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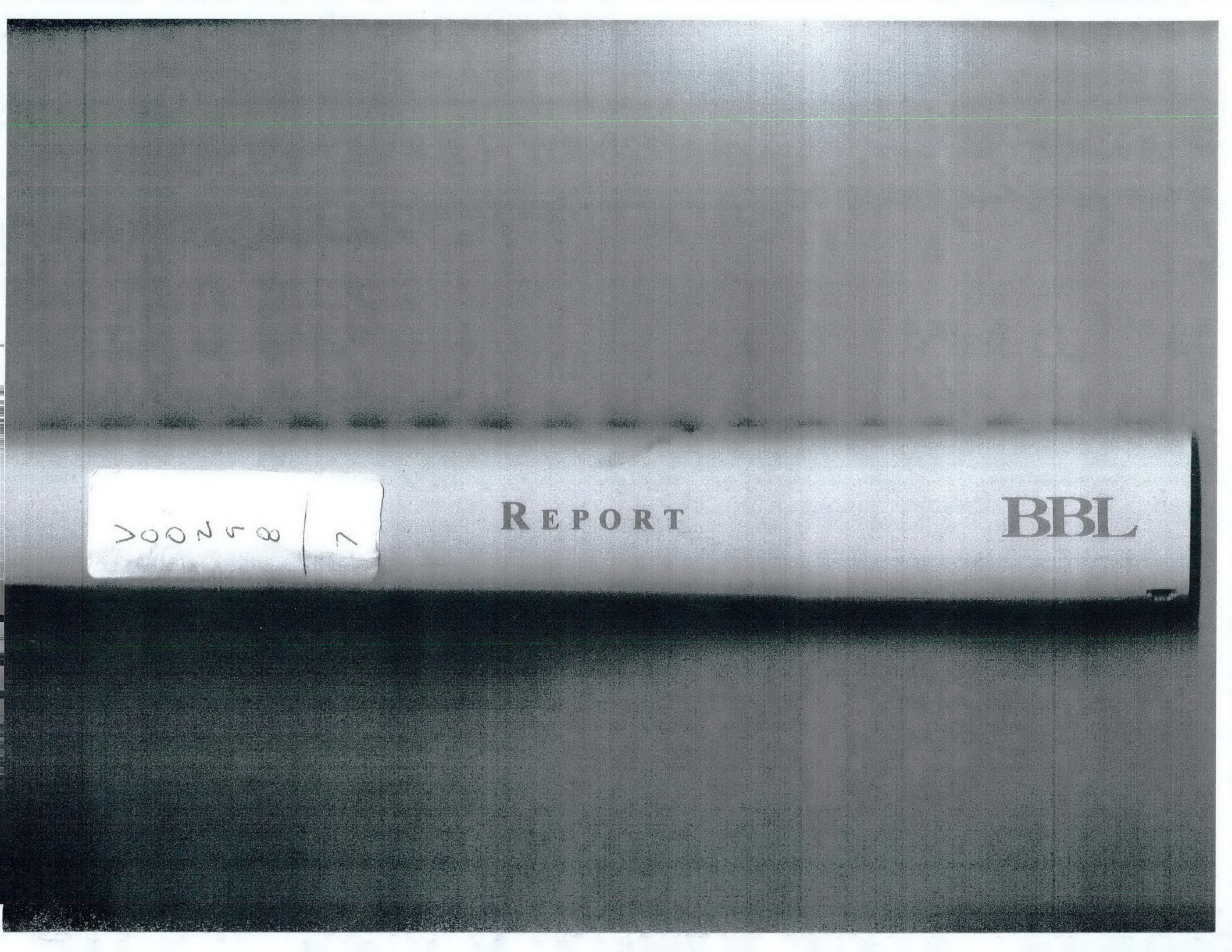
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REPORT

Former Broome County Firing Range Remedial Action Plan

Broome County
Town of Dickinson, New York

May 2001

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

TECHNICAL REPORT

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Broome County
Town of Dickinson, New York

May 2001

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consultants with focus

Table of Contents

Section 1. **Introduction** **1-1**

1.1 General 1-1
1.2 Objectives 1-1
1.3 Site Background 1-2
1.4 Previous Site Investigations 1-2
1.5 Purpose and Organization of Report 1-2

Section 2. **Remedial Activities** **2-1**

2.1 General 2-1
2.2 Excavation and Treatment Area Site Preparation 2-1
2.2.1 Mobilization 2-1
2.2.2 Clearing/Grubbing 2-1
2.2.3 Temporary Soil Erosion and Stormwater Controls 2-2
2.2.4 Material Staging Areas 2-2
2.2.5 Decontamination Facility 2-3
2.2.6 Site Survey 2-3
2.3 Soil and Sediment Excavation/Treatment 2-4
2.3.1 Site Delineation Results/Limits of Excavation 2-4
2.3.1.1 Firing Lane 2-4
2.3.1.2 Backstop 2-5
2.3.1.3 North Drainage Swale 2-5
2.3.1.4 South Drainage Swale 2-5
2.3.2 Soil Excavation 2-6
2.4 Confirmation/Post Excavation Sampling 2-6
2.4.1 Sampling Procedures 2-7
2.4.2 Sampling Procedures for Total Arsenic and Copper 2-7
2.4.3 Sample Equipment Decontamination 2-7
2.4.4 Data Evaluation 2-7
2.5 Backfilling/Restoration of Excavated Areas 2-8
2.6 Soil On-Site Treatment 2-8
2.6.1 Soil Treatment Process 2-8
2.6.2 Treated Material Sampling and Disposal 2-9

	2.7 Fugitive Dust Control	2-9
	2.7.1 Dust Sources and Control	2-10
	2.8 Noise Control	2-11
Section 3.	**Health and Safety**	**3-1**
	3.1 Introduction	3-1
	3.2 Site Description	3-1
Section 4.	**Treatment and Disposal**	**4-1**
	4.1 General	4-1
	4.2 Waste Transportation	4-1
	4.3 Waste Disposal	4-1
	4.4 Waste Characterization	4-2
Section 5.	**Project Organization and Management**	**5-1**
Section 6.	**Final Report**	**6-1**

Tables

Table 1 - Analytical Data Summary
Table 2 - Composite Analytical Data Summary
Table 3 - Confirmatory Sampling List
Table 4 - Soil Treatability Study Results

Figures

Figure 1 - Site Location Map
Figure 1A - Site Location Map
Figure 2 - Sample Location Map
Figure 3 - Excavation Area and Limits
Figure 4 - Confirmatory Sampling Grid
Figure 5 - Soil Treatment Process Layout

Appendices

Appendix A - O'Brien & Gere Engineers 1998 Report
Appendix B - Delineation Sampling Data
Appendix C - Marcor's Health & Safety Plan
Appendix D - Maps and Directions to Medical Facilities

Section 1

1. Introduction

1.1 General

This Remedial Action Plan (RAP) has been prepared by Blasland, Bouck & Lee, Inc. (BBL) in conjunction with Marcor Remediation Inc. (Marcor) on behalf of Broome County for the former Broome County Firing Range located in the Town of Dickinson, New York (Site) (Figure 1). This RAP delineates the extent of contamination and specifies remedial activities to be performed including soil/sediment excavation and remedial design and implementation. Remedial activities will be implemented at the Site covering the following four former firing range areas:

- Firing Lanes
- Backstop
- North Drainage Swale
- South Drainage Swale

The location of each of these areas is shown on the Sample Location Map included as Figure 2. Each of these areas are known to contain variable concentration levels of lead. This RAP presents the planned activities to effectively remove lead contaminated soils and sediments in accordance with the site specific lead clean-up levels. The lead contaminated soils will be excavated, stockpiled, and treated on-site for eventual off-site disposal as discussed in Section 2.

The RAP activities were prepared in accordance with the following documents:

- "Specifications, Former Broome County Firing Range Lead Abatement, Broome Community College, Project No. SH9902", Dickinson, New York, August 1999, scope of work.
- "Additional Site Delineation Sampling and Analysis Plan" (SAP), BBL, October 1999.
- Marcor treatability study based on application of soil treatment and stabilization technology.

1.2 Objectives

The remedial objectives selected for the Site are to eliminate the potential for direct human contact with the lead contaminated soils and sediments as well as eliminate migration of lead contaminated soils and surface water via storm-water run-off. The remedial activities will meet the project objectives as follows:

- Eliminate the potential for direct human contact with the lead contaminated soil; the selected remedy will involve the excavation and on-site treatment of lead contaminated soils and sediments using the soil treatment and stabilization technology. The excavation areas will be filled with fill material currently staged on site. The north drainage swale sediments will be filled to grade with clean fill eliminating the potential of direct human contact with the lead contaminated soils and sediments.
- Eliminate potential off-site migration of contaminated soils and surface water; lead contaminated soil and surface water off-site migration will be eliminated by the excavation and on-site treatment of the lead contaminated soil and sediments. These remedial activities will prevent direct contact of storm water with the contaminated soils/sediments and potential contaminant off-site migration.

The main elements of the selected remedy, which have been designed to meet these objectives as stated above include the following:

- Excavation of lead contaminated soil and sediment;
- On-site soil and sediment treatment;
- Filling the north drainage swale; and
- Clean soil backfilling of the excavation areas.

1.3 Site Background

The Site, located at the former Broome County Firing Range east of the new Public Safety Complex (see Figure 1A) in the Town of Dickinson, was operated as a firing range from the mid-1950s to 1993. The range was used by the sheriff's department, local police departments, the FBI, and the Secret Service as a practice shooting range. The range consists of two general areas, the firing area and the backstop. The firing area consists of three firing lanes at various distances from the backstop. The backstop area is a steep upward sloped area and targets were located at the base of the backstop. Bullets, which missed the targets, entered into railroad ties up to the mid-1970s, sandbags from the mid-1970s to the late 1980s, and directly into the ground surface from the late 1980s to 1991.

1.4 Previous Site Investigations

An initial site characterization project was conducted in 1997, which involved the collection of soil samples in the firing area, backstop area and sediment samples from a ditch located between the firing area and backstop area, and two drainage swales which are located along the northern and southern perimeter of the firing lanes. Soil and sediment samples were collected at depths varying from zero to two feet. All samples were analyzed for total lead. Soil sample lead concentrations ranged from 15 parts per million (ppm) at the west backstop, to 12,000 ppm at the center backstop. Sediment samples ranged in concentration from 39 ppm to 5600 ppm from the ditch east of the backstop and adjacent drainage swales. Detailed information regarding the site characterization work that was performed is presented in a report prepared by O'Brien & Gere Engineers, Inc. dated September 2, 1998, which is included in this work plan as Appendix A.

Additional site delineation sampling activities were performed at the Site by BBL in October 1999 in accordance with the New York State Department of Environmental Conservation (NYSDEC) approved SAP (identified in Section 1.1). Sampling activities were conducted in order to further delineate the extent of lead contamination. Soil and sediment samples were collected targeting the areas containing higher lead concentrations based on the previous site characterization. These areas included the firing range, backstop and the existing firing range drainage swales. The resulting analytical data was compared to the site specific lead clean-up levels of 300 ppm for soils and 31 ppm for sediments set forth under a voluntary agreement between the NYSDEC and Broome County. The analytical results were used to determine, to the extent possible, the vertical and horizontal extent of contamination. Analytical results are summarized in Tables 1, 2 and attached as Appendix B. Site delineation analytical results and assessment are discussed in Section 2 of this report.

1.5 Purpose and Organization of Report

This report presents the general design and implementation requirements for the remedial activities at the Site and has been organized into the following sections:

- Section 1 - Introduction
- Section 2 - Remedial Activities
- Section 3 - Air Monitoring Requirements
- Section 4 - Treatment and Disposal
- Section 5 - Project Organization and Management
- Section 6 - Final Report

Section 2

2. Remedial Activities

2.1 General

This section presents the on-site activities associated with this site remedial action. The remedial action includes the excavation, on-site treatment, and off-site disposal of contaminated soils and sediments, as well as site restoration. The remedial action will be performed by Marcor to achieve clean-up levels of 300 ppm for soils and 31 ppm for sediments.

The primary remedial components include the following:

- Excavation and treatment area site preparation;
- Soil and sediment excavation;
- Confirmation and treated soil/sediment sampling;
- Soil and sediment treatment;
- Filling of the north drainage swale; and
- Site restoration.

2.2 Excavation and Treatment Area Site Preparation

This section summarizes the activities that will be performed to prepare the Site for the subsequent remedial activities.

2.2.1 Mobilization

Excavation equipment and materials, including a loader, excavator, dump truck, etc, required for soil removal activities will be mobilized and staged at the Site. Additionally, the lead treatment and stabilization equipment unit will be mobilized and staged at the Site after the completion of the site clearing/grubbing activities as discussed in Section 2.2.2. As part of the mobilization, Marcor will obtain a utilities clearance for the site. If determined necessary, Marcor will mobilize a field trailer to the Site for use as a field office by the on-site personnel. The field trailer will be staged at the Site prior to the start of the remedial activities. Marcor will arrange for utility connections to the trailer (i.e., telephone, electrical, etc.) as required. Prior to implementation of the RAP, Marcor will obtain any permits as appropriate.

Site work zones will be established on-site as specified in the Health and Safety section, Section 3.

2.2.2 Clearing/Grubbing

Prior to performing any work, the Site will be cleared and grubbed in the excavation and treatment areas. Trees and brush will be removed to the ground surface using heavy construction equipment and chain saws. The cleared vegetative material (i.e., trees, shrubbery) having no visible signs of contamination will be left on-site.

Asphalt material leading to the firing range and located within the firing lanes will be removed and managed in accordance with Federal, State and Local requirements. Any large surficial debris, which is not considered appropriate for backfill, will be removed and managed in accordance with Federal, State and Local requirements. The shed located at the eastern end of the firing lanes area will be demolished and managed in accordance with Federal, State, and Local requirements.

2.2.3 Temporary Soil Erosion and Stormwater Controls

Prior to excavation, temporary erosion control and stormwater management structures will be installed at the Site to control surface-water run-on and run-off and to minimize the potential for erosion and off-site migration of lead-impacted soils and sediments during excavation and treatment activities. Soil erosion and storm-water run-off structures will be installed, operated, and inspected in accordance with "New York Guidelines for Urban Erosion and Sediment Control (April 1997)". Storm-water and erosion controls will include the following:

- Silt fence and hay bales around excavation areas (backstop, firing lanes, and southern drainage swale) and the soil treatment and staging areas;
- Temporary storm-water diversion ditches for the control of surface-water run-off from the up slope areas onto the Site;
- Temporary check dams and diversion structures/equipment to divert surface-water flow in the southern drainage swale during excavation/restoration; and
- Sedimentation control structures around the existing drainage swales.

The specific requirements for storm-water and erosion control structures are described in more detail below.

- A silt fence will be installed along the perimeter of excavation area, around the soil treatment area, and along temporary stockpiles or regraded areas (i.e., the perimeter of the staging area). The silt fence will be anchored a minimum of six inches into the ground and staked every ten feet. Hay bales will be used in conjunction with silt fence along low lying areas of the excavation, staging, and treatment areas that are expected to receive a greater amount of run-off. The hay bales will be installed immediately adjacent to a three-foot high silt fence. The hay bales will be secured to the ground with stakes or equivalent. Inspection and proper maintenance of the controls will be performed as an integral component of Site maintenance during remediation activities.
- A temporary storm-water diversion ditch will be installed above the backstop area to divert run-off from the slope above the backstop. The diversion ditch will be constructed above the area to be excavated and will direct flow from the upland areas to the northern drainage swale. The northern drainage swale will be remediated (i.e., backfilled to grade with soil currently stockpiled on-site as agreed upon by the NYSDEC) prior to the installation of the diversion ditch.
- Excavation of the southern drainage swale will require the construction of an upstream check dam and diversion system to limit surface water flow in the ditch. Two check dams will be installed; one at the upstream limit of excavation and one at the downstream limit of excavation. The check dams will be constructed of sand bags and polyethylene sheets. A small sump will be excavated at the upstream check dam to collect surface water. Gravel will be placed in the sump to limit pumping of sediment. A pump will be used to divert water entering the sump around the southern drainage swale. The pump will be connected to flexible hosing and will discharge into the drainage swale past the downstream extent of excavation. A temporary discharge structure (e.g., gravel/rip rap) will be placed at the point of discharge to limit the potential for erosion/sedimentation from the discharged flow. The downstream check dam will also serve as the primary sedimentation control structure and will collect sediment associated with the drainage swale excavation.

2.2.4 Material Staging Areas

Material staging areas will be constructed for temporary storage of materials to be treated and/or separated. In particular, the following materials will be staged separately:

- Untreated soils/sediments;
- Treated soils/sediments;
- Recovered lead; and
- Oversize, uncontaminated debris/gravel.

The staging areas for the storage of excavated and treated soil will be constructed in the soil treatment area, which will be located downhill and south of the firing range area and adjacent to the Public Safety Complex parking lot. The staged material will be covered daily or during precipitation events. The covered material will be secured during inclement weather and during periods of inactivity. Treated soil will be staged in approximate 250 c.y. piles in accordance with the treated soil sampling requirements (Section 2.6.2). The anticipated soil staging area locations are depicted in Figure 5. Silt fencing/hay bales (or equivalent) will be placed around active soil piles to limit contaminated run-off.

Oversize material generated from the soil treatment and stabilization process will include recovered lead pieces/fragments and clean, uncontaminated gravel and miscellaneous debris. Recovered lead will be placed directly into containers (e.g., drums or rolloffs) and will be covered. The recovered lead will be shipped to a smelter or other recovery facility for reclamation. Uncontaminated oversize material (gravel/debris) will remain on-site.

Following the completion of soils treatment, a minimum of 2-3 inches of native soil underlying the untreated staged soil will be excavated and treated.

2.2.5 Decontamination Facility

Equipment and personnel decontamination facilities will be constructed within the Contamination Reduction Zone (CRZ) of the excavation area. The decontamination facilities will consist of a large equipment decon and small personnel decon stations. The large equipment stations will be used for removal of lead contaminated soil, sediment, debris, and dust from large equipment (excavator, loader, etc.) at the end of excavation activities. The large equipment stations will be lined with a polyethylene liner and bermed in sufficient size to contain all decontamination water and sediment. The large stations will be equipped with a 2,000 pounds per square inch (psi) pressure washer or steam cleaner, a sump pump and 55-gallon drums for storage of decontamination wastewater. Soils/sediments will be shoveled into a loader for transport to the treatment unit staging area.

The small personnel station will be used to clean hand sampling equipment and reusable personnel protective equipment (PPE). The small station will be lined, bermed, and equipped with containerized rinse water and cleaning supplies. 55-gallon drums will also be used for the storage of decontamination wastewater and contaminated PPE.

For the excavation area, the large equipment decontamination station will be constructed on the eastern side of the firing range in the approximate area of the demolished shed. The location of the small equipment decontamination station will vary based on the excavation progression, beginning at the backstop and progressing east to the eastern edge of the firing lanes. The use of the small personnel decontamination station in the excavation area should only be required during confirmation soil sampling activities. For the treatment area, a small personnel decontamination station will be constructed on the east side of the treatment area.

2.2.6 Site Survey

A pre-excavation survey of the site will be performed prior to the implementation of the excavation activities in order to establish baseline conditions and the limits of excavation. The initial limits of soil and sediment to be excavated will be located and staked. A post-excavation survey will be performed at each completed excavation area to

document the actual excavated volumes. In addition, a final survey of the constructed subgrade and final cap will be performed to generate a topographic map of the remediation area.

2.3 Soil and Sediment Excavation/Treatment

This section presents analytical results from the soil and sediment delineation performed in accordance with the SAP and the 1997 sampling event. The extent of excavation has been based on the site delineation analytical results. Site delineation results and resulting limits of excavation are presented in the following sections.

The lead treatment process will focus on the highly contaminated backstop area. In areas that exhibit lower total lead results, and were not directly receiving the fired bullets (i.e. sediment areas and firing lanes), only the separation process will be performed. At this point, TCLP sampling will be conducted for characterization and disposal purposes.

2.3.1 Site Delineation Results/Limits of Excavation

In accordance with the SAP, soil and sediment samples were collected from the firing lanes, backstop, north drainage swale and south drainage swale to further delineate the extent of the lead contamination. Two composite samples were also collected to determine the presence, if any, of additional metals at the high lead concentration areas defined during previous Site investigations. Additionally, soil samples were collected from each of two on-site soil stockpiles in order to characterize the soil for potential use as backfill.

An additional fifty-five soil and sediment samples (see Figure 2), including duplicates, were collected from the Site as part of the SAP. Thirty-one of the fifty-five samples were soil samples collected from the firing lanes and the backstop. Eighteen of the fifty-five samples were sediment samples collected from the north and south drainage swales. Two samples were composite soil samples representative of predetermined high lead concentration areas in both the firing lanes and the backstop. The remaining four samples were collected from two soil piles currently staged on the Site.

The soil and sediment samples were collected at varying depth intervals ranging from 0 to 24 inches. The samples were analyzed for either total lead or the eight RCRA metals plus copper. The samples were analyzed by the Environmental Laboratory Approval Program-Contract Laboratory Protocols (ELAP-CLP) approved laboratory, Galson Laboratories, using USEPA SW846 Method 6010B with New York State Analytical Services Protocol (NYS ASP) Category B deliverables. The analytical results are presented Appendix B and summarized in Figure 2 and Table 1.

The vertical and lateral limits of excavation were determined by comparing the lead analytical results to the soil and sediment site specific clean-up levels of 300 ppm and 31 ppm, respectively. Figure 3 presents the approximate areas and limits of excavation.

2.3.1.1 Firing Lane

As part of the SAP, eight soil samples were collected from the firing lanes at the depth of 0 to 6 inches, identified as FL01 through FL08. The samples were collected at the north and south boundaries of the firing lanes. The analytical data revealed total lead concentrations ranging from 21.1 milligrams per kilogram (mg/kg) to 357 mg/kg.

The analytical results from the recent sampling event (Table 1) and the 1997 sampling event (Appendix A) were compared to the soil lead clean-up level of 300 ppm. Based on the comparison, the firing lane area of excavation will include the entire firing lane area, extending west to the base of the backstop including the drainage ditch and east to the eastern edge of the firing area extending out five feet north and south of the firing lane perimeter. Soil will be removed to a depth of 6 inches below grade. The estimated volume of soil to be removed from the firing lane area

is 400 cubic yards (see Figure 3). Confirmation soil samples will be collected from the excavation area prior to backfill as specified in Section 2.4.

2.3.1.2 Backstop

As part of the SAP, a total of twenty-one soil samples were collected from seven boring locations in the backstop area at intervals of 0 to 6, 6 to 12, and 12 to 24 inches. The samples are identified as B01 through B07 with the appropriate depth. Twelve of the twenty-one soil samples were collected from four borings located approximately 55 feet west of the backstop drainage ditch. Nine of the twenty-one soil samples were collected from three borings located approximately 60 feet west of the backstop drainage ditch. The resulting soil lead concentration ranges are as follows: 0 to 6 inches, 138 mg/kg to 1350 mg/kg; 6 to 12 inches, 22.2 mg/kg to 115 mg/kg; and 12 to 24 inches, 21.2 mg/kg to 82.7 mg/kg.

The analytical results from the recent sampling event (Table 1) and the 1997 sampling event (Appendix A) were compared to the soil lead clean-up level of 300 ppm. Based on the comparison, the backstop area of excavation will include the entire backstop extending approximately 65 feet west of the drainage ditch. Soil will be removed to a maximum depth of 36 inches below grade following the existing slope of the backstop. The estimated volume of soil to be removed from the backstop is 1,192 cubic yards. Confirmation soil samples will be collected from the backstop excavation area as specified in Section 2.4.

2.3.1.3 North Drainage Swale

One sediment sample was collected from the eastern end of the north drainage swale targeting an area immediately above respective merging waterways. The sample is identified as SE07. The sediment sample was collected from 0 to 6 inches with a resulting lead concentration of 26.9 mg/kg. The analytical result confirmed that lead containing sediments are not migrating into respective merging waterways.

The analytical results from the recent sampling event (Table 1) and the 1997 sampling event (Appendix A) were compared to the sediment lead clean-up level of 31 ppm. Based on the comparison, the north drainage swale will be filled to grade with soil currently stockpiled on-site without requiring sediment excavation as agreed upon by the NYSDEC during our meeting.

2.3.1.4 South Drainage Swale

A total of fifteen sediment samples were collected from six boring locations in the south drainage swale at intervals of 0 to 6, 6 to 12, and/or 12 to 24 inches. The samples are identified as SE01 through SE06 with the appropriate depth. The six sample locations extended approximately 320 feet east from directly south of the backstop to an area immediately above respective merging waterways. The resulting sediment lead concentration ranges are as follows: 0 to 6 inches, 37.7 mg/kg to 195 mg/kg; 6 to 12 inches, 20.9 mg/kg to 652 mg/kg; and 12 to 24 inches, 30.1 mg/kg to 62.2 mg/kg

The analytical results were compared to the sediment lead clean-up level resulting in nine of the fifteen samples (SE01 0-6, 6-12 inches; SE03 6-12, 12-24 inches; SE04 6-12 inches; SE05 0-6, 6-12, 12-24 inches; and SE06 0-6 inches) containing lead concentrations exceeding the lead clean-up level. The remaining sediment sample did not contain lead concentrations exceeding the sediment lead clean-up level.

The analytical results from the recent sampling event (Table 1) and the 1997 sampling event (Appendix A) were compared to the sediment lead clean-up level of 31 ppm. Based on the comparison, the south drainage swale area of excavation will extend the full length of the swale, approximately 320 feet, beginning 10 feet west of sample point

SE01 and 5 feet east of SE06. Sediment will be removed to a maximum depth of 36 inches below grade and a width of 15 feet. The depth of 36 inches will be constant along the side walls and the base. The estimated volume of soil to be removed from the south drainage swale is approximately 533 cubic yards. Confirmation soil samples will be collected from the south drainage swale excavation area prior to backfill as specified in Section 2.4.

2.3.2 Soil Excavation

The excavation of the soils and sediments within each area will be to the depth and area designated in Sections 2.3.1.1 through 2.3.1.4.

Dedicated on-site trucks and excavating equipment will be used for the areas of excavation. The excavation and loading of lead contaminated soils and sediments will utilize "clean loading" procedures minimizing contact between contaminated material and excavation and transport equipment. These procedures will ensure that contaminated materials are not spread to uncontaminated areas including adjacent properties and roadways. Dedicated equipment (e.g. excavator, bulldozer, etc.) will be decontaminated prior to leaving the Site. Decontamination will be performed at the designated on-site decontamination stations in accordance with Section 2.2.5.

A trackhoe, or equivalent, will be used for removing soils and sediments from all excavation areas. Soil excavation will begin at the backstop, located at the western end of the Site proceeding east to the eastern edge of the firing lanes. The removal of sediments from the south drainage swale will be performed in conjunction with the firing lane excavation. Excavated soils will be directly loaded into a dump truck for transport to the treatment system soil staging area.

Prior to exiting the exclusion zone, the truck exterior, wheels, and undercarriage will be inspected for the presence of any contaminated soils and sediments. If necessary the dump trucks will be decontaminated in the appropriate decontamination station prior to transport to prevent the spreading of contaminated soils and sediments.

2.4 Confirmation/Post Excavation Sampling

Upon completion of excavation activities, soil and sediment samples will be collected from the excavation areas to ensure that lead containing material has been removed in accordance with the site specific clean-up levels. Samples will be collected from the excavation floor at the center of each grid box and from the center/midpoint of each grid excavation side wall/perimeter. One grid pattern will encompass both the firing lanes and the backstop. A separate grid pattern will cover the south drainage swale. Figure 4 presents confirmation sample locations and associated grid patterns.

Confirmation samples will be collected during the progression of each individual excavation area. The samples will be collected and analyzed for total lead (Method 6010B) in accordance with USEPA SW846 methodology. Galson Laboratories, located in Syracuse, New York, will conduct all analytical work. The estimated number of confirmation samples and required sample containers and preservation requirements is presented in Table 3. Sample and document custody procedures will be in accordance specified in Section 3.0 of the "Additional Site Delineation" SAP referenced in Section 1.0 of this RAP. Quality Assurance/Quality Control (QA/QC) samples (duplicates) will be collected during confirmatory field sampling activities at the frequency of one duplicate sample for every 20 samples collected.

Confirmation samples will be collected from the firing lanes, backstop, and south drainage swale only. The north drainage swale will be filled with clean fill and not require excavation and resulting confirmation sampling. Confirmation analytical results will be compared to the site specific soil and sediment lead clean-up levels to determine whether additional excavation is required for a given area. If additional excavation is required, additional confirmatory samples will be collected as specified above.

2.4.1 Sampling Procedures

Confirmation soil samples will be collected from one grid pattern covering the firing lane and backstop excavation areas and one grid pattern covering the south drainage swale. Each grid box shall be representative of approximately 900 square feet. Samples will be collected from the excavation floor at the center of each grid box and from the center/midpoint of each grid excavation side wall/perimeter. Confirmation sample numbers are estimated as follows:

- Firing lane and backstop excavation area - 33 excavation floor samples
  24 excavation walls/perimeter samples
- South drainage swale excavation area - 11 excavation floor samples
  20 excavation walls/perimeter samples

Confirmation soil samples shall be collected from each location using a stainless steel hand trowel from a depth of 0 to 2 inches.

2.4.2 Sampling Procedures for Total Arsenic and Copper

Confirmatory sampling for total arsenic and copper will be performed in the three areas of highest lead concentrations in the backstop and south drainage swale. The sample locations are indicated on the Confirmation Sampling Grid, Figure 4.

- Backstop excavation area - 3 excavation floor samples
- South drainage swale excavation area - 3 excavation floor samples

2.4.3 Sample Equipment Decontamination

The small personnel decontamination station will be used for the preparation and breakdown of sampling equipment. Buckets and/or tubs will be set up in the decontamination station to decontaminate sampling equipment such as stainless steel auger, hand trowels and bowls. All water that has been used for decontamination at this location will be stored in designated containers and held on site for proper disposal determination.

Small non-disposable equipment will be decontaminated using the following procedure:

- Wash with non-phosphate laboratory grade detergent and hot water, using a brush to remove any particulate matter or surface film;
- Rinse with tap water;
- Rinse twice with deionized water; and
- Air dry.

After decontamination, the sampling devices will be wrapped in aluminum foil to prevent contamination during handling.

2.4.4 Data Evaluation

Confirmation sample analytical reports generated by the analytical laboratory will be reduced into a summary table. The data will then be reviewed fro accuracy, precision and completeness in order to determine the useability of the data according to criteria set forth in the Division of Environmental Remediation's "Data Usability Summary Report"

(DUSR) guidelines. Review of laboratory data packages will include an evaluation of holding times, calibration requirements (initial and continuing), blank contamination, and matrix spikes and duplicates (where applicable).

If problems arise and data are found to deviate from expected results, the affected data points will be so annotated in the summary table with appropriate qualifiers.

2.5 Backfilling/Restoration of Excavated Areas

Backfilling of excavated areas will be performed following the completion of excavation within each area and based on confirmation sample analytical results. Excavated areas will be filled with soil currently stockpiled on site.

Composite samples were collected from the two soil piles resulting in lead detected at concentrations ranging from 14.3 mg/kg to 26.6 mg/kg. Based on comparison of the soil pile analytical results to the site-specific soil clean-up level, the soil piles have been approved by the NYSDEC for fill material at the site.

Backfill will be placed in the excavation areas in 12-inch lifts and will be compacted using on-site heavy equipment. The areas will be backfilled to the existing grade. The backfilled areas will be seeded with a seed-fertilizer-mulch mixture. If necessary, additional measures will be utilized to stabilize restored slopes and the drainage swale. These may include the use of jute mesh, rip rap, or equivalent. Long term maintenance of the area will be the responsibility of the respective property owner.

A final grading plan will not be submitted to Broome County.

2.6 Soil On-Site Treatment

Marcor's soil treatment system is intended to provide a technically feasible cost effective alternative to the off-site disposal of lead contaminated materials. The process provides a simple and physical method for immobilization of the systems resultant products.

2.6.1 Soil Treatment Process

The lead contaminated soil and sediment will be staged at the soil treatment area. The lead contaminated soil and sediments will be loaded into a Chiefton Screen Plant. The screen plant is equipped with a 6 inch grizzly screen to remove large rocks and debris at the loading point. The material that is less than 6 inches in size will fall through the grizzly into the screen plant. As the material flows through the screen it will pass over two screens. The first is a 4 inch screen, which removes all rocks larger than 4 inches in size. The second screen is a $^{3}/_{4}$ inch x 2 inch, which will remove the medium sized rocks. Two material streams are generated from the second screens. One stream consists of fine soil that requires treatment and the other stream is a mixture of small rocks and lead bullets.

The mixture of small rocks and lead bullets will be transferred into the Pneumatic Separation Unit (PSU). The PSU separates the granular mixture of small rocks and lead bullets into granules of different specific gravities or ranges of specific gravity by using a powered air flow. The contaminated soils and sediments that will require treatment is transported to an Excel Pugmill via a conveyor system.

Contaminated soils and sediments are treated in the pugmill. The three proprietary reagents, two dry and one liquid, are added into the pugmill and mixed with the contaminated soil and sediment. The treated soil and sediment is discharged from the pugmill and stockpiled pending final off-site disposal of the material.

As described in Section 2.2.4, the removed debris will be left on-site. A diagram of the equipment layout for the gun range remediation is included as Figure 5. The treatment of the lead contaminated soils and sediments yields treated material that will meet the TCLP metal extraction limits. The analytical results (Table 4) from the treatability study shows levels of lead concentration in soil prior to and after treatment.

2.6.2 Treated Material Sampling and Disposal

One composite sample of the treated material will be collected for every 250 tons of treated material. Each composite sample will be comprised of a minimum of four grab samples analyzed for lead by the toxicity characteristic leaching procedure (TCLP). TCLP analytical results will be compared to the RCRA lead toxicity (TC) level of 5 milligrams per liter (mg/l). Treated soils and sediments revealing TCLP lead concentrations below the lead TC level will be disposed off-site as a non-hazardous waste at an appropriate landfill. Treated materials exceeding the lead TC level will be staged with the untreated soil to be reprocessed.

The soil located beneath the contaminated soil and sediment staging area will be visually inspected for contamination following treatment activities. An impermeable barrier (i.e., poly) will be placed on the ground surface between the staged soils and the native soils; therefore, confirmatory samples will not be collected in the contaminated soil and sediment staging area.

2.7 Fugitive Dust Control

This section addresses standard and contingent fugitive dust suppression measures to be implemented as an integral component of the remedial action for the site. The components of fugitive dust control include the following:

- Identification of fugitive dust sources; and

- Baseline dust suppression measures.

2.7.1 Dust Sources and Control

This section identifies potential fugitive dust sources and control techniques associated with excavation activities. The potential sources include those associated with typical remedial construction projects, such as excavation, material handling and transport, material placement and grading, and on-site soil/sediment treatment. This section addresses fugitive dust control associated with handling of impacted soils to prevent visible particulates at the parking lot, nearby buildings, or the relevant property line, whichever is closer. The following potential dust sources have been identified for this remedial action:

- Excavation and soil handling:

  The primary contributing factors to fugitive dust emissions at the point of excavation are material properties (moisture and PM-10 content), geometry of the excavation face, bucket capacity, drop heights, excavation rate, and meteorological conditions, including wind speed and precipitation. Excavation and handling of soils can potentially result in fugitive dust emissions.

- Vehicular traffic:

  The primary source of fugitive dust from vehicular traffic is a result of contact between the vehicle wheels and ground surface. Fugitive dust emissions associated with movement of vehicles on-site will be a function of vehicle speed, vehicle weight, number of wheels, silt content of the road material, moisture content of the road material, and frequency of precipitation events. Of these factors, control of moisture content and vehicle speeds for on-site areas will be implemented as the primary fugitive dust control measures.

- Soil stockpiles:

  Material stockpiles includes the working piles and clean fill. Fugitive dust emissions associated with stockpiles will be generated during the transfer of material onto and off of the piles and wind erosion. Significant contributing factors include silt content, moisture content, stockpile dimensions/alignment, wind speed/direction, and the general stockpile activity.

- Soil Treatment System:

  The soil treatment system, which involves the screening, mixing and pneumatic separation, is a potential source for fugitive emissions.

The primary dust control technique for this remedial project will be a fine water spray. Water will be sprayed on an as needed basis for each of the potential sources listed above. The rate at which water is applied will be a function of the general activity in the area (excavation rate, number of vehicles actively operating), the moisture

content of material being excavated or moved, wind speed and direction, precipitation, and excavation geometry. Water will be applied evenly over the dust source to that level required to prevent visible particulates at the relevant property line. The effectiveness of fugitive dust controls will be evaluated through the use of real-time monitoring utilizing a RAM-1 Real Time Aerosol Monitor or equivalent. The use of water spray will be optimized so that fugitive dusts are sufficiently controlled, while preventing generation of surface-water run off.

2.8 Noise Control

This section addresses noise levels and monitoring procedures for the activities associated with the remedial action site. When work activities indicate that any employee's exposure equals or exceeds an 8-hour time-weighted average of 85 decibels, a monitoring program will be developed and implemented according to 29 CFR 1910.95(d). In addition, engineering controls (i.e., installation of scaffolding and noise absorbing panels) will be used to address the issue.

Section 3

3. Health and Safety

3.1 Introduction

The following summarizes the site work zone and ambient air monitoring criteria for the project.

Marcor's site specific health and safety plan addresses personal protective equipment (PPE), excavation, removal, and remedial activities at the site. Marcor's site specific health and safety plan is included as Appendix C of this action plan.

3.2 Site Description

To reduce the accidental spread of the lead contamination during remedial activities, work zones will be established at both excavation and treatment areas controlling site operations and personnel flow. The Site work zones will consist of the Exclusion Zone (EZ), CRZ, and the Support Zone (SZ).

The excavation area EZ will include the following: the firing lanes, the backstop, and the north and south drainage swales. The primary activity in the excavation EZ will be the excavation of the lead contaminated soils and sediments at various depths. The EZ will be clearly marked by lines, placards, hazard tape and/or signs. There will be an access control point at the periphery of the EZ regulating personnel and equipment flow into and out of the EZ into the CRZ discussed below. The access control point will vary based on excavation progression, beginning at the backstop and progressing east to the eastern edge of the firing lanes.

The treatment area EZ will include the soil treatment unit, soil staging area, and immediate surrounding perimeter. The primary activity in the treatment EZ will be the staging and treatment of excavated lead contaminated soils and sediments. An access control point will be located at the perimeter of the soil staging area.

The CRZ is the transition area between the EZ and the SZ. The CRZ limits the physical transfer of lead contamination to clean areas. Personnel and equipment decontamination activities occur in the CRZ, as described in Section 2.2.6. Access control point will be designated individually for large excavation equipment and personnel and small equipment at both the excavation and treatment areas.

The SZ will be the location of the administrative and support functions for remedial activities. The field trailer will be located in the support zone. Any function that need not or cannot be performed in the contaminated area is performed in the SZ.

3.3 Ambient Air Monitoring Action Levels

The ambient air monitoring program will consist of up to four perimeter monitoring stations located along the site perimeter based on field conditions. The monitoring program will collect data from an upwind location in addition to downwind perimeter locations.

Normal operating conditions for fugitive dust control are dictated by ambient air monitoring results. In accordance with the NYSDEC TAGM No. 4031, "Fugitive Dust Suppression and Particulate Monitoring Program at Inactive Hazardous Waste Sites (October 27, 1989), the ambient air monitoring action level for PM-10 is 150 $\mu g/m^3$, integrated over a fifteen minute period. If the 150 $\mu g/m^3$ action level is exceeded, then a background measurement of downwind levels is taken. If the downwind levels are less than 100 $\mu g/m^3$ greater than the upwind levels, then no further action is required. However, if the number is above 100 $\mu g/m^3$, the dust control measures presented in Section 2.7 will be implemented.

In addition, because fugitive dusts generated at this site have the potential to be impacted by lead, an additional standard of no visible dust at the property lines will also be implemented as part of this project, in accordance with TAGM No. 4031.

Section 4

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

4. Treatment and Disposal

4.1 General

This section summarizes procedures for the characterization, transportation and disposal of any RCRA non-hazardous solid or hazardous wastes generated during remedial activities at the Site. These wastes will be properly managed to minimize environmental impacts and to comply with all applicable federal, state, local laws and regulations. These procedures, in conjunction with applicable non-hazardous and hazardous waste manifests, will accompany the waste from its point of origin to its final destination.

4.2 Waste Transportation

All solid and liquid waste will be transported off site by a permitted NYCRR Part 364-approved hauler, in accordance with the Department of Transportation (DOT) guidelines as outlined in 49 CFR Parts 171 through 179, 6 NYCRR Part 364, and any other applicable state and local regulations. Each shipment of solid or liquid waste generated at the Site will be properly characterized, containerized, loaded, and manifested prior to exiting the Site. Also, the waste transporters must carry with them a copy of the applicable waste transporter's permit, as required.

A non-hazardous bill of lading or hazardous manifest will be prepared and completed for each shipment of solid or liquid waste prior to exiting the Site. The transporter must possess the signed non-hazardous bill of lading or hazardous waste manifest when transporting the waste material to the waste disposal facility. Also, the transporter must have the proper labels and placards on the waste containers when transporting the waste materials off site. Once arriving at the waste disposal facility, the manifest must be given to the waste disposal facility as it accepts the waste material at their facility.

4.3 Waste Disposal

All solid and liquid waste materials generated at the Site will be characterized and managed in accordance with Federal, State, and Local requirements. The materials expected to be generated during remedial activities at the Site include, but are not limited to:

- Vegetation and brush including trees;
- General debris including asphalt, rocks, construction materials (i.e., gravel, polyethylene, fence posts, silt fence, personal protective equipment, disposable sampling equipment, sand bags), and shed demolition materials (i.e., glass, wood, metal, concrete);
- Wastewater (decontamination water, contaminated surface water);

- Treated soil from excavating and treating lead contaminated soil; and

- Lead bullets.

The following represents the appropriate management of the materials above:

- Vegetative material will remain on-site, placed in manageable piles near the excavation and/or treatment areas;

- General debris will be characterized as non-hazardous waste and either containerized in 55-gallon drums or directly loaded into a dump trailer for appropriate off-site disposal. Containerization of the debris will be based on debris size, at the discretion of Marcor. Natural debris such as rocks and boulders will remain on-site with the vegetative material;

- Wastewater will be containerized in 55-gallon drums and characterized for disposal using historical and newly generated analytical data. The 55-gallon drums will be placed in a staging area pending off-site disposal at a treatment, storage, and disposal facility (TSDF);

- Treated soil will be characterized as either a RCRA non-hazardous or hazardous waste for lead, which will be based on soil TCLP lead analytical results. Non-hazardous soil will be shipped off-site for disposal at a non-hazardous Subtitle D TSDF. Hazardous soil will be shipped off-site for disposal at a hazardous Subtitle C TSDF; and

- Lead bullets will be containerized in 55-gallon drums and shipped off-site for recycling.

All wastes will be disposed in compliance with applicable federal and state regulations.

4.4 Waste Characterization

The following represents a summary of the procedures to followed for the characterization of previously described wastes.

- Wastewater: one representative composite sample will be collected and analyzed for the eight RCRA metals in accordance with USEPA SW846 methodology (6010B/7000 series).

- Treated Soil: the soil will be characterized as referenced in Section 2.6.2. Additionally, upon completion of soil treatment activities, one representative composite sample will be collected from the non-hazardous soil to be transported off-site for disposal. The composite sample will be analyzed for the eight RCRA metals in accordance with USEPA SW846 methodology, 6010B/7000 series.

Section 5

5. Project Organization and Management

This section presents the preliminary project schedule for implementation of the remedial action as well as indicates project organization chart. The following provides the chain of command to be followed in the event of an emergency.

NAME	COMPANY	PHONE NUMBER	PAGER NUMBER	CELL PHONE NUMBER
Keith Hambley	Marcor	716-247-6955	NA	NA
Al Lyons	BBL	716-292-6740	239-5783	752-7772

Section 6

6. Final Report

The final report will include the following:

- P.E. Certification: the certification of the remedial activities that were performed in accordance with the voluntary agreement and the approved RAP set forth between the NYSDEC and Broome County;
- Introduction: a brief description of the site, the site's background and the purpose and organization of the report;
- Pre-construction activities: will provide the details pertaining to the preparation of construction plans, mobilization and site preparation;
- Excavation summary: will provide a summary of the excavation activities in the firing lane area, the backstop area and the south drainage swale;
- Post-excavation summary: will provide the details pertaining to the final grading and restoration of the excavated areas and the demobilization of the site;
- Confirmation sample and analytical data summary: a summary of the confirmatory sampling activities as well as a summary of the analytical data;
- Characterization, transportation and disposal summary: a summary of the characterization, transportation and disposal of all waste generated at the site during the remedial action; and
- Health and safety summary: will provide details of the air monitoring during the excavation activities, the level of personnel protection equipment used during the remedial action, a summary of the personnel training and medical surveillance of the personnel participating in the remedial action, and the personnel and equipment decontamination activities at the site.

Tables

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

TABLE 1
FORMER BROOME COUNTY FIRING RANGE
DICKINSON, NEW YORK
ANALYTICAL DATA SUMMARY OCTOBER 1999

FIRING LANES AREA	
Sample ID	Lead Concentration (mg/kg)
FL01-06	357
FL02-06	21.1
FL03-06	217
FL04-06	86.7
FL05-06	314
FL06-06	124
FL06D-06	123
FL07-06	72.9
FL08-06	255

BACKSTOP AREA	
Sample ID	Lead Concentration (mg/kg)
B01-06	138
B01-12	64.3
B01-24	77.5
B02-06	331
B02-12	23.7
B02-24	21.2
B03-06	1350
B03-12	115
B03-24	82.7
B04-06	436
B04-12	31.6
B04-24	73.4
B05-06	219
B05-12	70.2
B05-24	70.1
B06-06	143
B06-12	22.2
B06-24	26.8
B07-06	417
B07-12	28.3
B07-24	25.5

NORTH DRAINAGE SWALE	
Sample ID	Lead Concentration (mg/kg)
SE07-06	26.9

SOUTH DRAINAGE SWALE	
Sample ID	Lead Concentration (mg/kg)
SE01-06	195
SE01-12	77.9
SE01-24	35.4
SE02-12	20.9
SE03-12	652
SE03-24	201
SE04-12	36.9
SE04-24	30.7
SE05-6	184
SE05-12	81
SE05-24	62.3
SE06-6	37.7
SE06-12	27

SOIL PILE #1	
Sample ID	Lead Concentration (mg/kg)
SP1A	26.6
SP1B	15

SOIL PILE #2	
Sample ID	Lead Concentration (mg/kg)
SP2A	14.3
SP2B	16.1

NOTES: The anaysis was performed using USEPA SW846 Method 6010B with NYS ASP Category B Deliverables.
All results are reported as totals.

TABLE 2
FORMER BROOME COUNTY FIRING RANGE
DICKINSON, NEW YORK
ANALYTICAL DATA SUMMARY OCTOBER 1999

COMPOSITE SAMPLES

Sample ID	Backstop HC01-06	Firing Lanes HC02-06
	(mg/kg)	(mg/kg)
Arsenic	14.7	8.9
Barium	55.2	70.9
Cadmium	0.11	0.12
Chromium	15.6	13.5
Copper	513	21.1
Lead	7500	196
Mercury	0.057	0.06
Selenium	0.46	0.48
Silver	0.23	0.24

NOTES: The analysis was performed using USEPA SW846 Methods 6010B/7000 series with NYS ASP Category B Deliverables.
All results are reported as totals.

TABLE 3
CONFIRMATORY SAMPLING LIST

Sample Location	Firing Lane Area & Backstop Area	South Drainage Swale	North Drainage Swale
Floor Samples	33	11	0
Wall Samples	24	20	0

Containers: Wide-mouth glass with Teflon-lined cap
Container Volume: 4 oz.
Preservative: 4°C

TABLE 4
SOIL TREATABILITY STUDY RESULTS

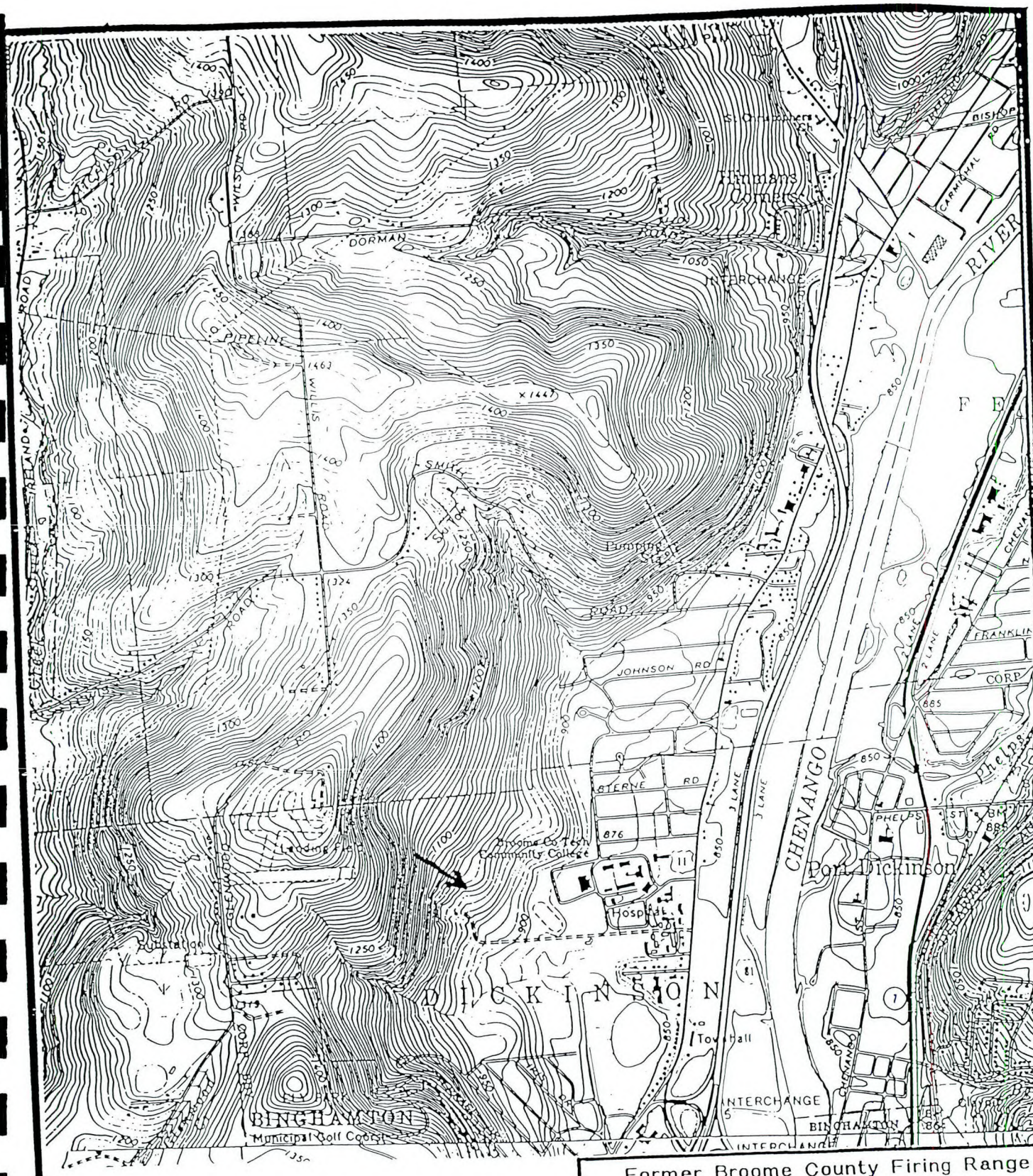
Sample No.	Reagent Type	Reagent 1	Reagent 2	TCLP Lead Analyses (mg/l)	
				Concentration	DL
1	Untreated	-	-	7,930	199
2	Reagent Added	1.5/1.5	8	0.04	0.01
3	Reagent Added	2.5/2.5	9	0.47	0.01
4	Reagent Added	3.5/3.5	9	0.68	0.01

(1) Reagents were blended dry, slurried with the specified addition rate of Reagent 2 and added to the mixture.

(2) TCLP lead analyses were performed after a period of 1 day.

- Not applicable or Not available

Figures



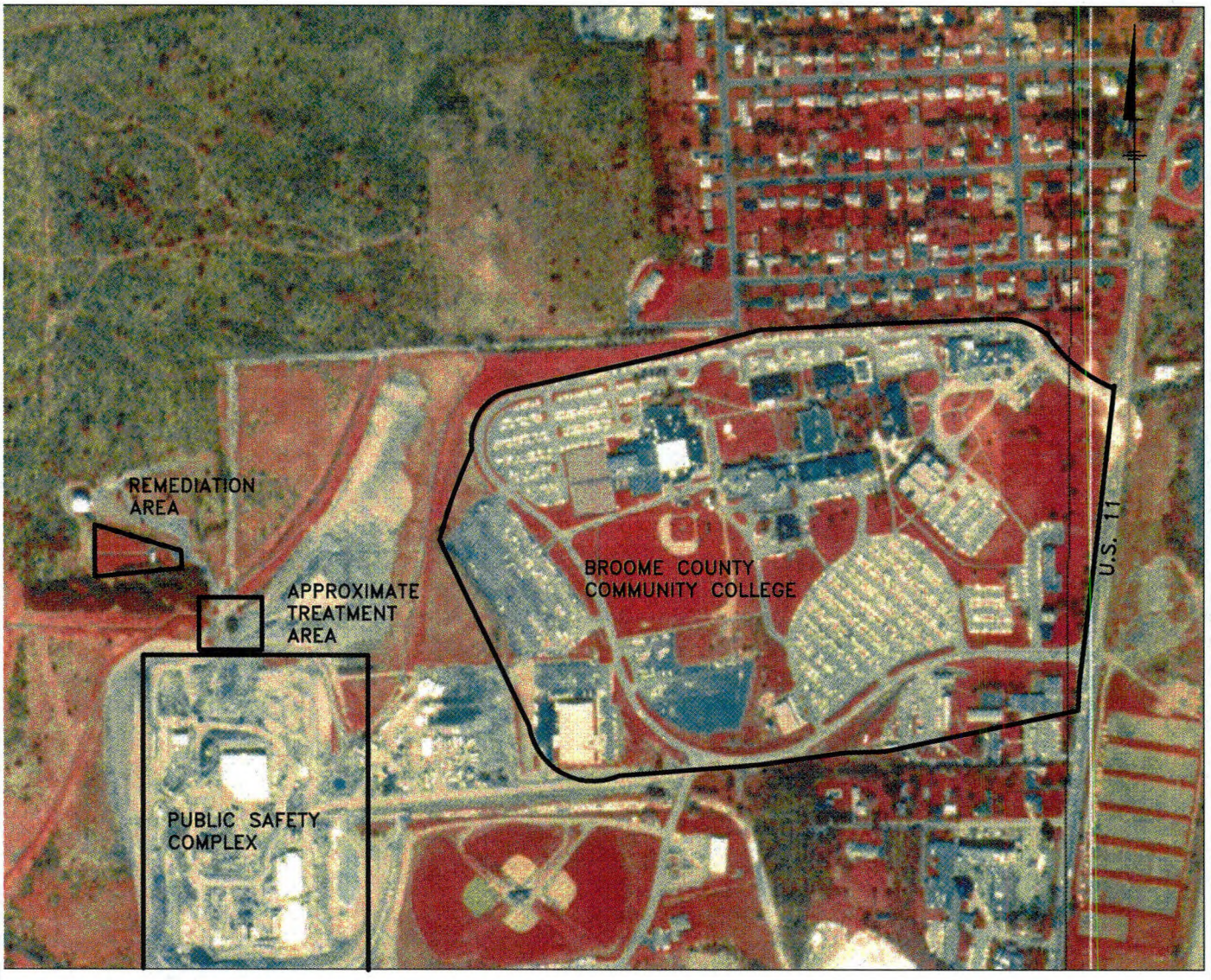
Former Broome County Firing Range

DICKINSON, NY

Site Location Map

BBL Blasland, Bouck & Lee, Inc. engineers & scientists

FIGURE 1



SOURCE: NYS DEPARTMENT OF THE STATE, DIVISION OF COASTAL RESOURCES, GIS UNIT, NYS 2000 DIGITALLY ENHANCED ORTHOIMAGERY 1998.

NOTE: NOT TO SCALE

FORMER BROOME COUNTY FIRING RANGE
DICKENSON, NEW YORK

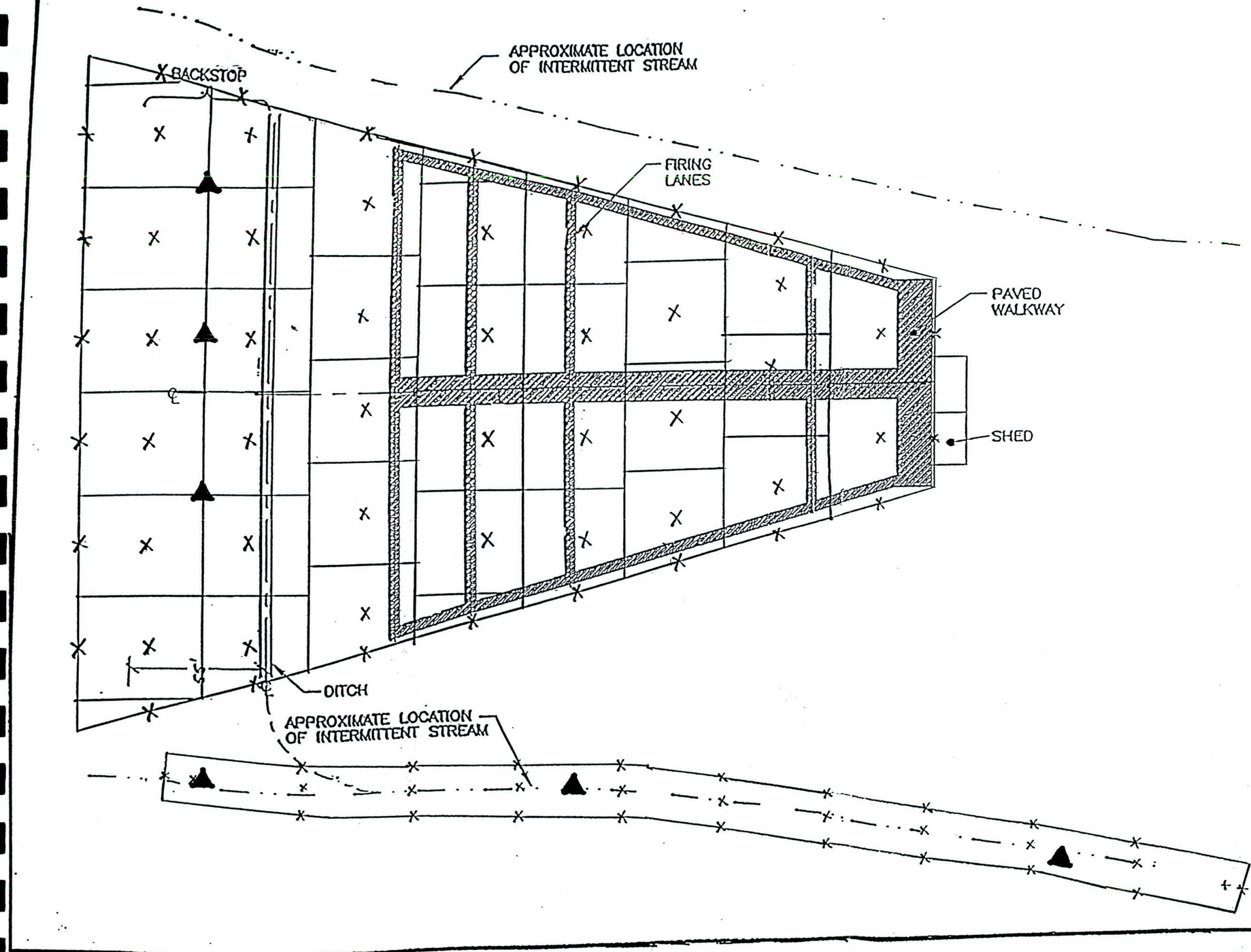
REMEDIAL ACTION PLAN

SITE LOCATION MAP

BBL BLASLAND, BOUCK & LEE, INC. *engineers & scientists*

FIGURE **1A**

L: (LAYER)
P: STD-PCP/AP
3/26/01 ROC-54-SLM
74750001/74750B01.DWG



X:Approximate Location of Confirmation Sample

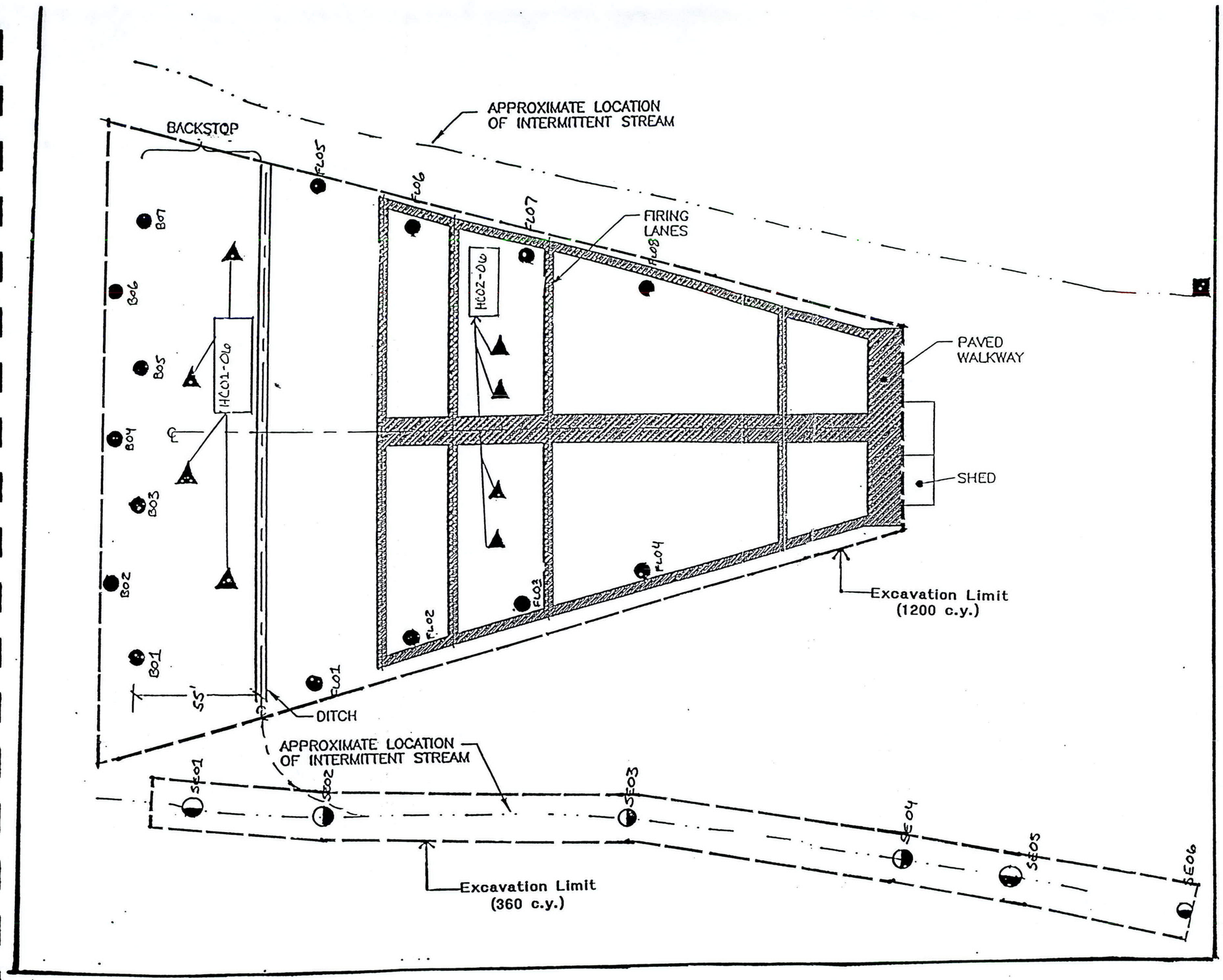
▲:Approximate Location of
Total Arsenic & Copper Samples

Former Broome County Shooting Range
Dickinson, New York

Confirmation Sampling Grid

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists | FIGURE 4

1"=30' 30 0 30



LEGEND

- = Firing Range Samples
- = High Concentration Grab Samples
- = Sediment Sample (0-6", 6-12")
- = Sediment Samples (6-12", 12-24")
- = Sediment Samples (0-6", 6-12", 12-24")
- - - - Excavation Limit

Former Broome County Shooting Range
Dickinson, New York

Excavation Area & Limits

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists | FIGURE 3

1"=30' 30 0 30

APPROXIMATE LOCATION OF INTERMITTENT STREAM

BACKSTOP

FIRING LANES

PAVED WALKWAY

SHED

DITCH

55'

APPROXIMATE LOCATION OF INTERMITTENT STREAM

	DEPTH	PPM(Pb)
B07	0-6	417
	6-12	28.3
	12-24	25.5
B06	0-6	22.2
	6-12	22.2
	12-24	26.0
B05	0-6	214
	6-12	70.2
	12-24	70.1
B04	0-6	436
	6-12	31.6
	12-24	73.4
B03	0-6	1350
	6-12	115
	12-24	82.7
B02	0-6	831
	6-12	631
	12-24	211.2
B01	0-6	138
	6-12	69.3
	12-24	77.3

See Table 2 HC01-06

	DEPTH	PPM(Pb)
FL05	0-6	314
FL06	0-6	124
FL07	See Table 2 HC02-06	
FL08	0-6	72.9
	0-6	255
FL04	0-6	217
	0-6	86.7
FL03	0-6	21.1
FL02	0-6	357
FL01		

	DEPTH	PPM(Pb)
SE01	0-6	185
	6-12	27.9
	12-24	35.4
SE02	6-12	20.9
	12-24	NA
SE03	6-12	652
	12-24	201.
SE04	6-12	36.9
	12-24	30.7
SE05	0-6	184
	6-12	81
	12-24	62.2
SE06	0-6	37.7
	6-12	27.0
	12-24	N/A

	DEPTH	PPM(Pb)
	0-6	26.9
	6-12	NA

	ED	PPM(Pb)
SOIL PILE 1	SP1A	26.6
	SP1B	15.0

	ED	PPM(Pb)
SOIL PILE 2	SP2A	14.3
	SP2B	16.1

LEGEND

- = Firing Range Samples
- = High Concentration Grab Samples
- = Sediment Sample (0-6", 6-12")
- = Sediment Samples (6-12", 12-24")
- = Sediment Samples (0-6", 6-12", 12-24")

Former Broome County Shooting Range
Dickinson, New York

SAMPLE LOCATION MAP

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 2

1"=30' 30 0 30

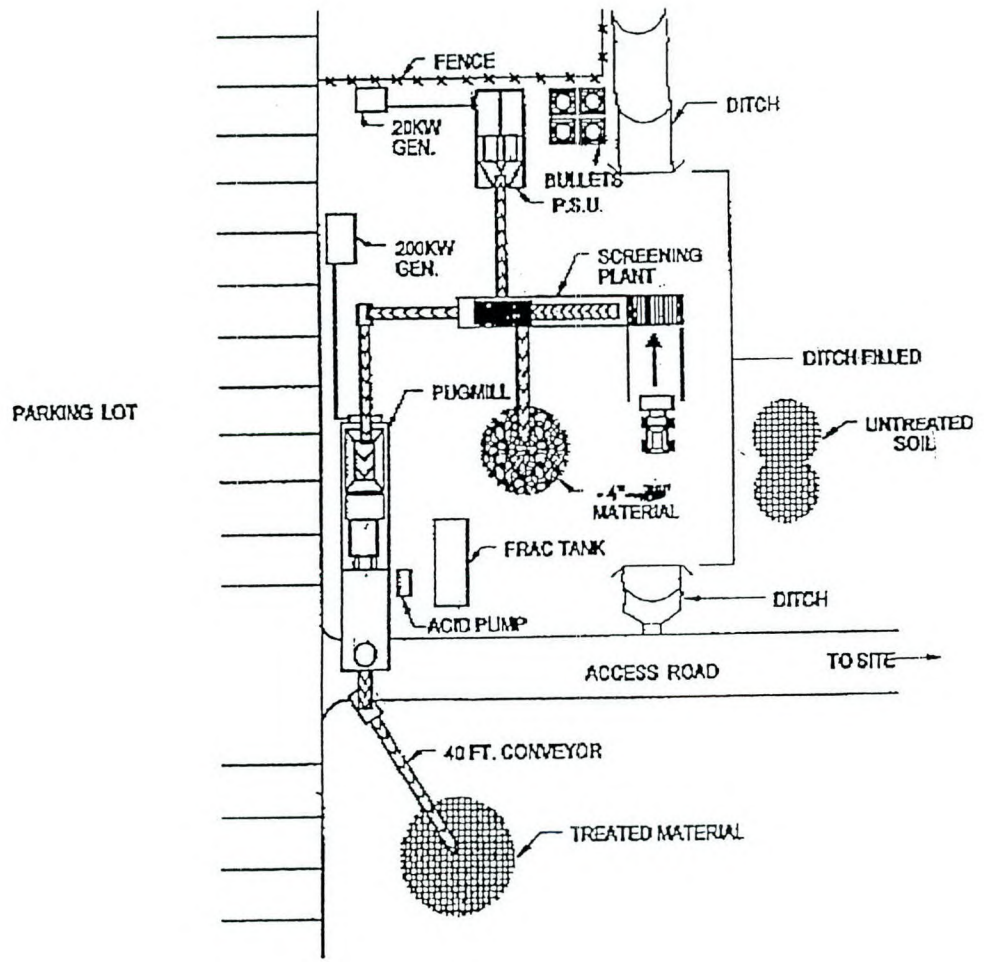


FIGURE 5

EQUIPMENT LAYOUT — GUN RANGE REMEDIATION	
BROOME COUNTY	
DATE: 11/19/99	DRAWING NO. 1
SCALE: 1" = 40'	MARCOR

Appendix A

O'BRIEN & GERE
ENGINEERS, INC.

#15

FRONT STREET
SOUTH COLLEGE ROAD
NEW SOFTBALL
PUBLIC EFFECT FACILITY

September 2, 1998

Mr. Steven Elko
Broome County Department of Public Works
Engineering Division
Edwin L. Crawford County Office Building
P.O. Box 1766
Binghamton, New York 13902-1766

Re: Results of Additional Investigation
Sheriff's Department Firing Range

File: 1140.031

Dear Mr. Elko:

O'Brien & Gere Engineers, Inc. (O'Brien & Gere) is pleased to present to Broome County the results of the additional investigations which were conducted at the former Broome County Sheriff's Department firing range (firing range). These additional investigations were conducted in accordance with O'Brien & Gere's proposal dated July 18, 1997 and which was authorized pursuant to the Broome County Resolution with an effective date of September 21, 1997. This letter summarizes the background of the firing range, previous investigations which were conducted by O'Brien & Gere, the scope of work for the additional investigations, the analytical results of the additional investigations, and the conclusions and recommendations regarding the firing range.

BACKGROUND

According to the Broome County Sheriff, Mr. Geno De Angelo, the firing range operated from the mid 1950s to 1993. During that time period, the range was used by the sheriff's department, local police departments, the FBI, and the secret service as a practice shooting range. The range consists of two general areas (the firing area and the backstop). The firing area includes three firing lanes at various distances from the backstop. During practice sessions, eight to ten people per line would fire at targets at the backstop area. Reportedly, practice sessions were held at the firing range approximately three times per year with approximately forty people attending each session.

The backstop area is a steep upward sloped area, at the base of which targets were placed. Railroad ties were originally used at the backstop area to capture bullets from missed targets up to the mid 1970s. The railroad ties were replaced several times as they became filled with spent bullets. After the mid 1970s, the ties were replaced with sandbags. Sandbags were used from the mid 1970s to the late 1980s. After the removal of the sandbags in the late 1980s, the backstop consisted of the ground surface only. Bullets which missed the targets entered the ground surface directly. According to Mr. De Angelo, the penetration of the spent bullets, without the railroad tiles or sandbags, could be assumed to have been less than 1 ft. The ground surface (soil) was reportedly last excavated and disposed in 1991.

O'Brien & Gere Engineers, Inc., an O'Brien & Gere Company
441 Commerce Rd. / Vestal, NY 13850 / (607) 770-0908 FAX (607) 729-1967
...and offices in major U.S. cities

PREVIOUS INVESTIGATIONS

To investigate the firing range, O'Brien & Gere collected samples from twenty soil borings in January of 1997. The soil borings were advanced to a depth of 1 ft below grade using a stainless steel hand core barrel. Based on the existing knowledge of the site, eleven borings were advanced at random locations in the firing area and nine borings were advanced at random locations in the backstop area. Additionally, to evaluate background conditions, one soil boring was advanced at a location approximately 75 ft northeast of the firing range across an intermittent stream.

During the advancement of each boring, one soil sample was collected at a depth of 0 - 6 inches and one soil sample was collected at a depth of 6 - 12 inches. The soil samples were submitted to Xpedite Laboratories, Inc. for total lead analysis in accordance with United States Environmental Protection Agency (USEPA) Method 6010. The results of this investigation were presented in our April 16, 1997 letter report to Mr. David Donoghue and are summarized below.

The results of the lead analyses for the 0 - 6-inch and the 6 - 12-inch samples from this investigation are presented on Figures 1 and 2, respectively. The results indicated that detectable concentrations of lead were identified in each of the twenty-one 0 - 6-inch samples and nineteen of the twenty-one 6 - 12-inch samples. The concentration of lead detected in the 0 - 6-inch background soil sample (B21-1) was 14 ppm, and lead was not detected in the 6 - 12-inch background sample (B21-2) at a detection limit of 10 ppm.

The New York State Department of Environmental Conservation (NYSDEC) Technical Administrative Guidance Memorandum (TAGM) "Determination of Soil Cleanup Objectives and Cleanup Levels" (TAGM 4046) indicates that the recommended soil cleanup objective for lead in soil is site background. In addition, the Memorandum of Understanding (MOU) between Broome County and the Broome Community College indicates that in reference to the firing range, "the County shall restore said property to a condition reflective of the immediate surrounding area..." O'Brien & Gere understands this to indicate that Broome County is required to remediate the firing range to background conditions, which is also consistent with the NYSDEC TAGM 4046. Therefore, O'Brien & Gere compared the analytical results from the 0 - 6-inch depth to the background value of 14 ppm (B21-1) and from the 6 - 12-inch depth to 10 ppm (B21-2).

Lead was detected in each of the eleven 0 - 6-inch samples collected in the firing area at concentrations exceeding the background value of 14 ppm. The analytical results at the 0 - 6-inch depth ranged from 26 - 480 ppm, with the highest concentrations near the center of the firing area.

Lead was detected in ten of the eleven 6 - 12-inch samples collected in the firing area at concentrations exceeding the background value of 10 ppm. The analytical results at the 6 - 12-inch depth ranged from 14 - 100 ppm. In general, the concentrations of lead detected in the 6 - 12-inch samples were less than the concentrations detected in the 0 - 6-inch samples. Sample B6-2 was collected near the center of the firing area and contained the highest concentration of lead (100 ppm) in the 6 - 12-inch samples.

Lead was detected in each of the nine 0 - 6-inch samples collected in the backstop area at concentrations ranging from 560 - 35,000 ppm. Each sample result exceeds the background value of 14 ppm and most of the 0 - 6-inch samples were several orders of magnitude above background. Seven of the nine 0 - 6-inch samples were detected at concentrations greater than 1000 ppm. Samples B12-1 (560 ppm) and B20-1 (930 ppm) which were collected

at the south and north ends of the backstop area, respectively, were the only 0 - 6-inch samples with concentrations of lead less than 1000 ppm.

Lead was also detected in each of the nine 6 - 12-inch samples collected in the backstop area at concentrations ranging from 96 - 9600 ppm. Each sample result exceeds the background value of 10 ppm for 6 - 12-inch samples. In general, the concentrations of lead detected in the 6 - 12-inch samples were less than the concentrations detected in the 0 - 6-inch samples. The highest concentrations of lead in the 6 - 12-inch samples were detected in samples B14-2, B15-2, B17-2, and B18-2, which were collected towards the center of the backstop area.

Based on the analytical results of the soil samples collected at the former firing range, elevated concentrations of lead are present above site background. The concentrations of lead detected in the backstop area were significantly higher than the concentrations detected in the firing area. Additionally, the concentrations of lead detected in the 6 - 12-inch samples in both the backstop area and the firing area were generally less than the concentrations detected in the 0 - 6-inch samples.

To further characterize the extent of the contamination, O'Brien & Gere conducted the following scope of work:

ADDITIONAL INVESTIGATION

Additional Background Sampling

To verify the previous background samples collected adjacent to the firing range, O'Brien & Gere collected seven additional samples on December 10, 1997. Three soil samples were collected approximately 600 ft west/southwest from the shed at the firing range on the Broome County Corrections Facility (Corrections Facility) property at depths of 0 - 6 inches, 1 ft and 2 ft (sample numbers 12-10-01, 12-10-02, and 12-10-03, respectively). Three soil samples were collected, approximately 30 ft west of NYS Route 12, in the vicinity of the parking lot of the former Broome County Jail at depths of 0 - 6 inches, 1 ft and 2 ft (sample numbers 12-10-05, 12-10-06, and 12-10-07, respectively). One sediment sample was collected from the culvert on the north side of the Correction Facility (sample number 12-10-04). This culvert is located on the Corrections Facility property and runs parallel to the firing intermittent stream. The culvert is approximately 400 ft to the south/southwest of the shed at the firing range and combines with the firing range intermittent streams down gradient.

These soil samples were collected using a decontaminated shovel or stainless steel spoon and were submitted to O'Brien & Gere Laboratories, Inc. (Labs) for total lead analysis using USEPA Method 6010.

Additional Soil Sampling at Firing Range

In order to further define the vertical extent of the lead concentrations, O'Brien & Gere advanced four soil borings to a depth of 2 ft in the backstop area (B26, B27, B28, and B29) on November 12, 1997. The locations of the borings were advanced in the vicinity of previous boring numbers B14, B15, B17, and B20. The borings were advanced using a two-man power auger. Samples were collected at each of the four boring locations at depths of 1 ft and 2 ft, for a total of eight samples. The power auger was decontaminated prior to sampling and after

each sample was collected. Soil samples were submitted to Labs for analysis of total lead using USEPA Method 6010.

In addition, in order to further define the extent of potential contamination further up the backstop area, O'Brien & Gere advanced four additional soil borings (B22, B23, B24, and B25) to the west of the previous sample locations. Soil samples were collected at each of the four boring locations at depths of 0 - 6 inches, 6 - 12 inches, and 2 ft, for a total of twelve samples. The soil samples were submitted to Labs for analysis of total lead using USEPA Method 6010.

No additional soil samples were collected in the firing area. Due to the nature of former activities that occurred in the area (which appeared to result in surface contamination), it was assumed that contamination did not extend to a depth further below 1 ft. However, during remedial activities sampling and analysis should be performed to confirm contamination is not present.

Sediment Sampling

To evaluate the potential lead concentrations in the swale between the backstop and firing areas, O'Brien & Gere collected two sediment samples [one on the north side of the swale and one from the south side of the swale (DS-1 and DS-2, respectively)] on November 13, 1997. The sediment samples were collected using stainless steel spoons which were decontaminated prior to sampling and after each sample was collected. The samples were submitted to Labs for analysis of total lead using USEPA Method 6010.

In addition, to evaluate potential lead concentrations from each intermittent stream, samples were collected from each stream (one to the north and one to the south of the firing range) at locations upstream, downstream, and adjacent to the firing range. These samples were numbers NS-1, NS-2, and NS-3 for the north stream samples and SS-1, SS-2, and SS-3 for the south stream samples. The samples were submitted to Labs for analysis of total lead using USEPA Method 6010. These samples were also collected using decontaminated stainless steel spoons.

ANALYTICAL RESULTS

The laboratory analytical data, summarized below, is provided in Attachment A.

Background Analytical Results

The follow table presents the analytical results for each of the background samples collected:

Table 1. *Background Soil Sample Analytical Results.*

Soil Sample Number	Sample Location	Total Lead (mg/Kg = ppm)
12-10-01	600 ft West/Southwest of the Shed at the Firing Range at a Depth of 0 - 6 inches	12
12-10-02	"Same as Above" at a Depth of 1 ft	12
12-10-03	"Same as Above" at a Depth of 2 ft	14

Soil Sample Number	Sample Location	Total Lead (mg/Kg = ppm)
12-10-04	Sediment Sample from Culvert Located 400 ft South/Southwest	33
12-10-05	30 ft from NY Route 12 in Vicinity of Former Jail Parking Lot at a Depth of 0 - 6 inches	27
12-10-06	"Same as Above" at a Depth of 1 ft	50
12-10-07	"Same as Above" at a Depth of 2 ft	42

Source: O'Brien & Gere Laboratories, Inc.
(Table by O'Brien & Gere Engineers, Inc.)

For the purposes of evaluating lead concentrations, the samples were compared to background levels, in accordance with the NYSDEC's cleanup objective for lead in soil (TAGM 4046). An average was taken of the samples collected at each elevation (depths of 0 - 6 inches, 1 ft, and 2 ft). In addition, if a background sample was collected during the previous investigations (identified in Background and Previous Investigations Section), it was included as part of the average. The results of this investigation were compared to the average background concentration.

Three samples were collected at a depth of 0 - 6 inches (one from the previous investigation), the samples ranged from 12 - 27 ppm, with the average concentration of 18 ppm. Three samples were collected at a depth of 1 ft (one from the previous investigation), the samples ranged from 10 - 50 ppm, with the average concentration of 24 ppm. Two samples were collected at a depth of 2 ft, identified above, resulting in an average concentration of 28 ppm.

In addition, one background sediment sample was collected. The results of the firing range intermittent streams were compared to a background of 33 ppm.

Backstop Soil Analytical Results

The following table presents the analytical results for each of the collected soil borings. In addition, soil analytical results for each depth were plotted on Figure 3 (0 - 6 inch depth), Figure 4 (1-ft depth), and Figure 5 (2-ft depth).

Table 2. *Backstop Soil Sample Results.*

Soil Sample Number	Depth	Total Lead (mg/Kg = ppm)
B22-6	6 inches	17
B23-6	6 inches	74
B24-6	6 inches	300
B25-6	6 inches	24
B22-12	1 ft	16
B23-12	1 ft	52

Soil Sample Number	Depth	Total Lead (mg/Kg = ppm)
B24-12	1 ft	18
B25-12	1 ft	48
B26-12	1 ft	1,300
B27-12	1 ft	3,600
B28-12	1 ft	4,100
B29-12	1 ft	110
B22-24	2 ft	19
B23-24	2 ft	210
B24-24	2 ft	51
B25-24	2 ft	15
B26-24	2 ft	490
B27-24	2 ft	12,000
B28-24	2 ft	560
B29-24	2 ft	270

Note: "Bold" - Samples Above Site Background
Source: O'Brien & Gere Laboratories, Inc.
(Table by O'Brien & Gere Engineers, Inc.)

The samples collected for the purpose of evaluating if contamination was present further up the backstop (B22, B23, B24, and B25), to the west, revealed concentrations of 15 - 300 ppm. Of the twelve samples collected further up the backstop, seven of the twelve samples were above the site background. The results indicated that samples collected near the center of the firing range were much higher than those concentrations reported in samples at the north and south areas of the backstop.

The samples collected for the purpose of evaluating the vertical extent of lead concentrations revealed concentrations ranging from 490 - 12,000 ppm. Each of the eight samples collected were above the site background. The results indicated that samples collected near the center of the firing range were much higher than those concentrations reported at the north and south areas of the backstop.

Sediment Sample Analytical Results

The following table presents the analytical results for each of the collected sediment samples. In addition, the sediment samples were plotted on Figure 6.

Table 3. *Sediment Sample Analytical Results.*

Sediment Sample Number	Sample Location	Total Lead (mg/Kg = ppm)
DS-1	North Ditch Sample	5,600
DS-2	South Ditch Sample	4,400
NS-1	North Stream - Up Gradient	50
NS-2	North Stream - Adjacent	45
NS-3	North Stream - Down Gradient	60
SS-1	South Stream - Up Gradient	110
SS-2	South Stream - Adjacent	180
SS-3	South Stream - Down Gradient	39

Source: O'Brien & Gere Engineers, Inc.
(Table by O'Brien & Gere Engineers, Inc.)

The samples collected for the purpose of evaluating the potential sediment contamination revealed concentrations ranging from 39 - 5600 ppm. All eight of the samples collected were above the site background (33 ppm). The results indicated that samples collected in the ditch between the firing area and the backstop is where the highest levels of contamination is present. Samples collected in the south stream, which appears to be where the majority of the runoff from the firing range drained, were also greater than the samples collected in the north stream.

Toxic Characteristic Leaching Procedure (TCLP) Results

As an adjunct to evaluating if concentrations of lead are above the site background, Labs analyzed two samples (B26-12 and B27-12) by the TCLP method to evaluate if a "characteristic" hazardous waste (i.e., toxic due to lead leachate) may be present at the firing range. This may impact the potential handling practices, remedial options, and disposal costs for the soils at the firing range. According to 6 NYCRR Part 371 *"Identification and Listing of Hazardous Wastes,"* a solid waste which exhibits the characteristic of toxicity when analyzed by the TCLP method is considered to be a hazardous waste. In the case of lead, if the results are greater than 5 mg/L (ppm) when analyzed by the TCLP method, it is considered to exhibit the characteristic of toxicity.

Based on a telephone conversation between Mr. Thomas Suozzo of the NYSDEC, Kirkwood office, and Mr. Thomas Tokos and Mr. Christopher Engler of O'Brien & Gere, Mr. Suozzo indicated that, from his experience, if a sample has greater than 1000 ppm of total lead, it is likely to exceed the TCLP limit for lead. However, he indicated that the TCLP results may be influenced by soil pH, organic and inorganic composition, and moisture content.

Sample number B26-12 had a total lead concentration of 1300 ppm. When analyzed by the TCLP method, the lead concentration was 84 ppm, which exceeds the 5-ppm standard for being characterized as a hazardous waste. Sample number B27-12 had a total lead concentration of 3600 ppm and a TCLP concentration of 92 ppm, which is also above the standard.

Mr. Suozzo also indicated that even if the soils exceed the TCLP limit for lead, the NYSDEC would not consider the site an "Inactive Hazardous Waste Site." However, he indicated that the NYSDEC does require that the soils which exceed this concentration be handled and disposed of as a hazardous waste if they are excavated.

Based on these sample results, there is a potential that if the soils are excavated by Broome County, they will have to be handled and disposed of as a hazardous waste.

FIGURE 1

Broome County Sheriff's Department Former Firing Range
January 3, 1997 Sample Location and Results
0 - 6 Inches Below Grade

FIGURE 2

Broome County Sheriff's Department Former Firing Range
January 3, 1997 Sample Location and Results
6 - 12 Inches Below Grade

FIGURE 3

Broome County Sheriff's Department Former Firing Range
November 12, 1997 Soil Boring Sample Location and Results
0 - 6 Inches Below Grade

FIGURE 4

Broome County Sheriff's Department Former Firing Range
November 12, 1997 Sample Location and Results
6 - 12 Inches Below Grade

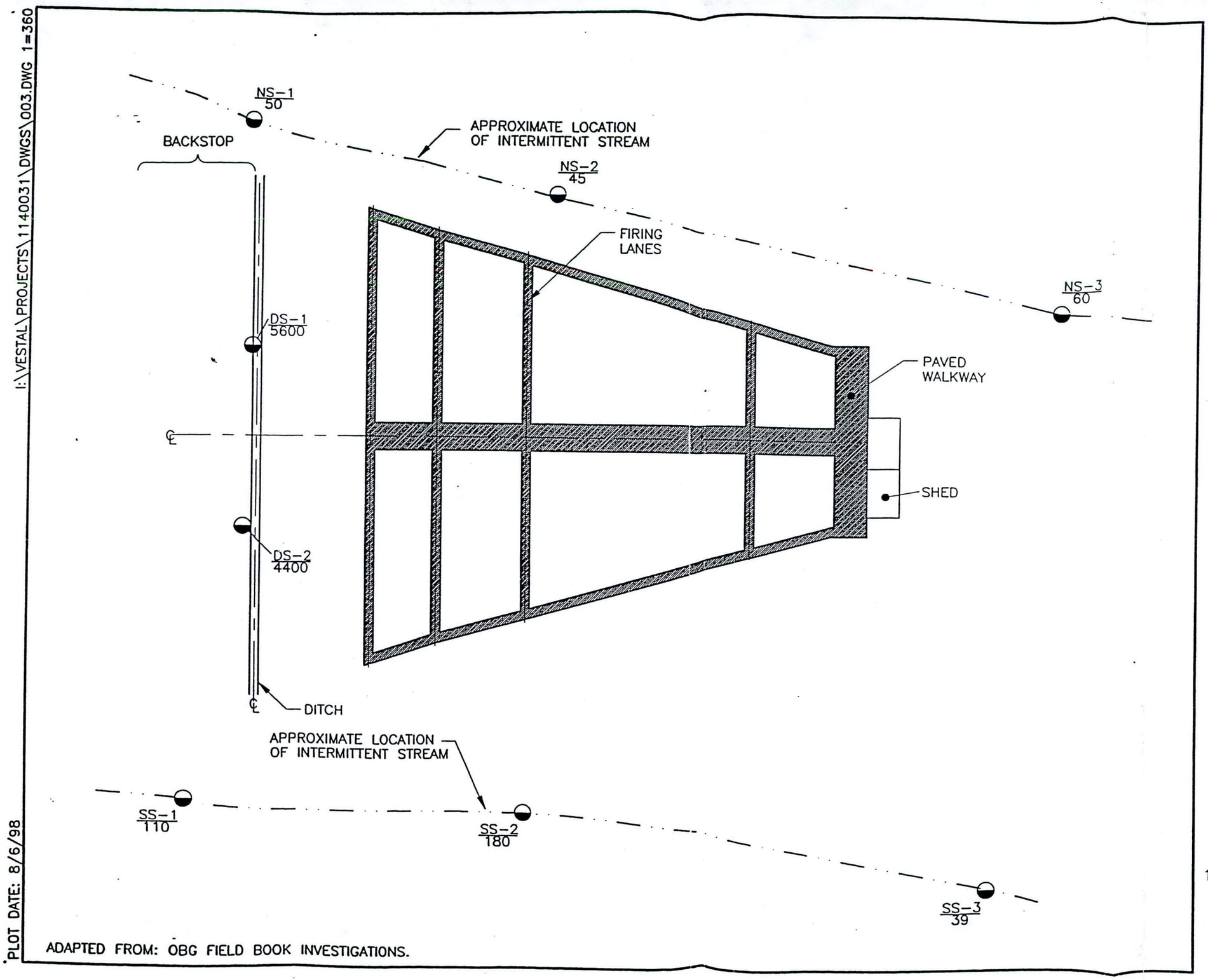
FIGURE 5

Broome County Sheriff's Department Former Firing Range
November 12, 1997 Soil Boring Sample Location and Results
12 - 24 Inches Below Grade

FIGURE 6

Broome County Sheriff's Department Former Firing Range
November 13, 1997 Sediment Sample Location and Results

FIGURE 6



LEGEND

SEDIMENT SAMPLE LOCATION

NS-3 / 60 — SAMPLE NUMBER / LEAD CONCENTRATION (mg/kg)

BROOME COUNTY
SHERIFF'S DEPARTMENT
FORMER FIRING RANGE

11/13/97
SEDIMENT SAMPLE
LOCATION AND RESULTS

1"=30' 30 0 30

FILE NO. 1140.031-003

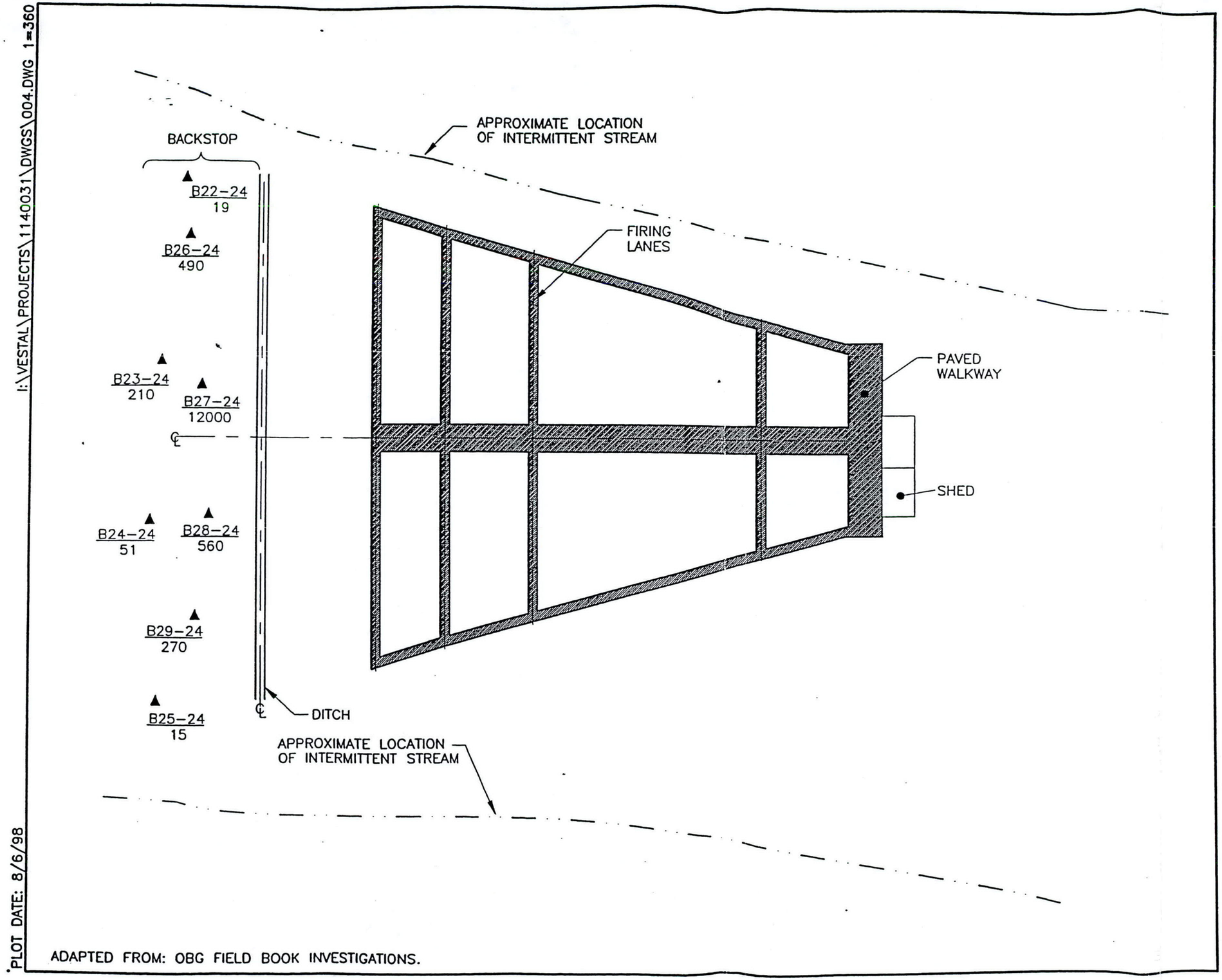
O'BRIEN & GERE ENGINEERS, INC.

I:\VESTAL\PROJECTS\1140031\DWGS\003.DWG 1=360

PLOT DATE: 8/6/98

ADAPTED FROM: OBG FIELD BOOK INVESTIGATIONS.

FIGURE 5



LEGEND

▲ SOIL BORING SAMPLE LOCATION

B29-24 SAMPLE NUMBER
270 LEAD CONCENTRATION (mg/kg)

BROOME COUNTY
SHERIFF'S DEPARTMENT
FORMER FIRING RANGE

11/12/97 SOIL BORING SAMPLE LOCATION AND RESULTS 12-24" BELOW GRADE

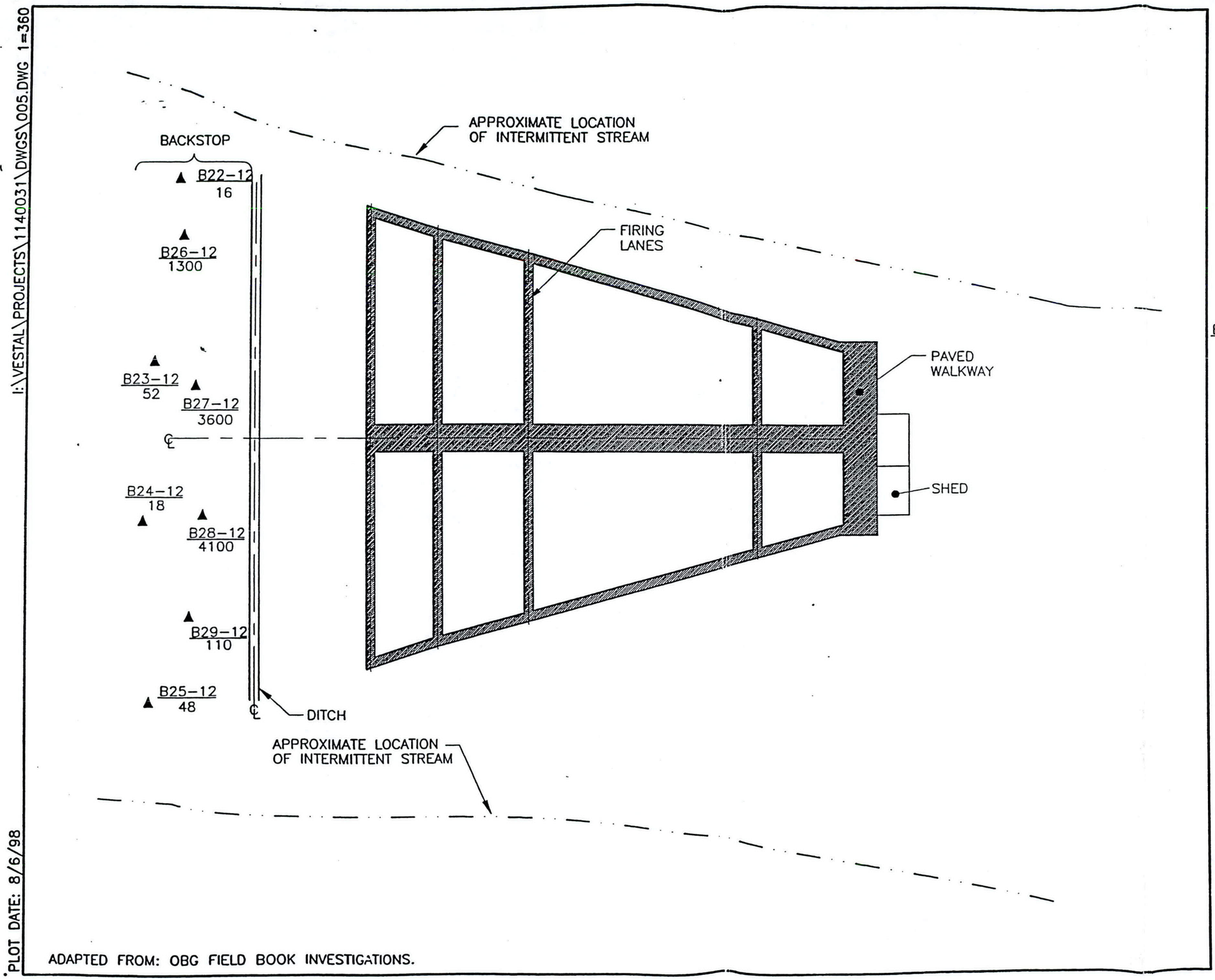
1"=30' 30 0 30

FILE NO. 1140.031-004

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 4

I:\VESTAL\PROJECTS\1140031\DWGS\005.DWG 1=360



LEGEND

▲ SOIL BORING SAMPLE LOCATION

B25-12 SAMPLE NUMBER
48 LEAD CONCENTRATION (mg/kg)

BROOME COUNTY
SHERIFF'S DEPARTMENT
FORMER FIRING RANGE

11/12/97
SAMPLE LOCATION AND RESULTS
6-12" BELOW GRADE

1"=30' 30 0 30

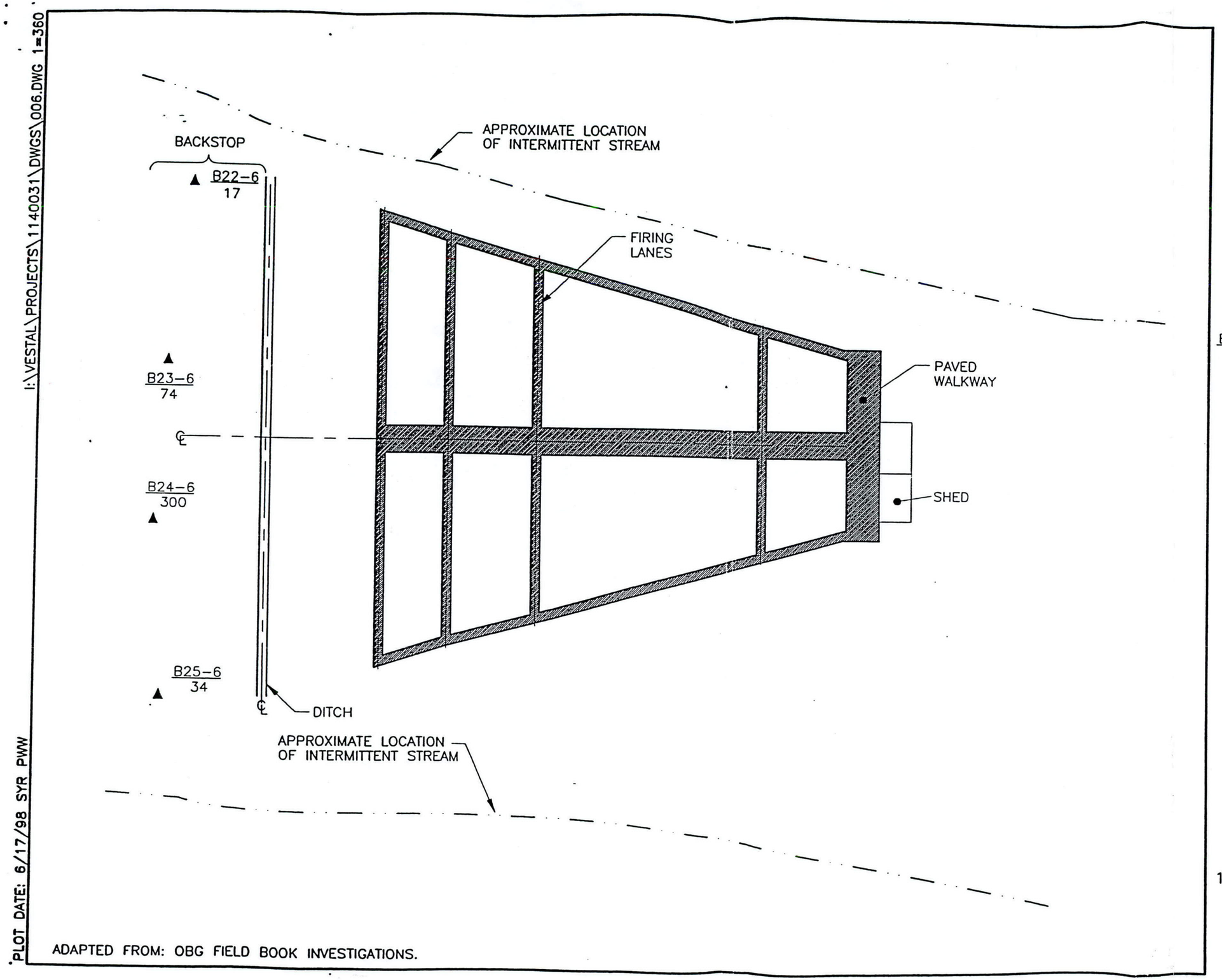
FILE NO. 1140.031-005

O'BRIEN & GERE ENGINEERS, INC.

PLOT DATE: 8/6/98

ADAPTED FROM: OBG FIELD BOOK INVESTIGATIONS.

FIGURE 3



LEGEND

▲ SOIL BORING SAMPLE LOCATION

B24–6 / 300 SAMPLE NUMBER / LEAD CONCENTRATION (mg/kg)

BROOME COUNTY
SHERIFF'S DEPARTMENT
FORMER FIRING RANGE

11/12/97 SOIL BORING SAMPLE LOCATION AND RESULTS 0–6" BELOW GRADE

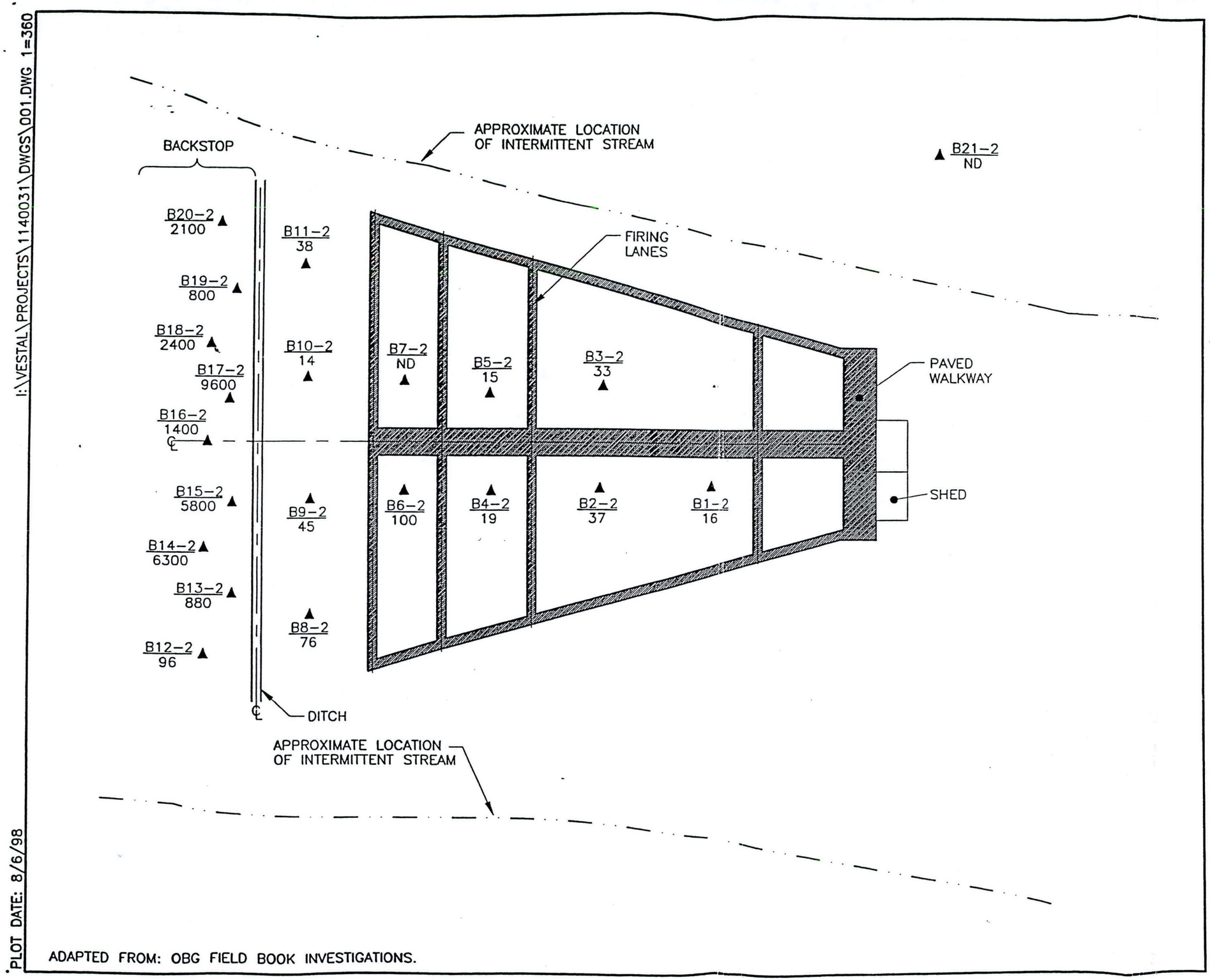
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FILE NO. 1140.031–006

O'BRIEN & GERE ENGINEERS, INC.

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FIGURE 2



LEGEND

▲ SOIL BORING SAMPLE LOCATION

B1–2 / 16 — SAMPLE NUMBER / LEAD CONCENTRATION (mg/kg)

BROOME COUNTY
SHERIFF'S DEPARTMENT
FORMER FIRING RANGE

1/3/97 SAMPLE LOCATION AND RESULTS
6–12" BELOW GRADE

1"=30' 30 0 30

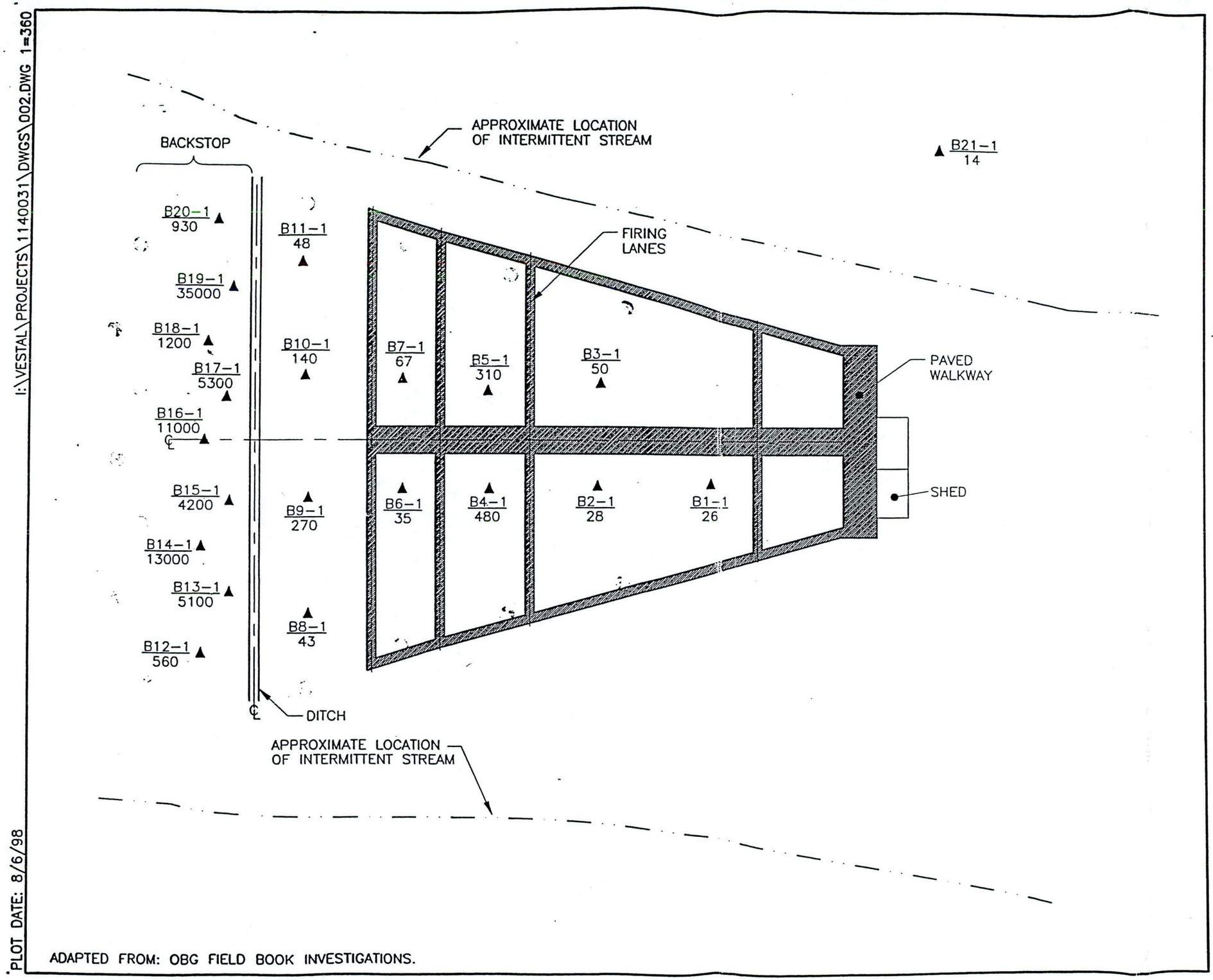
FILE NO. 1140.031–001

O'BRIEN & GERE ENGINEERS, INC.

PLOT DATE: 8/6/98

ADAPTED FROM: OBG FIELD BOOK INVESTIGATIONS.

FIGURE 1



LEGEND

▲ SOIL BORING SAMPLE LOCATION

B1-1 / 26 — SAMPLE NUMBER / LEAD CONCENTRATION (mg/kg)

BROOME COUNTY
SHERIFF'S DEPARTMENT
FORMER FIRING RANGE

1/3/97 SAMPLE LOCATION AND RESULTS 0-6" BELOW GRADE

1"=30' 30 0 30

FILE NO. 1140.031-002

O'BRIEN & GERE ENGINEERS, INC.

ATTACHMENT A

Broome County Sheriff's Department Former Firing Range
Soil and Sediment Sample Analytical Results

O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

ient: O'Brien & Gere Engineers, Inc.
oject: Broome County Jail Complex
Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

mple: G7496
Description: B26-12"
: mg/L

Collected: 11/12/97
Received: 11/13/97

Matrix: Leachate
%Solids:
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut. Note
Lead	84.	1311/6010	01/16/98	01/19/98	011698W1	6

Notes:

leachate created: 01/15/98

J-Estimated value

Authorized: Thomas Alexander
Date: January 21,1998

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

Job No.: 3435.013.018
Certification NY No.: 10155

uent: O'Brien & Gere Engineers, Inc.
oject: Broome County Jail Complex
Desc: Front St. Binghamton NY

ample: G7497
. Description: B27-12"
: mg/L

Collected: 11/12/97
Received: 11/13/97

Matrix: Leachate
%Solids:
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
P Lead	92.	1311/6010	01/16/98	01/19/98	011698W1	6	

Notes:

leachate created: 01/15/98

J-Estimated value

Authorized: Thomas Alexander
Date: January 21, 1998

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE LABORATORIES, INC.

CHAIN OF CUSTODY RECORD

2 OF 3

SURVEY: Broome County Jail — SAMPLED BY: PT Curran / TJ Tokos

LOCATION: Firing Range — ORGANIZATION: O'Brien & Gere Engineers

STATION NUMBER	SAMPLE LOCATION	DATE COLLECTED	TIME COLLECTED	SAMPLE MATRIX	COMP. OR GRAB	NO. OF CONTAINERS	ANALYSIS REQUIRED
B23-12in	Boring B23	11/12/97	1:16	Soil	Grab	1	6010 Lead / % Solids
23-24in	↓	|	1:19	|	|	|	|
B24-6in	Boring B24	|	1:39	|	|	|	|
24-12in	|	|	1:43	|	|	|	|
24-24in	↓	|	1:46	|	|	|	|
B25-6in	Boring B25	|	2:05	|	|	|	|
25-12in	|	|	2:09	|	|	|	|
B25-24in	↓	|	2:13	|	|	|	|
B26-12in	Boring B26	|	2:43	|	|	|	|
26-24in	↓	|	2:49	|	|	|	|
B27-12in	Boring B27	|	3:07	|	|	|	|
27-24in	↓	↓	3:11	↓	↓	↓	↓

Relinquished By:	DATE	TIME	Received By:	DATE	TIME
PT Curran	11/12/97	2:35			
Relinquished By:	DATE	TIME	Received By:	DATE	TIME
Relinquished By:	DATE	TIME	Received by Laboratory: Maria F. Jackson	DATE 11/13/97	TIME 14:35

COMMENTS:

On 1/14/98, Chris Engler requested TCLP lead analysis be performed on B26-12" and B27-12".

METHOD OF SHIPMENT:

O'Brien & Gere Laboratories, Inc., an O'Brien & Gere company
5000 Brittonfield Parkway P.O. Box 4942, Syracuse New York 13221
(315) 437-0200 FAX (315) 463-7554 • nttp... www.obg.com

O'Brien & Gere Laboratories, Inc.

Analytical Results
Wet Chemistry

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Job Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4586
Samp. Description: DS-1

Collected: 11/13/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
% Total Solids	47.7	%	2540-G		11/18/97	111897S11	

Notes:

Sample: G4587
Samp. Description: DS-2

Collected: 11/13/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
% Total Solids	59.8	%	2540-G		11/18/97	111897S11	

Notes:

Sample: G4588
Samp. Description: NS-1

Collected: 11/13/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
% Total Solids	81.8	%	2540-G		11/18/97	111897S11	

Notes:

J-Estimated value

Authorized: _____
Date: November 21,1997 Thomas Alexander

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results
Wet Chemistry

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4589
Samp. Description: NS-2

Collected: 11/13/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
% Total Solids	80.7	%	2540-G		11/18/97	111897S11	

Notes:

Sample: G4590
Samp. Description: NS-3

Collected: 11/13/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
% Total Solids	62.4	%	2540-G		11/18/97	111897S11	

Notes:

Sample: G4591
Samp. Description: SS-1

Collected: 11/13/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
% Total Solids	65.5	%	2540-G		11/18/97	111897S11	

Notes:

J-Estimated value

Authorized: _____
Date: November 21,1997 Thomas Alexander

O'Brien & Gere Laboratories, Inc.

Analytical Results
Wet Chemistry

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4592
Samp. Description: SS-2

Collected: 11/13/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
% Total Solids	86.9	%	2540-G		11/18/97	111897S11	

Notes:

Sample: G4593
Samp. Description: SS-3

Collected: 11/13/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
% Total Solids	60.1	%	2540-G		11/18/97	111897S11	

Notes:

Sample: G4594
Samp. Description: B22-6"

Collected: 11/12/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
% Total Solids	86.0	%	2540-G		11/18/97	111897S11	

Notes:

Estimated value

Authorized: _____
Date: November 21, 1997 Thomas Alexander

O'Brien & Gere Laboratories, Inc.

Analytical Results
Wet Chemistry

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4595
Samp. Description: B22-12"

Collected: 11/12/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
Total Solids	85.3	%	2540-G		11/18/97	111897S11	

Notes:

Sample: G4596
Samp. Description: B22-24"

Collected: 11/12/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
% Total Solids	88.5	%	2540-G		11/18/97	111897S11	

Notes:

Sample: G4597
Samp. Description: B23-6"

Collected: 11/12/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
% Total Solids	81.6	%	2540-G		11/18/97	111897S11	

Notes:

J-Estimated value

Authorized: _____
Date: November 21, 1997 Thomas Alexander

O'Brien & Gere Laboratories, Inc.

Analytical Results
Wet Chemistry

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4598
Samp. Description: B23-12"

Collected: 11/12/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
Total Solids	84.8	%	2540-G		11/18/97	111897S11	

Notes:

Sample: G4599
Samp. Description: B23-24"

Collected: 11/12/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
% Total Solids	82.3	%	2540-G		11/18/97	111897S12	

Notes:

Sample: G4600
Samp. Description: B24-6"

Collected: 11/12/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
Total Solids	82.0	%	2540-G		11/18/97	111897S12	

Notes:

J-Estimated value

Authorized: _____
Date: November 21,1997 Thomas Alexander

O'Brien & Gere Laboratories,Inc.

Analytical Results Wet Chemistry

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4601
Samp. Description: B24-12"

Collected: 11/12/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
Total Solids	82.4	%	2540-G		11/18/97	111897S12	

Notes:

Sample: G4602
Samp. Description: B24-24"

Collected: 11/12/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
Total Solids	85.3	%	2540-G		11/18/97	111897S12	

Notes:

Sample: G4603
Samp. Description: B25-6"

Collected: 11/12/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
Total Solids	84.2	%	2540-G		11/18/97	111897S12	

Notes:

J-Estimated value

Authorized: _____
Date: November 21,1997 Thomas Alexander

O'Brien & Gere Laboratories, Inc.

Analytical Results
Wet Chemistry

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4604
Samp. Description: B25-12"

Collected: 11/12/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
Total Solids	84.6	%	2540-G		11/18/97	111897S12	

Notes:

Sample: G4605
Samp. Description: B25-24"

Collected: 11/12/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
% Total Solids	86.0	%	2540-G		11/18/97	111897S12	

Notes:

Sample: G4606
Samp. Description: B26-12"

Collected: 11/12/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
Total Solids	82.2	%	2540-G		11/18/97	111897S12	

Notes:

V-Estimated value

Authorized: _____
Date: November 21, 1997 Thomas Alexander

O'Brien & Gere Laboratories, Inc.

Analytical Results
Wet Chemistry

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4607
Samp. Description: B26-24"

Collected: 11/12/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
% Total Solids	81.2	%	2540-G		11/18/97	111897S12	

Notes:

Sample: G4608
Samp. Description: B27-12"

Collected: 11/12/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
% Total Solids	89.2	%	2540-G		11/18/97	111897S12	

Notes:

Sample: G4609
Samp. Description: B27-24"

Collected: 11/12/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
% Total Solids	88.0	%	2540-G		11/18/97	111897S12	

Notes:

J-Estimated value

Authorized: _____
Date: November 21, 1997 Thomas Alexander

O'Brien & Gere Laboratories, Inc.

Analytical Results
Wet Chemistry

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4610
Samp. Description: B28-12"

Collected: 11/12/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
% Total Solids	88.1	%	2540-G		11/18/97	111897S12	

Notes:

Sample: G4611
Samp. Description: B28-24"

Collected: 11/12/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
% Total Solids	90.3	%	2540-G		11/18/97	111897S12	

Notes:

Sample: G4612
Samp. Description: B29-12"

Collected: 11/12/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
% Total Solids	79.3	%	2540-G		11/18/97	111897S12	

Notes:

J-Estimated value

Authorized: _____
Date: November 21, 1997 Thomas Alexander

O'Brien & Gere Laboratories,Inc.

Analytical Results
Wet Chemistry

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4613
Samp. Description: B29-24"

Collected: 11/12/97
Received: 11/13/97 14:35

Matrix: Solid

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
Total Solids	85.2	%	2540-G		11/18/97	111897S12	

Notes:

E Estimated value

Authorized: _____
Date: November 21,1997 Thomas Alexander

CHAIN OF CUSTODY RECORD

O'BRIEN & GERE LABORATORIES, INC.

(1 of 3)

5963

SURVEY: Broome County Jail — SAMPLED BY: P Kiernan / T Stokoe

LOCATION: Firing Range — ORGANIZATION: O'Brien & Gere Engineers

STATION NUMBER	SAMPLE LOCATION	DATE COLLECTED	TIME COLLECTED	SAMPLE MATRIX	COMP. OR GRAB	NO. OF CONTAINERS	ANALYSIS REQUIRED
DS-1	West Ditch Sediment - North	11/13/97	8:40	SED	GRAB	1	6010 Lead / % solids
DS-2	West Ditch Sediment - South	"	8:40	"	"	"	"
NS-1	North Stream Sediment - Upstream	"	9:10	"	"	"	"
NS-2	North Stream Sediment - Mid Stream	"	9:25	"	"	"	"
NS-3	North Stream Sediment - Downstream	"	9:40	"	"	"	"
SS-1	South Stream Sediment - Upstream	"	9:15	"	"	"	"
SS-2	South Stream Sediment - Mid Stream	"	9:35	"	"	"	"
SS-3	South Stream Sediment - Downstream	11/12/97	9:57	SED	"	"	"
B22-6in	Boring B22	11/12/97	12:42	SOIL	"	"	"
B22-12in	"	"	12:45	"	"	"	"
B22-24in	"	"	12:48	"	"	"	"
B23-6in	Boring B23	"	1:12	"	"	"	"

Relinquished By:	DATE	TIME	Received By:	DATE	TIME
Paul J Cl	11/13/97	2:35			
Relinquished By:	DATE	TIME	Received By:	DATE	TIME
Relinquished By:	DATE	TIME	Received by Laboratory: Angela F. Jackson	DATE 11/17/97	TIME 14:35

COMMENTS:

Cooler Temp 6°C

METHOD OF SHIPMENT:

O'Brien & Gere Laboratories, Inc., an O'Brien & Gere company
5000 Brittonfield Parkway, P.O. Box 4942, Syracuse, New York 13221
(315) 437-0200 / FAX (315) 463-7554 • http://www.obg.com
and offices in major U.S. cities

O'BRIEN & GERE LABORATORIES, INC.

CHAIN OF CUSTODY RECORD

2 OF 3

SURVEY: Broome County Jail

SAMPLED BY: PT Curran / TJ Tokos

LOCATION: Firing Range

ORGANIZATION: O'Brien & Gere Engineers

STATION NUMBER	SAMPLE LOCATION	DATE COLLECTED	TIME COLLECTED	SAMPLE MATRIX	COMP. OR GRAB	NO. OF CONTAINERS	ANALYSIS REQUIRED
B23-12in	Boring B23	11/12/97	1:16	Soil	Grab	1	6010 Lead / % solids
23-24in	↓	|	1:19	|	|	|	|
B24-6in	Boring B24	|	1:39	|	|	|	|
24-12in	↓	|	1:43	|	|	|	|
24-24in	↓	|	1:46	|	|	|	|
B25-6in	Boring B25	|	2:06	|	|	|	|
25-12in	↓	|	2:09	|	|	|	|
B25-24in	↓	|	2:13	|	|	|	|
26-12in	Boring B26	|	2:45	|	|	|	|
26-24in	↓	|	2:49	|	|	|	|
B27-12in	Boring B27	|	3:08	|	|	|	|
27-24in	↓	↓	3:11	↓	↓	↓	↓

	DATE	TIME		DATE	TIME
Relinquished By: PT Curran	11/12/97	2:35	Received By:		
Relinquished By:			Received By:		
Relinquished By:			Received by Laboratory: Maria F. Jackson	11/13/97	14:35

COMMENTS:

METHOD OF SHIPMENT:

O'Brien & Gere Laboratories, Inc., an O'Brien & Gere company
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(315) 437-0200 / FAX (315) 463-7554 • http://www.obg.com
...and offices in major U.S. cities

CHAIN OF CUSTODY RECORD

3 of 3

O'BRIEN & GERE LABORATORIES, INC.

SURVEY: Broome County Jail

SAMPLED BY: PT Carlson / TJ Tokos

LOCATION: Firing Range

ORGANIZATION: O'Brien & Gere Engineers

STATION NUMBER	SAMPLE LOCATION	DATE COLLECTED	TIME COLLECTED	SAMPLE MATRIX	COMP. OR GRAB	NO. OF CONTAINERS	ANALYSIS REQUIRED
B28-12in	Boring B28	11/12/97	3:28	SOIL	GRAB	1	6010 Lead / % Solids
B28-24in	↓	↓	3:32	↓	↓	↓	↓
B29-12in	Boring B29	↓	3:49	↓	↓	↓	↓
B29-24in	↓	↓	3:53	↓	↓	↓	↓

Relinquished By:	DATE	TIME	Received By:	DATE	TIME
PTC	11/13/97	2:35			
Relinquished By:	DATE	TIME	Received By:	DATE	TIME
Relinquished By:	DATE	TIME	Received by Laboratory: Maria F. Jacobson	DATE 11/13/97	TIME 14:35

COMMENTS:

METHOD OF SHIPMENT:

O'Brien & Gere Laboratories, Inc., an O'Brien & Gere company
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O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

ient: O'Brien & Gere Engineers, Inc.
oject: Broome County Jail Complex
Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

mple: G4591
Description: SS-1
mg/Kg Dry weight

Collected: 11/13/97
Received: 11/13/97

Matrix: Solid
%Solids: 65.5
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
	110.	6010A	11/18/97	11/20/97	111897S1	1	

Notes:

-Estimated value

Authorized: Thomas A. Alexander
Date: November 26,1997 Thomas Alexander

O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4587
Samp. Description: DS-2
Units: mg/Kg Dry weight

Collected: 11/13/97
Received: 11/13/97

Matrix: Solid
%Solids: 59.8
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
Lead	4400.	6010A	11/18/97	11/20/97	111897S1	1	

Notes:

J-Estimated value

Authorized: Thomas A. Alexander
Date: November 26, 1997 Thomas Alexander

O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4588
Samp. Description: NS-1
Units: mg/Kg Dry weight

Collected: 11/13/97
Received: 11/13/97

Matrix: Solid
%Solids: 81.8
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
Lead	50.	6010A	11/18/97	11/20/97	111897S1	1	

Notes:

J-Estimated value

Authorized: Thomas A. Alexander
Date: November 26,1997 Thomas Alexander

O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4589
Samp. Description: NS-2
Units: mg/Kg Dry weight

Collected: 11/13/97
Received: 11/13/97

Matrix: Solid
%Solids: 80.7
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
Lead	45.	6010A	11/18/97	11/20/97	111897S1	1	

Notes:

J-Estimated value

Authorized: Thomas A. Alexander
Date: November 26,1997 Thomas Alexander

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O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4590
Samp. Description: NS-3
Units: mg/Kg Dry weight

Collected: 11/13/97
Received: 11/13/97

Matrix: Solid
%Solids: 62.4
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
Lead	60.	6010A	11/18/97	11/20/97	111897S1	1	

Notes:

J-Estimated value

Authorized: Thomas A. Alexander
Date: November 26,1997 Thomas Alexander

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O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4592
Samp. Description: SS-2
Units: mg/Kg Dry weight

Collected: 11/13/97
Received: 11/13/97

Matrix: Solid
%Solids: 86.9
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
Lead	180.	6010A	11/18/97	11/20/97	111897S1	1	

Notes:

J-Estimated value

Authorized: Thomas R. Alexander
Date: November 26,1997 Thomas Alexander

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O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4593
Samp. Description: SS-3
Units: mg/Kg Dry weight

Collected: 11/13/97
Received: 11/13/97

Matrix: Solid
%Solids: 60.1
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
Lead	39.	6010A	11/18/97	11/20/97	111897S1	1	

Notes:

J-Estimated value

Authorized: Thomas L. Alexander
Date: November 26,1997 Thomas Alexander

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O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4594
Samp. Description: B22-6"
Units: mg/Kg Dry weight

Collected: 11/12/97
Received: 11/13/97

Matrix: Solid
%Solids: 86.0
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
Lead	17.	6010A	11/18/97	11/20/97	111897S1	1	

Notes:

J-Estimated value

Authorized: Thomas A. Alexander
Date: November 26, 1997 Thomas Alexander

O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4595
Samp. Description: B22-12"
Units: mg/Kg Dry weight

Collected: 11/12/97
Received: 11/13/97

Matrix: Solid
%Solids: 85.3
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
Lead	16.	6010A	11/18/97	11/20/97	111897S1	1	

Notes:

J-Estimated value

Authorized: Thomas A. Alexander
Date: November 26, 1997 Thomas Alexander

O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4596
Samp. Description: B22-24"
Units: mg/Kg Dry weight

Collected: 11/12/97
Received: 11/13/97

Matrix: Solid
%Solids: 88.5
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
Lead	19.	6010A	11/18/97	11/20/97	111897S1	1	

Notes:

J-Estimated value

Authorized: Thomas A. Alexander
Date: November 26,1997 Thomas Alexander

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O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4597
Samp. Description: B23-6"
Units: mg/Kg Dry weight

Collected: 11/12/97
Received: 11/13/97

Matrix: Solid
%Solids: 81.6
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
Lead	74.	6010A	11/18/97	11/20/97	111897S1	1	

Notes:

J-Estimated value

Authorized: Thomas A. Alexander
Date: November 26, 1997 Thomas Alexander

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O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Job Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4598
Sample Description: B23-12"
Units: mg/Kg Dry weight

Collected: 11/12/97
Received: 11/13/97

Matrix: Solid
%Solids: 84.8
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
Lead	52.	6010A	11/18/97	11/20/97	111897S1	1	

Notes:

J-Estimated value

Authorized: Thomas A. Alexander
Date: November 26, 1997 Thomas Alexander

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O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
[illegible]. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4599
[illegible]p. Description: B23-24"
[illegible]s: mg/Kg Dry weight

Collected: 11/12/97
Received: 11/13/97

Matrix: Solid
%Solids: 82.3
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
[illegible]ead	210.	6010A	11/18/97	11/20/97	111897S1	1	

Notes:

J-Estimated value

Authorized: Thomas A. Alexander
Date: November 26, 1997 Thomas Alexander

O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Site Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4600
Sp. Description: B24-6"
Units: mg/Kg Dry weight

Collected: 11/12/97
Received: 11/13/97

Matrix: Solid
%Solids: 82.0
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
Lead	300.	6010A	11/18/97	11/20/97	111897S1	1	

Notes:

J-Estimated value

Authorized: Thomas A. Alexander
Date: November 26,1997 Thomas Alexander

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O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4601
Samp. Description: B24-12"
Units: mg/Kg Dry weight

Collected: 11/12/97
Received: 11/13/97

Matrix: Solid
%Solids: 82.4
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
Lead	18.	6010A	11/18/97	11/20/97	111897S1	1	

Notes:

J-Estimated value

Authorized: Thomas A. Alexander
Date: November 26,1997 Thomas Alexander

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J'Brien & Gere Laboratories,Inc.

Analytical Results
Trace Metals

ient: O'Brien & Gere Engineers, Inc.
t: Broome County Jail Complex
Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

mple: G4602
Description: B24-24"
s: mg/Kg Dry weight

Collected: 11/12/97
Received: 11/13/97

Matrix: Solid
%Solids: 85.3
Number of analytes: 1

meter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
	51.	6010A	11/18/97	11/20/97	111897S1	1	

es:

J-Estimated value

Authorized: Thomas A. Alexander
Date: November 26,1997 Thomas Alexander

O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

lient: O'Brien & Gere Engineers, Inc.
ct: Broome County Jail Complex
Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

ample: G4603
. Description: B25-6"
s: mg/Kg Dry weight

Collected: 11/12/97
Received: 11/13/97

Matrix: Solid
%Solids: 84.2
Number of analytes: 1

ameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
d	34.	6010A	11/18/97	11/20/97	111897S1	1	

Notes:

J-Estimated value

Authorized: Thomas A. Alexander
Date: November 26, 1997 Thomas Alexander

O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4604
Samp. Description: B25-12"
Units: mg/Kg Dry weight

Collected: 11/12/97
Received: 11/13/97

Matrix: Solid
%Solids: 84.6
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
Lead	48.	6010A	11/18/97	11/20/97	111897S1	1	

Notes:

J-Estimated value

Authorized: Thomas A. Alexander
Date: November 26,1997 Thomas Alexander

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4605
Samp. Description: B25-24"
Units: mg/Kg Dry weight

Collected: 11/12/97
Received: 11/13/97

Matrix: Solid
%Solids: 86.0
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
Lead	15.	6010A	11/18/97	11/20/97	111897S2	1	

Notes:

J-Estimated value

Authorized: Thomas A. Alexander
Date: November 26,1997 Thomas Alexander

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O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

ient: O'Brien & Gere Engineers, Inc.
oject: Broome County Jail Complex
Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

mple: G4606
Description: B26-12"
mg/Kg Dry weight

Collected: 11/12/97
Received: 11/13/97

Matrix: Solid
%Solids: 82.2
Number of analytes: 1

meter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
	1300.	6010A	11/18/97	11/20/97	111897S2	1	

Notes:

-Estimated value

Authorized: Thomas A. Alexander
Date: November 26,1997 Thomas Alexander

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O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4607
Samp. Description: B26-24"
Units: mg/Kg Dry weight

Collected: 11/12/97
Received: 11/13/97

Matrix: Solid
%Solids: 81.2
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
Lead	490.	6010A	11/18/97	11/20/97	111897S2	1	

Notes:

J-Estimated value

Authorized: Thomas D. Alexander
Date: November 26, 1997 Thomas Alexander

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O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4608
Samp. Description: B27-12"
Units: mg/Kg Dry weight

Collected: 11/12/97
Received: 11/13/97

Matrix: Solid
%Solids: 89.2
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
Lead	3600.	6010A	11/18/97	11/20/97	111897S2	1	

Notes:

J-Estimated value

Authorized: Thomas R. Alexander
Date: November 26, 1997 Thomas Alexander

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O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4609
Samp. Description: B27-24"
Units: mg/Kg Dry weight

Collected: 11/12/97
Received: 11/13/97

Matrix: Solid
%Solids: 88.0
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
Lead	12000.	6010A	11/18/97	11/20/97	111897S2	1	

Notes:

J-Estimated value

Authorized: Thomas L. Alexander
Date: November 26,1997 Thomas Alexander

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O'Brien & Gere Laboratories,Inc.

Analytical Results
Trace Metals

ient: O'Brien & Gere Engineers, Inc.
oject: Broome County Jail Complex
Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

mple: G4610
Description: B28-12"
mg/Kg Dry weight

Collected: 11/12/97
Received: 11/13/97

Matrix: Solid
%Solids: 88.1
Number of analytes: 1

meter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
	4100.	6010A	11/25/97	11/25/97	112597S1	1	

Notes:

I-Estimated value

Authorized: Thomas L. Alexander
Date: November 26,1997 Thomas Alexander

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O'Brien & Gere Laboratories, Inc.

Analytical Results Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4611
Samp. Description: B28-24"
Units: mg/Kg Dry weight

Collected: 11/12/97
Received: 11/13/97

Matrix: Solid
%Solids: 90.3
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
Lead	560.	6010A	11/25/97	11/25/97	112597S1	1	

Notes:

J-Estimated value

Authorized: Thomas L. Alexander
Date: November 26,1997 Thomas Alexander

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O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

lient: O'Brien & Gere Engineers, Inc.
ct: Broome County Jail Complex
Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

ample: G4612
. Description: B29-12"
s: mg/Kg Dry weight

Collected: 11/12/97
Received: 11/13/97

Matrix: Solid
%Solids: 79.3
Number of analytes: 1

ameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
d	110.	6010A	11/25/97	11/25/97	112597S1	1	

Notes:

J-Estimated value

Authorized: Thomas R. Alexander
Date: November 26, 1997 Thomas Alexander

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O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G4613
Samp. Description: B29-24"
Units: mg/Kg Dry weight

Collected: 11/12/97
Received: 11/13/97

Matrix: Solid
%Solids: 85.2
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
Lead	270.	6010A	11/25/97	11/25/97	112597S1	1	

Notes:

J-Estimated value

Authorized: Thomas A. Alexander
Date: November 26,1997 Thomas Alexander

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O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Job Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G6315
Sp. Description: 12-10-01
Units: mg/Kg Dry weight

Collected: 12/10/97
Received: 12/12/97

Matrix: Solid
%Solids: 82.5
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
Lead	12.	6010A	12/16/97	12/17/97	121697S1	1	

Notes:

-Estimated value

Authorized: Thomas Alexander
Date: December 18,1997

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O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G6316
Samp. Description: 12-10-02
Units: mg/Kg Dry weight

Collected: 12/10/97
Received: 12/12/97

Matrix: Solid
%Solids: 80.8
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
Lead	12.	6010A	12/16/97	12/17/97	121697S1	1	

Notes:

-Estimated value

Authorized: Thomas Alexander
Date: December 18, 1997

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O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Site Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G6317
Comp. Description: 12-10-03
Units: mg/Kg Dry weight

Collected: 12/10/97
Received: 12/12/97

Matrix: Solid
%Solids: 79.4
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
Lead	14.	6010A	12/16/97	12/17/97	121697S1	1	

Notes:

Estimated value

Authorized: Thomas Alexander
Date: December 18,1997

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O'Brien & Gere Laboratories, Inc.

Analytical Results Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G6318
Samp. Description: 12-10-04
Units: mg/Kg Dry weight

Collected: 12/10/97
Received: 12/12/97

Matrix: Solid
%Solids: 60.5
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
Lead	33.	6010A	12/16/97	12/17/97	121697S1	1	

Notes:

I-Estimated value

Authorized: Thomas Alexander
Date: December 18, 1997

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O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

lient: O'Brien & Gere Engineers, Inc.
ject: Broome County Jail Complex
Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

mple: G6319
. Description: 12-10-05
: mg/Kg Dry weight

Collected: 12/10/97
Received: 12/12/97

Matrix: Solid
%Solids: 78.0
Number of analytes: 1

meter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
	27.	6010A	12/16/97	12/17/97	121697S1	1	

Notes:

-Estimated value

Authorized: Thomas Alexander
Date: December 18,1997

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O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Broome County Jail Complex
Proj. Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

Sample: G6320
Samp. Description: 12-10-06
Units: mg/Kg Dry weight

Collected: 12/10/97
Received: 12/12/97

Matrix: Solid
%Solids: 81.4
Number of analytes: 1

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
Lead	50.	6010A	12/16/97	12/17/97	121697S1	1	

Notes:

I-Estimated value

Authorized: Thomas Alexander
Date: December 18, 1997

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O'Brien & Gere Laboratories, Inc.

Analytical Results
Trace Metals

lient: O'Brien & Gere Engineers, Inc.
oject: Broome County Jail Complex
Desc: Front St. Binghamton NY

Job No.: 3435.013.018
Certification NY No.: 10155

mple: G6321
. Description: 12-10-07
: mg/Kg Dry weight

Collected: 12/10/97
Received: 12/12/97

Matrix: Solid
%Solids: 81.3
Number of analytes: 1

ameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
d	42.	6010A	12/16/97	12/17/97	121697S1	1	

Notes:

-Estimated value

Authorized: Thomas Alexander
Date: December 18,1997

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE
ENGINEERS, INC.

Job No. 1140.031.310
Sheet 1 of 1

(6248)

CHAIN OF CUSTODY

VESTAL, NY 13850
441 COMMERCE ROAD
607-770-0908

3435.013.018

CLIENT: BROOME COUNTY JAIL
LOCATION: FIRING RANGE BACKGROUND SAMPLES

COLLECTED BY: TOM TOKOS & CHRIS ENGLER
(Signature)

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers	ANALYSIS REQUESTED
12-10-01	12/10/97	11:15	SOIL	GRAB	1	TOTAL LEAD
12-10-02	"	11:30	"	"	"	"
12-10-03	"	11:45	"	"	"	"
12-10-04	"	12:00	"	"	"	"
12-10-05	"	12:15	"	"	"	"
12-10-06	"	12:30	"	"	"	"
12-10-07	↓	12:45	↓	↓	↓	↓

[1] Matrix = water, wastewater, air, sludge, sediment, etc.
[2] Type = grab, composite

Relinquished by: [signature] ENG	Date: 12/11/97	Time: 4:30	Received by: _____ of: _____	Date:	Time:
Relinquished by: _____	Date:	Time:	Received by: _____ of: _____	Date:	Time:
Relinquished by: _____	Date:	Time:	Received by: _____ of: _____	Date:	Time:
Relinquished by: _____	Date:	Time:	Courier Name: _____ *Attach delivery/courier receipt to Chain of Custody	Date:	Time:
Relinquished by: _____	Date:	Time:	Received by: Mark F. Jackson of: DRUM - CMC LABORATORIES	Date: 12/12/97	Time: 10:00

O'BRIEN & GERE LABORATORIES, INC.

Broome County Jail

STREET	BY	DATE	JOB NO.
	TWS	12/12/97	3435.013.018

PLEASE TYPE OR PRINT

FOR SHIPMENTS WITHIN U.S. ONLY

FROM

[redacted]

NY [redacted]

TO

[redacted]

NY [redacted]

7317163976

Preprint Format No. | Origin | Airbill Number 7317163976

Method of Payment (Assumed sender unless otherwise noted)

- ☐ Bill Sender
- ☒ Bill Receiver
- ☐ Bill 3rd Party
- ☐ Paid in Advance

AIRBORNE EXPRESS.

EXP (Letter - 150 lbs) X

NAS (Letter - 5 lbs)

SDS (Letter - 150 lbs)

Billing Reference will appear on invoice

NO. OF PACKAGES	WEIGHT (LBS.)	CHECK IF
	10	☐ LETTER EXPRESS ☐ EXP. PACK

Special Instructions

☐ SAT ☐ HAA

☐ LAB ☐

731 716 3976

731 716 3976

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001 (01/97) M-06 PACKAGE LABEL

Appendix B

Blasland, Bouck & Lee
Project: Broome County

SDG: L55423
Login: L55423

Summary Data Package
for samples collected
October 27, 1999

Data Package sent to:

Mr. Al Lyons
Blasland, Bouck & Lee
155 Corporate Woods
Rochester, NY 14623

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE01-24

Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55423

Matrix (soil/water): Soil Lab Sample ID: L55423-5

Level (low/med): LOW Date Received: 10/27/99

Solids: 84.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	35.4			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE03-24

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55423

Matrix (soil/water): Soil Lab Sample ID: L55423-1

Level (low/med): LOW Date Received: 10/27/99

% Solids: 81.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	201			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE04-24

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55423

Matrix (soil/water): Soil Lab Sample ID: L55423-4

Level (low/med): LOW Date Received: 10/27/99

% Solids: 78.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	30.7			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE05-24

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55423

Matrix (soil/water): Soil Lab Sample ID: L55423-2

Level (low/med): LOW Date Received: 10/27/99

% Solids: 75.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	62.3			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE01-12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55423

Matrix (soil/water): Soil Lab Sample ID: L55423-3

Level (low/med): LOW Date Received: 10/27/99

% Solids: 86.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	77.9			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B07-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-1

Level (low/med): LOW Date Received: 10/27/99

% Solids: 65.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	417			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B07-12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-4

Level (low/med): LOW Date Received: 10/27/99

% Solids: 87.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	28.3			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B07-24

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-5

Level (low/med): LOW Date Received: 10/27/99

% Solids: 89.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	25.5			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

FL01-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-9

Level (low/med): LOW Date Received: 10/27/99

% Solids: 73.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	357			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

FL02-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-8

Level (low/med): LOW Date Received: 10/27/99

% Solids: 80.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	21.1			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: grass,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

FL03-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-10

Level (low/med): LOW Date Received: 10/27/99

% Solids: 75.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	217			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

FL04-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-11

Level (low/med): LOW Date Received: 10/27/99

% Solids: 79.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	86.7			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: grass,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

FL05-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-16

Level (low/med): LOW Date Received: 10/27/99

% Solids: 77.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	314			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

FL06-06

ab Name: Galson Laboratories Contract: BBL

a Code: 11626 Case No.: SAS No.: SDG No.: L55264

atrix (soil/water): Soil Lab Sample ID: L55264-6

el (low/med): LOW Date Received: 10/27/99

Solids: 81.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	124			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

olor After: yellow Clarity After: clear Artifacts: roots,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

FL07-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-12

Level (low/med): LOW Date Received: 10/27/99

% Solids: 82.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	72.9			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

FL08-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-13

Level (low/med): LOW Date Received: 10/27/99

% Solids: 79.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	255			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE06-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-14

Level (low/med): LOW Date Received: 10/27/99

% Solids: 77.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	37.7			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE06-12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-15

Level (low/med): LOW Date Received: 10/27/99

% Solids: 84.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	27.0			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE07-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-21

Level (low/med): LOW Date Received: 10/27/99

% Solids: 71.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	26.9			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SP1A

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-17

Level (low/med): LOW Date Received: 10/27/99

% Solids: 82.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	26.6			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SP1B

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-18

Level (low/med): LOW Date Received: 10/27/99

% Solids: 82.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	15.0			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SP2A

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-19

Level (low/med): LOW Date Received: 10/27/99

% Solids: 88.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	14.3			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SP2B

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-20

Level (low/med): LOW Date Received: 10/27/99

% Solids: 92.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	16.1			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE01-24

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55423

Matrix (soil/water): Soil Lab Sample ID: L55423-5

Level (low/med): LOW Date Received: 10/27/99

% Solids: 84.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	35.4			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE03-24

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55423

Matrix (soil/water): Soil Lab Sample ID: L55423-1

Level (low/med): LOW Date Received: 10/27/99

% Solids: 81.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	201			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE04-24

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55423

Matrix (soil/water): Soil Lab Sample ID: L55423-4

Level (low/med): LOW Date Received: 10/27/99

% Solids: 78.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	30.7			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE05-24

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55423

Matrix (soil/water): Soil Lab Sample ID: L55423-2

Level (low/med): LOW Date Received: 10/27/99

% Solids: 75.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	62.3			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE01-12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55423

Matrix (soil/water): Soil Lab Sample ID: L55423-3

Level (low/med): LOW Date Received: 10/27/99

% Solids: 86.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	77.9			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B07-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-1

Level (low/med): LOW Date Received: 10/27/99

% Solids: 65.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	417			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B07-12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-4

Level (low/med): LOW Date Received: 10/27/99

% Solids: 87.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	28.3			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B07-24

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-5

Level (low/med): LOW Date Received: 10/27/99

% Solids: 89.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	25.5			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

FL01-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-9

Level (low/med): LOW Date Received: 10/27/99

% Solids: 73.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	357			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

FL02-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-8

Level (low/med): LOW Date Received: 10/27/99

% Solids: 80.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	21.1			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: grass,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

FL03-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-10

Level (low/med): LOW Date Received: 10/27/99

% Solids: 75.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	217			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

FL04-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-11

Level (low/med): LOW Date Received: 10/27/99

% Solids: 79.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	86.7			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: grass,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

FL05-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-16

Level (low/med): LOW Date Received: 10/27/99

% Solids: 77.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	314			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

FL06-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-6

Level (low/med): LOW Date Received: 10/27/99

% Solids: 81.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	124			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

FL06D-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-7

Level (low/med): LOW Date Received: 10/27/99

% Solids: 79.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	123			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

FL07-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-12

Level (low/med): LOW Date Received: 10/27/99

% Solids: 82.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	72.9			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

FL08-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-13

Level (low/med): LOW Date Received: 10/27/99

% Solids: 79.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	255			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE06-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-14

Level (low/med): LOW Date Received: 10/27/99

% Solids: 77.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	37.7			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE06-12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-15

Level (low/med): LOW Date Received: 10/27/99

% Solids: 84.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	27.0			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE07-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-21

Level (low/med): LOW Date Received: 10/27/99

% Solids: 71.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	26.9			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SP1A

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-17

Level (low/med): LOW Date Received: 10/27/99

% Solids: 82.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	26.6			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SP1B

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-18

Level (low/med): LOW Date Received: 10/27/99

% Solids: 82.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	15.0			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SP2A

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-19

Level (low/med): LOW Date Received: 10/27/99

% Solids: 88.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	14.3			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SP2B

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55264

Matrix (soil/water): Soil Lab Sample ID: L55264-20

Level (low/med): LOW Date Received: 10/27/99

% Solids: 92.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	16.1			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

HC01-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55265

Matrix (soil/water): Soil Lab Sample ID: L55265-16

Level (low/med): LOW Date Received: 10/27/99

% Solids: 87.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	14.7		N	P
7440-39-3	Barium	55.2			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.11	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	15.6			P
7440-48-4	Cobalt				NR
7440-50-8	Copper	513			P
7439-89-6	Iron				NR
7439-92-1	Lead	7500			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.057	U		AV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.46	U		P
7440-22-4	Silver	0.23	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

HC02-06

ab Name: Galson Laboratories Contract: BBL

Code: 11626 Case No.: SAS No.: SDG No.: L55265

atrix (soil/water): Soil Lab Sample ID: L55265-13

vel (low/med): LOW Date Received: 10/27/99

olids: 82.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	8.9		N	P
7440-39-3	Barium	70.9			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.12	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	13.5			P
7440-48-4	Cobalt				NR
7440-50-8	Copper	21.1			P
7439-89-6	Iron				NR
7439-92-1	Lead	196			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.060	U		AV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.48	U		P
7440-22-4	Silver	0.24	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

olor Before: brown Clarity Before: Texture: med

olor After: yellow Clarity After: clear Artifacts: roots

mments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE02-12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55265

Matrix (soil/water): Soil Lab Sample ID: L55265-6

Level (low/med): LOW Date Received: 10/27/99

% Solids: 86.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	20.9			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE03-12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55265

Matrix (soil/water): Soil Lab Sample ID: L55265-1

Level (low/med): LOW Date Received: 10/27/99

% Solids: 84.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	652			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE04-12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55265

Matrix (soil/water): Soil Lab Sample ID: L55265-10

Level (low/med): LOW Date Received: 10/27/99

% Solids: 80.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	36.9			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE05-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55265

Matrix (soil/water): Soil Lab Sample ID: L55265-3

Level (low/med): LOW Date Received: 10/27/99

% Solids: 65.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	184			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE05-12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55265

Matrix (soil/water): Soil Lab Sample ID: L55265-4

Level (low/med): LOW Date Received: 10/27/99

% Solids: 76.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	81.0			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B01-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-9

Level (low/med): LOW Date Received: 10/27/99

% Solids: 82.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	138			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B01-12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-10

Level (low/med): LOW Date Received: 10/27/99

% Solids: 82.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	64.3			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B01-24

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-11

Level (low/med): LOW Date Received: 10/27/99

% Solids: 86.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	77.5			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B02-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-15

Level (low/med): LOW Date Received: 10/27/99

% Solids: 76.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	331			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B02-12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-16

Level (low/med): LOW Date Received: 10/27/99

% Solids: 84.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	23.7			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B02-24

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-17

Level (low/med): LOW Date Received: 10/27/99

% Solids: 85.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	21.2			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B03-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-12

Level (low/med): LOW Date Received: 10/27/99

% Solids: 77.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1350			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B03-12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-13

Level (low/med): LOW Date Received: 10/27/99

% Solids: 82.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	115			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B03-24

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-14

Level (low/med): LOW Date Received: 10/27/99

% Solids: 86.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	82.7			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B04-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-1

Level (low/med): LOW Date Received: 10/27/99

% Solids: 82.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	436			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B04-12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-4

Level (low/med): LOW Date Received: 10/27/99

% Solids: 85.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	31.6			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B04-24

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-22

Level (low/med): LOW Date Received: 10/27/99

% Solids: 88.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	73.4			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B04-D12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-5

Level (low/med): LOW Date Received: 10/27/99

% Solids: 85.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	33.1			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B05-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-6

Level (low/med): LOW Date Received: 10/27/99

% Solids: 78.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	219			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B05-12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-7

Level (low/med): LOW Date Received: 10/27/99

% Solids: 85.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	70.2			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B05-24

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-8

Level (low/med): LOW Date Received: 10/27/99

% Solids: 87.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	70.1			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B06-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-18

Level (low/med): LOW Date Received: 10/27/99

% Solids: 72.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	143			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B06-12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-19

Level (low/med): LOW Date Received: 10/27/99

% Solids: 79.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.2			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B06-24

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-20

Level (low/med): LOW Date Received: 10/27/99

% Solids: 84.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	26.8			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B01-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-9

Level (low/med): LOW Date Received: 10/27/99

% Solids: 82.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	138			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B01-12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-10

Level (low/med): LOW Date Received: 10/27/99

% Solids: 82.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	64.3			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B01-24

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-11

Level (low/med): LOW Date Received: 10/27/99

% Solids: 86.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	77.5			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B02-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-15

Level (low/med): LOW Date Received: 10/27/99

% Solids: 76.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	331			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B02-12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-16

Level (low/med): LOW Date Received: 10/27/99

% Solids: 84.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	23.7			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B02-24

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-17

Level (low/med): LOW Date Received: 10/27/99

% Solids: 85.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	21.2			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B03-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-12

Level (low/med): LOW Date Received: 10/27/99

% Solids: 77.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1350			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B03-12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-13

Level (low/med): LOW Date Received: 10/27/99

% Solids: 82.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	115			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B03-24

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-14

Level (low/med): LOW Date Received: 10/27/99

Solids: 86.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	82.7			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B04-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-1

Level (low/med): LOW Date Received: 10/27/99

% Solids: 82.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	436			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B04-12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-4

Level (low/med): LOW Date Received: 10/27/99

% Solids: 85.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	31.6			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B04-24

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-22

Level (low/med): LOW Date Received: 10/27/99

% Solids: 88.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	73.4			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B04-D12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-5

Level (low/med): LOW Date Received: 10/27/99

% Solids: 85.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	33.1			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B05-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-6

Level (low/med): LOW Date Received: 10/27/99

% Solids: 78.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	219			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B05-12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-7

Level (low/med): LOW Date Received: 10/27/99

% Solids: 85.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	70.2			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B05-24

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-8

Level (low/med): LOW Date Received: 10/27/99

% Solids: 87.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	70.1			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B06-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-18

Level (low/med): LOW Date Received: 10/27/99

% Solids: 72.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	143			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks,

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B06-12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-19

Level (low/med): LOW Date Received: 10/27/99

% Solids: 79.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.2			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

B06-24

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55263

Matrix (soil/water): Soil Lab Sample ID: L55263-20

Level (low/med): LOW Date Received: 10/27/99

% Solids: 84.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	26.8			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: rocks

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

HC01-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55265

Matrix (soil/water): Soil Lab Sample ID: L55265-16

Level (low/med): LOW Date Received: 10/27/99

% Solids: 87.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	14.7		N	P
7440-39-3	Barium	55.2			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.11	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	15.6			P
7440-48-4	Cobalt				NR
7440-50-8	Copper	513			P
7439-89-6	Iron				NR
7439-92-1	Lead	7500			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.057	U		AV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.46	U		P
7440-22-4	Silver	0.23	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

HC02-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55265

Matrix (soil/water): Soil Lab Sample ID: L55265-13

Level (low/med): LOW Date Received: 10/27/99

% Solids: 82.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	8.9		N	P
7440-39-3	Barium	70.9			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.12	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	13.5			P
7440-48-4	Cobalt				NR
7440-50-8	Copper	21.1			P
7439-89-6	Iron				NR
7439-92-1	Lead	196			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.060	U		AV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.48	U		P
7440-22-4	Silver	0.24	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE01-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55265

Matrix (soil/water): Soil Lab Sample ID: L55265-17

Level (low/med): LOW Date Received: 10/27/99

% Solids: 85.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	195			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE02-12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55265

Matrix (soil/water): Soil Lab Sample ID: L55265-6

Level (low/med): LOW Date Received: 10/27/99

% Solids: 86.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	20.9			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE03-12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55265

Matrix (soil/water): Soil Lab Sample ID: L55265-1

Level (low/med): LOW Date Received: 10/27/99

% Solids: 84.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	652			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE04-12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55265

Matrix (soil/water): Soil Lab Sample ID: L55265-10

Level (low/med): LOW Date Received: 10/27/99

% Solids: 80.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	36.9			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE05-06

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55265

Matrix (soil/water): Soil Lab Sample ID: L55265-3

Level (low/med): LOW Date Received: 10/27/99

% Solids: 65.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	184			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots

Comments:

NYSDEC ASP

1

INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SE05-12

Lab Name: Galson Laboratories Contract: BBL

Lab Code: 11626 Case No.: SAS No.: SDG No.: L55265

Matrix (soil/water): Soil Lab Sample ID: L55265-4

Level (low/med): LOW Date Received: 10/27/99

% Solids: 76.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	81.0			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: brown Clarity Before: Texture: med

Color After: yellow Clarity After: clear Artifacts: roots

Comments:

Appendix C

TECHNICAL REPORT

Former Broome County Firing Range Health & Safety Plan

Broome County
Town of Dickinson, New York

May 2001

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

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Table of Contents

Section 1. Introduction 1-1

1.1 Site Description 1-1
1.2 Intent 1-1
1.3 Scope of Work 1-1

Section 2. Hazardous Overview 2-1

2.1 Mobilization 2-1
2.2 Soil Excavation and Loading 2-1
2.2.1 Controls 2-2
2.3 Soil Transportation 2-2
2.3.1 Controls 2-2
2.4 Screening/Treatment of Contaminated Soil 2-2
2.4.1 Controls 2-2
2.5 Work Area Monitoring and Sample Collection 2-3
2.5.1 Controls 2-3
2.6 Loading of Treated Soils 2-3
2.6.1 Controls 2-3
2.7 Equipment Decontamination 2-3
2.8 Demobilization 2-4

Section 3. Project Personnel and On-Site Organization 3-1

3.1 Key Personnel 3-1

Section 4. Work Areas and Site Control 4-1

Section 5. Chemical Hazard Evaluation 5-1

Section 6. On-Site Work Plan and Personal Protective Equipment 6-1

6.1 Level D Protection 6-1
6.2 Level C Protection 6-1

Section 7. Site Monitoring and Action Levels 7-1

7.1 Dust Sources and Control 7-1
7.2 Dust Monitoring 7-1
7.3 Communication System 7-2

Section 8. Decontamination Procedures 8-1

Section 9. Medical Monitoring 9-1

Section 10. Personnel Training 10-1

10.1 Site Worker Training 10-1
10.2 Manager/Supervisor Training 10-1
10.3 Site Specific Training 10-1

Section 11. Emergency Response 11-1

11.1 Notification of Site Emergencies 11-1
11.2 Emergency Response Telephone Numbers 11-1
11.3 Responsibilities 11-2
11.4 Accidents and Injuries 11-2
11.5 Site Communications 11-2
11.6 Emergency Response 11-2
11.7 Medical/First Aid Response 11-3
11.8 Fire Fighting Procedures 11-3
11.9 Emergency Decontamination Procedure 11-3
11.10 Emergency Equipment 11-3

Section 12. Special Precautions 12-1

12.1 Heat Stress/Cold Injury Protection Program 12-1
12.2 Heavy Machinery/Equipment 12-1
12.3 Construction Materials and Site Refuse 12-1
12.4 Additional Safety Practices 12-1
12.5 Daily Log Contents 12-2
12.6 Plan Acknowledgement 12-3

Section 13. Community Protection Plan 13-1

13.1 Waste Transport 13-1
13.2 Dust Control 13-1
13.3 Surface Water Run-Off Control 13-1
13.4 Noise Control 13-1

Section 1

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Introduction

1. Introduction

MARCOR Remediation, Inc. (MARCOR) has developed this Health and Safety Plan (HASP) for the work being performed at the Broome County Firing Range Lead Abatement Project in the Town of Dickinson, Broome County, New York. This plan has been prepared to address health and safety issues associated specifically with the removal of contaminated soils and sediments during the project.

1.1 Site Description

The Broome County Firing Range is located in the Town of Dickinson, Broome County, New York. The project area consists of a former shooting range, which was previously utilized for target practice. The site is located on a hill in a heavily forested area.

1.2 Intent

The intent of this plan is to provide the minimum safety requirements and general procedures to be met by MARCOR and MARCOR subcontractor personnel. All MARCOR personnel will follow the applicable Federal/State rules and regulations and MARCOR Procedure No. 05-501-01 Hazardous Waste Operations and Emergency Response (1910.120). In the event of conflicting procedures, personnel will follow those, which afford the highest protection.

1.3 Scope of Work

Specific work activities to be performed at the Broome County Firing Range Lead Abatement Project and covered by this HASP include:

- Mobilization;
- Excavation and loading of contaminated soil;
- Transportation of contaminated soil to a staging area;
- Screening and treatment of soil;
- Work area monitoring and collection of soil samples;
- Loading of treated soil for off-site disposal;
- Personal and Equipment Decontamination; and
- Demobilization.

Section 2

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Hazardous Overview

2. Hazardous Overview

The possible hazards associated with the work activities outlined above are exposure to chemical hazards, which include inhalation, ingestion, eye contact, and skin contact with free elemental mercury within the vessels, and exposure to other chemical processes in the immediate area. The constituents of interest for this health and safety plan may include lead and other heavy metals.

In addition to the exposure to chemical hazards outlined above the following physical hazards are likely to exist at the site. Environmental hazards include heat stress related illnesses. Additional hazards include heavy equipment operation; open excavation hazards; slip, trip and fall hazards, materials handling and falling objects.

2.1 Mobilization

Site mobilization includes establishing the exclusion, contamination reduction, and support zones. Additional hazards associated with this phase include equipment delivery and movement, materials handling, and site preparation.

Site hazards that may be encountered during this are the following:

- Fatigue;
- Skeletal injuries;
- Eye, contusion and laceration hazards; and
- Slip, trip and fall hazards associated with irregular and/or slick working surfaces;

Environmental hazards that may be encountered during this phase are the following:

- Aggressive flora such as poison ivy or poison oak;
- Aggressive fauna such as ticks, fleas, mosquitoes, wasps, spiders and snakes;
- Environmental hazards such as sunburn, lightning, heavy rain, heat and cold stress related illnesses; and
- Biological hazards include blood-borne pathogens, rabies, and Lyme disease.

2.2 Soil Excavation and Loading

This phase of the project involves the excavation and removal of contaminated soils. Excavation depths are estimated to be to a maximum of three feet below ground surface. The hazards involved in the excavation of impacted soils are the following:

- Heavy equipment operation;
- Excessive noise from equipment operation; and
- Chemical hazards: inhalation of airborne dust particles and contaminated soil constituents.

2.2.1 Controls

Prior to excavation MARCOR will notify the Underground Facilities Protective Organization (UFPO) to properly identify and mark all underground utilities. All available drawings detailing the location and nature of privately owned utilities will be reviewed prior to excavation. MARCOR will utilize the proper benching and sloping techniques required to perform the excavation in a safe manner if soil conditions warrant. Good housekeeping practices will be utilized to maintain the safety of the site. All equipment, waste debris and unused materials will be neatly stored at the end of each working day. If necessary, all workers will utilize personal protective equipment during excavation activities.

2.3 Soil Transportation

This phase of the project involves the loading and transportation of potentially contaminated soils to an on-site temporary staging pad. Soils will be loaded into trucks or front-end loaders and transported to the designated staging area. The hazards involved with this phase of the project include.

- Heavy equipment operation;
- Falling objects during loading of trucks;
- Vehicular traffic;
- Handling of potentially contaminated materials; and
- Chemical hazards: inhalation of airborne dust particles and contaminated soil constituents.

2.3.1 Controls

No personnel will be allowed to be near the heavy equipment or trucks during loading operations.

2.4 Screening/Treatment of Contaminated Soil

This phase of the project involves the screening and treatment of contaminated soil. Soils will be screened to remove large rocks and bullets. Contaminated soils will be treated through a pugmill to stabilize lead contamination. The hazards involved with this phase of the project include.

- Slip, trip and fall hazards;
- Heavy Equipment Operation;
- Excessive noise from equipment operation;
- Heat Stress; and
- Chemical hazards: inhalation of airborne dust particles and contaminated soil constituents.

2.4.1 Controls

Personal Protective Equipment including the use of air purifying respirator and chemical resistant suits will be utilized when necessary. Hearing protection should be utilized if necessary. Personnel should protect themselves against cold stress with proper clothing.

2.5 Work Area Monitoring and Sample Collection

This phase of the project involves the monitoring of work areas and collection of soil samples. Monitoring of work areas will be performed through field screening of with dust monitors. Soil samples will be collected for laboratory analysis. The hazards involved with this phase of the project include.

- Chemical hazards: dermal and inhalation exposure to potentially contaminated soil;
- Heavy equipment operation; and
- Slip, trip and fall hazards.

2.5.1 Controls

Personal Protective Equipment including the use of chemical resistant gloves will be utilized when handling potentially contaminated soil. Personnel must be aware of the heavy equipment operations and communicate with heavy equipment operators to insure safety.

2.6 Loading of Treated Soils

This phase of the project involves the loading and transportation of treated soils. Soils will be loaded into waiting trucks. The soil will be transported to an off site disposal facility. The hazards involved with this phase of the project include.

- Heavy equipment operation;
- Falling objects during loading of trucks;
- Vehicular traffic;
- Handling of potentially contaminated materials; and
- Chemical hazards: inhalation of airborne dust particles and contaminated soil constituents.

2.6.1 Controls

No personnel will be allowed to be near the heavy equipment or trucks during loading operations. Hearing protection should be utilized if necessary. Coordination of delivery of haul trucks will be required to maintain an organized effort to prevent miscommunication and excessive vehicle traffic. If necessary, workers will utilize personal protective equipment during material handling activities.

2.7 Equipment Decontamination

All equipment located within the exclusion zone will be decontaminated as necessary before leaving the site. MARCOR personnel involved in decontamination activities may come into contact with soils containing chemical constituents present at the site. MARCOR personnel will employ the use of necessary personal protective equipment (PPE) while performing decontamination activities.

2.8 Demobilization

At the completion of the project all equipment and excess materials will be removed from the site. Demobilization will consist of removal of all equipment, supplies and vehicles at the site. Hazards associated with equipment operation and materials handling include vehicle traffic, slip, trip, and fall hazards.

Section 3

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Project Personnel and On-Site Organization

3. Project Personnel and On-Site Organization

3.1 Key Personnel

The key project personnel are as follows:

Title	Name and Address	Company Telephone	Pager
Project Manager	Keith Hambley	(716) 247-6955 (716) 303-4069 mobile	(716) 240-1250
Project Supervisor	TBD	TBD	TBD

The Project Supervisor monitors the project's progress, regularly reviews the project schedule, and reviews all major work elements prior to submittal. He/she oversees scheduling and serves as the primary contact between MARCOR and the client for health and safety issues.

Site Safety & Health Coordinator	TBD	TBD	TBD

The Site Safety and Health Officer (SSHO) is responsible for the health and safety of MARCOR employees on the work site, unless otherwise specified in the HASP. The SSHO will establish operating standards in conjunction with the Project Manager and Project Supervisor and coordinate safety and health activities for the work site. He/she will review project plans and revisions to plans to assure that safety and health procedures are incorporated through all of the work phases. Specifically he/she is responsible for:

- Assuring that a complete copy of the HASP is at the site prior to the start of work activities and that all workers are familiar with it.
- Conducting on-site health and safety training and briefing sessions.
- Ensuring the availability, use, prior maintenance and decontamination of personal protective equipment and other safety or health equipment.
- Maintaining a high level of safety awareness among workers and communicating pertinent safety and health matters to them promptly.
- Assuring that all activities are performed in a manner consistent with the MARCOR standard operating procedures and the HASP.
- Monitoring for dangerous conditions during field activities.
- Initiating immediate corrective actions in the event of an emergency or unsafe condition.

- Promptly notifying the project manager of any emergency, unsafe condition, problem encountered or needed exception to this HASP.
- Recommending improvements in safety and health measurements to the project manager.
- Conducting safety and health performance and system audits.

The SSHO has the authority to:

- Suspend activities or otherwise limit exposures if the health or safety of any person appears to be endangered.
- Notify personnel to alter work practices that he/she deems do not properly protect them or the environment surrounding them.
- Suspend an individual from work for violation of the requirements of this HASP or MARCOR Procedures.

Section 4

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Work Areas and Site Control

4. Work Areas and Site Control

Access to the work site will be limited to the trained authorized personnel governed by this plan. The site shall be divided into three well-delineated zones, as follows:

1. Contaminated or Exclusion Zone - This zone includes the actual areas of contamination. This zone has the highest inhalation exposure potential and/or presents a high probability of skin contact with cutaneous or percutaneous effecting chemicals.

2. Contamination Reduction Zone - This zone includes the area immediately surrounding the Contamination Zone. This zone has the next highest inhalation hazard but does not have a probability of skin contact with cutaneous or percutaneous effecting chemicals.

3. Support Zone - This zone covers areas outside of the contamination reduction zone and contains support functions, i.e. command post. Adverse exposure to chemicals is unlikely.

Access to the established contamination or exclusion zone is limited to authorized personnel wearing the appropriate personal protective equipment (PPE).

The contamination or exclusion zone will be monitored by the SSHO to ensure personnel do not enter without proper PPE. The entry/exit corridor, decontamination zone, and support zone will be located upwind of the active work zone.

Site security and control shall be maintained by the Project Supervisor and/or his designee, and the SSHO and/or designee. Their duties include limiting access to the site to authorized personnel, oversight of the project equipment and materials and general oversight of site activities, as appropriate.

Section 5

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Chemical Hazard Evaluation

5. Chemical Hazard Evaluation

The chemical hazards associated with the remedial activities involve inhalation and ingestion of the chemical constituents present in the soils at the site. Constituents present in soils include lead and other heavy metals. Symptoms of exposure may include:

- Headache;
- Metallic taste in mouth;
- Nausea; and
- Weakness.

Toxic levels of exposure may have delayed symptoms.

PPE requirements associated with each work task are outlined below in Section 6.0. Airborne concentration of site constituents may be present, and may require air monitoring during performance of these tasks. The potential for inhalation of site constituents varies from low to moderate. The potential for dermal contact with site constituents varies from low to moderate.

Section 6

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On-Site Work Plan and Personal Protective Equipment

6. On-Site Work Plan and Personal Protective Equipment

Personal protective equipment (PPE) will be utilized to protect personnel from site hazards. Varying levels of protection will be required depending upon the levels of contaminants and degree of physical hazard. A summary of the levels is presented in this section.

6.1 Level D Protection

Due to the relatively low concentration of contaminants at the site, it is anticipated that Level D personal protection will be utilized for the majority of the remedial activities. As MARCOR Company policy, the minimum level of personal protection required at the site will be Level D. Level D personal equipment consists of the following:

- Work clothing as dictated by weather;
- Steel toe work boots, meeting ANSI Z41;
- Safety glasses or goggles meeting ANSI Z87;
- Hard hat, meeting ANSI Z89; and
- Hearing protection.

6.2 Level C Protection

Level C protection will be required when the airborne concentration of suspected constituents exceed site action levels. Level C protection will be used for operations when air-monitoring instruments indicate an upgrade is necessary. The following equipment will be utilized for Level C personal protection:

- Half face, full face or powered air purifying respirator;
- Tyvek suit or coveralls;
- Steel toe work boots;
- Latex booties over steel toe work boots;
- Safety glasses for goggles meeting ANSI Z87;
- Hard hat meeting ANSI Z89;
- Face shield in addition to safety glasses or goggles;
- Nitrile, neoprene, or PVC gloves; and
- Hearing protection as necessary.

Section 7

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Site Monitoring and Action Levels

7. Site Monitoring and Action Levels

7.1 Dust Sources and Control

This section identifies potential fugitive dust sources and control techniques associated with excavation activities. The potential sources include those associated with typical remedial construction projects, such as excavation, material handling and transport, material placement and grading, and on-site soil/sediment treatment. This section addresses fugitive dust control associated with handling of impacted soils to prevent visible particulates at the parking lot, nearby buildings, or the relevant property line, whichever is closer. The following potential dust sources have been identified for this remedial action:

- Excavation and soil handling: The primary contributing factors to fugitive dust emissions at the point of excavation are material properties (moisture and PM-10 content), geometry of the excavation face, bucket capacity, drop heights, excavation rate, and meteorological conditions, including wind speed and precipitation. Excavation and handling of soils can potentially result in fugitive dust emissions.

- Vehicular traffic: The primary source of fugitive dust from vehicular traffic is a result of contact between the vehicle wheels and ground surface. Fugitive dust emissions associated with movement of vehicles on-site will be a function of vehicle speed, vehicle weight, number of wheels, silt content of the road material, moisture content of the road material, and frequency of precipitation events. Of these factors, control of moisture content and vehicle speeds for on-site areas will be implemented as the primary fugitive dust control measures.

- Soil stockpiles: Material stockpiles includes the working piles and clean fill. Fugitive dust emissions associated with stockpiles will be generated during the transfer of material onto and off of the piles and wind erosion. Significant contributing factors include silt content, moisture content, stockpile dimensions/alignment, wind speed/direction, and the general stockpile activity.

- Soil Treatment System: The soil treatment system, which involves the screening, mixing and pneumatic separation, is a potential source for fugitive emissions.

The primary dust control technique for this remedial project will be a fine water spray. Water will be sprayed on an as needed basis for each of the potential sources listed above. The rate at which water is applied will be a function of the general activity in the area (excavation rate, number of vehicles actively operating), the moisture content of material being excavated or moved, wind speed and direction, precipitation, and excavation geometry. Water will be applied evenly over the dust source to that level required to prevent visible particulates at the relevant property line. The effectiveness of fugitive dust controls will be evaluated through the use of real-time monitoring utilizing a RAM-1 Real Time Aerosol Monitor or equivalent. The use of water spray will be optimized so that fugitive dusts are sufficiently controlled, while preventing generation of surface-water run off.

7.2 Dust Monitoring

If sustained dust monitor readings in the worker breathing zone exceeds 5 $\mu g/m^3$ above background but are less than 500 $\mu g/m^3$, then workers will utilize Level C personal protective equipment using half face air purifying respirators.

If sustained dust monitor readings in the worker breathing zone exceeds 500 $\mu g/m^3$ above background but are less than 1,250 $\mu g/m^3$, then workers will utilize Level C personal protective equipment using powered air purifying respirators (PAPR's).

If sustained dust monitor readings in the worker breathing zone exceeds 1,250 $\mu g/m^3$ above background but are less than 2,500 $\mu g/m^3$ then workers will utilize Level C personal protective equipment using full face air purifying respirators.

An increase in the level of personal protection will implemented if sustained readings of greater than the action level are detected in the worker breathing zone for a duration of greater than 15 minutes

7.3 Communication System

Personnel on-site shall practice hand signals for communication. Communication or visual contact shall be maintained between crewmembers at all times.

Personnel must observe each other for signs of toxic exposure. Indicators of adverse effects include, but are not limited to:

1. Changes in complexion and skin discoloration;
2. Changes in coordination;
3. Changes in demeanor;
4. Excessive salivation and pupillary response; and
5. Changes in speech pattern.

Personnel shall be cautioned to inform each other of non-visual effects of toxic exposure such as:

1. Headaches;
2. Dizziness;
3. Nausea;
4. Blurred vision;
5. Cramps;
6. Irritation of eyes, skin or respiratory tract.

Section 8

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Decontamination Procedures

8. Decontamination Procedures

As required, personnel and equipment leaving the exclusion zone shall be thoroughly decontaminated. Decontamination of personnel will be by washing with a soap/water mixture followed by clean water rinses, if necessary.

All respirators, protective clothing and decontamination waste will be disposed of in accordance with MARCOR Procedure No. 05-516-01.

A decontamination area shall be designated at the entrance to the contamination reduction zone, with a step-off area just inside the contamination reduction zone. All personnel entering or leaving the contamination reduction zone shall pass through these areas to don or doff their protective equipment.

Contaminated protective equipment, materials and equipment/instruments shall not be removed from the work areas until they have been properly cleaned or properly packaged and labeled.

Employees shall not be permitted to exit the regulated area until contaminated clothing and equipment have been removed and decontaminated and employees have washed their hands and faces with soap and water.

Removal of materials from protective clothing or equipment by blowing, shaking or any other means, which may disperse materials into the air, is prohibited.

Section 9

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Medical Monitoring

9. Medical Monitoring

Medical monitoring will be required for those employees required to wear respirators. Employees who wear or may wear respiratory protection must be provided respirators in accordance with the guidelines of 29 CFR 1910.134.

Blood lead monitoring will be performed on each employee in accordance with 29 CFR 1926.62.

The regulation requires that an individual's ability to wear respiratory protection be medically certified before he/she performs designated duties.

Employees who wear or may wear hearing protection devices must be provided them in accordance with the guidelines of 29 CFR 1910.95. This regulation requires that an individual's hearing level be medically evaluated.

Medical documents are on file for all MARCOR personnel and may be provided as needed.

Section 10

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Personnel Training

10. Personnel Training

10.1 Site Worker Training

All employees, site workers, performing activities must have satisfactorily completed one of the following prior to their start of work on the site.

1. An off-site training course of at least 40 hours meeting the requirements of 29 CFR 1910.20(e) on safety and health at hazardous waste operations within the last12 months.

2. An off-site refresher course of at least 8 hours meeting the requirements of 29 CFR 1910.120(e) on safety and health at hazardous waste operations within the last 12 months.

3. They must also have satisfactorily completed hazardous communication training meeting the requirements of 29 CFR 1910.120 and completed site specific training as outlined below.

4. An off-site lead awareness training session in accordance with 29 CFR 1926.62.

10.2 Manager/Supervisor Training

Managers and supervisors must have completed an off-site training course of at least 8 hours meeting the requirements of 29 CFR 1910.120 (e) on supervisor responsibilities for safety and health at hazardous waste operations.

A written certificate of training is on file for each employee and supervisor requiring training.

10.3 Site Specific Training

Site specific training shall be provided to each employee before beginning work on the site. Personnel will be briefed by the SSHO as to the potential hazards to be encountered. Topics will include the following:

- Availability of this HASP.

- General site hazards and specific hazards in the work areas including those attributable to the chemicals present.

- The selection, use, testing, and care of the body, eye, ear, hand, foot, and respiratory protective equipment to be worn, with the limitations of each.

- Decontamination procedures for personnel, their personal protective equipment and other equipment used on the site.

- Emergency alarm systems and other forms of notification and evacuation routes to be followed.

Section 11

BLASLAND, BOUCK & LEE, INC. *engineers & scientists*

consultants with focus

Emergency Response

11. Emergency Response

11.1 Notification of Site Emergencies

In the event of an emergency, site personnel will signal distress with three blasts from an appropriate horn (vehicle horn, air horn, etc.). This sound signal will be loud enough to be clearly heard above other noise present. Appropriate authorities will then be immediately notified of the nature and extent of the emergency.

The following standard hand signals will be used whenever necessary:

HAND SIGNAL	MEANS/INDICATES
Hand gripping throat	Out of air, can't breath
Grip partner's wrist or both hands around waist	Leave area immediately
Hands on top of head	Need assistance
Thumbs up	Ok, I am all right, I Understand
Thumbs down	No, negative

Telephone communications to command post should be established as soon as practicable. The telephone number is TBD. The table below shows Emergency Response Telephone Numbers. This table will be maintained at the work site by the SSHO.

11.2 Emergency Response Telephone Numbers

Contact	Phone Number	Location
Fire Department	911	Binghamton, NY
Police Department	911	Binghamton, NY
Medical Emergency		
Binghamton General Hospital	(607) 767-2200	Binghamton, NY
Ambulance	911	Binghamton, NY
Agency Contacts		
NYSDEC	(607) 775-2545	Kirkwood, NY
NYSDEC 24-Hour Spill Hotline	(800) 457-7362	
NYS DOH Environmental Health	(518) 426-7624	
Emergency Project Contacts		
Broome County Public Works: Pat Hogan	607-778-2452	Binghamton, NY
MARCOR Remediation: Mike Mazzara	(800) 388-5933	52 Marway Circle Rochester, NY
National Organizations		
USEPA, Emergency Response Team	(201) 321-6660	New Jersey
US Coast Guard, National Response Team	(800) 424-8802 or (202) 267-2675	Washington, D.C.
Chemtrec, Chemical Emergencies	(800) 424-9300	

Should someone be transported to a hospital or doctor, a copy of this Health and Safety Plan must accompany them.

11.3 Responsibilities

The SSHO (or designee) will be responsible for responding to all emergencies. The SSHO will: (1) Notify appropriate individuals, authorities and/or health care facilities of the potentially hazardous activities and potential wastes that may develop as a result of the investigation; (2) Have working knowledge of safety equipment available at the site; and (3) Ensure that a map which details the most direct route to the nearest hospital is prominently posted with the emergency telephone numbers.

Employees who will respond to emergency situations involving hazardous materials shall be trained in how to respond to such emergencies. The Project Supervisor will ensure that the following safety equipment is available at the site: eyewash station, first aid supplies and fire extinguisher. The emergency response plan will be reviewed daily to ensure its applicability for the planned day's operations.

11.4 Accidents and Injuries

In the event of a safety or health emergency at the site, appropriate emergency measures will immediately be taken to assist those who have been injured or exposed and to protect others from hazards. Personnel trained in first aid procedures should be present during site activities to provide appropriate treatment of injuries or illnesses occurring during site activities to provide appropriate treatment or injuries or illnesses occurring during operations.

In the event of a safety or health emergency at the site, the SSHO will be immediately notified. Upon notifications of an exposure incident, the SSHO will contact the appropriate emergency response personnel, who will, according to the seriousness of the accident, provide recommended medical diagnosis and, if necessary, treatment.

The Project Manager and Project Supervisor will be immediately informed of any injuries of incidents. The Project Supervisor and/or the SSHO will investigate facility/site conditions to determine whether, and at what levels, exposure actually occurred, the cause of such exposure and the means to be taken to prevent the incident from recurring.

An exposure incident reporting form will be completed by the SSHO, the Project Supervisor, and the exposed individual. The form will be filed with the employee's medical and safety records to serve as documentation of the incident and the actions taken.

11.5 Site Communications

Hand signals will be utilized where phones are impractical. If possible, mobile telephones will be present during site activities for emergency response and office communications. The locations of public telephones or local internal telephones will be identified prior to the start of activities. These will provide back up for the mobile telephones and serve as the primary off-site communication network.

Daily tailgate safety meetings will be used to communicate any new hazards to all site personnel and to reinforce adherence to safe work practices and this Health and Safety Plan.

11.6 Emergency Response

In case of emergency, site personnel should evacuate to the identified decontamination or designated safe refuge location, both for their own personal safety and to prevent hampering response/rescue efforts. Unless changed by the Project Manager, the command center will be used as the safe refuge. In the case of an evacuation, the SSHO

will account for all personnel. A log of all individuals entering and leaving the site will be kept so that everyone can be accounted for in an emergency.

In the event of an emergency, the SSHO will direct all notification, response and follow up actions. Contact with any outside response personnel (ambulance, fire department, etc.) will be done at the direction of the SSHO, again with the individuals trained in first aid procedures. If an individual is transported to a hospital or a doctor, a copy of this HASP must accompany the individual.

Follow up activities must be completed before on site work is resumed following an emergency. All used emergency equipment must be recharged, refilled or replaced. Government agencies must be notified as appropriate. An investigation of the incident must be conducted as soon as possible. The resulting report must be accurate, objective, complete and authenticated (signed and dated).

11.7 Medical/First Aid Response

On-site medical and/or first aid response to an injury or illness will only by provided by trained personnel competent in such matters. The SSHO is responsible for directing these actions and contacting the appropriate off-site response personnel (paramedics, etc.). Directions to the local hospitals are attached in Appendix D of the Remedial Action Plan.

11.8 Fire Fighting Procedures

A fire extinguisher, intended for small fires, will be available on each operating piece of heavy equipment and in the Project Supervisor's (or his designee's) vehicle during all site activities. When the fire cannot be controlled with the extinguisher, the area should be evacuated immediately. The SSHO (or designee) will determine the time to contact fire department and response personnel.

11.9 Emergency Decontamination Procedure

The extent of emergency decontamination depends on the severity of the injury or illness and the nature of the contamination. Minimum decontamination will consist of detergent washing and rinsing and removal of contaminated outer clothing and equipment. If the emergency is such that there is insufficient time to complete all of those actions, it is acceptable to remove the contaminated clothing without washing it.

If the situation is such that the contaminated clothing cannot be removed, the person should be given required first aid treatment, and then wrapped in plastic or a blanket prior to transportation to medical care. If heat stress is a factor in the victim's illness/injury, the outer protective garment must be removed from the victim immediately.

11.10 Emergency Equipment

On-site equipment for safety and emergency response shall be maintained, as follows:

- Fire extinguisher;
- First aid kit;
- Eye wash station (wash bottles at a minimum); and
- Extra copy of the Health and Safety Plan.

These will be located on site in the command post or with the project Supervisor and/or the SSHO.

Section 12

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Special Precautions

12. Special Precautions

12.1 Heat Stress/Cold Injury Protection Program

Formal training in prevention of heat and/or cold injuries will be provided as part of the site-specific training. Informal review of these techniques will be made as part of daily pre work briefings. Any person who experiences signs of heat related distress will be instructed to stop work immediately. Medical attention will be sought if there is any doubt that prompt and full recovery will result without it. Symptoms of heat related distress include muscle cramps, pale and clammy or hot, dry and flushed skin, confusion, disorientation and incoherent speech, nausea and/or convulsions.

12.2 Heavy Machinery/Equipment

Site employees must remain aware of those site activities that involve the use of heavy equipment and machinery. Respiratory protection, hearing protection and protective eyewear significantly reduces peripheral vision of the wearer. Therefore, it is essential that all employees at the site exercise extreme caution during operation of equipment and machinery to avoid physical injury to themselves or others.

12.3 Construction Materials and Site Refuse

All construction materials and site refuse will be contained in the specified appropriate areas. Site personnel should make certain that soils spoils, cuttings, etc., are not scattered throughout the area of activity and that trash and scrap materials are immediately and properly packaged and labeled.

12.4 Additional Safety Practices

The following are important safety precautions, which will be enforced during this work:

1. There will be no eating, drinking or smoking in the exclusion or contamination reduction zone.

2. All personnel must pass through the contamination reduction zone to enter or exit the exclusion zone.

3. As a minimum, emergency eye washers will be on the hot site of the contamination reduction zone and/or at the workstation.

4. An emergency deluge shower/spray cans are to be located on the clean side of the contaminated reduction area.

5. At the end of the workday, all personnel working in the exclusion area shall take a hygienic shower.

6. All supplied breathing air shall be certified as Grade D or better.

7. Where practical, all tools/equipment will be spark proof, explosion resistant, and/or bonded and grounded.

8. Medicine and alcohol can mask the effect from exposure to certain compounds. Personnel involved in the project must not consume controlled substances and alcoholic beverages. Consumption of prescribed drugs must be at the direction of a physician familiar with the person's work.

9. An adequately stocked first aid kit will be on-scene at all times during operational hours. It is suggested that an oxygen inhalator respirator be available and a qualified operator present. The location of these items and the operator shall be posted.

10. Hands and face must be thoroughly washed upon leaving the contamination-reduced zone and before eating, drinking or any other activity.

11. Contact with potentially contaminated surfaces should be avoided whenever possible. One should not walk through puddles, mud or other discolored surfaces, kneel on the ground, lean, sit or place equipment on drums, containers, and vehicles or on the ground.

12. Air purifying respirators will be inspected daily by the SSHO.

13. Cartridges for air purifying respirators in use will be changed daily at a minimum.

14. No excessive facial hair, which interferes with the effectiveness of a respirator, will be permitted on personnel required to wear respiratory protection equipment. The respirator must seal against the face so that the wearer receives air only through the air purifying cartridges attached to the respirator. Fit testing will be performed prior to respirator use to ensure the wearer obtains a proper seal.

15. Unsafe equipment left unattended will be identified by a "DANGER, DO NOT OPERATE" tag.

16. Legible and understandable precautionary labels shall be prominently affixed to containers of raw materials, intermediates, products, by-products, mixtures, scrap, waste, debris and contaminated clothing.

12.5 Daily Log Contents

The Project Manager and the SSHO will establish a log in/out system appropriate to the site that will record, at a minimum, the following information:

- Personnel on the site;

- Their arrival times, departure times, and their destination on the site;

- Incidents and unusual activities that occur on-site such as, but not limited to the following:

  - Accidents;
  - Spills;
  - Breaches of security;
  - Injuries;
  - Equipment failures; and
  - Weather related problems.

- Conversations that may affect the work such as:

  1. Media Visits;

  2. Safety and Health Inspections by the SSHO and external agencies;

3. Owner/Agent Meetings; and

4. Employee/Union Meetings.

- Changes to the Work Plan and the Health and Safety Plan;
- Daily Information generated such as the following:

1. Changes to the Work and Health and Safety Plans;

2. Work accomplished and the current site status; and

3. Air monitoring results.

- Personnel in PPE and times of PPE in contamination zone.

12.6 Plan Acknowledgement

All site personnel have read the above plan and are familiar with its provisions.

	PRINTED NAME	SIGNATURE
Site Safety and Health Officer	_____	_____
Project Manager	_____	_____
Project Supervisor	_____	_____
Other Site Personnel	_____	_____
	_____	_____
	_____	_____
	_____	_____

Section 13

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Community Protection Plan

13. Community Protection Plan

This section summarizes procedures for the protection of the community from any adverse health and environmental effects associated with the remediation process.

13.1 Waste Transport

As detailed in Section 4.2 of the Remedial Action Plan (RAP), all solid and liquid waste generated during the remediation process will be transported off-site in accordance with applicable federal and state regulations. In addition to insure the protection of health and the environment as part of this activity, all vehicles (undercarriages and wheels) leaving the site will be cleaned appropriately (i.e., washed) to removal any soil/debris contamination; therefore eliminating community exposure.

13.2 Dust Control

As detailed in Section 2.7 of this work plan, dust control techniques will be implemented on an as needed basis to prevent visible particulates at the property line. In addition, vehicles transporting soil and debris off-site will be covered to eliminate the potential of dust during transportation.

13.3 Surface Water Run-Off Control

As detailed in Section 2.2.3 of this work plan, soil erosion and stormwater controls will be implemented prior to remediation activities (i.e., excavation). The measures detailed in this section control the surface water run-on and run-off, minimize erosion, and off-site migration of lead impacted soils. The storm water and erosion control structures will be installed according to all applicable New York State guidelines.

13.4 Noise Control

This section details the community noise levels and procedures to minimize community impact. Worker noise safety is detailed in Section 2.8 of this work plan.

The noise level at the nearest receptor (i.e., correction facility) will be maintained at 62 decibels as required by the New York State Department of Health. Monitoring will be performed as appropriate. If noise levels exceed 62 decibels, engineering controls (i.e., installation of scaffolding and noise absorbing panels) will be implemented to control noise levels.

Appendix D

YAHOO! Maps

Y! Domains:
Grab Your Name

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YAHOO! Careers

Administrative
Search!

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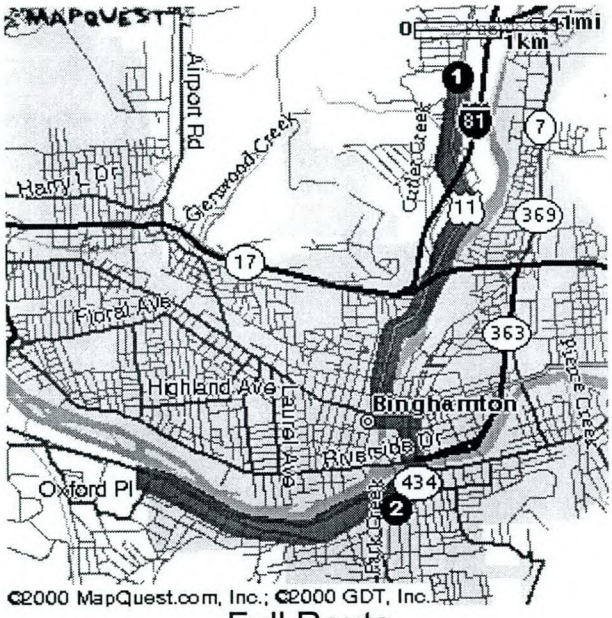
Yahoo! Maps - Driving Directions

Starting from: 897 Front Street, Binghamton, NY 13905-1541

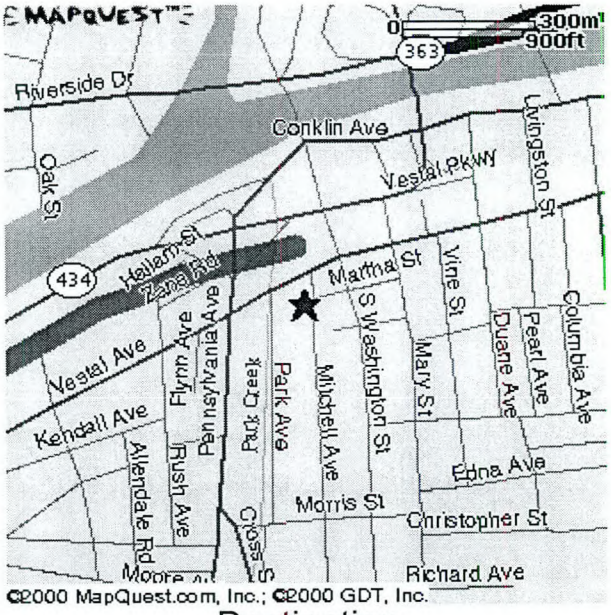
Arriving at: ★ 10 Mitchell Avenue, Binghamton, NY 13903-1602

Distance: 7.5 miles **Approximate Travel Time:** 14 mins

· Email Directions
· Get Reverse Directions
· Text Only Driving Directions



Full Route



Destination

	Directions	Miles
1.	Start out going South on **US-11** by turning right.	3.1
2.	Turn RIGHT onto **NY-434 W**.	2.6
3.	Turn LEFT.	0.0
4.	Turn LEFT onto **NY-434 E**.	1.9

Like any driving directions/map, you should always do a reality check and make sure the road still exists, watch out for construction, and follow all traffic safety precautions. This is only to be used as an aid in planning.

Driving Directions

New Location

1 **Enter a starting address** or select from My Locations

2 **Enter a destination address** or select from My Locations

My Locations	---------- Edit	**My Locations**	---------- Edit
	(Address, Intersection or Airport Code)		(Address, Intersection or Airport Code)
Address	897 Front Street	**Address**	10 Mitchell Avenue
City, State or Zip	Binghamton, NY 13905-154	**City, State or Zip**	Binghamton, NY 13903-160
Country	United States	**Country**	United States

Get Directions

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Starting from: 897 Front Street, Binghamton, NY 13905-1541

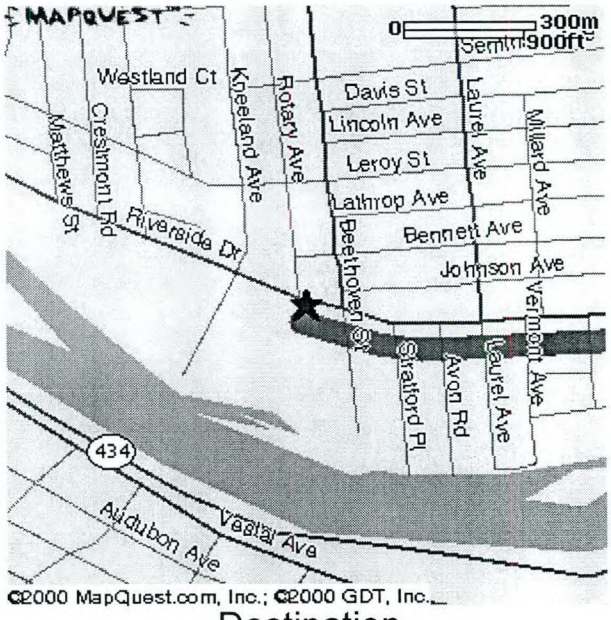
Arriving at: ★ 169 Riverside Drive, Binghamton, NY 13905-4126

Distance: 5.1 miles **Approximate Travel Time:** 9 mins

· Email Directions
· Get Reverse Directions
· Text Only Driving Directions



Full Route



Destination

Directions	Miles
1. Start out going South on **US-11** by turning right.	0.7
2. Turn LEFT to take the **I-81 SOUTH** ramp.	0.1
3. Merge onto **I-81 S**.	0.9
4. **I-81 S** becomes **I-81 S/NY-17 E**.	0.3
5. Take the **RT-7 NORTH/RT-7 SOUTH** exit, exit number **4N-4S**, towards **HILLCREST/BINGHAMTON**.	0.0
6. Keep RIGHT at the fork in the ramp.	0.2
7. Merge onto **NY-7 S/NY-363 W**.	0.2
8. Stay straight to go onto **NY-363 W**.	1.7
9. **NY-363 W** becomes **RIVERSIDE DR**.	1.0

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Driving Directions New Location

1 Enter a starting address or select from My Locations

My Locations ---------- Edit

(Address, Intersection or Airport Code)

Address 897 Front Street

City, State or Zip Binghamton, NY 13905-154

Country United States

2 Enter a destination address or select from My Locations

My Locations ---------- Edit

(Address, Intersection or Airport Code)

Address 169 Riverside Drive

City, State or Zip Binghamton, NY 13905-412

Country United States

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Stake Your Claim: Y! Domains



Consumer |

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Binghamton, NY

1 to 9 of 9

Business Name	Address	City	Phone
Binghamton General Hospital	10 Mitchell Ave	Binghamton, NY	(607) 762-2200
Binghamton Psychiatric Ctr	425 Robinson St	Binghamton, NY	(607) 724-1391
Broome Developmental Ctr	249 Glenwood Rd	Binghamton, NY	(607) 770-0211
Emergency Mental Health	10-42 Mitchell Ave	Binghamton, NY	(607) 762-2302
Franklin School-Based Primary	262 Conklin Ave	Binghamton, NY	(607) 762-6017
Lourdes Hospital	169 Riverside Dr	Binghamton, NY	(607) 798-5111
Roosevelt School-Based Primary	9 Ogden St	Binghamton, NY	(607) 762-6012
United Health Svc	142 Clinton St	Binghamton, NY	(607) 762-2660
United Health Svc	1042 Mitchell Ave	Binghamton, NY	(607) 763-6850

Beyond Binghamton

Search by Name or Category (e.g. Hilton, Hotel or Hilton Hotel)

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Edit/Create My Favorite Locations - Sign Out

Binghamton, NY

Change Location

Top > Search for: **Sheriff Department**

1 to 6 of 6

Business Name	Address	City	Phone
Sheriff Dept-Crime Prevention	897 Upper Front St	Binghamton, NY	(607) 778-8726
Sheriff Dept-Detective Div	26 Court St	Binghamton, NY	(607) 778-2053
Sheriff Dept-Jail Office	26 Court St	Binghamton, NY	(607) 778-2105
Sheriff Dept-Pistol Permits	897 Front St	Binghamton, NY	(607) 778-2113
Sheriff Dept-Police Academy	897 Upper Front St	Binghamton, NY	(607) 778-8726
Sheriff Dept-Records Div	897 Front St	Binghamton, NY	(607) 778-2166

Beyond Binghamton

Search by Name or Category (e.g. Hilton, Hotel or Hilton Hotel)

Sheriff Department Search Now

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