

APR 2 9 2004

NYSDEC REG 9
FOIL
REL __UNREL

Remedial Action Final Report for Voluntary Cleanup at Buffalo Brake Beam Site in Lackawanna, New York

Pertaining to Voluntary Cleanup Agreement Site #V00625-9

Index #B9-0630-02-12

Prepared for: Rigel Enterprises, Inc.

Youngstown, New York

Prepared by: Snyder Engineering

Grand Island, New York

Original Date: February 8, 2004

Revision Date: April 19, 2004

PROFESSIONAL ENGINEER CERTIFICATION

I, the undersigned, certify that the Remedial Action Work Plan for Voluntary Cleanup at the Buffalo Brake Beam Site (Voluntary Cleanup Agreement Site Number V00625-9) in Lackawanna, New York was implemented and that all construction activities were completed substantially in accordance with the Department approved Remedial Action Work Plan and were personally witnessed by me (or "by a person under my direct supervision").

Name: Richard R. Snyder

Signature: Richard R.

Date: April 19, 2004 Registration Number: 54616 State: New York

TABLE OF CONTENTS

Pag	,e
1.0 Introduction	
2.0 Summary of Prior Remedial Actions	
2.1 Introduction	
2.2 Gasoline Spill Remediation	
2.2.1 Gasoline Spill Remediation (1997)	
2.2.2 Gasoline Spill Remediation (2001)	
2.3 Fuel Oil Spill Remediation	
2.4 Waste Removal from Site Associated with Lehigh Industrial Park	ī
Site Remediation	
3.0 Description of Modifications to Original Approved Work Plan	
4.0 Quenchant Pit Remediation	
5.0 Tetrachloroethene Sampling Plan Implementation and Evaluation of Results7	
5.1 Plan Implementation	
5.2 Evaluation of Results.	
5.3 Additional Actions Required	
6.0 Delineation of Waste Paint Residues at Site.	
7.0 Electrical Transformers	
8.0 Site Surface Monitoring Plan Implementation and Evaluation of Results	
8.1 Plan Implementation	
8.2 Sample Results	
8.2.1 TAL Metals	
8.2.2 SVOCs	
8.2.2 SVOCs	
8.2.4 PCBs	
8.3 Evaluation of Sample Results	
8.3.1 Metals	
8.3.2 SVOCs	
8.3.3 VOCs	
8.3.4 PCBs	
8.4 Supplemental Soil Sampling and Analysis	
8.4.1 Plan Implementation	
8.4.2 Sample Results	17
8.4.3 Evaluation of Sample Results	
9.0 DUSR	
10.0 Remediation Standards	19
10.1 Standards Applied to Site Remediations	
10.2 Standards Applied to Additional Actions Required by	- /
Remedial Action Work Plan	19
11.0 Recommendations and Conclusions	
12.0 Site Engineering and Institutional Controls	
12.0 Release Request	.21

List of Tables

- Table 1 Summary of PCB Analyses for Transformer Oil
- Table 2 Metals Analyses for Surface Soil Samples
- Table 3 Evaluation of Metals Analyses for Soil Samples
- Table 4 SVOC Analyses for Detected Compounds in Surface Soil Samples
- Table 5 Evaluation of SVOC Analyses for Surface Soil Samples (Excluding Sample # BBB-SS11)
- Table 6 SVOC Analyses for Detected Compounds in Supplemental Soil Samples Around Sample # BBB-SS11
- Table 7 Evaluation of SVOC Analyses for Supplemental Soil Samples Around Sample # BBB-SS11

List of Drawings

Survey Drawing 4751-404 Drawing SEBBB03 – Sample Locations

List of Appendices

Appendix A – Correspondence from Gregory P. Sutton, P.E. (NYSDEC to Richard G. Adams (Rigel Enterprises, Inc.)

Appendix B – United Materials Flowable Fill Spec Sheet

Appendix C - Analytical Results

Appendix D - Data Usability Summary Report

Appendix E – Declaration of Covenants and Restrictions

1.0 Introduction

This Remedial Action Final Report is being submitted to the New York State Department of Environmental Conservation (NYSDEC) on behalf of Rigel Enterprises, Inc. in connection with the Voluntary Cleanup Agreement for Site #V00625-9. Capitalized terms in this Final Report shall have the same meaning as set forth in the Voluntary Cleanup Agreement unless otherwise defined herein.

Rigel Enterprises, Inc. was formerly known as Buffalo Brake Beam Company, Inc. Its name was changed to Rigel Enterprises, Inc. in December, 2000. Rigel Enterprises, Inc. is also the same entity as the "Volunteer" in the Voluntary Cleanup Agreement. Accordingly, references in this Final Report to "Buffalo Brake Beam", "Rigel Enterprises", "Rigel" and the "Volunteer" are all intended to refer to the same entity, namely the Volunteer described in the Voluntary Cleanup Agreement. The primary objective of this Final Report is to evaluate the completeness of the remediation work completed at this Site in comparison to the requirements of the Remedial Action Work Plan (original date of March 7, 2003 and revisions of dates May 15, June 6, and June 30, 2003), as approved by the New York State Department of Environmental Conservation and the New York State Department of Health. Specific action items, which are addressed in this Final Report include:

- 1) Implementation of quenchant pit backfilling,
- 2) Implementation of Tetrachloroethene sampling and evaluation of results,
- 3) Delineation of paint residues at the Site,
- 4) Evaluation of potentially PCB contaminated transformers,
- 5) Implementation of Site surface monitoring plan and evaluation of results.

This Final Report addresses the following specific items to satisfy various requirements of the Site's approved Remedial Action Work Plan:

- 1) Description of modifications to original approved Work Plan,
- 2) Quenchant pit backfilling implementation,
- 3) Tetrachloroethene sampling plan implementation and evaluation of results,
- 4) Delineation of paint residue location at Site,
- 5) Status of Site's electrical transformers with respect to PCB contamination,
- 6) Site surface monitoring plan implementation and evaluation of results,
- 7) Non remediation actions to be implemented at Site as institutional controls,
- 8) Data Usability Summary Report (DUSR) verifying usability of analytical data obtained during implementation of Remedial Action Work Plan,
- 9) Professional Engineer Certification of Final Report.

2.0 SUMMARY OF PRIOR REMEDIAL ACTIONS

2.1 Introduction

Several remedial actions were performed at the Site prior to entering into the Voluntary Cleanup Agreement. These actions were undertaken to address areas of contamination that were identified during construction activities in 1997, the Earth Tech "Baseline Environmental Site Assessment" in 2000 and the NYSDEC remedial investigation of the neighboring Lehigh Industrial Park Site in 1997. A summary of these investigations and their findings is included in the Remedial Action Work Plan for the Voluntary Cleanup of the Site. A summary of the prior remedial actions is included in this section.

2.2 Gasoline Spill Remediation

2.2.1 Gasoline Spill Remediation (1997)

In October, 1997 soil contaminated with gasoline constituents was discovered at the Site during the removal of the former machine shop's floor (located along the western side of the manufacturing facility) and associated excavation for an addition to the manufacturing facility. The NYSDEC was notified and issued the Site spill #9708447. Remedial activities were performed by Sterling Environmental and included the removal of 212 tons of material for disposal at Modern Landfill, Inc. in Model City, New York. During the excavation of the contaminated material it was determined that contaminated material was present beneath the footer and floor of the existing manufacturing building. A determination was made that further excavation could jeopardize the structural integrity of the existing manufacturing facility. Analytical data obtained from post excavation confirmatory samples indicated that the previously described remedial action had successfully removed the contaminated soil which was accessible. Based on this information the NYSDEC issued a "Closed-Inactive" decision for the Site with respect to Site spill #9708447.

2.2.2 Gasoline Spill Remediation (2001)

In connection with the sale of the business to Powerbrace Corporation in 2000, Rigel agreed to further remediate remaining gasoline type contaminants in the location of the former machine shop. Remediation action was previously undertaken at this location (NYSDEC Site spill #9708447) and the NYSDEC issued a "Closed-Inactive" decision for this Site spill (refer to Section 2.2.1).

Sterling Environmental was commissioned to investigate and implement the remedial action inside the manufacturing facility's crane room. Preliminary excavation limits were established using information from the previous remedial activities at this location and

Geoprobe samples from beneath the floor of the crane room.

The concrete floor was broken up and soil excavation was begun at the southwest corner of the main floor of the crane bay and the rail siding retaining wall. Odors of aged gasoline were noted at a shallow depth in the southwest corner. As excavation proceeded to the north along the west wall of the crane bay the odors diminished both with excavation depth and distance from the southwest corner. Care was exercised during the excavation process to slope the excavation below the building footer in order to protect the building structure. Excavation proceeded downward and outward from the southwest corner until contaminant screening (visual, olfactory and PID) indicated that the excavation's limits appeared to be clean. This portion of the remediation involved the excavation and shipment of approximately 563 tons of soil to CID Landfill. Seven confirmation samples were taken from the excavation's bottom and sidewalls. Three of the seven samples exceeded the cleanup objectives. Three of the four remaining samples showed no exceedances but the detection limit for Benzene was above the Recommended Soil Cleanup Objective.

The three non-complying samples were taken from below the west sidewall footer, eastern end of north sidewall, and a composite sample (five points) from the bottom of the excavation. An additional 142 tons of soil was excavated from the bottom and eastern one half of the North wall and below the footer and shipped to the CID Landfill. Three confirmation samples were taken in those areas where additional excavation was performed. Analytical results for the eastern one half of the North wall and bottom of the excavation were below the Recommended Soil Cleanup Objective. The soil sample taken from below the west sidewall footer did not satisfy the cleanup objective (sample result of 8.4 ppm versus cleanup objective of 5.0 ppm for Isopropyl Benzene). For two of the three samples the detection limit for Benzene was above the Recommended Soil Cleanup Objective. However, no further soil removal could be completed below the footer without jeopardizing the structural integrity of the building. It was therefore necessary to leave some contaminated soil in place below the footer (Contamination location is noted on Survey Drawing 4751-404). The remaining contaminated soil is in an area approximately 25 feet long in a north to south direction, starting at a depth of four feet below grade, the width of the building footer, and sloping outward to the east and west to a depth of approximately 10 feet. This remaining contamination is identified on Survey Drawing 4751-404 and the procedures to be followed if the area is disturbed are detailed in the Site's Soil Management Plan. It is important to note that this remaining contamination is contained in clayey-silty soil that is not in direct contact with groundwater and below a footer that is interior to a concrete slab floored building on each side which prevents rain water percolation through this area. Therefore, the potential for groundwater impacts associated with the residual contamination is minimal. All confirmation samples were submitted to Upstate Laboratories, Inc ("Upstate Laboratories") under standard chain of custody procedures and analyzed for the NYSDEC STARS analyte list of VOCs by EPA Method 8260 and TOC. Additional information (including copies of laboratory reports, sample chain of custody, and sampling location diagrams) concerning this remediation can be found in the following:

Remedial Activities Report – Gasoline Spill Area NYSDEC Spill #9708447 Buffalo Brake Beam Site, 400 Ingham Ave., Lackawanna, NY Prepared by Sterling Environmental Services, Inc. June 2001

2.3 Fuel Oil Spill Remediation

In connection with the Powerbrace Transaction, Rigel addressed a number of environmental issues pertaining to the property. Included in these issues was a possible fuel oil spill in the "yard area" which is located to the east of the manufacturing facilities. The contamination in this area was identified in the Earth Tech Baseline Environmental Site Assessment of 2000 and was reported to the NYSDEC upon discovery. The NYSDEC issued Site spill # 0009396.

On the basis of information contained in the Earth Tech Report and the ensuing investigation by Sterling Environmental, three distinct areas of petroleum type contamination were identified within the spill area. A decision was made to remediate these three areas to contamination levels below the NYSDEC TAGM 4046 cleanup standards for the NYSDEC STARS list of fuel oil contaminants. A work plan was developed and implemented by Sterling Environmental. The on site remedial activities were performed in August 2001.

Excavation of contaminated soils was initiated using sample point SB05-N30 as a starting point and proceeded due east to the fence line at an initial depth of approximately six feet. A layer of black carbonaceous grit with an odor provided indications of contamination approximately two to three feet below the surface. The excavation's depth was increased to ten feet based upon field screening of the excavation's bottom. Using primarily visual and olfactory indicators as a guide, the excavation was extended to the north and south in the direction of the Site's eastern fence line. Pockets of perched water were encountered at various excavation depths and locations and a visible sheen was noted on some of these water pockets. Upon establishment of the excavation's endpoints in the north, east, and southerly directions, additional soil removal was performed in the westerly direction. The remediation work in this area resulted in the removal and disposal off site of 1227 tons of soil and resulted in a triangular shaped excavation area 67 feet x 82 feet x 62 feet and 10 feet deep.

Excavation of contaminated soils, in the vicinity of sample point SB22, was started in the interior corner of a railroad track intersection switch and proceeded westward along the edges of each set of tracks at a depth of about seven feet. During this excavation work, a strong odor was present but no significant soil discoloration was noted. The remediation work in this area resulted in the removal and disposal off site of 220 tons of soil and resulted in a triangular shaped excavation area 27 feet x 35 feet x 34 feet and 7 feet deep.

Excavation of soils in the vicinity of sample point SB18 was along a railroad spur between two buildings. No significant odors were noted during the excavation work. An old clay drain line was broken and the water contained in the pipe flooded the excavation. The water (approximately 125 gallons), which exhibited no sheen, was pumped to a storage tank for proper disposal after sampling and analysis. Additional soil removal was completed after excavation dewatering. Since no visual or olfactory indicators of contamination were noted, the excavation work was stopped. The remediation work in this area resulted in the removal and shipment off site of 25 tons of soil and resulted in a rectangular shaped excavation 14 feet x 6 feet and 6 feet deep.

Confirmation samples were taken from the bottom and sidewalls of each excavation for analysis to evaluate the effectiveness of the remediation efforts. Multiple grab samples were taken and composited for analysis. All confirmation samples were submitted to Upstate Laboratories under standard chain of custody procedures and analyzed for the NYSDEC STARS analyte list of VOCs by EPA Method 8260 and SVOCs by EPA Method 8270.

Analytical results from these samples indicated that none of the 12 post excavation samples showed concentrations of any compounds contained on the STARS list of constituents of concern for fuel oil in excess of the TAGM 4046 soil cleanup objectives. Although Benzene was not detected, the method detection limit for Benzene in all 12 samples was significantly higher than the TAGM 4046 soil cleanup objective for Benzene. Upon NYSDEC review of this data, since the Benzene results failed to document compliance with the soil cleanup objectives, an inactive status was issued for Site spill #0009396. It is important to note that elevated levels of semi-volatile constituents and not volatiles was the basis for this remedial action and that no Benzene was detected in any of the soil samples analyzed as part of the fuel oil spill investigation.

Soils surrounding these three excavations may be impacted and require special handling if disturbed. Confirmation samples from the bottom and sidewalls of the excavations did not show exceedances of the TAGM 4046 Recommended Soil Cleanup Objectives. However, the concentration of some constituents exceeded the NYSDEC STARS Guidance Values for soil reuse and as such would require proper off-site disposal if disturbed. This area of potentially contaminated soil is identified on Survey Drawing 4751-404 and the procedures to be followed if the area is disturbed are detailed in the Site's Soil Management Plan.

Additional information concerning this remediation work can be found in the following:

- Remedial Activities Report
 Fuel Oil Spill Area
 NYSDEC Spill #0009396
 Buffalo Brake Beam Site, 400 Ingham Ave, Lackawanna, NY Prepared by: Sterling Environmental Services, Inc.
- 2) March 21, 2002 correspondence to Mr. John Otto of NYSDEC

2.4 Waste Removal from Site Associated with Lehigh Industrial Site Remediation

During the remedial investigation of the Lehigh Industrial Site it was found that soils located on the northern portion of the Buffalo Brake Beam Site were contaminated with PCBs and Lead. In 1997 approximately 67 cubic yards of PCB contaminated soils were removed from the Site under the direction of the NYSDEC Division of Hazardous Waste Site Remediation and placed under the cap of the Lehigh Industrial Park Landfill.

Remediation of the lead contaminated soils at the Site was performed by the NYSDEC in July 1997 as part of the Lehigh Industrial Park remediation. A "one foot cut" was made in the area contaminated with lead along the northern Site boundary and the excavated non-hazardous soils (approximately 1,200 cubic yards) placed under the cap at the Lehigh Industrial Park. The entire excavated area was backfilled with crushed concrete and brick by a NYSDEC contractor. A description of these remedial activities is provided in the following:

Remediation Summary Report Lehigh Industrial Park Site #9-15-145 May 1998

3.0 Description of Modifications to Original Approved Work Plan

The New York State Department of Environmental Conservation reviewed and approved the Investigation Work Plan for the Site ("Remedial Action Work Plan for the Voluntary Clean-up at the Buffalo Brake Beam Site in Lackawanna, New York dated June 30, 2003 and prepared by Snyder Engineering). The NYSDEC's approval (Refer to Appendix A) is contained in August 6, 2003 correspondence from Gregory P. Sutton, P.E. (NYSDEC) to Richard G. Adams (Rigel Enterprises, Inc.). Per the requirements of the approved Work Plan, a Health and Safety Plan was submitted to both the NYSDEC and NYSDOH prior to implementation of the approved Work Plan. No significant modifications were made to the approved Work Plan during its implementation.

4.0 Quenchant Pit Remediation

The quenchant pit was backfilled with flowable fill, a mixture of concrete and fly ash produced by United Materials, on 10/29/03. A copy of the spec sheet for this product is attached as Appendix B. This fill material was placed to a depth of approximately 10

inches below the existing concrete floor and leveled. On 11/03/03, concrete was poured over the clean fill and tied into the existing concrete floor of the building. Completion of this work satisfied the requirements of the Work Plan requirements concerning remediation of the quenchant pit.

5.0 Tetrachloroethene Sampling Plan Implementation and Evaluation of Results

Per the NYSDEC approved remedial action plan it was required to evaluate the Site's soils in various locations for the presence of Tetrachloroethene. These locations were to be those sites, which based upon Site conditions were expected to have the greatest potential for being contaminated with Tetrachloroethene. A series of test pits were to be excavated to check for Tetrachloroethene contamination. During the excavation of each test pit soil samples were to be field screened using olfactory and PID meter testing. Samples were obtained from locations, which based upon the field screening, represented the greatest potential to contain significant quantities of Tetrachloroethene. Based upon the laboratory results Site soils were to be removed as required to satisfy ARAR for concentration of Tetrachloroethene in soil (1.4 mg/kg). If soil removal was required to satisfy this ARAR concentration, confirmation sampling and analysis were to be performed to insure that this concentration limit was satisfied.

5.1 Plan Implementation

The Work Plan's Tetrachloroethene remediation requirements were satisfied. Six test pits were excavated and the soils field screened for the presence of VOCs using olfactory and PID meter testing at each two foot interval. No odors were observed in the field screening of the test pits and PID readings ranged from 0 to 4 ppm. Each test pit was excavated until either, the water table or refusal was reached. Samples for Tetrachloroethene analysis were obtained from the three locations with the highest PID readings. Both the locations of the test pits and the sampling locations were recorded on Drawing SEBBB03. In order to prevent cross contamination of samples, all sampling tools were decontaminated with Alconox and water between sample points. Each sample was given a label, which contained the sample identification number, date, time, sample location, sampler's name, project name, parameters, and comments relative to sample collection. Each sample was sealed using water resistant tape. Each sample was recorded on a chain of custody form, which was transferred with the sample shipping container. A field log book was maintained and contained the following information:

Identification of soil sample and associated location
Description of sampling methods
Physical appearance of samples
Date and time of sample collection
Weather conditions
Types of sample containers and sample identification numbers
Field measurements and field equipment calibration data

Miscellaneous field observations

The Health and Safety Plan (August 19, 2003) was followed during the implementation of this phase of the Remedial Action Work Plan.

5.2 Evaluation of Results

The samples were analyzed for Tetrachloroethene concentration by Upstate Laboratories, Inc. by EPA Method 8260 and the results were as follows:

Sample Number	Tetrachloroethene Concentration
BBB-91801	< 11 ug/kg dry weight
BBB-91802	< 13 ug/kg dry weight
BBB-91803	< 11 ug/kg dry weight

The Tetracloroethene concentrations in all three samples were significantly less than the required remediation level of 1.4 mg/kg.

5.3 Additional Actions Required

Since the laboratory results indicate Tetrachloroethene concentrations of significantly less than 1.4 mg/kg in all three samples, no additional soils need to be removed from the Site in order to satisfy the requirements of the Work Plan concerning remediation of Tetrachloroethene.

6.0 Delineation of Paint Residues at Site

A series of shallow test pits were excavated as part of the remediation action in order to better identify the areal extent of lead containing paint residue at the Site. Similar material was previously removed in July 1997 from the Site by the NYSDEC as part of the Lehigh Industrial Park remediation. After completion of this removal action a series of twelve shallow test pits were excavated by Chopra Lee on 11/10/97 to investigate the reddish paint residue remaining on site at shallow depths (0 to 2 feet). Results obtained from seven samples taken in locations suspected of lead contamination due to the soils reddish color indicated an average lead concentration of 926 mg/kg. One sample contained 2,670 mg/kg lead and exceeded the NYSDEC's cleanup objective of 1,000 mg/kg. This residue was found in some of the shallow test pits at varying depths of less than 2 feet. The location of this paint residue in the north yard of the manufacturing facility inside the fenced area is identified on Survey Drawing 4751-404 and the procedures to be followed if the area is disturbed are detailed in the Site's Soil Management Plan.

7.0 Electrical Transformers

The three electrical transformers located in the electrical room were sampled by Ferguson Electric on 10/28/03 to determine whether or not they contain Polychlorinated Biphenyls (PCBs) in significant quantities. Based upon the laboratory results (refer to Table 1 and Appendix C) the fluids contained in these transformers contain PCB concentrations of 3.5 to 3.8 ppm and are all less than 50 ppm. The USEPA TSCA regulations, 40CFR Part 761, Section 761.3 defines "Non-PCB Transformer" as "any transformer that contains less than 50 ppm PCB", and as such, these transformers are not subject to regulation under the TSCA regulations.

These three transformers are located in a small locked restricted access electrical room located in an enclosed courtyard (see Survey Drawing 4751-404). The room is hard walled on three sides and fenced on the north side to allow for ventilation. The area is covered by a roof. The door is located on the south side of the room and is a wood frame with wire mesh panels. The floor of this room consists of loose stone and crushed concrete. A visual inspection of the area revealed the following. The first transformer, the one closest the door, had a heavy accumulation of dust on the bushings on its east side and a dried stain from the one bushing down the side. This indicates historical seepage from the bushings. A visual assessment of the floor in this area was inconclusive due to the presence of black fines mixed with the stone in front of the door and surrounding the transformer. These fines presumably were deposited from dirt blowing through the door from the manufacturing activities. The second transformer showed no visual evidence of leakage. The third transformer exhibited a wet stain on the east side, from the bushings down. There was no visible sign of staining on the stone floor in this area.

Although there is evidence of leakage from the transformers, it appears to be minor. Considering the low level of PCB in the oil, <3.8 ppm, and that the area is under roof in a restricted access area this should not pose an environmental or human health concern at the present time. These transformers are part of the operable electrical supply to the plant. Access to stone and soil that may be impacted by leakage from these transformers is limited by the building structure and the transformers themselves. The area potentially contaminated with transformer oil residuals is identified on Survey Drawing 4751-404 and the procedures to be followed if the area is disturbed are detailed in the Site's Soil Management Plan.

Completion of this work satisfied the requirements of the Work Plan concerning remediation of the three electrical transformers.

8.0 Site Surface Monitoring Plan Implementation and Evaluation of Results

The NYSDEC approved remedial action plan required sampling of the Site's surface soils. Twelve samples were to be taken at a depth of 0-2 inches. Two samples were to be obtained from the berm along the site's northern perimeter. The additional ten samples were to be taken at locations representative of the site per a drawing (Drawing

SEBBB03 – Proposed Sample Locations), which was contained in the NYSDEC approved remedial action work plan. During the sampling process each sample was to be field screened using a PID meter in addition to olfactory and visual observations. Each sample was to be analyzed for Semi-volatiles (EPA Method 8270), and TAL metals (EPA Method 6010). In addition, three samples were to be analyzed for Volatiles (EPA Method 8260) and PCBs (EPA Method 8082). Based upon the laboratory results the Site's surface soils were to be evaluated with respect to potential exposure pathways. These include the following:

- 1) Direct human and wildlife ingestion of soil
- 2) Human and wildlife inhalation of soil particles or volatilized compounds
- 3) Human and wildlife dermal contact/adsorption
- 4) Human and wildlife ingestion of crops and other vegetation grown in contaminated soil
- 5) Human consumption of contaminated groundwater
- 6) Human, fish, and wildlife contact with and consumption of subsurface water contaminated by soil leaching or particle transport of contaminants
- 7) Bioaccumulation in aquatic and terrestrial food webs

8.1 Plan Implementation

The Work Plan's Site Surface Monitoring Plan requirements were satisfied. Twelve surface samples were taken at a depth of 0-2 inches (Refer to Drawing SEBBB03 for sampling locations) and field screened for the presence of VOC's using olfactory and PID meter testing. No odors were observed in any of the surface samples and PID readings were 0 to 1 ppm. All samples were analyzed by the methods specified in the Work Plan, for Semi-volatiles, and TAL Metals. In addition, three samples were analyzed for Volatiles and PCBs. Sampling procedures, identification, and handling procedures were as specified in the Work Plan and similar to those described in Section 4.1. The Health and Safety Plan (August 19, 2003) was followed during the implementation of this phase of the Remedial Action Work Plan.

8.2 Sample Results

8.2.1 TAL Metals

The results for TAL metals concentrations obtained from the twelve surface soil samples are summarized in Table 2. The concentration of ten of the TAL metals (Antimony, Arsenic, Calcium, Chromium, Copper, Magnesium, Manganese, Mercury, Nickel, and Thallium) exceeded the NYSDEC TAGM #4046 Recommended Soil Cleanup Objectives (RSCO) and background concentrations in one or more of the samples.

8.2.2 **SVOCs**

The results for concentrations of SVOCs obtained from the twelve surface soil samples are summarized in Table 4. The concentrations of SVOCs contained in these surface samples were relatively consistent with the exception of Sample No. BBB-SS11 which contained much greater concentrations of several SVOC compounds. The elevated concentrations of SVOCs resulted in a supplemental investigation (Refer to Section 8.4) and therefore data for Sample No. BBB-SS11 is not included in this evaluation of surface soil results. Exceedances to the NYSDEC TAGM #4046 Recommended Soil Cleanup Objective (RSCO) standards for these samples (Excluding Sample No. BBB-SS11) were noted for five SVOC compounds.

8.2.3 VOCs

The results for concentrations of VOCs obtained from the three surface samples analyzed for VOCs (BBB-SS04, BBB-SS08, and BBB-SS12) indicated the absence of any significant concentrations of VOCs in the Site's surface soils. All results indicated concentrations which were non detectable and therefore significantly less than NYSDEC TAGM #4046 RSCOs.

8.2.4 PCBs

Three of the twelve surface samples from the Site were analyzed for Polychlorinated Biphenyls (PCBs). Sample results were as follows:

PCB Concentration
1,400 ug/kg dry weight
430 ug/kg dry weight <340 ug/kg dry weight

8.3 Evaluation of Sample Results

The potential exposure routes for contaminants contained in the Site's surface soils are as follows:

<u>Inhalation</u>: Consideration must be given to the vapor pressure characteristics of the contaminants of concern when evaluating their potential impacts on area residents and site visitors and workers.

<u>Dermal contact</u>: Consideration must be given to the potential for dermal contact with the Site's surface soils by area residents and site visitors and workers. <u>Ingestion</u>: Consideration must be given to the potential for ingestion of the Site's soils by area residents and site visitors and workers.

Groundwater contamination: Consideration must be given to the solubility

characteristics of the contaminants of concern when evaluating their potential impacts on groundwater.

In order to properly evaluate the potential effects of past activities at the Site on the Site's soils one must establish the background levels of contaminants (primarily heavy metals and Polycyclic Aromatic Hydrocarbons), which would exist in the Site's soils if no manufacturing activities had previously occurred at the Site. The background levels may be attributable to geologic or ecological conditions, atmospheric deposition of industrial process or combustion engine emissions, fill material, or petroleum residues incidental to the normal operation of motor vehicles. Background contamination should be eliminated from contaminant concentrations utilized in making risk assessments concerning contaminant concentrations at the Site.

The location of the Site has made it extremely susceptible to aerial deposition of contaminants onto its surface soils. While operational, Bethlehem Steel's Lackawanna steel and coke making operations represented a significant source of air pollution. Of particular concern when analyzing the results from the Site's surface soil sampling program are contaminants which were generated by Bethlehem's coke ovens. Emissions from Bethlehem's coke ovens contained large quantities of several contaminants which were found in the Site's surface soils in significantly greater concentrations than in samples obtained from depths below the site's surface. These contaminants consisted of coal and coke particles, vapors, and tars, which contained polycyclic aromatic hydrocarbons (PAH), Cadmium, and Chromium. In addition, the Site contains large amounts of slag fill which was utilized in the construction of parking areas. Slag generated during the production of steel typically contains high concentrations of Calcium, Copper, Chromium, Arsenic, Zinc, Lead, and various other metals.

8.3.1 Metals

As previously noted exceedances to the NYSDEC TAGM #4046 Recommended Soil Cleanup Objectives (RSCO) and background concentrations were noted for ten TAL metals in the surface soil samples. Background concentrations used in this evaluation were obtained from background samples (2) collected from a nearby residential site as part of the Lackawanna Business Park Brownfields Project and Eastern USA Background concentrations listed in TAGM 4046. Surface soil sample results for these ten metals were compared with results from surface soil samples collected from the Lackawanna Business Park Brownfields Site located immediately south of the Site. The concentration ranges for all ten metals were very similar to those found on the adjacent Brownfields Site. An evaluation of these comparisons is provided in Table 3.

The potential for impacts to human receptors by the metals contained in the Site's surface soils will be minimal due to the following:

1) Potential for inhalation is minimal due to the low vapor pressures of the metals.

- 2) Potential for contamination of groundwater by the site's surface soils due to the low solubilities of the metals.
- 3) Potential for dermal contact and ingestion of soils will be minimized by institutional controls which will only allow the site to be utilized for commercial or industrial use.

Information relating to specific metals, which exceeded TAGM 4046 RSCOs and background concentrations, is as follows:

Antimony: The NYSDEC RSCO for Antimony is Site Background. Six samples exceeded the site background concentration of 1.5 ppm from the Lackawanna Business Park Brownfields Project. Three of these samples marginally exceeded the maximum Lackawanna Business Park Brownfields Site concentration (5.3, 5.8 and 5.9 ppm vs. 5.2 ppm).

Arsenic: The NYSDEC RSCO for Arsenic is 7.5 ppm. The RSCO concentration was exceeded in five of the surface samples. Only one sample exceeded background (16.3 ppm vs.12.3 ppm) and two samples exceeded the maximum Lackawanna Business Park Brownfields Site concentration (16.3 and 11.5 ppm vs. 11.1 ppm). The arsenic concentrations found in the Site's surface soils were comparable to those found in the Site's subsurface samples during previous investigations.

Calcium: The NYSDEC RSCO for Calcium is Site Background. Nine samples exceeded the site background concentration of 27,400 ppm from the Lackawanna Business Park Brownfields Project. None of these samples exceeded the maximum Lackawanna Business Park Brownfields Site concentration of 153,000 ppm.

Chromium: The NYSDEC RSCO for Chromium is 50 ppm. The RSCO concentration was exceeded in seven of the surface samples. Six results exceeded background (287, 88.1, 81.5, 113, 597 and 272 ppm vs. 57.6 ppm) and three results exceeded maximum Lackawanna brownfield site concentration (272, 287 and 597 ppm vs. 243 ppm). Chromium concentrations were relatively consistent in nine of the twelve samples and are indicative of background concentrations. The three samples which exhibited significantly higher chromium concentrations than the other nine were all obtained from slag fill or parking lot areas. No processes utilizing Chromium were noted in any of the Site's background investigations.

Copper: The NYSDEC RSCO for Copper is 25 ppm. The RSCO concentration was exceeded in seven of the surface samples. Three results exceeded background (62.9, 104 and 266 ppm vs. 41.7 ppm) and two results exceeded maximum Lackawanna Business Park Brownfields Site concentration (104 and 266 ppm vs. 70 ppm). The Copper concentrations were relatively consistent in the samples and are believed to be indicative of background concentrations.

Magnesium: The NYSDEC RSCO for Magnesium is Site Background. Seven samples exceeded the site background concentration of 5,770 ppm from the Lackawanna Business

Park Brownfields Project. None of these samples exceeded the maximum Lackawanna Business Park Brownfields Site concentration of 25,400 ppm.

Manganese: The NYSDEC RSCO for Manganese is Site Background. Seven samples exceeded the site background concentration of 1,650 ppm from the Lackawanna Business Park Brownfields Project. One of these samples exceeded the maximum Lackawanna Business Park Brownfields Site concentration (10,900 ppm vs. 8,700 ppm).

Mercury: The NYSDEC RSCO for Mercury is 0.1 ppm. The RSCO concentration was exceeded in three of the surface samples. Three results exceeded background (0.13, 0.14 and 0.12 ppm vs. 0.07 ppm) and one result exceeded the maximum Lackawanna Business Park Brownfields Site concentration (0.14 ppm vs. 0.13 ppm). However, the average Mercury concentration in these samples was only slightly higher (0.13 ppm) than the RSCO. In addition, the background Mercury concentration for Eastern USA soils is 0.001 – 0.2 ppm.

Nickel: The NYSDEC RSCO for Nickel is 13 ppm. The RSCO concentration was exceeded in nine of the surface samples. Six results exceeded the background concentration of 17.9 ppm. No results exceeded the maximum Lackawanna Business Park Brownfields Site concentration (33.5 ppm). Nickel concentrations were relatively consistent in the surface soil samples and are indicative of background concentrations.

Thallium: The NYSDEC RSCO for Thallium is Site Background. One sample exceeded the site background concentration of non-detect from the Lackawanna Business Park Brownfields Project. None of these samples exceeded the maximum Lackawanna Business Park Brownfields Site concentration of 9.9 ppm.

8.3.2 **SVOCs**

As previously noted exceedances to the NYSDEC TAGM #4046 Recommended Soil Cleanup (RSCO) standards were noted for five SVOC compounds in the surface soil samples (Excluding Sample No. BBB-SS11). Surface soil sample results for these five SVOCs were compared with background samples (2) collected from a nearby residential site as part of the Lackawanna Business Park evaluation and results from surface soil samples collected from the Lackawanna Business Park Brownfields Site. An evaluation of these comparisons is provided by Table 5.

Polycyclic Aromatic Hydrocarbons (PAHs) are SVOCs which are commonly found in the environment. They are formed when incomplete combustion of organic material (wood, coal, oil, gasoline) occurs. They are also found in crude oil, coal tar, creosote and asphalt. Due to the manner in which PAHs can be formed and dispersed by aerial deposition it is very common to find significant background concentrations of these contaminants in soils at sites which contain no obvious sources of PAH contamination.

The potential for aerial deposition of such compounds at the Site is accentuated by the industrial and urban nature of the Site's surroundings.

As would be expected in such an urban/industrial area PAH compounds were found in the Site's surface soils. While some of the Site's surface soil samples contained concentration levels of individual PAHs greater than the recommended soil cleanup objectives contained in NYSDEC TAGM #4046, the cleanup objectives contained in this TAGM do not account for the background concentrations of PAHs at the site. Due to the relatively wide distribution of PAH compounds in low concentrations in the site's surface soils and the relative absence of such compounds in subsurface samples at the Site, the majority of the PAHs found in the Site's surface samples are believed to have resulted from aerial deposition of material from off site sources. With the exception of Surface Soil Sample No. BBB-SS11, the PAH levels detected were consistent with concentrations found in two background samples collected from a nearby residential area. These background samples were taken during an investigation of the Lackawanna Business Park Site, which is located adjacent to the Buffalo Brake Beam Site.

Potential exposure routes for human receptors for the PAHs found in the surface soils at this Site include ingestion, inhalation, and skin contact. High concentrations of PAH compounds can be of concern to human receptors. However, the carcinogenic PAHs at the Site were found in relatively low concentrations in the shallow samples. The potential for groundwater contamination by these contaminants is minimal since they typically do not dissolve easily in water. The potential for receptor contact by ingestion or dermal contact is mitigated by the institutional controls, which will be imposed at the Site. They are present in air as vapors or stuck to the surfaces of small solid particles. These PAHs can contaminate soils at locations distant from their generation sources when they return to earth either in rainfall or particle settling.

Information relating to specific SVOC compounds which exceeded TAGM RSCOs is as follows:

Benzo(a)anthracene: The NYSDEC RSCO for Benzo(a)anthracene is 224 ppb. The RSCO concentration was exceeded in eight of the surface samples. Two samples exceeded background (2,200 and 2,700 ppb vs. 1,200 ppb) and none exceeded the maximum Lackawanna Business Park Brownfields Site concentration of 4,000 ppb.

Chrysene: The NYSDEC RSCO for Chrysene is 400 ppb. The RSCO concentration was exceeded in seven of the surface samples. Two samples exceeded background (1,800 and 2,400 ppb vs. 1,400 ppb) and none exceeded the maximum Lackawanna Business Park Brownfields Site concentration of 5,100 ppb.

Benzo(b)fluoranthene: The NYSDEC RSCO for Benzo(b)fluoranthene is 1,100 ppb. The RSCO concentration was exceeded in two of the surface samples. Two samples exceeded background (2,800 and 3,300 ppb vs. 1,500 ppb) and none exceeded the maximum Lackawanna Business Park Brownfields Site concentration of 3,800 ppb.

Benzo(a)pyrene: The NYSDEC RSCO for Benzo(a)pyrene is 61 ppb. The RSCO concentration was exceeded in ten of the surface samples. Two samples exceeded background (1,900 and 2,300 ppb vs. 1,300 ppb) and none exceeded the maximum Lackawanna Business Park Brownfields Site concentration of 3,800 ppb.

Dibenzo (a,h)anthracene: The NYSDEC RSCO for Dibenzo(a,h)anthracene is 14 ppb. The RSCO concentration was exceeded in seven of the surface samples. One sample exceeded background (200 vs. 180 ppb) and none exceeded the maximum Lackawanna Business Park Brownfields Site concentration of 660 ppb.

8.3.3 VOCs

No surface soil samples contained concentrations of VOCs which exceeded TAGM #4046 Cleanup Standards. Therefore, there is no potential for human exposure to VOCs from the Site's surface soils.

8.3.4 PCBs

The results for PCB concentrations from three surface samples are in Section 8.2.4. The NYSDEC TAGM #4046 RSCO for PCBs in surface soil samples is 1.0 ppm. The RSCO was exceeded in one of the samples (1.4 ppm). However, the potential for impacts to human receptors by the relatively low concentration of PCBs contained in the Site's surface soil will be minimal due to the following:

- 1) Potential for inhalation is minimal due to the low vapor pressure of PCBs,
- 2) Potential for contamination of groundwater by the Site's surface soils due to the low solubilities of PCBs.
- Potential for dermal contact and ingestion of soils will be minimized by institutional controls which will only allow the site to be utilized for commercial or industrial uses.

8.4 Supplemental Soil Sampling and Analysis

The concentrations of SVOCs contained in Surface Soil Sample #BBB-SS11 (Refer to Table 4) were much greater than the concentrations of SVOCs found in the other eleven surface samples taken at the Site. In order to better define the extent of this potential area of concern, additional soil sampling was performed in the vicinity of where Surface Soil Sample #BBB-SS11 was taken.

8.4.1 Plan Implementation

The following sampling plan was reviewed with Greg Sutton of NYSDEC prior to its implementation. It was implemented by Sterling Environmental as follows:

- 1. Obtained one sample at a depth of approximately 12 inches in the approximate location of Surface Sample No. BBB-SS11. This sample was analyzed for SVOCs and the results utilized to evaluate whether or not the SVOCs are only deposited at the surface or are also found at greater depths.
- 2. Obtained two samples at a depth of 0 − 2 inches from the berm at the site's property line adjacent to the location of Surface Sample No. BBB-SS11. One sample was taken approximately fifteen feet to the South and one sample approximately seventeen feet to the West of the location where Surface Sample No. BBB-SS11 was taken. Both samples were analyzed for SVOCs.
- 3. Obtained three samples at a depth of 0 − 2 inches from the lawn area. Samples were located approximately 20 feet to the North, 20 feet to the North East, and 20 feet to the East of the location of Surface Sample No.BBB-SSS11. All three samples were analyzed for SVOCs.

All sampling and analyses were performed per the NYSDEC approved remedial action plan. During all phases of this work, the previously approved Site Health and Safety Plan was followed.

8.4.2 Sample Results

The results for SVOC concentrations obtained from the additional soil samples obtained near the location of Sample Point No. BBB-SS11 are summarized in Table 6. Exceedances to the NYSDEC TAGM #4046 Recommended Soil Cleanup Objective (RSCO) standards for these samples were noted for five compounds.

8.4.3 Evaluation of Sample Results

As previously noted exceedances to the NYSDEC TAGM #4046 Recommended Soil Cleanup (RSCO) standards were noted for five SVOC compounds in the additional soil samples obtained near the location of Sample Point No. BBB-SS11. Soil sample results for these five SVOCs were compared with background samples (2) collected from a nearby residential site as part of the Lackawanna Business Park brownfields site (Note: Data was provided by NYSDEC). An evaluation of these results is provided in Table 7.

SVOC compounds which had surface soil sample results exceeding RSCOs found in TAGM #4046 were as follows:

Beno(a)anthracene: The NYSDEC RSCO for Benzo(a)anthracene is 224 ppb. The RSCO concentration was exceeded in six of the samples. Five samples exceeded background (1,400, 2,800, 5,300, 6,500 and 6,700 ppb vs. 1,200 ppb) and three exceeded the maximum Lackawanna Business Park Brownfield Site concentration (5,300, 6,500 and 6,700 ppb vs. 4,000 ppb).

Chrysene: The NYSDEC RSCO for Chrysene is 400 ppb. The RSCO concentration was exceeded in three of the samples. Three samples exceeded background (2,400, 3,100 and 4,700 ppb vs. 1,400 ppb) and none exceeded the maximum Lackawanna Business Park Brownfields Site concentration of 5,100 ppb.

Benzo(b)fluoranthene: The NYSDEC RSCO for Benzo(b)fluoranthene is 1,100 ppb. The RSCO concentration was exceeded in five of the samples. Five samples exceeded background (1,700, 4,900, 5,600, 7,000 and 7,300 ppb vs. 1,500 ppb) and three exceeded the maximum Lackawanna Business Park Brownfields Site concentration (5,600, 7,000 and 7,300 ppb vs. 5,300 ppb).

Benzo(k)fluoranthene: The NYSDEC RSCO for Benzo(k)fluoranthene is 1,100 ppb. The RSCO concentration was exceeded in four of the samples. Two samples exceeded background (1,600 and 1,800 ppb vs. 1,500 ppb) and none exceeded the maximum Lackawanna Business Park Brownfields Site concentration of 5,300 ppb.

Benzo(a)pyrene: The NYSDEC RSCO for Benzo(a)pyrene is 61 ppb. The RSCO concentration was exceeded in six of the samples. Three samples exceeded background (2,800, 4,100 and 5,100 ppb vs. 1,300 ppb) and two exceeded the maximum Lackawanna Business Park Brownfields Site concentration (4,100 and 5,100 ppb vs. 3,800 ppb).

Consideration must be given to the types of human exposures that might present additional health risks to people at or around the Site. Information concerning such health risks can be found in Section 8.0 of the Remedial Action Work Plan for Voluntary Cleanup at Buffalo Brake Beam Site in Lackawanna, New York. Considering the close proximity of the six additional sample points to the location of Sample Point No. BBB-SS11 and the fact that all SVOC results from these six samples were significantly lower the SVOC results from Sample No. BBB-SS11, one can conclude that the results from Sample Point No. BBB-SS11 are an anomaly. The elevated SVOC results for Sample Point No. BBB-SS11 are likely the result of extraneous matter present in the sample and not indicative of Site soil concentrations. Since the area of concern contains vegetative cover the potential is minimal for human contact with any SVOCs which are present. The site conditions as they now exists do not present any significant exposure potential to humans from these SVOCs.

9.0 DUSR

A Data Usability Summary Report (DUSR) providing a thorough review of the analytical data is attached as Appendix D. This report concludes that the analytical data meets the project specific criteria for data quality and use.

10.0 Remediation Standards

10.1 Standards Applied to Site Remediations

Various remediation standards were utilized to evaluate the effectiveness of the remedial actions undertaken at the Site. These remedial actions and associated standards included the following:

- Remediation of PCB contaminated soils in 1997: Performed under direction of NYSDEC Division of Hazardous Waste Site Remediation as part of Lehigh Industrial Park remediation. Remediation standard of 10 ppm for a one foot depth or greater (NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives) was applied..
- 2) Remediation of lead contaminated soils in 1997: Performed under direction of NYSDEC as part of Lehigh Industrial Park Remediation. No available information pertaining to remediation standards employed by NYSDEC.
- 3) Gasoline spill remediation 1997: Performed under direction of Sterling Environmental. Utilized the NYSDEC's STARS guidance values for the list of constituents of concern for gasoline as the remediation standard.
- 4) Gasoline spill remediation 2001: Performed under direction of Sterling Environmental. Utilized the NYSDEC's TAGM 4046 Recommended Soil Cleanup Objectives for the STARS list of constituents of concern for gasoline as the remediation standard.
- 5) Fuel oil spill remediation 2001: Performed under direction of Sterling Environmental. Utilized the NYSDEC's TAGM 4046 Recommended Soil Cleanup Objectives for the STARS list of constituents of concern for fuel oil as the remediation standard.

10.2 Standards Applied to Additional Actions Required by Remedial Action Work Plan

Several "remedial actions", consisting of investigation of potential areas of concern, were completed at the Site per the Remedial Action Work Plan for Voluntary Cleanup at Buffalo Brake Beam Site in Lackawanna, New York as approved by the NYSDEC. Various remediation standards were utilized to assess whether or not an action as required in the work plan was complete or if additional remediation was required. These included the following:

- 1) Tetrachloroethene contaminated soils: Remediation standard of 1.4 mg/kg (TAGM 4046 Recommended Soil Cleanup Objective) was applied.
- 2) PCB concentrations in three electrical transformers: Remediation standard of less than 50 ppm (USEPA TSCA regulations, 40 CFR Part 761) was applied.
- 3) Surface soil monitoring plan: Site surface soil samples were analyzed for TAL metals, SVOCs, VOCs, and PCBs. The remediation standards for TAL metals concentrations were based upon NYSDEC's TAGM 4046 Recommended Soil Cleanup Objectives and background concentrations (Site, Lackawanna Brownfield

Site and Eastern USA). The remediation standards for SVOC concentrations were based upon TAGM 4046 Recommended Soil Cleanup Objectives and background concentrations (Site and Lackawanna Brownfield Site). The remediation standards for VOC and PCB concentrations were based upon TAGM 4046 Recommended Soil Cleanup Objectives.

11.0 Recommendations and Conclusions

The Site has been characterized during several previous investigations. These investigations were performed for a variety of purposes. They included both investigations relating to the entire site and investigations which deal only with specific issues and actions relating to various portions of the Site. These investigations have identified two onsite areas which contain residual contaminated soils and three areas which may contain residual contaminated soils. These five areas are located on Survey Drawing 4751-404 and are as follows:

Area 1: Contaminated with lead paint residuals

Area 2: Contaminated with gasoline spill residuals

Area 3: Potentially contaminated with gasoline spill residuals

Area 4: Potentially contaminated with fuel oil residuals

Area 5: Potentially contaminated with transformer oil residuals

Due to the locations and relatively low levels of contamination in the soils at these five locations, no further remedial actions are required at this time for the protection of human health and the environment, given the Contemplated Use of the property. Engineering and institutional controls have been imposed on the Site and are contained in the Declaration of Covenants and Restrictions, attached as Appendix E, and the Soil Management Plan. Adherence to these controls at the Site by both the existing and any future owners of the Site will insure that the existing residual contaminated soils will not pose any significant future risk to human health or the environment.

12.0 Site Engineering and Institutional Controls

Institutional controls will be imposed on the Site as a condition of satisfying a requirement of the Voluntary Cleanup Program. These controls will include both deed restrictions and a legal covenant with the NYSDEC. They will restrict future use of the Site to restricted commercial or industrial activities.

A Site soil management plan will be incorporated into the institutional controls. Key elements of this plan will include a delineation of those portions of the site which contain known residual contamination (petroleum type contaminants under building foundation and paint residues). This plan specifically addresses these areas in addition to providing specific guidelines and procedures as to how soils located on other portions of the Site are to be handled when site activities are undertaken which could disturb the Site's soils.

13.0 Release Request

We respectfully request that, upon approval of this Final Report and the subsequent filing of the Declaration of Covenants and Restrictions, the Department issue the Release.

Tables

TABLE 1 Summary of PCB Analyses for Transformer Oil

Transformer Serial #	Aroclor	PCB (ppm)
14246	1260	3.6
14247	1260	3.8
14248	1260	3.5

Metals Analyses for Surface Soil Samples TABLE 2

Metal	Remedial	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample
	Goal	#	#	#	#	# -	#	#	#	#	# .	#	#
	(ppm)	BBB-	BBB-	BBB-	BBB-	BBB-	BBB-	BBB-	BBB-	BBB-	BBB-	BBB-	BBB-
		SS01	SS02	SS03	SS04	SS05	SS06	SS07	SS08	SS09	SS10	SS11	SS12
		(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Aluminum	33,000**	6,290	7,310	6,990	8,400	4,860	6,350	7,740	6,520	7,510	4,490	8,770	5,300
Antimony	1.5***				5.3		3.5	3.5		5.8	5.9		4.3
Arsenic	12.3***	4.6	5.6			16.3	2.4	7.7	11.5	9.5		8.3	2.2
Barium	300*	62.0	68.8	74.4	118	60	71.7	44.4	42.8	80.8	29.9	117	46.6
Beryllium	1.75**				1.0		0.84			1.2			
Cadmium	10*					3.2	1.6	1.2	2.5	4.7	1.7	3.1	
Calcium	27,400***	103,000	46,700	100,000	100,000	10,100	42,300	41,400	13,700	39,700	112,000	14,000	143,000
Chromium	57.6***	51.0	15.7	20.8	287	43.5	88.1	81.5	17.1	113	597	37.5	272
Cobalt	30*		5.5		6.1	6.1	4.5	5.6		5.5	5.6	20.1	
Copper	41.7***	25.7	104	19.7	23.0	266	22.6	27.0	25.0	62.9	35.9	32.3	15.2
Iron	550,000**	15,400	18,900	14,500	44,500	40,400	19,800	31,700	21,800	47,200	69,500	28,900	27,600
Lead	500**	30.4	40.4	53.5	146	134	273	157	49.0	306	150	116	42.8
Magnesium	5770***	12,500	6,230	18,900	9,260	2,260	4,820	4,960	2,020	5,930	7,760	3,110	14,100
Manganese	1650***	1,410	543	419	6,780	520	1,660	1,760	289	2,370	10,900	3,020	5,060
Mercury	0.1*			0.13		0.14			0.12				
Nickel	17.9***	18.5	20.1	11.8	13.5	32.5	8.8	15.2	13.2	22.0	26.0	21.9	12.1
Potassium	43,000**	1,270	941	1,470	1,470	449	630	764	577	749	404	823	792
Selenium	4.1***												
Silver	0.86***												
Sodium	8000**						256			264			
Thallium	ND***								3.3				
Vanadium	150*	21.4	15.7	16.0	119	16.9	11.5	34.8	14.2	33.1	147	21.6	65.3
Zinc	441***	108	93.5	142	235	223	352	164	101	434	132	228	303

Notes: 1)

²⁾

Blank spaces represent non-detected values

* - TAGM 4046 Recommended Soil Cleanup Objective

** - Eastern USA Background (TAGM 4046)

*** - Site Background (from Lackawanna Business Park Brownfields Project Report)

TABLE 3 Evaluation of Metals Analyses for Surface Soil Samples

CONTAMINANT	CONCENTRATION	RSCOs	NO. of SAMPLES	BACKGROUND	NO. of BBB	CONC. RANGE of	NO. of BBB SAMPLES
of CONCERN	RANGE (ppm)	(ppm)	EXCEEDING	VALUE (ppm)	SAMPLES	LACKAWANNA	EXCEEDING MAX. CONC. from
		TAGM	RSCOs		EXCEEDING	BROWNFIELDS	LACKAWANNA
		4046	(of 12 samples)		BACKGROUND	SAMPLES (ppm)	BROWNFIELDS SAMPLES
Antimony	ND to 5.9	SB	6	1.5	6	0.99 to 5.2	3
Arsenic	ND to 16.3	7.5	5	12.3	1	5.9 to 11.1	2
Calcium	10,100 to 143,000	SB	9	27,400	9	42,800 to 153,000	0
Chromium	15.7 to 597	50	7	57.6	6	25.3 to 243	3
Copper	15.2 to 266	25	7	41.7	3	30.9 to 70	2
Magnesium	2,020 to 18,900	SB	7	5,770	7	8,080 to 25,400	0
Manganese	289 to 10,900	SB	7	1,650	7	1,670 to 8,700	1
Mercury	ND to 0.14	0.1	3	0.07	3	ND to 0.13	1
Nickel	8.8 to 32.5	13	9	17.9	6	12.4 to 33.5	0
Thallium	ND to 3.3	SB	1	ND	1	ND to 9.9	0

Notes: 1) ND – Not detected

- 2) Data includes 12 BBB Samples and 7 Lackawanna Business Park Brownfields Samples
- 3) Background Value Data obtained from Lackawanna Business Park Brownfields Project Report
- 4) SB Site Background

TABLE 4 **SVOC Analyses for Detected Compounds in Surface Soil Samples**

SVOC	Remedial	Sample	Sample										
	Goals	BBB-	BBB-										
	(ppb)	SS01	SS02	SS03	SS04	SS05	SS06	SS07	SS08	SS09	SS10	SS11	SS12
		(ppb)	(ppb)										
Naphthalene	13,000*			150		830	75	59	46	55		8,000	
2Methylnaphthalene	36,400*	50		83		1,100	62	77	71	74		3,200	43
Acenaphthene	50,000*		84	270	44							12,000	
Dibenzofuran	6,200*			150		370						10,000	
Fluorene	50,000*		75	280								15,000	
Phenanthrene	50,000*	77	590	1,800	430	3,300	230	240	120	550	500	100,000	87
Anthracene	50,000*		180	670	110	710	64	49		62	62	25,000	
Carbazole	430**			290	51	390				71	65	13,000	
Di-n-butylphthalate	8,100*	54	44		68		79	97	110	64	75		41
Fluoranthene	50,000*	93	900	2,900	860	4,300	550	410	150	1,000	950	93,000	150
Pyrene	50,000*	95	1,100	4,700	1,100	4,800	630	480	180	920	990	89,000	170
Butylbenzylphthalate	50,000*				100	400	240	74		150			
Benzo(a)anthracene	1,200**	54	530	2,200	610	2,700	390	250	100	400	470	43,000	110
Chrysene	1,400**	96	500	1,800	580	2,400	420	280	110	510	540	38,000	140
Bis-(2-Ethylhexyl)	50,000*			85	280	730	200	190	120	140	81		
phthalate													ľ
Benzo(b) fluoranthene	1,500**	110	610	2,800	950	3,300	570	370	150	720	850	46,000	210
Benzo(k) fluoranthene	1,500**	44	170	680	210	1,100	240	130	50	250	280	21,000	79
Benzo(a)pyrene	1,300**	60	410	1,900	640	2,300	420	250	96	460	530	37,000	120
Indeno(1,2,3-cd)pyrene	3,200*	41	190	710	310	1,200	230	120	50	240	320	12,000	78
Dibenzo(a,h)anthracene	180**		65	200	88		74	41		65	87	3,000	
Benzo(ghi)perylene	50,000*	53	210	710	360	1,400	260	150	58	270	390	12,000	92

Notes: 1)

2)

Blank spaces represent non-detected values

* - TAGM 4046 Recommended Soil Cleanup Objective

** - Site Background (from Lackawanna Business Park Brownfields Project Report)

TABLE 5 Evaluation of SVOC Analyses for Surface Soil Samples (Excluding Sample #BBB-SS11)

CONTAMINANT	CONCENTRATION	RSCOs (ppb)	NO. of SAMPLES	BACKGROUND	NO. of BBB	CONC. RANGE of	NO. of BBB
of CONCERN	RANGE (ppb)	TAGM 4046	EXCEEDING	VALUE (ppb)	SAMPLES	LACKAWANNA	SAMPLES
			RSCOs		EXCEEDING	BROWNFIELDS	EXCEEDING MAX.
					BACKGROUND	SAMPLES (ppb)	CONC. from
		ĺ	(of 11 Samples)		(of 11 Samples)		LACKAWANNA
1							BROWNFIELDS
							SAMPLES
Benzo(a)anthracene	54 to 2,700	224	8	1,200	2	380 to 4,000	0
Chrysene	96 to 2,400	400	7	1,400	2	440 to 5,100	0
Benzo(b)fluoranthene	110 to 3,300	1,100	2	1,500	2	560 to 5,300	0
Benzo(a)pyrene	60 to 2,300	61	10	1,300	2	410 to 3,800	0
Dibenzo(a,h)anthracene	ND to 200	14	7	180	1	51 to 660	0

Notes: 1) ND – Not detected

2) Background Value - Data obtained from Lackawanna Business Park Brownfields Project Report

TABLE 6 SVOC Analyses for Detected Compounds in Supplemental Soil Samples Around Sample #BBB-SS11

SVOC	RSCOs	Sample	Sample	Sample	Sample	Sample	Sample
	(ppb)	BBB-SS1101	BBB-SS1102	BBB-SS1103	BBB-SS1104	BBB-SS1105	BBB-SS1106
	TAGM	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb) (12" depth)
	4046						
Naphthalene	13,000	830	370	110		340	340
2-Methylnaphthalene	36,400	530	180	68		180	190
Acenaphthylene	41,000	51	51				41
Acenaphthene	50,000	1,800	690	320		890	920
Dibenzofuran	6,200	1,600	540	210		630	670
Fluorene	50,000	2,000	830	360	48	1,000	1,000
Phenanthrene	50,000	19,000	9,400	2,500	420	16,000	12,000
Anthracene	50,000	5,200	1,600	730	99	1,900	2,000
Carbazole	NA	1,900	750	340	_	920	980
Fluoranthene	50,000	15,000	8,600	2,700	490	14,000	11,000
Pyrene	50,000	14,000	8,300	2,400	460	13,000	11,000
Butylbenzylphthalate	50,000		190				
Benzo(a)anthracene	224	6,700	2,800	1,400	230	6,500	5,300
Chrysene	400		2,400	200	220	3,100	4,700
bis (2-Ethylhexyl)	50,000		800	400	420	520	540
phthalate							
Benzo(b)	1,100	7,000	4,900	1,700	330	7,300	5,600
fluoranthene	<u> </u>						
Benzo(k)	1,100	1,800	1,200	660	120	1,600	1,400
fluoranthene							
Benzo(a)pyrene	61	5,100	720	1,200	210	2,800	4,100
Indeno(1,2,3-	3,200	1,200	720	380	80		
cd)pyrene							
Benzo(ghi)perylene	50,000	1,100		380	79	840	900

Notes: 1) NA – Not applicable (no limit or guidance value applies)

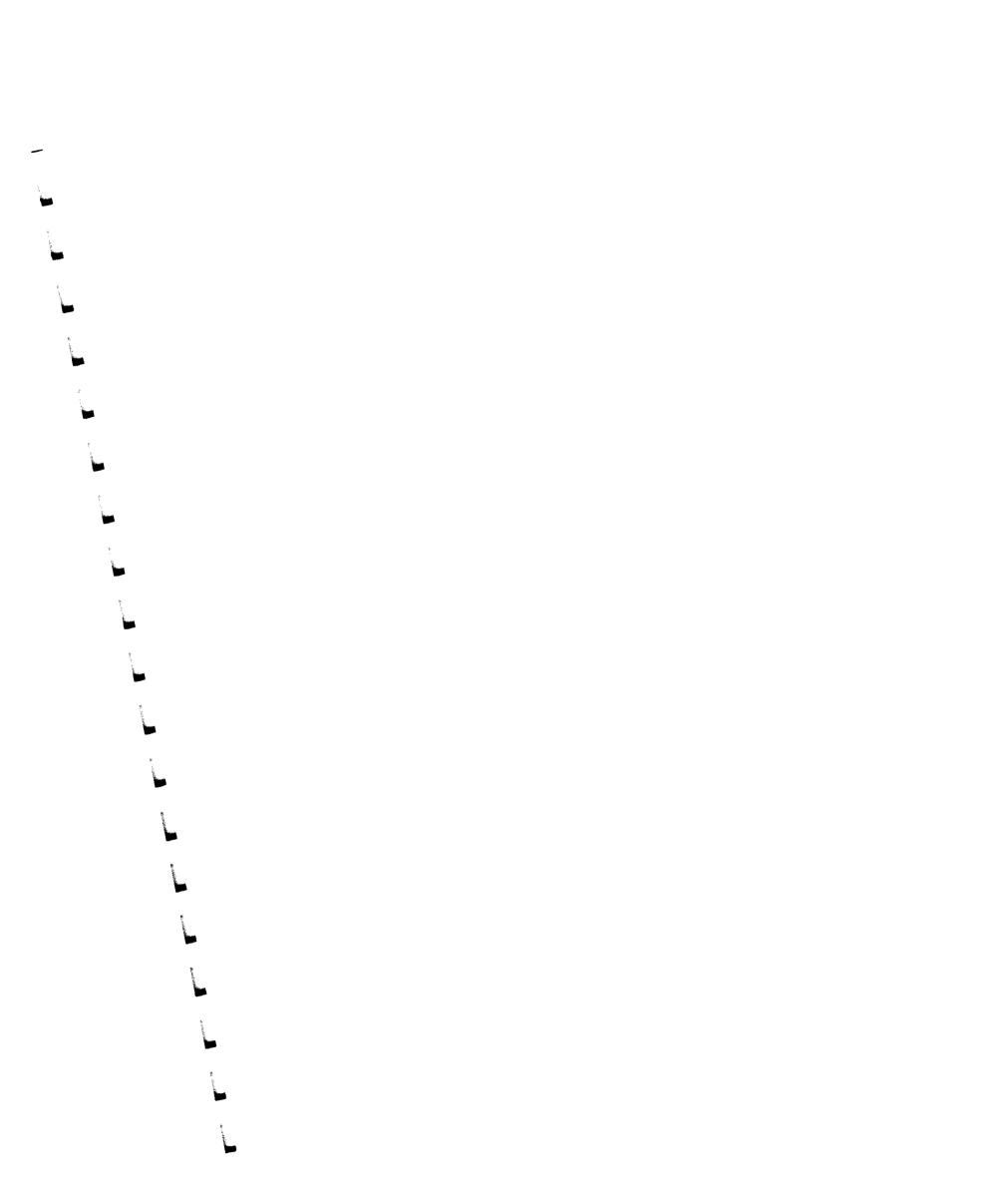
- 2) Blank spaces Not detected
- 3) Background Value Data obtained from Lackawanna Business Park Brownfields Project Report

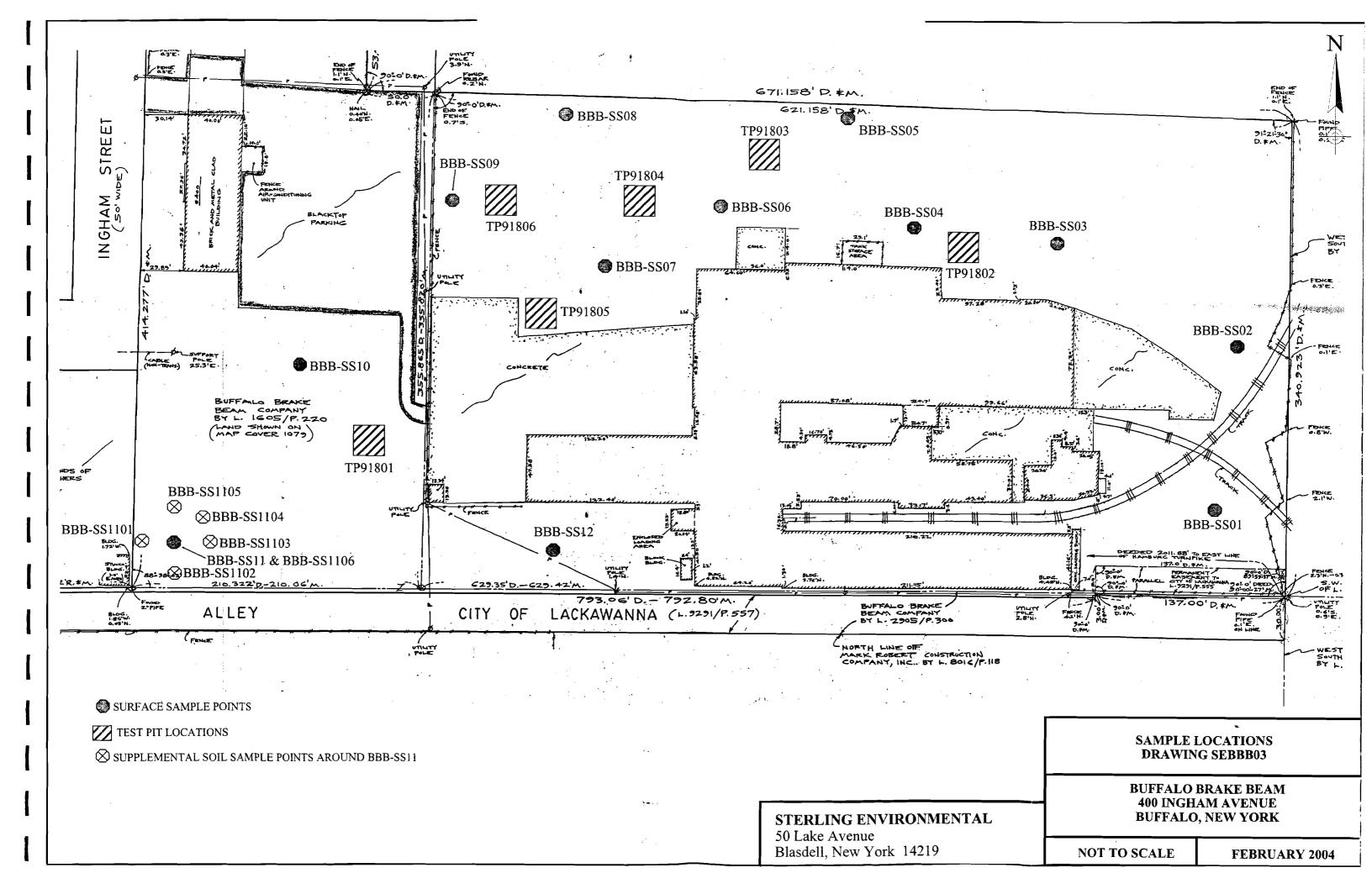
TABLE 7 Evaluation of SVOC Analyses for Supplemental Soil Samples Around Sample #BBB-SS11

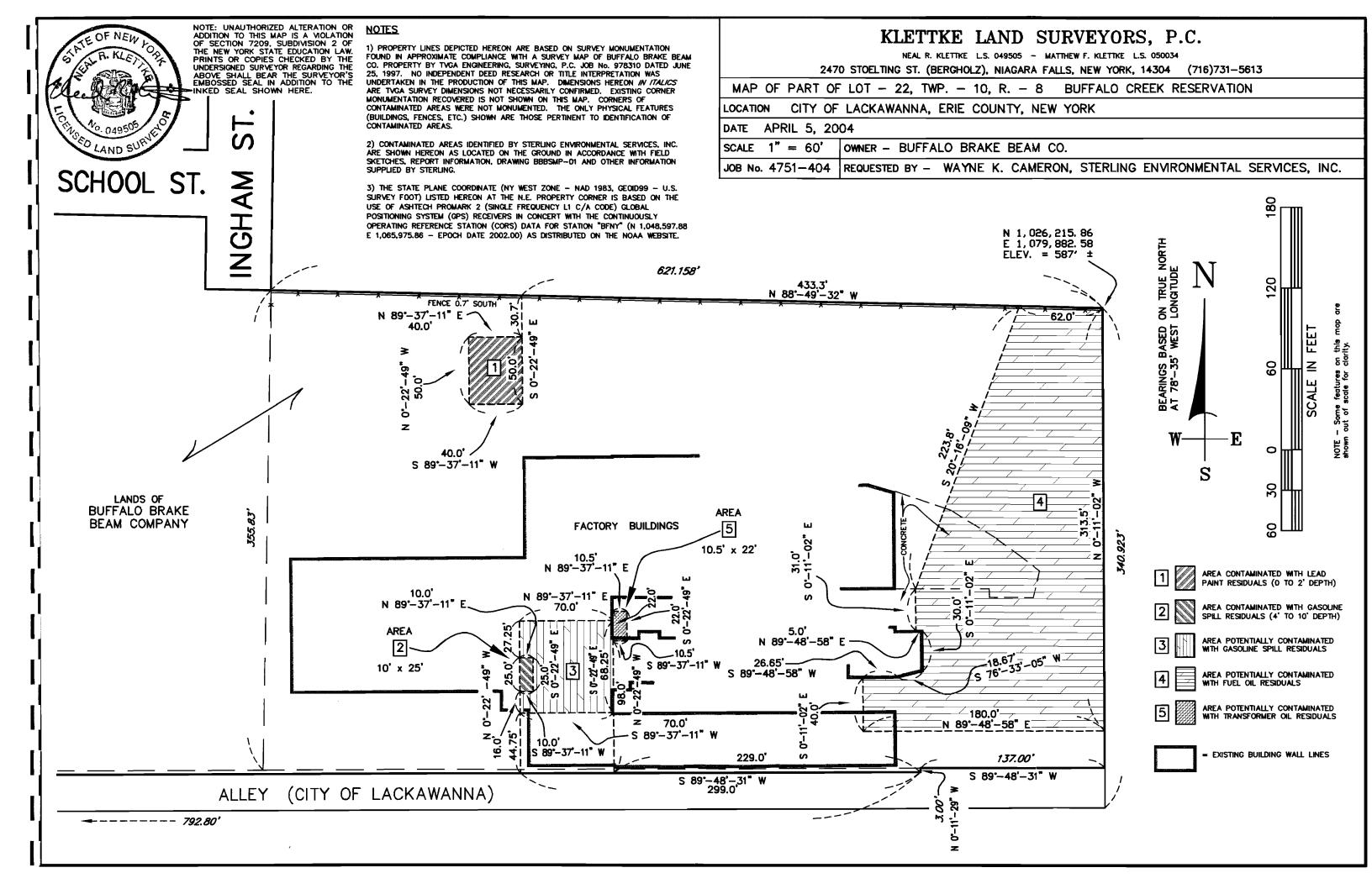
CONTAMINANT of CONCERN	CONCENTRATION RANGE (ppb)	RSCOs (ppb) TAGM 4046	NO. of SAMPLES EXCEEDING RSCOs (of 6 samples)	BACKGROUND VALUE (ppb)	NO. of BBB SAMPLES EXCEEDING BACKGROUND	CONC. RANGE of LACKAWANNA BROWNFIELDS SAMPLES (ppb)	NO. of BBB SAMPLES EXCEEDING MAX. CONC. from LACKAWANNA BROWNFIELDS SAMPLES
Benzo(a)anthracene	230 to 6,700	224	6	1,200	5	380 to 4,000	3
Chrysene	ND to 4,700	400	3	1,400	2	440 to 5,100	0
Benzo(b)fluoranthene	330 to 7,300	1,100	5	1,500	5	560 to 5,300	3
Benzo(k)fluroanthene	120 to 1,800	1,100	4	1,500	2	580 to 5,300	0
Benzo(a)pyrene	210 to 5,100	61	6	1,300	3	410 to 3,800	2

Notes: 1) ND – Not detected

2) Background Value - Data obtained from Lackawanna Business Park Brownfields Project Report







Appendix A

Correspondence

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



August 6, 2003

Mr. Richard G. Adams
Rigel Enterprises, Inc.
990 River Road
Youngstown, New York 14174

Dear Mr. Adams:

Voluntary Cleanup Project Investigation Work Plan Buffalo Brake Beam Site Project No. V00625-9 Lackawanna (C), Erie County

The Department has completed its review of the Investigation Work Plan for the subject site. Based upon the information and representations given in the Work Plan and previous reports referenced in the Work Plan, the Work Plan is hereby approved. The Work Plan consists of the report entitled, "Remedial Action Work Plan for the Voluntary Clean-up at the Buffalo Brake Beam Site in Lackawanna, New York" dated June 30, 2003, and prepared by Snyder Engineering.

It should also be noted that the Work Plan requires submittal of a Health & Safety Plan, specific to the project. This report should be submitted to the Department and the New York State Department of Health (NYSDOH) at a minimum of two weeks prior to commencement of field work.

Please contact me at your earliest convenience to discuss scheduling of the various tasks. If you have any questions, please contact me at the above number.

_Sincerely,

Gregory P. Sutton, P.E.

Project Engineer

Division of Environmental Remediation

cc: Richard J. Day, Esq.

Mr. Wayne Cameron - Sterling Environmental Services, Inc.

Mr. Richard Snyder - Snyder Engineering

ec: Mr. Glen Bailey, Project Attorney, Division of Environmental Enforcement

Mr. Mike Lesser, Central Office Attorney

Mr. Chris Costopoulous, Central Office VCP Coordinator, B/VCS, BPM

Mr. Mark Van Valkenburg, NYSDOH Project Manager, Albany

Mr. Cameron O'Connor - NYSDOH, Buffalo

Appendix B

United Materials Flowable Fill Spec Sheet



Corporate Offices: 561 Pavement Road Lancaster, New York 14086 (716) 683-1432 ^ Fax (716) 683-0270

April 8th, 2004

Keilerman Services Inc. 4908 Parker Rd. Hamburg, N.Y. 14075

Re: Buffalo Brake Beam

We are submitting the following mix design for your approval to be used on the above project. All concrete will be batched at one of our N.Y.S.D.O.T. certified plants in Lancaster, Sanborn or Orchard Park. Printed tickets will be furnished with each load of concrete. Concrete will be delivered by mixer truck in strict accordance with ASTM C-94.

MIX DESIGN: Flowable Fill (40 to 100 Psi)

MIX NUMBER: Fill100 (use this when ordering concrete)

THE REAL PROPERTY OF THE PROPE	MANAZORA NEVENENIA NE
Cement, Type I/II, ASTM C 150	100 lbs.
Fly Ash	2273 lbs.
Potable Water	417 lbs.
Water/Cement Ratio	4.17
Slump	8" - 10"

I look forward to serving you on this project and I am confident you will be pleased with our service and the quality of our product. If I can do anything further for you, please feel free to call me.

Sincerely,

Eric L. Albrecht Technical Services





NIAGARA MOHAWE POWER: CORPORATION ASE UTILIZATION GROUP EZ-FILL MIX DESIGN SUBMITTAL PHONE: 1(716) 879-3914 FAX: .(716) 879-3858

" TO <u>U</u>
BY WEIC

रहम्म ज्यस्य <u>स्थ</u> ानस्य स
B 230
EIGHT)
ES
ES TU. FT.
U. FT.
CU. FT. CU. FT. P.S.I.
CU. FT.

Appendix C

Analytical Results

Upstate Laboratories, Inc.

6034 Corporate Drive
 East Syracuse, New York 13057-1017

Sample Data Summary Package

Case Narrative, Summary of Test Results, Summary of QC Results,

- Chain of Custody Documentation
 Volume 1 of 5
 - SDG No. STE 01

Project:

Buffalo Brake Beam Lackawanna, New York

Prepared for:

Mr. Wayne K. Cameron Project Manager Sterling Env. Services, Inc. 50 Lake Avenue Blasdell, New York 14219

Samples Collected:

September 18, 2003

000001

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

UPSTATE LABORATORIES, INC.

6034 Corporate Drive

East Syracuse, New York 13057

Customer	Laboratory			Anal	ytical Requ	irements	
Sample	Sample	VOA	VOA	Semi	PCB	Metals	Wet
Code	Code	GC/MS	GC	GC/MS	GC/MS		Chemistry
		Method	Method	Method	Method	Method	and
		#	#	#	#	#	Other
Holding Blank	26603012	95-1	-	•	-	-	-
BBB-91801	26603013	95-1	-	-	-	-	%Solid
BBB-91802	26603014	95-1		-	-		%Solid
BBB-91803	26603015	95-1	-	-	-	-	%Solid
BBB-SS01	26603016	-	95-2	-	-	95-M	%Solid
BBB-SS02	26603017	-	95-2	-	_	95-M	%Solid
BBB-SS03	26603018	-	95-2	-	-	95-M	%Solid
BBB-SS04	26603019	95-1	95-2	-	95-3	95-M	%Solid
BBB-SS04 MS	26603019MS	95-1	95-2	-	95-3	95-M	-
BBB-SS04 MSD	26603019MSD	95-1	95-2	-	95-3		-
BBB-SS04 Dupe	26603019DP	-	-	-	-	95-M	%Solid
·	-		-				_
BBB-SS05	26603020	-	95-2	-	-	95-M	%Solid
BBB-SS06	26603021	-	95-2	-	-	95-M	%Solid
BBB-SS07	26603022	-	95-2	-	-	95-M	%Solid
BBB-SS08	26603023	95-1	95-2	-	95-3	95-M	%Solid
BBB-SS09	26603024	-	95-2	•	-	95-M	%Solid
BBB-SS10	26603025	_	95-2	-	-	95-M	%Solid
BBB-SS11	26603026	-	95-2	-	-	95-M	%Solid
BBB-SS12	26603027	95-1	95-2	-	95-3	95-M	%Solid
Trip Blank	26603028	-	-	-	95-3	-	-
				_			

771 1	1 ^	•			•
I ha total	number of	DOMAC IN	i thic data	nackage	10'
THE IOIAI	number of	Dages III	i tiiis uata	Dackage	15.

Narrative

1.0 Summary

This report presents the sample test results and quality control results for fifteen locations from the Buffalo Brake Beam project, Lackawanna, New York. The samples were analyzed for the parameters listed in Section 3.0, below.

This report is divided into two packages and five volumes. The Sample Data Summary Package (Volume 1) presents a summary of the test results and quality control data. This abbreviated format is useful to engineers and environmental scientists. The Sample Data Package (Volumes 2-5) is a comprehensive report containing instrument raw data. It is formatted for validation by an independent third party.

2.0 Chain of Custody

The samples were collected by Sterling Environmental on September 18, 2003, and were picked up by ULI personnel then shipped via CDL to Upstate Laboratories, Inc., Syracuse, New York. The Chain of Custody documentation is copied in Volumes 1 & 2.

3.0 Methodology

The analyses were performed using test methods developed by the USEPA. The specific method numbers are:

Method	Reference
a5 1	(8)
	(8)
	(8)
90.0	(0)
6010	(8)
6010	(8)
6010	(8)
6010	(8)
6010	(8)
6010	(8)
6010	(8)
6010	(8)
6010	(8)
6010	(8)
6010	(8)
6010	(8)
6010	(8)
6010	(8)
7470	(8)
6010	(8)
6010	(8)
6010	(8)
6010	(8)
6010	(8)
6010	(8)
6010	(8)
6010	(8)
	95.1 95.2 95.3 6010 6010 6010 6010 6010 6010 6010 601

4.0 Quality Control

Quality control data includes method blanks, reference samples, matrix spikes, matrix spike duplicates, duplicates, and surrogate recoveries. For wet chemistry, the association of QC data with sample data is made through the use of the "File No." found on both the final report pages and the QC summary pages.

5.0 Internal Validation

The following observations are offered:

Volatiles by GC/MS

Holding Time : Criteria were satisfied.

Calibration : Some IC and CC compounds exceeded 15% but the average percent deviation was less than 15%. Several

target compounds were manually integrated in the CC. All other criteria were satisfied.

Method Blanks : Acetone was detected in VBLK02 above the PQL, but below the CRDL. Criteria were satisfied.

MSB : Criteria were satisfied.

MS/MSD : Criteria were satisfied.

Surrogates : Criteria were satisfied.

Inter. Stds. : The 1,4-Dichlorobenzene-d4 IS areas were outside QC limits due to matrix interference as confirmed by

the reanalysis or the MS/MSD for samples BBB-SS04 and BBB-SS12. All other criteria were satisfied.

Other : The presence of Acetone, Methylene Chloride and Chloroform in the samples and holding blank are due

to possible laboratory contamination.

Semi-Volatiles by GC/MS

Holding Time : Criteria were satisfied.

Calibration : Several target compounds were manually integrated in the IC and CC. All other criteria were satisfied.

Method Blanks : Criteria were satisfied.

MSB : The RS %recoveries for 2-Chlorophenol, 1.4-Dichlorobenzene, N-Nitrosodinpropylamine, 1,2,4-

Trichlorobenzene and Acenaphthene were outside below QC limits and was reanalyzed with similar

results. All other criteria were satisfied.

MS/MSD : The MS %recoveries for Phenol, 1,2,4-Trichlorobenzene and N-Nitrosodinpropylamine, and the MSD

%recoveries for Phenol, 2-Chlorophenol and N-Nitrosodinpropylamine were below QC limits due to sample matrix, as were the RPDs for 1,2,4-Trichlorobenzene and 4-Chloro-3-methylphenol. All other

criteria were satisfied.

Surrogates : Samples with surrogate failures were reanalyzed for confirmation purposes or were diluted due to high

hits. All other criteria were satisfied.

Inter. Stds. : Samples with IS failures were reanalyzed with similar results. All other criteria were satisfied.

Other : Sample BBB-SS03 was reanalyzed at dilution due to high hits. Sample BBB-SS11 was reanalyzed at

dilutions.

PCBs

Holding Time : Criteria were satisfied.

Calibration : Criteria were satisfied.

Method Blanks : Criteria were satisfied.

MSB : Criteria were satisfied.

MS/MSD : The MS and MSD %recoveries were diluted out of the sample. All other criteria were satisfied.

Surrogates : The front channel DCB surrogate for sample BBB-SS12 was outside QC limits and the front channel

PBS surrogates were outside QC limits on package GA2128. The RS recovered within limits so no

further action was taken. All other criteria were satisfied.

Other : Samples were analyzed at dilution due to matrix.

Trace Metals and Cyanide

Holding Time : Criteria were satisfied.

Calibration : Silver recoveries in CCV1 and CCV2, package ME5431 was above control limits. The RS and batch

OC was within limits so no further action was taken, and, data and calibrations are considered valid. All

other criteria were satisfied.

: Selenium and Silver were detected in CCB1. The initial and final ICSAB %recoveries for Silver on Method Blanks

package ME6219 were above QC limits. All other QC was within limits so no further action was taken.

All other criteria were satisfied.

Reference Samples: The LCS for Sodium was below QC limits. All other batch QC for sodium was within limits so no

further action was taken. All criteria were satisfied.

: The %recoveries for Antimony, Arsenic, Barium, Beryllium, Cadmium, Cobalt, Lead, Nickel, Selenium, Matrix Spikes

Silver, Thallium, Vanadium and Zinc were outside control limits. Post digestion spikes were run for all

and recovered within QC limits. All other criteria were satisfied.

Duplicates : The RPDs for Aluminum, Arsenic, Barium, Calcium, Chromium, Lead, Magnesium, Manganese,

Vanadium and Zinc were outside QC limits. All other criteria were satisfied.

Other : The ICP Serial Dilution for Sample BBB-SS12 was outside QC limits for Iron. Lead and Zinc. Samples

BBB-SS04, BBB-SS10 and BBB-SS12 were originally analyzed for Manganese on package ME6219

and were reanalyzed at dilution on package ME6226.

I certify that this data package is in compliance with the terms and conditions of the Contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and/or in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Approved ___

Anthony J. Scala, Director

Upstate Laboratories inc.

Shipping: 6034 Corporate Dr. • E. Syracuse, NY 13057-1017 • (315) 437-0255 • Fax (315) 437-1209_

Mailing: Box 289 · Syracuse, NY 13206

Buffalo (716) 649-2533 Rochester (585) 436-9070 New Jersey (201) 343-5353

Albany (518) 459-3134 Binghamton (607) 724-0478

November 11, 2003

Mr. Wayne K. Cameron Project Manager Sterling Env. Services, Inc. 50 Lake Ave. Blasdell, NY 14219

Re: Analysis Report #26603012 - Buffalo Brake Beam

Dear Mr. Cameron:

Please find enclosed the results for your samples which were picked up by ULI personnel on September 19, 2003.

We have included the Chain of Custody Record as part of your report. You may need to reference this form for a more detailed explanation of your sample. Samples will be disposed of approximately one month from final report date.

Should you have any questions, please feel free to give us a call.

Thank you for your patronage.

Sincerely,

UPSTATE LABORATORIES, INC.

Anthony J. Scala Director

AJS/ac

Enclosures: report, ASP package, invoice

cc/encs: N. Scala, ULI

file

Note: Faxed results were given to your office on 10/20/03. AJS

Disclaimer: The test results and procedures utilized, and laboratory interpretations of data obtained by ULI as contained in this report are believed by ULI to be accurate and reliable for sample(s) tested. In accepting this report, the customer agrees that the full extent of any and all liability for actual and consequential damages of ULI for the services performed shall be equal to the fee charged to the customer for the services as liquidated damages.

NY Lab ID 10170 NJ Lab ID NY750 PA Lab ID 68375

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client

HOLDING BLANK 0934H 09/23/03 G

APPROVAL:_

QC:

Lab I.D.: 10170

ULI I.D.: 26603012 Matrix: Water

	ULI 1.D.: 20003012		Matilx: Water					
	PARAMETERS	RESULTS	TIME DATE ANAL. KEY KE	Y FILE#				
_			••••					
	TCL Volatiles by EPA Method 8260							
	Chloromethane	<10ug/1	10/01/03	CLP				
	Bromomethane	<10ug/1	10/01/03	CLP				
	Vinyl Chloride	<10ug/1	10/01/03	CLP				
	Chloroethane	<10ug/1	10/01/03	CLP				
	Methylene Chloride	lug/l	10/01/03 J	CLP				
	Acetone	13ug/1	10/01/03	CLP				
	Carbon Disulfide	<10ug/1	10/01/03	CLP				
	1,1-Dichloroethene	<10ug/1	10/01/03	CLP				
	1,1-Dichloroethane	<10ug/1	10/01/03	CLP				
	trans-1,2-Dichloroethene	<10ug/1	10/01/03	CLP				
_	cis-1,2-Dichloroethene	<10ug/1	10/01/03	CLP				
	Chloroform	2ug/1	10/01/03 J	CLP				
	1,2-Dichloroethane	<10ug/1	10/01/03	CLP				
	2-Butanone	<10ug/1	10/01/03	CLP				
	1,1,1-Trichloroethane	<10ug/1	10/01/03	CLP				
	Carbon Tetrachloride	<10ug/1	10/01/03	CLP				
	Bromodichloromethane	<10ug/1	10/01/03	CLP				
	1,2-Dichloropropane	<10ug/1	10/01/03	CLP				
	cis-1,3-Dichloropropene	<10ug/1	10/01/03	CLP				
	Trichloroethene	<10ug/l	10/01/03	CLP				
	Dibromochloromethane	<10ug/1	10/01/03	CLP				
_	1,1,2-Trichloroethane	<10ug/1	10/01/03	CLP				
	Benzene	<10ug/l	10/01/03	CLP				
	trans-1,3-Dichloropropene	<10ug/l	10/01/03	CLP				
-	Bromoform	<10ug/1	10/01/03	CLP				
	4-Methyl-2-pentanone	<10ug/1	10/01/03	CLP				
	2-Hexanone	<10ug/l	10/01/03	CLP				
_	Tetrachloroethene	<10ug/1	10/01/03	CLP				
	1,1,2,2-Tetrachloroethane	<10ug/l	10/01/03	CLP				
	Toluene	<10ug/l	10/01/03	CLP				
	Chlorobenzene	<10ug/l	10/01/03	CLP				
-	Ethylbenzene	<10ug/l	10/01/03	CLP				
	Styrene	<10ug/l	10/01/03	CLP				
	m,p-Xylene	<10ug/l	10/01/03	CLP				
4400	o-Xylene	<10ug/l	10/01/03	CLP				

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client BBB-91801 0820H 09/18/03 G

Matrix: Soil ULI I.D.: 26603013

RESULTS TIME DATE ANAL. KEY KEY FILE# PARAMETERS --------------

92% 09/24/03 WE5353 Percent Solids

APPROVAL:
QC:
Lab I.D.: 10170

TCL Volatiles by EPA Method 8260

<11ug/kg dw 09/30/03 Tetrachloroethene CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client

APPROVAL:
QC:

Lab I.D.: 10170

BBB-91802 1135H 09/18/03 G

Matrix: Soil ULI I.D.: 26603014 Matr

PARAMETERS RESULTS TIME DATE ANAL. KEY KEY FILE# --------- ------- --- ----Percent Solids 78% 09/24/03 WE5353

TCL Volatiles by EPA Method 8260

Tetrachloroethene <13ug/kg dw 09/30/03 CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client

APPROVAL:

QC:_______ Lab I.D.: 10170

BBB-91803 1145H 09/18/03 G

Matrix: Soil ULI I.D.: 26603015

PARAMETERS RESULTS TIME DATE ANAL. KEY KEY FILE# -----------....

92% 09/24/03 Percent Solids

TCL Volatiles by EPA Method 8260

<11ug/kg dw 09/30/03 CLP Tetrachloroethene

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client

APPROVAL:
QC:
Lab I.D.: 10170

BBB-SS01 1315H 09/18/03 G

ULI I.D.: 26603016 Matrix: Soil

	PAI	RAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
-		Percent Solids	94%		09/24/03			WE5353
	Total	Aluminum	6290mg/kg dw		10/20/03			CLP
	Total	Antimony	<3.2mg/kg dw		10/20/03			CLP
-	Total	Arsenic	4.6mg/kg dw		10/20/03			CLP
	Total	Barium	62.0mg/kg dw		10/20/03			CLP
	Total	Beryllium	<0.64mg/kg dw		10/20/03			CLP
_	Total	Cadmium	<1.1mg/kg dw		10/20/03			CLP
	Total	Calcium	103,000mg/kg đw		10/20/03			CLP
	Total	Chromium	51.0mg/kg dw		10/20/03			CLP
	Total	Cobalt	<4.3mg/kg dw		10/20/03			CLP
-	Total	Copper	25.7mg/kg dw		10/20/03			CLP
	Total	Iron	15,400mg/kg dw		10/20/03			CLP
	Total	Lead	30.4mg/kg dw		10/20/03			CLP
	Total	Magnesium	12,500mg/kg dw		10/20/03			CLP
	Total	Manganese	1410mg/kg dw		10/20/03			CLP
	Total	Mercury	<0.11mg/kg dw		10/20/03			CLP
	Total	Nickel	18.5mg/kg dw		10/20/03			CLP
	Total	Potassium	1270mg/kg dw		10/20/03			CLP
	Total	Selenium	<1.1mg/kg dw		10/20/03			CLP
	Total	Silver	<2.1mg/kg dw		10/20/03			CLP
_	Total	Sodium	<213mg/kg dw		10/20/03			CLP
	Total	Thallium	<2.1mg/kg dw		10/20/03			CLP
	Total	Vanadium	21.4mg/kg dw		10/20/03			CLP
-	Total	Zinc	108mg/kg dw		10/20/03			CLP
		CL Semivolatiles by EPA Method 8270						
-		Phenol	<350ug/kg dw		09/29/03			CLP
		bis(2-Chloroethyl)ether	<350ug/kg dw		09/29/03			CLP
		2-Chlorophenol	<350ug/kg dw		09/29/03			CLP
-		1,3-Dichlorobenzene	<350ug/kg dw		09/29/03			CLP
		1,4-Dichlorobenzene	<350ug/kg dw		09/29/03			CLP
		1,2-Dichlorobenzene	<350ug/kg dw		09/29/03			CLP
_		2-Methylphenol	<350ug/kg dw		09/29/03			CLP
_		2,2'-Oxybis(1-Chloropropane)	<350ug/kg dw		09/29/03			CLP
		4-Methylphenol	<350ug/kg dw		09/29/03			CLP
		n-Nitrosodinpropylamine	<350ug/kg dw		09/29/03			CLP
		Hexachloroethane	<350ug/kg dw		09/29/03			CLP
		Nitrobenzene	<350ug/kg dw		09/29/03		•	CLP
		Isophorone	<350ug/kg dw		09/29/03			CLP
-		2-Nitrophenol	<350ug/kg dw		09/29/03		•	CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client

APPROVAL:

BBB-SS01 1315H 09/18/03 G

ULI I.D.: 26603016	Matrix:	Soil
--------------------	---------	------

	Parameters	RESULTS	TIME	DATE ANAL. K	EY	KEY	FILR#
_	2,4-Dimethylphenol	<350ug/kg dw		09/29/03			CLP
	bis(2-Chloroethoxy)methane	<350ug/kg dw		09/29/03			CLP
	2,4-Dichlorophenol	<350ug/kg dw		09/29/03			CLP
-	1,2,4-Trichlorobenzene	<350ug/kg dw		09/29/03			CLP
	Naphthalene	<350ug/kg dw		09/29/03			CLP
	4-Chloroaniline	<350ug/kg dw		09/29/03			CLP
_	Hexachlorobutadiene	<350ug/kg dw		09/29/03			CLP
_	4-Chloro-3-methylphenol	<350ug/kg dw		09/29/03			CLP
	2-Methylnaphthalene	50ug/kg dw		09/29/03		J	CLP
	Hexachlorocyclopentadiene	<350ug/kg dw		09/29/03			CLP
	2,4,6-Trichlorophenol	<350ug/kg dw		09/29/03			CLP
	2,4,5-Trichlorophenol	<350ug/kg dw		09/29/03			CLP
	2-Chloronaphthalene	<350ug/kg dw		09/29/03			CLP
-	2-Nitroaniline	<850ug/kg dw		09/29/03			CLP
	Dimethylphthalate	<350ug/kg dw		09/29/03			CLP
	Acenaphthylene	<350ug/kg dw		09/29/03			CLP
	2,6-Dinitrotoluene	<350ug/kg dw		09/29/03			CLP
	3-Nitroaniline	<850ug/kg dw		09/29/03			CLP
	Acenaphthene	<350ug/kg dw		09/29/03			CLP
	2,4-Dinitrophenol	<850ug/kg dw		09/29/03			CLP
-	4-Nitrophenol	<850ug/kg dw		09/29/03			CLP
	Dibenzofuran	<350ug/kg dw		09/29/03			CLP
	2,4-Dinitrotoluene	<350ug/kg dw		09/29/03			CLP
	Diethylphthalate	<350ug/kg dw		09/29/03			CLP
_	4-Chlorophenylphenylether	<350ug/kg dw		09/29/03			CLP
	Fluorene	<350ug/kg dw		09/29/03			CLP
	4-Nitroaniline	<850ug/kg dw		09/29/03			CLP
-	2-Methyl-4,6-dinitrophenol	<850ug/kg dw		09/29/03			CLP
	n-Nitrosodiphenylamine	<350ug/kg dw		09/29/03			CLP
	4-Bromophenylphenylether	<350ug/kg dw		09/29/03			CLP
-	Hexachlorobenzene	<350ug/kg dw		09/29/03			CLP
	Pentachlorophenol	<850ug/kg dw		09/29/03			CLP
	Phenanthrene	77ug/kg dw		09/29/03	ā	Ţ	CLP
	Anthracene	<350ug/kg dw		09/29/03			CLP
_	Carbazole	<350ug/kg dw		09/29/03			CLP
	Di-n-butylphthalate	54ug/kg dw		09/29/03	J	r	CLP
	Fluoranthene	93ug/kg dw		09/29/03	J	ſ	CLP
	Pyrene	95ug/kg dw		09/29/03	J	Г	CLP
	Butylbenzylphthalate	<350ug/kg dw		09/29/03			CLP
	3,3'-Dichlorobenzidine	<350ug/kg dw		09/29/03			CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

APPROVAL:
QC:
Lab I.D.: 10170

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client BBB-SS01 1315H 09/18/03 G

ULI I.D.: 26603016

Matrix: Soil

	PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILR#
	Benzo(a)anthracene	54ug/kg dw		09/29/03		J	CLP
	Chrysene	96ug/kg dw		09/29/03		J	CLP
	bis(2-Ethylhexyl)phthalate	<350ug/kg dw		09/29/03			CLP
-	Di-n-octylphthalate	<350ug/kg dw		09/29/03			CLP
	Benzo(b) fluoranthene	110ug/kg dw		09/29/03		J	CLP
	Benzo(k) fluoranthene	44ug/kg dw		09/29/03		J	CLP
	Benzo(a)pyrene	60ug/kg dw		09/29/03		J	CLP
	Indeno(1,2,3-cd)pyrene	41ug/kg dw		09/29/03		J	CLP
	Dibenzo(a, h) anthracene	<350ug/kg dw		09/29/03			CLP
	Benzo(ghi)perylene	53ug/kg dw		09/29/03		J	CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM Sampled by: Client

APPROVAL:
QC:
Lab I.D.: 10170

BBB-SS02 1425H 09/18/03 G

Matrix: Soil ULI I.D.: 26603017

	PA	RAMETERS	RESULTS	TIME	DATE ANAL. KEY	KEY	FILR#
-							
		Percent Solids	91%		09/24/03		WE5353
	Total	Aluminum	7310mg/kg dw		10/20/03		CLP
	Total	Antimony	<3.3mg/kg dw		10/20/03		CLP
	Total	Arsenic	5.6mg/kg dw		10/20/03		CLP
	Total	Barium	68.8mg/kg dw		10/20/03		CLP
	Total	Beryllium	<0.66mg/kg dw		10/20/03		CLP
-	Total	Cadmium	<1.1mg/kg dw		10/20/03		CLP
	Total	Calcium	46,700mg/kg dw		10/20/03		CLP
	Total	Chromium	15.7mg/kg dw		10/20/03		CLP
	Total	Cobalt	5.5mg/kg dw		10/20/03		CLP
	Total	Copper	104mg/kg dw		10/20/03		CLP
	Total	Iron	18,900mg/kg dw		10/20/03		CLP
	Total	Lead	40.4mg/kg dw		10/20/03		CLP
	Total	Magnesium	6230mg/kg dw		10/20/03		CLP
	Total	Manganese	543mg/kg dw		10/20/03		CLP
	Total	Mercury	<0.11mg/kg dw		10/20/03		CLP
	Total	Nickel	20.1mg/kg dw		10/20/03		CLP
	Total	Potassium	941mg/kg dw		10/20/03		CLP
	Total	Selenium	<1.1mg/kg dw		10/20/03		CLP
	Total	Silver	<2.2mg/kg dw		10/20/03		CLP
	Total	Sodium	<220mg/kg dw		10/20/03		CLP
	Total	Thallium	<2.2mg/kg dw		10/20/03		CLP
	Total	Vanadium	15.7mg/kg dw		10/20/03		CLP
-	Total	Zinc	93.5mg/kg dw		10/20/03		CLP
		TCL Semivolatiles by EPA Method 8	3270				
-		Phenol	<370ug/kg dw		09/30/03		CLP
		bis(2-Chloroethyl)ether	<370ug/kg dw		09/30/03		CLP
		2-Chlorophenol	<370ug/kg dw		09/30/03		CLP
		1,3-Dichlorobenzene	<370ug/kg dw		09/30/03		CLP
		1,4-Dichlorobenzene	<370ug/kg dw		09/30/03		CLP
		1,2-Dichlorobenzene	<370ug/kg dw		09/30/03		CLP
		2-Mathylphenol	<370ug/kg dw		09/30/03		CLP
		2,2'-Oxybis(1-Chloropropane)	<370ug/kg dw		09/30/03		CLP
		4-Methylphenol	<370ug/kg dw		09/30/03		CLP
		n-Nitrosodinpropylamine	<370ug/kg dw		09/30/03		CLP
_		Hexachloroethane	<370ug/kg dw		09/30/03		CLP
		Nitrobenzene	<370ug/kg dw		09/30/03		CLP
		Isophorone	<370ug/kg dw		09/30/03		CLP
		2-Nitrophenol	<370ug/kg dw		09/30/03		CLP
_		-					

[&]quot;w = Dry weight

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client

APPROVAL:

BBB-SS02 1425H 09/18/03 G

ULI I.D.: 26603017 Matrix: Soil

	PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	PILE#
	2,4-Dimethylphenol	<370ug/kg dw		09/30/03			CLP
	bis(2-Chloroethoxy)methane	<370ug/kg dw		09/30/03			CLP
	2,4-Dichlorophenol	<370ug/kg dw		09/30/03			CLP
	1,2,4-Trichlorobenzene	<370ug/kg dw		09/30/03			CLP
	Naphthalene	<370ug/kg dw		09/30/03			CLP
	4-Chloroaniline	<370ug/kg dw		09/30/03			CLP
	Hexachlorobutadiene	<370ug/kg dw		09/30/03			CLP
	4-Chloro-3-methylphenol	<370ug/kg dw		09/30/03			CLP
	2-Methylnaphthalene	<370ug/kg dw		09/30/03			CLP
	Hexachlorocyclopentadiene	<370ug/kg dw		09/30/03			CLP
-	2,4,6-Trichlorophenol	<370ug/kg dw		09/30/03			CLP
	2,4,5-Trichlorophenol	<370ug/kg dw		09/30/03			CLP
	2-Chloronaphthalene	<370ug/kg dw		09/30/03			CLP
	2-Nitroaniline	<880ug/kg dw		09/30/03			CLP
	Dimethylphthalate	<370ug/kg dw		09/30/03			CLP
	Acenaphthylene	<370ug/kg dw		09/30/03			CLP
	2,6-Dinitrotoluene	<370ug/kg dw		09/30/03			CLP
-	3-Nitroaniline	<880ug/kg dw		09/30/03			CLP
	Acenaphthene	84ug/kg dw		09/30/03		J	CLP
	2,4-Dinitrophenol	<880ug/kg dw		09/30/03			CLP
-	4-Nitrophenol	<880ug/kg dw		09/30/03			CLP
	Dibenzofuran	<370ug/kg dw		09/30/03			CLP
	2,4-Dinitrotoluene	<370ug/kg dw		09/30/03			CLP
	Diethylphthalate	<370ug/kg dw		09/30/03			CLP
	4-Chlorophenylphenylether	<370ug/kg dw		09/30/03			CLP
	Fluorene	75ug/kg dw		09/30/03		Г	CLP
	4-Nitroaniline	<880ug/kg dw		09/30/03			CLP
-	2-Methyl-4,6-dinitrophenol	<880ug/kg dw		09/30/03			CLP
	n-Nitrosodiphenylamine	<370ug/kg dw		09/30/03			CLP
	4-Bromophenylphenylether	<370ug/kg dw		09/30/03			CLP
_	Hexachlorobenzene	<370ug/kg dw		09/30/03		1	CLP
_	Pentachlorophenol	<880ug/kg dw		09/30/03		1	CLP
	Phenanthrene	590ug/kg dw		09/30/03		4	CLP
	Anthracene	180ug/kg dw		09/30/03	J	٠ ,	CLP
-	Carbazole	<370ug/kg dw		09/30/03		•	CLP
	Di-n-butylphthalate	44ug/kg dw		09/30/03	J		CLP
	Fluoranthene	900ug/kg dw		09/30/03		(CLP
	Pyrene	1100ug/kg dw		09/30/03		(CLP
	Butylbenzylphthalate	<370ug/kg dw		09/30/03		C	CLP
	3,3'-Dichlorobenzidine	<370ug/kg dw		09/30/03		c	CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

QC:_______ Lab I.D.: 10170

APPROVAL:

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client BBB-SS02 1425H 09/18/03 G

Matrix: Soil ULI I.D.: 26603017

PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
Benzo(a) anthracene	530ug/kg dw		09/30/03			CLP
Chrysene	500ug/kg dw		09/30/03			CLP
bis(2-Ethylhexyl)phthalate	<370ug/kg dw		09/30/03			CLP
Di-n-octylphthalate	<370ug/kg dw		09/30/03			CLP
Benzo(b) fluoranthene	610ug/kg dw		09/30/03			CLP
Benzo(k) fluoranthene	170ug/kg dw		09/30/03		J	CLP
 Benzo(a)pyrene	410ug/kg dw		09/30/03			CLP
Indeno(1,2,3-cd)pyrene	190ug/kg dw		09/30/03		J	CLP
Dibenzo(a,h)anthracene	65ug/kg đw		09/30/03		J	CLP
Benzo(ghi)perylene	210ug/kg dw		09/30/03		J	CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

PARAMETERS

APPROVAL:

QC:

Lab I.D.: 10170 Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

RESULTS TIME DATE ANAL. KEY KEY FILE#

Sampled by: Client BBB-SS03 1440H 09/18/03 G

ULI I.D.: 26603018 Matrix: Soil

		Percent Solids	85%	09/24/03	WE5353
	Total	Aluminum	6990mg/kg dw	10/20/03	CLP
	Total	Antimony	<3.5mg/kg dw	10/20/03	CLP
-	Total	Arsenic	<2.3mg/kg dw	10/20/03	CLP
	Total	Barium	74.4mg/kg dw	10/20/03	CLP
	Total	Beryllium	<0.70mg/kg dw	10/20/03	CLP
-	Total	Cadmium	<1.2mg/kg dw	10/20/03	CLP
	Total	Calcium	100,000mg/kg dw	10/20/03	CLP
	Total	Chromium	20.8mg/kg dw	10/20/03	CLP
	Total	Cobalt	<4.7mg/kg dw	10/20/03	CLP
	Total	Copper	19.7mg/kg dw	10/20/03	CLP
	Total	Iron	14,500mg/kg dw	10/20/03	CLP
	Total	Lead	53.5mg/kg dw	10/20/03	CLP
	Total	Magnesium	18,900mg/kg dw	10/20/03	CLP
	Total	Manganese	419mg/kg dw	10/20/03	CLP
	Total	Mercury	0.13mg/kg dw	10/20/03	CLP
	Total	Nickel	11.8mg/kg dw	10/20/03	CLP
	Total	Potassium	1470mg/kg dw	10/20/03	CLP
	Total	Selenium	<1.2mg/kg dw	10/20/03	CLP
	Total	Silver	<2.3mg/kg dw	10/20/03	CLP
	Total	Sodium	<235mg/kg dw	10/20/03	CLP
	Total	Thallium	<2.3mg/kg dw	10/20/03	CLP
	Total	Vanadium	16.0mg/kg dw	10/20/03	CLP
-	Total	Zinc	142mg/kg dw	10/20/03	CLP
		CCL Semivolatiles by EPA Method 8270			
-		Phenol	<390ug/kg dw	09/29/03	CLP
		bis(2-Chloroethyl)ether	<390ug/kg dw	09/29/03	CLP
		2-Chlorophenol	<390ug/kg dw	09/29/03	CLP
		1,3-Dichlorobenzene	<390ug/kg dw	09/29/03	CLP
_		1,4-Dichlorobenzene	<390ug/kg dw	09/29/03	CLP
		1,2-Dichlorobenzene	<390ug/kg dw	09/29/03	CLP
		2-Methylphenol	<390ug/kg dw	09/29/03	CLP
-		2,2'-Oxybis(1-Chloropropane)	<390ug/kg dw	09/29/03	CLP
		4-Methylphenol	<390ug/kg dw	09/29/03	CLP
		n-Nitrosodinpropylamine	<390ug/kg dw	09/29/03	CLP
_		Hexachloroethane	<390ug/kg dw	09/29/03	CLP
		Nitrobenzene	<390ug/kg dw	09/29/03	CLP
			<390ug/kg dw	09/29/03	CLP
		Isophorone	<390ug/kg dw	09/29/03	CLP
		2-Nitrophenol	- Jourg/ Ag uw	03/23/03	CHE

[→]w = Dry weight

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client BBB-SS03 1440H 09/18/03 G

APPROVAL:

QC: Lab I.D.: 10170

	Parameters	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
_							
_	2,4-Dimethylphenol	<390ug/kg dw		09/29/03			CLP
	bis(2-Chloroethoxy)methane	<390ug/kg dw		09/29/03			CLP
	2,4-Dichlorophenol	<390ug/kg dw		09/29/03			CLP
***	1,2,4-Trichlorobenzene	<390ug/kg dw		09/29/03			CLP
	Naphthalene	150ug/kg dw		09/29/03		J	CLP
	4-Chloroaniline	<390ug/kg dw		09/29/03			CLP
_	Hexachlorobutadiene	<390ug/kg dw		09/29/03			CLP
_	4-Chloro-3-methylphenol	<390ug/kg dw		09/29/03			CLP
	2-Methylnaphthalene	83ug/kg dw		09/29/03		J	CLP
	Hexachlorocyclopentadiene	<390ug/kg dw		09/29/03			CLP
	2,4,6-Trichlorophenol	<390ug/kg dw		09/29/03			CLP
	2,4,5-Trichlorophenol	<390ug/kg dw		09/29/03			CLP
	2-Chloronaphthalene	<390ug/kg dw		09/29/03			CLP
***	2-Nitroaniline	<940ug/kg dw		09/29/03			CLP
	Dimethylphthalate	<390ug/kg dw		09/29/03			CLP
	Acenaphthylene	<390ug/kg dw		09/29/03			CLP
	2,6-Dinitrotoluene	<390ug/kg dw		09/29/03			CLP
	3-Nitroaniline	<940ug/kg dw		09/29/03			CLP
	Acenaphthene	270ug/kg dw		09/29/03		J	CLP
	2,4-Dinitrophenol	<940ug/kg dw		09/29/03			CLP
	4-Nitrophenol	<940ug/kg dw		09/29/03			CLP
	Dibenzofuran	150ug/kg dw		09/29/03		J	CLP
	2,4-Dinitrotoluene	<390ug/kg dw		09/29/03			CLP
	Diethylphthalate	<390ug/kg dw		09/29/03			CLP
_	4-Chlorophenylphenylether	<390ug/kg dw		09/29/03			CLP
	Fluorene	280ug/kg dw		09/29/03		J	CLP
	4-Nitroaniline	<940ug/kg dw		09/29/03			CLP
-	2-Methyl-4,6-dinitrophenol	<940ug/kg dw		09/29/03			CLP
	n-Nitrosodiphenylamine	<390ug/kg dw		09/29/03			CLP
	4-Bromophenylphenylether	<390ug/kg dw		09/29/03			CLP
	Hexachlorobenzene	<390ug/kg dw		09/29/03			CLP
	Pentachlorophenol	<940ug/kg dw		09/29/03			CLP
	Phenanthrene	1800ug/kg dw		09/29/03			CLP
	Anthracene	670ug/kg dw		09/29/03			CLP
	Carbazole	290ug/kg dw		09/29/03		J	CLP
	Di-n-butylphthalate	<390ug/kg dw		09/29/03			CLP
	Fluoranthene	2900ug/kg dw		09/29/03			CLP
	Pyrene	4700ug/kg dw		09/30/03	:	D	CLP
	Butylbenzylphthalate	<390ug/kg dw		09/29/03			CLP
	3,3'-Dichlorobenzidine	<390ug/kg dw		09/29/03			CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM Sampled by: Client

APPROVAL:
QC:
Lab I.D.: 10170

BBB-SS03 1440H 09/18/03 G

PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
Benzo(a) anthracene	2200ug/kg dw		09/29/03			CLP
Chrysene	1800ug/kg dw		09/29/03			CLP
bis(2-Ethylhexyl)phthalate	85ug/kg dw		09/29/03		J	CLP
Di-n-octylphthalate	<390ug/kg dw		09/29/03			CLP
Benzo(b) fluoranthene	2800ug/kg dw		09/29/03			CLP
Benzo(k)fluoranthene	680ug/kg dw		09/29/03			CLP
Benzo(a)pyrene	1900ug/kg dw		09/29/03			CLP
Indeno(1,2,3-cd)pyrene	710ug/kg dw		09/29/03			CLP
Dibenzo(a,h)anthracene	200ug/kg dw		09/29/03		J	CLP
Benzo(ghi)perylene	710ug/kg dw		09/29/03			CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

APPROVAL:
QC:
Lab I.D.: 10170

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client BBB-SS04 1520H 09/18/03 G

	 				~ –		_	_	_	_	 	 _	_	_	 				_		_	_	_	 	_	_	_	_	_	_	 _	_	 _	_	 _
_	ULI	I.I).:	26	603	019	9									Ma	ιtı	ri:	x:	8	30	il													

	PA	rameters	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
_		Percent Solids	87%		09/24/03			WE5353
	Total	Aluminum	8400mg/kg dw		10/20/03			CLP
	Total	Antimony	5.3mg/kg dw		10/22/03			CLP
	Total	Arsenic	<2.3mg/kg dw		10/22/03			CLP
	Total	Barium	118mg/kg dw		10/22/03			CLP
	Total	Beryllium	1.0mg/kg dw		10/22/03			CLP
	Total	Cadmium	<1.1mg/kg dw		10/22/03			CLP
	Total	Calcium	100,000mg/kg dw		10/20/03			CLP
	Total	Chromium	287mg/kg dw		10/20/03			CLP
	Total	Cobalt	6.1mg/kg dw		10/22/03			CLP
-	Total	Copper	23.0mg/kg dw		10/20/03			CLP
	Total	Iron	44,500mg/kg dw		10/20/03			CLP
	Total	Lead	146mg/kg dw		10/22/03			CLP
	Total	Magnesium	9260mg/kg dw		10/20/03			CLP
	Total	Manganese	6780mg/kg dw		10/22/03			CLP
	Total	Mercury	<0.11mg/kg dw		10/02/03			CLP
-	Total	Nickel	13.5mg/kg dw		10/22/03			CLP
_	Total	Potassium	1470mg/kg dw		10/20/03			CLP
	Total	Selenium	<1.1mg/kg dw		10/22/03			CLP
	Total	Silver	<2.3mg/kg dw		10/20/03			CLP
-	Total	Sodium	<229mg/kg dw		10/20/03			CLÞ
	Total	Thallium	<2.3mg/kg dw		10/22/03			CLP
	Total	Vanadium	119mg/kg dw		10/22/03			CLP
-	Total	Zinc	235mg/kg dw		10/22/03			CLP
		CL Volatiles by EPA Method 8260						
النبية		Chloromethane	<11ug/kg dw		09/26/03			CLP
		Bromomethane	<11ug/kg dw		09/26/03			CLP
		Vinyl Chloride	<1lug/kg dw		09/26/03			CLP
_		Chloroethane	<11ug/kg dw		09/26/03			CLP
		Methylene Chloride	2ug/kg dw		09/26/03	J		CLP
		Acetone	<llug dw<="" kg="" th=""><th></th><th>09/26/03</th><th></th><th></th><th>CLP</th></llug>		09/26/03			CLP
-		Carbon Disulfide	<11ug/kg dw		09/26/03			CLP
		1,1-Dichloroethene	<11ug/kg dw		09/26/03		,	CLP
		1,1-Dichloroethane	<11ug/kg dw		09/26/03		•	CLP
		trans-1,2-Dichloroethene	<11ug/kg dw		09/26/03		•	CLP
		cis-1,2-Dichloroethene	<1lug/kg dw		09/26/03		•	CLP
		Chloroform	lug/kg dw		09/26/03	J	(CLP
		1,2-Dichloroethane	<11ug/kg dw		09/26/03		(CLP
_		2-Butanone	<1lug/kg dw		09/26/03		(CLP

⁻v = Dry weight

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client

APPROVAL:

BBB-SS04 1520H 09/18/03 G

	 	_		_	_			_	_	_	_	_	_	_	_	_	_	_	_	_	_	_			 	_	_	_	_	_	_	_	 	 	
_	ULI	I.	D.:	26	60	301	9											Ŋ	1a t	ri	. x:	8	o	1											

	PARAMETERS	RESULTS	TIME DATE ANAL. KEY KI	Y FILE#

_	1,1,1-Trichloroethane	<11ug/kg dw	09/26/03	CLP
	Carbon Tetrachloride	<11ug/kg dw	09/26/03	CLP
	Bromodichloromethane	<1lug/kg dw	09/26/03	CLP
-	1,2-Dichloropropane	<11ug/kg dw	09/26/03	CLP
	cis-1,3-Dichloropropene	<11ug/kg dw	09/26/03	CLP
	Trichloroethene	<1lug/kg dw	09/26/03	CLP
_	Dibromochloromethane	<11ug/kg dw	09/26/03	CLP
	1,1,2-Trichloroethane	<11ug/kg dw	09/26/03	CLP
	Benzene	<11ug/kg dw	09/26/03	CLP
	trans-1,3-Dichloropropene	<11ug/kg dw	09/26/03	CLP
	Bromoform	<11ug/kg dw	09/26/03	CLP
	4-Methy1-2-pentanone	<11ug/kg dw	09/26/03	CLP
	2-Hexanone	<11ug/kg dw	09/26/03	CLP
	Tetrachloroethene	<11ug/kg dw	09/26/03	CLP
	1,1,2,2-Tetrachloroethane	<11ug/kg dw	09/26/03	CLP
	Toluene	<11ug/kg dw	09/26/03	CLP
	Chlorobenzene	<11ug/kg dw	09/26/03	CLP
	Ethylbenzene	<11ug/kg dw	09/26/03	CLP
	Styrene	<11ug/kg dw	09/26/03	CLP
	m,p-Xylene	<11ug/kg dw	09/26/03	CLP
-	o-Xylene	<11ug/kg dw	09/26/03	CLP
	TCL Semivolatiles by EPA Method 82	70		
	Phenol	<380ug/kg dw	09/30/03	CLP
	bis(2-Chloroethyl)ether	<380ug/kg dw	09/30/03	CLP
	2-Chlorophenol	<380ug/kg dw	09/30/03	CLP
	1.3-Dichlorobenzene	<380ug/kg dw	09/30/03	CLP
	1,4-Dichlorobenzene	<380ug/kg dw <380ug/kg dw	09/30/03	CLP
	1,2-Dichlorobenzene	<380ug/kg dw	09/30/03	CLP
	2-Methylphenol	<380ug/kg dw	09/30/03	CLP
-	2,2'-Oxybis(1-Chloropropane)	<380ug/kg dw	09/30/03	CLP
	4-Methylphenol	<380ug/kg dw	09/30/03	CLP
	n-Nitrosodinpropylamine	<380ug/kg dw	09/30/03	CLP
	Hexachloroethane	<380ug/kg dw	09/30/03	CLP
	Nitrobenzene	<380ug/kg dw	09/30/03	CLP
	Isophorone	<380ug/kg dw	09/30/03	CLP
	2-Nitrophenol	<380ug/kg dw	09/30/03	CLP
_	2,4-Dimethylphenol	<380ug/kg dw	09/30/03	CLP
	bis(2-Chloroethoxy)methane	<380ug/kg dw	09/30/03	CLP
	2,4-Dichlorophenol	<380ug/kg dw	09/30/03	CLP
	2,3-DICHIOLOPMENOI	1300ag/ng aw	03/30/03	CHE

Upstate Laboratories, Inc.

Analysis Results

Sampled by: Client

Report Number: 26603012

APPROVAL:___

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

BBB-SS04 1520H 09/18/03 G

ULI I.D.: 26603019 Matrix: Soil

	PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#

_	1,2,4-Trichlorobenzene	<380ug/kg dw		09/30/03			CLP
	Naphthalene	<380ug/kg dw		09/30/03			CLP
	4-Chloroaniline	<380ug/kg dw		09/30/03			CLP
	Hexachlorobutadiene	<380ug/kg dw		09/30/03			CLP
	4-Chloro-3-methylphenol	<380ug/kg dw		09/30/03			CLP
	2-Methylnaphthalene	<380ug/kg dw		09/30/03			CLP
_	Hexachlorocyclopentadiene	<380ug/kg dw		09/30/03			CLP
	2,4,6-Trichlorophenol	<380ug/kg dw		09/30/03			CLP
	2,4,5-Trichlorophenol	<380ug/kg dw		09/30/03			CLP
	2-Chloronaphthalene	<380ug/kg dw		09/30/03			CLP
	2-Nitroaniline	<920ug/kg dw		09/30/03			CLP
	Dimethylphthalate	<380ug/kg dw		09/30/03			CLP
	Acenaphthylene	<380ug/kg dw		09/30/03			CLP
	2,6-Dinitrotoluene	<380ug/kg dw		09/30/03			CLP
	3-Nitroaniline	<920ug/kg dw		09/30/03			CLP
	Acenaphthene	44ug/kg dw		09/30/03		J	CLP
	2,4-Dinitrophenol	<920ug/kg dw		09/30/03			CLP
_	4-Nitrophenol	<920ug/kg dw		09/30/03			CLP
	Dibenzofuran	<380ug/kg dw		09/30/03			CLP
	2,4-Dinitrotoluene	<380ug/kg dw		09/30/03			CLP
	Diethylphthalate	<380ug/kg dw		09/30/03			CLP
	4-Chlorophenylphenylether	<380ug/kg dw		09/30/03			CLP
	Fluorene	<380ug/kg dw		09/30/03			CLP
-	4-Nitroaniline	<920ug/kg dw		09/30/03			CLP
	2-Methyl-4,6-dinitrophenol	<920ug/kg dw		09/30/03			CLP
	n-Nitrosodiphenylamine	<380ug/kg dw		09/30/03			CLP
	4-Bromophenylphenylether	<380ug/kg dw		09/30/03			CLP
-	Hexachlorobenzene	<380ug/kg dw		09/30/03			CLP
	Pentachlorophenol	<920ug/kg dw		09/30/03			CLP
	Phenanthrene	430ug/kg dw		09/30/03			CLP
-	Anthracene	110ug/kg dw		09/30/03		J	CLP
	Carbazole	5lug/kg dw		09/30/03		J	CLP
	Di-n-butylphthalate	68ug/kg dw		09/30/03	. 1	J	CLP
	Fluoranthene	860ug/kg dw		09/30/03			CLP
	Pyrene	1100ug/kg dw		09/30/03			CLP
	Butylbenzylphthalate	100ug/kg dw		09/30/03	•	J	CLP
	3,3'-Dichlorobenzidine	<380ug/kg dw		09/30/03			CLP
-	Benzo(a)anthracene	610ug/kg dw		09/30/03			CLP
	Chrysene	580ug/kg dw		09/30/03			CLP
	bis(2-Ethylhexyl)phthalate	280ug/kg dw		09/30/03	i	Ţ	CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client

BBB-SS04 1520H 09/18/03 G

APPROVAL:

Lab I.D.: 10170

ULI I.D.: 26603019 Matrix: Soil

PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
Di-n-octylphthalate	<380ug/kg dw		09/30/03			CLP
Benzo(b) fluoranthene	950ug/kg dw		09/30/03			CLP
Benzo(k) fluoranthene	210ug/kg dw		09/30/03		J	CLP
Benzo(a)pyrene	640ug/kg dw		09/30/03			CLP
Indeno(1,2,3-cd)pyrene	310ug/kg dw		09/30/03		J	CLP
Dibenzo(a, h) anthracene	88ug/kg dw		09/30/03		J	CLP
Benzo(ghi)perylene	360ug/kg dw		09/30/03		J	CLP
PCB (Aroclors) by EPA Method 80						
			09/29/03		5	CLP
PCB (Aroclors) by EPA Method 80	82				5 5	CLP CLP
PCB (Aroclors) by EPA Method 80	82 <380ug/kg dw		09/29/03			
PCB (Aroclors) by EPA Method 80: Aroclor 1016 Aroclor 1221	82 <380ug/kg dw <380ug/kg dw		09/29/03 09/29/03		5	CLP
PCB (Aroclors) by EPA Method 80: Aroclor 1016 Aroclor 1221 Aroclor 1232	<pre>82 <380ug/kg dw <380ug/kg dw <380ug/kg dw</pre>		09/29/03 09/29/03 09/29/03		5 5	CLP CLP
PCB (Aroclors) by EPA Method 80: Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242	<pre><380ug/kg dw <380ug/kg dw <380ug/kg dw <380ug/kg dw</pre>		09/29/03 09/29/03 09/29/03		5 5 5	CLP CLP
PCB (Aroclors) by EPA Method 800 Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248	<pre><380ug/kg dw <380ug/kg dw <380ug/kg dw <380ug/kg dw <380ug/kg dw</pre>		09/29/03 09/29/03 09/29/03 09/29/03		5 5 5	CLP CLP CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client BBB-SS05 1545H 09/18/03 G

APPROVAL:

Lab I.D.: 10170

ULI I.D.: 26603020 Matrix: Soil

	PA	rameters	RESULTS	TIME	DATE ANAL. KEY	KEY	FILE#
_		Percent Solids	91%		09/24/03		WE5353
	Total	Aluminum	4860mg/kg dw		10/20/03		CLP
	Total	Antimony	<3.3mg/kg dw		10/20/03		CLP
	Total	Arsenic	16.3mg/kg dw		10/20/03		CLP
	Total	Barium	60.0mg/kg dw		10/20/03		CLP
	Total	Beryllium	<0.66mg/kg dw		10/20/03		CLP
-	Total	Cadmium	3.2mg/kg dw		10/20/03		CLP
	Total	Calcium	10,100mg/kg dw		10/20/03		CLP
	Total	Chromium	43.5mg/kg dw		10/20/03		CLP
	Total	Cobalt	6.1mg/kg dw		10/20/03		CLP
	Total	Copper	266mg/kg dw		10/20/03		CLP
	Total	Iron	40,400mg/kg dw		10/20/03		CLP
	Total	Lead	134mg/kg dw		10/20/03		CLP
-	Total	Magnesium	2260mg/kg dw		10/20/03		CLP
	Total	Manganese	520mg/kg dw		10/20/03		CLP
	Total	Mercury	0.14mg/kg dw		10/20/03		CLP
-	Total	Nickel	32.5mg/kg dw		10/20/03		CLP
_	Total	Potassium	449mg/kg dw		10/20/03		CLP
	Total	Selenium	<1.1mg/kg dw		10/20/03		CLP
	Total	Silver	<2.2mg/kg dw		10/20/03		CLP
-	Total	Sodium	<220mg/kg dw		10/20/03		CLP
	Total	Thallium	<2.7mg/kg dw		10/20/03		CLP
	Total	Vanadium	16.9mg/kg dw		10/20/03		CLP
-	Total	Zinc	223mg/kg dw		10/20/03		CLP
		CL Semivolatiles by EPA Method 8270					
-		Phenol	<3700ug/kg dw		09/30/03		CLP
		bis(2-Chloroethyl)ether	<3700ug/kg dw		09/30/03		CLP
		2-Chlorophenol	<3700ug/kg dw		09/30/03		CLP
_		1,3-Dichlorobenzene	<3700ug/kg dw		09/30/03		CLP
		1,4-Dichlorobenzene	<3700ug/kg dw		09/30/03		CLP
		1,2-Dichlorobenzene	<3700ug/kg dw		09/30/03		CLP
-		2-Methylphenol	<3700ug/kg dw		09/30/03		CLP
_		2,2'-Oxybis(1-Chloropropane)	<3700ug/kg dw		09/30/03		CLP
		4-Methylphenol	<3700ug/kg dw		09/30/03		CLP
		n-Nitrosodinpropylamine	<3700ug/kg dw		09/30/03		CLP
		Hexachloroethane	<3700ug/kg dw		09/30/03		CLP
		Nitrobenzene	<3700ug/kg dw		09/30/03		CLP
		Isophorone	<3700ug/kg dw		09/30/03		CLP
-		2-Nitrophenol	<3700ug/kg dw		09/30/03	1	CLP

[&]quot;w = Dry weight

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

BBB-SS05 1545H 09/18/03 G

APPROVAL:

Sampled by: Client

ULI I.D.: 26603020 Matrix: Soil

P	arameters	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
	2,4-Dimethylphenol	<3700ug/kg dw		09/30/03			CLP
	bis(2-Chloroethoxy)methane	<3700ug/kg dw		09/30/03			CLP
	2,4-Dichlorophenol	<3700ug/kg dw		09/30/03			CLP
	1,2,4-Trichlorobenzene	<3700ug/kg dw		09/30/03			CLP
	Naphthalene	830ug/kg dw		09/30/03		J	CLP
	4-Chloroaniline	<3700ug/kg dw		09/30/03			CLP
-	Hexachlorobutadiene	<3700ug/kg dw		09/30/03			CLP
	4-Chloro-3-methylphenol	<3700ug/kg dw		09/30/03			CLP
	2-Methylnaphthalene	1100ug/kg dw		09/30/03		J	CLP
	Hexachlorocyclopentadiene	<3700ug/kg dw		09/30/03			CLP
	2,4,6-Trichlorophenol	<3700ug/kg dw		09/30/03			CLP
	2,4,5-Trichlorophenol	<3700ug/kg dw		09/30/03			CLP
	2-Chloronaphthalene	<3700ug/kg dw		09/30/03			CLP
	2-Nitroaniline	<8900ug/kg dw		09/30/03			CLP
	Dimethylphthalate	<3700ug/kg dw		09/30/03			CLP
	Acenaphthylene	<3700ug/kg dw		09/30/03			CLP
	2,6-Dinitrotoluene	<3700ug/kg dw		09/30/03			CLP
_	3-Nitroaniline	<8900ug/kg dw		09/30/03			CLP
	Acenaphthene	<3700ug/kg dw		09/30/03			CLP
	2,4-Dinitrophenol	<8900ug/kg dw		09/30/03			CLP
	4-Nitrophenol	<8900ug/kg dw		09/30/03			CLP
	Dibenzofuran	370ug/kg dw		09/30/03		J	CLP
	2,4-Dinitrotoluene	<3700ug/kg dw		09/30/03			CLP
	Diethylphthalate	<3700ug/kg dw		09/30/03			CLP
	4-Chlorophenylphenylether	<3700ug/kg dw		09/30/03			CLP
	Fluorene	<3700ug/kg dw		09/30/03			CLP
	4-Nitroaniline	<8900ug/kg dw		09/30/03			CLP
	2-Methyl-4,6-dinitrophenol	<8900ug/kg dw		09/30/03			CLP
	n-Nitrosodiphenylamine	<3700ug/kg dw		09/30/03			CLP
	4-Bromophenylphenylether	<3700ug/kg dw		09/30/03			CLP
	Hexachlorobenzene	<3700ug/kg dw		09/30/03			CLP
	Pentachlorophenol	<8900ug/kg dw		09/30/03			CLP
	Phenanthrene	3300ug/kg dw		09/30/03		J	CLP
	Anthracene	710ug/kg dw		09/30/03		J	CLP
	Carbazole	390ug/kg dw		09/30/03	•	J	CLP
	Di-n-butylphthalate	<3700ug/kg dw		09/30/03			CLP
	Fluoranthene	4300ug/kg dw		09/30/03			CLP
	Pyrene	4800ug/kg dw		09/30/03			CLP
	Butylbenzylphthalate	400ug/kg dw		09/30/03		7	CLP
	3,3'-Dichlorobenzidine	<3700ug/kg dw		09/30/03			CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

APPROVAL:

Lab I.D.: 10170

Sampled by: Client BBB-SS05 1545H 09/18/03 G

ULI I.D.: 26603020 Matrix: Soil

	CLP
	CLP
Benzo(a)anthracene 2700ug/kg dw 09/30/03 J	
Chrysene 2400ug/kg dw 09/30/03 J	CLP
bis(2-Ethylhexyl)phthalate 730ug/kg dw 09/30/03 J	CLP
Di-n-octylphthalate <3700ug/kg dw 09/30/03	CLP
Benzo(b)fluoranthene 3300ug/kg dw 09/30/03 J	CLP
Benzo(k) fluoranthene 1100ug/kg dw 09/30/03 J	CLP
Benzo(a)pyrene 2300ug/kg dw 09/30/03 J	CLP
Indeno(1,2,3-cd)pyrene 1200ug/kg dw 09/30/03 J	CLP
Dibenzo(a, h) anthracene <3700ug/kg dw 09/30/03	CLP
Benzo(ghi)perylene 1400ug/kg dw 09/30/03 J	CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client

BBB-SS06 1555H 09/18/03 G

APPROVAL:
QC:
Lab I.D.: 10170

■ ULI I.D.: 26603021 Matrix: Soil

	PAI	RAMETERS	RESULTS	TIME	DATE ANAL. I	KEY	KEY	FILR#
			+					
		Percent Solids	93%		09/24/03			WE5353
	Total	Aluminum	6350mg/kg dw		10/20/03			CLP
	Total	Antimony	3.5mg/kg dw		10/20/03			CLP
	Total	Arsenic	2.4mg/kg dw		10/20/03			CLP
	Total	Barium	71.7mg/kg dw		10/20/03			CLP
	Total	Beryllium	0.84mg/kg dw		10/20/03			CLP
-	Total	Cadmium	1.6mg/kg dw		10/20/03			CLP
	Total	Calcium	42,300mg/kg dw		10/20/03			CLP
	Total	Chromium	88.1mg/kg dw		10/20/03			CLP
	Total	Cobalt	4.5mg/kg dw		10/20/03			CLP
-	Total	Copper	22.6mg/kg dw		10/20/03			CLP
	Total	Iron	19,800mg/kg dw		10/20/03			CLP
	Total	Lead	273mg/kg dw		10/20/03			CLP
_	Total	Magnesium	4820mg/kg dw		10/20/03			CLP
	Total	Manganese	1660mg/kg dw		10/20/03			CLP
	Total	Mercury	<0.11mg/kg dw		10/20/03			CLP
-	Total	Nickel	8.8mg/kg dw		10/20/03			CLP
_	Total	Potassium	630mg/kg dw		10/20/03			CLP
	Total	Selenium	<1.1mg/kg dw		10/20/03			CLP
	Total	Silver	<2.1mg/kg dw		10/20/03			CLP
	Total	Sodium	256mg/kg dw		10/20/03			CLP
	Total	Thallium	<2.1mg/kg dw		10/20/03			CLP
	Total	Vanadium	11.5mg/kg dw		10/20/03			CLP
-	Total	Zinc	352mg/kg dw		10/20/03			CLP
•		CL Semivolatiles by EPA Method 8270 Phenol	<360ug/kg dw		09/30/03			CLP
		bis(2-Chloroethyl)ether	<360ug/kg dw		09/30/03			CLP
		2-Chlorophenol	<360ug/kg dw		09/30/03			CLP
-		1,3-Dichlorobenzene	<360ug/kg dw		09/30/03			CLP
		1,4-Dichlorobenzene	<360ug/kg dw		09/30/03			CLP
		1,2-Dichlorobenzene	<360ug/kg dw		09/30/03			CLP
		2-Methylphenol	<360ug/kg dw		09/30/03			CLP
		2,2'-Oxybis(1-Chloropropane)	<360ug/kg dw		09/30/03			CLP
		4-Methylphenol	<360ug/kg dw		09/30/03		1	CLP
_		n-Nitrosodinpropylamine	<360ug/kg dw		09/30/03			CLP
		Hexachloroethane	<360ug/kg dw		09/30/03			CLP
		Nitrobenzene	<360ug/kg dw		09/30/03		,	CLP
		Isophorone	<360ug/kg dw		09/30/03		(CLP
-		2-Nitrophenol	<360ug/kg dw		09/30/03		(CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client

APPROVAL:
QC:
Lab I.D.: 10170

BBB-SS06 1555H 09/18/03 G

Matrix: Soil ULI I.D.: 26603021 Matr

1	PARAMETERS	RESULTS	TIME	DATE ANAL. I	KEY	KEY	FILE#
_	2,4-Dimethylphenol	<360ug/kg dw		09/30/03			CLP
	bis(2-Chloroethoxy)methane	<360ug/kg dw		09/30/03			CLP
	2,4-Dichlorophenol	<360ug/kg dw		09/30/03			CLP
****	1,2,4-Trichlorobenzene	<360ug/kg dw		09/30/03			CLP
	Naphthalene	75ug/kg dw		09/30/03		J	CLP
	4-Chloroaniline	<360ug/kg dw		09/30/03			CLP
-	Hexachlorobutadiene	<360ug/kg dw		09/30/03			CLP
	4-Chloro-3-methylphenol	<360ug/kg dw		09/30/03			CLP
	2-Methylnaphthalene	62ug/kg dw		09/30/03		J	CLP
	Hexachlorocyclopentadiene	<360ug/kg dw		09/30/03			CLP
	2,4,6-Trichlorophenol	<360ug/kg dw		09/30/03			CLP
	2,4,5-Trichlorophenol	<360ug/kg dw		09/30/03			CLP
	2-Chloronaphthalene	<360ug/kg dw		09/30/03			CLP
-	2-Nitroaniline	<860ug/kg dw		09/30/03			CLP
	Dimethylphthalate	<360ug/kg dw		09/30/03			CLP
	Acenaphthylene	<360ug/kg dw		09/30/03			CLP
	2,6-Dinitrotoluene	<360ug/kg dw		09/30/03			CLP
_	3-Nitroaniline	<860ug/kg dw		09/30/03			CLP
	Acenaphthene	<360ug/kg dw		09/30/03			CLP
	2,4-Dinitrophenol	<860ug/kg dw		09/30/03			CLP
-	4-Nitrophenol	<860ug/kg dw		09/30/03			CLP
	Dibenzofuran	<360ug/kg dw		09/30/03			CLP
	2,4-Dinitrotoluene	<360ug/kg dw		09/30/03			CLP
-	Diethylphthalate	<360ug/kg dw		09/30/03			CLP
	4-Chlorophenylphenylether	<360ug/kg dw		09/30/03			CLP
	Fluorene	<360ug/kg dw		09/30/03			CLP
	4-Nitroaniline	<860ug/kg dw		09/30/03			CLP
-	2-Methyl-4,6-dinitrophenol	<860ug/kg dw		09/30/03			CLP
	n-Nitrosodiphenylamine	<360ug/kg dw		09/30/03			CLP
	4-Bromophenylphenylether	<360ug/kg dw		09/30/03			CLP
-	Hexachlorobenzene	<360ug/kg dw		09/30/03			CLP
	Pentachlorophenol	<860ug/kg dw		09/30/03			CLP
	Phenanthrene	230ug/kg dw		09/30/03	J	Г	CLP
	Anthracene	64ug/kg dw		09/30/03	J	Ť	CLP
	Carbazole	<360ug/kg dw		09/30/03			CLP
	Di-n-butylphthalate	79ug/kg dw		09/30/03	J	•	CLP
	Fluoranthene	550ug/kg dw		09/30/03			CLP
	Pyrene	630ug/kg dw		09/30/03			CLP
	Butylbenzylphthalate	240ug/kg dw		09/30/03	J	•	CLP
	3,3'-Dichlorobenzidine	<360ug/kg dw		09/30/03			CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

APPROVAL:
QC:
Lab I.D.: 10170

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM BBB-SS06 1555H 09/18/03 G Sampled by: Client

Matrix: Soil ULI I.D.: 26603021

	PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
_	Benzo(a) anthracene	390ug/kg dw		09/30/03			CLP
	Chrysene	420ug/kg dw		09/30/03			CLP
_	bis(2-Ethylhexyl)phthalate	200ug/kg dw		09/30/03		J	CLP
	Di-n-octylphthalate	<360ug/kg dw		09/30/03			CLP
	Benzo(b) fluoranthene	570ug/kg dw		09/30/03			CLP
	Benzo(k) fluoranthene	240ug/kg dw		09/30/03		J	CLP
-	Benzo(a)pyrene	420ug/kg dw		09/30/03			CLP
	Indeno(1,2,3-cd)pyrene	230ug/kg dw		09/30/03		J	CLP
	Dibenzo(a, h) anthracene	74ug/kg dw		09/30/03		J	CLP
	Benzo(ghi)perylene	260ug/kg dw		09/30/03		J	CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

APPROVAL:

QC:

Lab I.D.: 10170 Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client BBB-SS07 1605H 09/18/03 G

Matrix: Soil ULI I.D.: 26603022

	PA	rameters	RESULTS	TIME	DATE ANAL. KEY	REY	FILE#
-		Percent Solids	93%		09/24/03		WE5353
	Total	Aluminum	7740mg/kg dw		10/20/03		CLP
	Total	Antimony	3.5mg/kg dw		10/20/03		CLP
	Total	Arsenic	7.7mg/kg dw		10/20/03		CLP
	Total	Barium	44.4mg/kg dw		10/20/03		CLP
	Total	Beryllium	<0.64mg/kg dw		10/20/03		CLP
	Total	Cadmium	1.2mg/kg dw		10/20/03		CLP
_	Total	Calcium	41,400mg/kg dw		10/20/03		CLP
	Total	Chromium	81.5mg/kg dw		10/20/03		CLP
	Total	Cobalt	5.6mg/kg dw		10/20/03		CLP
	Total	Copper	27.0mg/kg dw		10/20/03		CLP
	Total	Iron	31,700mg/kg dw		10/20/03		CLP
	Total	Lead	157mg/kg dw		10/20/03		CLP
-	Total	Magnesium	4960mg/kg dw		10/20/03		CLP
	Total	Manganese	1760mg/kg dw		10/20/03		CLP
	Total	Mercury	<0.11mg/kg dw		10/20/03		CLP
	Total	Nickel	15.2mg/kg dw		10/20/03		CLP
_	Total	Potassium	764mg/kg dw		10/20/03		CLP
	Total	Selenium	<1.1mg/kg dw		10/20/03		CLP
	Total	Silver	<2.1mg/kg dw		10/20/03		CLP
_	Total	Sodium	<215mg/kg dw		10/20/03		CLP
	Total	Thallium	<2.1mg/kg dw		10/20/03		CLP
	Total	Vanadium	34.8mg/kg dw		10/20/03		CLP
	Total	Zinc	164mg/kg dw		10/20/03		CLP
		CCL Semivolatiles by EPA Method 8270	2600000		22 /22 /22		
_		Pheno1 bis(2-Chloroethy1)ether	<360ug/kg dw <360ug/kg dw		09/30/03 09/30/03		CLP CLP
		2-Chlorophenol	<360ug/kg dw		09/30/03		CLP
		1.3-Dichlorobenzene	<360ug/kg dw		09/30/03		CLP
		1,4-Dichlorobenzene	<360ug/kg dw		09/30/03		CLP
		1,2-Dichlorobenzene	<360ug/kg dw		09/30/03		CLP
		2-Methylphenol	<360ug/kg dw		09/30/03		CLP
-		2,2'-Oxybis(1-Chloropropane)	<360ug/kg dw		09/30/03		CLP
		4-Methylphenol	<360ug/kg dw		09/30/03		CLP
		n-Nitrosodinpropylamine	<360ug/kg dw		09/30/03		CLP
		Hexachloroethane	<360ug/kg dw		09/30/03		CLP
		Nitrobenzene	<360ug/kg dw		09/30/03		CLP
		Isophorone	<360ug/kg dw		09/30/03		CLP
		2-Nitrophenol	<360ug/kg dw		09/30/03		CLP
		•	- -				

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client

BBB-SS07 1605H 09/18/03 G

APPROVAL:

Lab I.D.: 10170

QC:___

Matrix: Soil ULI I.D.: 26603022

	PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
	2,4-Dimethylphenol	<360ug/kg dw		09/30/03			CLP
	bis(2-Chloroethoxy)methane	<360ug/kg dw		09/30/03			CLP
	2,4-Dichlorophenol	<360ug/kg dw		09/30/03			CLP
	1,2,4-Trichlorobenzene	<360ug/kg dw		09/30/03			CLP
	Naphthalene	59ug/kg dw		09/30/03		J	CLP
	4-Chloroaniline	<360ug/kg dw		09/30/03			CLP
	Hexachlorobutadiene	<360ug/kg dw		09/30/03			CLP
	4-Chloro-3-methylphenol	<360ug/kg dw		09/30/03			CLP
	2-Methylnaphthalene	77ug/kg dw		09/30/03		J	CLP
	Hexachlorocyclopentadiene	<360ug/kg dw		09/30/03			CLP
	2,4,6-Trichlorophenol	<360ug/kg dw		09/30/03			CLP
	2,4,5-Trichlorophenol	<360ug/kg dw		09/30/03			CLP
	2-Chloronaphthalene	<360ug/kg dw		09/30/03			CLP
-	2-Nitroaniline	<860ug/kg dw		09/30/03			CLP
	Dimethylphthalate	<360ug/kg dw		09/30/03			CLP
	Acenaphthylene	<360ug/kg dw		09/30/03			CLP
	2,6-Dinitrotoluene	<360ug/kg dw		09/30/03			CLP
	3-Nitroaniline	<860ug/kg dw		09/30/03			CLP
	Acenaphthene	<360ug/kg dw		09/30/03			CLP
	2,4-Dinitrophenol	<860ug/kg dw		09/30/03			CLP
-	4-Nitrophenol	<860ug/kg dw		09/30/03			CLP
	Dibenzofuran	<360ug/kg dw		09/30/03			CLP
	2,4-Dinitrotoluene	<360ug/kg dw		09/30/03			CLP
	Diethylphthalate	<360ug/kg dw		09/30/03			CLP
	4-Chlorophenylphenylether	<360ug/kg dw		09/30/03			CLP
	Fluorene	<360ug/kg dw		09/30/03			CLP
	4-Nitroaniline	<860ug/kg dw		09/30/03			CLP
	2-Methyl-4,6-dinitrophenol	<860ug/kg dw		09/30/03			CLP
	n-Nitrosodiphenylamine	<360ug/kg dw		09/30/03			CLP
	4-Bromophenylphenylether	<360ug/kg dw		09/30/03			CLP
-	Hexachlorobenzene	<360ug/kg dw		09/30/03			CLP
	Pentachlorophenol	<860ug/kg dw		09/30/03			CLP
	Phenanthrene	240ug/kg dw		09/30/03		J	CLP
	Anthracene	49ug/kg dw		09/30/03		J	CLP
_	Carbazole	<360ug/kg dw		09/30/03			CLP
	Di-n-butylphthalate	97ug/kg dw		09/30/03		J	CLP
	Fluoranthene	410ug/kg dw		09/30/03			CLP
	Pyrene	480ug/kg dw		09/30/03			CLP
	Butylbenzylphthalate	74ug/kg dw		09/30/03		J	CLP
	3,3'-Dichlorobenzidine	<360ug/kg dw		09/30/03			CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

APPROVAL: QC:______ Lab I.D.: 10170

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

BBB-SS07 1605H 09/18/03 G Sampled by: Client

Matrix: Soil ULI I.D.: 26603022

	PARAMETERS	RESULTS	TIME	DATE ANAL. KE	Y KEY	FILE#
	Benzo(a)anthracene	250ug/kg dw		09/30/03	J	CLP
	Chrysene	280ug/kg dw		09/30/03	J	CLP
	bis(2-Ethylhexyl)phthalate	190ug/kg dw		09/30/03	J	CLP
-	Di-n-octylphthalate	<360ug/kg dw		09/30/03		CLP
	Benzo(b) fluoranthene	370ug/kg dw		09/30/03		CLP
	Benzo(k) fluoranthene	130ug/kg dw		09/30/03	J	CLP
_	Benzo(a)pyrene	250ug/kg dw		09/30/03	J	CLP
	Indeno(1,2,3-cd)pyrene	120ug/kg dw		09/30/03	J	CLP
	Dibenzo(a, h) anthracene	4lug/kg dw		09/30/03	J	CLP
	Benzo(ghi)perylene	150ug/kg dw		09/30/03	J	CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client

APPROVAL:

QC:

Lab I.D.: 10170

BBB-SS08 1615H 09/18/03 G

ULI I.D.: 26603023 Matrix: Soil

		ULI 1.D.: 26603023		matrix: Soil				
		RAMETERS	RESULTS	TIME DATE ANAL, KEY K				
	Total	Percent Solids	90%	09/24/03	WE5353			
	Total	Aluminum	6520mg/kg dw	10/20/03	CLP			
	Total	Antimony	<3.3mg/kg dw	10/20/03	CLP			
_	Total	Arsenic	11.5mg/kg dw	10/20/03	CLP			
	Total	Barium	42.8mg/kg dw	10/20/03	CLP			
	Total	Beryllium	<0.66mg/kg dw	10/20/03	CLP			
	Total	Cadmium	2.5mg/kg dw	10/20/03	CLP			
_	Total	Calcium	13,700mg/kg dw	10/20/03	CLP			
	Total	Chromium	17.1mg/kg dw	10/20/03	CLP			
	Total	Cobalt	<4.4mg/kg dw	10/20/03	CLP			
-	Total	Copper	25.0mg/kg dw	10/20/03	CLP			
	Total	Iron	21,800mg/kg dw	10/20/03	CLP			
	Total	Lead	49.0mg/kg dw	10/20/03	CLP			
_	Total	Magnesium	2020mg/kg dw	10/20/03	CLP			
	Total	Manganese	289mg/kg dw	10/20/03	CLP			
	Total	Mercury	0.12mg/kg dw	10/20/03	CLP			
	Total	Nickel	13.2mg/kg dw	10/20/03	CLP			
-	Total	Potassium	577mg/kg dw	10/20/03	CLP			
	Total	Selenium	<1.1mg/kg dw	10/20/03	CLP			
	Total	Silver	<2.2mg/kg dw	10/20/03	CLP			
-	Total	Sodium	<221mg/kg dw	10/20/03	CLP			
	Total	Thallium	3.3mg/kg dw	10/20/03	CLP			
	Total	Vanadium	14.2mg/kg dw	10/20/03	CLP			
-	Total	Zinc	101mg/kg dw	10/20/03	CLP			
	;	TCL Volatiles by EPA Method 8260						
		•••••						
_		Chloromethane	<1lug/kg dw	09/30/03	CLP			
		Bromomethane	<11ug/kg dw	09/30/03	CLP			
		Vinyl Chloride	<11ug/kg dw	09/30/03	CLP			
		Chloroethane	<1lug/kg dw	09/30/03	CLP			
		Methylene Chloride	4ug/kg dw	09/30/03 J	CLP			
		Acetone	6ug/kg dw	09/30/03 JB	CLP			
-		Carbon Disulfide	<1lug/kg dw	09/30/03	CLP			
		1,1-Dichloroethene	<11ug/kg dw	09/30/03	CLP			
		1,1-Dichloroethane	<11ug/kg dw	09/30/03	CLP			
		trans-1,2-Dichloroethene	<11ug/kg dw	09/30/03	CLP			
_		cis-1,2-Dichloroethene	<11ug/kg dw	09/30/03	CLP			
		Chloroform	<11ug/kg dw	09/30/03	CLP			
		1,2-Dichloroethane	<1lug/kg dw	09/30/03	CLP			
		2-Butanone	<11ug/kg dw	09/30/03	CLP			

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client BBB-SS08 1615H 09/18/03 G

APPROVAL:_ _ _ _

ULI I.D.: 26603023 Matrix: Soil

	PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
-	1,1,1-Trichloroethane	<1lug/kg dw		09/30/03			CLP
	Carbon Tetrachloride	<1lug/kg dw		09/30/03			CLP
	Bromodichloromethane	<1lug/kg dw		09/30/03			CLP
-	1,2-Dichloropropane	<1lug/kg dw		09/30/03			CLP
	cis-1,3-Dichloropropene	<11ug/kg dw		09/30/03			CLP
	Trichloroethene	<11ug/kg dw		09/30/03			CLP
_	Dibromochloromethane	<11ug/kg dw		09/30/03			CLP
_	1,1,2-Trichloroethane	<11ug/kg dw		09/30/03			CLP
	Benzene	<11ug/kg dw		09/30/03			CLP
	trans-1,3-Dichloropropene	<11ug/kg dw		09/30/03			CLP
	Bromoform	<11ug/kg dw		09/30/03			CLP
	4-Methyl-2-pentanone	<11ug/kg dw		09/30/03			CLP
	2-Hexanone	<11ug/kg dw		09/30/03			CLP
-	Tetrachloroethene	<11ug/kg dw		09/30/03			CLP
	1,1,2,2-Tetrachloroethane	<11ug/kg dw		09/30/03			CLP
	Toluene	<11ug/kg dw		09/30/03			CLP
	Chlorobenzene	<11ug/kg dw		09/30/03			CLP
	Ethylbenzene	<1lug/kg dw		09/30/03			CLP
	Styrene	<1lug/kg dw		09/30/03			CLP
	m,p-Xylene	<11ug/kg dw		09/30/03			CLP
_	o-Xylene	<11ug/kg dw		09/30/03			CLP
	TCL Semivolatiles by EPA Method 827	70					
-							
	Phenol	<370ug/kg dw		09/30/03			CLP
	bis(2-Chloroethyl)ether	<370ug/kg dw		09/30/03			CLP
	2-Chlorophenol	<370ug/kg dw		09/30/03			CLP
_	1,3-Dichlorobenzene	<370ug/kg dw		09/30/03			CLP
	1,4-Dichlorobenzene	<370ug/kg dw		09/30/03			CLP
	1,2-Dichlorobenzene	<370ug/kg dw		09/30/03			CLP
	2-Methylphenol	<370ug/kg dw		09/30/03			CLP
	2,2'-Oxybis(1-Chloropropane)	<370ug/kg dw		09/30/03			CLP
	4-Methylphenol	<370ug/kg dw		09/30/03			CLP
-	n-Nitrosodinpropylamine	<370ug/kg dw		09/30/03			CLP
	Hexachloroethane	<370ug/kg dw		09/30/03			CLP
	Nitrobenzene	<370ug/kg dw		09/30/03			CLP
	Isophorone	<370ug/kg dw		09/30/03			CLP
	2-Nitrophenol	<370ug/kg dw		09/30/03			CLP
	2,4-Dimethylphenol	<370ug/kg dw		09/30/03			CLP
	bis(2-Chloroethoxy)methane	<370ug/kg dw		09/30/03			CLP
	2,4-Dichlorophenol	<370ug/kg dw		09/30/03		,	CLP

Upstate Laboratories, Inc.

Analysis Results

Sampled by: Client

Report Number: 26603012

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

BBB-SS08 1615H 09/18/03 G

APPROVAL:_ _ _ _

ULI I.D.: 26603023 Matrix: Soil

PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
1,2,4-Trichlorobenzene	<370ug/kg dw		09/30/03			CLP
Naphthalene	46ug/kg dw		09/30/03		J	CLP
4-Chloroaniline	<370ug/kg dw		09/30/03			CLP
Hexachlorobutadiene	<370ug/kg dw		09/30/03			CLP
4-Chloro-3-methylphenol	<370ug/kg dw		09/30/03			CLP
2-Methylnaphthalene	71ug/kg dw		09/30/03		J	CLP
Hexachlorocyclopentadiene	<370ug/kg dw		09/30/03			CLP
2,4,6-Trichlorophenol	<370ug/kg dw		09/30/03			CLP
2,4,5-Trichlorophenol	<370ug/kg dw		09/30/03			CLP
2-Chloronaphthalene	<370ug/kg dw		09/30/03			CLP
2-Nitroaniline	<890ug/kg dw		09/30/03			CLP
Dimethylphthalate	<370ug/kg dw		09/30/03			CLP
Acenaphthylene	<370ug/kg dw		09/30/03			CLP
2,6-Dinitrotoluene	<370ug/kg dw		09/30/03			CLP
3-Nitroaniline	<890ug/kg dw		09/30/03			CLP
Acenaphthene	<370ug/kg dw		09/30/03			CLP
2,4-Dinitrophenol	<890ug/kg dw		09/30/03			CLP
4-Nitrophenol	<890ug/kg dw		09/30/03			CLP
Dibenzofuran	<370ug/kg dw		09/30/03			CLP
2,4-Dinitrotoluene	<370ug/kg dw		09/30/03			CLP
Diethylphthalate	<370ug/kg dw		09/30/03			CLP
4-Chlorophenylphenylether	<370ug/kg dw		09/30/03			CLP
Fluorene	<370ug/kg dw		09/30/03			CLP
4-Nitroaniline	<890ug/kg dw		09/30/03			CLP
2-Methyl-4,6-dinitrophenol	<890ug/kg dw		09/30/03			CLP
n-Nitrosodiphenylamine	<370ug/kg dw		09/30/03			CLP
4-Bromophenylphenylether	<370ug/kg dw		09/30/03			CLP
Hexachlorobenzene	<370ug/kg dw		09/30/03			CLP
Pentachlorophenol	<890ug/kg dw		09/30/03			CLP
Phenanthrene	120ug/kg dw		09/30/03		J	CLP
Anthracene	<370ug/kg dw		09/30/03			CLP
Carbazole	<370ug/kg dw		09/30/03			CLP
Di-n-butylphthalate	110ug/kg dw		09/30/03		J	CLP
Fluoranthene	150ug/kg dw		09/30/03		J	CLP
Pyrene	180ug/kg dw		09/30/03		J	CLP
Butylbenzylphthalate	<370ug/kg dw		09/30/03			CLP
3,3'-Dichlorobenzidine	<370ug/kg dw		09/30/03			CLP
Benzo(a)anthracene	100ug/kg dw		09/30/03	ć	Ţ	CLP
Chrysene	110ug/kg dw		09/30/03	i	Ī	CLP
bis(2-Ethylhexyl)phthalate	120ug/kg dw		09/30/03	S	J	CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

APPROVAL:

QC:

Lab I.D.: 10170

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client BBB-SS08 1615H 09/18/03 G

Matrix: Soil ULI I.D.: 26603023

PARAMETERS	RESULTS	TIME	DATE ANAL. K	EY 1	KEY	FILE#
Di-n-octylphthalate	<370ug/kg dw		09/30/03			CLP
Benzo(b)fluoranthene	150ug/kg dw		09/30/03	J		CLP
Benzo(k)fluoranthene	50ug/kg dw		09/30/03	J		CLD
Benzo(a)pyrene	96ug/kg dw		09/30/03	J		CLP
Indeno(1,2,3-cd)pyrene	50ug/kg dw		09/30/03	J		CLP
Dibenzo(a,h)anthracene	<370ug/kg dw		09/30/03			CLP
 Benzo(ghi)perylene	58ug/kg dw		09/30/03	J		CLP
PCB (Aroclors) by EPA Method 8082						
Aroclor 1016	<370ug/kg dw		09/30/03	5		CLP
Aroclor 1221	<370ug/kg dw		09/30/03	5		CLP
Aroclor 1232	<370ug/kg dw		09/30/03	5		CLP
Aroclor 1242	<370ug/kg dw		09/30/03	5		CLP
Aroclor 1248	<370ug/kg dw		09/30/03	5		CLP
Aroclor 1254	430ug/kg dw		09/30/03			CLP
 Aroclor 1260	<370ug/kg dw		09/30/03	5		CLP
Total PCB	430ug/kg dw		09/30/03			CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

QC:_____ Lab I.D.: 10170 Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

APPROVAL:___

Sampled by: Client BBB-SS09 1625H 09/18/03 G

ULI I.D.: 26603024 Matrix: Soil

	PA	rameters	RESULTS	TIME	DATE ANAL. KEY	KEY	FILR#
-		Percent Solids	91%		09/24/03		WE5353
	Total	Aluminum	7510mg/kg dw		10/20/03		CLP
	Total	Antimony	5.8mg/kg dw		10/20/03		CLP
-	Total	Arsenic	9.5mg/kg dw		10/20/03		CLP
	Total	Barium	80.8mg/kg dw		10/20/03		CLP
	Total	Beryllium	1.2mg/kg dw		10/20/03		CLP
_	Total	Cadmium	4.7mg/kg dw		10/20/03		CLP
_	Total	Calcium	39,700mg/kg dw		10/20/03		CLP
	Total	Chromium	113mg/kg dw		10/20/03		CLP
	Total	Cobalt	5.5mg/kg dw		10/20/03		CLP
	Total	Copper	62.9mg/kg dw		10/20/03		CLP
	Total	Iron	47,200mg/kg dw		10/20/03		CLP
	Total	Lead	306mg/kg dw		10/20/03		CLP
-	Total	Magnesium	5930mg/kg dw		10/20/03		CLP
	Total	Manganese	2370mg/kg dw		10/20/03		CLP
	Total	Mercury	<0.11mg/kg dw		10/20/03		CLP
	Total	Nickel	22.0mg/kg dw		10/20/03		CLP
_	Total	Potassium	749mg/kg dw		10/20/03		CLP
	Total	Selenium	<1.1mg/kg dw		10/20/03		CLP
	Total	Silver	<2.2mg/kg dw		10/20/03		CLP
_	Total	Sodium	264mg/kg dw		10/20/03		CLP
	Total	Thallium	<2.2mg/kg dw		10/20/03		CLP
	Total	Vanadium	33.1mg/kg dw		10/20/03		CLP
-	Total	Zinc	434mg/kg dw		10/20/03		CLP
		CL Semivolatiles by EPA Method 8270					
-		Phenol	<370ug/kg dw		09/30/03		CLP
		bis(2-Chloroethyl)ether	<370ug/kg dw		09/30/03		CLP
		2-Chlorophenol	<370ug/kg dw		09/30/03		CLP
		1,3-Dichlorobenzene	<370ug/kg dw		09/30/03		CLP
		1,4-Dichlorobenzene	<370ug/kg dw		09/30/03		CLP
		1,2-Dichlorobenzene	<370ug/kg dw		09/30/03		CLP
		2-Methylphenol	<370ug/kg dw		09/30/03		CLP
_		2,2'-Oxybis(1-Chloropropane)	<370ug/kg dw		09/30/03		CLP
		4-Methylphenol	<370ug/kg dw		09/30/03		CLP
		n-Nitrosodinpropylamine	<370ug/kg dw		09/30/03		CLP
-		Hexachloroethane	<370ug/kg dw		09/30/03		CLP
		Nitrobenzene	<370ug/kg dw		09/30/03		CLP
		Isophorone	<370ug/kg dw		09/30/03		CLP
-		2-Nitrophenol	<370ug/kg dw		09/30/03		CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

APPROVAL:
QC:

Lab I.D.: 10170

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client BBB-SS09 1625H 09/18/03 G

ULI I.D.: 26603024 Matrix: Soil

	PARAMETERS	RESULTS	TIME DATE ANAL. KEY KEY	FILE#
_				
_	2,4-Dimethylphenol	<370ug/kg dw	09/30/03	CLP
	bis(2-Chloroethoxy)methane	<370ug/kg dw	09/30/03	CLP
	2,4-Dichlorophenol	<370ug/kg dw	09/30/03	CLP
	1,2,4-Trichlorobenzene	<370ug/kg dw	09/30/03	CLP
	Naphthalene	55ug/kg dw	09/30/03 J	CLP
	4-Chloroaniline	<370ug/kg dw	09/30/03	CLP
_	Hexachlorobutadiene	<370ug/kg dw	09/30/03	CLP
	4-Chloro-3-methylphenol	<370ug/kg dw	09/30/03	CLP
	2-Methylnaphthalene	74ug/kg dw	09/30/03 Ј	CLP
	Hexachlorocyclopentadiene	<370ug/kg dw	09/30/03	CLP
-	2,4,6-Trichlorophenol	<370ug/kg dw	09/30/03	CLP
	2,4,5-Trichlorophenol	<370ug/kg dw	09/30/03	CLP
	2-Chloronaphthalene	<370ug/kg dw	09/30/03	CLP
	2-Nitroaniline	<880ug/kg dw	09/30/03	CLP
	Dimethylphthalate	<370ug/kg dw	09/30/03	CLP
	Acenaphthylene	<370ug/kg dw	09/30/03	CLP
	2,6-Dinitrotoluene	<370ug/kg dw	09/30/03	CLP
	3-Nitroaniline	<880ug/kg dw	09/30/03	CLP
	Acenaphthene	<370ug/kg dw	09/30/03	CLP
	2,4-Dinitrophenol	<880ug/kg dw	09/30/03	CLP
-	4-Nitrophenol	<880ug/kg dw	09/30/03	CLP
	Dibenzofuran	<370ug/kg dw	09/30/03	CLP
	2,4-Dinitrotoluene	<370ug/kg dw	09/30/03	CLP
	Diethylphthalate	<370ug/kg dw	09/30/03	CLP
_	4-Chlorophenylphenylether	<370ug/kg dw	09/30/03	CLP
	Fluorene	<370ug/kg dw	09/30/03	CLP
	4-Nitroaniline	<880ug/kg dw	09/30/03	CLP
-	2-Methyl-4,6-dinitrophenol	<880ug/kg dw	09/30/03	CLP
	n-Nitrosodiphenylamine	<370ug/kg dw	09/30/03	CLP
	4-Bromophenylphenylether	<370ug/kg dw	09/30/03	CLP
	Hexachlorobenzene	<370ug/kg dw	09/30/03	CLP
_	Pentachlorophenol	<880ug/kg dw	09/30/03	CLP
	Phenanthrene	550ug/kg dw	09/30/03	CLP
	Anthracene	62ug/kg dw	09/30/03 ј	CLP
	Carbazole	71ug/kg dw	09/30/03 J	CLP
	Di-n-butylphthalate	64ug/kg dw	09/30/03 J	CLP
	Fluoranthene	1000ug/kg dw	09/30/03	CLP
****	Pyrene	920ug/kg dw	09/30/03	CLP
	Butylbenzylphthalate	150ug/kg dw	09/30/03 ј	CLP
	3,3'-Dichlorobenzidine	<370ug/kg dw	09/30/03	CLP

Upstate Laboratories, Inc.

Analysis Results

Sampled by: Client

Report Number: 26603012

APPROVAL:
QC:
Lab I.D.: 10170

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

BBB-SS09 1625H 09/18/03 G

ULI I.D.: 26603024

Matrix: Soil

	PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
	Benzo(a) anthracene	400ug/kg dw		09/30/03			CLP
	Chrysene	510ug/kg dw		09/30/03			CLP
	bis(2-Ethylhexyl)phthalate	140ug/kg dw		09/30/03		J	CLP
-	Di-n-octylphthalate	<370ug/kg dw		09/30/03			CLP
	Benzo(b) fluoranthene	720ug/kg dw		09/30/03			CLP
	Benzo(k) fluoranthene	250ug/kg dw		09/30/03		J	CLP
	Benzo(a)pyrene	460ug/kg dw		09/30/03			CLP
_	Indeno(1,2,3-cd)pyrene	240ug/kg dw		09/30/03		J	CLP
	Dibenzo(a, h) anthracene	65ug/kg dw		09/30/03		J	CLP
	Benzo(ghi)perylene	270ug/kg dw		09/30/03		J	CLP

Upstate Laboratories, Inc.

Analysis Results

Sampled by: Client

Report Number: 26603012

APPROVAL:

QC:

Lab I.D.: 10170

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

BBB-SS10 1645H 09/18/03 G

ULI I.D.: 26603025 Matrix: Soil

	PA	rameters	RESULTS	TIME	DATE ANAL. REY	KBY	FILE#
_		Percent Solids	94%		09/24/03		WE5353
	Total	Aluminum	4490mg/kg dw		10/20/03		CLP
	Total	Antimony	5.9mg/kg dw		10/20/03		CLP
-	Total	Arsenic	<2.1mg/kg dw		10/20/03		CLP
	Total	Barium	29.9mg/kg dw		10/20/03		CLP
	Total	Beryllium	<0.64mg/kg dw		10/20/03		CLP
	Total	Cadmium	1.7mg/kg dw		10/20/03		CLP
	Total	Calcium	112,000mg/kg dw		10/20/03		CLP
	Total	Chromium	597mg/kg dw		10/20/03		CLP
	Total	Cobalt	5.6mg/kg dw		10/20/03		CLP
	Total	Copper	35.9mg/kg dw		10/20/03		CLP
	Total	Iron	69,500mg/kg dw		10/20/03		CLP
	Total	Lead	150mg/kg dw		10/20/03		CLP
_	Total	Magnesium	7760mg/kg dw		10/20/03		CLP
	Total	Manganese	10,900mg/kg dw		10/22/03		CLP
	Total	Mercury	<0.11mg/kg dw		10/20/03		CLP
	Total	Nickel	26.0mg/kg dw		10/20/03		CLP
	Total	Potassium	404mg/kg dw		10/20/03		CLP
	Total	Selenium	<1.1mg/kg dw		10/20/03		CLP
	Total	Silver	<2.1mg/kg dw		10/20/03		CLP
***	Total	Sodium	<212mg/kg dw		10/20/03		CLP
	Total	Thallium	<2.1mg/kg dw		10/20/03		CLP
	Total	Vanadium	147mg/kg dw		10/20/03		CLP
-	Total	Zinc	132mg/kg dw		10/20/03		CLP
	•	TCL Semivolatiles by EPA Method 8270					
		Ph	-250m=/h= do-		00/20/02		67. D
		Phenol	<350ug/kg dw		09/30/03		CLP
		bis(2-Chloroethyl)ether	<350ug/kg dw		09/30/03		CLP
		2-Chlorophenol	<350ug/kg dw		09/30/03		CLP
-		1,3-Dichlorobenzene	<350ug/kg dw		09/30/03		CLP
		1,4-Dichlorobenzene	<350ug/kg dw		09/30/03		CLP
•		1,2-Dichlorobenzene	<350ug/kg dw		09/30/03		CLP
		2-Methylphenol	<350ug/kg dw		09/30/03		CLP
		2,2'-Oxybis(1-Chloropropane)	<350ug/kg dw		09/30/03		CLP
		4-Methylphenol	<350ug/kg dw		09/30/03		CLP
		n-Nitrosodinpropylamine	<350ug/kg dw		09/30/03		CLP
		Hexachloroethane	<350ug/kg dw		09/30/03		CLP
		Nitrobenzene	<350ug/kg dw		09/30/03		CLP
		Isophorone	<350ug/kg dw		09/30/03		CLP
-		2-Nitrophenol	<350ug/kg dw		09/30/03		CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client

APPROVAL: Lab I.D.: 10170

BBB-SS10 1645H 09/18/03 G

ULI I.D.:	26603025	Matrix: S	soil
OPT 1.D.:	20003023	matrix: 3	5Q1

I	PARAMETERS	RESULTS	TIMB	DATE ANAL.	KEY	KEY	FILE#
_	2,4-Dimethylphenol	<350ug/kg dw		09/30/03			CLP
	bis(2-Chloroethoxy)methane	<350ug/kg dw		09/30/03			CLP
	2,4-Dichlorophenol	<350ug/kg dw		09/30/03			CLP
-	1,2,4-Trichlorobenzene	<350ug/kg dw		09/30/03			CLP
	Naphthalene	<350ug/kg dw		09/30/03			CLP
	4-Chloroaniline	<350ug/kg dw		09/30/03			CLP
-	Hexachlorobutadiene	<350ug/kg dw		09/30/03			CLP
	4-Chloro-3-methylphenol	<350ug/kg dw		09/30/03			CLP
	2-Methylnaphthalene	<350ug/kg dw		09/30/03			CLP
	Hexachlorocyclopentadiene	<350ug/kg dw		09/30/03			CLP
-	2,4,6-Trichlorophenol	<350ug/kg dw		09/30/03			CLP
	2,4,5-Trichlorophenol	<350ug/kg dw		09/30/03			CLP
	2-Chloronaphthalene	<350ug/kg dw		09/30/03			CLP
_	2-Nitroaniline	<850ug/kg dw		09/30/03			CLP
	Dimethylphthalate	<350ug/kg dw		09/30/03			CLP
	Acenaphthylene	<350ug/kg dw		09/30/03			CLP
auru.	2,6-Dinitrotoluene	<350ug/kg dw		09/30/03			CLP
_	3-Nitroaniline	<850ug/kg dw		09/30/03			CLP
	Acenaphthene	<350ug/kg dw		09/30/03			CLP
	2,4-Dinitrophenol	<850ug/kg dw		09/30/03			CLP
-	4-Nitrophenol	<850ug/kg dw		09/30/03			CLP
	Dibenzofuran	<350ug/kg dw		09/30/03			CLP
	2,4-Dinitrotoluene	<350ug/kg dw		09/30/03			CLP
	Diethylphthalate	<350ug/kg dw		09/30/03			CLP
	4-Chlorophenylphenylether	<350ug/kg dw		09/30/03			CLP
	Fluorene	<350ug/kg dw		09/30/03			CLP
	4-Nitroaniline	<850ug/kg dw		09/30/03			CLP
	2-Methyl-4,6-dinitrophenol	<850ug/kg dw		09/30/03			CLP
	n-Nitrosodiphenylamine	<350ug/kg dw		09/30/03			CLP
	4-Bromophenylphenylether	<350ug/kg dw		09/30/03			CLP
-	Hexachlorobenzene	<350ug/kg dw		09/30/03			CLP
	Pentachlorophenol	<850ug/kg dw		09/30/03			CLP
	Phenanthrene	500ug/kg dw		09/30/03			CLP
-	Anthracene	62ug/kg dw		09/30/03	,	J	CLP
	Carbazole	65ug/kg dw		09/30/03	,	J	CLP
	Di-n-butylphthalate	75ug/kg dw		09/30/03	•	J	CLP
	Fluoranthene	950ug/kg dw		09/30/03			CLP
	Pyrene	990ug/kg dw		09/30/03			CLP
	Butylbenzylphthalate	<350ug/kg dw		09/30/03			CLP
	3,3'-Dichlorobenzidine	<350ug/kg dw		09/30/03			CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

APPROVAL:

QC:

Lab I.D.: 10170

BUFFALO BRAKE BEAM

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client BBB-SS10 1645H 09/18/03 G

■ ULI I.D.: 26603025 Matrix: Soil

	Parameters	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
,							
	Benzo(a) anthracene	470ug/kg dw		09/30/03			CLP
	Chrysene	540ug/kg dw		09/30/03			CLP
	bis(2-Ethylhexyl)phthalate	81ug/kg dw		09/30/03		J	CLP
)	Di-n-octylphthalate	<350ug/kg dw		09/30/03			CLP
	Benzo(b) fluoranthene	850ug/kg dw		09/30/03			CLP
	Benzo(k) fluoranthene	280ug/kg dw		09/30/03		J	CLP
l	Benzo(a)pyrene	530ug/kg đw		09/30/03			CLP
	Indeno(1,2,3-cd)pyrene	320ug/kg dw		09/30/03		J	CLP
	Dibenzo(a,h)anthracene	87ug/kg dw		09/30/03		J	CLP
	Benzo(ghi)perylene	390ug/kg dw		09/30/03			CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

PARAMETERS

APPROVAL:
QC:
Lab I.D.: 10170

TIME DATE ANAL. KEY KEY FILE#

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client BBB-SS11 1655H 09/18/03 G

ULI I.D.: 26603026 Matrix: Soil

RESULTS

_					
_		Percent Solids	81%	09/24/03	WE5353
	Total	Aluminum	8770mg/kg dw	10/20/03	CLP
	Total	Antimony	<3.7mg/kg dw	10/20/03	CLP
	Total	Arsenic	8.3mg/kg dw	10/20/03	CLP
	Total	Barium	117mg/kg dw	10/20/03	CLP
	Total	Beryllium	<0.74mg/kg dw	10/20/03	CLP
-	Total	Cadmium	3.1mg/kg dw	10/20/03	CLP
	Total	Calcium	14,000mg/kg dw	10/20/03	CLP
	Total	Chromium	37.5mg/kg dw	10/20/03	CLP
	Total	Cobalt	20.1mg/kg dw	10/20/03	CLP
_	Total	Copper	32.3mg/kg dw	10/20/03	CLP
	Total	Iron	28,900mg/kg dw	10/20/03	CLP
	Total	Lead	116mg/kg dw	10/20/03	CLP
-	Total	Magnesium	3110mg/kg dw	10/20/03	CLP
	Total	Manganese	3020mg/kg dw	10/20/03	CLP
	Total	Mercury	<0.12mg/kg dw	10/20/03	CLP
-	Total	Nickel	21.9mg/kg dw	10/20/03	CLP
	Total	Potassium	823mg/kg dw	10/20/03	CLP
	Total	Selenium	<1.2mg/kg dw	10/20/03	CLP
	Total	Silver	<2.5mg/kg dw	10/20/03	CLP
-	Total	Sodium	<247mg/kg dw	10/20/03	CLP
	Total	Thallium	<2.5mg/kg dw	10/20/03	CLP
	Total	Vanadium	21.6mg/kg dw	10/20/03	CLP
	Total	Zinc	228mg/kg dw	10/20/03	CLP
	т	CL Semivolatiles by EPA Method 8270			
_		Phenol	<16,000ug/kg dw	10/14/03	CLP
		bis(2-Chloroethyl)ether	<16,000ug/kg dw	10/14/03	CLP
		2-Chlorophenol	<16,000ug/kg dw	10/14/03	CLP
		1,3-Dichlorobenzene	<16,000ug/kg dw	10/14/03	CLP
		1,4-Dichlorobenzene	<16,000ug/kg dw	10/14/03	CLP
		1,2-Dichlorobenzene	<16,000ug/kg dw	10/14/03	CLP
•		2-Methylphenol	<16,000ug/kg dw	10/14/03	CLP
		2,2'-Oxybis(1-Chloropropane)	<16,000ug/kg dw	10/14/03	CLP
		4-Methylphenol	<16,000ug/kg dw	10/14/03	CLP
		n-Nitrosodinpropylamine	<16,000ug/kg dw	10/14/03	CLP
		Hexachloroethane	<16,000ug/kg dw	10/14/03	CLP
		Nitrobenzene	<16,000ug/kg dw	10/14/03	CLP
		Isophorone	<16,000ug/kg dw	10/14/03	CLP
		2-Nitrophenol	<16,000ug/kg dw	10/14/03	CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

APPROVAL:
QC:
Lab I.D.: 10170

Sampled by: Client BBB-SS11 1655H 09/18/03 G

ULI I.D.: 26603026 Matrix: Soil

	PARAMETERS	RESULTS TI	ME DATE ANAL. KEY	KEY	FILE#
	2,4-Dimethylphenol	<16,000ug/kg dw	10/14/03		CLP
	bis(2-Chloroethoxy)methane	<16,000ug/kg dw	10/14/03		CLP
	2,4-Dichlorophenol	<16,000ug/kg dw	10/14/03		CLP
	1,2,4-Trichlorobenzene	<16,000ug/kg dw	10/14/03		CLP
	Naphthalene	8000ug/kg dw	10/14/03	JD	CLP
	4-Chloroaniline	<16,000ug/kg dw	10/14/03		CLP
	Hexachlorobutadiene	<16,000ug/kg dw	10/14/03		CLP
	4-Chloro-3-methylphenol	<16,000ug/kg dw	10/14/03		CLP
	2-Methylnaphthalene	3200ug/kg dw	10/14/03	ъ	CLP
	Hexachlorocyclopentadiene	<16,000ug/kg dw	10/14/03		CLP
	2,4,6-Trichlorophenol	<16,000ug/kg dw	10/14/03		CLP
	2,4,5-Trichlorophenol	<16,000ug/kg dw	10/14/03		CLP
	2-Chloronaphthalene	<16,000ug/kg dw	10/14/03		CLP
-	2-Nitroaniline	<40,000ug/kg dw	10/14/03		CLP
	Dimethylphthalate	<16,000ug/kg dw	10/14/03		CLP
	Acenaphthylene	<16,000ug/kg dw	10/14/03		CLP
	2,6-Dinitrotoluene	<16,000ug/kg dw	10/14/03		CLP
	3-Nitroaniline	<40,000ug/kg dw	10/14/03		CLP
	Acenaphthene	12,000ug/kg dw	10/14/03	JD	CLP
	2,4-Dinitrophenol	<40,000ug/kg dw	10/14/03		CLP
-	4-Nitrophenol	<40,000ug/kg dw	10/14/03		CLP
	Dibenzofuran	10,000ug/kg dw	10/14/03	JD	CLP
	2,4-Dinitrotoluene	<16,000ug/kg dw	10/14/03		CLP
411	Diethylphthalate	<16,000ug/kg dw	10/14/03		CLP
	4-Chlorophenylphenylether	<16,000ug/kg dw	10/14/03		CLP
	Fluorene	15,000ug/kg dw	10/14/03	ம	CLP
	4-Nitroaniline	<40,000ug/kg dw	10/14/03		CLP
	2-Methyl-4,6-dinitrophenol	<40,000ug/kg dw	10/14/03		CLP
	n-Nitrosodiphenylamine	<16,000ug/kg dw	10/14/03		CLP
	4-Bromophenylphenylether	<16,000ug/kg dw	10/14/03		CLP
	Hexachlorobenzene	<16,000ug/kg dw	10/14/03		CLP
	Pentachlorophenol	<40,000ug/kg dw	10/14/03		CLP
	Phenanthrene	100,000ug/kg dw	10/14/03	D	CLP
-	Anthracene	25,000ug/kg dw	10/14/03	D	CLP
	Carbazole	13,000ug/kg dw	10/14/03	JD	CLP
	Di-n-butylphthalate	<16,000ug/kg dw	10/14/03		CLP
	Fluoranthene	93,000ug/kg dw	10/14/03	D	CLP
	Pyrene	89,000ug/kg dw	10/14/03	D	CLP
	Butylbenzylphthalate	<16,000ug/kg dw	10/14/03		CLP
	3,3'-Dichlorobenzidine	<16,000ug/kg dw	10/14/03		CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BRAM

Sampled by: Client

APPROVAL:______
QC:_______
Lab I.D.: 10170
BUFFALO BRAKE BRAM

BBB-SS11 1655H 09/18/03 G

ULI I.D.: 26603026 Matrix: Soil

	Parameters	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
_	Benzo(a)anthracene	43,000ug/kg dw		10/14/03		D	CLP
	Chrysene	38,000ug/kg dw		10/14/03		D	CLP
	bis(2-Ethylhexyl)phthalate	<16,000ug/kg dw		10/14/03			CLP
-	Di-n-octylphthalate	<16,000ug/kg dw		10/14/03			CLP
	Benzo(b) fluoranthene	46,000ug/kg dw		10/14/03		D	CLP
	Benzo(k) fluoranthene	21,000ug/kg dw		10/14/03		D	CLP
	Benzo(a)pyrene	37,000ug/kg dw		10/14/03		D	CLP
	Indeno(1,2,3-cd)pyrene	12,000ug/kg dw		10/14/03		JD	CLP
	Dibenzo(a,h)anthracene	3000ug/kg dw		10/14/03		JD	CLP
	Benzo(ghi)perylene	12,000ug/kg dw		10/14/03		JD	CLP

Upstate Laboratories, Inc.

\malysis Results

Report Number: 26603012

APPROVAL:_____ QC:______ Lab I.D.: 10170

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

BBB-SS12 1710H 09/18/03 G Sampled by: Client

ULI I.D.: 26603027 Matrix: Soil

	PAI	rameters	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILR#
_	- • .							
_	Total	Percent Solids	96%		09/24/03			WE5353
	Total	Aluminum	5300mg/kg dw		10/20/03			CLP
	Total	Antimony	4.3mg/kg dw		10/20/03			CLP
	Total	Arsenic	2.2mg/kg dw		10/20/03			CLP
	Total	Barium	46.6mg/kg dw		10/20/03			CLP
	Total	Beryllium	<0.62mg/kg dw		10/20/03			CLP
	Total	Cadmium	<1.0mg/kg dw		10/20/03			CLP
	Total	Calcium	143,000mg/kg dw		10/20/03			CLP
	Total	Chromium	272mg/kg dw		10/20/03			CLP
	Total	Cobalt	<4.1mg/kg dw		10/20/03			CLP
-	Total	Copper	15.2mg/kg dw		10/20/03			CLP
	Total	Iron	27,600mg/kg dw		10/20/03			CLP
	Total	Lead	42.8mg/kg dw		10/20/03			CLP
_	Total	Magnesium	14,100mg/kg dw		10/20/03			CLP
	Total	Manganese	33,700mg/kg dw		10/22/03			CLP
	Total	Mercury	<0.10mg/kg dw		10/20/03			CLP
	Total	Nickel	12.1mg/kg dw		10/20/03			CLP
	Total	Potasaium	792mg/kg dw		10/20/03			CLP
	Total	Selenium	<1.0mg/kg dw		10/20/03			CLP
	Total	Silver	<2.1mg/kg dw		10/20/03			CLP
_	Total	Sodium	<207mg/kg dw		10/20/03			CLP
	Total	Thallium	<2.1mg/kg dw		10/20/03			CLP
	Total	Vanadium	65.3mg/kg dw		10/20/03			CLP
-	Total	Zinc	303mg/kg dw		10/20/03			CLP
	т	CL Volatiles by EPA Method 8260						
		Chloromethane	<10ug/kg dw		09/26/03			CLP
		Bromomethane	<10ug/kg dw		09/26/03			CLP
		Vinyl Chloride	<10ug/kg dw		09/26/03			CLP
		Chloroethane	<10ug/kg dw		09/26/03			CLP
		Methylene Chloride	2ug/kg dw		09/26/03	J	r	CLP
		Acetone	<10ug/kg dw		09/26/03			CLP
_		Carbon Disulfide	<10ug/kg dw		09/26/03			CLP
		1,1-Dichloroethene	<10ug/kg dw		09/26/03			CLP
		1,1-Dichloroethane	<10ug/kg dw		09/26/03			CLP
		trans-1,2-Dichloroethene	<10ug/kg dw		09/26/03			CLP
		cis-1,2-Dichloroethene	<10ug/kg dw		09/26/03			CLP
		Chloroform	2ug/kg dw		09/26/03	J		CLP
		1,2-Dichloroethane	<10ug/kg dw		09/26/03			CLP
		2-Butanone	<10ug/kg dw		09/26/03		1	CLP

FACSIMILE TRANSMITTAL

TO

Wayne Cameron

Sterling Environmental Services

FAX NO:

716-824-2441

RE:

Analytical Results

FROM:

Corey Niland

DATE:

December 12, 2003

TIME:

11:00 AM

NUMBER OF PAGES (including this sheet):

MESSAGE:

Mr. Cameron

The t-Manganese reanalysis came back at 5060mg/kg dw.

Please give me a call a 315-437-0255 if you have any questions or concerns.

Thank You,

Corey Niland Environmental Project Coordinator

This facsimile transmission and any documents accompanying it may contain confidential and privileged information belonging to the sender. This information is intended only for the use of the individual or entity for which it is addressed. If you are not the intended recipient, you are hereby notified that any disclosure, copying, or distribution of this document is strictly prohibited. If you have received this transmission in error, please notify us by telephone.

Upstate Laboratories, Inc.
Data Verification / Re-analysis Request Form
PM-0-75 Revised 2/96

www

.0 Request	<u> </u>			
•				
1.1 Project Information Client: Stenling Ex Project Name: Ruffe B	ne la Bean.	Who is requesting ven 2) (check one) Should the sample be analyzed in the labora	Inte	emal
1.2 Analytes in Question			•	1
Parameter	ULIC		sult	File No.
T-Ma	2660303	33,700	mylhida C	17
1.3 Reason for Verification	on / Re-analysis:			
	s Rusult 15	s Incorrect:		
please Redi		•	/7	
2) If the client is asking for a v	(1)			11/1/1
on through the CC Manage		Submitted b	v. 679//	lilu Date: 12/11/0
2.0 Verification 1)				
•	nin (a):			
2.1 Appearance of Sam	pie (s):			
2.2 Conclusions / Com	ments:			
Verification requires the ob-	servation of the sample itself, th	8	<u> </u>	
	el, the re-calulation of results.	Verified bv:		Date:
3.0 Laboratory Re-an	alysis			
3.1 Test Results	+. <u> </u>			· · · · · · · · · · · · · · · · · · ·
Parameter	A CI 17.0	Re-analyzed Test Pasults Units		e-analyzed Metals File No. Pe-digested 7
T-Mn	26603077	5060mg/kgd	W12-11-031M	File No. Pe-dicested 7
		, ,		
C.C. Labourton, Ohnon	-41			
3.2 Laboratory Observa	ations:			
		Lab Analys	Δ v =	Date: 12-11-03
		Supervisor	: 0/	Date:) -) - 0 -
4.0 Final Report				
4.1 How should the re—analysis	s rogith ha ranamad 4- 4	mmod? delimination	lel than sa _ near kinda ba	invoice d21
4.1 How should the ra-analysis Use original result.	наэни са тебсия с си диз лиял		ld the re—analysis be rvoice for re—analysis	
	ult with re—ensiyzed result. The pendentended report	c	o not invoice for re-	
	rinal result and the re-analyzed			

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

APPROVAL:_____

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client BBB-SS12 1710H 09/18/03 G

ULI I.D.:	26603027	Matrix: Soil

	PARAMETERS	RESULTS	TIME DATE ANAL. KEY KE	Y FILE#
_				
	1,1,1-Trichloroethane	<10ug/kg dw	09/26/03	CLP
	Carbon Tetrachloride	<10ug/kg dw	09/26/03	CLP
	Bromodichloromethane	<10ug/kg dw	09/26/03	CLP
-	1,2-Dichloropropane	<10ug/kg dw	09/26/03	CLP
	cis-1,3-Dichloropropene	<10ug/kg dw	09/26/03	CLP
	Trichloroethene	<10ug/kg dw	09/26/03	CLP
	Dibromochloromethane	<10ug/kg dw	09/26/03	CLP
	1,1,2-Trichloroethane	<10ug/kg dw	09/26/03	CLP
	Benzene	<10ug/kg dw	09/26/03	CLP
	trans-1,3-Dichloropropene	<10ug/kg dw	09/26/03	CLP
	Bromoform	<10ug/kg dw	09/26/03	CLP
	4-Methy1-2-pentanone	<10ug/kg dw	09/26/03	CLP
	2-Hexanone	<10ug/kg dw	09/26/03	CLP
_	Tetrachloroethene	<10ug/kg dw	09/26/03	CLP
	1,1,2,2-Tetrachloroethane	<10ug/kg dw	09/26/03	CLP
	Toluene	<10ug/kg dw	09/26/03	CLP
_	Chlorobenzene	<10ug/kg dw	09/26/03	CLP
_	Ethylbenzene	<10ug/kg dw	09/26/03	CLP
	Styrene	<10ug/kg dw	09/26/03	CLP
	m,p-Xylene	<10ug/kg dw	09/26/03	CLP
-	o-Xylene	<10ug/kg dw	09/26/03	CLP
	TCL Semivolatiles by EPA Method 82	70		
	Phenol	<350ug/kg dw	09/30/03	CLP
	bis(2-Chloroethyl)ether	<350ug/kg dw	09/30/03	CLP
	2-Chlorophenol	<350ug/kg dw	09/30/03	CLP
	1,3-Dichlorobenzene	<350ug/kg đw	09/30/03	CLP
	1,4-Dichlorobenzene	<350ug/kg dw	09/30/03	CLP
	1,2-Dichlorobenzene	<350ug/kg đw	09/30/03	CLP
	2-Methylphenol	<350ug/kg dw	09/30/03	CLP
	2,2'-0xybis(1-Chloropropane)	<350ug/kg dw	09/30/03	CLP
	4-Methylphenol	<350ug/kg dw	09/30/03	CLP
	n-Nitrosodinpropylamine	<350ug/kg dw	09/30/03	CLP
	Hexachloroethane	<350ug/kg dw	09/30/03	CLP
	Nitrobenzene	<350ug/kg dw	09/30/03	CLP
	Isophorone	<350ug/kg dw	09/30/03	CLP
-	2-Nitrophenol	<350ug/kg dw	09/30/03	CLP
	2,4-Dimethylphenol	<350ug/kg dw	09/30/03	CLP
	bis(2-Chloroethoxy)methane	<350ug/kg dw	09/30/03	CLP
	2,4-Dichlorophenol	<350ug/kg dw	09/30/03	CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

APPROVAL:____ QC: Lab I.D.: 10170

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client BBB-SS12 1710H 09/18/03 G

ULI I.D.: 26603027 Matrix: Soil

PARAMETERS	RESULTS	TIME DATE ANAL. KEY	KEY	FILE#
1,2,4-Trichlorobenzene	<350ug/kg dw	09/30/03		CLP
Naphthalene	<350ug/kg dw	09/30/03		CLP
4-Chloroaniline	<350ug/kg dw	09/30/03		CLP
Hexachlorobutadiene	<350ug/kg đw	09/30/03		CLP
4-Chloro-3-methylphenol	<350ug/kg dw	09/30/03		CLP
2-Methylnaphthalene	43ug/kg dw	09/30/03	J	CLP
Hexachlorocyclopentadiene	<350ug/kg dw	09/30/03		CLP
2,4,6-Trichlorophenol	<350ug/kg dw	09/30/03		CLP
2,4,5-Trichlorophenol	<350ug/kg dw	09/30/03		CLP
2-Chloronaphthalene	<350ug/kg dw	09/30/03		CLP
2-Nitroaniline	<830ug/kg dw	09/30/03		CLP
Dimethylphthalate	<350ug/kg dw	09/30/03		CLP
Acenaphthylene	<350ug/kg dw	09/30/03		CLP
2,6-Dinitrotoluene	<350ug/kg dw	09/30/03		CLP
3-Nitroaniline	<830ug/kg dw	09/30/03		CLP
Acenaphthene	<350ug/kg dw	09/30/03		CLP
2,4-Dinitrophenol	<830ug/kg dw	09/30/03		CLP
4-Nitrophenol	<830ug/kg dw	09/30/03		CLP
Dibenzofuran	<350ug/kg dw	09/30/03		CLP
2,4-Dinitrotoluene	<350ug/kg dw	09/30/03		CLP
Diethylphthalate	<350ug/kg dw	09/30/03		CLP
4-Chlorophenylphenylether	<350ug/kg dw	09/30/03		CLP
Fluorene	<350ug/kg dw	09/30/03		CLP
4-Nitroaniline	<830ug/kg dw	09/30/03		CLP
2-Methyl-4,6-dinitrophenol	<830ug/kg dw	09/30/03		CLP
n-Nitrosodiphenylamine	<350ug/kg dw	09/30/03		CLP
4-Bromophenylphenylether	<350ug/kg dw	09/30/03		CLP
Hexachlorobenzene	<350ug/kg dw	09/30/03		CLP
Pentachlorophenol	<830ug/kg dw	09/30/03		CLP
Phenanthrene	87ug/kg dw	09/30/03	J	CLP
Anthracene	<350ug/kg dw	09/30/03		CLP
Carbazole	<350ug/kg dw	09/30/03		CLP
Di-n-butylphthalate	41ug/kg dw	09/30/03	J	CLP
Fluoranthene	150ug/kg dw	09/30/03	J	CLP
Pyrene	170ug/kg dw	09/30/03	J	CLP
Butylbenzylphthalate	<350ug/kg dw	09/30/03		CLP
3,3'-Dichlorobenzidine	<350ug/kg dw	09/30/03		CLP
Benzo(a)anthracene	110ug/kg dw	09/30/03	J	CLP
Chrysene	140ug/kg dw	09/30/03	J	CLP
bis(2-Ethylhexyl)phthalate	<350ug/kg dw	09/30/03		CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

APPROVAL:

QC:

Lab I.D.: 10170

Sampled by: Client BBB-SS12 1710H 09/18/03 G

ULI I.D.: 26603027 Matrix: Soil

	PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
	Di-n-octylphthalate	<350ug/kg dw		09/30/03			CLP
	Benzo(b) fluoranthene	210ug/kg dw		09/30/03		J	CLP
	Benzo(k) fluoranthene	79ug/kg dw		09/30/03		J	CLP
	Benzo(a)pyrene	120ug/kg dw		09/30/03		J	CLP
	Indeno(1,2,3-cd)pyrene	78ug/kg dw		09/30/03		J	CLP
	Dibenzo(a,h) anthracene	<350ug/kg dw		09/30/03			CLP
	Benzo(ghi)perylene	92ug/kg dw		09/30/03		J	CLP
	PCB (Aroclors) by EPA Method 8082						
	Aroclor 1016	<340ug/kg dw		09/30/03		1	CLP
	Aroclor 1221	<340ug/kg dw		09/30/03		1	CLP
	Aroclor 1232	<340ug/kg dw		09/30/03		1	CLP
-	Aroclor 1242	<340ug/kg dw		09/30/03		1	CLP
	Aroclor 1248	<340ug/kg dw		09/30/03		1	CLP
	Aroclor 1254	<340ug/kg dw		09/30/03		1	CLP
	Aroclor 1260	<340ug/kg dw		09/30/03		1	CLP
_	Total PCB	<340ug/kg dw		09/30/03		1	CLP

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26603012

APPROVAL:_____ QC:_____ Lab I.D.: 10170

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client TRIP BLANK 09/18/03

ULI I.D.: 2	6603028	Matrix:	Water
-------------	---------	---------	-------

PA	Rambters	rrsults	TIME	DATE ANAL.	KEY	KEY	FILR#
	TCL Volatiles by EPA Method 8260						
	Chloromethane	5ug/1		10/01/03		J	CLP
	Bromomethane	<10ug/1		10/01/03			CLP
	Vinyl Chloride	<10ug/1		10/01/03			CLP
	Chloroethane	<10ug/1		10/01/03			CLP
	Methylene Chloride	<10ug/1		10/01/03			CLP
	Acetone	11ug/1		10/01/03			CLP
	Carbon Disulfide	<10ug/1		10/01/03			CLP
	1,1-Dichloroethene	<10ug/1		10/01/03			CLP
	1,1-Dichloroethane	<10ug/l		10/01/03			CLP
	trans-1,2-Dichloroethene	<10ug/1		10/01/03			CLP
	cis-1,2-Dichloroethene	<10ug/1		10/01/03			CLP
	Chloroform	<10ug/1		10/01/03			CLP
	1,2-Dichloroethane	<10ug/l		10/01/03			CLP
	2-Butanone	<10ug/1		10/01/03			CLP
	1,1,1-Trichloroethane	<10ug/l		10/01/03			CLP
	Carbon Tetrachloride	<10ug/1		10/01/03			CLP
	Bromodichloromethane	<10ug/1		10/01/03			CLP
	1,2-Dichloropropane	<10ug/1		10/01/03			CLP
	cis-1,3-Dichloropropene	<10ug/1		10/01/03			CLP
	Trichloroethene	<10ug/1		10/01/03			CLP
	Dibromochloromethane	<10ug/1		10/01/03			CLP
	1,1,2-Trichloroethane	<10ug/1		10/01/03			CLP
	Benzene	<10ug/1		10/01/03			CLP
	trans-1,3-Dichloropropene	<10ug/1		10/01/03			CLP
	Bromoform	<10ug/1		10/01/03			CLP
	4-Methyl-2-pentanone	<10ug/1		10/01/03			CLP
	2-Hexanone	<10ug/1		10/01/03			CLP
	Tetrachloroethene	<10ug/1		10/01/03			CLP
	1,1,2,2-Tetrachloroethane	<10ug/1		10/01/03			CLP
	Toluene	<10ug/1		10/01/03			CLP
	Chlorobenzene	<10ug/1		10/01/03			CLP
	Ethylbenzene	<10ug/1		10/01/03			CLP
	Styrene	<10ug/1		10/01/03			CLP
	m,p-Kylene	<10ug/1		10/01/03			CLP
	o-Xylene	<10ug/l		10/01/03			CLP

KEY PAGE

- 1 MATRIX INTERFERENCE PRECLUDES LOWER DETECTION LIMITS
- 2 REFERENCE SAMPLE/CCV RECOVERY WAS OUTSIDE OF CONTROL LIMITS
- 3 METHOD BLANK RESULT WAS ABOVE THE CONTROL LIMITS
- 4 ANALYSIS NOT PERFORMED BECAUSE OF INSUFFICIENT SAMPLE
- 5 THE PRESENCE OF OTHER TARGET ANALYTE(S) PRECLUDES LOWER DETECTION LIMITS
- 6 BLANK CORRECTED
- 7 HEAD SPACE PRESENT IN SAMPLE
- 8 QUANTITATION LIMIT IS GREATER THAN THE CALCULATED REGULATORY LEVEL. THE QUANTITATION LIMIT THEREFORE BECOMES THE REGULATORY LEVEL.
- 9 THE OIL WAS TREATED AS A SOLID AND LEACHED WITH EXTRACTION FLUID
- 10 RESULTS ARE REPORTED ON AN AS REC.D BASIS
- 11 POSSIBLE CONTAMINATION FROM FIELD/LABORATORY
- 12 SAMPLE ANALYZED OVER HOLDING TIME
- 13 DISSOLVED VALUE MAY BE HIGHER THAN TOTAL DUE TO CONTAMINATION FROM THE FILTERING PROCEDURE
- 14 SAMPLED BY ULI
- 15 DISSOLVED VALUE MAY BE HIGHER THAN TOTAL; HOWEVER, THE VALUES ARE WITHIN EXPERIMENTAL ERROR
- 16 AN INHIBITORY FACTOR WAS OBSERVED IN THIS ANALYSIS
- 17 PARAMETER NOT ANALYZED WITHIN 15 MINUTES OF SAMPLING
- 18 THE SERIAL DILUTION OF THIS SAMPLE SUGGESTS A POSSIBLE PHYSICAL AND/OR CHEMICAL INTERFERENT IN THIS DETERMINATION. THE DATA MAY BE BIASED EITHER HIGH OR LOW.
- 19 CALCULATION BASED ON DRY WEIGHT
- 20 INDICATES AN ESTIMATED VALUE, DETECTED BUT BELOW THE PRACTICAL QUANTITATION LIMITS
- 21 UG/KG AS REC.D / UG/KG DRY WT
- 22 MG/KG AS REC.D / MG/KG DRY WT
- 23 INSUFFICIENT SAMPLE PRECLUDES LOWER DETECTION LIMITS
- 24 SAMPLE DILUTED/BLANK CORRECTED
- 25 ND (NON-DETECTED)
- 26 DUPLICATE SAMPLE OUTSIDE QC CRITERIA
- 27 SPIKE RECOVERY ABNORMALLY HIGH/LOW DUE TO MATRIX INTERFERENCE
- 28 POST-DIGESTION SPIKE FOR FURNACE AA ANALYSIS IS OUTSIDE OF THE CONTROL LIMITS (85-115%); HOWEVER, THE SAMPLE CONCENTRATION IS BELOW THE PQL
- 29 ANALYZED BY METHOD OF STANDARD ADDITIONS
- 30
- 31 FIELD MEASURED PARAMETER TAKEN BY CLIENT
- 32 TARGET ANALYTE IS BIODEGRADED AND/OR ENVIRONMENTALLY WEATHERED
- 33 MILLIGRAMS PER LITER (MG/L) LINEAR ALKYL SULFONATE (LAS) / POUNDS (LBS)
 PER DAY LAS
- 34 THE SAMPLE WAS ANALYZED ON A TOTAL BASIS; THE TEST RESULT CAN BE COMPARED TO THE TCLP REGULATORY CRITERIA BY DIVIDING THE TEST RESULT BY 20, CREATING A THEORETICAL TCLP VALUE
- 35 THE HYDROCARBONS DETECTED IN THE SAMPLE DID NOT CROSS-MATCH WITH COMMON PETROLEUM DISTILLATES
- 36 MATRIX INTERFERENCE CAUSING SPIKES TO RESULT IN LESS THAN 50.0% RECOVERY
- 37 MILLIGRAMS PER LITER (MG/L) / POUNDS (LBS) PER DAY
- 38 MILLIGRAMS PER LITER (MG/L) OF RESIDUAL CHLORINE (CL2) / POUNDS (LBS) PER DAY OF CL2
- 39 MICROGRAMS PER LITER (UG/L) / POUNDS (LBS) PER DAY
- (B) DETECTED IN BLANK
- (D) ALL COMPOUNDS IDENTIFIED IN AN ANALYSIS AT A SECONDARY DILUTION FACTOR
- (E) COMPOUNDS WHOSE CONCENTRATIONS EXCEED THE CALIBRATION RANGE OF THE GC/MS INSTRUMENT FOR THAT SPECIFIC ANALYSIS
- (J) DETECTED BELOW THE CRQL
- (a) SAMPLE(S) RECEIVED AT THE IMPROPER TEMPERATURE
- (b) HEADSPACE IN VOA VIAL(S)
- (c) HEADSPACE IN ALKALINITY BOTTLE(S)
- (d) SAMPLE CONTAINER(S) RECEIVED BROKEN

6034 Corporate Drive • E. Syracuse, NY 13057-1017 (315) 437 0255 Fax 437 1209 Client: Client Project # / Project Name No. Special T	urnaround
Fierling Environmental Buffalo Brake Beam of Time_	urnaround
	ication
Wayne Cameron 814-1407 Lackawanna, NY tain- required	
Sample Location: Date Time Matrix Grab or ULI Internal Use Only ers	
(Holding Plant) 19-23-03 (0924) (water from 26602012 (1) 1) 2) 3) 4) (1) (1) (8) 9) 10) Ren	narks
BBB-91801) 9/18/03 0820 SOIL GR 3/1/X XXX NYSD	EC_
BBB-91802 9/18/03 1135 SOIL GR HUX X ASP-C	AIB
BBB-91803 9/18/03 1145 SOIL GR IS (1) X	
BBB-5501 9/18/03 1315 5014 612 16 11 X	
1388-5502 9/18/03 1425 SOIL GR 17 10 X	
BBB-5503 9/18/03 14/0 SOLL GR 18/1) X X	
BBB-550\$ 9/18/03 1520 SOIL GR 19/12 XX	<u> </u>
388-55+4 9/18-3 1520 SOIL GR-26	
BBB-504A M/S 9/18/03 1520 JOIL GR XX	
BBB-SSOUBMS/D 8/W/13 1520 SOIL GR WXX	
parameter and method sample bottle: Type Size pres. Sampled by, (Please Film) Oct internal ose to	
1) 95-1 VOC FOR TETRACHLOFDETHANE (PERC) G(402 - Wayne Cameron Delivery (check of ULI Sampled	
2) 95-2-SEMUOLATILES 95-M TAL METALS GL 1602 - STEPLING ENVIRONMETAL PCC CR	Dropoff
3) 95-/ MOLATILE ORGANICS (IST G/ 402 - Relinquished by: (Signature) Date Time Received by: (Signature)	nature)
1)95-2 SVOC'S, 95-3 PCBS, 95-M-METALS GC 1602 - 3 3 3 ()/1/20 OCOA	1
	A
Relinquished by: (Signature) Date Time Received by: (Signature)	nature)
1 10 - Cias 11/03 100	
Relinquished by: (Signature) Date Time Received by: (Signature)	nature)
	(Diameters)
Relinquished by: (Signature) Date Time Rec'd for Lab by:	(oignature)
Note: The numbered columns above cross-reference with the numbered columns in the upper right-hand corner.	NP_
Control of the contro	ı
	1

1 1 1

w psiace Manoratories, Muc.

295-2 5105, 95-3 RB'S, 95-M THE MET. 1195-2 SVC'S parameter and method Sample Location: Client Contact (315) 437 0255 6034 Corporate Drive . E. Syracuse, NY 13057-1017 Note: The numbered columns above cross-reference with the numbered columns in the upper right-hand corner ·Sterling 8BB-SS06 808-JJ09 BBB-5505 8BB-SS10 888-SS08 BBB-3567 Wayne Cameron 388-KIP BLANK COUNTY OF GAVIC ,95-M TAL METALS 824-240 Date Fax 437 1209 Site Location (city/state) Client Project # / Project Name Time Lackawanna. NY Buffalo Brake sample bottle: <0(/ Matrix Chain Of GRAB GRAR 6PAB 684R GRAB Grab or | ULI Internal Use Only Comp. 402 1/02 1602 2/1/2020 size Custody Record (0)13 MDD pres. & 27 H Relinquished by: (Signature) Date Relinquished by: (Signature) Date Relinquished by: (Signature) Date Relinquished by: (Signature) STENTING ENVICONMENTA DEC CAL Sampled by: (Please Print) ers <u>Q</u> Wayne Cameron ယ္ <u>ა</u> 12/9 <u></u> Time Time Time 8 စ္ Received by: (Signature) Rec'd for Lab by: (Signature) Received by: (Signature) Received by: (Signature) ULI Internal Use Only Dèlivery (check one): <u></u> SECUSIA ABOUTA (Lab Notification Special Turnaround required) Time_ ☐ Dropoff Remarks

Upstate Laboratories, Inc.

6034 Corporate Drive
East Syracuse, New York 13057-1017

Sample Data Summary Package

Case Narrative, Summary of Test Results, Summary of QC Results,

Chain of Custody Documentation

Volume 1 of 2

SDG No. STE 02

						C		

Buffalo Brake Beam Lackawanna, New York

Prepared for:

Mr. Wayne K. Cameron Project Manager Sterling Env. Services, Inc. 50 Lake Avenue Blasdell, New York 14219

Samples Collected:

November 18, 2003

000001

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

UPSTATE LABORATORIES, INC.

6034 Corporate Drive

East Syracuse, New York 13057

East Syracuse, New York Customer	Laboratory			Anal	ytical Requ	iremente	
Sample	Sample	VOA	VOA	Semi	PCB	Metals	Wet
Code	Code	GC/MS	GC	GC/MS	GC/MS	IVICIAIS	Chemistry
Code	Code	Method	Method	Method	Method	Method	and
	ļ	#	#	#	#	#	Other
BBB-SS1101	32403074		95-2	-	- "		%Solid
BBB-SS1102	32403075		95-2				%Solid
BBB-SS1103	32403076		95-2				%Solid
BBB-SS1103 MS	32403076MS		95-2				
BBB-SS1103 MSD	32403076MSD		95-2	_			-
BBB-SS1103 Dupe	32403076DP	_			-		%Solid
BBB-SS1104	32403077	-	95-2	-	_		%Solid
BBB-SS1105	32403078	•	95-2	-	•	-	%Solid
BBB-SS1106	32403079		95-2			_	%Solid
							7000114
							
							
						-	
	· · · · · · · · · · · · · · · · · · ·						
	 						
	-						
			_		_		
		_					
			D 212				

The total	number of	pages	in this	data	package is:	
I IIO COUL		Pupuu	*** ****	-	parameter is.	

Narrative

1.0 Summary

This report presents the sample test results and quality control results for six soil locations from the Buffalo Brake Beam project, Lackawanna, New York. The samples were analyzed for the parameters listed in Section 3.0, below.

This report is divided into two packages and two volumes. The Sample Data Summary Package (Volume 1) presents a summary of the test results and quality control data. This abbreviated format is useful to engineers and environmental scientists. The Sample Data Package (Volume 2) is a comprehensive report containing instrument raw data. It is formatted for validation by an independent third party.

2.0 Chain of Custody

The samples were collected by Sterling Environmental on November 18, 2003, and were picked up by ULI personnel then shipped via CDL to Upstate Laboratories, Inc., Syracuse, New York. The Chain of Custody documentation is copied in Volumes 1 & 2.

3.0 Methodology

The analyses were performed using test methods developed by the USEPA. The specific method numbers are:

Parameter	Method	Reference
Semi-Volatiles	95.2	(8)
Percent Solids	2540 G	(9)

- (8) "Analytical Services Protocol," New York State Department of Environmental Protection, 10/95 revision.
- (9) "Standard Methods for the Examination of Water & Wastewater," APHA, AWWA, WEF, 18th ED. 1992.

4.0 Quality Control

Quality control data includes method blanks, reference samples, matrix spikes, matrix spike duplicates, duplicates, and surrogate recoveries. For wet chemistry, the association of QC data with sample data is made through the use of the "File No." found on both the final report pages and the QC summary pages.

5.0 Internal Validation

The following observations are offered:

Semi-Volatiles by GC/MS

Holding Time : Samples were extracted over holding time due to Thanksgiving holiday, but were analyzed immediately

following extraction. All other criteria were satisfied.

Calibration : Several target compounds were manually integrated in the IC and CC. All other criteria were satisfied.

Method Blanks : Criteria were satisfied.

MSB : The RS %recoveries for 1,4-Dichlorobenzene, N-Nitrosodinpropylamine, 1,2,4-Trichlorobenzene and

Acenaphthene were outside below QC limits and was reanalyzed with similar results. All other criteria

were satisfied.

MS/MSD : The MS %recoveries for 1,2,4-Trichlorobenzene and N-Nitrosodinpropylamine, and the MSD

%recoveries for Phenol, 2-Chlorophenol, 1,2,4-Trichlorobenzene, 4-Chloro-3-methylphenol,

Acenaphthene, Pyrene and N-Nitrosodinpropylamine were below QC limits due to the non-homogenous

sample matrix, as were the RPDs for Acenaphthene and Pyrene. All other criteria were satisfied.

Surrogates : Samples reanalyzed at dilution had surrogates outside QC limits due to dilution. All other criteria were

satisfied.

Inter. Stds. : Samples and QC with IS failures were either reanalyzed or Diluted and reanalyzed. All other criteria

were satisfied.

Other : Samples BBB-SS1101, BBB-SS1102, SSS-BB1105 and SSS-BB1106 were reanalyzed at dilution due to

high hits.

I certify that this data package is in compliance with the terms and conditions of the Contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and/or in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Approved

Anthony J. Scala, Director

QC245B02

Upstate - Laboratories inc.

Shipping: 6034 Corporate Dr. • E. Syracuse, NY 13057-1017 • (315) 437-0255 • Fax (315) 437-1209_

Mailing: Box 289 · Syracuse, NY 13206

Albany (518) 459-3134 Binghamton (607) 724-0478 Buffalo (716) 649-2533 Rochester (585) 436-9070 New Jersey (201) 343-5353

December 19, 2003

Mr. Wayne K. Cameron Project Manager Sterling Env. Services, Inc. 50 Lake Ave. Blasdell, NY 14219

Re: Analysis Report #32403074 - Buffalo Brake Beam

Dear Mr. Cameron:

Please find enclosed the results for your samples which were received on November 18, 2003.

We have included the Chain of Custody Record as part of your report. You may need to reference this form for a more detailed explanation of your sample. Samples will be disposed of approximately one month from final report date.

Should you have any questions, please feel free to give us a call.

Thank you for your patronage.

Sincerely,

UPSTATE LABORATORIES, INC.

Anthony J. Scala Director

AJS/ac

Enclosures: report, ASP package, invoice

cc/encs: N. Scala, ULI

file

Note: Faxed results were given to your office 12/2/03. AJS

Disclaimer: The test results and procedures utilized, and laboratory interpretations of data obtained by ULI as contained in this report are believed by ULI to be accurate and reliable for sample(s) tested. In accepting this report, the customer agrees that the full extent of any and all liability for actual and consequential damages of ULI for the services performed shall be equal to the fee charged to the services as liquidated damages.

NY Lab ID 10170 NJ Lab ID NY750 PA Lab ID 68375

ATE: 12/19/03

Upstate Laboratories, Inc. Analysis Results

Report Number: 32403074

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM Sampled by: Client

APPROVAL:____ QC: ______ Lab I.D.: 10170

BBB-SS1101 0935H 11/18/03 G

ULI I.D.: 32403074 Matrix: Soil

	PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEA	FILE#
	Percent Solids	84%		11/21/03			WE6143
	TCL Semivolatiles by EPA Method 827	0					
	Phenol	<400ug/kg dw		12/01/03			CLP
***	bis(2-Chloroethyl)ether	<400ug/kg dw		12/01/03			CLP
	2-Chlorophenol	<400ug/kg dw		12/01/03			CLP
	1,3-Dichlorobenzene	<400ug/kg dw		12/01/03			CLP
	1,4-Dichlorobenzene	<400ug/kg dw		12/01/03			CLP
_	1,2-Dichlorobenzene	<400ug/kg dw		12/01/03			CLP
	2-Methylphenol	<400ug/kg dw		12/01/03			CLP
	2,2'-Oxybis(1-Chloropropane)	<400ug/kg dw		12/01/03			CLP
_	4-Methylphenol	<400ug/kg dw		12/01/03			CLP
	n-Nitrosodinpropylamine	<400ug/kg dw		12/01/03			CLP
	Hexachloroethane	<400ug/kg dw		12/01/03			CLP
	Nitrobenzene	<400ug/kg dw		12/01/03			CLP
	Isophorone	<400ug/kg dw		12/01/03			CLP
	2-Nitrophenol	<400ug/kg dw		12/01/03			CLP
	2,4-Dimethylphenol	<400ug/kg dw		12/01/03			CLP
	bis (2-Chloroethoxy) methane	<400ug/kg dw		12/01/03			CLP
_	2,4-Dichlorophenol	<400ug/kg dw		12/01/03			CLP
	1,2,4-Trichlorobenzene	<400ug/kg dw		12/01/03			CLP
	Naphthalene	830ug/kg dw		12/01/03			CLP
	4-Chloroaniline	<400ug/kg dw		12/01/03			CLP
	Hexachlorobutadiene	<400ug/kg dw		12/01/03			CLP
	4-Chloro-3-methylphenol	<400ug/kg dw		12/01/03			CLP
	2-Methylnaphthalene	530ug/kg dw		12/01/03			CLP
-	Hexachlorocyclopentadiene	<400ug/kg dw		12/01/03			CLP
	2,4,6-Trichlorophenol	<400ug/kg dw		12/01/03			CLP
	2,4,5-Trichlorophenol	<400ug/kg dw		12/01/03			CLP
	2-Chloronaphthalene	<400ug/kg dw		12/01/03			CLP
	2-Nitroaniline	<950ug/kg dw		12/01/03			CLP
	Dimethylphthalate	<400ug/kg dw		12/01/03			CLP
	Acenaphthylene	51ug/kg dw		12/01/03		J	CLP
_	2,6-Dinitrotoluene	<400ug/kg dw		12/01/03			CLP
	3-Nitroaniline	<950ug/kg dw		12/01/03			CLP
	Acenaphthene	1800ug/kg dw		12/01/03			CLP
	2,4-Dinitrophenol	<950ug/kg dw		12/01/03		7	CLP
	4-Nitrophenol	<950ug/kg dw		12/01/03			CLP
	Dibenzofuran	1600ug/kg dw		12/01/03			CLP
	2,4-Dinitrotoluene	<400ug/kg dw		12/01/03			CLP

ATE: 12/19/03

Upstate Laboratories, Inc. Analysis Results

Report Number: 32403074

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM Sampled by: Client

APPROVAL:
QC:
Lab I.D.: 10170

BBB-SS1101 0935H 11/18/03 G

ULI I.D.: 32403074 Matrix: Soil

PARAMETERS	RESULTS		ATE ANAL.	KEY	KEY	FILE#
Diethylphthalate	<400ug/kg dw		12/01/03			CLP
4-Chlorophenylphenylether	<400ug/kg dw		12/01/03			CLP
Fluorene	2000ug/kg dw		12/01/03			CLP
4-Nitroaniline	<950ug/kg dw		12/01/03			CLP
2-Methyl-4,6-dinitrophenol	<950ug/kg dw		12/01/03			CLP
n-Nitrosodiphenylamine	<400ug/kg dw		12/01/03			CLP
4-Bromophenylphenylether	<400ug/kg dw		12/01/03			CLP
Hexachlorobenzene	<400ug/kg dw		12/01/03			CLP
Pentachlorophenol	<950ug/kg dw		12/01/03			CLP
Phenanthrene	19,000ug/kg dw		12/01/03		Ď	CLP
Anthracene	5200ug/kg dw		12/01/03		D	CLP
Carbazole	1900ug/kg dw		12/01/03			CLP
Di-n-butylphthalate	<400ug/kg dw		12/01/03			CLP
Fluoranthene	15,000ug/kg dw		12/01/03		ם	CLP
Pyrene	14,000ug/kg dw		12/01/03		D	CLP
Butylbenzylphthalate	<400ug/kg dw		12/01/03			CLP
3,3'-Dichlorobenzidine	<400ug/kg dw		12/01/03			CLP
Benzo(a)anthracene	6700ug/kg dw		12/01/03		D	CLP
Chrysene	<4000ug/kg dw		12/01/03			CLP
bis(2-Ethylhexyl)phthalate	<400ug/kg dw	:	12/01/03			CLP
Di-n-octylphthalate	<400ug/kg dw		12/01/03			CLP
Benzo(b) fluoranthene	7000ug/kg dw	;	12/01/03		D	CLP
Benzo(k) fluoranthene	1800ug/kg dw	:	12/01/03			CLP
Benzo(a)pyrene	5100ug/kg dw	:	12/01/03		D	CLP
Indeno(1,2,3-cd)pyrene	1200ug/kg dw	:	12/01/03			CLP
Dibenzo(a,h)anthracene	<400ug/kg dw	:	12/01/03			CLP
Benzo(ghi)perylene	1100ug/kg dw		12/01/03			CLP

Upstate Laboratories, Inc. Analysis Results

Report Number: 32403074

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM Sampled by: Client

APPROVAL: QC:

Lab I.D.: 10170

BBB-SS1102 1000H 11/18/03 G

			 	 	 		 	 	_	_	 	 <u> </u>	
ULI	I.D.:	32403075			Matrix:	Soil							

RESULTS TIME DATE ANAL. KEY KEY FILE# PARAMETERS Resca ---- ------ --- -----------Percent Solids 78% 11/21/03 WE6143 T. Seminolatiles by PDA Method 8270

TCL Semivolatiles by EPA Method 8270				
Phenol	<430ug/kg dw	12/01/03		CLP
bis(2-Chloroethyl)ether	<430ug/kg dw	12/01/03		CLP
2-Chlorophenol	<430ug/kg dw	12/01/03		CLP
1,3-Dichlorobenzene	<430ug/kg dw	12/01/03		CLP
1,4-Dichlorobenzene	<430ug/kg dw	12/01/03		CLP
1,2-Dichlorobenzene	<430ug/kg dw	12/01/03		CLP
2-Methylphenol	<430ug/kg dw	12/01/03		CLP
2,2'-Oxybis(1-Chloropropane)	<430ug/kg dw	12/01/03		CLP
4-Methylphenol	<430ug/kg dw	12/01/03		CLP
n-Nitrosodinpropylamine	<430ug/kg dw	12/01/03		CLP
Hexachloroethane	<430ug/kg dw	12/01/03		CLP
Nitrobenzene	<430ug/kg dw	12/01/03		CLP
Isophorone	<430ug/kg dw	12/01/03		CLP
2-Nitrophenol	<430ug/kg dw	12/01/03		CLP
2,4-Dimethylphenol	<430ug/kg dw	12/01/03		CLP
bis(2-Chloroethoxy)methane	<430ug/kg dw	12/01/03		CLP
2,4-Dichlorophenol	<430ug/kg dw	12/01/03		CLP
1,2,4-Trichlorobenzene	<430ug/kg dw	12/01/03		CLP
Naphthalene	370ug/kg dw	12/01/03	J	CLP
4-Chloroaniline	<430ug/kg dw	12/01/03		CLP
Hemachlorobutadiene	<430ug/kg dw	12/01/03		CLP
4-Chloro-3-methylphenol	<430ug/kg dw	12/01/03		CLP
2-Methylnaphthalene	180ug/kg dw	12/01/03	J	CLP
Hexachlorocyclopentadiene	<430ug/kg dw	12/01/03		CLP
2,4,6-Trichlorophenol	<430ug/kg dw	12/01/03		CLP
2,4,5-Trichlorophenol	<430ug/kg dw	12/01/03		CLP
2-Chloronaphthalene	<430ug/kg dw	12/01/03		CLP
2-Nitroaniline	<1000ug/kg dw	12/01/03		CLP
Dimethylphthalate	<430ug/kg dw	12/01/03		CLP
Acenaphthylene	5lug/kg dw	12/01/03	J	CLP
2,6-Dinitrotoluene	<430ug/kg dw	12/01/03		CLP
3-Nitroaniline	<1000ug/kg dw	12/01/03		CLP
Acenaphthene	690ug/kg dw	12/01/03		CLP
2,4-Dinitrophenol	<1000ug/kg dw	12/01/03		CLP
4-Nitrophenol	<1000ug/kg dw	12/01/03		CLP
Dibenzofuran	540ug/kg dw	12/01/03		CLP
2,4-Dinitrotoluene	<430ug/kg dw	12/01/03		CLP

Tw = Dry weight

ATE: 12/19/03

Upstate Laboratories, Inc. Analysis Results Report Number: 32403074

Lab I.D.: 10170

lient I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM Sampled by: Client

BBB-SS1102 1000H 11/18/03 G

APPROVAL:

ULI I.D.: 32403075 Matrix: Soil

P	ARAMETERS	RESULTS	TIME		KEY	KEY	FILR#
-	Diethylphthalate	<430ug/kg dw		12/01/03			CLP
	4-Chlorophenylphenylether	<430ug/kg dw		12/01/03			CLP
	Fluorene	830ug/kg dw		12/01/03			CLP
	4-Nitroaniline	<1000ug/kg dw		12/01/03			CLP
	2-Methyl-4,6-dinitrophenol	<1000ug/kg dw		12/01/03			CLP
	n-Nitrosodiphenylamine	<430ug/kg dw		12/01/03			CLP
	4-Bromophenylphenylether	<430ug/kg dw		12/01/03			CLP
	Hexachlorobenzene	<430ug/kg dw		12/01/03			CLP
	Pentachlorophenol	<1000ug/kg dw		12/01/03			CLP
	Phenanthrene	9400ug/kg dw		12/01/03		D	CLP
	Anthracene	1600ug/kg dw		12/01/03			CLP
	Carbazole	750ug/kg dw		12/01/03			CLP
	Di-n-butylphthalate	<430ug/kg dw		12/01/03			CLP
	Fluoranthene	8600ug/kg dw		12/01/03		D	CLP
	Pyrene	8300ug/kg dw		12/01/03		D	CLP
	Butylbenzylphthalate	190ug/kg dw		12/01/03		J	CLP
	3,3'-Dichlorobenzidine	<430ug/kg dw		12/01/03			CLP
	Benzo(a) anthracene	2800ug/kg dw		12/01/03			CLP
	Chrysene	2400ug/kg dw		12/01/03			CLP
	bis(2-Ethylhexyl)phthalate	800ug/kg dw		12/01/03			CLP
	Di-n-octylphthalate	<430ug/kg dw		12/01/03			CLP
	Benzo(b) fluoranthene	4900ug/kg dw		12/01/03		D	CLP
	Benzo(k) fluoranthene	1200ug/kg dw		12/01/03			CLP
	Benzo(a)pyrene	720ug/kg dw		12/01/03			CLP
	Indeno(1,2,3-cd)pyrene	720ug/kg dw		12/01/03			CLP
	Dibenzo(a,h)anthracene	<430ug/kg dw		12/01/03			CLP
	Benzo(ghi)perylene	<430ug/kg dw		12/01/03			CLP

ATE: 12/19/03

Upstate Laboratories, Inc. Analysis Results

Report Number: 32403074

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM Sampled by: Client

APPROVAL:
QC:
Lab I.D.: 10170

BBB-SS1103 1020H 11/18/03 G

	ULI I.D.:	32403076	Matrix:	Soil
--	-----------	----------	---------	------

PARAMETERS	RESULTS	TIME			KEY	KEY	FILE#
Percent Solids	76%			21/03			WE614
TCL Semivolatiles by EPA Method 82	70						
	. •						
Phenol	<440ug/kg dw		12/0	01/03			CLP
bis (2-Chloroethy1) ether	<440ug/kg dw			01/03			CLP
2-Chlorophenol	<440ug/kg dw		-	1/03			CLP
1,3-Dichlorobenzene	<440ug/kg dw		•	1/03			CLP
1,4-Dichlorobenzene	<440ug/kg dw		•	01/03			CLP
1,2-Dichlorobenzene	<440ug/kg dw		-	1/03			CLP
2-Methylphenol	<440ug/kg dw			1/03			CLP
2,2'-Oxybis(1-Chloropropane)	<440ug/kg dw		•	1/03			CLP
4-Methylphenol	<440ug/kg dw			1/03			CLP
n-Nitrosodinpropylamine	<440ug/kg dw		· ·	1/03			CLP
Hexachloroethane	<440ug/kg dw		-	1/03			CLP
Nitrobenzene	<440ug/kg dw			1/03			CLP
Isophorone	<440ug/kg dw			1/03			CLP
2-Nitrophenol	<440ug/kg dw		•	1/03			CLP
2,4-Dimethylphenol	<440ug/kg dw		-	1/03			CLP
bis (2-Chloroethoxy) methane	<440ug/kg dw		•	1/03			CLP
2,4-Dichlorophenol	<440ug/kg dw		•	1/03			CLP
1,2,4-Trichlorobenzene	<440ug/kg dw		-	1/03			CLP
Naphthalene	110ug/kg dw			1/03		J	CLP
4-Chloroaniline	<440ug/kg dw		•	1/03			CLP
Hexachlorobutadiene	<440ug/kg dw		•	1/03			CLP
4-Chloro-3-methylphenol	<440ug/kg dw		•	1/03			CLP
2-Methylnaphthalene	68ug/kg dw		•	1/03		J	CLP
Hexachlorocyclopentadiene	<440ug/kg dw			1/03			CLP
2,4,6-Trichlorophenol	<440ug/kg dw		•	1/03			CLP
2,4,5-Trichlorophenol	<440ug/kg dw			1/03			CLP
2-Chloronaphthalene	<440ug/kg dw			1/03			CLP
2-Nitroaniline	<1100ug/kg dw			1/03			CLP
Dimethylphthalate	<440ug/kg dw		•	1/03			CLP
Acenaphthylene	<440ug/kg dw			1/03			CLP
2,6-Dinitrotoluene	<440ug/kg dw		-	1/03			CLP
3-Nitroaniline	<1100ug/kg dw		12/0	1/03			CLP
Acenaphthene	320ug/kg dw		12/0	1/03		J	CLP
2,4-Dinitrophenol	<1100ug/kg dw		-	1/03			CLP
4-Nitrophenol	<1100ug/kg dw			1/03			CLP
Dibenzofuran	210ug/kg dw			1/03		Ì	CLP
2,4-Dinitrotoluene	<440ug/kg dw		12/0	-	-		CLP

TE: 12/19/03

Upstate Laboratories, Inc.

Analysis Results

Report Number: 32403074

milient I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM Sampled by: Client

Lab I.D.: 10170

BBB-SS1103 1020H 11/18/03 G

APPROVAL:

ULI I.D.: 32403076 Matrix: Soil

-	Diethylphthalate 4-Chlorophenylphenylether	 <440ug/kg dw	 		
-		<440ng/kg dw		 	
_	4 Chlowenhamminhamminathan	< szoug/ng um	12/01/03		CLP
	4-curotobuenArbuenArecuer	<440ug/kg dw	12/01/03		CLP
	Fluorene	360ug/kg dw	12/01/03	J	CLP
	4-Nitroaniline	<1100ug/kg dw	12/01/03		CLP
-	2-Methyl-4,6-dimitrophenol	<1100ug/kg dw	12/01/03		CLP
	n-Nitrosodiphenylamine	<440ug/kg dw	12/01/03		CLP
	4-Bromophenylphenylether	<440ug/kg dw	12/01/03		CLP
	Hexachlorobenzene	<440ug/kg dw	12/01/03		CLP
-	Pentachlorophenol	<1100ug/kg dw	12/01/03		CLP
	Phenanthrene	2500ug/kg dw	12/01/03		CLP
	Anthracene	730ug/kg dw	12/01/03		CLP
	Carbazole	340ug/kg dw	12/01/03	J	CLP
	Di-n-butylphthalate	<440ug/kg dw	12/01/03		CLP
	Fluoranthene	2700ug/kg dw	12/01/03		CLP
	Pyrene	2400ug/kg dw	12/01/03		CLP
	Butylbenzylphthalate	<440ug/kg dw	12/01/03		CLP
	3,3'-Dichlorobenzidine	<440ug/kg dw	12/01/03		CLP
	Benzo(a)anthracene	1400ug/kg dw	12/01/03		CLP
	Chrysene	200ug/kg dw	12/01/03		CLP
	bis(2-Ethylhexyl)phthalate	400ug/kg dw	12/01/03	J	CLP
	Di-n-octylphthalate	<440ug/kg dw	12/01/03		CLP
	Benzo(b) fluoranthene	1700ug/kg dw	12/01/03		CLP
	Benzo(k) fluoranthene	660ug/kg dw	12/01/03		CLP
	Benzo(a)pyrene	1200ug/kg dw	12/01/03		CLP
	Indeno(1,2,3-cd)pyrene	380ug/kg dw	12/01/03	J	CLP
	Dibenzo (a, h) anthracene	<440ug/kg dw	12/01/03		CLP
-	Benzo(ghi)perylene	380ug/kg dw	12/01/03	J	CLÞ

Upstate Laboratories, Inc.

Analysis Results

teport Number: 32403074

€lient I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM

Sampled by: Client

APPROVAL:____ Lab I.D.: 10170

BBB-SS1104 1050H 11/18/03 G

ULI I.D.: 32403077		Matrix: Soil	
PARAMETERS	RESULTS	TIME DATE ANAL. KEY KI	RY FILE
Percent Solids	70%	11/21/03	WE614
TCL Semivolatiles by EPA Method 827	70		
Tell dentifolderies by ark method of	, •		
Phenol	<480ug/kg dw	12/01/03	CLP
bis (2-Chloroethyl) ether	<480ug/kg dw	12/01/03	CLP
2-Chlorophenol	<480ug/kg dw	12/01/03	CLP
1,3-Dichlorobenzene	<480ug/kg dw	12/01/03	CLP
1,4-Dichlorobenzene	<480ug/kg dw	12/01/03	CLP
1,2-Dichlorobenzene	<480ug/kg dw	12/01/03	CLP
2-Methylphenol	<480ug/kg dw	12/01/03	CLP
2,2'-Oxybis(1-Chloropropane)	<480ug/kg dw	12/01/03	CLP
4-Methylphenol	<480ug/kg dw	12/01/03	CLP
n-Nitrosodinpropylamine	<480ug/kg dw	12/01/03	CLP
Hexachloroethane	<480ug/kg dw	12/01/03	CLP
Nitrobenzene	<480ug/kg đw	12/01/03	CLP
Isophorone	<480ug/kg dw	12/01/03	CLP
2-Nitrophenol	<480ug/kg dw	12/01/03	CLP
2,4-Dimethylphenol	<480ug/kg dw	12/01/03	CLP
bis(2-Chloroethoxy)methane	<480ug/kg đw	12/01/03	CLP
2,4-Dichlorophenol	<480ug/kg dw	12/01/03	CLP
1,2,4-Trichlorobenzene	<480ug/kg dw	12/01/03	CLP
Naphthalene	<480ug/kg dw	12/01/03	CLP
4-Chloroaniline	<480ug/kg đw	12/01/03	CLP
Hexachlorobutadiene	<480ug/kg dw	12/01/03	CLP
4-Chloro-3-methylphenol	<480ug/kg dw	12/01/03	CLP
2-Methylnaphthalene	<480ug/kg dw	12/01/03	CLP
Hexachlorocyclopentadiene	<480ug/kg dw	12/01/03	CLP
2,4,6-Trichlorophenol	<480ug/kg dw	12/01/03	CLP
2,4,5-Trichlorophenol	<480ug/kg dw	12/01/03	CLP
2-Chloronaphthalene	<480ug/kg dw	12/01/03	CLP
2-Nitroaniline	<1100ug/kg dw	12/01/03	CLP
Dimethylphthalate	<480ug/kg dw	12/01/03	CLP
Acenaphthylene	<480ug/kg dw	12/01/03	CLP
2,6-Dinitrotoluene	<480ug/kg dw	12/01/03	CLP
3-Nitroaniline	<1100ug/kg dw	12/01/03	CLP
Acenaphthene	<480ug/kg dw	12/01/03	CLP
2,4-Dinitrophenol	<1100ug/kg dw	12/01/03	CLP
4-Nitrophenol	<1100ug/kg dw	12/01/03	CPb
Dibenzofuran	<480ug/kg dw	12/01/03	CLP
2,4-Dinitrotoluene	<480ug/kg dw	12/01/03	CLP

ATE: 12/19/03

Upstate Laboratories, Inc. Analysis Results

Report Number: 32403074

Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM Sampled by: Client

APPROVAL:
QC:
Lab I.D.: 10170

BBB-SS1104 1050H 11/18/03 G

ULI I.D.: 32403077 Matrix: Soil

-						
	PARAMETERS	RESULTS	TIME	DATE ANAL. I	EY KEY	FILE#
	Diethylphthalate	<480ug/kg dw		12/01/03		CLP
	4-Chlorophenylphenylether	<480ug/kg dw		12/01/03		CLP
	Fluorene	48ug/kg dw		12/01/03	J	CLP
	4-Nitroaniline	<1100ug/kg dw		12/01/03		CLP
_	2-Methyl-4,6-dinitrophenol	<1100ug/kg dw		12/01/03		CLP
	n-Nitrosodiphenylamine	<480ug/kg dw		12/01/03		CLP
	4-Bromophenylphenylether	<480ug/kg dw		12/01/03		CLP
	Hexachlorobenzene	<480ug/kg dw		12/01/03		CLP
	Pentachlorophenol	<1100ug/kg dw		12/01/03		CLP
	Phenanthrene	420ug/kg dw		12/01/03	J	CLP
	Anthracene	99ug/kg dw		12/01/03	J	CLP
	Carbazole	<480ug/kg dw		12/01/03		CLP
	Di-n-butylphthalate	<480ug/kg dw		12/01/03		CLP
	Fluoranthene	490ug/kg dw		12/01/03		CLP
	Pyrene	460ug/kg dw		12/01/03	J	CLP
_	Butylbenzylphthalate	<480ug/kg dw		12/01/03		CLP
_	3,3'-Dichlorobenzidine	<480ug/kg dw		12/01/03		CLP
	Benzo(a) anthracene	230ug/kg dw		12/01/03	J	CLP
	Chrysene	220ug/kg dw		12/01/03	J	CLP
-	bis(2-Ethylhexyl)phthalate	420ug/kg dw		12/01/03	J	CLP
	Di-n-octylphthalate	<480ug/kg dw		12/01/03		CLP
	Benzo(b) fluoranthene	330ug/kg dw		12/01/03	J	CLP
	Benzo(k) fluoranthene	120ug/kg dw		12/01/03	J	CLP
•	Benzo(a)pyrene	210ug/kg dw		12/01/03	J	CLP
	Indeno(1,2,3-cd)pyrene	80ug/kg dw		12/01/03	J	CLP
	Dibenzo(a, h) anthracene	<480ug/kg dw		12/01/03		CLP
	Benzo(ghi)perylene	79ug/kg dw		12/01/03	J	CLP

Upstate Laboratories, Inc. Analysis Results

eport Number: 32403074

wlient I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM Sampled by: Client

APPROVAL:

BBB-SS1105 1100H 11/18/03 G

bampled by. citeme	200	-BB1105 1100N 11/10/	03 G
ULI I.D.: 32403078		Matrix: Soil	
PARAMETERS	RESULTS	TIME DATE ANAL. KEY KEY	FILE#
Percent Solids	72%	11/21/03	WE6143
TCL Semivolatiles by EPA Method 8270			
Phenol	<460ug/kg dw	12/01/03	CLP
bis(2-Chloroethyl)ether	<460ug/kg dw	12/01/03	CLP
2-Chlorophenol	<460ug/kg dw	12/01/03	CLP
1,3-Dichlorobenzene	<460ug/kg dw	12/01/03	CLP
1,4-Dichlorobenzene	<460ug/kg dw	12/01/03	CLP
1,2-Dichlorobenzene	<460ug/kg dw	12/01/03	CLP
2-Methylphenol	<460ug/kg dw	12/01/03	CLP
2,2'-Oxybis(1-Chloropropane)	<460ug/kg dw	12/01/03	CLP
4-Methylphenol	<460ug/kg dw	12/01/03	CLP
n-Nitrosodinpropylamine	<460ug/kg dw	12/01/03	CLP
Hexachloroethane	<460ug/kg dw	12/01/03	CLP
Nitrobenzene	<460ug/kg dw	12/01/03	CLP
Isophorone	<460ug/kg dw	12/01/03	CLP
2-Nitrophenol	<460ug/kg dw	12/01/03	CLP
2,4-Dimethylphenol	<460ug/kg dw	12/01/03	CLP
bis (2-Chloroethoxy) methane	<460ug/kg dw	12/01/03	CLP
2,4-Dichlorophenol	<460ug/kg dw	12/01/03	CLP
1,2,4-Trichlorobenzene	<460ug/kg dw	12/01/03	CLP
Naphthalene	340ug/kg dw	12/01/03 J	CLP
4-Chloroaniline	<460ug/kg dw	12/01/03	CLP
Hexachlorobutadiene	<460ug/kg dw	12/01/03	CLP
4-Chloro-3-methylphenol	<460ug/kg dw	12/01/03	CLP
2-Methylnaphthalene	180ug/kg dw	12/01/03 Ј	CLP
Hexachlorocyclopentadiene	<460ug/kg dw	12/01/03	CLP
2,4,6-Trichlorophenol	<460ug/kg dw	12/01/03	CLP
2,4,5-Trichlorophenol	<460ug/kg dw	12/01/03	CLP
2-Chloronaphthalene	<460ug/kg đw	12/01/03	CLP
2-Nitroaniline	<1100ug/kg dw	12/01/03	CLP
Dimethylphthalate	<460ug/kg dw	12/01/03	CLP
Acenaphthylene	<460ug/kg dw	12/01/03	CLP
2,6-Dinitrotoluene	<460ug/kg dw	12/01/03	CLP
3-Nitroaniline	<1100ug/kg dw	12/01/03	CLP
Acenaphthene	890ug/kg dw	12/01/03	CLP
2,4-Dinitrophenol	<1100ug/kg dw	12/01/03	CLP
4-Nitrophenol	<1100ug/kg dw	12/01/03	CLP
Dibenzofuran	630ug/kg dw	12/01/03	CLP
2,4-Dinitrotoluene	<460ug/kg dw	12/01/03	CLP

dw = Dry weight

1 .TE: 12/19/03

Upstate Laboratories, Inc. Analysis Results eport Number: 32403074

Lient I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM Sampled by: Client

BBB-SS1105 1100H 11/18/03 G

ULI I.D.: 32403078 Matrix: Soil

	PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
	Diethylphthalate	<460ug/kg dw		12/01/03			CLP
_	4-Chlorophenylphenylether	<460ug/kg dw		12/01/03			CLP
	Fluorene	1000ug/kg dw		12/01/03			CLP
	4-Nitroaniline	<1100ug/kg dw		12/01/03			CLP
	2-Methyl-4,6-dinitrophenol	<1100ug/kg dw		12/01/03			CLP
	n-Nitrosodiphenylamine	<460ug/kg dw		12/01/03			CLP
	4-Bromophenylphenylether	<460ug/kg dw		12/01/03			CLP
	Hexachlorobenzene	<460ug/kg dw		12/01/03			CLP
•	Pentachlorophenol	<1100ug/kg dw		12/01/03			CLP
	Phenanthrene	16,000ug/kg dw		12/01/03		D	CLP
	Anthracene	1900ug/kg dw		12/01/03			CLP
	Carbazole	920ug/kg dw		12/01/03			CLP
•	Di-n-butylphthalate	<460ug/kg dw		12/01/03			CLP
	Fluoranthene	14,000ug/kg dw		12/01/03		D	CLP
	Pyrene	13,000ug/kg dw		12/01/03		D	CLP
_	Butylbenzylphthalate	<460ug/kg dw		12/01/03			CLP
•	3,3'-Dichlorobenzidine	<460ug/kg dw		12/01/03			CLP
	Benzo(a)anthracene	6500ug/kg dw		12/01/03		D	CLP
	Chrysene	3100ug/kg dw		12/01/03			CLP
	bis(2-Ethylhexyl)phthalate	520ug/kg đw		12/01/03			CLP
	Di-n-octylphthalate	<460ug/kg dw		12/01/03			CLP
	Benzo(b) fluoranthene	7300ug/kg dw		12/01/03		D	CLP
	Benzo(k) fluoranthene	1600ug/kg dw		12/01/03			CLP
ı	Benzo(a)pyrene	2800ug/kg dw		12/01/03			CLP
	Indeno(1,2,3-cd)pyrene	<460ug/kg dw		12/01/03			CLP
	Dibenzo(a, h) anthracene	<460ug/kg dw		12/01/03			CLP
	Benzo(ghi)perylene	840ug/kg dw		12/01/03			CLP

TE: 12/19/03

Upstate Laboratories, Inc. Analysis Results

Report Number: 32403074

Lilient I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM
Sampled by: Client BBB-SS1106 1115H 11/18/03 G

APPROVAL:
QC:
Lab I.D.: 10170

ULI I.D.: 3240	03079 Matrix: Soi	

PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
Percent Solids	87%		11/21/03			WE614
TCL Semivolatiles by EPA Method 827	70					

Phenol	<380ug/kg dw		12/01/03			CLP
bis(2-Chloroethy1)ether	<380ug/kg dw		12/01/03			CLP
2-Chlorophenol	<380ug/kg dw		12/01/03			CLP
1,3-Dichlorobenzene	<380ug/kg dw		12/01/03			CLP
1,4-Dichlorobenzene	<380ug/kg dw		12/01/03			CLP
1,2-Dichlorobenzene	<380ug/kg dw		12/01/03			CLP
2-Methylphenol	<380ug/kg dw		12/01/03			CLP
2,2'-0xybis(1-Chloropropane)	<380ug/kg dw		12/01/03			CLP
4-Methylphenol	<380ug/kg dw		12/01/03			CLP
n-Nitrosodinpropylamine	<380ug/kg dw		12/01/03			CLP
Hexachloroethane	<380ug/kg dw		12/01/03			CLP
Nitrobenzene	<380ug/kg dw		12/01/03			CLP
Isophorone	<380ug/kg dw		12/01/03			CLP
2-Nitrophenol	<380ug/kg dw		12/01/03			CLP
2,4-Dimethylphenol	<380ug/kg dw		12/01/03			CLP
bis(2-Chloroethoxy)methane	<380ug/kg dw		12/01/03			CLP
2,4-Dichlorophenol	<380ug/kg dw		12/01/03			CLP
1,2,4-Trichlorobenzene	<380ug/kg dw		12/01/03			CLP
Naphthalene	340ug/kg dw		12/01/03		J	CLP
4-Chloroaniline	<380ug/kg dw		12/01/03			CLP
Hexachlorobutadiene	<380ug/kg dw		12/01/03			CLP
4-Chloro-3-methylphenol	<380ug/kg dw		12/01/03			CLP
2-Methylnaphthalene	190ug/kg dw		12/01/03		J	CLP
Hexachlorocyclopentadiene	<380ug/kg dw		12/01/03			CLP
2,4,6-Trichlorophenol	<380ug/kg dw		12/01/03			CLP
2,4,5-Trichlorophenol	<380ug/kg dw		12/01/03			CLP
2-Chloronaphthalene	<380ug/kg dw		12/01/03			CLP
2-Nitroaniline	<920ug/kg dw		12/01/03			CLP
Dimethylphthalate	<380ug/kg dw		12/01/03			CLP
Acenaphthylene	4lug/kg dw		12/01/03		J	CLP
2,6-Dinitrotoluene	<380ug/kg dw		12/01/03			CLP
3-Nitroaniline	<920ug/kg dw		12/01/03			CLP
Acenaphthene	920ug/kg dw		12/01/03			CLP
2,4-Dinitrophenol	<920ug/kg dw		12/01/03			CLP
4-Nitrophenol	<920ug/kg dw		12/01/03			CLP
Dibenzofuran	670ug/kg dw		12/01/03			CLP
2,4-Dinitrotoluene	<380ug/kg dw		12/01/03			CLP

ATE: 12/19/03

Upstate Laboratories, Inc. Analysis Results

Report Number: 32403074

Sampled by: Client BBB-SS1106 1115H 11/18/03 G

APPROVAL:
QC:
Lab I.D.: 10170

ULI I.D.: 32403079 Matrix: Soil

PA	RAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
	Diethylphthalate	<380ug/kg dw		12/01/03			CLP
	4-Chlorophenylphenylether	<380ug/kg dw		12/01/03			CLP
	Fluorene	1000ug/kg dw		12/01/03			CLP
	4-Nitroaniline	<920ug/kg dw		12/01/03			CLP
	2-Methyl-4,6-dinitrophenol	<920ug/kg dw		12/01/03			CLP
	n-Nitrosodiphenylamine	<380ug/kg dw		12/01/03			CLP
	4-Bromophenylphenylether	<380ug/kg dw		12/01/03			CLP
	Hexachlorobenzene	<380ug/kg dw		12/01/03			CLP
	Pentachlorophenol	<920ug/kg dw		12/01/03			CLP
	Phenanthrene	12,000ug/kg dw		12/01/03		D	CLP
	Anthracene	2000ug/kg dw		12/01/03			CLP
	Carbazole	980ug/kg dw		12/01/03			CLP
	Di-n-butylphthalate	<380ug/kg dw		12/01/03			CLP
	Fluoranthene	11,000ug/kg dw		12/01/03		D	CLP
	Pyrene	11,000ug/kg dw		12/01/03		Ď	CLP
	Butylbenzylphthalate	<380ug/kg dw		12/01/03			CLP
	3,3'-Dichlorobenzidine	<380ug/kg dw		12/01/03			CLP
	Benzo(a)anthracene	5300ug/kg dw		12/01/03		D	CLP
	Chrysene	4700ug/kg dw		12/01/03		D	CLP
	bis(2-Ethylhexyl)phthalate	540ug/kg dw		12/01/03			CLP
	Di-n-octylphthalate	<380ug/kg dw		12/01/03			CLP
	Benzo(b) fluoranthene	5600ug/kg dw		12/01/03		D	CLP
	Benzo(k) fluoranthene	1400ug/kg dw		12/01/03			CLP
	Benzo(a)pyrene	4100ug/kg dw		12/01/03		D	CLP
	Indeno(1,2,3-cd)pyrene	<380ug/kg dw		12/01/03			CLP
	Dibenzo(a,h)anthracene	<380ug/kg dw		12/01/03			CLP
	Benzo(ghi)perylene	900ug/kg dw		12/01/03			CLP

KEY PAGE

- 1 MATRIX INTERFERENCE PRECLUDES LOWER DETECTION LIMITS
- 2 REFERENCE SAMPLE/CCV RECOVERY WAS OUTSIDE OF CONTROL LIMITS
- 3 METHOD BLANK RESULT WAS ABOVE THE CONTROL LIMITS
- 4 ANALYSIS NOT PERFORMED BECAUSE OF INSUFFICIENT SAMPLE
- 5 THE PRESENCE OF OTHER TARGET ANALYTE(S) PRECLUDES LOWER DETECTION LIMITS
- 6 BLANK CORRECTED
- 7 HEAD SPACE PRESENT IN SAMPLE
- 8 QUANTITATION LIMIT IS GREATER THAN THE CALCULATED REGULATORY LEVEL. THE QUANTITATION LIMIT THEREFORE BECOMES THE REGULATORY LEVEL.
- 9 THE OIL WAS TREATED AS A SOLID AND LEACHED WITH EXTRACTION FLUID
- 10 RESULTS ARE REPORTED ON AN AS REC.D BASIS
- 11 POSSIBLE CONTAMINATION FROM FIELD/LABORATORY
- 12 SAMPLE ANALYZED OVER HOLDING TIME
- 13 DISSOLVED VALUE MAY BE HIGHER THAN TOTAL DUE TO CONTAMINATION FROM THE FILTERING PROCEDURE
- 14 SAMPLED BY ULI
- 15 DISSOLVED VALUE MAY BE HIGHER THAN TOTAL; HOWEVER, THE VALUES ARE WITHIN EXPERIMENTAL ERROR
- 16 AN INHIBITORY FACTOR WAS OBSERVED IN THIS ANALYSIS
- 17 PARAMETER NOT ANALYZED WITHIN 15 MINUTES OF SAMPLING
- 18 THE SERIAL DILUTION OF THIS SAMPLE SUGGESTS A POSSIBLE PHYSICAL AND/OR CHEMICAL INTERFERENT IN THIS DETERMINATION. THE DATA MAY BE BIASED EITHER HIGH OR LOW.
- 19 CALCULATION BASED ON DRY WEIGHT
- 20 INDICATES AN ESTIMATED VALUE, DETECTED BUT BELOW THE PRACTICAL QUANTITATION LIMITS
- 21 UG/KG AS REC.D / UG/KG DRY WT
- 22 MG/KG AS REC.D / MG/KG DRY WT
- 23 INSUFFICIENT SAMPLE PRECLUDES LOWER DETECTION LIMITS
- 24 SAMPLE DILUTED/BLANK CORRECTED
- 25 ND (NON-DETECTED)
- 26 DUPLICATE SAMPLE OUTSIDE QC CRITERIA
- 27 SPIKE RECOVERY ABNORMALLY HIGH/LOW DUE TO MATRIX INTERFERENCE
- 28 POST-DIGESTION SPIKE FOR FURNACE AA ANALYSIS IS OUTSIDE OF THE CONTROL LIMITS (85-115%); HOWEVER, THE SAMPLE CONCENTRATION IS BELOW THE POL
- 29 ANALYZED BY METHOD OF STANDARD ADDITIONS
- 30
- 31 FIELD MEASURED PARAMETER TAKEN BY CLIENT
- 32 TARGET ANALYTE IS BIODEGRADED AND/OR ENVIRONMENTALLY WEATHERED
- 33 MILLIGRAMS PER LITER (MG/L) LINEAR ALKYL SULFONATE (LAS) / POUNDS (LBS) PER DAY LAS
- 34 THE SAMPLE WAS ANALYZED ON A TOTAL BASIS; THE TEST RESULT CAN BE COMPARED TO THE TCLP REGULATORY CRITERIA BY DIVIDING THE TEST RESULT BY 20, CREATING A THEORETICAL TCLP VALUE
- 35 THE HYDROCARBONS DETECTED IN THE SAMPLE DID NOT CROSS-MATCH WITH COMMON PETROLEUM DISTILLATES
- 36 MATRIX INTERFERENCE CAUSING SPIKES TO RESULT IN LESS THAN 50.0% RECOVERY
- 37 MILLIGRAMS PER LITER (MG/L) / POUNDS (LBS) PER DAY
- 38 MILLIGRAMS PER LITER (MG/L) OF RESIDUAL CHLORINE (CL2) / POUNDS (LBS) PER DAY OF CL2
- 39 MICROGRAMS PER LITER (UG/L) / POUNDS (LBS) PER DAY
- (B) DETECTED IN BLANK
- (D) ALL COMPOUNDS IDENTIFIED IN AN ANALYSIS AT A SECONDARY DILUTION FACTOR
- (E) COMPOUNDS WHOSE CONCENTRATIONS EXCEED THE CALIBRATION RANGE OF THE GC/MS INSTRUMENT FOR THAT SPECIFIC ANALYSIS
- (J) DETECTED BELOW THE CRQL
- (a) SAMPLE(S) RECEIVED AT THE IMPROPER TEMPERATURE
- (b) HEADSPACE IN VOA VIAL(S)
- (c) HEADSPACE IN ALKALINITY BOTTLE(S)
- (d) SAMPLE CONTAINER(S) RECEIVED BROKEN

| Instant Michael Control | 1905-1017

) (I W Thur?	14.3C)	11-12-1			ind corner.	upper right-ha	nns in the u	bered colur	with the nun	ross-reference	ote: The numbered columns above cross-reference with the numbered columns in the upper right-hand corner
Rec'd/or Lab by: (Signature)		3	ished by: (Signature) Date	Relinquish							
Received by: (Signature)	Time		Relinquished by: (Signature) Date	Relinquist			_				
	8	305	yant-	2							
Heceived by: (Signature)		Date	Relinquished by: (Signature)	Helinquisi							
A Carlotte	(
	3		M	M)							
Received by: (Signature)	ime	Date 1	ature)	Relinquist							
Pickup Dropoff	wit to	Environment	rling	Ste						3	(20 Solids) Kingers
Delivery (check one): ULI Sampled		VOL	Wayne Comeron	\mathcal{E}_{o}		7 Jos	0.1		Ç.	mi Volatiles	95-2 - Semil
ULI Internal Use Only			Sampled by: (Please Print)	Sampled I	pres.	pe size	ttle: type	sample bottle:			rameter and method
				_		= 1					
			,	1			_	7		7 17 0	
			<u>×</u>	\times (1)	E	Q	1 GR		811:15	11/18/18/11/15	AA-SSILOL
			(X)	χ (0)	×	\(\)	PR		11.00	11/18/03/11:00	BB-SSIIde
			X	$C \times$	7	A	CR	Soi	10.50	11/18/2018	CB-331104
SUPCICATE	Z,	105	MATRY	EX		25	£3	80:1	10:20	1011/18/03/101 24 So:	RE-ESMOJB MKK
	7	195	MATRIX	ı X		2	(GR	50,1	8 10120	11/18/0	3BB-551103A MS 11/18/03/10/20
			Š	7/\ ×	6)	70	1 GR		10:20	11/18/0:10:20	BB-581103
ASP-CATB			3	\times	B		1 GX	105	10:00	11/18/03	BB. 551102
NYS DEC				×	120201ES		ļ	5011	7:35	11/18/03	3BB-SS1101
10) Remarks	8) 9)	6) 7)	2) 3) 4) 5)	1)							
				ers -	ULI Internal Use Only	Grab or JULI Into	Gra	Matrix	[Date	nple Location:
required)				i i		Lackawanna, NY	Jans	スタス		824-140	Wayne Cameron
(lab Motification				Con-		9	ite)	on (city/sta	Site Location (city/state)	Phone #	ent Contact:
Time C ST				2.	R 222	Buttolo Brake Rean	10 8	uffa	0	ronmen	Sterling Environmen
				No.			ject Name	Client Project # / Project Name	Client Pro		ent:
う らニンツ	STA		record Dicoan		Chain of Custody	e Ci		<u>C</u>	′ 13057-1017 Fax 437 1209	cuse, NY 13 Fax	34 Corporate Drive • E. Syracuse, NY 13057-1017 15) 437 0255 Fax 437 1209

Swrapuse Anchester ((Ruffalo Alhany

Binghambu |

Fair Lawn (M.n.

FROM: Rigel Enterprises Inc

Nov. 19. 2009 6:4657 FERBUSON ELEC SERVICE

Nov. 24 2003 03:32PM P2

FERGUSON ELECTRIC SERVICE CO., INC.



FERGUSON ELECTRIC SERVICE CO., INC. 321 Ellicott Street, Buffaio, NY 14203 - (716) 853-3321

FLUID ANALYSIS REPORT

PCB Test Summary Results

PO Number: T

TG14416

Test Date: 11/5/2003

Job Number: 1.3528

<u>Serial #</u> Buffalo Brake Beam	Revistration #	Compartment	Arccior	PCB(ppm)
14246	N/A	Main	1260	3.6
14247	N/A	Main	1260	3.8
14248	N/A	Main	1260	3.5

Toral ≠ of samples: 3

Page t of 1

TEGG

F-A-C-S-I-M-I-L-E T-R-A-N-S-M-I-S-S-I-O-N

FERGUSO !	Ţ
------------------	---

BLECTRIC



FERGUSON ELECTRIC SERVICE CO., INC. 321 ELLICOTT STREET, BUFFALO, NEW YORK 14203

PHONE #: PAX PHONE #: (716)-853-3321 (716)-853-3325

DATE:	11/19/2003
	rick Apans
	DAN BUNNY
NO. OF PAG	GES (Including Cover Page): 2
MESSAGE:	Re: PCB OIL SAMPLES.
Diene	
	ALLARO IS YOUR REPORT FOR THE SAMPLES TAKEN
011	20 63
F.E	You Have Any QUESTIONS PURSE CALL ME.
	
THA	NK You
-/-)
—— —	
1	
<u> </u>	
eigned:	

Appendix D

Data Usability Summary Report

Upstate Laboratories inc.

Shipping: 6034 Corporate Dr. • E. Syracuse, NY 13057-1017 • (315) 437-0255 • Fax (315) 437-1209_

Mailing: Box 289 · Syracuse, NY 13206

Albany (518) 459-3134 Binghamton (607) 724-0478 Buffalo (716) 649-2533 Rochester (585) 436-9070 New Jersey (201) 343-5353

March 15, 2004

Mr. Wayne K. Cameron
Project Manager
Sterling Environmental Services, Inc.
50 Lake Avenue
Blasdell, New York 14219

Re: Buffalo Break Beam - Lackawanna, New York - Data Usability Summary Report

Dear Mr. Cameron:

Attached is a Data Usability Summary Report (DUSR) completed by myself, an independent environmental consultant. My qualifications are enclosed for your review. The DUSR was completed for sample analyses performed by Upstate Laboratories, Inc. (ULI). The DUSR provides a detailed review of the data. The data for ULI SDG No. STE01 and SDG No. STE02 were acceptable with some issues, which are identified and discussed by section in the summary report. Please note that the attached report is intended as a source of guidance and recommendation.

If you have any questions concerning the work performed, please do not hesitate to contact me at (315) 458-4031. Thank you for the opportunity to assist Sterling Environmental Services, Inc.

Sincerely,

Joseph C. Houser

Environmental Consultant

Enclosures

ce: Anthony Scala, Upstate Laboratories, Inc. Don Clark. Upstate Laboratories, Inc.

C: Documents and Settings/ulidusrlet.doc

DATA USABILITY SUMMARY REPORT

This data usability summary report covers the analytical results, submitted by Upstate Laboratories, Inc. (ULI), for the field sampling investigation conducted by Sterling Environmental Services, Inc. on September 18 and November 18, 2003 at the Buffalo Break Beam site in Lackawanna, New York. The analytical results submitted by ULI, sample designation groups (SDGs) STE01, STE02 and report numbers 26603012 and 32403074 were reviewed by Joseph C. Houser, Environmental Consultant. The analytical data were examined in regards to the protocol requirements and assessed against the project data quality objectives (DQOs) and USEPA Contract Laboratory Program National Functional Guidelines for Organic and Inorganic Data Review (October 1999 and July 2002) in preparation of this report. The following items were reviewed:

Custody documentation,
Holding times,
Instrument performances and detection limits,
Data completeness,
Blanks,
Surrogate and internal standard recoveries,
Matrix spike recoveries, duplicate correlation(s),
Control spike/laboratory control samples,
Raw data.

Where final results or related quality control (QC) data did not fall within protocol requirements the reported data have been appropriately qualified. For the most part the data submitted by ULI met the project DQOs and are appropriate to characterize the levels of environmental contaminants in samples collected at the Buffalo Break Beam site in Lackawanna, New York.

A total of twenty-one (21) soil samples were collected and processed. Twelve (12) of the twenty-one (21) samples were collected and processed for target analyte list (TAL) metals, eighteen (18) for target compound list (TCL) semivolatile organic compounds (SVOCs), three (3) for TCL polychlorinated biphenyls (PCBs) and six (6) for TCL volatile organic compounds (VOCs). In addition, a Holding Blank and a Trip Blank were included for TCL VOCs. Percent (%) solids were collected and processed for all twenty-one (21) soil samples. Note that the glass containers for samples: BBB-SS04, BBB-SS04 MS/MSD and BBB-SS12 were received cracked on September 23, 2003 by ULI and documented on the Sample Receipt Condition Form.

Analyses were conducted, in general, in accordance with the New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP), October 1995 revision. Samples were analyzed by NYSDEC ASP Superfund CLP methods for the TCL suite and NYSDEC methods for TAL suite.

Soil Samples

Volatile Analyses

A total of six (6) soil samples, a Holding Blank and a Trip Blank submitted to ULI were analyzed for TCL VOCs by NYSDEC ASP Superfund CLP Method 95-1. Where reported concentrations may have been affected by QC failures the data usability is discussed below:

The Holding Blank HLDBLK contained acetone (13 ug/L) and trace levels (estimated below quantitation level) amounts of methylene chloride (1ug/L) and chloroform (2ug/L). Method blank VBLK02 contained a trace level amount of acetone (5ug/L). Acetone (11ug/L) was detected in the Trip Blank TRPBLK. Field sample results for all of these analytes were not detected or were estimated below the CRQL. Field sample results for acetone and methylene chloride were less than ten times (10x) the highest associated blank and should be reported as not

- detected (U) in the samples. Field sample results for chloroform were less than five times (5x) the highest associated blank and should also be reported as not detected (U) in the samples.
- 2) No Initial or Continuing Calibration Compounds exceeded the allowable maximum percent deviation (%D). Therefore, no data qualification is needed and the results are usable as reported.
- The Internal Standard Area counts for 1,4-dichlorobenzene-d4 (IS4) were below acceptance criteria for samples BBB-SS04 and BBB-SS12. Sample results for compounds quantitated using IS4 should be considered estimated for BBB-SS04 and BBB-SS12. The initial analysis for BBB-SS12 should be used for reporting purposes (The Internal Standard Area Count for IS4 was higher in the initial analysis).
- 4) Instrument detection limit study was conducted on January 16, 2003 which was outside of the 6 months required by NYSDEC ASP.

In every other respect of data review, no further problems were found and the results of volatile analyses are usable as reported by the laboratory.

Semivolatile Analyses

A total of eighteen (18) soil samples submitted to ULI were analyzed for TCL SVOCs, base/neutral/acid extractables, by NYSDEC ASP Superfund CLP Method 95-2. Where reported concentrations may have been affected by QC failures the data usability is discussed below:

- 1) The six soil samples received on November 20, 2003 (BBB-SS1101, BBB-SS1102, BBB -SS1103, BBB-SS1104, BBB-SS105 and BBB-SS1106) from SDG No.STE02 were extracted one day outside of holding time. Results for these samples should be considered estimated.
- 2) Matrix Spike Blank recoveries (%R) for 2-chlorophenol, 1,4-dichlorobenzene, N-nitrosodinpropylamine, 1,2,4-trichlorobenzene and acenaphthene were below QC limits. Reported data for samples from SDG No. STE01 should be qualified as estimated and possibly biased low.
- Matrix Spike Blank recoveries (%R) for 1,4-dichlorobenzene, N-nitrosodinpropylamine, 1,2,4-trichlorobenzene and acenaphthene were below QC limits. Reported data for samples from SDG No. STE02 should be qualified as estimated and possibly biased low.
- 4) Reported results for those analytes whose values are flagged with an "E" qualifier in the initial analyses should be derived from the dilution analysis ("DL") except in those instances when the analyte result in the diluted sample was reported as non detect ("ND"). In these cases the initial analyses should be used and data flagged to indicate the result is an estimated value.
- The Matrix Spike recoveries for phenol, N-nitrosodinpropylamine and 1,2,4-trichlorobenzene and Matrix Spike Duplicate recoveries for phenol, 2-chlorophenol and N-nitrosodinpropylamine were below QC limits for BBB-SS04. The RPDs for 1,2,4-trichlorobenzene and 4-chloro-3-methylphenol did not meet QC limits for BBB-SS04. No action is taken on MS/MSD data alone to qualify or reject an entire set of samples.
- The Matrix Spike recoveries for N-nitrosodinpropylamine and 1,2,4-trichlorobenzene and Matrix Spike Duplicate recoveries for phenol, 2-chlorophenol, 1,2,4-trichlorobenzene, N-nitrosodinpropylamine, 4-chloro-3-methylphenol, acenaphthene and pyrene were below QC limits for BBB-SS1103. The RPDs for acenaphthene and pyrene did not meet QC limits for BBB-SS1103. No action is taken on MS/MSD data alone to qualify or reject an entire set of samples.
- 7) Sample results for compounds quantitated using IS1 (1,4-dichlorobenzene-d4), IS3 (acenaphthene-d10) and IS4 (phenanthrene-d10) should be considered estimated for BBB-SS04MSD. Positive

results for compounds quantitated using IS1 (1,4-dichlorobenzene-d4) should be considered estimated for BBB-SS10. Positive results for compounds quantitated using IS1 (1,4-dichlorobenzene-d4), IS2 (napthalene-d8), IS3 (acenaphthene-d10) and IS4 (phenanthrene-d10) should be considered estimated for BBB-SS12. Based on IS area counts the initial analysis for all samples in SDG No. STE01 should be used for reporting purposes (excluding dilutions for BBB-SS03 and BBB-SS11).

- Based on IS area counts the reanalysis for samples BBB-SS1103 and BBB-SS1104 in SDG No. STE02 should be used for reporting purposes. Positive results for compounds quantitated using IS4 (phenanthrene-d10) should be considered estimated for these samples. Based on IS area counts the dilutions for samples BBB-SS1101, BBB-SS1102, BBB-SS1105 and BBB-SS1106 should be used for reporting (excluding the non detects from the initial analysis which do not need to be qualified because they were quantitated using an IS area greater than a 100 percent). Surrogates for these results were diluted out, and therefore, results reported from the dilution should be estimated.
- 9) Positive results for BBB-SS03, BBB-SS04, BBB-SS05, BBB-SS09 and BBB-SS11 are considered estimates for the compounds associated with the applicable failed surrogate recovery. Non detect results are unusable (R). It is recommended that due to multiple failed (low) surrogate recoveries these samples should have been re-extracted. With that said, the reanalysis for these samples (with the exception of BBB-SS11) had higher surrogate recoveries to warrant use of the estimated reported results.

In every other respect of data review, no further problems were found and the results of semivolatile analyses are usable as reported by the laboratory.

PCB Analyses

A total of three (3) soil samples submitted to ULI were analyzed for TCL PCBs, by NYSDEC ASP Superfund CLP Method 95-3. Where reported concentrations may have been affected by QC failures the data usability is discussed below:

- 1) MS/MSD %recoveries for BBB-SS04 were diluted out.
- Surrogate recoveries (DCB) were above QC limits on the front channel (DB-608) for the PBS and sample BBB-SS12 indicating a potential bias (high) for PCB results in the environmental sample. Reported data for BBB-SS12 was non detect. Therefore, results are useable as reported.

In every other respect of data review, no further problems were found and the results of PCBs analyses are usable as reported by the laboratory.

Metals Analyses

A total of twelve (12) soil samples submitted to ULI were analyzed for TAL metals in accordance with NYSDEC ASP 6000/7000. Where reported concentrations may have been affected by QC failures the data usability is discussed below:

- Silver recoveries in CCV1 & CCV2 were above QC limits. Silver was non detect in the environmental samples. Therefore, results are usable as reported.
- 2) Selenium and Silver were detected in CCB1. Both analytes were non detect in the environmental samples. Therefore, results are usable as reported.
- Low-level concentration of iron was detected in the preparation blank. Concentrations of iron in the environmental samples were orders of magnitude greater than its respective CRDL indicating that the presence of this compound at low-levels in the laboratory blank sample did not affect data quality.

- 4) There was no % recovery for Sodium in the LCS. Reported data should be considered estimated.
- Matrix Spike recoveries for Antimony, Arsenic, Barium, Beryllium, Cadmium, Cobalt, Lead, Nickel, Selenium, Silver, Thallium, Vanadium and Zinc were outside QC limits. Sample results should be estimated for these compounds. Data is useable to show the approximate concentrations of these compounds in the samples.
- Duplicate analyses for Aluminum, Arsenic, Barium, Calcium, Chromium, Lead, Magnesium, Manganese, Vanadium and Zinc were outside QC limits. Results are useable to show the approximate concentrations of these compounds in the samples.
- 7) The ICP Serial Dilution for sample BBB-SS12 was outside QC limits for Iron, Lead and Zinc. Sample results should be estimated for these compounds.

In every other respect of data review, no further problems were found and the results of TAL Metals analyses are usable as reported by the laboratory.

Joseph C. Houser

7826 Running Brook Lane Cicero, NY 13039 (315) 458-4031 (home) (315) 427-2365 (cell)

E-mail: phouser1@twcny.rr.com

Profile

Proven and versatile Quality Assurance Technician with excellent problem solving skills and 13 years experience in environmental laboratory analysis, quality control, project management, customer service and marketing. Key leader in developing standard operating procedures (SOPs), Quality Assurance Plans (QAPs), training programs and formulating corrective action plans. A dynamic team player dedicated to providing a high quality service with exceptional leadership and inter-personal skills.

Professional Experience

O'Brien & Gere Laboratories, Inc., East Syracuse, New York

QA/QC Supervisor, July 1998 - March 2004

Oversaw Quality Assurance/Quality Control aspects of laboratory operations while monitoring and identifying system trends and initiating corrective action plans to solve laboratory excursions.

- Successfully facilitated the laboratory certification process in obtaining United States Army Corps of Engineers (USACE) and United States Department of Energy (USDOE) laboratory certification.
- Developed, presented and implemented a formal, Laboratory Information Management System (LIMS) based training program for laboratory staff to improve work efficiency, staff capabilities and maintenance of training records.
- Prepared and updated administrative and analytical standard operating procedures (SOPs), the Quality Assurance Manual and laboratory logbooks.
- Provided technical support to engineers for a variety of projects that required analytical work (Most notably the creation of a wastewater treatment plant in Hutchinson, Kansas).
- Maintained certification records for federal and state certification programs.
- Managed all federal and state proficiency programs.
- Performed internal audits on all sections of the laboratory.
- Served as guide and main point of contact for all external audits.
- Reviewed and validated all analytical reports for clients.

Upstate Laboratories Inc., East Syracuse, New York

Ouality Control Manager, December 1997 - July 1998

Supervised daily Quality Control activities for the entire laboratory.

- Designed and issued weekly Quality Control Reports for volatiles analysis at the IBM Endicott, NY site.
- Created and updated standard operating procedures (SOPs) and the Quality Assurance Manual.
- Developed a document control system to ensure proper document control of SOPs and related laboratory documentation.
- Generated Quality Control charts and updated control limits for all parameters analyzed by the laboratory.
- Provided formal laboratory training to laboratory personnel.

Gascovne Laboratories Inc., Baltimore, Maryland

Environmental Project Manager, January 1997 - December 1997

Provided technical support to established clients along with maintaining existing sampling and analytical schedules.

- Prepared analytical reports using Microsoft Word and Microsoft Excel.
- Consulted clients of federal and state environmental regulations.
- Introduced and managed the analytical portion of Baltimore City's Lead Abatement Program.

Upstate Laboratories Inc., East Syracuse, New York

Environmental Project Coordinator, October 1992 - November 1996

Key customer service/technical support member that coordinated analysis and sampling schedules, managed analytical data associated with engineering/environmental projects and consulted clients of analytical results, excursions and data trends.

- Supervised proposal and qualifications preparation.
- Marketed analytical services to potential clients.

QA/QC Officer

- Entered QC data for the calculation of control limits and generation of control charts.
- Reviewed analytical reports.

Beak Consultants Inc., Akron, New York

OA/OC Officer, August 1990 - October 1992

Played an instrumental role in developing New York State Electric & Gas (NYSEG) Corporation's Quality Assurance Program for NYSEG's Environmental Technical Services Group and Laboratory.

- Interpreted laboratory data and monitored trends.
- Created standard operating procedures (SOPs) for various environmental programs.

Environmental Technician

- Collected groundwater and related environmental samples from NYSEG ash, landfill and power plant sites.
- Conducted various field measurements and tests using assorted instruments.
- Assisted in the remedial studies of manufactured gas plant sites.
- Participated in Fish Impingement/Impact studies at several NYSEG power plant sites.

Education

State University of New York at Binghamton, Vestal, New York

Bachelor of Arts, May 1990

Major: Environmental Studies Minor: Biology

Personal:

4 years College Varsity Baseball Active athlete/coach Fishing and outdoor enthusiast

Appendix E

Declaration of Covenants and Restrictions

Exhibit 2-1



RICHARD J. DAY

DIRECT DIAL 716.566.1422 DIRECT FAX 716.566.4002 RDAY@HISCOCKBARCLAY.COM

1100 M&T CENTER / 3 FOUNTAIN PLAZA BUFFALO / NEW YORK 14203-1414 T 716.856.5400 / F 716.856.0139

August 9, 2004

Mr. Glen R. Bailey
Division of Environmental Enforcement
New York State Department of
Environmental Conservation
270 Michigan Avenue
Buffalo, NY 14203-2999

RECEIVED

AUG 1 0 2004

N.Y.S. DEPT. OF
ENVIRONMENTAL CONSERVATION
DIV. ENVIRONMENTAL TWFORCEMENT
BUFFALO FIELD LIMIT

Re:

Rigel Enterprises, Inc. Our File No. 1050855.

Dear Mr. Bailey:

In furtherance of our discussions, I am pleased to enclose a certified copy of the Declaration of Covenants and Restrictions, which was recorded with the Erie County Clerk on August 6^{th} .

On behalf of Rigel Enterprises, Inc. I request that the DEC now complete the issuance to Rigel Enterprises, Inc. of the release to which it is entitled now that it has completed its obligations under the Voluntary Cleanup Program.

Thanks very much.

Very truly yours,

Richard J. Day

RJD:pf Enclosure

cc:

Mr. Richard G. Adams Mr. Wayne Cameron Michael L. Morkin, Esq. Thomas F. Knab, Esq.

RIE COUNTY CLERK'S OFFICE County Clerk's Recording Page

Return To:

BOX 24 RC

Index DEED LIBER

Book 11080 Page 8108

No. Pages 0006

Instrument RESTRICTIONS

Date: 8/06/2004

Time: 2:02:51

Control # 200408061397

RIGEL ENTERPRISES INC

FKA

BUFFALO BRAKE BEAM COMPANY

X

Employee ID FG

	COUNTY	\$ 26.50
-	COE STATE	\$ 4.75
	COE COUNTY	\$ 1.00
	COE ST GEN	\$ 14.25
_		\$.00
		\$.00
		\$.00
_		\$.00
	•	\$.00
	Total:	\$ 46.50

- STATE OF NEW YORK ERIE COUNTY CLERK'S OFFICE
- WARNING THIS SHEET CONSTITUTES THE CLERK'S ENDORSEMENT, REQUIRED BY SECTIONS 319&316-a (5) OF THE REAL PROPERTY LAW OF THE STATE OF NEW YORK. DO NOT DETACH. THIS IS NOT A BILL.

David J. Swarts County Clerk



DECLARATION of COVENANTS and RESTRICTIONS

THIS COVENANT is made the <u>71</u> day of <u>1906</u> by Rigel Enterprises, Inc., formerly known as Buffalo Brake Beam Company, a corporation organized and existing under the laws of the State of Delaware and having an office for the transaction of business at 990 River Road, Youngstown, New York 14174.

WHEREAS, the Buffalo Brake Beam Site is the subject of a Voluntary Agreement executed by Rigel Enterprises, Inc. as part of the New York State Department of Environmental Conservation's (the "Department's") Voluntary Cleanup Program, namely that parcel of real property located on 400 Ingham Avenue in the City of Lackawanna, County of Erie, State of New York, which is part of lands conveyed by (i) The Stony Point Land Company to Buffalo Brake Beam Company, by deed dated April 9, 1907 and recorded in the Erie County Clerk's Office on May 15,1907 in Liber 1602 of Deeds at Page 380 and being more particularly described in Appendix "A", attached to this declaration and made a part hereof, (ii) The Stony Point Land Company to Buffalo Brake Beam Company, by deed dated October 28, 1921 and recorded in the Erie County Clerk's Office on November 10, 1921 in Liber 1605 of Deeds at Page 220 and being more particularly described in Appendix "A", attached to this declaration and made a part hereof, and (iii) Bethlehem Iron Mines Company to Buffalo Brake Beam Company, by deed dated June 1, 1936 and recorded in the Erie County Clerk's Office on August 15, 1939 in Liber 2905 of Deeds at Page 300 and being more particularly described in Appendix "A", attached to this declaration and made a part hereof. Parcels (i), (ii), and (iii) are hereinafter referred to collectively as "the Property"; and

WHEREAS, the department approved a remedy to eliminate or mitigate all significant threats to the environment presented by the contamination disposed at the Property and such remedy requires that the Property be subject to restrictive covenants.

NOW THEREFORE, Rigel Enterprises, Inc. for itself and its successors and/or assigns, covenants that:

First, the Property subject to this Declaration of Covenants and Restrictions is as shown on a map attached to this declaration as Appendix "B" and made a part hereof.

Second, unless prior written approval by the Department or, if the Department shall no longer exist, any New York State agency or agencies subsequently created to protect the environment of the State and the health of the State's citizens, hereinafter referred to as "the Relevant Agency", is first obtained, there shall be no construction, use or occupancy of the Property that results in the disturbance or excavation of the Property, which threatens the integrity of the soil cap, or which results in unacceptable human exposure to contaminated soils.

Third, the owner of the Property shall maintain the cap covering the Property by maintaining its grass cover or, after obtaining the written approval of the Relevant Agency, by capping the Property with another material.

Fourth, the owner of the Property shall prohibit the Property from ever being used for purposes other than for restricted commercial use, excluding day care, child care and medical care uses without the express written waiver of such prohibition by the Relevant Agency.

Fifth, the owner of the Property shall prohibit the use of the groundwater underlying the Property without treatment rendering it safe for drinking water or industrial purposes, as appropriate, unless the user first obtains permission to do so from the Relevant Agency.

Sixth, the owner of the Property shall continue in full force and effect any institutional and engineering controls required under the Voluntary Agreement and maintain such controls unless the owner first obtains permission to discontinue such controls from the Relevant Agency.

Seventh, this Declaration is and shall be deemed a covenant that shall run with the land and shall be binding upon all future owners of the Property, and shall provide that the owner and its successors and assigns consent to enforcement by the Relevant Agency of the prohibitions and restrictions that Paragraph X of the Voluntary Agreement require to be recorded, and hereby covenant not to contest the authority of the Relevant Agency to seek enforcement.

Eighth, any deed of conveyance of the Property, or any portion thereof, shall recite, unless the Relevant Agency has consented to the termination of such covenants and restrictions, that said conveyance is subject to this Declaration of Covenants and Restrictions.

IN WITNESS WHEREOF, the undersigned has executed this instrument the day written below.

IN WITNESS WHEREOF, Lichard 6, Adams has executed this declaration the 27 day of April, 2004.

Rigel Enterprises, Inc., formerly known as Buffalo Brake Beam Company

Medaus

Richard G. Adams

STATE OF)
) ss
COUNTY OF)

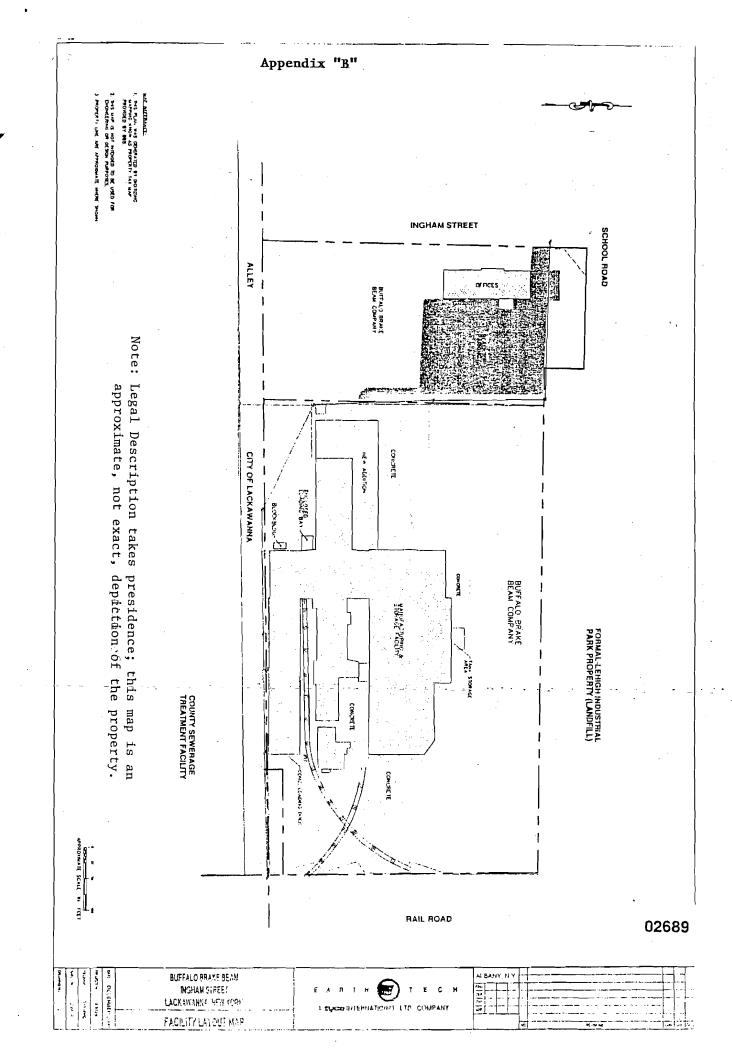
On the day of April, in the year 2004, before me, the undersigned, a notary public in and for said state, personally appeared Richard G. Adams, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her capacity, and that by her signature on the instrument, the individual or the person upon behalf of which the individual acted, executed the instrument.

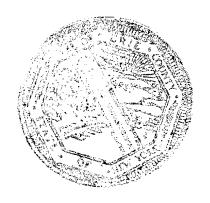
Notary Public Notary Public State of New York
Qualified in Erie County
My Commission Expires Aug. 31, 20

Appendix "A"

ALL THAT TRACT OR PARCEL OF LAND situate in the City of Lackawanna, County of Erie and State of New York, being part of Lot No. 22, Township 10, Range 8 of the Buffalo Creek Reservation, bounded and described as follows:

BEGINNING at a point at the southwest corner of lands conveyed to the South Buffalo Railway Company by the Stoney Point Land Co. by deed recorded in Liber 1056 of Deeds at page 134; thence northerly along the westerly line of said lands conveyed to South Buffalo Railway Company by deed aforesaid, a distance of 340.923 feet to a point; thence westerly along a line making an interior angle with the last herein described line of 91° 21' 30", a distance of 671.158 feet to a point; thence northerly on a line at right angles to the last mentioned line, a distance of 53.44 feet to a point in the southerly line of School Street (50 feet wide); thence westerly at an interior angle of 90° and along the southerly line of School Street, a distance of 160,00 feet to a point in the easterly line of Ingham Street (50 feet wide): thence southerly at an interior angle of 90° and along the easterly line of Ingham Street and its extension southerly, a distance of 414.277 feet to a point in a northerly line of lands conveyed to Buffalo Brake Beam Company by deed recorded in the Erie County Clerk's Office in Liber 2905 of Deeds at page 300; thence westerly along the northerly line of lands conveyed to Buffalo Brake Beam Company by deed aforesaid, a distance of 90.32 feet to a point in the easterly line of A Street (100 feet wide); thence southerly at an interior angle of 90° and along the easterly line of A Street, a distance of 3.00 feet to a point in a northerly line of lands conveyed to the City of Lackawanna by deed recorded in the Erie County Clerk's Office in Liber 9291 of Deeds at page 557; thence easterly along a northerly line of lands conveyed to the City of Lackawanna by deed aforesaid, a distance of 792.80 feet to an angle point in the northerly line of lands conveyed to the City of Lackawanna by deed aforesaid; thence northerly at an interior angle of 90° and along said northerly line of lands conveyed to the City of Lackawanna by deed aforesaid, a distance of 3.00 feet to a point; thence easterly along the northerly line of lands conveyed to the City of Lackawanna by deed aforesaid, a distance of 137.00 feet to the point or place of beginning.





STATE OF MEW YORK, COUNTY OF ERIE, ss:

Said J. Water CLERK



APR 2 8 2004

NYSDEC REG 9
FOIL
REL_UNREL

Soil Management Plan for Buffalo Brake Beam Voluntary Cleanup Lackawanna, New York

Pertaining to Voluntary Cleanup Agreement Site #V00625-9

Index #B9-0630-02-12

Prepared for: Rigel Enterprises, Inc.

Youngstown, New York

Prepared by: Snyder Engineering

Grand Island, New York

Date: April 19, 2004

PROFESSIONAL ENGINEER CERTIFICATION

I, the undersigned, certify that the Soil Management Plan for the Buffalo Brake Beam Site (Voluntary Cleanup Agreement Site Number V00625-9) in Lackawanna, New York has been prepared under my direction in accordance with good engineering practices.

Name: Richard R. Snyder

Signature: Richard R

Date: April 19, 2004 Registration Number: 54616 State: New York

TABLE OF CONTENTS

Page

1.0	Overview and Objectives
	Nature and Extent of Contamination
	2.1 Area Contaminated with Lead Paint Residuals
	2.2 Area Contaminated with Gasoline Constituents2
	2.3 Area Potentially Contaminated with Gasoline Constituents
	2.4 Area Potentially Contaminated with Fuel Oil Constituents3
	2.5 Area Potentially Contaminated with Transformer Oil4
	Contemplated Use4
	Purpose and Description of Surface Cover System4
5.0	Management of Soils/Fill and Long Term Maintenance of Cover
	System5
	5.1 Excavated and Stockpiled Soil/Fill Sampling, Testing and Disposal6
	5.1.1 Sampling, Testing and Characterization of Excavated Soils
	5.1.1.1 Area Contaminated with Lead Paint Residuals
	5.1.1.2 Area Contaminated/Potentially with Gasoline Constituents7
	5.1.1.3 Area Potentially Contaminated with Fuel Constituents8
	5.1.1.4 Area Potentially Contaminated with Transformer Oil9
	5.1.1.5 Areas Not Characterized as Contaminated
	5.2 Subgrade Material
	Handling and Disposal of Excavated Soils
	Health and Safety Plan
8.0	Reporting Requirements – Annual Certification
Atta	achments
	Figure 1-1 – Property Location Map
	Survey Drawing 4751-404 – Residual & Potentially Contaminated Soil
	Exhibit 1-1 – NYSDEC Plan Approval
	Exhibit 2-1 – Annual Certification of Institutional/Engineering Controls at Voluntary Clean-Up Program Site - Form

Soil Management Plan for Buffalo Brake Beam Site

1.0 Overview and Objectives

The Buffalo Brake Beam Site (#V00625-9) is an 8.0 acre, vacant industrial property which is currently owned by Rigel Enterprises. It is located at 400 Ingham Avenue in Lackawanna, New York (refer to Figure 1-1 for Property Location Map). The Site is functionally divided into two subparcels by a chain link fence. The larger parcel (approximately 5.5 acres) contains manufacturing and storage facilities (approximately 56,000 sq. ft.) which consist of several contiguous structures of various size, age, and shape. The main building and its railroad sidings, loading docks, concrete aprons, storage pads, and asphalt parking areas cover approximately 3 acres, and the balance of this 5.5 acres is sparsely vegetated. The smaller parcel (approximately 2.5 acres) contains a one story office building (approximately 4,500 sq. ft.). This building and its adjacent asphalt parking areas and driveways occupy approximately 0.75 acres, and the balance of this 2.5 acres is covered with grass and landscaped areas.

The Site has been characterized during several previous investigations. These investigations have been performed for a variety of purposes. They include both investigations relating to the entire site and investigations which deal only with specific issues and actions relating to various portions of the Site. The findings from these investigations as they relate to future soil management at the Site are discussed in Section 2.0 of this Soil Management Plan. These investigations have identified areas of residual contaminated soils which remain on—site. The level of contamination and location of these soils does not pose a risk to human health or the environment for the contemplated use of the property. However, if these soils are disturbed they must be managed appropriately to limit exposures and protect the environment. The primary objective of the Soil Management Plan (SMP) is to set guidelines for management of soil material during any future activities which would breach the cover system at the Site. This SMP addresses environmental concerns related to soil management and has been reviewed and approved by the New York State Department of Environmental Conservation (NYSDEC) as shown in Exhibit 1-1.

2.0 Nature and Extent of Contamination

Based on data obtained from previous investigations and the remediation done at the Site, a Remedial Action Final Report for Voluntary Cleanup at Buffalo Brake Beam Site in Lackawanna, New York (dated April 19, 2004) was prepared by Snyder Engineering for submission to the NYSDEC. Soil contaminants at the Site have been reduced to concentration levels which will protect groundwater, human health, environment, and objectionable nuisance characteristics. However, two locations at the site are known to contain contaminated soils. These were identified during previous investigation and remediation actions. The constituents of concern for these areas are Lead and gasoline constituents. One location contains lead based paint residues. Detailed information relating to the characterization of the lead contaminated

area and its subsequent remediation is provided in Section 2.4 of the Remedial Action Final Report for Voluntary Cleanup at Buffalo Brake Beam Site in Lackawanna, New York (Report). The second contains residual concentrations of petroleum constituents consistent with a gasoline spill. Detailed information relating to the characterization of this contamination and its subsequent remediation is provided in Section 2.2 of the Report. In addition, three areas have been identified as potential areas of concern at the Site. The constituents of potential concern for these areas are gasoline constituents, fuel oil constituents and transformer oil. Detailed information relating to the characterization of this contamination is provided respectively in Sections 2.2, 2.3 and 7.0 of the Report.

The constituents of potential concern for soil at the Site consist of Lead, petroleum constituents and transformer oil. Results of groundwater sampling indicate that constituents in the soil/fill material have not significantly impacted ground water quality.

2.1 Area Contaminated with Lead Paint Residuals

Implementation of the site's remedial action voluntary cleanup work plan included work to delineate the location of paint residues at the Site. Similar material was previously removed in July 1997 from the Site by the NYSDEC as part of the Lehigh Industrial Park remediation. After completion of this removal action a series of twelve shallow test pits were excavated by Chopra Lee on 11/10/97 to investigate the red paint residue remaining on site at shallow depths (0 to 2 feet). Seven samples were collected from locations suspected of lead contamination due to the soils reddish color. The lead concentrations in six of the seven samples taken by Chopra Lee ranged from 0.0499 to 0.0760 weight percent while one sample, TP-14, exhibited a lead concentration of 0.2670 weight percent (average lead concentration of 0.0926). On 11/21/97 two additional samples were taken from the Chopra Lee test pits (TP-16 and TP-21) and analyzed for TCLP lead. Both results were less than the TCLP limits. The NYSDEC's cleanup objective for lead is 1,000 mg/kg. The paint residue is located in the top two feet of soil in a 40 by 50 foot area in the north yard of the manufacturing facility and is noted on Survey Drawing 4751-404.

2.2 Area Contaminated with Gasoline Constituents

The second location contains gasoline spill type constituents, which were discovered in 1997 during the removal of the former machine shop's floor as part of the construction of the new building addition (located along the western side of the crane bay in the manufacturing facility). The NYSDEC was notified and issued the Site Spill #9708447. Impacted soils were removed from the area accessible without disturbing the existing structure of the crane bay. Analytical data obtained from post excavation confirmatory samples indicated that the remedial action had successfully removed the contaminated soils, which were accessible, to NYSDEC STARS Guidance Values. However, it was noted that contamination continued beneath the footer and floor of the crane bay. In 2001 a second remediation phase was completed beneath the floor of the crane bay. Preliminary excavation limits were established using information from the previous remedial activities at this location and Geoprobe sampling. Upon the completion of soil removal, only one soil sample, taken from below the west side wall footer did not satisfy the

NYSDEC TAGM 4046 Recommended Soil Cleanup Objective for Isopropyl Benzene (8.4 ppm versus cleanup objective of 5.0 ppm for Isopropyl Benzene). The detection limit for Benzene was above the Recommended Soil Cleanup Objective in two other samples. No further soil removal could be completed below the footer without jeopardizing the structural integrity of the building. It was therefore necessary to leave some contaminated soil in place below the footer (Contamination location is noted on Survey Drawing 4751-404). The remaining contaminated soil is in an area approximately 25 feet long in a north to south direction, starting at a depth of four feet below grade, the width of the building footer, and sloping outward to the east and west to a depth of approximately 10 feet. It is important to note that this remaining contamination is contained in clayey-silty soil that is not in direct contact with groundwater and below a footer that is interior to a concrete slab floored building on each side which prevents rain water percolation through this area. Therefore, the potential for groundwater impacts associated with the residual contamination is minimal. Based upon information concerning remediation results the NYSDEC has issued a "Closed-Inactive" decision for the Site with respect to Site spill #9708447.

2.3 Area Potentially Contaminated with Gasoline Constituents

In addition to this area of identified contamination, soils surrounding this second removal action beneath the crane room floor may be impacted and require special handling if disturbed (Area of potential contamination is noted on Survey Drawing 4751-404). Confirmation samples from the bottom and other three sidewalls of the excavation met the TAGM 4046 Recommended Soil Cleanup Objectives. However, the concentration of some constituents exceeded the NYSDEC STARS Guidance Values for soil reuse and as such would require proper off-site disposal if disturbed.

2.4 Area Potentially Contaminated with Fuel Oil Constituents

Soils contaminated with residual concentrations of petroleum products (SVOCs only) consistent with a fuel oil spill were identified in 2000, east of the manufacturing facility and along the eastern property boundary. The NYSDEC was notified and issued the Site Spill #0009396. On the basis of information obtained from a Phase II Environmental Assessment by Earth Tech and an ensuing investigation by Sterling Environmental, three distinct areas of petroleum type contamination were identified as the spill area. A work plan was developed by Sterling Environmental and remedial activities were performed in 2001. Confirmation samples were taken from each excavation upon completion of the removal action. All confirmation samples were analyzed for the NYSDEC STARS analyte list of VOCs by EPA Method 8260 and SVOCs by EPA Method 8270. Analytical results from these samples indicated that none of the 12 post excavation samples showed concentrations of any compounds contained on the STARS list of constituents of concern for fuel oil in excess of the TAGM 4046 Recommended Soil Cleanup Objectives. Although Benzene was not detected, the method detection limit for Benzene in all 12 samples was significantly higher than the TAGM 4046 Recommended Soil Cleanup Objective. Upon review of this data, the NYSDEC issued an "Inactive" decision for the Site

with respect to spill #0009396 since Benzene results failed to document compliance with the soil cleanup objectives.

Soils surrounding these three excavations in the east yard may be impacted and require special handling if disturbed (Area of potential contamination is noted on Survey Drawing 4751-404). Confirmation samples from the bottom and sidewalls of the excavation did not show exceedances of the TAGM 4046 Recommended Soil Cleanup Objectives. However, the concentration of some constituents exceeded the NYSDEC STARS Guidance Values for soil reuse and as such would require proper off-site disposal if disturbed.

2.5 Area Potentially Contaminated with Transformer Oil

A visual inspection of the transformer room revealed evidence of seepage from bushings on two of the three transformers. The floor of this room consists of loose stone and crushed concrete. Although visible signs of staining were not observed on the stones of the floor, leakage to the floor and underlying soil cannot be ruled out. The concentration of PCBs in the transformer oil is low, ranging from 3.5 to 3.8 ppm. Access to the stone and soil that may be impacted is limited by the building structure and the transformers. In the event that the transformers are removed or the building is demolished the stone and soil from the floor (as noted in Survey Drawing 4751-404) must be sampled and managed in accordance with this plan.

3.0 Contemplated Use

Rigel Enterprises has agreed to restrict the future use of the Site to the "Contemplated Use" provided for in the Voluntary Cleanup Agreement, namely "Restricted commercial use, excluding day care, child care and medical care uses". The zoning specifically prohibits residential uses. Commercial and industrial uses are allowed but they require the use of engineering controls and/or institutional controls.

4.0 Purpose and Description of Surface Cover System

The purpose of a surface cover system is to eliminate the potential for human contact with fill material and eliminate the potential for contaminated runoff from the property. There are presently no existing needs for application of a surface cover system to any areas of the Site. The existing concrete floors of the crane room and the new building addition serve as a cover system for the area contaminated with gasoline constituents. In the event that a surface cover system is required, at a later date, it will consist of one of the following types of clean material:

Soil: 12 inches of vegetated soil cover underlain by a demarcation layer, in outdoor vegetated areas.

Asphalt: A minimum of 6 inches of material (asphalt and subbase material) in areas that will become roads, sidewalks, and parking lots. Actual cross sections will be determined based on the intended use of the area.

Concrete: A minimum of 6 inches of material (concrete and sub base material) in areas that will become slab-on grade structures or for roads, sidewalks, and parking lots in lieu of asphalt. For slab-on-grade structures, an 8-mil polyethylene vapor barrier will be placed beneath the concrete (for sites impacted by VOC contamination only). Actual cross sections will be determined based on the intended use of the area.

5.0 Management of Soils/Fill and Long Term Maintenance of Cover System

The purpose of this section is to provide environmental guidelines for management of subsurface soils/fill and the long-term maintenance of the cover system during any future intrusive work which breaches the site's surface.

This Soils Management Plan includes the following conditions:

Any breach of the site's surface cover material, including for the purposes of construction or utilities work, must be replaced or repaired using an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination. The repaired area must be covered with clean soil and reseeded or covered with impervious product such as concrete or asphalt, as described in Section 4.0, to prevent erosion in the future.

Control of surface erosion and run-off of the entire property at all times including during construction activities.

Site soil (overburden) that is excavated and is intended to be removed from the property must be managed, characterized, and properly disposed of in accordance with NYSDEC regulations and directives (refer to Section 6.0).

Site soil (overburden) that is excavated at the Site may be reused as backfill material on-site provided it contains no visual or olfactory evidence of contamination, and it is placed beneath a cover system component as described in Section 4.0.

Any off-site fill material brought to the Site for filling and grading purposes shall be from an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination. Off-site borrow sources should be subject to collection of one representative composite sample per source. The sample should be analyzed for TCL VOCs, SVOCs, pesticides, PCBs, and TAL metals in addition to cyanide. The soil will be acceptable for use as cover material at the Site provided that all parameters meet the NYSDEC recommended soil cleanup objectives included in TAGM 4046.

Prior to any construction activities, workers are to be notified of the site conditions with clear instructions regarding how the work is to proceed. Invasive work performed

at the property will be performed in accordance with all applicable local, state, and federal regulations to protect worker health and safety.

The Site's Owner (presently Rigel Enterprises) shall complete and submit to the NYSDEC an annual report by January 15th of each year. Such annual report shall contain certification that the institutional controls put in place, pursuant to Declaration of Covenants and Restrictions are still in place, have not been altered and are still effective; that the remedy and protective cover have been maintained; and that the conditions at the Site are protective of public health and the environment in a manner consistent with that contemplated by the Remedial Action Final Report for Voluntary Cleanup submitted by Rigel Enterprises, Inc. to the DEC.

If the Site's surface cover was breached during the year covered by the Annual Report, the Owner of the property shall include the following in that annual report:

A certification that all work was performed in conformance with the Soil Management Plan.

In addition, deed restrictions have been implemented in accordance with the requirements of the New York State Brownfield Program, limiting the future use of the property to "Restricted commercial use, excluding day care, child care and medical care uses.

5.1 Excavated and Stockpiled Soil/Fill Sampling, Testing, and Disposal

Soil sampling and associated analyses should be completed if possible prior to initiation of any excavation in the areas identified in this Soils Management Plan and Survey Drawing 4751-404 as containing contaminated soils. If sampling and analyses cannot be completed prior to excavation, excavated soils should be stockpiled and managed according to section 6.0 of this plan until the necessary data is available to make a decision as to how the excavated soils should be managed. When excavating soils at other areas of the Site not specifically identified in this Plan soils should be observed for evidence of contamination such as discoloration, odor, differences in soil properties, or buried debris. If evidence of contamination is encountered, excavation should be halted and the situation reassessed in accordance with this Plan.

- Excavated soil can be characterized according to the type and concentration of contamination present in the soil as follows:
- 1) <u>Hazardous Waste Soil</u>: Soil that contains leachable concentrations of specific compounds in concentrations which make the soil a Hazardous Waste.
- 2) Non-Hazardous Waste Soil: Soil that contains concentrations of compounds that exceed the NYSDEC TAGM 4046 Recommended Soil Cleanup Criteria or STARS Guidance Values or exhibits nuisance odors but which does not contain leachable concentrations of specific compounds in concentrations which make the soil a Hazardous Waste.

3) <u>Soil which is Non-Regulated and Reusable</u>: Soil that does not contain leachable concentrations of specific compounds in concentrations which make the soil a Hazardous Waste, does not contains concentrations of compounds that exceed the NYSDEC TAGM 4046 Recommended Soil Cleanup Criteria or STARS Guidance Values and does not exhibit nuisance odors.

5.1.1 Sampling, Testing and Characterization of Excavated Soils

5.1.1.1 Area Contaminated with Lead Paint Residuals

The soil contaminated with paint residue was sampled in 1997 and determined to be Non-Hazardous. If these soils are disturbed, they must be sampled to confirm that they are not a Hazardous Waste. Provided the testing confirms that the soils are not a Hazardous Waste, they will be characterized and managed as a Non-Hazardous Waste and disposed of accordingly. If the sampling test results indicate the excavated materials are Hazardous Waste, they will be characterized and managed as a Hazardous Waste and disposed of accordingly. Steps in the sampling and testing of soil from this area include the following:

- 1) Sampling: One composite sample and a duplicate composite sample will be collected for each 100 cubic yards of stockpiled soil fill. Both the sample and the duplicate sample will be collected from five locations within each stockpile.
 - Soil samples will be composited by placing equal portions of fill/soil from each of the five composite soil locations into a pre-cleaned stainless steel (or Pyrex glass) mixing bowl. The soil/fill will be thoroughly homogenized using a stainless steel scoop or trowel and transferred to pre-cleaned jars provided by the laboratory. Sample jars will then be labeled and a chain-of-custody form prepared.
- 2) Confirm that the soil is not a Hazardous Waste: Soil is considered a Hazardous Waste when it exhibits any of the following characteristics: Ignitability, Corrosivity, Reactivity, or Toxicity, as defined in 6 NYCRR Part 371, Section 371.3, or 40 CFR Section 261. Toxicity is the only characteristic of concern for soil contaminated with lead based paint residue. The only parameter of concern for Toxicity is Lead, which is quantified using the Toxicity Characteristic Leaching Procedure. The Hazardous Waste threshold for TCLP Lead is 5 ppm.

5.1.1.2 Area Contaminated/Potentially Contaminated with Gasoline Constituents

The soil contaminated with gasoline constituents was sampled in 2001 and determined to be Non-Hazardous. If these soils are disturbed, they must be sampled to confirm that they are not a Hazardous Waste. Provided the testing confirms that the soils are not a Hazardous Waste, the soil from the identified contaminated area beneath the footer will be characterized and managed as a Non-Hazardous Waste and disposed of accordingly. Soils from areas surrounding the

remediated area beneath the crane room floor will be tested to determine if they are a Non-Hazardous Waste or Reusable Soil. Steps in the sampling and testing of soil from this area include the following:

- 1) Sampling: One composite sample and a duplicate sample will be collected for each 100 cubic yards of stockpiled soil fill. Both composite sample and duplicate sample will be collected from five locations within each stockpile and PID measurements will be recorded for each of the five individual locations. One grab sample will be collected from the individual location with the highest PID measurement. If none of the five individual sample locations exhibit PID readings, one location will be selected at random.
 - Soil samples will be composited by placing equal portions of fill/soil from each of the five composite soil locations into a pre-cleaned stainless steel (or Pyrex glass) mixing bowl. The soil/fill will be thoroughly homogenized using a stainless steel scoop or trowel and transferred to pre-cleaned jars provided by the laboratory. Sample jars will then be labeled and a chain-of-custody form prepared.
- 2) Confirm that the soil is not a Hazardous Waste: A soil is considered a Hazardous Waste when it exhibits any of the following characteristics: Ignitability, Corrosivity, Reactivity, or Toxicity, as defined in 6 NYCRR Part 371, Section 371.3, or 40 CFR Section 261. Toxicity is the only characteristic of concern for gasoline contaminated soil. Parameters of concern for Toxicity include Benzene and Lead, which are quantified using the Toxicity Characteristic Leaching Procedure. The Hazardous Waste threshold for TCLP Benzene is 0.5 ppm and TCLP Lead is 5 ppm.
- 3) Determine whether or not the soil is a Non-Hazardous Waste: A gasoline contaminated soil is considered a Non-Hazardous Waste if it is determined to not be a Hazardous Waste but exceeds the NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives or STARS Guidance Values or exhibits nuisance odors. Contaminant concentrations are determined using EPA standard Method 8021 for the STARS list of constituents of concern for gasoline and compared to the Recommended Soil Cleanup Objectives and Guidance Values.

5.1.1.3 Area Potentially Contaminated with Fuel Oil Constituents

The soil contaminated with fuel oil spill residuals was sampled in 2001 and determined to be Non-Hazardous. If these soils are disturbed, they must be sampled to confirm that they are not a Hazardous Waste. Provided the testing confirms that the soils are not a Hazardous Waste, the soils will be tested to determine if they are a Non-Hazardous Waste or Reusable Soil. Steps in the sampling and testing of soil from this area include the following:

1) Sampling: One composite sample and a duplicate sample will be collected for each 100 cubic yards of stockpiled soil fill. Both composite sample and

duplicate sample will be collected from five locations within each stockpile and PID measurements will be recorded for each of the five individual locations. One grab sample will be collected from the individual location with the highest PID measurement. If none of the five individual sample locations exhibit PID readings, one location will be selected at random.

Soil samples will be composited by placing equal portions of fill/soil from each of the five composite soil locations into a pre-cleaned stainless steel (or Pyrex glass) mixing bowl. The soil/fill will be thoroughly homogenized using a stainless steel scoop or trowel and transferred to pre-cleaned jars provided by the laboratory. Sample jars will then be labeled and a chain-of-custody form prepared.

- 2) Confirm that the soil is not a Hazardous Waste: A soil is considered a Hazardous Waste when it exhibits any of the following characteristics: Ignitability, Corrosivity, Reactivity, or Toxicity, as defined in 6 NYCRR Part 371, Section 371.3, or 40 CFR Section 261. Toxicity is the only characteristics of concern for fuel oil contaminated soil. Parameters of concern for Toxicity include Benzene and Lead, which are quantified using the Toxicity Characteristic Leaching Procedure. The Hazardous Waste threshold for TCLP Benzene is 0.5 ppm and TCLP Lead is 5 ppm.
- 3) Determine whether or not the soil is a Non-Hazardous Waste: A fuel oil contaminated soil is considered a Non-Hazardous Waste if it is determined to not be a Hazardous Waste but exceeds the NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives or STARS Guidance Values or exhibits nuisance odors. Contaminant concentrations are determined using EPA standard Method 8021 and 8270 for the STARS list of constituents of concern for fuel oil and compared to the Recommended Soil Cleanup Objectives and Guidance Values.

5.1.1.4 Area Potentially Contaminated with Transformer Oil

The soil potentially contaminated with transformer oil has not been sampled. However, the transformer oil was sampled and determined to be non-PCB. If these soils are disturbed, they must be sampled to confirm that they are not a Hazardous Waste. Provided the testing confirms that the soils are not a Hazardous Waste, the soils will be tested to determine if they are a Non-Hazardous Waste or Reusable Soil. Steps in the sampling and testing of soil from this area include the following:

 Sampling: One composite sample and a duplicate sample will be collected for each 100 cubic yards of stockpiled soil fill. Both composite sample and duplicate sample will be collected from five locations within each stockpile and PID measurements will be recorded for each of the five individual locations. One grab sample will be collected from the individual location with the highest PID measurement. If none of the five individual sample locations exhibit PID readings, one location will be selected at random. Soil samples will be composited by placing equal portions of fill/soil from each of the five composite soil locations into a pre-cleaned stainless steel (or Pyrex glass) mixing bowl. The soil/fill will be thoroughly homogenized using a stainless steel scoop or trowel and transferred to pre-cleaned jars provided by the laboratory. Sample jars will then be labeled and a chain-of-custody form prepared.

- 2) Confirm that the soil is not a Hazardous Waste: A soil is considered a Hazardous Waste when it exhibits any of the following characteristics: Ignitability, Corrosivity Reactivity, or Toxicity, as defined in 6 NYCRR Part 371, Section 371.3, or 40 CFR Section 261 or is a Listed Hazardous Waste. There are no characteristics of concern for transformer oil contaminated soil. However, material which contains 50 ppm PCBs or greater is a Listed Hazardous Waste as per 6 NYCRR Part 371, Section 371.4(e).
- 3) Determine whether or not the soil is a Non-Hazardous Waste: A transformer oil contaminated soil is considered a Non-Hazardous Waste if it is determined to not be a Hazardous Waste and it exhibits nuisance odors or visual evidence of staining.

5.1.1.5 Areas Not Characterized as Contaminated

When soil/fill is excavated at the Site in areas that have not been identified on Survey Drawing 4751-404 as being potentially contaminated, it must be characterized prior to making a determination as to how it will be managed. Soil excavated at the site may be reused as backfill material on-site provided it contains no visual or olfactory evidence of contamination, and it is placed beneath a cover component as described in Section 4.0.

Excavated soils/fill, which cannot be utilized as on-site backfill material, must be sampled and tested to determine whether or not they are a Hazardous Waste. Provided the testing confirms that the soils are not a Hazardous Waste, they will be characterized and managed as a Non-Hazardous Waste and disposed of accordingly.

If the sampling test results indicate the excavated materials are Hazardous Waste, they will be characterized and managed as a Hazardous Waste and disposed of accordingly. Steps in the sampling and testing of soil from non characterized areas at the Site include the following:

1) Sampling: For excavated soil/fill with visual evidence of contamination (i.e., staining or elevated PID measurements), one composite sample and a duplicate sample will be collected for each 100 cubic yards of stockpiled soil fill. For excavated soil/fill that does not exhibit visual evidence of contamination but must be sent for off-site disposal, one composite sample and a duplicate sample will be collected for 2,000 cubic yards of stockpiled soil, and a minimum of 1 sample will be collected for volumes less than 2,000 cubic yards. Both composite sample and duplicate sample will be collected from five locations within each stockpile and PID measurements

will be recorded for each of the five individual locations. One grab sample will be collected from the individual location with the highest PID measurement. If none of the five individual sample locations exhibit PID readings, one location will be selected at random.

Soil samples will be composited by placing equal portions of fill/soil from each of the five composite soil locations into a pre-cleaned stainless steel (or Pyrex glass) mixing bowl. The soil/fill will be thoroughly homogenized using a stainless steel scoop or trowel and transferred to pre-cleaned jars provided by the laboratory. Sample jars will then be labeled and a chain-of-custody form prepared.

2) Determine whether or not the soil is a Hazardous Waste: The composite samples will be analyzed by a NYSDOH ELAP certified laboratory. If the analytical results indicate that contaminant concentrations exceed the standards for RCRA characteristics, the material will be considered a hazardous waste and must be properly disposed off site at a permitted hazardous waste disposal facility within 90 days. These RCRA characteristics include Ignitability, Corrosivity, Reactivity, or Toxicity, as defined in 6 NYCRR Part 371, Section 371.3, or 40 CFR Section 261. If the analytical results indicate that the soil/fill is not a hazardous waste, the material will be properly disposed off site at a non hazardous waste facility. Stockpiled soil/fill cannot be transported on or off site until the analytical results are received.

5.2 Subgrade Material

Subgrade material used to backfill excavations or placed to increase site grades or elevation shall meet the following criteria.

Excavated on-site soil/fill which appears to be visually impacted shall be sampled and analyzed. If analytical results indicate that the contaminants, if any, are present at concentrations below the Site Specific Action Levels (SSALs) as detailed in section 5.1.1, the soil/fill can be used as backfill on site.

Any off-site fill material brought to the site for filling and grading purposes shall be from an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination.

Off-site soils intended for use as site backfill cannot otherwise be defined as a solid waste in accordance with 6 NYCRR Part 360-1.2(a).

If the contractor designates a source as "virgin" soil, it shall be further documented in writing to be native soil material from areas not having supported any known prior industrial or commercial development or agricultural use.

Virgin soils should be subject to collection of one representative composite sample

per source. The sample should be analyzed for TCL VOCs, SVOCs, pesticides, PCBs, arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, and cyanide. The soil will be acceptable for use as backfill provided that all parameters meet the TAGM 4046 Recommended Soil Cleanup Objectives.

Non-virgin soils will be tested via collection of one composite sample per 500 cubic yards of material from each source area. If more than 1,000 cubic yards of soil are borrowed from a given off-site non-virgin soil source area and both samples of the first 1,000 cubic yards meet the TAGM 4046 Recommended Soil Cleanup Objectives, the sample collection frequency will be reduced to one composite for every 2,500 cubic yards of additional soils from the same source, up to 5,000 cubic yards. For borrow sources greater than 5,000 cubic yards, sampling frequency may be reduced to one sample per 5,000 cubic yards, provided all earlier samples met the TAGM 4046 Recommended Soil Cleanup Objectives.

6.0 Handling and Disposal of Excavated Soils

Excavation of soils at the Site can result in the handling of contaminated soils. Both the volume of soils and the location of the area to be excavated will affect the size of the equipment needed to perform the removal efficiently. The type of soil excavated and its potential level of contamination dictates the choice of personal protective equipment necessary for worker protection, the type of monitoring required, and the need for special adaptations to excavation equipment. These factors also must be considered when determining the type of decontamination procedures, material staging, or storage requirements.

Factors to be considered prior to excavating potentially contaminated soil include the following:

- 1) Air monitoring if volatile or particulate contaminant emissions become airborne from disturbed or exposed soils.
- 2) Decontamination procedures including defined work zones and traffic controls.
- 3) Physical hazards including protection against public access (fencing, barriers), underground utilities, nearby structures.
- 4) Dewatering.

The excavation, transportation, and placement operations of contaminated soils shall result in minimal generation of dust. During all phases of material handling use caution to prevent spillage of waste materials. All contaminated soil must be disposed of in accordance with all applicable regulations. If possible avoid temporary stockpiling of contaminated soils. If temporary stockpiling is necessary:

- 1) Stage soils on an impervious surface.
- 2) Cover the stockpile with a waterproof material (i.e., tarpaulin or 6 mil plastic sheeting).
- 3) Install a berm around the stockpile to prevent runoff.

4) Do not stockpile near storm drains or watercourses.

Pile containment must be maintained for the duration of the staging period to prevent contaminant volatilization, runoff, leaching, or fugitive dust emissions.

When removing soil from the site any contaminated material and hazardous material on exteriors of transportation vehicles shall be removed and placed either into the transportation vehicle or the excavation prior to the vehicle leaving the exclusion zone. Collect water from decontamination procedures and treat and/or dispose of it an appropriate disposal site. Collect non-reusable protective equipment, once used by any personnel, and dispose of at an appropriate disposal site.

Specific procedures for handling the three types of soils at the Site are as follows:

Hazardous Waste Soil: All excavated soils designated as a Hazardous Waste (soils with contaminant concentrations above the non hazardous waste levels) must be properly staged and removed from the Site within 90 days of its excavation. Hazardous waste when going off site for management shall be properly manifested, transported by a licensed, insured hauler and go to a disposal facility which is authorized to accept the waste.

Non-Hazardous Waste Soil: All excavated soils designated as a Non-Hazardous waste must be properly staged and removed from the Site in a timely fashion, at a minimum, within one year of its excavation. The material is legally considered a solid waste, and as such, the transporter hauling the waste must be a New York registered solid waste transporter and go to a disposal facility which is authorized to accept the waste.

Soil which is Non-Regulated and Reusable: Soils which are neither Hazardous or Non-Hazardous Waste contain minimal concentrations of contaminants. Such soils can be retained at the Site and put back in the excavation or utilized as fill at another location at the Site.

7.0 Health and Safety Plan

A Health and Safety Plan (HASP) for the Site was previously submitted to the New York State Department of Environmental Conservation and the New York State Department of Health on behalf of Rigel Enterprises, Inc. in connection with the Voluntary Cleanup Agreement for Site #V00625-9. This HASP has to be followed when construction involving soil excavation is performed at the Site. Included in the HASP are explicit requirements relative to the Site such as, but not limited to: personnel training; personal protective equipment; medical surveillance particular to potential site exposure; frequency and types of air menitoring, personnel menitoring, and environmental sampling technique; site and the sample of the protection.

types of air monitoring, personnel monitoring, and environmental sampling techniques; site control measures to repress personnel exposure to hazardous substances by zonation of the site operations according to areas of contamination and procedures for site emergencies; safe work practices and identification of medical assistance; decontamination procedures to minimize personnel contact with hazardous substances and equipment thereof; emergency response plan necessary to effectively anticipate emergencies prior to an actual emergency (e.g., lines of authority, evacuation, critique, and emergency equipment); and spill containment procedures should transfer, transport or disposal of hazardous material be necessary.

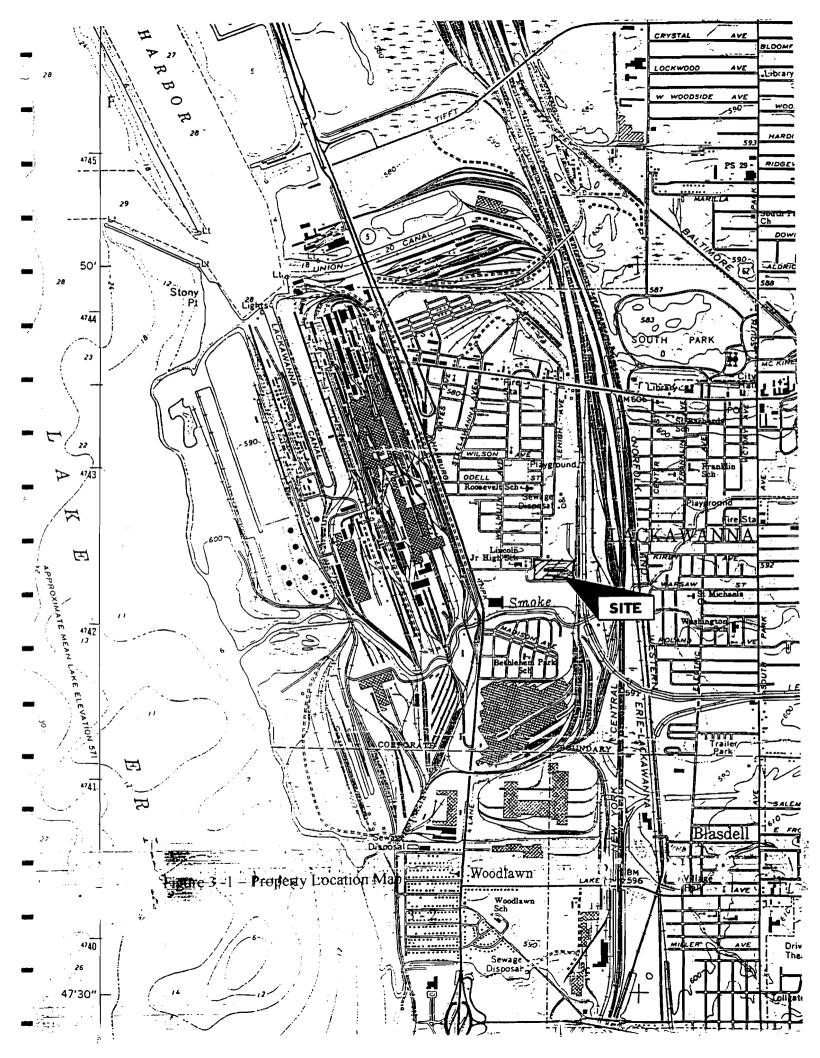
8.0 Reporting Requirements – Annual Certification

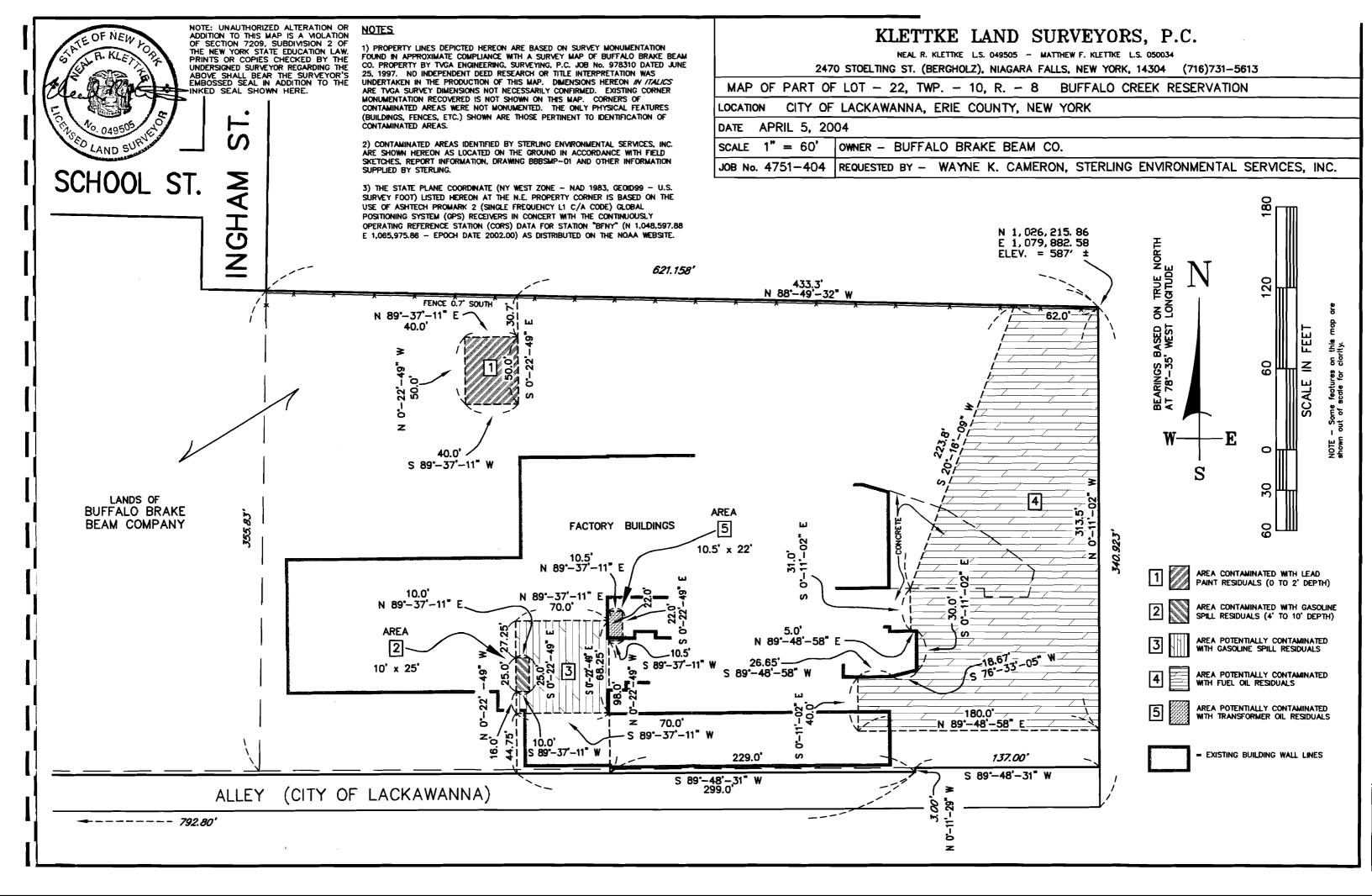
An annual certification of the Soil Management Plan (SMP) is required under the VCP and requires an inspection and certification by a NYS – licensed engineer. The inspection will include a review of the existing plan and will document that the Site activities performed over the year are consistent with the protocols established in the SMP. Reporting will include a summary of the work performed, activities completed regarding maintenance of the Soil Cover and Paving Plan, activities completed under the Soil Excavation and Maintenance Plan, soil reuse and disposal activities, a compilation of sampling data collected during the annual period, identified exceptions to the plan, and recommended actions for maintenance of the plan, if needed.

It is anticipated that this certification will be in the form of a brief letter report if necessary and completion of the form entitled Annual Certification of Institutional/Engineering Controls at Voluntary Clean-Up Program Site (Exhibit 2-1).

To assure the effectiveness of such institutional and engineering controls, the owner of the Property shall file with the Relevant Agency, within three months after the filing of this Declaration and annually thereafter.

Figure 1-1





Šiena.			
-			
ius.			
-			
Îne			
Šau			
S			
bos			
-			
*			
· · · · · · · · · · · · · · · · · · ·			
ţ			
ten .			
.			
•			
_			

Annual Certification of Institutional/Engineering Controls at Voluntary Clean-Up Program Site

Site Number:			
Site Name:			
Site Address:			
County: Erie County			
City/Town:			
Property ID: (from Tax A	ssessment Map)		
Section:	Block:	Lot(s):	
I (name)	, residing at	(address)	, as
` '		perty(ies) listed above which are	ŕ
· · · · · · · · · · · · · · · · · · ·		nup Site named above; do certify	-
•		in the Restrictive Covenant for th	
-	• •	l within the property(ies) listed at	-
•	•		
Signature:	and the state of t		
(This area for notary publ	ie)		