NE		1510		50-8,40 NE	0-4	1	1	1		1	1		1							┿
sce, yonw		1525		58-8,40 NW	0-4		1	1			+			1		:	-	+		╀
B-B, 20 M		1530	1	58-8, ZONU		11	1	V												╞
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				<del></del>												<u> </u>				
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MATRIX	AA - AMBIEI SE - SEDIMI			SL - SLUDGE WP - DRINKING WATER	SO	- SOIL	ND WATER	Ġ. G	/L - LEA IS - SOIL	GAS	A			EAN WAT		LH - HAZARDOUS LI LF - FLOATING/FREE		STE		
SAMPLE YPE CODES	TB# - TRIP E			WW - WASTE WATER RB# - RINSE BLANK	N#	· NORM	CUTTINGS			LUNG W				TER FIELD						
RELINQUISHE	l		DATE	FR# - FIELD REPLICATE	IVED B					_							SAMPLES	S IN A SI	NGLE	DAY
Alath	n'	···· <b>·</b> ,		7/820 Den		H	dia			DATE 14	TIM		SPECI	AL IN	STRUC	CTIONS				
ELINQUISHE	and the farmers and	NATURE)	DATE			RLA	BY (SIG			DATE		4								
						C	J		ŕ			_				~				

## **APPENDIX D**

# NAPL AREAS PRE-EXCAVATION DISPOSAL CHARACTERIZATION LABORATORY ANALYTICAL RESULTS



المراجع المعاري المعام

## LABORATORY REPORT OF ANALYSIS

Client:	Nature's Way Environmental	Lab Project No.: Lab Sample No.:	
Client Job Site: Client Job No.:	Union Ship Canal N/A	Sample Type:	Soil
Field Location:	Area To Be Excavated	Date Sampled: Date Received:	11/09/2003 11/14/2003

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Cyanide Reactivity	11/20/2003	SW846, 7.3	ND<1 Non Reactive
Sulfide Reactivity	11/20/2003	SW846, 7.3	12 Non Reactive

ELAP ID. No.: 10709

Comments:

ND denotes Non Detected. Hazardous Waste Regulatory Levels for Reactivity are as follows: Sulfide - 500 mg/kg, Cyanide - 250 mg/kg.

Approved By Technical Director:

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litte Bruce Hoogesteger

# PARADIGM

Environmental 179 Lake Avenue Rochester, New York 14608 716-647-2530 FAX 716- 647-3311

Services, Inc.

#### **TCLP Herbicides**

Client:	Nature's Way Environmental	Lab Project No: Lab Sample No:	03-3115 10237
Client Job Site:	Union Ship Canal	Sample Type:	TCLP Extract
Client Job No:	N/A	Date Sampled:	11/09/2003
Field Location:	Area To Be Excavated	Date Received:	11/14/2003
Field ID No:	N/A	Date Analyzed:	11/19/2003

Parameter	Result UG/L	Reporting Limit UG/L	Regulatory Limit UG/L
2,4-D	ND	2000	10,000
2,4,5-TP (Silvex)	ND	200	1,000

Analytical Method: EPA 8151 ELAP ID. No.: 10709

Comments:

ND denotes Non Detected.

Approved By:

Bruce Hoogesteger, Technical Director

The Chain of Custody provides additional information.

File ID:TCLPHERB03-3115

ENVIRONMENTAL SERVICES. INC.

## PCB Analysis Report for Soils/Solids/Sludges

## Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	03-3115 10237
Client Job Number: Field Location:	N/A Area to be Excavated	Date Sampled:	11/09/2003
Field ID Number: Sample Type:	N/A Soil	Date Received: Date Analyzed:	11/14/2003 11/19/2003
Sample Type.	501	Bate Analyzea.	11/10/2000

PCB Identification	Results in mg / Kg	
Aroclor 1016	ND< 0.622	
Aroclor 1221	ND< 0.622	
Aroclor 1232	ND< 0.622	
Aroclor 1242	ND< 0.622	
Aroclor 1248	ND< 0.622	
Aroclor 1254	ND< 0.622	
Aroclor 1260	ND< 0.622	
ELAP Number 10958	Method: EPA 8082	 ?A

Comments:

ND denotes Non Detect mg / Kg = milligram per Kilogram

Signature:

Bruce Hoogesteger: Technical Director

## Semi-Volatile Analysis Report for TCLP Extract

## Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	03-3115 10237
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Area to be Excavated N/A TCLP Extract	Date Sampled: Date Received: Date Analyzed:	11/09/2003 11/14/2003 11/19/2003

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	3,000
Hexachlorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	130
Nitrobenzene	ND< 40.0	2,000
Pyridine	ND< 40.0	5,000
		Degulatory Limita in ug / L
Acids	Results in ug / L	Regulatory Limits in ug / L

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2,4,5-Trichlorophenol	ND< 100	400,000
2,4,6-Trichlorophenol	ND< 40.0	2,000
ELAP Number 10958	Method: EPA 8270C	Data File: 13884.D

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Signature:

Bruce Hoogesteger: Technical Director

## Pesticide Analysis Report for TCLP Extracts

#### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	03-3115 10237
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Area to be Excavated N/A TCLP Extract	Date Sampled: Date Received: Date Analyzed:	11/09/2003 11/14/2003 11/20/2003

Pesticide	Results in ug / L	Regulatory Limits in ug / L
gamma-BHC (Lindane)	ND< 1.00	400
Chlordane	ND< 1.00	30
Endrin	ND< 1.00	20
Heptachlor	ND< 1.00	8
Heptachlor Epoxide	ND< 1.00	8
Methoxychlor	ND< 1.00	10,000
Toxaphene	ND< 50.0	500
ELAP Number 10958		Method: EPA 8081A

ELAP Number 10958

Method: EPA

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Signature:

Bruce Hoogesteger: Technical Director

Chain of Custody provides additional sample information

7

## Volatile Analysis Report for TCLP Extract

#### Client: Nature's Way Environmental

PARADIGM

ENVIRONMENTAL SERVICES. INC.

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	03-3115 10237
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Area to be Excavated N/A TCLP Extract	Date Sampled: Date Received: Date Analyzed:	11/09/2003 11/14/2003 11/21/2003

TCLP Analytes	Results in ug / L	Regulatory Limits in ug / L
Benzene	ND< 20.0	500
2-Butanone	ND< 50.0	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200
ELAP Number 10958	Method: EPA 8260B	Data File: 17600.D

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Signature:

Bruce Hoogesteger: Technical Director

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Client:	NWEC&C, Inc.	Lab Project No.: Lab Sample No.:	03-3115 10237
Client Job Site:	Union Ship Canal	· Sample Type:	TCLP Extract
Client Job No.:	N/A	Date Sampled:	11/09/2003
Field Location: Field ID No.:	Area to be excavated N/A	Date Received:	11/14/2003

## Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	11/18/2003	EPA 6010	<0.100	5.0
Barium	11/18/2003	EPA 6010	0.600	100.0
Cadmium	11/18/2003	EPA 6010	<0.025	1.0
Chromium	11/18/2003	EPA 6010	<0.050	5.0
Lead	11/18/2003	EPA 6010	<0.100	5.0
Mercury	11/19/2003	EPA 7470	<0.0020	0.2
Selenium	11/18/2003	EPA 6010	<0.100	1.0
Silver	11/18/2003	EPA 6010	<0.050	5.0

ELAP ID No.: 10958

Comments: Approved By: Aoogesteger, Technical Director Bruce



#### 179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

Client:	NWEC&C, Inc.	Lab Project No.:	03-3115
Client Job Site:	Union Ship Canal	Sample Type: Method:	Solid SW846 1010
Client Job No.:	N/A	Date(s) Sampled: Date Received: Date Analyzed:	11/09/2003 11/14/2003 11/19/2003

#### Laboratory Report for Flashpoint Analysis

Lab Sample No.	Field ID No.	Field Location	Flashpoint Results (°C)
10237	N/A	Area to be excavated	>70
· · · · · · · · · · · · · · · · · · ·			

ELAP ID No.: 10958

Comments:

Approved By: _

Bruce Hoogesteger, Technical Director

Chain of Custody provides additional sample information.

File ID:033115.xls



Client:	NWEC&C, Inc.	Lab Project No.:	03-3115
Client Job Site:	Union Ship Canal	Sample Type: Method:	Solid SW846 9045C
Client Job No.:	N/A	Date(s) Sampled: Date Received: Date Analyzed:	11/09/2003 11/14/2003 11/19/2003

## Laboratory Report for pH Analysis

Field ID No.	Field Location	pH Results (S.U.)
N/A	Area to be excavated	10.03

ELAP ID No.: 10958

Comments:

Approved By: Bruce Hoggesteger, Technical Director

Chain of Custody provides additional sample information.

БА	PARADIGM	
160	ENVIRONMENTAL	REPORTO
ш	SERVICES, INC.	COMPANY: Nature's Way Environ
PAG	179 Lake Avenue	ADDRESS: 3553 Grittenden Rd.

## CHAIN OF CUSTODY

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PARADIGM ENV

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## pH Analysis Report

Client: NWEC&C

Client Job Site:	Union Ship Canal	Lab Project Number:	03-3363
Client Job Number:	N/A	Date Sampled:	12/12/2003
Sample Type:	Soil	Date Received: Date Analyzed:	12/16/2003 12/16/2003

Lab Sample Number	Field Number	Field Location	Result (pH)
10992	Cap #2	Area to be Excavated	9.79
10993	Cap #3	Area to be Excavated	10.30
			Mathadi EBA 00450

ELAP Number 10958

Method: EPA 9045C

Comments:

Signature:

Bruce Hoogesteger: Technical Director

Chain of Custody provides additional sample information



## Flashpoint by Pensky-Martin Analysis Report

Client: NWEC&C

Client Job Site:	Union Ship Canal	Lab Project Number:	03-3363
Client Job Number:	N/A	Date Sampled: Date Received:	12/12/2003 12/16/2003
Sample Type:	Soil	Date Analyzed:	12/18/2003

Lab Sample Number	Field Number	Field Location	Result (°C)
10992	Cap #2	Area to be Excavated	>70
10993	Cap #3	Area to be Excavated	>70
· · · · · · · · · · · · · · · · · · ·			Math ad 510/846 1010

ELAP Number 10958

Method: SW846 1010

Comments: °C = degrees Centigrade

Signature:

Bruce Hoogesteger: Technical Director

Chain of Custody provides additional sample information

# PARADIGM

·

Environmental

Services, Inc. 179 Lake Avenue Rochester, New York 14608 716-647-2530 FAX 716- 647-3311

Client:	NWEC&C	Lab Project No.:	03-3363
Client Job Site: Client Job No.:	Union Ship Canal N/A	Sample Type: Analytical Method: Date Sampled: Date Received: Date Analyzed:	Soil SW846, 7.3 12/12/2003 12/16/2003 12/19/2003

Lab Sample ID.	Client Sample ID.	Cyanide (mg/kg)	Sulfide (mg/kg)
	Area to be		
10992	Excavated#2	ND<1 Non Reactive	368 Non Reactive
	Area to be		
10993	Excavated#3	ND<1 Non Reactive	ND<10 Non Reactive
			· · · · · · · · · · · · · · · · · · ·
	<u> </u>	<u>]</u>	

ELAP ID. No.: 10709

Comments:

ND denotes Non Detected. Hazardous Waste Regulatory Levels for Reactivity are as follows: 500 mg/kg Sulfide

and 250 mg/kg Cyanide.

Laboratory Director

Approved By:



Client:	NWEC&C	Lab Project No.: Lab Sample No.:	03-3363 10992
Client Job Site:	Union Ship Canal	Sample Type:	TCLP Extract
Client Job No.:	N/A	Date Sampled:	12/12/2003
Field Location: Field ID No.:	Area to be Excavated Cap #2	Date Received:	12/16/2003

## Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	12/18/2003	EPA 6010	<0.100	5.0
Barium	12/18/2003	EPA 6010	0.260	100.0
Cadmium	12/18/2003	EPA 6010	<0.025	1.0
Chromium	12/18/2003	EPA 6010	<0.050	5.0
Lead	12/18/2003	EPA 6010	<0.100	5.0
Mercury	12/18/2003	EPA 7470	<0.0020	0.2
Selenium	12/18/2003	EPA 6010	<0.100	1.0
Silver	12/18/2003	EPA 6010	<0.050	5.0
			· · · · · · · · · · · · · · · · · · ·	

ELAP ID No.: 10958

Comments:

Approved By:

Hoogesteger, Technical Director Brug



Client:	NWEC&C	Lab Project No.: Lab Sample No.:	03-3363 10993
Client Job Site:	Union Ship Canal	Sample Type:	TCLP Extract
Client Job No.:	N/A	Date Sampled:	12/12/2003
Field Location: Field ID No.:	Area to be Excavated Cap #3	Date Received:	12/16/2003

## Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	12/18/2003	EPA 6010	<0.100	5.0
Barium	12/18/2003	EPA 6010	1.18	100.0
Cadmium	12/18/2003	EPA 6010	<0.025	1.0
Chromium	12/18/2003	EPA 6010	<0.050	5.0
Lead	12/18/2003	EPA 6010	<0.100	5.0
Mercury	12/18/2003	EPA 7470	<0.0020	0.2
Selenium	12/18/2003	EPA 6010	<0.100	1.0
Silver	12/18/2003	EPA 6010	<0.050	5.0

ELAP ID No.: 10958

Comments:

Approved By: Bruce Hoogesteger, Technical Director

## Pesticide Analysis Report for TCLP Extracts

#### Client: NWEC&C

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	03-3363 10992
Client Job Number: Field Location:	N/A Area to be Excavated	Date Sampled:	12/12/2003
Field ID Number: Sample Type:	Cap #2 TCLP Extract	Date Received: Date Analyzed:	12/16/2003 12/19/2003

Pesticide	Results in ug / L	Regulatory Limits in ug / L
gamma-BHC (Lindane)	ND< 1.00	400
Chlordane	ND< 1.00	30
Endrin	ND< 1.00	20
Heptachlor	ND< 1.00	8
Heptachlor Epoxide	ND< 1.00	8
Methoxychlor	ND< 1.00	10,000
Toxaphene	ND< 50.0	500
ELAP Number 10958		Method: EPA 8081A

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Signature:

Bruce Hoogesteger: Technical Director

## Pesticide Analysis Report for TCLP Extracts

#### Client: NWEC&C

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	03-3363 10993
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Area to be Excavated Cap #3 TCLP Extract	Date Sampled: Date Received: Date Analyzed:	12/12/2003 12/16/2003 12/19/2003

Pesticide	Results in ug / L	Regulatory Limits in ug / L
gamma-BHC (Lindane)	ND< 1.00	400
Chlordane	ND< 1.00	30
Endrin	ND< 1.00	20
Heptachlor	ND< 1.00	8
Heptachlor Epoxide	ND< 1.00	8
Methoxychlor	ND< 1.00	10,000
Toxaphene	ND< 50.0	500
ELAP Number 10958		Method: EPA 8081A

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Signature:

Bruce Hoogesteger: Jechnical Director

Chain of Custody provides additional sample information

# PARADIGM

Environmental 179 Lake Avenue Rochester, New York 14608 585-647-2530 FAX 585- 647-3311

Services, Inc.

#### **TCLP Herbicides**

Client:	NWEC&C	Lab Project No: Lab Sample No:	03-3363 10992
Client Job Site:	Union Ship Canal	Sample Type:	TCLP Extract
Client Job No: Field Location: Field ID No:	N/A Area to be Excavated Cap #2	Date Sampled: Date Received: Date Analyzed:	12/12/2003 12/16/2003 12/18/2003

Parameter	Result UG/L	Reporting Limit UG/L	Regulatory Limit UG/L
2,4-D	ND	2000	10,000
2,4,5-TP (Silvex)	ND	200	1,000

Analytical Method: EPA 8151 ELAP ID. No.: 10709

Comments:

ND denotes Non Detected.

Approved By:

BU Bruce Hoogesteger, Technical Director

The Chain of Custody provides additional information.

### File ID:TCLPHERB03-3363-1

# PARADIGM

Environmental 179 Lake Avenue Rochester, New York 14608 585-647-2530 FAX 585- 647-3311

Services, Inc.

#### **TCLP Herbicides**

Client:	NWEC&C	Lab Project No:	03-3363
		Lab Sample No:	10993
Client Job Site:	Union Ship Canal	Sample Type:	TCLP Extract
Client Job No:	N/A	Date Sampled:	12/12/2003
Field Location:	Area to be Excavated Cap	Date Received:	12/16/2003
Field ID No:	#3	Date Analyzed:	12/18/2003

Parameter	Result UG/L	Reporting Limit UG/L	Regulatory Limit UG/L
2,4-D	ND	2000	10,000
2,4,5-TP (Silvex)	ND	200	1,000

Analytical Method: EPA 8151 ELAP ID. No.: 10709

Comments:

ND denotes Non Detected.

Approved By:

Bruce Hoogesteger, Technical Director

The Chain of Custody provides additional information.

File ID:TCLPHERB03-3363-1

## Semi-Volatile Analysis Report for TCLP Extract

#### Client: NWEC&C

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	03-3363 10992
Client Job Number:	N/A		
Field Location:	Area to be Excavated	Date Sampled:	12/12/2003
Field ID Number:	Cap #2	Date Received:	12/16/2003
Sample Type:	TCLP Extract	Date Analyzed:	12/18/2003

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	3,000
Hexachlorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	130
Nitrobenzene	ND< 40.0	2,000
Pyridine	ND< 40.0	5,000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2,4,5-Trichlorophenol	ND< 100	400,000
2,4,6-Trichlorophenol	ND< 40.0	2,000
ELAP Number 10958	Method: EPA 8270C	Data File: 14229.D

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Bruce Hoogesteger: Technical Director

Signature;

## Semi-Volatile Analysis Report for TCLP Extract

## Client: NWEC&C

PARADIGM

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	03-3363 10993
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Area to be Excavated Cap #3 TCLP Extract	Date Sampled: Date Received: Date Analyzed:	12/12/2003 12/16/2003 12/18/2003

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	3,000
Hexachlorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	130
Nitrobenzene	ND< 40.0	2,000
Pyridine	ND< 40.0	5,000
Acids	Results in ug / L	Regulatory Limits in ug / L

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2,4,5-Trichlorophenol	ND< 100	400,000
2,4,6-Trichlorophenol	ND< 40.0	2,000
ELAP Number 10958	Method: EPA 8270C	Data File: 14230.D

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Bruce Hoogesteger: Technical Director

Signature:

## PARADIGM ENVIRONMENTAL SERVICES, INC.

## Volatile Analysis Report for TCLP Extract

#### Client: NWEC&C

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	03-3363 10992
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Area to be Excavated Cap #2 TCLP Extract	Date Sampled: Date Received: Date Analyzed:	12/12/2003 12/16/2003 12/17/2003

TCLP Analytes	Results in ug / L	Regulatory Limits in ug / L
Benzene	ND< 20.0	500
2-Butanone	ND< 50.0	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200
ELAP Number 10958	Method: EPA 8260B	Data File: 18157.D

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Signature:

Bruce Hoogesteger: Technical Director

## Volatile Analysis Report for TCLP Extract

#### Client: NWEC&C

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	03-3363 10993
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Area to be Excavated Cap #3 TCLP Extract	Date Sampled: Date Received: Date Analyzed:	12/12/2003 12/16/2003 12/17/2003

TCLP Analytes	Results in ug / L	Regulatory Limits in ug / L
Benzene	ND< 20.0	500
2-Butanone	ND< 50.0	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200
ELAP Number 10958	Method: EPA 8260B	Data File: 18158.D

Comments:

Signature:

ND denotes Non Detect ug / L = microgram per Liter

Bruce Hoogesteger; Technical Director

## PCB Analysis Report for Soils/Solids/Sludges

## Client: <u>NWEC&C</u>

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	03-3363 10992
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Area to be Excavated Cap #2 Soil	Date Sampled: Date Received: Date Analyzed:	12/12/2003 12/16/2003 12/18/2003

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.590
Aroclor 1221	ND< 0.590
Aroclor 1232	ND< 0.590
Aroclor 1242	ND< 0.590
Aroclor 1248	ND< 0.590
Aroclor 1254	ND< 0.590
Aroclor 1260	ND< 0.590
ELAP Number 10958	Method: EPA 80824

ELAP Number 10958

Method: EPA 8082A

Comments:

ND denotes Non Detect mg / Kg = milligram per Kilogram

Signature:

Bruce Hoogesteger; Technical Director

Chain of Custody provides additional sample information

#### PCB Analysis Report for Soils/Solids/Sludges

#### Client: NWEC&C

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	03-3363 10993
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Area to be Excavated Cap #3 Soil	Date Sampled: Date Received: Date Analyzed:	12/12/2003 12/16/2003 12/18/2003

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.589
Aroclor 1221	ND< 0.589
Aroclor 1232	ND< 0.589
Aroclor 1242	ND< 0.589
Aroclor 1248	ND< 0.589
Aroclor 1254	ND< 0.589
Aroclor 1260	ND< 0.589
ELAD Musica (0059	Mathad: EBA 8082A

ELAP Number 10958

Method: EPA 8082A

Comments:

ND denotes Non Detect mg / Kg = milligram per Kilogram

Signature:

Rechnical Director Bruce Hoogesteger;

Chain of Custody provides additional sample information

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#### WASTE MANAGEMENT, INC.

CWM Chemical Services, L.L.C. 1550 Balmer Rd. P.O. Box 200 Model City, N.Y. 14107 716/754-8231

December 30, 2003

Mr. Russ Savage Nature's Way Environmental 3553 Crittenden Rd. Crittenden, NY 14038

#### RE: Approved Profile #CX1578 Development Downtown, Inc.

Dear Mr. Savage,

Please be advised that the above referenced application has been approved for disposal at Waste Management's Chaffee Landfill. Enclosed please find a copy of the approved application.

In the event that significant changes in the information provided on the application occur, please notify us immediately. Such changes shall include, but are not limited to, change in process, change in waste composition and change in hauler.

Please contact us 24 hours in advance of any disposal you wish to schedule.

Should you have any questions at all, please contact me directly @ (716) 754-0365.

Sincerely,

E Callaha

James L. Callahan Inside Sales Representative

Enc. cc: File -...

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## WASTE MANAGEMENT GENERATOR'S WASTE PROFILE SHEET CHAFFEE LANDFILL

San	PLEASE PRINT IN INK ( vice Agreement on File? YES NO		no 1111500
		Profile Number: V	VMI (X/2/8.
A. V	Hazardous XNon-Hazardous TSCA	Renewal Date:	61104
1. 3. 5. 7. 9. 11. 13. 15. 8. W	Generator Name: Development Downtown, Inc Facility Street Address: <u>Commerce Drive</u> Facility City: <u>Buffalo</u> Zip/Postal Code: <u>14203</u> County: <u>Erie</u> Customer Name: <u>Nature's Way Environmental</u> Customer Contact: <u>R-Savage/G</u> . inleber Billing Address 3553 <u>Crittenden Rd</u> . <u>Grittende</u> Waste Stream Information	<ul> <li>4. Phone: (7/6)</li> <li>6. State/Province: New )</li> <li>8. Generator USEPA/Federal</li> <li>10. State/Province ID #.</li> <li>12. Customer Phone: (-7)</li> <li>14. Customer Fax</li> </ul>	
	Description a. Name of Waste: Soil County on in a ted with		$\rightarrow 1/p + 1$
	b. Process Generating Waste: <u>Historic Industria</u>	a Non Aquesus Mase Ch al operations. Materia theough previous site	al to be
1	c. Color d. Strong odor e. Physical state		g. Free liquid range
		Liquid Single Layer Sludge Multi-layer	No Free Liguid h. pH: Range 10-03 to %
	i. Liquid Flash Point: 2<73°F 73-99°F 100-139 j. Chemical Composition (List all constituents [including halogenated on representative analysis):	°F ☐ 140-199°F (C≥ 200°) ganics, debris, and UHC's] present in any cou	E [Not applicable
	Constituents Soil+Stone 99.0-99.5	Constituents	Concentration Range
	Petroleum (NAPL) 0.1-0.5		
	Debris 0.5-1.0	·	
L	TOTAL COMPOSITION MUST		
L			
г		plosive ERadioactiv	
I	1. Does the waste represented by this profile contain any of th	e carcinogens which require OSH	Δ
	nouncation? (list in Section B.1.)		The Mino
. <b>r</b> r	<ul> <li>m. Does the waste represented by this profile contain dioxins? (</li> <li>n. Does the waste represented by this profile contain asbestos? If yes</li> </ul>	list in Section B.1.j)	
c	o. Does the waste represented by this profile contain benzene?		-mable
	It yes, concentration ppm		—
_	Is the waste subject to the benzene waste operations NESH/	AP?	YES KNO
P	p. Is the waste subject to RCRA Subpart CC controls? If yes, volatile organic concentration		
q	<ul> <li>If yes, volatile organic concentration</li> <li>q. Does the waste contain any Class I or Class II ozone-depleti</li> </ul>	_ ppmw	
г	r. Does the waste contain debris? (list in Section B.1.)		
2. 0	Quantity of Waste 2400	s 🗌 Yards 🔲 Drums 🗍 Other :	-
	Snipping information		
	a. Packaging: ABulk Solid: Type Size: DUMP Truck / TFRiler	Bulk Liquid; Type/Size:	
b	Drum; Type; Size: b. Shipping Frequency: Units Per: 500 Tons Other	Other. Month Quarter Year Por	ne time
d	<ul> <li>c. Is this a U.S. Department of Transportation (USDOT) Hazar</li> <li>d. Reportable Quantity (Ibs.; kgs.):</li> <li>f. USDOT Shipping Name:</li> </ul>		

12/10/2003 13:01 FAX

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WAST	E MANAGEMENT

## GENERATOR'S WASTE PROFILE SHEET CHAFFEE LANDFILL

#### PLEASE PRINT IN INK OR TYPE

	g. Personal Protective Equipment Requirements: <u>NA - Tarp Loads For Tra</u>	insport	
	n. Transporter & Transporter Number Waste Management to provide transportate enerator's Certification (Please check appropriate responses, sign and date below.)	ion LCA	- 9A-480
1.	Is this a USEPA hazardous waste (40 CFR Part 261)? If the answer is no. skip to 2 a. If yes, identify ALL USEPA listed and characteristic waste code numbers (D, F, K, P, U)	****	TYES AND
	a. "I yes, idealing ALE USER A listed and characteristic waste code numbers (D, F, K, P, U)		
	b. If a characteristic hazardous waste, do underlying hazardous constituents		
	(UHCs) apply? (if yes, list in Section 8.1.)	]YES ∏NO	
	c. Does this waste contain debris? (if yes, list size and type in Chemical Composition - B.1.)	TYES NO	
		-	
2.	Is this a state hazardous waste?	·····	TYES XNO
	Identify ALL state hazardous/non hazardous waste codes		
-		·····	
3.	Is the waste from a CERCLA (40 CFR 300, Appendix B) or state mandated clean-up? If yes, attach Record of Decision (ROD), 104/106 or 122 order or court order that governs site clean-up	·····	TYES NO.
	activity. For state mandated clean-up, provide relevant documentation.		
4.	Does the waste represented by this waste profile sheet contain radioactive material, or is disposal regulated by the Nuclear Regulatory Commission?		TYES TO NO
5.	Does the waste represented by this waste profile sheet contain concentrations of Polychilorinated		_ \
	Biphenyls (PCBs) regulated by 40 CFR 7617 (if yes, list in Chemical Composition - B.1.]		TYES XNO
	a. If yes, were the PCBs imported into the U.S.?	YES NO	
6.	Do the waste profile sheet and all attachments contain true and accurate descriptions of the waste		
	material, and has all relevant information within the possession of the Generator reparting known or		
	suspected hazards pertaining to the waste been disclosed to the Contractor?		XYES INO
7.	Will all changes which occur in the character of the waste be identified by the Generator and disclosed		
-	to the Contractor prior to providing the waste to the Contractor?		XYES INO
Che	ck here if a Certificate of Destruction or Disposal is required.		
Any san	ncie submitted is representative as defined in 40 CFR 261 - Appendix I or by using an equivalent method. I auth	vorize WMI to ob	rtain a
sample	from any waste shipment for purposes of recentification. If this certification is marte by a broker, the undersione	risions as autho	rived
informat	the generator and has confirmed the information contained in this Profile Sheet from information provided by the tion as it has determined to be reasonably necessary. If approved for management, Contractor has all the neces	e generator and	additional
for the v	vaste that has been characterized and identified by this approved profile.	sary parmits and	
Cartific	ation Signature: detallation Title: Talter	and De-	5.000-
Name	ation Signature: Curcul Cullublicans Tille: The Term	a valance	SIDEN 1
	(Type or Print): DAVID STEBBINS Company Name: Development D Check if additional information is attached. Indicate the number	of attached na	Curtation
D: WM	1 Management's Decision	FORWI	NUSEONLY
1.	Management Method ALandfill Non-hazardous Solidification Bioremediation		ation
2	Hazardous Slabilization Other (Specify)		
2. 3.	Proposed Ultimate Management Facility: Chaffee Landfill		
J.	Precautions, Special Handling Procedures, or Limitation on Approval: Material may be used as daily cover- Pendine NYS		
	The second state of the se	SDEC A	pproval
4.		m Type	-23
Special			Disapproved
	erson's Signature:		
	C Region 9 Approval: Date:		
opecial	Waste Approvals Person Signature: Que A Callan Date:	12/1-	7/03
		•	

OKper chad Sternis zeeski 12/29/05

## **APPENDIX E**

# NAPL AREA NO. 3 "BERMED STRIPPED SOIL" LABORATORY ANALYTICAL RESULTS

## Certificate of Analysis

#### **CLIENT INFORMATION**

#### LABORATORY INFORMATION

Attention: Client Name:	Russ Savage NWEC+C Inc.	Contact: Project:	Mike Challis, B.Sc, C.Chem. AN040300
Project:	Union Ship Canal	Date Received:	04-Mar-2004
Project Desc:	Union Ship Canal	Date Reported:	10-Mar-2004
Address:	3553 Crittenden Rd.	Submission No.:	4C0186
	Crittenden, NY	Sample No.:	010287-010303
	14038		
Fax Number:	716-937-9360		
Phone Number	: 716-937-6527		

#### **NOTES:**

"-' = not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33 Solids data is based on dry weight except for biota analyses. Organic analyses are not corrected for extraction recovery standards except for isotope dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses) The enclosed copy of the Chain of Custody Record may contain information necessary for the interpretation of the data.

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Twentieth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of three weeks from receipt of data or as per contract.

#### **COMMENTS:**

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## PASC - Certificate of Analysis

Component	Client ID: Lab No.: Date Sampled: MDL	Units	NAPL EXC AREA3 SOUTH 010299 04 03-Mar-2004	NAPL EXC AREA 3 EAST 010300 04 03-Mar-2004	NAPL EXC AREA 3 WEST 010301 04 03-Mar-2004	NAPL EXC AREA3BOTTOM 010302 04 03-Mar-2004	Bermed Stripped Soil 010303 04 03-Mar-2004	Method Blank 010287 04 03-Mar-2004	Blank Spike 010287 04 03-Mar-2004
Benzene	1.0	ug/kg	<2.0	<2.0	<2.0	<	1.0	<	59
Ethylbenzene	1.0	11	<2.0	<2.0	<2.0	<	<	<	63
Toluene	1.0	11	<2.0	2.0	2.0	1.0	2.0	<	61
m&p-Xylene	1.0	**	<2.0	<2.0	2.0	<	1.0	<	130
o-Xylene	1.0	11	<2.0	<2.0	3.0	< .	<	<	64
Xylenes(Total)	1.0	**	<2.0	<2.0	5.0	<	1.0	<	190
Isopropylbenzene	1.0		<2.0	<3.0	2.0	<	<2.0	<	57
n-Propylbenzene	1.0	**	<2.0	<3.0	5.0	<	<2.0	<	62
p-Isopropyltoluene	1.0		<2.0	<3.0	10	<	<2.0	<	64
1,2,4-Trimethylbenzer	ne 1.0		<2.0	<3.0	4.0	1.0	<2.0	<	63
1,3,5-Trimethylbenzer	ne 1.0	**	<2.0	<3.0	6.0	<	<2.0	<	63
n-Butylbenzene	1.0	41	<2.0	<3.0	16	<	<2.0	<	65
sec-Butylbenzene	1.0	H	<2.0	<3.0	4.0	<	<2.0	<	64
tert-Butylbenzene	1.0	**	<2.0	<3.0	<2.0	<	<2.0	<	61
Naphthalene	1.0	**	6.0	<3.0	4.0	<	45	<	49
Methyl-t-butylether	1.0	н	<2.0	<3.0	<2.0	<	<2.0	<	NS
Surrogate Recoveries		%							
d4-1,2-Dichloroethan	e		69	75	81	68	65	73	75
d8-Toluene			87	95	99	87	93	87	85
Bromofluorobenzene			84	71	87	76	65	87	88
d10-Ethylbenzene			55	31	27	54	30	91	87

## PASC - Certificate of Analysis

Date Component	Client ID: Lab No.: e Sampled: MDL	Units	NAPL EXC AREA3BOTTOM 010302 04 03-Mar-2004	Bermed Stripped Soil 010303 04 03-Mar-2004	Method Blank 010287 04 03-Mar-2004	Blank Spike 010287 04 03-Mar-2004	% Recovery 010287 04 03-Mar-2004	Blank Spike Duplicate 010287 04 03-Mar-2004	% Recovery 010287 04 03-Mar-2004
Manhahana	00		-0.00	<i>C</i> 400	.100			• • • • •	<u>.</u>
Naphthalene	90	ug/kg "	<360	6400	<180	3200	80	3400	84
Acenaphthene	70		<280	11000	<140	3200	80	3400	85
Fluorene	40		<160	13000	<80	3100	79	3400	86
Phenanthrene	30	H	<120	110000	<60	3300	81	3400	85
Anthracene	60	11	<240	30000	<120	3300	83	3500	88
Fluoranthene	60	*1	<240	120000	<120	3200	81	3400	85
Pyrene	40	"	<160	90000	<80	3400	86	3700	92
Benz(a)anthracene	50	n	<200	50000	<100	3200	81	3400	86
Chrysene	40	ł!	<160	48000	<80	3300	83	3600	90
Benzo(b)fluoranthene	40	n	<160	38000	<80	3300	83	3600	89
Benzo(k)fluoranthene	40	tt	<160	34000	<80	3400	84	3600	90
Benzo(a)pyrene	50	4	<200	40000	<100	3200	80	3500	87
Indeno(1,2,3-cd)pyrene	60		<240	27000	<120	3200	80	3500	86
Dibenzo(ah)anthracene	50	11	<200	7100	<100	3200	81	3500	88
Benzo(ghi)perylene	60	Ħ	<240	18000	<120	3100	78	3200	79
Surrogate Recoveries		%							
d5-Nitrobenzene			59	75	74	80	80	85	85
2-Fluorobiphenyl			64	82	74	82	82	87	87
d14-p-Terphenyl			78	85	93	87	87	93	93

## UNAIN UF CUSTUDT

	ANALYTICAL SERVICES 5555 North Service Road Burlington, Ontarlo L7L 5H7			Toll Free: 1-800-668-0639 Tel: (905) 332-8788 Fax: (905) 332-9169				Page 3 of 3							
		Company Name: NINECTC. IVC Project Manager: RUSS SAVE Address: 3553 Cr. Hender Cr. Henden . NY Phone #: 716-937-6527 Fax #: 7 Sampled by: On NRJDRUEY			14038	START								of contamination igh, unknown)	
Philip Use Only		Field Samplé ID	# Boities	Matrix	Date	Time	- 12	<u>8</u> 220	:					1	low.
102 4 8	NOD EX	CAREN 3 NERTH	i Dullies	: 5	3/3/04							++	7	NAL	
75		K. AREA 3 SOUTH		5	3/3/04			1	Î				be -		
3-0	•	AREA3 EAST		:_5	3/3/04		/							1	
301	1	DC. AREAG NEST	1	5	3/3/04		1	1	1				_		
3:2	1	C AREA 3 BOTTON	1	<u> </u>	\$3/04.		1			· · · · ·				2	
16W-1030	¥							¦ 							
		EAS EXCAVADON	3	<u> </u>	3/3/01	• ••••••••••••••••••••••••••••••••••••	· <u>/</u>			$\frac{1}{1}$		1 AC	40	26×2	
GT 0 3 0 3 Bermed Stripped Suit From Napl Bic Area 3				S	3/3/04					÷+			21	U AG	
TAT (Turnaround Tin					SPECIAL DETECTION LIMITS					REMA	RKS	<u> </u>		·	
PHIOR APPROVAL 'some exceptions app please contact Lab STD 10 Business Day RUSH 5 Business Day RUSH 2 Business Day RUSH 1 Business Day	Some exceptions apply     Site:     Uit N     Sm.P       please contact Lab     PO#:     PO#:       STD 10 Business Days     PO#:     PO#:       RUSH 5 Business Days     Philip Quote k:     Philip Project #:       RUSH 2 Business Days     Philip Project #:			ASP CATES			rables				Asp				
Client Signature: Jaune Blaskeurs Received By				PSC Kelush				Rec'd By: Date/Time							

WHITE . LAB / YELLOW . CLIENT

SEE OVER FOR COMPLETION & SAMPLING INSTRUCTIONS

0CT-12-2004 14:58

PSC ANALYTICAL SERVICES

P.11



ANALYTICAL SERVICES

## Certificate of Analysis

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#### **CLIENT INFORMATION**

#### LABORATORY INFORMATION

Attention:	Russ Savage	Contact:	Mike Challis, B.Sc, C.Chem.
<b>Client Name:</b>	NWEC+C Inc.	Project:	AN040300
Project:	Union Ship Canal	Date Received:	26-Mar-2004
Project Desc:	Union Ship Canal	Date Reported:	06-Apr-2004
Address:	3553 Crittenden Rd.	Submission No.:	4C1019
	Crittenden, NY 14038	Sample No.:	015218-015219
Fax Number:	716-937-9360		
Phone Number:	716-937-6527		

NOTES: "-' = not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33 Solids data is based on dry weight except for biota analyses. Organic analyses are not corrected for extraction recovery standards except for isotope dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses) The enclosed capy of the Chain of Custody Record may contain information necessary for the interpretation of the data.

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Twentieth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of three weeks from receipt of data or as per contract.

COMMENTS:

Certified by:

Page 1 of 6

Component	Clieni ID; Lab No.; Date Sampled; MDL	Units	BERMED STRIPPED SOIL 015219 04 25-Mar-2004	BERMED STRIPPED SOIL 015219 04 25-Mar-2004 Duplicate	BERMED STRIPPED SOIL 015219 04 25-Mar-2004 M. Spike	BERMED STRIPPED SOIL 015219 04 25-Mar-2004 MS % Rec.	Method Błank 015218 04 25-Mar-2004	Blank Spike 015218 04 25-Mar-2004	% Recovery 015218 04 25-Mar-2004
Cyanide totał	100	ug/kg	6000	-	•	•	<mdl< td=""><td>26000</td><td>100</td></mdl<>	26000	100
Mercury	40	ug/kg	1200	-	-	<b>-</b> ''	<mdl< td=""><td>1100</td><td>110</td></mdl<>	1100	110
Arsenic	1000	ug/kg	22000	22000	45000	95	<mdl< td=""><td>25000</td><td>100</td></mdl<>	25000	100
Barium	500	ar C	230000	220000	260000	72	<mdl< td=""><td>51000</td><td>100</td></mdl<>	51000	100
Cadmium	500	н	5800	6100	27000	84	<mdl< td=""><td>25000</td><td>100</td></mdl<>	25000	100
Chro <b>mium</b>	500	u	40000	42000	93000	110	<mdl< td=""><td>50060</td><td>100</td></mdl<>	50060	100
Lead	1000	н	310000	270000	330000	72	<mdl< td=""><td>50000</td><td>100</td></mdl<>	50000	100
Selenium	1000	н	<mdl< td=""><td><mdl< td=""><td>21000</td><td>87</td><td><mdl <mdl< td=""><td>25000</td><td>98</td></mdl<></mdl </td></mdl<></td></mdl<>	<mdl< td=""><td>21000</td><td>87</td><td><mdl <mdl< td=""><td>25000</td><td>98</td></mdl<></mdl </td></mdl<>	21000	87	<mdl <mdl< td=""><td>25000</td><td>98</td></mdl<></mdl 	25000	98
Silver	500	н	<mdl< td=""><td>850</td><td>24000</td><td>95</td><td><mdl <mdl< td=""><td>25000</td><td>100</td></mdl<></mdl </td></mdl<>	850	24000	95	<mdl <mdl< td=""><td>25000</td><td>100</td></mdl<></mdl 	25000	100

Metals via 6010

4/6/04

Mercury via 7471

Cyanide via 9010

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02/01

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01.0

L Component	Client ID: Lab No.: Dote Sampled: MDL	Units	BERMED STRIPPED SOIL 015219 04 25-Mar-2004	BERMED STRIPPED SOIL 015219 04 25-Mar-2004 Duplicate	BERMED STRIPPED SOIL 015219 04 25-Mar-2004 M. Spike	BERMED STRIPPED SOIL 015219 04 25-Mar-2004 MS % Roc.	Method Blank 015218 04 25-Mar-2004	Blank Spike 015218 04 25-Mar-2004	% Recovery 015218 04 25-Mar-2004
Benzene	1.0	ug/kg	<mdl< td=""><td><mdl< td=""><td>61</td><td>81</td><td><mdl< td=""><td>56</td><td>89</td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td>61</td><td>81</td><td><mdl< td=""><td>56</td><td>89</td></mdl<></td></mdl<>	61	81	<mdl< td=""><td>56</td><td>89</td></mdl<>	56	89
Ethylbenzene	1.0	17	<mdl< td=""><td><mdl< td=""><td>62</td><td>82</td><td><mdl< td=""><td>61</td><td>97</td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td>62</td><td>82</td><td><mdl< td=""><td>61</td><td>97</td></mdl<></td></mdl<>	62	82	<mdl< td=""><td>61</td><td>97</td></mdl<>	61	97
Tolucne	1.0	17	2.0	2.0	66	88	<mdl< td=""><td>57</td><td>92</td></mdl<>	57	92
m&p-Xylene	1.0	н	1.0	1.0	120	81	<mdl< td=""><td>120</td><td>99</td></mdl<>	120	99
o-Xyiene	1.D	n	<mdl< td=""><td><mdl< td=""><td>64</td><td>85</td><td><mdl< td=""><td>60</td><td>96</td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td>64</td><td>85</td><td><mdl< td=""><td>60</td><td>96</td></mdl<></td></mdl<>	64	85	<mdl< td=""><td>60</td><td>96</td></mdl<>	60	96
Xylenes(Total)	L.O	II	1.0	1.0	190	83	<mdl< td=""><td>180</td><td>97</td></mdl<>	180	97
Isopropylbenzene	0,1	н	<mdl< td=""><td><mdl< td=""><td>74</td><td>98</td><td><mdl< td=""><td>57</td><td>92</td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td>74</td><td>98</td><td><mdl< td=""><td>57</td><td>92</td></mdl<></td></mdl<>	74	98	<mdl< td=""><td>57</td><td>92</td></mdl<>	57	92
n-Propylbenzene	1.0	11	<mdl< td=""><td><mdl< td=""><td>65</td><td>87</td><td><mdl< td=""><td>61</td><td>98</td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td>65</td><td>87</td><td><mdl< td=""><td>61</td><td>98</td></mdl<></td></mdl<>	65	87	<mdl< td=""><td>61</td><td>98</td></mdl<>	61	98
p-Isopropyltoluene	0,1		<mdl< td=""><td><mdl< td=""><td>60</td><td>80</td><td><mdl< td=""><td>63</td><td>100</td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td>60</td><td>80</td><td><mdl< td=""><td>63</td><td>100</td></mdl<></td></mdl<>	60	80	<mdl< td=""><td>63</td><td>100</td></mdl<>	63	100
1,2,4-Trimethylbenze		11	<mdl< td=""><td><mdl< td=""><td>70</td><td>92</td><td><mdl< td=""><td>61</td><td>98</td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td>70</td><td>92</td><td><mdl< td=""><td>61</td><td>98</td></mdl<></td></mdl<>	70	92	<mdl< td=""><td>61</td><td>98</td></mdl<>	61	98
1,3,5-Trimethylbenze	ne 1.0	71	<mdl< td=""><td><mdl< td=""><td>73</td><td>97</td><td><mdl< td=""><td>62</td><td>98</td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td>73</td><td>97</td><td><mdl< td=""><td>62</td><td>98</td></mdl<></td></mdl<>	73	97	<mdl< td=""><td>62</td><td>98</td></mdl<>	62	98
л-Butylbenzene	1.0	41	<mdl< td=""><td><mdl< td=""><td>47</td><td>62</td><td><mdl< td=""><td>65</td><td>100</td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td>47</td><td>62</td><td><mdl< td=""><td>65</td><td>100</td></mdl<></td></mdl<>	47	62	<mdl< td=""><td>65</td><td>100</td></mdl<>	65	100
sec-Butylbenzene	1.0	éi	<mdl< td=""><td><mdl< td=""><td>64</td><td>84</td><td><mdl< td=""><td>64</td><td>100</td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td>64</td><td>84</td><td><mdl< td=""><td>64</td><td>100</td></mdl<></td></mdl<>	64	84	<mdl< td=""><td>64</td><td>100</td></mdl<>	64	100
ten-Butylbenzene	1.0	*1	<mdl< td=""><td><mdl< td=""><td>72</td><td>95</td><td><mdl< td=""><td>61</td><td>97</td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td>72</td><td>95</td><td><mdl< td=""><td>61</td><td>97</td></mdl<></td></mdl<>	72	95	<mdl< td=""><td>61</td><td>97</td></mdl<>	61	97
Naphthalene	1.0	<b>F4</b>	4.0	2.0	32	40	<mdl< td=""><td>62</td><td>99</td></mdl<>	62	99
Methyl-t-butylether	1.0	м	<mdl< td=""><td><mdl< td=""><td>NS</td><td>-</td><td><mdl< td=""><td>NS</td><td>-</td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td>NS</td><td>-</td><td><mdl< td=""><td>NS</td><td>-</td></mdl<></td></mdl<>	NS	-	<mdl< td=""><td>NS</td><td>-</td></mdl<>	NS	-
Surrogate Recoveries		%							
d4-1,2-Dichloroethan	e		64	64	69	69	62	65	65
d8-Toluene			91	91	90	90	79	75	75
Bromofluorobenzene			71	70	76	76	79	80	80
d10-Ethylbenzene			49	55	40	40	96	82	82

8021 STARS via 8260

L Component	Client ID: Lab No.: Date Sampled: MDL	Units	BERMED STRIPPED SOIL 015219 04 25-Mar-2004	BERMED STRIPPED SOIL 015219 04 25-Mar-2004 M. Spike	BERMED STRIPPED SOIL 015219 04 25-Mar-2004 MS % Rec.	BERMED STRIPPED SOIL 015219 04 25-Mar-2004 MS Dup	BERMED STRIPPED SOIL 015219 04 25-Mar-2004 MSD % Rec.
-						reserve the set.	1160 70100.
Naphthalene	9.0	ug/kg	1300	4100	51	5300	84
Acenaphthene	7.0	8	1500	4900	62	5700	87
Fluorene	4.0	*	1800	5300	65	6400	97
Phenanthrene	3.0	10	16000	16000	9.0	22000	110
Anthracene	6.0	B	3100	6200	58	7400	91
Fluoranthene	6.0	H+	20000	20000	NA	24000	71
Pyreae	4.0	11	16000	13000	NA	19000	67
Benz(a)anthracene	5.0	и	7900	L1000	E 10	13000	100
Chrysene	4.0	н	8500	10000	35	13000	91
Benzo(b)fluoranthene	4.0	н	8600	12000	64	12000	78
Benzo(k)fluoranthene	4.0	41	5700	6900	24	7800	46
Benzo(a)pyrene	5.0	ei -	6100	9900	70	11000	110
Indeno(1,2,3-od)pyrene	e 6.0	н	6300	9100	53	10000	81
Dibenzo(ah)anthracene	5.0		2100	5900	73	6400	92
Benzo(ghi)perylene	6.0	15	5800	7900	39	8700	62
Surrogate Recoveries		%					
d5-Nitrobenzene			70	48	48	54	54
2-Fluorobiphenyl			75	71	71	82	82
d14-p-Terphenyl			80	79	79	92	92

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	Client ID: Lab No.; le Sampled:		Method Blank 015218 04 25-Mar-2004	Blank Spike 015218 04 25-Mar-2004	% Recovery 0{5218 04 25-Mar-2004	Blank Spike Duplicate 015218 04 25-Mar-2004	% Recovery 015218 04 25-Mar-2004
Component	MDL	Units					
Naphthalene	9.0	vg/kg	<180	3100	78	3000	76
Acenaphthene	7.0	- <b>-</b>	<140	3400	84	3200	80
Fluorenc	4.0		<60	3500	88	3300	82
Phenanthrene	3.0	भ	<60	3300	82	3200	80
Anthracene	6.0		<120	3200	79	3100	78
Fluoranthene	6.0		<120	3800	95	3600	90
Рутеле	4.0	4	<80	3200	80	3100	78
Benz(a)anthracene	5.0	н	<100	3800	94	3700	92
Chrysene	4.0		<80	3800	94	3600	90
Benzo(b)fluoranthene	4.0		<80	4000	99	3600	90
Benzo(k)fluoramhene	4.0	ч	<80	3600	90	3800	95
Benzo(a)pyrene	5.0	11	<t00< td=""><td>3500</td><td>88</td><td>3500</td><td>87</td></t00<>	3500	88	3500	87
Indeno(1,2,3-cd)pyrene	6.0	PR .	<120	3600	89	3400	85
Dibenzo(ah)anthracene	5.0	1.0	<100	3600	90	3500	87
Benzo(ghi)perylene	6. <b>0</b>	17	<120	3700	92	3500	88
Surrogate Recoveries		%				X.	
dS-Nitrobenzene			50	62	62	58	58
2-Fluorobiphenyl			72	90	90	86	86
d14-p-Terphenyl			87	96	96	93	93

APR-06-2004

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Page MS-6 of 6

#### 4/6/04

## PASC - Summary of Analysis Pre. Dates

Batch Code:	0401VPC1	0401VPC1
Cyanide total	015218 04	015219 04
•	015219 04	
Date Analysed:	04/04/05	04/04/02
Date Prepared:	04/04/01	04/04/01
Batch Code:	0331MBS1	
Mercury	015218.04	
Merediy	015219 04	
Date Analysed:	04/04/01	
Date Prepared:	04/03/31	
Batch Code:	0402VPX1	
Arsenic	015218 04	
	0152)9 04	
Date Analysed:	04/04/02	
Date Prepared:	04/04/02	
Batch Code:	0329MC01	0330MC01
Benzene	015218 04	015219 04
	015219 04	
Date Analysed:	04/03/29	04/03/30
Date Prepared;	04/03/29	04/03/30
Batch Code:	0330SPX1	
Naphthalene	015218 04	
•	015219 04	
	015219 04	
Date Analysed:	04/04/01	
Date Prepared:	04/03/30	

				• • • •	<b>VV</b> K <b>V</b>					•	
5	ANALYTICAL SERVICE 555 North Service Road Furlington, Ontario L7L 5H7	ES	T	oli Free: 1-800 Tel: (905) Fax: (905)	-668-0639 332-8788 332-9169				NALYSIS RE	Page _	of
CLIENT INFORMAT MB 15218	Project Manager ION Address: Curr Phone #: 116-9	KUSS S 553 CRI MENDEN, I MASET	TENDE VY 140	IN RO	1360	21 STAKS	LI STARS	MUL NO +	hatet		Level of contamination
Philip Use Only	Field Sample 10	# Bottles	Matrix	Date	Time	80	8	N N			evelo
15219	BERNED STRIPED S	Solut 1	S	3/25/04							·····
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TAT (Turnaround Tim RUSH TAT MUST HAV			·	SPECIAL I	DETECTION	LIMITS	i		REMARKS		· · · ·
PRIOR APPROVAL *some exceptions apply please contact Lab	Project #:         UNIOT           V         Site:	N SHIT		MISA D							
STD 10 Business Days RUSH 5 Business Days				SPECIAL F				lions			
RUSH 2 Business Days	Philip Project #			ASPA	Catego	ory t	S				
AUSH 1 Business Days Other Business Days	Philip Contact:			1		~					
Affiliation:		A	eceived By	- deu ps 3126	4		nglar 35 Az		Rec'd By: _ Date/Time		
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SEE OVER FOR COMPLETION & SAMPLING INSTRUCTIONS

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## **APPENDIX F**

# NAPL AREAS EXCAVATIONS CONFIRMATION SOIL SAMPLES LABORATORY ANALYTICAL RESULTS



179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

## Volatile STARS Analysis Report for Solls/Solids/Sludges

### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number; Lab Sample Number:	<b>04-0441</b> 2034
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Area #1 East N/A Soil	Date Sampled: Date Received: Date Analyzed:	02/16/2004 02/18/2004 02/20/2004

Aromatics	Results in ug / Ko
Benzens	ND< 9.06
n-Butybenzene	ND< 9,06
sec-Butylbenzene	ND< 9.06
tert-Butylbenzene	ND< 9.06
Ethylbenzene	ND< 9.06
n-Propylbenzene	ND< 9.06
Isopropylbenzene	ND< 9.06
p-Isopropyltoluene	ND< 9.06
Naphthalene	ND< 22.6
Toluene	ND< 9.06
1,2,4-Trimethylbenzene	ND< 9.06
1,3,5-Trimethylbenzene	ND< 9,06
m,p-Xylene	ND< 9.06
o-Xylene	ND< 9.06
Miscellaneous	
Methyl tert-bulyl Ether	ND< 9.06

Comments:

ND denotes Non Detect ug / Kg = microgram per Kilegram

Signature:

Bruce Hoogesteger: Technical Director

PARADIGM NTAL SERVICES. NIC. 

179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

# Volatile STARS Analysis Report for Soils/Solids/Sludges

### Client: Nature's Way Environmental

		•
Client	Job	Sit

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	04-0441 2035
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Area #1 West N/A Soil	Date Sampled: Date Received: Date Analyzed:	02/16/2004 02/18/2004 02/20/2004

Aromatics	Results in ug / Kg
Benzena	ND< 8.60
n-Bulyibenzene	ND< 8.60
sec-Bulyibenzene	ND< 8.60
tert-Butylbenzene	ND< 8.60
Ethylbenzene	ND< 8,60
n-Propylbenzene	ND< 8,60
isopropyibenzene	ND< 8.60
p-Isopropyitoluene	ND< 8.60
Naphthalene	ND< 21.5
Toluene	ND< 8.60
1,2,4-Trimethylbenzene	ND< 8,60
1,3,5-Trimethylbenzene	ND< 8.60
m,p-Xylene	ND< 8.60
o-Xylene	ND< 8.60
Miscellaneous	
Methyl tert-butyl Ether	ND< 8.60

ELAP Number 10958 Method: EPA 8021B (GC/MS) Data File: 19118.D

Comments:

Signature:

ND denotes Non Detect ug / Kg = microgram per Kilogram

Bruce Hoogesteger: Jechnical Director



179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

# Volatile STARS Analysis Report for Soils/Solids/Sludges

### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Area #1 South N/A Soil	Date Sampled: Date Received: Date Analyzed:	02/16/2004 02/18/2004 02/20/2004

Aromatics	Results in ug / Kg
Benzene	ND< 10.2
n-Bulylbenzene	ND< 10.2
sec-Butylbenzene	ND< 10.2
tert-Butyibenzene	ND< 10.2
Ethylbenzene	ND< 10.2
n-Propylbenzene	12.9
Isopropyibenzene	ND< 10.2
p-isopropyitoluene	64_6
Naphthalene	100
Toluene	ND< 10.2
1,2,4-Trimelhylbenzene	<u>2</u> 12
1,3,5-Trimethylbenzene	50.7
m,p-Xylene	ND< 10.2
o-Xylene	ND< 10.2
Miscellaneous	······
Methyl tert-bulyl Ether	ND< 10.2

Comments:

ND denotes Non Detect ug / Kg = microgram per Kllogram

Signature;

**Technical Director** Bruce Hoog cer

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179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

# Volatile STARS Analysis Report for Soils/Solids/Sludges

### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	04-0441 2037
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Area #1 North N/A Soil	Date Sampled: Date Received: Date Analyzed:	02/16/2004 02/18/2004 02/20/2004

Aromatics	Results in ug / Kg
Benzeha	ND< 9.29
n-Butylbenzene	ND< 9.29
sec-Bulybenzene	ND< 9.29
tert-Butylbenzene	ND< 9.29
Ethylbenzene	ND< 9.29
n-Propyibenzene	ND< 9.29
Isopropylbenzene	ND< 9.29
p-(sapropy)toluene	ND< 9.29
Naphthalene	ND< 23.2
Toluene	ND< 9.29
1,2,4-Trimethylbenzene	ND< 9.29
1,3,5-Trimelhylbenzene	ND< 9.29
m,p-Xylene	ND< 9.29
o-Xylene	ND< 9,29
Miscellaneous	
Methyl tert-bulyl Ether	ND< 9.29
Methyl tert-bulyl Ether	

Comments:

ND denotes Non Detect ug / Kg = microgram per Kilogram

ger: Jechnical Director Bruce Hoog

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179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

# Volatile STARS Analysis Report for Soils/Solids/Sludges

## Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	04-0441 2038
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Area #1 Bottom N/A Soil	Date Sampled: Date Received: Date Analyzed:	02/16/2004 02/18/2004 02/20/2004

Aromatics	Results in ug / Kg
Benzene	ND< 20,9
n-Butylbenzene	ND< 20.9
sec-Butylbenzene	ND< 20.9
tert-Butylbenzene	ND< 20.9
Ethylbenzene	ND< 20.9
n-Propylbenzene	ND< 20.9
Isopropylbenzene	ND< 20.9
p-Isopropyitoluene	ND< 20,9
Naphthalene	ND< 52.3
Toluene	ND< 20.9
1,2,4-Trimethylberizene	ND< 20.9
1,3,5-Trimethylbenzene	ND< 20.9
m,p-Xylene	ND< 20.9
o-Xylene	ND< 20.9
Miscellaneous	
Methyl tert-bulyl Ether	ND< 20.9

ND denotes Non Detect Comments: ug / Kg = microgram per Kilogram Detection limits elevated due to non-target hydrocarbons.

QQ 1 Bruce Hoogesteger/Technical Director

Signature:



179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

# Semi-Volatile STARS Analysis Report for Soils/Solids/Sludges

## Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	0 <b>4-0441</b> 2034
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Area #1 East N/A Soil	Date Sampled: Date Received: Date Analyzed;	02/16/2004 02/18/2004 02/20/2004

Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 334
Anthracene	1,180
Benzo (a) anthracene	1,730
Benzo (a) pyrene	1,430
Benzo (b) fluoranthene	1,460
Benzo (g,h,i) perviene	887
Benzo (k) fluoranthene	886
Chrysene	2,350
Dibenz (a,h) anthracen	e ND< 334
Fluoranthene	4,470
Fluorene	ND< 334
Indeno (1,2,3-cd) pyrei	
	ND< 334
Naphthalene	2,750
Phenanthrens	4,050
Pyrené	
ELAP Number 10958 Method: EF	A 8270C Data File: 15041.D

Comments:

ND denotes Non Detect ug / Kg = microgram per Kilogram

Bruce Hoogesteger: Technical Director



179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

# Semi-Volatile STARS Analysis Report for Soils/Solids/Sludges

### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	04-0441 2035
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Area #1 West N/A Soil	Date Sampled: Date Received: Date Analyzed:	02/16/2004 02/18/2004 02/20/2004

		and the second	
Base / Neutrals	Results in ug /	Kg	
Acenaphthène	ND< 348		
Anthracene	ND< 348		
Benzo (a) anthracene	ND< 348		
Benzo (a) pyrene	ND< 348		
Benzo (b) fluoranthene	ND< 348		
Benzo (g,h,i) parylene	ND< 348		
Benzo (k) fluoranthene	ND< 348		
Chrysene	ND< 348		
Dibenz (a,h) anthracene	ND< 348		
Fluoranthene	ND< 348		
Fluorene	ND< 348		
Indeno (1,2,3-cd) pyrene	≥ ND< 348		
Naphthalene	ND< 348		
Phenanthrene	ND< 348		
Pyrene	ND< 348		
ELAP Number 10958 Method: EPA	8270C	Date File:	15040

Date File: 15040.D

Comments:

ND denotes Non Detect ug / Kg = microgram per Kilogram

Bruce Hoogesteger: Technical Director

Signature:

Chain of Custody provides additional sample information

### PARADIGM THE SENTCER. MC.

179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

# Semi-Volatile STARS Analysis Report for Soils/Solids/Sludges

### Client: Nature's Way Environmental

Cliant Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	04-0441 2036
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Area #1 South N/A Soil	Date Sampled: Date Received: Date Analyzed:	02/15/2004 02/18/2004 02/20/2004

Base / Neutrals	Results in ug / Kg
Acenaphthene	376
Anthracene	560
Benzo (a) anthracene	739
Benzo (a) pyrene	764
Benzo (b) fluoranthene	800
Benzo (g.h.i) pervlene	658
Benza (k) fluoranthene	497
Chrysene	821
Dibenz (a,h) anthracene	ND< 375
Fluoranthene	1,300
Fluorene	599
Indeno (1,2,3-cd) pyrend	e 713
Naphthalehe	ND< 375
Phenanthrene	1,810
Pyrene	1,830
FLAP Number 10958 Method: EPA	6270C Data File; 15039.D

ELAP Number 10958

Comments:

ND denotes Non Detect ug / Kg = microgram per Kilogram

Signature:

Bruce Hoogesteger: Technical Director

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179 Lette Avenue Rachester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

# Semi-Volatile STARS Abaivsis Report for Solis/Solids/Sludges

### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	04-0441 2037
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Area #1 North N/A Soil	Date Sampled: Date Received: Date Analyzed:	02/16/2004 02/18/2004 02/20/2004

Base / Neutrals	Results in ug / Kg
Acenaphihene	ND< 327
Anthracene	ND< 327
Benzo (a) anthracene	ND< 327
Benzo (a) pyrene	ND< 327
Benzo (b) fluoranthene	ND< 327
Benzo (g.h.i) perviene	ND< 327
Benzo (k) fluoranthene	ND< 327
Chrysene	ND< 327
Dibenz (a,h) anthracene	ND< 327
Fluoranthene	ND< 327
Fluorene	ND< 327
Indeno (1,2,3-cd) pyrene	ND< 327
Naphthalehe	ND< 327
Phenanthrene	ND< 327
Pyrene	ND< 327
ELAP Number 10958 Method: EPA	8270C Data File; 15038

Comments:

ND denotes Non Detect ug / Kg = microgram per Kilogram

Signature:

**Kical** Director Bruce Hoogesteger: Tech

Chein of Custody provides additional sample information

PARADIGM THE SERVICES. WG. 

179 Leke Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

# Semi-Volatile STARS Analysis Report for Soils/Solids/Sludges

### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	
<b>Client Job Number:</b> Field Location: Field ID Number: Sample Type:	N/A Area #1 Boltom N/A Soil	Date Sampled: Date Received: Date Analyzed:	02/16/2004 02/18/2004 02/20/2004

Base / Neutrals	Results in ug /	Kg
Acenaphthene	ND< 459	
Anthracene	ND< 459	
Benzo (a) anthracene	ND< 459	
Benzo (a) pyrene	ND< 459	
Benzo (b) fluoranthene	ND< 459	
Benzo (g, h,i) perviene	ND< 459	
Benzo (k) fluoranthene	ND< 459	
Chrysene	ND< 459	
Dibenz (a,h) anthracene	ND< 459	
Fluorarithene	ND< 459	
Fluorene	ND< 459	
Indeno (1,2,3-cd) pyrene	ND< 459	
Naphthalehe	ND< 459	
Phenanthrene	618	
Pyrené	ND< 459	Data File; 1501

Commente:

ND denotes Nan Detect ug / Kg = microgram per Kilogram

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### Client: <u>NWEC&C, Inc</u>

Union Ship Canal	Lab Project Number:	04-0493
·	Lab Sample Number:	2197
N/A		
Area #2 North	Date Sampled:	02/18/2004
N/A	Date Received:	02/24/2004
Soil	Date Analyzed:	03/03/2004
	N/A Area #2 North N/A	Lab Sample Number:N/AArea #2 NorthN/ADate Sampled:N/ADate Received:

Base / Neutrals	Results in ug	/ Kg
Acenaphthene	ND< 490	
Anthracene	ND< 490	
Benzo (a) anthracene	ND< 490	·
Benzo (a) pyrene	ND< 490	
Benzo (b) fluoranthene	ND< 490	
Benzo (g,h,i) perylene	ND< 490	
Benzo (k) fluoranthene	ND< 490	
Chrysene	ND< 490	
Dibenz (a,h) anthracene	ND< 490	
Fluoranthene	ND< 490	
Fluorene	ND< 490	
Indeno (1,2,3-cd) pyrene	ND< 490	
Naphthalene	ND< 490	
Phenanthrene	ND< 490	
Pyrene	ND< 490	
ELAP Number 10958 Method: EPA	8270C	Data File: 18263.D

Comments:

ND denotes Non Detect ug / Kg = microgram per Kilogram

Signature;

Bruce Hoogesteger: Technical Director

Chain of Custody provides additional sample information

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#### Client: <u>NWEC&C, Inc</u>

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Area #2 South N/A Soil	Date Sampled: Date Received: Date Analyzed:	02/18/2004 02/24/2004 03/03/2004

Base / Neutrals	Results in ug	/ Kg	
Acenaphthene	ND< 537		
Anthracene	ND< 537		
Benzo (a) anthracene	ND< 537		
Benzo (a) pyrene	ND< 537		
Benzo (b) fluoranthene	ND< 537		
Benzo (g,h,i) perylene	ND< 537		
Benzo (k) fluoranthene	ND< 537		ł
Chrysene	ND< 537		
Dibenz (a,h) anthracene	ND< 537		
Fluoranthene	ND< 537		Ì
Fluorene	ND< 537		
Indeno (1,2,3-cd) pyrene	e ND< 537		
Naphthalene	ND< 537		
Phenanthrene	ND< 537		
Pyrene	ND< 537		
ELAP Number 10958 Method: EPA	8270C	Data File:	18264.D

Comments:

ND denotes Non Detect ug / Kg = microgram per Kilogram

Bruce Hoogesteger; / echnical Director

#### Client: NWEC&C, Inc

Union Ship Canal	-	
N/A		
Area #2 East	Date Sampled:	02/18/2004
N/A	Date Received:	02/24/2004
Soil	Date Analyzed:	03/03/2004
	N/A Area #2 East N/A	N/ALab Sample Number:N/ADate Sampled:N/ADate Received:

Base / Neutrals	Results in ug	/ Kg	
Acenaphthene	ND< 384		
Anthracene	ND< 384		
Benzo (a) anthracene	ND< 384		
Benzo (a) pyrene	ND< 384		
Benzo (b) fluoranthene	ND< 384		
Benzo (g,h,i) perylene	ND< 384		
Benzo (k) fluoranthene	ND< 384		
Chrysene	ND< 384		
Dibenz (a,h) anthracene	ND< 384		
Fluoranthene	ND< 384		
Fluorene	ND< 384		
Indeno (1,2,3-cd) pyrene	e ND< 384		
Naphthalene	ND< 384		
Phenanthrene	ND< 384		
Pyrene	ND< 384		
ELAP Number 10958 Method: EPA	8270C	Data File:	18265.D

Comments:

ND denotes Non Detect ug / Kg = microgram per Kilogram

Signature:

**ULAN**AN Bruce Hoogesteger: Technical Director

Chain of Custody provides additional sample information

#### Client: NWEC&C, Inc

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	04-0493 2200
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Area #2 West N/A Soil	Date Sampled: Date Received: Date Analyzed:	02/18/2004 02/24/2004 03/03/2004

Base / Neutrals	Results in ug	/ Kg	
Acenaphthene	ND< 374		
Anthracene	ND< 374		1
Benzo (a) anthracene	ND< 374		
Benzo (a) pyrene	ND< 374		
Benzo (b) fluoranthene	ND< 374		
Benzo (g,h,i) perylene	ND< 374		
Benzo (k) fluoranthene	ND< 374		
Chrysene	ND< 374		
Dibenz (a,h) anthracene	ND< 374		
Fluoranthene	ND< 374		
Fluorene	ND< 374		
Indeno (1,2,3-cd) pyrene	• ND< 374		
Naphthalene	ND< 374		
Phenanthrene	ND< 374		
Pyrene	ND< 374		
ELAP Number 10958 Method: EPA	8270C	Data File:	18266.0

Comments:

ND denotes Non Detect ug / Kg = microgram per Kilogram

Bruce Hoogesteger: Technical Director

#### Client: NWEC&C, Inc

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	
Client Job Number: Field Location:	N/A Area #2 Bottom	Date Sampled:	02/18/2004
Field ID Number:	N/A	Date Received:	02/24/2004
Sample Type:	Soil	Date Analyzed:	03/03/2004

Base / Neutrals	Results in ug	/ Kg
Acenaphthene	ND< 597	
Anthracene	ND< 597	
Benzo (a) anthracene	ND< 597	
Benzo (a) pyrene	ND< 597	
Benzo (b) fluoranthene	ND< 597	
Benzo (g,h,i) perylene	ND< 597	
Benzo (k) fluoranthene	ND< 597	
Chrysene	ND< 597	
Dibenz (a,h) anthracene	ND< 597	
Fluoranthene	ND< 597	
Fluorene	ND< 597	
Indeno (1,2,3-cd) pyrene	e ND< 597	
Naphthalene	ND< 597	
Phenanthrene	ND< 597	
Pyrene	ND< 597	
ELAP Number 10958 Method: EPA	8270C	Data File: 18267.D

Comments:

ND denotes Non Detect ug / Kg = microgram per Kilogram

Bruce Hoogesteger: Technical Director

#### Client: <u>NWEC&C, Inc.</u>

J/A	Lab Sample Number:	2197
√A		
rea #2 North	Date Sampled:	02/18/2004
J/A	Date Received:	02/24/2004
Soil	Date Analyzed:	02/25/2004
J	//A	/A Date Received:

Aromatics	Results in ug / Kg
 Benzene	30.6
n-Butylbenzene	ND< 13.5
sec-Butylbenzene	ND< 13.5
tert-Butylbenzene	ND< 13.5
Ethylbenzene	ND< 13.5
n-Propylbenzene	ND< 13.5
Isopropylbenzene	ND< 13.5
p-Isopropyltoluene	ND< 13.5
Naphthalene	ND< 33.9
Toluene	30.7
1,2,4-Trimethylbenzene	ND< 13.5
1,3,5-Trimethylbenzene	ND< 13.5
m,p-Xylene	19.3
o-Xylene	ND< 13.5
Miscellaneous	
Methyl tert-butyl Ether	ND< 13.5

ELAP Number 10958 Method: EPA 8021B (GC/MS) Data File: 19235.D

Comments:

ND denotes Non Detect ug / Kg = microgram per Kilogram

Bruce Hoogesteger eganical Director



#### Client: NWEC&C, Inc.

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	04-0493 2198
Client Job Number: Field Location:	N/A Area #2 South	Date Sampled:	02/18/2004
Field ID Number:	N/A	Date Received:	02/24/2004
Sample Type:	Soil	Date Analyzed:	02/25/2004

Aromatics	Results in ug / Kg
Benzene	ND< 16.0
n-Butylbenzene	ND< 16.0
sec-Butylbenzene	ND< 16.0
tert-Butylbenzene	ND< 16.0
Ethylbenzene	ND< 16.0
n-Propylbenzene	ND< 16.0
Isopropylbenzene	ND< 16.0
p-Isopropyltoluene	ND< 16.0
Naphthalene	ND< 40.0
Toluene	ND< 16.0
1,2,4-Trimethylbenzene	ND< 16.0
1,3,5-Trimethylbenzene	ND< 16.0
m,p-Xylene	ND< 16.0
o-Xylene	ND< 16.0
Miscellaneous	
Methyl tert-butyl Ether	ND< 16.0

ELAP Number 10958 M

Method: EPA 8021B (GC/MS) Data File: 19236.D

Comments:

ND denotes Non Detect ug / Kg = microgram per Kilogram

Signature:

Bruce Hoogesteger: Technical Director

Chain of Custody provides additional sample information

#### Client: NWEC&C, Inc.

Union Ship Canal	Lab Project Number: Lab Sample Number:	04-0493 2199
N/A		
Area #2 East	Date Sampled:	02/18/2004
N/A	Date Received:	02/24/2004
Soil	Date Analyzed:	02/25/2004
	N/A Area #2 East N/A	Lab Sample Number:N/AArea #2 EastN/ADate Sampled:Date Received:

 Aromatics	Results in ug / Kg
Benzene	ND< 9.17
n-Butylbenzene	ND< 9.17
sec-Butylbenzene	27.6
tert-Butylbenzene	ND< 9.17
Ethylbenzene	ND< 9.17
n-Propylbenzene	11.3
Isopropylbenzene	ND< 9.17
p-Isopropyltoluene	ND< 9.17
Naphthalene	52.6
Toluene	ND< 9.17
1,2,4-Trimethylbenzene	ND< 9.17
1,3,5-Trimethylbenzene	ND< 9.17
m,p-Xylene	ND< 9.17
o-Xylene	ND< 9.17
Miscellaneous	
Methyl tert-butyl Ether	ND< 9.17

ELAP Number 10958 Method: EPA 8021B (GC/MS) Data File: 19237.D

Comments:

ND denotes Non Detect ug / Kg = microgram per Kilogram

Signature:

Ú Bruce Hoogesteger: Technical Director

Chain of Custody provides additional sample information

#### Client: <u>NWEC&C, Inc.</u>

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	
Client Job Number:	N/A		
Field Location:	Area #2 West	Date Sampled:	02/18/2004
Field ID Number:	N/A	Date Received:	02/24/2004
Sample Type:	Soil	Date Analyzed:	02/25/2004

 Aromatics	Results in ug / Kg
Benzene	ND< 10.5
n-Butylbenzene	ND< 10.5
sec-Butylbenzene	ND< 10.5
tert-Butylbenzene	ND< 10.5
Ethylbenzene	ND< 10.5
n-Propylbenzene	ND< 10.5
Isopropylbenzene	ND< 10.5
p-Isopropyltoluene	ND< 10.5
Naphthalene	ND< 26.4
Toluene	ND< 10.5
1,2,4-Trimethylbenzene	ND< 10.5
1,3,5-Trimethylbenzene	ND< 10.5
m,p-Xylene	ND< 10.5
o-Xylene	ND< 10.5
Miscellaneous	
Methyl tert-butyl Ether	ND< 10.5

ELAP Number 10958 Method: EPA 8021B (GC/MS) Data File: 19238.D

Comments:

ND denotes Non Detect ug / Kg = microgram per Kilogram

Bruce Hoogesteger: Technical Director



ENVIRONMENTAL SERVICES, INC.

### Volatile STARS Analysis Report for Soils/Solids/Sludges

#### Client: NWEC&C, Inc.

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	04-0493 2201
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Area #2 Bottom N/A Soil	Date Sampled: Date Received: Date Analyzed:	02/18/2004 02/24/2004 02/25/2004

Aromatics	Results in ug / Kg
Benzene	ND< 17.0
n-Butylbenzene	ND< 17.0
sec-Butylbenzene	ND< 17.0
tert-Butylbenzene	ND< 17.0
Ethylbenzene	ND< 17.0
n-Propylbenzene	ND< 17.0
Isopropylbenzene	ND< 17.0
p-Isopropyltoluene	ND< 17.0
Naphthalene	ND< 42.6
Toluene	ND< 17.0
1,2,4-Trimethylbenzene	ND< 17.0
1,3,5-Trimethylbenzene	ND< 17.0
m,p-Xylene	ND< 17.0
o-Xylene	ND< 17.0
Miscellaneous	
Methyl tert-butyl Ether	ND< 17.0
ELAP Number 10958 Method: EPA 8021	IB (GC/MS) Data File: 19239.

Comments:

ND denotes Non Detect ug / Kg = microgram per Kilogram

U Bruce Hoogesteger: Technical Director

CHAIN OF CUSTOD	Y
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2			x	Area #2 South			X Y	+	╉╼╀	┿╁	╅╋					a	19	7
3			X	Ara #2 East		+		╉╌╀╴	╋╋	╉╇	╶╄╾╃╴					a	19	8
4			X	Area #2 West			<u>*</u>  ¥  ∀ \/	╂╌╂╌	╆╼╁╴	╈	╉╋	+				2	191	9
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SAMPLE CONDIT	icte deviatio	: box n:	00		ivations:			HOLDING	TIME:	1	Í	TEMPERAT	URE:	山	o°C		-	
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Jel Ho	ff		·	Date/Fing:/ 2/23/04 4:20pm	Lacelved @ Lai		n. B.	On Ko				Pate/Time: 04 @ 9	1:55	P.	l.F.			7

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## Certificate of Analysis

#### **CLIENT INFORMATION**

#### LABORATORY INFORMATION

Attention:	Russ Savage	Contact:	Mike Challis, B.Sc, C.Chem.
Client Name:	NWEC+C Inc.	Project:	AN040300
Project:	Union Ship Canal	Date Received:	04-Mar-2004
Project Desc:	Union Ship Canal	Date Reported:	10-Mar-2004
Address: Fax Number: Phone Number:	3553 Crittenden Rd. Crittenden, NY 14038 716-937-9360 716-937-6527	Submission No.: Sample No.:	4C0186 010287-010303

**NOTES:** 

"-' = not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33 Solids data is based on dry weight except for biota analyses. Organic analyses are not corrected for extraction recovery standards except for isotope dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses) The enclosed copy of the Chain of Custody Record may contain information necessary for the interpretation of the data.

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Twentieth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of three weeks from receipt of data or as per contract.

#### **COMMENTS:**

L Component	Client ID: Lab No.: Date Sampled: MDL	Units	NAPL EXC AREA1 NORTH 010288 04 03-Mar-2004	NAPL EXC AREA1 SOUTH 010289 04 03-Mar-2004	NAPL EXC AREA 1 EAST 010290 04 03-Mar-2004	NAPL EXC AREA 1 WEST 010291 04 03-Mar-2004	NAPL EXC AREA1BOTTOM 010292 04 03-Mar-2004	NAPL EXC AREA2 NORTH 010293 04 03-Mar-2004	NAPL EXC AREA2 SOUTH 010294 04 03-Mar-2004
Benzene	1.0	ug/kg	<	<	<	<	<	<	<2.0
Ethylbenzene	1.0	*	<	2.0	<	<	<	<	<2.0
Toluene	1.0	*	<	2.0	1.0	<	<	<	<2.0
m&p-Xylene	1.0	19	<	4.0	<	<	<	<	<2.0
o-Xylene	1.0	*1	<	6.0	<	<	<	<	<2.0
Xylenes(Total)	1.0	**	<	10	<	<	<	<	<2.0
Isopropylbenzene	1.0	Ħ	<	2.0	<	<	<	<	<2.0
n-Propylbenzene	1.0	**	<	4.0	<	<	<	<	<2.0
p-Isopropyltoluene	1.0	Ħ	<	28	<	<	<	<	<2.0
1,2,4-Trimethylbenzen	e 1.0	**	<	92	<	<	<	<	<2.0
1,3,5-Trimethylbenzen	e 1.0	**	<	26	<	<	<	<	<2.0
n-Butylbenzene	1.0	11	<	<	<	<	<	<	<2.0
sec-Butylbenzene	1.0		<	11	<	<	. <	<	<2.0
tert-Butylbenzene	1.0	*1	<	<	<	<	< .	<	<2.0
Naphthalene	1.0	**	<	25	1.0	<	1.0	<	<2.0
Methyl-t-butylether	1.0	*	<	<	<	<	<	<	<2.0
Surrogate Recoveries d4-1,2-Dichloroethane d8-Toluene		%	71 82	67 87	64 83	69 82	71 84	71 88	70 90
Bromofluorobenzene			84	73	73	83	85	82	79
d10-Ethylbenzene			64	63	47	44	47	43	48

Component	Client ID: Lab No.: Date Sampled: MDL	Units	NAPL EXC AREA 2 EAST 010295 04 03-Mar-2004	NAPL EXC AREA 2 WEST 010296 04 03-Mar-2004	NAPL EXC AREA2BOTTOM 010297 04 03-Mar-2004	NAPL EXC AREA3 NORTH 010298 04 03-Mar-2004	NAPL EXC AREA3 NORTH 010298 04 03-Mar-2004 Duplicate	NAPL EXC AREA3 NORTH 010298 04 03-Mar-2004 M. Spike	NAPL EXC AREA3 NORTH 010298 04 03-Mar-2004 MS % Rec.
Benzene	1.0	ug/kg	<	<2.0	<4.0	<2.0	<2.0	96	75
Ethylbenzene	1.0	11	<	<2.0	<4.0	<2.0	<2.0	95	74
Toluene	1.0	**	1.0	<2.0	<4.0	<2.0	<2.0	98	76
m&p-Xylene	1.0	*1	1.0	<2.0	<4.0	<2.0	<2.0	190	74
o-Xylene	1.0	*1	<	<2.0	<4.0	<2.0	<2.0	95	74
Xylenes(Total)	1.0	*	1.0	<2.0	<4.0	<2.0	<2.0	290	74
Isopropylbenzene	1.0		<	<2.0	<4.0	<2.0	<2.0	83	65
n-Propylbenzene	1.0	**	<	<2.0	<4.0	<2.0	<2.0	83	64
p-Isopropyltoluene	1.0	**	<	<2.0	<4.0	<2.0	<2.0	77	60
1,2,4-Trimethylbenze	ne 1.0	**	1.0	<2.0	<4.0	<2.0	<2.0	81	63
1,3,5-Trimethylbenze	ne 1.0	**	<	<2.0	<4.0	<2.0	<2.0	83	65
n-Butylbenzene	1.0	**	<	<2.0	<4.0	<2.0	<2.0	70	55
sec-Butylbenzene	1.0		1.0	<2.0	<4.0	<2.0	<2.0	83	64
tert-Butylbenzene	1.0	11	<	<2.0	<4.0	<2.0	<2.0	84	65
Naphthalene	1.0	11	4.0	<2.0	<4.0	<2.0	<2.0	49	38
Methyl-t-butylether	1.0	**	<	<2.0	<4.0	<2.0	<2.0	NS	-
Surrogate Recoveries		%							
d4-1,2-Dichloroethar	ne		70	64	64	70	71	72	72
d8-Toluene			91	87	83	86	83	85	85
Bromofluorobenzene			79	84	83	86	85	87	87
d10-Ethylbenzene			31	61	51	47	28	46	46

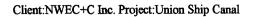
4

Component	Client ID: Lab No.: Date Sampled: MDL	Units	NAPL EXC AREA3 SOUTH 010299 04 03-Mar-2004	NAPL EXC AREA 3 EAST 010300 04 03-Mar-2004	NAPL EXC AREA 3 WEST 010301 04 03-Mar-2004	NAPL EXC AREA3BOTTOM 010302 04 03-Mar-2004	Bermed Stripped Soil 010303 04 03-Mar-2004	Method Blank 010287 04 03-Mar-2004	Blank Spike 010287 04 03-Mar-2004
Benzene	1.0	ug/kg	<2.0	<2.0	<2.0	<	1.0	<	59
Ethylbenzene	1.0	**	<2.0	<2.0	<2.0	<	<	<	63
Toluene	1.0	*1	<2.0	2.0	2.0	1.0	2.0	<	61
m&p-Xylene	1.0	11	<2.0	<2.0	2.0	<	1.0	<	130
o-Xylene	1.0	и	<2.0	<2.0	3.0	<	<	<	64
Xylenes(Total)	1.0	H	<2.0	<2.0	5.0	<	1.0	<	190
Isopropylbenzene	1.0	t <del>1</del>	<2.0	<3.0	2.0	<	<2.0	<	57
n-Propylbenzene	1.0	**	<2.0	<3.0	5.0	<	<2.0	<	62
p-Isopropyltoluene	1.0	11	<2.0	<3.0	10	<	<2.0	<	64
1,2,4-Trimethylbenze	ne 1.0	*	<2.0	<3.0	4.0	1.0	<2.0	<	63
1,3,5-Trimethylbenze	ne 1.0	#	<2.0	<3.0	6.0	<	<2.0	<	63
n-Butylbenzene	1.0		<2.0	<3.0	16	<	<2.0	<	65
sec-Butylbenzene	1.0	**	<2.0	<3.0	4.0	<	<2.0	<	64
tert-Butylbenzene	1.0	**	<2.0	<3.0	<2.0	<	<2.0	<	61
Naphthalene	1.0	**	6.0	<3.0	4.0	<	45	<	49
Methyl-t-butylether	1.0	н	<2.0	<3.0	<2.0	<	<2.0	<	NS
Surrogate Recoveries		%							
d4-1,2-Dichloroethan	e		69	75	81	68	65	73	75
d8-Toluene			87	95	99	87	93	87	85
Bromofluorobenzene			84	71	87	76	65	87	88
d10-Ethylbenzene			55	31	27	54	30	91	87
•									

			%
	Client ID:		Recovery
	Lab No.:		010287 04
Dat	te Sampled:		03-Mar-2004
Component	MDL	Units	
Damaana	1.0		95
Benzene		ug/kg "	100
Ethylbenzene	1.0		
Toluene	1.0		97
m&p-Xylene	1.0	**	100
o-Xylene	1.0	**	100
Xylenes(Total)	1.0	**	100
Isopropylbenzene	1.0	11	92
n-Propylbenzene	1.0		99
p-Isopropyltoluene	1.0	**	100
1,2,4-Trimethylbenzene	1.0	#	100
1,3,5-Trimethylbenzene	1.0	11	100
n-Butylbenzene	1.0	11	100
sec-Butylbenzene	1.0	11	100
tert-Butylbenzene	1.0	11	98
Naphthalene	1.0	11	79
Methyl-t-butylether	1.0	*1	-
Surrogate Recoveries		%	
d4-1,2-Dichloroethane			75
d8-Toluene			85
Bromofluorobenzene			88
d10-Ethylbenzene			87

Client:NWEC+C Inc. Project:Union Ship Canal

j Component	Client ID: Lab No.: Date Sampled: MDL	Units	NAPL EXC AREA1 NORTH 010288 04 03-Mar-2004	NAPL EXC AREA1 SOUTH 010289 04 03-Mar-2004	NAPL EXC AREA 1 EAST 010290 04 03-Mar-2004	NAPL EXC AREA 1 WEST 010291 04 03-Mar-2004	NAPL EXC AREA1BOTTOM 010292 04 03-Mar-2004	NAPL EXC AREA2 NORTH 010293 04 03-Mar-2004	NAPL EXC AREA2 SOUTH 010294 04 03-Mar-2004
Naphthalene	90	ug/kg	<180	400	140	<180	<360	<180	<360
Acenaphthene	70	Ħ	<140	190	100	<140	<280	<140	<280
Fluorene	40	Ħ	<80	280	210	<80	<160	<80	<160
Phenanthrene	30	**	70	1300	4200	220	510	70	<120
Anthracene	60	99	<120	440	1600	<120	210	<120	<240
Fluoranthene	60	11	<120	2100	12000	210	1600	<120	<240
Pyrene	40	"	<80	2100	10000	170	1400	<80	<160
Benz(a)anthracene	50	"	<100	1200	6300	<100	780	<100	<200
Chrysene	40	"	<80	1400	5800	90	760	<80	<160
Benzo(b)fluoranthene	40	H	<80	1500	5000	90	590	<80	<160
Benzo(k)fluoranthene	40	**	<80	1300	5000	90	570	<80	<160
Benzo(a)pyrene	50	**	<100	1400	5200	<100	590	<100	<200
Indeno(1,2,3-cd)pyrer	ne 60	Ħ	<120	1300	3700	<120	410	<120	<240
Dibenzo(ah)anthracer			<100	300	1000	<100	<200	<100	<200
Benzo(ghi)perylene	60	**	280	1000	2500	<120	<240	<120	<240
Surrogate Recoveries		%							
d5-Nitrobenzene			72	71	73	73	72	70	66
2-Fluorobiphenyl			73	77	77	75	73	74	70
d14-p-Terphenyl			81	83	80	82	82	81	81



## PASC - Certificate of Analysis

De Component	Client ID: Lab No.: ate Sampled: MDL	Units	NAPL EXC AREA 2 EAST 010295 04 03-Mar-2004	NAPL EXC AREA 2 WEST 010296 04 03-Mar-2004	NAPL EXC AREA2BOTTOM 010297 04 03-Mar-2004	NAPL EXC AREA3 NORTH 010298 04 03-Mar-2004	NAPL EXC AREA3 SOUTH 010299 04 03-Mar-2004	NAPL EXC AREA 3 EAST 010300 04 03-Mar-2004	NAPL EXC AREA 3 WEST 010301 04 03-Mar-2004
Naphthalene	90	ug/kg	620	<360	<900	<540	<540	<360	<360
Acenaphthene	70	H	<140	<280	<700	<420	<420	<280	<280
Fluorene	40	**	130	<160	<400	<240	<240	<160	<160
Phenanthrene	30	н	440	<120	<300	<180	1900	1300	260
Anthracene	60	11	<120	<240	<600	<360	440	310	<240
Fluoranthene	60		220	<240	<600	<360	2700	1600	<240
Pyrene	40	**	290	<160	<400	<240	2600	1500	280
Benz(a)anthracene	50		160	<200	<500	<300	1200	810	<200
Chrysene	40	**	210	<160	<400	<240	1300	1000	360
Benzo(b)fluoranthene	40	Ħ	260	<160	<400	<240	1100	1100	<160
Benzo(k)fluoranthene	40	**	190	<160	<400	<240	950	820	<160
Benzo(a)pyrene	50	11	220	<200	<500	<300	940	820	<200
Indeno(1,2,3-cd)pyrene		11	350	<240	<600	<360	740	890	<240
Dibenzo(ah)anthracene		**	<100	<200	<500	<300	<300	220	<200
Benzo(ghi)perylene	60	"	200	<240	<600	<360	510	560	<240
Surrogate Recoveries		%							
d5-Nitrobenzene			63	59	64	58	60	60	27
2-Fluorobiphenyl			69	65	72	59	64	70	30
d14-p-Terphenyl			76	82	83	72	77	76	36

## PASC - Certificate of Analysis

De Component	Client ID: Lab No.: ate Sampled: MDL	Units	NAPL EXC AREA3BOTTOM 010302 04 03-Mar-2004	Bermed Stripped Soil 010303 04 03-Mar-2004	Method Blank 010287 04 03-Mar-2004	Blank Spike 010287 04 03-Mar-2004	% Recovery 010287 04 03-Mar-2004	Blank Spike Duplicate 010287 04 03-Mar-2004	% Recovery 010287 04 03-Mar-2004
Naphthalene	90	ug/kg	<360	6400	<180	3200	80	3400	84
Acenaphthene	70	"	<280	11000	<140	3200	80	3400	85
Fluorene	40	**	<160	13000	<80	3100	79	3400	86
Phenanthrene	30	H	<120	110000	<60	3300	81	3400	85
Anthracene	60	"	<240	30000	<120	3300	83	3500	88
Fluoranthene	60	"	<240	120000	<120	3200	81	3400	85
Pyrene	40	Ħ	<160	90000	<80	3400	86	3700	92
Benz(a)anthracene	50	*	<200	50000	<100	3200	81	3400	86
Chrysene	40	11	<160	48000	<80	3300	83	3600	90
Benzo(b)fluoranthene	40	H	<160	38000	<80	3300	83	3600	89
Benzo(k)fluoranthene	40	11	<160	34000	<80	3400	84	3600	90
Benzo(a)pyrene	50	Ħ	<200	40000	<100	3200	80	3500	87
Indeno(1,2,3-cd)pyrene		**	<240	27000	<120	3200	80	3500	86
Dibenzo(ah)anthracene		#	<200	7100	<100	3200	81	3500	88
Benzo(ghi)perylene	60	**	<240	18000	<120	3100	78	3200	79
Surrogate Recoveries		%							
d5-Nitrobenzene			59	75	74	80	80	85	85
2-Fluorobiphenyl			64	82	74	82	82	87	87
d14-p-Terphenyl			78	85	93	87	87	93	93

	Client ID: Lab No.: Sampled: MDL	Units	NAPL EXC AREA1 NORTH 010288 04 03-Mar-2004 M. Spike	NAPL EXC AREA1 NORTH 010288 04 03-Mar-2004 MS % Rec.	NAPL EXC AREA1 NORTH 010288 04 03-Mar-2004 MS Dup	NAPL EXC AREA1 NORTH 010288 04 03-Mar-2004 MSD % Rec.
Naphthalene	90	ug/kg	4600	75	5000	76
Acenaphthene	70	"	4600	76	5000	76
Fluorene	40	Ħ	4600	75	5000	77
Phenanthrene	30	#	4700	78	5100	78
Anthracene	60	*1	4600	75	4800	74
Fluoranthene	60	н	4700	77	5000	76
Pyrene	40	ŧ	5000	82	5400	83
Benz(a)anthracene	50	Ħ	4700	78	5100	78
Chrysene	40	Ħ	4900	81	5300	81
Benzo(b)fluoranthene	40	11	4900	81	5300	82
Benzo(k)fluoranthene	40	n	4900	80	5200	80
Benzo(a)pyrene	50	n	4600	76	4800	73
Indeno(1,2,3-cd)pyrene	60	**	5000	83	5400	83
Dibenzo(ah)anthracene	50	11	5000	83	5500	84
Benzo(ghi)perylene	60	9	4500	75	4800	74
Surrogate Recoveries		%				
d5-Nitrobenzene			73	73	74	74
2-Fluorobiphenyl			75	75	76	76
d14-p-Terphenyl			81	81	82	82

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Page M	<b>[S-1</b>	of	1
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Batch Code:	0308MC01	0308MC02
Benzene	010287 04	010292 04
	010288 04	010293 04
	010289 04	010294 04
	010290 04	010295 04
	010291 04	010296 04
		010297 04
		010298 04
		010299 04
		010300 04
		010301 04
		010302 04
		010303 04
Date Analysed:	04/03/08	04/03/08
Date Prepared:	04/03/08	04/03/08
Batch Code:	0309SPA1	0309SPA1
Naphthalene	010287 04	010288 04
•	010294 04	010289 04
	010303 04	010290 04
		010291 04
		010292 04
		010293 04
		010295 04
		010296 04
		010297 04
		010298 04
		010299 04
		010300 04
		010301 04
		010302 04
Date Analysed:	04/03/10	04/03/11
Date Prepared:	04/03/09	04/03/09

## CHAIN OF CUSTOUT

250	5555 North	ICAL SERVICES Service Road Ontarlo L7L 5H7		т		00-668-0639 5) 332-8788 5) 332-9169	1	ANALYSI	s reques		of	3 007-12-
ÇLIEI		Company Name: Project Manager:	RUSS	SAVE	Y:15							2-2004
INFORM	ATION	Address: <u>355</u>	3 Crit tender	tender 1.NY	14038	3	Sand?					noiten (nwi 14:28
165.070	287		#: 716-937.6527 Fax #: 714-937.9.360 Ho by: Jan Neubaver									of contaminati igh, unknown) BC :
Philip Use Only	i	Field Sample ID	# Bottles	Matrix		Time	82.70					Level ( low, h
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TAT (Turnaround TH RUSH TAT MUST H PRIOR APPROVAL 'some exceptions ap	AVE	PROJECT INFORMATION Project #: Sile: <u>UNION SHIP</u>			MISA	DETECTION		REMA	aks A SP			
please contact Lab STD 10 Business Da RUSH 5 Business Da RUSH 2 Business Da RUSH 1 Business Da Other Business Days		PO#: hilip Quote #: hilip Project #: hilip Contact:			ASP	CATEGO	RABLES	NS				11C1 7CC CD6
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WHITE - LAB / YELLOW - CLIENT

SEE OVER FOR COMPLETION & SAMPLING INSTRUCTIONS

## CHAIN OF CUSTODY

	5555 North	ICAL SERVICES Service Road Ontario L7L 5H7		T	oll Free: 1-800- Tel: (905) Fax: (905)	332-8788	!		ANA	LYSIS R	EQUEST	Paga	of	<u>'</u> ,
	CLIENT CLIENT Project Manager: RUSS S INFORMATION Address: 3553 Cr.He. Phone #: 116 937.6527 Fa Sampled by: 00 NPUK Philip Field # Use Only Sample ID Bottles M 102 93 NAPL EXC AREA 2 NIEM I				1 Rd 14038	.3ioO	STARS 1	0						of contamination nigh, unknown),
Use Only	 		# Bottles	Matex	Jate	Time	R R R	82					 	Level (low. 1
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USH TAT MUST HA RIOR APPROVAL	AVE F	Project #:						•		emarks A	SP			
<i>lease contact Lab</i> ID 10 Business Day USH 5 Business Day USH 2 Business Day	ys XX F	PO#: Philip Quote #: Ihilip Project #:			SPECIAL RE		ry I	3 '	NS	٤	. 7			
USH 1 Business Day ther Business Days	ys Lu;	hillo Contact:									4.'			
llent Signature	111:0 T WECT 3/3/104	Blacknon Inc 13:30 pm	A##	eived By: liation: e/Time;	esc	5/04	ieli S	- 30 pm		ec'd By: _ ate/Time				-
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SEE OVER FOR COMPLETION & SAMPLING INSTRUCTIONS

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5555 North S	CAL SERVICES lervice Road ntario L7L 5H7		Т	oli Free: 1-800- Tel: (905) Fax: (905)	332-8788	! !		ANALY	sis re	QUES	•	.3	of _	3
CLIENT INFORMATION	Company Name: N Project Manager: Address: CrH Phone #: <u>7116</u> - 737 Sampled by:O	Russ 3 Crith tenden 16527	SAVA Ender NY Fax 4: 7	14038 14038	360	STARS	STARS							l contamination gh. unknown)
Philip Use Only	Field Sample ID	≓ Boitles	Matrix	Date	Time	120	<u>Ž</u> ZVC							Level o (low, hi
10298 NAREXC	AREA 3NORTH		5	3/3/04			/ i					Z	NAL	
	AREA 3 SOUTH		5	3/3/04	•		/						1.	
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some exceptions apply Si please contact Lab STD 10 Business Days C Pt RUSH 5 Business Days Pt BUSH 2 Business Days	roject #: te:N i i N N i P D#: nilip Quote #: nilip Project #:				ATEGU	rry T Rabie	3.	NS	As	sf.				
	nilio Contact:			NOR	HAL T	16						·····		
Client Signature: Jauree Affiliation: <u>AUAEC+C, Lr</u> Date/Time: <u>313/04</u>	Bloskivits 3:30 pm	Alfi	ceived By liation: te/Time: _	- 0 erra psc 3 3 3 04		elinge 30 pm	han		d By: /Tîme					

WHITE . LAB / YELLOW . CLIENT

SEE OVER FOR COMPLETION & SAMPLING INSTRUCTIONS



## Certificate of Analysis

### CLIENT INFORMATION

### LABORATORY INFORMATION

Attention: Client Name: Project: Project Desc;	Russ Savage NWEC+C Inc. Union Ship Cana) Union Ship Canal	Contact: Project: Date Received: Date Reported:	Mike Challis, B.Sc, C.Chem. AN040300 05-Aug-2004 20-Aug-2004
Address:	3553 Crittenden Rd. Crittenden, NY 14038	Submission No.: Sample No.;	4H0115 049080-049085
Fax Number: Phone Number:	716-937-9360		

NOTES: "-' = not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33 Solids data is based on dry weight except for biota analyses. Organic analyses are not corrected for extraction recovery standards except for isotope dilution methods, (i.e. CARB 439 PAH, all PCDD/F and DBD/DBF analyses) The enclosed copy of the Chain of Custody Record may contain information necessary for the interpretation of the data.

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater'. Twentieth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologics, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of three weeks from receipt of data or as per contract.

### COMMENTS:

(1) 2 internal standards did not meet 50% area response criteria. Re-injected with similar results (2) 1 internal standards did not meet 50% area response criteria. Re-injected with similar results

Certified by: M.C.

Page 1 of 7

5555 NORTH SERVICE ROAD, BURLINGTON, ONTARIO, CANADA 171 5H7 1 905 332 8788 F 905 332 9169 W www.psconalytical.com

8/26/04

PASC - Certificate of Analysis

Page 2 of 7

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	Client LD: Lab No.:		Method Blank 049080 04	Blank Spike 049080 04	Blank Spike 049080 04	NAPL Area2-NorthWall 049081 04 30-Ju1-2004
Date	Sampled:		-	-	-	20-101-2004
Component	MDL	Units			% Recoveries	
•			,	0.072	120	0.027
Acctone	0.020	mg/kg	< <	0.065	100	0.002
Benzene	0.001		~	0.062	99	<
Bromoform	0.001		~	0.061	98	<
Bromomethane	0.006		<	0.078	130	<
2-Butanone	0.005	4	,	0.072	110	0.009
Carbon Disulfide	0.001	.,	è.	0.068	110	<
Carbon Tetrachloride	0.001		~	0.065	100	<
Chlorobenzene	0.001	n	, ,	0.064	100	<
Chlorodibromomethane	0.001	34	~	0.058	92	<
Chloroethanc	0.001	,. (1	<	0.067	110	<
Chloroform	0.001		<	0.066	110	<
Chloromethane	0.001			0.061	98	<
1,2-Dichlorobenzene	0.001	v	<	0.061	100	<
1,3-Dichlorobenzenc	0.001	н	<	0.063	100	<
1,4-Dichlorobenzene	0.001	tr.	<		110	<
Dichlorobromomethanc	0.001	4	<	0.068	100	<
1,1-Dichloroethanc	0.001	17	<	0.065	110	<
1,2-Dichloroethane	0.001	(1	<	0.066	100	<
1,1-Dichloroethene	0.001		<	0.064	110	<
cis-1,2-Dichloroethene	0.001	ta,	<	0.067	100	<
trans-1,2-Dichloroethene	0.001	**	<	0.065	110	<
1,2-Dichloropropane	0.001	**	<	0.067	110	<
cis-1,3-Dichloropropene	0.001	"	<	0.066	98	<
trans-1,3-Dichloroproper	ne 0.001	ĸ	<	0.061	96 110	<
Ethylbenzene	0.001	14	<	0.068		<
2-Hexanonc	0.005	; "	<	0.074	120	<
Dichloromethane	0.020	) "	<	0.064	100	<
4-Methyl-2-Pentanone	0.005	5 "	<	0.075	120	~ ~
Methyl-t-butylether	0.001	L "	<	NS	-	<
Styrene	0.00	1 "	<	0.069	110	, Z
1,1,2,2-Tetrachlorocthan			<	0.061	97	, ,
Tetrachloroethenc	0.00	1 "	<	0.066	110	0.002
Toluene	0.00		<	0.064	100	<
1,1,1-Trichloroethane	0,00	1 "	<	0.069	110	<
1,1,2-Trichloroethane	0.00		<	0.065	100	~
Trichlorocthene	0.00		<	0.069	110	
Trichlorofluoromethane			<	0.066	110	< <
Vinyl Acetatc	0.00		<	NS	-	<
Vinyl Chloride	0.00		<	0.057	91	< 0.001
m&p-Xylene	0.00		<	0.13	110	
o-Xylene	0.00		<	0.064	100	<
o-Aylene Surrogate Recoveries		%	1			-
d4-1,2-Dichloroethane			80	85	85	76
			85	93	93	87
d8-Toluenc Bromofluorabenzene			92	101	101	82 75
Riomonnologocurcue			102	102	102	75

Page 3 of 7

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8/26/04		PASC - Certificate of Analysis											
	Client ID: Lab No.: Date Sampled:	<b>* 1</b> - 54-	NAPL Area2-SouthWall 049082 04 30-Jul-2004	NAPL Area 2-EusiWall 049083 04 30-Jul-2004	NAPL Area 2-WestWall 049084 04 30-Jul-2004	NAPL Arca 2-Bottom 049085 04 30-Jul-2004							
Component	MDL	Units											
	0.020	mg/kg	<	0.021	<	0.042							
Accione		mg/kg	<	<	0.001	<							
Benzent	0.001		<	<	<	<							
Bromoform	0.001			<	<	<							
Bromomethanc	0.006		<	< Contract of the second secon	۲	<0.007							
2-Bulanonc	0.005		<	-	0.001	0.022							
Carbon Disulfide	0.001	••	<	0.006		<							
Carbon Tetrachloride	0.001	**	<	<	<								
-	0.001		<	<	<	<							
Chlorobenzene		10	<	<	<	<							
Chlorodibromomethan		~	<	<	. <	<							
Chloroethanc	0.001	, p	<	<	<	<							
Oblass Comp	0 001		•	-		_							

Diffusion				<	<	~
Bromomethanc	0.006	t.	<	,	<	<0.007
2-Bulanonc	0.005	•	<	0.006	0.001	0.022
Carbon Disulfide	0.001	14	<	¥.000 <	<	<
Carbon Tetrachloride	0.001	**	<	~ ~	<	<
Chlorobenzene	0.001		<	~	<	<
Chlorodibromomethane	0.001	Þ	<		<	<
Chloroethanc	0.001	*	<	< . <	~	<
Chloroform	0.001	р	<		,	<
Chloromethane	0.001	11	<	. <	Ì	<
1,2-Dichlorobenzene	0.001		<	< _	, Z	<
1,3-Dichlorobenzenc	0.001	"	<	<	~	<
1,4-Dichlorobenzene	0.001	v	<	<	<	<
Dichlorobromomethane	0.001	м	<	<	<	<
1,1-Dichloroeihane	0.001	4	<	<	~	<
1,2-Dichloroethane	0.001	W	<	<	~	<
I, 1-Dichloroethenc	0.001	*	<	<	<	, K
cis-1,2-Dichlorocthene	0.001	4	<	<	<	, ,
trans-1,2-Dichloroethene	0.001	**	<	<		<
1,2-Dichloropropane	0.001	**	<	<	<	~
cis-1,3-Dichloropropene	0.001	u	<	<	<	~ <
trans-1,3-Dichloropropenc	0.001	47	<	<	<	~
Enhylbenzene	0.001	*	<	<	0.001	, Z
2-Hexanone	0.005	41	<	<	<	< <
Dichloromethane	0.020		<	<	<	~
4-Methyl-2-Pentanone	0.005		<	<	<	<ul> <li></li> </ul>
Methyl-1-butylether	0.001	н	<	<	<	~
Styrene	0.001	"	<	<	<	~
1,1,2,2-Tetrachloroethane	0.001	"	<	<	<	<
Tetrachlorocthene	0.001	۹	<	<	<	•
	0.001		~	0.002	0.004	0.002
Tojuene	0.001		<	<	<	<
1,1,1-Trichloroethane	0.001	"	<	<	<	<
1,1,2-Trichlorocthane	0.001	•1	<	<	<	<
Trichlorocthene	0.001		<	<	<	<
Trichlorofluoromethane	0.005	ų	<	<	<	<
Vinyl Acetaie	0.001		<	<	<	<
Vinyl Chloride	0.001		0.002	0.003	0.006	0.002
m&p-Xylenc	0.001		0.001	0.001	0.003	0.001
o-Xylene	0.001	%				
Surrogale Recoveries		/1	75	76	67	79
d4-1,2-Dichloroethanc			85	85	87	91
d8-1'olucne			85	83	77	97
Bromofluorobenzenc			78	66	83	81
d10-Ethylbenzene			••			

PSC Submission No: 4H0115

## PASC - Certificate of Analysis

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	Client ID: Lab No.: le Sampled: MDL	Units	Method Blank 049080 04 -	Blank Spike #1 049080 04	Blank Spike #1 049080 04 ~ % Recoveries	Blank Spike #2 049080 04	Blank Spike #2 049080 04 - % Recoveries	NAPL Area2-NorthWall 049081 04 30-Jul-2004
Component Naphthalene Acenaphthene Fluorene Pheoanthrene Anthracene Fluoraathene Pyrene Benz(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Dibenzo(ah)anthracene Benzo(ghi)perylene Surrogate Recoveries d5-Nitrobenzene 2-Fluorobiphenyl d14-p.Terphenyl	0.09 0.07 0.04 0.03 0.06 0.06 0.04 0.05 0.04 0.04 0.04 0.05 0.06 0.05 0.06	mg/kg "" "" "" "" "" "" "" "" "" "" "" "" ""	<ul> <li>&lt;0.18</li> <li>&lt;0.14</li> <li>&lt;0.08</li> <li>&lt;0.06</li> <li>&lt;0.12</li> <li>&lt;0.12</li> <li>&lt;0.08</li> <li>&lt;0.08</li> <li>&lt;0.08</li> <li>&lt;0.08</li> <li>&lt;0.08</li> <li>&lt;0.08</li> <li>&lt;0.10</li> <li>&lt;0.12</li> <li>&lt;0.11</li> <li>&lt;0.12</li> <li>&lt;0.12</li></ul>	3.1 3.2 3.1 3.3 3.4 3.3 3.5 3.6 3.5 3.6 3.5 3.3 3.4 3.1 2.9 3.1 76 80 81	77 80 77 84 83 86 81 89 89 88 81 84 78 73 78 73 78 76 80 81	3.1 3.2 3.0 3.3 3.4 3.4 3.4 3.4 3.6 3.6 3.6 3.6 3.6 3.3 3.4 3.2 2.9 3.1 75 79 83	78 79 74 83 84 86 86 89 90 89 83 85 79 72 78 75 79 83	(1) <0.18 <0.14 <0.08 0.11 <0.12 0.17 0.31 0.13 0.13 0.13 0.13 0.14 0.12 <0.10 <0.12 <0.10 <0.12 <0.10 <0.12 <0.10 <0.12 <0.10 <0.12 <0.10 <0.12 <0.10 <0.12 <0.10 <0.12 <0.10 <0.12 <0.10 <0.12 <0.10 <0.12 <0.10 <0.12 <0.10 <0.12 <0.10 <0.12 <0.10 <0.12 <0.10 <0.12 <0.10 <0.12 <0.10 <0.12 <0.10 <0.12 <0.10 <0.12 <0.10 <0.12 <0.12 <0.10 <0.12 <0.12 <0.10 <0.12 <0.12 <0.10 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12 <0.12

## PASC - Certificate of Analysis

OÇT-22-2004 13:23

PSC ANALYTICAL SERVICES

Co 049481	Client 1D: Lab No.: Date Sampled: MDL	Units	NAPL Area2-NorthWall 049081 04 30-Jul-2004 M. Spike	NAPL Area2-NorthWall 049081 04 30-Jul-2004 MS % Rec.	NAPL Area2-NorthWail 049081 04 30-Jul-2004 MS Dup	NAPL Area2-NorthWall 049081 04 30-Jul-2004 MSD % Rec.	NAPL Area2-SouthWall 049082 04 30-Jul-2004	NAPL Area 2-EastWall 049083 04 30-Jul-2004	NAPL Area 2-WestWall 049084 04 30-Jul-2004
Component Naphthalene Accnaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benz(a)anthracene Chrysene Benzo(b)fluoranthen Benzo(a)pyrene Indeno(1,2,3-cd)pyr Dibenzo(ah)anthrac Benzo(ghi)perylene Surrogate Recoverin d5-Nitrobenzene 2-Fluorobiphenyl d14-p-Terphenyl	0.09 0.07 0.04 0.03 0.06 0.06 0.04 0.05 0.04 ac 0.04 ac 0.04 ac 0.04 ac 0.05 rene 0.06 ene 0.05 c 0.05	mg/kg " " " " " " " " " " " "	3.7 3.8 3.5 4.0 3.7 4.0 4.8 4.2 4.5 4.6 4.7 4.2 4.8 5.2 4.4 72 74 94	73 76 70 78 73 76 89 80 85 86 92 82 95 100 86 72 74 94	3.8 4.1 4.0 4.6 4.4 4.2 6.1 4.7 4.9 4.5 5.2 4.6 4.5 5.0 4.5 5.0 4.5 71 80 119	76 82 79 89 87 80 120 91 95 86 100 91 90 99 89 89 71 80 119	<0.18 <0.14 <0.08 0.49 <0.12 0.68 0.82 0.44 0.57 0.49 0.57 0.49 0.57 0.48 0.36 <0.10 0.33 65 72 104	(2) <0.18 <0.14 <0.08 0.41 <0.12 0.67 0.85 0.50 0.67 0.57 0.45 <0.18 <0.19 <0.10 <0.26 63 69 100	(1) <0.18 <0.14 <0.08 0.28 <0.12 0.46 0.66 0.30 0.34 <0.37 <0.13 <0.18 <0.19 <0.10 <0.24 65 77 (18

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PSC Submission No: 4H0115

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			NAPL Area
	Client ID:		2-Bottom
	Lab No.:		049085 04
Date	Sompled:		30-Jul-2004
	MDL	Linits	
Component	MDL	Onid	
			(2)
Naphthalenc	0.09	mg/kg	<0.18
Acenaphthene	0.07	้น	<0,14
Fluorenc	0.04	a	<0.08
Phenanthrene	0.03	Ħ	<0.06
Anthracene	0.06	4	<0.12
Fluoranthene	0.06	10	<0.12
	0.04	18	<0.08
Pyrene Desetations	0.05	-	<0.10
Benz(a)anthracene Chrysene	0.04	41	<0.08
Benzo(b)fluoranthene	0.04	*1	<0.08
Benzo(k)fluoranthene	0.04	**	<0.08
Benzo(a)pyrene	0.05	58	<0.10
Indeno(1,2,3-cd)pyrene	0.06	н	<0.12
Dibenzo(ab)anthracene	0.05	H	<0.10
	0.06	ų	<0.12
Benzo(ghi)perylene Surrogate Recoveries	0.00	%	
dS-Nitrobenzene			51
			53
2-Fluorobiphenyl			95
d14-p-Terphenyl			

8/26/04

d14-p-Terphenyl

8/26/04

## PASC - Summary of Analysis Pre. Dates

Page MS-7 of 7

Batch Code:	0807MC01			
STARS - Volatiles	049080 04			
	049081 04			
	049082 04			
	049083 04			
	049084 04			
	049085 04			
Date Analysed:	04/08/07			
Date Prepared:	04/08/07			
Batch Code:	0812SPA2	0809SPA2	0812SPA2	0809SPA2
STARS - SVOC	049080 04	049081 04	049081 04	049082 04
	049082 04		•	049083 04
	049083 04			049084 04
	049084 04			049085 04
	049085 04			
Date Analysed:	04/08/16	04/08/12	04/08/17	04/08/11
Date Prepared:	04/08/12	04/08/09	04/08/12	04/08/09

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in the construction of the second states and the	ുക്ക് നടനയം ഭവംഗിക്കുന്നും പന്തിയ പെടു	100 m 1 1 1 1 1 1 1 1
an ann ailtean a	이 집에 가장 이 것을 알았는 것을 가지 않는 것이 없다.	
	CHAIN OF	IISTODY
위에는 영화에서 대한 것을 가장을 위해 가지만 했다.		

	C	HAIN	<b>O</b> F	USTO	DY					te a j		tis) State			
ANALYTICAL SERVICES 5555 North Service Road Burlington, Ontario L7L 5H7		Τ٥		-668-0639 332-8788 332-9169				AN	ALYSI	S REC	QUEST	Page T <b>ED</b>	·L	of –	
CLIENT CLIENT Project Manager: INFORMATION Address:3553 CKITTE Phone #: 710-937- Sampled by:	uds S Critt Nden, 16527	AVAGE ENDEN M 14 Fax #: 7	40 (38	1360 al	ZISTARS	8270 STARS	Ś								Level of contamination (low, high, unknown)
Philip Field Sample ID	# Bottles	Matrix	Date	Time	8021	$\delta$									Leve (low,
NAPL AREA 2 EXTRUMINAL EXTENSION NORTHNALL	2	Soil	7/30/04												
NAPL AREA 2 EXCAUATION EXTENSION SOTTLI WALL	2	Soil	7/30/01		~										
NAR AREA 2 EXCAVATION EXTENSION EASTWALL	2	Soil	7/30/04			-									
NAPL AREA 2 EXCAVATINI EXTENSION WEST WALL	2	Soil	7/30/04											a a Gian Tatao	
NAAL AREA 2 EXCAVATION EXTENSION BOTTOM	2	Sil	7/30/04		~	-									
TAT (Turnaround Time)     PROJECT INFORMATION       RUSH TAT MUST HAVE     Project #:       PRIOR APPROVAL     Site: (Nion SH1P CA			MISA D	DETECTIO	N LIMIT	S			REN	IARKS					
please contact Lab         STD 10 Business Days         RUSH 5 Business Days         RUSH 2 Business Days         RUSH 1 Business Days         Other Business Days    Po#: Philip Quote #: Philip Project #: Philip Contact:			SPECIAL ASP	REQUIREN Cat Level	Bd 4 "	REGUI	ATIO	ales							
Client Signature: Affiliation: Date/Time: 85704 5:00 WHITE - LAB / YELLOW - CLIENT	/ /	Received B Affiliation: _ Date/Time:		Yon	8.	:00			Date	d By: /Time	OMPLET	ION & S	MPLING I	NSTRU	

WHITE - LAB / YELLOW - CLIENT



## Certificate of Analysis

## CLIENT INFORMATION

### LABORATORY INFORMATION

Attention:	Russ Savage	Contact:	Mike Challis, B.Sc, C.Chem.
Client Name:	NWEC+C Inc.	Project:	AN040300
Project:	Union Ship Canal	Date Received:	09-Aug-2004
Project Desc:	Union Ship Canal	Date Reported:	23-Aug-2004
Address:	3553 Crittenden Rd.	Submission No.:	4110240
	Crittenden, NY	Sample No.:	049872-049874
Fax Number: Phone Number:	14038 716-937-9360		

NOTES:

"-" = not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33 Solids data is based on dry weight except for biola analyses. Organic analytes are not corrected for extraction recovery standards except for isotope dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses) The enclosed copy of the Chain of Custody Record may contain information necessary for the interpretation of the data.

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Twentieth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of three weeks from receipt of data or as per contract.

COMMENTS:

Certified by: M.C.

Page 1 of 5

5555 NORTH SERVICE ROAD, BURLINGTON, ONTARIO, CANADA 171 5H7 1 905 332 8788 F 905 332 9169 W www.psconalytical.com

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	lient ID: Lab No.: Sampled:		NAPL Area3-NW Bortom 049873 04 05-Aug-2004	NAPL Area3-NW Bottom 049873 04 05-Aug-2004	NAPL Area3-NW S.Wall 049874 04 05-Aug-2004
Component	MDL	Units	00.1148 -000	Duplicate	
Acetone	0.020	mg/kg	0.34	0.35	<0.040
Benzene	0.001	<b>4</b> 1	<0.002	<0.002	<0.002
Bromoform	0.001	11	<0.004	<0.004	<0.002
Bromomethane	0.006	**	<0.012	<0.012	<0.012
2-Butanone	0.005	18	0.045	0.051	<0.010
Carbon Disulfide	0.001	17	0.015	0.014	0.003
Carbon Tetrachloride	0.001	-1	<0.002	<0.002	<0.002
Chlorobenzenc	0.001	h	<0.002	<0.002	<0.002
Chlorodibromomethane	0.001	•1	<0.002	<0.002	<0.002
Chloroethane	0.001		<0.002	<0.002	<0.002 <0.002
Chloroform	0.001	*i	<0.002	<0.002	<0.002
Chloromethane	0.001	"	<0.002	<0.002	<0.002
1,2-Dichlorobenzene	0.001	"	<0.004	<0.004	<0.002
1,3-Dichlorobenzene	0.001	н н	<0.004	<0.004	<0.002
1,4-Dichlorobenzene	0.001	*	<0.004 <0.002	<0.004	<0.002
Dichlorobromomethane	0.001		<0.002	<0.002	<0.002
1,1-Dichlorocthane	0.001		<0.002	<0.002	<0.002
1,2-Dichloroethane	0.001		<0.002	<0.002	<0.002
1,1-Dichloroethene	0.001		<0.002	<0.002	<0.002
cis-1,2-Dichloroethene	0.001	P	<0.002	<0.002	<0.002
trans-1,2-Dichloroethenc	0.001	*1	<0.002	<0.002	<0.002
1,2-Dichloropropanc	0.001	"	<0.002	< 0.002	<0.002
cis-1,3-Dichloropropene	0.001 0.001	н	<0.002	< 0.002	<0.002
trans-1,3-Dichloropropene	0.001	••	<0.002	<0.002	<0.002
Ethylbenzene	0.001	10	<0.010	< 0.010	<0.010
2-Hexanone	0.003	и	<0.040	<0.040	<0.040
Dichloromethanc	0.005		<0.010	<0.010	<0.010
4-Methyl-2-Pentanone	0.000	н	<0.002	<0.002	<0.002
Methyl-t-butylether Styrene	0.001	••	< 0.002	<0.002	<0.002
1,1,2,2-Tetrachloroethane	0.001		< 0.004	<0.004	<0.002
Tetrachloroethene	0.001	۴	<0.002	<0.002	<0.002
Toluene	0.001	h	0.003	0.003	<0.002
1,1,1-Trichloroethane	0.001	11	<0.002	<0.002	<0.002
1,1,2-Trichloroethane	0.001	સ	<0.002	< 0.002	<0.002
Trichloroethene	0.001	n	<0.002	<0.002	<0.002
Trichlorofluoromethane	0.001	"	<0.002	<0.002	<0.002
Vinyl Acetale	0.005		<0.010	<0.010	<0.010
Vinyl Chloride	0.001	Þ	<0.002	<0.002	<0.002
m&p-Xylene	0.001	. H	0.003	<0.002	<0.002
o-Xylene	0.001	11	<0.002	<0.002	<0.002
Surrogate Recoveries		%	<b>.</b> .,	72	78
d4-1,2-Dichloroethane			74	98	78 91
d8-Tolucne			93		94
Bromofluorobenzenc			65	66 82	82
d10-Ethylbenzene			95	82	02

PSC Submission No: 4H0240

## Client: NWEC+C Inc. Project: Union Ship Canal

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Page	3	01	5
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	lient ID: Lab No.:		Method Blank 049872 04	Blank Spike 049872 04	% Recovery 049872 04
Date S	ampled:		05-Aug-2004	05-Aug-2004	05-Aug-2004
	MDL	Units			
Component					
A	0.020	mg/kg	<	0.057	91
Acelone	0.001		<	0.056	90
Benzenc	0.001	45	<	0.058	92
Bromolorm	0.006		<	0.062	99
Bromomethanc	0.005	**	<	0.060	96
2-Butanone	0.001	17	<	0.068	110
Carbon Disulfide	0.001		<	0.060	<b>9</b> 7
Carbon Tetrachloride	0.001	*1	<	0.061	98
Chlorobenzene	0.001	**	<	0.060	96
Chlorodibromomethane	0.001	44	<	0.060	96
Chlorocihane	0.001	v	<	0.059	94
Chloroform		••	<	0.075	120
Chioromethane	0.001	•1	<	0.059	95
1,2-Dichlorobenzene	0.001		<	0.060	97
1,3-Dichlorobenzene	0.001		<	0.061	98
1,4-Dichlorobenzene	0.001	•}	~	0.059	94
Dichlorobromomethanc	0.001		<	0.056	90
1,1-Dichloroethane	0.001		, ,	0.058	93
1,2-Dichloroethane	0.001		<	0.055	88
1,1-Dichloroethene	0.001	19	<	0.059	94
cis-1,2-Dichlorochene	0.001			0.057	92
trans-1,2-Dichloroethene	0.001		<	0.058	93
1.2-Dichloropropane	0.001		<	0.058	93
cis-1,3-Dichloropropenc	0.001	•1	<	0.057	92
trans-1,3-Dichloropropene	0.001	••	<	0.063	100
Ethylbenzene	0.001	*1	<	0.059	95
2-Hexanone	0.005	*	<	0.056	89
Dichloromethane	0.020	**	<	-	93
4-Methyl-2-Pentanone	0.005	н	<	0.058 NS	
Methyl-t-butylether	0.001	*	<		110
Styrene	0.001	4	<	0.066	85
1,1,2,2-Teirschloroethane	0.001		<	0.053	99
Tetrachloroethene	0,001	•	<	0.062	95
Toluenc	0.001		<	0.059	97
1.1.1-Trichloroethane	0.001	•	<	0.060	95
1,1,2-Trichloroethane	0.001	•	<	0.059	9J 97
Trichloroethene	0.001		<	0.061	100
Trichlorofluoromethane	0.001	l "	<	0.064	
Vinyl Acctale	0.00	5 "	<	NS	100
Vinyl Chloride	0.00	1 "	<	0.065	
m&p-Xylene	0.00	1 "	<	0.13	100 98
o-Xylene	0.00	t "	<	0.061	70
Surrogale Recoveries		•/	74	78	78
d4-1.2-Dichlorocthane			85	87	87
d8-Toluent			83 90	94	94
Bromofluorobenzene			90 96	92	92
410-Ethylbenzene			70		

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PSC Submission No: 4H0240

Client: NWEC+C Inc. Project: Union Ship Canal

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8/23/04

## PASC - Certificate of Analysis

	Ctient ID: Lab No.: Date Sampled:		NAPL Area3-NW Bottom 049873 04 05-Aug-2004	NAPL Area3-NW S.Wall 049874 04 05-Aug-2004	Method Blank 049872 04 05-Aug-2004	Blank Spike 049872 04 05-Aug-2004	% Recovery 049872 04 05-Aug-2004	Blank Spike Duplicate 049872 04 05-Aug-2004	% Recovery 049872 04 05-Aug-2004
Component	MDL	Units							
Naphibalene Acenaphtheae Fluorene Phenasthrene Anthracene Fluoranthene Pyrene Benz(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(a)pyrene Indeno(1,2,3-cd)pyren Dibenzo(a)a)anthracen	0.04 0.05 ne 0.06	<b>mg/kg</b> " " " " " " " "	<0.36 <0.28 <0.16 <0.12 <0.24 <0.24 <0.24 <0.16 <0.20 <0.16 <0.16 <0.16 <0.16 <0.16 <0.20 <0.24 <0.20 <0.24	1.1 1.3 1.6 15 2.7 18 19 6.4 6.9 7.5 6.6 5.6 5.4 0.93 4.7	<0.18 <0.14 <0.08 <0.06 <0.12 <0.08 <0.10 <0.08 <0.08 <0.08 <0.08 <0.10 <0.12 <0.10 <0.12 <0.10 <0.12 <0.10 <0.12	3.1 3.2 3.1 3.3 3.4 3.3 3.4 3.5 3.6 3.5 3.6 3.5 3.3 3.4 , 3.1 2.9 3.1	77 80 77 84 83 86 81 89 89 89 88 81 84 78 73 78	3.1 3.2 3.0 3.3 3.4 3.4 3.4 3.6 3.6 3.6 3.6 3.6 3.3 3.4 3.2 2.9 3.1	78 79 74 83 84 86 86 89 90 89 83 85 79 72 78
Benzo(ghi)perylene Surrogate Recoveries dS-Nitrobenzene 2-Fluorobiphenyl d14-p-Terphenyl		%	52 62 116	55 65 103	65 67 79	76 80 81	76 80 81	75 79 83	75 79 83

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## Page 4 of 5

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### 8/23/04

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Batch Code:	0810MC01		
Acetone	049872 04		
	049873 04		
	049874 04		
Date Analysed:	04/08/10		
Date Prepared:	04/08/10		
Batch Code:	0810MC01		
Ethylbenzene	049872 04		
	049873 04		
	049874 04		
Date Analysed:	04/08/10		
Date Prepared:	04/08/10		
Batch Code:	0812SPA2	0809SPA2	0812SPA2
Naphthalene	049872 04	049873 04	049874 04
Hapitulaiono	049873 04	049874 04	- 4
Date Analysed:	04/08/16	04/08/12	04/08/17
Date Prepared:	04/08/12	04/08/09	04/08/12

PSC Submission No: 4H0240

Client: NWEC+C Inc. Project: Union Ship Canal

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Company Name:       Mature:       Way:       Company Name:       Mature:       Way:       Company Name:       Mature:       Name:       Name:	ANALYTICAL SERVICES         Toll           5555 North Service Road         Burlington, Ontario L7L 5H7	Free: 1-800-668-0639 Tel: (905) 332-8788 Fax: (905) 332-9169			AN	ALYS	SIS RE	QUES	-1-	_ of
Pipe Tranch water East and 3     Age     8/5/04     +     +       Nikel Aren 3     Northwest corner     1     Age 50:1     8/5/04     ×       NAPL Aren 3     Northwest corner     50:1     8/5/04     ×     ×       NAPL Aren 3     Northwest corner     50:1     8/5/04     ×     ×       NAPL Aren 3     Northwest corner     50:1     8/5/04     ×     ×       NAPL Aren 3     Northwest corner     50:1     8/5/04     ×     ×       NAPL Aren 3     Northwest corner     50:1     8/5/04     ×     ×       NAPL Aren 3     Northwest corner     50:1     8/5/04     ×     ×       NAPL Aren 3     Northwest corner     50:1     8/5/04     ×     ×       NAPL Aren 3     Northwest corner     50:1     8/5/04     ×     ×       Northwest corner     50:1     8/5/04     ×     ×     ×       Second corner     50:1     SPECial DETECTION LIMITS     Premarks       Ster	CLIENT       Project Manager:       Russ       Savaçe         INFORMATION       Address:       3553       Criffenden         INFORMATION       Address:       3553       Criffenden         Wy       Phone #:       (716)       937-6527       Fax #:       7         Sampled by:       Jon       Neubaur	Rd 14038		29						el of contamination
AT (Turnaround Time)       PROJECT INFORMATION         Some exceptions apply       Project #: <u>Union Ship Canal</u> Site:	Pope Trench water East and 3 Agu NAPL Airn 3 Northwest corner 1 Ag Soil Botton	8/5/04 8/5/04	t v X X	<u>}</u>						
Project #: <u>Intion Skip (anal</u> some exceptions apply blease contact Lab TD 10 Business Days USH 5 Business Days USH:2 Business Days D	NAPL Aren 3 Northwest (orner 1 5017 Side alls	8/5/04	XX	1						
SPEctal REQUIREMENTS / REGULATIONS										
ID 10 Business Days       PO#:         JSH 5 Business Days       Philip Quote #:         JSH 2 Business Days       Philip Project #:	Project #: Union Skip Lanal ome exceptions apply Site:		LIMITS			REN	<b>ARKS</b>			
The Business Days	FD 10 Business Days       PO#:				IONS				4	

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WHITE - LAB / YELLOW - CLIENT

SEE OVER FOR COMPLETION & SAMPLING INSTRUCTIONS



## Certificate of Analysis

### **CLIENT INFORMATION**

#### Attention: **Russ** Savage Contact: Mike Challis, B.Sc, C.Chem. **Client Name:** NWEC+C Inc. **Project:** AN040300 **Project: Union Ship Canal** Date Received: 11-Aug-2004 Project Desc: Union Ship Canal Date Reported; 23-Aug-2004 Address: 3553 Crittenden Rd. Submission No.: 4H0369 Crittenden, NY Sample No.: 050641-050643 14038 Fax Number: 716-937-9360 Phone Number: 716-937-6527

LABORATORY INFORMATION

NOTES: "--" = not analyzed '<' = less than Method Detection Limit (MDL) 'NA' = no data available LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33 Solids data is based on dry weight except for biota analyses. Organic analyses are not corrected for extraction recovery standards except for isotope dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses) The enclosed copy of the Chain of Custody Record may contain information necessary for the interpretation of the data.

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Twentieth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of three weeks from receipt of data or as per contract.

**COMMENTS:** 

Certified by:

Page 1 of 5

5555 NORTH SERVICE ROAD, BURLINGTON, ONTARIO, CANADA L7L 5H7 T 905 332 8788 F 905 332 9169 W www.pscanalylical.com

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# PASC - Certificate of Analysis

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Page 2 of 5

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D	Client ID: Lab No.; ate Sompled:		Method Blank 05064104	Blank Spike 050641 04	Blank Spike 050641 04	NAPL Area#3 SE-Comp 050642 04	NAPL Arca#3 SE-Comp 050642 04	NAPL Arca#3 SE-Bottm 050643 04
Cômponent	MDL	Units			% Recoveries	09-Aug-2004	09-Aug-2004 Duplicate	09-Aug-2004
Acetone	0.020	mg/kg	<	0.060	95	<	<	<
Benzene	0.001	4)	<	0.058	93	<	0.002	0.002
Bromoform	0.001	H	<	0.056	90	<	<	<
Bromomethane	0.006	n	<	0.066	100	<	<	<
2-Butanone	0.005	*	<	0.062	100	0.008	0.009	0.009
Carbon Disulfide	0.001	н	<	0.068	110	0.001	0.002	<
Carbon Tctrachloride	0.001		<	0.063	100	<	<	<
Chlorobenzene	0.001		<	0.060	97	<	<	<
Chlorodibromomethanc	0.001		<	0.060	<b>96</b>	<	<	<
Chloroethane	0.001	"	<	0.058	92	<	<	<
Chloroform	0.001	77	<	0.061	97	· <	<	<
Chloromethane	0.001	н	<	0.074	120	<	<	<
1,2-Dichlorobenzene	0.001	4	<	0.058	92	<	<	<
1,3-Dichlorobenzene	0.001	н	<	0.059	94	<	<	<
1,4-Dichlorobenzene	0.001	н	<	0.059	95	<	<	<
Dichlorobromomethane	0.001	н	<	0.060	97	<	<-	<
1,1-Dichloroethane	0.001	**	<	0.059	95	<	<	<
1,2-Dichloroethane	0.001		<	0.060	97	<	<	< C
1,1-Dichloroethenc	0.001	0	<	0.061	98	<	<	<
cis-1,2-Dichloroethene	0.001	14	<	0.061	98	<	4	<
trans-1,2-Dichloroethene	0.001	40	<	0.061	98	<	<	<
1,2-Dichloropropane	0.001	ч	<	0.059	94	<	<	~
cis-1,3-Dichloropropene	0.001	17	<	0.058	93	<	<	<
trans-1,3-Dichloropropene	0.001	0	<	0.055	89	<	<	<
Ethylbenzene	0.001		<	0.063	100	<	<	<
2-Hexanone	0.005	•	<	0.061	97	<	<	<
Dichloromethane	0.020	*	<	0.058	93	<	<	~
4-Methyl-2-Pentanone	0.005	4	<	0.061	97	<	<	<
Methyl-t-butylether	0.001	**	<	NS	-	<	<	~
Styrene	0.001	17	<	0.065	100	<	<	<
1,1,2,2-Tetrachloroethane	0.001	h	<	0.054	87	<	<	~
Tetrachlorocthene	0.001	"	<	0.063	100	<	~	<
Tolucne	0.001	н	<	0.059	95	0.002	0.003	0.004
1,1,1-Trichloroethane	0.001	n	<	0.063	100	<	<	<
1,1,2-Trichloroethane	0.001	PI	<	0.058	93	<	<	<
Trichloroethene	0.001	"	<	0,061	98	<	<	~
Trichlorofluoromethane	0.001	43	<	0.060	95	<	< l	~
Vinyl Acetate	0.005	ų	<	NS	•	<	<	<
Vinyl Chloride	0.001	tr	<	0.060	96	< Contract of the second secon	~	~
m&p-Xylene	0.001	H	<	0.13	100	0.003	0.003	0.004
o-Xylene	0.001		<	0.061	97	0.002		
Surrogate Recoveries		%	-		21	0.002	0.002	0.002
d4-1,2-Dichloroethane		• •	80	87	87	70	77	81
d8-Toluene			88	87 94	94	79 96	77 D5	83
Bromofluorobenzene			94	102	102	96 7 <b>2</b>	95 72	84
d10-Ethylbenzene			94 98	102	102	72 59	72 65	94 40
			~~			17	60	40

## PASC - Certificate of Analysis

	Client ID: Lab No.: Date Sampled:		Method Blank 050641 04	Blank Spike #1 050641 04	Blank Spike #1 050641 04	Blank Spike #2 050641 04	Blank Spike #2 050641 04
Component	MDL	Units	•	•	- % Recoveries	-	- % Recoveries
Naphthalene	0.09	mg/kg	<0.18	3.4	85	3.6	90
Accouption	0.07	н	<0.14	3.4	84	3.6	90 89
Fluorene	0.04		<0.08	3.4	84	3.5	89 89
Pheoanthrene	0.03	14	<0.06	3.6	89	3.5	89 92
Anthracene	0.06	1P	<0.12	3.5	86	3.5	92 88
Fluoranthene	0.06	к	<0.12	3.6	89	3.5	
Ругеле	0.04	"	<0.08	3.8	96	3. <i>1</i> 4.0	92
Benz(a)anthracene	0.05	61	<0.10	3.5	90 87		99
Chrysene	0.04	M	<0.08	3.7	93	3.6	91
Benzo(b)fluoranthene	0.04	n	<0.08	3.5	88	3.8	94
Benzo(k)fluoranthene	0.04	14	<0.08	3.8	95	3.5	89
Benzo(a)pyrene	0.05	u,	<0.10	3.4	86	3.9	98
Indeno(1,2,3-cd)pyrend		D	<0.12	3.2		3.5	88
Dibenzo(ah)anthracene		n	<0.12	3.1	80 77	3.3	83
Benzo(ghi)perylene	0.06		<0.12	3.1		3.3	82
Surrogate Recoveries	0.00	%	-0.12	3.2	80	2.6	65
dS-Nitrobenzene			79	79	70	~	
2-Fluorobiphenyl			86	79 84	79	83	83
d14-p-Terphenyl			80 87	84 90	84 90	87 92	87 92

Page 3 of 5

Component	Client ID: Lab No.: Date Sampled: MDL	Units	NAPL Arca#3 SE-Comp 050642 04 09-Aug-2004	NAPL Area#3 SE-Comp 050642 04 09-Aug-2004 M. Spike	NAPL Area#3 SE-Comp 050642 04 09-Aug-2004 MS % Rec.	NAPL Area#3 SE-Comp 050642 04 09-Aug-2004 MS Dup	NAPL Area#3 SE-Comp 050642 04 09-Aug-2004 MSD % Rec.	NAPL Area#3 SE-Bottm 050643 04 09-Aug-2004
Naphthalene	0.09	mg/kg	0.53	3.9	76	3.5	64	• •
Accamphtheac	0.07		0.27	4.2	89	3.8	76	2.2 0.14
Fluorene	0.04	H	0.28	4.3	93	3.9	78	
Phenamhrene	0.03	19	3.1	7.9	110	6.4	72	0.22
Anthracene	0.06	и <u>,</u>	0.84	4.8	91	4.2	72	0.17
Fluoranthene	0.06	u	5.7	11	120	8,6	63	<
Рутере	0.04	e	5.1	11	120	8.7	03 75	0.15
Benz(a)anthracene	0.05		3.3	8.2	110	7.0	80	0.15
Chrysene	0.04	Π	3.5	7.9	100	7.0	75	0.08
Benzo(b)fluoranthene	0.04	17	3.6	9.1	130	8.0		0.10
Benzo(k)fluoranthene	0.04	н	3.1	6.3	73	6.2	96	0.09
Benzo(a)pyrene	0.05	H	3.4	7.7	98		67	0.09
Indeno(1,2,3-cd)pyrene	e 0.06	61	2.8	7.7	110	6.9 7.1	76	0.10
Dibenzo(ah)anthracene		•	0.46	5.9	120		94	0.08
Benzo(ghi)perylene	0.06	•	2.0	5.1	71	5.6	J10	<
Surrogate Recoveries		%	2.0	2.1	1	6.7	100	0.16
d5-Nitrobenzene			61	67	67			
2-Fluorobiphenyl			71	79	79	61	61	55
dl4-p-Terphenyl			83	89		74	74	66
			LO	67	89	81	81	78

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8/23/04

## PASC - Summary of Analysis Pre. Dates

Batch Code: 0813MC03 **STARS - VOC** 050641 04 050642 04 050643 04 Date Analysed: 04/08/13 Date Prepared: 04/08/13 **Batch Code:** 0816SPA2 **STARS - SVOC** 050641 04 050642 04 050643 04 Date Analysed: 04/08/17 Date Prepared: 04/08/16

PSC Submission No: 4H0369

	5555 Nor	TICAL SERVICES th Service Road 1, Ontario L7L 5H7	_	Т	oll Free: 1-800 Tel: (905) Fax: (905)	332-8768			ANA	YSIS F	REQUES	Page	of	Ż
CLIEN INFORMA MB 50641		Company Name: Project Manager: Address: (riffing Phone #: Sampled by:	Ross Sa (cittenda 14 , NY 7-6527	n Road 14038	937-936		21 STARS	20 5772RS -						Level of contamination
J Philip Use Only		Field Sample ID	# Bolties	Matrix	Date	Time	1202	02C8			ĺ			Level of
50642		hren#3 Suthrew Con Sidouil Kreatts Southast Corn Botton	a a	50 L 50. l	8/9/04 8/9/07			X						
			<u> </u>									<u> </u>		
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TAT (Turnaround Til RUSH TAT MUST HA PRICE APPROVAL	VΕ	PROJECT INFORMATIC Project #:	ip Cano	,	SPECIAL D	ETECTION	LIMITS		R	EMARK	S	~~	. <b>I</b>	
*some exceptions app please contact Lab STD 10 Business Dat RUSH 5 Business Dat RUSH 2 Business Dat	ys 🛛 ys 🗋	Site: <u>(/h/4\ 5/</u> PO#: Philip Quote #:	ip Cani	<u> </u>	MISA D		NTS / FI	EGULATIO	NS					
RUSH 1 Business Day Other Business Days	/s 🖸	Philip Project #:				~		 -						
Client Signature: Affiliation: Date/Time:	69		A	eceived By: ffiliation: ate/Time:	nst	Ż	n 2:2	 ፓ		c'd By: _ te/Time				

## **APPENDIX G**

# NAPL AREAS ADDITIONAL PREDISPOSAL CHARACTERIZATION LABORATORY ANALYTICAL RESULTS AND DISPOSAL FACILITY APPROVAL



Client:	NWEC&C, Inc.	Lab Project No.:	04.0577
Client Job Site:	Union Ship Canal	Sample Type: Method:	Solid SW846 9045C
Client Job No.:	N/A	Date(s) Sampled: Date Received: Date Analyzed:	02/27/2004 03/02/2004 03/02/2004

### Laboratory Report for pH Analysis

Lab Sample No.	Field ID No.	Field Location	pH Results (S.U.)
2519	N/A	Additional NAPL Area	9.72
		· · · · · · · · · · · · · · · · · · ·	

ELAP ID No.: 10958

Comments:

**Approved By:** 

Bruce Hoogesteger, Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional sample information, including compliance with sample condition requirements upon receipt.



179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

ENVIRONMENTAL SERVICES, INC.

Client:	NWEC&C, Inc.	Lab Project No.:	04-0577
Client Job Site: Client Job No.:	Union Ship Canal N/A	Sample Type: Method:	Solid SW846 1010
Chefft Job No		Date(s) Sampled: Date Received: Date Analyzed:	02/27/2004 03/02/2004 03/09/2004

## Laboratory Report for Flashpoint Analysis

Lab Sample No.	Field ID No.	Field Location	Flashpoint Results (°C)
2519	N/A	Additional NAPL Area	>70

ELAP ID No.: 10958

Comments:

Approved By:

Htt Bruce Hoogesteger, Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional sample information including compliance with sample condition requirements upon receipt. sample information, including compliance with sample condition requirements upon receipt.



## LABORATORY REPORT OF ANALYSIS

### Client: <u>NWEC&C, Inc.</u>

Client Job Site: Client Job No.:

Field Location:

Union Ship Canal N/A

Additional NAPL Area

Lab Project No.: 04-0577 Lab Sample No.: 2519

Sample Type: Soil

 Date Sampled:
 02/29/2004

 Date Received:
 03/02/2004

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Cyanide Reactivity	03/04/2004	SW846, 7.3	ND<1 Non Reactive
Sulfide Reactivity	03/10/2004	SW846, 7.3	20 Non Reactive

ELAP ID. No.: 10709

Comments:

ND denotes Non Detected. Hazardous Waste Regulatory Levels for Reactivity are as follows: Sulfide - 500 mg/kg, Cyanide - 250 mg/kg.

Approved By Technical Director:

Bruce Hoogesteger

## PCB Analysis Report for Soils/Solids/Sludges

### Client: NWEC&C, Inc

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	04-0577 2519
Client Job Number:	N/A		
Field Location:	Additional NAPL Area	Date Sampled:	02/27/2004
Field ID Number:	N/A	Date Received:	03/02/2004
Sample Type:	Soil	Date Analyzed:	03/11/2004

PCB Identification	Results in mg / Kg	
Aroclor 1016	ND< 0.668	
Aroclor 1221	ND< 0.668	
Aroclor 1232	ND< 0.668	
Aroclor 1242	ND< 0.668	
Aroclor 1248	ND< 0.668	
Aroclor 1254	ND< 0.668	
Aroclor 1260	ND< 0.668	

ELAP Number 10958

Method: EPA 8082A

Comments:

ND denotes Non Detect mg / Kg = milligram per Kilogram

Bruce Hoogesteger. Technical Director

Signature:



Lab Project No.: Client: NWEC&C, Inc. 04.0577 Lab Sample No.: 2519 **Client Job Site:** Union Ship Canal Sample Type: **TCLP Extract Client Job No.:** N/A Date Sampled: 02/27/2004 **Date Received:** 03/02/2004 **Field Location:** Additional NAPL Area Field ID No.: N/A

### Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series	· · · · · · · · · · · · · · · · · · ·			
Arsenic	03/04/2004	EPA 6010	<0.100	5.0
Barium	03/04/2004	EPA 6010	0.840	100.0
Cadmium	03/04/2004	EPA 6010	<0.025	1.0
Chromium	03/04/2004	EPA 6010	<0.050	5.0
Lead	03/04/2004	EPA 6010	<0.100	5.0
Mercury	03/09/2004	EPA 7470	<0.0020	0.2
Selenium	03/04/2004	EPA 6010	<0.100	1.0
Silver	03/04/2004	EPA 6010	<0.050	5.0

ELAP ID No.: 10958

Comments:

Approved By:

Bryce Hoogesteger, Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional sample information, including compliance with sample condition requirements upon receipt.



## Semi-Volatile Analysis Report for TCLP Extract

## Client: <u>NWEC&C, Inc.</u>

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Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	04-0577 2519
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Additional NAPL Area N/A TCLP Extract	Date Sampled: Date Received: Date Analyzed:	02/27/2004 03/02/2004 03/04/2004

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	3,000
Hexachlorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	130
Nitrobenzene	ND< 40.0	2,000
Pvridine	ND< 40.0	5,000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2,4,5-Trichlorophenol	ND< 100	400,000
2,4,6-Trichlorophenol	ND< 40.0	2,000
ELAP Number 10958	Method: EPA 8270C	Data File: 18326.D

.

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Signature:

Bruce Hoogesteger: Technical Director



## Pesticide Analysis Report for TCLP Extracts

## Client: NWEC&C, Inc

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	04-0577 2519
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Additional NAPL Area N/A TCLP Extract	Date Sampled: Date Received: Date Analyzed:	02/27/2004 03/02/2004 03/05/2004

Pesticide	Results in ug / L	Regulatory Limits in ug / L
gamma-BHC (Lindane)	ND< 1.00	400
Chlordane	ND< 1.00	30
Endrin	ND< 1.00	20
Heptachlor	ND< 1.00	8
Heptachlor Epoxide	ND< 1.00	8
Methoxychlor	ND< 1.00	10,000
Toxaphene	ND< 50.0	500
ELAP Number 10958		Method: EPA 8081A

ELAP Number 10958

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Signature:

Bruce Hoogesteger: Technical Director



179 Lake Avenue Rochester, New York 14608 (585) 647-2530 FAX (585) 647-3311

## LABORATORY REPORT FOR HERBICIDE ANALYSIS

Client:	NWEC&C, Inc.	Lab Project No: Lab Sample No:	04-0577 2519
Client Job Site:	Union Ship Canal	Sample Type:	TCLP Extract
<b>Client Job No:</b>	N/A	Date Sampled:	02/29/2004
Field Location:	Additional NAPL Area	Date Received:	03/02/2004
		Date Analyzed:	03/10/2004

Parameter	Result (mg/l)	Regulatory Limit (mg/l)
2,4,5-TP (Silvex)	ND<0.2	1.0
2,4-D	ND<2.0	10.0

Analytical Method: SW1311/8151 ELAP ID: 10709

Comments:

ND denotes Non Detected.

**Approved By Technical Director:** 

Bruce Høøgesteger

#### Volatile Analysis Report for TCLP Extract

#### Client: NWEC&C. Inc.

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	04-0577 2519
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Additional NAPL Area N/A TCLP Extract	Date Sampled: Date Received: Date Analyzed:	02/27/2004 03/02/2004 03/10/2004

TCLP Analytes	Results in ug / L	Regulatory Limits in ug / L
Benzene	ND< 20.0	500
2-Butanone	ND< 50.0	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200
ELAP Number 10958	Method: EPA 8260B	Data File: 19652.D

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Signature:

echnical Director Bruce Hoogestege

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# PARADIGM

## CHAIN OF CUSTODY

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Received By:		7	<u></u>	Date/Time:	and the second sec	ved @ L	-		ta k	· · · · ·				Date/Tim			P.I.F.			



## Certificate of Analysis

#### **CLIENT INFORMATION**

#### LABORATORY INFORMATION

Attention:	Russ Savage	Contact:	Mike Challis, B.Sc, C.Chem.
<b>Client Name:</b>	NWEC+C Inc.	Project:	AN040300
Project:	Union Ship Canal	Date Received:	19-May-2004
<b>Project Desc:</b>	Union Ship Canal	Date Reported:	03-Jun-2004
Address:	3553 Crittenden Rd.	Submission No.:	4E0777
	Crittenden, NY	Sample No.:	028385-028387
	14038		
Fax Number:	716-937-9360		
Phone Number:	716-937-6527		

NOTES: ''-' = not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33 Solids data is based on dry weight except for biota analyses. Organic analyses are not corrected for extraction recovery standards except for isotope dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses) The enclosed copy of the Chain of Custody Record may contain information necessary for the interpretation of the data.

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Twentieth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of three weeks from receipt of data or as per contract.

#### **COMMENTS:**

- (1) MDL's Raised due to matrix interference
- (2) Insufficient sample
- (3) Outside Statistical Control Data Within Acceptance Limits (g-BHC)
- (4) Surrogate Recovery Outside Acceptable Limits (Decachlorobiphenyl)

Certified by: _____

Page 1 of 8

Component	Client ID: Lab No.: Date Sampled: MDL	Units	Additional NAPL Area 028387 04 18-May-2004	Additional NAPL Area 028387 04 18-May-2004 Duplicate	Additional NAPL Area 028387 04 18-May-2004 M. Spike	Additional NAPL Area 028387 04 18-May-2004 MS % Rec.	Additional NAPL Area 028387 04 18-May-2004 MS Dup	Additional NAPL Area 028387 04 18-May-2004 MSD % Rec.
pH after 3.5 ml of 1N HCl addition			4.18	-	-	-	-	-
pH after extraction (semi-vols/metals)			6.35	-	-	-	-	-
pH initial (5g + 96.5ml water)			9.22	-	-	-	-	-
pH of extraction fluid (semi-vols/metals)			4.92	-	-	-	-	-
pH after extraction (volatiles)			6.27	-	-	-	-	-
pH of extraction fluid (volatiles)			4.92	-	-	-	-	-
Soil pH measured in water			8.15	8.13	-	-	-	-
Cyanide (Reactive)	500	ug/kg	<1000	-	-	-	-	-
Sulphide (Reactive)	20000	Ħ	80000	-	-	-	-	-
			(2)					
Flash Point	0.1	°C	Pending	-	-	-	-	-
			(1)					
Aroclor-1016	38	ug/kg	<130	-	360	95	340	84
Aroclor-1221	41	-11	<88	-	<	<	<	<
Aroclor-1232	38	н	<88	-	<	<	<	<
Aroclor-1242	50	64	<130	-	<	<	<	<
Aroclor-1248	31	11	<180	-	<	<	<	<
Aroclor-1254	59	11	<260	-	<	<	<	<
Aroclor-1260	31	н	<350	-	490	130	470	110
Aroclor-1262	31	*	<350	-	<	<	<	<
Aroclor-1268	49		<180	-	<	<	<	<
Total PCB	59	Ħ	<350	-	850	110	810	100
Surrogate Recoveries		%						
4,4'-Dibromooctaflourobiphenyl			78	-	99	99	86	86
Decachlorobiphenyl			75	•	97	97	79	79

Component	Client ID: Lab No.: Date Sampled: MDL	Units	Method Blank 028385 04 18-May-2004	Blank Spike 028385 04 18-May-2004	% Recovery 028385 04 18-May-2004
pH after 3.5 ml of 1N HCl addition					
pH after extraction (semi-vols/metals)			-	-	•
pH initial (5g + 96.5ml water)			-	-	-
pH of extraction fluid (semi-vols/metals)			-	-	-
pH after extraction (volatiles)			-	-	-
pH of extraction fluid (volatiles)			-	-	-
Soil pH measured in water			-	-	-
Cyanide (Reactive)	500	ug/kg	<1000	25000	100
Sulphide (Reactive)	20000	"	<	-	-
Flash Point	0.1	°C	-	-	
Aroclor-1016	38	ug/kg	<	390	97
Aroclor-1221	41	"	<	<	<
Aroclor-1232	38	н	<	<	<
Aroclor-1242	50	**	<	<	<
Aroclor-1248	31	*	<	<	<
Aroclor-1254	59	**	<	<	< .
Aroclor-1260	31	н	<	400	100
Aroclor-1262	31	**	<	<	<
Aroclor-1268	49	"	<	<	<
Total PCB	59	"	<	790	98
Surrogate Recoveries		%			
4,4'-Dibromooctaflourobiphenyl			95	103	103
Decachlorobiphenyl			74	79	79

Component	Client ID: Lab No.: Date Sampled: MDL	Units	Additional NAPL utnv 028388 04 27-May-2004	Method Blank 028386 04 01/40/01	Blank Spike 028386 04 01/40/01	% Recovery 028386 04 01/40/01	Blank Spike Duplicate 028386 04 01/40/01	% Recovery 028386 04 01/40/01
Mercury	0.50	ug/L	<	<	11	110	-	_
Arsenic	0.250	mg/L	<	<	1.3	100	-	-
Barium	0.100	11	0.35	<	2.5	100	-	-
Cadmium	0.050	н	<	<	1.2	96	-	-
Chromium	0.500	11	<	<	2.4	97	-	-
Lead	0.500	H	<	<	2.4	97	-	-
Selenium	0.100	**	<	<	1.3	110	-	-
Silver	0.500	"	<	<	1.3	100	-	-
				(3)(4)				
a-Chlordane	0.005	ug/L	<0.026	<	0.11	92	0.12	100
g-Chlordane	0.009	"	< 0.039	<	0.12	100	0.12	99
Endrin	0.011	*1	<0.048	<	0.14	120	0.15	130
Heptachlor	0.005	**	<0.026	<	0.12	100	0.095	79
Heptachlor Epoxide	0.012	"	<0.061	<	0.13	110	0.16	130
Lindane	0.007	**	<0.039	<	0.14	110	0.13	110
Methoxychlor	0.018	**	<0.14	<	0.51	110	0.64	130
Toxaphene	0.116	"	<0.18	<	NS	-	NS	-
Surrogate Recoveries		%						
4,4'-Dibromooctaflourobiphe	nyl		94	67	78	78	83	83
Decachlorobiphenyl			103	93	92	92	37	37
2,4-D (via 8150)	0.39	ug/L	<1.4	<	2.1	110	2.1	100
2,4,5-TP	0.04	"	<0.15	<	0.21	110	0.15	76
Surrogate Recoveries		%						
2,3-D			107	72	76	76	95	95

6/3/04

Component	Client ID: Lab No.: Date Sampled: MDL	Units	Additional NAPL utv 028389 04 27-May-2004	Method Blank 028386 04 01/40/01	Blank Spike 028386 04 01/40/01	% Recovery 028386 04 01/40/01
Benzene	0.5	ug/L	<100	<100	9800	98
2-Butanone	5.0	H	<1000	<1000	9900	99
Carbon Tetrachloride	0.7	**	<140	<140	11000	110
Chlorobenzene	0.6	**	<120	<120	9900	99
Chloroform	0.3	н	<60	<60	11000	110
1,2-Dichloroethane	0.3	н	<60	<60	11000	110
1,1-Dichloroethene	0.7	11	<140	<140	9600	96
Tetrachloroethene	0.5	**	<100	<100	10000	100
Trichloroethene	0.3	н	<60	<60	9800	98
Vinyl Chloride	0.9	н	<180	<180	13000	130
1,4-Dichlorobenzene	1.6	**	<320	<320	9800	98
Surrogate Recoveries		%				
d4-1,2-Dichloroethane			106	104	105	105
d8-Toluene			100	102	101	101
1,4-Bromofluorobenzene			102	103	105	105

Component	Client ID: Lab No.: Date Sampled: MDL	Units	Additional NAPL utnv 028388 04 27-May-2004	Method Blank 028386 04 01/40/01	Blank Spike 028386 04 01/40/01	% Recovery 028386 04 01/40/01	Blank Spike Duplicate 028386 04 01/40/01	% Recovery 028386 04 01/40/01
Pyridine	5.0	ug/L	<	<	NS	-	NS	-
o-Cresol	1.7	"	<	<	19	75	19	74
m&p-Cresol	3.5	H	<	<	19	74	18	72
1,4-Dichlorobenzene	2.0	**	<	<	7.9	32	9.0	36
2,4-Dinitrotoluene	0.5	**	<	<	23	93	24	97
Nitrobenzene	2.0	**	<	<	21	84	22	88
Pentachlorophenol	1.1	"	<	<	22	87	22	86
2,4,5-Trichlorophenol	0.6	н	<	<	21	83	22	87
2,4,6-Trichlorophenol	1.2	H	<	<	22	87	22	89
Hexachloroethane	2.0	**	<	<	3.9	16	4.8	19
Hexachlorobutadiene	2.0	**	<	<	3.3	13	4.0	16
Hexachlorobenzene	2.0	H	<	<	23	90	23	91
Surrogate Recoveries		%						
d5-Phenol			33	34	32	32	32	32
d5-Nitrobenzene			90	90	83	83	84	84
2-Fluorobiphenyl			75	72	64	64	61	61
2,4,6-Tribromophenol			85	83	80	80	85	85
d-14-p-Terphenyl			92	99	85	85	88	88

Page MS-7 of 8	Page	Μ	S-7	' of	8
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Batch Code:	0526RGA1
pH after 3.5 ml of 1N HCl addition	028387 04
Date Analysed:	04/05/27
Date Prepared:	04/05/26
Batch Code:	0526RGV1
pH after extraction (volatiles)	028387 04
Date Analysed:	04/05/27
Date Prepared:	04/05/26
Batch Code:	0525VPH1
Soil pH measured in water	028387 04
Date Analysed:	04/05/27
Date Prepared:	04/05/25
Batch Code:	0521FSA1
Cyanide (Reactive)	028385 04
•	028387 04
Date Analysed:	04/05/25
Date Prepared:	04/05/21
Batch Code:	0521BAA1
Sulphide (Reactive)	028385 04
	028387 04
Date Analysed:	04/05/21
Date Prepared:	04/05/21
Batch Code:	
Date Analysed:	
Date Prepared:	
Batch Code:	0526NDU1
Aroclor-1016	028385 04
	028387 04
Date Analysed:	04/05/26
Date Prepared:	04/05/26

6/3/04

Page	MS-8	of 8
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Batch Code:	0527MBL1
Mercury	028386 04
	028388 04
Date Analysed:	04/05/27
Date Prepared:	04/05/27
Batch Code:	0527STL1
Arsenic	028386 04
	028388 04
Date Analysed:	04/05/27
Date Prepared:	04/05/27
Batch Code:	0531NDS1
a-Chlordane	028386 04
	028388 04
Date Analysed:	04/06/01
Date Prepared:	04/05/31
Batch Code:	0531NDS1
2,4-D (via 8150)	028386 04
	028388 04
Date Analysed:	04/06/01
Date Prepared:	04/05/31
Batch Code:	0531DJ01
Benzene	028386 04
	028389 04
Date Analysed:	04/05/31
Date Prepared:	04/05/31
Batch Code:	0528NCS1
Pyridine	028386 04
·	028388 04
Date Analysed:	04/05/31
Date Prepared:	04/05/28
Batch Code:	0528NCS1
Hexachloroethane	028386 04
	028388 04
Date Analysed:	04/05/31
Date Prepared:	04/05/28

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CLIENT INFORMATION 1.65 - 025385 1.65 - 025385 MB J - 228386 Philip Use Only 028387 - 89 Addit	Company Name:	Critten Critten nden, N 2-6527 : 199 Bottles	den Te den Te	· > /	ull TCLP Servers	× Iguitability/17/256/0	× Corrosi vity (pH)	× Rectivity	x 8087 PB m.C/		200	xx	Level of contamination (low. high. unknown)
TAT (Turnaround Time) RUSH TAT MUST HAVE PRIOR APPROVAL *some exceptions apply please contact Lab STD 10 Business Days RUSH 5 Business Days RUSH 2 Business Days RUSH 1 Business Days Other Business Days Client Signature:		cber		prece					REMAR Rec'd B Date/Til	y: me			

WHITE - LAB / YELLOW - CLIENT

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## Certificate of Analysis

#### **CLIENT INFORMATION**

#### LABORATORY INFORMATION

Attention:	Russ Savage	Contact:	Mike Challis, B.Sc, C.Chem.
<b>Client Name:</b>	NWEC+C Inc.	Project:	AN040300
Project:	Union Ship Canal	Date Received:	29-May-2004
<b>Project Desc:</b>	Union Ship Canal	Date Reported:	12-Jul-2004
Address:	3553 Crittenden Rd.	Submission No.:	4E1225
	Crittenden, NY	Sample No.:	030880-030883
	14038		
Fax Number:	716-937-9360		
Phone Number:	716-937-6527		

 NOTES:
 "-' = not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available</td>

 LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33

 Solids data is based on dry weight except for biota analyses.

 Organic analyses are not corrected for extraction recovery standards except for isotope

 dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses)

 The enclosed copy of the Chain of Custody Record may contain information necessary for the

 interpretation of the data.

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Twentieth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of three weeks from receipt of data or as per contract.

#### **COMMENTS:**

(1) Surrogate Recovery Outside Acceptable Limits

Certified by: _____

Page 1 of 8

L Component	Client ID: Lab No.: Date Sampled: MDL	Units	Method Blank TCLP 030880 04 01/40/01	Blank Spike TCLP 030880 04 01/40/01	% Recovery TCLP 030880 04 01/40/01	Blank Spike Dup. TCLP 030880 04 01/40/01	% Recovery TCLP 030880 04 01/40/01	NAPL Area S. #2 TCLP 030882 04 01-Jun-2004	NAPL Area S. #2 TCLP 030882 04 01-Jun-2004 Duplicate
Mercury	0.50	ug/L	<	-	-	-	-	<	-
Arsenic	0.250	mg/L	<	1.3	100	-	-	<	<
Barium	0.100	"	<	2.6	100	-	-	0.37	0.37
Cadmium	0.050	н	<	1.3	100	-	-	<	<
Chromium	0.500	**	<	2.6	100	-	-	<	<
Lead	0.500	н	<	2.6	100	-	-	<	<
Selenium	0.100	11	<	1.3	100	-	-	<	<
Silver	0.500	"	<	1.3	100	-	-	<	<
a-Chlordane	0.005	ug/L	<	0.13	110	0.13	110	<0.025	-
g-Chlordane	0.009	*1	<	0.12	100	0.13	110	<0.038	-
Endrin	0.011	11	<	0.12	100	0.14	120	<0.046	-
Heptachlor	0.005	"	<	0.10	85	0.11	93	<0.025	-
Heptachlor Epoxide	0.012	Ħ	<	0.13	110	0.12	97	<0.058	-
Lindane	0.007	11	<	0.13	110	0.14	110	<0.038	-
Methoxychlor	0.018	**	<	0.44	92	0.53	110	<0.14	-
Toxaphene	0.116	**	<	NS	-	NS	-	<0.17	-
Surrogate Recoveries		%							
4,4'-Dibromooctaflourobiphen	yl		<b>79</b>	50	50	47	47	69	-
Decachlorobiphenyl			90	84	84	89	89	100	-
			(1)						
2,4-D (via 8150)	0.39	ug/L	<	2.7	96	2.8	100	<2.7	-
2,4,5-TP Surrogate Recoveries	0.04	" %	<	0.23	97	0.24	100	<0.28	-
2,3-D			44	77	77	89	89	93	-

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D Component	Client ID: Lab No.: ate Sampled: MDL	Units	NAPL Area S. #2 TCLP 030882 04 01-Jun-2004 M. Spike	NAPL Area S. #2 TCLP 030882 04 01-Jun-2004 MS % Rec.
Mercury	0.50	ug/L	-	-
Arsenic Barium Cadmium Chromium Lead Selenium Silver	0.250 0.100 0.050 0.500 0.500 0.100 0.500	mg/L " " " "	1.2 2.9 1.2 2.4 2.4 1.3 1.2	99 99 96 95 95 100 99
a-Chlordane g-Chlordane Endrin Heptachlor Heptachlor Epoxide Lindane Methoxychlor Toxaphene Surrogate Recoveries 4,4'-Dibromooctaflourobipheny	0.005 0.009 0.011 0.005 0.012 0.007 0.018 0.116	ug/L " " " "	- - - - - - - -	
2,4-D (via 8150) 2,4,5-TP Surrogate Recoveries 2,3-D	0.39 0.04	ug/L " %	- - -	- - -

Component	Client ID: Lab No.: Date Sampled: MDL	Units	NAPL Area S. #2 TCLP 030882 04 01-Jun-2004	NAPL Area S. #2 TCLP 030883 04 01-Jun-2004	Method Blank TCLP 030880 04 01/40/01	Blank Spike TCLP 030880 04 01/40/01	% Recovery TCLP 030880 04 01/40/01	Blank Spike Dup. TCLP 030880 04 01/40/01	% Recovery TCLP 030880 04 01/40/01	
Benzene	0.5	ug/L	-	<100	<100	9900	99	-	-	
2-Butanone	5.0	"	-	<1000	<1000	10000	100	•	-	
Carbon Tetrachloride	0.7	"	-	<140	<140	11000	110	-	-	
Chlorobenzene	0.6		-	<120	<120	9900	99	-	-	
Chloroform	0.3	H	-	<60	<60	11000	110	-	-	
1,2-Dichloroethane	0.3		-	<60	<60	11000	110	-	-	
1,1-Dichloroethene	0.7		-	<140	<140	9700	97	-	-	
Tetrachloroethene	0.5		-	<100	<100	10000	100	-	-	
Trichloroethene	0.3	"	-	<60	<60	10000	100	-	-	
Vinyl Chloride	0.9	**	-	<180	<180	14000	140	•	-	
1,4-Dichlorobenzene	1.6		-	<320	<320	9800	98	-	-	
Surrogate Recoveries		%								
d4-1,2-Dichloroethane			-	110	105	103	103	-	-	
d8-Toluene			-	99	100	101	101	-	-	
1,4-Bromofluorobenzene			-	102	101	109	109	-	-	
	<b>5</b> 0	и								
Pyridine	5.0	ug/L "	<	•	<	NS	•	NS	-	
o-Cresol	1.7		<	•	<	11	43	14	55	
m&p-Cresol	3.5		<	-	<	9.2	37	12	48	
1,4-Dichlorobenzene	2.0		<	-	<	11	44	12	46	
2,4-Dinitrotoluene	0.5		<	-	<	23	93	23	92	
Nitrobenzene	2.0		<	-	<	19	76	22	89	
Pentachlorophenol	1.1		<	•	<	28	110	29	120	
2,4,5-Trichlorophenol	0.6	"	<	-	<	20	78	21	82	
2,4,6-Trichlorophenol	1.2	"	<	-	<	21	82	22	86	
Hexachloroethane	2.0	11	<	-	<	7.1	28	7.8	31	
Hexachlorobutadiene	2.0	"	<	-	<	5.5	22	7.3	29	
Hexachlorobenzene	2.0	H	<	-	<	24	94	24	95	
Surrogate Recoveries		%								
d5-Phenol			12	-	11	15	15	21	21	
d5-Nitrobenzene			63	-	64	75	75	87	87	
2-Fluorobiphenyl			65	-	61	75 72	72	70	70	
2,4,6-Tribromophenol			81	-	75	92	92	91	91	
d-14-p-Terphenyl			60	-	73	94	94	94	94	
r			~~			27	27	74	74	

Client: NWEC+C Inc. Project: Union Ship Canal

Component	Client ID: Lab No.: Date Sampled: MDI	Unite	NAPL Area S. #2 030881 04 28-May-2004	NAPL Area S. #2 030881 04 28-May-2004 MSD % Rec.				
Component	MDL	Units		Duplicate	M. Spike	MS % Rec.	MS Dup	MSD % Rec.
pH after 3.5 ml of 1N HCl addition			3.22	-	-	-	-	-
pH after extraction (semi-vols/metals)				-	-	-	-	-
pH initial (5g + 96.5ml water)			9.40	-	-	-	-	-
pH of extraction fluid (semi-vols/metals)	$\begin{array}{c c c c c c c c c c c c c c c c c c c $		-					
pH after extraction (volatiles)			6.27	-	-	-	•	-
pH of extraction fluid (volatiles)			4.92	-	-	-	-	-
Soil pH measured in water			8.49	8.54	-	-	-	-
Cyanide (Reactive)	500	ug/kg	<1000	<1000	-	-	-	-
Sulphide (Reactive)	10000		34	-	-	-	-	-
Flash Point	0.1	С	did not flash <90	-	-	-	-	-
			(1)					
Aroclor-1016	38	ug/kg		-	200	55	220	56
Aroclor-1221	41	**	<	-	<	<	<	<
Aroclor-1232	38	**	<	-	<	<	<	<
Aroclor-1242	50	**	<	-	<	<	<	<
Aroclor-1248	31	н	<	-	<	<	<	<
Aroclor-1254	59	*	0.080	-	<	<	<	<
Aroclor-1260	31	"	<	-	290	80	310	81
Aroclor-1262	31	Ħ	<	-	<	<	<	<
Aroclor-1268	49	"	<	-	<	<	<	<
Total PCB	59	"	0.080	-	500	67	530	69
Surrogate Recoveries		%						
4,4'-Dibromooctaflourobiphenyl			60	-	50	50	58	58
Decachlorobiphenyl			56	-	49	49	56	56

	Client ID: Lab No.: Date Sampled:		Method Blank 030879 04 28-May-2004	Blank Spike 030879 04 28-May-2004	% Recovery 030879 04 28-May-2004
Component	MDL	Units			
pH after 3.5 ml of 1N HCl addition			-	-	-
pH after extraction (semi-vols/metals)			-	-	-
pH initial (5g + 96.5ml water)			-	-	-
pH of extraction fluid (semi-vols/metals)			-	-	-
pH after extraction (volatiles)			-	-	-
pH of extraction fluid (volatiles)			-	-	-
Soil pH measured in water			-	-	-
Cyanide (Reactive)	500	ug/kg	<1000	26000	100
Sulphide (Reactive)	10000	"	<	<	80
Flash Point	0.1	С	-	-	-
Aroclor-1016	38	ug/kg	<	320	80
Aroclor-1221	41	"	<	<	<
Aroclor-1232	38	*	<	<	<
Aroclor-1242	50	**	<	<	<
Aroclor-1248	31	11	<	<	<
Aroclor-1254	59	н	<	<	<
Aroclor-1260	31	н	<	340	85
Aroclor-1262	31	"	<	<	<
Aroclor-1268	49	"	<	<	<
Total PCB	59	14	<	660	82
Surrogate Recoveries		%			
4,4'-Dibromooctaflourobiphenyl			99	89	89
Decachlorobiphenyl			71	65	65

Page	<b>MS-7</b>	of 8
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Batch Code:	0602MBL1
Mercury	030880.04
······	030882.04
Date Analysed:	04/06/03
Date Prepared:	04/06/02
Batch Code:	0601STL1
Arsenic	030880 04
	030882 04
Date Analysed:	04/06/01
Date Prepared:	04/06/01
Batch Code:	0601MGS1
a-Chlordane	030880 04
	030882 04
Date Analysed:	04/06/01
Date Prepared:	04/06/01
Batch Code:	0603NDS1
2,4-D (via 8150)	030880 04
	030882 04
Date Analysed:	04/06/03
Date Prepared:	04/06/03
Batch Code:	0601DJ01
Benzene	030880 04
Dete Analysed	030883 04
Date Analysed:	04/06/01 04/06/01
Date Prepared:	04/06/01
Batch Code:	0601NCS1
Pyridine	030880 04
1 yridille	030882 04
Date Analysed:	04/06/03
Date Prepared:	04/06/01
Dute Treparea	• • • • • •
Batch Code:	0601NCS1
Hexachloroethane	030880 04
	030882 04
Date Analysed:	04/06/03
Date Prepared:	04/06/01
-	

#### 7/12/04

1.1

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## PASC - Summary of Analysis Pre. Dates

Batch Code: pH after 3.5 ml of 1N HCl addition Date Analysed: Date Prepared:	0531RGA1 030881 04 04/06/01 04/05/31
Batch Code:	0531RGV1
pH after extraction (volatiles)	030881 04
Date Analysed:	04/06/01
Date Prepared:	04/05/31
Batch Code:	0531VPH1
Soil pH measured in water	030881 04
Date Analysed:	04/06/01
Date Prepared:	04/05/31
Batch Code:	0531FSA1
Cyanide (Reactive)	030879 04
	030881 04
Date Analysed:	04/05/31
Date Prepared:	04/05/31
Batch Code:	0531FSA1
Sulphide (Reactive)	030879 04
	030881 04
Date Analysed:	04/05/31
Date Prepared:	04/05/31
Batch Code:	0601RGA1
Flash Point	030881 04
Date Analysed:	04/06/01
Date Prepared:	04/06/01
Batch Code:	0603NDU1
Aroclor-1016	030879 04
	030881 04
Date Analysed:	04/06/03
Date Prepared:	04/06/03

# CHAIN OF CUSTODY

		CF	IAIN	OF CL	ISTOL	<u> </u>							 	The second second	
5555 North	ICAL SERVICES Service Road Ontario L7L 5H7		Toll F	Free: 1-800-6 Tel: (905) 3 Fax: (905) 3	32-8788	Herbs			ANA	LYSI	S REQL	Page JESTED	e	_ of	
CLIENT INFORMATION MOS - 0.30879 MOW - 030880	Company Name: Project Manager: Address: Cri Hr Phone #: Sampled by:	Crithend Crithend nde- NY -6527	ge / 65	(716) 93	7-9360	full 7619 including Perts +	Chas acteristics	Iguitability	Rectability (Both)+C+S	Lorrolling	٩٢٤٦				Level of contamination (low, high, unknown)
Philip Lice Only	Field Sample ID ohg ( NAP2 Arca Soil	Bottles	Matrix Sort	Date s/28/04	Time	X		٢	x	X	×		-25	O AL	XZ
		<i>\$</i>													
TAT (Turnaround Time) RUSH TAT MUST HAVE	PROJECT INFORMAT Project #:				DETECTIO	DN LIMI	TS			RE	MARKS	Rus	54-'	2 00	~ys
	E PhiloQuote #:	ship (a	al	MISA D SPECIAL			/reg 20		-	_					
RUSH 2 Business Days RUGH 1 Business Days Other Business Days Client Signature: Affiliation: Date/Time: ST8 6	hilip Project #: Philip Contact:		Keceived E Affiliation: Date/Time:	-PPC	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	2  10: 3		2 1		Da	ec'd By: ate/Time	of ( o	5/29 8 SAMPLI		2.veð

WHITE - LAB / YELLOW - CLIENT



ENTAL SENTICES, MC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

#### PHC Analysis Report for Soils/Solids/Sludges

#### Client: NWEC&C

Client Job Site:	N/A	Lab Project Number: Lab Sample Number:	
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A NAPL Area East Stockpile N/A Soll	Date Sampled: Date Received: Date Analyzed:	05/28/2004 06/28/2004 06/30/2004

PHC Classification	Results in ug / Kg
Petroleum Hydrocarbon	ND< 8,080
ELAP Number 10958	Method: NYSDOH 310.13

Comments: ND denotes Non Detect ug / Kg = microgram per Kilogram PHC = Petroleum Hydrocarbon

Bruce Hoogesteger: Technical Director

Signature:

This report is part of a multipage document and should only be availated in its entirety. Chain of Custody provides additional information, including compliance with sample condition 041775P2.XLS mquiromonte upon receipt.



## PHC Analysis Report for Solis/Solids/Sludges

#### Client: NWEC&C

Client Job Site:	N/A	Lab Project Number: Lab Sample Number:	
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A NAPL Area West Stockpile N/A Soil	Date Sampled: Date Received: Date Analyzed:	06/28/2004 06/28/2004 06/30/2004

PHC Classification	Results in ug / Kg	
Medium Weight PHC as:		
Diesel Fuel	295,000	
Heavy Weight PHC as:		
Lube Oil	250,000	
ELAP Number 10958	Method: NYSDOH 310.13	

' Number

Method: NYSDOH 310.13

Comments: ND denotes Non Detect ug / Kg = microgram per Kilogram PHC = Petroleum Hydrocarbon

Signature:

Bruce Hoogesteger: Fechnical Director

This report is part of a multipage documant and should only be evaluated in its entirety. Chain of Cubiody provides additional information, including compliance with sample condition 041775P3,XLS requirements upon receipl.



#### PHC Analysis Report for Soils/Solids/Sludges

#### Client: <u>NWEC&C</u>

Client Job Site:	N/A	Lab Project Number:	04-1775
		Lab Sample Number:	6194
<b>Client Job Number:</b>	N/A		
Field Location:	Additional NAPL Stockpile (E&W)	Date Sampled:	06/28/2004
Field ID Number:	N/A	Date Received:	06/28/2004
Sample Type:	Soil	Date Analyzed:	06/30/2004

PHC Classification	Results in ug / Kg
Medium Weight PHC as:	
Diesel Fuel	17,600
Heavy Weight PHC as:	
Lube Oil	16,600
	A4-14-14-AN/00011-040-40

ELAP Number 10958

Method: NYSDOH 310.13

Commente: ND denotes Non Detect ug / Kg = microgram per Kilogram PHC = Petroleum Hydrocarbon

Signature: Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chein of Custody provides additional information, including compliance with sample condition requirements upon receipt, 041775P4.XLS



MENTAL BENVICES. INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

#### Semi-Volatile STARS Analysis Report for TCLP Extract

#### Client: NWEC&C

Client Job Site:	N/A	Lab Project Number: Lab Sample Number:	
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Additional NAPL Stockpile (E&W) N/A TCLP Extract	Date Sampled: Date Received: Date Analyzed:	06/28/2004 06/28/2004 07/01/2004

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L*
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	300
Hexachlorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	130
Nitrobenzene	ND< 40.0	200
Pyridine	ND< 40.0	500

Acids	Results in ug / L	Regulatory Limits in ug / L*
Cresols (as m,p,o-Cresol)	ND< 80.0	200.000
Pentachlorophenol	ND< 100	100,000
2,4,5-Trichlorophenol	ND< 100	400,000
2,4.6-Trichlorophenol	ND< 40.0	2000
ELAP Number 10958	Method: EPA 8270C	Deta File; 20082.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signaturo:

requirements upon receipt.

Bruce Hoogesteger: Teophical Director This report is part of a multipage document and should only be evoluated in its entirely. Chain of Custody provides exiditional information, including compliance with sample condition 04177591.XLS



## Pesticide Analysis Report for TCLP Extract

#### Client: NWEC&C

Client Job Site:	N/A	Lab Project Number: Lab Sample Number:	
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Additional NAPL Stockpile (E&W) N/A TCLP Extract	Date Sampled: Date Received: Date Analyzed:	06/28/2004 05/28/2004 05/30/2004

Pesticide Identification	Results in ug / L	Regulatory Limits In ug / L
gamma-BHC	ND< 1.00	400
Chlordane	ND< 1.00	30.0
Endrin	ND< 1.00	20.0
Heptachlor	ND< 1.00	8.00
Heptachlor Epoxide	ND< 1.00	8.00
Methoxychlor	ND< 1.00	10000
Toxaphene	ND< 50.0	500
A B Mumber 40050		Method: EPA 808

ELAP Number 10958

Method: EPA 8081

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:

Bruce Hoogesteger: Technigar Director

This report is part of a multipage document and provid only be evaluated in its antirety. Chain of Custody provides additional information, including campiliance with semple condition requirements upon receipt.



179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

#### Volatile Analysis Report for TCLP Extract

#### Client: NWEC&C

Client Job Site:	N/A	Lab Project Number: Lab Sample Number:	
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Additional NAPL Stockpile (E&W) N/A TCLP Extract	Date Sampied: Date Received: Date Analyzed:	06/28/2004 06/28/2004 07/01/2004

Halocarbons	Results in ug / L	Regulatory Limits in ug / L
Benzene	ND< 20.0	500
2-Butanone	ND< 50.0	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1.1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200
ELAP Number 10958	Method: EPA 8260B	Data File: 22346.0

Comments: ND denotes Non Detect ug / I. = microgram per Liter

Signature:

Bruce Hoogesteger: Technical Director This report is pent of a multipego document and should only be evaluated in its ontirely. Chain of Custody provides additional information. Including compliance with sample condition 041775V1.XLS requirements upon rocoipt.



#### 179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

Client:	NWEC&C	Lab Project No.:	04-1775
Client Job Site:	N/A	Sample Type: Method:	Soil SW846 1010
Client Job No.:	N/A	Date(s) Sampled: Date Received: Date Analyzed:	06/28/2004 06/28/2004 06/29/2004

## Laboratory Report for Flashpoint Analysis

Lab Sample No.	Field ID No.	Field Location	Flashpoint Results (°C)
6194	N/A	Additional NAPL Stockpile (E&W)	>70

ELAP ID No.; 10958

Comments:

Approved By: Bruce Hoogesteger, Technical Director

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Client:	NWEC&C	Lab Project No.: Lab Sample No.:	04-1775 6194
Client Job Site:	N/A	Sample Type:	TCLP Extract
Client Job No.:	N/A	Date Sampled:	06/28/2004
Field Location: Field ID No.:	Additional NAPL Stockpile (E&W) N/A	Date Received:	06/ <b>28/20</b> 04

#### Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)			
CLP Metal Series							
Arsenic	06/30/2004	EPA 6010	<0.100	5.0			
Barium	06/30/2004	EPA 6010	0.395	100.0			
Cadmium	06/30/2004	EPA 6010	<0.025	1.0			
Chromium	06/30/2004	EPA 6010	<0.050	5.0			
Lead	05/30/2004	EPA 6010	<0.100	5.0			
Mercury	06/29/2004	EPA 7470	<0.0020	0.2			
Selenium	06/30/2004	EPA 6010	<0,100	1.0			
Silver	06/30/2004	EPA 6010	<0.050	5.0			

ELAP ID No.: 10958

Comments:

Approved By:

Bruce Hoogesteger, Technical Director

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179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

Client:	NWEC&C	Lab Project No.:	04-1775
Client Job Site:	N/A	Sample Type: Method:	Soil SW846 9045C
Client Job No.:	N/A	Date(s) Sampled: Date Received: Date Analyzed:	06/28/2004 06/28/2004 06/29/2004

#### Laboratory Report for pH Analysis

Field ID No.	pH Results (S.U.)					
N/ <b>A</b>	Additional NAPL Stockpile (E&W)	7.85				
		•				
		Additional NAPL Stockpile				

ELAP ID No.: 10958

Comments:

15

Approved By: .

Bruce Hoogesteger, Technical Director

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File ID:041775.xls



#### LABORATORY REPORT OF ANALYSIS

**Client:** 

#### NWEC&C

Client Job Site: Client Job No.: N/A N/A Lab Project No.: 04-1775 Lab Sample No.: 6194

Sample Type: Soil

Field Location:

Additional NAPL Stockpile (E&W)

Date	Sampled:	6/28/2004
Date	<b>Received:</b>	6/28/2004

Parameter	Date Analyzed	Analytical Method	Resuit (mg/kg)
Cyanide Reactivity	6/30/2004	SW846, 7.3	ND<1 Non Reactive
Sulfide Reactivity	7/1/2004	SW846, 7.3	ND<10 Non Reactive
			ELAB ID No : 10700

ELAP ID. No.: 10709

Comments:

ND denotes Non Detected. Hazardous Waste Regulatory Levels for Reactivity are as follows: Sulfide - 500 mg/kg, Cyanide - 250 mg/kg.

Ruce Hoogesteger

**Approved By Technical Director:** 

Chain of Custody provides additional sample information.

File ID: Reactivity04-1775.xis

# PARADIGM

Environmental 179 Lake Avenue Rochester. New York 14608 585-647-2530 FAX 585- 647-3311 Services, Inc.

#### **TCLP Herbicides**

NWEC&C	Lab Project No:	04-1775
	Lab Sample No:	6192
N/A	Sample Type:	TCLP Extract
N/A	Date Sampled:	06/28/2004
NAPL Area East Stockpile	Date Received:	06/28/2004
N/A	Date Analyzed:	07/01/2004
	N/A N/A NAPL Aree East Stockpile	Lab Sample No:       N/A     Sample Type:       N/A     Date Sampled:       NAPL Aree East Stockpile     Date Received:

Parameter	ND	Reporting Limit UG/L	Regulatory Limit UG/L
2,4-D	ND	2000	10,000
2,4,5-TP (Silvex)	ND	200	1,000

Analytical Method: EPA 8151 ELAP ID. No.: 10709

Comments:

ND denotes Non Detected.

**Approved By:** 

Bruce Hoogesteger, Technical Director

The Chain of Custody provides additional information.

File ID:TCLPHERB04-1775-1

## PARADIGM ENVIRONMENTAL

## CHAIN OF CUSTODY

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SERVICE	s, inc	-					COMPANY: Same									ŀ	LAB PROJECT #: CLIENT PROJECT 3:									
179 Lake Avenue Rochester, NY 14			ADDRES	53 (rittenden Rd.			ADDRES	<b>S</b> ;										04-	-11	り						
(585) 647-2530 * FAX: (585) 647-3	(800) 724-1 311	997	CITY:C	NUECEC 53 (rittenden Rd. cittenden, New Voi 2) 937-6527 937-	よ ^{219:}		CITY:					1	STATE		1	2P;	Ţ	UTINAR		INE: (W	briand	Days	PA		٦	
			PHONE:	) 937-6527 937.	-9360		PHONE:					FAX:					7	1020	K 1~4	ט אוני	-	ito		ОТН	ER	
PROJECT NAME/BITE	NAKE:		ATTN:				ATTN:	-										1			], [	75		Γ	٦	
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	Y WATE									<u>ַר</u> ר [	EÐ	λĹ.		6			3 1 - A									
DATE	TIME	С О М Р О 8 I Т Е	G R A B	SAMPLE LOCATION/RELD ID		) () () () () () () () () () (	CONTA; NERS	TPH	FullTCLP	Lear at have in	Reachin							REMAR				PAI	RADIG	W LAD		
16/28/04				WAPL Area East Stor	Koile S	Soil	1	X			T		+									1		9	2	
26/28/04				WAPL Area East Stor NAPL Area West St	eduile 5	Soil	1	X				$\square$				-			<u></u>		-	-17	<u>1</u>	Ы	2	
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46/28/04		Ι		Additional NAPL		i	3	X	X.	XX	(X			+								-+4	<b>4</b> -	┽┼╉	귀	
5				Additional NAPL Stockpile (E+W)				ľ	~		+-		+	╈	┞╴┼			<u> </u>			-+	╋	+	┼─┨	-1	
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179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

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Client:	NWEC&C	Lab Project No.:	04-1985
Client Job Site:	Destro Union Ship Canal	Sample Type; Method:	Soil SW846 9045C
Client Job No.:	N/A	Date(s) Sampled: Date Received: Date Analyzed:	07/16/2004 07/16/2004 07/21/2004

#### Laboratory Report for pH Analysis

Additional NAPL Area       8.59         6848       N/A       North       8.59         6849       N/A       South       8.67         6849       N/A       South <td< th=""><th>Lab Sample No.</th><th>Field ID No.</th><th>Field Location</th><th>pH Results (S.U.)</th></td<>	Lab Sample No.	Field ID No.	Field Location	pH Results (S.U.)
Additional NAPL Area			Additional NAPL Area	_
	6848	N/A		8.59
6849     N/A     South     8.67				
	6849	N/A	South	8.67

ELAP ID No.: 10958

Comments:

Approved By: 100

Bruce Hoogesteger. Technical Director This report (s part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional sample information, including compliance with sample condition requirments upon receipt.

File ID:041985.xis

# PARADIGM

179 Lake Avenue Rochester, New York 14808 (585) 647 - 2530 FAX (585) 647 - 3311

# Flashpoint by Pensky-Martin Analysis Report

Client:	NWEC&C. Inc.			
	Client Job Site:	Destro-Union Ship Canal	Lab Project Number:	04-1985
	Client Job Number:	N/A	Date Sampled: Date Received:	07/18/2004 07/16/2004
	Sample Type:	Şoil	Date Analyzed:	07/21/2004

Lab Sample Number	Field Number	Field Location	Result (°C)
6848 6849	N/A N/A	Additional NAPL Area North Additional NAPL Area South	>70 
	_ <u> </u>		Method: SW846 1010

ELAP Number 10958

Commenta:

°C - degrees Centigrade

Signature:

esteger Technical Diroctor Bruce

Chein of Custody provides soditional sample information



PARADIGM

ENVIRONMENTAL SERVICES. INC.

Client:	NWEC&C	Lab Project No.:	04-1985
Client Job Site: Client Job No.:	Destro-Union Ship Canal N/A	Sample Type: Analytical Method: Date Sampled: Date Received: Date Analyzed:	Soil SW846, 7.3.3 7/16/2004 7/16/2004 7/22/2004

Lab Sample ID.	Client Sample ID.	Cyanide Reactivity (mg/kg)	Sulfide Reactivity (mg/kg)
6848	Additional NAPL Area North	ND<1 Non-Reactive	ND<10 Non-Reactive
6849	Additional NAPL Area South	ND<1 Non-Reactive	ND<10 Non-Reactive
	4		ELAP ID, No.: 10709

Comments:

ND denotes Non Detected.

Hazardous Waste Regulatory Levels for Reactivity are as follows: Sulfide - 500 mg/kg, Cyanide - 250 mg/kg.

Bruce Hoogesteger Approved By Technical Director:

Chain of Custody provides additional sample information.



ENTRORMENTAL SERVICES. INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

#### Volatile Analysis Report for TCLP Extract

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#### Client: NWEC&C

Client Job Site:	Destro - Union Ship Canal	Lab Project Number: Lab Sample Number:	
Cilent Job Number: Field Location: Field ID Number: Sample Type:	N/A Additional NAPL Area North N/A TCLP Extract	Date Sampled: Date Received: Date Analyzed:	07/16/2004 07/16/2004 07/20/2004

Compounds	Results in ug / L	Regulatory Limits in ug / L
Benzene	ND< 20.0	500
2-Butanone	ND< 50.0	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200
AP Number 10958	Method: EPA 82608	Data File; 22787.0

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature: Fer!

Grace Hoogesteger: Technical Director

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# PARADIGM

EL. MC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

### Volatile Analysis Report for TCLP Extract

### Client: NWEC&C

Client Job Site:	Destro - Union Ship Canal	Lab Project Number: Lab Sample Number:	
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Additional NAPL Area South N/A TCLP Extract	Date Sampled: Date Received: Date Analyzed:	07/16/2004 07/16/2004 07/20/2004

Compounds	Results in ug / L	Regulatory Limits in ug / L
Benzene	ND< 20.0	500
2-Bulanone	ND< 50.0	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200
LAP Number 10958	Method: EPA 8260B	Data File: 22788.0

Comments: ND denotes Non Detect ug / L = microgram per Liter

0/00 Fer ... Bruce Hoogesteger: Technical Director

Signature:

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# Semi-Volatile STARS Analysis Report for TCLP Extract

### Client: <u>NWEC&C</u>

NULCOU			04-1985
Client Job Site:	Destro Union Ship Canal	Lab Project Number: Lab Sample Number:	6848
Client Job Number: Field Location: Fleld ID Number: Sample Type:	N/A Additional NAPL Area North N/A TCLP Extract	Date Received:	07/16/2004 07/16/2004 07/23/2004

	Results in ug / L	Regulatory Limits in ug / L
Base / Neutrals	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	<u>130</u> 
Hexachlorobenzene	ND< 40.0 ND< 40.0	500
Hexachlorobutadiene Hexachloroethane	ND< 40.0	130
Nitrobenzene	ND< 40.0	200
Pyridine	ND< 40.0	

	Results in ug / L	Regulatory Limits in ug / L
Acids	ND< 80.0	200,000
Cresols (as m,p,o-Cresol) Pentachlorophenol	ND< 100	100,000
2,4,5-Trichlorophenol	ND< 100	400,000
2.4.5-Trichlorophenol	ND< 40.0	2000
Z,4,0-Themeropheno	Method: EPA 8270C	Data File: 20539.D

ELAP Number 10958

Comments: ND denotes Non Delect

ug / L = microgram per Liter

Bruce Hoogesteger: Technical Director

Signature:

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## Semi-Volatile STARS Analysis Report for TCLP Extract

### Client: NWEC&C

Client Job Site:	Destro	Lab Project Number:	04-1985
	Union Ship Canal	Lab Sample Number:	6849
Client Job Number: Field Location: Field ID Number: Sample Type:		Date Sampled: Date Received: Date Analyzed:	07/16/2004 07/16/2004 07/23/2004

.

	Résults in ug / L	Regulatory Limits in ug / L
Base / Neutrals	ND< 40.0	7,500
1,4-Dichlorobenzene	ND< 40.0	130
2,4-Dinitrotoluerve	ND< 40.0	300
Hexachlorobenzene	<u>ND&lt; 40.0</u>	500
Hexachlorobutadiene	ND< 40.0	130
Hexachioroethane		200
Nitrobenzene	ND< 40.0	500
Pyridine	ND< 40.0	

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2.4.5-Trichlorophenol	ND< 100	400,000
2,4,6-Trichlorophenol	ND< 40.0	
ELAP Number 10958	Method: EPA 8270C	Data Fila, 20040.1

ELAP Number 10958

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:

Bruce Hoogesteger: Technical Director

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Client:	NWEC&C	Lab Project No.: Lab Sample No.:	04-1985 6848
<b>Client Job Site:</b>	Destro	Lab wample No.	0040
Client Job No.:	Union Ship Canal N/A	Sample Type:	TCLP Extract
		Date Sampled:	07/16/2004
Field Location: Field ID No.:	Additional NAPL Area North N/A	Date Received:	07/16/2004

#### Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
CLP Metal Series				
Arsenic	07/21/2004	EPA 6010	<0.100	5.0
Barium	07/21/2004	EPA 6010	0.442	100.0
Cadmium	07/21/2004	EPA 6010	<0.025	1.0
Chromium	07/21/2004	EPA 6010	<0.050	5.0
Lead	07/21/2004	EPA 6010	<0.100	5.0
Mercury	07/21/2004	EPA 7470	<0.0020	0.2
Selenium	07/21/2004	EPA 6010	<0.100	1.0
Silver	07/21/2004	EPA 6010	<0.050	5.0
······				

ELAP ID No.: 10958

Comments:

Approved By: and he Bruce Hoogesteger, Technical Director Tran!

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Client:	NWEC&C	Lab Project No.: Lab Sample No.:	04-1985 6849
Client Job Site:	Destro		0049
Client Job No.:	Union Ship Canal N/A	Sample Type:	TCLP Extract
		Date Sampled:	07/16/2004
Field Location: Field ID No.:	Additional NAPL Area South N/A	Date Received:	07/16/2004

#### Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
ICLP Metal Series				
Arsenic	07/21/2004	EPA 6010	<0.100	5.0
Barium	07/21/2004	EPA 6010	0.458	100.0
Cadmium	07/21/2004	EPA 6010	<0.025	1.0
Chromium	07/21/2004	EPA 6010	<0.050	5.0
Lead	07/21/2004	EPA 6010	<0.100	5.0
Mercury	07/21/2004	EPA 7470	<0.0020	0,2
Selenium	07/21/2004	EPA 6010	<0.100	1.0
Silver	07/21/2004	EPA 6010	<0.050	5.0

ELAP ID No.: 10958

Comments:

Dart M Approved By:

Bruce Hoogesteger, Technical Director

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179 Lake Avenue Rochester, New York 14608 (585) 647-2530 FAX (585) 847-3311

## LABORATORY REPORT FOR HERBICIDE ANALYSIS

Client:	NWEC&C, Inc.	Lab Project No: Lab Sample No:	04-1985 6848 TCLP Extract
<b>Client Job Site:</b>	Destro-Union Ship Canal	Sample Type:	
Client Job No: Field Location:	N/A Additional NAPL Area North	Date Sampled: Date Received: Date Analyzed:	7/16/2004 7/16/2004 7/20/2004

Parameter	Result	(mg/l)	Regulatory Limit (mg/l)
2,4,5-TP (Silvex)	ND•	:0.2	1.0
2,4-D	ND	2.0	10.0
			ELAP ID: 10709

Analytical Method: SW1311/8151

ELAP ID: 10/09

ND denotes Non Detected. Comments:

Bruce Hoogesteger

Approved By Technical Director:

Chain of Custody provides additional sample information.

File ID: Herbicides04-1985.xis

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179 Lake Avenue Rochester, New York 14608 (585) 647-2530 FAX (585) 647-3311

## LABORATORY REPORT FOR HERBICIDE ANALYSIS

diferre.	NWEC&C. Inc. Destro-Union Ship Canal	Lab Project No: Lab Sample No: Sample Type:	04-1985 6849 TCLP Extract
Client Job No:	N/A Additional NAPL Area South	Date Sampled: Date Received: Date Analyzed:	7/16/2004 7/16/2004 7/20/2004

Parameter	Result	(mg/l)	Regulatory Limit (mg/l)
2,4,5-TP (Silvex)	ND<0.2		1.0
2,4-D	ND<2.0		10.0
A I find Matheda S	211/815	1	ELAP ID: 10709

Analytical Method: SW1311/8151

ELAP ID. IV

ND denotes Non Detected. Comments:

Approved By Technical Director:

Bruce Høgesteger

Chain of Custody provides additional sample information.

File ID: Herbicides04-1985.xls



ENVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

### Pesticide Analysis Report for TCLP Extract

### Client: NWEC&C

Client Job Site:	Destro Union Ship CAnal	Lab Project Number: Lab Sample Number:	
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Additional NAPL Area North N/A TCLP Extract	Date Sampled: Date Received: Date Analyzed:	07/16/2004 07/16/2004 07/22/2004

	Résults in ug / L	Regulatory Limits In ug / L
Pesticide Identification	ND< 1.00	400
gamma-BHC	ND< 1.00	30.0
Chlordane	ND< 1.00	20.0
Endrin Heptachlor	ND< 1.00	8.00
Heptachlor Epoxide	ND< 1.00	8.00
Methoxychlor	ND< 1.00	10000
Toxaphene	ND< 50.0	500
LAT Number 10959		Method: EPA 8081

ELAP Number 10958

Comments: ND denotes Non Detect ug / L = microgram per Liter

BH / preliminer Bruce Hoogesteger: Technicki Director Signature:

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## PARADIGM

ENVIRONMENTAL SERVICES, MC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

### Pesticide Analysis Report for TCLP Extract

#### Client: <u>NWEC&C</u>

Client Job Site:	Destro	Lab Project Number:	04-1985
	Union Ship CAnal	Lab Sample Number:	6849
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Additional NAPL Area South N/A TCLP Extract	Date Sampled: Date Received: Date Analyzed:	07/16/2004 07/16/2004 07/22/2004

0< 1.00 0< 1.00 0< 1.00	400 30.0 20.0
0< 1.00	20.0
0< 1.00	8.00
D< 1.00	8.00
	10000
D< 50,0	Method: EPA 8081
	D< 1.00 D< 1.00 D< 50.0

ELAP Number 10958

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:

BH/preliminan Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evoluated in its entirety. Chein of Custody provides additional information, including compliance with sample condition 041985Q2.XLS requirements upon mobipt.

## PARADIGM

ENVIRONMENTAL SERVICES. NO. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

### PCB Analysis Report for Solls/Solids/Sludges

### Client: <u>NWEC&C</u>

Client Job Site:	Destro-Union Ship Canal	Lab Project Number: Lab Sample Number:	
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Additonal NAPL Area North N/A Soil	Date Sampled: Date Received: Date Analyzed:	07/16/2004 07/16/2004 07/21/2004

PCB Identification	Results in mg / Kg
Araciar 1016	ND< 0.474
Aroclor 1221	ND< 0.474
Aroclor 1232	ND< 0.474
Aroclor 1242*	ND< 0.474
Aroclor 1248	ND< 0.474
Aroclor 1254	ND< 0.474
Aroclor 1260	ND< 0.474
	Method: EPA 8082

ELAP Number 10958,*10249

Method: EPA 8082

Comments: ND denotes Non Detect mg / Kg = mililgram per Kilogram

Signature: Bruce Hoogesteger: rechnical Director

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179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

### PCB Analysis Report for Soils/Solids/Sludges

#### Client: NWEC&C

Client Job Site:	Destro-Union Ship Canal	Lab Project Number: Lab Sample Number:	
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Additonal NAPL Area South N/A Soll	Date Sampled: Date Received: Date Analyzed:	07/16/2004 07/16/2004 07/21/2004

PCB Identification	Results in mg / Kg
Araciar 1016	ND< 0.458
Aroclor 1221	ND< 0.458
Arocior 1232	ND< 0.458
Aroclor 1242*	ND< 0.458
Aroclor 1248	ND< 0.458
Arocior 1254	ND< 0.458
Aroclor 1260	ND< 0.458
CLAD Number 10058 *10749	Method: EPA 8082

ELAP Number 10958,*10249

Comments: ND denotes Non Detect mg / Kg = milligram per Kilogram

Signature:

Bruca Hoogesteger: Connical Director

This report is part of a multipage document and should only be evaluated in its antirety. Chain of Custody provides additional information, including compliance with sample condition 041985P2.XLS requirements upon receipt.

## PARADIGM

179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311 MENTAL SERVICES, INC. ENVIRON

### PHC Analysis Report for Soils/Sollds/Sludges

#### Client: NWEC&C

Client Job Site:	Destro-Union Ship Canal	Lab Project Number: Lab Sample Number:	04-1985 6848		
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Additonal NAPL Area North N/A Soil	Date Sampled: Date Received: Date Analyzed:	07/16/2004 07/16/2004 07/22/2004		

PHC Classification	Resultá in ug 7 Kg
Heavy Weight PHC əs: Lube Oil	346,000
ELAP Number 10958	Method: NYSDOH 310.13

Comments: ND denotes Non Detact ug / Kg = microgram per Kilogram PHC = Petroleum Hydrocarbon

Signature:

Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition 041985H1XLS requirements upon receipt.

### PARADIGM ENVIRONMENTAL SERVICES. MC.

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### PHC Analysis Report for Soils/Solids/Sludges

#### Client: NWEC&C

Client Job Site:	Destro-Union Ship Canal	Lab Project Number: Lab Sample Number:	04-1985 6849	
Cliant Job Number: Field Location: Field ID Number: Sample Type:	N/A Additonal NAPL Area South N/A Soil	Date Sampled: Date Received: Date Analyzed:	07/16/2004 07/16/2004 07/22/2004	

PHC Classification	Results in ug / Kg
Heavy Weight PHC as: Lube Oil	245,000
ELAP Number 10958	Method: NYSDOH 310.13

Comments: ND denotes Non Detect ug / Kg = microgram per Kilogram PHC = Petrolaum Hydrocarbon

UA Bruce Hoogesteger Technical Director

Signature:

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WASTE MANAGEMENT, INC.

CWM Chemical Services, L.L.C. 1550 Balmer Rd. P.O. Box 200 Model City, N.Y. 14107 716/754-8231

December 30, 2003

Mr. Russ Savage Nature's Way Environmental 3553 Crittenden Rd. Crittenden, NY 14038

### RE: Approved Profile #CX1578 Development Downtown, Inc.

Dear Mr. Savage,

Please be advised that the above referenced application has been approved for disposal at Waste Management's Chaffee Landfill. Enclosed please find a copy of the approved application.

In the event that significant changes in the information provided on the application occur, please notify us immediately. Such changes shall include, but are not limited to, change in process, change in waste composition and change in hauler.

Please contact us 24 hours in advance of any disposal you wish to schedule.

Should you have any questions at all, please contact me directly @ (716) 754-0365.

Sincerely,

Collaba

James L. Callahan Inside Sales Representative

Enc. cc: File --



### GENERATOR'S WASTE PROFILE SHEET CHAFFEE LANDFILL

PLEASE PRINT		6-00
Service Agreement on File?	Profile Number: WMI	1518.
Hazardous Non-Hazardous TSCA	Renewal Date: 61	1 '04
A. Waste Generator Information		
1. Generator Name: Development Downtow		
3. Facility Street Address: Commerce Drive	4. Phone: (7/6)	
5. Facility City: Bis Frale 7. Zip/Postal Code: 14203	6. State/Province: <u>New York</u> 8. Generator USEPA/Federal ID #: N/A	A
7. Zip/Postal Code: 14203 9. County: Erie	10. State/Province ID # XA	1
11. Customer Name: Natures INAU Environm		6527
13. Customer Contact: R-Savage G. iNebe	27 14. Customer Fax 937-4	9360
15. Billing Address 3553 Crittenden Rd. Crit	tender, New York 14038 Sar	ne as above
B. Waste Stream Information		
	I with Non Aqueous Phase Liquid (Pet	Folcian
b. Process Generating Waste: <u>Historic Ind</u>	ustrial operations. Material to be	
excavated was identi		atron.
c. Color d. Strong odor e. Phys	ical state @ 70°F   f. Layers g. Free lic	uid range
Variable (describe):		
Brown/Gray Mild Petroleum [G		e Liguid
type ador Dot	ther h. pH: Ra	inge / 🛛
(variable)	10-03 to	) %
		applicable
<li>j. Chemical Composition (List all constituents [including halo representative analysis):</li>	ogenated organics, debris, and UHC's] present in any concentration and s	uomit
Constituents Concentration R Soil + Stone 99.0 - 99.5		ration Range
Petroleum (NAPL) 0.1-0.5		
Debris 0.5-1.0	· · · · · · · · · · · · · · · · · · ·	
	MUST EQUAL OR EXCEED 100%	
k. Oxidizer Dyrophoric	Explosive Radioactive	
Carcinogen Infectious	Shock Sensitive Water Reactive	
<ol> <li>Does the waste represented by this profile contain notification? (list in Section B.1.)</li> </ol>		YES NO
m. Does the waste represented by this profile contain of	dioxins? (list in Section B.1.)	YES NO
n. Does the waste represented by this profile contain a		YES NO
	friable non-friable	
<ul> <li>Does the waste represented by this profile contain the lf yes, concentration</li> </ul>		YES NO
	ns NESHAP?[	YES KNO
p. Is the waste subject to RCRA Subpart CC controls?		TYES NO
If yes, volatile organic concentration q. Does the waste contain any Class I or Class II ozor	ppmw	
q. Does the waste contain any Class I or Class II ozor	ne-depleting substances?	YES NO
	D I	YES NO
2. Quantity of Waste 2400	Street Tores Tores	
Estimated Annual Volume	ZTons Yards Drums Other specify	
3. Shipping Information		. *
a. Packaging: NBulk Solid: Tupe Size: Nucan Tour & Arre	1/2 - Bulk Liquid: Typo/Size:	
Drum Type Size		
b. Shipping Frequency: Units	Per: Month Quarter Year Mone time	
500 Tons	Bulk Liquid; Type/Size:	
<ul> <li>c. Is this a U.S. Department of Transportation (USDC</li> </ul>	DT) Hazardous Material? (If no, skip d, e, and f)	LIYES MNO
d. Reportable Quantity (lbs.; kgs.): f. USDOT Shipping Name:	e. Hazaro Uass/IU #.	
· · · · · · · · · · · · · · · · · · ·	•	

12/10/2003 13:01	FA1
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WASTE MANAGEMENT

GENERATOR'S	WASTE	PROFILE	SHEET
CHAFFE	E LAND	FILL	

### PLEASE PRINT IN INK OR TYPE

	g. Personal Protective Equipment Requirements: <u>NA - Tarp Loads For</u> h. Transporter & Transporter Number Waste Management to provide transport	Transport	
C. G	n. Transporter & Transporter Number (DUR) te Management to provide transport Benerator's Certification (Please check appropriate responses, sign and date below.)	ation LCA	- 7/7-480
1.	Is this a USEPA hazardous waste (40 CFR Part 261)? If the answer is no, skip to 2 a. If yes, identify ALL USEPA listed and characteristic waste code numbers (D, F, K, P, U)		TYES ANO
	<ul> <li>b. If a characteristic hazardous waste, do uncertying hazardous constituents (UHCs) apply? (if yes, list in Section 8, 1.])</li> <li>c. Does this waste contain debris? (if yes, list size and type in Chemical</li> </ul>	TYES NO	
	Composition - B.1.)	TYES NO	
2.	Is this a state hazardous waste? Identify ALL state hazardous/non hazardous waste codes	、 	TYES XNO
3.	Is the waste from a CERCLA (40 CFR 300, Appendix B) or state mandated clean-up? If yes, attach Record of Decision (ROD), 104/106 or 122 order or court order that governs site clean-up activity. For state mandated clean-up, provide relevant documentation.		□YES XNO
4.	Does the waste represented by this waste profile sheet contain radioactive material, or is disposal regulated by the Nuclear Regulatory Commission?		TYES SNO
5.	Does the waste represented by this waste profile sheet contain concentrations of Polychlorinated Biphenyls (PCBs) regulated by 40 CFR 7517 (if yes, list in Chemical Composition - B.1.)a. If yes, were the PCBs imported into the U.S.?		TYES XNO
6.	Do the waste profile sheet and all attachments contain true and accurate descriptions of the waste material, and has all relevant information within the possession of the Generator regarding known or suspected hazards pertaining to the waste been disclosed to the Contractor?		XYES INO
7.	Will all changes which occur in the character of the waste be identified by the Generator and disclosed to the Contractor prior to providing the waste to the Contractor?		YES NO
	eck here if a Certificate of Destruction or Disposal is required.		
sample agent c informa	mple submitted is representative as defined in 40 CFR 261 - Appendix I or by using an equivalent method. I from any waste shipment for purposes of recertification. If this certification is made by a broker, the undersi of the generator and has confirmed the information contained in this Profile Sheet from information provided b ation as it has determined to be reasonably necessary. If approved for management, Contractor has all the ne waste that has been characterized and identified by this approved profile.	gned signs as authors withe generator and	additional
Certifi Name	cation Signature: <u>AUCH (2) All UCH</u> (Type or Print): <u>DAVIO STEBSINS</u> Company Name: <u>Devempment</u> Check if additional information is attached. Indicate the num	ERIM PRZ Druttaren Da	te: 12/2/01
1.	MI Management's Decision Management Method ALandfill Non-hazardous Solidification Bioremediatio Hazardous Stabilization Other (Specify)		MIUSEONLY ation
2. 3.	Proposed Ultimate Management Facility: Chaffee Landfill Precautions., Special Handling Procedures, or Limitation on Approval: Material may be used as daily cover Pending N	NSDEC A	proval
	Z Additional Samples required PRIOR to shipnet. Waste Form 5. Source 6. Sy al Waste Decision	F me for in l.	HD3 Disapproved
NYSDI	Derson's Signature: Dat EC Region 9 Approval: Dat Dat Waste Approvals Person Signature: Dat Dat	ie:	7/03
l	OKper chud Staniszenski 12/29/05		

### **APPENDIX H**

## NAPL AREA PIPELINE LABORATORY ANALYTICAL RESULTS



### Certificate of Analysis

### CLIENT INFORMATION

#### LABORATORY INFORMATION

Attention: Client Name: Project: Project Desc:	Russ Savage NWEC+C Inc. Union Ship Canal Union Ship Canal	Contact: Project: Date Received: Date Reported:	Mike Challis, B.Sc, C.Chem. AN040300 09-Aug-2004 23-Aug-2004
Address:	3553 Crittenden Rd. Crittenden, NY 14038	Submission No.: Sample No.:	4110240 049870-049871
Fax Number: Phone Number:	716-937 <b>-93</b> 60 716-937-6527		I

NOTES:

"-' = not analysed '<' = less than Method Detection Limit (MDL) 'NA[±] = no data available LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33 Solids data is based on dry weight except for biota analyses. Organic analyses are not corrected for extraction recovery standards except for isotope dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses) The enclosed copy of the Chain of Custody Record may contain information necessary for the interpretation of the data.

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Twentieth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of three weeks from receipt of data or as per contract.

COMMENTS:

Certified by: M.C.

Page 1 of 4

5555 NORTH SERVICE ROAD, BURLINGTON, ONTARIO, CANADA 17L 5H7 1 905 332 8788 # 905 332 9169 W www.pscanolylical.com

### PASC - Certificate of Analysis

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L	Client ID: Lab No.: Date Sampled:		Pipe Trench-East End 049871 04 05-Aug-2004		Method Blank 049870 04 05-Aug-2004	Blank Spike 049870 04 05-Aug-2004	% Recovery ()49870-04 ()5-Aug-2004
Component	MDL	Units					
Acetone	12.7	ug/L	<		<	65	130
Benzene	0.5	Ŧ	<		<	47	94
Bromoform	0.7	4	<		<	56	110
Bromomethanc	1.0	11	<		<	59	120
2-Butanone	3.2	н	<		<	59	120
Carbon Disulfide	0.9		<		<	46	91
Carbon Tetrachloride	0.7	*	<		<	48	96
Chlorobenzene	0.6	10	<		<	47	95
Chlorodibromomethanc	0.4	ч	<		<	49	97
Chloroethane	0.9	-	<		<	52	100
2-Chlorocthylvinylether	2.8	••	<		<	NS	- 98
Chloroform	0.4	11	<	• . •	<	49	110
Chloromethane	1.4	54	<		<	53 47	93
1.2-Dichlorobenzene	0.8	11	<		<		92
1.3-Dichlorobenzene	1.8	4	<		<	46	94
1,4-Dichlorobenzene	1.6	*1	<		<	47 48	97
Dichlorobromomethane	Q.4	*	<		<	48 46	92
1,1-Dichloroethanc	0.5	n	<		<	40 47	94
1,2-Dichloroethane	0.4	n	<		<		88
1.1-Dichloroethene	0.7	7	<		<	44 49	98
cis-1,2-Dichloroethene	0.6	4	<		<	49	90
trans-1,2-Dichloroethene	<b>0.5</b>	14	<		<	45	96
1,2-Dichloropropane	0.7	•	<		< <	40	94
cis-1,3-Dichloropropene	Q.3	4	<		<	43	87
trans-1,3-Dichloroprope			<		<	46	92
Ethylbenzene	0.5	4	<		<	40 57	110
2-Hexanonc	1.3	**	<		~	46	92
Dichloromethane	2.3	4	<		~	55	110
4-Methyl-2-Pentanone	1.5	6	<		, ,	NS	
Methyl-t-butylether	Q.5	"	<		~	47	93
Styrene	0.6		<		<	54	110
1,1,2,2-Tetrachioroethan	ve 0.8	**	*		~	46	92
Tetrachloroethene	0.5	24	<		, ,	48	95
Toluene	1.0	**	<     <		, ,	48	95
1,1,1-Trichlorocthane	0.8				×	50	99
1,1,2-Trichloroethane	0.6		<		, ,	48	95
Trichloroethene	1.0		<		<	49	98
Trichlorofluoromethane			<		<	NS	•
Vinyi Acctate	2.4	a a	<		<	50	100
Vinyl Chloride	0.9		<		<	91	91
m&p-Xylene	1.1	•1	<		<	44	\$8
o-Xylene	0.5						
Surrogate Recoveries		%	80		82	88	88
d4-1,2-Dichlorocthane			92		89	88	88
d8-Toluene Bromofluorobenzene			81		82	85	85

## PASC - Certificate of Analysis

	Client ID: Lab No.: Dete Sampled: MDL	Units	Pipe Trench-East End 049871 04 05-Aug-2004	Method Blank 049870 04 05-Aug-2004	Blank Spike 049870 04 05-Aug-2004	% Recovery 049870 04 05-Aug-2004	Blank Spike Duplicate 049870 04 05-Aug-2004	% Recovery 049870 04 05-Aug-2004
Composent	MDC	Unid					16	81
			<1.5	<	16	81		88
Naphthalene	0.3	ug/L	<3.5	<	17	86	18	95
Acenaphthene	0.7			<	19	95	19	
Fluorenc	0.3	*1	<1.5	٢	19	94	19	95
Phenanthrene	0.3		<1.5	<	19	93	19	96
Anthracene	0.3	μ	<1.5	<	19	95	20	97
Fivoranthene	0.2	•	1.9	ć	18	92	19	95
Pyrene	0.3	11	7.0	<	18	88	18	91
Benz(a)anthracene	0.2	19	6.6	< -	18	91	19	93
Chryscae	0.3	•1	9.3	<	19	97	18	92
Benzo(b)fluoranthene	0.4	*	<2.0	<	20	99	21	100
Benzo(k)fluoranihene	0.4	17	<2.0	<	19	97	19	96
Benzo(a)pyrene	0.5	*	<8.0	<	18	90	18	92
Indena(1,2,3-cd)pyren	e 0.6		<3.0		19	93	19	95
Dibenzo(ah)anthracen	0.4	H	<2.0	<	18	92	19	92
Benzo(ghi)perylene	0.4	-	<2.0	<	15			
Surrogate Recoveries		%		0/	83	83	84	84
d5-Nitrobenzene			84	86	68	68	68	68
did-p-Terphenyl			91 95	75 69	80	80	76	76

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## PASC - Summary of Analysis Pre. Dates

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8/23/04

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Batch Code:	0811MC01
Acetone	049870 04
	049871 04
Date Analysed:	04/08/11
Date Prepared:	04/08/11
Batch Code:	<b>0811MC01</b>
Ethylbenzene	049870 04
<b>_</b>	049871 04
Date Analysed:	04/08/11
Date Prepared:	04/08/11
Batch Code:	0811NCS1
Naphthalene	049870 04
· · up ·······	049871 04
Date Analysed:	04/08/11
Date Prepared:	04/08/11

<u>...</u>

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PSC Submission No: 4H0240

Client: NWEC+C Inc. Project: Union Ship Canal

ANALYTICAL SERVICES 5555 North Service Road Burlington, Ontario L7L 5H7	То	ll Free: 1-800 Tel; (905) Fax: (905)	332-8788				AN	ALYS	IS RE(	QUES	e_ <b>1</b> -	of	1
INFORMATION Address: 3553 ( Cv. Hender, Phone #: (716) 937-6527 Sampled by: Jow New Field # Sample ID Bottles	Savace inflenden NY Fax #: ( ubaur	Rd 14038		+ 8021 STARS	t 8270 STARS								Level of contamination (low, high, unknown)
VAPL Aren 3 Northwest corner NAPL Aren 3 Northwest Corner NAPL Aren 3 Northwest Corner Sider alls	1	8/5/04 8/5/04		k k	× ×								
AT (Introduced Time) USH TOT WOST HAVE BOD ACT OF Ship (4 Some exceptions apply Site:	<u>nal</u>	SPECIAL I	DETECTION	LIMIT	S								
	Received By:	15P	REQUIREMI Categor			LATIO	NS 	- Red	H.				

WHITE - LAB / YELLOW - CLIENT

SEE OVER FOR COMPLETION & SAMPLING INSTRUCTIONS

 $[\omega_{T}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{T_{1}}^{*},\omega_{$ 

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### **APPENDIX I**

## SANITARY SEWER MANHOLE NO. 8 PREDISPOSAL CHARACTERIZATION LABORATORY ANALYTICAL RESULTS AND DISPOSAL FACILITY APPROVAL



179 Lake Avenue Rochester, New York 14608 (585) 647-2530 FAX (585) 647-3311

### LABORATORY REPORT OF ANALYSIS

Client:	Nature's Way Environmental	Lab Project No.: Lab Sample No.:	
Client Job Site: Client Job No.:	Union Ship Canal N/A	Sample Type:	Soil
Field Location:	Stockpile Composite from Manhole 8	Date Sampled: Date Received:	12/03/2003 12/05/2003

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Cyanide Reactivity	12/10/2003	SW846, 7.3	ND<1 Non Reactive
Sulfide Reactivity	12/10/2003	SW846, 7.3	50 Non Reactive
			FLAD ID No + 10700

ELAP ID. No.: 10709

Comments:

ND denotes Non Detected. Hazardous Waste Regulatory Levels for Reactivity are as follows: Sulfide - 500 mg/kg, Cyanide - 250 mg/kg.

Brice Hoogesteger

Approved By Technical Director:



179 Leke Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

### Pesticide Analysis Report for TCLP Extracts

### Client: Nature's Way

Client Job Site:	Union Ship Canal	Lab Project Number: Leb Sample Number:	03-3265 10590
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Stackpile Composite from Manhole B N/A TCLP Extract	Date Sampled: Date Received: Date Analyzed:	12/03/2003 12/05/2003 12/12/2003

Pesticide	Results In ug / L	Regulatory Limits in ug / L
gamma-BHC (Lindane)	ND< 1.00	400
Chlordane	ND< 1.00	30
Endrin	ND< 1.00	20
Heptachlor	ND< 1.00	8
Heptachlor Epoxide	ND< 1.00	8
Melhoxychlor	ND< 1.00	10,000
Toxaphene	ND< 50.0	500
ELAP Number 10958		Method; EPA 8081A

ELAP Number 10958

Comments:

ND denotes Non Detect ug / L = miclegram per Liter

Bruce Hoogesteger; Technical Director

Signature:

Chain of Custody provides additional sample information



179 Lake Avenue Rachester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

### PCB Analysis Report for Soils/Solids/Sludges

#### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	03-3265 10890
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Stockpile Composite from Manhole 8 N/A Soil	Date Sampled: Date Received: Date Analyzed:	12/03/2003 12/05/2003 12/11/2003

PCB Identification	Results in mg / Kg	
Aroclor 1016	ND< 0.577	
Aroclor 1221	ND< 0.577	
Aroclor 1232	ND< 0.577	
Aroclor 1242	ND< 0.577	
Aroclor 1248	ND< 0.577	
Aroclor 1254	ND< 0.577	
Aroclor 1260	ND< 0.577	
	Mathed CDA 9	

ELAP Number 10958

Method; EPA 8082A

Comments:

Signature:

ND denotes Non Detect mg / Kg = milligram per Kilogram

En la Bruce Moogesteger: Technical Director



179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

### Semi-Volatile Analysis Report for TCLP Extract

### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number:	03-3265
		Lab Sample Number:	10890
Client Job Number:	N/A		
Field Location:	Stockpile Comp. from Manhole 8	Date Sampled:	12/03/2003
Field ID Number:	N/A	Date Received:	12/05/2003
Sample Type:	TCLP Extract	Date Analyzed:	12/11/2003

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	3,000
Hexachlorobutadiene	ND< 40.0	500
Hexachlorosthane	ND< 40.0	130
Nitrobenzene	ND< 40.0	2,000
Pyridine	ND< 40.0	5,000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2,4,5-Trichlorophenol	ND< 100	400,000
2,4,6-Trichlorophenol	ND< 40.0	2,000
ELAP Number 10958	Method: EPA 8270C	Data File: 14092.D

Comments:

Sighature;

ND denotes Non Detect ug / L = microgram per Liter

rn Bruce Hoogesteger: Technical Director

Chain of Custody provides additional sample information



179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

### Volatile Analysis Report for TCLP Extract

### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	03-3265 10690
Client Job Number:	N/A		
Field Location:	Stockpile Comp. from Manhole 8	Date Sampled:	12/03/2003
Field ID Number:	N/A	Date Received:	12/05/2003
Sample Type:	TCLP Extract	Date Analyzed:	12/09/2003

TCLP Analytes	Results in ug / L	Regulatory Limits in ug / L
Benzene	ND< 20.0	500
2-Butanone	ND< 50,0	200,000
Carbon Telrachioride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200
ELAP Number 10958	Method: EPA 8260B	Data File; 18063.D

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Signature;

Bruce Hoogesteger echnical Director

Chain of Custody provides additional sample information



179 Lake Avenue_Rochester_NY 14608 (585) 647-2530 FAX (585) 647-3311

Client:	Nature's Way Environmental	Lab Project No.:	03-3265
Client Job Site: Client Job No.:	Union Ship Canal N/A	Sample Type: Method:	Solid SW846 1010
		Date(s) Sampled: Date Received: Date Analyzed:	12/03/2003 12/05/2003 12/09/2003

#### Laboratory Report for Flashpoint Analysis

Lab Sample No.	Field ID No.		Flashpoint Results (°C)
10690	N/A	Stockpile Composite from manhole 8	>70

ELAP ID No.: 10958

Comments: Bruce Hoogesteger, Technical Director **Approved By:** 

Chain of Custody provides additional sample information.



179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

Client:	Nature's Way Environmental	Lab Project No.: Lab Sample No.:	03-3265 10690
Client Job Site:	Union Ship Canal	Sample Type:	TCLP Extract
Client Job No.:	N/A	Date Sampled:	12/03/2003
Field Location: Field ID No.:	Stockpile Composite from manhole 8 N/A	Date Received:	12/05/2003

### Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
CLP Metal Series				
Arsenic	12/09/2003	EPA 6010	<0.100	5.0
Barium	12/09/2003	EPA 6010	0.650	100.0
Cadmium	12/09/2003	EPA 6010	<0.025	1.0
Chromium	12/09/2003	EPA 6010	0.125	5.0
Lead	12/09/2003	EPA 6010	<0.100	5.0
Mercury	12/09/2003	EPA 7470	<b>&lt;0</b> .0020	0.2
Selenjum	12/09/2003	EPA 6010	<0.100	1.0
Silver	12/09/2003	EPA 6010	<0.050	5.0

ELAP ID No.: 10958

Comments:

**Approved By:** 

Bruce Hoogesteger, Technical Director

Chain of Custody provides additional sample information.

File ID:033265.xls



179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

Client:	Nature's Way Environmental	Lab Project No.:	03-3265
Client Job Site: Client Job No.:	Union Ship Canal N/A	Sample Type: Method:	Solid SW <b>846</b> 9045C
Grent Job Ho		Date(s) Sampled: Date Received: Date Analyzed:	12/03/2003 12/05/2003 12/05/2003

### Laboratory Report for pH Analysis

Lab Sample No.	(S.U.)							
10690	N/A	Stockpile Composite from manhole 8	8.60					

ELAP ID No.: 10958

Comments:

Approved By:

Bruce Hoogesteger, Technical Director

Chain of Custody provides additional sample information.

File ID:033265.xls

### PARADIGM

Environmental 179 Lake Avenue Roche New York 14608 585-647-2530 EAX 585- 647-3311

Services, Inc.

#### **TCLP Herbicides**

Client:	<u>Nature's Way Environmental</u>	Lab Project No: Lab Sample No:	03-3265 10690
Client Job Site;	Union Ship Canal	Sample Type:	TCLP Extract
Client Job No: Field Location: Field ID No;	N/A Stockpile Composite Manhole B N/A	Date Sampled: Date Received: Date Analyzed:	12/03/2003 12/05/2003 12/10/2003

Parameter	Result UG/L	Reporting Limit UG/L	Regulatory Limit UG/L
2,4-D	ND	2000	10,000
2,4,5-TP (Silvex)	ND	200	1,000

Analytical Method: EPA 8151 ELAP ID. No.: 10709

Comments:

ND denotes Non Detected.

Approved B Bruce Hoogésteger, Technical Director

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#### WASTE MANAGEMENT, INC.

CWM Chemical Services, L.L.C. 1550 Balmer Rd. P.O. Box 200 Model City, N.Y. 14107 716/754-8231

March 12, 2004

Mr. Greg Weber Nature's Way Environmental 3553 Crittenden Rd. Crittenden, NY 14038

### RE: Approved Profile #VA7211 Development Downtown

Dear Mr. Weber,

Please be advised that the above referenced application has been approved for disposal at Waste Management's Chaffee Landfill. Enclosed please find a copy of the approved application.

In the event that significant changes in the information provided on the application occur, please notify us immediately. Such changes shall include, but are not limited to, change in process, change in waste composition and change in hauler.

Please contact us 24 hours in advance of any disposal you wish to schedule.

Should you have any questions at all, please contact me directly @ (716) 754-0365.

Sincerely, Callaha am O

James L. Callahan Inside Sales Representative

Enc. cc: File

GENERATOR'S WASTE PROFILE SHEET CHAFFEE LANDFILL

03/05/2004 15:13 FAX

WASTE MANAGEMENT

	PLEASE PRINT IN INK OR	TYPE Profile Number: Wi	VI VA 1211
	vice Agreement on File? XYES NO	Renewal Date:	121/ 104
	Hazardous XNon-Hazardous TSCA Waste Generator Information		
1. 3. 5. 7. 9. 11. 13. 15. E.	Generator Name: <u>Development Downtown</u> , Inc. Facility Street Address: <u>Commerce Drive</u> Facility City: <u>Buffalo</u> Zip/Postal Code: <u>14203</u> County: <u>Erie</u> Customer Name: <u>Nature's Way Environmental</u> Customer Contact: <u>R. Savage/G. Weber</u> Billing Address 3553 <u>Griffenden Rd</u> . Criffende Waste Stream Information	<ol> <li>Phone: <u>(7161356</u></li> <li>State/Province: <u>New</u>)</li> <li>Generator USEPA/Federal I</li> <li>State/Province ID #.</li> <li>Customer Phone: <u>(711</u></li> <li>Customer Fax: <u>N. New York (4038</u></li> </ol>	D#. <u>NA</u> <u>NA</u> <u>6) 937-6527</u> <u>937-9360</u> Same as above
1.	a. Name of Waste:Soil Contaminated wi	th Petroleum (Manhol	e 8 Area)
	b. Process Generating Waste: <u>Historic industrial</u>	use of property. top	<u>surta sou</u>
	during construction/installation of u	tilities.	
	c. Color d. Strong odor e. Physical state VicuaLie (describe):	@ 70°F f. Layers ]Liquid <b>[X</b> Single Layer ]Sludge   Multi-layer	g. Free liquid range <u>NA to %</u> No Free Liquid h. pH: Range 8.6 to %
	i. Liquid Flash Point:	ganics, debris, and UHC's) present in any co	ncentration and submit
	Constituents Concentration Range	Constituents	Concentration Range
	Slag + Ash Petroleum Products		
ļ		EQUAL OR EXCEED 100%	
	k. Oxidizer Pyrophoric Ex Carcinogen Infectious Sh Does the waste represented by this profile contain any of th	plosive ERadioacti lock Sensitive Water Re lie carcinogens which require OSH	active A
	notification? (list in Section B.1.)	(list in Section B.1.i).	
	<ul> <li>n. Does the waste represented by this profile contain abouts:</li> <li>n. Does the waste represented by this profile contain asbestos</li> <li>If yes</li></ul>		
	- Door the waste represented by this profile contain beizener	***************************************	
	If yes, concentration ppm Is the waste subject to the benzene waste operations NESH	AP?	
	<ul> <li>Is the waste subject to the benzene waste operations record</li> <li>p. Is the waste subject to RCRA Subpart CC controls?</li> <li>If yes, volatile organic concentration</li> <li>q. Does the waste contain any Class I or Class II ozone-deplet</li> </ul>	ppmw	
	<ul> <li>q. Does the waste contain any Class I or Class II ozone-deple</li> <li>r. Does the waste contain debris? (list in Section B.1.j)</li> </ul>	ting substances?	
2.	Quantity of Waste Estimated Annual Volume < 2.00	ns 🗍 Yards 🗍 Drums 🗍 Other	specify)
3.	Shipping Information         a. Packaging:         MBulk Solid; Type/Size:         Drum; Type; Size:         b. Shipping Frequency:         Units            200         Toms         Other	Bulk Liquid; Type/Size	
	b. Shipping Frequency: Units < 200 Tons Other		
	c. Is this a U.S. Department of Transportation (USDOT) Haza d. Reportable Quantity (Ibs.; kgs.):	ardous Material? (If no, skip d, e, a e. Hazard Class/ID #:	

03/05/2004 15:13 FAX 03/05/2004 15:13 FAA 03/05/2004 14:30 FAX 8566525 ECIDA PEDIKU BRUD UNC INC

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			GENERATOR'S WAS CHAPPEE LA	TE PROFILE SHEET NOFILL	1 (	
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#### **APPENDIX J**

# SANITARY SEWER MANHOLE NO. 11 PREDISPOSAL CHARACTERIZATION LABORATORY ANALYTICAL RESULTS



179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

Client:	Nature's Way Environmental	Lab Project No.:	04-0646
Client Job Site:	Union Ship Canal	Sample Type: Method:	Soil SW846 9045C
Client Job No.:	N/A	Date(s) Sampled: Date Received: Date Analyzed:	: 03/04/2004 03/08/2004 03/09/2004

#### Laboratory Report for pH Analysis

Lab Sample No.	Field ID No.	Fleid Location	pH Results <u>(S.U.)</u>
2767	N/A	Manhole 11 Stockpile	8.61

ELAP ID No.: 10958

Comments:

Approved By: Fal: Bruce Hoogesteger, Technical Director This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional sample information, including compliance with sample condition requirements upon receipt.

File ID:040646.xls

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179 Lake Avenue Rochester, New York 14608 (585) 647-2530 FAX (585) 647-3311

## LABORATORY REPORT OF ANALYSIS

Client:	<u>Nature's Way Environmental</u>	Lab Project No.: Lab Sample No.:	
Client Job Site: Client Job No.:	Union Ship Canal N/A	Sample Type:	Soil
Field Location:	Manhole II Stockpile		03/04/2004 03/08/2004

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Cyanide Reactivity	03/11/2004	SW846, 7.3	ND<1 Non Reactive
Sulfide Reactivity	03/16/2004	5W846, 7.3	157 Non Reactive
			FLAP ID. No.: 10709

ELAP ID. No.: 10709

ND denotes Non Detected. Comments: Hazardous Waste Regulatory Levels for Reactivity are as follows: Sulfide - 500 mg/kg, Cyanide - 250 mg/kg.

Approved By Technical Director: Bruce Hoogesteger

Chain of Custody provides additional sample information.

File ID: Reactivity04-0646.xls



179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

Client:	<u>Nature's Way Environmental</u>	Lab Project No.: Lab Sample No.:	
Client Job Site:	Union Ship Canal	Sample Type:	TCLP Extract
Client Job No.:	N/A	Date Sampled:	03/04/2004
Field Location: Field ID No.:	Manhole 11 Stockpile N/A	Date Received:	03/08/2004

#### Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
rCLP Metal Series				
Arsenic	03/11/2004	EPA 6010	<0.100	5.0
Barium	03/11/2004	EPA 6010	0.514	100.0
Cadmium	03/11/2004	EPA 6010	,0.025	1.0
Chromium	03/11/2004	EPA 6010	< 0.050	5.0
Lead	03/11/2004	EPA 6010	<0.100	5.0
Mercury	03/11/2004	EPA 7470	<0.0020	0.2
Selenium	03/11/2004	EPA 6010	<0.100	1.0
Silver	03/11/2004	EPA 6010	<0.050	5.0

ELAP JD No.: 10958

Comments: Approved By: Fac, Bruce Hoogesteger, Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional sample information, including compliance with sample condition requirements upon receipt.



179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

#### Semi-Volatile Analysis Report for TCLP Extract

#### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	04-0646 2787
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Manhole II Slockpile N/A TCLP Extract	Date Sampled: Date Received: Date Analyzed:	03/04/2004 03/08/2004 03/15/2004

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	3,000
Hexachlorobuladiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	130
Nilrobenzene	ND< 40.0	2,000
Pyridine	ND< 40.0	5,000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2,4,5-Trichlorophenol	ND< 100	400,000
2,4,6-Trichlorophenol	ND< 40.0	2,000
ELAP Number 10958	Method; EPA 8270C	Data File: 18542.D

Comments:

ND denotes Non Detect ug / L = microgram per Liter

1 U Signature;

Bruce Hoogestege (: Technical Director

Chain of Custody provides additional sample information

File ID: 040648S1.XLS



179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

## PCB Analysis Report for Soils/Solids/Sludges

#### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	04-0646 2767
Client Job Number: Fleid Location: Field ID Number: Sample Type:	N/A Manhole II Stockpile N/A Soil	Date Sampled: Date Received: Date Analyzed:	03/04/2004 03/08/2004 03/11/2004

PCB Identification	Results in mg / Kg	
Aroclor 1015	ND< 0.491	
Aroclor 1221	ND< 0.491	
Aroclor 1232	ND< 0.491	
Aroclor 1242	ND< 0.491	
Aroclor 1248	ND< 0.491	
Aroclor 1254	ND< 0.491	
Aroclor 1260	ND< 0.491	
ELAP Number 10958	Method: EPA 80	182A

ELAP Number 10958

ND denotes Non Detect Comments: mg / Kg = milligram per Kilogram

Signature: Bruce Hoogesteger Technical Director

Chain of Custody provides additional sample information



179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

## Flashpoint by Pensky-Martin Analysis Report

#### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number:	04-0646
Client Job Number:	N/A	Date Sampled: Date Received:	03/04/2004 03/08/2004
Sample Type:	Soil	Date Analyzed:	03/12/2004

Lab Sample Number	Field Number	Field Location	Result (°C)
2767	<u>N/A</u>	Manhole 11 Stockpile	>70
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ELAP Number 10958			Method: SW846 1010

Comments: "C = degrees Centigrade

Signature; Fak. Bruce Hoogesteger: Technical Director

Chain of Custody provides additional sample information

File ID: 040646F1.XLS

# PARADIGM

179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

#### Volatile Analysis Report for TCLP Extract

#### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sampia Number:	04-0646 2767
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Manhole 11 Stockpile N/A TCLP Extract	Date Sampled: Date Received: Date Analyzed:	03/04/2004 03/08/2004 03/10/2004

TCLP Analytes	Results in ug / L	Regulatory Limits In ug / L
Benzene	ND< 20.0	500
2-Bulanone	ND< 50.0	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1.2-Dichloroethane	ND< 20.0	500
1.1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200
ELAP Number 10958	Method: EPA 8260B	Data File: 19673,D

Comments:

ND denotes Non Detect ug / L = microgram per Liter

lale Signature: ature: Aruce Hoogastagor: Technical Director

Chain of Custody provides additional sample information

File ID: 040546V1.XLS

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179 Lake Avenue	ADDRES	B:	Zd	ADDRESS:					6			007 /
Rochester, NY 14608 (585) 647-2530 * (800) 724-1997 FAX: (585) 647-3311	CITY:	STATE:	14 14058	CITY:		STATE;	ZP:	TURNAROUND TIME	· (WORKING DAY)	5}		-19
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## Certificate of Analysis

#### **CLIENT INFORMATION**

#### LABORATORY INFORMATION

Russ Savage NWEC+C Inc. Union Ship Canal Union Ship Canal	Contact: Project: Date Received: Date Reported;	Mike Challis, B.Sc, C.Chem. AN040300 26-Mar-2004 05-Apr-2004
3553 Crittenden Rd. Crittenden, NY 14038	Submission No.: Sample No.:	4C1015 015197-0151 <b>99</b>
716-937-9360 716-937-6527		
	Union Ship Canal Union Ship Canal 3553 Crittenden Rd. Crittenden, NY 14038	NWEC+C Inc.Project:Union Ship CanalDate Received:Union Ship CanalDate Reported:3553 Crittenden Rd.Submission No.:Crittenden, NYSample No.:14038716-937-9360

NOTES:

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"-" = not analyzed '<' = less than Method Detection Limit (MDL)."NA' = no data available LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33 Solids data is based on dry weight except for biota analyzes. Organic analyzes are not corrected for extraction recovery standards except for isotope dilution methods, (Le. CARB 429 PAH, all PCDD/F and DBD/DBF analyzes) The enclosed copy of the Chain of Custody Record may contain information necessary for the interpretation of the data.

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Twentieth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologics, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of three weeks from receipt of data or as per contract.

**COMMENTS:** 

Certified by:

Page 1 of 7

5555 NORTH SERVICE ROAD, BURLINGTON, ONTARIO, CANADA 171 5H7 T 905 332 8788 F 905 332 9169 W www.pacanalytical.com

Component	Client ID: Lab No.: Date Sampled: MDL	Units	Manhole 11 015199 04 24-Mar-2004	Manhole 11 01519904 24-Mar-2004 Duplicate	Method Blank 015197 04 24-Mar-2004	Blank Spike 015197 04 24-Mar-2004	% Recovery 015197 04 24-Mar-2004
pH after 3.5 ml of 1N HCl addition			2.17	_			
pH after extraction (semi-vols/metals)			7.78	-	-	•	•
pH initial (Sg + 96.5ml water)			8.90	_	•	•	•
pH of extraction fluid (semi-vols/metals)			4.93	-	•	•	-
pH after extraction (volatiles)			7.13	_	•	•	•
pH of extraction fluid (volatiles)			4.93	-	•	•	•
				-	-	-	-
Soil pH measured in water			9.37	8.77	-	-	•
Cyanide (Reactive)	500	ug/kg	<1000	-	~1000	84000	
Sulphide (Reactive)	2000	"	160000	•	<1000	26000	£10 ~
Aroclor-1016	38	ug/kg	<mdl< td=""><td></td><td></td><td></td><td></td></mdl<>				
Araclor-1221	41	ugyag	<mdl <mdl< td=""><td>-</td><td><mdl< td=""><td>400</td><td>100</td></mdl<></td></mdl<></mdl 	-	<mdl< td=""><td>400</td><td>100</td></mdl<>	400	100
Aroclor-1232	38	u	<mdl< td=""><td>•</td><td><mdl< td=""><td>•</td><td>-</td></mdl<></td></mdl<>	•	<mdl< td=""><td>•</td><td>-</td></mdl<>	•	-
Aroclar-1242	50	H		-	<mdl< td=""><td>•</td><td>-</td></mdl<>	•	-
Aroclor-1248	31	•	<mdl< td=""><td>-</td><td><mdl< td=""><td>-</td><td>-</td></mdl<></td></mdl<>	-	<mdl< td=""><td>-</td><td>-</td></mdl<>	-	-
Aroclor-1254	59		<mdl< td=""><td>•</td><td><mdl< td=""><td>-</td><td>-</td></mdl<></td></mdl<>	•	<mdl< td=""><td>-</td><td>-</td></mdl<>	-	-
Aroclor-1260	31		<mdl< td=""><td>•</td><td><mdl< td=""><td>•</td><td>•</td></mdl<></td></mdl<>	•	<mdl< td=""><td>•</td><td>•</td></mdl<>	•	•
Aroclor-1262	31		<mdl< td=""><td>•</td><td><mdl< td=""><td>440</td><td>110</td></mdl<></td></mdl<>	•	<mdl< td=""><td>440</td><td>110</td></mdl<>	440	110
Aroclor-1268			<mdl< td=""><td>•</td><td><mdl< td=""><td>-</td><td>-</td></mdl<></td></mdl<>	•	<mdl< td=""><td>-</td><td>-</td></mdl<>	-	-
Total PCB	49		<mdl< td=""><td>•</td><td><mdl< td=""><td>-</td><td>-</td></mdl<></td></mdl<>	•	<mdl< td=""><td>-</td><td>-</td></mdl<>	-	-
	59	-	<mdl< td=""><td>•</td><td><mdl< td=""><td>840</td><td>100</td></mdl<></td></mdl<>	•	<mdl< td=""><td>840</td><td>100</td></mdl<>	840	100
Surrogate Recoveries		%					
4,4'-Dibromooctaflourobiphenyl		••	84	_	97	07	
Decachlorobiphenyl			98	-		96	96
			70	•	97	107	107

Component	Ctient ID: Lab No.: Date Sampled: MDL	Units	Manhole 11 utov 015200 04 29-Mar-2004	Method Blank 015198 04 24-Mar-2004	Blank Spike 01519804 24-Mar-2004	% Recovery 015198 04 24-Mar-2004	Blank Spike Duplicate 015198 04 24-Mar-2004	% Recovery 015198 04 24-Mar-2004
Mercury	0.50	ug/L	<mdl< td=""><td><mdl< td=""><td>10</td><td>100</td><td></td><td>-</td></mdl<></td></mdl<>	<mdl< td=""><td>10</td><td>100</td><td></td><td>-</td></mdl<>	10	100		-
Arsenic	0.250	mg/L	<mdl< td=""><td><mdl< td=""><td>1.3</td><td>110</td><td></td><td></td></mdl<></td></mdl<>	<mdl< td=""><td>1.3</td><td>110</td><td></td><td></td></mdl<>	1.3	110		
Barium	0.100		0.92	0.27	2.9	110 110	•	-
Cadmium	0.050	4	<mdl< td=""><td><mdl< td=""><td>1.3</td><td>100</td><td>-</td><td>-</td></mdl<></td></mdl<>	<mdl< td=""><td>1.3</td><td>100</td><td>-</td><td>-</td></mdl<>	1.3	100	-	-
Chromium	0.500	4	< MDL	<mdl< td=""><td>2.6</td><td></td><td>-</td><td>-</td></mdl<>	2.6		-	-
Lead	0.500	*	<mdl< td=""><td><mdl< td=""><td>2.6</td><td>100 100</td><td>-</td><td>-</td></mdl<></td></mdl<>	<mdl< td=""><td>2.6</td><td>100 100</td><td>-</td><td>-</td></mdl<>	2.6	100 100	-	-
Selenium	0.100	-	<mdl< td=""><td><mdl< td=""><td>1.4</td><td>110</td><td>-</td><td>-</td></mdl<></td></mdl<>	<mdl< td=""><td>1.4</td><td>110</td><td>-</td><td>-</td></mdl<>	1.4	110	-	-
Silver	0.500		<mdl< td=""><td><mdl< td=""><td>1.4</td><td></td><td>-</td><td>-</td></mdl<></td></mdl<>	<mdl< td=""><td>1.4</td><td></td><td>-</td><td>-</td></mdl<>	1.4		-	-
					13	100	-	-
a-Chlordanc	0.005	ug/L	<0.033	<mdl< td=""><td>0.12</td><td></td><td></td><td></td></mdl<>	0.12			
g-Chlordane	0.009	*	<0.050	<mdl <mdl< td=""><td>0.12</td><td>97</td><td>0.11</td><td>90</td></mdl<></mdl 	0.12	97	0.11	90
Endrin	0.011	л	<0.061	<mdl <mdl< td=""><td>0.11</td><td>91</td><td>0.11</td><td>92</td></mdl<></mdl 	0.11	91	0.11	92
Heptachlor	0.005		<0.033	<mdl< td=""><td>0.076</td><td>95</td><td>0.12</td><td>96</td></mdl<>	0.076	95	0.12	96
Heptachlor Epoxide	0.012	u	<0.078	<mdl< td=""><td>0.12</td><td>63</td><td>0.082</td><td>68</td></mdl<>	0.12	63	0.082	68
Lindane	0.007	m	<0.050	<mdl< td=""><td>0.12</td><td>99 55</td><td>0.12</td><td>100</td></mdl<>	0.12	99 55	0.12	100
Methoxychlor	0.018		<0.18	<mdl< td=""><td>0.58</td><td>92</td><td>0.11</td><td>91</td></mdl<>	0.58	92	0.11	91
Toxaphene	0.116		<0.23	<mdl< td=""><td>NS</td><td>120 -</td><td>0.61 NS</td><td>130 -</td></mdl<>	NS	120 -	0.61 NS	130 -
Surrogate Recoveries		%						
4,4'-Dibromooctaflourobiphenyl			80	63	30	••		
Decachlorobiphenyl			90	88	39 90	39	40	40
				00	90	90	89	89
2,4-D (via 8150)	0.39	ug/L	<1.8	<mdl< td=""><td>6.7</td><td>00</td><td></td><td></td></mdl<>	6.7	00		
2,4,5-TP	0.04	- 37	<0.18	<mdl< td=""><td>0.37</td><td>90 50</td><td>7.5</td><td>100</td></mdl<>	0.37	90 50	7.5	100
					0.57	50	0.42	56
Surrogate Recoveries		%						
2,3-D			47	62	30	30	38	38
Mercury via 7471 Metals via 6010 Pesticides via 8081								

Herbicides via 8151

Page 3 of 7

Client:NWEC+C Inc. Project:Union Ship Canal

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Component	Client ID: Lab No.; Date Sampled; MDL	Voits	Manhole 11 TV 015201 04 29-Mar-2004	Manhole 11 TV 015201 04 29-Mar-2004 Duplicate	Method Black 015198 04 24-Mar-2004	Blank Spike 015198 04 24-Mar-2004	% Recovery 015198 04 24-Mar-2004
Beazene	0.5	ug/L	<5.0	<5.0	<5.0	480	97
2-Butanone	5.0		<50	<50	<50	500	100
Carbon Tetrachloride	0.7	•	<7.0	<7.0	<7.0	520	100
Chlorobenzene	0.6	18	<6.0	<6.0	<6.0	500	100
Chloroform	0.3	15	12	13	<3.0	510	100
1,2-Dichloroethane	0.3	ŧ	<3.0	<1.0	⊴.0	500	100
1,1-Dichioroethene	0.7		<7.0	<7.0	<7.0	440	88
Tetrachioroethene	0.5		<5.0	<5.0	<5.0	500	99
Trichloroethene	0.3	18	<3.0	<3.0	⊲.0	490	99 99
Vinyl Chloride	0.9	н	<9.0	<9.0	<9.0	560	110
1,4-Dichlorobenzene	1. <b>6</b>	61	<16	<16	<16	510	100
Surrogate Recoveries		%					
d4-1,2-Dichloroethane			99	100	100	106	106
d8-Tolucae			99	100	100	103	
1,4-Bromofluorobenzen	e		101	100	101	104	104 106

VOC via 8260B

Page 4 of 7

Client:NWEC+C Inc. Project:Union Ship Canal

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Component	Client ID: Lab No.: Date Sampled: MDL	Units	Manhole I I umv 015200 04 29-Mar-2004	Method Blank 015198 04 24-Mar-2004	Blank Spike 015198 04 24-Mar-2004	% Recovery 015198 04 24-Mar-2004	Blank Spike Duplicate 015198 04 24-Mar-2004	% Recovery 015198 04 24-Mar-2004
Pyridine	5.0	ug/L	< MDL	<mdl< td=""><td>NS</td><td>_</td><td>NS</td><td></td></mdl<>	NS	_	NS	
o-Cresol	1.7	'n	<mdl< td=""><td><mdl< td=""><td>16</td><td>63</td><td>17</td><td>66</td></mdl<></td></mdl<>	<mdl< td=""><td>16</td><td>63</td><td>17</td><td>66</td></mdl<>	16	63	17	66
m&p-Cresol	3.5	u.	<mdl< td=""><td><mdl< td=""><td>16</td><td>63</td><td>16</td><td>65</td></mdl<></td></mdl<>	<mdl< td=""><td>16</td><td>63</td><td>16</td><td>65</td></mdl<>	16	63	16	65
1,4-Dichlorobenzene	2.0	4	<mdl< td=""><td><mdl< td=""><td>15</td><td>60</td><td>16</td><td>63</td></mdl<></td></mdl<>	<mdl< td=""><td>15</td><td>60</td><td>16</td><td>63</td></mdl<>	15	60	16	63
2,4-Dinitrolalucae	0.5		<mdl< td=""><td>&lt; MDL</td><td>25</td><td>99</td><td>24</td><td>98</td></mdl<>	< MDL	25	99	24	98
Nitrobenzene	2.0		<b>MDL</b>	<mdl< td=""><td>21</td><td>85</td><td>22</td><td>58 86</td></mdl<>	21	85	22	58 86
Pentachlorophenoi	1.1	18	<mdl< td=""><td><mdl< td=""><td>24</td><td>96</td><td>23</td><td>93</td></mdl<></td></mdl<>	<mdl< td=""><td>24</td><td>96</td><td>23</td><td>93</td></mdl<>	24	96	23	93
2,4,5-Trichlorophenol	0.6	4t	<mdl< td=""><td><mdl< td=""><td>23</td><td>91</td><td>23</td><td>91</td></mdl<></td></mdl<>	<mdl< td=""><td>23</td><td>91</td><td>23</td><td>91</td></mdl<>	23	91	23	91
2,4,6-Trichlorophenol	1.2	4	<mdl< td=""><td><mdl< td=""><td>23</td><td>92</td><td>23</td><td>91</td></mdl<></td></mdl<>	<mdl< td=""><td>23</td><td>92</td><td>23</td><td>91</td></mdl<>	23	92	23	91
Hexachloroethane	2.0	M	<mdl< td=""><td><mdl< td=""><td>13</td><td>53</td><td>14</td><td>55</td></mdl<></td></mdl<>	<mdl< td=""><td>13</td><td>53</td><td>14</td><td>55</td></mdl<>	13	53	14	55
Hexachlorobutadiene	2.0		<b>MDL</b>	<mdl< td=""><td>14</td><td>55</td><td>14</td><td>56</td></mdl<>	14	55	14	56
Hexachlorobenzene	2.0	10	<mdl< td=""><td><mdl< td=""><td>23</td><td>92</td><td>22</td><td>89</td></mdl<></td></mdl<>	<mdl< td=""><td>23</td><td>92</td><td>22</td><td>89</td></mdl<>	23	92	22	89
Surrogate Recoveries		%						
dS-Phenol			50	30	27	27	28	28
dS-Nitrobenzene			86	87	85	85	87	87
2-Fluorobipheayl			66	73	73	73	82	82
2,4,6-Tribromophenal			77	86	88	88	89	89
d-14-p-Terphenyi			99	107	99	99	107	107

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SVOC via 8270C

001-12-2004

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10/12/04

## PASC - Summary of Analysis Pre. Dates

Page MS-6 of 7

Batch Code:	0328MSN3
pH after 3.5 ml of 1N HCl addition	015199 04
Date Analysed:	04/03/29
Date Prepared:	04/03/28
Batch Code:	0328MSV3
pH after extraction (volatiles)	015199 04
Date Analysed:	04/03/29
Date Prepared:	04/03/28
Batch Code:	0330VOH1
Soil pH measured in water	015199 04
Date Analysed:	04/04/02
Date Prepared:	04/03/30
Batch Code:	0330FSA1
Cyanide (Reactive)	015197 04
	015199 04
Date Analysed:	04/03/31
Date Prepared:	04/03/30
Batch Code:	<b>0331XX0</b> 1
Sulphide (Reactive)	015199 04
Date Analysed:	04/03/31
Date Prepared;	04/03/31
Batch Code:	
Date Analysed:	
Date Prepared:	
Batch Code:	0331NDU1
Aroclor-1016	015197 04
	015199 04
Date Analysed:	04/03/31
Date Prepared:	04/03/31

Client:NWEC+C Inc. Project:Union Ship Canal

10/12/04

# PASC - Summary of Analysis Pre. Dates

Page MS-7 of 7

Batch Code:	0330MBL1
Mercury	015198 04
	015200 04
Date Analysed:	04/03/30
Date Prepared:	04/03/30
Batch Code:	0329STL2
Arsenic	015198 04
	015200 04
Date Analysed:	04/03/29
Date Prepared:	04/03/29
Batch Code:	0330MGS1
a-Chlordane	015198 04
	015200 04
Date Analysed:	04/03/31
Date Prepared:	04/03/30
Batch Code:	0330MGS1
2,4-D (via 8150)	015198 04
	015200 04
Date Analysed:	04/03/31
Date Prepared:	04/03/30
Batch Code:	0330DJ02
Banzene	015198 04
	015201 04
Date Analysed:	04/03/30
Date Prepared:	04/03/30
Batch Code:	0329TKR1
Pyridine	015198 04
	015200 04
Date Analysed:	04/03/30
Date Prepared:	04/03/29
Batch Code:	0329TKR1
Hexachloroethane	015198 04
	015200 04
Date Analysed:	04/03/30
Date Prepared:	04/03/29

Client:NWEC+C Inc. Project:Union Ship Canal



	ANALYTICAL SERVICES 5555 North Service Road Burlington, Onlario L7L 5H7	j	T	oli Free: 1-800 Tel: (905 Fax: (905	) 332-8788 ) 332-9169			AN	ALYSIS	REOUE	Page . ESTED	ol _	- 、
CLIEN INFORMA MB [5197 MB 15198 Philip	TION Address:	Russ S 53 Cat Man, N 37 6527	Savas knden N 141	E Rd. 138 16-937	93(1)	FULL TOLD	CB:5	Largesining		IN THOLEIL YASHOW		· · · · · · · · · · · · · · · · · · ·	Level of contamination (low, high, unknown)
Use Only	Sample ID	Bottles	Malrix	Date	Time	H4 ±	$ \rho $	2	配	2	' :	I	evel ow, t
15199	MANTOLE 11		5	3/24/04				1			- <u>†</u>	<u></u>	-18
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RUSH 2 Business Da RUSH 1 Business Da				,.	Rus			! [					
Other Business Days		····		:	K C	· ~ (							
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SEE OVER FOR COMPLETION & SAMPLING INSTRUCTIONS

Date: 10/12/2004 Time: 15:11:20			NATUR	E'S WAY ENVIRON Flash P Wet Chemistr'					Rept: ANO326
Client ID Job No Lab I Sample Date	D	Manhole11Stor A04-2897 D4/05/2004	ckpile#2 A4289701						
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Flashpoint	٩F	>200	O	NA		NA		NA	

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NA = Not Applicable ND = Not Detected

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#### Chain of Custody Record

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Sample I.D. No. and Description Containers for each sample may be combined on one line)	Date	Time	2	Aqueout	8 3	3	Unpres.	H2SO4	NNOS	HCI	NeOK	A P	1													
Narhole 11 Stockpile #2	4504	)0 ²² A.A	$\left  \cdot \right $		1	'						ļ		4									Ple	s.A.	تنبع رور مربعة	Ulfs
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Comments	·····										h	-1-														

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## Certificate of Analysis

#### **CLIENT INFORMATION**

#### Attention: **Russ Savage Contact:** Mike Challis, B.Sc, C.Chem. **Client Name:** NWEC+C Inc. **Project:** AN040300 **Project:** Union Ship Canal Date Received: 19-May-2004 **Project Desc:** Union Ship Canal **Date Reported:** 31-May-2004 Address: 3553 Crittenden Rd. Submission No.: 4E0776 Crittenden, NY Sample No.: 028380-028382 14038 **Fax Number:** 716-937-9360 Phone Number: 716-937-6527

LABORATORY INFORMATION

 NOTES:
 "-' = not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available</td>

 LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33

 Solids data is based on dry weight except for biota analyses.

 Organic analyses are not corrected for extraction recovery standards except for isotope

 dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses)

 The enclosed copy of the Chain of Custody Record may contain information necessary for the

 interpretation of the data.

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Twentieth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of three weeks from receipt of data or as per contract.

#### COMMENTS:

(1) Insufficient sample for Flashpoint
 (2) MDL Raised due to matrix interference

Certified by:

Page 1 of 7

	Client ID: Lab No.: Date Sampled:		Manhole #11 Comp 028382 04 18-May-2004	Manhole #11 Comp 028382 04 18-May-2004	Method Blank 028380 04 18-May-2004	Blank Spike 028380 04 18-May-2004	% Recovery 028380 04 18-May-2004
Component	MDL	Units		Duplicate			
pH after 3.5 ml of 1N HCl addition			3.40	-	-	-	-
pH after extraction (semi-vols/metals)			6.69	-	-	-	-
pH initial (5g + 96.5ml water)			10.04	-	-	-	-
pH of extraction fluid (semi-vols/metals)			4.96	-	-	-	-
pH after extraction (volatiles)			6.48	-	-	-	-
pH of extraction fluid (volatiles)			4.96	-	-	-	-
Soil pH measured in water			9.35	-	-	-	-
Cyanide (Reactive)	500	ug/kg	<1000	<1000	<1000	25000	100
Sulphide (Reactive)	20000	n	130000	-	<	<	95
			(1)				
Flash Point	0.1	С	Pending	-	-	-	-
			(2)				
Aroclor-1016	38	ug/kg	<150	-	<	390	97
Aroclor-1221	41	H	<99	-	<	<	<
Aroclor-1232	38	н	<99	-	<	<	<
Aroclor-1242	50		<150	-	<	<	<
Aroclor-1248	31	**	<200	-	<	<	<
Aroclor-1254	59	**	<300	-	<	<	<
Aroclor-1260	31	**	<390	-	· <	400	100
Aroclor-1262	31	**	<390	-	<	<	<
Aroclor-1268	49	*1	<200	-	<	<	<
Total PCB	59	e1	<390	-	<	790	98
Surrogate Recoveries		%					
4,4'-Dibromooctaflourobiphenyl			94	-	95	103	103
Decachlorobiphenyl			103	-	74	79	79

Component	Client ID: Lab No.: Date Sampled: MDL	Units	Manhole #11 C. utnv 028383 04 26-May-2004	Manhole #11 Comp utv 028384 04 26-May-2004	Method Blank 028381 04 01/40/01	Blank Spike 028381 04 01/40/01	% Recovery 028381 04 01/40/01	Blank Spike Duplicate 028381 04 01/40/01	% Recovery 028381 04 01/40/01
Mercury	0.50	ug/L	<	-	<	<	100	-	-
Arsenic	0.250	mg/L	<	-	<	1.2	99	-	_
Barium	0.100	"	0.39	-	<	2.5	100	-	-
Cadmium	0.050	н	<	-	<	1.2	98	-	-
Chromium	0.500	н	<	-	<	2.4	98	-	-
Lead	0.500	"	<	-	<	2.5	98	-	-
Selenium	0.100	"	<	-	<	1.3	100	-	-
Silver	0.500	**	<	-	<	1.2	98	-	-
a-Chlordane	0.005	ug/L	<0.021	-	<	0.13	110	0.13	100
g-Chlordane	0.009	'n	< 0.032	-	<	0.12	100	0.12	98
Endrin	0.011	н	< 0.039	-	<	0.14	110	0.095	80
Heptachlor	0.005	**	< 0.021	-	<	0.11	95	0.13	100
Heptachlor Epoxide	0.012	н	< 0.050	-	<	0.14	120	0.13	110
Lindane	0.007	н	< 0.032	-	<	0.13	110	0.13	110
Methoxychlor	0.018	"	< 0.12	-	<	0.61	130	0.47	98
Toxaphene	0.116	н	<0.15	-	<	NS	-	NS	-
Surrogate Recoveries		%							
4,4'-Dibromooctaflourobiphenyl	1		67	-	85	61	61	59	59
Decachlorobiphenyl			83	-	74	75	75	67	67
2,4-D (via 8150)	0.39	ug/L	<3.0	-	<	1.9	93	2.1	100
2,4,5-TP	0.04	"	<0.31	-	<	0.19	94	0.22	110
Surrogate Recoveries		%							
2,3 <b>-</b> D			83	-	78	80	80	93	93

Manhole #11       Manhole #11       Method       Blank       %       Blank Spike         Client ID:       C. utnv       Comp utv       Blank       Spike       Recovery       Duplicate         Lab No.:       028383 04       028384 04       028381 04       028381 04       028381 04       028381 04       028381 04       028381 04       028381 04       028381 04       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/01       01/40/	Recovery 028381 04 01/40/01
Benzene 0.5 ug/L - <100 <100 11000 110 -	-
2-Butanone 5.0 " - <1000 <1000 1000 -	-
Carbon Tetrachloride 0.7 " - <140 <140 10000 100 -	-
Chlorobenzene 0.6 " - <120 <120 10000 100 -	-
Chloroform 0.3 " - <60 <60 10000 100 -	-
1,2-Dichloroethane 0.3 " - <60 <60 9800 98 -	-
1,1-Dichloroethene 0.7 " - <140 <140 10000 110 -	-
Tetrachloroethene 0.5 " - <100 <100 10000 100 -	-
Trichloroethene 0.3 " - <60 <60 10000 100 -	-
Vinyl Chloride 0.9 " - <180 <180 10000 100 -	-
1,4-Dichlorobenzene 1.6 " - <320 <320 9500 95 -	-
Surrogate Recoveries %	
d4-1,2-Dichloroethane - 103 102 107 107 -	-
d8-Toluene - 101 101 102 102 -	-
1,4-Bromofluorobenzene - 101 102 106 106 -	-

Component	Client ID: Lab No.: Date Sampled: MDL	Units	Manhole #11 C. utnv 028383 04 26-May-2004	Method Blank 028381 04 01/40/01	Blank Spike 028381 04 01/40/01	% Recovery 028381 04 01/40/01	Blank Spike Duplicate 028381 04 01/40/01	% Recovery 028381 04 01/40/01
Pyridine	5.0	ug/L	<	<	NS	-	NS	-
o-Cresol	1.7	н	<	<	9.8	39	9.4	38
m&p-Cresol	3.5	**	<	<	8.9	36	8.6	34
1,4-Dichlorobenzene	2.0	н	<	<	16	63	15	59
2,4-Dinitrotoluene	0.5		<	<	22	87	21	85
Nitrobenzene	2.0	"	<	<	20	78	18	73
Pentachlorophenol	1.1	**	<	<	20	79	19	74
2,4,5-Trichlorophenol	0.6		<	<	18	73	19	75
2,4,6-Trichlorophenol	1.2	**	<	<	19	76	19	77
Hexachloroethane	2.0	"	<	<	14	56	12	49
Hexachlorobutadiene	2.0	**	<	<	16	63	14	57
Hexachlorobenzene	2.0	n	<	<	21	82	21	85
Surrogate Recoveries		%						
d5-Phenol			26	14	16	16	15	15
d5-Nitrobenzene			75	78	81	81	72	72
2-Fluorobiphenyl			73	77	82	82	80	80
2,4,6-Tribromophenol			79	86	86	86	88	88
d-14-p-Terphenyl			54	73	81	81	86	86

Batch Code: pH after 3.5 ml of 1N HCl addition Date Analysed: Date Prepared:	0525RGA1 028382 04 04/05/26 04/05/25
Batch Code:	0525RGV1
pH after extraction (volatiles)	028382 04
Date Analysed:	04/05/26
Date Prepared:	04/05/25
Batch Code:	0518VPH1
Soil pH measured in water	028382 04
Date Analysed:	04/05/21
Date Prepared:	04/05/18
Batch Code:	0521FSA1
Cyanide (Reactive)	028380 04
	028382 04
Date Analysed:	04/05/25
Date Prepared:	04/05/21
Batch Code:	0521BAA1
Sulphide (Reactive)	028380 04
	028382 04
Date Analysed:	04/05/21
Date Prepared:	04/05/21
Batch Code:	
Date Analysed:	
Date Prepared:	
Batch Code:	0526NDU1
Aroclor-1016	028380.04
	028382 04
Date Analysed:	04/05/26
Date Prepared:	04/05/26

Page	<b>MS-7</b>	of 7

Batch Code:	0526MBL1
Mercury	028381 04
•	028383 04
Date Analysed:	04/05/26
Date Prepared:	04/05/26
,	
Batch Code:	0526STL1
Arsenic	028381 04
	028383.04
Date Analysed:	04/05/27
Date Prepared:	04/05/26
-	
<b>Batch Code:</b>	0526MGS1
a-Chlordane	028381.04
	028383.04
Date Analysed:	04/05/28
Date Prepared:	04/05/26
Batch Code:	0526NDS1
2,4-D (via 8150)	028381 04
	028383 04
Date Analysed:	04/05/25
Date Prepared:	04/05/26
<b>Batch Code:</b>	0526MC01
Benzene	028381.04
	028384 04
Date Analysed:	04/05/26
Date Prepared:	04/05/26
Batch Code:	0526TKS1
Pyridine	028381 04
	028383 04
Date Analysed:	04/05/26
Date Prepared:	04/05/26
Batch Code:	0526TKS1
Hexachloroethane	028381 04
110Autility officiality	028383 04
Date Analysed:	04/05/26
Date Prepared:	04/05/26
Date Frepareu.	04/03/20

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	5555 Norti	TICAL SERVICES n Service Road , Ontario L7L 5H7		Тс	ll Free: 1-800- Tel: (905) Fax: (905)	332-8788	Reds.	ort.		ANA	LYSIS F		Page _		
	CLIENT INFORMATION 	Company Name:	uss Sa Critten nden, 1 <b>I-6527</b>	uase den Ru NY 140	2. 038 937-93 Tom WO Date 5/18/04	60 <u>e   <del>f</del> (e</u> Time	X Full TCLP Seriet	× Ignitalitit/Flashp	+ Corrosivity (pH)	× Reactivity <			267	5786-	Level of contamination (low, high, unknown)
std	TAT (Turnaround Time)         RUSH TAT MUST HAVE         PRIOR APPROVAL         *some exceptions apply         please contact Lab         STD 10 Business Days         BUSH 5 Business Days         RUSH 2 Business Days         RUSH 1 Business Days         Other Business Days         Other Business Days         Client Signature         Affiliation:         Date/Time:	PROJECT INFORMATIO Project #: Site: PO#: Philip Quote #: Philip Project #: Philip Contact: Cree Weber	Ship (	Canal Received By Affiliation: Date/Time:	<u> </u>				LATIO		REMAR Rec'd By Date/Tin	/:	1.5/1	<u> </u>	230

WHITE - LAB / YELLOW - CLIEN	NHITE	- LAB	/ YELL	- WC	CLIEN'
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NE. 179 Lake Avenue Rochester, New York 14808 (585) 647 - 2530 FAX (585) 647 - 3311

#### PHC Analysis Report for Solls/Solids/Sludges

#### Client: NWEC&C

Client Job Site:	Destro / Union Ship	Lab Project Number: Lab Sample Number:	
Client Job Number: Field Location: Field 10 Number: Sample Type:	N/A Manhole #11 Stockpile N/A Soil	Date Sampled: Date Received: Date Analyzed:	06/28/2004 06/28/2004 06/30/2004

PHC Classification	Results in ug / Kg
Medium Weight PHC as: Diesel Fuel	783,000
Heavy Weight PHC as: Lube Oil	286,000
	Mathad NYSDOU 310 13

ELAP Number 10958

Method: NYSDOH 310.13

Comments: ND denotes Non Detect ug / Kg = microgram per Kilogram PHC = Petroleum Hydiocarbon

SW Bruce Hoogesteger: Technical Director

Signature:

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition 041777P I.XLS requirements upon receipt.

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(585) 647-2530 * ( FAX: (585) 647-33	800) 724-19	397		rittenden,	New York I	4038	PHONE:				FAX				Nea	d resi	atts .		PA	N	1
			PHONE	6) 937-65	<u>7 937-9</u>	360	ATTN:					•									HER
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Relinquished E	ty:	basis	2	bate/Tim	1'.00 Rea	eived By:								Date	Time:		L				
Received By:	hte			Date/Vin 6/2	na: / Re 8/04		ab By:	N	rn li	la	ll	101	128/	Date DY	rime: 1647	<u> </u>	P.J.F.				

## **APPENDIX K**

# "DUCT BANK" EXCAVATION CONFIRMATION SOIL SAMPLES LABORATORY ANALYTICAL RESULTS

ANALYTICAL SERVICES

P.01

## Certificate of Analysis

#### **CLIENT INFORMATION**

#### LABORATORY INFORMATION

1 905

332

1511

Attention:	Russ Savage	Contact:	Mike Challis, B.Sc, C.Chem.
Client Name:	NWEC+C Inc.	Project:	AN040300
Project:	Union Ship Canal	Date Received:	18-Mar-2004
Project Desc:	Union Ship Canal	Date Reported:	01-Apr-2004
Address:	3553 Crittenden Rd.	Submission No.:	4C0698
	Crittenden, NY	Sample No.:	013069-013072
	14038	-	
Fax Number:	716-937-9360		
Phone Number:	716-937-6527		

NOTES: "-' = not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33 Solids data is based on dry weight except for blota analyses. Organic analyses are not corrected for extraction recovery standards except for isotope dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses) The enclosed copy of the Chain of Custody Record may contain information necessary for the interpretation of the data.

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Twentieth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State; ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of three weeks from receipt of data or as per contract.

**COMMENTS:** 

Certified by:

Page 1 of 5

Dat Component	Client LD: Lab No.; e Sampled: MDL	Units	D.B. Sidewall West 013070 04 16-Mar-2004	D.B. Sidewall Middle 013071 04 16-Mar-2004	D.B. Bottom Middle 013072 04 16-Mar-2004	Method Blank 013069 04 16-Mar-2004	Blank Spike 013069 04 16-Mar-2004	% Recovery 013069 04 16-Mar-2004
Benzene	1.0	ug/kg	<2.0	<2,0	<4.0	<	56	89
Ethylbenzene	1.0	н	<2.0	<2.0	<8.0	<	61	97
Tolvene	1.0	н	<2.0	<2.0	55	<	57	92
m&p-Xylene	1.0	н	<2.0	<2.0	12	<	120	99
o-Xylene	1.0	11	<2.0	<2.0	<8.0	<	60	96
Xylenes(Total)	1.0	ĸ	<2,0	<2.0	12	<	180	97
Isopropylbenzene	0.1	41	<2.0	<2.0	<20	<	57	92
n-Propylhenzene	1.0	41	<2.0	<2.0	<20	<	61	98
p-Isopropyltoiuene	1.0	•1	<2.0	<2.0	<20	<	63	100
1.2,4-Trimethylbenzene	1.0	#1	<2.0	7.0	22	<	61	98
1, 3, S-Trimethylbenzene	1.0	41	<2.0	2.0	$\triangleleft 0$	<	62	98
n-Butylbenzene	1.0	ы	<2.0	<2.0	<b>2</b> 0	<	65	100
sec-Butylbenzene	1.0	Ħ	<2.0	<2.0	<20	<	64	100
tert-Butylbenzene	1.0		<2,0	<2.0	<20	<	61	97
Naphthalene	1.0	n	<2.0	7.0	<20	<	62	99
Methyl-t-butylether	1,0	н	<2.0	<2.0	<4.0	<	NS	-
Surrogate Recoveries		%						
d4-1,2-Dichloroethane			61	<b>68</b>	65	62	65	65
d8-Toluene			80	80	108	79	75	75
Bramofluorobenzene			77	80	49	79	80	80
d10-Eihylbenzene			77	57	80	96	82	82

4/1/04

7.02

Component	Client ID; Lab No.; Date Sampled; MDL	Units	D.B. Sidewall West 013070 04 16-Mar-2004	D.B. Sidewall Middle 013071 04 16-Mar-2004	D.B. Bottom Middle 013072 04 16-Mar-2004	D.B. Bottom Middle 013072 04 16-Mar-2004 M. Spike	D.B. Bottom Middle 013072 04 16-Mar-2004 MS % Rec.	D.B. Bottom Middle 013072 04 16-Mar-2004 MS Dup	D.B, Bottom Middle 013072 04 16-Mar-2004 MSD % Rec.
Naphihalene	90	ug/kg	<360	<360	<900	2000	69	2200	73
Acenaphthene	70		<280	<280	<700	2200	74	2400	73 80
Fluorenc	40	н	<160	370	<400	2300	79	2400	81
Phenanthrene	30	**	<120	1500	<300	2500	85	2500	83
Anthracene	60		<240	<240	<600	2400	83	2500	83
Fluoranthene	60	18	<240	<240	<600	2200	74	2200	83 73
Pyrene	40	17	<160	300	<400	3400	120	3100	100
Benz(a)anthracene	50	'n	<200	<200	<500	2500	87	2500	
Chrysene	40	11	<160	<160	<400	2600	90	2500	83
Benzo(b)fluoranthene	40	и	<160	<160	<400	2700	91	2500	86
Benzo(k)fluoranihene	40	2	<160	<160	<400	2600	87		83
Benzo(a)pyrene	50	14	<200	<200	<500	2600	87 89	2400	81
Indeno(1,2,3-cd)pyrer	ne 60	в	<240	<240	<600	2600	89 88	2500	83
Dibenzo(ah)anthracen		11	<200	<200	< <b>500</b>	2600		2600	89
Benzo(ghi)perylene	60	н	<240	<240	<600	2000	89 77	2800	95
				014	<b>~000</b>	2200	77	2300	77
Surrogate Recoveries		%							
d5-Nitrobenzene			57	63	64	70	70	69	<b>(</b> 0)
2-Fluorobiphenyl			65	74	76	78	78		69
d14-p-Terphenyl			105	93	112	128	128	77 107	77 107

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Dat Component	Client ID: Lab No. <del>.</del> e Sampled: MDL	Units	Method Błank 013069 04 16-Mar-2004	Blank Spike 013069 04 16-Mar-2004	% Recovery 013069 04 [6-Mar-2004	Blank Spike Duplicate 013069 04 16-Mar-2004	% Recovery 013069 04 16-Mar-2004
Naphthalene	<b>9</b> 0	ug/kg	<180	3300	82	3300	83
Acenaphthene	70	11	<140	3300	83	3300	83
Fluorenc	40	n	<80	3300	83	3300	83
Phenanthrene	30	41	<60	3400	84	3300	84
Anihracene	60	<b>3</b> 1	<120	3400	85	3400	85
Fluoranthene	60	P	<120	3500	87	3300	83
Рутеас	40	17	<80	3900	98	3600	89
Benz(a)anthracene	50	0	<100	3500	87	3400	86
Chrysene	40	n	<80	3400	85	3409	86
Benzo(b)fluoranthene	40	н	<80	3900	96	3500	88
Benzo(k)fluoranthene	40	и	<80	3600	89	3200	79
Benzo(a)pyrene	50	11	<100	3500	86	3400	86
Indeno(1,2,3-cd)pyrene	60	н	<120	3000	74	3800	94
Dibenzo(ah)anthracene	50	41	<100	2900	73	3800	95
Benzo(ghi)perylene	60	61	<120	2800	70	3500	87
Surrogate Recoveries		%					
d5-Nitrobenzene			70	82	82	81	81
2-Fluorobiphenyl			72	83	83	82	82
d14-p-Terphenyl			87	99	99	88	88

Ч С

HTR-01-2004

72:22

4/1/04 .

## PASC - Summary of Analysis Pre. Dates

Page	MS-5	of 5
------	------	------

Batch Code:	0329MC01	
Benzene	013069 04	
	013070 04	
	013071 04	
	013072 04	
Date Analysed:	04/03/29	
Date Prepared:	04/03/29	
Batch Code:	0324SPA1	0324SPA1
Naphthalene	013069 04	013070 04
		013071 04
		013072.04
Date Analysed:	04/03/25	04/03/26
Date Propared:	04/03/24	04/03/24

Client:NWEC+C Inc. Project:Union Ship Canal

## CHAIN OF JSTODY

			C	HAIN	OF	USTO	DY					-					
	5555 North Se	CAL SERVICES Ervice Road Itario L7L 5H7		То	ll Free: 1-800 Tel: (905) Fax: (905)	)-668-0639 ) 332-8788 ) 332-9169				AN	ALYS	IS RE	QUES	Page TED	÷	of	<u> </u>
clien Informa		Company Name: Project Manager: Address: <i>Cuitfend</i> Phone #: _716 937 Sampled by:	Criff Criff Gen GS27	rage NY Fax #:	- p.J 140.		2241 STARS	a TO STARS									Level of contamination (low, high, unknown)
Philip Use Only		Field Sample ID	# Bottles	Matrix	Date	Time	R	Ċ									Leve (low
	Duct B	ank Excar, Sideun	West 1	Soil	3/16/04	12:00 pm	X	×		-						ļ	
	Det Ban	nk Excar, Sidewall	E MU	lesoil	3/16/04	12:00 pm	X	×				· · · · ·					
	Diret Ba	nk Excar, Botton	. Midd	Soil	\$16/64	12:00 pm	×	Y									
	<u>an an filme</u> .			<u> </u>					·	-			-				
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													-				
TAT (Turnaround Til RUSH TAT MUST H/ PRIOR APPROVAL *some exceptions ap/ please contact Lab	Ply S	ROJECT INFORMATIO roject #: <u>UMion</u> ite: <u>Duct Bank B</u> O#:	Shipl	anal		DETECTION				)NS	BEN	IARKS					
STD 10 Business Da RUSH 5 Business Da RUSH 2 Business Da RUSH 1 Business Da Other Business Days	iys 🔲 P iys 🔲 P iys 🛄 P	hilip Quote #: hilip Project #: hilip Contact:			As	P Ca	+ 1	B			Ber	d By: _	- 				
Client Signature:	1060+0 6 1043/18	Greg Weber Juy 8:00 m	A	eceived By ffiliation: ate/Time: _	psc.	Jac 8	00				1000	a by. /Time		1		2010 2010 2010 2010 2010 2010 2010 2010	

WHITE - LAB / YELLOW - CLIENT

SEE OVER FOR COMPLETION & SAMPLING INSTRUCTIONS

## **APPENDIX L**

## BARIUM "HOT SPOT" PREDISPOSAL CHARACTERIZATION LABORATORY ANALYTICAL RESULTS AND DISPOSAL FACILITY APPROVAL





## Certificate of Analysis

#### **CLIENT INFORMATION**

#### LABORATORY INFORMATION

Attention:	Russ Savage	Contact:	Mike Challis, B.Sc, C.Chem.
<b>Client Name:</b>	NWEC+C Inc.	Project:	AN040300
Project:	Union Ship Canal	Date Received:	24-Mar-2004
<b>Project Desc:</b>	Union Ship Canal	Date Reported:	07-Apr-2004
	· · · · · · · · ·	~	
Address:	3553 Crittenden Rd.	Submission No.:	4C0910
	Crittenden, NY	Sample No.:	014428-014430
	14038		
Fax Number:	716-937-9360		
Phone Number:	716-937-6527		

NOTES:

"-' = not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33 Solids data is based on dry weight except for biota analyses. Organic analyses are not corrected for extraction recovery standards except for isotope dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses) The enclosed copy of the Chain of Custody Record may contain information necessary for the interpretation of the data.

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Twentieth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of three weeks from receipt of data or as per contract.

**COMMENTS:** 

Certified by: M.C.

Page 1 of 7

Component	Client ID: Lab No.: Date Sampled: MDL	Units	Method Blank 014428 04 22-Mar-2004	Method Blank 014428 04 22-Mar-2004	Method Blank 014428 04 22-Mar-2004	Soil Stockpile 014430 04 22-Mar-2004	Soil Stockpile 014430 04 22-Mar-2004 Duplicate
							-
pH after 3.5 ml of 1N HCl addition			-	-	-	2.35	-
pH after extraction (semi-vols/metals)			-	-	-	7.50	-
pH initial (5g + 96.5ml water)			-	-	-	9.65	-
pH of extraction fluid (semi-vols/metals)			-	-	-	4.93	-
pH after extraction (volatiles)			-	-	-	7.11	-
pH of extraction fluid (volatiles)			-	-	-	4.93	-
Soil pH measured in water			-	-	-	8.41	9.02
Cyanide (Reactive)	500	ug/kg	-	-	-	<1000	<1000
Sulphide (Reactive)	2000	"	-	-	-	62000	-
Flash Point	0.1	С	-	-	-	Did Not Flash	-
Aroclor-1016	38	ug/kg	<mdl< td=""><td>400</td><td>100</td><td>&lt;52</td><td>-</td></mdl<>	400	100	<52	-
Aroclor-1221	41	н –	<mdl< td=""><td>-</td><td>-</td><td>&lt;56</td><td>-</td></mdl<>	-	-	<56	-
Aroclor-1232	38	н	<mdl< td=""><td>-</td><td>-</td><td>&lt;52</td><td>-</td></mdl<>	-	-	<52	-
Aroclor-1242	50	н	<mdl< td=""><td>-</td><td>-</td><td>&lt;68</td><td><u> </u></td></mdl<>	-	-	<68	<u> </u>
Aroclor-1248	31	11	<mdl< td=""><td>-</td><td>-</td><td>170</td><td>-</td></mdl<>	-	-	170	-
Aroclor-1254	59	н	<mdl< td=""><td>-</td><td>-</td><td>&lt;80</td><td>-</td></mdl<>	-	-	<80	-
Aroclor-1260	31	**	<mdl< td=""><td>440</td><td>110</td><td>&lt;42</td><td>-</td></mdl<>	440	110	<42	-
Aroclor-1262	31	н	<mdl< td=""><td>-</td><td>-</td><td>&lt;42</td><td>-</td></mdl<>	-	-	<42	-
Aroclor-1268	49	н	<mdl< td=""><td>-</td><td>-</td><td>&lt;67</td><td>-</td></mdl<>	-	-	<67	-
Total PCB	59	н	<mdl< td=""><td>840</td><td>100</td><td>170</td><td>· _</td></mdl<>	840	100	170	· _
Surrogate Recoveries		%					
4,4'-Dibromooctaflourobiphenyl			97	96	96	100	-
Decachlorobiphenyl			97	107	107	91	-

pH via SW846 9045 Cyanide via 7.3.4.1

Sulphide via 7.3.3.2

PCB via SW846 8082

Component	Client ID: Lab No.: Date Sampled: MDL	Units	Method Blank 014429 04 01/40/01	Blank Spike 014429 04 01/40/01	% Recovery 014429 04 01/40/01	Blank Spike Duplicate 014429 04 01/40/01	% Recovery 014429 04 01/40/01	Soil Stockpile utnv 014431 04 29-Mar-2004
component	WIDE	emus						
Mercury	0.50	ug/L	<mdl< th=""><th>10</th><th>100</th><th>-</th><th>-</th><th><mdl< th=""></mdl<></th></mdl<>	10	100	-	-	<mdl< th=""></mdl<>
Arsenic	0.250	mg/L	<mdl< td=""><td>1.3</td><td>110</td><td>-</td><td>-</td><td><mdl< td=""></mdl<></td></mdl<>	1.3	110	-	-	<mdl< td=""></mdl<>
Barium	0.100	"	0.27	2.9	110	-	· _	0.87
Cadmium	0.050	н	<mdl< td=""><td>1.3</td><td>100</td><td>-</td><td>-</td><td><mdl< td=""></mdl<></td></mdl<>	1.3	100	-	-	<mdl< td=""></mdl<>
Chromium	0.500	11	<mdl< td=""><td>2.6</td><td>100</td><td>-</td><td>-</td><td><mdl< td=""></mdl<></td></mdl<>	2.6	100	-	-	<mdl< td=""></mdl<>
Lead	0.500	<b>F</b> #	<mdl< td=""><td>2.6</td><td>100</td><td>-</td><td>-</td><td><mdl< td=""></mdl<></td></mdl<>	2.6	100	-	-	<mdl< td=""></mdl<>
Selenium	0.100	**	<mdl< td=""><td>1.4</td><td>110</td><td>-</td><td>-</td><td><mdl< td=""></mdl<></td></mdl<>	1.4	110	-	-	<mdl< td=""></mdl<>
Silver	0.500	"	<mdl< td=""><td>1.3</td><td>100</td><td>-</td><td>-</td><td><mdl< td=""></mdl<></td></mdl<>	1.3	100	-	-	<mdl< td=""></mdl<>
a-Chlordane	0.005	ug/L	<mdl< td=""><td>0.12</td><td>97</td><td>0.11</td><td>90</td><td>&lt;0.040</td></mdl<>	0.12	97	0.11	90	<0.040
g-Chlordane	0.009	11	<mdl< td=""><td>0.11</td><td>91</td><td>0.11</td><td>92</td><td>&lt;0.060</td></mdl<>	0.11	91	0.11	92	<0.060
Endrin	0.011	**	<mdl< td=""><td>0.11</td><td>95</td><td>0.12</td><td>96</td><td>&lt; 0.073</td></mdl<>	0.11	95	0.12	96	< 0.073
Heptachlor	0.005	**	<mdl< td=""><td>0.076</td><td>63</td><td>0.082</td><td>68</td><td>&lt; 0.040</td></mdl<>	0.076	63	0.082	68	< 0.040
Heptachlor Epoxide	0.012	н	<mdl< td=""><td>0.12</td><td>99</td><td>0.12</td><td>100</td><td>&lt; 0.093</td></mdl<>	0.12	99	0.12	100	< 0.093
Lindane	0.007	**	<mdl< td=""><td>0.11</td><td>92</td><td>0.11</td><td>91</td><td>&lt;0.060</td></mdl<>	0.11	92	0.11	91	<0.060
Methoxychlor	0.018	н	<mdl< td=""><td>0.58</td><td>120</td><td>0.61</td><td>130</td><td>&lt; 0.22</td></mdl<>	0.58	120	0.61	130	< 0.22
Toxaphene	0.116	н	<mdl< td=""><td>NS</td><td>-</td><td>NS</td><td>-</td><td>&lt; 0.27</td></mdl<>	NS	-	NS	-	< 0.27
Surrogate Recoveries		%						
4,4'-Dibromooctaflourobiphen	yl		63	39	39	40	40	82
Decachlorobiphenyl			88	90	90	89	89	91
2,4-D (via 8150)	0.39	ug/L	<mdl< td=""><td>6.7</td><td>90</td><td>7.5</td><td>100</td><td>&lt;2.8</td></mdl<>	6.7	90	7.5	100	<2.8
2,4,5-TP	0.04	11	<mdl< td=""><td>0.37</td><td>50</td><td>0.42</td><td>56</td><td>&lt;0.29</td></mdl<>	0.37	50	0.42	56	<0.29
Surrogate Recoveries		%						
2,3-D			62	30	30	38	38	80

Mercury via SW846 7471 Metals via SW846 6010 Pesticides via SW846 8081 Herbicides via SW846 8151

Component	Client ID; Lab No.: Date Sampled; MDL	Units	Method Blank 014429 04 01/40/01	Blank Spike 014429 04 01/40/01	% Recovery 014429 04 01/40/01	Soil Stockpile utv . 014432 04 29-Mar-2004
Benzene	0.5	ug/L	<5.0	500	100	<5.0
2-Butanone	5.0	н	<50	450	90	<50
Carbon Tetrachloride	0.7	*1	<7.0	520	100	<7.0
Chlorobenzene	0.6	н	<6.0	500	100	<6.0
Chloroform	0.3	11	<3.0	510	100	12
1,2-Dichloroethane	0.3	"	<3.0	490	99	<3.0
1,1-Dichloroethene	0.7	"	<7.0	500	100	<7.0
Tetrachloroethene	0.5	"	<5.0	500	100	<5.0
Trichloroethene	0.3	"	<3.0	510	100	<3.0
Vinyl Chloride	0.9	11	<9.0	590	120	<9.0
1,4-Dichlorobenzene	1.6	It	<16	510	100	<16
Surrogate Recoveries		%				
d4-1,2-Dichloroethane			102	106	106	101
d8-Toluene			102	104	104	102
1,4-Bromofluorobenzer	ne		102	105	105	101

VOC via SW846 8260

Date	Client ID: Lab No.: e Sampled:		Method Blank 014429 04 01/40/01	Blank Spike 014429 04 01/40/01	% Recovery 014429 04 01/40/01	Blank Spike Duplicate 014429 04 01/40/01	% Recovery 014429 04 01/40/01	Soil Stockpile utnv 014431 04 29-Mar-2004
Component	MDL	Units						
Pyridine	5.0	ug/L	<mdl< td=""><td>NS</td><td>-</td><td>NS</td><td>-</td><td><mdl< td=""></mdl<></td></mdl<>	NS	-	NS	-	<mdl< td=""></mdl<>
o-Cresol	1.7	н	<mdl< td=""><td>16</td><td>63</td><td>17</td><td>66</td><td><mdl< td=""></mdl<></td></mdl<>	16	63	17	66	<mdl< td=""></mdl<>
m&p-Cresol	3.5	н	<mdl< td=""><td>16</td><td>63</td><td>16</td><td>65</td><td><mdl< td=""></mdl<></td></mdl<>	16	63	16	65	<mdl< td=""></mdl<>
1,4-Dichlorobenzene	2.0	"	<mdl< td=""><td>15</td><td>60</td><td>16</td><td>63</td><td><mdl< td=""></mdl<></td></mdl<>	15	60	16	63	<mdl< td=""></mdl<>
2,4-Dinitrotoluene	0.5	н	<mdl< td=""><td>25</td><td>99</td><td>24</td><td>98</td><td><mdl< td=""></mdl<></td></mdl<>	25	99	24	98	<mdl< td=""></mdl<>
Nitrobenzene	2.0	н	<mdl< td=""><td>21</td><td>85</td><td>22</td><td>86</td><td><mdl< td=""></mdl<></td></mdl<>	21	85	22	86	<mdl< td=""></mdl<>
Pentachlorophenol	1.1	15	<mdl< td=""><td>24</td><td>96</td><td>23</td><td>93</td><td><mdl< td=""></mdl<></td></mdl<>	24	96	23	93	<mdl< td=""></mdl<>
2,4,5-Trichlorophenol	0.6	*1	<mdl< td=""><td>23</td><td>91</td><td>23</td><td>91</td><td><mdl< td=""></mdl<></td></mdl<>	23	91	23	91	<mdl< td=""></mdl<>
2,4,6-Trichlorophenol	1.2	11	<mdl< td=""><td>23</td><td>92</td><td>23</td><td>91</td><td><mdl< td=""></mdl<></td></mdl<>	23	92	23	91	<mdl< td=""></mdl<>
Hexachloroethane	2.0	14	<mdl< td=""><td>13</td><td>53</td><td>14</td><td>55</td><td><mdl< td=""></mdl<></td></mdl<>	13	53	14	55	<mdl< td=""></mdl<>
Hexachlorobutadiene	2.0	н	<mdl< td=""><td>14</td><td>55</td><td>14</td><td>56</td><td><mdl< td=""></mdl<></td></mdl<>	14	55	14	56	<mdl< td=""></mdl<>
Hexachlorobenzene	2.0	н	<mdl< td=""><td>23</td><td>92</td><td>22</td><td>89</td><td><mdl< td=""></mdl<></td></mdl<>	23	92	22	89	<mdl< td=""></mdl<>
Surrogate Recoveries		%						
d5-Phenol			30	27	27	28	28	42
d5-Nitrobenzene			87	85	85	87	87	73
2-Fluorobiphenyl			73	73	73	82	82	57
2,4,6-Tribromophenol			86	88	88	89	89	78
d-14-p-Terphenyl			107	99	99	107	107	93

SVOC via SW846 8270

#### 4/7/04

## PASC - Summary of Analysis Pre. Dates

Batch Code:	0328MSN1
pH after 3.5 ml of 1N HCl addition	014430 04
Date Analysed:	04/03/29
Date Prepared:	04/03/28
- -	
Batch Code:	0328MSV1
pH after extraction (volatiles)	014430 04
Date Analysed:	04/03/29
Date Prepared:	04/03/28
Batch Code:	0324VPH1
Soil pH measured in water	014430 04
Date Analysed:	04/03/29
Date Prepared:	04/03/24
Batch Code:	0325FSA2
Cyanide (Reactive)	014430 04
Date Analysed:	04/03/25
Date Prepared:	04/03/25
Batch Code:	0402XX01
Sulphide (Reactive)	014430 04
Date Analysed:	04/04/02
Date Prepared:	04/04/02
Batch Code:	0402RGA1
Flash Point	014430 04
Date Analysed:	04/04/02
Date Prepared:	04/04/02
Batch Code:	0331NDU1
Aroclor-1016	014428 04
A100101-1010	014428 04
Date Analysed:	04/03/31
Date Prepared:	04/03/31
Date i repared.	UJ/J1

Batch Code:	0330MBL1
Mercury	014429 04
	014431 04
Date Analysed:	04/03/30
Date Prepared:	04/03/30
Batch Code:	0329STL2
Arsenic	014429 04
	014431 04
Date Analysed:	04/03/29
Date Prepared:	04/03/29
Batch Code:	0330MGS1
a-Chlordane	014429 04
	014431 04
Date Analysed:	04/03/31
Date Prepared:	04/03/30
Batch Code:	0330MGS1
2,4-D (via 8150)	014429 04
	014431 04
Date Analysed:	04/03/31
Date Prepared:	04/03/30
Batch Code:	0405DJ01
Benzene	014429 04
	014432 04
Date Analysed:	04/04/05
Date Prepared:	04/04/05
Batch Code:	0329TKR1
Pyridine	014429 04
	014431 04
Date Analysed:	04/03/30
Date Prepared:	04/03/29
Batch Code:	0329TKR1
Hexachloroethane	014429 04
	014431 04
Date Analysed:	04/03/30
Date Prepared:	04/03/29

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5555 North S	ICAL SERVICES Service Road Dntario L7L 5H7		Toll	Free: 1-800-6 Tel: (905) 3 Fax: (905) 3	32-8788				ANA		REQUES	Page	of		
CLIENT INFORMATION	Company Name: Project Manager: Address:3553	<u>2055 S</u> <u>5 CRII</u> <u>11 ENDE</u> 11 6527	SAUAGE TTENDEN RD EN NY 14038 7 Fax #: 716-937-9360		אד דכוף	PESTS.+HERBS	PCB'S	PCD'S	PCD'S	CORROSINITY	CNITABILITY / FLASH PAN	REALTINITY			Level of contamination (low, high, unknown)
らい - 014429 Philip Use Only	Field Sample ID	# Bottles	Matrix	Date	Time	Ľ	Į	+	0	S)					
014430 - 32 BARIUN 501	1 CONTAN IN ATED L STOCKPILE		5	अहर्राज			V		~	· · ·			250		
										REN	MARKS				
TAT (Turnaround Time) RUSH TAT MUST HAVE PRIOR APPROVAL *some exceptions apply please contact Lab STD 10 Business Days RUSH 5 Business Days RUSH 2 Business Days	Philip Quote #:	I IP			. DETECTIO			GULAT	ONS						
RUSH 1 Business Days  Other Business Days Client Signature: Affiliation: Date/Time:	Philip Contact:		Received Affiliation: Date/Time		2 	In	<u> </u>	75		Dat	c'd By: te/Time 	PLETION & SAM	MPLING INST	RUCTI	

WHITE - LAB / YELLOW - CLIENT

				200 14100
				*
WASTE MANAGEMENT	GENERATOR	S WASTE PRO	HLE SHEET	
	CHAFF	EE LANDFILL		
	PLEASE P	RINT IN INK OR TYP	E	
ervice Agroement on File?	es ino		Profile Number: '	WINI VATS
Hazardous X Non-Hazardo	NUS TSCA		Renewal Date;	1211
Contraction Partice PERIO	parent Downta	1011, Inc. 2	SIC Code:	
Facility City: Bu	iffalo.		Phone (7/6)85 State/Province: New	YOCK
County: Ene	1	8.	Generator USEPA/Federa	ID# N/
. Customer Name: AL-truce	LALAN ENVIRON	المله السكور مراجع	State/Province ID #: Customer Phone: (77	NA 16)937-15
Billing Advines 3453			_	937.736
		TUCNACH, N	EW TALK 14023	821985
a. Name of Waster 50	il Contaminat	tal with R.		
b. Process Generating Wash	E Execulation	a of paring	as included and	identitied
awring p	revieus site i	westigation		
C. Cofor Id Star				
	ng odor e Plantibe):	<b>Hysical state @ 70*</b> Bolid Linuar		g. Free 0 ; id ra
- NA		leolid (_ Liquid ]Gas []Sluda	- I The first of the	NA 11 No Fras Lin
		Other		h. phi Ruge
I. Liquid Flash Point: 0<73				1.2.2.11
j. Chemical Composition (La	at all constituents Enclusion I	100-139°F	]140-1999 □≥ 200*	F MNot Epplice
	Containe analysis):	·····	ment and all and all forestate at study of	anternation and 2 sum
Constituents Soil + Stone	Condentration	Range Concti	illients	Concent vition
Barium		7 %		
	Pyrophotic	Explosive	Radioscin	/ <del>2</del>
I. Does the waste represented	Infectious d by this profile context	Shock Sen	and the second state of th	
m. Does the waste represented n. Does the waste represented if year.				
the second state is a second state in the second state in the second state is a seco	i nà cha hi chine courseu	I DENZEDE?		"lyce
is the waste subject to the b	enzene waste operati	I DATE NESHAP?		
q. Does the waste contain any	Class   or Class II now	ppinw		F 1
	nie? Aist in Section B.1	-)	\$4534.4 = 44 = 44 = 25 + 2 + 2 + 2 + 4 + 1 + 4 + 1 + 4 + 1 + 4 + 1 + 4 + 1 + 4 + 1 + 4 + 1 + 4 + 1 + 4 + 1 + 4 + 1 + 4 + 1 + 4 + 1 + 4 + 1 + 4 + 1 + 4 + 1 + 4 + 1 + 4 + 1 + 4 + 1 + 4 + 1 + 4 + 1 + 4 + 1 + 4 + 1 + 4 + 1 + 1	INES
Quantity of Waste	a		ede Opreme Other:	specify)
<b>Estimated Annual Volume</b>	< 100			COLUMN TWO IS IN THE OWNER OF THE OWNER OWNER OF THE OWNER OWNER OF THE OWNER OWNER OF THE OWNER O
Shipping information	1			
Shipping Information	1	Trailer	Bulk Liquid: Type/Size	
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Shipping Information a. Packaging: PBulk Solid; Type/Size: Down; Type; Size; b. Shipping Frequency; Units	MMP Truck/	Per:		e time C
Shipping Information . a. Packaging: Plauk Solid; Type/Size:	<100 Tons	Per: Month   Other		e time L

Page 2 of 4

From: Jim Gallanan 776-754-0207 To: Greg Weber

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04/13/2004 14:27 FAX

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ATOR'S WASTE PROFILE SHEET CHAFFEE LANDFILL

	g. Personal Protective Equipment Requirements: NA - Tare Load for Transporter A Transporter Number Zuladz, Construction Co 9A-499	
-	h. Transporter & There are him the manual in NA - Taro Load for Transport	7
	The second number 2012d2 Construction Co 9A-499	
1.		
<i>'</i> .	Is the average of the second waste (40 CFR Part 261)? If the average is no also to 2	
	Is this in USEPA hazardous wasie (40 CFR Part 201)? If the answer is no, skip to 2. a. If yes, identify ALL USEPA listed and characteristic wasie code numbers (D, F, K, P, U)	D'IS XINO
	b. Hardward M. L.	
	b. If a characteristic meandate waste, do underlying heardate constituents	
	C. Dens this vanish statistic in the statistic in the state of the sta	
	Composition - B.1.)	
2		
-		
	Identity ALL state hazardous/non hazardous waste codes	Chis Kino
3.		
ખેત	is the wester from a CERCLA (40 GFR 300, Appendix B) or state mandelind clean-up?	
	if yes, attach Racord of Decision (ROD), 104/106 or 122 order or court order that governs site clean-up activity. For state mandated clean-up, provide relevant documentation	DIES ANO
	restant for state management classificity, provide relevant documentation.	
4.		
	Does the wests represented by this waste profile sheet contain redicative material, or is disposed	
5.		DY IS ANO
Wh	Biohaman (concentrated by site where profile share contain, concentrations of Dehahuman	LIT IN FUND
	Does the would represented by this weste profile sheat contain concentrations of Polychiainated Biphenyls (PCIIs) regulated by 40 CFR 761? (If yes, list in Chemical Composition - 8.1.j)	
	a. If you, were the PCBs Imported into the U.S.?	DY = ; DNO
8	Do the wasts profile shadt and all shadt yours contain the	-
	metanici, and has all mission information within the constraints of the Generation of the wests	
	Do the waste profile shaet and all deachmans contain the and accurate descriptions of the waste material, and has all missent information within the possession of the Generator regarding known or suspected hazands pertaining to the waste been discidened to the Contractor?	-
7.		
E s	Will all channes which means in the	MY 2: DNO
f .	Well all changes which occur in the character of the wasis be identified by the Generator and disclosed	NO IS IN
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## **APPENDIX M**

## CYANIDE "HOT SPOT" PREDISPOSAL CHARACTERIZATION LABORATORY ANALYTICAL RESULTS AND DISPOSAL FACILITY APPROVAL

LABORATORY INFORMATION

## Certificate of Analysis

#### **CLIENT INFORMATION**

Attention:	Russ Savage	Contact:	Mike Challis, B.Sc, C.Chem.
<b>Client Name:</b>	NWEC+C Inc.	Project:	AN040300
Project:	Union Ship Canal	Date Received:	06-Apr-2004
<b>Project Desc:</b>	Union Ship Canal	Date Reported:	15-Apr-2004
Address:	3553 Crittenden Rd.	Submission No.:	4D0197
	Crittenden, NY 14038	Sample No.:	017592-017594
Fax Number:	716-937-9360		
Phone Number:	716-937-6527		

**NOTES:** 

"-' = not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33 Solids data is based on dry weight except for biota analyses. Organic analyses are not corrected for extraction recovery standards except for isotope dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses) The enclosed copy of the Chain of Custody Record may contain information necessary for the interpretation of the data.

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Twentieth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of three weeks from receipt of data or as per contract.

**COMMENTS:** 

Certified by: ______

Page 1 of 8

Component	Client ID: Lab No.: Date Sampled: MDL	Units	Cyanide Area 017594 04 31-Mar-2004	Cyanide Area 017594 04 31-Mar-2004 Duplicate	Cyanide Area 017594 04 31-Mar-2004 M. Spike	Cyanide Area 017594 04 31-Mar-2004 MS % Rec.	Cyanide Area 017594 04 31-Mar-2004 MS Dup	Cyanide Area 017594 04 31-Mar-2004 MSD % Rec.
pH after 3.5 ml of 1N HCl addition			1.97					
pH after extraction (semi-vols/metals)			5.88	-	-	-	-	-
pH initial (5g + 96.5ml water)			5.88 8.86	-	-	-	-	-
pH of extraction fluid (semi-vols/metal	(2		8.80 4.90	-	-	-	-	-
pH after extraction (volatiles)	3)		4.90 6.31	•	-	•	•	-
pH of extraction fluid (volatiles)			4.90	•	-	-	-	-
pri or exclusion null (volatiles)			4.90	•	-	-	-	
Soil pH measured in water			8.71	8.79	-	-	-	-
Cyanide (Reactive)	500	ug/kg	<1000					
Sulphide (Reactive)	2000	" "	< MDL	-	-	-	-	-
	2000			-	-	-	-	-
Flash Point	0.1	°C	>90	-	-	-	-	-
Aroclor-1016	38	ug/kg	< MDL	NA	1200	110	1100	110
Aroclor-1221	41	"	< MDL	NA	NS	110	1100 NS	110
Aroclor-1232	38	H	< MDL	NA	NS	-		-
Aroclor-1242	50	11	< MDL	NA	NS		NS	•
Aroclor-1248	31	н	< MDL	NA	NS	-	NS	-
Aroclor-1254	59	н	< MDL	NA	NS	-	NS	•
Aroclor-1260	31	м	< MDL	NA	1200	-	NS	-
Aroclor-1262	31	н	< MDL	NA	NS	110	1100	110
Aroclor-1268	49	н	< MDL	NA		-	NS	-
Total PCB	59	н	< MDL	NA	NS	-	NS	-
	5,			INA	2300	110	2200	110
Surrogate Recoveries		%						
4,4'-Dibromooctaflourobiphenyl			62	NA	70	70	67	(2)
Decachlorobiphenyl			72	NA	91	91	62 79	62 70
					<i></i>	71	19	79
Reactive Sulphide via 7.3.3.2								

Reactive Sulphide via 7.3.3.2 PCB via SW846 8082 Flash Point via Pensky-Martin Reactive Cyanide via 7.3.4.1 pH via SW846 9045 .....

Component	Client ID: Lab No.: Date Sampled: MDL	Units	Method Blank 017592 04 31-Mar-2004	Blank Spike 017592 04 31-Mar-2004	Method Blank 017592 04 31-Mar-2004
pH after 3.5 ml of 1N HCl addition			-	-	-
pH after extraction (semi-vols/metals)			-	-	-
pH initial (5g + 96.5ml water)	`		-	-	-
pH of extraction fluid (semi-vols/metals	5)		-	-	-
pH after extraction (volatiles) pH of extraction fluid (volatiles)			-	-	-
pri or extraction fluid (volatiles)			-	-	-
Soil pH measured in water			-	•	-
Cyanide (Reactive)	500	ug/kg	<1000	26000	100
Sulphide (Reactive)	2000	"	<1000	20000	100
			-	•	-
Flash Point	0.1	°C	-	-	-
Aroclor-1016	38	ug/kg	< MDL	460	100
Aroclor-1221	41	"	< MDL	400 NS	120
Aroclor-1232	38	**	< MDL	NS	-
Aroclor-1242	50	11	< MDL	NS	-
Aroclor-1248	31	11	< MDL	NS	-
Aroclor-1254	59	11	< MDL	NS	-
Aroclor-1260	31	н	< MDL	480	120
Aroclor-1262	31	н	< MDL	NS	
Aroclor-1268	49	H	< MDL	NS	-
Total PCB	59	н	< MDL	950	120
				750	120
Surrogate Recoveries		%			
4,4'-Dibromooctaflourobiphenyl			64	70	70
Decachlorobiphenyl			82	89	89
				07	07
Reactive Sulphide via 7.3.3.2 PCB via SW846 8082					

PCB via SW846 8082 Flash Point via Pensky-Martin Reactive Cyanide via 7.3.4.1 pH via SW846 9045

Component	Client ID: Lab No.: Date Sampled: MDL	Units	Cyanide Area utnv 017595 04 08-Apr-2004	Method Blank 017593 04 01/40/01	Blank Spike 017593 04 01/40/01	% Recovery 017593 04 01/40/01	Blank Spike Duplicate 017593 04 01/40/01	% Recovery 017593 04 01/40/01
Mercury	0.50	ug/L	< MDL	< MDL	10	100	-	-
Arsenic	0.250	mg/L	< MDL	< MDL	1.3	100		
Barium	0.100		0.49	< MDL	2.5	100		-
Cadmium	0.050	"	< MDL	< MDL	1.2	98	-	-
Chromium	0.500	"	< MDL	< MDL	2.4	98	-	-
Lead	0.500	11	< MDL	< MDL	2.4	98	-	-
Selenium	0.100	"	< MDL	< MDL	1.3	100	-	-
Silver	0.500	"	< MDL	< MDL	1.2	100	-	-
a-Chlordane	0.005	ug/L	<0.023	< MDL	0.10	86	0.11	05
g-Chlordane	0.009	"	< 0.035	< MDL	0.11	91	0.11	95 00
Endrin	0.011	"	<0.042	< MDL	0.10	86	0.012	90
Heptachlor	0.005	н	<0.023	< MDL	0.079	66		10
Heptachlor Epoxide	0.012	u.	< 0.054	< MDL	0.12	96	0.080 0.11	67
Lindane	0.007	"	< 0.035	< MDL	0.12	90 87	0.11	89
Methoxychlor	0.018	**	< 0.13	< MDL	0.45	87 94	0.10	84
Toxaphene	0.116	"	<0.16	< MDL	NS	-	NS	85
Surrogate Recoveries		%			110	-	NS	•
4,4'-Dibromooctaflourobiphen	yl		49	33	30	30	32	32
Decachlorobiphenyl			75	77	77	50 77	32 73	52 73
2,4-D (via 8150)	0.39	ug/L	<1.4	< MDL	5.5	74	6.3	04
2,4,5-TP	0.04	"	<0.15	< MDL	0.29	39	0.31	84
Surrogate Recoveries		%			0.47	37	0.51	41
2,3-D			86	93	136	136	143	143

Mercury via SW846 7470 Metals via SW846 6010 Pesticides via SW846 8081 Herbicides via SW846 8151

Component	Client ID: Lab No.: Date Sampled: MDL	Units	Cyanide Area utv 017596 04 08-Apr-2004	Method Blank 017593 04 01/40/01	Blank Spike 017593.04 01/40/01	% Recovery 017593 04 01/40/01
Benzene	0.5	ug/L	<100	<100	10000	100
2-Butanone	5.0	**	<1000	<1000	9000	90
Carbon Tetrachloride	0.7	"	<140	<140	10000	100
Chlorobenzene	0.6	"	<120	<120	10000	100
Chloroform	0.3		<60	<60	9800	98
1,2-Dichloroethane	0.3	"	<60	<60	9800	98
1,1-Dichloroethene	0.7	*	<140	<140	9900	99
Tetrachloroethene	0.5	"	<100	<100	11000	110
Trichloroethene	0.3	**	<60	<60	9900	99
Vinyl Chloride	0.9	11	<180	<180	12000	120
1,4-Dichlorobenzene	1.6	н	<320	<320	11000	110
Surrogate Recoveries		%				
d4-1,2-Dichloroethane			98	100	109	109
d8-Toluene			99	100	97	97
1,4-Bromofluorobenzene			100	100	107	107

VOC via SW846 8260

Component	Client ID: Lab No.: Date Sampled: MDL	Units	Cyanide Area utnv 017595 04 08-Apr-2004	Method Blank 017593 04 01/40/01	Blank Spike 017593 04 01/40/01	% Recovery 017593 04 01/40/01	Blank Spike Duplicate 017593 04 01/40/01	% Recovery 017593 04 01/40/01
Pyridine	5.0	ug/L	<10	< MDL	NS	-	NS	-
o-Cresol	1.7	"	<3.4	< MDL	18	70	12	48
m&p-Cresol	3.5	"	<7.0	< MDL	16	63	11	44
1,4-Dichlorobenzene	2.0	"	<4.0	< MDL	17	67	12	48
2,4-Dinitrotoluene	0.5	**	<1.0	< MDL	26	100	25	100
Nitrobenzene	2.0	"	<4.0	< MDL	23	93	18	73
Pentachlorophenol	1.1	**	<2.2	< MDL	26	100	24	98
2,4,5-Trichlorophenol	0.6	"	<1.2	< MDL	24	96	22	86
2,4,6-Trichlorophenol	1.2	"	<2.4	< MDL	24	97	21	84
Hexachloroethane	2.0	*1	<4.0	< MDL	16	63	10	42
Hexachlorobutadiene	2.0	"	<4.0	< MDL	19	76	14	55
Hexachlorobenzene	2.0	**	<4.0	< MDL	26	100	24	96
Surrogate Recoveries		%						
d5-Phenol			44	43	30	30	21	21
d5-Nitrobenzene			94	93	94	94	73	73
2-Fluorobiphenyl			82	82	94	94	74	74
2,4,6-Tribromophenol			95	94	99	99	91	91
d-14-p-Terphenyl			86	95	98	98	92	92

SVOC via SW846 8270

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PSC Analytical Services

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#### **CERTIFICATE OF ANALYSIS - SECTION 2**

LOP WHOTATTOT SELATES

0.19

#### ANALYTICAL RESULTS

ent:(1353) PS	353) PSC Analytical Services(BURLINGTON). BURLINGTON Reported:15-Apr-2004					Page: 1 of 1
Attention:	Purcha					
Client Referen	Date R					
Work Order:	115874		Sample	Type:	Liquid	
Sample #	Test	Result	Units	EQL	Comment	

04-B009197 Sample Description: CYANIDE AREA (17594)

Sulphide as S

mg/L 0.02

Date & Time Sampled: 31-Mar-2004

ATG AST_LWV

EQL Estimated Quantitation Limit Refer to the cover page for a list of report contents.

PSC Analytical Services 921 Leathorne Street, London, Ontario, Canada, N5Z 3M7 (519) 686-7558 1-800-268-7396 FAX (519) 686-6374

raye 3 01 4 #2450502



#### Client: PSC Analytical Services(BURLINGTON) Client Reference: Work Order: 115874

Sample Description			CYANIDE AREA (17594)
Date Sampled			31-Mar-04
Time Sampled			
Parameter	Units	EQL	04-B009197
Sulphide as S	mg/L	0.02	0.19

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Batch Code:	0407RGA1
pH after 3.5 ml of 1N HCl addition	017594 04
Date Analysed:	04/04/08
Date Prepared:	04/04/07
Batch Code:	0407RGV1
pH after extraction (volatiles)	017594 04
Date Analysed:	04/04/08
Date Prepared:	04/04/07
Batch Code:	0408VPH1
Soil pH measured in water	017594 04
Date Analysed:	04/04/12
Date Prepared:	04/04/08
Batch Code:	0408FSA1
Cyanide (Reactive)	017592 04
	017594 04
Date Analysed:	04/04/08
Date Prepared:	04/04/08
Batch Code:	
Date Analysed:	
Date Prepared:	
Batch Code:	0408RGA1
Flash Point	017594 04
Date Analysed:	04/04/08
Date Prepared:	04/04/08
Batch Code:	0412NDU1
Aroclor-1016	017592 04
	017594 04
Date Analysed:	04/04/12
Date Prepared:	04/04/12

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Page	MS-8	of 8
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Batch Code:	0408MBL1
Mercury	017593 04
•	017595 04
Date Analysed:	04/04/08
Date Prepared:	04/04/08
<b>A</b>	
Batch Code:	0408STL1
Arsenic	017593 04
	017595 04
Date Analysed:	04/04/08
Date Prepared:	04/04/08
Batch Code:	0408MGS1
a-Chlordane	017593 04
	017595 04
Date Analysed:	04/04/12
Date Prepared:	04/04/08
Batch Code:	0408NDR1
2,4-D (via 8150)	017593 04
	017595 04
Date Analysed:	04/04/13
Date Prepared:	04/04/08
Batch Code:	0408MC01
Benzene	017593 04
Data Analana Ja	017596 04
Date Analysed:	04/04/08
Date Prepared:	04/04/08
Batch Code:	0408TKR1
Pyridine	017593 04
	017595 04
Date Analysed:	04/04/13
Date Prepared:	04/04/08
1	
Batch Code:	0408TKR1
Hexachloroethane	017593 04
	017595 04
Date Analysed:	04/04/13
Date Prepared:	04/04/08

#### CHAIN OF CUSION

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5555	ALYTICAL SERVICES North Service Road ngton, Ontario L7L 5H7		Toll	Free: 1-800-6 Tel: (905) 3 Fax: (905) 3	332-8788	1			ANA		REQ	UEST	Page _ ED		_ of	A VA
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WHITE - LAB / YELLOW - CLIENT



179 Lake Avenue Rochester, New York 14608 (585) 847 - 2530 FAX (585) 647 - 3311

## PHC Analysis Report for Soils/Solids/Sludges

#### Client: NWEC&C

Client Job Site:	Destro / Union Ship	Lab Project Number: Lab Sample Number:	
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Cyanide Area Stockpile N/A Soil	Date Sampled: Date Received: Date Analyzed:	06/28/2004 06/28/2004 06/28/2004

PHC Classification	Results in ug 7 Kg
Heavy Weight PHC as: Lube Oil	59.500
ELAD Number 10958	Method: NYSDOH 310.13

ELAP Number 10958

Comments: ND denotes Non Detect ug / Kg = microgram per Kilogram PHC = Petroleum Hydrocarbon

Bruce Hoogestege, Technical Director

Signature:

This report is part of a multipage document and should only be evaluated in its entimity. Chein of Custody provides additional information. Including compliance with sample condition 041779P 1.XLS requirements upon receipt.

# PARADIGM

## CHAIN OF CUSTODY

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3	In the wester from a CEROLA (40 CFR 300, Appendix B) or state mandated clean-up?	U'VES EXNO
	if yes, attach Record of Decision (RCD), 194/108 or 122 order or court order that governs site clean-up activity. For state mandaled clean-up, provide relevant documentation.	÷
4.	Does the wenter represented by this waste profile sheet contain radioactive meterial, or is disposed regulated by the Nuclear Reputatory Commission?	CTV ES DEMO
5.	Does the weste represented by this weete profile sheet contain concentrations of Polychlorinsted Biphenyls (PCBs) regulated by 40 CFR 7617 (if yes, list in Chemical Composition - 5.1.)	TI ES MO
5.	De the waste profile sheet and all attachments contain true and accurate descriptions of the waste	
υ.	natorial, and has all relatent information within the passession of the Generator regarding known or suspected hazards pertaining to the weste been disclosed to the Contractor?	NO STES
7.	•	
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From: Jim Callahan 716-754-0207 To: Greg Weber

Date: 5/20/2004 Time: 12:14:06 PM

Page 3 of 4

## **APPENDIX N**

## UNDERGROUND STORAGE TANK NO. 1 PREDISPOSAL CHARACTERIZATION LABORATORY ANALYTICAL RESULTS, DISPOSAL FACILITY APPROVAL, AND EXCAVATION CONFIRMATION SOIL SAMPLES LABORATORY ANALYTICAL RESULTS

R-13-2004 13:17

SU HNHLTIICHL SERVICES

ANALYTICAL SERVICES

## Certificate of Analysis

#### **CLIENT INFORMATION**

#### LABORATORY INFORMATION

Attention:	Russ Savage	Contact:	Mike Challis, B.Sc, C.Chem.
Client Name:	NWEC+C Inc.	Project:	AN040300
Project:	Union Ship Canal	Date Received:	26-Mar-2004
Project Desc:	Union Ship Canal	Date Reported:	06-Apr-2004
		<b>Revision Date:</b>	15-Apr-2004
Address:	3553 Crittenden Rd.	Submission No.:	4C1023
	Crittenden, NY 14038	Sample No.:	015243-015244
Fax Number:	716-937 <b>-9</b> 360		
Phone Number:	716-937-6527		

NOTES: "-' = not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33 Solids data is based on dry weight except for biora analyses. Organic analyses are not corrected for extraction recovery standards except for isotope dilution methods, (Le. CARB 429 PAH, all PCDD/F and DBD/DBF analytes) The enclosed copy of the Chain of Custody Record may contain information necessary for the interpretation of the data.

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Twentieth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologics, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of three weeks from receipt of data or as per contract.

COMMENTS:

**Revised to include Flashpoint** 

Certified by: M.C.

Page 1 of 4

Component	Client ID: Lab No.; Date Sampled; MDL	Units	1000 GTE Soil my 016116 04 02-Apr-2004	1000 GTE Soil tv 016117 04 02-Apr-2004	1000 GTE Soil ty 016117 04 02-Apr-2004 Duplicate	Method Blank 015243 04 25-Mar-2004	Blaak Spike 015243 04 25-Mar-2004	% Recovery 015243 04 25-Mar-2004
Lead	0.020	mg/L	0.028	-	•	<mdl< td=""><td>-</td><td>-</td></mdl<>	-	-
Benzene	0.5	ug/L		43	44	<5.0	500	100
Surrogate Recoveries d4-1,2-Dichloroethaae		%		102	101	1 <b>02</b>	106	106
d8-Tohiene 1,4-Bromofluerobenzen	IC			99 101	99 [0]	99 100	1 <b>02</b> 107	102 107

Benzene via 8260 Lead via 6010 H-X-10-2004

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04/04/02

04/04/02

Page MS-4 of 4

## 4/15/04

Date Analysed:

Date Prepared:

## PASC - Summary of Analysis Pre. Dates

Batch Code:	0401RGA1
pH after 3.5 ml of 1N HCl addition	015244 04
Date Analysed:	04/04/02
Date Prepared:	04/04/01
Batch Code:	0401RGV1
pH after extraction (volatiles)	015244 04
Date Analysed:	04/04/02
Date Prepared:	04/04/01
Batch Code:	0402STA1
Lead	015243 04
<b>.</b>	
Date Analysed:	04/04/02
Date Prepared:	04/04/02
Batch Code:	0402RGA2
Flash Point	015244 04

	• *** • ** • • • • •
Date Prepared:	04/04/02
Batch Code:	0402DJ01
Benzene	015243 04
Date Analysed:	04/04/02

<b></b>	55 North St	CAL SERVICES ervice Road mario L7L 5H7			Free: 1-800-6 Tel: (905) 3 Fax: (905) 3	32-8788		Culad's		ANAL	YSIS	REQ	UESTE	D	
CLIENT INFORMATI MB15243	ION	Company Name: NW Project Manager: R Address: 3553 CRIT Phone #: The 937. Sampled by:	USS S Crit ENDER US27	AVAG TENDO N,NY Fax #: 7	N KD 14030 14937-94	560	CLP Benzane	as lead	last point		as per	from by we	(8/60/40		· · · · · · · · · · · · · · · · · · ·
Philip	]	Field Sample ID	# Bottles	Matrix	Date	Time	F								<u> </u>
Use Only 15244	1.000 (	BALLON TANK		1			- <b>İ</b>	Ì					╞───╼┼ ╷    Ⅰ	1	
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*some exceptions a please contact Lab STD 10 Business I RUSH 5 Business I RUSH 2 Business I	pply Days D Days X	Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:Site:				REQUIR	EMENTS	\$ / REC	BULATN	ONS					
RUSH 1 Business I Other Business Dat	Days	Philip Contact:			-  - 12		Fred	uni	~		Ì	e'd By:			
Client Signature:	Joing Na	Ans with		Received Affiliation: Date/Time		504		35	Am			te/Tim		TION & S	AMPLING IN
WHITE - LAB / YELLOW	- CLIENT							ange ange a subservedes	a		-				a

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/14/2004 06:41 FAX			2003 k) 014
	GENERATOR'S WAS CHAFFEE LA	STE PROFILE SHEET	
			VA 7286
Service Agreement on File?	PLEASE PRINT IN	Profile Number: V	
Hazardous Non-Hazar		Renewal Date:	1711104
S. Waste Green Juliar Juliamut			
1. Generator Name Devel	coment Downtown, Inc	2. SIC Code	· · · · · · · · · · · · · · · · · · ·
3. Facility Sneet Address:	ommerce Drive	4. Phone (716) 856	-8625
5. Facility City: Buff 7. Zip/Postal Code: 142		6. State/Province: <u>New</u> 8. Generator USEPA/Federal	
9. County: Erle		10. State/Province ID #:	A
11. Customer Name: Nature 13. Customer Contact: R. So	S Way Environmental	12. Customer Phone: (7) 14. Customer Fax:	- Carl State of the second second second second second second second second second second second second second
ia culling Address 3552 /	sittenden Rd. Citte	14 Customer Fax Inden, New York 14038	937-560
ាំ នុម្មន៍ទោងហើងចាំ ដោះនេះនេះសាល់ ន			
	Soil Contaminated	with Virgin Fuel Oil	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
b. Process Generating W	ste: Leaking Fuel Di	LUST. An approximate	4 have a for
Former F	The tank ups (	was encountered durin	The second second second second second second second second second second second second second second second se
	- 1 NE 7 2015 - 20-25 []	moused and succounding	was er avated
		state @ 70°F f. Layers	g. Freelig id range
	erate Gas		NA 10 %
	erate LiGas eleum Odor []Other	Sludge Multi-layer	No Free Liquid
			5.0 to 9.0 %
Constituents Soil + Stone Wirgin Enel Oil	Concentration Range 99.9 - 99.9	and organics, debris, and UHC's) present in any so Constituents	Concenti a iron Range
	0.01 - 0.1		
m. Does the waste represe	Pyrophoric Intectious Inted by this profile contain any ion B.1.j)	Explosive ERadioactin Shock Sensitive Water Re- of the carcinogens which require OSH	active A [1/1ES (2010)
If yes	na nà mp hagis coursin sere	stos? [triable ]]ng	
<ol> <li>Does the waste represent</li> </ol>	ited by this profile contain beru		<u>n-116016</u> 
IT YES, CONCENTISTION	0.043 ppm		
p. is the waste subject to t	In warzene weste operations N CRA Submed CC controlog		
I YES, VOIADLE DROAME C	nncentration		
<ul> <li>q. Does the waste contain</li> <li>t. Does the waste contain</li> </ul>	any Class I or Class II oznne-d	epieting substances?	
2. Quantity of Waste Estimated Annual Volume		Tons I Yends I Drums I Other	-
3. Shipping Information			T FF
a. Packaging: MBulk Solid; Type/Size Drum; Type: Size:	Dump Truck/Trai	Bulk Liquid; Type/Sizer	L_ L_ L_ L
b. Shipping Frequency; U	nus (100 Toos P	er. Month Duraner Year 120	ne ume D
		ther Hazardous Material? (If no, skip d, e, an	
d. Reportable Quantity (b. 1. USDOT Shipplay Name	S.: KOS.):	e. Hazard Class/ID #	

From: Jim Callahan 716-754-0207 To: Greg Weber

2004 41015

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WARTE MARLAGEMENT

#### GENERATOR'S WASTE PROFILE SHEET CHAFFEE LANDFILL

	PLEASE PRINT IN INK OR TYPE	
	8- Contain Protective Equilibriant Reduiremente	
	h Transporter & Transporter Number Zoladz Construction Co # 9A-499	
0		
۲.	is this a USEPA hazardous waste (40 CFR Part 261)? If the answer is no. skip to 2	••••••••••••••••••••••••••••••••••••••
	a. If yes, identify ALL USEFA istad and characteristic waste code numbers (D, F, K, P, U)	IN'S ANO
	(D, F, K, P, U)	
	b. If a chusacteristic heardous waste do enderlying heardous constituents	
	C. Does this warm contain debris? (If yes, list size and type in Chemical	<b>)</b>
		1
2.	he fine a state interaction weeks?	
	Identify ALL state hazardous/non hazardous wests codec	TAR AND
_		
3.	to the weste itom a CEROLA (40 CFR 300, Appendix B) of state mandated clean-up?	
	If yes, attach Record of Decision (ROD), 104/108 or 122 order or court order that governs site clean-up	YES DNO
	activity. For stude mandated clean-up, provide relevant documentation,	• •
4	Does the watter represented by this waste profile sheet contain radioactive meterial, or is disposal regulated by the Nuclear Republicary Commission	
	regulated by the Nuclear Regulatory Commission?	man bet
5.		CIY : S DENO
а.	Does the waste represented by this waste profile sheet contain concentrations of Polychiorinsted	
	Biplands (PCEIs) regulated by 40 CFR 761? (if yes, list in Chemical Compositions of Polychibrinated 8, if yes, were the PCBs imbored into the U.S.?	CALL BANG
******	A If yes, were the PCBs imported into the U.S.?	DY: JANO
6.		-
Ο,	Do the waste profile shart and all attachments contain True and accurate descriptions of the waste material, and has all relatent information within the state of the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second se	
	suspected hazands pertaining to the waste been disclosed to the Contractor?	Maria maria
7.		ASMA: DNO
1.	Will all changes which occur in the character of the waste be identified by the Generator and disclosed to the Contractor prior to provide the Winter to the Contractor prior to provide the Winter to the Contractor prior to provide the Winter to the Contractor prior to provide the Winter to the Contractor prior to provide the Winter to the Contractor prior to provide the Winter to the Contractor prior to provide the Winter to the Contractor prior to provide the Winter to the Contractor prior to provide the Winter to the Contractor prior to provide the Winter to the Contractor prior to provide the Winter to the Contractor prior to provide the Winter to the Contractor prior to provide the Winter to the Contractor prior to provide the Winter to the Contractor prior to provide the Winter to the Contractor prior to provide the Winter to the Contractor prior to prior to provide the Winter to the Contractor prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to prior to	
	to the Contractor prior to providing the Waste to the Contractor?	MAN INO
TCh	ck here if a Certificate of Destruction or Disposal is required.	
	the and a councert of Desouction of Disposal is required.	
Arry as	the submitted is representative as defined in 40 CBR 201 + According to but when a submit is a submitted in the	
sanpie	ple submitted is representative as defined in 40 CFR 201 - Appendix I or by using an equivalent method. I authorize WMI to from any weets stripment for purposes of recentification. If this certification is made by a broker, the undersigned signs as and the generator and has configurable the information contained in this particular formation for which the undersigned signs as and	obrain a
	the generator and has continued the interaction contained in this Profile Sheet from information provided by the generator and has determined to be reasonably necessary. If approved for management, Contractor has all the necessary parmits a rank has isom characterized and Mentified by this approved for management, Contractor has all the necessary parmits a sub-	horized
E GOLDAN	on as a has determined to be reasonably necessary. If approved for management Contactor has all the overall generator an	
	and that has been characterized and Menting by this approach profile.	ing horing e s
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Nama		Jack Inent
	TENC In Company Name: ELEM / Nor	and a state of the state
	Check if additional information is attached. Indicate the number of attached	1414 4 1/0y
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2	Proposed Ultimate Management Facility: Chatter Landfill	
3.	Arecautions, Special Handling Procedures, or Limitation on Approval;	
	rectoral may be used as deily cover	
4.	Waste Form	NAMES OF PERSONS
	Waste Decision 5. Source 6. System Type	AN2
wyraith Calaar	Waste Decision 6. System Type	Diserts
		Disar p oved
RTSUE		
Special	Waste Amazzala Person Signature 1	
	allane Dater 415	104

## Certificate of Analysis

#### **CLIENT INFORMATION**

#### LABORATORY INFORMATION

Attention:	Russ Savage	Contact:	Mike Challis, B.Sc, C.Chem.
Client Name:	NWEC+C Inc.	Project:	AN040300
Project:	Union Ship Canal	Date Received;	26-Mar-2004
Project Desc:	Union Ship Canal	Date Reported:	06-Apr-2004
Address: Fax Number: Phone Number:	3553 Crittenden Rd. Crittenden, NY 14038 716-937-9360 716-937-6527	Submission No.: Sample No.:	4C1017 015214-015215

NOTES: "-' - not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33 Solids data is based on dry weight except for biota analyses. Organic analyses are not corrected for extraction recovery standards except for isotope dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses) The enclosed copy of the Chain of Custody Record may contain information necessary for the interpretation of the data.

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COMMENTS:

Certified by:

Page 1 of 4

4/6/04

### PASC - Certificate of Analysis

Page 2 of 4

Dai Component	Client ID; Lab No.: te Sampled: MDL	Units	1000 G.T.E Sidewall 015215 04 25-Mar-2004	Method Blank 015214 04 25-Mar-2004	Blank Spike 015214 04 25-Mar-2004	% Rccovery 015214 04 25-Mar-2004
Benzene	1.0	ug/kg	39	<mdl< td=""><td>56</td><td>89</td></mdl<>	56	89
Ethylbcnzene	1.0		33	<mdl< td=""><td>61</td><td>97</td></mdl<>	61	97
Toluenc	1.0	L9	230	<mdl< td=""><td>57</td><td>92</td></mdl<>	57	92
m&p-Xylenc	1.0	14	2100	<mdl< td=""><td>120</td><td>99</td></mdl<>	120	99
o-Xylene	1.0	4)	1500	<mdl< td=""><td>60</td><td>96</td></mdl<>	60	96
Xylenes(Total)	1.0	-	3500	<mdl< td=""><td>180</td><td>97</td></mdl<>	180	97
lsopropylbenzene	1.0	*	15	<mdl< td=""><td>57</td><td>92</td></mdl<>	57	92
n-Propylbenzene	1.0	••	11	<mdl< td=""><td>61</td><td>98</td></mdl<>	61	98
p-isopropyltoluene	1.0	4	20	<mdl< td=""><td>63</td><td>100</td></mdl<>	63	100
1,2,4-Trimethylbenzene	1.0	11	3600	<mdl< td=""><td>61</td><td>98</td></mdl<>	61	98
1,3,5-Trimethylbenzene	1.0	4	1300	<mdl< td=""><td>62</td><td>98</td></mdl<>	62	98
n-Butylbenzene	1.0	17	13	<mdl< td=""><td>65</td><td>100</td></mdl<>	65	100
sec-Butylbenzene	1.0	7	10	<mdl< td=""><td>64</td><td>100</td></mdl<>	64	100
tert-Butylbenzene	1.0	11	<mdl< td=""><td><mdl< td=""><td>61</td><td>97</td></mdl<></td></mdl<>	<mdl< td=""><td>61</td><td>97</td></mdl<>	61	97
Naphthalene	1.0	H	45	<mdl< td=""><td>62</td><td>99</td></mdl<>	62	99
Mcthyl-t-butylether	1.0		<mdl< td=""><td><mdl< td=""><td>NS</td><td>•</td></mdl<></td></mdl<>	<mdl< td=""><td>NS</td><td>•</td></mdl<>	NS	•
Surrogate Recoveries		%				
d4-1,2-Dichlorocthane			62	62	65	65
d8-Toluene			87	79	75	75
Bromofluorobenzene			70	79	80	80
d10-Ethylbenzene			73	96	82	82

TOTAL VOLS = 12,416 ppb SSAL for VOCS = 10,000 ppb

### PASC - Certificate of Analysis

_	Client ID: Lab No.:		1000 G.T.E Sidewall 015215 04	Method Blank 01521404	Bl <b>ank</b> Spike 015214 04	% Recovery 015214 04	Blank Spike Duplicate 01521404	% Recovery 01 <b>5214 04</b>
De Component	<i>tie Sampled:</i> M <b>DL</b>	Units	25-Mar-2004	25-Mar-2004	25-Mar-2004	25-Mar-2004	25-Mar-2004	25-Mar-2004
Naphihalenc	9.0	ug/kg	680	<180	3100	78	3000	76
Acenaphthene	7.0	0	810	<140	3400	84	3200	80
Fluorene	4.0	81	920	<80	3500	88	3300	82
Phenanthrene	3.0	u	8400	<60	3300	82	3200	80
Anthracene	6.0	11	1800	<[20]	3200	79	3100	78
Fluoranthene	6.0	**	15000	<120	3800	95	3600	90
Pyrene	4.0	•1	10000	<80	3200	80	3100	78
Benz(a)anthracene	5.0	ÞI	6900	<100	3800	94	3700	92
Chrysene	4.0	a	6900	<80	3800	94	3600	90
Benzo(b)Iluoranthene	4.0	0	7400	<80	4000	99	3600	90
Benzo(k)fluoranthene	4.0	Ir	6000	<80	3600	90	3800	95
Benzo(a)pyrene	5.0	IJ	6300	<100	3500	88	3500	93 87
Indeno(1,2,3-cd)pyrene	6.0	11	5100	<120	3600	89	3400	85
Dibenzo(ah)anthracene	5.0	11	1 00	<100	3600	90	3500	87
Benzo(ghi)perylene	6.0	41	4900	<120	3700	92	3500	88 88
Surrogate Recoveries		%						
45-Nitrobenzene			62	50	62	62	58	\$8
2-Fluorobiphenyl			89	72	90	90	58 86	38 86
d14-p-Terphenyl			99	87	96	96	88 93	80 93

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4/6/04

# PASC - Summary of Analysis Pre. Dates

Page MS-4 of 4

Batch Code:	0329MC01
Benzene	015214 04
	015215 04
Date Analysed:	04/03/29
Date Prepared:	04/03/29
Batch Code;	0330SPX1
Naphthalene	015214 04
	015215 04
	015215 04
Date Analysed:	04/04/01
Date Prepared:	04/03/30

# **CHAIN OF CUSTODY**

250	5555 North	TCAL SERVICES Service Road Ontario L7L 5H7		το	ll Free: 1-800 Tel: (905) Fax: (905)	-668-0639 332-8788 332-9169			ANAL	YSIS RE	P	°age	Ch	
CLIEN INFORMA MB 15214	TION	Address:	2055 3 CRIT ENDEN 6527	SAVACE EVOEN I, NY Fax #: 71	4038 4038 6-937-9.	340	STARS							Level of contamination (low, high, unknown)
Philip Use Only		Field Sample ID	# Bottles	! Matrix	Date	Time	æ	8270				:		Level (low.
15215		BALLON TANK ATON SDEWALLS COMPOSITE	1	5	3/25/64	!								
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SEE OVER FOR COMPLETION & SAMPLING INSTRUCTION

# **APPENDIX O**

# UNDERGROUND STORAGE TANK NO. 2 DRUM DISPOSAL BILLS OF LADING

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FOR HELP IN CHEMICAL EMERGENCIES INVOLVING SPILL LEAK. FIRE OR EXPOSURE CALL TOLL-FREE 1-800-434-8300 DAY OR NIGHT

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# **APPENDIX P**

# SOUTH BUFFALO RAILWAY BERM CHARACTERIZATION LABORATORY ANALYTICAL RESULTS

UCT. 12. 2004 4:01PM	454		NU. 22	37 P. Z
VOLATI	la LE ORGANICS ANALYSIS D	ATA SHEET	EPA	SAMPLE NO.
			GR	AB 1
Lab Name: AES, Inc. Lab Code: AES Matrix: (soil/water) Sample wt/vol: Level: (low/med) I % Moisture: not dec. GC Column: RTX502.2 Soil Extract Volume:	Case No.: NW0303 SAS SOIL 5.000 (g/mL) G OW 15. ID: .32 (mm) (uL)	Lab Sample J Lab File ID Date Receive Date Analyze Dilution Fac Soil Aliquot	DG NO.: D: GRAB C3332 ed: 10/0 ed: 10/1 ctor: Volume	COMP 1 1 9/03 5/03 1.0
		NCENTRATION UNI 1g/L or ug/Kg) U	rs: J/Kg	Q
CAS NO.	COMPOUND (1	19/11 OI ag/ng/ o		
74 - 83 - 9 75 - 01 - 4 75 - 00 - 3 75 - 09 - 2 67 - 64 - 1 75 - 15 - 0 75 - 35 - 4 75 - 35 - 4 75 - 35 - 4 75 - 35 - 4 75 - 35 - 4 75 - 27 - 4 78 - 93 - 3 107 - 06 - 2 78 - 93 - 3 71 - 55 - 6 56 - 23 - 5 75 - 27 - 4 78 - 87 - 5 10061 - 01 - 5 79 - 01 - 6 124 - 48 - 1 79 - 00 - 5 71 - 43 - 2 10061 - 02 - 6 75 - 25 - 2 108 - 10 - 1 591 - 78 - 6 127 - 18 - 4 79 - 34 - 5 108 - 10 - 1 591 - 78 - 6 127 - 18 - 4 79 - 34 - 5 108 - 100 - 1 591 - 78 - 6 127 - 18 - 4 79 - 34 - 5 108 - 88 - 3 108 - 88 - 3 108 - 90 - 7 100 - 41 - 4 100 - 42 - 5 156 - 59 - 2 106 - 42 - 3 106 - 42 - 3 106 - 42 - 3 106 - 42 - 3 106 - 42 - 3 106 - 42 - 3	Chloromethane Bromomethane Vinyl Chloride Chloroethane Acetone Carbon Disulfide 	ethene	12. 12. 12. 12. 13. 12. 12. 12. 12. 12. 12. 12. 12	U U U U U U U U U U U U U U U U U U U

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	1 7		EPA	SAMPLE NO.
	1A ILE ORGANICS ANALYSIS I	ATA SHEET		
VOLAT	ILE ORGANICS ANALISIS P		1	
			GR	AB 1 DUP
	Contr	act:		
Name: AES, Inc.		No ·	SDG No.:	COMP 1
Code: AES	Cabe Not, Milosos Sile	Lab Sample	ID: GRAB	1 DUP
rix: (soil/water	5.000 (g/mL) G	Lab File I	): C3333	
ple wt/vol: el: (low/med)		Date Recei	ved: 10/0	9/03
loisture: not dec	16.	Date Analy	zed: 10/1	.5/03
$C_{01}$ where $RTX502_2$	ID: .32 (mm)	Dilution F	actor:	1.0
l Extract Volume	: (uL)	Soil Aliqu	ot Volume	:: (u
T BACINGE VOIE				
	CC	NCENTRATION UN	ITS:	•
CAS NO.	COMPOUND (1	ng/L or ug/Kg)	UG/KG	Q
			10	
74-87-3	Chloromethane		12.	U
74-83-9	Bromomethane		12.	U
75-01-4	Vinyl Chloride		12.	U
75 00-3	Chloroethane		12.	U
75-09-2	Methylene Chloride		16.	B U
67-64-1	Acetone		12. 6.	U
75-15-0	Acetone Carbon Disulfide		6.	Ŭ
1 75-35-4-	T'T-DTCUTOTOErueve		6.	U
75-34-3	1,1-Dichloroethane		6.	υ
156-60 <b>-</b> 5-	trans-1,2-Dichloro	ethene	б. б.	Ŭ
67-66-3	Chloroform		б.	U
107-06-2-	1,2-Dichloroethane		12.	U
78-93-3-	2-Butanone		6.	Ŭ
71-55-6-	1,1,1-Trichloroeth	ane	б.	Ū
56-23-5-	Carbon Tetrachlori	ue	6.	Ū
75-27-4-	Bromodichlorometha		6.	Ū
78-87-5-	1,2-Dichloropropan		6.	υ
10061-01-5-	cis-1,3-Dichloropr	opence	б.	U
79-01-6-	Trichloroethene Dibromochlorometha	ne	6.	U
124-48-1-	1,1,2-Trichloroeth	ane	6.	U
	Bonzene		б.	U
10001 02 5-	trans-1,3-Dichloro	propene	6.	U
	Bromoform	• • • • • • • • • • • • • • • • • • • •	6.	U
109-10-1-		ne	12.	U
	Bromoform 4-Methyl-2-Pentanc 2-Hexanone		12.	U
127-18-4-	Tetrachloroethene		6,	U
79-34-5-	1,1,2,2-Tetrachlor	oethane	6.	ם ד
108-88-3-	Toluene		б.	J
108-90-7-	Chlorobenzene		6.	U
100-41-4-	Ethylbenzene		6.	U
			6,	U
156-59-2-	cis-1,2-Dichloroet	hene	6.	U T
106-42-3-	m,p-Xylene		4.	J
	o-Xylene		5.	J
90-4/-0-	· · · / · · · · · · · · · · · · · · · ·			

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• OCT. 12. 2004 4:01PM 454

CAS NO.

NO. 2237 P. 4

EPA SAMPLE NO.

1B SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

COMPOUND

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COMP 1

Lab Name: AES, Inc.	Contract	
Matrix: (soil/water)		Lab Sample ID: COMP 1
Sample wt/vol:	$300(\alpha/mL)$ G	Lab File ID: B2447
Sampre wu/vor:		Date Received: 10/09/03
Level: (low/med) L(		
& Moisture: 15.	decanted: (Y/N) N	Date Extracted: 10/14/03
Concentrated Extract	Volume: 2000.0 (uL)	Date Analyzed: 10/28/03
CONCERNITALES EXCLASS		Dilution Factor: 1.0
Injection Volume:	2.0 (uu)	DITUCIÓN INCCOL.
GPC Cleanup: (Y/N)	N pH: 8.6	
YTH PROPERTY ( ) / / / / /		

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

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	3.00	U
108-95-2Phenol	390.	υ
111-44-4bis (2-Chloroethyl) ether	390.	-
95-57-82-Chlorophenol	390.	U
541-73-11,3-Dichlorobenzene	390.	U
106-46-71,4-Dichlorobenzene	390.	Ŭ
95-50-11,2-Dichlorobenzene	390.	U
95-48-72-Methylphenol	390.	U
95-48-72-Methylphenol 108-60-1bis (2-chloroisopropyl)ether	390.	U
106-44-54-Methylphenol	390.	U
106-44-54-Methylphenol 621-64-7n-Nitroso-di-n-propylamine	390.	U
67-72-1Hexachloroethane	390.	υ
98-95-3Nitrobenzene	390.	U
78-59-1Isophorone	- 390.	U
88-75-52-Nitrophenol	- 390.	U
105-67-92,4-Dimethylphenol	390.	U
111-91-1bis (2-Chloroethoxy) methane	- 390,	U
120-83-22,4-Dichlorophenol	390.	υ
120-83-2	- 390.	U
120-82-11,2,4-Trichlorobenzene	130.	J
91-20-3Naphthalene	- 390.	U
106-47-84-Chloroaniline	- 390.	Ū
87-68-3Hexachlorobutadiene		Ū
59-50-74-Chloro-3-methylphenol	- 130.	J
91-57-62-Methylnaphthalene		U
77-47-4Hexachlorocyclopentadiene	- 390.	υ
88-06-22,4,6-Trichlorophenol	- 390.	U
95-95-42,4,5-Trichlorophenol	- 390.	U
91-58-72-Chloronaphthalene	2000.	Ŭ
88-74-42-Nitroaniline		υ
131-11-3Dimethylphthalate	390.	1 -
208-96-8Acenaphthylene	210.	1.3
606-20-22,6-Dinitrotoluene	390.	U
99-09-23-Nitroaniline	2000.	U
83-32-9Acenaphthene	68.	J

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CAS NO.

NU. 2237 P. 5

EPA SAMPLE NO.

1C SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

COMPOUND

COMP 1

Matrix:(SOII/Water)SoilSample wt/vol;30.0 (g/mL)GLevel:(low/med)LOW& Moisture:15. decanted:(Y/N)& Moisture:15. decanted:(Y/N)& Moisture:15. decanted:(Y/N)	SDG No.: COMP 1 Jab Sample ID: COMP 1 Jab File ID: B2447 Date Received: 10/09/03 Date Extracted: 10/14/03 Date Analyzed: 10/28/03 Dilution Factor: 1.0
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CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

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51-28-52,4-Dinitrophenol	2000.	U
100-02-74-Nitrophenol	2000.	U
132-64-9Dibenzofuran	130,	J
132-64-9Dipenzolutan	390.	U
121-14-22,4-Dinitrotoluene	390.	U
84-66-2Diethylphthalate	390.	υ
7005-72-34-Chlorophenyl-phenylether	81.	J
86-73-7Fluorene	2000.	ש_
100-01-64-Nitroaniline	2000.	UU
534-52-14,6-Dinitro-2-methylphenol	390.	U
e6-30-6n-Nitrosodiphenylamine	390. 390.	U
101-55-34-Bromophenyl-phenylether		
118-74-1Hexachlorobenzene	390.	U
87-86-5Pentachlorophenol	2000.	U
85-01-8Phenanthrene	1000.	
120-12-7Anthracene	280.	J
86-74-8Carbazole	92.	J
84-74-2Di-n-butylphthalate	390.	U
206-44-0Fluoranthene	1900.	
129-00-0Pyrene	1500.	
85-68-7Butylbenzylphthalate	390.	U
91-94-13,3'-Dichlorobenzidine	780.	U
91-94-13,3'-DICHIOIODEHIZIGING	1100.	
56-55-3Benzo (a) anthracene	1100.	
218-01-9Chrysene	390.	U
117-81-7bis (2-Ethylhexyl) phthalate	390.	Ū
117-84-0Di-n-octylphthalate	1100.	
205-99-2Benzo (b) fluoranthene	1200.	
207-08-9Benzo(k)fluoranthene	1200.	
50-32-8Benzo(a)pyrene	790.	
193-39-5Indeno(1,2,3-cd)pyrene	2	J
53_70_3Dibenzo(a,h)anthracene	170.	
191-24-2Benzo (g, h, i) perylene	820.	

(1) - Cannot be separated from diphenylamine

FORM 1 SV-2

OCI. 12. 2004 4:02PM 454

CAS NO.

1

NU. 2237 P. 6

EPA SAMPLE NO.

1B SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

COMPOUND

COMP 1 DUP

	Contract:	
Lab Name: AES, Inc.	000	No.; COMP 1
Lab Code: AES Case No.: NW030	Lab Sample ID:	COMP 1 DUP
Matrix: (soil/water) SOIL		2448
Sample wt/vol: 30.0 (g/mL)	Date Received:	10/09/03
Lovel (low/med) LOW	Dace Recepted	1, 10/14/03
Moisture: 17. decanted: (1/N		. 10/22/03
Concentrated Extract Volume: 2000.0		1 0
Injection Volume: 2.0 (uL)	Dilution Facto	)_: 1.0
GPC Cleanup: (Y/N) N pH:	8.2	
GPC CIEditop (1/11/ 1/ Fill		

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

Q

			· · · · · · · · · · · · · · · · · · ·
	108-95-2Phenol	400, 400.	ប ប
	111-44-4bis (2-Chloroethyl) ether	400.	υ
	$o_{F} = 7 P_{} = 2 - Chlorophenol$	400.	υ
	541-73-11,3-Dichlorobenzene	400.	ບັ
	106_46_71.4-Dichloropenzene	400.	Ū
	95-50-11,2-Dichlorobenzene		ប
		400.	-
1	100 co 1big(2-chloroisopropy1)etner	400.	U
	108-50-11-10-515(2 children of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of the first of	400.	U
	100-44-5- In Nitroso-di-n-propylamine	400.	U
	67-72-1Hexachloroethane	400.	υ
	98-95-3Nitrobenzene	400.	U
	98-95-3NILLODENZENC	400.	U
	78-59-1Isophorone	400.	υ
1	88-75-52-Nitrophenol	400.	U
1	105-67-92,4-Dimethy1phenol	400.	U
	105-67-9-1-2,4 Dimetry phoney) methane	400,	Ū
	120-83-22,4-Dichlorophenol	400.	Ū
	120-82-11,2,4-Trichlorobenzene	130.	J
	91-20-3Naphthalene	400,	U
	106-47-B4-Chloroaniline	400.	U
	ng (n )Heyachlorobutadiene		υ
	59-50-74-Chloro-3-methylphenol	400.	1 -
	on Franciscus 2-Methylnaphthalene	130.	J
	77-47-4Hexachlorocyclopentadiene	400.	U
	88-06-22,4,6-Trichlorophenol	400.	υ
	95-95-42,4,5-Trichlorophenol	400.	υ
	91-58-72-Chloronaphthalene	400.	U
	91-58-7Z-UNIOLONAPHUNALUNG	2000.	U
	88-74-42-Nitroaniline	400.	U
	131-11-3Dimethylphthalate	250.	J
ł	208-96-8Acenaphthylene	400.	υ
	606-20-22,6-Dinitrotoluene	2000.	Ū
	oo_oo_23-Nitroaniline	400.	Ŭ
	83-32-9Acenaphthene		ľ
	• ·		_

FORM I SV-1

- OCT. 12. 2004 4:02PM 454

CAS NO.

NO. 2237 P. 7

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

COMPOUND

COMP 1 DUP

EPA SAMPLE NO.

Lab Name: AES, Inc. Contract	
Lab Code: AES Case No.: NW0303 SAS No.	
Matrix: (soil/water) SOIL	Lab Sample ID: COMP 1 DUP
Sample wt/vol: 30.0 (g/mL) G	Lab File ID: B2448
Level: (low/med) LOW	Date Received: 10/09/03
<pre>% Moisture: 17. decanted; (Y/N) N</pre>	Date Extracted: 10/14/03
Concentrated Extract Volume: 2000.0 (uL)	Date Analyzed: 10/28/03
Injection Volume: 2.0 (uL)	Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: 8.2	

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

Q

51-28-52,4-Dinitrophenol	2000.	υ
100-02-74-Nitrophenol	2000.	U
132-64-9Dibenzofuran	84.	JJ
132-64-9Dibenzoruran	400.	U
84-66-2Diethylphthalate	400.	U
7005-72-34-Chlorophenyl-phenylether	400,	UU
7005-72-3	400.	U
86-73-7Fluorene	2000.	Ū
100-01-64-Nitroaniline	2000.	Ū
534-52-14, 6-Dinitro-2-methylphenol	400.	Ū
86-30-6n-Nitrosodiphenylamine	400.	υ
101-55-34-Bromophenyl-phenylether	400.	υ
118-74-1Hexachlorobenzene	2000.	U
87-86-5Pentachlorophenol	480.	U U
85-01-8Phenanthrene	280.	JJ
120-12-7Anthracene	200. 56,	J
86-74-8Carbazole	400.	U
84-74-2Di-n-butylphthalate	1200.	ľ
206-44-0Fluoranthene	1000.	
129-00-0Pyrene	400.	U
85-68-7Butylbenzylphthalate		UUUUU
91-94-13,3'-Dichlorobenzidine	800.	10
56-55-3Benzo (a) anthracene	850.	
218-01-9Chrysene	870.	
117-81-7bis (2-Ethylhexyl) phthalate	400.	U
117-84-0Di-n-octylphthalate	400.	σ
205-99-2Benzo(b)fluoranthene	880.	
207-08-9Benzo(k) fluoranthene	890.	ļ
50-32-8Benzo(a)pyrene	920.	
193-39-5Indeno(1,2,3-cd)pyrene	680.	
53-70-3Dibenzo (a, h) anthracene	160.	J
191-24-2Benzo(g,h,i)perylene	630.	ł

(1) - Cannot be separated from diphenylamine

FORM I SV-2

		1D				EPA SAMPLE	NO.
PESTICIDE O	RGANICS	ANA	LYSIS DA	TA SHEET	Γ	COMP 1	
Lab Name:	AES, INC				Contract:		
Lab Code:	AES		Case No.	NW0303	SAS No.:	SDG No.:	COMP 1
Matrix: (soil/water)	Soil					Lab Sample ID:	COMP 1
Sample wt/vol:	30.0	G				Lab l'ile ID:	BC1983
% Moisture:	15					Date Received:	10/09/03
Extraction: (SepF/Cont/So	Sonc					Date Extracted:	10/14/03
Concentrated Extract Volum	10000	uL				Date Analyzed:	10/18/03
Injection Volume:	1.5	uL				Dilution Factor:	1.0
GPC Cleanup: (Y/N)	N	nH:	8.6			Sulfur Cleanun: (Y/N)	Y

### CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg) UG/KG Q

210.94.6 alpha PUC	2	U
319-84-6alpha-BHC 319-85-7beta-BHC	2	U
319-86-8delta-BHC	2	U
58-89-9gamma-BHC(Lindane)	2	U
76-44-8Heptachlor	2	U
309-00-2Aldrin	2	υ
1024-57-3Heptachlor epoxide	2	U
959-98-8Endosulfan I	2	บ
60-57-1Dieldrin	3.9	U
72-55-94,4'-DDE	3.9	ט
72-20-8Endrin	3.9	U
33213-65-9Endosulfan II	3.9	U
72-54-84,4'-DDD	3.9	U
1031-07-8Endosulfan Sulfate	3.9	U
50-29-34,4'-DDT	3.8	JP
72-43-5Methoxychlor	20	U
53494-70-5Endrin Ketone	3.9	U
7421-36-3Endrin Aldehyde	3.9	U
5103-71-9alpha-Chlordane	2	U
5103-74-2gamma-Chlordane	2	U
8001-35-2Toxaphene	200	U
12674-11-2Aroclor 1016	39	U
11104-28-2Aroclor 1221	39	U
11141-16-5Aroclor 1232	39	บ
53469-21-9Aroclor 1242	39	U
12672-29-6Aroclor 1248	39	U
11097-69-1Aroclor 1254	39	U
11096-82-5Aroclor 1260	39	υ

15

1D PESTICIDE ORGANICS ANALYSIS DATA SHEET EPA SAMPLE NO.

						COMP 1 DUP	
Lab Name:	AES, INC.	•			Contract:	L	
Lab Code:	AES		Case No.	NW0303	SAS No.:	SDG No.:	COMP 1
Matrix: (soil/water)	Soil					Lab Sample ID:	COMP 1 DU
Sample wt/vol:	30.0	G				Lab File ID:	BC1986
% Moisture:	17					Date Received:	10/09/03
Extraction: (SepF/Cont/So	Sonc					Date Extracted:	10/14/03
Concentrated Extract Volur	10000	uL				Date Analyzed:	10/18/03
Injection Volume:	1.5	uL				Dilution Factor:	1.0
GPC Cleanup: (Y/N)	N	pH:	8.2			Sulfur Cleanup: (Y/N)	Y

### CONCENTRATION UNITS:

CAS NO. COMPOUND	(ug/L or ug/Kg) UG/K	G Q
319-84-6alpha-BHC	2.0	U
319-85-7beta-BHC	2.0	U
319-86-8delta-BHC	2.0	U
58-89-9gamma-BHC(Lindane)	2.0	U
76-44-8Heptachlor	2.0	U
309-00-2Aldrin	2.0	U
1024-57-3Heptachlor epoxide	2.0	U
959-98-8Endosulfan I	2.0	U
60-57-1Dieldrin	4.0	U
72-55-94,4'-DDE	4.0	υ
72-20-8Endrin	4.0	U
33213-65-9Endosulfan II	4.0	U
72-54-84,4'-DDD	4.0	U
1031-07-8Bndosulfan Sulfate	4.0	U
50-29-34,4'-DDT	4.4	
72-43-5Methoxychlor	20	U
53494-70-5Endrin Ketone	4.0	U
7421-36-3Endrin Aldehyde	4.0	U
5103-71-9alpha-Chlordane	2.0	U
5103-74-2gamma-Chlordane	2.0	U
8001-35-2Toxaphene	200	U
12674-11-2Aroclor 1016	40	U
11104-28-2Aroclor 1221	40	U
11141-16-5-Aroclor 1232	40	U
53469-21-9 Aroclor 1242	40	บ
12672-29-6Aroclor 1248	40	U
11097-69-1Aroclor 1254	40	ט
11096-82-5Aroclor 1260	40	U

16

OCT. 12, 2004 4:02PM 454

NO. 2237 P. 10

EPA SAMPLE NO.

U.S.	EPA	-	CLF
	1		

INORGANIC ANALYSIS DATA SHEET

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	с	Q	м
7429-90-5	Aluminum		-		NR
7440-36-0	Antimony	· · · · · · · · · · · · · · · · · · ·	-		NR
7440-38-2	Arsenic	0.49	Ū	N	P
7440-39-3	Barium	188		N	P
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium	2.2		N	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	65.2_		N	P
7440-48-4	Cobalt		_		NR
7440-50-8	Copper		_		NR
7439-89-6_	Iron	<u></u>	_		NR
7439-92-1_	Lead	351_	_	E	P
7439-95-4_	Magnesium_		_		NR
7439-96-5_	Manganese_			<u> </u>	NR
7439-97-6	Mercury	0.33_	-		AV
7440-02-0_	Nickel		_		NR
7440-09-7	Potassium_		=		NR
7782-49-2_	Selenium	0.75_	U	N	P
7440-22-4_	Silver	0.24_	υ	N	P_
7440-23-5_	Sodium		-		NR
7440-28-0_	Thallium		_		NR
7440-62-2_	Vanadium				NR
7440-66-6_	Zinc				NR
7440-42-8_	Boron				NR
			I	·	I

Color Before:	<u></u>	Clarity	Before:		Texture:
Color After;		Clarity	After:		Artifacts:
Comments:					
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<u> </u>				····	

FORM I - IN

ILM04.0

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NO. 2237 P. 11

OCT. 12. 2004 4:02PM 454

> U.S. EPA - CLP 1

INORGANIC ANALYSIS DATA SHEET

COMP 1 DUP Lab Name: ADIRONDACK_ENVIRONMENTAL Contract: _____ Lab Code: AES____ Case No.: NW_0301 SAS No.: ____ SDG No.: COMP 1 Lab Sample ID: COMP_1_DUP Matrix (soil/water): SOIL____ Date Received: 10/09/03 Level (low/med): LOW____ % Solids: 83.0___

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum		-		NR
7440-36-0	Antimony		-		NR
	Arsenic	0.51	ប៊	N	P
	Barium	84.2		N	P
7440-41-7					NR
	Cadmium	0.38	B	N	P
/ 1 4 4 4 4 4	Calcium				NR
/	Chromium	17.9	-	N	P
· · · · · · · · · · · · · · · · · · ·	Cobalt		-		NR
/ J & V & W	Copper		-		NR
7439-89-6	Iron		-		NR
7439-92-1	Lead	208	-	Е	P
	Magnesium		-		NR
	Manganese				NR
7439-97-6		0.34	-		AV
7440-02-0			-		NR
	Potassium		_		NR
	Selenium	0.77	ប៊	N	P_
7440-22-4	Silver	0.24	U	N	P_
7440-23-5					NR
	Thallium		-		NR
,	Vanadium		1		NR
7440-66-6	Zinc				NR
7440-42-8	Boron				NR
,			1		_

Color	Before:	
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Clarity Before:

Texture: _____

Artifacts:

Color After: _____ Clarity After:

Comments:

FORM I - IN

ILM04.0 18

EPA SAMPLE NO.

### U.S. EPA - CLP

#### 1

### CONVENTIONALS ANALYSIS DATA SHEET

LAB NAME: Adirondack E	nvironmental	CONTRACT:	Stockpile Comp
LAB CODE: AES	Case No.: N	W 0303 SAS No.:	SDG No.: Stockpile Comp
Matrix (soil/water):	Soil	Lab Sampl	e ID: 031009033-020
Level (Low/Med):	Low	Date Rece	ived: 10/9/03
<b>ዩ Solids:</b>	85.0		

mg/Kg

Concentration Units (ug/L or mg/Kg dry weight):

Analyte Concentration С Q Method Total Kjeldahl Nitrogen, as N EPA 351.3 Ammonia, as N EPA 350.1 Nitrate EPA 300.0 Chemical Oxygen Demand (COD) EPA 410.4 Biochemical Oxygen Demand (BOD 5) EPA 405.1 Total Organic Carbon (TOC) EPA 415.2 Total Dissolved Solids (TDS) EPA 160.1 Sulfate EPA 300.0 Alkalinity EPA 310.1 Total Phenols EPA 420.1 Chloride EPA 300.0 Bromide EFA 300.0 Eh Specific Conductance EPA 120.1 Cyanide 4.36 EPA 9012 EPA 150.1 pН EPA 180.0 Turbidity EPA 110.1 Color SW 7196 Hexavalent Chromium

Comments

FORM I - CONV

19

### U.S. EPA - CLP

1

### CONVENTIONALS ANALYSIS DATA SHEET

LAB NAME: Adirondack E	nvironmental	CONTRACT:	Stockpile Comp Dup
LAB CODE: AES	Case No.: NW O	303 SAS No.:	SDG No.: Stockpile Comp
Matrix (soil/water):	Soil	Lab Sample	ID: 031009033-021
Level (Low/Med):	Low	Date Receiv	ved: 10/9/03
% Solids:	83.3		

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Concentration С Q Method Analyte EPA 351.3 Total Kjeldahl Nitrogen, as N EPA 350.1 Ammonia, as N EPA 300.0 Nitrate Chemical Oxygen Demand (COD) EPA 410.4 Biochemical Oxygen Demand (BOD 5) EPA 405.1 Total Organic Carbon (TOC) EPA 415.2 Total Dissolved Solids (TDS) EPA 160.1 EPA 300.0 Sulfate Alkalinity EPA 310.1 EPA 420.1 Total Phenols EPA 300.0 Chloride EPA 300.0 Bromide Eh Specific Conductance EPA 120.1 EPA 9012 Cyanide 3.44 EPA 150.1 рН EPA 180.0 Turbidity EPA 110.1 Color \$W 7196 Hexavalent Chromium

Comments

FORM I - CONV

. • OCT. 12. 2004 4:03PM 454

NU. 2237 P. 14

AES Sample Mumber     Client Sample Mentilication & Location     Date Sample     A=1.m. P=p.m.     Matrix	
Ctient Prone No: $(716)$ 937-6527 PO Number: Ctient Pax No: $(716)$ 937-9360 Sample Xumber Sample Kumber Sample Kumber S	rK 14038
AES Sample HumberDiffer Sample dentification & LocationDate Sampled $P_{20,m}$ P_20,m.Humber P_20,m. $\overline{S}$ $\overline{S}$ $\overline{S}$ $\overline{O}$	
002 Soil Stockpile - Grab#1 Dup. 10/7/031:300 Soil X 1 TCI 003 Soil Stockpile - Grab#1 10/7/031:150 Soil X 1 TCI 004 Soil Stockpile - Grab#1 Dup. 10/7/031:150 Soil X 1 TCI 051009033 051009033 PACh Comp Should be A P PACh Comp Should be A P PH. 3551, 95-2, 95-3, A IERA metals, CN A P	- 9045 Analysis Required
002 Soil Stockpile - Grab#1 Dup. 10/1/031:300 Soil X 1 TCI 003 Soil Stockpile - Grab#1 10/1/031:150 Soil X 1 TCI 004 Soil Stockpile - Grab#1 Dup. 10/1/031:150 Soil X 1 TCI 051009033 051009033 PACh Comp Should be A P PACh Comp Should be A P PH. 3551, 95-2, 95-3, A ICRA metals, CN- A P	-5400's 95-2 Pesticides 95 1-95-3
$\begin{array}{c c} \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline $	Ametais + Cyan
$\begin{array}{c c} \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline $	-voc's 95-1
PACh Comp Should be A PACh Comp Should be A PMALYZUS FOR: PH. 35-2 95-3, P Lean metals, CN A P	L-NOC'S,95-
PACh Comp Should be A PACh Comp Should be A PMALYZUS FOR: PH. 35-2 95-3, P Lean metals, CN A P	<u> </u>
PACh Comp should be A PACh Comp should be A malyzes for: PH. 35-2, 95-3, A PH. 35-2, 95-3, A Ph. 195-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2,	
PACh Comp Should be Ap malyzus for: PH. 35-2, 95-3, A Ph. 35-2, 95-3, A Ph. 195-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 95-2, 9	· · · · · · · · · · · · · · · · · · ·
malyzus forc: p.H. 35-2,95-3, p lean metals, CN A p	
PH. 35-2,95-3, A CERA metals, CN- P A P	
leinmetals, CN- A P A P	
Turnaround Time Request: D 1 Day D 3 Day & Normal ASP, Category B Deliveral	
CC Report To:	cles
Received by: (Signature) HUND Richt Kindes Relinquished by: (Signature) Received for Laporatory by: Millow 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10/8 10	Date/Time 103 1010 Date/Time 9/3 900
Temperature     Properaty Preserved     Received Within       Ambient or     Chillest     Image: Chillest     Image: Chillest       Notes:     Image: Chillest     Image: Chillest     Image: Chillest	Holding Times N
WHITE - Lab Copy YELLOW - Sampler Copy PINK - Generalor (	

# **APPENDIX Q**

# SANITARY SEWER MANHOLE NO. 8 TEST PITS CONFIRMATION SOIL SAMPLES LABORATORY ANALYTICAL RESULTS

1 905 332 1511 P.01

LABORATORY INFORMATION

# A 13:35 PSC ANALYTICAL SERVICES

### Certificate of Analysis

### **CLIENT INFORMATION**

OCT-22-2004 13:35

#### Mike Challis, B.Sc, C.Chem. Contact: **Russ Savage** Attention: AN040300 **Project:** NWEC+C Inc. Client Name: 13-Jul-2004 Date Received: Union Ship Canal **Project:** 23-Jul-2004 Date Reported: **Union Ship Canal** Project Desc: Submission No.: 4G0474 3553 Crittenden Rd. Address: 043072-043073 Sample No.: Crittenden, NY 14038 716-937-9360 **Fax Number:** Phone Number: 716-937-6527

NOTES:

".' = not enalysed '<' = less than Method Detection Limit (MDL) 'NA' - no date available LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33 Solids data is based on dry weight except for blota analyses. Organic analyses are not corrected for extraction recovery standards except for isotope dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses) The enclosed copy of the Chain of Custody Record may contain information necessary for the interpretation of the data.

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Twentieth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of three weeks from receipt of data or as per contract.

COMMENTS:

Certified by:

Page 1 of 7

5555 NORTH SERVICE ROAD, BURLINGTON, ONTARIO, CANADA 17L 5H7 T 905 332 8788 F 905 332 9169 W www.pscanalytical.com

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### PASC - Certificate of Analysis

Page 2 of 7

						· .
			Manhole 8	Method	Blank	%
	Client ID:		Test Pit	Blank	Spike	Recovery
	Lab No.:		043073 04	043072 04	043072 04	043072 04
	Date Sampled:		09-Jul-2004	09-Jul-2004	09-Jul-2004	09-Jui-2004
Component	MDL	Units				
Catabanant	••===					
Acetone	0.020	mg/kg	0.34	<	0.060	96
Acrolein	0.010	#	<0.030	<	0.079	130
Acrylonitrile	0.010	n	<0.030	<	0.062	99
Benzene	0.001		0.003	<	0.063	100
Bromoform	0.001	ot	<0.009	<	0.056	90
Bromomethane	0.006		<0.018	<	0.050	79
2-Butanone	0.005	41	0.070	<	0.061	98
Carbon Disulfide	0.001	17	0.070	<	0.068	110
Carbon Tetrachloride	0.001	**	<0.003	<	0.062	99
Chlorobenzene	0.001		<0.003	<	0.064	100
Chlorodibromomethane	0.001	н	<0.003	<	0.060	96
Chloroethane	0.001		<0.003	<	0.057	91
Chloroform	0.001	*	<0.003	<	0.062	99
Chloromethane	0.001		<0.030	<0.010	0.049	78
1,2-Dichlorobenzene	0.001		<0.009	<	0.059	94
1,3-Dichlorobenzenc	0.001	-	<0.009	<	0.061	97
1.4-Dichlorobenzene	0.001		<0.009	<	0.062	99
Dichlorobromomethane	0.001	म	<0.003	<	0.062	100
1,1-Dichloroethane	0.001	*	<0.003	· <	0.062	99
1,2-Dichloroethane	0.001		<0.003	<	0.061	97
1,1-Dichloroethene	0.001		<0.003	<	0.065	100
Dichloromethane	0.020		<0.060	<	0.065	100
Methyl-t-butylether	0.001	A	<0.003	<	NS	-
Ethylene Dibromide	0.001		<0.003	<	0.060	96
1,2-Dibromo-3-Chloropropar		· +	<0.045	<	0.056	89
cis-1,2-Dichloroethene	0.001	4	<0.003	<	0.063	100
trans-1,2-Dichloroethene	0.001	11	<0.003	<	0.063	100
1,2-Dichloropropane	0.001	1)	<0.003	<	0.063	100
cis-1,3-Dichloropropene	0.001		<0.003	<	0.063	100
trans-1,3-Dichloropropene	0.001	H	<0.003	<	0.058	92
Ethylbenzene	0.001	*	<0.003	<	0.066	110
2-Hexanone	0.005	*	<0.015	<	0.057	92
4-Methyl-2-Pentanone	0.005	۳	<0.015	<	0.057	92
Styrene	0.001	*	<0.003	<	0.068	110
1,1,1,2-Tetrachloroethane	0.001	H	<0.003	<	0.062	99
1,1,2,2-Tetrachloroethane	0.001		<0.009	<	0.056	89
Tetrachloroethcnc	0.001		0.006	<	0.064	100
Toluene	0.001	-	0.009	<	0.063	100
1, 1, 1-Trichloroethane	0.001	*	<0.003	<	0.063	100
1,1,2-Trichloroethane	0.001		<0.003	<	0.061	98
Trichloroethene	0.001		<0.003	· · · · · · · · · · · · · · · · · · ·	0.065	100
Trichlorfluoromethane	0.001	W	<0.003	<	0.059	94
Vinyl Chloride	0.001		<0.003	<	0.062	99
m&p-Xylene	0.001		0.005	<	0.13	100
o-Xylene	0.001		< 0.003	<	0.064	100
Isopropylbenzene	0.001		<0.009	<	0.058	93
Surrogate Recoveries		%				
d4-1,2-Dichlorocthanc			73	79	83	83
d8-Toluene			89	88	93	93
Bromofluorobenzene			56	87	94	94
d10-Ethylbenzene			81	104	103	103

PSC Submission No: 4G0474

### PASC - Certificate of Analysis

Page 3 of 7

Component	Client ID: Lab No.: Date Sampled: MDL	Units	Manhole 8 Test Pit 043073 04 09-Jul-2004	Manhole 8 Test Pit 043073 04 09-Jul-2004 M. Spike	Manhole 8 Test Pit 043073 04 09-Jul-2004 MS % Rec.	Manhole 8 Test Pit 043073 04 09-Jul-2004 MS Dup	Manholc 8 Test Pit 043073 04 09-Jul-2004 MSD % Rec.
The set of	0.27	mg/kg	<1.6	22	63	24	72
Phenol	0.18	1	<1.1	NS	-	NS	•
Bis(2-chlorocthyl)cther	0.48	-	<2.9	21	61	24	71
2-Chlorophenol	0.20		<1.2	NS	-	NS	-
1,3-Dichlorobenzene	0.20		<1.2	10	59	12	71
1,4-Dichlorobenzene	0.20	H.	<1.2	NS		NS	-
1,2-Dichlorobenzene	0.15	Ħ	<0.90	NS	-	NS	•
Bis(2-chloroisopropyl)ether	0.20	4	<1.2	NS	• .	NS	-
Hexachloroethane			<1.3	12	70	13	78
N-Nitroso-di-N-Propylamine		ų	<1.2	NS	-	NS	•
Nitrobenzene	0.20 0.40		<2.4	NS	-	NS	-
Isophorone		W	<0.84	NS	<b>_</b> .	NS	-
2-Nitrophenol	0.14		<1.0	NS	-	NS	<del>-</del> '
2,4-Dimethylphenol	0.17	*	<0.78	NS	-	NS	
Bis(2-chloroethoxy)methane		-	<0.90	NS	-	NS	-
2,4-Dichlorophenol	0.15	*	<1.2	11	63	12	74
1,2,4-Trichlorobenzenc	0.20		<0.54	NS	-	NS	° <b>÷</b>
Naphthalcnc	0.09		<1.2	NS	-	NS	-
Hexachloroburadiene	0.20	h	<0.90	25	73	27	79
4-Chioro-3-Methylphenol	0.15	я	<1.2	NS	-	NS	-
Hexachlorocyclopentadiene	0.20	<b>4</b> 1	<0.72	NS	•	NS	-
2,4,6-Trichlorophenol	0.12		<2.0	NS	-	NS	-
2-Chloronaphthalene	0.34			NS	-	NS	-
Accaphthylene	0.04		<0.24 <0.66	NS	-	NS	-
Dimethyl phthalate	0.11			NS	-	NS	•
2,6-Dinitrotoluene	0.06		<0.36 <0.42	13	76	14	86
Acenaphthene	0.07		<0.42 <2.9	NS		NS	-
2,4-Dinitrophenol	0.48	77	<1.3	12	73	14	85
2,4-Dinitrotoluene	0.22		<1.0	23	68	26	79
4-Nitrophenol	0.17		<0.36	NS	-	NS	-
Fluorene	0.06		<0.56 <0.54	NS	-	NS	-
4-Chlorophenylphcnylether	0.09		7.8	NS	-	NS	-
Diethyl phthalate	0.11	"	<0.96	NS	-	NS	-
4,6-Dinitro-2-methylphenol	0.16		<0.90	NS	-	NS	-
N-Nitrosodiphenylamine	0.19	ĸ	<0.24	NS	-	NS	•
4-Bromophenylphenylether	0.04		<1.2	NS	-	NS	_
Hexachlorobenzene	0.20	•)	<1.2	21	61	22	67
Pentachlorophenol	0.31	et.	<0.18	NS	-	NS	-
Phenanthrene	0.03		<0.36	NS	•	NS	-
Anthracene	0.06		<0.56	NS	-	NS	-
Di-n-butyl phthalate	0.11		<0.30 <0.30	NS	•	NS	-
Fluoranthene	0.05		<0.30	15	89	16	98
Pyrene	0.06		<0.50 <0.60	NS	-	NS	-
Benzyl butyl phthalate	0.10		<2.0	NS	•	NS	-
3,3-Dichlorobenzidine	0.34		< <u>2.0</u> 0.30	NS NS	•	NS	-
Benzo(a)anthracene	0.05			NS NS		NS	•
Chrysenc	0.06		<0.36	NS	-	NS	-
Bis(2-ethylhexyl)phthalate	0.75		<4,5	NS NS	-	NS	•
Di-n-octyl phthalatc	0.11	н 1	<0.66 <0.24	NS	-	NS	-
Benzo(b)fluoranthene	0.04		<0.24	NS	-	NS	-
Benzo(k)fluoranthene	0.04		~ <b>v</b> ,∠ <del>4</del>	110			

**PSC Submission No: 4G0474** 

### PASC - Certificate of Analysis

Page 4 of 7

Component	Client ID: Lab No.: Date Sompled: MDL	Units	Manhole 8 Test Pit 043073 04 09-Jul-2004	Manhole 8 Test Pit 043073 04 09-Jul-2004 M. Spike	Manholc 8 Test Pit 043073 04 09-Jul-2004 MS % Rec.	Manhole 8 Test Pit 043073 04 09-Jul-2004 MS Dup	Manhole 8 Test Pit 043073 04 09-Jul-2004 MSD % Rec.
Benzo(a)pyrene	0.05	mg/kg	<0.30	NS	. •	NS	-
Indeno(1,2,3-cd)pyrene	0.06	N 1	<0.36	NS	-	NS	-
Dibenzo(a,h)anthracenc	0.06		<0.36	NS	-	NS	-
Benzo(ghi)perylene	0.05	¥	<0.30	NS	-	NS	•
N-Nirosodimethylamine	1.0	*	<6.0	NS	-	NS	-
Aniline	0.50	Ħ	<3.0	NS	-	NS	-
Benzyl alcohol	0.50		<3.0	NS	-	NS	-
Carbazole	0.50		3.0	NS	-	NS	-
2-Methylphenol	0.50		<3.0	NS	-	NS	
3&4-Methylphenol	0.50	19	<3.0	NS	-	NS	•
Benzoic acid	0.50	*	<3.0	NS	-	NS	-
4-Chloroaniline	0.50	ч	<3.0	NS	-	NS	-
2-Methylnaphthalene	0.34	۳	<2.0	NS	•	NS	*
2,4,5-Trichlorophenol	0.10	W	<0.60	NS	-	NS	-
2-Nitroaniline	0.50	н -	<3.0	N\$	-	NS	-
3-Nitroaniline	0.50	*	<3.0	NS	•	NS	-
Dibenzofuran	0.50	¥	<3.0	NS	-	NS	-
Benzidine	0.50		<3.0	N\$	-	NS	•
4-Nitroaniline	0.50	۳	<3.0	NS	<b>-</b>	NS	~
Surrogate Recoveries		%					
2-Fluorophenol			78	62	62	73	73
dS-Phenol			85	71	71	79	79
d5-Nitrobenzene			81	66	66	75	75
2-Fluorobiphenyl			84	75	75	85	85
2,4,6-Tribromophenol			83	80	80	87	87
d14-p-Terphenyl			105	91	91	100	100

### PASC - Certificate of Analysis

Page 5 of 7

Component	Client ID: Lab No.; Date Sampled: MDL	Units	Method Blank 043072 04 09-Jul-2004	Blank Spike 043072 04 09-Jul-2004	% Recovery 043072 04 09-Jul-2004	Blank Spike Duplicate 043072 04 09-Jul-2004	% Recovery 043072 04 09-Jul-2004
Phenol	0.27	mg/kg	<0.54	6.2	78	6.4	79
Bis(2-chloroethyl)ether	0.18	*	< 0.36	NS		NS	•
2-Chlorophenol	0.48		<0.96	6.2	77	6.2	77
1.3-Dichlorobenzene	0.20	N	<0.40	NS	-	NS	-
1,3-Dichlorobenzene	0.20		<0.40	2.9	73	3.0	75
1,2-Dichlorobenzene	0.20		<0.40	NS	-	N5	-
Bis(2-chloroisopropyi)ether	0.15	H	<0.30	NS	-	NS	•
Hexachloroethane	0.20	11	<0.40	NS	-	NS	•
N-Nitroso-di-N-Propylamine		H	<0.42	3.2	81	3.3	81
Nitrobenzene	0.20	e i	<0.40	NS	•	NS	-
Isophorone	0.40	-	<0.80	NS	•	NS	-
2-Nitrophenol	0.14		<0.28	NS	-	NS	-
2,4-Dimethylpheaol	0.17	×	<0.34	NS	-	NS	-
Bis(2-chloroethoxy)methane			<0.26	NS	•	NS	-
2,4-Dichlorophenol	0.15	*	<0.30	NS	-	NS	-
1,2,4-Trichlorobenzene	0.20		<0.40	2.9	74	3.0	75
Naphthalenc	0.09	-	<0.18	NS	-	NS	-
Hexachlorobutadiene	0.20		<0.40	NS	-	NS	•
4-Chloro-3-Methylphenol	0.15	R	<0.30	6.4	80	6.4	80
Hexachlorocyclopentadiene	0.20	4	<0.40	NŚ	-	NS	-
2.4.6-Trichlorophenol	0.12		<0.24	NS	-	NS	-
2-Chloronaphthalene	0.34	-	<0.68	NS	•	NS	*
Acenaphthylenc	0.04	17	<0.08	NS	-	NS	-
Dimethyl phthalate	0.11	H	<0.22	NS	-	NS	-
2,6-Dinitrotoluene	0.06	P	<0.12	NS	•	NS	-
Acenaphthene	0.07		<0.14	3.t	78	3.2	79
2,4-Dinitrophenol	0.48	ы	<0.96	NS	•	NS	82
2,4-Dinitrotoluene	0.22	*	<0.44	3.3	81	3.3	86
4-Nitrophenol	0.17	*	<0.34	7.0	87	6.9	- 60
Fluorene	0.06	۴	<0.12	NS	-	NS NS	-
4-Chlorophenylphenylether	0.09	•	<0.18	NS	-	NS	-
Dicthyl phthalate	0.11	H	<0.22	N\$	-	NS	•
4,6-Dinitro-2-methylphenol	0.16	19 19	<0.32	NS	-	NS	-
N-Nitrosodiphenylamine	0.19		<0.38	NS NS	•	NS	-
4-Bromophenylphenylether	0.04		<0.08 <0.40	NS	-	NS	-
Hexachlorobenzene	0.20			6.7	83	6.5	82
Pentachlorophenol	0.31	-	<b>⊲0.62</b>	NS	-	NS	-
Phenanthrene	0.03	-	⊲0.06 ⊲0.12	NS	-	NS	•
Anthracenc	0.06		<0.12	NS		NS	-
Di-n-butyl phthalate	0.11		<0.10	NS	-	NS	-
Fluoranthene	0.05		<0.12	3.6	90	3.5	88
Pyrene	0.06	4	<0.20	NS		NS	<b>-</b> ,
Benzyl butyl phthalate	0.10	4	<0.20	NS	-	NS	•
3,3-Dichlorobenzidine	0.34 0.05	4	<0.10	NS	<b>.</b>	NS	-
Benzo(s)anthracene	0.05		<0.12	NS	-	NS	-
Chrysene	0.00		<1.5	NS	· _	NS	-
Bis(2-cthylhexyl)phthalate	0.75	×	<0.22	NS	-	NS	-
Di-n-octyl phthalate	0.04	P	<0.08	NS	-	NS	•
Benzo(b)fluoranthene Benzo(k)fluoranthene	0.04		~0.08	NS	-	NS	-
Dentrikkingtenninge							

PSC Submission No: 4G0474

# PASC - Certificate of Analysis

Page 6 of 7

Component	Cilent ID: L <b>ab</b> No.: Date Sampled: MDL	Units	Method Blank 043072 04 09-Jul-2004	Blank Spike 043072 04 09-Jul-2004	% Recovery 043072 04 09-Jul-2004	Blank Spike Duplicate 043072 04 09-Jul-2004	% Recovery 043072 04 09-Jul-2004
Component							
Benzo(a)pyrene	0.05	mg/kg	<0.10	NS	-	NS	+
Indeno(1,2,3-cd)pyrene	0.06	H.	<0.12	NS	-	NS	-
Dibenzo(a,h)anthracene	0.06	4	<0.12	NS	- <b>-</b>	NS	•
Benzo(ghi)perylene	· 0.05		<0.10	NS	•	NS	-
N-Nitrosodimethylamine	1.0	Ħ	<2.0	NS	-	NS NS	-
Aniline	0.50	-	<1.0	NS	-	NS	~
Benzyl alcohol	0.50	-	<1.0	NS	-	NS	-
Carbazole	0.50	85	<1.0	NS	-	NS	-
2-Methylphenol	0.50	.,	<1.0	NS		NS	-
3A4-Methylphenol	0.50	4	<1.0	NS	-	NS	-
Benzoic acid	0.50	47	<1.0	NS	-	NS	-
4-Chloroaniline	0.50	4	<1.0	NS	•	NS	-
2-Methyinaphthalcnc	0.34	49	<0.68	NS	•	NS	-
2,4,5-Trichlorophenol	0.10	ų	<0.20	NS	-	NS	-
2-Nitroaniline	0.50		<1.0	NS	•	NS	-
3-Nitroaniline	0.50	н	<1.0	NS	-	NS	•
Dibenzofuran	0.50		<1.0	NS	-	NS	-
Benzidine	0.50	Ħ	<1.0	NŚ	-	NS	-
4-Nitroaniline	0.50	м	<1.0	NS	•	NS	-
Surrogate Recoveries		%			•		43
2-Fhuorophenol			89	81	81	82	82
d5-Phenol			96	87	87	87	87
dS-Nitrobenzene			87	<b>BO</b>	80	81	81
2-Fluorobiphenyl			88	81	81	83	83
2.4.6-Tribromophenol			92	90	90	88	88
d14-p-Terphenyl			103	97	97	94	94

### PSC Submission No: 4G0474

# PASC - Summary of Analysis Pre. Dates

### Page MS-7 of 7

Batch Code:	0721MC01
Acetone	043072 04
Aviono	043073 04
Date Analysed:	04/07/21
Date Prepared:	04/07/21
Batch Code:	0721MC01
cis-1,2-Dichloroethene	043072 04
•	043073 04
Date Analysed:	04/07/21
Date Prepared:	04/07/21
Batch Code:	0719SPA1
Phenol	043072 04
	043073 04
Date Analysed:	04/07/21
Date Prepared:	04/07/19
Batch Code:	0719SPA1
2-Chloronaphthalene	043072 04
-	043073 04
Date Analysed:	04/07/21
Date Prepared:	04/07/19
Batch Code:	0719SPA1
Di-n-butyl phthalate	043072 04
	043073 04
Date Analysed:	04/07/21
Date Prepared:	04/07/19
Batch Code:	0719SPA1
N-Nitrosodimethylamine	043072 04
	043073 04
Date Analysed:	04/07/21
Date Prepared:	04/07/19

### PSC Submission No: 4G0474

# CHAIN OF USTODY

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please contact Lab STD 10 Business Days RUSH 5 Business Days RUSH 2 Business Days RUSH 1 Business Days Other Business Days	PO#:     Philip Quote #:      Philip Project #:			SPECIAL		ENTS /	REGU	LATIO								
Client Signature: Affiliation:	204- 10:20		Received By Affiliation: Date/Time: _	P.S.C 13JUC		09:1	5			Rec'd Date/						

WHITE - LAB / YELLOW - CLIENT

SEE OVER FOR COMPLETION & SAMPLING INSTRUCTIONS

# **APPENDIX R**

# **CLEAN FILL VERIFICATION LETTERS**

May 13, 2004

Destro Bros. Concrete Co., Inc 411 Ludington Street Buffalo, N.Y. 14206

Attn: Carmen Zagarrio, President

RE: Buffalo's Union Ship Canal – Phase I Imported Earth Fill Work Plan

Dear Mr. Zagarrio:

This is to certify that the soil/fill materials that we will be supplying for this project will come from the former Pine Hill site on Genesee Street in Lancaster New York. According to the Soil Management Plan Clarifications, page C-3, "Soil materials obtained from a recognized commercial supplier of soil/fill materials (e.g. Lancaster Stone, Buffalo Crushed Stone, Pine Hill etc.) will be considered "clean" for the purposes of use on site.

If there is anything further that you require, please call me at 998-8404.

Richard K. Hegmann Quality Control Manager

3524447

Certifical Clean & Virgin Cuil

SHOP DRAWING REVIEW Review is for general compliance with contract documents. Sole responsibility for correctness of dimensions, details, quantities, and compliance with performance specifications, and safety during fabrication and construction shall remain with the Contractor. No Exceptions Taken D Revise as Noted Amend and Resubmit - See Remarks Corpora BUFFALO, NEW YORK 14202

# Buffalo Tournament Club Golf Course

1944

6432 Genesee Street Lancaster, NY 14086 (716)684-6675

June 9, 2004

Carmen Zagarrio, President Destro & Brothers Concrete Co, Inc. 411 Ludington Street Buffalo, NY 14206

Re: Buffalo's Union Ship Canal Material Certification

Dear Mr. Zagarrio,

This letter is to certify that the topsoil Destro & Brothers has been provided, at the above location, is virgin soil and native soil material.

Should you require any additional information, please feel free to contact me.

Cordially, ím Davis



# **BUFFALO CRUSHED STONE, INC.**

Subsidiary of New Enterprise Stone & Line Co., inc.

2544 Clinton St. · P.O. Box 710 · Buffale, NY 14224 · (716) 826-7310 · FAX (716) 826-1342

February 25, 2005

Mr. Carmen Zagarrio Destro Brothers Concrete Co., Inc. 411 Ludington Street Buffalo, New York 1 4206

Re: Union Ship Canal

Dear Carmen:

This is to certify that the Aggregate and Blacktop supplied to the above referenced project was produced without contaminants. The following is the NYSDOT approval source numbers for the appropriate plants.

Woodlawn Slag	Plant 81	5-17G
Franklinville Sand & Gravel	Plant 36	5 <b>-3G</b>
Wehrle & Barton Quarry	Plant 23	5-3R
Como Park Quarry	Plant 21	5-1R

We trust this meets with your approval.

Sincerely,

Curt Resetarits Account Representative

CR:afa



2/28/2005

Destro Bros. Concrete Co., inc. 411 Ludington Street Buffalo, N.Y. 14206

Attn: Carmen Zagarrio, President

Re: Union Ship Canal

Dear Mr. Zagarrio,

This is to certify that the materials that were shipped to this project from our Lockport. Plant were considered "clean" for the purposes of use on site.

If there is anything further that you require, please contact me at 998-8404.

Yours,

Richard K. Hegmann Quality Assurance Manager



# **DESTRO & BROTHERS CONCRETE CO., INC.**

411 LUDINGTON STREET BUFFALO, NEW YORK 14206

(716) 893-6043 • FAX: (716) 893-0538

March 11, 2005

**DAVE COULTER** URS CORPORATION 77 Goodell Street Buffalo, NY 14203

### RE: BUFFALO'S UNION SHIP CANAL PHASE 1

MAR 1 4 2005

Dear Mr. Coulter,

This is to certify that the material used on the above project which was stored at Destro & Brothers Concrete Co., Inc, located at 411 Ludington Street, Buffalo, came from the Buffalo Tournament Club property and it is virgin and native soil. (A copy of the Certification letter from Buffalo Tournament Club is attached for your review).

If you need any further clarification, please do not hesitate to contact me.

Sincerely,

Lagarrio

## **APPENDIX S**

# MARCH 2, 2004 NYSDEC LETTER APPROVING GROUNDWATER MANAGEMENT PH INCREASE

## 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



March 2, 2004

Mr. Mark Smith Erie County Industrial Development Agency 275 Oak Street Buffalo, New York 14203

Dear Mr. Smith:

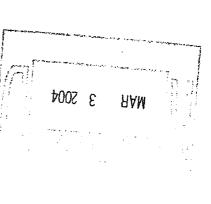
Hanna Furnace-Subparcels 1 and 2 Site #V-00319-9 and V-00435-9 City of Buffalo, Erie County

Yesterday afternoon we discussed the proposed procedures for handling elevated pH groundwater that were outlined in the Malcolm Pirnie letter of February 26,2004. The NYSDEC will allow ECIDA to implement the procedures as proposed on a short term basis only, beginning immediately and ending May 1, 2004. This approval extends only to the current sewer construction project.

If the pH of the water is greater than 11.0, or if there are oily sheens observed on the surface of the water or elevated PID readings or stains found in the excavation, then the water will be contained and properly treated as required in the remedial action work plans.

Sincerely,

David P. Locey / Environmental Engineer I



DPL/tml

## **APPENDIX T**

# ERIE COUNTY SEWER DISTRICT PREDISPOSAL CHARACTERIZATION LABORATORY ANALYTICAL RESULTS

#### Client: NWEC&C, Inc

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	03-3288 10743
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Manhole 3 Cont. Water 0 Water	Date Sampled: Date Received: Date Analyzed:	12/03/2003 12/08/2003 12/09/2003

Aromatics	Results in ug / L
Benzene	ND< 0.700
n-Butylbenzene	ND< 2.00
sec-Butylbenzene	ND< 2.00
tert-Butylbenzene	ND< 2.00
Ethylbenzene	ND< 2.00
n-Propylbenzene	ND< 2.00
Isopropylbenzene	ND< 2.00
p-Isopropyltoluene	ND< 2.00
Naphthalene	37.6
Toluene	ND< 2.00
1,2,4-Trimethylbenzene	12.6
1,3,5-Trimethylbenzene	ND< 2.00
m,p-Xylene	2.45
o-Xylene	2.89
Miscellaneous	
Methyl tert-butyl Ether	ND< 2.00

Data File: 18043.D ELAP Number 10958 Method: EPA 8021B (GC/MS)

Comments:

Signature:

ND denotes Non Detect ug / L = microgram per Liter

Bruce Hoogesteger: Technical Director

#### Semi -Volatile Analysis Report for Non-potable Water

### Client: NWEC&C, Inc

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	03-3288 10743
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Manhole 3 Cont. Water N/A Water	Date Sampled: Date Received: Date Analyzed:	12/03/2003 12/08/2003 12/11/2003

Base / Neutrals	Results in ug / L	Base / Neutrals	Results in ug / L
Acenaphthene	ND< 10.0	Dibenz (a,h) anthracene	ND< 10.0
Anthracene	ND< 10.0	Fluoranthene	ND< 10.0
Benzo (a) anthracene	ND< 10.0	Fluorene	ND< 10.0
Benzo (a) pyrene	ND< 10.0	Indeno (1,2,3-cd) pyrene	ND< 10.0
Benzo (b) fluoranthene	ND< 10.0	Naphthalene	29.5
Benzo (g,h,i) perylene	ND< 10.0	Phenanthrene	ND< 10.0
Benzo (k) fluoranthene	ND< 10.0	Pyrene	ND< 10.0
Chrysene	ND< 10.0	Acenapthylene	ND< 10.0
Diethyl phthalate	ND< 10.0	1,2-Dichlorobenzene	ND< 10.0
Dimethyl phthalate	ND< 25.0	1,3-Dichlorobenzene	ND< 10.0
Butylbenzylphthalate	ND< 10.0	1,4-Dichlorobenzene	ND< 10.0
Di-n-butyl phthalate	ND< 10.0	1,2,4-Trichlorobenzene	ND< 10.0
Di-n-octylphthalate	ND< 10.0	Nitrobenzene	ND< 10.0
Bis (2-ethylhexyl) phthalate	46.4	2,4-Dinitrotoluene	ND< 10.0
2-Chloronaphthalene	ND< 10.0	2,6-Dinitrotoluene	ND< 10.0
Hexachlorobenzene	ND< 10.0	Bis (2-chloroethyl) ether	ND< 10.0
Hexachloroethane	ND< 10.0	Bis (2-chloroisopropyl) ether	ND< 10.0
Hexachlorocyclopentadiene	ND< 10.0	Bis (2-chloroethoxy) methane	ND< 10.0
Hexachlorobutadiene	ND< 10.0	4-Bromophenyl phenyl ether	ND< 10.0
N-Nitroso-di-n-propylamine	ND< 10.0	4-Chlorophenyl phenyl ether	ND< 10.0
N-Nitrosodiphenylamine	ND< 10.0	Benzidine	ND< 25.0
N-Nitrosodimethylamine	ND< 10.0	3,3'-Dichlorobenzidine	ND< 10.0
Isophorone	ND< 10.0		

Acids	Results in ug / L	Acids	Results in ug / L
Phenol	ND< 10.0	2,4-Dimethylphenol	ND< 10.0
2-Chlorophenol	ND< 10.0	2-Nitrophenol	ND< 10.0
2,4-Dichlorophenol	ND< 10.0	4-Nitrophenol	ND< 25.0
2,4,6-Trichlorophenol	ND< 10.0	2,4-Dinitrophenol	ND< 10.0
Pentachlorophenol	ND< 25.0	4,6-Dinitro-2-methylphenol	ND< 25.0
4-Chloro-3-methylphenol	ND< 10.0		
FLAP Number 10958	Method	: EPA 625	Data File: 14077.D

ELAP Number 10958

Method: EPA 625

Comments:

ND denotes Non Detect

ug / L = microgram per Liter

Signature:

Bruce Hoogesteger: Technical Director

UU

Chain of Custody provides additional sample information

#### Client: <u>NWEC&C, Inc</u>

Client Job Site:	Union Ship Canal	Lab Project Number:	
		Lab Sample Number:	10743
Client Job Number:	N/A		
Field Location:	Manhole 3 Cont. Water	Date Sampled:	12/03/2003
Field ID Number:	N/A	Date Received:	12/08/2003
Sample Type:	Water	Date Analyzed:	12/09/2003

Halocarbons	Results in ug / L	Halocarbons	Results in ug / L
Bromodichloromethane	ND< 2.00	trans-1,2-Dichloroethene	ND< 2.00
Bromomethane	ND< 2.00	1,2-Dichloropropane	ND< 2.00
Bromoform	ND< 2.00	cis-1,3-Dichloropropene	ND< 2.00
Carbon Tetrachloride	ND< 2.00	trans-1,3-Dichloropropene	ND< 2.00
Chloroethane	ND< 2.00	Methylene chloride	ND< 5.00
Chloromethane	ND< 2.00	1,1,2,2-Tetrachloroethane	ND< 2.00
2-Chloroethyl vinyl Ether	ND< 2.00	Tetrachloroethene	ND< 2.00
Chloroform	ND< 2.00	1,1,1-Trichloroethane	ND< 2.00
Dibromochloromethane	ND< 2.00	1,1,2-Trichloroethane	ND< 2.00
1,1-Dichloroethane	ND< 2.00	Trichloroethene	ND< 2.00
1,2-Dichloroethane	ND< 2.00	Trichlorofluoromethane	ND< 2.00
1,1-Dichloroethene	ND< 2.00	Vinyl chloride	ND< 2.00
Aromatics	Results in ug / L	Aromatics	Results in ug / L
Benzene	ND< 0.700	1,2-Dichlorobenzene	ND< 2.00
Chlorobenzene	ND< 2.00	1,3-Dichlorobenzene	ND< 2.00
Ethylbenzene	ND< 2.00	1,4-Dichlorobenzene	ND< 2.00
Toluene	ND< 2.00		
ELAP Number 10958	Method	: EPA 624	Data File: 18043.D

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Bruce Hoogesteger: Jechnical Director



179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

13-230

ENVIRONMENTAL SERVICES. INC.

Client:	NWEC&C, Inc.	Lab Project No.:	03-3288
Client Job Site:	Union Ship Canal	Sample Type: Method:	Solid SW846 9045C
Client Job No.:	N/A	Date(s) Sampled: Date Received:	12/03/2003 12/08/2003
		Date Analyzed:	12/08/2003

#### Laboratory Report for pH Analysis

Lab Sample No.	Field ID No.	Field Location	pH Results (S.U.)
10743	N/A	Manhole 3 Cont. Water	8.84
<b>u</b>			
	:	-	

ELAP ID No.: 10958

Comments:

**Approved By:** 



Client:	NWEC&C, Inc.	Lab Project No.:	03-3288
Client Job Site:	Union Ship Canal	Sample Type: Method:	Solid SW846 1010
Client Job No.:	N/A	Date(s) Sampled: Date Received: Date Analyzed:	12/03/2003 12/08/2003 12/08/2003

#### Laboratory Report for Flashpoint Analysis

Lab Sample No.	Field ID No.	Field Location	Flashpoint Results (°C)
10743	N/A	Manhole Cont. Water	>70
			· · · · · · · · · · · · · · · · · · ·

ELAP ID No.: 10958

Comments:

Bruce Hoogesteger, Technical Director Approved By: _



Client:	NWEC&C, Inc.	Lab Project No.: Lab Sample No.:	03-3288 10743
Client Job Site:	Union Ship Canal	Sample Type:	Water
Client Job No.:	N/A	Date Sampled:	12/03/2003
Field Location: Field ID No.:	Manhole 3 Cont. Water N/A	Date Received:	12/08/2003

### Laboratory Report for Metals Analysis in Water

Parameter	Date Analyzed	Analytical Method	Result (mg/L)
Arsenic	12/09/2003	EPA 200.7	<0.005
Barium	12/09/2003	EPA 200.7	0.06
Cadmium	12/09/2003	EPA 200.7	<0.005
Chromium	12/09/2003	EPA 200.7	<0.010
Copper	12/09/2003	EPA 200.7	0.017
Lead	12/09/2003	EPA 200.7	0.074
Mercury	12/09/2003	EPA 200.7	0.0024
Nickel	12/09/2003	EPA 200.7	<0.040
Selenium	12/09/2003	EPA 200.7	0.008
Silver	12/09/2003	EPA 200.7	<0.010
Zinc	12/09/2003	EPA 200.7	0.113

ELAP ID No.:10958

Comments:

Approved By:

Bruce Hoogesteger, Technical Director

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County of Erie

JOEL A. GIAMBRA COUNTY EXECUTIVE

December 8, 2003

DEPARTMENT OF ENVIRONMENT & PLANNING

LAURENCE K. RUBIN COMMBRIGHER

CHARLES J. ALESSI, P.E. DEPUTY COMMISSIONER Seberage Management

Mr. Gregory Weber Sr. Project Manager Nature's Way 3553 Crittenden Road Crittendon, New York 14038

> Re: Erie County Sewer District No Discharge Request - Former Union Ship Canal Site

Dear Mr. Weber:

The Division of Sewerage Management (DSM) has reviewed the discharge request submitted to this office on December 5, 2003. De-watering operations associated with construction activities have resulted in the accumulation of 63,000 gallons of water in three storage tanks. There is also an additional 105,000 gallons of water for which analytical data is not yet available. Upon review of that information, a determination will be made as to whether or not similar approval will be given.

Based on the information provided in the December 5th request has been approved assuming that following conditions are met:

- 1. The discharge flow rate shall not exceed 25 gallons per minute.
- 2. The flow enters the sanitary sewer system at the discharge point designated by Eric County Sewer District No. 6 (ECSD No.6).
- 3. Notification to the ECSD No. 6 treatment plant must be made at least twenty- four hours prior to discharge (tel. 823-5800).

EDWARD A. RATH COUNTY OFFICE BUILDING, 95 FRANKLIN STREET, BUFFALD, NEW YORK 14202-3973 - (718) 850-8343 - FAX (716) 858-8257 - WWW.orig.gov

Mr. Gregory Weber December 8, 2003 Page Two

- 4. The Eris County Sewer District No.6 treatment plant shall be provided with the name and number of a person to contact if necessary during the discharge.
- 5. A District representative shall be present upon initiation of discharge.
- 6. If at any time a problem arises in the collection system, as a result of the discharge, the District may require that operations cease.

As per our conversations, the discharge is scheduled to begin December 9, 2003. If you should have any questions or concerns, please contact me at \$58-\$756.

Very truly yours Ardles

Nicole J. Elliott Industrial Wastewater Specialist

NJE:dd

Cc: G. Devlin/T. Whetham/6.2.4.3 G. Absolom/L. Surdej J. Balcaczyk/J. Kaz

ne/3078





JOEL A. GIAMBRA

LAURENCE K. RUBIN COMMISSIONER

#### DEPARTMENT OF ENVIRONMENT & PLANNING

December 12, 2003

CHARLES J. ALESSI, P.E. DEPUTY COMMISSIONER Generage Management

Mr. Gregory Weber Sr. Project Manager Nature's Way 3553 Crittenden Road Crittenden, New York 14038

> Re: Eric County Sewer District No. 6 Discharge Request – Former Union Ship Canal Site

Dear Mr. Weber:

The Division of Sewerage Management (DSM) has reviewed the discharge request submitted to this office on December 10, 2003. De-watering operations associated with construction activities have resulted in the accumulation of approximately 105,000 gallons of water in five storage tanks.

Based on the information provided, the December 10th request has been approved assuming that following conditions are met:

- 1. The discharge flow rate shall not exceed 25 gallons per minute.
- 2. The flow shall enter the sanitary sewer system at the discharge point designated by Eric County Sewer District No. 6 (ECSD No.6).
- 3. Notification to the ECSD No. 6 treatment plant must be made at least twenty- four hours prior to discharge (tel. 823-5800).
- 4. The Erie County Sewer District No.6 treatment plant shall be provided with the name and number of a person to contact if necessary during the discharge.

12/12/2003 11:41 FAX 12/12/2003 11:12 716-858-6257

EC DIV SEWAGE MNGMNT

Mr. Gregory Weber December 12, 2003 Page Two

- 5. There shall be no discharge during the weekend. Discharge shall cease by midnight on Friday.
- 6. A District representative shall be present upon initiation of discharge.
- 7. If at any time a problem arises in the collection system, as a result of the discharge, the District may require that operations cease.

If you should have any questions or concerns, please contact me at \$58-8756.

Very truly yours,

Nicole J. Elliott Industrial Wastewater Specialist

NJE:dd Cc: G. Devlin/T. Whetham/6.2.4.3 G. Absolom/L. Surdej J. Balcarczyk/J. Kaszubowski

ne/3078

## **APPENDIX U**

# CARBON FILTER INFLUENT AND EFFLUENT LABORATORY ANALYTICAL RESULTS

### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Pre-Carbon N/A Water	Date Sampled: Date Received: Date Analyzed:	11/10/2003 11/12/2003 11/13/2003

Base / Neutrals	Results in ug / L
Acenaphthene	ND< 10.0
Anthracene	ND< 10.0
Benzo (a) anthracene	ND< 10.0
Benzo (a) pyrene	ND< 10.0
Benzo (b) fluoranthene	ND< 10.0
Benzo (g,h,i) perylene	ND< 10.0
Benzo (k) fluoranthene	ND< 10.0
Chrysene	ND< 10.0
Dibenz (a,h) anthracene	ND< 10.0
Fluoranthene	ND< 10.0
Fluorene	ND< 10.0
Indeno (1,2,3-cd) pyrene	e ND< 10.0
Naphthalene	ND< 10.0
Phenanthrene	ND< 10.0
Pyrene	ND< 10.0
ELAP Number 10958 Method: EPA	8270C Data File: 13812

,

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Signature: 14 Fer.

Bruce Hoogesteger: Technical Director



179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

## Semi -Volatile STARS Analysis Report for Non-potable Water

## Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	03-3073 10127
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Post-Carbon N/A Water	Date Sampled: Date Received: Date Analyzed:	11/10/2003 11/12/2003 11/13/2003

Base / Neutrals	Results in ug / L
Acenaphthene	ND< 10.0
Anthracene	ND< 10.0
Benzo (a) anthracene	ND< 10.0
Benzo (a) pyrene	ND< 10.0
Benzo (b) fluoranthene	ND< 10.0
Benzo (g,h,i) perylene	ND< 10.0
Benzo (k) fluoranthene	ND< 10.0
Chrysene	ND< 10.0
Dibenz (a,h) anthracene	ND< 10.0
Fluoranthene	ND< 10.0
Fluorene	ND< 10.0
Indeno (1,2,3-cd) pyrene	e ND< 10.0
Naphthalene	ND< 10.0
Phenanthrene	ND< 10.0
Pyrene	ND< 10.0
ELAP Number 10958 Method: EPA	8270C Data File: 13813.

ELAP Number 10958

Comments:

Signature;

ND denotes Non Detect ug / L = microgram per Liter

h

Bruce Hoogesteger: Technical Director



#### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	03-3073 10126
Client Job Number:	N/A		
Field Location:	Pre-Carbon	Date Sampled:	11/10/2003
Field ID Number:	N/A	Date Received:	11/12/2003
Sample Type:	Water	Date Analyzed:	11/13/2003

Aromatics	Results in ug / L
Benzene	ND< 0.700
n-Butylbenzene	ND< 2.00
sec-Butylbenzene	ND< 2.00
tert-Butylbenzene	ND< 2.00
Ethylbenzene	ND< 2.00
n-Propylbenzene	ND< 2.00
Isopropylbenzene	ND< 2.00
p-Isopropyltoluene	ND< 2.00
Naphthalene	ND< 5.00
Toluene	ND< 2.00
1,2,4-Trimethylbenzene	ND< 2.00
1,3,5-Trimethylbenzene	ND< 2.00
m,p-Xylene	ND< 2.00
o-Xylene	ND< 2.00
Miscellaneous	
Methyl tert-butyl Ether	ND< 2.00

ELAP Number 10958 Method: EPA 8021B (GC/MS) Data File: 17419.D

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Signature: Far, Bruce Hoogesteger: Technical Director



#### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	
Client Job Number:	N/A		
Field Location:	Post-Carbon	Date Sampled:	11/10/2003
Field ID Number:	N/A	Date Received:	11/12/2003
Sample Type:	Water	Date Analyzed:	11/13/2003

Benzene	ND< 0.700
n-Butylbenzene	ND< 2.00
sec-Butylbenzene	ND< 2.00
tert-Butylbenzene	ND< 2.00
Ethylbenzene	ND< 2.00
n-Propylbenzene	ND< 2.00
Isopropylbenzene	ND< 2.00
p-Isopropyltoluene	ND< 2.00
Naphthalene	ND< 5.00
Toluene	ND< 2.00
1,2,4-Trimethylbenzene	ND< 2.00
1,3,5-Trimethylbenzene	ND< 2.00
m,p-Xylene	ND< 2.00
o-Xylene	ND< 2.00
Miscellaneous	
Methyl tert-butyl Ether	ND< 2.00

ELAP Number 10958 Method: EPA 8021B (GC/MS) Data File: 17420.D

ND denotes Non Detect Comments: ug / L = microgram per Liter Signature: -Ce Fie Bruce Hoogesteger: Technical Director

	ADDRESS 3535 Crittond	ent & Board			D3= S073	COENTRACOLECT W.
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#### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	03-3238 10637
Client Job Number:	N/A		
Field Location:	Staged Water Before Filtration	Date Sampled:	11/26/2003
Field ID Number:	N/A	Date Received:	12/01/2003
Sample Type:	Water	Date Analyzed:	12/02/2003

Aromatics	Results in ug / L
Benzene	ND< 0.700
n-Butylbenzene	ND< 2.00
sec-Butylbenzene	ND< 2.00
tert-Butylbenzene	ND< 2.00
Ethylbenzene	ND< 2.00
n-Propylbenzene	ND< 2.00
Isopropylbenzene	ND< 2.00
p-Isopropyltoluene	ND< 2.00
Naphthalene	ND< 5.00
Toluene	ND< 2.00
1,2,4-Trimethylbenzene	ND< 2.00
1,3,5-Trimethylbenzene	ND< 2.00
m,p-Xylene	ND< 2.00
o-Xylene	ND< 2.00
Miscellaneous	
Methyl tert-butyl Ether	ND< 2.00

ELAP Number 10958 Method: EPA 8021B (GC/MS) Data File: 17953.D

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Signature:

MAT Mr. Bruce Hoogesteger: Technical Director

#### Client: Natures Way Environmental

Union Ship Canal	Lab Project Number:	03-3238
	Lab Sample Number:	10637
N/A		
Staged Water Before Filtration	Date Sampled:	11/26/2003
N/A	Date Received:	12/01/2003
Water	Date Analyzed:	12/02/2003
	, N/A Staged Water Before Filtratio N/A	Lab Sample Number:         N/A         Staged Water Before Filtratic Date Sampled:         N/A         Date Received:

Base / Neutrals	Results in ug / L
Acenaphthene	ND< 10.0
Anthracene	ND< 10.0
Benzo (a) anthracene	ND< 10.0
Benzo (a) pyrene	ND< 10.0
Benzo (b) fluoranthene	ND< 10.0
Benzo (g,h,i) perylene	ND< 10.0
Benzo (k) fluoranthene	ND< 10.0
Chrysene	ND< 10.0
Dibenz (a,h) anthracene	ND< 10.0
Fluoranthene	ND< 10.0
Fluorene	ND< 10.0
Indeno (1,2,3-cd) pyrene	ND< 10.0
Naphthalene	ND< 10.0
Phenanthrene	ND< 10.0
Pyrene	ND< 10.0
ELAP Number 10958 Method: EPA	8270C Data File: 14001.

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Signature:

Bruce Hoogesteger: Vechnical Director



#### pH Analysis Report

#### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number:	03-3238
Client Job Number:	N/A	Date Sampled:	11/26/2003
Sample Type:	Water	Date Received: Date Analyzed:	12/01/2003 12/01/2003

Lab Sample Number	Field Number	Field Location	Result (pH)
10637	N/A	Staged Water Before Filtration	8.75

ELAP Number 10958

Method: EPA 9040

03-230

Comments:

Signature:

6 Bruce Hoogesteger: Technical Director

Chain of Custody provides additional sample information



## LABORATORY REPORT OF ANALYSIS

Client:	Nature's Way Environmental	Lab Project No.:	03-3238
Client Job Site: Client Job No.:	Union Ship Canal N/A	Sample Type:	Water
		Date Sampled:	11/26/2003
Analytical Method:	EPA 410.4	Date Received:	12/01/2003
-		Date Analyzed:	12/03/2003

Lab Sample ID	Sample Location/Field ID	Chemical Oxygen Demand (mg/L)
10637	Staged Water Before Filtration	13

ELAP ID.No.: 10709

Comments:

ND denotes Non Detected.

Approved By Technical Director: Bruce Hoogesteger



ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester New York 14608 (585) 647-2530 FAX (585) 647-3311

### LABORATORY REPORT OF ANALYSIS

Client:	Nature's Way Environmental	Lab Project No.: 03-3238 Lab Sample No.: 10637	
Client Job Site:	Union Ship Canal	Sample Type:	Water
Client Job No.:	N/A	Date Sampled:	11/26/2003
Field Location:	Staged Water Before Filtration	Date Received:	

Parameter	Date Analyzed	Analytical Method	Result (mg/l)
Oil & Grease	12/02/2003	SW-846, 1664	ND<6
TSS	12/01/2003	SM-18, 2540D	ND<9

ELAP ID.No.: 10249

Comments:

ND denotes Non Detected.

Approved By Technical Director:

Bruce Hoogesteger



ENVIRONMENTAL SERVICES. INC.

Client:	Nature's Way Environmental	Lab Project No.: Lab Sample No.:	03-3238 10637
Client Job Site:	Union Ship Canal	Sample Type:	Water
Client Job No.:	N/A	Date Sampled:	11/26/2003
Field Location: Field ID No.:	Staged Water Before Filtration N/A	Date Received:	12/01/2003

#### Laboratory Report for Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)
Lead	12/03/2003	EPA 200.7	<0.005

ELAP ID No.:10958

Comments:

Approved By: ______ Pruce Hoogesteger, Technical Director

Chain of Custody provides additional sample information.

#### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	03-3238 10636
Client Job Number:	N/A		
Field Location:	Staged Water After Filtratior	Date Sampled:	11/25/2003
Field ID Number:	N/A	Date Received:	12/01/2003
Sample Type:	Water	Date Analyzed:	12/02/2003

Aromatics	Results in ug / L
Benzene	ND< 0.700
n-Butylbenzene	ND< 2.00
sec-Butylbenzene	ND< 2.00
tert-Butylbenzene	ND< 2.00
Ethylbenzene	ND< 2.00
n-Propylbenzene	ND< 2.00
Isopropylbenzene	ND< 2.00
p-Isopropyltoluene	ND< 2.00
Naphthalene	ND< 5.00
Toluene	ND< 2.00
1,2,4-Trimethylbenzene	ND< 2.00
1,3,5-Trimethylbenzene	ND< 2.00
m,p-Xylene	ND< 2.00
o-Xylene	ND< 2.00
Miscellaneous	
Methyl tert-butyl Ether	ND< 2.00

ELAP Number 10958 Method: EPA 8021B (GC/MS) Data File: 17952.D

Comments:

Signature:

ND denotes Non Detect ug / L = microgram per Liter

4Attan

Bruce Hoogesteger/Technical Director

Chain of Custody provides additional sample information



#### Client: Natures Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	03-3238 10636
Client Job Number: Field Location:	N/A Staged Water After Filtration	Date Sampled:	11/25/2003
Field ID Number:	N/A	Date Received:	12/01/2003 12/02/2003
Sample Type:	Water	Date Analyzed:	12/02/2003

Base / Neutrals	Results in ug / L
Acenaphthene	ND< 10.0
Anthracene	ND< 10.0
Benzo (a) anthracene	ND< 10.0
Benzo (a) pyrene	ND< 10.0
Benzo (b) fluoranthene	ND< 10.0
Benzo (g,h,i) perylene	ND< 10.0
Benzo (k) fluoranthene	ND< 10.0
Chrysene	ND< 10.0
Dibenz (a,h) anthracene	ND< 10.0
Fluoranthene	ND< 10.0
Fluorene	ND< 10.0
Indeno (1,2,3-cd) pyrene	e ND< 10.0
Naphthalene	ND< 10.0
Phenanthrene	ND< 10.0
Pyrene	ND< 10.0
ELAP Number 10958 Method: EPA	8270C Data File: 14000.D

ELAP Number 10958

Comments:

ND denotes Non Detect ug / L = microgram per Liter

MITON) Bruce Hoogesteger: Technical Director

ERVICE Lake Avenue chester, NY 14 5) 647 2530 4 X: (585) 647 3			GOMPAN' ADDRESS GITY:	* NA+ 355307	<u>nta a</u>	AL EAU	100m	COMPAN ADDRESS CITY:		2	540	nđ	STAT	E:		ZIP:	LAB PROJE	238	CCIENT			
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### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	03-3461 11308
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Pre-Carbon N/A Water	Date Sampled: Date Received: Date Analyzed:	12/30/2003 12/31/2003 01/02/2004

 Aromatics	Results in ug / L
 Benzene	ND< 0.700
n-Butylbenzene	ND< 2.00
sec-Butylbenzene	ND< 2.00
tert-Butylbenzene	ND< 2.00
Ethylbenzene	ND< 2.00
n-Propylbenzene	ND< 2.00
Isopropylbenzene	ND< 2.00
p-Isopropyltoluene	ND< 2.00
Naphthalene	ND< 5.00
Toluene	ND< 2.00
1,2,4-Trimethylbenzene	ND< 2.00
1,3,5-Trimethylbenzene	ND< 2.00
m,p-Xylene	ND< 2.00
o-Xylene	ND< 2.00
Miscellaneous	
Methyl tert-Butyl Ether	ND< 2.00

ELAP Number 10958 Method: EPA 8021B (GC/MS) Data File: 67699.D

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Bruce Hoogesteger: Technical Director

ENVIRONMENTAL SERVICES. INC.

## Semi -Volatile STARS Analysis Report for Non-potable Water

### Client: Nature's Way Environmental

Client Job Site:	Union Ship Yard	Lab Project Number: Lab Sample Number:	03-3461 11308
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Pre-Carbon N/A Water	Date Sampled: Date Received: Date Analyzed:	12/30/2003 12/31/2003 01/02/2004

Base / Neutrals	Results in ug / L
Acenaphthene	ND< 10.0
Anthracene	ND< 10.0
Benzo (a) anthracene	ND< 10.0
Benzo (a) pyrene	ND< 10.0
Benzo (b) fluoranthene	ND< 10.0
Benzo (g,h,i) perylene	ND< 10.0
Benzo (k) fluoranthene	ND< 10.0
Chrysene	ND< 10.0
Dibenz (a,h) anthracene	ND< 10.0
Fluoranthene	ND< 10.0
Fluorene	ND< 10.0
Indeno (1,2,3-cd) pyrene	e ND< 10.0
Naphthalene	ND< 10.0
Phenanthrene	ND< 10.0
Pyrene	ND< 10.0
ELAP Number 10958 Method: EPA	8270C Data File: 14376.D

Comments:

ND denotes Non Detect ug / L = microgram per Liter

00

Bruce Hoogesteger: Technical Director



#### PHC Analysis Report for Non-potable Water

#### Client: Nautre's Way Environmental

Client Job Site:	Union Ship Canal	,	
Client Job Number:	N/A		
Field Location:	Pre-Carbon	Date Sampled:	12/30/2003
Field ID Number:	N/A	Date Received:	12/31/2003
Sample Type:	Water	Date Analyzed:	01/02/2004

PHC Classification	Results in ug / L
Petroleum Hydrocarbon	ND< 250
ELAP Number 10958	Method: NYSDOH 310.13

Comments:

ND denotes Non Detect ug / L = microgram per Liter PHC = Petroleum Hydrocarbon

Bruce Hoogesteger: Jechnical Director



## Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	
Client Job Number:	N/A		
Field Location:	Post Carbon	Date Sampled:	12/30/2003
Field ID Number:	N/A	Date Received:	12/31/2003
Sample Type:	Water	Date Analyzed:	01/02/2004

Aromatics	Results in ug / L
Benzene	ND< 0.700
n-Butylbenzene	ND< 2.00
sec-Butylbenzene	ND< 2.00
tert-Butylbenzene	ND< 2.00
Ethylbenzene	ND< 2.00
n-Propylbenzene	ND< 2.00
Isopropylbenzene	ND< 2.00
p-isopropyltoluene	ND< 2.00
Naphthalene	ND< 5.00
Toluene	ND< 2.00
1,2,4-Trimethylbenzene	ND< 2.00
1,3,5-Trimethylbenzene	ND< 2.00
m,p-Xylene	ND< 2.00
o-Xylene	ND< 2.00
Miscellaneous	
Methyl tert-Butyl Ether	ND< 2.00

ELAP Number 10958 Method: EPA 8021B (GC/MS) Data File: 67700.D

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Bruce Hoogesteger: Technical Director

Chain of Custody provides additional sample information



#### Client: Nature's Way Environmental

Client Job Site:	Union Ship Yard	Lab Project Number: Lab Sample Number:	03-3461 11309
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Post-Carbon N/A Water	Date Sampled: Date Received: Date Analyzed:	12/30/2003 12/31/2003 01/02/2004

Base / Neutrals	Results in ug / L
Acenaphthene	ND< 10.0
Anthracene	ND< 10.0
Benzo (a) anthracene	ND< 10.0
Benzo (a) pyrene	ND< 10.0
Benzo (b) fluoranthene	ND< 10.0
Benzo (g,h,i) perylene	ND< 10.0
Benzo (k) fluoranthene	ND< 10.0
Chrysene	ND< 10.0
Dibenz (a,h) anthracene	ND< 10.0
Fluoranthene	ND< 10.0
Fluorene	ND< 10.0
Indeno (1,2,3-cd) pyrene	e ND< 10.0
Naphthalene	ND< 10.0
Phenanthrene	ND< 10.0
Pyrene	ND< 10.0
ELAP Number 10958 Method: EPA	. 8270C Data File: 14377.

Data File: 14377.D

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Bruce Hoogesteger: Technical Director



#### PHC Analysis Report for Non-potable Water

#### Client: Nautre's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	03-3461 11309
Client Job Number:	N/A		
Field Location:	Post-Carbon	Date Sampled:	12/30/2003
Field ID Number:	N/A	Date Received:	12/31/2003
Sample Type:	Water	Date Analyzed:	01/02/2004

PHC Classification	Results in ug / L
Petroleum Hydrocarbon	ND< 250
ELAP Number 10958	Method: NYSDOH 310.13

Comments:

Signature:

ND denotes Non Detect ug / L = microgram per Liter PHC = Petroleum Hydrocarbon

Bruce Hoogesteger: Technical Director

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#### Client: NWEC&C, Inc

Client Job Site:	Union Ship Yard	Lab Project Number: Lab Sample Number:	04-0553 2406
Client Job Number:	N/A		
Field Location:	Area #3B Carbon Pilot	Date Sampled:	02/26/2004
Field ID Number:	N/A	Date Received:	03/01/2004
Sample Type:	Water	Date Analyzed:	03/02/2004

Base / Neutrals	Results in ug / L
Acenaphthene	ND< 10.0
Anthracene	ND< 10.0
Benzo (a) anthracene	ND< 10.0
Benzo (a) pyrene	ND< 10.0
Benzo (b) fluoranthene	ND< 10.0
Benzo (g,h,i) perylene	ND< 10.0
Benzo (k) fluoranthene	ND< 10.0
Chrysene	ND< 10.0
Dibenz (a,h) anthracene	ND< 10.0
Fluoranthene	ND< 10.0
Fluorene	ND< 10.0
Indeno (1,2,3-cd) pyrene	e ND< 10.0
Naphthalene	ND< 10.0
Phenanthrene	ND< 10.0
Pyrene	ND< 10.0
ELAP Number 10958 Method: EPA	8270C Data File: 18238.0

Comments: ND denotes Non Detect ug / L = microgram per Liter Signature: Fact : Bruce Hoogesteger: ectinical Director

Chain of Custody provides additional sample information

ENVIRONMENTAL SERVICES. INC.

## Semi -Volatile STARS Analysis Report for Non-potable Water

#### Client: <u>NWEC&C, Inc</u>

Client Job Site:	Union Ship Yard	Lab Project Number: Lab Sample Number:	04-0553 2407
Client Job Number: Field Location:	N/A Area #3B	Date Sampled:	02/26/2004
Field ID Number: Sample Type:	N/A Water	Date Received: Date Analyzed:	03/01/2004 03/02/2004

Base / Neutrals	Results in ug / L
Acenaphthene	ND< 10.0
Anthracene	ND< 10.0
Benzo (a) anthracene	ND< 10.0
Benzo (a) pyrene	ND< 10.0
Benzo (b) fluoranthene	ND< 10.0
Benzo (g,h,i) perylene	ND< 10.0
Benzo (k) fluoranthene	ND< 10.0
Chrysene	ND< 10.0
Dibenz (a,h) anthracene	ND< 10.0
Fluoranthene	ND< 10.0
Fluorene	ND< 10.0
Indeno (1,2,3-cd) pyrene	e ND< 10.0
Naphthalene	ND< 10.0
Phenanthrene	ND< 10.0
Pyrene	ND< 10.0
ELAP Number 10958 Method: EPA	8270C Data File: 18239.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

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# **APPENDIX V**

# NAPL AREAS GROUNDWATER LABORATORY ANALYTICAL RESULTS



#### Client: NWEC&C

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	04-0453 2074
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Containerized Water N/A Water	Date Sampled: Date Received: Date Analyzed:	02/18/2004 02/19/2004 02/23/2004

Base / Neutrals	Results in ug / L
Acenaphthene	ND< 10.0
Anthracene	ND< 10.0
Benzo (a) anthracene	ND< 10.0
Benzo (a) pyrene	ND< 10.0
Benzo (b) fluoranthene	ND< 10.0
Benzo (g,h,i) perylene	ND< 10.0
Benzo (k) fluoranthene	ND< 10.0
Chrysene	ND< 10.0
Dibenz (a,h) anthracene	ND< 10.0
Fluoranthene	ND< 10.0
Fluorene	ND< 10.0
Indeno (1,2,3-cd) pyrene	• ND< 10.0
Naphthalene	ND< 10.0
Phenanthrene	ND< 10.0
Pyrene	ND< 10.0
ELAP Number 10958 Method: EPA	8270C Data File: 15062.

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Signature:

Bruce Hoogesteger: Technical Director



#### Client: NWEC&C

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	
Client Job Number:	N/A		
Field Location:	Containerized Water	Date Sampled:	02/18/2004
Field ID Number:	N/A	Date Received:	02/19/2004
Sample Type:	Water	Date Analyzed:	02/20/2004

	Aromatics	Results in ug / L
<u>h de centra de la c</u> entra de la centra de	Benzene	6.32
	n-Butylbenzene	ND< 2.00
	sec-Butylbenzene	ND< 2.00
	tert-Butylbenzene	ND< 2.00
	Ethylbenzene	2.09
	n-Propylbenzene	ND< 2.00
	Isopropylbenzene	ND< 2.00
	p-Isopropyltoluene	ND< 2.00
	Naphthalene	8.18
	Toluene	10.1
	1,2,4-Trimethylbenzene	8.11
	1,3,5-Trimethylbenzene	2.07
	m,p-Xylene	10.5
	o-Xylene	4.22
	Miscellaneous	
	Methyl tert-butyl Ether	ND< 2.00

ELAP Number 10958 Method: EPA 8021B (GC/MS) Data File: 19101.D

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Signature:

Bruce Hoogesteger: Technical Director

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# **PARADIGM** ENVIRONMENTAL SERVICES, INC.

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#### Client: Nature's Way Environmental

Union Ship Canal	•	
N/A		
Tank #3	Date Sampled:	02/23/2004
N/A	Date Received:	02/26/2004
Water	Date Analyzed:	03/02/2004
	N/A Tank #3 N/A	Lab Sample Number:N/ATank #3N/ADate Sampled:Date Received:

Base / Neutrals	Results in ug / L
Acenaphthene	ND< 10.0
Anthracene	ND< 10.0
Benzo (a) anthracene	ND< 10.0
Benzo (a) pyrene	ND< 10.0
Benzo (b) fluoranthene	ND< 10.0
Benzo (g,h,i) perylene	ND< 10.0
Benzo (k) fluoranthene	ND< 10.0
Chrysene	ND< 10.0
Dibenz (a,h) anthracene	ND< 10.0
Fluoranthene	ND< 10.0
Fluorene	ND< 10.0
Indeno (1,2,3-cd) pyrene	e ND< 10.0
Naphthalene	ND< 10.0
Phenanthrene	11.1
Pyrene	10.3
ELAP Number 10958 Method: EPA	8270C Data File: 18233.E

Comments:

Signature:

ND denotes Non Detect ug / L = microgram per Liter

Bruce Hoogesteger: Technical Director

#### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	04-0529 2313
Client Job Number:	N/A		
Field Location:	Tank #3	Date Sampled:	02/23/2004
Field ID Number:	N/A	Date Received:	02/26/2004
Sample Type:	Water	Date Analyzed:	02/27/2004

Aromatics	Results in ug / L
Benzene	ND< 0.700
n-Butylbenzene	ND< 2.00
sec-Butylbenzene	ND< 2.00
tert-Butylbenzene	ND< 2.00
Ethylbenzene	ND< 2.00
n-Propylbenzene	ND< 2.00
Isopropylbenzene	ND< 2.00
p-Isopropyltoluene	ND< 2.00
Naphthalene	ND< 5.00
Toluene	ND< 2.00
1,2,4-Trimethylbenzene	ND< 2.00
1,3,5-Trimethylbenzene	ND< 2.00
m,p-Xylene	ND< 2.00
o-Xylene	ND< 2.00
Miscellaneous	
Methyl tert-butyl Ether	ND< 2.00
ELAP Number 10958 Method: EPA 8021	B (GC/MS) Data File: 19326.

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Signature:

Bruce Hoogesteger, Technical Director

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# PARADIGM ENVIRONMENTAL SERVICES, INC.

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ENVIRONMENTAL SERVICES, INC.

#### Semi -Volatile STARS Analysis Report for Non-potable Water

#### Client: Nature's Way Environmental

Client	Job	Site:	
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**Client Job Number:** Field Location: Field ID Number: Sample Type:

N/A Tank #1 N/A Water

Union Ship Canal

Lab Project Number: Lab Sample Number:	04-0543 2377
Date Sampled:	02/24/2004
Date Received:	02/27/2004
Date Analyzed:	03/01/2004

Base / Neutrals	Results in ug / L
Acenaphthene	ND< 10.0
Anthracene	ND< 10.0
Benzo (a) anthracene	ND< 10.0
Benzo (a) pyrene	ND< 10.0
Benzo (b) fluoranthene	ND< 10.0
Benzo (g,h,i) perylene	ND< 10.0
Benzo (k) fluoranthene	ND< 10.0
Chrysene	ND< 10.0
Dibenz (a,h) anthracene	ND< 10.0
Fluoranthene	ND< 10.0
Fluorene	ND< 10.0
Indeno (1,2,3-cd) pyrene	e ND< 10.0
Naphthalene	ND< 10.0
Phenanthrene	ND< 10.0
Pyrene	ND< 10.0
ELAP Number 10958 Method: EPA	8270C Data File: 18192.D

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Signature:

Technical Director Bruce Hoogestege

### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	04-0543 2378
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Tank #2 N/A Water	Date Sampled: Date Received: Date Analyzed:	02/24/2004 02/27/2004 03/01/2004

Base / Neutrals	Results in ug / L
Acenaphthene	ND< 10.0
Anthracene	ND< 10.0
Benzo (a) anthracene	ND< 10.0
Benzo (a) pyrene	ND< 10.0
Benzo (b) fluoranthene	ND< 10.0
Benzo (g,h,i) perylene	ND< 10.0
Benzo (k) fluoranthene	ND< 10.0
Chrysene	ND< 10.0
Dibenz (a,h) anthracene	ND< 10.0
Fluoranthene	ND< 10.0
Fluorene	ND< 10.0
Indeno (1,2,3-cd) pyrene	e ND< 10.0
Naphthalene	ND< 10.0
Phenanthrene	ND< 10.0
Pyrene	ND< 10.0
ELAP Number 10958 Method: EPA	8270C Data File; 18193.

Data File; 18193.D

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Signature:

Bruce Hoogesteger: Technical Director



ENVIRONMENTAL SERVICES. INC.

## Semi -Volatile STARS Analysis Report for Non-potable Water

#### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	04-0543 2379
Client Job Number:	N/A		
Field Location:	Tank #3	Date Sampled:	02/24/2004
Field ID Number:	N/A	Date Received:	02/27/2004
Sample Type:	Water	Date Analyzed:	03/01/2004

Base / Neutrals	Results in ug / L
Acenaphthene	ND< 10.0
Anthracene	ND< 10.0
Benzo (a) anthracene	ND< 10.0
Benzo (a) pyrene	ND< 10.0
Benzo (b) fluoranthene	ND< 10.0
Benzo (g,h,i) perylene	ND< 10.0
Benzo (k) fluoranthene	ND< 10.0
Chrysene	ND< 10.0
Dibenz (a,h) anthracene	ND< 10.0
Fluoranthene	ND< 10.0
Fluorene	ND< 10.0
Indeno (1,2,3-cd) pyrene	e ND< 10.0
Naphthalene	ND< 10.0
Phenanthrene	ND< 10.0
Pyrene	ND< 10.0
ELAP Number 10958 Method: EPA	. 8270C Data File: 18194.D

Comments:

Signature:

ND denotes Non Detect ug / L = microgram per Liter

Bruce Hoogesteger: Technical Director



#### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	04-0543 2377
Client Job Number:	N/A		00/04/0004
Field Location:	Tank #1	Date Sampled:	02/24/2004
Field ID Number:	N/A	Date Received:	02/27/2004
Sample Type:	Water	Date Analyzed:	02/27/2004

Aromatics	Results in ug / L
Benzene	ND< 0.700
n-Butylbenzene	ND< 2.00
sec-Butylbenzene	ND< 2.00
tert-Butylbenzene	ND< 2.00
Ethylbenzene	ND< 2.00
n-Propylbenzene	ND< 2.00
Isopropylbenzene	ND< 2.00
p-Isopropyltoluene	ND< 2.00
Naphthalene	7.52
Toluene	ND< 2.00
1,2,4-Trimethylbenzene	7.85
1,3,5-Trimethylbenzene	2.27
m,p-Xylene	ND< 2.00
o-Xylene	ND< 2.00
Miscellaneous	
Methyl tert-butyl Ether	ND< 2.00

ELAP Number 10958 Method: EPA 8021B (GC/MS) Data File: 19321.D

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Bruce Hoogesteger Technical Director

Signature:



#### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	04-0543 2378
Client Job Number: Field Location: Field ID Number: Sample Type:	N/A Tank #2 N/A Water	Date Sampled: Date Received: Date Analyzed:	02/24/2004 02/27/2004 02/27/2004

ND< 0.700 ND< 2.00 ne ND< 2.00
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ELAP Number 10958 Method: EPA 8021B (GC/MS) Data File: 19324.D

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Signature:

N Technical Director Bruce Hoogesteger:



### Client: Nature's Way Environmental

Client Job Site:	Union Ship Canal	Lab Project Number: Lab Sample Number:	04-0543 2379
Client Job Number:	N/A	-	
Field Location:	Tank #3	Date Sampled:	02/24/2004
Field ID Number:	N/A	Date Received:	02/27/2004
Sample Type:	Water	Date Analyzed:	02/27/2004

Aromatics	Results in ug / L
Benzene	ND< 0.700
n-Butylbenzene	ND< 2.00
sec-Butylbenzene	ND< 2.00
tert-Butylbenzene	ND< 2.00
Ethylbenzene	ND< 2.00
n-Propylbenzene	ND< 2.00
Isopropylbenzene	ND< 2.00
p-isopropyltoluene	ND< 2.00
Naphthalene	ND< 5.00
Toluene	ND< 2.00
1,2,4-Trimethylbenzene	ND< 2.00
1,3,5-Trimethylbenzene	ND< 2.00
m,p-Xylene	ND< 2.00
o-Xylene	ND< 2.00
Miscellaneous	
Methyl tert-butyl Ether	ND< 2.00

ELAP Number 10958 Method: EPA 8021B (GC/MS)

(GC/MS) Data File: 19325.D

Comments:

ND denotes Non Detect ug / L = microgram per Liter

Signature:

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Bruce Hoogesteger: Technical Director

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DATE	TIME	C O M P O S I T	G R A B	SAMPLE LOCATION/FIELD	M A T	O NN UT MA BI EN RE R	8	1					REMARKS				ADIGM LE NUI	
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SAMPLE COND	ITION: Ch	eck box		CONTAINER TYPE:	PRESERVATIONS:			но	LDING TIME:		la an	TEMPI	ERATURE:			le 1	1	
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# Certificate of Analysis

#### **CLIENT INFORMATION**

#### LABORATORY INFORMATION

Attention:	Russ Savage	Contact:	Mike Challis, B.Sc, C.Chem.
<b>Client Name:</b>	NWEC+C Inc.	Project:	AN040300
Project:	Union Ship Canal	Date Received:	04-Mar-2004
Project Desc:	Union Ship Canal	Date Reported:	12-Mar-2004
Address:	3553 Crittenden Rd.	Submission No.:	4C0186
	Crittenden, NY	Sample No.:	010304-010305
	14038		
Fax Number:	716-937-9360		
Phone Number:	716-937-6527		

NOTES: ''-' = not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33 Solids data is based on dry weight except for biota analyses. Organic analyses are not corrected for extraction recovery standards except for isotope dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses) The enclosed copy of the Chain of Custody Record may contain information necessary for the interpretation of the data.

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Twentieth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of three weeks from receipt of data or as per contract.

#### **COMMENTS:**

Certified by:

## PASC - Certificate of Analysis

	Client ID: Lab No.: te Sampled:		NAPL AREA 3 EXCAVAT. 010305 04 03-Mar-2004	Method Blank Water 010304 04 03-Mar-2004	Blank Water Spike 010304 04 03-Mar-2004	% Recovery 010304 04 03-Mar-2004	Blank Spike Duplicate 010304 04 03-Mar-2004	% Recovery 010304 04 03-Mar-2004
Component	MDL	Units						
pH of VOC vials			1.50	7.00	-	-	-	-
Benzene	0.5	ug/L	<	<	48	95	-	-
Ethylbenzene	0.5	*1	<	<	51	100	-	-
Toluene	0.5		<	<	50	100	-	-
m&p-Xylene	1.0	"	<	<	100	100	-	-
o-Xylene	0.5	H	<	<	50	100	*	-
Xylenes(Total)	1.0	н	<	<	150	100	-	-
Isopropylbenzene	0.5	11	<	<	45	91	-	-
n-Propylbenzene	0.5	11	<	<	46	92	-	-
p-Isopropyltoluene	0.5	н	<	<	43	85	-	-
1,2,4-Trimethylbenzene	0.5	11	<	<	45	90	-	-
1,3,5-Trimethylbenzene	0.5	Ħ	<	<	48	96	-	-
n-Butylbenzene	0.5	11	<	<	41	82	-	-
sec-Butylbenzene	0.5	н	<	<	45	90	-	-
tert-Butylbenzene	0.5	11	<	<	45	90	-	-
Naphthalene	0.5	н	0.6	<	50	100	-	-
Methyl-t-butylether	0.5	"	<	<	NS	-	-	-
Surrogate Recoveries		%						
d4-1,2-Dichloroethane			75	75	83	83	-	-
d8-Toluene			89	89	89	89	-	-
Bromofluorobenzene			84	87	91	91	-	-
Diomonuorooenzene			01					
Naphthalene	0.3	ug/L	0.60	<	16	82	16	82
Acenaphthene	0.7	11	<	<	19	96	19	96
Fluorene	0.3	FI	<	<	19	95	19	95
Phenanthrene	0.3	9	0.6	<	18	91	18	92
Anthracene	0.3	<b>FT</b>	<	<	20	98	19	96
Fluoranthene	0.2	н	0.4	<	18	92	18	91
Pyrene	0.3	11	<	<	17	82	17	85
Benz(a)anthracene	0.2	81	0.4	<	20	97	20	98
Chrysene	0.3	H	0.4	<	19	97	19	97
Benzo(b)fluoranthene	0.4	*1	<	<	19	94	19	94
Benzo(k)fluoranthene	0.4	11	<	<	19	95	19	95
Benzo(a)pyrene	0.5	н	<	<	19	95	19	96
Indeno(1,2,3-cd)pyrene	0.6	11	<	<	20	100	20	99
Dibenzo(ah)anthracene	0.4		<	<	20	100	20	97
Benzo(ghi)perylene	0.4	0	<	<	20	100	20	100
Surrogate Recoveries		%						
d5-Nitrobenzene			62	66	67	67	67	67
2-Fluorobiphenyl			67	85	85	85	84	84
d14-p-Terphenyl			59	65	73	73	60	60
art-b-reibnenar								

<b>Batch Code:</b> pH of VOC vials	<b>0310DJ01</b> 010304 04
-	010305 04
Date Analysed:	04/03/10
Date Prepared:	04/03/10
Batch Code:	0310DJ01
Benzene	010304 04
	010305 04
Date Analysed:	04/03/10
Date Prepared:	04/03/10
Batch Code:	0309TKR2
Naphthalene	010304 04
-	010305 04
Date Analysed:	04/03/10
Date Prepared:	04/03/09

## UNAIN UP CUSTUUT

5555 No.	YTICAL SERVICES rth Service Road m. Ontario L7L 5H7		۱ •••• •••	foll Free: 1-80( Tel: (905 Fax: (905	0-668-0639 ) 332-8788 ) 332-9169	1	ANAL	/515 RI	GUESTE	Page	<u>3</u> _of	3
CLIENT INFORMATION	0	Russ 3 Cr.H Hender	SAV: tender L.NY	14038		STARS		-				contamination h. unknown)
Philip Use Only	Field Sample ID	ë Bolties	Matrix	Date	Time	8210					-	low. high
- I	XC AREN 3 NORTH	·	<u>    5     </u>	3/3/04		1.1	!	:		7	NAC	<u> </u>
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£	EXC. AREAG WEST		5	3/3/04				i		;		
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16w-10304								1			<b>*</b>	
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670303 Bermed	Stripped Scill APLEXC Areg 3	1	S	3/3/04	i				····	128	PAG	
TAT (Turnaround Time)	PROJECT INFORMATION			SPECIAL D	ETECTION			L			<u> </u>	
RUSH TAT MUST HAVE PRIOR APPROVAL Some exceptions apply please contact Lab STD 10 Business Days RUSH 5 Business Days	Project #:	CANAL		MISA D	EQUIREME	NTS / REGULATI		A	st			
RUSH 2 Business Days	Philip Project #:				ASP CATEGORY B. DELIVERABLES							
AUSH & Business Days	siness Days				VAL TI	ł						
Client Signature: Affiliation: <u>ALMEC+C</u> , I Date/Time: <u>313/04</u>	Bloskivits Inc , 3:30 pm	A/6	ceived By: liation: e/Time:	2 2 04	Zu 3:30	linder Dpm		d By: /Tîme				

SEE OVER FOR COMPLETION & SAMPLING INSTRUCTIONS

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