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Remedial Action Report

*Peter Cooper Markhams NPL Site
Dayton, New York*

February 2009
Revised June 26, 2009

0021-003-401

Prepared By:



REMEDIAL ACTION REPORT
for
PETER COOPER MARKHAMS NPL SITE

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CERTIFICATION:

I, Thomas H. Forbes, certify that at all pertinent times hereinafter mentioned was a currently registered professional engineer; was the individual who had primary engineering responsibility for the implementation of the subject remedial program; and that all requirements of the remedial program have been satisfied.

The data submitted to the USEPA demonstrates that the remediation requirements set forth in the June 2008 Remedial Design Report for the subject remedial program have been or will be achieved in accordance with the time frames, if any, established in the work plan.

Any use restrictions, institutional controls, engineering controls, and/or any operation and maintenance requirements applicable to the Site are contained in an environmental easement that was created and has been recorded with the Cattaraugus County Clerk's Office and that any affected local governments have been notified that such easement has been recorded.

A Site Management Plan has been submitted for the continual and proper operation, maintenance, and monitoring of any engineering controls employed at the Site including the proper maintenance of any remaining monitoring wells.



Thomas H. Forbes, P.E.

Sr. Project Manager

NYS License No. 070950

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1.0 INTRODUCTION

1.1 Site Description

The Peter Cooper Markhams NPL Site, hereinafter referred to as the “Peter Cooper Markhams Site,” the “Markhams Site,” or the “Site,” is located off Bentley Road approximately 6 miles south of the Village of Gowanda in the Town of Dayton, Cattaraugus County, New York (see Figure 1). As illustrated on Figure 2, the Site encompasses approximately 103 acres and is bordered to the northwest by Bentley Road; to the northeast by a wooded property and farm field; to the southeast by a railroad right-of-way; and to the southwest by hardwood forest. Site access is restricted by a locked cable gate at the Bentley Road entrance. Surrounding property is rural, consisting of small farm fields, open meadow, and forests.

In general, the majority of the Site, including the northeastern, northwestern, and southwestern areas of the property, is characterized by mature hardwood tree cover, as well as open fields. Prior to remedial actions, an approximately 15- to 20-acre area within the central and southeast portions of the Site contained several covered/vegetated fill piles arranged in an elliptical pattern. For the purpose of this report, the terms “waste fill, mounded fill, and fill piles” refer to the elevated piles of material disposed at the Site. Several of the fill piles appeared to consist primarily of re-worked native soil. Other fill piles consisted of primarily vacuum filter sludge and cookhouse sludge. The fill piles varied in size and elevation, with base dimensions ranging from approximately 1,100 - 160,000 square feet and elevations of 5 to 15 feet above surrounding grade. The total area covered by fill piles (base area) was approximately 7 acres.

Site topography, with the exception of the fill piles, is relatively flat with some natural relief and a moderate grade to the west-southwest. An approximately 5-foot high berm, which provides an elevated bed for the Buffalo and Jamestown Railroad Company (also known as Erie-Lackawanna Railroad) rail track, runs along the entire southeast border of the Site. No structures are present on the Site, with the exception of a natural gas wellhead located east of the access drive and northwest of the fill areas.

1.2 Operational History

The Peter Cooper Markhams Site was used for the disposal of certain wastes from a former animal glue and adhesives manufacturing company located in Gowanda, New York. Materials disposed at the Markhams Site were reported to consist of residue pile material, vacuum filter sludge, and cookhouse sludge (Ref. 1). Residue pile material is described as air-dried cookhouse sludge, which was stabilized to a dry, granular form. Vacuum filter sludge reportedly was produced during primary (settling) treatment of liquid wastes, including liquids generated during gravity dewatering of cookhouse sludge. Cookhouse sludge reportedly was derived from the animal glue manufacturing process, and is comprised of settled sludge resulting from the processing of animal hides, some of which were allegedly chrome-tanned.

Peter Cooper Corporations (PCC) reportedly purchased the Site in 1955. PCC sold the Site in 1976 to a buyer that was subsequently renamed Peter Cooper Corporation (PCCII). PCCII continues to own the Site and is listed as the current landowner on tax assessor maps. From approximately 1955 until September 1971, it was reported that approximately 9,600 tons of waste material from the Gowanda plant were placed at the Site over an approximately 15-acre area. Pursuant to a New York State Supreme Court Order dated June 1971, approximately 38,600 tons of previously accumulated residual materials from the Gowanda Plant were also reportedly transferred to the Markhams Site. No further disposal reportedly occurred on the Site.

1.3 Regulatory, Investigation, and Remedial History

In accordance with the June 1971 State Supreme Court Order, PCC initiated transfer of residue pile material to the Markhams Site in August 1971. Shortly thereafter, PCC submitted to the New York State Department of Environmental Conservation (NYSDEC) a Solid Waste Management Report (Ref. 1) documenting the means for transfer of these materials to the Markhams Site. Follow-up discussion between PCC and the NYSDEC in August 1972 provided for grading the waste piles to a height of approximately 10 feet and covering them with 6 inches of soil or stabilized residue, followed by seeding to promote fast growing cover vegetation. PCC apparently completed the closure of the Site pursuant to these work plans and to the satisfaction of NYSDEC.

Subsequent to closure, several different parties investigated the Site. The NYSDEC completed Phase I and Phase II Environmental Site Investigations at the Peter Cooper Markhams Site in 1983 and 1985 (Refs. 2 and 3). In 1986, PCCII, under NYSDEC Consent Order, commissioned O'Brien & Gere Engineers, Inc. (OBG) to perform a Remedial Investigation and Feasibility Study (RI/FS) at the Site, which included a quantitative human health risk assessment (Ref. 4), herein referred to as the 1989 OBG RI. In conjunction with the 1989 OBG RI, interim remedial measures were performed in 1989 to remove a number of buried containers that had been disposed within an isolated area of the Site (Ref. 5). The containers reportedly held off-specification animal glue, PV Emulsion, Dextrin, and oil. The containers and impacted soils were excavated and transported off-site to the BFI Niagara Landfill in Tonawanda, New York for disposal as non-hazardous waste. One drum of animal glue was sent to Chemical Waste Management, Inc. in Model City, New York for disposal as hazardous waste, as the cost of analysis required to demonstrate that the material was not a hazardous waste was not justified.

The 1989 OBG RI indicated the presence of total chromium, hexavalent chromium, and arsenic above background levels in waste materials and some adjacent soils. Low levels of these parameters were also detected in groundwater wells installed immediately adjacent to the fill piles. OBG completed a Feasibility Study (FS) for the Site in March 1991 (Ref. 5). The FS recommended a remedial alternative involving consolidating, compacting, and covering the waste materials.

Because the waste at the Site did not meet the statutory definition in effect at the time in New York State for an inactive hazardous waste disposal site, NYSDEC could not use State funds to implement a remedial program. Consequently, the NYSDEC removed the Site from its Registry of Inactive Hazardous Waste Disposal Sites and transferred the Site to USEPA for further evaluation.

In 1993, the United States Environmental Protection Agency (USEPA) conducted a Site Sampling Inspection, which included the collection and analysis of soil and surface water samples from the Peter Cooper Markhams Site (Ref. 6), herein referred to as the 1993 SSI. Chromium and arsenic were detected in soils above background concentrations on and within the waste piles.

In March 1999, USEPA Region II prepared a Hazard Ranking System Model score for the Site and then listed the Peter Cooper Markhams Site on the National Priority List (NPL) in February 2000. On September 29, 2000, USEPA issued a Unilateral Administrative

Order (UAO) to several potentially responsible parties (PRPs) directing completion of an updated Remedial Investigation/Feasibility Study (RI/FS) for the Site.

1.4 Summary of Remedial Investigation/Feasibility Study

An RI/FS Work Plan (Ref. 7) was prepared for the USEPA by Geomatrix Consultants and Benchmark Environmental Engineering & Science, PLLC (Benchmark) on behalf the responding PRPs (the "Respondents") for the Peter Cooper Markhams Site, in accordance with the requirements of Paragraph 23 and Appendix 1 of Administrative Order CERCLA-02-2000-2003 and Respondents Notices of Intent to Comply (February 2001). The revised final Work Plan was submitted to the USEPA in September 2001.

Geomatrix and Benchmark performed RI scoping visits and field activities on several occasions at the Peter Cooper Markhams Site during the period of November 2000 to December 2003. The RI Report (Ref. 8), referred to as the 2005 RI, was submitted to the USEPA in February 2005.

The results of the RI suggest that low concentrations of metal constituents of potential concern (COPCs) can leach from the waste fill. However, the data from native soil samples (non-waste fill) collected below the waste fill indicate that metal COPCs have not migrated substantially in native soil. Arsenic and chromium concentrations detected in the surface soil samples from the cover of the fill piles were above soil criteria.

Soil testing beneath the file piles identified decreasing metal COPCs with depth and, as such, metal COPCs are not elevated in groundwater. Transport of trace metals and organic compounds is not considered significant at the Site. Groundwater quality has been affected by the presence of the fill piles. Trace non-metals, including nitrogen (in the form of ammonia), sulfur (in the form of sulfate), magnesium, and alkalinity are elevated in Site groundwater compared to background.

The RI concluded that all groundwater from the Site ultimately discharges to Wetland F before reaching the southwestern property boundary located more than 500 feet across the wetland. Site related chemicals in the overburden groundwater are transported beneath the Site to the southwest in the direction of Wetland F. Water quality data indicate subsurface conditions are not conducive to metal COPC transport. Although chromium was widely detected in soils across the Site, chromium concentrations were not elevated in groundwater. Hexavalent chromium was detected at a low concentration in 1 of 18 samples analyzed; the detection was not confirmed in the second sampling event. The lack of hexavalent

chromium in groundwater suggests conditions are not suitable for the oxidation of chromium (Cr+3) to hexavalent chromium. The slightly alkaline subsurface soil conditions and relatively low concentrations of manganese inhibit oxidation reactions that can produce hexavalent chromium.

Based on the RI findings, a Feasibility Study was completed by the cooperating PRPs and was submitted to the USEPA in August 2006 (Ref. 9). The FS Report identified and evaluated effective and implementable remedial alternatives for the Site, consistent with the guidelines presented in “*Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA*” (USEPA Office of Emergency and Remedial Response, October 1988, OSWER Directive No. 9355.3-01). The following remedial alternatives were developed to satisfy USEPA-approved Remedial Action Objectives for the Site:

- Mitigate excess risk due to groundwater ingestion at the Site.
- Prevent direct exposure to waste fill materials.
- Mitigate erosion and migration of waste materials from exposed surfaces.

1.5 Purpose and Scope

This Remedial Action (RA) report has been prepared to describe and document the remedial construction activities performed at the Peter Cooper Markhams NPL Site. It follows and incorporates the required information per the Consent Decree Scope of Work, including construction details, deviations from the remedial design, project costs, lessons learned and requirements to ensure the long-term performance and effectiveness of the remedy.

2.0 REMEDIAL MEASURES DESCRIPTION

2.1 Record of Decision (ROD) Requirements

In July 2005, USEPA issued a Proposed Plan for the Site that identified the following proposed remedial measures:

- Consolidate the waste/fill piles into 7 acres or less then construct a low-permeability soil cover, consistent with the requirements of 6 NYCRR Part 360, including seeding with a mixture to foster natural habitat. Waste piles moved during consolidation would be removed to native soil, as removal to this depth would insure that any remaining contaminants would be within background concentrations.
- Impose institutional controls in the form of an environmental easement and/or restrictive covenants that would require: (a) restricting the use of groundwater as a source of potable or process water unless groundwater quality standards are met; (b) restricting activities on the Site that could compromise the integrity of the cover system; and (c) the owner/operator to complete and submit periodic certifications that the institutional and engineering controls are in place.
- Develop a Site Management Plan that provides for the proper management of all Site remedy and post-construction components, such as institutional controls, and shall also include: (a) monitoring of groundwater to ensure that, following the capping, the contamination is attenuating and groundwater quality continues to improve; (b) identifying any use restrictions on the Site; (c) providing for any operation and maintenance required of the components of the remedy; and (d) evaluating Site conditions at least once every five years to ensure that the remedy continues to protect public health and the environment.

Following review of public comments, USEPA issued a Record of Decision (ROD) for the Peter Cooper Landfill NPL Site in December 2006. The ROD remained effectively unchanged from the Proposed Plan, with the exception that the Site Management Plan requirements were expanded to include: necessary provisions for ensuring the easement/covenant remains in place and is effective; and the requirement for the owner/operator to complete and submit periodic certifications concerning the status of the institutional and engineering controls for the Site.

2.1.1 Cleanup Goals

As part of the Remedial Investigation for the Site, soil data were compared to various standards, criteria and guidance (SCGs), including USEPA Region 9 Preliminary Remediation Goals (PRGs) for industrial soil, background concentrations for metals as published in NYSDEC Technical Assistance and Guidance Memorandum (TAGM) HWR-94-4046, USEPA Soil Screening Levels (SSLs) for migration of chemicals to groundwater, and site-specific background conditions. Groundwater data were compared to NYSDEC Technical and Operational Series (TOGS) Ambient Water Quality Standards and Guidance Values and USEPA Region 9 Tap Water PRGs. Based on the evaluations, it was determined that specific soil cleanup goals for the Site would not be required, as the remedy (excavation and consolidation of visually evident of waste/fill and placement of a cover system) would be sufficiently protective of human health and the environment. Groundwater cleanup will be monitored through post-remedial groundwater and surface water sampling.

2.1.2 Institutional Controls

Institutional controls that have been established include an Environmental Easement that precludes the use of groundwater as a source of potable or process water source (unless groundwater quality standards are met) and restricts activities on the Site that could compromise the integrity of the consolidation area cover. The Environmental Easement is included with the Site Management Plan (Ref 12).

2.1.3 Operation, Maintenance, and Monitoring Requirements

A post-remedial Operation, Maintenance and Monitoring (OM&M) Plan was provided as Appendix E to the Remedial Design (RD) Report (Ref. 10). The OM&M Plan describes personnel requirements, responsibilities, duties, and lines of authority, and specifies post-construction sampling, analysis, and monitoring to be conducted to monitor the effectiveness of the remedy. The primary components to be monitored and/or maintained include the Waste/Fill Consolidation Area cover system, gas vents, and groundwater and surface water quality. The OM&M Plan was updated prior to completion of the remedy as discussed in Section 4.2.

Monitoring and maintenance requirements for the Waste/Fill Consolidation Area cover system entails routine inspections for:

- Integrity of cover, including:
 - Erosion or settling of cap materials
 - Cracking/breaches in cover
 - Loss of slope
 - Pooling or ponding of surface water
 - Loss of vegetative cover
 - Presence of undesirable plant or animal species
- Visible debris, litter and waste from illegal dumping activities.
- Integrity of remaining monitoring wells, including but not limited to sediment intrusion, working locks, adequate surface seals and protective casings.

Gas vent monitoring is required concurrent with cover system inspections, and involves semi-annual inspection of gas vents for physical integrity, as well as field monitoring for explosive gases and hydrogen sulfide at the point of vent discharge.

A post-remedial groundwater monitoring plan was included as Appendix C of the approved FS report (Ref. 9). The requirements of the post-remedial groundwater monitoring plan have been incorporated in the OM&M Plan. Groundwater and surface water (wetland) monitoring and reporting will be performed on a routine basis following completion of remedial construction activities.

2.2 Summary of Remedial Design

In 2008, USEPA concluded Consent Decree negotiations with the PRPs related to the performance of the design and implementation of the remedy called for in the ROD. On February 19, 2008, the Consent Decree was entered in United States District Court. On March 12, 2008, Benchmark was approved as the supervising contractor to conduct the remedial design and construction work at the Site.

In accordance with the requirements of the Consent Decree and the Statement of Work, the cooperating PRPs prepared a Remedial Design (RD) Report that was approved by EPA on July 3, 2008. The RD Report was prepared to present a description of the remedial work that would be performed to satisfy the requirements of the Consent Decree Scope of Work. The RD Report outlined the following remedial construction measures: mobilization; Site preparation; waste/fill consolidation and grading; and cover system construction (barrier layer material placement and compaction, topsoil and seeding, and passive gas venting).

Because of the need for fast-track implementation of the remedy, the approved RD Report and design plans and specifications were implemented by Benchmark under a design-build contract for Site remediation. Accordingly, the RD Report identified: materials to be employed for major remedial components; construction requirements; and requirements to protect workers, the surrounding community, and the environment during the remedial work.

2.3 Design Deviations From ROD

At NYSDEC's request, 50 trees (i.e., 25 hardwood, 13 Poplar, 6 Birch and 6 White Spire) were replanted at various locations across the Site to provide shelter for the wildlife and stimulate repopulation of the wooded areas outside the consolidated area. No other substantial deviations from the ROD were designed. Construction modifications from design plans are discussed in Section 3.0.

3.0 SUMMARY & DOCUMENTATION OF REMEDIAL ACTION

A description of the remedial actions undertaken at the Site are presented below. Figure 2 presents a site plan showing pre-remedial conditions.

3.1 Mobilization

With USEPA's approval, Benchmark and its designated design-build subcontractor, Zoladz Construction Company, Inc. (Zoladz), mobilized to the Site on July 30, 2008. A field trailer with temporary power and lighting was provided per the project specifications. A project sign was erected with the name of the project, a statement that the project is being carried out under the supervision of the USEPA, and pertinent contact information. The project sign was located at the Site access drive entrance along Bentley Road. Zoladz and Benchmark demobilized from the Site on October 14, 2008.

3.2 Site Preparation

Site preparation began July 30, 2008 and was completed August 14, 2008. Small trees, shrubs, brush, and stumps within the clearing limits were removed to facilitate construction and post-closure maintenance work. Clearing and grubbing in and around the area of waste consolidation was performed with a hydro ax. The staged trees, stumps, and brush were ground into mulch from August 15 to September 5, 2008. The mulch was hauled off-site in dump trailers to Niagara Biomass, in Niagara Falls, New York to be burned in its energy generating facility.

An entrance gate was installed at Bentley Road on August 4, 2008. To facilitate heavy equipment access to the Site, the Site access drive was reestablished and shored up with NYSDEC-approved aggregate material. Specifically, crushed stone/slag was placed and compacted on the existing access drive extending from Bentley Road to the northwestern limit of the waste fill.

The Storm Water Management and Erosion Control Plan (Ref. 10) was employed during all clearing and earthwork activities. On August 12, 2008, a silt fence was installed along the wetlands at the north end of the Site waste piles. Additional silt fencing was installed along the wetlands on August 19 and 22, 2008.

3.3 Waste/Fill Consolidation and Grading

Waste/fill consolidation within the footprint of the planned consolidation area began on August 26, 2008 with grading and recompaction of the waste/fill to conform to the proposed subgrade contouring. Waste/fill outside the planned consolidated footprint was excavated to native soil¹, hauled into the consolidation area with a bulldozer, placed in 12-inch lifts, and compacted with pad foot and smooth drum rollers. A representative composite sample of the waste/fill was collected and submitted to 3rd Rock, LLC for Modified Proctor testing (ASTM D1557-91) to determine the maximum dry density (57.5 pcf) and optimum moisture (54.4%). In-place density tests were performed on placed waste/fill material using a nuclear densitometer; all results were >90% of the modified proctor maximum density as specified in the Construction Quality Assurance Project Plan (CQAPP). Appendix A includes a copy of the material testing report and a table summarizing these field density measurements, and the nuclear densitometer field logs. The sequence of waste/fill pile removal and consolidation is documented on the Inspector's Daily Reports prepared by Benchmark (see Appendix B). During the course of construction, a pocket of buried waste/fill was encountered in the area between the access drive termination and monitoring wells MW-1S and MW-1D. Subsequent test pit excavation to delineate the extent of the waste indicated that the buried waste/fill was present to depths of approximately 3 feet below grade over an area of approximately 15,000 square feet, and extended from the southwest end of the original planned consolidation area toward MW-1S and MW-1D (see Figure 2). To avoid construction delays and increased costs associated with excavating, transporting and compacting this material within the original consolidation area footprint, USEPA, Benchmark and the PRPs agreed that the footprint of the consolidation area would be extended west to include this area. Concurrently, the southern toe-of-slope was brought in approximately 20 feet north to maintain the approximate same square footage across the consolidation area footprint as per the original design. The consolidation area footprint was further adjusted (i.e. slightly reduced) during the course of construction as necessary to account for actual waste/fill volumes and maintain a minimum 5:1 side-slope.

¹ Native soils are characterized as primarily comprised of sand, silt, and gravel, and, to a lesser extent, clay, absent of waste fill indicators (i.e., sludge; highly organic, peat-like material; animal hair; ash; cinders; and construction debris). Construction inspection personnel verified that native soils were reached.

On September 19, 2008, approximately 150-cubic yards of remaining wood mulch were placed in the consolidation area. Final grading of the waste/fill was performed on September 24, 2008 in preparation for the barrier soils. Benchmark completed a topographical survey of the compacted waste/fill within the consolidation area on September 25, 2008. The final configuration of the consolidation area and cover soils is shown on Figure 3 and Figure 4.

Based on the consolidation area survey and estimated volume of subgrade material beneath the southwestern end of the consolidation area, the total recompacted waste/fill volume is approximately 40,000 cubic yards. The resultant waste/fill consolidation area has a footprint of approximately 4 acres.

All grading equipment, excavators, compaction equipment, and off-road trucks in contact with waste/fill materials were decontaminated before leaving the Site or being used for work on cover soils, in accordance with the Contract Documents.

3.4 Cover System

The final cover system was designed to provide long-term minimization of leachate formation by limiting the infiltration of surface water during the post-closure period. The final cover system was constructed to function with minimum maintenance, promote drainage, and minimize erosion. The design of the cover system required providing a minimum 18-inch thick recompacted low permeability (1×10^{-6} cm/sec) soil barrier layer and 6 inches of topsoil.

3.4.1 Barrier Layer Materials, Placement, and Compaction

Per the contract documents, barrier layer was to be comprised of natural soil material originating from borrow source locations having no evidence of disposal or releases of hazardous, toxic, or radioactive substances, or petroleum products. On September 12, 2008, Mr. Richard Dubisz of Benchmark and Mr. Maurice Moore of the NYSDEC visited MSB Gravel Products in Ellington, New York to inspect a stockpile of proposed barrier soil material; NYSDEC approved this source for the barrier soils pending chemical and physical quality testing per the CQAPP. Appendix C includes the results of the chemical and physical testing for the barrier soils. As indicated in Appendix C, laboratory testing confirmed that the soils met maximum allowable chemical concentrations for offsite borrow soils per the CQAPP, and that it would achieve a maximum recompacted permeability of 1×10^{-6} cm/sec.

On September 24, 2008, barrier soils placement was initiated on the east end of the consolidation area. Barrier layer soils were placed in two, 10-inch loose lifts and compacted to 9-inch lifts with a pad foot roller. Compacted lift thickness was controlled through grade stakes and verified by Benchmark throughout placement.

Based on the barrier soil material evaluation, the maximum dry density and optimum moisture content of the offsite barrier material were established at 135.4-pounds per cubic foot and 6.4%, respectively. In-place density tests using a nuclear densitometer were performed on placed barrier soils per the CQAPP; all results were >90% of the modified proctor maximum density with a moisture content 1-3% above optimum as specified (see Appendix C for the nuclear densitometer field logs). In addition, Shelby tube samples were collected through both the first and second 9-inch lifts of barrier soil at a frequency of one per acre. The samples were delivered to 3rd Rock Testing, LLC for constant-head undisturbed laboratory permeability tests per ASTM D5084, Method C. All samples met the maximum recompacted permeability requirement of $\leq 1 \times 10^{-6}$ cm/sec. Appendix C includes the testing reports from 3rd Rock, LLC for recompacted permeability, natural water content, grain size distribution, and maximum dry density data.

Barrier soil placement was completed on October 9, 2008.

3.4.2 Topsoil, Seeding, and Tree Planting

Immediately following the final compaction and grading of the barrier layer, topsoil was placed and rolled to a minimum depth of six inches. Topsoil was placed and graded to a smooth, even surface and was rolled and raked to remove ridges and fill in depressions, ruts and low spots. Topsoil placement began on October 11, 2008 and final grading was completed October 14, 2008. Appendix D includes the results of chemical and physical testing for the topsoil. Chemical test results verified conformance with CQAPP requirements. Physical test results indicated slightly greater clay content than allowed by the QCAPP, however organic content was substantially higher than required. Consequently, the USEPA and NYSDEC approved the stockpile source. Benchmark and Zoladz spot-checked the thickness of the topsoil layer using grade stakes that were set prior to topsoil placement; a uniform 6-inch topsoil layer was verified. The completed waste/fill consolidation area has a footprint of approximately 4 acres, with an average peak elevation (including cover soil) of 14 feet above surrounding grade. Figure 4 presents a plan view of the final consolidation area grading.

On September 30, 2008, hydroseeding was initiated in the southwest corner of the Site, outside the consolidation area. Per the design specifications, the cover system was seeded with a select mix of grasses designed to produce low-lying (1-2 foot) vegetative cover that should not require mowing. The outlying areas formerly covered by waste fill were seeded with a conservation mix to promote vegetative growth that will enhance foraging and habitat opportunity for indigenous wildlife. Appendix E includes copies of the grass mix labels showing their composition. Hydroseeding of the consolidation area was performed on October 14, 2008.

Fifty trees were replanted at various locations across the Site to stimulate repopulation of the wooded areas outside the consolidated area. The NYSDEC site representative, Mr. Maurice Moore, identified tree planting locations with the primary goal of providing interim cover for foraging wildlife. Tree locations and replacement type are identified on Figure 4.

3.4.3 Passive Gas Venting

On September 22 and 23, 2008, five passive gas vents were installed through the waste/fill to mitigate gas buildup beneath the cover system. Figures 3 and 4 show the locations of the gas vents. Gas venting wells were installed a minimum of 5 feet into the waste or to the top of native soils, whichever was encountered sooner, and were screened in an approximate 3-foot diameter annular space filled with washed stone backfill material. The gas venting wells were constructed of 4-inch diameter Schedule 40 PVC with 180 degree (gooseneck) risers and wire bird screens. Appendix F includes passive gas venting installation/construction detail. Waste material excavated during gas vent installation was disposed on-site within the consolidation area subgrade.

3.4.4 Monitoring Wells

Per the design documents, several of the existing site monitoring wells were slated for decommissioning, with one well (MW-2S) slated for replacement due to suspect well integrity issues identified in the RI/FS. Monitoring wells to be retained in support of the post-remedial groundwater monitoring program for the Site (i.e. MW-4S through MW-9S) were protected during construction.

Monitoring well MW-2S was decommissioned by Benchmark's designated drilling subcontractor, Earth Dimensions, Inc. on September 2, 2008. MW-2S was constructed of

steel casing and screen, and was found to be visibly rusted/rotted upon removal. Earth Dimensions over-drilled the existing boring and installed a new 2-inch PVC replacement well (MW-2SR) to a depth of 10 feet with 5 feet of slotted PVC screen. Appendix G includes the borehole log for decommissioned well MW-2S and the monitoring well completion detail for replacement well MW-2SR. On October 11, 2008, MW-2SR was developed via removal of approximately 15 gallons (10 well volumes) of groundwater. MW-2SR will be sampled as part of the O&M activities at the site as outlined in Section 4.1. Remaining monitoring wells were decommissioned as listed below:

- *September 3, 2008:* MW-1S, MW-1D, and MW-7D.
- *September 4, 2008:* MW-4D, MW-6D, and MW-8D.
- *September 5, 2008:* MW-3D, MW-5D, and MW-9D.

Appendix G includes the well decommissioning logs prepared by Earth Dimensions.

3.5 Community Air Monitoring

Real-time community air monitoring was performed during remedial activities at the Site using the New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan (CAMP), included in Appendix D to the RD Report. Particulate monitoring was performed continuously at the downwind location during all intrusive activities involving potentially impacted media (i.e., waste/fill excavation, grading, and compaction) in accordance with the CAMP. Particulate monitoring began August 21, 2008 and was discontinued September 24, 2008 following final grading of the waste/fill material. Appendix H includes the Community Air Monitoring Daily Logs.

3.6 Erosion and Dust Controls

Dust suppression techniques were to be initiated if downwind PM-10 particulate levels were 100 $\mu\text{g}/\text{m}^3$ above background (upwind perimeter). However, due to the frequent rain events during the construction period and continued conformance with downwind the PM-10 limit, dust suppression was not required.

The Storm Water Management and Erosion Control Plan (Ref. 10) was employed during all clearing and earthwork activities. As described in Section 3.2, silt fencing was

installed along the wetlands at the north end of the Site waste piles on August 12, 2008. Additional silt fencing was installed along the wetlands on August 19 and 22, 2008.

3.7 Adherence to Health and Safety Requirements

The Site-Specific Health and Safety Contingency Plan (HSCP), covering all on-site remediation activities, was enforced at the Site in accordance with the requirements of 29 CFR 1910.120. Benchmark's HSCP was provided as Appendix D to the RD Report. Zoladz was required to develop and enforce a HSCP as or more stringent than Benchmark's HSCP.

3.8 Chronology of Events

Table 1 provides a summary of the major remedial action events. Significant milestones include mobilization; construction of the various elements of the remedy; required interim and final inspections; and demobilization.

3.9 Performance Standards

The remedial measures performance evaluation will focus on the efficacy of the waste/fill consolidation and low-permeability cover system in reducing off-site groundwater contaminant loadings. This will be accomplished through a combination of off-site (downgradient) groundwater and surface water monitoring southwest of the consolidated waste/fill area and groundwater elevation monitoring. The Post-Closure Groundwater and Surface Water Monitoring Plan for the Site describes the proposed monitoring approach in detail (see Part I of the SMP, Appendix A to the OM&M Plan).

The performance evaluation will consider the off-site groundwater monitoring data against NYSDEC Class GA groundwater quality standards and guidance values, as well as historic and ongoing results to check for concentration trends.

3.10 Construction Quality Control

Remedial activities at the Site were undertaken in a manner consistent with the remedial design plans and specifications and the Construction Quality Assurance Project Plan as modified by the as-built documentation. Applicable USEPA and NYSDEC

construction quality assurance procedures and protocols were incorporated into the remedial design and are consistent with both the ROD and the RD plans and specifications, as modified by the as-built documentation.

4.0 SITE MANAGEMENT PLAN

A Site Management Plan (SMP) has been prepared and submitted under separate cover (Ref. 11). The purpose of the SMP is to assure that proper procedures are in place to provide for long-term protection of human health and the environment after remedial construction is complete. Toward that end, the SMP is comprised of three main components:

- A Post-remedial Operation, Maintenance, and Monitoring Plan (OM&M Plan).
- A Soil/Fill Management Plan identifying proper management of any residual impacted subsurface soil/fill that might be encountered during redevelopment or post-remedial construction activities at the Site, if undertaken.
- A description of the institutional and engineering controls incorporated into the remedy, including the mechanisms that will be used to continually implement, maintain, monitor, and enforce the controls. Proof of filing for environmental easements restricting Site use has been provided as well.

4.1 Post-Remedial OM&M Plan

The post-remedial Operation Maintenance & Monitoring (OM&M) Plan was prepared to identify required monitoring and maintenance tasks for the constructed remedial measures at the Site. Specifically, the Plan presents operation and maintenance requirements for the final cover system and appurtenances, as well as groundwater and surface water monitoring requirements.

4.2 Soil/Fill Management Plan

The Soil/Fill Management Plan (SFMP), included as Part II of the SMP, provides guidance for proper management of residual impacted subsurface soil/fill that could be encountered during redevelopment or post-remedial construction activities, if undertaken, within the original limits of the waste/fill. These may include activities such as infrastructure construction (i.e., roads, waterline, sewers, electric cable, etc.) or foundation excavation and

Site grading. The SFMP also included measures for handling Site groundwater, if necessary during construction. Specific elements addressed by the SFMP include:

- Field monitoring of Site soils, and sampling and handling of impacted soil/fill, if encountered after construction.
- Collecting, handling, and disposing groundwater, if encountered.
- Acceptability of soil/fill from off-site sources for backfill or subgrade fill.
- Erosion and dust control measures.
- Fencing and other access controls.
- Health and safety procedures for subsurface construction work and the protection of the surrounding community.
- Notification and reporting requirements.

4.3 Institutional and Engineering Control Plan

The ROD requires the implementation of Institutional Controls in the form of an Environmental Easement to restrict the use of on-site groundwater as a source of potable or process water (unless groundwater quality standards are met) and to restrict activities on the Site that could compromise the integrity of the cap. Engineering controls are required as part of the final remedy in the form of the cover system constructed over the Waste/Fill Consolidation Area.

The Institutional and Engineering Control Plan (Part III of the SMP) identifies the means by which these controls will be monitored, including documentation to support periodic post-closure certification of the integrity of the controls.

5.0 FINAL INSPECTION AND CERTIFICATIONS

Construction progress inspections were performed by USEPA and NYSDEC on frequent occasions during and following completion of the RA activities, and were followed by a final site inspection on October 24, 2008. Following completion of the final inspection, the USEPA issued a Superfund Preliminary Site Closeout Report (PCOR), which finds that construction activities at the Peter Cooper Corporation (Markhams) Superfund site (Site) have been completed in accordance with the *Close-Out Procedures for National Priorities List Sites (OSWER Directive 9320.2-09A-P)*. The PCOR specifically states “Based on field observations associated with USEPA and NYSDEC construction oversight and the October 24, 2008 final inspection of the Site by USEPA and NYSDEC, USEPA has determined that the potentially responsible parties (PRPs) have constructed the remedy (consolidation and capping) in accordance with the December 2006 Record of Decision (ROD) and the approved remedial design as modified by as-build documentation. USEPA has also determined that no further response actions other than maintenance of the cap and cover and long-term groundwater monitoring are necessary. The only remaining activities consist of seasonal/weather-dependent punch list items (i.e., plant replacement and restoration).”

5.1 Five-Year Statutory Review

Pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act, Section 121(c), USEPA must conduct five-year reviews if chemical concentrations at a Superfund Site remain above levels that would allow for unlimited use and unrestricted exposure. The first Five-year Review Report will be completed prior to July 2013, which is five years from the initiation of construction for the remedy. A description of the elements to be incorporated in the CERCLA 5-year review is provided in Part I of the Site Management Plan (Ref 12).

6.0 SUMMARY OF PROJECT COSTS

The estimated capital cost to implement the selected remedy per the 2006 ROD was approximately \$1.04 million and annual O&M costs were identified at \$15,000. With regard to the costs related to the Site remediation, the PRPs were not required by the terms of the Consent Decree to make cost information available. However, the estimated capital and construction costs were comparable, with the projected 30-year present worth of the remedy expected to be at or near the original estimate.

7.0 OBSERVATIONS AND LEASONS LEARNED DURING RA ACTIVITIES

The straightforward nature of the RA work and experience of the various parties involved in the construction implementation and oversight mitigated encounters with unexpected conditions that required significant corrective measures. Minor modifications in scope were required to address certain changed conditions. As described in Section 3.0, re-configuration of the containment cell was undertaken during construction to more efficiently address the pocket of buried waste fill encountered near the MW-1 cluster. In addition, it was decided during construction that although the contract documents called for disposal of tree stumps in the consolidation area subgrade in a manner to prevent settlement, the large number of stumps generated during the clearing work would likely result in future differential settlement problems. Accordingly, the stumps were chipped and disposed offsite with other wood mulch.

7.1 Site Photographs

Select photographs illustrating the various stages of the remedial construction activities are presented in Appendix I.

8.0 CONTACT INFORMATION

Post-remedial operations, maintenance, and monitoring requirements as well as corrective measures, if necessary, are the responsibility of the Respondents. The United States Environmental Protection Agency (USEPA) will serve as the regulating agency for these efforts. The contact persons for these parties are listed below:

Representatives for Respondents

Dr. Michael Joy
Lipman Biltekoff, LLP
333 International Drive
Williamsville, NY 14221

Mr. John Wittenborn
Kelley Drye & Warren, LLP
Washington Harbour, Suite 400
3050 K Street, NW
Washington, DC 20007-5108

USEPA

Ms. Sherrel Henry
Peter Cooper Markhams Superfund Site Project Coordinator
U.S. Environmental Protection Agency, Region II
Emergency and Remedial Response Division
290 Broadway - 20th Floor
New York, NY 10007-1866

Because of the need for fast-track implementation of the RA, the approved RD Report, and design plans and specifications were implemented by Benchmark Environmental Engineering & Science under a design-build contract for Site remediation. Benchmark's and its remediation subcontractor's contact information is presented below:

Design/Build Contractor

Mr. Thomas Forbes, P.E.
Benchmark Environmental Engineering & Science, PLLC
726 Exchange St., Suite 624
Buffalo, NY 14210

Remedial Subcontractor

Mr. Jeff Leavel
Zoladz Construction Company, Inc.
P.O. Box 157
13600 Railroad St.
Alden, NY 14004

9.0 REFERENCES

1. Obrien & Gere Engineers, Inc., November 1971. Peter Cooper Corporations, Gowanda, NY - Solid Waste Management.
2. RECRA Research, 1983. *Phase I Investigation Report, Peter Cooper Gowanda and Markhams Site.*
3. RECRA Research, August 1985. *Phase II Investigation Report, Peter Cooper Gowanda and Markhams Site.*
4. Obrien & Gere Engineers, Inc. January 1989. *Remedial Investigation Report, Peter Cooper Corporations, Gowanda, New York.*
5. Obrien & Gere Engineers, Inc. March 1991. *Feasibility Study, Peter Cooper Corporations, Gowanda, New York.*
6. Malcolm Pirnie, Inc., 1993. *Sampling Inspection Report, Peter Cooper Markhams Site.*
7. Geomatrix Consultants, Inc. & Benchmark Environmental Engineering and Science, PLLC, February 2001 and revised September 2001. *Remedial Investigation/Feasibility Study Work Plan, Peter Cooper Markhams Site, Dayton, New York.*
8. Geomatrix Consultants, Inc. & Benchmark Environmental Engineering and Science, PLLC, February 2005. *Remedial Investigation Report, Peter Cooper Markhams Site, Dayton, New York, Volumes I and II.*
9. Benchmark Environmental Engineering and Science, PLLC, August 2006. *Feasibility Study Report – Peter Cooper Markhams Site, Dayton, New York.*
10. Benchmark Environmental Engineering and Science, PLLC, June 2008. *Remedial Design Report – Peter Cooper Markhams Site, Dayton, New York.*
11. Benchmark Environmental Engineering and Science, PLLC, June 2008. *Construction Quality Assurance Project Plan (CQAPP) for Peter Cooper Markhams NPL Site, Dayton, New York.*
12. Benchmark Environmental Engineering and Science, PLLC, Feb 2009. *Site Management Plan (SMP) for Peter Cooper Markhams NPL Site, Dayton, New York.*

FIGURES

LAKE ONTARIO

MARKHAMS

JOHNSON

MARKHAMS

NIAGARA COUNTY

BUFFALO

ERIE COUNTY

MARKHAMS SITE

LAKE ERIE

CHAUTAUQUA COUNTY

CATTARAUGUS COUNTY

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STATE OF NEW YORK
WALTER JOHN MEISNER
LICENSED PROFESSIONAL ENGINEER
083521



BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

DRAFTED BY: AJZ

SITE LOCATION AND VICINITY MAP

PETER COOPER MARKHAMS SITE
BENTLEY ROAD, DAYTON, NEW YORK

PREPARED FOR
CPRPs FOR PETER COOPER MARKHAMS



FIGURE 2

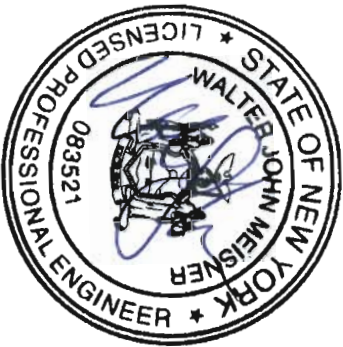
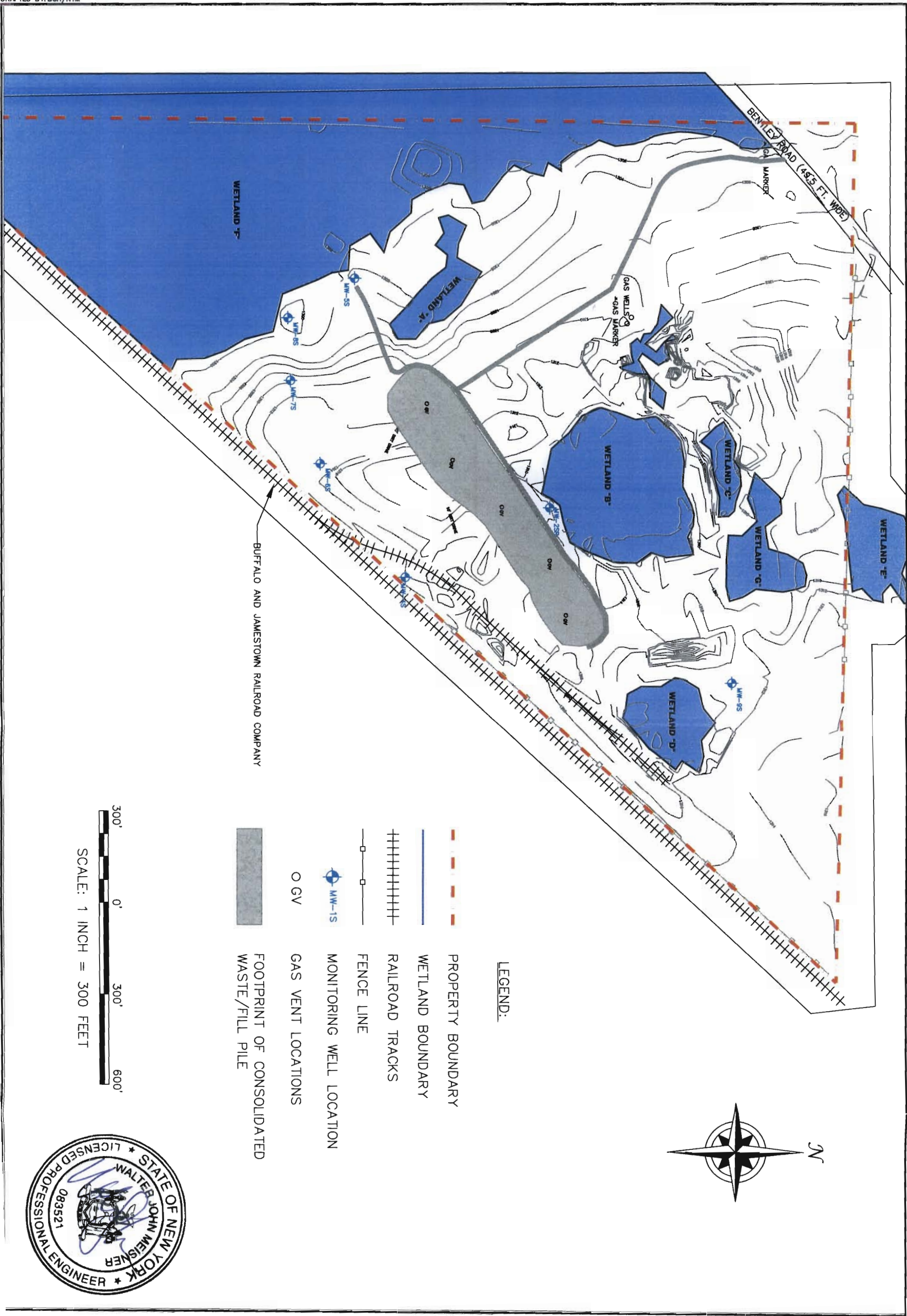
PRE-REMEDIAL SITE PLAN
REMEDIAL ACTION REPORT
PETER COOPER MARKHAMS NPL SITE
BENTLEY ROAD, DAYTON, NEW YORK
PREPARED FOR
CPRPs FOR PETER COOPER MARKHAMS



2568 HAMBURG TURNPIKE
SUITE 300
LACKAWANNA, NEW YORK 14218
(716) 858-0599

JOB NO.: 0021-003-400

DATE: A/JZ
DRAFTED BY: BCH/NTM



POST REMEDIAL SITE PLAN
REMEDIAL ACTION REPORT
PETER COOPER MARKHAMS NPL SITE
BENTLEY ROAD, DAYTON, NEW YORK
PREPARED FOR
CPRPs FOR PETER COOPER MARKHAMS

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC
2558 HAMBURG TURNPIKE
SUITE 300
LACKAWANNA, NEW YORK 14218
(716) 856-0599

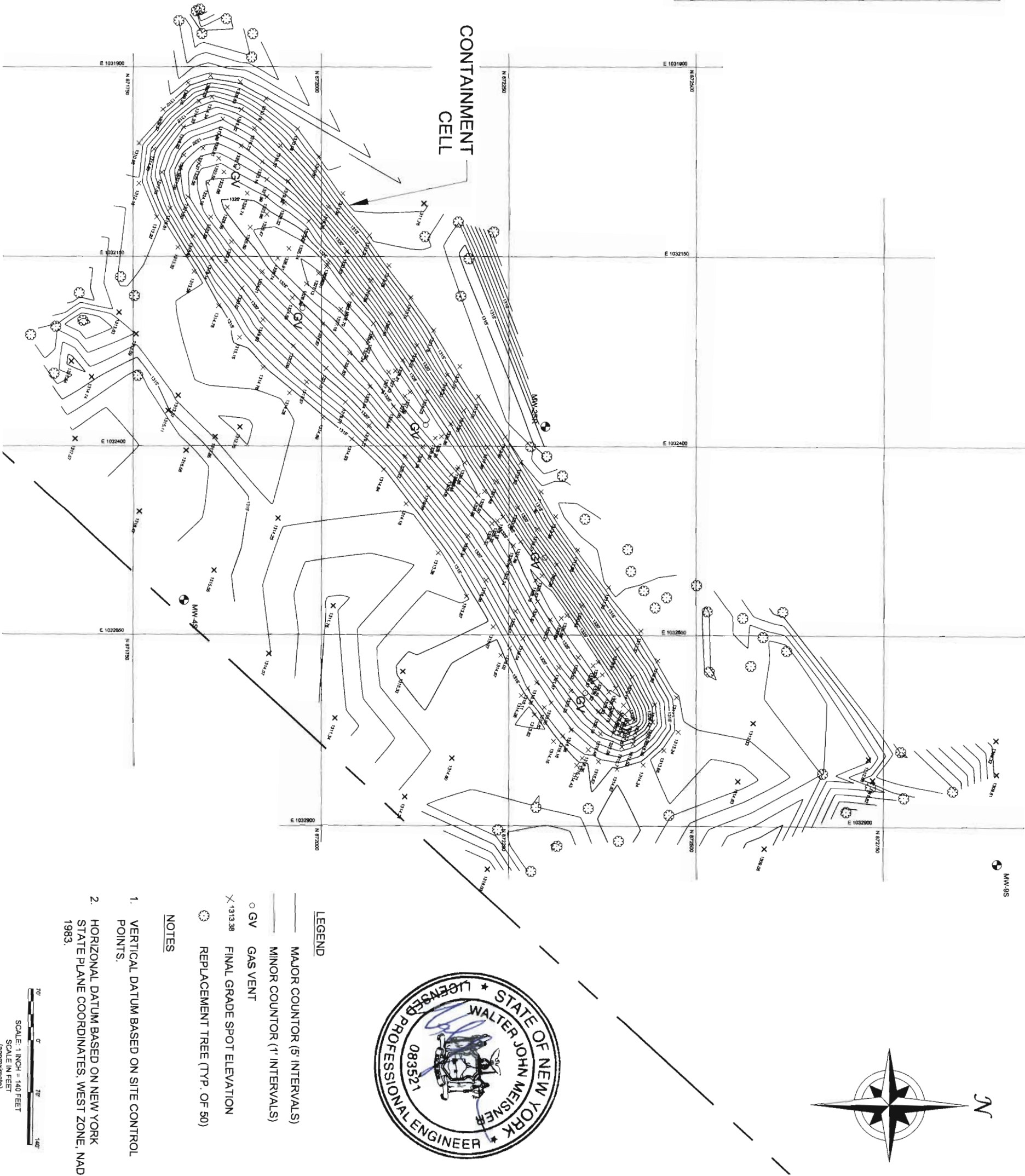
JOB NO.: 0021-003-400

FIGURE 3

TREE PLANTING SCHEDULE	
TREE TYPE	#
Ash	8
Maples	9
Oak	8
Hybrid Poplars	13
River Birch	6
White Spire	6

CONTAINMENT CELL COVER SEED MIX	
SEED TYPE	% OF MIX
KY-31 TALL FESCUE	35.76%
TONGA PERENNIAL RYE GRASS	24.61%
ENSLEYA CREEPING RED FESCUE	19.71%
CROWN ROYALE OF CHARDGRASS	13.52%
NORDIC BIRDSFOOT TREFOIL	3.93%
OTHER CROP	0.17%
WEED SEEDS	0.03%
INERT MATTER	2.27%

NON-CONTAINMENT CELL SEED MIX	
SEED TYPE	% OF MIX
LITTLE BLUESTEM	29.64%
VIRGINIA WILD RYE	24.91%
INDIANGRASS	17.93%
BIG BLUESTEM	12.86%
SWITCHGRASS	6.00%
OTHER CROP	0.02%
WEED SEEDS	0.01%
INERT MATTER	8.63%



**TOP OF FINAL GRADE
WASTE/FILL CONSOLIDATION AREA**
REMEDIAL ACTION REPORT
PETER COOPER MARKHAMS NPL SITE
BENTLEY ROAD, DAYTON, NEW YORK
PREPARED FOR
CPRPs FOR PETER COOPER MARKHAMS



2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NEW YORK 14218
(716) 856-0599

JOB NO.: 0021-003-400

FIGURE 4

TABLES

TABLE 1
CHRONOLOGY OF REMEDIAL DESIGN & REMEDIAL ACTION EVENTS
PETER COOPER MARKHAMS SITE
DAYTON, NEW YORK

TASK DESCRIPTION	DATES
Pre-Construction Phase	
Prepare and Submit RD Report w/ Design-Build Documents	March 7, 2008
EPA Review/Comment	May 29, 2008
Finalize RD Report & Contract Docs, EPA conditional approval	July 3, 2008
Obtain Legal Site Access (Respondents/USEPA)	July 1, 2008
Construction Phase	
Contract/Subcontract Awards and Mobilization	July 30, 2008
Access Road Improvements	July 30 – August 7, 2008
Clearing/Grubbing	Aug 4 – August 14, 2008
Regrading & Consolidating Waste/Fill	August 26 – September 24, 2008
Monitoring Well Abandonment/ Replacement	September 3 – 5, 2008
Barrier Soil Placement/Compaction	September 24 – October 9, 2008
Topsoil Placement	October 11 – 14, 2008
Seeding/Fertilizer/Tree Planting	October 14 – 22, 2008
Pre-Final Construction Inspection/Punch List	October 17, 2008
Punch List Remedies	October 21, 2008
Final Inspection	October 24, 2008
Subcontractor Demobilization	October 21, 2008
Construction and Post-Construction Documentation	
Submit Site Management Plan (OM&M Plan, SFMP, Easement)	February 15, 2009
Prepare Draft Deed Restriction (PRPs)	May – Aug 2008
EPA Review/Comment	February 15 – March 1, 2009
Finalize Site Management Plan, File Deed Restrictions	March 1, 2009
Submit Remedial Action Report	February 15, 2009
EPA Review/Comment	February 15 – March 1, 2009
Revise & Finalize Remedial Action Report	March 1, 2009

APPENDIX A

WASTE/FILL GEOTECHNICAL DOCUMENTATION



580 Olean Road
East Aurora, NY 14052
Phone: (716)655.4933
Fax: (716)655.8638

January 18, 2008

Mr. Thomas H. Forbes, P.E.
Benchmark Environmental Engineers & Scientists, PLLC
726 Exchange Street, Suite 624
Buffalo, New York 14210

Re: Material Testing Report/Invoice for Testing

Dear Mr. Forbes:

Enclosed is the soil testing report/invoice for one waste/organic matter sample delivered to our laboratory on January 10, 2008 for Modified Proctor testing (ASTM D1557). If you have any questions, please call. We appreciate your business.

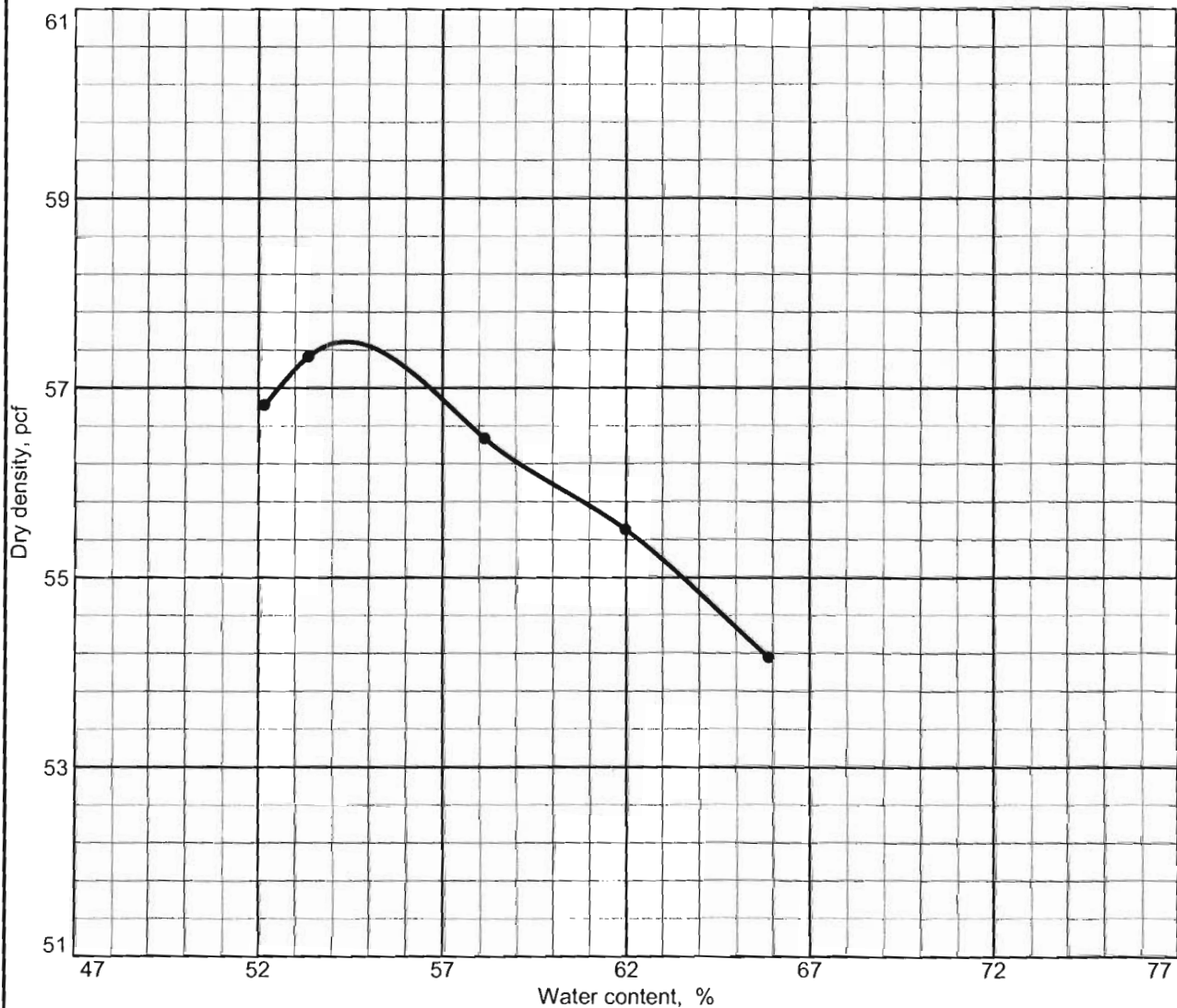
Very truly yours,

A handwritten signature in cursive script that reads "Jeanne M. Asquith".

Jeanne M. Asquith
Soils Laboratory Manager

Enclosures: Invoice & Proctor Report

COMPACTION TEST REPORT



Test specification: ASTM D 1557-91 Procedure B Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in.	% < No.200
	USCS	AASHTO						

TEST RESULTS		MATERIAL DESCRIPTION
Maximum dry density = 57.5 pcf Optimum moisture = 54.4 %		ID#08-002
Project No. 08-002 Client: Benchmark Environmental Engineers & Scientists Project: Markhams Site ● Source: Markhams Sample No.: Waste		Remarks:
3rd Rock, LLC East Aurora, NY		

Figure 08-002

**SUMMARY OF FIELD MEASURED IN-PLACE DENSITIES (IPD)
WASTE/FILL LOCATIONS
PCC Markhams Site
Dayton, New York**

IPD Field ID No.	Date	IPD Field ID Northing	IPD Field ID Easting	Density (% Compaction)
1	08/27/08	872297.9000	1032730.0000	121.0
2		872352.4000	1032760.0000	123.3
3		872372.5000	1032751.0000	116.5
4		871965.1000	1032258.0000	117.3
5		872039.6000	1032347.0000	114.9
6		872342.5000	1032776.0000	95.0
7		872315.4000	1032730.0000	154.2
8		872284.9000	1032723.5000	120.2
9		872302.4000	1032760.0000	109.2
10		872111.2000	1032440.0000	115.4
11		872248.3000	1032600.0000	107.0
12		872498.1000	1032744.0000	110.8
13		872318.4000	1032601.5000	110.3
14	08/28/08	872439.0000	1032750.0000	100.0
15		872419.0000	1032698.0000	91.9
16		872385.0000	1032669.0000	103.9
17		872361.0000	1032609.0000	114.3
18		872314.0000	1032546.0000	98.7
19		872259.0000	1032498.0000	104.9
20		871940.5000	1032154.0000	94.6
21		872030.1000	1032294.0000	113.6
22		872063.6000	1032392.0000	140.0
23		872074.6000	1032409.0000	95.8
24		872129.2000	1032440.0000	117.3
25		872289.9000	1032706.0000	107.2
26		872352.4000	1032730.0000	111.2
27		872094.3000	1032155.4000	111.8
28		872030.1000	1032329.0000	102.3
29		872083.6000	1032359.0000	108.6
30		872163.0000	1032338.0000	140.0
31		872112.0000	1032269.0000	129.9
32		872135.0000	1032233.0000	92.8
33		872152.0000	1032249.0000	109.0
34	08/29/08	871933.8000	1032065.0000	120.3
35		871903.2000	1032140.0000	106.4

**SUMMARY OF FIELD MEASURED IN-PLACE DENSITIES (IPD)
WASTE/FILL LOCATIONS
PCC Markhams Site
Dayton, New York**

IPD Field ID No.	Date	IPD Field ID Northing	IPD Field ID Easting	Density (% Compaction)
36		871873.8000	1032179.1000	136.0
37		872089.6000	1032359.0000	110.9
38		872142.9000	1032392.0000	117.8
39		872212.9000	1032451.0000	98.2
40		872327.4000	1032742.0000	115.6
41		872381.8000	1032758.0000	102.3
42		872277.9000	1032676.0000	107.7
43		872277.9000	1032622.0000	110.5
44		872218.3000	1032612.0000	98.5
45		872195.5000	1032535.9000	104.2
46	09/01/08	871866.0000	1032113.0000	133.8
47	09/02/08	871866.0000	1032109.0000	118.7
48		872352.5000	1032830.0000	99.7
49		872193.8000	1032437.2000	109.5
50		872273.4000	1032433.5000	109.1
51		871727.5000	1032076.5000	109.7
52	09/03/08	871896.8000	1032179.1000	116.6
53		871908.8000	1032223.1000	107.7
54		871799.2000	1032061.6000	117.9
55	09/04/08	872358.8000	1032641.0000	131.8
56		872415.8000	1032641.0000	107.7
57		872402.8000	1032691.0000	156.5
58	09/05/08	872249.4000	1032412.5000	108.3
59		871878.2000	1031946.6000	103.5
60		872267.0000	1032432.0000	104.6
61	09/08/08	871999.2000	1031946.6000	96.7
62		871774.9000	1031922.7000	105.3
63		871808.5000	1032060.5000	109.9
64		872419.8000	1032683.0000	122.3
65		872365.8000	1032621.0000	100.8
66	09/10/08	872234.4000	1032487.5000	116.8
67		872460.8000	1032593.0000	120.6
68		871970.2000	1031946.6000	139.5
69		872434.5000	1032871.0000	97.4
70	09/11/08	871973.2000	1031946.6000	127.8

SUMMARY OF FIELD MEASURED IN-PLACE DENSITIES (IPD)
WASTE/FILL LOCATIONS
PCC Markhams Site
Dayton, New York

IPD Field ID No.	Date	IPD Field ID Northing	IPD Field ID Easting	Density (% Compaction)
71		871860.8000	1031923.9000	115.9
72	09/12/08	872393.8000	1032641.0000	99.5
73		872410.5000	1032832.0000	142.5
74		872434.5000	1032771.0000	126.9
75	09/17/08	872358.4000	1032800.3000	115.6
76		872319.9000	1032723.5000	116.6
77		872192.7000	1032487.7000	113.2
78		872212.5300	1032610.5000	123.7
79		872195.7000	1032427.7000	116.7
80		872103.0000	1032374.7000	107.0
81	09/18/08	872184.5000	1032538.9000	122.3
82		872189.5000	1032631.9000	104.0
83		872166.6000	1032339.1000	119.7
84	09/19/08	871928.5000	1032347.1000	126.4
85		871949.2000	1031958.6000	122.2
86		871999.2000	1031976.6000	117.7
87	09/22/08	871934.2000	1031946.6000	139.4
88		871974.2000	1031909.6000	119.8
89		871870.2000	1031878.6000	127.5
90		871840.2000	1031946.6000	131.4
91	09/23/08	871895.2000	1032024.6000	122.1
92		871785.5000	1032034.5000	124.7

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site Date: 8/27/08
Client: Report No.:
Job No.: 0021-003-401 Inspector: RLO
Contractor: Zoladz Construction, Inc Page of

PROCTOR DATA:

Type of Material	Fill / waste
Source Area	Onsite
Maximum Density	57.5 pcf
Optimum Moisture Content	54.4 %

PASSING REQUIREMENT:

90 ~~85~~% of the Modified Proctor

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS				GAUGE INFORMATION:									
Density: _____				Troxler Model No.: 3440									
Moisture: _____				Troxler Serial No.: 32534									
TEST NUMBER	1-1-1	1-1-2	1-1-3	1-1-4	1-1-5	1-1-6	1-1-7	1-1-8	1-1-9	1-1-10	1-1-11	1-1-12	1-1-13
DEPTH OR ELEVATION	12"	12"	12"	12"	12"	12"	12"	12"	12"	16"	12"	12"	12"
PERCENT COMPACTION (%)	121.0	123.3	116.5	117.3	114.9	95.0	154.2	120.2	104.2	115.4	107.0	110.8	110.3
DRY DENSITY (pcf)	64.6	70.9	67.0	67.5	66.1	54.6	88.7	69.1	62.8	66.3	61.5	63.7	63.4
WET DENSITY (pcf)	90.1	92.2	89.0	89.9	87.8	80.3	107.5	92.6	85.7	87.9	79.9	82.5	88.9
MOISTURE (pcf)	20.6	21.3	22.0	22.4	23.7	25.7	18.8	23.5	22.9	21.1	18.4	18.8	25.5
PERCENT MOISTURE (%)	24.5	30.1	32.0	33.2	35.9	28.0	21.9	34.0	36.5	31.7	29.9	29.5	40.2
DENSITY COUNT	1376	1213	1465	1383	1328	1587	790	1262	1586	1704	1437	1776	1420
MOISTURE COUNT	26.1	273	281	286	302	305	243	299	292	270	258	243	223
PASS [P] or FAIL [F]	P	P	P	P	P	P	P	P	P	P	P	P	P

LOCATION:

TEST NO. (from above)	X	Y	Z
L-1-1	50' E	20' N of # 99	← Elev 1314
L-1-2	15' N	of # 84	← Elev 1316
L-1-3	25' W	20' N of 101	
L-1-4	15' S	21' W of # 94	
L-1-5	12' W of	Six # 95	
L-1-6	10' S of	# 101	

TEST NO. (from above)	X	Y	Z
L-1-7	30' W	22' S of # 84	
L-1-8	20' N of	# 72	
L-1-9	35' S of	# 84	
L-1-10	15' N of	# 96	
L-1-11	30' N of	# 98	
L-1-12	51' N	24' E of # 97	← Elev 1314

REMARKS:

SIGNED: *[Signature]*

DATE: 8/27/08

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site

Date: 8/28/08

Client:

Report No.:

Job No.: 0021-003-401

Inspector: RLO

Contractor: Zoladz Construction, Inc

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PROCTOR DATA:

Type of Material	WASTE
Source Area	Onsite
Maximum Density	57.5 pcf
Optimum Moisture Content	54.4 %

PASSING REQUIREMENT:

90% of the Modified Proctor

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS				GAUGE INFORMATION:									
Density:				Troxler Model No.:	3440								
Moisture:				Troxler Serial No.:	32534								
TEST NUMBER	L-1-14	L-1-15	L-1-16	L-1-17	L-1-18	L-1-19	L-1-20	L-1-21	L-1-22	L-1-23	L-1-24	L-1-25	L-1-26
DEPTH OR ELEVATION	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"
PERCENT COMPACTION (%)	100	91.9	103.9	114.3	98.7	104.9	94.6	113.6	140.0	95.8	117.3	107.2	111.2
DRY DENSITY (pcf)	57.5	52.9	59.7	65.7	56.8	60.3	54.4	65.3	80.5	55.1	67.4	61.6	63.9
WET DENSITY (pcf)	83.6	79.2	77.1	90.0	85.3	85.8	82.6	86.7	106.3	87.1	91.6	88.8	87.9
MOISTURE (pcf)	26.1	26.4	17.4	24.3	28.5	25.5	28.2	21.3	25.8	29.0	24.2	27.2	26.0
PERCENT MOISTURE (%)	45.3	49.9	29.2	36.9	50.2	42.4	51.8	32.6	32.0	52.2	35.4	44.1	40.6
DENSITY COUNT	1683	1942	2115	1367	1555	1563	1733	1332	906	1642	1295	1415	1362
MOISTURE COUNT	327	331	225	306	386	361	352	271	367	366	305	310	306
PASS [P] or FAIL [F]	P	P	P	P	P	P	P	P	P	P	P	P	P

LOCATION:

TEST NO. (from above)	X	Y	Z
L-1-14	872439	1032750	
L-1-15	872419	1032698	
L-1-16	872325	1032664	
L-1-17	872361	1032609	
L-1-18	872314	1032546	
L-1-19	872255	1032498	

WELL ON
FINAL
SURFACE
OF
CRCL.

TEST NO. (from above)	X	Y	Z
L-1-20	45' W	20' N of 93	
L-1-21	15' E	50' N of 94	
L-1-22	33' E	24' N of 95	
L-1-23	50' E	35' N of 96	
L-1-24	30' N of 96		1316
L-1-25	20' E	12' N of 95	1316

L-1-26 30' W 15' N of 97 ELEV 1313

REMARKS:

SIGNED:

RLO

DATE:

8/28/08

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site
Client:
Job No.: 0021-003-401
Contractor: Zoladz Construction, Inc

Date: 8/28/08
Report No.:
Inspector: RLD
Page of

PROCTOR DATA:

Type of Material	WASTE
Source Area	Onsite
Maximum Density	57.5 pcf
Optimum Moisture Content	54.4 %

PASSING REQUIREMENT:

90% of the Modified Proctor

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS				GAUGE INFORMATION:			
Density:				Troxler Model No.:	3440		
Moisture:				Troxler Serial No.:	32534		
TEST NUMBER	L-1-27	L-1-28	L-1-29	L-1-30	L-1-31	L-1-32	L-1-33
DEPTH OR ELEVATION	12"	12"	12"	12"	12"	12"	12"
PERCENT COMPACTION (%)	111.8	132.3	109.6	140	129.5	92.8	109.0
DRY DENSITY (pcf)	64.3	58.8	62.4	80.5	74.7	53.4	62.2
WET DENSITY (pcf)	87.0	86.6	86.2	94.3	93.6	72.2	81.5
MOISTURE (pcf)	22.7	27.7	23.8	18.4	18.9	18.4	18.7
PERCENT MOISTURE (%)	35.4	47.2	38.1	23.4	25.4	35.3	29.9
DENSITY COUNT	1509	1521	1545	1017	1227	2459	1827
MOISTURE COUNT	288	317	300	242	293	246	241
PASS [P] or FAIL [F]	P	P	P	P	P	P	P

LOCATION:

TEST NO. (from above)	X	Y	Z
24' ~ of # 10		Elev 7513	
50' E	50' ~ of # 94		Elev 1320
44' N	0' # 95		1320.5
L-1-30	872163	1032338	
L-1-31	872112	1032269	

2' Inker in
Final
Subgrade
Swp

TEST NO. (from above)	X	Y	Z

REMARKS:

SIGNED:

RLD

DATE:

8/28/08

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site

Date: 8/29/08

Client:

Report No.:

Job No.: 0021-003-401

Inspector: RLD

Contractor: Zoladz Construction, Inc

Page 1 of

PROCTOR DATA:

Type of Material	WASTE
Source Area	CRS. 1E
Maximum Density	57.5 pcf
Optimum Moisture Content	54.4 %

PASSING REQUIREMENT:

90% of the Modified Proctor

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS				GAUGE INFORMATION:								
Density: _____				Troxler Model No.: 3440								
Moisture: _____				Troxler Serial No.: 32534								
TEST NUMBER	1-134	1-135	1-136	1-137	1-138	1-139	1-140	1-141	1-142	1-143	1-144	1-145
DEPTH OR ELEVATION	12"	12"	12"	8"	8"	12"	12"	12"	12"	12"	12"	12"
PERCENT COMPACTION (%)	120.3	106.4	136.0	110.9	117.8	98.2	115.6	102.3	102.7	110.5	98.5	104.2
DRY DENSITY (pcf)	69.2	61.2	78.2	63.8	67.9	56.5	66.5	58.8	61.9	63.8	56.6	59.9
WET DENSITY (pcf)	92.4	61.2	104.2	88.4	90.6	78.6	93.0	80.8	89.2	89.6	83.8	82.6
MOISTURE (pcf)	23.3	86.2	26.1	24.7	22.8	22.1	26.6	22.0	27.3	25.8	27.2	22.7
PERCENT MOISTURE (%)	33.6	25.0	33.3	38.7	33.7	39.1	39.4	37.4	44.1	40.4	48	38
DENSITY COUNT	1263	1544	960	3326	1843	2001	1232	1856	1343	1181	1609	1745
MOISTURE COUNT	2441	315	322	311	287	280	333	279	342	324	340	288
PASS [P] or FAIL [F]	P	P	P	P	P	P	P	P	P	P	P	P

9/12/08

1-141

12"

133.8

76.9

99.0

22.0

28.6

102.7

2.81

LOCATION:

TEST NO. (from above)	X	Y	Z
34	24' W	OF #113	
35	18' W	12' W OF #122	
36	25' N OF #79		
37	50' N OF 95	ELEV 1320	
38	28' S OF #84	ELEV 1323	
39	24' W	6' S OF #122	ELEV 1323

TEST NO. (from above)	X	Y	Z
40	18' W	10' S OF #122	ELEV 1323
41	35' E	5' S OF #85	ELEV 1325
42	4' W OF #94	ELEV 1319	
43	58' W OF #94	ELEV 1319	
44	12' E OF #95	ELEV 1319	
45	10' W OF #28	W OF #74	

REMARKS:

46 32' E OF #120 ELEV 1316

SIGNED: RLD

DATE: 8/29/08

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site Date: 9/2/08
Client: Report No.:
Job No.: 0021-003-401 Inspector: RLO
Contractor: Zoladz Construction, Inc Page of

PROCTOR DATA:

Type of Material	WASTE
Source Area	ONSITE
Maximum Density	57.5 pcf
Optimum Moisture Content	54.4 %

PASSING REQUIREMENT:

98% of the Modified Proctor

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS					GAUGE INFORMATION:									
Density: _____					Troxler Model No.: 3440									
Moisture: _____					Troxler Serial No.: 32539									
TEST NUMBER	L-147	L-148	L-49*	L-50	L-51									
DEPTH OR ELEVATION	12"	12"	12"	12"	12"									
PERCENT COMPACTION (%)	108.7	94.7	109.5	109.1	109.7									
DRY DENSITY (pcf)	68.3	57.3	63.0	62.7	63.1									
WET DENSITY (pcf)	94.0	78.0	87.7	96.4	89.5									
MOISTURE (pcf)	25.7	20.7	24.7	23.7	26.4									
PERCENT MOISTURE (%)	37.7	36.1	42.5	37.8	41.8									
DENSITY COUNT	1199	2050	1377	1340	1387									
MOISTURE COUNT	325	365	337	301	333									
PASS [P] or FAIL [F]	P	P	P	P	P									

LOCATION:

TEST NO. (from above)	X	Y	Z
L-147	24'E	32'S #107	ENV 1317
L-148	~~10'W~~ 10'W	54'S OF #30	ENV 1317
L-49	28'W	25'S OF #11	ENV 1324
L-50	54'W	21'S OF #14	ENV 1323
L-51	54'E	30'S OF #202	ENV 1318

TEST NO. (from above)	X	Y	Z

REMARKS:

SIGNED: RLO

DATE: 9/2/08

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site

Date: 9/13/08

Client:

Report No.:

Job No.: 0021-003-401

Inspector:

Contractor: Zoladz Construction, Inc

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PROCTOR DATA:

Type of Material	WASTE
Source Area	WASTE
Maximum Density	57.5 pcf
Optimum Moisture Content	54.4 %

PASSING REQUIREMENT:

90% of the Modified Proctor

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS				GAUGE INFORMATION:											
Density:				Troxler Model No.:	3440										
Moisture:				Troxler Serial No.:	32534										
TEST NUMBER	2-52	2-53	2-54												
DEPTH OR ELEVATION	12"	12"	12"												
PERCENT COMPACTION (%)	116.6	107.7	117.9												
DRY DENSITY (pcf)	67	61.9	67.8												
WET DENSITY (pcf)	96.1	90.7	98.3												
MOISTURE (pcf)	29.1	28.7	30.5												
PERCENT MOISTURE (%)	43.4	46.4	45.0												
DENSITY COUNT	1113	1367	1033												
MOISTURE COUNT	365	361	384												
PASS [P] or FAIL [F]	P	P	P												

LOCATION:

TEST NO. (from above)	X	Y	Z
2-52	418' N of # 21		Elev 134.8
2-53	60' N of # 21		Elev 134.8
2-54	115' E	120' S of # 20	Elev 132.1

TEST NO. (from above)	X	Y	Z

REMARKS:

SIGNED: RLD

DATE: 9/13/08

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site Date: 9/14/08
Client: Report No.:
Job No.: 0021-003-401 Inspector:
Contractor: Zoladz Construction, Inc Page of

PROCTOR DATA:

Type of Material	WASH
Source Area	Onsite
Maximum Density	57.5 pcf
Optimum Moisture Content	54.4 %

PASSING REQUIREMENT:

85% of the Modified Proctor
90

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS				GAUGE INFORMATION:											
Density: _____				Troxler Model No.: 3440											
Moisture: _____				Troxler Serial No.: 32537											
TEST NUMBER	4-55	1-56	2-57												
DEPTH OR ELEVATION	12"	12"	12"												
PERCENT COMPACTION (%)	131.8	107.7	156.5												
DRY DENSITY (pcf)	75.8	62.0	90.0												
WET DENSITY (pcf)	98.2	90.4	110.6												
MOISTURE (pcf)	22.5	28.4	20.6												
PERCENT MOISTURE (%)	29.7	45.8	22.9												
DENSITY COUNT	1051	1345	712												
MOISTURE COUNT	287	360	267												
PASS [P] or FAIL [F]	P	P	P												

LOCATION:

TEST NO. (from above)	X	Y	Z
28' N 05' H 86 EHV			1319
85' N 05' H 86 EHV			1319
50' E 22' N 05' H 86 EHV			1319

TEST NO. (from above)	X	Y	Z

REMARKS:

SIGNED:

RLO

DATE:

9/14/08

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site Date: 7/5/07
Client: Report No.:
Job No.: 0021-003-401 Inspector:
Contractor: Zoladz Construction, Inc Page of

PROCTOR DATA:

Type of Material	WASH
Source Area	U.S.R
Maximum Density	57.5 pcf
Optimum Moisture Content	54.4 %

PASSING REQUIREMENT:

85% of the Modified Proctor
90

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS				GAUGE INFORMATION:														
Density: _____				Troxler Model No.: 3440														
Moisture: _____				Troxler Serial No.: _____														
TEST NUMBER	L-58	L-59	L-60															
DEPTH OR ELEVATION	12"	12"	12"															
PERCENT COMPACTION (%)	108.3	103.5	104.6															
DRY DENSITY (pcf)	62.3	59.5	60.1															
WET DENSITY (pcf)	94.0	90.2	89.5															
MOISTURE (pcf)	31.2	59.5	24.8															
PERCENT MOISTURE (%)	51	90.2	44.5															
DENSITY COUNT	1188	1515	1360															
MOISTURE COUNT	398	386	315															
PASS [P] or FAIL [F]	P	P	P															

LOCATION:

TEST NO. (from above)	X	Y	Z
L-58	75' W	215' S of # 14	Elev 1321
L-59	41' S of # 207	# 207	Elev 1314

TEST NO. (from above)	X	Y	Z

REMARKS:

SIGNED:

RLO

DATE:

9/5/08

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site Date: 9/8/08
Client: Report No.:
Job No.: 0021-003-401 Inspector:
Contractor: Zoladz Construction, Inc Page of

PROCTOR DATA:

Type of Material	WASTE
Source Area	ON SITE
Maximum Density	57.5 pcf
Optimum Moisture Content	54.4 %

PASSING REQUIREMENT:

85% of the Modified Proctor
90

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS					GAUGE INFORMATION:									
Density:					Troxler Model No.:	3440								
Moisture:					Troxler Serial No.:	32539								
TEST NUMBER	61	62	63	64	65									
DEPTH OR ELEVATION	12"	12"	12"	12"	12"									
PERCENT COMPACTION (%)	96.7	105.3	104.9	122.3	100.8									
DRY DENSITY (pcf)	55.6	60.5	63.2	70.3	52.9									
WET DENSITY (pcf)	81.8	90.7	90.3	95.6	87.2									
MOISTURE (pcf)	26.1	30.2	27.1	25.2	24.2									
PERCENT MOISTURE (%)	47.0	49.8	42.8	35.9	50.5									
DENSITY COUNT	1282	1320	1345	1135	1413									
MOISTURE COUNT	333	381	344	322	370									
PASS [P] or FAIL [F]	P	P	P	P	P									

LOCATION:

TEST NO. (from above)	X	Y	Z
61-80' N of H 207		1316	
62-62' W of H 203		1317	
63-31' N 38' E of H 202		1318	
64-25' N 42' E of H 86		1322	
65-35' N - 20' W of H 86		1321	

TEST NO. (from above)	X	Y	Z

REMARKS:

SIGNED:

RLO

DATE:

9/8/08

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site

Date: 9/10/08

Client:

Report No.:

Job No.: 0021-003-401

Inspector: hup

Contractor: Zoladz Construction, Inc

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of

PROCTOR DATA:

Type of Material	WASTE
Source Area	UNSAT
Maximum Density	57.5 pcf
Optimum Moisture Content	54.4 %

PASSING REQUIREMENT:

90% of the Modified Proctor

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS		GAUGE INFORMATION:									
Density:		Troxler Model No.: 3440									
Moisture:		Troxler Serial No.: 32534									
TEST NUMBER	66	67	68	69							
DEPTH OR ELEVATION	12"	12"	12"	12"							
PERCENT COMPACTION (%)	116.8	120.6	139.5	97.4							
DRY DENSITY (pcf)	67.2	69.3	80.2	56.0							
WET DENSITY (pcf)	96.2	97.5	106.4	83.2							
MOISTURE (pcf)	29.1	28.2	22.1	27.1							
PERCENT MOISTURE (%)	43.3	40.6	27.6	48.5							
DENSITY COUNT	1104	1062	916	1649							
MOISTURE COUNT	368	357	285	341							
PASS [P] or FAIL [F]	P	P	P	P							

LOCATION:

TEST NO. (from above)	X	Y	Z
50' S	05' # 14	ELV 1322	
130 N	45' W # 1	ELV 1300	
51' N	05' # 20	1318'	
85' N	05' # 100	ELV 1125	

TEST NO. (from above)	X	Y	Z

REMARKS:

SIGNED:

hup

DATE:

9/10/08

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site
 Client:
 Job No.: 0021-003-401
 Contractor: Zoladz Construction, Inc

Date: 9/11/08
 Report No.:
 Inspector: nld
 Page of

PROCTOR DATA:

Type of Material	in situ
Source Area	on site
Maximum Density	57.5 pcf
Optimum Moisture Content	54.4 %

PASSING REQUIREMENT:

85% of the Modified Proctor
 40

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS			GAUGE INFORMATION:									
Density:			Troxler Model No.:		3440							
Moisture:			Troxler Serial No.:		32531							
TEST NUMBER	70	71										
DEPTH OR ELEVATION	12"	12"										
PERCENT COMPACTION (%)	83.8	115.9										
DRY DENSITY (pcf)	73.3	66.7										
WET DENSITY (pcf)	94.5	90.9										
MOISTURE (pcf)	21.2	24.2										
PERCENT MOISTURE (%)	29.0	36.4										
DENSITY COUNT	1181	1329										
MOISTURE COUNT	271	310										
PASS [P] or FAIL [F]	P	P										

LOCATION:

TEST NO. (from above)	X	Y	Z
70	54' N OF #20		ELEV 13.7
71	30' N 8' E OF #20		ELEV 13.7

TEST NO. (from above)	X	Y	Z

REMARKS:

SIGNED:

nld

DATE:

9/11/08

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site Date: 9/12/08
Client: Report No.:
Job No.: 0021-003-401 Inspector: RLO
Contractor: Zoladz Construction, Inc Page of

PROCTOR DATA:

Type of Material	WASTE/FILL
Source Area	ON SITE
Maximum Density	57.5 pcf
Optimum Moisture Content	54.4 %

PASSING REQUIREMENT:

85% of the Modified Proctor
GO

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS				GAUGE INFORMATION:									
Density: _____				Troxler Model No.: 3440									
Moisture: _____				Troxler Serial No.: 32334									
TEST NUMBER	72	73	74										
DEPTH OR ELEVATION	12"	12"	12"										
PERCENT COMPACTION (%)	119.5	142.5	126.9										
DRY DENSITY (pcf)	57.2	82.0	73.0										
WET DENSITY (pcf)	81.7	103.8	98.4										
MOISTURE (pcf)	24.5	21.8	25.4										
PERCENT MOISTURE (%)	42.8	26.6	34.8										
DENSITY COUNT	1793	877	1036										
MOISTURE COUNT	313	281	314										
PASS [P] or FAIL [F]	P	P	P										

LOCATION:

TEST NO. (from above)	X	Y	Z
72	63' N OF # 86	EHL	132L
73	61' E 65' N OF # 100	EHL	132L
74	89' N OF # 100	EHL	132D

TEST NO. (from above)	X	Y	Z

REMARKS:

SIGNED:

RLO

DATE:

9/12/08

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site Date: 9/17/08
 Client: Report No.:
 Job No.: 0021-003-401 Inspector: RW
 Contractor: Zoladz Construction, Inc Page of

PROCTOR DATA:

Type of Material	Sub/Fill
Source Area	Onsite
Maximum Density	57.5 pcf
Optimum Moisture Content	54.4 %

PASSING REQUIREMENT:

85% of the Modified Proctor
90

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS				GAUGE INFORMATION:							
Density: _____				Troxler Model No.: 3440							
Moisture: _____				Troxler Serial No.: 32534							
TEST NUMBER	75	76	77	78	79	80					
DEPTH OR ELEVATION	12.1	12.1	12.1	12.1	12.1	12.1					
PERCENT COMPACTION (%)	115.6	116.6	113.2	123.7	116.7	107.0					
DRY DENSITY (pcf)	66.4	67.2	65.1	71.1	66.7	61.5					
WET DENSITY (pcf)	95.8	95.1	90.2	97.2	93.7	92.7					
MOISTURE (pcf)	29.3	27.9	25.1	26.1	27.0	31.2					
PERCENT MOISTURE (%)	44.1	41.5	38.5	36.7	40.5	50.7					
DENSITY COUNT	1127	1155	1361	1082	1210	1234					
MOISTURE COUNT	323	356	322	334	345	396					
PASS [P] or FAIL [F]	P	P	P	P	P	P					

LOCATION:

TEST NO. (from above)	X	Y	Z
75	31' ~ 0' # 71	24' ~ 13' 8"	
76	35' ~ 0' # 72	24' ~ 13' 2"	
77	63' ~ 0' # 72	21' ~ 13' 24"	
78	40' ~ 0' # 74	24' ~ 13' 18"	
79	60' ~ 0' # 82	24' ~ 13' 25"	
80	43' ~ 18' ~ 0' # 76	21' ~ 13' 23"	

TEST NO. (from above)	X	Y	Z

REMARKS:

SIGNED:

RW

DATE:

9/17/08

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site Date: 9/18/08
Client: Report No.:
Job No.: 0021-003-401 Inspector: RWD
Contractor: Zoladz Construction, Inc Page of

PROCTOR DATA:

Type of Material	Waste/Fill
Source Area	Onsite
Maximum Density	127.5 pcf
Optimum Moisture Content	14.4 %

PASSING REQUIREMENT:

85% of the Modified Proctor
90

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS				GAUGE INFORMATION:							
Density:				Troxler Model No.:	3440						
Moisture:				Troxler Serial No.:	32537						
TEST NUMBER	81	82	83								
DEPTH OR ELEVATION	12'	12'	12'								
PERCENT COMPACTION (%)	122.3	104.0	119.7								
DRY DENSITY (pcf)	20.3	60.3	68.9								
WET DENSITY (pcf)	97.0	85.8	96.8								
MOISTURE (pcf)	26.7	25.6	28.0								
PERCENT MOISTURE (%)	38.0	42.4	40.7								
DENSITY COUNT	1087	1571	1043								
MOISTURE COUNT	337	323	352								
PASS [P] or FAIL [F]	P	P	P								

LOCATION:

TEST NO. (from above)	X	Y	Z
81	38' N	25' W of	H 24 Elev 132.4
82	60' 213'	N 68' E	25' H 214 Elev 132.3
83	45' S	15' W of	H 20 Elev 132.1

TEST NO. (from above)	X	Y	Z

REMARKS:

SIGNED:

RWD

DATE:

9/18/08

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site Date: 9/19/08
Client: Report No.:
Job No.: 0021-003-401 Inspector: RLD
Contractor: Zoladz Construction, Inc Page of

PROCTOR DATA:

Type of Material	WASP
Source Area	Onsite
Maximum Density	53.5 pcf
Optimum Moisture Content	54.4 %

PASSING REQUIREMENT:

90% of the Modified Proctor

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS				GAUGE INFORMATION:							
Density: _____				Troxler Model No.: 3440							
Moisture: _____				Troxler Serial No.: 32531							
TEST NUMBER	84	85	86								
DEPTH OR ELEVATION	12"	12"	12"								
PERCENT COMPACTION (%)	126.4	122.2	117.7								
DRY DENSITY (pcf)	72.7	70.3	67.7								
WET DENSITY (pcf)	101.0	92.0	96.3								
MOISTURE (pcf)	28.3	26.7	28.6								
PERCENT MOISTURE (%)	39.0	38.0	42.2								
DENSITY COUNT	935	1887	111								
MOISTURE COUNT	356	357	354								
PASS [P] or FAIL [F]	P	P	P								

LOCATION:

TEST NO. (from above)	X	Y	Z
84			Elev 131.8
85			
86			

TEST NO. (from above)	X	Y	Z

REMARKS:

SIGNED: RLD

DATE: 9/19/08

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site Date: 9/22/08
Client: Report No.:
Job No.: 0021-003-401 Inspector: RLD
Contractor: Zoladz Construction, Inc Page of

PROCTOR DATA:

Type of Material	WATER
Source Area	CLAY
Maximum Density	53.5 pcf
Optimum Moisture Content	54.4 %

PASSING REQUIREMENT:

90.88% of the Modified Proctor

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS				GAUGE INFORMATION:							
Density: _____				Troxler Model No.: 3440							
Moisture: _____				Troxler Serial No.: 32534							
TEST NUMBER	87	88	89	90							
DEPTH OR ELEVATION	12"	12"	12"	12"							
PERCENT COMPACTION (%)	139.4	119.8	127.5	131.4							
DRY DENSITY (pcf)	80.2	68.9	73.3	75.6							
WET DENSITY (pcf)	104.4	97.8	91.5	94.0							
MOISTURE (pcf)	24.3	28.9	18.1	23.4							
PERCENT MOISTURE (%)	30.3	42.0	24.7	31.0							
DENSITY COUNT	861	1007	1321	1025							
MOISTURE COUNT	308	363	235	248							
PASS [P] or FAIL [F]	P	P	P	P							

LOCATION:

TEST NO. (from above)	X	Y	Z
87	15' N OF #207		ELV 1315
88	55' 30" S OF #207		ELV 1321
89	68' W 44' S OF #207		ELV 1324
90	79' S OF #207		ELV 1323

TEST NO. (from above)	X	Y	Z

REMARKS:

SIGNED:

RLD

DATE:

9/22/08

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site Date: 9/23/08
Client: Report No.:
Job No.: 0021-003-401 Inspector: RLD
Contractor: Zoladz Construction, Inc Page of

PROCTOR DATA:

Type of Material	WASTE / FILL
Source Area	ON-SITE
Maximum Density	87.5 pcf
Optimum Moisture Content	54.4 %

PASSING REQUIREMENT:

90% of the Modified Proctor

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS		GAUGE INFORMATION:									
Density:		Troxler Model No.: 3440									
Moisture:		Troxler Serial No.: 32534									
TEST NUMBER	91 92										
DEPTH OR ELEVATION	12" 12"										
PERCENT COMPACTION (%)	122.1 124.7										
DRY DENSITY (pcf)	70.2 71.7										
WET DENSITY (pcf)	95.2 99.1										
MOISTURE (pcf)	24.9 27.4										
PERCENT MOISTURE (%)	35.5 38.3										
DENSITY COUNT	1162 1018										
MOISTURE COUNT	316 346										
PASS [P] or FAIL [F]	P P										

LOCATION:

TEST NO. (from above)	X	Y	Z
91	24'S - 78' W OF # 207		ELEV 1315
92	~~24'S~~ 28' N 12' E # 202		ELEV 1317

TEST NO. (from above)	X	Y	Z

REMARKS:

SIGNED:

RLD

DATE:

9/23/08

APPENDIX B

INSPECTOR'S DAILY REPORTS

INSPECTOR'S DAILY REPORT

1

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	7/30/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Wed
WEATHER	PT cloudy - fm PM	TEMP °F	77
		START	0800
		END	15:30

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

Contractor mobilized onsite with "HydroAx" Brush cutter.
meet w/ John Zoladz. Discuss procedure for clearing &
grubbing. Begin clearing & grubbing Along north west
side of waste pile.

- Contractor Installed construction sign at entrance.

- The Blower on HydroAx, contractor stopped clearing & grubbing
At 2:00pm, Offsite at 2:30pm.

BENCHMARK ACTIVITIES:

Observed clearing & grubbing Activities performed by
contractor.

- Attempted to locate survey control points, using GPS.

TEST PERFORMED

QA PERSONNEL
SIGNATURE

[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc			
CLIENT		DATE:		
LOCATION	Peter Cooper Markhams NPL Site		DAY	
WEATHER		TEMP ° F	START	
			JOB NO.	
			END	

MEETINGS HELD & RESULTS:

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.			DJ Dump truck		
Laborer-Foreman			Carpenter						Water Truck		
Laborer									Backhoe		
Operating Engineer		1	Concrete Finisher						Excavator		
						Roller			Pad foot roller		
Carpenter						Paving Equipment			HYDRO AX		1
						Air Compressor					

REMARKS:

REFERENCES TO OTHER FORMS:

SAMPLES COLLECTED:

SAMPLE NUMBER				
APPROX. LOCATION OF STOCKPILE				
NO. OF STOCKPILE				
DATE OF COLLECTION				
CLIMATOLOGIC CONDITIONS				
FIELD OBSERVATION			SHEET	2 OF 2

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	7/31/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Thursday
WEATHER	PT Sunny	TEMP	77°F
		START	0730
		JOB NO.	
		END	1530

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- Onsite - Contractor Repairing Tire on Hydro-Ax
- Complete Repair at 9:00 AM, continue clearing & grubbing
- Contractor Mobilized 1- JD Dozer onsite
- clearing & grubbing with Hydro-Ax until 4:00 pm.
- no other activities performed today.

BENCHMARK ACTIVITIES:

- collected 50.2 samples for Laboratory ~~Analysis~~ Analysis
- 7 samples collected for PCB, VOCs, SVOCs, PESTICIDES, & METALS
- Samples collected from excavated storage pit at MSD chemical products in Edingtown NY.
- continue to observe clearing & grubbing activities

TEST PERFORMED

QA PERSONNEL
SIGNATURE

[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	8/4/07
LOCATION	Peter Cooper Markhams NPL Site	DAY	Monday
WEATHER	Pt Sunny	TEMP	75°F
		START	0800
		JOB NO.	
		END	1530

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- Continue with clearing & grubbing using Hydro Ax.
- Entrance gate installed at Bently Road.

BENCHMARK ACTIVITIES:

- Prepare to layout waste limits & work limits
- John Deh (Benchmark) to Assist with Survey layout
- Locating ^{Survey} Control points

TEST PERFORMED

QA PERSONNEL
SIGNATURE

[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	8/14/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Monday
WEATHER	Pt Sunny	TEMP	75°F
		START	0800
		JOB NO.	
		END	1530

MEETINGS HELD & RESULTS:

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.			DJ Dump truck		
Laborer-Foreman			Carpenter						Water Truck		
Laborer									Backhoe		
Operating Engineer		/	Concrete Finisher						Excavator		
						Roller			Pad foot roller		
Carpenter						Paving Equipment			Hydro Ax		1
						Air Compressor					

REMARKS:

REFERENCES TO OTHER FORMS:

SAMPLES COLLECTED:				
SAMPLE NUMBER				
APPROX. LOCATION OF STOCKPILE				
NO. OF STOCKPILE				
DATE OF COLLECTION				
CLIMATOLOGIC CONDITIONS				
FIELD OBSERVATION		SHEET	OF	

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	8/5/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Tuesday
WEATHER	Sunny	TEMP	80°F
		START	0700
		END	1600

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- continue clear Brush & vegetation with Hyd Ax.

- Contractor mobilizing Equipment, - John Deere Tree Feller on site. - Also hydraulic man lift.

BENCHMARK ACTIVITIES:

- continue to layout work limits & waste limits with GPS. - no other work performed today.

TEST PERFORMED

QA PERSONNEL
SIGNATURE

[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	8/5/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Tuesday
WEATHER	Sunny	TEMP	80°F
		START	0700
		JOB NO.	
		END	1600

MEETINGS HELD & RESULTS:

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		/
						Welding Equip.			DJ Dump truck		
Laborer-Foreman			Carpenter			Tree Felling		/	Water Truck		
Laborer									Backhoe		
Operating Engineer		2	Concrete Finisher						Excavator		
						Roller			Pad foot roller		
Carpenter						Paving Equipment			ATV 4x4		/
						Air Compressor			MAN Lift		/

REMARKS:

REFERENCES TO OTHER FORMS:

SAMPLES COLLECTED:

SAMPLE NUMBER	
APPROX. LOCATION OF STOCKPILE	
NO. OF STOCKPILE	
DATE OF COLLECTION	
CLIMATOLOGIC CONDITIONS	
FIELD OBSERVATION	

SHEET

OF

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	8/6/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Wed
WEATHER	Sunny	TEMP	80°F
		START	0700
		END	1630

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

Contractor using Tree Feller to cut trees & stockpile.
Continue to use Hydro Ax for clearing & grubbing.

~~John~~ John Deere Log skidder Delivered Onsite.

Contractor Scheduled to Start Entrance Road on Thursday.

BENCHMARK ACTIVITIES:

Continue to lay out waste limits & work limits with GPS.
John Deere (Benchmark) onsite.

TEST PERFORMED

QA PERSONNEL
SIGNATURE

Rich Diaz
[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	8/6/07
LOCATION	Peter Cooper Markhams NPL Site	DAY	Wed
WEATHER	Sunny	TEMP	80°F
		START	0700
		JOB NO.	
		END	1630

MEETINGS HELD & RESULTS:

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		1
						Welding Equip.			DJ Dump truck		
Laborer-Foreman			Carpenter			MAN LIFT		1	Water Truck		
Laborer						LOD SKIDDER		1	Backhoe		
Operating Engineer		2	Concrete Finisher						Excavator		
						Roller			Pad foot roller		
Carpenter						Paving Equipment			Hydro Ax	8	1
						Air Compressor			Tree Fellr	8	1

REMARKS:

REFERENCES TO OTHER FORMS:

SAMPLES COLLECTED:				
SAMPLE NUMBER				
APPROX. LOCATION OF STOCKPILE				
NO. OF STOCKPILE				
DATE OF COLLECTION				
CLIMATOLOGIC CONDITIONS				
FIELD OBSERVATION			SHEET	OF

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	8/7/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Thursday
WEATHER		TEMP °F	
		START	
		END	

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- Continue to clear brush & trees with Hydro Ax & Tree Felling.
- Begin placing crushed stone/shs on roadway, using JD Dozer & Smooth Drum Roller.

BENCHMARK ACTIVITIES:

- John Deeth onsite to observe contractor activities

TEST PERFORMED

QA PERSONNEL
SIGNATURE

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	8/7/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Thurs
WEATHER	Raw	TEMP	75°F
		START	
		END	

MEETINGS HELD & RESULTS:

CONTRACTOR'S WORK FORCE AND EQUIPMENT											
DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		1
						Welding Equip.			DJ Dump truck		
Laborer-Foreman			Carpenter			MANEPT		1	Water Truck		
Laborer						7000 Falm		1	Backhoe		
Operating Engineer		3	Concrete Finisher			14x00 Ax		1	Excavator		1
						Roller		1	Pad foot roller		
Carpenter						Paving Equipment			LOS SUPPLY		1
						Air Compressor					

REMARKS:

REFERENCES TO OTHER FORMS:

SAMPLES COLLECTED:				
SAMPLE NUMBER				
APPROX. LOCATION OF STOCKPILE				
NO. OF STOCKPILE				
DATE OF COLLECTION				
CLIMATOLOGIC CONDITIONS				
FIELD OBSERVATION		SHEET	OF	

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	8/8/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Friday
WEATHER	LT Rain-Am	TEMP	65°F
		START	0700
		END	1600

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- continue to clear trees & vegetation with Tree Fellor & Hydro AX.
- Continue to place & spread crushed stone/slag on main Roadway. - material spread with Dozer & rolled with Smooth Drum Roller.

BENCHMARK ACTIVITIES:

- Continue oversight of contractor Activities.

TEST PERFORMED

QA PERSONNEL
SIGNATURE

R. G. 10132

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	8/8/07
LOCATION	Peter Cooper Markhams NPL Site	DAY	Friday
WEATHER		TEMP °F	
		START	
		JOB NO.	
		END	

MEETINGS HELD & RESULTS:

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer	8	1
						Welding Equip.			DJ Dump truck		
Laborer-Foreman			Carpenter			Yee Fellin	8	1	Water Truck		
Laborer						Hydro Ax	8	1	Backhoe		
Operating Engineer		3	Concrete Finisher			Los Shion		1	Excavator		1
						Roller	8	1	Pad foot roller		
Carpenter						Paving Equipment					
						Air Compressor					

REMARKS:

REFERENCES TO OTHER FORMS:

SAMPLES COLLECTED:

SAMPLE NUMBER	
APPROX. LOCATION OF STOCKPILE	
NO. OF STOCKPILE	
DATE OF COLLECTION	
CLIMATOLOGIC CONDITIONS	
FIELD OBSERVATION	

SHEET

OF

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	8/11/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Monday
WEATHER	Am- Rain	TEMP	70°F
		START	0730
		END	1600

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- Continue to cut trees within WAKE limits.
- Staging cut trees FOR grinding.
- no other work performed today

Equipment used include: JD Tree Fellor, JD Log skidder, Excavator with grapple, JD Dozer

- J. Zoladz & J. Linn (Zoladz) onsite.

BENCHMARK ACTIVITIES:

- Observed Staging of trees FOR grinding.
- marked trees along wet lands which need to be cut.
- John Dem onsite to reset control points, placed a new control point labeled "CP-M1" Along East Side of site.

- Informed Contractor to install silt fence after vegetation is removed.

TEST PERFORMED

QA PERSONNEL
SIGNATURE

R. D. B. 2

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc				
CLIENT				DATE:	
LOCATION	Peter Cooper Markhams NPL Site			DAY	
WEATHER		TEMP	° F	START	
				JOB NO.	
				END	

MEETINGS HELD & RESULTS:

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.			DJ Dump truck		
Laborer-Foreman			Carpenter						Water Truck		
Laborer									Backhoe		
Operating Engineer			Concrete Finisher						Excavator		
						Roller			Pad foot roller		
Carpenter						Paving Equipment					
						Air Compressor					

REMARKS:

REFERENCES TO OTHER FORMS:

SAMPLES COLLECTED:				
SAMPLE NUMBER				
APPROX. LOCATION OF STOCKPILE				
NO. OF STOCKPILE				
DATE OF COLLECTION				
CLIMATOLOGIC CONDITIONS				
FIELD OBSERVATION		SHEET	OF	

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	8/12/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Tues. 11/4
WEATHER	PT Sunny	TEMP	70°F
		START	0700
		JOB NO.	
		END	1700

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- Continue to cut trees a stage trees For grinding/mulchers.
- Tree cutting approx 90% complete.
- Loading Logs onto Log Rack.
- Installed Silt Fence Along wetlands - north End of site waste piles.

BENCHMARK ACTIVITIES:

Observing clearing & grubbing Activities by contractor

TEST PERFORMED

QA PERSONNEL
SIGNATURE

R. D. S. S.
[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc				
CLIENT				DATE:	
LOCATION	Peter Cooper Markhams NPL Site			DAY	
WEATHER		TEMP	° F	START	
				JOB NO.	
				END	

MEETINGS HELD & RESULTS:

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.			DJ Dump truck		
Laborer-Foreman			Carpenter						Water Truck		
Laborer									Backhoe		
Operating Engineer			Concrete Finisher						Excavator		
						Roller			Pad foot roller		
Carpenter						Paving Equipment					
						Air Compressor					

REMARKS:

REFERENCES TO OTHER FORMS:

SAMPLES COLLECTED:				
SAMPLE NUMBER				
APPROX. LOCATION OF STOCKPILE				
NO. OF STOCKPILE				
DATE OF COLLECTION				
CLIMATOLOGIC CONDITIONS				
FIELD OBSERVATION		SHEET	OF	

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	8/13/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	wed
WEATHER	Sunny	TEMP	75°F
		START	0700
		JOB NO.	
		END	1200

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- Contractor prepared ground for trees.
- complete cutting of trees with JD Ferris.
- Staking brush & wood for grinding.

BENCHMARK ACTIVITIES:

- Observed in staking of trees during morning.
- Contractor not grinding trees due to mechanical breakdown of grinder.
- Return to office.

TEST PERFORMED

QA PERSONNEL
SIGNATURE

R. D. D. S.

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	8/13/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	
WEATHER		TEMP ° F	
		START	
		JOB NO.	
		END	

MEETINGS HELD & RESULTS:

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		/
						Welding Equip.			DJ Dump truck		
Laborer-Foreman			Carpenter			LOG SKIDDER		/	Water Truck		
Laborer									Backhoe		
Operating Engineer			Concrete Finisher						Excavator		2
						Roller		/	Pad foot roller		
Carpenter						Paving Equipment			HYDRO AX		1
						Air Compressor			Tree Felice		1

REMARKS:

REFERENCES TO OTHER FORMS:

SAMPLES COLLECTED:

SAMPLE NUMBER

APPROX. LOCATION OF STOCKPILE

NO. OF STOCKPILE

DATE OF COLLECTION

CLIMATOLOGIC CONDITIONS

FIELD OBSERVATION

SHEET

OF

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	8/14/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Thursday
WEATHER	Summer	TEMP	82 25°F
		START	0730
		JOB NO.	
		END	1800

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- Contractor Removing 30 Tree Felon & Hydro Ax From Site.
- mobilized CASE Excavator.
- working on Tree grinding
- Staking Brush w/Excavator
- no Tree grinding today due to mechanical Breakdown

Equip Used - 2-Excavators
Onsite 1-Digger
1-Log skidding
1-Excavator w/grapple

BENCHMARK ACTIVITIES:

- observe clearing & grubbing Activities
- Informed Jeff Luce (Zoladz) to continue with installing Silt Fence around Site.

TEST PERFORMED

QA PERSONNEL
SIGNATURE

R. D. B. Sz

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc				
CLIENT				DATE:	
LOCATION	Peter Cooper Markhams NPL Site			DAY	
WEATHER		TEMP	° F	START	
				JOB NO.	
				END	

MEETINGS HELD & RESULTS:

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.			DJ Dump truck		
Laborer-Foreman			Carpenter						Water Truck		
Laborer									Backhoe		
Operating Engineer			Concrete Finisher						Excavator		
						Roller			Pad foot roller		
Carpenter						Paving Equipment					
						Air Compressor					

REMARKS:

REFERENCES TO OTHER FORMS:

SAMPLES COLLECTED:				
SAMPLE NUMBER				
APPROX. LOCATION OF STOCKPILE				
NO. OF STOCKPILE				
DATE OF COLLECTION				
CLIMATOLOGIC CONDITIONS				
FIELD OBSERVATION			SHEET	OF

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	8/18/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	FRIDAY
WEATHER	Sunny	TEMP	75°F
		START	0700
		END	1630

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

Am - Staking & clearing Brush from work piles with Excavators.

-pm - Repair grapple, Begin Grinding of Trees
1400 - Begin grinding of Trees.

Equip Used - Petrus Grindax
JO Dzer
Excavators (2)
Excavator w/ grapple
JO Log skidder

BENCHMARK ACTIVITIES:

Observe clearing & grubbing. Φ
Observe Tree grinding.

Attempt to locate monitoring wells Mon - 75 170, 85 80

TEST PERFORMED

QA PERSONNEL
SIGNATURE

R. D. 52

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc				
CLIENT				DATE:	
LOCATION	Peter Cooper Markhams NPL Site			DAY	
WEATHER		TEMP	° F	START	
				JOB NO.	
				END	

MEETINGS HELD & RESULTS:

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.			DJ Dump truck		
Laborer-Foreman			Carpenter						Water Truck		
Laborer									Backhoe		
Operating Engineer			Concrete Finisher						Excavator		
						Roller			Pad foot roller		
Carpenter						Paving Equipment					
						Air Compressor					

REMARKS:

REFERENCES TO OTHER FORMS:

SAMPLES COLLECTED:				
SAMPLE NUMBER				
APPROX. LOCATION OF STOCKPILE				
NO. OF STOCKPILE				
DATE OF COLLECTION				
CLIMATOLOGIC CONDITIONS				
FIELD OBSERVATION		SHEET		OF

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	8/19/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Mon
WEATHER	Sunny	TEMP	75°F
		START	0700
		JOB NO.	
		END	1630

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

Continue to grind trees & brush into mulch material. - no other work performed today

Equip used- 1-grinder
1- 30 Dozer
1- Grapple Excavator
1- Log skidder

BENCHMARK ACTIVITIES:

- Observe clearing & grinding activities.
- collect sample from MSD Gravel products for final comp.
- ~~Observe~~ One (1) sample collected from screened material.
- Sample Represents 1200 - 1500 cy - Sample Delivered to 3rd Rock Testing for Analysis As per Specs.
- Discuss grinding of stumps with Zoladz.

TEST PERFORMED

QA PERSONNEL
SIGNATURE

P. D. 52

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc				
CLIENT				DATE:	
LOCATION	Peter Cooper Markhams NPL Site			DAY	
WEATHER		TEMP	° F	START	
				JOB NO.	
				END	

MEETINGS HELD & RESULTS:

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.			DJ Dump truck		
Laborer-Foreman			Carpenter						Water Truck		
Laborer									Backhoe		
Operating Engineer			Concrete Finisher						Excavator		
						Roller			Pad foot roller		
Carpenter						Paving Equipment					
						Air Compressor					

REMARKS:

REFERENCES TO OTHER FORMS:

SAMPLES COLLECTED:

SAMPLE NUMBER				
APPROX. LOCATION OF STOCKPILE				
NO. OF STOCKPILE				
DATE OF COLLECTION				
CLIMATOLOGIC CONDITIONS				
FIELD OBSERVATION			SHEET	OF

INSPECTOR'S DAILY REPORT

CONTRACTOR Zoladz Construction, Co, Inc

CLIENT

DATE:

8/19/08

LOCATION Peter Cooper Markhams NPL Site

DAY

Tues

JOB NO.

WEATHER

PT Sunny

TEMP

82 70°F

START

0700.

END

1630

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- Clearing & gathering Brush piles with Excavator
- Removing Stumps from ^{sub}piles with JD Dozer & Excavator.
- Installing Silt Fence around wetlands.
- no other major Activities.

Equip used - JD Dozer
Excavators (2) one w/grip

BENCHMARK ACTIVITIES:

- observe Stump & Brush Stock piling Activities
- Tom Furlong onsite - Discuss Stump removal with Zoladz, - It was agreed By Benchmark & Zoladz, that the stumps will be removed from the piles & ground into mulch.
- Informed Zoladz that the Railroad spur can be removed if wanted to By Zoladz.
- located monitoring wells mw-65, 60, 75, 70.

TEST PERFORMED

QA PERSONNEL
SIGNATURE

R. Davis

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	
LOCATION	Peter Cooper Markhams NPL Site	DAY	
WEATHER		TEMP ° F	
		START	
		JOB NO.	
		END	

MEETINGS HELD & RESULTS:

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.			DJ Dump truck		
Laborer-Foreman			Carpenter						Water Truck		
Laborer									Backhoe		
Operating Engineer			Concrete Finisher						Excavator		
						Roller			Pad foot roller		
Carpenter						Paving Equipment					
						Air Compressor					

REMARKS:

REFERENCES TO OTHER FORMS:

SAMPLES COLLECTED:				
SAMPLE NUMBER				
APPROX. LOCATION OF STOCKPILE				
NO. OF STOCKPILE				
DATE OF COLLECTION				
CLIMATOLOGIC CONDITIONS				
FIELD OBSERVATION		SHEET	OF	

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	8/20/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Wed
WEATHER	Sunny	TEMP	75°F
		START	0100
		END	1200

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- Removing Stumps & Brush From waste piles Grinding Stumps.
- Off Road Dump Truck Brought onsite.

BENCHMARK ACTIVITIES:

TEST PERFORMED

QA PERSONNEL
SIGNATURE

R. D. RISE
[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc				
CLIENT				DATE:	
LOCATION	Peter Cooper Markhams NPL Site			DAY	
WEATHER		TEMP	° F	START	
				JOB NO.	
				END	

MEETINGS HELD & RESULTS:

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.			DJ Dump truck		
Laborer-Foreman			Carpenter						Water Truck		
Laborer									Backhoe		
Operating Engineer			Concrete Finisher						Excavator		
						Roller			Pad foot roller		
Carpenter						Paving Equipment					
						Air Compressor					

REMARKS:

REFERENCES TO OTHER FORMS:

SAMPLES COLLECTED:				
SAMPLE NUMBER				
APPROX. LOCATION OF STOCKPILE				
NO. OF STOCKPILE				
DATE OF COLLECTION				
CLIMATOLOGIC CONDITIONS				
FIELD OBSERVATION		SHEET	OF	

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	8/2/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Thurs
WEATHER	Sunny	TEMP	80°F
		START	0700
		END	1700

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- Gathering stumps & brush for mulching/Grinding
- 30 750 Dozer mobilized on site
- Equip used today - 30 Dozer
- Excavator w/ grapple
- Off Road Dump Truck
- PERSONAL - 3 operators

BENCHMARK ACTIVITIES:

Setup particulate meter for community air monitoring.
Attempt to locate monitoring wells mw-93 & mw-90

Located monitoring wells mw-85 & 80. Cleared road to mw-75, 70, 85 & 80 with Dozer. Also cleared road to mw-55 & 50

TEST PERFORMED

QA PERSONNEL
SIGNATURE

R. D. SZ

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc				
CLIENT				DATE:	
LOCATION	Peter Cooper Markhams NPL Site			DAY	
WEATHER		TEMP	° F	START	
				JOB NO.	
				END	

MEETINGS HELD & RESULTS:

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.			DJ Dump truck		
Laborer-Foreman			Carpenter						Water Truck		
Laborer									Backhoe		
Operating Engineer			Concrete Finisher						Excavator		
						Roller			Pad foot roller		
Carpenter						Paving Equipment					
						Air Compressor					

REMARKS:

REFERENCES TO OTHER FORMS:

SAMPLES COLLECTED:				
SAMPLE NUMBER				
APPROX. LOCATION OF STOCKPILE				
NO. OF STOCKPILE				
DATE OF COLLECTION				
CLIMATOLOGIC CONDITIONS				
FIELD OBSERVATION		SHEET	OF	

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	8/22/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Friday
WEATHER	Sunny	TEMP	85°F
		START	0700
		END	1700

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- continue to clear Brush & Stumps, grinding Stumps into mulch.

- Continue to install silt fence along wetlands of site.

Equip Used - 30 750 Digger

CASE Excavator

Off Road Dump Truck

Grinder/Chipper

No other work performed today

BENCHMARK ACTIVITIES:

- Observe clearing & mulching Activities.

- John Dem (Bachman) on-site to layout grade stakes for waste consolidation areas

- Setup particulate Air monitoring Equip for camp (room Air not present)

TEST PERFORMED

QA PERSONNEL
SIGNATURE

[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	8/25/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Mon
WEATHER	Sunny	TEMP	70°F
		START	0700
		JOB NO.	
		END	1730

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- Clearing Stumps & Brush & mulching through ground
- Stripping topsoil in AREA OF waste consolidation
- Compacting subgrade with PAD FOOT ROLLER, compacting waste (subgrade) with PAD FOOT ROLLER.

Equip Used - 2 JD Dozers

1 Excavator w/ grapple

1- Off Road Dump Truck

1- Grapple/Loader

1- PAD FOOT ROLLER

BENCHMARK ACTIVITIES:

- Observe clearing & subgrade prep activities
- Set grade stakes in waste consolidation Fill AREA - John Delin (Benchmark) on site.
- Check Density (compaction) OF WASTE Fill subgrade - Density of waste > 90% of modified proctor
- Setup Cumulative Area monitoring Equip - Down wind of site.

TEST PERFORMED

Density Compaction testing w/ Troveta Gauge.

QA PERSONNEL
SIGNATURE

R. Rios

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc				
CLIENT				DATE:	
LOCATION	Peter Cooper Markhams NPL Site			DAY	
WEATHER		TEMP	° F	START	
				JOB NO.	
				END	

MEETINGS HELD & RESULTS:

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.			DJ Dump truck		
Laborer-Foreman			Carpenter						Water Truck		
Laborer									Backhoe		
Operating Engineer			Concrete Finisher						Excavator		
						Roller			Pad foot roller		
Carpenter						Paving Equipment					
						Air Compressor					

REMARKS:

REFERENCES TO OTHER FORMS:

SAMPLES COLLECTED:				
SAMPLE NUMBER				
APPROX. LOCATION OF STOCKPILE				
NO. OF STOCKPILE				
DATE OF COLLECTION				
CLIMATOLOGIC CONDITIONS				
FIELD OBSERVATION		SHEET	OF	

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	8/26/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Tues
WEATHER	Sunny	TEMP	70°F
		START	0700
		JOB NO.	
		END	1730

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- Gathering Brush & Stumps For Grinding/mulching
- Begin waste consolidation within footprint of "cell" AREA.
- Regrading waste with Dozers For I.V. ~~S.H.~~ Slope.
- performed Test pit Excavation in AREA of monitoring wells MW-1D, & MW-1S.

Equip used - 2-Dozers

- 1- P40 Foot Roller
- 1- Off Road Dump Truck
- 1- Excavator
- 1- Grapple Excavator
- 1- Grader

Personnel

- 1- Foreman

BENCHMARK ACTIVITIES:

- observe Contractor Activities of waste consolidation & clearing activities
- Clearing activities appear to be 99% complete
- performed "Test pit" Excavation in AREA of MW-1D, & MW-1S.
- waste material in this AREA contains cover soil < 6" thick. This AREA is approx 150' L x 100' W. The mulch pile from the clearing activities is currently in this AREA.
- Setup particulate & PM10 monitors for CAMP

TEST PERFORMED

QA PERSONNEL
SIGNATURE

R. D. [Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc				
CLIENT				DATE:	
LOCATION	Peter Cooper Markhams NPL Site			DAY	
WEATHER		TEMP	° F	START	
				JOB NO.	
				END	

MEETINGS HELD & RESULTS:

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.			DJ Dump truck		
Laborer-Foreman			Carpenter						Water Truck		
Laborer									Backhoe		
Operating Engineer			Concrete Finisher						Excavator		
						Roller			Pad foot roller		
Carpenter						Paving Equipment					
						Air Compressor					

REMARKS:

REFERENCES TO OTHER FORMS:

SAMPLES COLLECTED:				
SAMPLE NUMBER				
APPROX. LOCATION OF STOCKPILE				
NO. OF STOCKPILE				
DATE OF COLLECTION				
CLIMATOLOGIC CONDITIONS				
FIELD OBSERVATION		SHEET	OF	

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	8/27/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Wed
WEATHER	Sunny / PM CLOUDS	TEMP	75°F
		START	0700
		END	1730

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- Consolidating waste / Regrading within "cell" Footprint
- Begin placing waste in 1 Foot lifts & compacting with PAD Foot Roller.
- Equip used - 2 SD Dumps (750, Yaw)
 - 1- Excavator - CASE
 - 1- PAD Foot Roller
 - 1- Off Road Dump Truck

BENCHMARK ACTIVITIES:

- Setup particulate & PIO monitors for camp.
- Perform Density Compaction Testing on placed & compacted waste material within "cell" Footprint AREA. A/C in-place ~~and~~ density test > 90% of modified proctor.
- MUSPEC onsite (invoice mtd) - performed walkover of site.
- * BASED ON waste/FILL OBSERVED in AREA of mvs 1S, & 1D, it was Agreed by ALL parties, to extend the ~~Footprint~~ Footprint of the "cell" ~~area~~ over this AREA. The toes of slope will be reestablished on mvs by Benchmark.

TEST PERFORMED

Density compaction test on placed waste / fill material.

QA PERSONNEL
SIGNATURE

V. P. P. 12
[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc				
CLIENT				DATE:	
LOCATION	Peter Cooper Markhams NPL Site			DAY	
WEATHER		TEMP	° F	START	
				JOB NO.	
				END	

MEETINGS HELD & RESULTS:

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.			DJ Dump truck		
Laborer-Foreman			Carpenter						Water Truck		
Laborer									Backhoe		
Operating Engineer			Concrete Finisher						Excavator		
						Roller			Pad foot roller		
Carpenter						Paving Equipment					
						Air Compressor					

REMARKS:

REFERENCES TO OTHER FORMS:

SAMPLES COLLECTED:				
SAMPLE NUMBER				
APPROX. LOCATION OF STOCKPILE				
NO. OF STOCKPILE				
DATE OF COLLECTION				
CLIMATOLOGIC CONDITIONS				
FIELD OBSERVATION			SHEET	OF

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	8/28/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Thurs
WEATHER	LT Rain / cloudy	TEMP	70°F
		START	0700
		END	1730

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- consolidating waste/Fill within "Cell" Footprint.
- compacting waste/Fill in 12-inch lifts with pad Foot Roller.
- gathering remaining Brush/Stump piles with Excavator

Equip used - CASE Excavator
Grapple Excavator
2-30 Duffel
pad Foot Roller
Smooth Drum Roller
Off Road Dump Truck.

1- Foreman
3- operators

BENCHMARK ACTIVITIES:

- Performing density compaction test on placed waste/Fill material.
- All Density Test > 90% of modified proctor.
- John Beth (Benchmark) check to ~~Recess~~ Rule toe of slope on south end of cell. - less extend cell Footprint west.

TEST PERFORMED

In-place Density Tests w/ nuclear

QA PERSONNEL
SIGNATURE

R. D. R. S.
[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	8/29/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Fri
WEATHER	CLOUDY-LT RAIN	TEMP	70°F
		START	0700
		JOB NO.	
		END	1730

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

Consolidating WASTE piles into CAP/CILL AREA. WASTE/FILL spread with Dozers & compacted with a pad foot roller, & smooth drum roller.

BENCHMARK ACTIVITIES:

OBSERVE consolidation Activities by contractor. Perform IPD's (In-place Density) on placed WASTE/FILL material. Material compaction >90% OF modified proctor. - no Air monitors setup due to light rain/drizzle.

-Tom Forbes (BENCHMARK) on site. - Perform site walkdown

* NYSDEC ECOM OFFICER stopped by site today, ^{at 12:00pm} inquired about site Activities

TEST PERFORMED

IPD's on waste/fill

QA PERSONNEL
SIGNATURE

[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	9/2/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Mon
WEATHER	PI Sunny	TEMP	75°F
		START	0700
		END	1730

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- Finish ~~grip~~ grinding/mulching the remaining brush & stumps
- Continue to consolidate wash/fill piles into cap/cul area. Material placed in 12 inch lifts & compacted with a 1000 lb roller.
- Contractor beginning to move mulch pile offsite. 3 Dump Trucks hauled 2 loads each today to Niagara Falls, NY. ~~For~~ Mulch taken to American Ref Fuel.
- Mobilized another off Road Dump Truck, Demobilized CASE Excavator.
- Equip Used:
 - 2 - Off Road Dumps
 - 2 - JD Dumps
 - 1 - JD Excavator
 - 1 - 1000 lb Roller
 - 1 - Smooth Drum Roller
- 4 - Operators
- 1 - Foreman

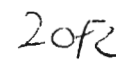
BENCHMARK ACTIVITIES:

- OBSERVE waste ~~consolidation~~ Consolidation Activities. Perform IPD's (In-place Densities) on compacted wash. ALL IPD's > 90% of Modified proctor
- Earth Amendment, Inc onsite to begin monitoring well decommissioning & installation of mw-2SR. 1000 - mulch at mw 2S. - Remove well casing, well consisted of steel casing. - well screen rusted/botted.
- Installed new well (mw 2SR) to depth of 10 ft, w/ 5 ft of slotted PVC screen. Install well sand pack 1 ft above screen, with 2 feet of Baktank pellets (hydrated), followed by protective casing & concrete seal.
- 1230-1400 - Decommission mw-2R over Drill Rigging & Great Barrier.
- 1430 - Setup at mw 1S & 1D

TEST PERFORMED

QA PERSONNEL
SIGNATURE

[Signature]



CONTRACTOR	Zoladz Construction, Co, Inc				
CLIENT				DATE:	9/2/08
LOCATION	Peter Cooper Markhams NPL Site			DAY	
WEATHER		TEMP	° F	START	
				END	

CONTRACTOR ACTIVITIES:

BENCHMARK ACTIVITIES:

Don Forbes onsite with Mike Jody & Henry Killen.
Patterson site unknown.

John Dem (Isachmann) wants to observe grading of waste pile. Based on current Fill being placed in "Cell AREA", there may be less Fill than anticipated. Therefore, John Dem expects 60' vertical feet of southern toe of slope further north by 20 ft. This will make the cell AREA smaller to accommodate a ~~2~~ 5:1 slope.

- Setup community Air Monitoring Equip

TEST PERFORMED

TPDS on waste

QA PERSONNEL
SIGNATURE

[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	9/13/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Tues
WEATHER	Sunny	TEMP	87 250F
		START	0700
		END	1730

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

Continue to consolidate waste/fill into cell AREA. Excavating waste/fill piles from SW west AREA OF site. Waste material placed w/ Dozer & compacted with pad foot roller

- continue to Remove mulch from site. 3 dump trucks used to haul mulch offsite. Each trucking making 2 loads / DAY. Equip used - 2 JO Dozers

1- JO Excavator

2- Off Road Dump Trucks

1- Pad Foot Roller

1- Smooth Drum Roller

5- operators

1- Foreman

BENCHMARK ACTIVITIES:

Observe waste consolidation Activities. Perform IPD's on placed material. - All IPD's > 90% OF modified proctor.

Earth Dimensions on site - (Decommissioned) MW 15, MW 10, MW - 70.

Impr Dem on site - moved South toe of slope stakes north by approx 20'. Reset grade stakes with cut/fill depths & Elevation.

Setup Community Air monitoring Equip

TEST PERFORMED

IPD's

QA PERSONNEL
SIGNATURE

[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zulaz Const		
CLIENT		DATE:	9/4/08
LOCATION	Peter Cooper MARKHAM	DAY	Thurs
WEATHER	Sunny	TEMP	80°F
		START	0700
		END	1730

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

[PUT CONTRACTOR ACTIVITIES HERE, BE SPECIFIC TYPE OF EQUIPMENT, ACTIVITIES PERFORMED, BY WHOM, LOCATION OF LANDFILL ETC.]

- Continue to consolidate waste/Fill from above grade piles into cell area. Removing waste/Fill piles from south west corner of site. Material placed in 12 inch compacted lifts with Dozers & padfoot roller.
- contractor cleared additional trees near former monitoring wells MW 15 & 10.
 - Continue to haul mulch offsite.

BENCHMARK ACTIVITIES:

[PUT ENGINEER ACTIVITIES HERE, BE SPECIFIC TYPE OF EQUIPMENT, ACTIVITIES AND TESTING PERFORMED, SAMPLES COLLECTED, BY WHOM, LOCATION OF LANDFILL ETC.]

- MSDEC (Maurice Moore) & CAT CITY Dolt onsite (Eric Winter, Dee Murphy) to perform site walk over.
- Perform Density compaction test on placed waste/Fill. All Density test > 90% compaction of modified proctor.
 - Setup Air monitoring Equip for camp.
 - Earth Dimensions onsite, - Decommissioned monitoring wells 8D, 6D, & 3D & 4D. Setup at MW-30. - Offsite at 2:45 pm.

TEST PERFORMED	In-place Density
PICTURES TAKEN	none
VISITORS	MSDEC / Dolt

QA PERSONNEL SIGNATURE	R.D.B. 52	
REPORT NO.		
SHEET	1	OF

INSPECTOR'S DAILY REPORT

CONTRACTOR			
CLIENT		DATE:	9/4/08
LOCATION			
WEATHER		TEMP ° F	
	DAY		JOB NO.
	START		END

MEETINGS HELD & RESULTS:

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent		1	Ironworker			Generators			Bulldozer	2	
						Welding Equip.			DJ Dump truck	2	
Laborer-Foreman			Carpenter						Water Truck		
Laborer									Backhoe		
Operating Engineer		5	Concrete Finisher						Excavator	2	
						Roller	21		Pad foot roller	1	
Carpenter						Paving Equipment			Grader	1	
						Air Compressor			Grapple Excavator	1	

REMARKS:

REFERENCES TO OTHER FORMS:

SAMPLES COLLECTED:

SAMPLE NUMBER				
APPROX. LOCATION OF STOCKPILE				
NO. OF STOCKPILE				
DATE OF COLLECTION				
CLIMATOLOGIC CONDITIONS				
FIELD OBSERVATION			SHEET	OF

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Const		
CLIENT		DATE:	9/5/08
LOCATION	Peter Capen marshland	DAY	Fri
WEATHER	Sunny	TEMP	85°F
		START	0700
		END	1730

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

[PUT CONTRACTOR ACTIVITIES HERE, BE SPECIFIC TYPE OF EQUIPMENT, ACTIVITIES PERFORMED, BY WHOM, LOCATION OF LANDFILL ETC]

- Continue to consolidate waste/fill piles into cell area.
- Placing waste in ~~cell~~ westward of cell near Farmer mulch pile & mtr 15 & 10. - Material placed in 12 inch lifts & compacted with 900 Foot Roller. - Excavating waste piles from South West corner of site.
- ~~For~~ Grading lot of trees / brush, - Demolished chipping/grinder today.

BENCHMARK ACTIVITIES:

[PUT ENGINEER ACTIVITIES HERE, BE SPECIFIC TYPE OF EQUIPMENT, ACTIVITIES AND TESTING PERFORMED, SAMPLES COLLECTED, BY WHOM, LOCATION OF LANDFILL ETC]

- Observe Construction Activities
- perform IPD's on placed waste/fill. - All IPD's > 90% compaction of modified material.
- Setup Air monitoring Equip for camp
- Earth Dimensions onsite, - Decommissioning mtr 90, & 50.

TEST PERFORMED

PICTURES TAKEN

VISITORS

none
none

QA PERSONNEL
SIGNATURE

REPORT NO.

SHEET

1

OF

INSPECTOR'S DAILY REPORT

CONTRACTOR				
CLIENT			DATE:	9/5/08
LOCATION			DAY	
WEATHER		TEMP °F	START	JOB NO. END

MEETINGS HELD & RESULTS:

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent	1	1	Ironworker			Generators			Bulldozer		2
						Welding Equip.			DJ Dump truck		2
Laborer-Foreman			Carpenter						Water Truck		
Laborer									Backhoe		
Operating Engineer	1	4	Concrete Finisher						Excavator		2
						Roller		1	Pad foot roller		1
Carpenter						Paving Equipment			Grapple Excavator		1
						Air Compressor					

REMARKS:

REFERENCES TO OTHER FORMS:

SAMPLES COLLECTED:				
SAMPLE NUMBER				
APPROX. LOCATION OF STOCKPILE				
NO. OF STOCKPILE				
DATE OF COLLECTION				
CLIMATOLOGIC CONDITIONS				
FIELD OBSERVATION			SHEET	OF

INSPECTOR'S DAILY REPORT

CONTRACTOR	ZOLADZ CONST CO, INC		
CLIENT		DATE:	9/8/08
LOCATION	Peter Cooper MARKHAM	DAY	~~07~~ Mon
WEATHER	Sunny	TEMP	80°F
		START	0700
		END	1730

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

[PUT CONTRACTOR ACTIVITIES HERE, BE SPECIFIC TYPE OF EQUIPMENT, ACTIVITIES PERFORMED, BY WHOM, LOCATION OF LANDFILL ETC.]

Continue to consolidate waste/fill piles & place into cell AREA.
moving waste/fill from SW ^{corner} of site. material placed in 12" lifts
& compacted with pad foot roller.

Equip used today: - 1 JD Excavator

2- JD Dozers

1- padfoot roller

1- Small Drum Roller

2- off Road Dump Trucks

1- Foreman

4- operators

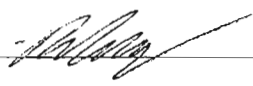
BENCHMARK ACTIVITIES:

[PUT ENGINEER ACTIVITIES HERE, BE SPECIFIC TYPE OF EQUIPMENT, ACTIVITIES AND TESTING PERFORMED, SAMPLES COLLECTED, BY WHOM, LOCATION OF LANDFILL ETC.]

- Setup Air monitoring Equip.

- perform IPO's on compacted waste/fill material - All IPOs

> 90% compaction of modified practice.

TEST PERFORMED		QA PERSONNEL SIGNATURE		
PICTURES TAKEN	none	REPORT NO.		
VISITORS	none	SHEET	1	OF

9/8/08

FIGURE 1

COMMUNITY AIR MONITORING LOCATIONS

REMEDIAL CONSTRUCTION - COMMUNITY AIR MONITORING PLAN
PETER COOPER MARKHAMS NPL SITE
BENTLEY ROAD, DAYTON, NEW YORK

PREPARED FOR
SITE RESPONDENTS

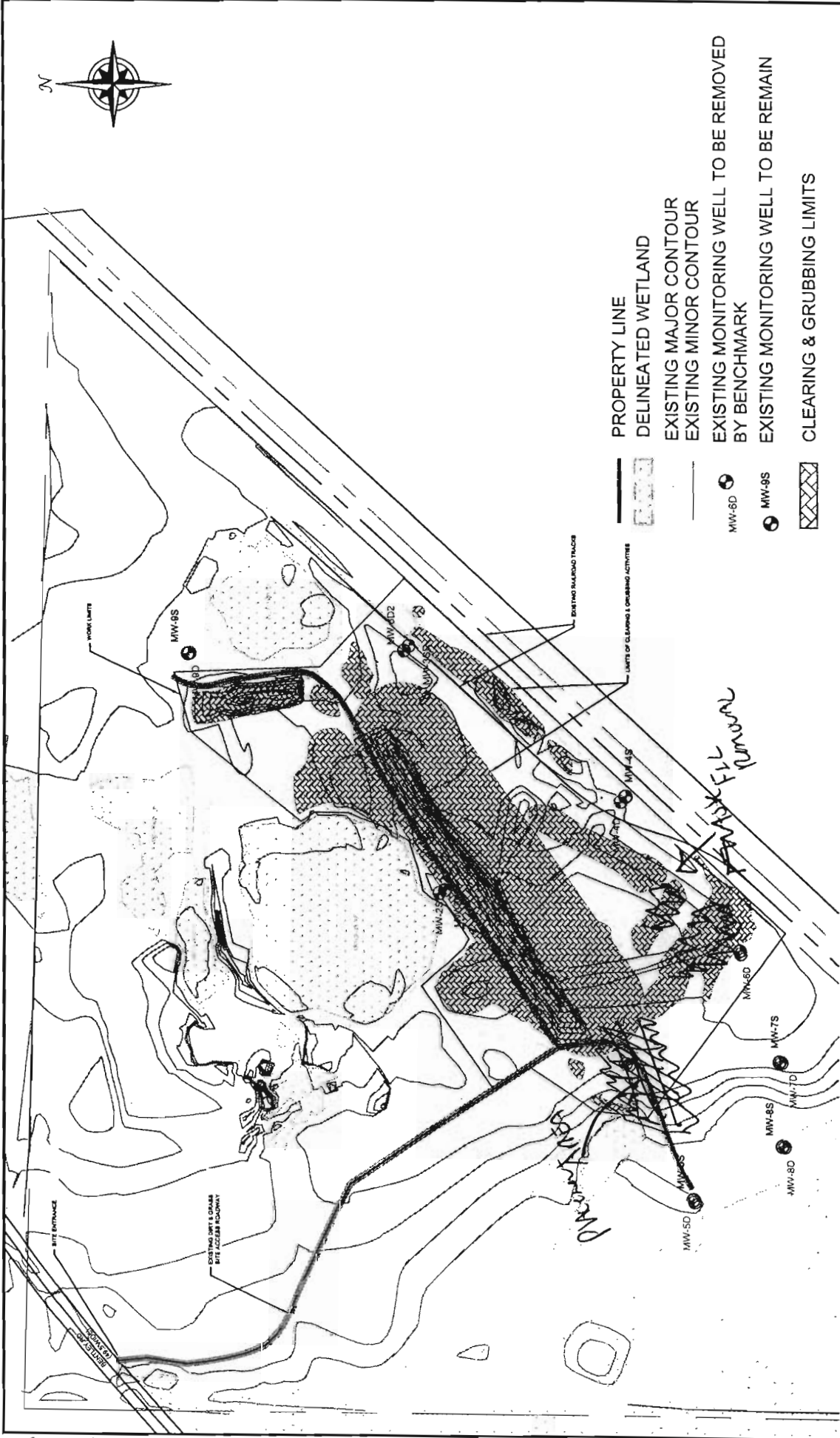
BENCHMARK
728 EXCHANGE STREET
SUITE 824
BUFFALO, NEW YORK 14210
(716) 856-0599

ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

PROJECT NO.: 0021-003-401

DATE: AUGUST 2008

DRAFTED BY: BCH



INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	9/9/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Tues
WEATHER	RAIN	TEMP	65°F
		START	0900
		END	1200

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

NO MAJOR construction activities today, due to RAIN showers.

- Begin Excavating ^{grading} Slope Along wetlands (see Figure) with JD Excavator. - no other work performed.

Contractor OFFSITE at 12:00 pm.

1-operator/Foreman

Equip Used - 1 JD Dozer
1 JD Excavator

BENCHMARK ACTIVITIES:

Observe grading of Slope Along wetlands.

no other work performed onsite.

OFFSITE at 12:00 pm, Return to OFFICE.

TEST PERFORMED

QA PERSONNEL
SIGNATURE

[Signature]



PREPARED FOR
SITE RESPONDENTS

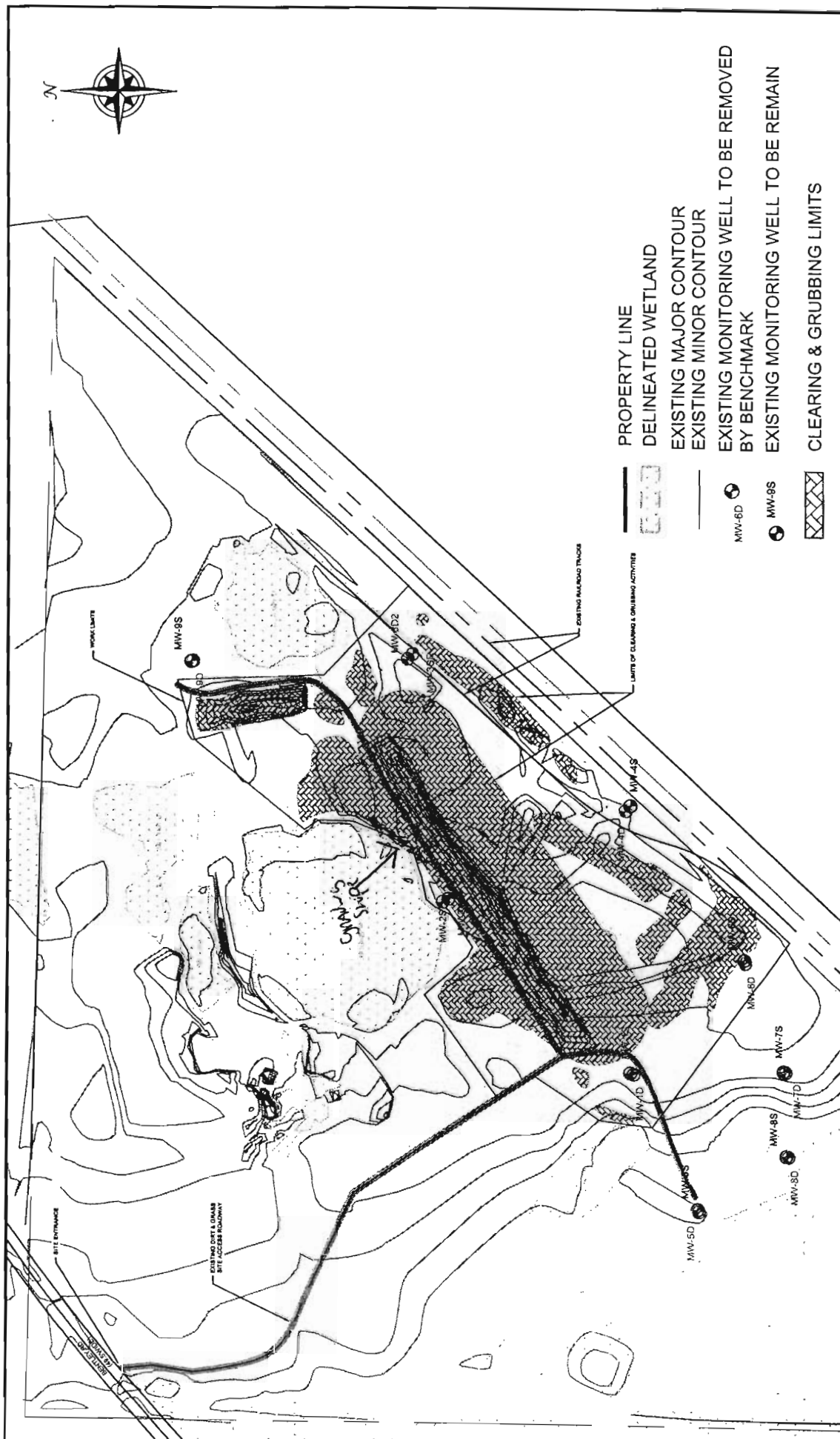
BENCHMARK
ENVIRONMENTAL
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SCIENCE, PLLC

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SUITE 824
BUFFALO, NEW YORK 14210
(716) 866-0599

PROJECT NO.: 0021-003-401

DATE: AUGUST 2008

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INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	9/10/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	~~0700~~ ^{Wed}
WEATHER	Sunny	TEMP	70°F
		START	0700
		JOB NO.	
		END	1730

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

Consolidating waste/Fill material into cell AREA
Excavating waste piles along wetland "B".
Compacting waste/Fill in cell AREA, in 12" compacted lifts
with pad foot roller.

- Equip used - 2 30 Diggers
2- Off Road Compactors
1- Excavator
1- Pad Foot Roller.

1- Foreman
5- operators

BENCHMARK ACTIVITIES:

- Setup Community Air monitoring Equip
- perform IPD's on compacted waste/Fill material.
- All IPD's >90% compaction.
- OBSERVE waste/Fill pile excavations
- Take photos of activities.

TEST PERFORMED IPD's

QA PERSONNEL
SIGNATURE

[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	9/11/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Thurs
WEATHER	Sunny	TEMP	75°F
		START	0730
		END	1530

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

Consolidate waste/fill piles for placement & compaction in cell area. Material placed in 12" lifts with dozers, & compacted with PAD Foot Roller.

Equip used: - 2 JD Dozers
1 JD Excavator
2- Off Road Dump Trucks
1- PAD Foot Roller

BENCHMARK ACTIVITIES:

- Setup air monitoring Equip for camp
- per Form IPD's on compacted waste/fill material - ALL IPD's > 90% compaction of modified proctor.

TEST PERFORMED

QA PERSONNEL
SIGNATURE

[Signature]

9/11/08

FIGURE 1

COMMUNITY AIR MONITORING LOCATIONS
REMEDIAL CONSTRUCTION - COMMUNITY AIR MONITORING PLAN
PETER COOPER MARKHAMS NPL SITE
BENTLEY ROAD, DAYTON, NEW YORK

PREPARED FOR
SITE RESPONDENTS

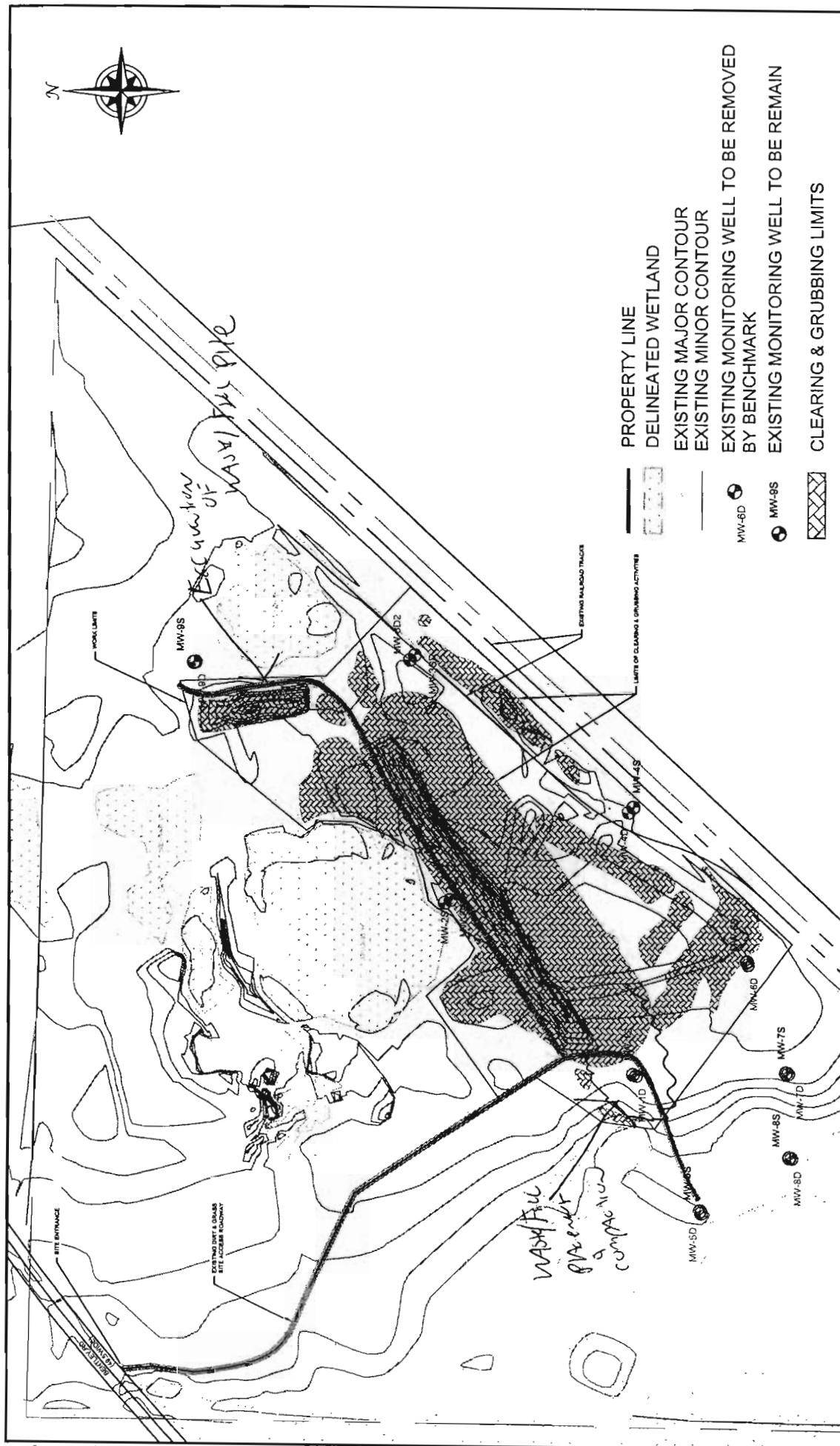
BENCHMARK
726 EXCHANGE STREET
SUITE 824
BUFFALO, NEW YORK 14210
(716) 858-0599

ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

PROJECT NO.: 0021-003-401

DATE: AUGUST 2008

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INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	9/12/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Fri
WEATHER	RAW	TEMP	65°F
		START	0700
		END	0900

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

RAW storming occurred at 9:00 AM, stopped all work activities. Offsite at 11:00 AM. Contractor

BENCHMARK ACTIVITIES:

- NYDEC (maurice mario) & Benchmark (Jon Furber) on site. Perform site walk over. - ~~maurice~~ walked AREA OF wetland "B" edge. NYDEC would like to see additional grading along inland toe of slope. IT WAS agreed BY ALL to "fine" grade the wetland edge.
- Benchmark (R. D. S.) & maurice mario visited MGS GRASS Products, in Ellington NY. - NYDEC satisfied with Barrier Soils obtained from "Virgin" source.
- Offsite at 12:00 pm, return to office.
- performed IPDS on placed wash/fill prior to rain fall

TEST PERFORMED

IPDS

QA PERSONNEL
SIGNATURE

[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	9/15/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Mon
WEATHER	Rain	TEMP	65°F
		START	0700
		END	1100

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

Heavy Rain Showers, no work performed today

Offsite at 10:00 AM

BENCHMARK ACTIVITIES:

no work performed at site due to Rain Showers. OFF SITE at 10:00 AM

TEST PERFORMED

QA PERSONNEL
SIGNATURE

[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	9/18/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Wed
WEATHER	Sunny	TEMP	68°F
		START	0700
		JOB NO.	
		END	

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

Consolidate waste/Fill from NORTH EAST corner of site, & place in cell, conditions still very wet from rain on Monday. The pile of waste/Fill in NORTH EAST corner, extends approx 2-3' below ~~grade~~ with ~~grate~~ ~~depth of 3'~~ below grade.

Placing and compacting waste with Dippers & PadFoot Roller.

Equip used - 2 JD Dippers

1- JD Excavator

1- PadFoot Roller

2- Off Road Dump Trucks

BENCHMARK ACTIVITIES:

- Setup Air monitoring Equip

- Perform IPPS on compacted waste/Fill.

- EPA (Sherrel Henry) & Tom Forbes on site at 12:30 pm.

- NYDEC - Maurice Moore on site at 12:30 pm.

- Perform site walkover. Observed under cuts (Below site grade) from waste piles in NORTH EAST corner of site. Also under cut in waste/Fill pile along RAILROAD ROAD ~~SAV~~. Agreed to remove "Black sludge" waste & black fill with clay soils.

TEST PERFORMED

QA PERSONNEL
SIGNATURE

[Signature]

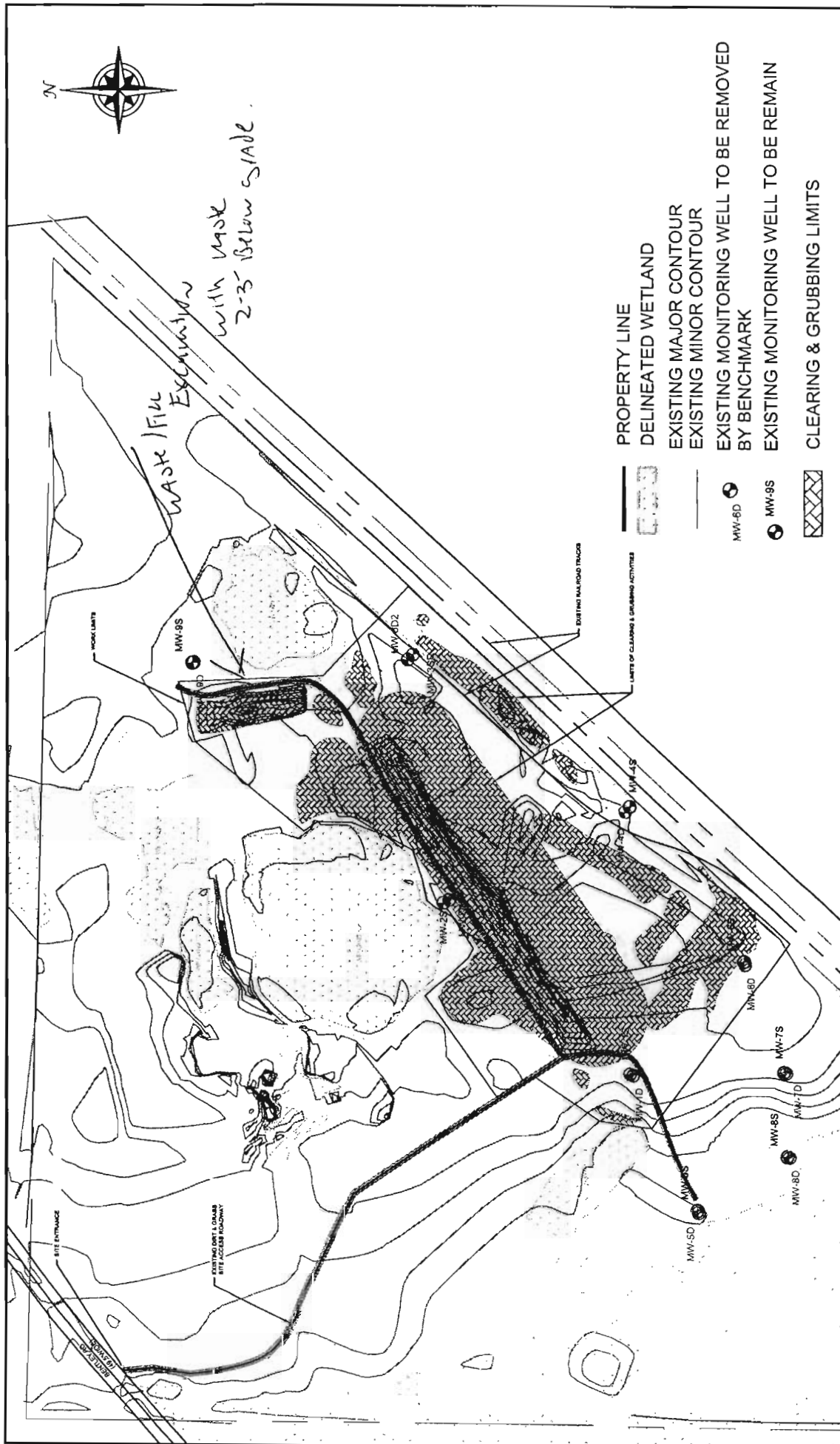


FIGURE 1

COMMUNITY AIR MONITORING LOCATIONS

COMMUNITY AIR MONITORING PLAN REMEDIAL CONSTRUCTION - COMMUNITY AIR MONITORING PLAN

PETER COOPER MARKHAMS NPL SITE
BENTLEY ROAD, DAYTON, NEW YORK

PREPARED FOR
SITE RESPONDENTS



BENCHMARK
ENVIRONMENTAL

726 EXCHANGE STREET
SUITE 824
BUFFALO, NEW YORK 14210
(716) 856-0599

PROJECT NO.: 0021-003-401

DATE: AUGUST 2008

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INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	9/18/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Thurs
WEATHER	Sunny	TEMP	70°F
		START	0700
		JOB NO.	
		END	1730

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- consolidating waste/fill & placing in cell AREA. Removing waste/fill pile from south east corner of site. - material placed in 12 inch lifts & compacted with padfoot roller.

BENCHMARK ACTIVITIES:

- Setup Camp Air monitoring equipment
- perform IPD's on placed waste/fill soils. - All IPD's > 90% compaction.
- Observe Excavation of waste/fill piles
- EPA onsite (Sherrel Henry) - perform site walkover.
- Agreed to undercut soil pile in north east by 3 ft ~~low~~ Below Existing site grade, to remove waste fill

TEST PERFORMED

QA PERSONNEL
SIGNATURE

R. D. Sc...

9/18/08

FIGURE 1

COMMUNITY AIR MONITORING LOCATIONS

REMEDIAL CONSTRUCTION - COMMUNITY AIR MONITORING PLAN

PETER COOPER MARKHAMS NPL SITE
BENTLEY ROAD, DAYTON, NEW YORK

PREPARED FOR
SITE RESPONDENTS

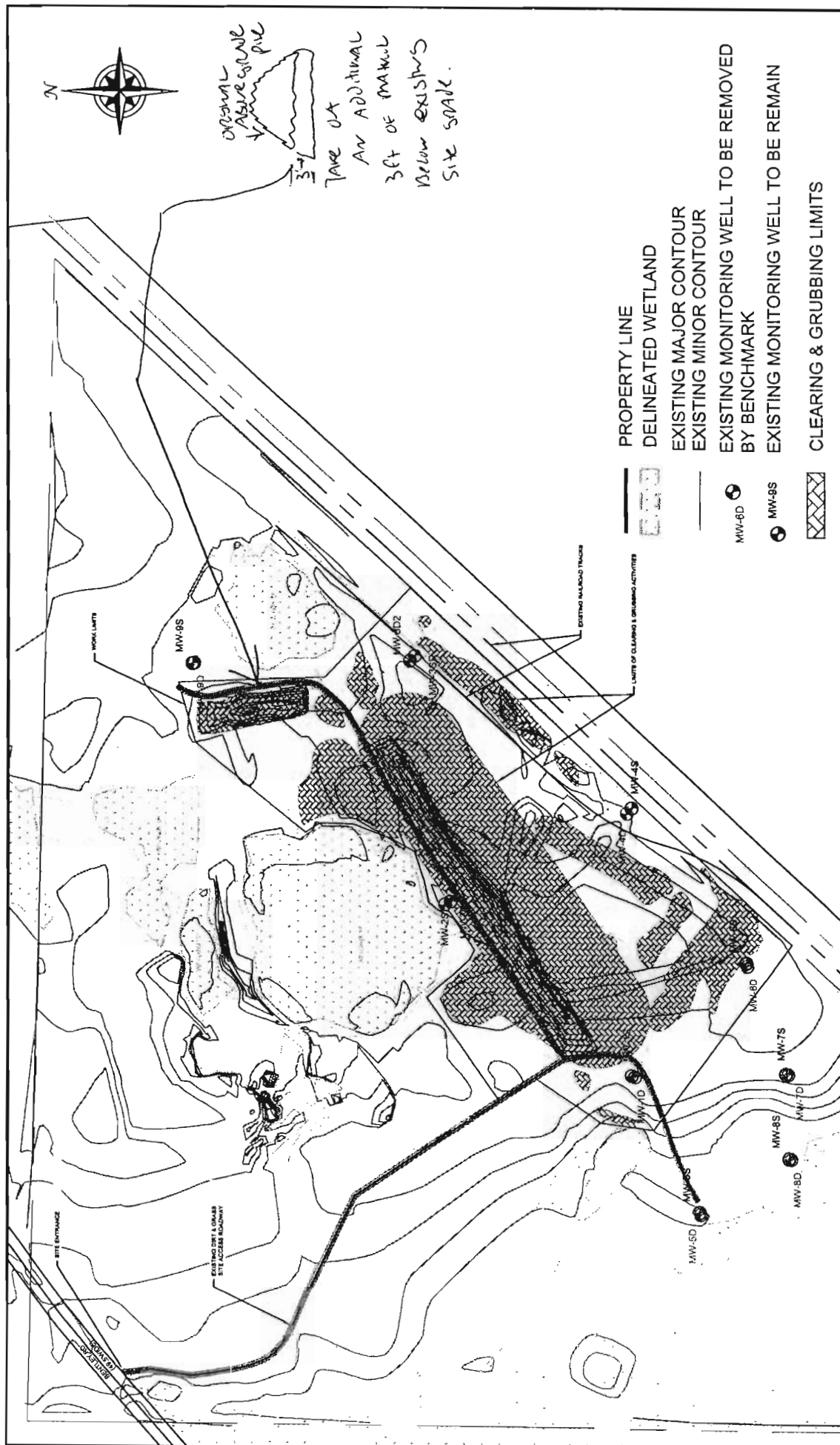
BENCHMARK
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728 EXCHANGE STREET
SUITE 824
BUFFALO, NEW YORK 14210
(716) 858-0509

PROJECT NO.: 0021-003-401

DATE: AUGUST 2008

DRAFTED BY: BCH



INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	9/19/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Friday
WEATHER	Sunny	TEMP	70°F
		START	0700
		JOB NO.	
		END	1730

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

Consolidate WASTE/FILL piles & place in cell AREA
Removed BASE pile from NORTH EAST corner of site.

Compacting WASTE/FILL with PAD FOOT ROLLER.

Placed Remaining Wood Mulch in cell AREA.

Equip Used - 230 ROPS

1-PAD FOOT ROLLER

1-Smooth DRUM ROLLER

2-OFF ROAD Dump Trucks

1-JD Excavator.

BENCHMARK ACTIVITIES:

- Setup CAMP Air monitoring equip.

- Collect 2nd 5000 cy Barrier soil sample from BORROW Source Stockpile in Ellington, NY.

- Performed IPO'S on compacted WASTE/FILL. - ALL IPO'S >90% OF modified proctor.

- EPA (Sherrel Hunkley) Onsite. Perform site walkover

TEST PERFORMED

IPO'S on compacted waste/FILL.

QA PERSONNEL
SIGNATURE

[Signature]

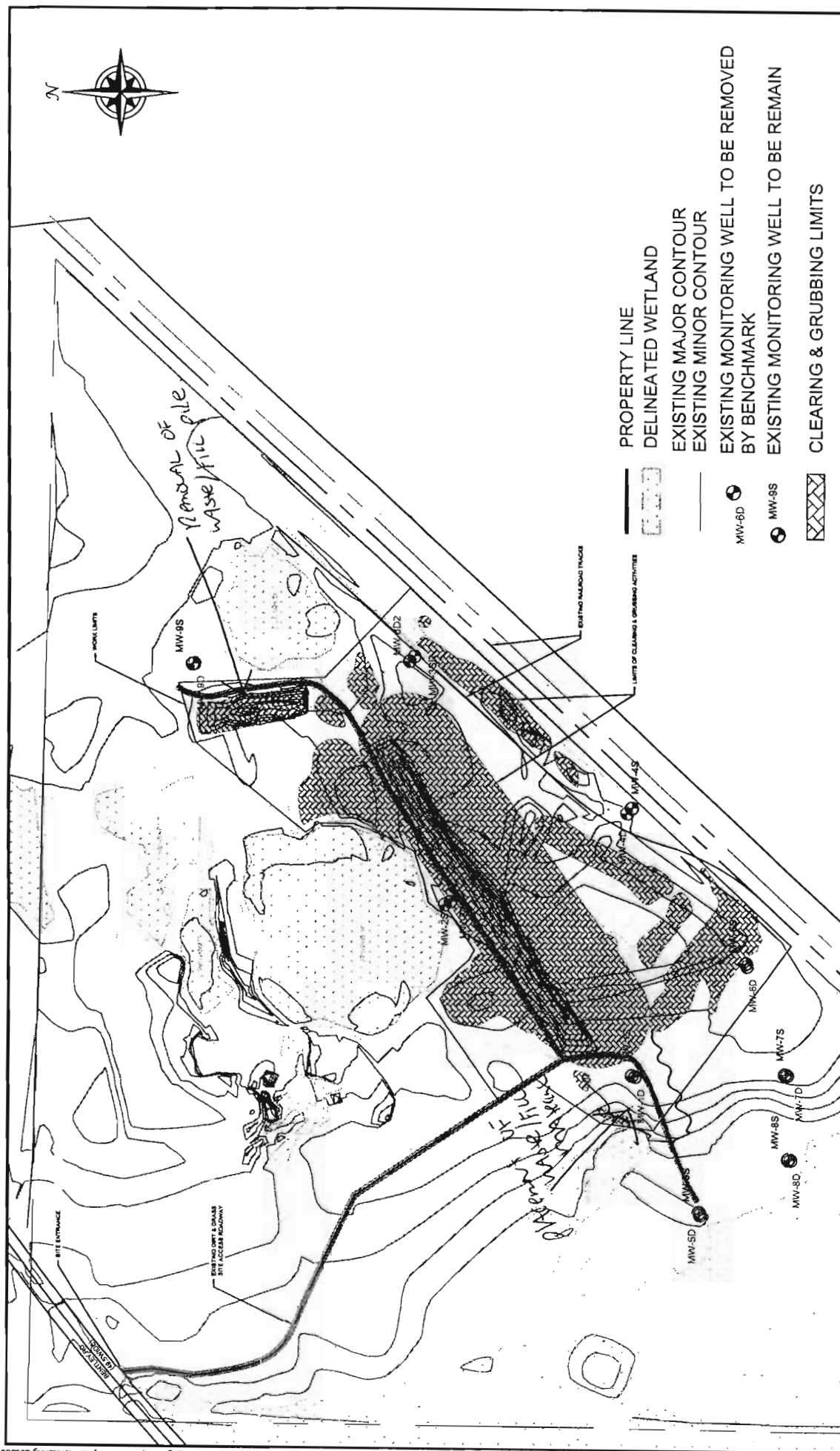


FIGURE 1

COMMUNITY AIR MONITORING LOCATIONS

REMEDIAL CONSTRUCTION - COMMUNITY AIR MONITORING PLAN

PETER COOPER MARKHAMS NPL SITE
BENTLEY ROAD, DAYTON, NEW YORK

PREPARED FOR
SITE RESPONDENTS



BENCHMARK
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ENGINEERING &
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726 EXCHANGE STREET
SUITE 824
BUFFALO, NEW YORK 14210
(716) 856-0599

PROJECT NO.: 0021-003-401

DATE: AUGUST 2008

DRAFTED BY: BCH



INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	9/22/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	~~0700~~ ^{mon}
WEATHER	Sunny	TEMP	70°F
		START	0700
		END	1730

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- Consolidate waste/Fill piles into cell AREA. - Placing waste/Fill in west-end of cell. Compacting waste/Fill with PAD FOOT Roller. Finalizing Slopes OF CELL AREA.

- Installing gas vents over consolidated waste/Fill (CELL AREA)
Installed 3 gas vents today.

- PROOF Rolled compacted waste/Fill

Equip used: - 2 JD Dozers
1 JD Excavator
2 OFF ROAD Dump Trucks
1 PAD FOOT Roller
1 Smooth Roller
1 SMALL Excavator
1- Foreman Foreman
5- operators

BENCHMARK ACTIVITIES:

- Set up Air monitoring Equip for camp.
- Perform IPD's on placed waste/Fill - All IPD's > 90% compaction OF ~~placed~~ modified proctor.

- John Beth on-site. Performed PRE Survey OF consolidated waste/Fill CELL AREA - Survey performed on approx OF half OF CELL AREA.

TEST PERFORMED

QA PERSONNEL
SIGNATURE

9/23/08

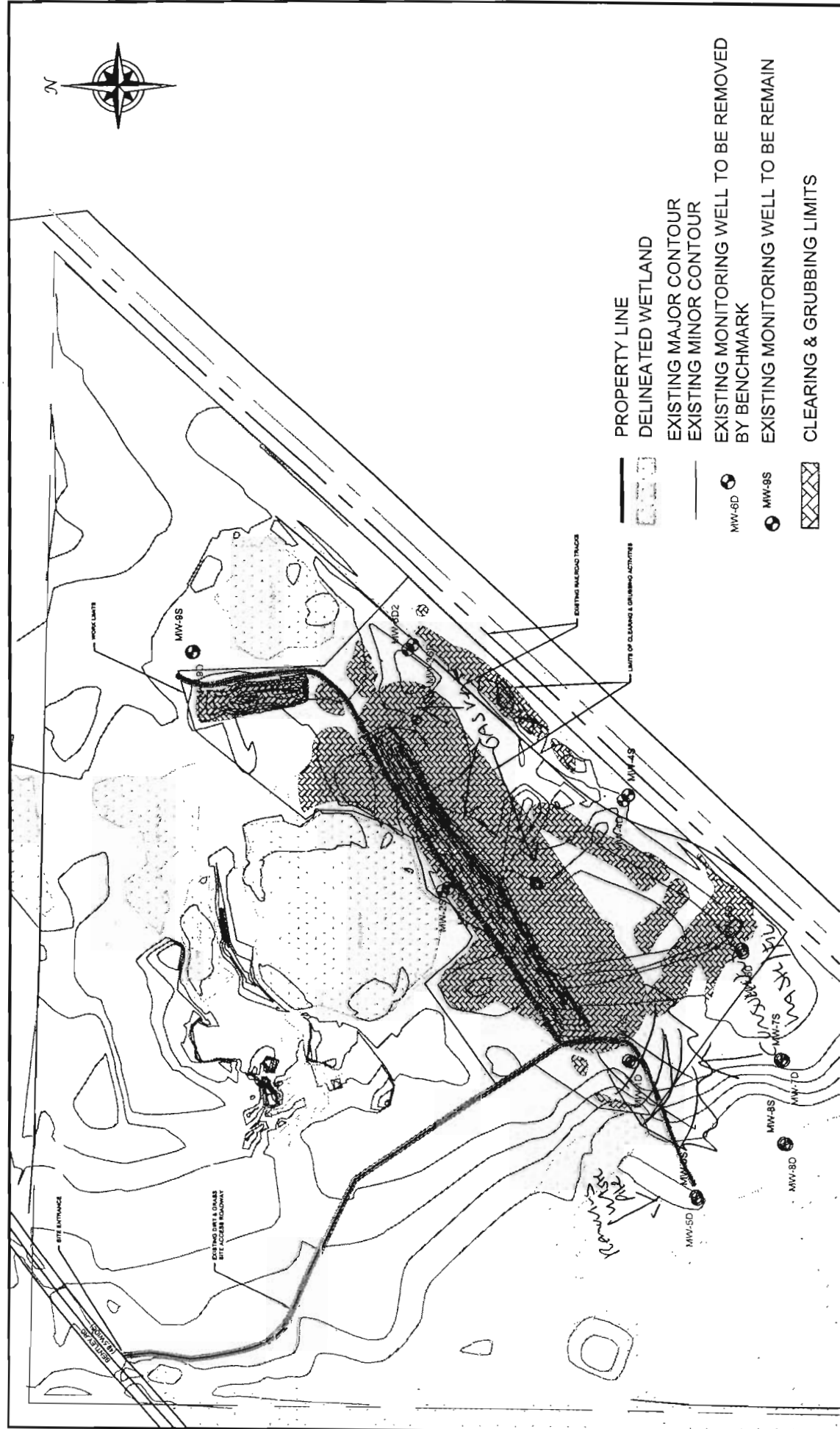
FIGURE 1

COMMUNITY AIR MONITORING LOCATIONS REMEDIAL CONSTRUCTION - COMMUNITY AIR MONITORING PLAN PETER COOPER MARKHAMS NPL SITE BENTLEY ROAD, DAYTON, NEW YORK

PREPARED FOR
 SITE RESPONDENTS

BENCHMARK
 ENVIRONMENTAL
 ENGINEERING &
 SCIENCE, PLLC
 726 EXCHANGE STREET
 SUITE 624
 BUFFALO, NEW YORK 14210
 (716) 856-0599

PROJECT NO.: 0021-003-401
 DATE: AUGUST 2008
 DRAFTED BY: BCH



INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	9/23/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Tues
WEATHER	Sunny	TEMP	71°F
		START	0730
		END	1730

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- Final grading on cell/cap AREA preparing subgrade for Barrier soils.
- Installing Remaining 2 SAS units
- Compacting West End of cell/cap AREA with PAD Foot Rollers.
- Picking up loose debris on cap subgrade

BENCHMARK ACTIVITIES:

- Perform IPDS on placed waste/fill material - ALL IPDS > 90% compaction of material placed.
- Setup Air monitoring Equip for camp

TEST PERFORMED

IPDS

QA PERSONNEL
SIGNATURE

R. ARS

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	9/24/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Wed 07/08
WEATHER	Sunny	TEMP	72°F
		START	0700
		JOB NO.	1-230
		END	1730

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- Finalize grading on west end of CAP AREA, prior to Barrier Soil placement.
- Begin placing barrier protection soils on east end of CAP/CCL AREA placing material in a loose 8 inch lift & compacting to a 6 inch lift.
- ~~Equipment~~ Equip used:
 - 2 30 Dumps
 - 1 140 Foot Bulker
 - 1 Smooth Drum Roller
 - 1 Off Road Dump Truck (2nd Off Road Dump taken offsite)
 - 2 Excavators
 - 1 Water Truck
- Contractor Disassembling Steel RAIL spur.

BENCHMARK ACTIVITIES:

- Setup Air monitoring Equip for camp.
- Perform IPD's on placed Barrier Area soils. All IPD's > 90% compaction of proctor. - Pushed 1 Shelby Tube on 1st lift of Barrier soils. - Shelby Tube delivered to 3rd Rock Testing LLC,
- John Deth onsite (Benchmark), perform topo survey of CAP AREA.

TEST PERFORMED

IPD's
Shelby Tube

QA PERSONNEL
SIGNATURE

R. Davis
[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	07/25/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Thursday
WEATHER	Sunny	TEMP	71°F
		START	0700
		JOB NO.	
		END	1730

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- placing 1st LIFT OF Barrier Protection Soil, on cap^{cell} AREA
- Material placed in 9 inch compacted LIFT, with rollers
- Material compacted with PAD Foot Roller. - Approx 18 Tandem Dump Trucks, delivering Barrier Soil to site.
- Equip Used - 2 JD Rollers
- 1 PAD Foot Roller
- 1 Smooth Drum Roller
- 1 Foreman
- 3 Operators

BENCHMARK ACTIVITIES:

- performing IPDS on placed ~~1st~~ Barrier Layer material
- IPDS > 90% compaction. Moisture content above optimum is 1-3%. It was Agreed By Benchmark & EPA to place Barrier Layer material ~~in 120 9 inch lifts~~ in two (2) 9-inch LIFTS.
- John Dem onsite (Benchmark) to complete topo survey of cap/cell AREA prior to Barrier soil placement

TEST PERFORMED

IPDS

QA PERSONNEL
SIGNATURE

[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	9/26/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Friday
WEATHER	Sunny	TEMP	75°F
		START	0700
		JOB NO.	
		END	1730

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- placing 1st LIFT OF Barrier Layer SOIL OVER AP/CELL AREA. material placed in 10 inch loose lifts & compacted to 9 inch lift. Approx 15 tandem dump trucks, used to deliver Barrier SOILS.

Equip used - 2 30 Dozers

1- pad foot roller

1- Snow Drm roller

1

1- Foreman

3- operators

BENCHMARK ACTIVITIES:

- perform IPO's on placed Barrier Layer SOILS - ALL IPO's > 90% compaction. Barrier SOIL moisture above optimum of proctor.

- collect Shelby tubes (LIFT-1 Area 2 & 3) on compacted Barrier Layer SOILS.

- spoke with EPA (Sherrill H. H. H.), - about JOB progress.

TEST PERFORMED

IPO's, Shelby tube samples

QA PERSONNEL
SIGNATURE

[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	9/29/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Mon
WEATHER	Sunny	TEMP	70°F
		START	0700
		END	1730

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- Placing Barrier Layer soils on cap/cell area - material placed in loose 10 inch lifts & compacted with a padfoot roller.
- Approx 15 dump trucks delivering Barrier soils
- Equip used - 2 JO D200
 - 1- padfoot roller
 - 1- smooth drum roller.
- Contractor removed JO Excavator & off road dump truck from site.

BENCHMARK ACTIVITIES:

- Observe placement of Barrier Layer soils. Performed IPD's on placed barrier soils. All IPD's > 90% compaction & ~~at~~ above optimum moisture content.
- MUSDEC (Mr. Dostin G. manick) on site to observe site activities

TEST PERFORMED

IPD's

QA PERSONNEL
SIGNATURE

[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	9/30/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Tues
WEATHER	Rain Showers	TEMP	65°F
		START	0730
		END	1300

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- continue to place barrier layer soils on cap/cill area - material placed in loose 10 inch lifts & compacted with a padfoot roller.
- Apply 15 dump trucks delivering barrier soils.
- Begin Hydroseeding of Areas outside of cap. Hydroseeded southern corner of s.r., with conservation mix.
- Rain Showers Heavy at 12:00pm - stopped Hauling & placing barrier layer soils

BENCHMARK ACTIVITIES:

- performed IPDS on compacted barrier layer soils. (collected Shelby tube sample (LIFT 1 Area 4). ALL IPDS > 90% compaction
- Stopped work at 12:30pm. (offsite at 12:30pm Delivered Shelby tube to testing Laboratory.

TEST PERFORMED

Shelby tube sample, IPDS

QA PERSONNEL
SIGNATURE

[Signature]



INSPECTOR'S DAILY REPORT

CONTRACTOR Zoladz Construction, Co, Inc

CLIENT

DATE:

10-1-08

LOCATION Peter Cooper Markhams NPL Site

DAY

Wed

JOB NO.

WEATHER

Rain

TEMP °F

START

0700

END

1000

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

No work performed today due to rain.
Contractor Assisted w/ other person Shelby tube on
LIFT-2 Area-1 of Barrier Catch Sals

BENCHMARK ACTIVITIES:

- Tested placed Barrier Area Sals on LIFT-2 Area-1
prior to Heavy Rain showers arriving - Also disturbed Shelby
tube Stage (L-2-Area-1) performed IPDS. All IPDS > 502
completion. - no other work performed today, return to
office.

TEST PERFORMED

IPDS, Shelby NSE

QA PERSONNEL
SIGNATURE

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	10/2/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Thurs
WEATHER	~~RAIN~~ RAIN	TEMP	48°F
		START	0700
		END	1730

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- Placing Barrier Protection Soil. - Heavy RAIN Showers today,
Slowing work Activities - Placing LIFT-2 Placing
material with 2 drums a compacting with PAD Foot roller

Equip used - 2- Drums
1- PAD Foot Roller

1- Foreman
3- operators

BENCHMARK ACTIVITIES:

Performing IIP's on LIFT-2 OF placed Barrier cover soil
- All IIP's > 90% completion - pushed Shelby tube
sample - (LIFT-2 Area)

TEST PERFORMED

IIP's - Shelby tube

QA PERSONNEL
SIGNATURE

[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	10/3/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Fri
WEATHER	PT Sunny	TEMP	50°F
		START	0700
		JOB NO.	
		END	1700

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- PLACING Barrier Layer Soils with 2 dozers & PadFoot Roller 15' Tandem Dump Trucks, delivering Barrier Soils.
PLACING LIFT-2.

Equip Used - 2-JD Dozers
1- PadFoot Roller

1-Furner
3- operators

BENCHMARK ACTIVITIES:

- performing IPP's on placed Barrier Layer soils (LIFT-2)
All IPP's > 90% compaction.

- Informed contractor to wash down Berly Road, due to the Road being covered with Mud. Contractor used water truck & hose, to wash down the Road.

TEST PERFORMED IPP's

QA PERSONNEL
SIGNATURE

[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	10/6/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Mon
WEATHER	Sunny	TEMP	84°F 50°F
		START	0700
		END	1630

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- Continue to place & compact 2nd lift of Barrier Protection Soil material. - placing material with 2 Dozers & compacting with PAD Fox Roller.
- SPT checking lift thickness at random location, By Digging into Barrier Layer soil & measuring lift thickness. 1st lift at proper thickness (9 inches) - 2nd lift at proper thickness (9 inches)

BENCHMARK ACTIVITIES:

- perform IPDS on placed Barrier Layer soils. - ALL IPDS > 40% compaction. TAKE Shelby tube sample (LIFT 2 Area -4).

TEST PERFORMED

IPDS - Shelby tube

QA PERSONNEL
SIGNATURE

[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	10/2/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Tues
WEATHER	Sunny	TEMP	61°F
		START	0700
		JOB NO.	
		END	1700

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- placing Barrier protection soil on FWP LIFT, Besn Final grading of CAP. Trench Amp Muck (8) delivering Barrier layer soil material.

- Equip used - 2 JD Dozers

1- pad Foot Roller

1- Smooth Drum Roller.

1- Fueler

3- operators

BENCHMARK ACTIVITIES:

- perform IPP's on placed Barrier layer soils. - All IPP's > 90% compaction & above optimum moisture.

- MUSEC (manure move) on site. - perform site walkover.

TEST PERFORMED

IPP's

QA PERSONNEL
SIGNATURE

[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR

Zoladz Construction, Co, Inc

CLIENT

DATE:

10/8/08

LOCATION

Peter Cooper Markhams NPL Site

DAY

WED

JOB
NO.

WEATHER

~~RAIN~~ Sunny-Am RAIN ~~TEMP~~ °F

START

0700

END

1600

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

FINALIZE ~~2~~ 2 FT thickness FOR Barrier Layer SOILS
CONTINUE TO haul Barrier Layer SOILS with 8 - Dump Trucks.

Grading Barrier Layer SOILS on CAP.

- Equip used - 2 SD Dozers

1 - pad Foot Roller

1 - Smooth Drum Roller

- RAIN at 1:00 pm, continued into the night.

BENCHMARK ACTIVITIES:

- ^{to placement} Observe Final grading OF Barrier Layer SOILS.

- Spoke with Tom Forbes (Benchmark). It was agreed By
EPA & NYSDEC to FILL the ~~the~~ Depression AREA in the NORTH
East corner OF site, with Barrier Layer SOILS, ~~to~~ to ~~create~~
eliminate standing / ponding water.

TEST PERFORMED

QA PERSONNEL
SIGNATURE

[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	10/9/08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Thur
WEATHER	Sunny	TEMP	65°F
		START	0730
		END	1630

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- FINAL grading of CAP AREA, preparing cap for topsoil placement. setting grade stakes for topsoil thickness.
- placed 14 Trench Dump Truck Loads of Barrier protection soils in Depression (low area) on north east of site. machine spread with a Dozer. Trench dump truck in this area, approx 3.5 hrs.
- Removed steel rails from spur, OFFSITE. - Rails loaded on to truck with excavator.
- Equip used - 2 30 Dozers
- 1- pad foot roller.
- 1- Fueler
- 3- operators

BENCHMARK ACTIVITIES:

- OBSERVED Final grading of Barrier Layer soils.
- TAKE pictures of cap AREA
- OBSERVE ALL contractor Activities

TEST PERFORMED

QA PERSONNEL
SIGNATURE

[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT		DATE:	10-11-08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Fri
WEATHER	Sunny	TEMP	70°F
		START	0730
		JOB NO.	
		END	1700

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

- Begin placement of 6-inch topsoil layer over CAP AREA
- 20 trucks used to deliver topsoil from ~~Hamburg, NY~~ Hamburg, NY to site. (Placing material with 2 dozers)
- No other work performed today.

Equip used - 2 JD Dozers
1 Fueler
2 operators

BENCHMARK ACTIVITIES:

- Develop monitoring well MW-252 - removed 15 gallons of water from well.

TOTAL Depth 12-80'
WL - 5.65
well vol - 1.21 gal/ft.
TOTAL vol removed - 15 gallons > 10 well volumes

Water Turbid/Brown with Fine Brown Sand in purple bucket

TEST PERFORMED

- well development

QA PERSONNEL
SIGNATURE

[Signature]

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT	Peter Cooper	DATE:	10-14-08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Tue
WEATHER	Partly cloudy ^{afternoon} rain	TEMP °F	70
		START	745
		JOB NO.	
		END	11:15

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

Placement of 6" of top soil over clay cap 11 dump trucks hauling top soil from Hamburg stock pile. 2 dozers are tracking in and final grading top soil, 1 dozer is spreading new top soil and rough grading top soil.
Finished grading top soil and finished Hydro seed of Landfill area. They may finish Hydro seed everything.

BENCHMARK ACTIVITIES:

Check in with Gerry (Zoladz) and talk about today's activities
Take photos of site and grading
walk old hydro seeded area for signs of growth (none found)
walked and spot check 6" of top soil based on marks on stakes
checked new well MW-2SR water is clear after removing 3 barrels

TEST PERFORMED

QA PERSONNEL
SIGNATURE

[Signature]
BG

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT	Peter Cooper	DATE:	10-14-08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Tue
WEATHER	Partly cloudy after noon rain	TEMP °F	70
		START	0745
		END	1615

MEETINGS HELD & RESULTS:

met with Gurdy (Zoladz) about plan for today.

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer	8	3
						Welding Equip.			DJ Dump truck		
Laborer-Foreman			Carpenter						Water Truck		
Laborer	8	2							Backhoe		
Operating Engineer	8	3	Concrete Finisher						Excavator		
						Roller			Pad foot roller		
Carpenter						Paving Equipment			Hydrex seeder	8	1
						Air Compressor					

REMARKS:

REFERENCES TO OTHER FORMS:

SAMPLES COLLECTED:	
SAMPLE NUMBER	
APPROX. LOCATION OF STOCKPILE	
NO. OF STOCKPILE	
DATE OF COLLECTION	
CLIMATOLOGIC CONDITIONS	
FIELD OBSERVATION	

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT	Peter Cooper	DATE:	10-17-08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Fri
WEATHER	Partly cloudy	TEMP °F	60
		START	0800
		JOB NO.	
		END	1230

MEETINGS HELD & RESULTS:

CONTRACTOR'S WORK FORCE AND EQUIPMENT <i>NA</i>											
DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.			DJ Dump truck		
Laborer-Foreman			Carpenter						Water Truck		
Laborer									Backhoe		
Operating Engineer			Concrete Finisher						Excavator		
						Roller			Pad foot roller		
Carpenter						Paving Equipment					
						Air Compressor					

REMARKS:

REFERENCES TO OTHER FORMS:

SAMPLES COLLECTED:					
SAMPLE NUMBER					
APPROX. LOCATION OF STOCKPILE					
NO. OF STOCKPILE					
DATE OF COLLECTION					
CLIMATOLOGIC CONDITIONS					
FIELD OBSERVATION		SHEET	1	OF	2

INSPECTOR'S DAILY REPORT

CONTRACTOR	Zoladz Construction, Co, Inc		
CLIENT	Peter Cooper	DATE:	10-14-08
LOCATION	Peter Cooper Markhams NPL Site	DAY	Fri
WEATHER	Partly Cloudy	TEMP °F	60
		START	0800
		END	1230

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

Pick up equipment from site

BENCHMARK ACTIVITIES:

- Clean out site trailer
- Put "Black" lock on gate
- Stake out for tree location with Morice
- Count and move times to figure dollar amount for check
- take photos
- Call Gas well company to set up time to add their lock to gate.

TEST PERFORMED

QA PERSONNEL
SIGNATURE

Brynn
BG

APPENDIX C

BARRIER SOIL DOCUMENTATION

- CHEMICAL DATA
- PHYSICAL DATA
- FIELD COMPACTION DATA
- SHELBY TUBE DATA

CHEMICAL DATA

August 21, 2008

Ms. Sherrel Henry
Peter Cooper Markhams Superfund Site Project Coordinator
U.S. Environmental Protection Agency
Region II
Emergency and Remedial Response Division
290 Broadway - 20th Floor
New York, NY 10007-1866

Re: Peter Cooper Markhams Site, Dayton, NY
Barrier Layer Borrow Source Sampling Results

Dear Ms. Henry:

Enclosed for your review are the results of preliminary Barrier Layer source material testing for the final cover system at the Peter Cooper Markhams NPL Site, Dayton, NY. Material evaluation of the barrier layer off-site borrow source was performed in accordance with our June 2008 (revised) Construction Specifications and Construction Quality Assurance Project Plan (CQAPP). Samples of the barrier layer soils were collected from a virgin borrow source located in the Town of Ellington, NY. Attached to this document are the following:

- Laboratory chemical analysis data representing the 1st 1000-cubic yards of barrier layer soils proposed for import to the Site. (Per the specifications, chemical testing is required at 1 per thousand cubic yards for the first 5,000 yards of borrow material, and one per 5,000 cubic yards thereafter.) Approximately 12,000 cubic yards of barrier soil will be imported to the Site. Accordingly, six additional samples are currently undergoing analysis. We anticipate that data from these remaining analyses will be submitted within the next 5-7 days.
- Recompacted Laboratory Hydraulic Conductivity (Permeability) data, which were obtained from two composite samples from the barrier layer borrow source to pre-qualify this material based on permeability. Additional samples for the required full suite of physical testing parameters, including natural water content (ASTM D2216), grain size distribution (D422), modified proctor (ASTM D1557) and recompactd permeability (ASTM D5084) will be collected and analyzed in 5,000 cubic yard increments sequenced with the borrow source import to allow appropriate calibration of field moisture-density test equipment (i.e., nuclear densitometer).

As indicated by the laboratory analytical report (Attachment 1), only trace levels of ubiquitous parameters and naturally-occurring metals were detected, with all concentrations falling below the allowable thresholds per the CQAPP (i.e., less than commercial health-based Soil Cleanup Objectives and less than levels protective of groundwater quality per 6NYCRR Part 375-6).

The barrier layer borrow source material also meets the project specification criteria for permeability (i.e., 1×10^{-6} cm/s or less at project-specified 90% maximum recomacted density – see Attachment 2).

Based on these results, we believe the subject borrow source barrier material is acceptable for use at the Site pending remaining data. We anticipate that barrier soil import will begin in early September.

Please contact us if you have any questions.

Sincerely,
Benchmark Environmental Engineering & Science, PLLC



Thomas H. Forbes, P.E.
Project Manager

enc.

C: M. Joy (Lipman Biltekoff)
H. Killeen (Killeen & Killeen)
J. Wittenborn (Kelley Drye)
K. McMahon (Kelley Drye)
M. Moore (NYSDEC)

ATTACHMENT 1

BARRIER SOIL BORROW SOURCE CHEMICAL DATA

SAMPLE 1 (0-1,000 CY)

Date: 08/12/2008
Time: 11:19:10

Benchmark
Peter Cooper site
METHOD 8260 - TCL VOLATILE ORGANICS

Rept: AN0326

Client ID Job No Sample Date	Lab ID	Units	1ST 1000 CY A08-9322 07/31/2008	A8932201	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acetone		UG/KG	ND	27	NA		NA		NA	
Benzene		UG/KG	ND	5	NA		NA		NA	
Bromodichloromethane		UG/KG	ND	5	NA		NA		NA	
Bromoform		UG/KG	ND	5	NA		NA		NA	
Bromomethane		UG/KG	ND	5	NA		NA		NA	
2-Butanone		UG/KG	ND	27	NA		NA		NA	
Carbon Disulfide		UG/KG	ND	5	NA		NA		NA	
Carbon Tetrachloride		UG/KG	ND	5	NA		NA		NA	
Chlorobenzene		UG/KG	ND	5	NA		NA		NA	
Chloroethane		UG/KG	ND	5	NA		NA		NA	
Chloroform		UG/KG	ND	5	NA		NA		NA	
Chloromethane		UG/KG	ND	5	NA		NA		NA	
Cyclohexane		UG/KG	ND	5	NA		NA		NA	
1,2-Dibromoethane		UG/KG	ND	5	NA		NA		NA	
Dibromochloromethane		UG/KG	ND	5	NA		NA		NA	
1,2-Dibromo-3-chloropropane		UG/KG	ND	5	NA		NA		NA	
1,2-Dichlorobenzene		UG/KG	ND	5	NA		NA		NA	
1,3-Dichlorobenzene		UG/KG	ND	5	NA		NA		NA	
1,4-Dichlorobenzene		UG/KG	ND	5	NA		NA		NA	
Dichlorodifluoromethane		UG/KG	ND	5	NA		NA		NA	
1,1-Dichloroethane		UG/KG	ND	5	NA		NA		NA	
1,2-Dichloroethane		UG/KG	ND	5	NA		NA		NA	
1,1-Dichloroethene		UG/KG	ND	5	NA		NA		NA	
cis-1,2-Dichloroethene		UG/KG	ND	5	NA		NA		NA	
trans-1,2-Dichloroethene		UG/KG	ND	5	NA		NA		NA	
1,2-Dichloropropane		UG/KG	ND	5	NA		NA		NA	
cis-1,3-Dichloropropene		UG/KG	ND	5	NA		NA		NA	
trans-1,3-Dichloropropene		UG/KG	ND	5	NA		NA		NA	
Ethylbenzene		UG/KG	ND	27	NA		NA		NA	
2-Hexanone		UG/KG	ND	5	NA		NA		NA	
Isopropylbenzene		UG/KG	ND	5	NA		NA		NA	
Methyl acetate		UG/KG	ND	5	NA		NA		NA	
Methylcyclohexane		UG/KG	ND	5	NA		NA		NA	
Methylene chloride		UG/KG	ND	5	NA		NA		NA	
4-Methyl-2-pentanone		UG/KG	ND	10	NA		NA		NA	
Methyl-t-Butyl Ether (MTBE)		UG/KG	ND	27	NA		NA		NA	
Styrene		UG/KG	ND	5	NA		NA		NA	
1,1,2,2-Tetrachloroethane		UG/KG	ND	5	NA		NA		NA	
Tetrachloroethene		UG/KG	ND	5	NA		NA		NA	
Toluene		UG/KG	ND	5	NA		NA		NA	
1,2,4-Trichlorobenzene		UG/KG	ND	5	NA		NA		NA	
1,1,1-Trichloroethane		UG/KG	ND	5	NA		NA		NA	
1,1,2-Trichloroethane		UG/KG	ND	5	NA		NA		NA	

NA = Not Applicable ND = Not Detected

TestAmerica Lab

Date: 08/12/2008
Time: 11:19:10

Benchmark
Peter Cooper site
METHOD 8260 - TCL VOLATILE ORGANICS

Rept: AN0326

Client ID Job No Sample Date	Lab ID	Units	1ST 1000 CY A08-9322 07/31/2008	A8932201	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value
Analyte										
1,1,2-Trichloro-1,2,2-trifluor		UG/KG	ND	5		NA		NA		NA
Trichlorofluoromethane		UG/KG	ND	5		NA		NA		NA
Trichloroethene		UG/KG	ND	5		NA		NA		NA
Vinyl chloride		UG/KG	ND	11		NA		NA		NA
Total Xylenes		UG/KG	ND	16		NA		NA		NA
1,4-Difluorobenzene		%	80	50-200		NA		NA		NA
1,4-Dichlorobenzene-D4		%	77	50-200		NA		NA		NA
Toluene-D8		%	85	50-200		NA		NA		NA
p-Bromofluorobenzene		%	114	71-125		NA		NA		NA
1,2-Dichloroethane-D4		%	112	72-126		NA		NA		NA
		%	103	61-136		NA		NA		NA

NA = Not Applicable ND = Not Detected

TestAmerica Lab

Date: 08/12/2008
Time: 11:19:10

Benchmark
Peter Cooper site
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Rept: AN0326

Client ID Job No Sample Date	Lab ID	1ST 1000 CY A08-9322 07/31/2008	A8932201	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value
Anenaphthene	UG/KG	14 BJ	190	NA	NA		NA		NA
Acenaphthylene	UG/KG	ND	190	NA	NA		NA		NA
Acetophenone	UG/KG	ND	190	NA	NA		NA		NA
Anthracene	UG/KG	ND	190	NA	NA		NA		NA
Atrazine	UG/KG	ND	190	NA	NA		NA		NA
Benzaldehyde	UG/KG	ND	190	NA	NA		NA		NA
Benzo(a)anthracene	UG/KG	8 J	190	NA	NA		NA		NA
Benzo(b)fluoranthene	UG/KG	ND	190	NA	NA		NA		NA
Benzo(k)fluoranthene	UG/KG	ND	190	NA	NA		NA		NA
Benzo(ghi)perylene	UG/KG	ND	190	NA	NA		NA		NA
Benzo(a)pyrene	UG/KG	ND	190	NA	NA		NA		NA
Biphenyl	UG/KG	ND	190	NA	NA		NA		NA
Bis(2-chloroethoxy) methane	UG/KG	ND	190	NA	NA		NA		NA
Bis(2-chloroethyl) ether	UG/KG	ND	190	NA	NA		NA		NA
2,2'-Oxybis(1-Chloropropane)	UG/KG	ND	190	NA	NA		NA		NA
Bis(2-ethylhexyl) phthalate	UG/KG	ND	190	NA	NA		NA		NA
4-Bromophenyl phenyl ether	UG/KG	ND	190	NA	NA		NA		NA
Butyl benzyl phthalate	UG/KG	ND	190	NA	NA		NA		NA
Caprolactam	UG/KG	ND	190	NA	NA		NA		NA
4-Chloroaniline	UG/KG	ND	190	NA	NA		NA		NA
4-Chloro-3-methylphenol	UG/KG	ND	190	NA	NA		NA		NA
2-Chloronaphthalene	UG/KG	ND	190	NA	NA		NA		NA
2-Chlorophenol	UG/KG	ND	190	NA	NA		NA		NA
4-Chlorophenyl phenyl ether	UG/KG	ND	190	NA	NA		NA		NA
Carbazole	UG/KG	ND	190	NA	NA		NA		NA
Chrysene	UG/KG	22 BJ	190	NA	NA		NA		NA
Dibenzo(a,h)anthracene	UG/KG	ND	190	NA	NA		NA		NA
Dibenzofuran	UG/KG	9 BJ	190	NA	NA		NA		NA
Di-n-butyl phthalate	UG/KG	ND	190	NA	NA		NA		NA
3,3'-Dichlorobenzidine	UG/KG	ND	190	NA	NA		NA		NA
2,4-Dichlorophenol	UG/KG	ND	190	NA	NA		NA		NA
Diethyl phthalate	UG/KG	ND	190	NA	NA		NA		NA
2,4-Dimethylphenol	UG/KG	ND	190	NA	NA		NA		NA
Dimethyl phthalate	UG/KG	ND	190	NA	NA		NA		NA
4,6-Dinitro-2-methylphenol	UG/KG	ND	360	NA	NA		NA		NA
2,4-Dinitrophenol	UG/KG	ND	360	NA	NA		NA		NA
2,4-Dinitrotoluene	UG/KG	ND	190	NA	NA		NA		NA
2,6-Dinitrotoluene	UG/KG	ND	190	NA	NA		NA		NA
Di-n-octyl phthalate	UG/KG	ND	190	NA	NA		NA		NA
Fluoranthene	UG/KG	14 J	190	NA	NA		NA		NA
Hexachlorobenzene	UG/KG	13 BJ	190	NA	NA		NA		NA
Hexachlorobutadiene	UG/KG	ND	190	NA	NA		NA		NA

NA = Not Applicable ND = Not Detected

TestAmerica Lab

Date: 08/12/2008
Time: 11:19:10

Benchmark
Peter Cooper site
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Rept: AN0326

Client ID Job No Sample Date	Lab ID	1ST 1000 CY A08-9322 07/31/2008	A8932201	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Hexachlorocyclopentadiene	UG/KG	ND	190	NA		NA		NA	
Hexachloroethane	UG/KG	ND	190	NA		NA		NA	
Indeno(1,2,3-cd)pyrene	UG/KG	ND	190	NA		NA		NA	
Isophorone	UG/KG	ND	190	NA		NA		NA	
2-Methylnaphthalene	UG/KG	ND	190	NA		NA		NA	
2-Methylphenol	UG/KG	ND	190	NA		NA		NA	
4-Methylphenol	UG/KG	ND	190	NA		NA		NA	
Naphthalene	UG/KG	10 J	190	NA		NA		NA	
2-Nitroaniline	UG/KG	ND	360	NA		NA		NA	
3-Nitroaniline	UG/KG	ND	360	NA		NA		NA	
4-Nitroaniline	UG/KG	ND	360	NA		NA		NA	
Nitrobenzene	UG/KG	ND	190	NA		NA		NA	
2-Nitrophenol	UG/KG	ND	190	NA		NA		NA	
4-Nitrophenol	UG/KG	ND	360	NA		NA		NA	
N-nitrosodiphenylamine	UG/KG	ND	190	NA		NA		NA	
N-Nitroso-Di-n-propylamine	UG/KG	ND	190	NA		NA		NA	
Pentachlorophenol	UG/KG	ND	360	NA		NA		NA	
Phenanthrene	UG/KG	52 BJ	190	NA		NA		NA	
Phenol	UG/KG	ND	190	NA		NA		NA	
Pyrene	UG/KG	9 J	190	NA		NA		NA	
2,4,5-Trichlorophenol	UG/KG	ND	190	NA		NA		NA	
2,4,6-Trichlorophenol	UG/KG	ND	190	NA		NA		NA	
IS/SURROGATE(S)									
1,4-Dichlorobenzene-D4	%	72	50-200	NA		NA		NA	
Naphthalene-D8	%	71	50-200	NA		NA		NA	
Acenaphthene-D10	%	71	50-200	NA		NA		NA	
Phenanthrene-D10	%	73	50-200	NA		NA		NA	
Chrysene-D12	%	76	50-200	NA		NA		NA	
Perylene-D12	%	73	50-200	NA		NA		NA	
Nitrobenzene-D5	%	68	35-120	NA		NA		NA	
2-Fluorobiphenyl	%	73	43-120	NA		NA		NA	
p-Terphenyl-d14	%	72	51-125	NA		NA		NA	
Phenol-D5	%	64	38-120	NA		NA		NA	
2-Fluorophenol	%	58	30-120	NA		NA		NA	
2,4,6-Tribromophenol	%	81	46-129	NA		NA		NA	

NA = Not Applicable ND = Not Detected

TestAmerica Lab

Date: 08/12/2008
Time: 11:19:10

Benchmark
Peter Cooper site
BENCHMARK - 8081 - TCL PESTICIDES - S

Rept: AN0326

Client ID Job No Sample Date	Lab ID	1st 1000 CY A08-9322 07/31/2008	A8932201	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Aldrin	UG/KG	ND	1.8	NA		NA		NA	
alpha-BHC	UG/KG	ND	1.8	NA		NA		NA	
beta-BHC	UG/KG	ND	1.8	NA		NA		NA	
gamma-BHC (Lindane)	UG/KG	ND	1.8	NA		NA		NA	
delta-BHC	UG/KG	0.63 J	1.8	NA		NA		NA	
Chlordane	UG/KG	ND	1.8	NA		NA		NA	
4,4'-DDD	UG/KG	ND	1.8	NA		NA		NA	
4,4'-DDE	UG/KG	1.3 J	1.8	NA		NA		NA	
4,4'-DDT	UG/KG	2.5	1.8	NA		NA		NA	
Dieldrin	UG/KG	0.90 J	1.8	NA		NA		NA	
Endosulfan I	UG/KG	ND	1.8	NA		NA		NA	
Endosulfan II	UG/KG	ND	1.8	NA		NA		NA	
Endosulfan Sulfate	UG/KG	ND	1.8	NA		NA		NA	
Endrin	UG/KG	ND	1.8	NA		NA		NA	
Endrin aldehyde	UG/KG	ND	1.8	NA		NA		NA	
Heptachlor	UG/KG	ND	1.8	NA		NA		NA	
Heptachlor epoxide	UG/KG	ND	1.8	NA		NA		NA	
Methoxychlor	UG/KG	ND	1.8	NA		NA		NA	
Toxaphene	UG/KG	ND	1.8	NA		NA		NA	
SURROGATE(S)									
Tetrachloro-m-xylene	%	73	37-135	NA		NA		NA	
Decachlorobiphenyl	%	81	42-146	NA		NA		NA	

NA = Not Applicable ND = Not Detected

TestAmerica Lab

Date: 08/12/2008
Time: 11:19:10

Benchmark
Peter Cooper site
METHOD 8082 - POLYCHLORINATED BIPHENYLS

Rept: AN0326

Client ID Job No Sample Date	Lab ID	1ST 1000 CY A08-9322 07/31/2008	A8932201	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value
Aroclor 1016		UG/KG		18	NA		NA		NA
Aroclor 1221		UG/KG		18	NA		NA		NA
Aroclor 1232		UG/KG		18	NA		NA		NA
Aroclor 1242		UG/KG		18	NA		NA		NA
Aroclor 1248		UG/KG		18	NA		NA		NA
Aroclor 1254		UG/KG		18	NA		NA		NA
Aroclor 1260		UG/KG		18	NA		NA		NA
SURROGATE(S)									
Tetrachloro-m-xylene	%		72	35-134	NA		NA		NA
Decachlorobiphenyl	%		82	34-148	NA		NA		NA

NA = Not Applicable ND = Not Detected

TestAmerica Lab

Date: 08/12/2008
Time: 11:19:35

Benchmark
Peter Cooper site
BENCH - (13+HG) METALS - S

Rept: AN0326

Client ID Job No Sample Date	Lab ID	1ST 1000 CY A08-9322 07/31/2008	A8932201	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Analyte	Units								
Arsenic - Total	MG/KG	12.1	2.4	NA		NA		NA	
Barium - Total	MG/KG	168	0.59	NA		NA		NA	
Beryllium - Total	MG/KG	0.30	0.24	NA		NA		NA	
Cadmium - Total	MG/KG	ND	0.24	NA		NA		NA	
Chromium - Total	MG/KG	10.5	0.59	NA		NA		NA	
Copper - Total	MG/KG	18.3	1.2	NA		NA		NA	
Iron - Total	MG/KG	19400	11.9	NA		NA		NA	
Lead - Total	MG/KG	11.1	1.2	NA		NA		NA	
Manganese - Total	MG/KG	493	0.24	NA		NA		NA	
Mercury - Total	MG/KG	ND	0.023	NA		NA		NA	
Nickel - Total	MG/KG	18.2	0.59	NA		NA		NA	
Selenium - Total	MG/KG	ND	4.7	NA		NA		NA	
Silver - Total	MG/KG	ND	0.59	NA		NA		NA	
Zinc - Total	MG/KG	45.7	2.4	NA		NA		NA	

NA = Not Applicable ND = Not Detected

TestAmerica Lab

Date: 08/21/2008
Time: 15:22:53

Benchmark
Peter Cooper site
WET CHEMISTRY ANALYSIS

Rept: AN1246

Client ID Job No Sample Date	Lab ID	1ST 1000 CY A08-9322 07/31/2008	A8932201	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value
Cyanide - Total	MG/KG	ND	0.89		NA		NA		NA
Hexavalent Chromium - Total	MG/KG	ND	1.7		NA		NA		NA

NA = Not Applicable ND = Not Detected

TestAmerica Lab

ATTACHMENT 2

**BARRIER SOIL BORROW SOURCE PERMEABILITY DATA
PRELIMINARY (COMPOSITE) RESULTS**



FINAL PERMEABILITY REPORT

Project Name: Benchmark-Markhams Soil Testing
 Project No.: 08-002
 Sample No.: MSB Gravel Pit #2
 Sample I.D.: 08-516
 Laboratory Method: ASTM D5084, Method C

Date: 08/15/08
 Tested By: RP
 Check By: JMA
 Date of Test: 08/08/08
 Date Test Complete: 08/13/08
 CELL NO.: 6B

INITIAL SAMPLE DATA:

Height, in.: 3.003
 Diameter, in.: 2.793
 Moisture Content, %: 11.00

Wet Density, pcf: 138.4
 Dry Density, pcf: 124.7
 Compaction, %: 90.80

FINAL SAMPLE DATA:

Height, in.: 2.983
 Diameter, in.: 2.775
 Moisture Content, %: 12.90

Wet Density, pcf: 143.1
 Dry Density, pcf: 126.8

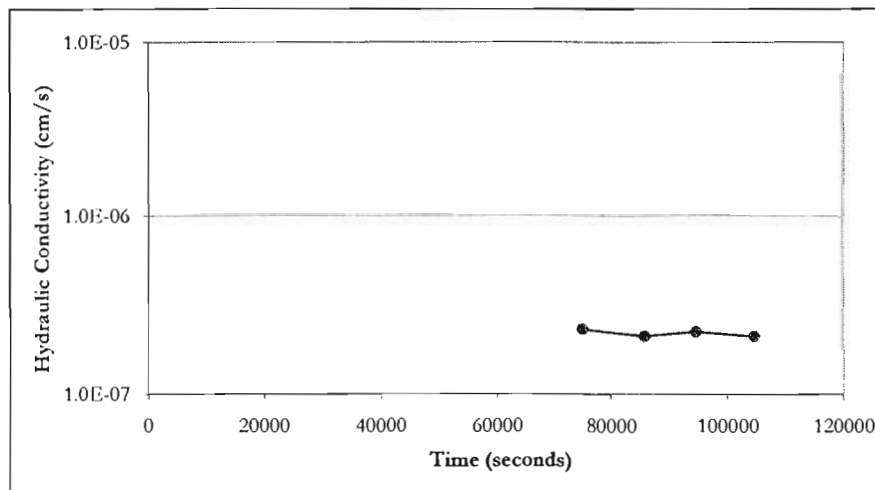
SATURATION AND CONSOLIDATION DATA:

Consolidation Pressure: 85 psi
 Backpressure: 80 psi
 Saturation (B parameter): 96%

AVERAGE PERMEABILITY RESULT (average of last 4 readings, K, cm/s):

Trial #	Testing Pressures (psi)			Q (ml/sec)	Final K (cm/s)
	1	2	3		
1	85.7	80	79.5	4.19E-05	2.3E-07
2	85.7	79.9	79.4	3.84E-05	2.1E-07
3	85.7	79.9	79.4	4.06E-05	2.2E-07
4	85.7	80.1	79.5	4.58E-05	2.1E-07

Average K	2.2E-07
Average K, ft/day	6.2E-04



September 8, 2008

Ms. Sherrel Henry
Peter Cooper Markhams Superfund Site Project Coordinator
U.S. Environmental Protection Agency
Region II
Emergency and Remedial Response Division
290 Broadway - 20th Floor
New York, NY 10007-1866

Re: Peter Cooper Markhams Site, Dayton, NY
Barrier Layer Borrow Source Sampling Results

Dear Ms. Henry:

Enclosed for your review are the results of Barrier Layer source material testing for the final cover system at the Peter Cooper Markhams NPL Site, Dayton, NY. Material evaluation of the barrier layer off-site borrow source was performed in accordance with our June 2008 (revised) Construction Specifications and Construction Quality Assurance Project Plan (CQAPP). Samples of the barrier layer soils were collected from a virgin borrow source located in the Town of Ellington, New York. Attached to this document are the following:

- Laboratory chemical analysis data representing: the 2nd through 5th 1,000-cubic yards; one 5,000-cubic yard pile; and one 2,000-cubic yard pile of barrier layer soils proposed for import to the Site. (Per the specifications, chemical testing is required at one sample per 1,000 cubic yards for the first 5,000 yards of borrow material, and one sample per 5,000 cubic yards thereafter.) A total of approximately 12,000 cubic yards of barrier soil is required for import to the Site.
- One composite sample was collected from the first 5,000-cubic yard pile of screened barrier layer off-site borrow source for analysis of the required full suite of physical testing parameters, including natural water content (ASTM D2216), grain size distribution (D422), modified proctor (ASTM D1557) and recompacted permeability (ASTM D5084). This sample was sequenced with the borrow source import to allow appropriate calibration of field moisture-density test equipment (i.e., nuclear densitometer). Per the specifications, physical testing is required at 1 sample per 5,000 yards of screened borrow material. Since approximately 12,000 cubic yards of barrier soil has been imported to the Site, two additional samples will be collected and analyzed as the material becomes available.

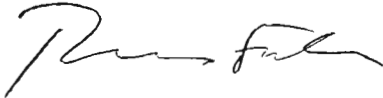
As indicated by the laboratory analytical report (Attachment 1), only trace levels of ubiquitous parameters and naturally occurring metals were detected, with all concentrations falling below the allowable thresholds per the CQAPP (i.e., less than commercial health-based Soil Cleanup Objectives and less than levels protective of groundwater quality per 6NYCRR Part 375-6).

Attachment 2 contains the soil testing report for the physical testing parameters described above. The barrier layer borrow source material meets the project specification criteria for gradation requirements and permeability (i.e., 1×10^{-6} cm/s or less at project-specified 90% maximum recomacted density).

Based on these results, we believe the subject borrow source barrier material is acceptable for use at the Site. We anticipate that barrier soil import will begin mid-September.

Please contact us if you have any questions.

Sincerely,
Benchmark Environmental Engineering & Science, PLLC



Thomas H. Forbes, P.E.
Project Manager

enc.

c: M. Joy (Lipman Biltekoff)
H. Killeen (Killeen & Killeen)
J. Wittenborn (Kelley Drye)
K. McMahon (Kelley Drye)
M. Moore (NYSDEC)

File: 0021-003-401, CG

ATTACHMENT 1

BARRIER SOIL BORROW SOURCE CHEMICAL DATA:

- **SAMPLE 2 (1,000-2,000 CY)**
- **SAMPLE 3 (2,000-3,000 CY)**
- **SAMPLE 4 (3,000-4,000 CY)**
- **SAMPLE 5 (4,000-5,000 CY)**
- **SAMPLE 6 (5,000-10,000 CY)**
- **SAMPLE 7 (10,000-12,000 CY)**

Date: 09/03/2008
Time: 14:08:17

Benchmark
Peter Cooper site
METHOD 8260 - TCL VOLATILE ORGANICS

Rept: AN1246

Client ID Job No Sample Date	Lab ID	1ST 1000 CY A08-9322 07/31/2008	A8932201	1ST 5000 CY A08-9322 07/31/2008	A8932206	2ND 1000 CY A08-9322 07/31/2008	A8932202	2ND 5000 CY A08-9322 07/31/2008	A8932207
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acetone	UG/KG	ND	27	ND	26	6 J	27	ND	28
Benzene	UG/KG	ND	5	ND	5	ND	5	ND	6
Bromodichloromethane	UG/KG	ND	5	ND	5	ND	5	ND	6
Bromoform	UG/KG	ND	5	ND	5	ND	5	ND	6
Bromomethane	UG/KG	ND	5	ND	5	ND	5	ND	6
2-Butanone	UG/KG	ND	27	ND	26	ND	27	ND	28
Carbon Disulfide	UG/KG	ND	5	ND	5	ND	5	ND	6
Carbon Tetrachloride	UG/KG	ND	5	ND	5	ND	5	ND	6
Chlorobenzene	UG/KG	ND	5	ND	5	ND	5	ND	6
Chloroethane	UG/KG	ND	5	ND	5	ND	5	ND	6
Chloroform	UG/KG	ND	5	ND	5	ND	5	ND	6
Chloromethane	UG/KG	ND	5	ND	5	ND	5	ND	6
Cyclohexane	UG/KG	ND	5	ND	5	ND	5	ND	6
1,2-Dibromoethane	UG/KG	ND	5	ND	5	ND	5	ND	6
Dibromochloromethane	UG/KG	ND	5	ND	5	ND	5	ND	6
1,2-Dibromo-3-chloropropane	UG/KG	ND	5	ND	5	ND	5	ND	6
1,2-Dichlorobenzene	UG/KG	ND	5	ND	5	ND	5	ND	6
1,3-Dichlorobenzene	UG/KG	ND	5	ND	5	ND	5	ND	6
1,4-Dichlorobenzene	UG/KG	ND	5	ND	5	ND	5	ND	6
Dichlorodifluoromethane	UG/KG	ND	5	ND	5	ND	5	ND	6
1,1-Dichloroethane	UG/KG	ND	5	ND	5	ND	5	ND	6
1,2-Dichloroethane	UG/KG	ND	5	ND	5	ND	5	ND	6
1,1-Dichloroethene	UG/KG	ND	5	ND	5	ND	5	ND	6
cis-1,2-Dichloroethene	UG/KG	ND	5	ND	5	ND	5	ND	6
trans-1,2-Dichloroethene	UG/KG	ND	5	ND	5	ND	5	ND	6
1,2-Dichloropropane	UG/KG	ND	5	ND	5	ND	5	ND	6
cis-1,3-Dichloropropene	UG/KG	ND	5	ND	5	ND	5	ND	6
trans-1,3-Dichloropropene	UG/KG	ND	5	ND	5	ND	5	ND	6
Ethylbenzene	UG/KG	ND	5	ND	5	ND	5	ND	6
2-Hexanone	UG/KG	ND	27	ND	26	ND	27	ND	28
Isopropylbenzene	UG/KG	ND	5	ND	5	ND	5	ND	6
Methyl acetate	UG/KG	ND	5	ND	5	ND	5	ND	6
Methylcyclohexane	UG/KG	ND	5	ND	5	ND	5	ND	6
Methylene chloride	UG/KG	ND	5	ND	5	ND	5	ND	6
4-Methyl-2-pentanone	UG/KG	ND	27	ND	26	ND	27	ND	28
Methyl-t-Butyl Ether (MTBE)	UG/KG	ND	5	ND	5	ND	5	ND	6
Styrene	UG/KG	ND	5	ND	5	ND	5	ND	6
1,1,2,2-Tetrachloroethane	UG/KG	ND	5	ND	5	ND	5	ND	6
Tetrachloroethene	UG/KG	ND	5	ND	5	ND	5	ND	6
Toluene	UG/KG	ND	5	ND	5	ND	5	ND	6
1,2,4-Trichlorobenzene	UG/KG	ND	5	ND	5	ND	5	ND	6
1,1,1-Trichloroethane	UG/KG	ND	5	ND	5	ND	5	ND	6
1,1,2-Trichloroethane	UG/KG	ND	5	ND	5	ND	5	ND	6

Date: 09/03/2008
Time: 14:08:17

Benchmark
Peter Cooper site
METHOD 8260 - TCL VOLATILE ORGANICS

Rept: AN1246

Client ID Job No Sample Date	Lab ID	Units	1ST 1000 CY A08-9322 07/31/2008	Reporting Limit	Sample Value	1ST 5000 CY A08-9322 07/31/2008	Reporting Limit	Sample Value	2ND 1000 CY A08-9322 07/31/2008	Reporting Limit	Sample Value	2ND 5000 CY A08-9322 07/31/2008	Reporting Limit
1,1,2-Trichloro-1,2,2-trifluor		UG/KG	ND	5	ND	ND	5	ND	ND	5	ND	ND	6
Trichlorofluoromethane		UG/KG	ND	5	ND	ND	5	ND	ND	5	ND	ND	6
Trichloroethene		UG/KG	ND	5	ND	ND	5	ND	ND	5	ND	ND	6
Vinyl chloride		UG/KG	ND	11	ND	ND	10	ND	ND	11	ND	ND	11
Total Xylenes		UG/KG	ND	16	ND	ND	16	ND	ND	16	ND	ND	16
IS/SURROGATE(S)													
Chlorobenzene-D5		%	80	50-200	99	99	50-200	102	102	50-200	98	50-200	50-200
1,4-Difluorobenzene		%	77	50-200	98	98	50-200	102	102	50-200	98	50-200	50-200
1,4-Dichlorobenzene-D4		%	85	50-200	95	95	50-200	100	100	50-200	96	50-200	50-200
Toluene-D8		%	114	71-125	114	114	71-125	114	114	71-125	119	71-125	71-125
p-Bromofluorobenzene		%	112	72-126	106	106	72-126	108	108	72-126	111	72-126	72-126
1,2-Dichloroethane-D4		%	103	61-136	116	116	61-136	116	116	61-136	118	61-136	61-136

Date: 09/03/2008
Time: 14:08:17

Benchmark
Peter Cooper site
METHOD 8260 - TCL VOLATILE ORGANICS

Rept: AN1246

Client ID Job No Sample Date	Lab ID	3RD 1000 CY A08-9322 07/31/2008	A8932203	4TH 1000 CY A08-9322 07/31/2008	A8932204	5TH 1000 CY A08-9322 07/31/2008	A8932205	Reporting Limit	Sample Value	Reporting Limit	Sample Value
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit				
Acetone	UG/KG	ND	28	ND	30	ND	27		NA		NA
Benzene	UG/KG	ND	6	ND	6	ND	5		NA		NA
Bromodichloromethane	UG/KG	ND	6	ND	6	ND	5		NA		NA
Bromoform	UG/KG	ND	6	ND	6	ND	5		NA		NA
Bromomethane	UG/KG	ND	6	ND	6	ND	5		NA		NA
2-Butanone	UG/KG	ND	28	ND	30	ND	27		NA		NA
Carbon Disulfide	UG/KG	ND	6	ND	6	ND	5		NA		NA
Carbon Tetrachloride	UG/KG	ND	6	ND	6	ND	5		NA		NA
Chlorobenzene	UG/KG	ND	6	ND	6	ND	5		NA		NA
Chloroethane	UG/KG	ND	6	ND	6	ND	5		NA		NA
Chloroform	UG/KG	ND	6	ND	6	ND	5		NA		NA
Chloromethane	UG/KG	ND	6	ND	6	ND	5		NA		NA
Cyclohexane	UG/KG	ND	6	ND	6	ND	5		NA		NA
1,2-Dibromoethane	UG/KG	ND	6	ND	6	ND	5		NA		NA
1,2-Dibromochloromethane	UG/KG	ND	6	ND	6	ND	5		NA		NA
1,2-Dibromo-3-chloropropane	UG/KG	ND	6	ND	6	ND	5		NA		NA
1,2-Dichlorobenzene	UG/KG	ND	6	ND	6	ND	5		NA		NA
1,3-Dichlorobenzene	UG/KG	ND	6	ND	6	ND	5		NA		NA
1,4-Dichlorobenzene	UG/KG	ND	6	ND	6	ND	5		NA		NA
Dichlorodifluoromethane	UG/KG	ND	6	ND	6	ND	5		NA		NA
1,1-Dichloroethane	UG/KG	ND	6	ND	6	ND	5		NA		NA
1,2-Dichloroethane	UG/KG	ND	6	ND	6	ND	5		NA		NA
1,1-Dichloroethene	UG/KG	ND	6	ND	6	ND	5		NA		NA
cis-1,2-Dichloroethene	UG/KG	ND	6	ND	6	ND	5		NA		NA
trans-1,2-Dichloroethene	UG/KG	ND	6	ND	6	ND	5		NA		NA
1,2-Dichloropropane	UG/KG	ND	6	ND	6	ND	5		NA		NA
cis-1,3-Dichloropropene	UG/KG	ND	6	ND	6	ND	5		NA		NA
trans-1,3-Dichloropropene	UG/KG	ND	6	ND	6	ND	5		NA		NA
Ethylbenzene	UG/KG	ND	6	ND	6	ND	5		NA		NA
2-Hexanone	UG/KG	ND	28	ND	30	ND	27		NA		NA
Isopropylbenzene	UG/KG	ND	6	ND	6	ND	5		NA		NA
Methyl acetate	UG/KG	ND	6	ND	6	ND	5		NA		NA
Methylcyclohexane	UG/KG	ND	6	ND	6	ND	5		NA		NA
Methylene chloride	UG/KG	ND	6	ND	6	ND	5		NA		NA
4-Methyl-2-pentanone	UG/KG	ND	28	ND	30	ND	27		NA		NA
Methyl-t-Butyl Ether (MTBE)	UG/KG	ND	6	ND	6	ND	5		NA		NA
Styrene	UG/KG	ND	6	ND	6	ND	5		NA		NA
1,1,2,2-Tetrachloroethane	UG/KG	ND	6	ND	6	ND	5		NA		NA
Tetrachloroethene	UG/KG	ND	6	ND	6	ND	5		NA		NA
Toluene	UG/KG	ND	6	ND	6	ND	5		NA		NA
1,2,4-Trichlorobenzene	UG/KG	ND	6	ND	6	ND	5		NA		NA
1,1,1-Trichloroethane	UG/KG	ND	6	ND	6	ND	5		NA		NA
1,1,2-Trichloroethane	UG/KG	ND	6	ND	6	ND	5		NA		NA

NA = Not Applicable ND = Not Detected

TestAmerica Lab

Date: 09/03/2008
Time: 14:08:17

Benchmark
Peter Cooper site
METHOD 8260 - TCL VOLATILE ORGANICS

Rept: AN1246

Client ID Job No Sample Date	Lab ID	3RD 1000 CY A08-9322 07/31/2008	A8932203	4TH 1000 CY A08-9322 07/31/2008	A8932204	5TH 1000 CY A08-9322 07/31/2008	A8932205	Reporting Limit	Sample Value
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
1,1,2-Trichloro-1,2,2-trifluor	UG/KG	ND	6	ND	6	ND	5	NA	NA
Trichlorofluoromethane	UG/KG	ND	6	ND	6	ND	5	NA	NA
Trichloroethene	UG/KG	ND	6	ND	6	ND	5	NA	NA
Vinyl chloride	UG/KG	ND	11	ND	12	ND	11	NA	NA
Total Xylenes	UG/KG	ND	17	ND	18	ND	16	NA	NA
IS/SURROGATE(S)									
Chlorobenzene-D5	%	101	50-200	99	50-200	100	50-200	NA	NA
1,4-Difluorobenzene	%	100	50-200	100	50-200	99	50-200	NA	NA
1,4-Dichlorobenzene-D4	%	98	50-200	98	50-200	97	50-200	NA	NA
Toluene-D8	%	115	71-125	116	71-125	116	71-125	NA	NA
p-Bromofluorobenzene	%	107	72-126	108	72-126	109	72-126	NA	NA
1,2-Dichloroethane-D4	%	117	61-136	116	61-136	118	61-136	NA	NA

Date: 09/03/2008
Time: 14:08:17

Benchmark
Peter Cooper site
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Rept: AN1246

Client ID Job No Sample Date	Lab ID	1ST 1000 CY A08-9322 07/31/2008	A8932201	1ST 5000 CY A08-9322 07/31/2008	A8932206	2ND 1000 CY A08-9322 07/31/2008	A8932202	2ND 5000 CY A08-9322 07/31/2008	A8932207
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acenaphthene	UG/KG	14 BJ	190	ND	180	ND	180	ND	180
Acenaphthylene	UG/KG	ND	190	ND	180	ND	180	ND	180
Acetophenone	UG/KG	ND	190	ND	180	ND	180	ND	180
Anthracene	UG/KG	ND	190	ND	180	ND	180	ND	180
Atrazine	UG/KG	ND	190	ND	180	ND	180	ND	180
Benzaldehyde	UG/KG	ND	190	ND	180	ND	180	ND	180
Benzo(a)anthracene	UG/KG	8 J	190	ND	180	ND	180	ND	180
Benzo(b)fluoranthene	UG/KG	ND	190	ND	180	ND	180	ND	180
Benzo(k)fluoranthene	UG/KG	ND	190	ND	180	ND	180	ND	180
Benzo(ghi)perylene	UG/KG	ND	190	ND	180	ND	180	ND	180
Benzo(a)pyrene	UG/KG	ND	190	ND	180	ND	180	ND	180
Biphenyl	UG/KG	ND	190	ND	180	ND	180	ND	180
Bis(2-chloroethoxy) methane	UG/KG	ND	190	ND	180	ND	180	ND	180
Bis(2-chloroethyl) ether	UG/KG	ND	190	ND	180	ND	180	ND	180
2,2'-Oxybis(1-Chloropropane)	UG/KG	ND	190	ND	180	ND	180	ND	180
Bis(2-ethylhexyl) phthalate	UG/KG	ND	190	ND	180	ND	180	69 J	180
4-Bromophenyl phenyl ether	UG/KG	ND	190	ND	180	ND	180	ND	180
Butyl benzyl phthalate	UG/KG	ND	190	ND	180	ND	180	ND	180
Caprolactam	UG/KG	ND	190	ND	180	ND	180	ND	180
4-Chloroaniline	UG/KG	ND	190	ND	180	ND	180	ND	180
4-Chloro-3-methylphenol	UG/KG	ND	190	ND	180	ND	180	ND	180
2-Chloronaphthalene	UG/KG	ND	190	ND	180	ND	180	ND	180
2-Chlorophenol	UG/KG	ND	190	ND	180	ND	180	ND	180
4-Chlorophenyl phenyl ether	UG/KG	ND	190	ND	180	ND	180	ND	180
Carbazole	UG/KG	ND	190	ND	180	ND	180	ND	180
Chrysene	UG/KG	22 BJ	190	ND	180	ND	180	ND	180
Dibenzo(a,h)anthracene	UG/KG	ND	190	ND	180	ND	180	ND	180
Dibenzofuran	UG/KG	9 BJ	190	ND	180	ND	180	ND	180
Di-n-butyl phthalate	UG/KG	ND	190	ND	180	ND	180	ND	180
3,3'-Dichlorobenzidine	UG/KG	ND	190	ND	180	ND	180	ND	180
2,4-Dichlorophenol	UG/KG	ND	190	ND	180	ND	180	ND	180
Diethyl phthalate	UG/KG	ND	190	ND	180	ND	180	ND	180
2,4-Dimethylphenol	UG/KG	ND	190	ND	180	ND	180	ND	180
Dimethyl phthalate	UG/KG	ND	190	ND	180	ND	180	ND	180
4,6-Dinitro-2-methylphenol	UG/KG	ND	360	ND	340	ND	360	ND	350
2,4-Dinitrophenol	UG/KG	ND	360	ND	340	ND	360	ND	350
2,4-Dinitrotoluene	UG/KG	ND	190	ND	180	ND	180	ND	180
2,6-Dinitrotoluene	UG/KG	ND	190	ND	180	ND	180	ND	180
Di-n-octyl phthalate	UG/KG	ND	190	ND	180	ND	180	180	180
Fluoranthene	UG/KG	14 J	190	ND	180	ND	180	ND	180
Fluorene	UG/KG	13 BJ	190	ND	180	ND	180	ND	180
Hexachlorobenzene	UG/KG	ND	190	ND	180	ND	180	ND	180
Hexachlorobutadiene	UG/KG	ND	190	ND	180	ND	180	ND	180

NA = Not Applicable ND = Not Detected

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METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Rept: AN1246

Client ID Job No Sample Date	Lab ID	1ST 1000 CY A08-9322 07/31/2008	A8932201	1ST 5000 CY A08-9322 07/31/2008	A8932206	2ND 1000 CY A08-9322 07/31/2008	A8932202	2ND 5000 CY A08-9322 07/31/2008	A8932207
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Hexachlorocyclopentadiene	UG/KG	ND	190	ND	180	ND	180	ND	180
Hexachloroethane	UG/KG	ND	190	ND	180	ND	180	ND	180
Indeno(1,2,3-cd)pyrene	UG/KG	ND	190	ND	180	ND	180	ND	180
Isophorone	UG/KG	ND	190	ND	180	ND	180	ND	180
2-Methylnaphthalene	UG/KG	ND	190	ND	180	ND	180	ND	180
2-Methylphenol	UG/KG	ND	190	ND	180	ND	180	ND	180
4-Methylphenol	UG/KG	ND	190	ND	180	ND	180	ND	180
Naphthalene	UG/KG	10 J	190	12 J	180	ND	180	8 J	180
2-Nitroaniline	UG/KG	ND	360	ND	340	ND	360	ND	350
3-Nitroaniline	UG/KG	ND	360	ND	340	ND	360	ND	350
4-Nitroaniline	UG/KG	ND	360	ND	340	ND	360	ND	350
Nitrobenzene	UG/KG	ND	190	ND	180	ND	180	ND	180
2-Nitrophenol	UG/KG	ND	190	ND	180	ND	180	ND	180
4-Nitrophenol	UG/KG	ND	360	ND	340	ND	360	ND	350
N-nitrosodiphenylamine	UG/KG	ND	190	ND	180	ND	180	ND	180
N-Nitroso-Di-n-propylamine	UG/KG	ND	190	ND	180	ND	180	ND	180
Pentachlorophenol	UG/KG	ND	360	ND	340	ND	360	ND	350
Phenanthrene	UG/KG	52 BJ	190	22 BJ	180	26 BJ	180	21 BJ	180
Phenol	UG/KG	ND	190	ND	180	ND	180	ND	180
Pyrene	UG/KG	9 J	190	ND	180	ND	180	ND	180
2,4,5-Trichlorophenol	UG/KG	ND	190	ND	180	ND	180	ND	180
2,4,6-Trichlorophenol	UG/KG	ND	190	ND	180	ND	180	ND	180
IS/SURROGATE(S)									
1,4-Dichlorobenzene-D4	%	72	50-200	98	50-200	112	50-200	101	50-200
Naphthalene-D8	%	71	50-200	92	50-200	104	50-200	95	50-200
Acenaphthene-D10	%	71	50-200	93	50-200	105	50-200	97	50-200
Phenanthrene-D10	%	73	50-200	92	50-200	104	50-200	97	50-200
Chrysene-D12	%	76	50-200	101	50-200	114	50-200	107	50-200
Perylene-D12	%	73	50-200	116	50-200	136	50-200	123	50-200
Nitrobenzene-D5	%	68	35-120	66	35-120	66	35-120	54	35-120
2-Fluorobiphenyl	%	73	43-120	71	43-120	71	43-120	60	43-120
p-Terphenyl-d14	%	72	51-125	64	51-125	70	51-125	67	51-125
Phenol-D5	%	64	38-120	63	38-120	65	38-120	54	38-120
2-Fluorophenol	%	58	30-120	58	30-120	57	30-120	47	30-120
2,4,6-Tribromophenol	%	81	46-129	70	46-129	78	46-129	69	46-129

NA = Not Applicable ND = Not Detected

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METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

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Client ID Job No Sample Date	Lab ID	3RD 1000 CY A08-9322 07/31/2008	A8932203	4TH 1000 CY A08-9322 07/31/2008	A8932204	5TH 1000 CY A08-9322 07/31/2008	A8932205	Reporting Limit	Sample Value
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acenaphthene	UG/KG	ND	180	ND	190	ND	200	NA	200
Acenaphthylene	UG/KG	ND	180	ND	190	ND	200	NA	200
Acetophenone	UG/KG	ND	180	ND	190	ND	200	NA	200
Anthracene	UG/KG	ND	180	ND	190	ND	200	NA	200
Atrazine	UG/KG	ND	180	ND	190	ND	200	NA	200
Benzaldehyde	UG/KG	ND	180	ND	190	ND	200	NA	200
Benzo(a)anthracene	UG/KG	ND	180	ND	190	ND	200	NA	200
Benzo(b)fluoranthene	UG/KG	ND	180	ND	190	ND	200	NA	200
Benzo(k)fluoranthene	UG/KG	ND	180	ND	190	ND	200	NA	200
Benzo(ghi)perylene	UG/KG	ND	180	ND	190	ND	200	NA	200
Benzo(a)pyrene	UG/KG	ND	180	ND	190	ND	200	NA	200
Biphenyl	UG/KG	ND	180	ND	190	ND	200	NA	200
Bis(2-chloroethoxy) methane	UG/KG	ND	180	ND	190	ND	200	NA	200
Bis(2-chloroethyl) ether	UG/KG	ND	180	ND	190	ND	200	NA	200
2,2'-Oxybis(1-Chloropropane)	UG/KG	ND	180	ND	190	ND	200	NA	200
Bis(2-ethylhexyl) phthalate	UG/KG	ND	180	ND	190	ND	200	NA	200
4-Bromophenyl phenyl ether	UG/KG	ND	180	ND	190	ND	200	NA	200
Butyl benzyl phthalate	UG/KG	ND	180	ND	190	ND	200	NA	200
Caprolactam	UG/KG	ND	180	ND	190	ND	200	NA	200
4-Chloroaniline	UG/KG	ND	180	ND	190	ND	200	NA	200
4-Chloro-3-methylphenol	UG/KG	ND	180	ND	190	ND	200	NA	200
2-Chloronaphthalene	UG/KG	ND	180	ND	190	ND	200	NA	200
2-Chlorophenol	UG/KG	ND	180	ND	190	ND	200	NA	200
4-Chlorophenyl phenyl ether	UG/KG	ND	180	ND	190	ND	200	NA	200
Carbazole	UG/KG	ND	180	ND	190	ND	200	NA	200
Chrysene	UG/KG	ND	180	ND	190	ND	200	NA	200
Dibenz(a,h)anthracene	UG/KG	ND	180	ND	190	ND	200	NA	200
Dibenzofuran	UG/KG	ND	180	ND	190	ND	200	NA	200
Di-n-butyl phthalate	UG/KG	ND	180	ND	190	ND	200	NA	200
3,3'-Dichlorobenzidine	UG/KG	ND	180	ND	190	ND	200	NA	200
2,4-Dichlorophenol	UG/KG	ND	180	ND	190	ND	200	NA	200
Diethyl phthalate	UG/KG	ND	180	ND	190	ND	200	NA	200
2,4-Dimethylphenol	UG/KG	ND	180	ND	190	ND	200	NA	200
Dimethyl phthalate	UG/KG	ND	180	ND	190	ND	200	NA	200
4,6-Dinitro-2-methylphenol	UG/KG	ND	350	ND	360	ND	380	NA	380
2,4-Dinitrophenol	UG/KG	ND	350	ND	360	ND	380	NA	380
2,4-Dinitrotoluene	UG/KG	ND	180	ND	190	ND	200	NA	200
2,6-Dinitrotoluene	UG/KG	ND	180	ND	190	ND	200	NA	200
Di-n-octyl phthalate	UG/KG	ND	180	ND	190	ND	200	NA	200
Fluoranthene	UG/KG	ND	180	ND	190	ND	200	NA	200
Fluorene	UG/KG	ND	180	ND	190	ND	200	NA	200
Hexachlorobenzene	UG/KG	ND	180	ND	190	ND	200	NA	200
Hexachlorobutadiene	UG/KG	ND	180	ND	190	ND	200	NA	200

NA = Not Applicable ND = Not Detected

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METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

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Client ID Job No Sample Date	Lab ID	3RD 1000 CY A08-9322 07/31/2008	A8932203	4TH 1000 CY A08-9322 07/31/2008	A8932204	5TH 1000 CY A08-9322 07/31/2008	A8932205	Reporting Limit	Sample Value
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Hexachlorocyclopentadiene	UG/KG	ND	180	ND	190	ND	200	NA	200
Hexachloroethane	UG/KG	ND	180	ND	190	ND	200	NA	200
Indeno(1,2,3-cd)pyrene	UG/KG	ND	180	ND	190	ND	200	NA	200
Isophorone	UG/KG	ND	180	ND	190	ND	200	NA	200
2-Methylnaphthalene	UG/KG	ND	180	ND	190	ND	200	NA	200
2-Methylphenol	UG/KG	ND	180	ND	190	ND	200	NA	200
4-Methylphenol	UG/KG	ND	180	ND	190	ND	200	NA	200
Naphthalene	UG/KG	ND	180	ND	190	ND	200	NA	200
2-Nitroaniline	UG/KG	ND	350	ND	360	ND	380	NA	380
3-Nitroaniline	UG/KG	ND	350	ND	360	ND	380	NA	380
4-Nitroaniline	UG/KG	ND	350	ND	360	ND	380	NA	380
Nitrobenzene	UG/KG	ND	180	ND	190	ND	200	NA	200
2-Nitrophenol	UG/KG	ND	180	ND	190	ND	200	NA	200
4-Nitrophenol	UG/KG	ND	350	ND	360	ND	380	NA	380
N-nitrosodiphenylamine	UG/KG	ND	180	ND	190	ND	200	NA	200
N-nitroso-Di-n-propylamine	UG/KG	ND	180	ND	190	ND	200	NA	200
Pentachlorophenol	UG/KG	ND	350	ND	360	ND	380	NA	380
Phenanthrene	UG/KG	24 BJ	180	22 BJ	190	21 BJ	200	NA	200
Pyrene	UG/KG	ND	180	ND	190	ND	200	NA	200
2,4,5-Trichlorophenol	UG/KG	ND	180	ND	190	ND	200	NA	200
2,4,6-Trichlorophenol	UG/KG	ND	180	ND	190	ND	200	NA	200
IS/SURROGATE(S)									
1,4-Dichlorobenzene-D4	%	106	50-200	102	50-200	110	50-200	NA	50-200
Naphthalene-D8	%	96	50-200	92	50-200	103	50-200	NA	50-200
Acenaphthene-D10	%	99	50-200	94	50-200	108	50-200	NA	50-200
Phenanthrene-D10	%	97	50-200	93	50-200	108	50-200	NA	50-200
Chrysene-D12	%	106	50-200	100	50-200	117	50-200	NA	50-200
Perylene-D12	%	125	50-200	117	50-200	131	50-200	NA	50-200
Nitrobenzene-D5	%	69	35-120	61	35-120	58	35-120	NA	35-120
2-Fluorobiphenyl	%	73	43-120	64	43-120	60	43-120	NA	43-120
p-Terphenyl-D14	%	67	51-125	65	51-125	58	51-125	NA	51-125
Phenol-D5	%	65	38-120	58	38-120	56	38-120	NA	38-120
2-Fluorophenol	%	58	30-120	52	30-120	49	30-120	NA	30-120
2,4,6-Tribromophenol	%	76	46-129	66	46-129	61	46-129	NA	46-129

NA = Not Applicable ND = Not Detected

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Client ID Job No Sample Date	Lab ID	Units	1ST 1000 CY A08-9322 07/31/2008	A8932201	1ST 5000 CY A08-9322 07/31/2008	A8932206	1ST 5000 CY A08-9322 07/31/2008	A8932206RE	2ND 1000 CY A08-9322 07/31/2008	A8932202
Analyte			Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Aldrin		UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
alpha-BHC		UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
beta-BHC		UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
gamma-BHC (Lindane)		UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
delta-BHC		UG/KG	0.63 J	1.8	ND	1.8	ND	1.8	ND	1.8
Chlordane		UG/KG	ND	18	ND	18	ND	18	ND	18
4,4'-DDD		UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
4,4'-DDE		UG/KG	1.3 J	1.8	ND	1.8	ND	1.8	ND	1.8
4,4'-DDT		UG/KG	2.5	1.8	ND	1.8	ND	1.8	ND	1.8
Dieldrin		UG/KG	0.90 J	1.8	ND	1.8	ND	1.8	ND	1.8
Endosulfan I		UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
Endosulfan II		UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
Endosulfan Sulfate		UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
Endrin		UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
Endrin aldehyde		UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
Heptachlor		UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
Heptachlor epoxide		UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
Methoxychlor		UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
Toxaphene		UG/KG	ND	18	ND	18	ND	18	ND	18
SURROGATE(S)										
Tetrachloro-m-xylene	%		73	37-135	79	37-135	66	37-135	67	37-135
Decachlorobiphenyl	%		81	42-146	97	42-146	74	42-146	88	42-146

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Client ID Job No Sample Date	Lab ID	2ND 1000 CY A08-9322 07/31/2008	A8932202RE	2ND 5000 CY A08-9322 07/31/2008	A8932207	2ND 5000 CY A08-9322 07/31/2008	A8932207RE	3RD 1000 CY A08-9322 07/31/2008	A8932203
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Aldrin	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
alpha-BHC	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
beta-BHC	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
gamma-BHC (Lindane)	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
delta-BHC	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
Chlordane	UG/KG	ND	18	ND	18	ND	18	ND	18
4,4'-DDD	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
4,4'-DDE	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
4,4'-DDT	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
Dieldrin	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
Endosulfan I	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
Endosulfan II	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
Endosulfan Sulfate	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
Endrin	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
Endrin aldehyde	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
Heptachlor	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
Heptachlor epoxide	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
Methoxychlor	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.8
Toxaphene	UG/KG	ND	18	ND	18	ND	18	ND	18
SURROGATE(S)									
Tetrachloro-m-xylene	%	71	37-135	67	37-135	72	37-135	79	37-135
Decachlorobiphenyl	%	80	42-146	85	42-146	82	42-146	103	42-146

NA = Not Applicable ND = Not Detected

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Client ID Job No Sample Date	Lab ID	3RD 1000 CY A08-9322 07/31/2008	A8932203RE	4TH 1000 CY A08-9322 07/31/2008	A8932204	4TH 1000 CY A08-9322 07/31/2008	A8932204RE	5TH 1000 CY A08-9322 07/31/2008	A8932205
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Aldrin	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.9
alpha-BHC	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.9
beta-BHC	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.9
gamma-BHC (Lindane)	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.9
delta-BHC	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.9
Chlordane	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.9
4,4'-DDD	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.9
4,4'-DDE	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.9
4,4'-DDT	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.9
Dieldrin	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.9
Endosulfan I	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.9
Endosulfan II	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.9
Endosulfan Sulfate	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.9
Endrin	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.9
Endrin aldehyde	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.9
Heptachlor	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.9
Heptachlor epoxide	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.9
Methoxychlor	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.9
Toxaphene	UG/KG	ND	1.8	ND	1.8	ND	1.8	ND	1.9
SURROGATE(S)									
Tetrachloro-m-xylene	%	68	37-135	59	37-135	69	37-135	82	37-135
Decachlorobiphenyl	%	74	42-146	74	42-146	75	42-146	99	42-146

NA = Not Applicable ND = Not Detected

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Client ID Job No Sample Date	Lab ID	Units	5TH 1000 CY A08-9322 07/31/2008	A8932205RE	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Analyte										
Aldrin		UG/KG	ND	1.9	NA		NA		NA	
alpha-BHC		UG/KG	ND	1.9	NA		NA		NA	
beta-BHC		UG/KG	ND	1.9	NA		NA		NA	
gamma-BHC (Lindane)		UG/KG	ND	1.9	NA		NA		NA	
delta-BHC		UG/KG	ND	1.9	NA		NA		NA	
Chlordane		UG/KG	ND	19	NA		NA		NA	
4,4'-DDD		UG/KG	ND	1.9	NA		NA		NA	
4,4'-DDE		UG/KG	ND	1.9	NA		NA		NA	
4,4'-DDT		UG/KG	ND	1.9	NA		NA		NA	
Dieldrin		UG/KG	ND	1.9	NA		NA		NA	
Endosulfan I		UG/KG	ND	1.9	NA		NA		NA	
Endosulfan II		UG/KG	ND	1.9	NA		NA		NA	
Endosulfan Sulfate		UG/KG	ND	1.9	NA		NA		NA	
Endrin		UG/KG	ND	1.9	NA		NA		NA	
Endrin aldehyde		UG/KG	ND	1.9	NA		NA		NA	
Heptachlor		UG/KG	ND	1.9	NA		NA		NA	
Heptachlor epoxide		UG/KG	ND	1.9	NA		NA		NA	
Methoxychlor		UG/KG	ND	1.9	NA		NA		NA	
Toxaphene		UG/KG	ND	19	NA		NA		NA	
-----SURROGATE(S)										
Tetrachloro-m-xylene	%	%	68	37-135	NA		NA		NA	
Decachlorobiphenyl	%	%	77	42-146	NA		NA		NA	

NA = Not Applicable ND = Not Detected

TestAmerica Lab

Date: 09/03/2008
Time: 14:08:17

Benchmark
Peter Cooper site
METHOD 8082 - POLYCHLORINATED BIPHENYLS

Rept: AN1246

Client ID Job No Sample Date	Lab ID	1ST 1000 CY A08-9322 07/31/2008	1ST 5000 CY A08-9322 07/31/2008	A8932201 A8932206	2ND 1000 CY A08-9322 07/31/2008	A8932202	2ND 5000 CY A08-9322 07/31/2008	A8932207
Analyte	Units	Sample Value	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Aroclor 1016	UG/KG	ND	ND	18	ND	18	ND	18
Aroclor 1221	UG/KG	ND	ND	18	ND	18	ND	18
Aroclor 1232	UG/KG	ND	ND	18	ND	18	ND	18
Aroclor 1242	UG/KG	ND	ND	18	ND	18	ND	18
Aroclor 1248	UG/KG	ND	ND	18	ND	18	ND	18
Aroclor 1254	UG/KG	ND	ND	18	ND	18	ND	18
Aroclor 1260	UG/KG	ND	ND	18	ND	18	ND	18
SURROGATE(S)								
Tetrachloro-m-xylene	%	72	83	35-134	70	35-134	73	35-134
Decachlorobiphenyl	%	82	92	34-148	84	34-148	83	34-148

Client ID Job No Sample Date	Lab ID	3RD 1000 CY A08-9322 07/31/2008	4TH 1000 CY A08-9322 07/31/2008	A8932203 A8932204	5TH 1000 CY A08-9322 07/31/2008	A8932205
Analyte	Units	Sample Value	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Aroclor 1016	UG/KG	ND	ND	18	ND	19
Aroclor 1221	UG/KG	ND	ND	18	ND	19
Aroclor 1232	UG/KG	ND	ND	18	ND	19
Aroclor 1242	UG/KG	ND	ND	18	ND	19
Aroclor 1248	UG/KG	ND	ND	18	ND	19
Aroclor 1254	UG/KG	ND	ND	18	ND	19
Aroclor 1260	UG/KG	ND	ND	18	ND	19
SURROGATE(S)						
Tetrachloro-m-xylene	%	82	62	35-134	88	35-134
Decachlorobiphenyl	%	95	72	34-148	93	34-148

Date: 09/03/2008
Time: 14:09:04

Benchmark
Peter Cooper site
BENCH - (13+HG) METALS - S

Rept: AN1246

Client ID Job No Sample Date	Lab ID	1ST 1000 CY A08-9322 07/31/2008	A8932201	1ST 5000 CY A08-9322 07/31/2008	A8932206	2ND 1000 CY A08-9322 07/31/2008	A8932202	2ND 5000 CY A08-9322 07/31/2008	A8932207
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Arsenic - Total	MG/KG	12.1	2.4	8.4	2.1	8.2	2.1	6.5	2.1
Barium - Total	MG/KG	168	0.59	167	0.53	169	0.53	134	0.52
Beryllium - Total	MG/KG	0.30	0.24	0.31	0.21	0.32	0.21	0.22	0.21
Cadmium - Total	MG/KG	ND	0.24	ND	0.21	ND	0.21	ND	0.21
Chromium - Total	MG/KG	10.5	0.59	11.5	0.53	11.3	0.53	8.3	0.52
Copper - Total	MG/KG	18.3	1.2	16.4	1.1	20.0	1.1	11.5	1.0
Iron - Total	MG/KG	19400	11.9	19900	10.6	19800	10.5	14400	10.4
Lead - Total	MG/KG	11.1	1.2	11.9	1.1	10.8	1.1	8.6	1.0
Manganese - Total	MG/KG	493	0.24	685	0.21	465	0.21	428	0.21
Mercury - Total	MG/KG	ND	0.023	ND	0.022	ND	0.022	ND	0.021
Nickel - Total	MG/KG	18.2	0.59	20.2	0.53	19.3	0.53	13.9	0.52
Selenium - Total	MG/KG	ND	4.7	ND	4.3	ND	4.2	ND	4.1
Silver - Total	MG/KG	ND	0.59	ND	0.53	ND	0.53	ND	0.52
Zinc - Total	MG/KG	45.7	2.4	49.0	2.1	46.4	2.1	34.6	2.1

Client ID Job No Sample Date	Lab ID	3RD 1000 CY A08-9322 07/31/2008	A8932203	4TH 1000 CY A08-9322 07/31/2008	A8932204	5TH 1000 CY A08-9322 07/31/2008	A8932205	Sample Value	Reporting Limit
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Arsenic - Total	MG/KG	8.9	2.2	8.9	2.0	7.8	2.4	NA	NA
Barium - Total	MG/KG	159	0.55	152	0.51	160	0.60	NA	NA
Beryllium - Total	MG/KG	0.31	0.22	0.30	0.20	0.30	0.24	NA	NA
Cadmium - Total	MG/KG	ND	0.22	ND	0.20	ND	0.24	NA	NA
Chromium - Total	MG/KG	10.9	0.55	10.9	0.51	10.8	0.60	NA	NA
Copper - Total	MG/KG	15.2	1.1	15.0	1.0	14.2	1.2	NA	NA
Iron - Total	MG/KG	19100	11.1	19600	10.2	19300	11.9	NA	NA
Lead - Total	MG/KG	10.3	1.1	9.8	1.0	9.5	1.2	NA	NA
Manganese - Total	MG/KG	587	0.22	443	0.20	502	0.24	NA	NA
Mercury - Total	MG/KG	ND	0.021	ND	0.021	ND	0.022	NA	NA
Nickel - Total	MG/KG	18.1	0.55	19.1	0.51	18.5	0.60	NA	NA
Selenium - Total	MG/KG	ND	4.4	ND	4.1	ND	4.8	NA	NA
Silver - Total	MG/KG	ND	0.55	ND	0.51	ND	0.60	NA	NA
Zinc - Total	MG/KG	44.5	2.2	46.3	2.0	46.2	2.4	NA	NA

NA = Not Applicable ND = Not Detected

TestAmerica Lab

Date: 09/03/2008
Time: 14:09:04

Benchmark
Peter Cooper site
WET CHEMISTRY ANALYSIS

Rept: AN1246

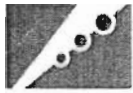
Client ID Job No Sample Date	Lab ID	Units	1ST 1000 CY A08-9322 07/31/2008	Reporting Limit	Sample Value	1ST 5000 CY A08-9322 07/31/2008	Reporting Limit	Sample Value	2ND 1000 CY A08-9322 07/31/2008	Reporting Limit	Sample Value	2ND 5000 CY A08-9322 07/31/2008	Reporting Limit
Cyanide - Total Hexavalent Chromium - Total		MG/KG MG/KG	ND ND	0.89 1.7	ND ND	ND ND	0.82 1.6	ND ND	ND ND	0.88 1.6	ND ND	ND ND	0.84 1.6

Client ID Job No Sample Date	Lab ID	Units	3RD 1000 CY A08-9322 07/31/2008	Reporting Limit	Sample Value	4TH 1000 CY A08-9322 07/31/2008	Reporting Limit	Sample Value	5TH 1000 CY A08-9322 07/31/2008	Reporting Limit	Sample Value
Cyanide - Total Hexavalent Chromium - Total		MG/KG MG/KG	ND ND	0.95 1.6	ND ND	ND ND	0.96 1.7	ND ND	ND ND	1.1 1.8	NA NA

ATTACHMENT 2

BARRIER SOIL BORROW SOURCE COMPOSITE RESULTS FOR FIRST 5,000 CY OF SCREENED BARRIER LAYER MATERIAL:

- **NATURAL WATER CONTENT (ASTM D2216)**
- **GRAIN SIZE DISTRIBUTION (D422)**
- **MODIFIED PROCTOR (ASTM D1557)**
- **RECOMPACTED PERMEABILITY (ASTM D5084)**



3rd rock

580 Olean Road
East Aurora, NY 14052
Phone: (716)655.4933
Fax: (716)655.8638

September 7, 2008

Mr. Thomas H. Forbes, P.E.
Benchmark Environmental Engineers & Scientists, PLLC
726 Exchange Street, Suite 624
Buffalo, New York 14210

Re: Soil Testing Report Markhams Site/Invoice for Testing

Dear Mr. Forbes:

Enclosed is the soil testing report/invoice for one bulk soil sample delivered to our laboratory by Rick Dubisz (Benchmark) on August 18, 2008 for Grain Size, Water Content, Modified Proctor, and Remolded Permeability (ASTM D5084) testing. If you have any questions, please call. We appreciate your business.

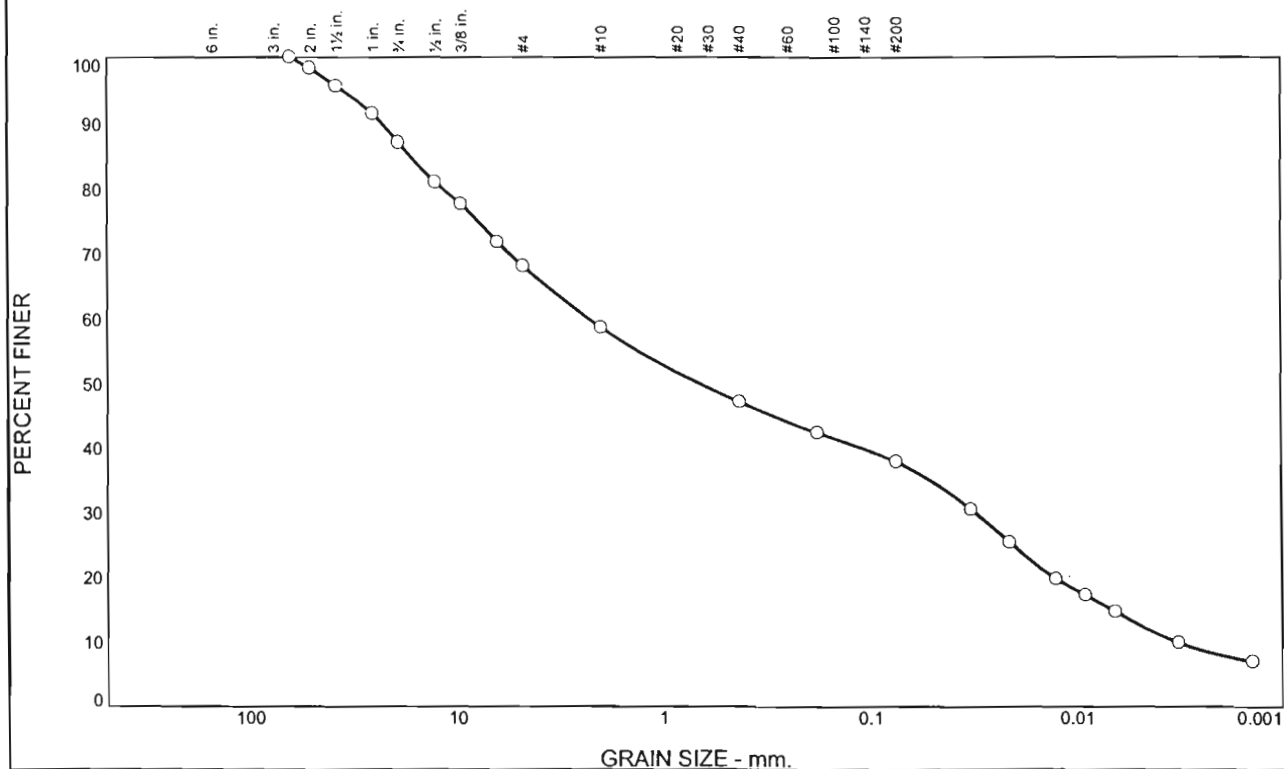
Very truly yours,

A handwritten signature in cursive script that reads "Jeanne M. Asquith".

Jeanne M. Asquith
Soils Laboratory Manager

Enclosures: Invoice & Soil Testing Reports

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	13.0	19.0	9.4	11.5	9.3	25.2	12.6

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
2.5"	100.0		
2"	98.4		
1.5"	95.6		
1"	91.4		
.75"	87.0		
.5"	80.9		
3/8"	77.6		
1/4"	71.7		
#4	68.0		
#10	58.6		
#40	47.1		
#80	42.3		
#200	37.8		

(no specification provided)

Material Description
ID#08-544 Cover Soil S#1

Atterberg Limits (ASTM D 4318)
PL= LL= PI=

Classification
USCS= AASHTO=

Coefficients
D₈₅= 16.8654 D₆₀= 2.3071 D₅₀= 0.6767
D₃₀= 0.0314 D₁₅= 0.0068 D₁₀= 0.0033
C_u= 696.75 C_c= 0.13

Date Tested: 8/21/08 Tested By: DL

Remarks

Sample No.: MSB S#1 Source of Sample: Markhams

Date Sampled:

Location:

Elev./Depth:

Checked By: JMA

Title: LM

3rd Rock, LLC

Client: Benchmark Environmental Engineers & Scientists

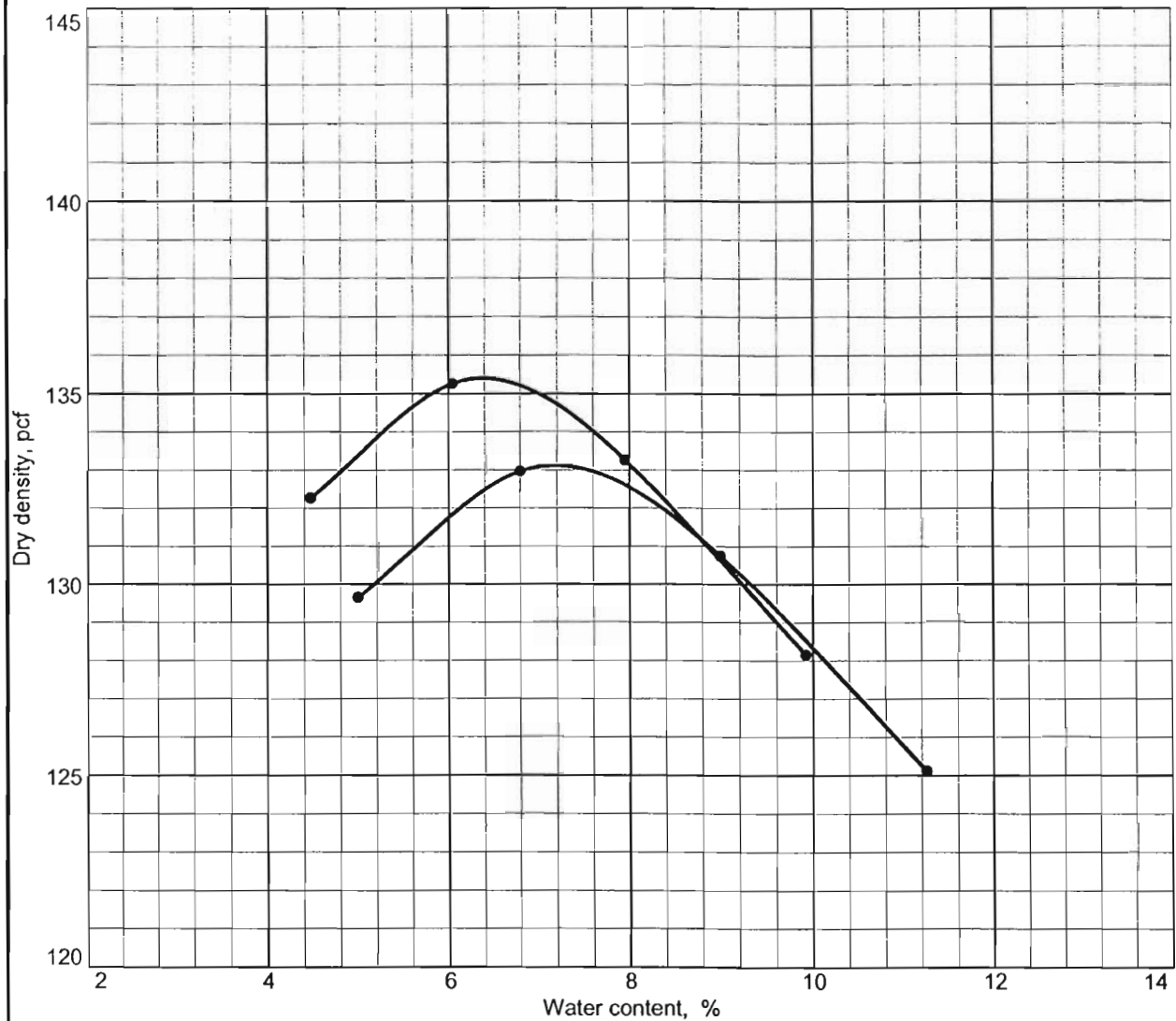
East Aurora, NY

Project: Markhams Site

Project No: 08-002

Figure

COMPACTION TEST REPORT



Test specification: ASTM D 1557-00 Method C Modified
Oversize correction applied to each point

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
			9.5				13.0	37.8

ROCK CORRECTED TEST RESULTS	UNCORRECTED	MATERIAL DESCRIPTION
Maximum dry density = 135.4 pcf	133.1 pcf	ID#08-544 Cover Soil S#1
Optimum moisture = 6.4 %	7.2 %	

Project No.	Client: Benchmark Environmental Engineers &	Remarks:
Project: Markhams Site		
	Date: 8/21/08	
● Source: Markhams	Sample No.: MSB S#1	
3rd Rock, LLC		Figure 08-544
East Aurora, NY		



FINAL PERMEABILITY REPORT

Project Name: Benchmark-Markhams Soil Testing
Project No.: 08-002
Sample No.: MSB Cover Soil S#1
Sample I.D.: 08-544
Laboratory Method: ASTM D5084, Method C

Date: 09/07/08
Tested By: RP
Check By: JMA
Date of Test: 08/29/08
Date Test Complete: 09/05/08
CELL NO.: 3

INITIAL SAMPLE DATA:

Height, in.: 3.015
Diameter, in.: 2.798
Moisture Content, %: 10.20

Wet Density, pcf: 134.5
Dry Density, pcf: 122.0
Compaction, %: 90.80

FINAL SAMPLE DATA:

Height, in.: 2.990
Diameter, in.: 2.768
Moisture Content, %: 13.40

Wet Density, pcf: 143.3
Dry Density, pcf: 126.4

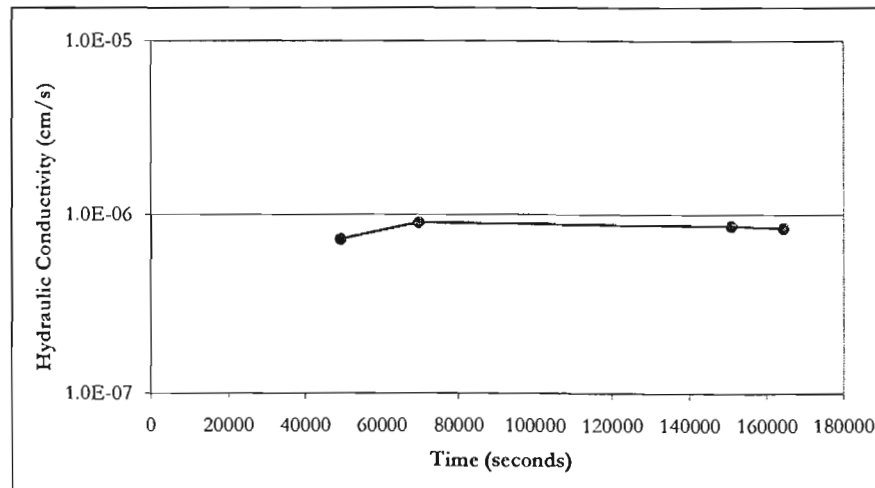
SATURATION AND CONSOLIDATION DATA:

Consolidation Pressure: 85 psi
Backpressure: 80 psi
Saturation (B parameter): 95%

AVERAGE PERMEABILITY RESULT (average of last 4 readings, K, cm/s):

Trial #	Testing Pressures (psi)			Q (ml/sec)	Final K (cm/s)
	1	2	3		
1	86.4	80	79.8	5.23E-05	7.3E-07
2	86.4	80	79.8	6.49E-05	9.0E-07
3	86.4	80	79.8	6.20E-05	8.6E-07
4	86.4	80	79.8	6.07E-05	8.4E-07

Average K: 8.3E-07
Average K, ft/day: 2.4E-03



PHYSICAL DATA



580 Olean Road
East Aurora, NY 14052
Phone: (716)655.4933
Fax: (716)655.8638

September 7, 2008

Mr. Thomas H. Forbes, P.E.
Benchmark Environmental Engineers & Scientists, PLLC
726 Exchange Street, Suite 624
Buffalo, New York 14210

Re: Soil Testing Report Markhams Site/Invoice for Testing

Dear Mr. Forbes:

Enclosed is the soil testing report/invoice for one bulk soil sample delivered to our laboratory by Rick Dubisz (Benchmark) on August 18, 2008 for Grain Size, Water Content, Modified Proctor, and Remolded Permeability (ASTM D5084) testing. If you have any questions, please call. We appreciate your business.

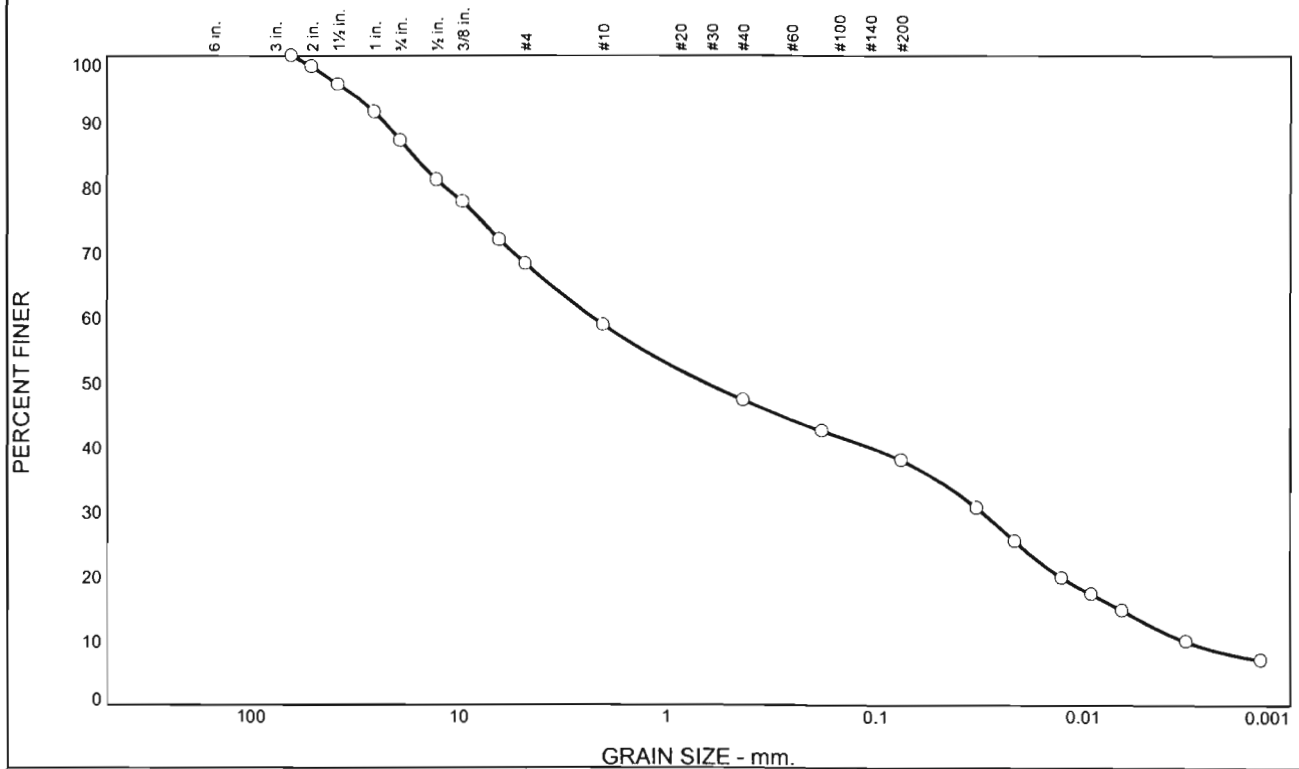
Very truly yours,

A handwritten signature in black ink that reads "Jeanne M. Asquith".

Jeanne M. Asquith
Soils Laboratory Manager

Enclosures: Invoice & Soil Testing Reports

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	13.0	19.0	9.4	11.5	9.3	25.2	12.6

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
2.5"	100.0		
2"	98.4		
1.5"	95.6		
1"	91.4		
.75"	87.0		
.5"	80.9		
3/8"	77.6		
1/4"	71.7		
#4	68.0		
#10	58.6		
#40	47.1		
#80	42.3		
#200	37.8		

* (no specification provided)

Material Description
ID#08-544 Cover Soil S#1

Atterberg Limits (ASTM D 4318)
PL= LL= PI=

Classification
USCS= AASHTO=

Coefficients
D₈₅= 16.8654 D₆₀= 2.3071 D₅₀= 0.6767
D₃₀= 0.0314 D₁₅= 0.0068 D₁₀= 0.0033
C_u= 696.75 C_c= 0.13

Date Tested: 8/21/08 Tested By: DL

Remarks

Sample No.: MSB S#1 Source of Sample: Markhams
Location:
Checked By: JMA

Date Sampled:
Elev./Depth:

Title: LM

3rd Rock, LLC

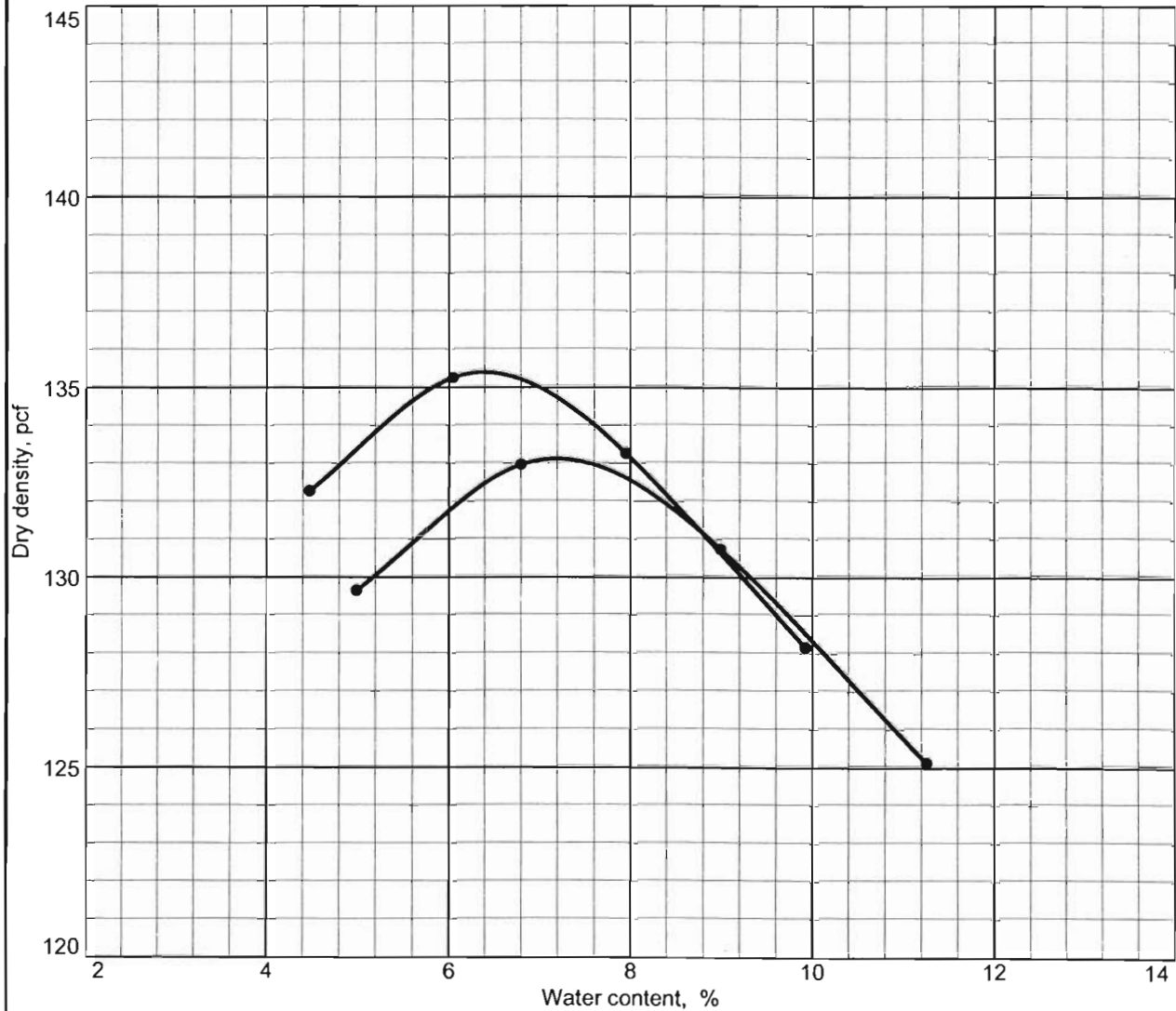
East Aurora, NY

Client: Benchmark Environmental Engineers & Scientists
Project: Markhams Site

Project No: 08-002

Figure

COMPACTION TEST REPORT



Test specification: ASTM D 1557-00 Method C Modified
Oversize correction applied to each point

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
			9.5				13.0	37.8

ROCK CORRECTED TEST RESULTS	UNCORRECTED	MATERIAL DESCRIPTION
Maximum dry density = 135.4 pcf	133.1 pcf	ID#08-544 Cover Soil S#1
Optimum moisture = 6.4 %	7.2 %	

Project No.	Client: Benchmark Environmental Engineers &	Remarks:
Project: Markhams Site		
	Date: 8/21/08	
● Source: Markhams	Sample No.: MSB S#1	
3rd Rock, LLC		
East Aurora, NY		
		Figure 08-544

Figure 08-544



FINAL PERMEABILITY REPORT

Project Name: Benchmark-Markhams Soil Testing
 Project No.: 08-002
 Sample No.: MSB Cover Soil S#1
 Sample I.D.: 08-544
 Laboratory Method: ASTM D5084, Method C

Date: 09/07/08
 Tested By: RP
 Check By: JMA
 Date of Test: 08/29/08
 Date Test Complete: 09/05/08
 CELL NO.: 3

INITIAL SAMPLE DATA:

Height, in.: 3.015	Wet Density, pcf: 134.5
Diameter, in.: 2.798	Dry Density, pcf: 122.0
Moisture Content, %: 10.20	Compaction, %: 90.80

FINAL SAMPLE DATA:

Height, in.: 2.990	Wet Density, pcf: 143.3
Diameter, in.: 2.768	Dry Density, pcf: 126.4
Moisture Content, %: 13.40	

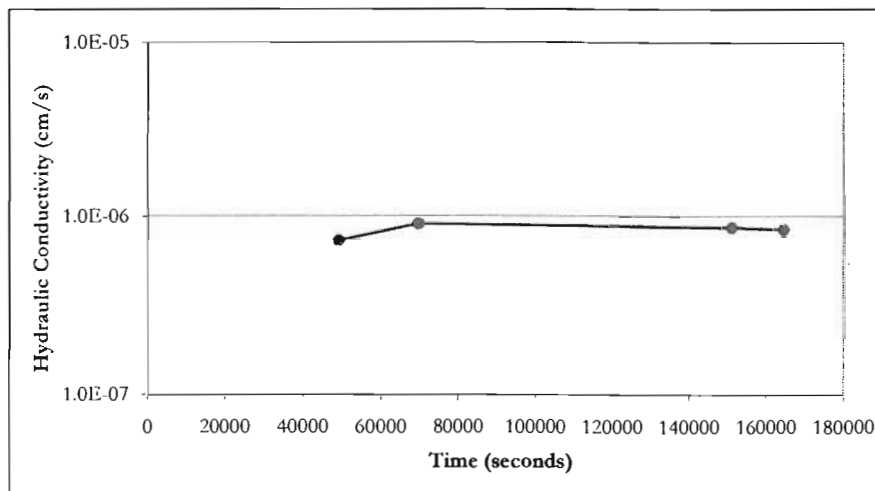
SATURATION AND CONSOLIDATION DATA:

Consolidation Pressure: 85 psi
 Backpressure: 80 psi
 Saturation (B parameter): 95%

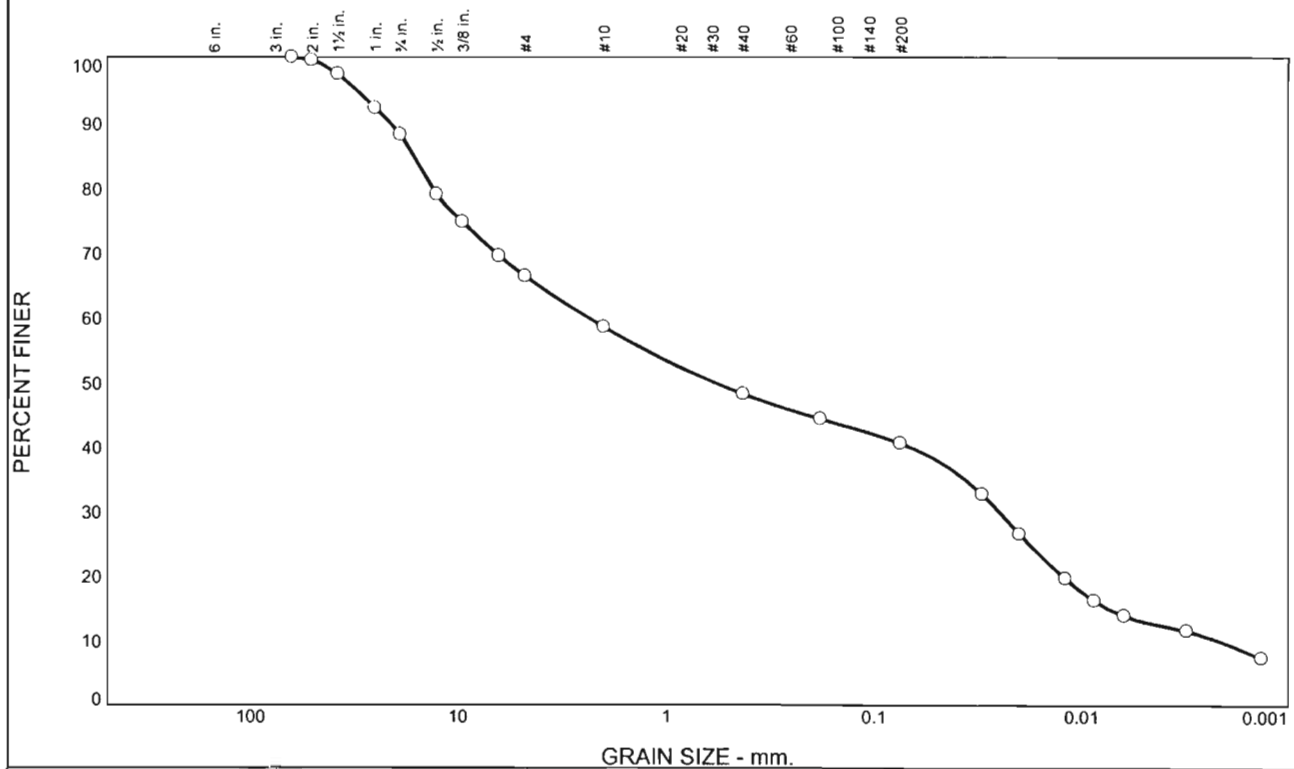
AVERAGE PERMEABILITY RESULT (average of last 4 readings, K, cm/s):

Trial #	Testing Pressures (psi)			Q (ml/sec)	Final K (cm/s)
	1	2	3		
1	86.4	80	79.8	5.23E-05	7.3E-07
2	86.4	80	79.8	6.49E-05	9.0E-07
3	86.4	80	79.8	6.20E-05	8.6E-07
4	86.4	80	79.8	6.07E-05	8.4E-07

Average K	8.3E-07
Average K, ft/day	2.4E-03



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	11.8	21.9	7.9	10.3	7.6	27.6	12.9

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
2.5	100.0		
2	99.5		
1.5	97.4		
1	92.2		
.75	88.2		
.5	78.9		
.375	74.6		
.25	69.4		
#4	66.3		
#10	58.4		
#40	48.1		
#80	44.3		
#200	40.5		

Material Description

ID#641
Cover Soil S#2

Atterberg Limits (ASTM D 4318)
 PL= LL= PI=

Classification
 USCS= AASHTO=

Coefficients
 D₈₅= 16.4933 D₆₀= 2.4193 D₅₀= 0.6032
 D₃₀= 0.0250 D₁₅= 0.0075 D₁₀= 0.0022
 C_u= 1109.32 C_c= 0.12

Date Tested: 10/6/08 Tested By: RP

Remarks

* (no specification provided)

Sample No.: MSB S#2 Source of Sample: Markhams
 Location:
 Checked By: JMA

Date Sampled:
 Elev./Depth:

Title: LM

3rd Rock, LLC

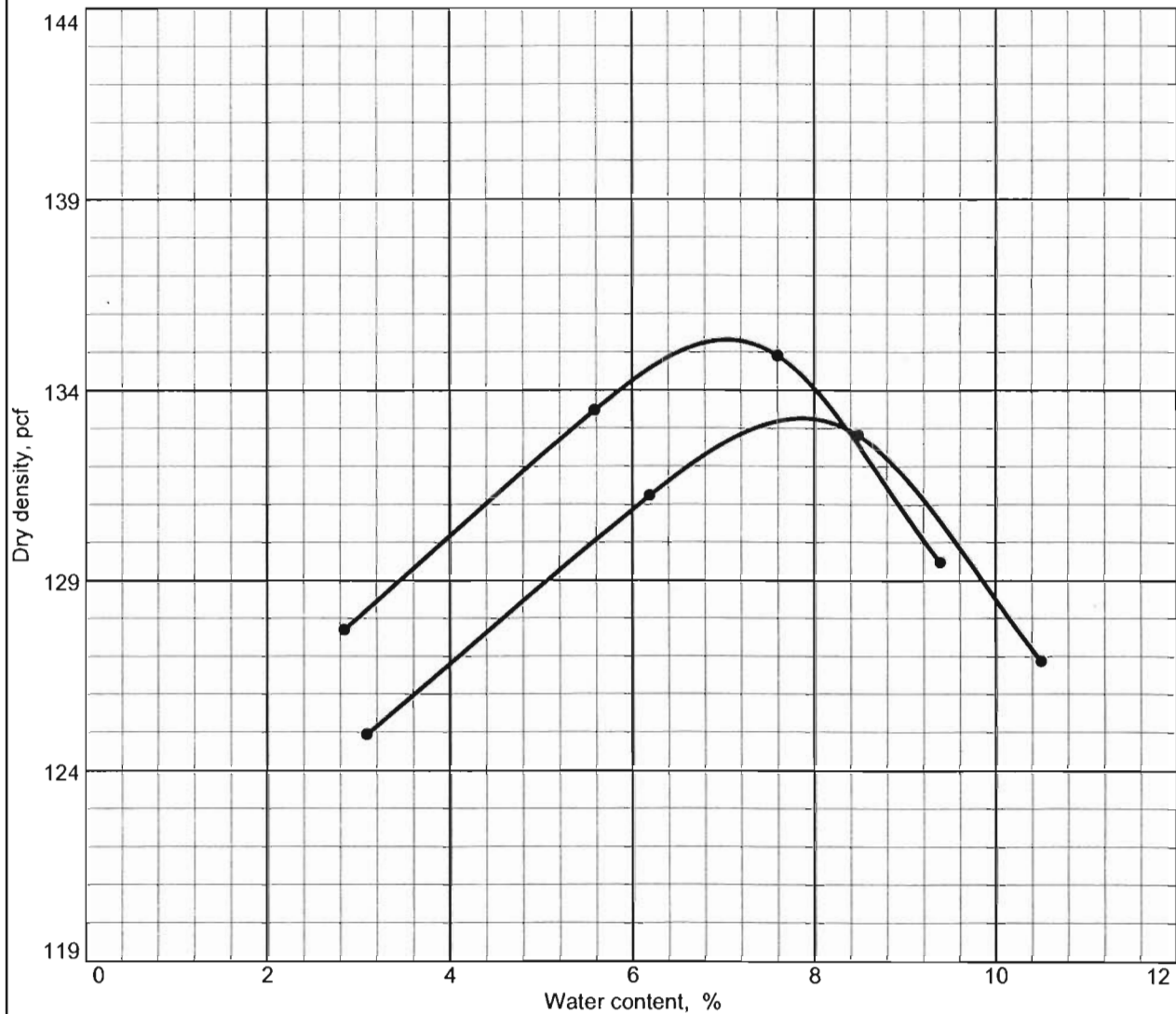
Client: Benchmark Environmental Engineers & Scientists
 Project: Markhams Site

East Aurora, NY

Project No: 08-002

Figure

COMPACTION TEST REPORT



Test specification: ASTM D 1557-00 Method C Modified
Oversize correction applied to each point

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
			10.3				11.8	40.5

ROCK CORRECTED TEST RESULTS	UNCORRECTED	MATERIAL DESCRIPTION
Maximum dry density = 135.3 pcf	133.3 pcf	ID#641 Cover Soil S#2
Optimum moisture = 7.1 %	7.9 %	

Project No. 08-002 Project: Markhams Site Source: Markhams Client: Benchmark Environmental Engineers & Date: 9/24/08 Sample No.: MSB S#2 3rd Rock, LLC East Aurora, NY	Remarks:

Figure 08-641



FINAL PERMEABILITY REPORT

Project Name:	Benchmark, Markhams Site	Date:	10/01/08
Project No.:	08-002	Tested By:	RP
Sample No.:	MSB Cover Soil #2	Check By:	JMA
Sample I.D.:	08-641	Date of Test:	09/26/08
Laboratory Method:	ASTM D5084, Method C	Date Test Complete:	09/30/08
Remarks:	None	CELL NO.:	5B

INITIAL SAMPLE DATA:

Height, in.:	2.993	Wet Density, pcf:	135.5
Diameter, in.:	2.805	Dry Density, pcf:	122.8
Moisture Content, %:	10.30	Compaction, %:	90.80

FINAL SAMPLE DATA:

Height, in.:	2.979	Wet Density, pcf:	139.9
Diameter, in.:	2.804	Dry Density, pcf:	123.5
Moisture Content, %:	13.30		

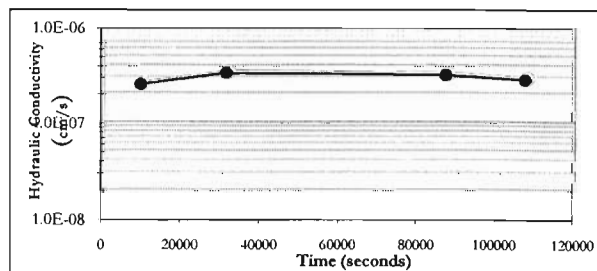
SATURATION AND CONSOLIDATION DATA:

Consolidation Pressure: 85 psi
Backpressure: 80 psi
Saturation (B parameter): 95%

AVERAGE PERMEABILITY RESULT (average of last 4 readings, K, cm/s):

Trial #	Testing Pressures (psi)			Q (ml/sec)	Final K (cm/s)
	1	2	3		
1	85.6	79.7	79.7	1.41E-05	2.6E-07
2	85.6	79.7	79.7	1.81E-05	3.4E-07
3	85.6	79.7	79.7	1.48E-05	3.2E-07
4	85.6	79.7	79.7	1.14E-05	2.9E-07

Average K	3.0E-07
Average K, ft/day	8.6E-04



FIELD COMPACTION DATA

**SUMMARY OF FIELD MEASURED IN-PLACE DENSITIES (IPD)
BARRIER SOIL LOCATIONS
PCC Markhams Site
Dayton, New York**

Date	IPD Field I.D.	IPD Field ID Northing	IPD Field ID Easting	Density (% Compaction)
09/24/08	L-1-1	872153.7000	1032472.7000	91.4
	L-1-2	872232.0000	1032570.5000	91.8
	L-1-3* shelby	872136.0000	1032556.5000	93.8
09/25/08	L-1-4	872217.0000	1032603.5000	90.9
	L-1-5	872260.3000	1032712.6000	91.6
	L-1-6	872301.9000	1032723.5000	93.7
	L-1-7	872187.7000	1032451.7000	95.2
	L-1-8	872028.0000	1032422.7000	93.8
	L-1-9	872300.9000	1032708.5000	93.6
	L-1-10	872241.3000	1032664.6000	97.1
	L-1-11	872289.9000	1032723.5000	101.8
	L-1-12	872279.9000	1032768.5000	94.2
	L-1-13 * shelby	871867.2000	1031984.6000	94.7
	L-1-14	871907.2000	1031946.6000	93.0
	L-1-15	871863.2000	1031946.6000	90.0
	L-1-16	871897.2000	1031897.6000	93.0
09/26/08	L-1-17	871857.2000	1031899.6000	93.0
	L-1-18	871884.2600	1032164.2000	91.4
09/29/08	L-1-19	871934.2000	1031915.6000	97.9
	L-1-20	871981.2000	1031907.6000	93.8
	L-1-21	871851.2600	1032128.2000	98.3
	L-1-22	871873.2600	1032128.2000	94.7
	L-1-23 shelby	872010.4000	1032053.1000	93.0
09/30/08	L-1-24 shelby	872042.3000	1032184.5000	102.8
	L-1-25	872159.9000	1032284.6000	105.0
	L-1-26	872053.3000	1032099.5000	107.0
	L-1-27	872092.3000	1032255.4000	106.6
	L-1-28	872111.3000	1032265.4000	104.5
	L-1-29	872144.9000	1032324.6000	94.6
	L-1-30	872130.9000	1032345.6000	100.8
	L-1-31	872215.7300	1032398.9000	99.6
	L-1-32	872193.7300	1032398.9000	102.3
	L-1-33	872261.4000	1032508.5000	99.9
	L-1-34	872389.9000	1032651.0000	104.1
	L-1-35	872388.9000	1032663.0000	104.8
	L-1-36	872371.9000	1032663.0000	103.2
10/01/08	L-2-1	872112.3000	1032255.4000	107.4
	L-2-2	872111.3000	1032217.4000	106.8
	L-2-3	872168.9000	1032324.6000	107.7
	L-2-4	872144.9000	1032352.6000	106.3
	L-2-5	872204.7300	1032398.9000	96.3
	L-2-6 shelby	872245.4000	1032487.5000	102.5
	L-2-7	872380.9000	1032663.0000	101.7
	L-2-8	872393.9000	1032685.0000	101.7
	L-2-9	872355.9000	1032663.0000	102.6
10/02/08	L-2-10	872432.1000	1032720.0000	107.4
	L-2-11	872407.1000	1032720.0000	106.1
	L-2-12	872442.1000	1032705.0000	97.7
	L-2-13	872377.4000	1032779.3000	101.4
	L-2-14	872387.4000	1032800.3000	101.0
	L-2-15	872338.9000	1032663.0000	99.7
	L-2-16	872435.9000	1032663.0000	104.1
	L-2-17	872450.9000	1032663.0000	104.5
	L-2-18	872468.9000	1032663.0000	100.3

SUMMARY OF FIELD MEASURED IN-PLACE DENSITIES (IPD)
BARRIER SOIL LOCATIONS
PCC Markhams Site
Dayton, New York

Date	IPD Field I.D.	IPD Field ID Northing	IPD Field ID Easting	Density (% Compaction)
10/13/08	L-2-19	872027.0000	1032278.8000	90.0
	L-2-20	871927.1000	1032233.6000	94.8
	L-2-21	871840.2600	1032164.2000	91.8
	L-2-22	871987.0000	1032323.8000	95.1
	L-2-23	872050.3000	1032372.7000	93.3
10/06/08	L-2-24	872070.3000	1032362.7000	92.9
	L-2-25	872085.0000	1032392.7000	91.3
	L-2-26	872165.7000	1032487.7000	91.2
	L-2-27	872256.3000	1032640.6000	95.9
	L-2-28	871895.2000	1031946.6000	94.8
	L-2-29	871929.1000	1032153.6000	94.1
	L-2-30	871757.5000	1032051.5000	92.8
	L-2-31	871757.5000	1032067.5000	95.8
	L-2-32	872059.3000	1032159.5000	91.3
	L-2-33	872208.3000	1032640.6000	93.2
	L-2-34	871832.2600	1032128.2000	92.1
10/07/08	L-2-35	872027.3000	1032139.5000	92.0
	L-2-36	871926.1000	1032233.6000	96.0
	L-2-37	871856.2600	1032128.2000	96.0
	L-2-38	871822.2600	1032166.2000	95.3

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site

Date: 9/24/08

Client:

Report No.:

Job No.: 0021-003-401

Inspector:

Contractor: Zoladz Construction, Inc

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of

PROCTOR DATA:

Type of Material	CLAY
Source Area	MSB GRAVEL
Maximum Density	135.4 pcf
Optimum Moisture Content	6.4 %

PASSING REQUIREMENT:

90.85% of the Modified Proctor

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS				GAUGE INFORMATION:									
Density:				Troxler Model No.:	3440								
Moisture:				Troxler Serial No.:									
TEST NUMBER	2-1-1	2-1-2	2-1-3										
DEPTH OR ELEVATION	6"	6"	6"										
PERCENT COMPACTION (%)	91.4	91.8	93.8										
DRY DENSITY (pcf)	123.7	124.3	127.0										
WET DENSITY (pcf)	135.2	141.6	138.4										
MOISTURE (pcf)	11.5	9.9	11.4										
PERCENT MOISTURE (%)	9.3	7.9	9.0										
DENSITY COUNT	1699	1740	1591										
MOISTURE COUNT	157	137	155										
PASS [P] or FAIL [F]	P	P	P										

LOCATION:

TEST NO. (from above)	X	Y	Z
2-1-1	24' 15" E of #		82
2-1-2	60' 21" E of #		74
2-1-3	36' 17" E of #		71

TEST NO. (from above)	X	Y	Z

REMARKS: ~~Site~~ Shelby tube collected on LIFT-1 Acre-1

SIGNED:

RLD

DATE:

9/24/08

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site

Date: 9/25/08

Client:

Report No.:

Job No.: 0021-003-401

Inspector:

Contractor: Zoladz Construction, Inc

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PROCTOR DATA:

Type of Material	CLAY - Better Soil
Source Area	ASS. Inc
Maximum Density	135.4 pcf
Optimum Moisture Content	6.4 %

PASSING REQUIREMENT:

90% of the Modified Proctor

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS				GAUGE INFORMATION:									
Density: _____				Troxler Model No.: 3440									
Moisture: _____				Troxler Serial No.: 91268									
TEST NUMBER	L-1-4	L-1-5	L-1-6	L-1-7	L-1-8	L-1-9	L-1-10	L-1-11	L-1-12	L-1-13	L-1-14	L-1-15	L-1-16
DEPTH OR ELEVATION	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"
PERCENT COMPACTION (%)	90.9	91.6	93.7	95.2	93.8	93.6	97.1	101.8	94.2	94.7	93.0	90.0	93.0
DRY DENSITY (pcf)	123.1	124.0	126.9	128.0	127.1	126.7	131.5	131.8	127.5	128.2	126.0	121.4	125.9
WET DENSITY (pcf)	133.6	134.2	137.8	139.2	136.1	136.5	141.6	148.2	133.5	139.6	137.2	132.0	136.6
MOISTURE (pcf)	10.5	10.2	10.9	10.2	9.0	9.8	10.1	10.3	11.4	11.4	11.3	10.6	10.7
PERCENT MOISTURE (%)	8.5	8.2	8.6	7.9	7.1	7.8	7.7	7.5	9.0	8.9	8.9	8.7	8.5
DENSITY COUNT	1770	1748	1621	997	1007	1035	937	806	995	997	1076	1176	1162
MOISTURE COUNT	146	143	151	143	127	137	146	143	156	137	154	148	143
PASS [P] or FAIL [F]	P	P	P	P	P	P	P	P	P	P	P	P	P

LOCATION:

TEST NO. (from above)	X	Y	Z
L-1-4	45'N	54'E OF #74	
L-1-5	24'N	72'E OF #209	
L-1-6	37'N	OF #72	
L-1-7	58'N	36'W OF #82	
L-1-8	32'S	30'E OF #76	
L-1-9	36'N	15'W OF #	

TEST NO. (from above)	X	Y	Z
L-1-10	5'N	24'E OF #209	
L-1-11	25'N	OF #72	
L-1-12	15'N	95'E OF #72	
*L-1-13	52'N	33'E OF #207	
L-1-14	12'N	OF #207	
L-1-15	56'N	OF #207	

REMARKS: Shelby tube collected on L-1-Ack-2

L-1-16 22' N 49 W OF #207

SIGNED:

RLO

DATE:

9/26/08

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site Date: 9/26/08
Client: Report No.:
Job No.: 0021-003-401 Inspector:
Contractor: Zoladz Construction, Inc Page of

PROCTOR DATA:

Type of Material	CLAY - SILTY SOIL
Source Area	MSB, INC
Maximum Density	135.4 pcf
Optimum Moisture Content	6.4 %

PASSING REQUIREMENT:

90 85% of the Modified Proctor

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS			GAUGE INFORMATION:									
Density: _____			Troxler Model No.: 3440									
Moisture: _____			Troxler Serial No.: _____									
TEST NUMBER	2-1-17	2-1-18										
DEPTH OR ELEVATION	8"	8"										
PERCENT COMPACTION (%)	93.0	91.4										
DRY DENSITY (pcf)	126.0	123.7										
WET DENSITY (pcf)	137.5	135.1										
MOISTURE (pcf)	11.5	11.4										
PERCENT MOISTURE (%)	9.1	9.2										
DENSITY COUNT	1029	1090										
MOISTURE COUNT	153	155										
PASS [P] or FAIL [F]	P	P										

LOCATION:

TEST NO. (from above)	X	Y	Z
2-1-17	62' 50"	47' W OF	H 207
2-1-18	72' 10"	36' W OF	H 100

TEST NO. (from above)	X	Y	Z

REMARKS:

SIGNED: RLD

DATE: 9/26/08

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site Date: 9/29/08
Client: Report No.:
Job No.: 0021-003-401 Inspector:
Contractor: Zoladz Construction, Inc Page of

PROCTOR DATA:

Type of Material	CLAY
Source Area	M5B GRN-IL
Maximum Density	135.4 pcf
Optimum Moisture Content	6.4 %

PASSING REQUIREMENT:

90.8% of the Modified Proctor

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS					GAUGE INFORMATION:									
Density:					Troxler Model No.:	3440								
Moisture:					Troxler Serial No.:									
TEST NUMBER	L-119	L-120	L-121	L-122	L-123									
DEPTH OR ELEVATION	8"	8"	8"	8"	8"									
PERCENT COMPACTION (%)	92.9	93.8	98.3	94.7	93.0									
DRY DENSITY (pcf)	132.5	127.0	133.1	128.2	126.0									
WET DENSITY (pcf)	143.0	138.5	144.5	139.7	137.6									
MOISTURE (pcf)	10.4	11.5	11.4	11.5	12.6									
PERCENT MOISTURE (%)	7.9	9.1	8.5	9.0	10.0									
DENSITY COUNT	911	1008	879	980	1041									
MOISTURE COUNT	146	159	153	159	149									
PASS [P] or FAIL [F]	P	P	P	P	P									

LOCATION:

TEST NO. (from above)	X	Y	Z
L-119	15' N 31' W OF 207		
L-120	62' N 39' W OF 207		
L-121	39' N OF #100		
L-122	61' N OF #100		
L-123	10' N OF #90		

Shrub
21ft-1-Ave-3

TEST NO. (from above)	X	Y	Z

REMARKS:

SIGNED:

DATE:

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site Date: 9/30/08
Client: Report No.:
Job No.: 0021-003-401 Inspector: RLD
Contractor: Zoladz Construction, Inc Page of

PROCTOR DATA:

Type of Material	CLAY - BENTONITE SOIL
Source Area	BSB, INC
Maximum Density	135.4 pcf
Optimum Moisture Content	6.4 %

PASSING REQUIREMENT:

90% of the Modified Proctor

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS				GAUGE INFORMATION:									
Density: _____				Troxler Model No.: 3440									
Moisture: _____				Troxler Serial No.: _____									
TEST NUMBER	L-1-24	L-1-25	L-1-26	L-1-27	L-1-28	L-1-29	L-1-30	L-1-31	L-1-32	L-1-33	L-1-34	L-1-35	L-1-36
DEPTH OR ELEVATION	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"
PERCENT COMPACTION (%)	102.8	105.0	107.0	106.6	104.5	94.6	100.8	99.6	102.3	99.9	101.1	104.8	103.2
DRY DENSITY (pcf)	124.3	125.4	128.2	127.3	124.9	113.1	120.1	119.0	122.3	119.7	124.4	125.2	123.3
WET DENSITY (pcf)	134.1	136.0	138.3	137.2	132.6	128.5	135.5	132.7	133.2	135.8	138.8	137.8	135.4
MOISTURE (pcf)	11.3	10.5	10.5	12.4	12.7	15.4	15.4	13.8	16.0	16.4	14.0	14.3	12.1
PERCENT MOISTURE (%)	9.2	8.4	8.2	9.7	10.2	13.6	12.8	11.6	13.0	13.7	11.3	11.5	9.9
DENSITY COUNT	1122	1129	1010	988	1038	1285	1080	1163	1019	1079	1017	989	1093
MOISTURE COUNT	155	156	146	166	170	201	201	182	208	213	185	189	163
PASS [P] or FAIL [F]	P	P	P	P	P	P	P	P	P	P	P	P	P

LOCATION:

TEST NO. (from above)	X	Y	Z
L-1-24	25'E	29'S OF #14	
L-1-25	40'W	21'S OF #39	
L-1-26	60'W	18'S OF #14	
L-1-27	40'S	OF #20	
L-1-28	10'E	21'S OF #20	
L-1-29	36'	S OF #39	

Stakey Ties
L-1-A-10-4

TEST NO. (from above)	X	Y	Z
L-1-30	21'E	50'S OF #39	
L-1-31	18'S	OF #44	
L-1-32	40'S	OF #44	
L-1-33	21'E	38'S OF #66	
L-1-34	12'W	21'S OF #68	
L-1-35	22'S	OF #68	
L-1-36	34'S	OF #68	

REMARKS:

SIGNED: RLD

DATE: 9/30/08

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site Date: 10/1/08
Client: Report No.:
Job No.: 0021-003-401 Inspector: RLD
Contractor: Zoladz Construction, Inc Page of

PROCTOR DATA:

Type of Material	CLAY - BUREAU SOIL
Source Area	PHS, Inc
Maximum Density	135.4 pcf
Optimum Moisture Content	6.4 %

PASSING REQUIREMENT:

90% of the Modified Proctor

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS				GAUGE INFORMATION:							
Density: _____				Troxler Model No.: 3440							
Moisture: _____				Troxler Serial No.: _____							
TEST NUMBER	L-2-1	L-2-2	L-2-3	L-2-4	L-2-5	L-2-6	L-2-7	L-2-8	L-2-9		
DEPTH OR ELEVATION	8"	8"	8"	8"	8"	8"	8"	8"	8"		
PERCENT COMPACTION (%)	107.4	106.8	107.1	106.3	96.3	102.5	101.7	101.7	102.6		
DRY DENSITY (pcf)	127.0	127.0	127.3	127.4	115.0	122.5	121.6	121.5	122.6		
WET DENSITY (pcf)	134.4	132.3	140.0	140.5	130.1	138.0	137.2	138.8	136.7		
MOISTURE (pcf)	10.4	9.7	11.3	13.4	15.0	15.5	15.6	17.2	14.1		
PERCENT MOISTURE (%)	8.1	7.6	8.7	10.6	13.1	12.7	12.8	14.2	11.5		
DENSITY COUNT	993	1045	984	970	1237	1025	1045	1005	1059		
MOISTURE COUNT	145	156	153	178	147	203	204	243	186		
PASS [P] or FAIL [F]	P	P	P	P	P	P	P	P	P		

LOCATION:

TEST NO. (from above)	X	Y	Z
L-2-1	30' S of # 66	20' S of # 20	
L-2-2	38' E	21' S of # 20	
L-2-3	12' S	of # 39	
L-2-4	28' E	36' S of # 39	
L-2-5	24' S	of # 44	
L-2-6	44' S	of # 66	

TEST NO. (from above)	X	Y	Z
L-2-7	30' S	of # 69	
L-2-8	22' E	17' S of # 67	
L-2-9	55' S	of 68	

REMARKS: Shelby tube collected L-2 Area-1

SIGNED: RLD

DATE: 10/1/08

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site Date: 10/2/08
Client: Report No.:
Job No.: 0021-003-401 Inspector: RLO
Contractor: Zoladz Construction, Inc Page of

PROCTOR DATA:

Type of Material	clay - silty sands
Source Area	MSB, Inc
Maximum Density	135.5 pcf
Optimum Moisture Content	7.1 %

PASSING REQUIREMENT:

90% of the Modified Proctor

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS					GAUGE INFORMATION:							
Density: _____					Troxler Model No.: 3440							
Moisture: _____					Troxler Serial No.: _____							
TEST NUMBER	L-2-10	L-2-11	L-2-12	L-2-13	L-2-14	L-2-15	L-2-16	L-2-17	L-2-18			
DEPTH OR ELEVATION	8"	8"	8"	8"	8"	8"	8"	8"	8"			
PERCENT COMPACTION (%)	107.4	106.1	97.7	101.4	101.0	99.3	104.1	104.5	100.3			
DRY DENSITY (pcf)	128.3	126.8	116.7	121.1	120.7	119.1	124.1	124.7	119.4			
WET DENSITY (pcf)	140.4	139.9	130.7	136.1	136.8	137.6	138.8	138.7	129.7			
MOISTURE (pcf)	12.1	13.1	14.0	15.0	16.0	13.5	14.4	13.8	10.0			
PERCENT MOISTURE (%)	9.5	10.3	12.0	12.4	13.3	11.3	11.6	11.1	8.4			
DENSITY COUNT	972	984	1219	1071	1059	1166	1007	1010	1249			
MOISTURE COUNT	163	174	185	197	209	177	190	183	138			
PASS [P] or FAIL [F]	P	P	P	P	P	P	P	P	P			

LOCATION:

TEST NO. (from above)	X	Y	Z
L-2-10	15' S of #93		
L-2-11	40' S of #93		
L-2-12	15' W of #94		
L-2-13	21' W of #70		
L-2-14	5' W of #70		
L-2-15	72' S of #68		

*Shallow well
L-2-Acc-2

TEST NO. (from above)	X	Y	Z
L-2-16	28' S of #60	70'	
L-2-17	40' W of #70		
L-2-18	40' S of #67	58' W of #71	

REMARKS: Shallow tube collected L-2-Acc-2

SIGNED: RLO

DATE: 10-2-08

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site Date: 10/3/08
Client: Report No.:
Job No.: 0021-003-401 Inspector:
Contractor: Zoladz Construction, Inc Page of

PROCTOR DATA:

Type of Material	CLAY - BROWN SOIL
Source Area	M.S.B., INC
Maximum Density	135.5 pcf
Optimum Moisture Content	7.1 %

PASSING REQUIREMENT:

90% of the Modified Proctor

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS					GAUGE INFORMATION:									
Density: _____					Troxler Model No.: 3440									
Moisture: _____					Troxler Serial No.: _____									
TEST NUMBER	L-2-19	L-2-20	L-2-21	L-2-22	L-2-23									
DEPTH OR ELEVATION	8"	8"	8"	8"	8"									
PERCENT COMPACTION (%)	90	94.8	91.8	95.1	93.3									
DRY DENSITY (pcf)	120.7	128.4	124.3	128.7	126.3									
WET DENSITY (pcf)	132.4	139.8	134.1	137.8	138.1									
MOISTURE (pcf)	12.4	11.4	9.8	11.1	11.8									
PERCENT MOISTURE (%)	10.3	8.8	7.9	8.6	9.3									
DENSITY COUNT	1148	978	1149	977	1017									
MOISTURE COUNT	161	152	134	149	153									
PASS [P] or FAIL [F]	P	P	P	P	P									

LOCATION:

TEST NO. (from above)	X	Y	Z
L-2-19	70' N	45' W OF	# 85
L-2-20	38' N	OF	# 86
L-2-21	28' N	36' E OF	# 100
L-2-22	30' N	OF	# 85
L-2-23	34' N	10' E OF	# 214

TEST NO. (from above)	X	Y	Z

REMARKS:

SIGNED: RLO

DATE: 10/3/08

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site Date: 10/6/08
Client: Report No.:
Job No.: 0021-003-401 Inspector: RLD
Contractor: Zoladz Construction, Inc Page of

PROCTOR DATA:

Type of Material	CLAY - Bentonite Soil
Source Area	MSB, Inc
Maximum Density	135.5 pcf
Optimum Moisture Content	7.1 %

PASSING REQUIREMENT:

90% of the Modified Proctor

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS					GAUGE INFORMATION:									
Density:					Troxler Model No.:	3440								
Moisture:					Troxler Serial No.:									
TEST NUMBER	L-2-24	L-2-25	L-2-26	L-2-27	L-2-28									
DEPTH OR ELEVATION	8"	8"	8"	8"	8"									
PERCENT COMPACTION (%)	92.9	91.3	91.2	95.9	94.8									
DRY DENSITY (pcf)	125.8	123.6	123.5	127.4	128.4									
WET DENSITY (pcf)	137.7	135.0	134.3	139.5	139.8									
MOISTURE (pcf)	11.9	11.4	10.8	9.6	11.4									
PERCENT MOISTURE (%)	9.4	9.3	8.8	7.4	8.9									
DENSITY COUNT	1026	1092	1111	987	973									
MOISTURE COUNT	158	153	146	131	148									
PASS [P] or FAIL [F]	P	P	P	P	P									

LOCATION:

TEST NO. (from above)	X	Y	Z
L-2-24	59' N	OP # 214	
L-2-25	25' N	OP # 76	
L-2-26	36' N	OP # 82	
L-2-27	20' N	OP # 209	
L-2-28	24' S	OP # 207	

Shady NSE
L-2-A11-3

TEST NO. (from above)	X	Y	Z

REMARKS:

SIGNED: RLD

DATE: 10/6/08

NUCLEAR DENSITOMETER FIELD LOG

Project: Peter Cooper Markhams-NPL Site Date: 10/6/08 - 10-7-08
Client: Report No.:
Job No.: 0021-003-401 Inspector: RLD
Contractor: Zoladz Construction, Inc Page of

PROCTOR DATA:

Type of Material	CLAY - Barrier Soil
Source Area	OFFSITE - MJB, INC
Maximum Density	135.5 pcf
Optimum Moisture Content	7.1 %

PASSING REQUIREMENT:

90% of the Modified Proctor

NUCLEAR DENSITOMETER RESULTS:

STANDARD COUNTS				GAUGE INFORMATION:							
Density:				Troxler Model No.:		3440					
Moisture:				Troxler Serial No.:							
TEST NUMBER	L-2-29	L-2-30	L-2-31	L-2-32	L-2-33	L-2-34	L-2-35	L-2-36	L-2-37	L-2-38	
DEPTH OR ELEVATION	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	
PERCENT COMPACTION (%)	94.1	92.8	95.8	91.3	93.2	92.1	92.0	96.0	96.0	95.3	
DRY DENSITY (pcf)	127.4	125.6	129.7	123.6	126.1	127.7	124.5	129.5	130.1	129.0	
WET DENSITY (pcf)	134.1	135.1	140.5	133.5	135.7	135.7	135.5	139.0	140.5	140.1	
MOISTURE (pcf)	11.9	9.6	10.8	9.9	9.6	10.1	10.9	9.0	10.4	11.1	
PERCENT MOISTURE (%)	9.2	7.6	8.4	8.0	7.6	8.2	8.9	7.6	8.0	8.6	
DENSITY COUNT	992	1041	962	1134	1078	1077	1072	999	963	970	
MOISTURE COUNT	157	131	146	135	131	147	148	125	141	149	
PASS [P] or FAIL [F]	P	P	P	P	P	P	P	P	P	P	

LOCATION:

TEST NO. (from above)	X	Y	Z
L-2-29	18' E OF #89	40' N	80' W OF #96
L-2-30	29' E OF #202		
L-2-31	45' E OF #202		
L-2-32	12' S OF #14		
L-2-33	28' S OF #209		
L-2-34	20' N OF #100 - Shelby Tube (L-2-A10-4)		

TEST NO. (from above)	X	Y	Z
L-2-35	44' S	20' W OF #14	
L-2-36	37' N OF #86		
L-2-37	44' N OF #100		
L-2-38	38' E OF 10' N OF #100		

REMARKS:

collected Shelby tube (L-2-A10-4)

SIGNED:

RLD

DATE:

10/7/08

SHELBY TUBE DATA



FINAL PERMEABILITY REPORT

Project Name: Benchmark, Markhams Site
Project No.: 08-002
Sample No.: Acre 1, Lift 1
Sample I.D.: 08-647
Laboratory Method: ASTM D5084, Method C
Remarks: None

Date: 09/30/08
Tested By: RP
Check By: JMA
Date of Test: 09/26/08
Date Test Complete: 09/30/08
CELL NO.: 2

INITIAL SAMPLE DATA:

Height, in.: 3.022
Diameter, in.: 2.798
Moisture Content, %: 11.70

Wet Density, pcf: 138.0
Dry Density, pcf: 123.5
Compaction, %: NA

FINAL SAMPLE DATA:

Height, in.: 3.000
Diameter, in.: 2.805
Moisture Content, %: 12.60

Wet Density, pcf: 140.3
Dry Density, pcf: 124.6

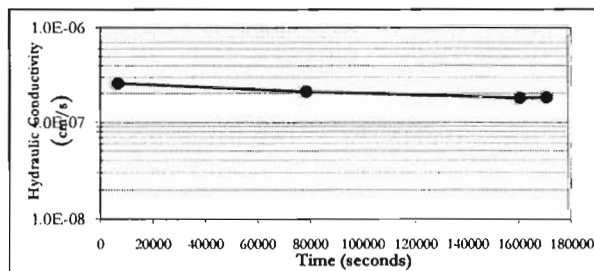
SATURATION AND CONSOLIDATION DATA:

Consolidation Pressure: 85 psi
Backpressure: 80 psi
Saturation (B parameter): 95%

AVERAGE PERMEABILITY RESULT (average of last 4 readings, K, cm/s):

Trial #	Testing Pressures (psi)			Q (ml/sec)	Final K (cm/s)
	1	2	3		
1	86	80	80	3.00E-05	2.6E-07
2	86	80	80	2.23E-05	2.1E-07
3	86	80	80	1.59E-05	1.8E-07
4	86	80	80	1.42E-05	1.8E-07

Average K	2.1E-07
Average K, ft/day	5.9E-04





FINAL PERMEABILITY REPORT

Project Name: Benchmark, Markhams Landfill

Project No.: 08-002

Sample No.: Acre 2, Lift 1

Sample I.D.: 08-655

Laboratory Method: ASTM D5084, Method C

Remarks: None

Date: 10/02/08

Tested By: RP

Check By: JMA

Date of Test: 09/29/08

Date Test Complete: 10/02/08

CELL NO.: 2

INITIAL SAMPLE DATA:

Height, in.: 2.327

Diameter, in.: 2.837

Moisture Content, %: 11.50

Wet Density, pcf: 129.6

Dry Density, pcf: 116.2

Compaction, %: NA

FINAL SAMPLE DATA:

Height, in.: 2.301

Diameter, in.: 2.813

Moisture Content, %: 13.90

Wet Density, pcf: 134.9

Dry Density, pcf: 118.4

SATURATION AND CONSOLIDATION DATA:

Consolidation Pressure: 85 psi

Backpressure: 80 psi

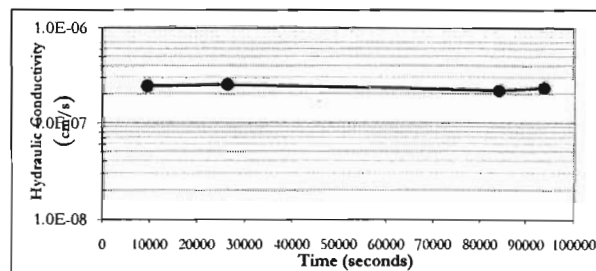
Saturation (B parameter): 98%

AVERAGE PERMEABILITY RESULT (average of last 4 readings, K, cm/s):

Trial #	Testing Pressures (psi)			Q (ml/sec)	Final K (cm/s)
	1	2	3		
1	86	80	80	3.21E-05	2.5E-07
2	86	80	80	2.90E-05	2.6E-07
3	86	80	80	2.39E-05	2.2E-07
4	86	80	80	2.29E-05	2.4E-07

Average K 2.4E-07

Average K, ft/day 6.8E-04





FINAL PERMEABILITY REPORT

Project Name: Benchmark, Markhams Landfill
Project No.: 08-002
Sample No.: Acre 3, Lift 1
Sample I.D.: 08-656
Laboratory Method: ASTM D5084, Method C
Remarks: None

Date: 10/02/08
Tested By: RP
Check By: JMA
Date of Test: 09/29/08
Date Test Complete: 10/02/08
CELL NO.: 3

INITIAL SAMPLE DATA:

Height, in.: 2.513
Diameter, in.: 2.833
Moisture Content, %: 11.20

Wet Density, pcf: 132.4
Dry Density, pcf: 119.1
Compaction, %: NA

FINAL SAMPLE DATA:

Height, in.: 2.519
Diameter, in.: 2.816
Moisture Content, %: 14.20

Wet Density, pcf: 135.4
Dry Density, pcf: 118.5

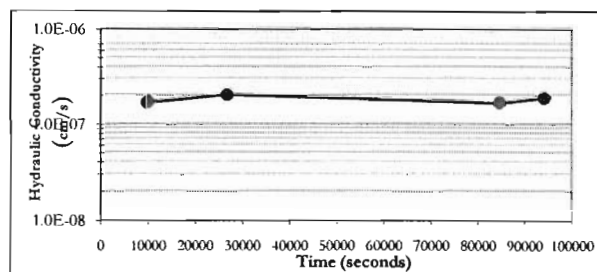
SATURATION AND CONSOLIDATION DATA:

Consolidation Pressure: 85 psi
Backpressure: 80 psi
Saturation (B parameter): 96%

AVERAGE PERMEABILITY RESULT (average of last 4 readings, K, cm/s):

Trial #	Testing Pressures (psi)			Q (ml/sec)	Final K (cm/s)
	1	2	3		
1	86	80	80	2.03E-05	1.7E-07
2	86	80	80	2.32E-05	2.0E-07
3	86	80	80	1.74E-05	1.7E-07
4	86	80	80	1.79E-05	1.9E-07

Average K	1.8E-07
Average K, ft/day	5.2E-04



3rdrock**FINAL PERMEABILITY REPORT**

Project Name:	Benchmark, Markhams LF	Date:	10/15/08
Project No.:	08-002	Tested By:	RP
Sample No.:	Acre 4, Lift 1	Check By:	JMA
Sample I.D.:	08-658	Date of Test:	09/30/08
Laboratory Method:	ASTM D5084, Method C	Date Test Complete:	10/04/08
Remarks:	None	CELL NO.:	5B

INITIAL SAMPLE DATA:

Height, in.:	2.945	Wet Density, pcf:	138.8
Diameter, in.:	2.828	Dry Density, pcf:	124.1
Moisture Content, %:	11.80	Compaction, %:	NA

FINAL SAMPLE DATA:

Height, in.:	2.955	Wet Density, pcf:	140.9
Diameter, in.:	2.807	Dry Density, pcf:	124.6
Moisture Content, %:	13.10		

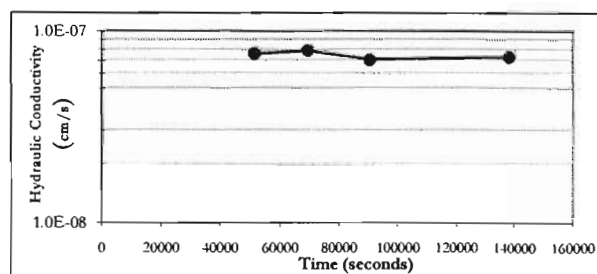
SATURATION AND CONSOLIDATION DATA:

Consolidation Pressure: 85 psi
Backpressure: 80 psi
Saturation (B parameter): 95%

AVERAGE PERMEABILITY RESULT (average of last 4 readings, K, cm/s):

Trial #	Testing Pressures (psi)			Q (ml/sec)	Final K (cm/s)
	1	2	3		
1	85	80.55	80	2.06E-05	7.6E-08
2	85	80.55	80	2.08E-05	7.9E-08
3	85	80.55	80	1.82E-05	7.1E-08
4	85	80.55	80	1.72E-05	7.3E-08

Average K	7.5E-08
Average K, ft/day	2.1E-04





FINAL PERMEABILITY REPORT

Project Name: Benchmark-Markhams LF
Project No.: 08-002
Sample No.: Acre 1, Lift 2
Sample I.D.: 08-667
Laboratory Method: ASTM D5084, Method C
Remarks: None

Date: 10/09/08
Tested By: RP
Check By: JMA
Date of Test: 10/03/08
Date Test Complete: 10/09/08
CELL NO.: 1

INITIAL SAMPLE DATA:

Height, in.: 2.876
Diameter, in.: 2.825
Moisture Content, %: 11.60

Wet Density, pcf: 133.2
Dry Density, pcf: 119.3
Compaction, %: NA

FINAL SAMPLE DATA:

Height, in.: 2.838
Diameter, in.: 2.823
Moisture Content, %: 12.70

Wet Density, pcf: 135.7
Dry Density, pcf: 120.4

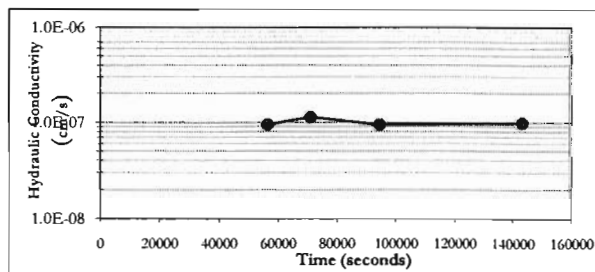
SATURATION AND CONSOLIDATION DATA:

Consolidation Pressure: 85 psi
Backpressure: 80 psi
Saturation (B parameter): 96%

AVERAGE PERMEABILITY RESULT (average of last 4 readings, K, cm/s):

Trial #	Testing Pressures (psi)			Q (ml/sec)	Final K (cm/s)
	1	2	3		
1	85.7	79.8	79.8	1.04E-05	9.4E-08
2	85.7	79.8	79.8	1.20E-05	1.1E-07
3	85.7	79.8	79.8	9.59E-06	9.4E-08
4	85.7	79.8	79.8	9.56E-06	9.8E-08

Average K	1.0E-07
Average K, ft/day	2.8E-04



3rdrock**FINAL PERMEABILITY REPORT**

Project Name:	Benchmark, Markhams LF	Date:	10/15/08
Project No.:	08-002	Tested By:	RP
Sample No.:	Acre 2, Lift 2	Check By:	JMA
Sample I.D.:	08-668	Date of Test:	10/03/08
Laboratory Method:	ASTM D5084, Method C	Date Test Complete:	10/08/08
Remarks:	None	CELL NO.:	3

INITIAL SAMPLE DATA:

Height, in.:	2.808	Wet Density, pcf:	140.4
Diameter, in.:	2.830	Dry Density, pcf:	123.8
Moisture Content, %:	13.40	Compaction, %:	NA

FINAL SAMPLE DATA:

Height, in.:	2.752	Wet Density, pcf:	138.0
Diameter, in.:	2.871	Dry Density, pcf:	122.6
Moisture Content, %:	12.60		

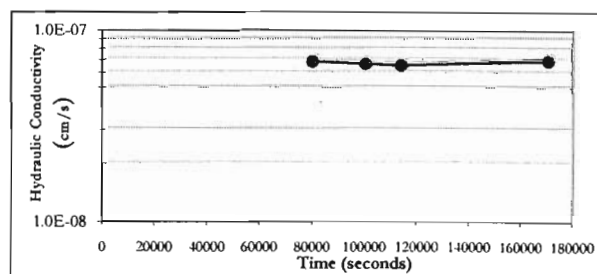
SATURATION AND CONSOLIDATION DATA:

Consolidation Pressure: 85 psi
Backpressure: 80 psi
Saturation (B parameter): 98%

AVERAGE PERMEABILITY RESULT (average of last 4 readings, K, cm/s):

Trial #	Testing Pressures (psi)			Q (ml/sec)	Final K (cm/s)
	1	2	3		
1	86	79.6	79.6	9.21E-06	6.9E-08
2	86	79.6	79.6	8.63E-06	6.7E-08
3	86	79.6	79.6	8.08E-06	6.6E-08
4	86	79.6	79.6	8.41E-06	6.9E-08

Average K	6.7E-08
Average K, ft/day	1.9E-04





FINAL PERMEABILITY REPORT

Project Name: Benchmark, Markhams LF
Project No.: 08-002
Sample No.: Acre 3, Lift 2
Sample I.D.: 08-687
Laboratory Method: ASTM D5084, Method C
Remarks: None

Date: 10/15/08
Tested By: RP
Check By: JMA
Date of Test: 10/07/08
Date Test Complete: 10/10/08
CELL NO.: 3

INITIAL SAMPLE DATA:

Height, in.: 2.400
Diameter, in.: 2.841
Moisture Content, %: 13.00

Wet Density, pcf: 143.6
Dry Density, pcf: 127.1
Compaction, %: NA

FINAL SAMPLE DATA:

Height, in.: 2.380
Diameter, in.: 2.840
Moisture Content, %: 12.90

Wet Density, pcf: 143.9
Dry Density, pcf: 127.4

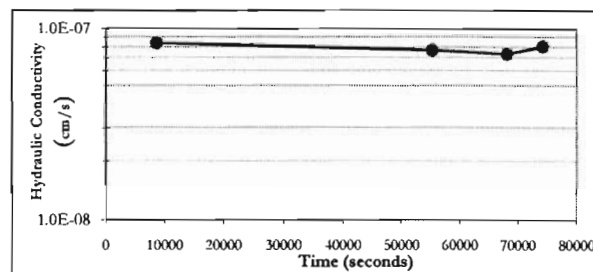
SATURATION AND CONSOLIDATION DATA:

Consolidation Pressure: 85 psi
Backpressure: 80 psi
Saturation (B parameter): 95%

AVERAGE PERMEABILITY RESULT (average of last 4 readings, K, cm/s):

Trial #	Testing Pressures (psi)			Q (ml/sec)	Final K (cm/s)
	1	2	3		
1	85	80.4	80	2.41E-05	8.4E-08
2	85	80.4	80	2.11E-05	7.7E-08
3	85	80.4	80	1.95E-05	7.4E-08
4	85	80.4	80	2.12E-05	8.1E-08

Average K	7.9E-08
Average K, ft/day	2.2E-04





FINAL PERMEABILITY REPORT

Project Name: Benchmark, Markhams LF
Project No.: 08-002
Sample No.: Acre 4, Lift 2
Sample I.D.: 08-688
Laboratory Method: ASTM D5084, Method C
Remarks: None

Date: 10/15/08
Tested By: RP
Check By: JMA
Date of Test: 10/07/08
Date Test Complete: 10/10/08
CELL NO.: 5B

INITIAL SAMPLE DATA:

Height, in.: 2.383
Diameter, in.: 2.830
Moisture Content, %: 13.40

Wet Density, pcf: 140.6
Dry Density, pcf: 124.0
Compaction, %: NA

FINAL SAMPLE DATA:

Height, in.: 2.352
Diameter, in.: 2.821
Moisture Content, %: 13.10

Wet Density, pcf: 142.9
Dry Density, pcf: 126.3

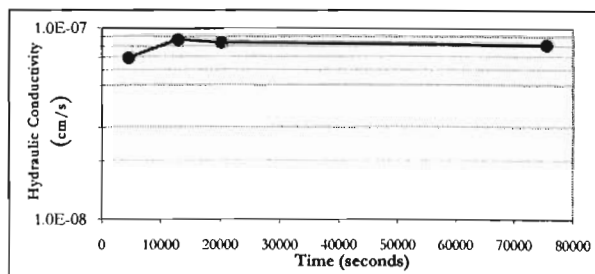
SATURATION AND CONSOLIDATION DATA:

Consolidation Pressure: 85 psi
Backpressure: 80 psi
Saturation (B parameter): 96%

AVERAGE PERMEABILITY RESULT (average of last 4 readings, K, cm/s):

Trial #	Testing Pressures (psi)			Q (ml/sec)	Final K (cm/s)
	1	2	3		
1	85	80.3	79.9	1.97E-05	7.0E-08
2	85	80.3	79.9	2.36E-05	8.7E-08
3	85	80.3	79.9	2.25E-05	8.4E-08
4	85	80.3	79.9	1.95E-05	8.1E-08

Average K	8.0E-08
Average K, ft/day	2.3E-04



APPENDIX D

TOPSOIL DOCUMENTATION

ANALYTICAL REPORT

Job#: A08-B296, A08-B297, A08-B298

Project#: NY4A9217

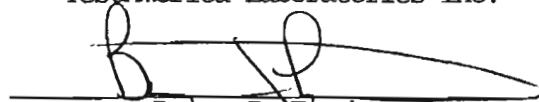
SDG#: B296

Site Name: Benchmark

Task: Peter Cooper site

Mr. Tom Forbes
Benchmark Environmental
726 Exchange St., Ste 624
Buffalo, NY 14210

TestAmerica Laboratories Inc.



Brian J. Fischer
Project Manager

10/03/2008

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.



TestAmerica Buffalo Current Certifications

As of 7/16/2008

STATE	Program	Cert # / Lab ID
Arkansas	SDWA, CWA, RCRA, SOIL	88-0686
California*	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida*	NELAP CWA, RCRA	E87672
Georgia*	SDWA, NELAP CWA, RCRA	956
Illinois*	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas*	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana*	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY0044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA, CWA, RCRA	036-999-337
New Hampshire*	NELAP SDWA, CWA	233701
New Jersey*	NELAP, SDWA, CWA, RCRA,	NY455
New York*	NELAP, AIR, SDWA, CWA, RCRA, CLP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania*	Registration, NELAP CWA, RCRA	68-00281
Tennessee	SDWA	02970
Texas*	NELAP CWA, RCRA	T104704412-08-TX
USDA	FOREIGN SOIL PERMIT	S-41579
USDOE	Department of Energy	DOECAP-STB
Virginia	SDWA	278
Washington*	NELAP CWA, RCRA	C1677
Wisconsin	CWA, RCRA	998310390
West Virginia	CWA, RCRA	252

*As required under the indicated accreditation, the test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report.

Sample Data Summary Package

SAMPLE SUMMARY

SDG#: B296

<u>LAB SAMPLE ID</u>	<u>CLIENT SAMPLE ID</u>	<u>MATRIX</u>	<u>SAMPLED</u>		<u>RECEIVED</u>	
			<u>DATE</u>	<u>TIME</u>	<u>DATE</u>	<u>TIME</u>
A8B29601	LOWES TOPSOIL COMP	SOIL	09/16/2008	13:15	09/16/2008	15:50
A8B29701	LOWES TOPSOIL COMP	SOIL	09/16/2008	13:15	09/16/2008	15:50
A8B29801	LOWES TOPSOIL COMP	SOIL	09/16/2008	13:15	09/16/2008	15:50

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

METHODS SUMMARY

Job#: A08-B296,A08-B297,A08-B298Project#: NY4A9217SDG#: B296Site Name: Benchmark

PARAMETER	ANALYTICAL METHOD
METHOD 8260 - TCL VOLATILE ORGANICS	SW8463 8260
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS	SW8463 8270
BENCHMARK - 8081 - TCL PESTICIDES - S	SW8463 8081
BENCHMARK - METHOD 8151 - HERBICIDES - S	SW8463 8151
METHOD 8082 - POLYCHLORINATED BIPHENYLS	SW8463 8082
Arsenic - Total	SW8463 6010
Barium - Total	SW8463 6010
Beryllium - Total	SW8463 6010
Cadmium - Total	SW8463 6010
Chromium - Total	SW8463 6010
Copper - Total	SW8463 6010
Iron - Total	SW8463 6010
Lead - Total	SW8463 6010
Manganese - Total	SW8463 6010
Mercury - Total	SW8463 7471
Nickel - Total	SW8463 6010
Selenium - Total	SW8463 6010
Silver - Total	SW8463 6010
Zinc - Total	SW8463 6010
Cyanide - Total	SW8463 9012
Hexavalent Chromium - Total	SW8463 7196A

References:

SW8463 "Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846), Third Edition, 9/86; Update I, 7/92; Update IIA, 8/93; Update II, 9/94; Update IIB, 1/95; Update III, 12/96.

The results presented in this report relate only to the analytical testing and conditions of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

SDG NARRATIVE

Job#: A08-B296,A08-B297,A08-B298Project#: NY4A9217SDG#: B296Site Name: BenchmarkGeneral Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A08-B296

Sample Cooler(s) were received at the following temperature(s); 10.0 °C

All samples were received in good condition.

A08-B297

Sample Cooler(s) were received at the following temperature(s); 10.0 °C

Samples were received at a temperature of 10°C. However, as the samples were collected the same day, it was not possible for the samples to cool to 4°C prior to receipt. There is no impact on the data.

A08-B298

Sample Cooler(s) were received at the following temperature(s); 10.0 °C

Samples were received at a temperature of 10°C. However, as the samples were collected the same day, it was not possible for the samples to cool to 4°C prior to receipt. There is no impact on the data.

GC/MS Volatile Data

Linear regression was used to calibrate analytes that were greater than 15% RSD in the initial calibration A8I0000621-1.

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

The analyte Methylene Chloride was detected in the Method Blank (A8B2255702) at a level above the project established reporting limit. Samples had levels of Methylene Chloride less than ten times that of the Method Blank value. All sample detections for Methylene Chloride may potentially be due to laboratory contamination and should be evaluated accordingly. All associated sample detections were qualified with a "B".

GC/MS Semivolatile Data

The spike recovery for 4-Nitrophenol was above the laboratory defined quality control limits in the Matrix Spike Blank A8B2243301 and Matrix Spike Blank Duplicate A8B2243302. Since the results were biased high and the analyte was not detected in the sample, no corrective action was performed.

Linear/quadratic regression was used to calibrate compounds greater than 15% RSD in initial calibration A8I0000681-1.

GC Extractable Data

No deviations from protocol were encountered during the analytical procedures.

Metals Data

No deviations from protocol were encountered during the analytical procedures.

Wet Chemistry Data

Hexavalent Chromium was subcontracted to TestAmerica North Canton. The complete subcontract report is included in this report as Appendix A. Comments pertaining to Hexavalent Chromium may be found within the comment summary of the subcontract report.

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this Sample Data package and in the electronic data deliverables has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature."



Brian J. Fischer
Project Manager

10-6-08
Date

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

METHOD 8260 - TCL VOLATILE ORGANICS
ANALYSIS DATA SHEET

17/1137

Client No.

LOWES TOPSOIL COMP

Lab Name: TestAmerica Laboratories Inc. Contract: _____

Lab Code: RECONY Case No.: _____ SAS No.: _____ SDG No.: B296

Matrix: (soil/water) SOIL Lab Sample ID: A8B29701

Sample wt/vol: 5.11 (g/mL) G Lab File ID: F4431.RR

Level: (low/med) LOW Date Samp/Recv: 09/16/2008 09/16/2008

% Moisture: not dec. 18 Heated Purge: Y Date Analyzed: 09/17/2008

GC Column: ZB-624 ID: 0.20 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

67-64-1-----	Acetone	7	BJ
71-43-2-----	Benzene	6	U
75-27-4-----	Bromodichloromethane	6	U
75-25-2-----	Bromoform	6	U
74-83-9-----	Bromomethane	6	U
78-93-3-----	2-Butanone	30	U
75-15-0-----	Carbon Disulfide	6	U
56-23-5-----	Carbon Tetrachloride	6	U
108-90-7-----	Chlorobenzene	6	U
75-00-3-----	Chloroethane	6	U
67-66-3-----	Chloroform	6	U
74-87-3-----	Chloromethane	6	U
110-82-7-----	Cyclohexane	6	U
106-93-4-----	1,2-Dibromoethane	6	U
124-48-1-----	Dibromochloromethane	6	U
96-12-8-----	1,2-Dibromo-3-chloropropane	6	U
95-50-1-----	1,2-Dichlorobenzene	6	U
541-73-1-----	1,3-Dichlorobenzene	6	U
106-46-7-----	1,4-Dichlorobenzene	6	U
75-71-8-----	Dichlorodifluoromethane	6	U
75-34-3-----	1,1-Dichloroethane	6	U
107-06-2-----	1,2-Dichloroethane	6	U
75-35-4-----	1,1-Dichloroethene	6	U
156-59-2-----	cis-1,2-Dichloroethene	6	U
156-60-5-----	trans-1,2-Dichloroethene	6	U
78-87-5-----	1,2-Dichloropropane	6	U
10061-01-5----	cis-1,3-Dichloropropene	6	U
10061-02-6----	trans-1,3-Dichloropropene	6	U
100-41-4-----	Ethylbenzene	6	U
591-78-6-----	2-Hexanone	30	U
98-82-8-----	Isopropylbenzene	6	U
79-20-9-----	Methyl acetate	6	U
108-87-2-----	Methylcyclohexane	6	U
75-09-2-----	Methylene chloride	7	B

METHOD 8260 - TCL VOLATILE ORGANICS
ANALYSIS DATA SHEET

18/1137

Client No.

LOWES TOPSOIL COMP

Lab Name: TestAmerica Laboratories Inc. Contract: _____

Lab Code: RECN Case No.: _____ SAS No.: _____ SDG No.: B296

Matrix: (soil/water) SOIL Lab Sample ID: A8B29701

Sample wt/vol: 5.11 (g/mL) G Lab File ID: F4431.RR

Level: (low/med) LOW Date Samp/Recv: 09/16/2008 09/16/2008

% Moisture: not dec. 18 Heated Purge: Y Date Analyzed: 09/17/2008

GC Column: ZB-624 ID: 0.20 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

108-10-1-----	4-Methyl-2-pentanone	30	U
1634-04-4-----	Methyl-t-Butyl Ether (MTBE)	6	U
100-42-5-----	Styrene	6	U
79-34-5-----	1,1,2,2-Tetrachloroethane	6	U
127-18-4-----	Tetrachloroethene	6	U
108-88-3-----	Toluene	6	U
120-82-1-----	1,2,4-Trichlorobenzene	6	U
71-55-6-----	1,1,1-Trichloroethane	6	U
79-00-5-----	1,1,2-Trichloroethane	6	U
76-13-1-----	1,1,2-Trichloro-1,2,2-trifluoroethane	6	U
75-69-4-----	Trichlorofluoromethane	6	U
79-01-6-----	Trichloroethene	6	U
75-01-4-----	Vinyl chloride	12	U
1330-20-7-----	Total Xylenes	18	U

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

19/1137

Client No.

LOWES TOPSOIL COMP

Lab Name: TestAmerica Laboratories Inc. Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: B296

Matrix: (soil/water) SOIL Lab Sample ID: A8B29701

Sample wt/vol: 30.47 (g/mL) G Lab File ID: X26591.RR

Level: (low/med) LOW Date Samp/Recv: 09/16/2008 09/16/2008

% Moisture: 17 decanted: (Y/N) N Date Extracted: 09/17/2008

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/18/2008

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

83-32-9-----	Acenaphthene	200	U
208-96-8-----	Acenaphthylene	200	U
98-86-2-----	Acetophenone	200	U
120-12-7-----	Anthracene	200	U
1912-24-9-----	Atrazine	200	U
100-52-7-----	Benzaldehyde	200	U
56-55-3-----	Benzo (a) anthracene	12	J
205-99-2-----	Benzo (b) fluoranthene	15	J
207-08-9-----	Benzo (k) fluoranthene	200	U
191-24-2-----	Benzo (ghi) perylene	200	U
50-32-8-----	Benzo (a) pyrene	12	J
92-52-4-----	Biphenyl	200	U
111-91-1-----	Bis (2-chloroethoxy) methane	200	U
111-44-4-----	Bis (2-chloroethyl) ether	200	U
108-60-1-----	2,2'-Oxybis (1-Chloropropane)	200	U
117-81-7-----	Bis (2-ethylhexyl) phthalate	68	J
101-55-3-----	4-Bromophenyl phenyl ether	200	U
85-68-7-----	Butyl benzyl phthalate	200	U
105-60-2-----	Caprolactam	200	U
106-47-8-----	4-Chloroaniline	200	U
59-50-7-----	4-Chloro-3-methylphenol	200	U
91-58-7-----	2-Chloronaphthalene	200	U
95-57-8-----	2-Chlorophenol	200	U
7005-72-3-----	4-Chlorophenyl phenyl ether	200	U
86-74-8-----	Carbazole	200	U
218-01-9-----	Chrysene	30	BJ
53-70-3-----	Dibenzo (a, h) anthracene	200	U
132-64-9-----	Dibenzofuran	200	U
84-74-2-----	Di-n-butyl phthalate	200	U
91-94-1-----	3,3'-Dichlorobenzidine	200	U
120-83-2-----	2,4-Dichlorophenol	200	U
84-66-2-----	Diethyl phthalate	200	U

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

20/1137

Client No.

LOWES TOPSOIL COMP

Lab Name: TestAmerica Laboratories Inc. Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: B296

Matrix: (soil/water) SOIL Lab Sample ID: A8B29701

Sample wt/vol: 30.47 (g/mL) G Lab File ID: X26591.RR

Level: (low/med) LOW Date Samp/Recv: 09/16/2008 09/16/2008

% Moisture: 17 decanted: (Y/N) N Date Extracted: 09/17/2008

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/18/2008

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

105-67-9-----	2,4-Dimethylphenol	200	U
131-11-3-----	Dimethyl phthalate	200	U
534-52-1-----	4,6-Dinitro-2-methylphenol	390	U
51-28-5-----	2,4-Dinitrophenol	390	U
121-14-2-----	2,4-Dinitrotoluene	200	U
606-20-2-----	2,6-Dinitrotoluene	200	U
117-84-0-----	Di-n-octyl phthalate	200	U
206-44-0-----	Fluoranthene	22	J
86-73-7-----	Fluorene	200	U
118-74-1-----	Hexachlorobenzene	200	U
87-68-3-----	Hexachlorobutadiene	200	U
77-47-4-----	Hexachlorocyclopentadiene	200	U
67-72-1-----	Hexachloroethane	200	U
193-39-5-----	Indeno (1,2,3-cd) pyrene	200	U
78-59-1-----	Isophorone	200	U
91-57-6-----	2-Methylnaphthalene	200	U
95-48-7-----	2-Methylphenol	13	J
106-44-5-----	4-Methylphenol	200	U
91-20-3-----	Naphthalene	200	U
88-74-4-----	2-Nitroaniline	390	U
99-09-2-----	3-Nitroaniline	390	U
100-01-6-----	4-Nitroaniline	390	U
98-95-3-----	Nitrobenzene	200	U
88-75-5-----	2-Nitrophenol	200	U
100-02-7-----	4-Nitrophenol	390	U
86-30-6-----	N-nitrosodiphenylamine	200	U
621-64-7-----	N-Nitroso-Di-n-propylamine	200	U
87-86-5-----	Pentachlorophenol	390	U
85-01-8-----	Phenanthrene	14	J
108-95-2-----	Phenol	200	U
129-00-0-----	Pyrene	12	J
95-95-4-----	2,4,5-Trichlorophenol	200	U

MEIHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

21/1137

Client No.

LOWES TOPSOIL COMP

Lab Name: TestAmerica Laboratories Inc. Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: B296

Matrix: (soil/water) SOIL

Lab Sample ID: A8B29701

Sample wt/vol: 30.47 (g/mL) G

Lab File ID: X26591.RR

Level: (low/med) LOW

Date Samp/Recv: 09/16/2008 09/16/2008

% Moisture: 17 decanted: (Y/N) N

Date Extracted: 09/17/2008

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/18/2008

Injection Volume: 1.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

88-06-2-----	2,4,6-Trichlorophenol	200	U

BENCHMARK - 8081 - TCL PESTICIDES - S
ANALYSIS DATA SHEET

22/1137

Client No.

LOWES TOPSOIL COMP

Lab Name: TestAmerica Laboratories Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: B296

Matrix: (soil/water) SOIL Lab Sample ID: A8B29701

Sample wt/vol: 30.19 (g/mL) G Lab File ID: 5A17073.TX0

% Moisture: 17 decanted: (Y/N) N Date Samp/Recv: 09/16/2008 09/16/2008

Extraction: (SepF/Cont/Sonc/Soxh): SONC Date Extracted: 09/17/2008

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/24/2008

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _ Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

309-00-2-----	Aldrin	2.0	U
319-84-6-----	alpha-BHC	2.0	U
319-85-7-----	beta-BHC	2.0	U
58-89-9-----	gamma-BHC (Lindane)	2.0	U
319-86-8-----	delta-BHC	2.0	U
57-74-9-----	Chlordane	20	U
72-54-8-----	4,4'-DDD	2.0	U
72-55-9-----	4,4'-DDE	2.0	U
50-29-3-----	4,4'-DDT	2.0	U
60-57-1-----	Dieldrin	2.0	U
959-98-8-----	Endosulfan I	2.0	U
33213-65-9---	Endosulfan II	2.0	U
1031-07-8----	Endosulfan Sulfate	2.0	U
72-20-8-----	Endrin	2.0	U
7421-93-4----	Endrin aldehyde	2.0	U
76-44-8-----	Heptachlor	2.0	U
1024-57-3----	Heptachlor epoxide	2.0	U
72-43-5-----	Methoxychlor	2.0	U
8001-35-2-----	Toxaphene	20	U

23/1137

METHOD 8082 - POLYCHLORINATED BIPHENYLS
ANALYSIS DATA SHEET

Client No.

LOWES TOPSOIL COMP

Lab Name: TestAmerica Laboratories Contract: _____Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: B296Matrix: (soil/water) SOIL Lab Sample ID: A8B29701Sample wt/vol: 30.19 (g/mL) G Lab File ID: 19B44170.TX0% Moisture: 17 decanted: (Y/N) N Date Samp/Recv: 09/16/2008 09/16/2008Extraction: (SepF/Cont/Sonc/Soxh): SONC Date Extracted: 09/17/2008Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/18/2008Injection Volume: 1.00 (uL) Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _ Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

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

Q

CAS NO.	COMPOUND		
12674-11-2----	Aroclor 1016	20	U
11104-28-2----	Aroclor 1221	20	U
11141-16-5----	Aroclor 1232	20	U
53469-21-9----	Aroclor 1242	20	U
12672-29-6----	Aroclor 1248	20	U
11097-69-1----	Aroclor 1254	20	U
11096-82-5----	Aroclor 1260	20	U

24/1137

BENCHMARK - METHOD 8151 - HERBICIDES - S
ANALYSIS DATA SHEET

Client No.

LOWES TOPSOIL COMP

Lab Name: TestAmerica Laboratories Contract: _____Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: B296Matrix: (soil/water) SOIL Lab Sample ID: A8B29701Sample wt/vol: 30.43 (g/mL) G Lab File ID: 13B76008.TX0% Moisture: 17 decanted: (Y/N) N Date Samp/Recv: 09/16/2008 09/16/2008Extraction: (SepF/Cont/Sonc/Soxh): SEPF Date Extracted: 09/17/2008Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/23/2008Injection Volume: 1.00 (uL) Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

94-75-7-----	2,4-D	20	U
93-72-1-----	2,4,5-TP (Silvex)	20	U
93-76-5-----	2,4,5-T	20	U

TESTAMERICA LABORATORIES INC.**Benchmark Environmental & Engineering Science**

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine SDG No.: B296

Method Type:

Sample ID: A8B29801

Client ID: LOWES TOPSOIL COMP

Matrix: SOIL

Date Received: 9/16/2008

Date Collected: 9/16/2008

Level: LOW

% Solids: 86

Sample Wt/Vol: 0.5

Final Vol: 50.0

Prep Batch ID: A8B22406

Prep Date: 9/17/2008

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical		Instrument	Run	M
								Date	Time			
Arsenic	2.7	mg/Kg			2.5	2.5	1	9/17/2008	20:36	SUPERTRACE	1091708	P
Barium	27.8	mg/Kg			0.62	0.62	1	9/17/2008	20:36	SUPERTRACE	1091708	P
Beryllium	0.51	mg/Kg			0.25	0.25	1	9/17/2008	20:36	SUPERTRACE	1091708	P
Cadmium	<	0.25	U		0.25	0.25	1	9/17/2008	20:36	SUPERTRACE	1091708	P
Chromium	22.2	mg/Kg			0.62	0.62	1	9/17/2008	20:36	SUPERTRACE	1091708	P
Copper	16.7	mg/Kg			1.2	1.2	1	9/17/2008	20:36	SUPERTRACE	1091708	P
Iron	23900	mg/Kg			12.4	12.4	1	9/17/2008	20:36	SUPERTRACE	1091708	P
Lead	5.6	mg/Kg			1.2	1.2	1	9/17/2008	20:36	SUPERTRACE	1091708	P
Manganese	328	mg/Kg			0.25	0.25	1	9/17/2008	20:36	SUPERTRACE	1091708	P
Nickel	37.8	mg/Kg			0.62	0.62	1	9/17/2008	20:36	SUPERTRACE	1091708	P
Selenium	<	4.9	U		4.9	4.9	1	9/17/2008	20:36	SUPERTRACE	1091708	P
Mercury	0.040	mg/Kg			0.022	0.022	1	9/18/2008	13:10:42	LEEMAN PS2	H09188S1	CV
Silver	<	0.62	U		0.62	0.62	1	9/17/2008	20:36	SUPERTRACE	1091708	P
Zinc	49.8	mg/Kg			2.5	2.5	1	9/17/2008	20:36	SUPERTRACE	1091708	P

Comments:

Wet Chemistry Analysis

26/1137

Client Sample No.

LOWES TOPSOIL COMP

Lab Name: TestAmerica Laboratories Inc.

Contract: _____

Lab Code: REONY

Case No.: _____

SAS No.: _____

SDG No.: B296Matrix (soil/water): SOILLab Sample ID: A8B29601% Solids: 0.0Date Samp/Recv: 09/16/2008 09/16/2008

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Hexavalent Chromium - Total	MG/KG	3.7			A	7196A	09/18/2008

Comments:

Wet Chemistry Analysis

27/1137

Client Sample No.

LOWES TOPSOIL COMP

Lab Name: TestAmerica Laboratories Inc.

Contract: _____

Lab Code: RECNY

Case No.: _____

SAS No.: _____

SDG No.: B296Matrix (soil/water): SOILLab Sample ID: A8B29701% Solids: 83.4Date Samp/Recv: 09/16/2008 09/16/2008

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Cyanide - Total	MG/KG	0.86	U			9012	09/19/2008

Comments:

Chain of Custody Record

Chain of Custody Number

Lab Number

Page -

Special Instructions/
Conditions of Receipt

71/1137

[illegible]

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

ANALYTICAL REPORT

Job#: A08-B975,A08-B976,A08-B977

Project#: NY4A9217

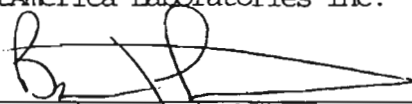
SDG#: B975

Site Name: Benchmark

Task: Peter Cooper site

Mr. Tom Forbes
Benchmark Environmental
726 Exchange St., Ste 624
Buffalo, NY 14210

TestAmerica Laboratories Inc.



Brian J. Fischer
Project Manager

10/16/2008

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.



TestAmerica Buffalo Current Certifications

As of 7/16/2008

STATE	Program	Cert # / Lab ID
Arkansas	SDWA, CWA, RCRA, SOIL	88-0686
California*	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida*	NELAP CWA, RCRA	E87672
Georgia*	SDWA, NELAP CWA, RCRA	956
Illinois*	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas*	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana*	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY0044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA, CWA, RCRA	036-999-337
New Hampshire*	NELAP SDWA, CWA	233701
New Jersey*	NELAP, SDWA, CWA, RCRA,	NY455
New York*	NELAP, AIR, SDWA, CWA, RCRA, CLP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania*	Registration, NELAP CWA, RCRA	68-00281
Tennessee	SDWA	02970
Texas*	NELAP CWA, RCRA	T104704412-08-TX
USDA	FOREIGN SOIL PERMIT	S-41579
USDOE	Department of Energy	DOECAP-STB
Virginia	SDWA	278
Washington*	NELAP CWA, RCRA	C1677
Wisconsin	CWA, RCRA	998310390
West Virginia	CWA, RCRA	252

*As required under the indicated accreditation, the test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report.

1990

SAMPLE SUMMARY

SDG#: B975

<u>LAB SAMPLE ID</u>	<u>CLIENT SAMPLE ID</u>	<u>MATRIX</u>	<u>SAMPLED</u>		<u>RECEIVED</u>	
			<u>DATE</u>	<u>TIME</u>	<u>DATE</u>	<u>TIME</u>
A8B97501	LOWES BORROW 2	SOIL	09/30/2008	10:00	09/30/2008	12:15
A8B97601	LOWES BORROW 2	SOIL	09/30/2008	10:00	09/30/2008	12:15
A8B97701	LOWES BORROW 2	SOIL	09/30/2008	10:00	09/30/2008	12:15
A8B97502	LOWES BORROW 3	SOIL	09/30/2008	10:10	09/30/2008	12:15
A8B97602	LOWES BORROW 3	SOIL	09/30/2008	10:10	09/30/2008	12:15
A8B97702	LOWES BORROW 3	SOIL	09/30/2008	10:10	09/30/2008	12:15

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

METHODS SUMMARY

Job#: A08-B975,A08-B976,A08-B977Project#: NY4A9217SDG#: B975Site Name: Benchmark

PARAMETER	ANALYTICAL METHOD
METHOD 8260 - TCL VOLATILE ORGANICS	SW8463 8260
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS	SW8463 8270
BENCHMARK - 8081 - TCL PESTICIDES - S	SW8463 8081
METHOD 8082 - POLYCHLORINATED BIPHENYLS	SW8463 8082
Arsenic - Total	SW8463 6010
Barium - Total	SW8463 6010
Beryllium - Total	SW8463 6010
Cadmium - Total	SW8463 6010
Chromium - Total	SW8463 6010
Copper - Total	SW8463 6010
Iron - Total	SW8463 6010
Lead - Total	SW8463 6010
Manganese - Total	SW8463 6010
Mercury - Total	SW8463 7471
Nickel - Total	SW8463 6010
Selenium - Total	SW8463 6010
Silver - Total	SW8463 6010
Zinc - Total	SW8463 6010
Cyanide - Total	SW8463 9012
Hexavalent Chromium - Total	SW8463 7196A

References:

SW8463 "Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846), Third Edition, 9/86; Update I, 7/92; Update IIA, 8/93; Update II, 9/94; Update IIB, 1/95; Update III, 12/96.

The results presented in this report relate only to the analytical testing and conditions of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

SDG NARRATIVE

Job#: A08-B975,A08-B976,A08-B977Project#: NY4A9217SDG#: B975Site Name: BenchmarkGeneral Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A08-B975

Sample Cooler(s) were received at the following temperature(s); 2.0 °C
All samples were received in good condition.

A08-B976

Sample Cooler(s) were received at the following temperature(s); 2.0 °C
All samples were received in good condition.

A08-B977

Sample Cooler(s) were received at the following temperature(s); 2.0 °C
All samples were received in good condition.

GC/MS Volatile Data

Linear regression was used to calibrate all analytes that were greater than 15% RSD in the initial calibration standard curve A8I0000698-1.

GC/MS Semivolatile Data

Linear regression was used to calibrate all analytes and surrogates that were greater than 15% RSD in the initial calibration standard curves A8I0000600-1 and A8I0000737-1.

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

GC Extractable Data

For method 8081, Endrin Aldehyde was slightly low in the initial continuing calibration verification and compliant in the ending continuing calibration verification. All samples are non-detect for this analyte and all laboratory quality control recoveries are within limits, there is no impact on the data.

For method 8081, the response of the instrument is decreased due to the heavy matrix effects from the field samples, resulting in >15% difference in the continuing calibration verifications analyzed after these sample extracts. Subsequent continuing calibration verifications demonstrated compliance with routine quality control criteria, verifying the temporary nature of this effect.

Metals Data

The recoveries of sample LOWES BORROW 2 Matrix Spike exhibited results above the quality control limits for Iron and Manganese. The recovery of sample LOWES BORROW 2 Matrix Spike Duplicate exhibited a result above the quality control limits for Manganese. The sample result is more than four times greater than the spike added. However, the LFB was acceptable.

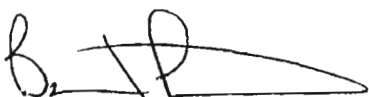
The recovery of sample LOWES BORROW 2 Matrix Spike and Matrix Spike Duplicate exhibited results above the quality control limits for Mercury. Sample matrix is suspect. However, the LFB was acceptable.

Wet Chemistry Data

Hexavalent Chromium was subcontracted to TestAmerica North Canton. The complete subcontract report is included in this report as Appendix A. Comments pertaining to Hexavalent Chromium may be found within the comment summary of the subcontract report.

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this Sample Data package and in the electronic data deliverables has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature."



Brian J. Fischer
Project Manager

10-20-03

Date

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

17/1183

METHOD 8260 - TCL VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

LOWES BORROW 2

Lab Name: TestAmerica Laboratories Inc. Contract: _____Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: B975Matrix: (soil/water) SOIL Lab Sample ID: A8B97601Sample wt/vol: 5.17 (g/mL) G Lab File ID: F5003.RRLevel: (low/med) LOW Date Samp/Recv: 09/30/2008 09/30/2008% Moisture: not dec. 19 Heated Purge: Y Date Analyzed: 10/01/2008GC Column: ZB-624 ID: 0.20 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
67-64-1-----	Acetone	30		U
71-43-2-----	Benzene	6		U
75-27-4-----	Bromodichloromethane	6		U
75-25-2-----	Bromoform	6		U
74-83-9-----	Bromomethane	6		U
78-93-3-----	2-Butanone	30		U
75-15-0-----	Carbon Disulfide	6		U
56-23-5-----	Carbon Tetrachloride	6		U
108-90-7-----	Chlorobenzene	6		U
75-00-3-----	Chloroethane	6		U
67-66-3-----	Chloroform	6		U
74-87-3-----	Chloromethane	6		U
110-82-7-----	Cyclohexane	6		U
106-93-4-----	1,2-Dibromoethane	6		U
124-48-1-----	Dibromochloromethane	6		U
96-12-8-----	1,2-Dibromo-3-chloropropane	6		U
95-50-1-----	1,2-Dichlorobenzene	6		U
541-73-1-----	1,3-Dichlorobenzene	6		U
106-46-7-----	1,4-Dichlorobenzene	6		U
75-71-8-----	Dichlorodifluoromethane	6		U
75-34-3-----	1,1-Dichloroethane	6		U
107-06-2-----	1,2-Dichloroethane	6		U
75-35-4-----	1,1-Dichloroethene	6		U
156-59-2-----	cis-1,2-Dichloroethene	6		U
156-60-5-----	trans-1,2-Dichloroethene	6		U
78-87-5-----	1,2-Dichloropropane	6		U
10061-01-5----	cis-1,3-Dichloropropene	6		U
10061-02-6----	trans-1,3-Dichloropropene	6		U
100-41-4-----	Ethylbenzene	6		U
591-78-6-----	2-Hexanone	30		U
98-82-8-----	Isopropylbenzene	6		U
79-20-9-----	Methyl acetate	6		U
108-87-2-----	Methylcyclohexane	6		U
75-09-2-----	Methylene chloride	6		U

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METHOD 8260 - TCL VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

LOWES BORROW 2

Lab Name: TestAmerica Laboratories Inc. Contract: _____Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: B975Matrix: (soil/water) SOIL Lab Sample ID: A8B97601Sample wt/vol: 5.17 (g/mL) G Lab File ID: F5003.RRLevel: (low/med) LOW Date Samp/Recv: 09/30/2008 09/30/2008% Moisture: not dec. 19 Heated Purge: Y Date Analyzed: 10/01/2008GC Column: ZB-624 ID: 0.20 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

108-10-1-----	4-Methyl-2-pentanone	30	U
1634-04-4-----	Methyl-t-Butyl Ether (MTBE)	6	U
100-42-5-----	Styrene	6	U
79-34-5-----	1,1,2,2-Tetrachloroethane	6	U
127-18-4-----	Tetrachloroethene	6	U
108-88-3-----	Toluene	6	U
120-82-1-----	1,2,4-Trichlorobenzene	6	U
71-55-6-----	1,1,1-Trichloroethane	6	U
79-00-5-----	1,1,2-Trichloroethane	6	U
76-13-1-----	1,1,2-Trichloro-1,2,2-trifluoroethane	6	U
75-69-4-----	Trichlorofluoromethane	6	U
79-01-6-----	Trichloroethene	6	U
75-01-4-----	Vinyl chloride	12	U
1330-20-7-----	Total Xylenes	18	U

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METHOD 8260 - TCL VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

LOWES BORROW 3

Lab Name: TestAmerica Laboratories Inc. Contract: _____Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: B975Matrix: (soil/water) SOIL Lab Sample ID: A8B97602Sample wt/vol: 4.96 (g/mL) G Lab File ID: F5004.RRLevel: (low/med) LOW Date Samp/Recv: 09/30/2008 09/30/2008% Moisture: not dec. 16 Heated Purge: Y Date Analyzed: 10/01/2008GC Column: ZB-624 ID: 0.20 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

67-64-1-----	Acetone	30	U
71-43-2-----	Benzene	6	U
75-27-4-----	Bromodichloromethane	6	U
75-25-2-----	Bromoform	6	U
74-83-9-----	Bromomethane	6	U
78-93-3-----	2-Butanone	30	U
75-15-0-----	Carbon Disulfide	6	U
56-23-5-----	Carbon Tetrachloride	6	U
108-90-7-----	Chlorobenzene	6	U
75-00-3-----	Chloroethane	6	U
67-66-3-----	Chloroform	6	U
74-87-3-----	Chloromethane	6	U
110-82-7-----	Cyclohexane	6	U
106-93-4-----	1,2-Dibromoethane	6	U
124-48-1-----	Dibromochloromethane	6	U
96-12-8-----	1,2-Dibromo-3-chloropropane	6	U
95-50-1-----	1,2-Dichlorobenzene	6	U
541-73-1-----	1,3-Dichlorobenzene	6	U
106-46-7-----	1,4-Dichlorobenzene	6	U
75-71-8-----	Dichlorodifluoromethane	6	U
75-34-3-----	1,1-Dichloroethane	6	U
107-06-2-----	1,2-Dichloroethane	6	U
75-35-4-----	1,1-Dichloroethene	6	U
156-59-2-----	cis-1,2-Dichloroethene	6	U
156-60-5-----	trans-1,2-Dichloroethene	6	U
78-87-5-----	1,2-Dichloropropane	6	U
10061-01-5----	cis-1,3-Dichloropropene	6	U
10061-02-6----	trans-1,3-Dichloropropene	6	U
100-41-4-----	Ethylbenzene	6	U
591-78-6-----	2-Hexanone	30	U
98-82-8-----	Isopropylbenzene	6	U
79-20-9-----	Methyl acetate	6	U
108-87-2-----	Methylcyclohexane	6	U
75-09-2-----	Methylene chloride	6	U

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METHOD 8260 - TCL VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

LOWES BORROW 3

Lab Name: TestAmerica Laboratories Inc. Contract: _____Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: B975Matrix: (soil/water) SOILLab Sample ID: A8B97602Sample wt/vol: 4.96 (g/mL) GLab File ID: F5004.RRLevel: (low/med) LOWDate Samp/Recv: 09/30/2008 09/30/2008% Moisture: not dec. 16 Heated Purge: YDate Analyzed: 10/01/2008GC Column: ZB-624 ID: 0.20 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

108-10-1-----	4-Methyl-2-pentanone	30	U
1634-04-4-----	Methyl-t-Butyl Ether (MTBE)	6	U
100-42-5-----	Styrene	6	U
79-34-5-----	1,1,2,2-Tetrachloroethane	6	U
127-18-4-----	Tetrachloroethene	6	U
108-88-3-----	Toluene	6	U
120-82-1-----	1,2,4-Trichlorobenzene	6	U
71-55-6-----	1,1,1-Trichloroethane	6	U
79-00-5-----	1,1,2-Trichloroethane	6	U
76-13-1-----	1,1,2-Trichloro-1,2,2-trifluoroethane	6	U
75-69-4-----	Trichlorofluoromethane	6	U
79-01-6-----	Trichloroethene	6	U
75-01-4-----	Vinyl chloride	12	U
1330-20-7-----	Total Xylenes	18	U

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

LOWES BORROW 2

Lab Name: TestAmerica Laboratories Inc. Contract: _____Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: B975Matrix: (soil/water) SOIL Lab Sample ID: A8B97601Sample wt/vol: 30.18 (g/mL) G Lab File ID: U30906.RRLevel: (low/med) LOW Date Samp/Recv: 09/30/2008 09/30/2008% Moisture: 19 decanted: (Y/N) N Date Extracted: 10/02/2008Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/04/2008Injection Volume: 1.00 (uL) Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

83-32-9-----	Acenaphthene	210	U
208-96-8-----	Acenaphthylene	210	U
98-86-2-----	Acetophenone	210	U
120-12-7-----	Anthracene	210	U
1912-24-9-----	Atrazine	210	U
100-52-7-----	Benzaldehyde	210	U
56-55-3-----	Benzo(a)anthracene	18	J
205-99-2-----	Benzo(b)fluoranthene	21	J
207-08-9-----	Benzo(k)fluoranthene	9	J
191-24-2-----	Benzo(ghi)perylene	13	J
50-32-8-----	Benzo(a)pyrene	15	J
92-52-4-----	Biphenyl	210	U
111-91-1-----	Bis(2-chloroethoxy) methane	210	U
111-44-4-----	Bis(2-chloroethyl) ether	210	U
108-60-1-----	2,2'-Oxybis(1-Chloropropane)	210	U
117-81-7-----	Bis(2-ethylhexyl) phthalate	210	U
101-55-3-----	4-Bromophenyl phenyl ether	210	U
85-68-7-----	Butyl benzyl phthalate	210	U
105-60-2-----	Caprolactam	210	U
106-47-8-----	4-Chloroaniline	210	U
59-50-7-----	4-Chloro-3-methylphenol	210	U
91-58-7-----	2-Chloronaphthalene	210	U
95-57-8-----	2-Chlorophenol	210	U
7005-72-3-----	4-Chlorophenyl phenyl ether	210	U
86-74-8-----	Carbazole	210	U
218-01-9-----	Chrysene	10	J
53-70-3-----	Dibenzo(a,h)anthracene	210	U
132-64-9-----	Dibenzofuran	210	U
84-74-2-----	Di-n-butyl phthalate	210	U
91-94-1-----	3,3'-Dichlorobenzidine	210	U
120-83-2-----	2,4-Dichlorophenol	210	U
84-66-2-----	Diethyl phthalate	210	U

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

22/1183

Client No.

LOWES BORROW 2

Lab Name: TestAmerica Laboratories Inc. Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: B975

Matrix: (soil/water) SOIL Lab Sample ID: A8B97601

Sample wt/vol: 30.18 (g/mL) G Lab File ID: U30906.RR

Level: (low/med) LOW Date Samp/Recv: 09/30/2008 09/30/2008

% Moisture: 19 decanted: (Y/N) N Date Extracted: 10/02/2008

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/04/2008

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

105-67-9-----	2,4-Dimethylphenol	210	U
131-11-3-----	Dimethyl phthalate	210	U
534-52-1-----	4,6-Dinitro-2-methylphenol	410	U
51-28-5-----	2,4-Dinitrophenol	410	U
121-14-2-----	2,4-Dinitrotoluene	210	U
606-20-2-----	2,6-Dinitrotoluene	210	U
117-84-0-----	Di-n-octyl phthalate	210	U
206-44-0-----	Fluoranthene	32	J
86-73-7-----	Fluorene	210	U
118-74-1-----	Hexachlorobenzene	210	U
87-68-3-----	Hexachlorobutadiene	210	U
77-47-4-----	Hexachlorocyclopentadiene	210	U
67-72-1-----	Hexachloroethane	210	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	10	J
78-59-1-----	Isophorone	210	U
91-57-6-----	2-Methylnaphthalene	210	U
95-48-7-----	2-Methylphenol	210	U
106-44-5-----	4-Methylphenol	210	U
91-20-3-----	Naphthalene	210	U
88-74-4-----	2-Nitroaniline	410	U
99-09-2-----	3-Nitroaniline	410	U
100-01-6-----	4-Nitroaniline	410	U
98-95-3-----	Nitrobenzene	210	U
88-75-5-----	2-Nitrophenol	210	U
100-02-7-----	4-Nitrophenol	410	U
86-30-6-----	N-nitrosodiphenylamine	210	U
621-64-7-----	N-Nitroso-Di-n-propylamine	210	U
87-86-5-----	Pentachlorophenol	410	U
85-01-8-----	Phenanthrene	18	J
108-95-2-----	Phenol	210	U
129-00-0-----	Pyrene	19	J
95-95-4-----	2,4,5-Trichlorophenol	210	U

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

23/1183

Client No.

LOWES BORROW 2

Lab Name: TestAmerica Laboratories Inc. Contract: _____

Lab Code: RECONY Case No.: _____ SAS No.: _____ SDG No.: B975

Matrix: (soil/water) SOIL Lab Sample ID: A8B97601

Sample wt/vol: 30.18 (g/mL) G Lab File ID: U30906.RR

Level: (low/med) LOW Date Samp/Recv: 09/30/2008 09/30/2008

% Moisture: 19 decanted: (Y/N) N Date Extracted: 10/02/2008

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/04/2008

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

88-06-2-----	2,4,6-Trichlorophenol	210	U

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METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

LOWES BORROW 3

Lab Name: TestAmerica Laboratories Inc. Contract: _____Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: B975Matrix: (soil/water) SOIL Lab Sample ID: A8B97602Sample wt/vol: 30.32 (g/mL) G Lab File ID: U30907.RRLevel: (low/med) LOW Date Samp/Recv: 09/30/2008 09/30/2008% Moisture: 16 decanted: (Y/N) N Date Extracted: 10/02/2008Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/04/2008Injection Volume: 1.00 (uL) Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

83-32-9-----	Acenaphthene	200	U
208-96-8-----	Acenaphthylene	200	U
98-86-2-----	Acetophenone	200	U
120-12-7-----	Anthracene	200	U
1912-24-9-----	Atrazine	200	U
100-52-7-----	Benzaldehyde	200	U
56-55-3-----	Benzo (a) anthracene	11	J
205-99-2-----	Benzo (b) fluoranthene	15	J
207-08-9-----	Benzo (k) fluoranthene	200	U
191-24-2-----	Benzo (ghi) perylene	9	J
50-32-8-----	Benzo (a) pyrene	11	J
92-52-4-----	Biphenyl	200	U
111-91-1-----	Bis (2-chloroethoxy) methane	200	U
111-44-4-----	Bis (2-chloroethyl) ether	200	U
108-60-1-----	2,2'-Oxybis (1-Chloropropane)	200	U
117-81-7-----	Bis (2-ethylhexyl) phthalate	200	U
101-55-3-----	4-Bromophenyl phenyl ether	200	U
85-68-7-----	Butyl benzyl phthalate	200	U
105-60-2-----	Caprolactam	200	U
106-47-8-----	4-Chloroaniline	200	U
59-50-7-----	4-Chloro-3-methylphenol	200	U
91-58-7-----	2-Chloronaphthalene	200	U
95-57-8-----	2-Chlorophenol	200	U
7005-72-3-----	4-Chlorophenyl phenyl ether	200	U
86-74-8-----	Carbazole	200	U
218-01-9-----	Chrysene	9	J
53-70-3-----	Dibenzo (a,h) anthracene	200	U
132-64-9-----	Dibenzofuran	200	U
84-74-2-----	Di-n-butyl phthalate	200	U
91-94-1-----	3,3'-Dichlorobenzidine	200	U
120-83-2-----	2,4-Dichlorophenol	200	U
84-66-2-----	Diethyl phthalate	200	U

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

25/1183

Client No.

LOWES BORROW 3

Lab Name: TestAmerica Laboratories Inc. Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: B975

Matrix: (soil/water) SOIL Lab Sample ID: A8B97602

Sample wt/vol: 30.32 (g/mL) G Lab File ID: U30907.RR

Level: (low/med) LOW Date Samp/Recv: 09/30/2008 09/30/2008

% Moisture: 16 decanted: (Y/N) N Date Extracted: 10/02/2008

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/04/2008

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
105-67-9	2,4-Dimethylphenol	200	U	
131-11-3	Dimethyl phthalate	200	U	
534-52-1	4,6-Dinitro-2-methylphenol	390	U	
51-28-5	2,4-Dinitrophenol	390	U	
121-14-2	2,4-Dinitrotoluene	200	U	
606-20-2	2,6-Dinitrotoluene	200	U	
117-84-0	Di-n-octyl phthalate	200	U	
206-44-0	Fluoranthene	19	J	
86-73-7	Fluorene	200	U	
118-74-1	Hexachlorobenzene	200	U	
87-68-3	Hexachlorobutadiene	200	U	
77-47-4	Hexachlorocyclopentadiene	200	U	
67-72-1	Hexachloroethane	200	U	
193-39-5	Indeno(1,2,3-cd)pyrene	200	U	
78-59-1	Isophorone	200	U	
91-57-6	2-Methylnaphthalene	200	U	
95-48-7	2-Methylphenol	200	U	
106-44-5	4-Methylphenol	200	U	
91-20-3	Naphthalene	200	U	
88-74-4	2-Nitroaniline	390	U	
99-09-2	3-Nitroaniline	390	U	
100-01-6	4-Nitroaniline	390	U	
98-95-3	Nitrobenzene	200	U	
88-75-5	2-Nitrophenol	200	U	
100-02-7	4-Nitrophenol	390	U	
86-30-6	N-nitrosodiphenylamine	200	U	
621-64-7	N-Nitroso-Di-n-propylamine	200	U	
87-86-5	Pentachlorophenol	390	U	
85-01-8	Phenanthrene	12	J	
108-95-2	Phenol	200	U	
129-00-0	Pyrene	13	J	
95-95-4	2,4,5-Trichlorophenol	200	U	

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METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

LOWES BORROW 3

Lab Name: TestAmerica Laboratories Inc. Contract: _____Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: B975Matrix: (soil/water) SOILLab Sample ID: A8B97602Sample wt/vol: 30.32 (g/mL) GLab File ID: U30907.RRLevel: (low/med) LOWDate Samp/Recv: 09/30/2008 09/30/2008% Moisture: 16 decanted: (Y/N) NDate Extracted: 10/02/2008Concentrated Extract Volume: 1000 (uL)Date Analyzed: 10/04/2008Injection Volume: 1.00 (uL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
88-06-2-----	2,4,6-Trichlorophenol		200	U

BENCHMARK - 8081 - TCL PESTICIDES - S
ANALYSIS DATA SHEET

27/1183

Client No.

LOWES BORROW 2

Lab Name: TestAmerica Laboratories Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: B975

Matrix: (soil/water) SOIL Lab Sample ID: A8B97601

Sample wt/vol: 30.27 (g/mL) G Lab File ID: 5B18182.TX0

% Moisture: 19 decanted: (Y/N) N Date Samp/Recv: 09/30/2008 09/30/2008

Extraction: (SepF/Cont/Sonc/Soxh): SONC Date Extracted: 10/03/2008

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/09/2008

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _ Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

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

Q

CAS NO.	COMPOUND		
309-00-2-----	Aldrin	2.0	U
319-84-6-----	alpha-BHC	2.0	U
319-85-7-----	beta-BHC	2.0	U
58-89-9-----	gamma-BHC (Lindane)	2.0	U
319-86-8-----	delta-BHC	2.0	U
57-74-9-----	Chlordane	20	U
72-54-8-----	4,4'-DDD	2.0	U
72-55-9-----	4,4'-DDE	1.1	J
50-29-3-----	4,4'-DDT	1.8	J
60-57-1-----	Dieldrin	0.70	J
959-98-8-----	Endosulfan I	2.0	U
33213-65-9---	Endosulfan II	2.0	U
1031-07-8----	Endosulfan Sulfate	2.0	U
72-20-8-----	Endrin	2.0	U
7421-93-4----	Endrin aldehyde	2.0	U
76-44-8-----	Heptachlor	2.0	U
1024-57-3----	Heptachlor epoxide	2.0	U
72-43-5-----	Methoxychlor	2.0	U
8001-35-2-----	Toxaphene	20	U

BENCHMARK - 8081 - TCL PESTICIDES - S
ANALYSIS DATA SHEET

28/1183

Client No.

LOWES BORROW 3

Lab Name: TestAmerica Laboratories Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: B975

Matrix: (soil/water) SOIL Lab Sample ID: A8B97602

Sample wt/vol: 30.21 (g/mL) G Lab File ID: 5B18183.TX0

% Moisture: 16 decanted: (Y/N) N Date Samp/Recv: 09/30/2008 09/30/2008

Extraction: (SepF/Cont/Sonc/Soxh): SONC Date Extracted: 10/03/2008

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/10/2008

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _ Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

309-00-2-----	Aldrin	2.0	U
319-84-6-----	alpha-BHC	2.0	U
319-85-7-----	beta-BHC	2.0	U
58-89-9-----	gamma-BHC (Lindane)	2.0	U
319-86-8-----	delta-BHC	2.0	U
57-74-9-----	Chlordane	20	U
72-54-8-----	4,4'-DDD	2.0	U
72-55-9-----	4,4'-DDE	1.2	J
50-29-3-----	4,4'-DDT	2.0	U
60-57-1-----	Dieldrin	2.0	U
959-98-8-----	Endosulfan I	2.0	U
33213-65-9----	Endosulfan II	2.0	U
1031-07-8-----	Endosulfan Sulfate	2.0	U
72-20-8-----	Endrin	2.0	U
7421-93-4-----	Endrin aldehyde	2.0	U
76-44-8-----	Heptachlor	2.0	U
1024-57-3-----	Heptachlor epoxide	2.0	U
72-43-5-----	Methoxychlor	2.0	U
8001-35-2-----	Toxaphene	20	U

29/1183

METHOD 8082 - POLYCHLORINATED BIPHENYLS
ANALYSIS DATA SHEET

Client No.

LOWES BORROW 2

Lab Name: TestAmerica Laboratories Contract: _____Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: B975Matrix: (soil/water) SOIL Lab Sample ID: A8B97601Sample wt/vol: 30.27 (g/mL) G Lab File ID: 12A47018.TX0% Moisture: 19 decanted: (Y/N) N Date Samp/Recv: 09/30/2008 09/30/2008Extraction: (SepF/Cont/Sonc/Soxh): SONC Date Extracted: 10/03/2008Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/06/2008Injection Volume: 1.00 (uL) Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _ Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

12674-11-2----	Aroclor 1016	20	U
11104-28-2----	Aroclor 1221	20	U
11141-16-5----	Aroclor 1232	20	U
53469-21-9----	Aroclor 1242	20	U
12672-29-6----	Aroclor 1248	20	U
11097-69-1----	Aroclor 1254	20	U
11096-82-5----	Aroclor 1260	20	U

METHOD 8082 - POLYCHLORINATED BIPHENYLS
ANALYSIS DATA SHEET

30/1183

Client No.

LOWES BORROW 3

Lab Name: TestAmerica Laboratories Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: B975

Matrix: (soil/water) SOIL Lab Sample ID: A8B97602

Sample wt/vol: 30.21 (g/mL) G Lab File ID: 12A47019.TX0

% Moisture: 16 decanted: (Y/N) N Date Samp/Recv: 09/30/2008 09/30/2008

Extraction: (SepF/Cont/Sonc/Soxh): SONC Date Extracted: 10/03/2008

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/06/2008

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

12674-11-2----	Aroclor 1016	20	U
11104-28-2----	Aroclor 1221	20	U
11141-16-5----	Aroclor 1232	20	U
53469-21-9----	Aroclor 1242	20	U
12672-29-6----	Aroclor 1248	20	U
11097-69-1----	Aroclor 1254	20	U
11096-82-5----	Aroclor 1260	20	U

TESTAMERICA LABORATORIES INC.

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine SDG No.: B975

Method Type:

Sample ID: A8B97501

Client ID: LOWES BORROW 2

Matrix: SOIL Date Received: 9/30/2008 Date Collected: 9/30/2008 Level: LOW

% Solids: 82 Sample Wt/Vol: 0.5 Final Vol: 50.0

Prep Batch ID: A8B23322 Prep Date: 10/1/2008

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical		Instrument	Run	M
								Date	Time			
Arsenic	4.8	mg/Kg			2.9	2.9	1	10/2/2008	06:18	SUPERTRACE	110010z	P
Barium	72.6	mg/Kg			0.73	0.73	1	10/2/2008	06:18	SUPERTRACE	110010z	P
Beryllium	0.53	mg/Kg			0.29	0.29	1	10/2/2008	06:18	SUPERTRACE	110010z	P
Cadmium	<	0.29	U		0.29	0.29	1	10/2/2008	06:18	SUPERTRACE	110010z	P
Chromium	18.2	mg/Kg			0.73	0.73	1	10/2/2008	06:18	SUPERTRACE	110010z	P
Copper	17.9	mg/Kg			1.5	1.5	1	10/2/2008	06:18	SUPERTRACE	110010z	P
Iron	24200	mg/Kg			14.6	14.6	1	10/2/2008	06:18	SUPERTRACE	110010z	P
Lead	15.7	mg/Kg			1.5	1.5	1	10/2/2008	06:18	SUPERTRACE	110010z	P
Manganese	433	mg/Kg			0.29	0.29	1	10/2/2008	06:18	SUPERTRACE	110010z	P
Nickel	23.6	mg/Kg			0.73	0.73	1	10/2/2008	06:18	SUPERTRACE	110010z	P
Selenium	<	5.8	U		5.8	5.8	1	10/2/2008	06:18	SUPERTRACE	110010z	P
Mercury	0.038	mg/Kg		N	0.026	0.026	1	10/1/2008	19:14:26	LEEMAN PS2	H10018S1	CV
Silver	<	0.73	U		0.73	0.73	1	10/2/2008	06:18	SUPERTRACE	110010z	P
Zinc	60.0	mg/Kg			2.9	2.9	1	10/2/2008	06:18	SUPERTRACE	110010z	P

Comments:

TESTAMERICA LABORATORIES INC.

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine SDG No.: B975

Method Type:

Sample ID: A8B97502

Client ID: LOWES BORROW 3

Matrix: SOIL

Date Received: 9/30/2008

Date Collected: 9/30/2008

Level: LOW

% Solids: 79

Sample Wt/Vol: 0.5

Final Vol: 50.0

Prep Batch ID: A8B23322

Prep Date: 10/1/2008

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical		Instrument	Run	M
								Date	Time			
Arsenic	5.1	mg/Kg			3.0	3.0	1	10/2/2008	06:57	SUPERTRACE	110010z	P
Barium	66.5	mg/Kg			0.76	0.76	1	10/2/2008	06:57	SUPERTRACE	110010z	P
Beryllium	0.67	mg/Kg			0.30	0.30	1	10/2/2008	06:57	SUPERTRACE	110010z	P
Cadmium	<	0.30	U		0.30	0.30	1	10/2/2008	06:57	SUPERTRACE	110010z	P
Chromium	21.1	mg/Kg			0.76	0.76	1	10/2/2008	06:57	SUPERTRACE	110010z	P
Copper	24.3	mg/Kg			1.5	1.5	1	10/2/2008	06:57	SUPERTRACE	110010z	P
Iron	24900	mg/Kg			15.2	15.2	1	10/2/2008	06:57	SUPERTRACE	110010z	P
Lead	13.3	mg/Kg			1.5	1.5	1	10/2/2008	06:57	SUPERTRACE	110010z	P
Manganese	613	mg/Kg			0.30	0.30	1	10/2/2008	06:57	SUPERTRACE	110010z	P
Nickel	35.3	mg/Kg			0.76	0.76	1	10/2/2008	06:57	SUPERTRACE	110010z	P
Selenium	<	6.1	U		6.1	6.1	1	10/2/2008	06:57	SUPERTRACE	110010z	P
Mercury	0.047	mg/Kg		N	0.026	0.026	1	10/1/2008	19:24:29	LEEMAN PS2	H10018S1	CV
Silver	<	0.76	U		0.76	0.76	1	10/2/2008	06:57	SUPERTRACE	110010z	P
Zinc	61.8	mg/Kg			3.0	3.0	1	10/2/2008	06:57	SUPERTRACE	110010z	P

Comments:

Wet Chemistry Analysis

33/1183

Client Sample No.

LOWES BORROW 2

Lab Name: TestAmerica Laboratories Inc. Contract: _____Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: B975Matrix (soil/water): SOIL Lab Sample ID: A8B97601% Solids: 80.8 Date Samp/Recv: 09/30/2008 09/30/2008

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Cyanide - Total	MG/KG	1.2	U			9012	10/03/2008

Comments:

Wet Chemistry Analysis

34/1183

Client Sample No.

LOWES BORROW 2

Lab Name: TestAmerica Laboratories Inc. Contract: _____Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: B975Matrix (soil/water): SOIL Lab Sample ID: A8B97701% Solids: 0.0 Date Samp/Recv: 09/30/2008 09/30/2008

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Hexavalent Chromium - Total	MG/KG	1.0	U		A	7196A	10/03/2008

Comments:

Wet Chemistry Analysis

35/1183

Client Sample No.

LOWES BORROW 3

Lab Name: TestAmerica Laboratories Inc. Contract: _____Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: B975Matrix (soil/water): SOIL Lab Sample ID: A8B97602% Solids: 83.6 Date Samp/Recv: 09/30/2008 09/30/2008

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Cyanide - Total	MG/KG	1.1	U			9012	10/03/2008

Comments:

Wet Chemistry Analysis

36/1183

Client Sample No.

LOWES BORROW 3

Lab Name: TestAmerica Laboratories Inc. Contract: _____Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: B975Matrix (soil/water): SOIL Lab Sample ID: A8B97702% Solids: 0.0 Date Samp/Recv: 09/30/2008 09/30/2008

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Hexavalent Chromium - Total	MG/KG	1.1	U		A	7196A	10/03/2008

Comments:

APPENDIX E

GRASS MIX COMPOSITION

Outlying Areas - Conservation mix

Preferred Seed Company, Inc.

575 Kennedy Road
Buffalo, NY 14227

Eastern Ecotype Native Grass Mix

Item	Botanical Name	Purity	Germ	Hard	Dorm	Production Origin	Genetic Origin
Little Bluestem, Fort Indiantown Gap, PA Ecotype	<i>Schizachyrium scoparium</i> (Andro)	29.64%	34.0%		63.0%	PA	
Virginia Wild Rye	<i>Elymus virginicus</i>	24.91%	90.5%		2.5%	PA	
Indiangrass, PA Ecotype	<i>Sorghastrum nutans</i> , PA Ecotype	17.93%	93.0%			PA	
Big Bluestem, 'Niagara', NY Ecotype	<i>Andropogon gerardii</i> (A. furcal)	12.86%	84.0%		12.0%	MO	
Switchgrass, 'Shelter'	<i>Panicum virgatum</i> , 'Shelter'	6.00%	81.8%		10.0%	PA	

Other Crop: 0.02%
Inert Matter: 8.63%
Weed Seed: 0.01%

Net Weight: 20 LB
Lot Number: ERNMX-177
Date Tested: March 2008

AMS 1039

Eastern Ecotype Native Grass Mix

Item	Botanical Name	Purity	Germ	Hard	Dorm	Production Origin	Genetic Origin
Little Bluestem, Fort Indiantown Gap, PA Ecotype	<i>Schizachyrium scoparium</i> (Andro)	29.64%	34.0%		63.0%	PA	
Virginia Wild Rye	<i>Elymus virginicus</i>	24.91%	90.5%		2.5%	PA	
Indiangrass, PA Ecotype	<i>Sorghastrum nutans</i> , PA Ecotype	17.93%	93.0%			PA	
Big Bluestem, 'Niagara', NY Ecotype	<i>Andropogon gerardii</i> (A. furcal)	12.86%	84.0%		12.0%	MO	
Switchgrass, 'Shelter'	<i>Panicum virgatum</i> , 'Shelter'	6.00%	81.8%		10.0%	PA	

Other Crop: 0.02%
Inert Matter: 8.63%
Weed Seed: 0.01%

Net Weight: 50 LB
Lot Number: ERNMX-177
Date Tested: March 2008

AMS 1039

Correlation from Cover

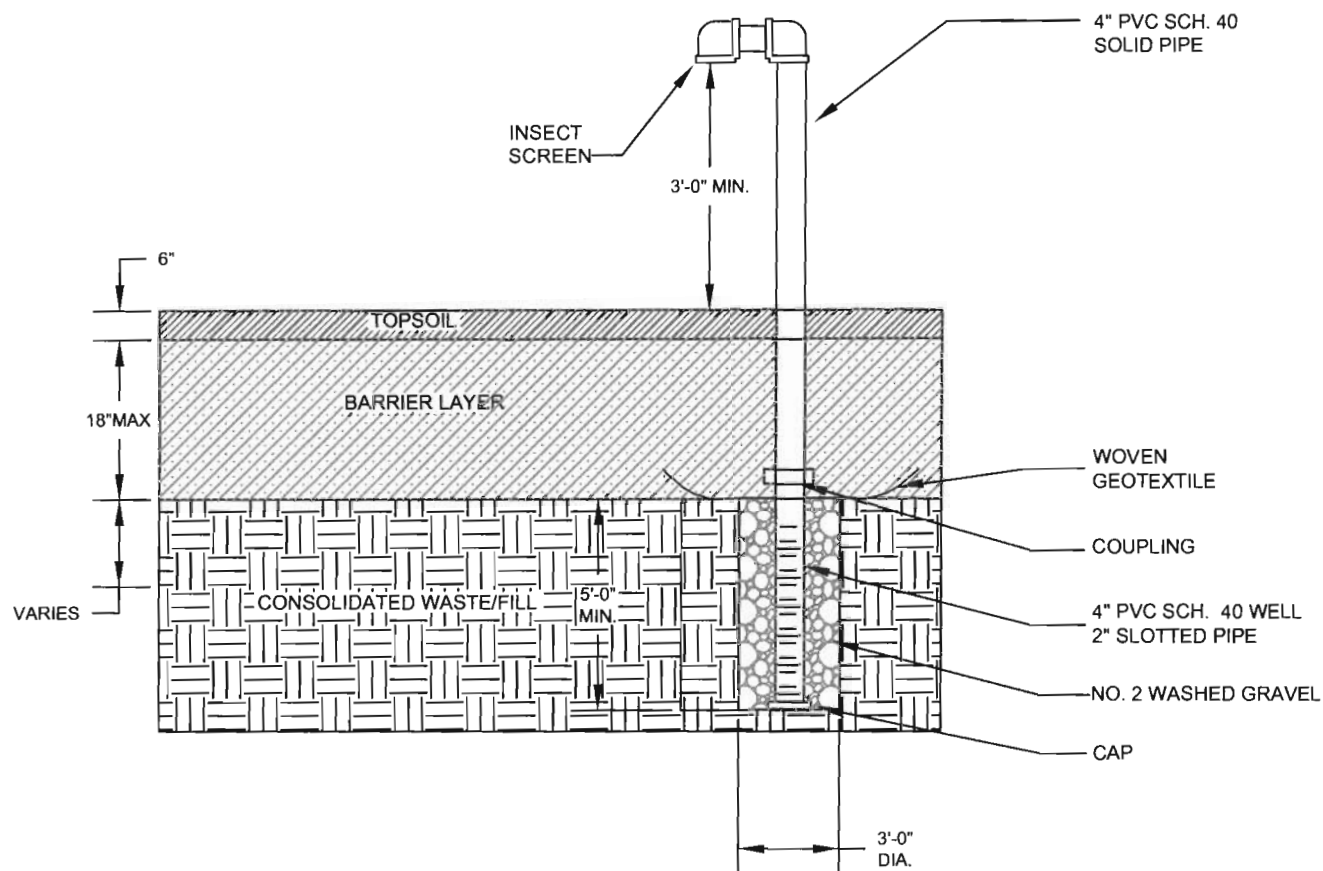
SOIL CAP MIXTURE, 4 BAGS = 1 ACRE

Purity:	Variety:	Hard		Germ	Origin
		Germ:	Seed:	+Hard Seed	
35.76	KY-31 TALL FESCUE	85	0	85	OR
24.61	TONGA PERENNIAL RYEGRASS	90	0	90	OR
19.71	ENSYLVA CREEPING RED FESCUE	85	0	85	OR
13.52	CROWN ROYALE ORCHARDGRASS	90	0	90	NZ
3.93	NORDIC BIRDSFOOT TREFOIL	75	5	80	MN
AMS 5518					
0.17	Other Crop	Lott: PS2448A			
0.03	Weed Seeds	Tested: Aug-08			
2.27	Inert Matter				
49 lbs.	Net Weight	Noxious Weeds: None Found			

Preferred Seed Co, 575 Kennedy Road, Buffalo, NY, 14227

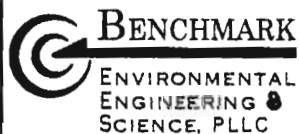
APPENDIX F

GAS VENT INSTALLATION/CONSTRUCTION DETAIL



TYPICAL PASSIVE VENT DETAIL

N.T.S.



728 EXCHANGE STREET
SUITE 624
BUFFALO, NEW YORK 14210
(716) 656-0599

PROJECT NO.: 0021-003-401

DATE: FEBRUARY 2009

DRAFTED BY: JCT

REMEDIAL DESIGN REPORT

PETER COOPER MARKHAMS NPL SITE
BENTLY ROAD, DAYTON, NEW YORK

PREPARED FOR
SITE RESPONDANTS

APPENDIX G

BOREHOLE AND WELL COMPLETION LOGS WELL DECOMMISSIONING LOGS

LOCATION	510' North and 450' East of B-1

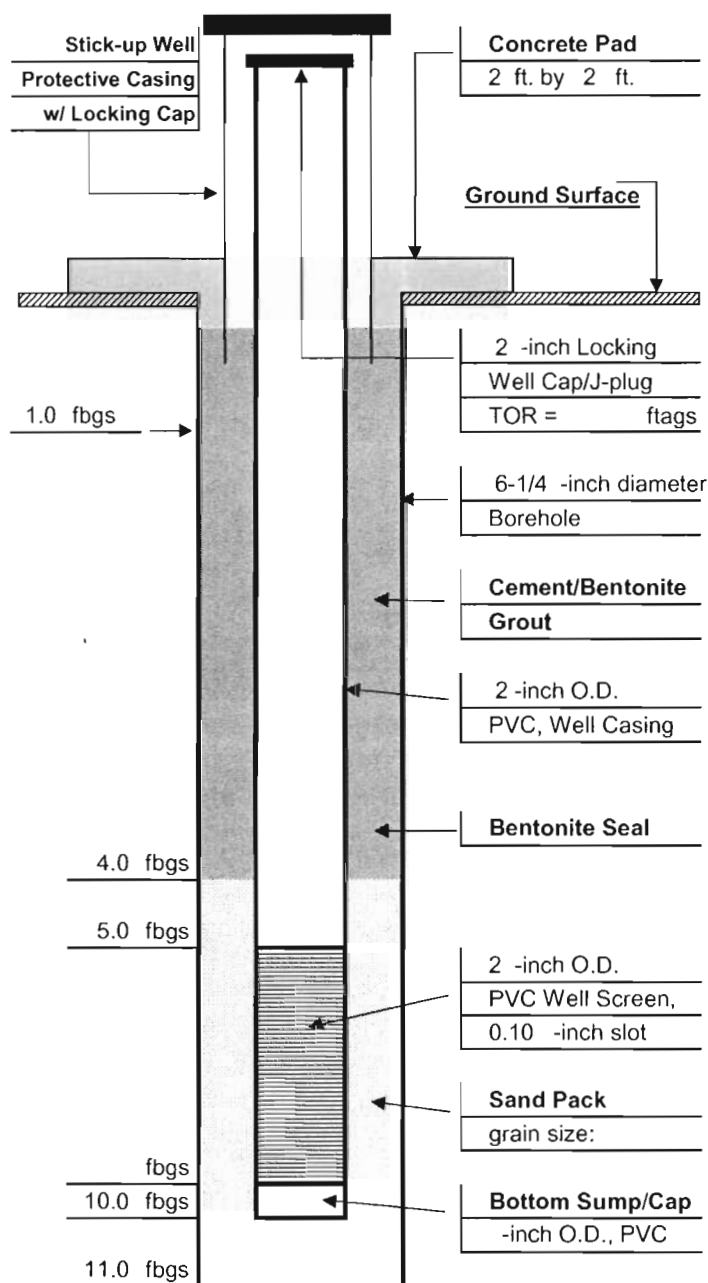
[illegible]

CLASSIFICATION ASTM D-2488
METHOD OF INVESTIGATION ASTM D1452-80
D1586-74

STICK-UP MONITORING WELL COMPLETION DETAIL

Project Name: **Peter Cooper Markhams-NPL Site**
Client: **Collier Shannon**
Boring Location:

WELL NUMBER: **MW-2SR**
Date Installed: **09/02/08**
Project Number: **0021-003-401**



Driller Information

Company: Earth Dimensions, Inc
Driller: Andy Morris
Helper: Andy
Permit Number: N/A
Drill Rig Type: ATV

Well Information

Land Surface Elevation: fmsl (approximate)
Drilling Method: Hollow Stem Auger
Soil Sample Collection Method: N/A
Drilling Fluid: N/A
Fluid Loss During Drilling: N/A gallons (approximate)

Material of Well Construction

Casing: SCH 40 PVC
Screen: SCH 40 PVC
Sump: N/A
Sand Pack: Morrie Sand
Annular Seal: Bentonite Grout

Well Development

Well Purpose: Monitoring
Technique(s): Bail
Date Completed: 10/11/08
BM/TK Personnel: RLD
Total Volume Purge: 15 gallons
Static Water Level (SWL): 5.65 fbTOR
Pump Depth: bottom of well
Purge Duration: 30 minutes
Yield: N/A gpm
Specific Capacity: N/A gpm/ft

Comments: Replacement of MW-2S

Total Depth = 12.80 fbTOR
stick-up = 2.8 feet
Total Depth = 10.00 fbg

PREPARED BY: **RLD**

DATE: 10/11/08

WELL DECOMMISSIONING RECORD

NYSDEC NPL Sites



EARTH DIMENSIONS, INC.

1091 Jackson Road - Elm, NY 14059

15408

Site Name: Peter Cooper Markham Site

Well I.D. MW-6D

Site Location: Dayton NY

Driller: Andy Morris

Drilling Co: EDI

Inspector:

Date: 9-11-08

DECOMMISSIONING DATA

(fill in all that apply)

WELL SCHEMATIC*

OVERDRILLING

Interval drilled
Drilling Method(s)
Borehole Dia. (in)
Temporary Casing Installed? (y/n)
Depth temporary casing installed
Casing type/dia. (in.)
Method of installing

0-34.5
HSA
8in
Nb

CASING PULLING

Method employed
Casing retrieved (feet)
Casing type/dia. (in)

2" PVC

26.0' 10.0'
Rise Screen

Casing perforating

Equipment used
Number of perforations/foot
Size of perforations
Interval perforated

GROUTING

Interval grouted (FBLS)
of batches prepared
For each batch record:

0-34.5
1

Quantity of water used (gal.)
Quantity of cement used (lbs.)
Cement type
Quantity of bentonite used (lbs.)
Quantity of calcium chloride used (lbs.)
Volume of grout prepared (gal.)
Volume of grout used (gal.)

28 gal	14
376 lbs	188
Portland I/II	
9 lbs	6155
50 gal	25 gal
50 gal	25 gal

COMMENTS: Removed 4" protective casing installed
Aug 5 rats to both off hole available with
4" ID x 8" O.D. HSA. All rats at well
bottom. Grout line back to surface

Depth
(feet)



24.5

34.5

4in Procasig

2" PVC Rise

2" PVC Screen

35.0' available

* Sketch in all relevant decommissioning data including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Dept Representative

WELL DECOMMISSIONING RECORD

NYSDEC NPL Sites



EARTH DIMENSIONS, INC.

1091 Jackson Road • Queens, NY 11429

15408

Site Name: Peter Cooper Markhams Site Well I.D. MW-2D
 Site Location: Dayton, NY Driller: Andy Morris
 Drilling Co: Earth Dimension Inc. Inspector: _____
 Date: 9-2-08

DECOMMISSIONING DATA

(fill in all that apply)

OVERDRILLING

Interval drilled 0-30.2
 Drilling Method(s) HSA
 Borehole Dia. (in) 8 in
 Temporary Casing Installed? (y/n) No
 Depth temporary casing installed _____
 Casing type/dia. (in.) _____
 Method of installing _____

CASING PULLING

Method employed _____
 Casing retrieved (feet) 21.0' 10" Risk
 Casing type/dia. (in) 2 1/2" 2" S.C.

Casing perforating

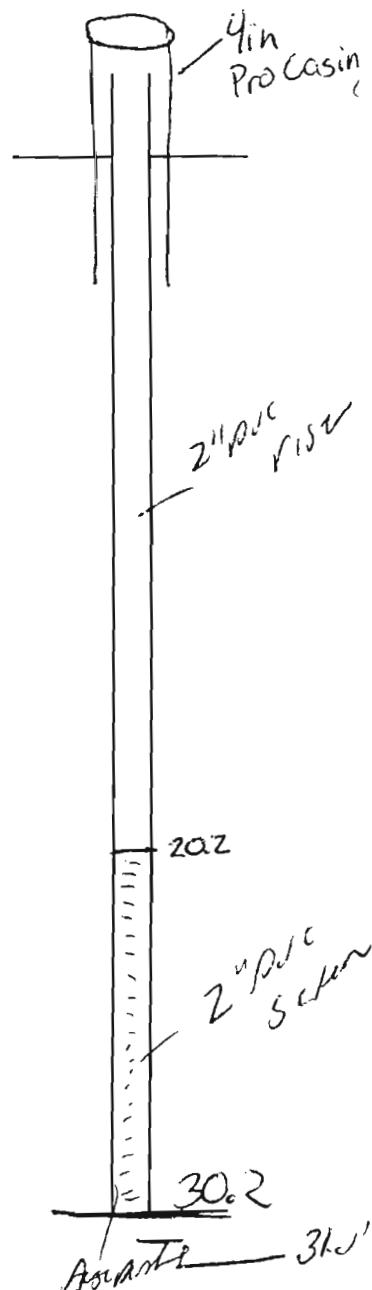
Equipment used _____
 Number of perforations/foot _____
 Size of perforations _____
 Interval perforated _____

GROUTING

Interval grouted (FBLs) 0-30.2
 # of batches prepared 1
 For each batch record:
 Quantity of water used (gal.) 28 gal
 Quantity of cement used (lbs.) 376 lbs
 Cement type Portland I/II
 Quantity of bentonite used (lbs.) 9 lbs.
 Quantity of calcium chloride used (lbs.) —
 Volume of grout prepared (gal.) 50 gal
 Volume of grout used (gal.) 50 gal

WELL SCHEMATIC*

Depth
(feet)



COMMENTS: Remove 4" protective casing inside
AW 5 feet over drilled well / remove casing
and 1/2 inch ground surface to surface

* Sketch in all relevant decommissioning data including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Dept Representative

WELL DECOMMISSIONING RECORD

NYSDEC NPL Sites



EARTH DIMENSIONS, INC.

1091 Jackson Road • Elms, NY 14059

ASent and well installed replaced

Site Name: *Peter Cooper Markham Site*

Well I.D. *MW-25*

15402

Site Location: *Dayton, NY*

Driller: *Andy Morris*

Drilling Co: *Earth Dimensions Inc.*

Inspector:

Date: *9-2-08*

DECOMMISSIONING DATA

(fill in all that apply)

OVERDRILLING

Interval drilled
Drilling Method(s)
Borehole Dia. (in.)
Temporary Casing Installed? (y/n)
Depth temporary casing installed
Casing type/dia. (in.)
Method of installing

0-10.5
HSA
8 in
No

HSA

CASING PULLING

Method employed
Casing retrieved (feet)
Casing type/dia. (in.)

5.0' 5.0'
2" USC 2" PVC

Casing perforating

Equipment used
Number of perforations/foot
Size of perforations
Interval perforated

GROUTING

Interval grouted (FBLs)
of batches prepared
For each batch record:
Quantity of water used (gal.)
Quantity of cement used (lbs.)
Cement type
Quantity of bentonite used (lbs.)
Quantity of calcium chloride used (lbs.)
Volume of grout prepared (gal.)
Volume of grout used (gal.)

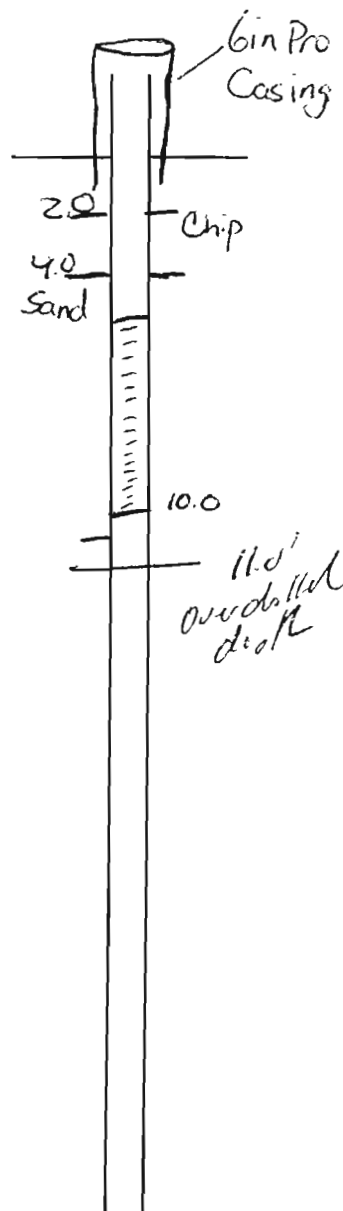
0-10.5
1

14 gal
188 lbs
Portland I/II
2 lbs

25 gal
25 gal

WELL SCHEMATIC*

Depth
(feet)



COMMENTS: *Pull 2 in Steel Well and Augered to 10.5 and Installed a 2 in PVC well to 10 ft sand to 4.0 chips to 1.5.*

* Sketch in all relevant decommissioning data including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Dept Representative

WELL DECOMMISSIONING RECORD

NYSDEC NPL Sites



EARTH DIMENSIONS, INC.

1601 Junction Road - Elms, NY 14059

15408

Site Name: Peter Cooper Markham Site
 Site Location: Dayton NY
 Drilling Co: EDI

Well I.D. MW-70

Driller: Andy Morris

Inspector:

Date: 9-3-08

DECOMMISSIONING DATA (fill in all that apply)

OVERDRILLING

Interval drilled
 Drilling Method(s)
 Borehole Dia. (in.)
 Temporary Casing Installed? (y/n)
 Depth temporary casing installed
 Casing type/dia. (in.)
 Method of installing

0-33.4
HSA
8 in
No

CASING PULLING

Method employed
 Casing retrieved (feet)
 Casing type/dia. (in.)

2" PVC

20.0' 10.0'
Run Screen

Casing perforating

Equipment used
 Number of perforations/foot
 Size of perforations
 Interval perforated

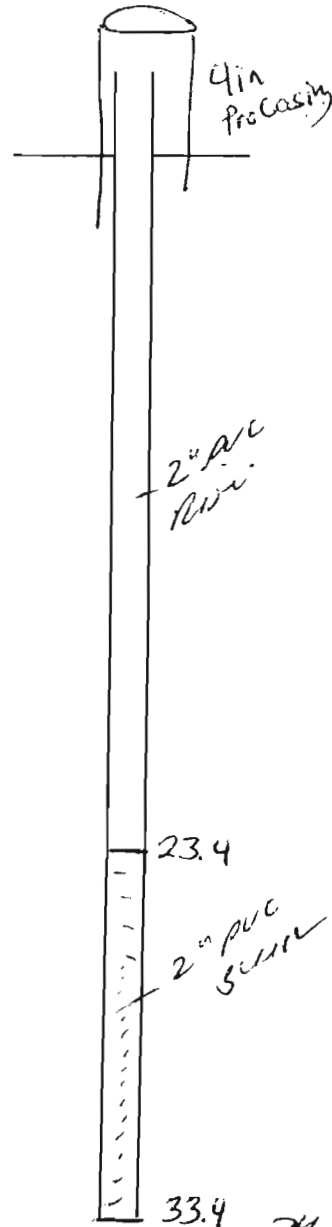
GROUTING

Interval grouted (FBLs)
 # of batches prepared
 For each batch record:
 Quantity of water used (gal.)
 Quantity of cement used (lbs.)
 Cement type
 Quantity of bentonite used (lbs.)
 Quantity of calcium chloride used (lbs.)
 Volume of grout prepared (gal.)
 Volume of grout used (gal.)

0-33.4	
1	
Batch 1	Batch 2
28 gal	14 gal
376 lbs	188
Portland I/II	I/II
9 lbs	610
50 gal	25 gal
50 gal	25 gal

WELL SCHEMATIC*

Depth
(feet)



COMMENTS: Run 4" Protective Casing
Installed Aug 12th to South of Screen hole, over hole
with 4 1/2" ID x 8" O.D. HSA. Rotted rods at
well. Driller 5-0-08 6 in hole to Screen

* Sketch in all relevant decommissioning data including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Dept Representative

WELL DECOMMISSIONING RECORD

NYSDEC NPL Sites



EARTH DIMENSIONS, INC.

1091 Jackson Road • Elms, NY 14059

15408

Site Name: Peter Cooper Markham Site

Well I.D. MW-8D

Site Location: Dayton, NY

Driller: Andy Morris

Drilling Co: EDC

Inspector:

Date: 8-3-08

DECOMMISSIONING DATA (fill in all that apply)

OVERDRILLING

Interval drilled
Drilling Method(s)
Borehole Dia. (in)
Temporary Casing Installed? (y/n)
Depth temporary casing installed
Casing type/dia. (in.)
Method of installing

0-28.8
HSA
8 in
No

CASING PULLING

Method employed
Casing retrieved (feet)
Casing type/dia. (in)

2" PVC
2" PVC

22' 10"
2" PVC Screen

Casing perforating

Equipment used
Number of perforations/foot
Size of perforations
Interval perforated

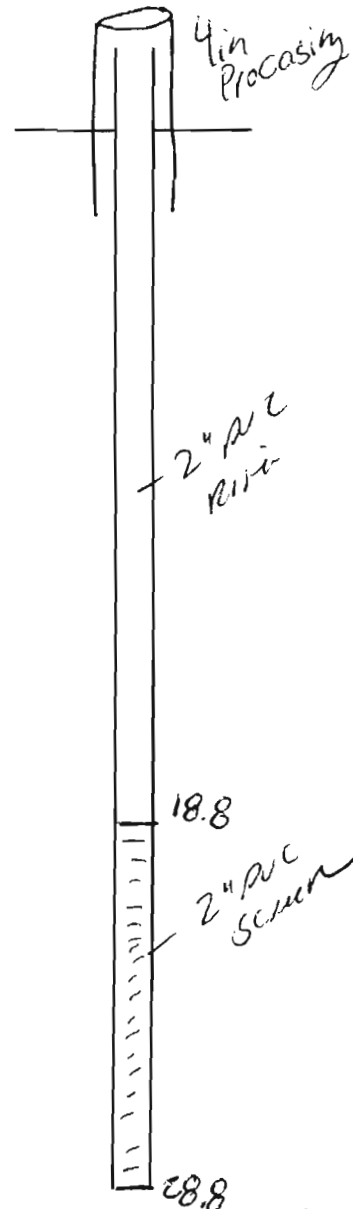
GROUTING

Interval grouted (FBLs)
of batches prepared
For each batch record:
Quantity of water used (gal.)
Quantity of cement used (lbs.)
Cement type
Quantity of bentonite used (lbs.)
Quantity of calcium chloride used (lbs.)
Volume of grout prepared (gal.)
Volume of grout used (gal.)

0-28.8
1
28 gal
376 lbs
Portland I/II
4 lbs
50 gal
50 gal

WELL SCHEMATIC*

Depth
(feet)



COMMENTS: Removed 4" Protective Casing,
Installed an 8" ID to bottom of well, over drill,
with 4" ID x 8" O.D. HSA, pulled out,
and well from grout hole to 8" ID

* Sketch in all relevant decommissioning data including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Dept Representative

WELL DECOMMISSIONING RECORD

NYSDEC NPL Sites



EARTH DIMENSIONS, INC.

1091 Jackson Road • Elms, NY 14059

15H08

Site Name: *Peter Cooper Markham Site*

Well I.D. *MW-10*

Site Location: *Dayton, NY*

Driller: *Andy Morris*

Drilling Co: *EDI*

Inspector:

Date: *9-3-08*

DECOMMISSIONING DATA

(fill in all that apply)

OVERDRILLING

Interval drilled
Drilling Method(s)
Borehole Dia. (in)
Temporary Casing Installed? (y/n)
Depth temporary casing installed
Casing type/dia. (in.)
Method of installing

<i>0-29.4</i>
<i>HSA</i>
<i>8 in</i>
<i>No</i>
<i>-</i>
<i>-</i>
<i>-</i>

CASING PULLING

Method employed
Casing retrieved (feet)
Casing type/dia. (in)

<i>19.0' 5.0'</i>
<i>2nd Rise 2" PVC</i>

Casing perforating

Equipment used
Number of perforations/foot
Size of perforations
Interval perforated

GROUTING

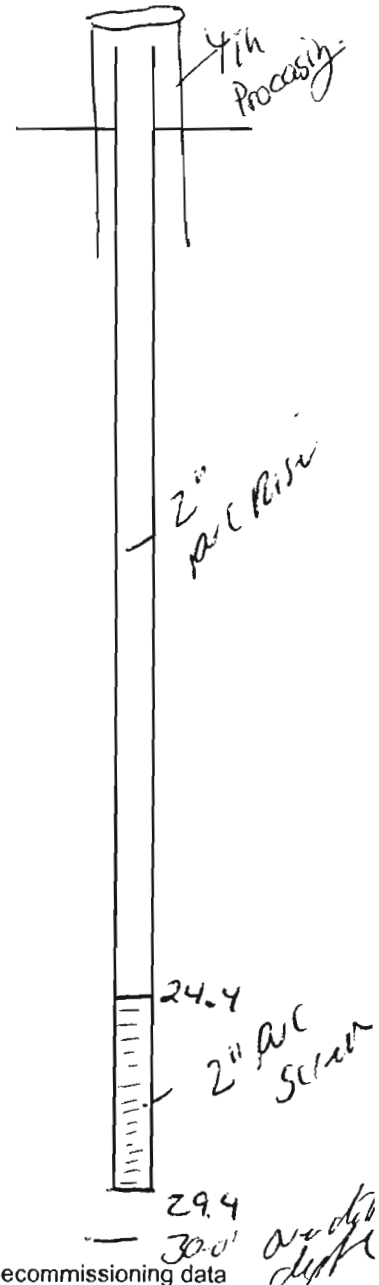
Interval grouted (FBLs)
of batches prepared
For each batch record:
Quantity of water used (gal.)
Quantity of cement used (lbs.)
Cement type
Quantity of bentonite used (lbs.)
Quantity of calcium chloride used (lbs.)
Volume of grout prepared (gal.)
Volume of grout used (gal.)

<i>0-29.4</i>
<i>1</i>
<i>28 gal</i>
<i>376 lbs</i>
<i>Portland I/II</i>
<i>9 lbs.</i>
<i>50 gal</i>
<i>50 gal</i>

COMMENTS: *Removed 4" protective casing / installed AWJ rods TO Bottom of hole. Overdrilled with 4" ID HSA / pulled rods and well then grout hole to surface*

WELL SCHEMATIC*

Depth (feet)



* Sketch in all relevant decommissioning data including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Dept Representative

WELL DECOMMISSIONING RECORD

NYSDEC NPL Sites



EARTH DIMENSIONS, INC.

1091 Jackson Road • Elms, NY 14059

15H08

Site Name: Peter Cooper Markham Site

Well I.D. MW-15

Site Location: Dayton NY

Driller: Andy Morris

Drilling Co: E D I

Inspector:

Date: 9/3/08

DECOMMISSIONING DATA

(fill in all that apply)

OVERDRILLING

Interval drilled
Drilling Method(s)
Borehole Dia. (in)
Temporary Casing Installed? (y/n)
Depth temporary casing installed
Casing type/dia. (in.)
Method of installing

0-13.8
HSA
8 in
No
--
-
-

CASING PULLING

Method employed
Casing retrieved (feet)
Casing type/dia. (in)

9.0' 5.0'
2" PVC 2" Sch 40

Casing perforating

Equipment used
Number of perforations/foot
Size of perforations
Interval perforated

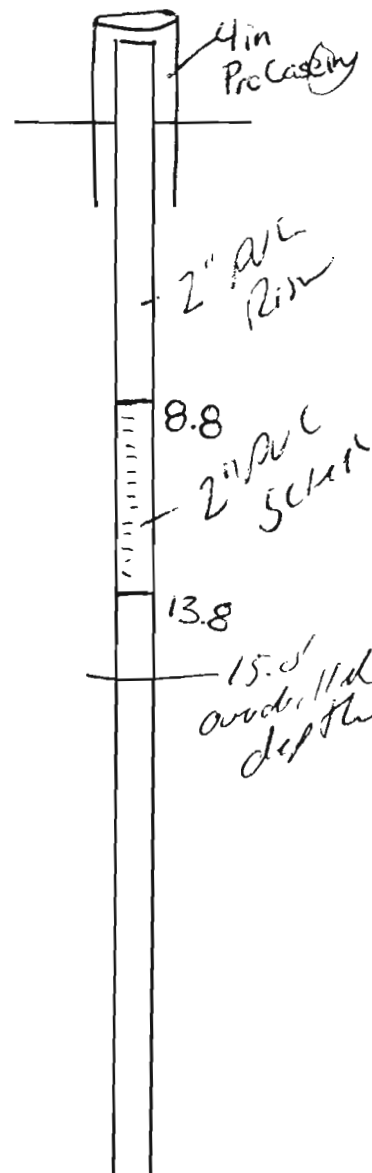
GROUTING

Interval grouted (FBLs)
of batches prepared
For each batch record:
Quantity of water used (gal.)
Quantity of cement used (lbs.)
Cement type
Quantity of bentonite used (lbs.)
Quantity of calcium chloride used (lbs.)
Volume of grout prepared (gal.)
Volume of grout used (gal.)

0-13.8
1
14 gal
188 lbs
Portland I/II
6 lbs
25 gal
25 gal

WELL SCHEMATIC*

Depth
(feet)



COMMENTS: Removed 4" Protection Casing / install
AWJ Rods and overdrilled with 4" ID casing per
Reg at well. Pump grout to surface

* Sketch in all relevant decommissioning data including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Dept Representative

WELL DECOMMISSIONING RECORD

NYSDEC NPL Sites



15428

Site Name: <u>Peter Cooper Markham Site</u>	Well I.D. <u>mw-40</u>
Site Location: <u>Dayton NY</u>	Driller: <u>Andy Morris</u>
Drilling Co: <u>EDE</u>	Inspector:
	Date: <u>9-4-08</u>

DECOMMISSIONING DATA

(fill in all that apply)

OVERDRILLING

Interval drilled	<u>0-31.5</u>
Drilling Method(s)	<u>HSA</u>
Borehole Dia. (in)	<u>8 in</u>
Temporary Casing Installed? (y/n)	<u>No</u>
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	

CASING PULLING

Method employed	
Casing retrieved (feet)	<u>20.0' 10.0'</u>
Casing type/dia. (in)	<u>2" PVC</u> <u>Run Screen</u>

Casing perforating

Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	

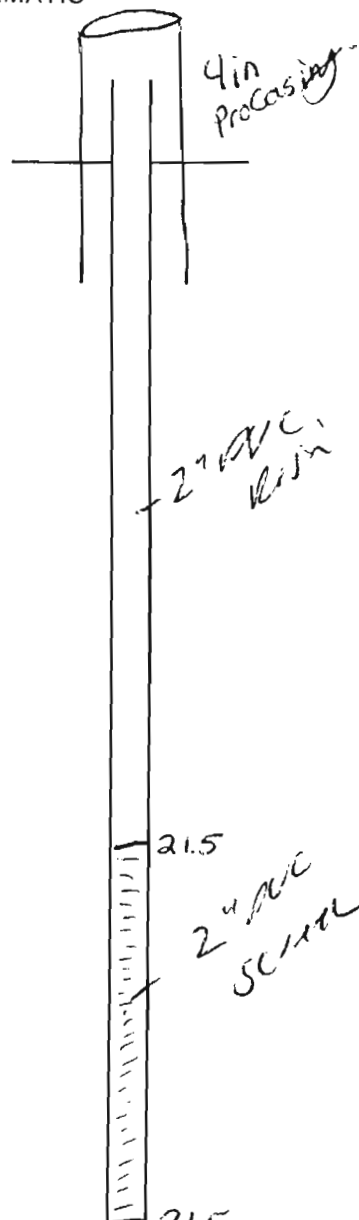
GROUTING

Interval grouted (FBLs)	<u>0-31.5</u>
# of batches prepared	<u>1</u>
For each batch record:	
Quantity of water used (gal.)	<u>28 gal</u> <u>14 gal</u>
Quantity of cement used (lbs.)	<u>376 lbs</u> <u>188</u>
Cement type	<u>Portland I/II</u>
Quantity of bentonite used (lbs.)	<u>9 lbs</u> <u>6 lbs</u>
Quantity of calcium chloride used (lbs.)	
Volume of grout prepared (gal.)	<u>50 gal</u> <u>25 gal</u>
Volume of grout used (gal.)	<u>50 gal</u> <u>15 gal</u>

COMMENTS: Run 4" protective casing, installed
AW J Road TO bottom of hole overdrilled with
4" ID x 8" OD HSA, pulled well tremi
gauge but did not to surface

WELL SCHEMATIC*

Depth
(feet)



* Sketch in all relevant decommissioning data including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Dept Representative

WELL DECOMMISSIONING RECORD

NYSDEC NPL Sites



EARTH DIMENSIONS, INC.

1091 Junction Road • Elms, NY 14059

15408

Site Name: Peter Cooper Mackham Site

Well I.D. MW-3D

Site Location: Dayton NY

Driller: Andy Morris

Drilling Co: EDI

Inspector:

Date: 9/4/08

DECOMMISSIONING DATA

(fill in all that apply)

OVERDRILLING

Interval drilled
Drilling Method(s)
Borehole Dia. (in)
Temporary Casing Installed? (y/n)
Depth temporary casing installed
Casing type/dia. (in.)
Method of installing

0-28.
HSA
8in
No

CASING PULLING

Method employed
Casing retrieved (feet)
Casing type/dia. (in)

2" PVC
200' 10-0'
Riser Screw

Casing perforating

Equipment used
Number of perforations/foot
Size of perforations
Interval perforated

GROUTING

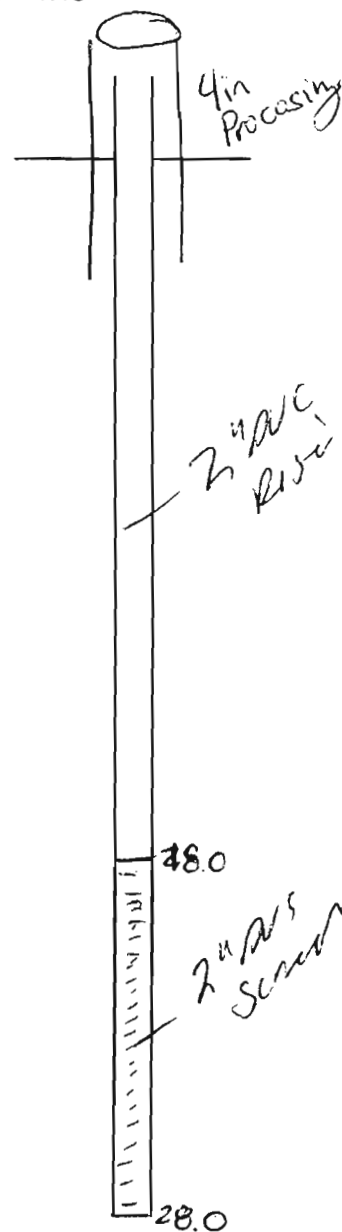
Interval grouted (FBLs)
of batches prepared
For each batch record:
Quantity of water used (gal.)
Quantity of cement used (lbs.)
Cement type
Quantity of bentonite used (lbs.)
Quantity of calcium chloride used (lbs.)
Volume of grout prepared (gal.)
Volume of grout used (gal.)

0-28.0
1
28 gal
376 lbs
Portland I/A
4 lbs.
50 gal
50 gal

COMMENTS: Removed 4" Protected casing installed
At J.R. to bottom of well. Overdrilled with 4 1/4"
8" O.D. HSA. Removed rods and well
Traverse depth from hole to surface

WELL SCHEMATIC*

Depth
(feet)



* Sketch in all relevant decommissioning data including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Dept Representative

WELL DECOMMISSIONING RECORD

NYSDEC NPL Sites



EARTH DIMENSIONS, INC.

1091 Jackson Road • Elms NY 14059

15408

Site Name: Peter Cooper Markham site

Well I.D. MW-35

Site Location: Amyton NY

Driller: Andy Morris

Drilling Co: EDF

Inspector:

Date: 9-5-08

DECOMMISSIONING DATA (fill in all that apply)

OVERDRILLING

Interval drilled
Drilling Method(s)
Borehole Dia. (in)
Temporary Casing Installed? (y/n)
Depth temporary casing installed
Casing type/dia. (in.)
Method of installing

0-14.5
HSA
8 in
No
-
-
-

CASING PULLING

Method employed
Casing retrieved (feet)
Casing type/dia. (in)

2" PVC

8.0' 5.0'
PVC Screen

Casing perforating

Equipment used
Number of perforations/foot
Size of perforations
Interval perforated

GROUTING

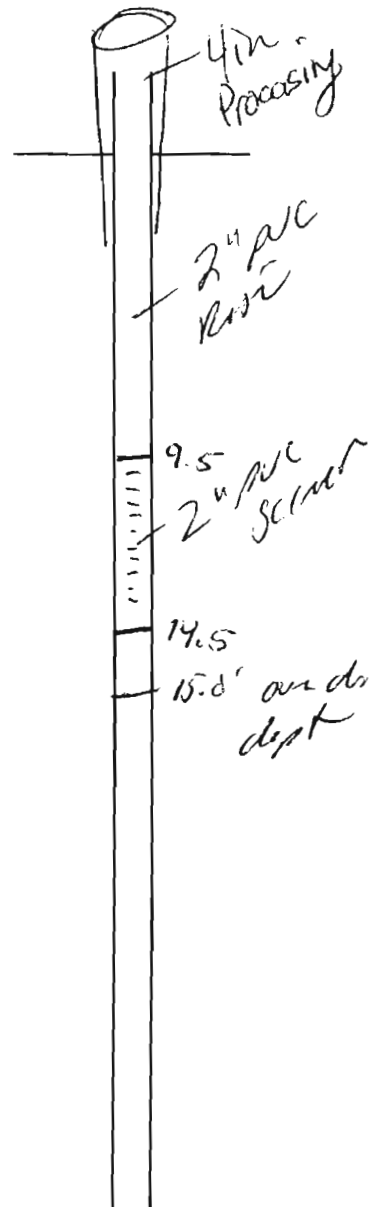
Interval grouted (FBLs)
of batches prepared
For each batch record:
Quantity of water used (gal.)
Quantity of cement used (lbs.)
Cement type
Quantity of bentonite used (lbs.)
Quantity of calcium chloride used (lbs.)
Volume of grout prepared (gal.)
Volume of grout used (gal.)

0-14.5
1
20 gal
288 lbs.
Portland I/A
19 lbs.

35 gal
35 gal

WELL SCHEMATIC*

Depth
(feet)



COMMENTS: Remove 4" protective casing. Install
AW 5.0' to bottom of well, over drill with
1 1/2" ID x 8' OD HSA. Then grout 5.0' to
to surface

* Sketch in all relevant decommissioning data including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Dept Representative

WELL DECOMMISSIONING RECORD

NYSDEC NPL Sites



EARTH DIMENSIONS, INC.

1091 Junction Road • Elm, NY 14059

15408

Site Name: Peter Markham Site

Well I.D. MW-5D

Site Location: Dayton NY

Driller: Andy Morris

Drilling Co: EDI

Inspector:

Date: 9-5-08

DECOMMISSIONING DATA

(fill in all that apply)

OVERDRILLING

Interval drilled
Drilling Method(s)
Borehole Dia. (in.)
Temporary Casing Installed? (y/n)
Depth temporary casing installed
Casing type/dia. (in.)
Method of installing

0-24.5
HSA
8 in
No

CASING PULLING

Method employed
Casing retrieved (feet)
Casing type/dia. (in.)

13.0' 10.0'
riser Screen

Casing perforating

Equipment used
Number of perforations/foot
Size of perforations
Interval perforated

GROUTING

Interval grouted (FBLS)
of batches prepared
For each batch record:
Quantity of water used (gal.)
Quantity of cement used (lbs.)
Cement type
Quantity of bentonite used (lbs.)
Quantity of calcium chloride used (lbs.)
Volume of grout prepared (gal.)
Volume of grout used (gal.)

0-24.5
1

28 gal
376 lbs
Portland I/II
9 lbs.

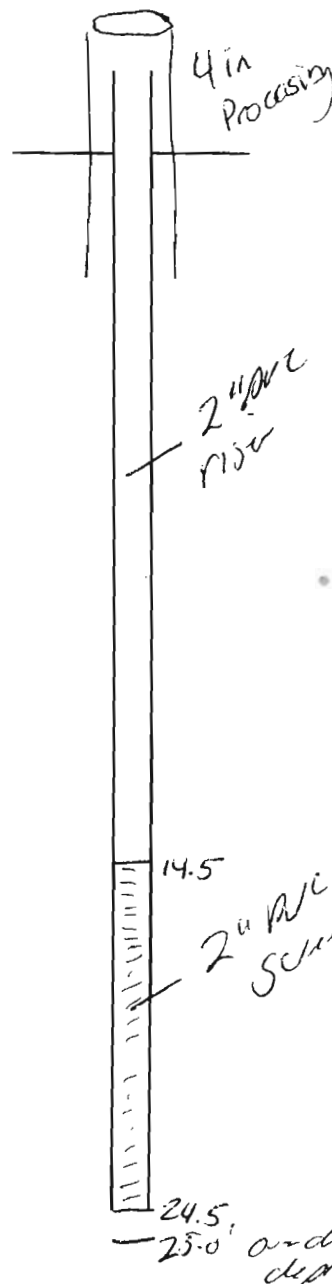
50 gal
45 gal

COMMENTS:

Ran 4" protective casing installed
AW 5 rods to bottom of well, overdrilled
with 4 1/2" I.D. x 8" O.D. HSA, pulled rods
at well then grouted 5' to 10' depth

WELL SCHEMATIC*

Depth
(feet)



* Sketch in all relevant decommissioning data including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Dept Representative

WELL DECOMMISSIONING RECORD

NYSDEC NPL Sites



EARTH DIMENSIONS, INC.

1091 Jackson Road • Elmira, NY 14859

15408

Site Name: <u>Peter Cooper Markham Site</u>	Well I.D. <u>MW-9D</u>
Site Location: <u>Dayton NY</u>	Driller: <u>Andy Morris</u>
Drilling Co: <u>EDI</u>	Inspector:
	Date: <u>9-5-08</u>

DECOMMISSIONING DATA

(fill in all that apply)

OVERDRILLING

Interval drilled	<u>0-30.5</u>
Drilling Method(s)	<u>HSA</u>
Borehole Dia. (in)	<u>8 in</u>
Temporary Casing Installed? (y/n)	<u>No</u>
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	

CASING PULLING

Method employed	
Casing retrieved (feet)	<u>32.0' 10.0'</u>
Casing type/dia. (in)	<u>2" PVC</u>

Casing perforating

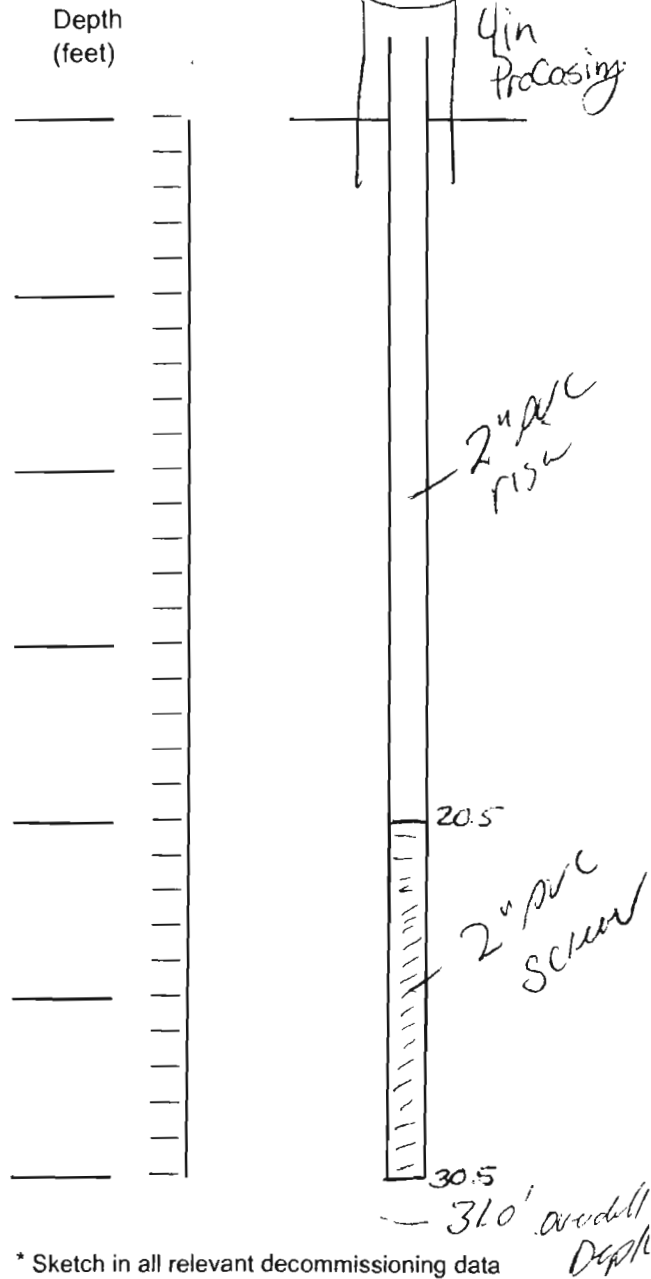
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	

GROUTING

Interval grouted (FBLs)	<u>0-30.5</u>
# of batches prepared	<u>1</u>
For each batch record:	
Quantity of water used (gal.)	<u>28 gal</u>
Quantity of cement used (lbs.)	<u>376 lbs.</u>
Cement type	<u>Portland I/II</u>
Quantity of bentonite used (lbs.)	<u>4 lbs.</u>
Quantity of calcium chloride used (lbs.)	
Volume of grout prepared (gal.)	<u>50 gal</u>
Volume of grout used (gal.)	<u>50 gal</u>

COMMENTS: Rm'd 4" protective casing. Drilled
AW 3 rods to bottom of well, drilled into
11" ID x 8' ID HSA, then well with rods
11" ID x 8' ID HSA bore hole to surface

WELL SCHEMATIC*



* Sketch in all relevant decommissioning data including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Drilling Contractor

Dept Representative

APPENDIX H

CAMP DAILY LOGS

Benchmark Environmental Engineering & Science, PLLC

Community Air Monitoring Summary Report

August 21, 2008 – September 24, 2008

Summary of Remedial Work Performed During the Period:

- Access road improvements.
- Site clearing and grubbing.
- Waste/fill regrading and consolidation.
- Monitoring well abandonment and replacement.

Real-Time Community Air Monitoring Work Performed:

Monitoring was completed on all working days (i.e., M-F excluding holidays), except for the following dates:

- 08/28/08 – 08/29/08 (No monitoring due to rain)
- 09/01/08 (Labor Day)
- 09/09/08 – 09/10/08 (No major construction due to rain showers.)
- 09/15/08 – 09/16/08 (No work performed due to heavy rain showers.)

Community Air Monitoring Program Results:

Daily logs for this monitoring period are attached. As indicated, all monitoring results conformed to the Community Air Monitoring perimeter particulate requirement (i.e., $<150 \text{ ug/m}^3$), with the following exception:

- No exceedances were documented.

Notes/ Special Conditions:

- No special conditions to report.

**PETER COOPER MARKHAMS NPL SITE
DAYTON, NEW YORK
COMMUNITY AIR MONITORING DAILY LOG**

Date: 8/21/08

LOCATION of ACTIVITIES/MONITORING STATIONS (Provide Sketch on Attached Map):

DESCRIPTION OF SITE ACTIVITIES: cleaning & removing debris, spreading fresh - old intrusive soils under curbside (paved)

WEATHER CONDITIONS:

Time of Day: 0954 A.M. 1600 P.M.
Ambient Air Temp.: 75°F
Wind Direction: S-SE
Wind Speed: Calm
Precipitation: none

PARTICULATE MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 100 ug/m ³ ¹			NA		
Exceedence of 150 ug/m ³ ¹			NA		
Visual Observation of Fugitive Dust			NA		
			NA		
			NA		

VOC MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 5 ppm ¹			—		Temporarily halt Work and continue monitoring
Reading of 5 to 25 ppm ¹			—		Temporarily halt Work, abate emissions with corrective actions and continue monitoring ¹
Exceedence of 25 ppm ²			—		Shut Down Work Immediately and notify Site Safety & Health Officer

- Above background for 15 minute moving average.
 - Above background at Site perimeter (indicate location on attached sketch)
 - Work may resume when total VOC conc. 200 ft downwind or half the distance to nearest receptor (whichever is less) is below 5 ppm for 15 min.
- NOTE: All exceedences are to be reported to Benchmark within 15 minutes.

Completed By: RLD
Checked By: _____

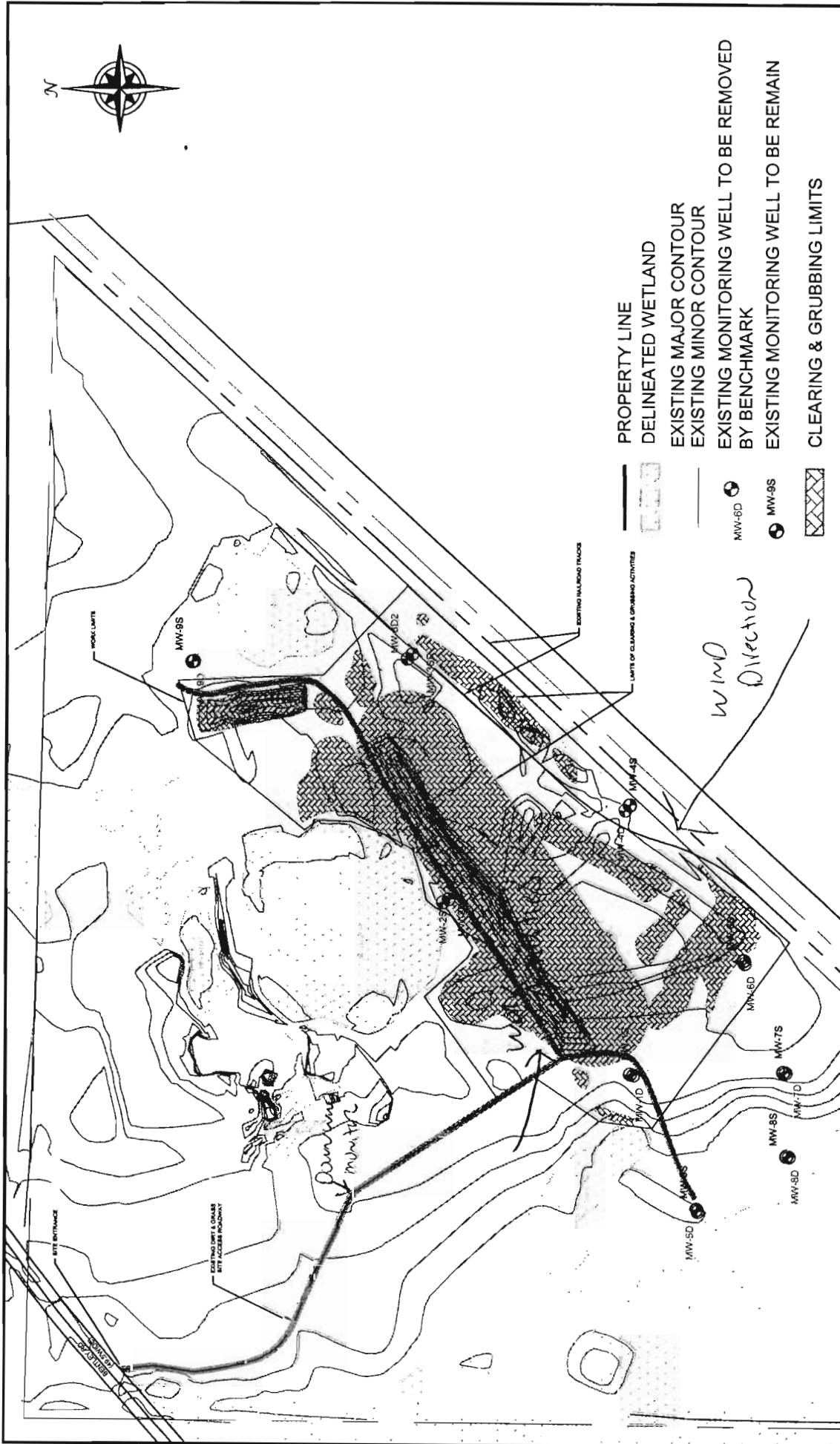


FIGURE 1

COMMUNITY AIR MONITORING LOCATIONS

REMEDIAL CONSTRUCTION - COMMUNITY AIR MONITORING PLAN

PETER COOPER MARKHAMS NPL SITE
BENTLEY ROAD, DAYTON, NEW YORK

PREPARED FOR
SITE RESPONDENTS

BENCHMARK
726 EXCHANGE STREET
SUITE 624
BUFFALO, NEW YORK 14210
(716) 856-0699
SCIENCE, PLLC

PROJECT NO.: 0021-003-401

DATE: AUGUST 2008

DRAFTED BY: BCH

**PETER COOPER MARKHAMS NPL SITE
DAYTON, NEW YORK
COMMUNITY AIR MONITORING DAILY LOG**

Date: 8/22/08

LOCATION of ACTIVITIES/MONITORING STATIONS (Provide Sketch on Attached Map):

DESCRIPTION OF SITE ACTIVITIES:

Tree Strip, Bush, Insulating Silver Paint

WEATHER CONDITIONS:

Time of Day:	<u>0930 A.M.</u>	<u>1630 P.M.</u>
Ambient Air Temp.:	<u>85°F</u>	<u>88°F</u>
Wind Direction:	<u>SW</u>	<u>SW</u>
Wind Speed:	<u>Caln</u>	<u>Caln</u>
Precipitation:	<u>none</u>	<u>none</u>

PARTICULATE MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 100 ug/m ³ ¹			<u>NA</u>		
Exceedence of 150 ug/m ³ ¹			<u>NA</u>		
Visual Observation of Fugitive Dust			<u>NA</u>		
			<u>NA</u>		
			<u>NA</u>		

VOC MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 5 ppm ¹			<u>-</u>		Temporarily halt Work and continue monitoring
Reading of 5 to 25 ppm ¹			<u>-</u>		Temporarily halt Work, abate emissions with corrective actions and continue monitoring ¹
Exceedence of 25 ppm ²			<u>-</u>		Shut Down Work Immediately and notify Site Safety & Health Officer

- Above background for 15 minute moving average.
 - Above background at Site perimeter (indicate location on attached sketch)
 - Work may resume when total VOC conc. 200 ft downwind or half the distance to nearest receptor (whichever is less) is below 5 ppm for 15 min.
- NOTE: All exceedences are to be reported to Benchmark within 15 minutes.

Completed By: ALD
Checked By: _____

8/22/08

FIGURE 1

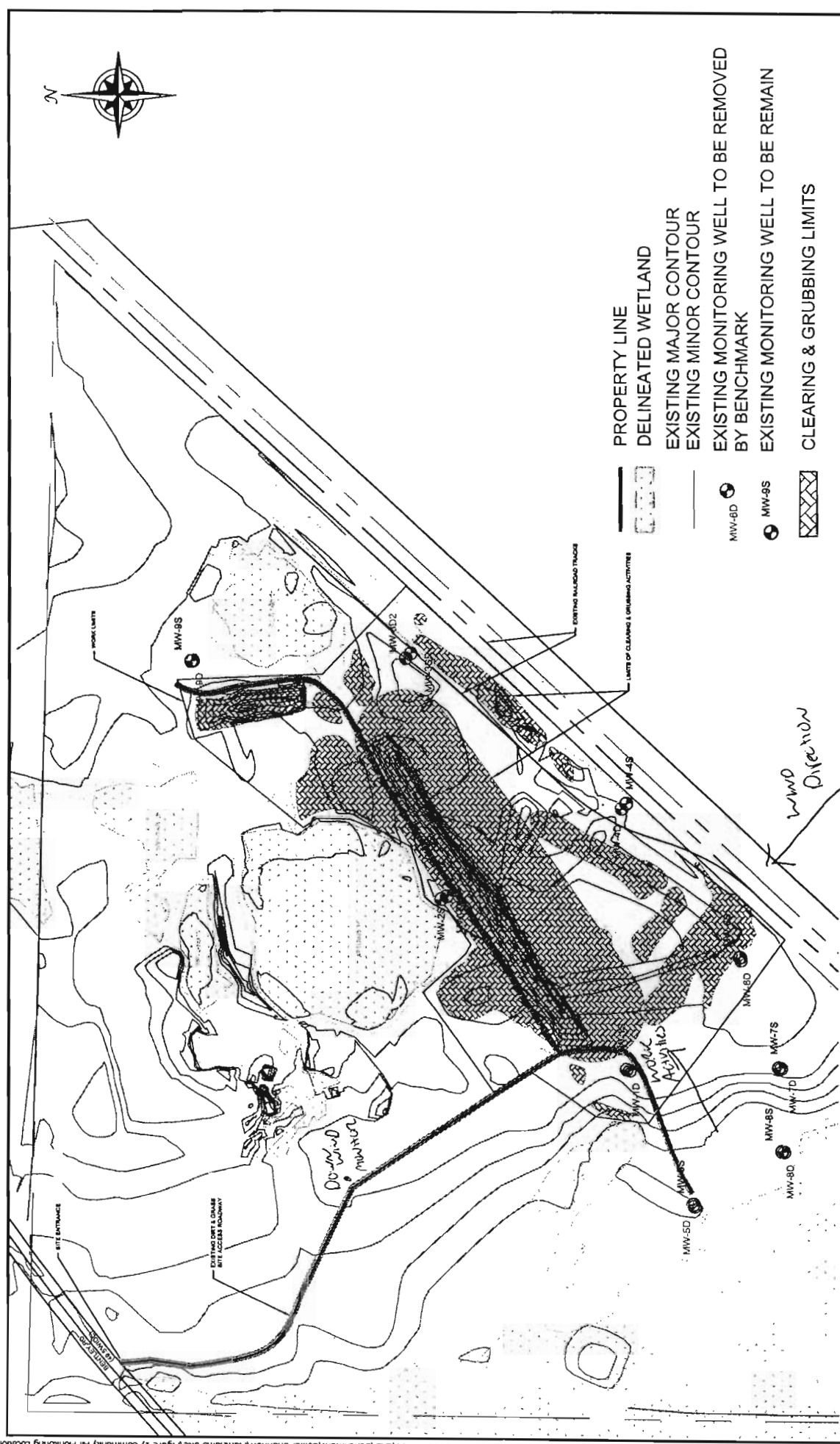
COMMUNITY AIR MONITORING LOCATIONS REMEDIAL CONSTRUCTION - COMMUNITY AIR MONITORING PLAN PETER COOPER MARKHAMS NPL SITE BENTLEY ROAD, DAYTON, NEW YORK

PREPARED FOR
 SITE RESPONDENTS

728 EXCHANGE STREET
 SUITE 624
 BUFFALO, NEW YORK 14210
 (716) 856-0699



PROJECT NO.: 0021-003-401
 DATE: AUGUST 2008
 DRAFTED BY: BCH



**PETER COOPER MARKHAMS NPL SITE
DAYTON, NEW YORK
COMMUNITY AIR MONITORING DAILY LOG**

Date: 8/25/08

LOCATION of ACTIVITIES/MONITORING STATIONS (Provide Sketch on Attached Map):

DESCRIPTION OF SITE ACTIVITIES: Gathering Stumps / Brush
For mulching / preparing subgrade for waste
consolidation cells

WEATHER CONDITIONS:

Time of Day:	<u>0430 A.M.</u>	<u>1100 P.M.</u>
Ambient Air Temp.:	<u>61°F</u>	<u>70°F</u>
Wind Direction:	<u>N027H</u>	<u>N027H</u>
Wind Speed:	<u>5-10 mph</u>	<u>5-10 mph</u>
Precipitation:	<u>none</u>	<u>none</u>

PARTICULATE MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 100 ug/m ³ ¹			<u>NA</u>		
Exceedence of 150 ug/m ³ ¹			<u>NA</u>		
Visual Observation of Fugitive Dust			<u>NA</u>		
			<u>NA</u>		
			<u>NA</u>		

VOC MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 5 ppm ¹			<u>NA</u>		Temporarily halt Work and continue monitoring
Reading of 5 to 25 ppm ¹			<u>NA</u>		Temporarily halt Work, abate emissions with corrective actions and continue monitoring ³
Exceedence of 25 ppm ²			<u>NA</u>		Shut Down Work Immediately and notify Site Safety & Health Officer

- Above background for 15 minute moving average.
 - Above background at Site perimeter (indicate location on attached sketch)
 - Work may resume when total VOC conc. 200 ft downwind or half the distance to nearest receptor (whichever is less) is below 5 ppm for 15 min.
- NOTE: All exceedences are to be reported to Benchmark within 15 minutes.

Completed By: RLD
Checked By: _____

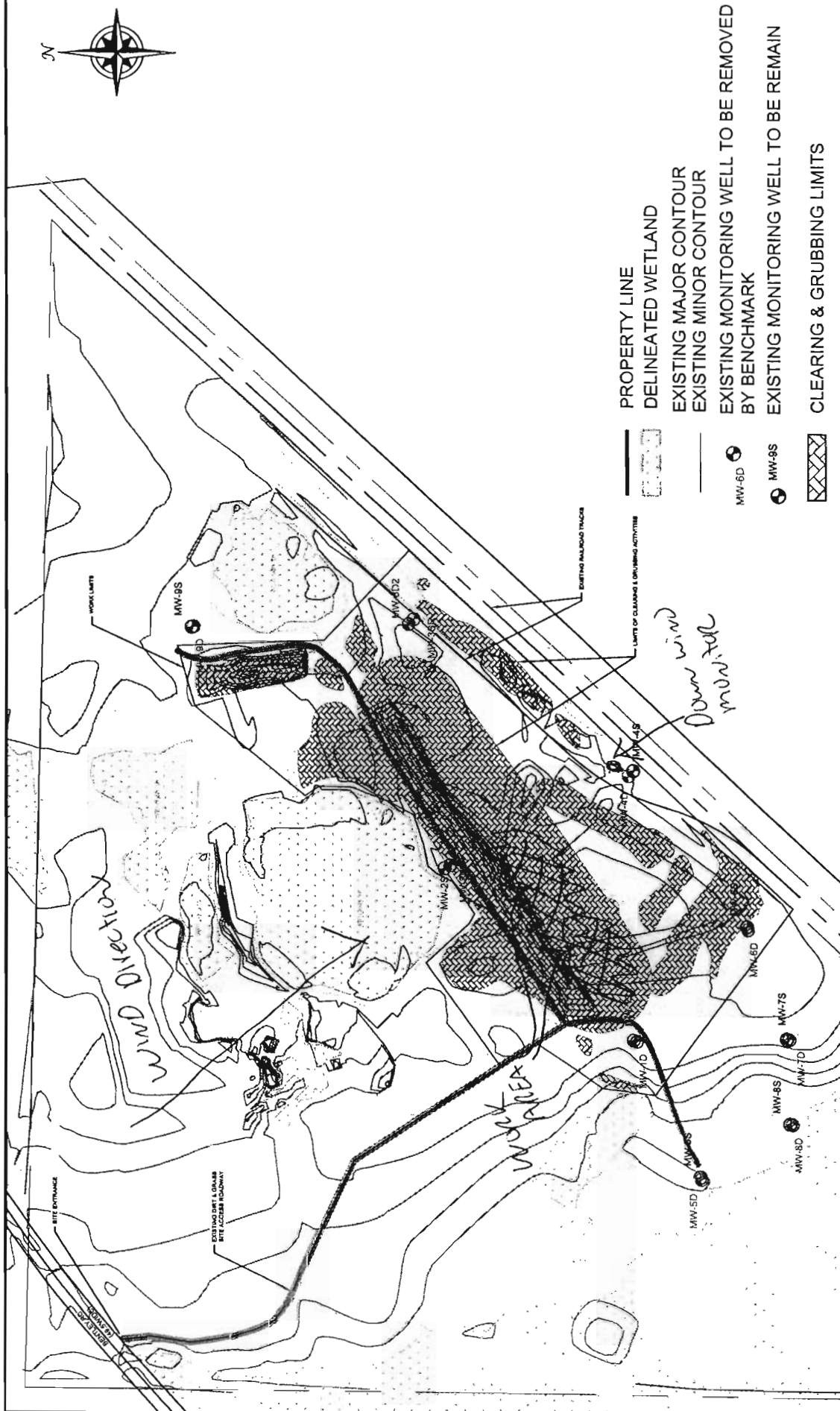


FIGURE 1

COMMUNITY AIR MONITORING LOCATIONS

REMEDIAL CONSTRUCTION - COMMUNITY AIR MONITORING PLAN
 PETER COOPER MARKHAMS NPL SITE
 BENTLEY ROAD, DAYTON, NEW YORK

PREPARED FOR
 SITE RESPONDENTS

BENCHMARK
 ENVIRONMENTAL
 ENGINEERING &
 SCIENCE, PLLC

726 EXCHANGE STREET
 SUITE 624
 BUFFALO, NEW YORK 14210
 (716) 866-0699

PROJECT NO.: 0021-003-401

DATE: AUGUST 2008

DRAFTED BY: BCH

**PETER COOPER MARKHAMS NPL SITE
DAYTON, NEW YORK
COMMUNITY AIR MONITORING DAILY LOG**

Date: 8/26/08

LOCATION of ACTIVITIES/MONITORING STATIONS (Provide Sketch on Attached Map):

DESCRIPTION OF SITE ACTIVITIES: airlines slash/stumps
consolidating work w/ Dorella & company WASK

WEATHER CONDITIONS:

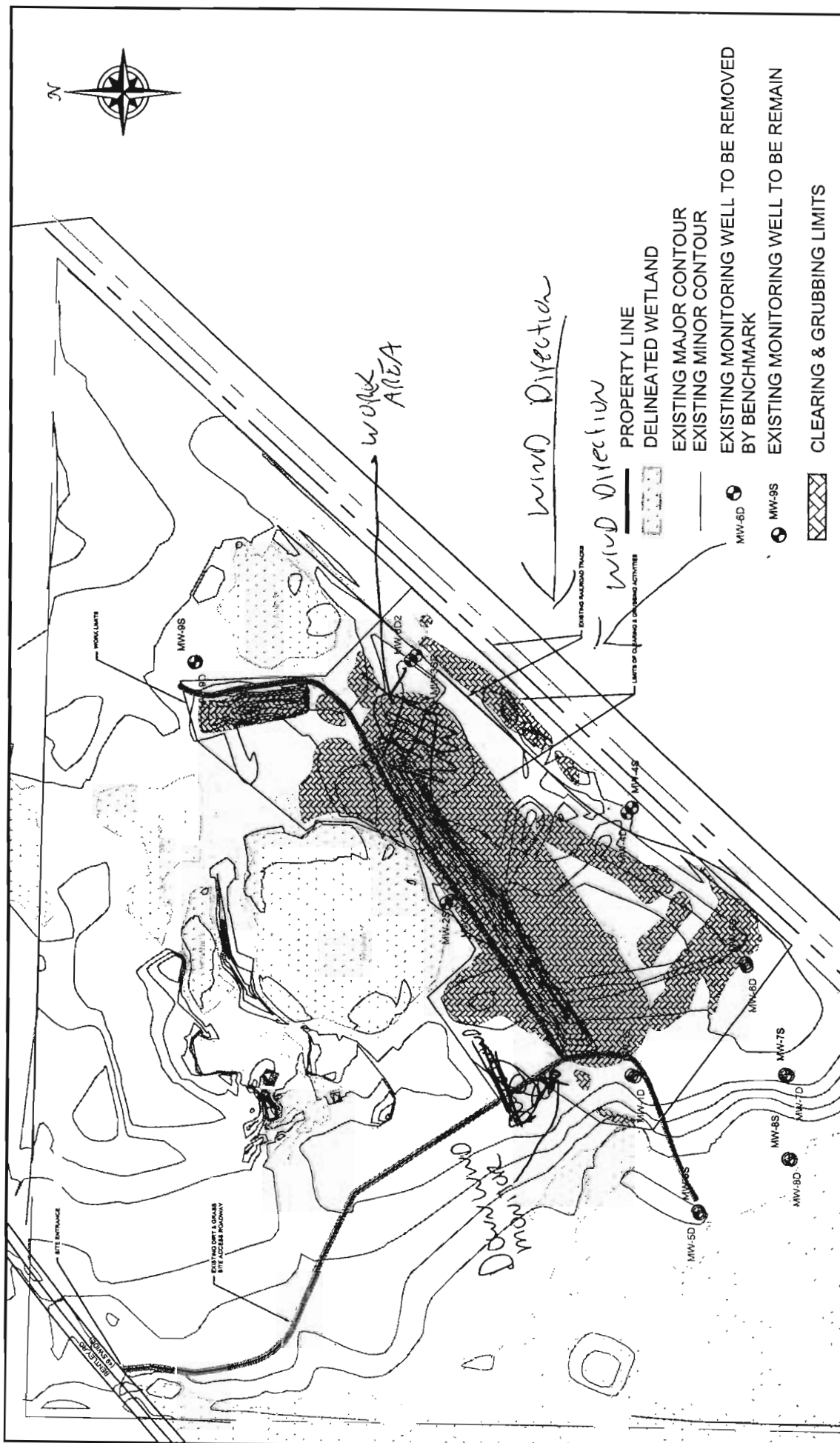
Time of Day:	0700 A.M.	P.M.
Ambient Air Temp.:	50°F	200°F
Wind Direction:	Caln	South/South East
Wind Speed:	Caln	5 mph
Precipitation:	none	none

PARTICULATE MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 100 ug/m ³ ¹			NA		
Exceedence of 150 ug/m ³ ¹			NA		
Visual Observation of Fugitive Dust			NA		
			NA		
			NA		

VOC MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 5 ppm ¹			NA		Temporarily halt Work and continue monitoring
Reading of 5 to 25 ppm ¹			NA		Temporarily halt Work, abate emissions with corrective actions and continue monitoring ¹
Exceedence of 25 ppm ²			NA		Shut Down Work Immediately and notify Site Safety & Health Officer

- Above background for 15 minute moving average.
 - Above background at Site perimeter (indicate location on attached sketch)
 - Work may resume when total VOC conc. 200 ft downwind or half the distance to nearest receptor (whichever is less) is below 5 ppm for 15 min.
- NOTE: All exceedences are to be reported to Benchmark within 15 minutes.

Completed By: RLD
Checked By: _____



COMMUNITY AIR MONITORING LOCATIONS

PETER COOPER MARKHAMS NPL SITE
BENTLEY ROAD, DAYTON, NEW YORK

PREPARED FOR
SITE RESPONDENTS

BENCHMARK
ENVIRONMENTAL
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SCIENCE, PLLC

726 EXCHANGE STREET
SUITE 824
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(716) 856-0599

PROJECT NO.: 0021--003--401

DATE: AUGUST 2008

DRAFTED BY: BCH

**PETER COOPER MARKHAMS NPL SITE
DAYTON, NEW YORK
COMMUNITY AIR MONITORING DAILY LOG**

Date: 8/27/08

LOCATION of ACTIVITIES/MONITORING STATIONS (Provide Sketch on Attached Map):

DESCRIPTION OF SITE ACTIVITIES: pipework inspection
WAX Consolidation

WEATHER CONDITIONS:

Time of Day:	A.M.	P.M.
Ambient Air Temp.:	55°F	75°F
Wind Direction:	Cal. or South west	South East
Wind Speed:	0 mph	0-10 mph
Precipitation:	none	none

PARTICULATE MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 100 ug/m ³ ¹			NA		
Exceedence of 150 ug/m ³ ¹			NA		
Visual Observation of Fugitive Dust			NA		
			NA		
			NA		

VOC MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 5 ppm ¹			NA		Temporarily halt Work and continue monitoring
Reading of 5 to 25 ppm ¹			NA		Temporarily halt Work, abate emissions with corrective actions and continue monitoring ³
Exceedence of 25 ppm ²			NA		Shut Down Work Immediately and notify Site Safety & Health Officer

- Above background for 15 minute moving average.
 - Above background at Site perimeter (indicate location on attached sketch)
 - Work may resume when total VOC conc. 200 ft downwind or half the distance to nearest receptor (whichever is less) is below 5 ppm for 15 min.
- NOTE: All exceedences are to be reported to Benchmark within 15 minutes.

Completed By: RLO
Checked By: RLO

0141100

FIGURE 1

COMMUNITY AIR MONITORING LOCATIONS

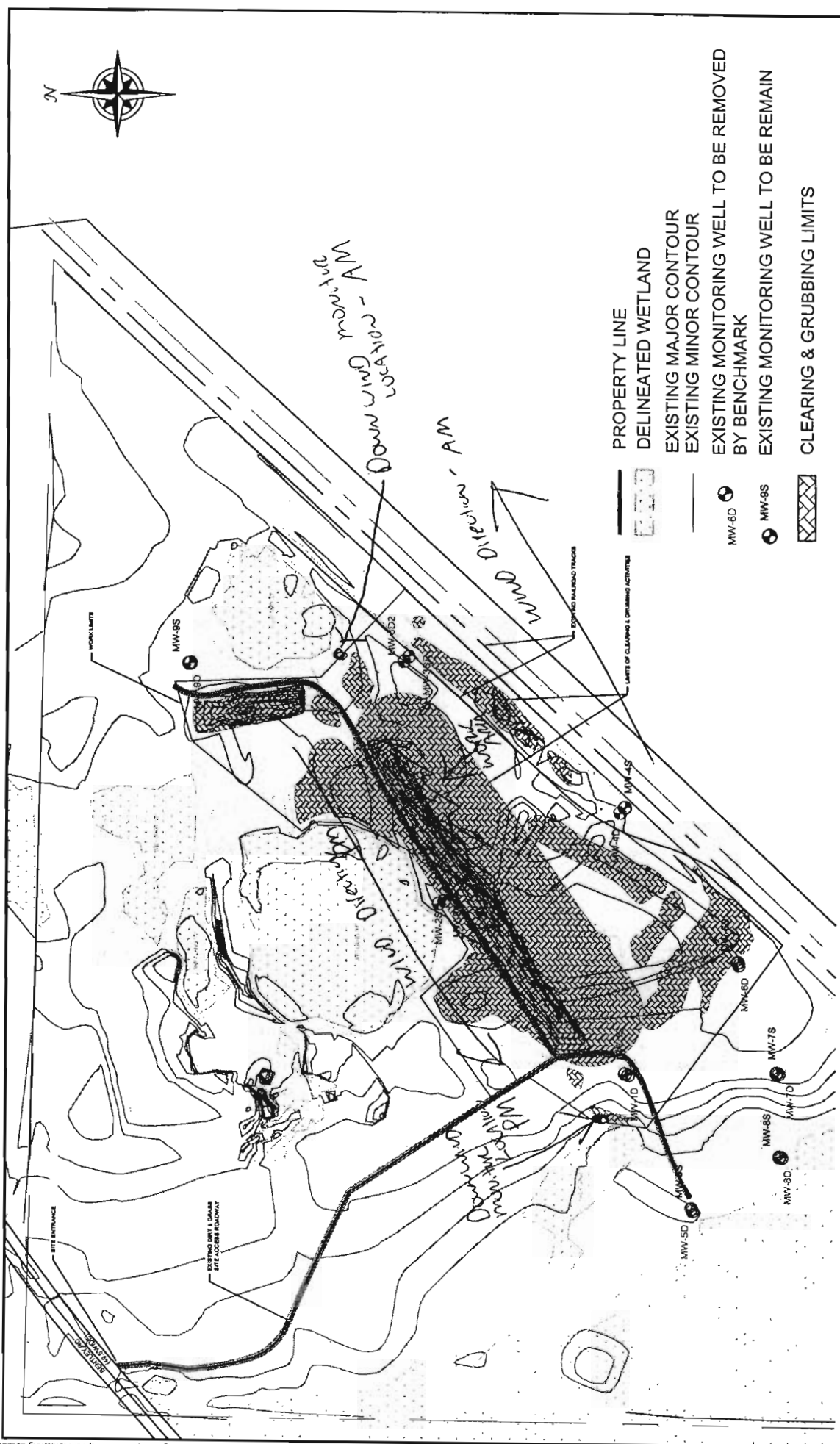
REMEDIAL CONSTRUCTION - COMMUNITY AIR MONITORING PLAN
 PETER COOPER MARKHAMS NPL SITE
 BENTLEY ROAD, DAYTON, NEW YORK

PREPARED FOR
 SITE RESPONDENTS

726 EXCHANGE STREET
 SUITE 824
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BENCHMARK
 ENVIRONMENTAL
 ENGINEERING &
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PROJECT NO: 0021-003-401
 DATE: AUGUST 2008
 DRAFTED BY: BCH



**PETER COOPER MARKHAMS NPL SITE
DAYTON, NEW YORK
COMMUNITY AIR MONITORING DAILY LOG**

Date: 1/28/08

LOCATION of ACTIVITIES/MONITORING STATIONS (Provide Sketch on Attached Map):

DESCRIPTION OF SITE ACTIVITIES: WASH
CONSIDERATION IN "C-CL" AREA

WEATHER CONDITIONS:

Time of Day:	2:30 A.M.	1:00 P.M.
Ambient Air Temp.:	20°F	65°F
Wind Direction:	W/SW	W/SW
Wind Speed:	10-15 mph	10-20 mph
Precipitation:	LT RAIN	LT RAIN - CLOUDY

NO monitoring setup Due to RAIN.

PARTICULATE MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 100 ug/m3 ¹					
Exceedence of 150 ug/m3 ¹					
Visual Observation of Fugitive Dust			NA		
			NA		
			NA		

VOC MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 5 ppm ¹					Temporarily halt Work and continue monitoring
Reading of 5 to 25 ppm ¹					Temporarily halt Work, abate emissions with corrective actions and continue monitoring ¹
Exceedence of 25 ppm ²					Shut Down Work Immediately and notify Site Safety & Health Officer

- Above background for 15 minute moving average.
 - Above background at Site perimeter (indicate location on attached sketch)
 - Work may resume when total VOC conc. 200 ft downwind or half the distance to nearest receptor (whichever is less) is below 5 ppm for 15 min.
- NOTE: All exceedences are to be reported to Benchmark within 15 minutes.

Completed By: flw
Checked By:

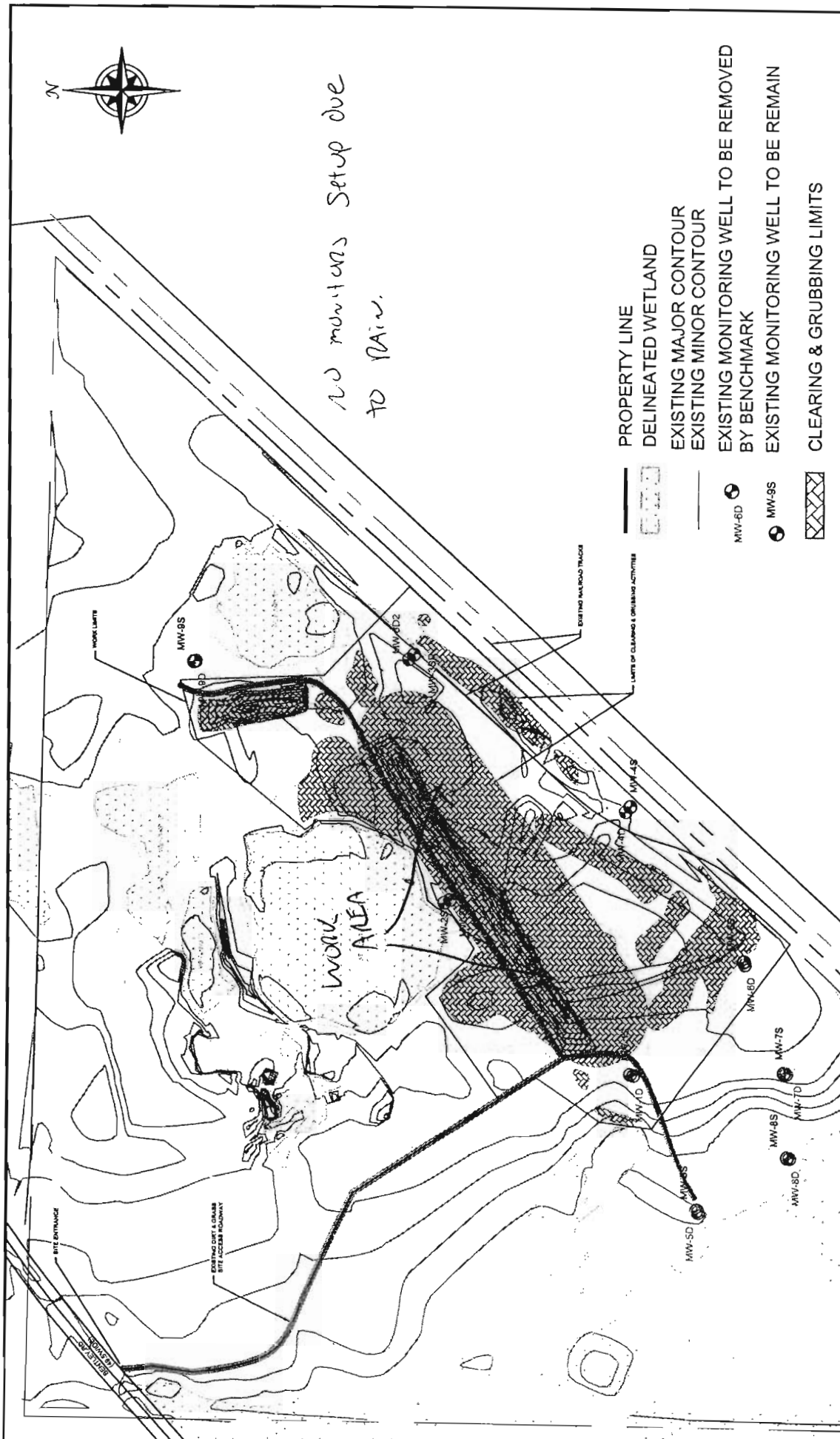


FIGURE 1

COMMUNITY AIR MONITORING LOCATIONS

COMMUNITY AIR MONITORING EDUCATION REMEDIATION CONSTRUCTION - COMMUNITY AIR MONITORING PLAN

PETER COOPER MARKHAMS NPL SITE
BENTLEY ROAD, DAYTON, NEW YORK

PREPARED FOR
SITE RESPONDENTS

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ENVIRONMENTAL
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PROJECT NO.: 0021-003-401

DATE: AUGUST 2008

DRAFTED BY: BCH

**PETER COOPER MARKHAMS NPL SITE
DAYTON, NEW YORK
COMMUNITY AIR MONITORING DAILY LOG**

Date: 8/29/08

LOCATION of ACTIVITIES/MONITORING STATIONS (Provide Sketch on Attached Map):

DESCRIPTION OF SITE ACTIVITIES: Consolidating WASTE

CELL AREA

WEATHER CONDITIONS:

Time of Day:	A.M.	P.M.
Ambient Air Temp.:	65°F	75°F
Wind Direction:	W	SW
Wind Speed:	0-5 mph	5-10 mph
Precipitation:	LT RAIN	cloudy / LT RAIN

NO monitors Setup due to Rain Showers.

PARTICULATE MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 100 ug/m3 ¹					
Exceedence of 150 ug/m3 ¹					
Visual Observation of Fugitive Dust			NA		
			NA		
			NA		

VOC MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 5 ppm ¹					Temporarily halt Work and continue monitoring
Reading of 5 to 25 ppm ¹					Temporarily halt Work, abate emissions with corrective actions and continue monitoring ¹
Exceedence of 25 ppm ²					Shut Down Work Immediately and notify Site Safety & Health Officer

- Above background for 15 minute moving average.
 - Above background at Site perimeter (indicate location on attached sketch)
 - Work may resume when total VOC conc. 200 ft downwind or half the distance to nearest receptor (whichever is less) is below 5 ppm for 15 min.
- NOTE: All exceedences are to be reported to Benchmark within 15 minutes.

Completed By: AD
Checked By:

**PETER COOPER MARKHAMS NPL SITE
DAYTON, NEW YORK
COMMUNITY AIR MONITORING DAILY LOG**

Date: 9/2/08

LOCATION of ACTIVITIES/MONITORING STATIONS (Provide Sketch on Attached Map):

DESCRIPTION OF SITE ACTIVITIES: Consolidation of WASH/FILL in "cell" AREA - loading material for off-site disposal. - utility decommissioning

WEATHER CONDITIONS:

Time of Day:	~~8:00~~ A.M. 0700	1200 P.M.
Ambient Air Temp.:	55°F	85°F
Wind Direction:	calm	< 5 mph
Wind Speed:	sw	variable
Precipitation:	none	none

PARTICULATE MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 100 ug/m ³ ¹			NA		
Exceedence of 150 ug/m ³ ¹			NA		
Visual Observation of Fugitive Dust			NA		
			NA		
			NA		

VOC MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 5 ppm ¹			NA		Temporarily halt Work and continue monitoring
Reading of 5 to 25 ppm ¹			NA		Temporarily halt Work, abate emissions with corrective actions and continue monitoring ¹
Exceedence of 25 ppm ²			NA		Shut Down Work Immediately and notify Site Safety & Health Officer

1. Above background for 15 minute moving average.

2. Above background at Site perimeter (indicate location on attached sketch)

3. Work may resume when total VOC conc. 200 ft downwind or half the distance to nearest receptor (whichever is less) is below 5 ppm for 15 min.

NOTE: All exceedences are to be reported to Benchmark within 15 minutes.

* VOC Readings in morning > 5ppm, caused by a False positive meter readings. - moisture on bulb.

Completed By:	<u>BLD</u>
Checked By:	

712100

FIGURE 1

COMMUNITY AIR MONITORING LOCATIONS

REMEDIAL CONSTRUCTION - COMMUNITY AIR MONITORING PLAN

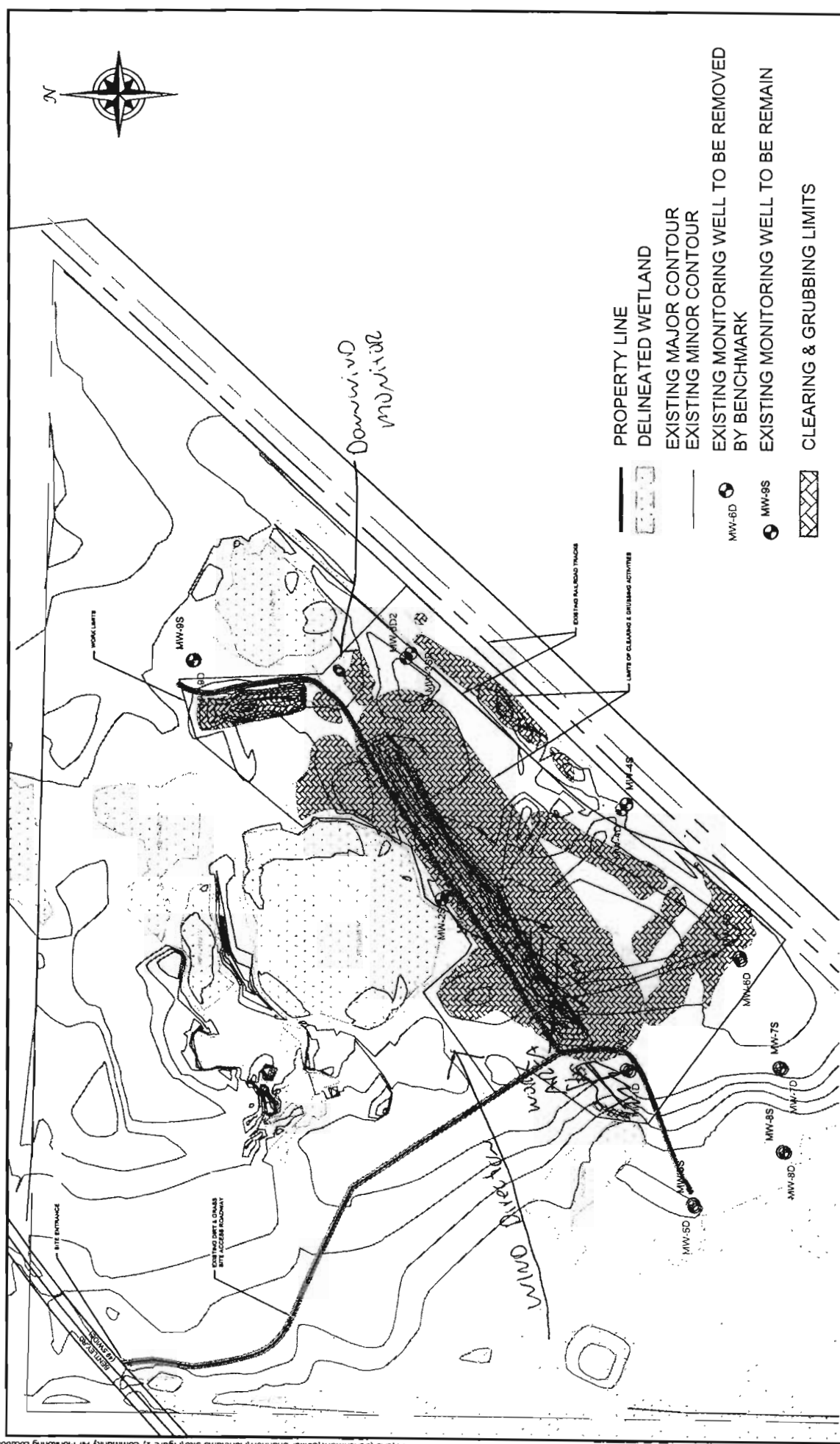
PETER COOPER MARKHAMS NPL SITE
BENTLEY ROAD, DAYTON, NEW YORK

PREPARED FOR
SITE RESPONDENTS

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

726 EXCHANGE STREET
SUITE 624
BUFFALO, NEW YORK 14210
(716) 856-0590

PROJECT NO.: 0021-003-401
DATE: AUGUST 2008
DRAFTED BY: BCH



**PETER COOPER MARKHAMS NPL SITE
DAYTON, NEW YORK
COMMUNITY AIR MONITORING DAILY LOG**

Date:

7/3/08

LOCATION of ACTIVITIES/MONITORING STATIONS (Provide Sketch on Attached Map):

DESCRIPTION OF SITE ACTIVITIES: 4A Site Consolidation
well delamination

WEATHER CONDITIONS:

Time of Day:	0700 A.M.	1100 P.M.
Ambient Air Temp.:	60°F	80°F
Wind Direction:	Calm - Variable	SW
Wind Speed:	0-5 mph	0-5 mph
Precipitation:	none	none

PARTICULATE MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 100 ug/m ³ ¹			NA		
Exceedence of 150 ug/m ³ ¹			NA		
Visual Observation of Fugitive Dust			NA		
			NA		
			NA		

VOC MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 5 ppm ¹			NA		Temporarily halt Work and continue monitoring
Reading of 5 to 25 ppm ¹			NA		Temporarily halt Work, abate emissions with corrective actions and continue monitoring ¹
Exceedence of 25 ppm ²			NA		Shut Down Work Immediately and notify Site Safety & Health Officer

- Above background for 15 minute moving average.
 - Above background at Site perimeter (indicate location on attached sketch)
 - Work may resume when total VOC conc. 200 ft downwind or half the distance to nearest receptor (whichever is less) is below 5 ppm for 15 min.
- NOTE: All exceedences are to be reported to Benchmark within 15 minutes.

Completed By:	MD
Checked By:	

9/3/08

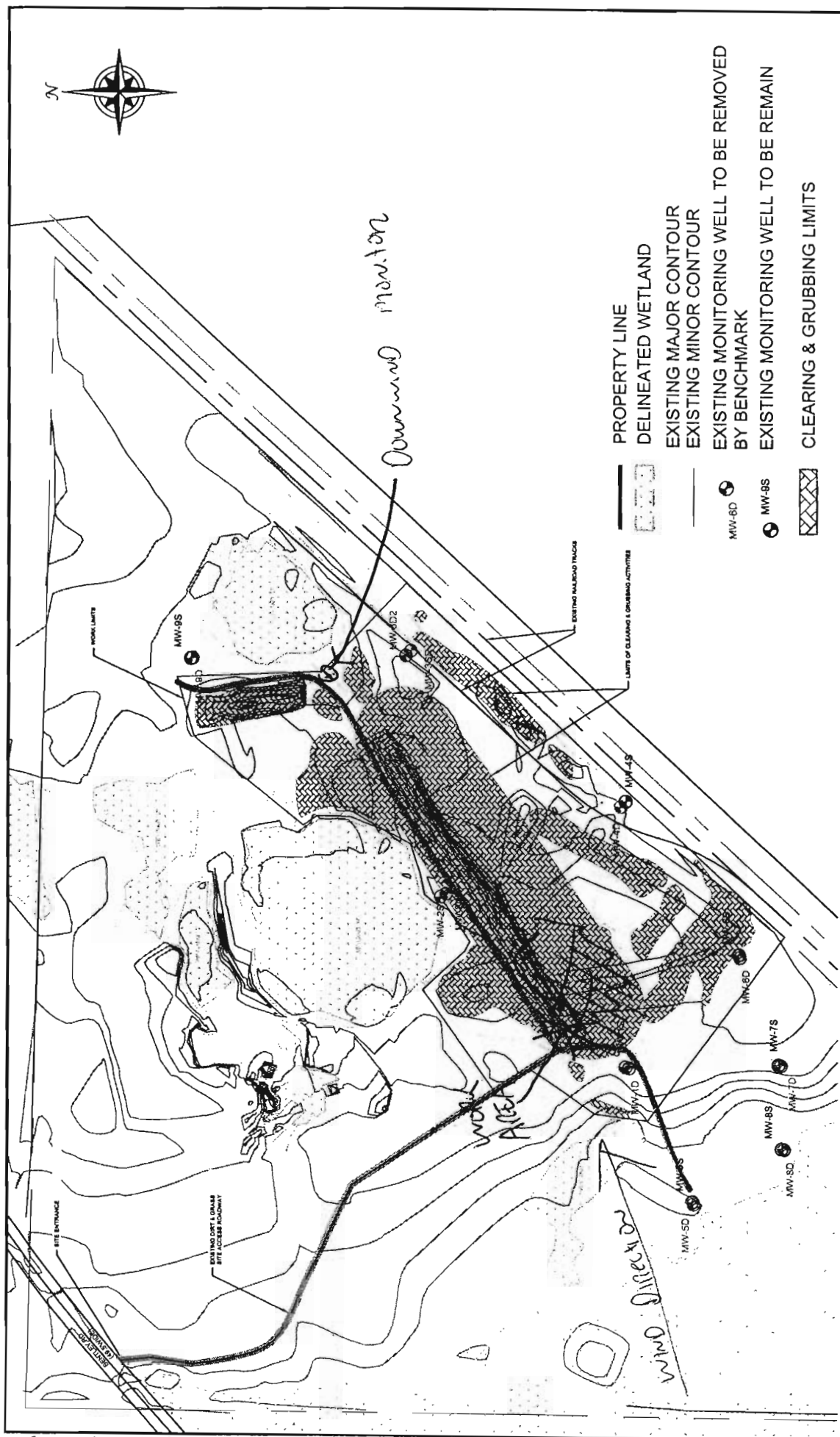
FIGURE 1

COMMUNITY AIR MONITORING LOCATIONS REMEDIAL CONSTRUCTION - COMMUNITY AIR MONITORING PLAN PETER COOPER MARKHAMS NPL SITE BENTLEY ROAD, DAYTON, NEW YORK

PREPARED FOR
 SITE RESPONDENTS

BENCHMARK
 ENVIRONMENTAL
 ENGINEERING &
 SCIENCE, PLLC
 726 EXCHANGE STREET
 SUITE 624
 BUFFALO, NEW YORK 14210
 (716) 856-0590

PROJECT NO.: 0021-003-401
 DATE: AUGUST 2008
 DRAFTED BY: BCH



**PETER COOPER MARKHAMS NPL SITE
DAYTON, NEW YORK
COMMUNITY AIR MONITORING DAILY LOG**

Date: 9/4/08

LOCATION of ACTIVITIES/MONITORING STATIONS (Provide Sketch on Attached Map):

DESCRIPTION OF SITE ACTIVITIES: WASTE CONSULTING
PHOTOGRAPHY WELL DEVELOPMENT

WEATHER CONDITIONS:

Time of Day:	0730 A.M.	1700 P.M.
Ambient Air Temp.:	60°F	85°F
Wind Direction:	Variable	Variable
Wind Speed:	Calm	0-10 mph
Precipitation:	None	None

PARTICULATE MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 100 ug/m3 ¹			NA		
Exceedence of 150 ug/m3 ¹			NA		
Visual Observation of Fugitive Dust			NA		
			NA		
			NA		

VOC MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 5 ppm ¹			NA		Temporarily halt Work and continue monitoring
Reading of 5 to 25 ppm ¹			NA		Temporarily halt Work, abate emissions with corrective actions and continue monitoring ¹
Exceedence of 25 ppm ²			NA		Shut Down Work Immediately and notify Site Safety & Health Officer

1. Above background for 15 minute moving average.
 2. Above background at Site perimeter (indicate location on attached sketch)
 3. Work may resume when total VOC conc. 200 ft downwind or half the distance to nearest receptor (whichever is less) is below 5 ppm for 15 min.
- NOTE: All exceedences are to be reported to Benchmark within 15 minutes.

Completed By: RED
Checked By: _____

**PETER COOPER MARKHAMS NPL SITE
DAYTON, NEW YORK
COMMUNITY AIR MONITORING DAILY LOG**

Date: 9/5/08

LOCATION OF ACTIVITIES/MONITORING STATIONS (Provide Sketch on Attached Map):

DESCRIPTION OF SITE ACTIVITIES: insulation work plan
in cable area. Downwind well

WEATHER CONDITIONS:

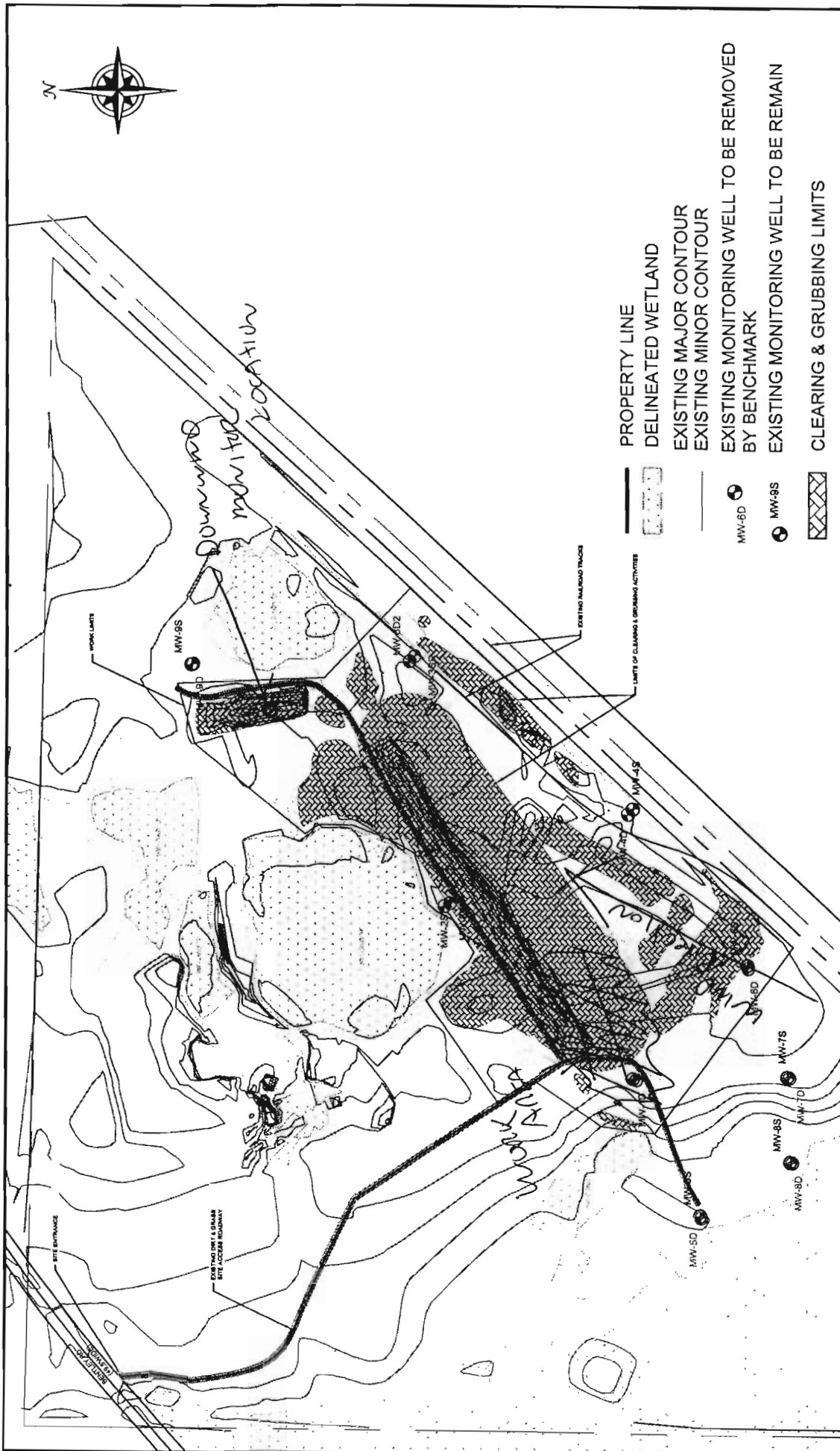
Time of Day:	0700 A.M.	1530 P.M.
Ambient Air Temp.:	75°F	85°F
Wind Direction:	west	west SW
Wind Speed:	10-15 mph	15-20 mph
Precipitation:	none	LT Rain at 1:30 PM

PARTICULATE MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 100 ug/m3 ¹			NA		
Exceedence of 150 ug/m3 ¹			NA		
Visual Observation of Fugitive Dust			NA		
			NA		
			NA		

VOC MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 5 ppm ¹			NA		Temporarily halt Work and continue monitoring
Reading of 5 to 25 ppm ¹			NA		Temporarily halt Work, abate emissions with corrective actions and continue monitoring ³
Exceedence of 25 ppm ²			NA		Shut Down Work Immediately and notify Site Safety & Health Officer

- Above background for 15 minute moving average.
 - Above background at Site perimeter (indicate location on attached sketch)
 - Work may resume when total VOC conc. 200 ft downwind or half the distance to nearest receptor (whichever is less) is below 5 ppm for 15 min.
- NOTE: All exceedences are to be reported to Benchmark within 15 minutes.

Completed By: NLD
Checked By:



9/15/08

FIGURE 1

COMMUNITY AIR MONITORING LOCATIONS

REMEDIAL CONSTRUCTION - COMMUNITY AIR MONITORING PLAN
 PETER COOPER MARKHAMS NPL SITE
 BENTLEY ROAD, DAYTON, NEW YORK

PREPARED FOR
 SITE RESPONDENTS

BENCHMARK
 ENVIRONMENTAL
 ENGINEERING &
 SCIENCE, PLLC

726 EXCHANGE STREET
 SUITE 824
 BUFFALO, NEW YORK 14210
 (716) 866-0599

PROJECT NO: 0021-003-401

DATE: AUGUST 2008

DRAFTED BY: BCH

**PETER COOPER MARKHAMS NPL SITE
DAYTON, NEW YORK
COMMUNITY AIR MONITORING DAILY LOG**

Date: 7/8/08

LOCATION of ACTIVITIES/MONITORING STATIONS (Provide Sketch on Attached Map):

DESCRIPTION OF SITE ACTIVITIES: Consolidate Waste Fill
in cap/cell AREA

WEATHER CONDITIONS:

Time of Day:	0800 A.M.	1645 P.M.
Ambient Air Temp.:	55°F	80°F
Wind Direction:	CalM	W/SW
Wind Speed:	0-5 mph	0-5 mph
Precipitation:	none	none

PARTICULATE MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 100 ug/m3 ¹			NA		
Exceedence of 150 ug/m3 ¹			NA		
Visual Observation of Fugitive Dust			NA		
			NA		
			NA		

VOC MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 5 ppm ¹			NA		Temporarily halt Work and continue monitoring
Reading of 5 to 25 ppm ¹			NA		Temporarily halt Work, abate emissions with corrective actions and continue monitoring ¹
Exceedence of 25 ppm ²			NA		Shut Down Work Immediately and notify Site Safety & Health Officer

1. Above background for 15 minute moving average.
 2. Above background at Site perimeter (indicate location on attached sketch)
 3. Work may resume when total VOC conc. 200 ft downwind or half the distance to nearest receptor (whichever is less) is below 5 ppm for 15 min.
 NOTE: All exceedences are to be reported to Benchmark within 15 minutes.

Completed By: RLD
 Checked By: _____

9/8/08

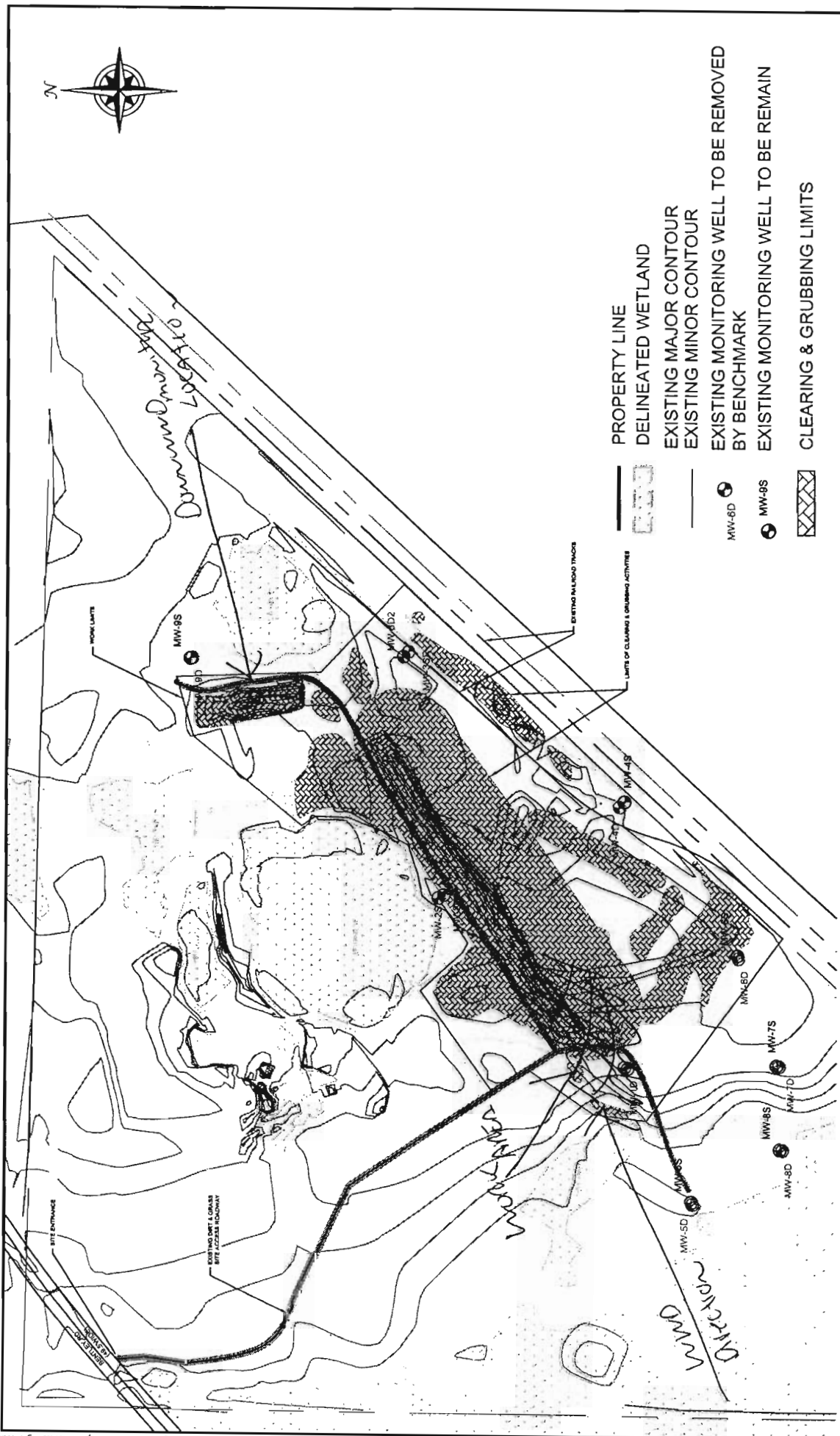
FIGURE 1

COMMUNITY AIR MONITORING LOCATIONS
REMEDIAL CONSTRUCTION - COMMUNITY AIR MONITORING PLAN
PETER COOPER MARKHAMS NPL SITE
BENTLEY ROAD, DAYTON, NEW YORK

PREPARED FOR
SITE RESPONDENTS

BENCHMARK
728 EXCHANGE STREET
SUITE 824
BUFFALO, NEW YORK 14210
(716) 858-0599
ENGINEERING & SCIENCE, PLLC

PROJECT NO.: 0021-003-401
DATE: AUGUST 2008
DRAFTED BY: BCH



**PETER COOPER MARKHAMS NPL SITE
DAYTON, NEW YORK
COMMUNITY AIR MONITORING DAILY LOG**

Date: 9/10/08

LOCATION of ACTIVITIES/MONITORING STATIONS (Provide Sketch
on Attached Map):

DESCRIPTION OF SITE ACTIVITIES: NO work performed
today, due to rain showers.

WEATHER CONDITIONS:

Time of Day: 1230 A.M. 1200 P.M.
Ambient Air Temp.: 60°F
Wind Direction: W
Wind Speed: 0-5 mph
Precipitation: NAW
no wind

PARTICULATE MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 100 ug/m ³ ¹			-		
Exceedence of 150 ug/m ³ ¹			-		
Visual Observation of Fugitive Dust			NA		
			NA		
			NA		

VOC MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 5 ppm ¹			-		Temporarily halt Work and continue monitoring
Reading of 5 to 25 ppm ¹			-		Temporarily halt Work, abate emissions with corrective actions and continue monitoring ³
Exceedence of 25 ppm ²			-		Shut Down Work Immediately and notify Site Safety & Health Officer

1. Above background for 15 minute moving average.
2. Above background at Site perimeter (indicate location on attached sketch)
3. Work may resume when total VOC conc. 200 ft downwind or half the distance to nearest receptor (whichever is less) is below 5 ppm for 15 min.
NOTE: All exceedences are to be reported to Benchmark within 15 minutes.

Completed By: NU
Checked By:

**PETER COOPER MARKHAMS NPL SITE
DAYTON, NEW YORK
COMMUNITY AIR MONITORING DAILY LOG**

Date: 9/10/08

LOCATION of ACTIVITIES/MONITORING STATIONS (Provide Sketch
on Attached Map):

DESCRIPTION OF SITE ACTIVITIES: CONSULT WASH/FILL
IN CELL AREA.

WEATHER CONDITIONS:

Time of Day:	0900 A.M.	1200 P.M.
Ambient Air Temp.:	49°F	70°F
Wind Direction:	W	SW-AN NW-PM
Wind Speed:	0-10 mph	0-10 mph
Precipitation:	none	none

PARTICULATE MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 100 ug/m3 ¹			NA		
Exceedence of 150 ug/m3 ¹			NA		
Visual Observation of Fugitive Dust			NA		
			NA		
			NA		

VOC MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 5 ppm ¹			NA		Temporarily halt Work and continue monitoring
Reading of 5 to 25 ppm ¹			NA		Temporarily halt Work, abate emissions with corrective actions and continue monitoring ¹
Exceedence of 25 ppm ²			NA		Shut Down Work Immediately and notify Site Safety & Health Officer

1. Above background for 15 minute moving average.
 2. Above background at Site perimeter (indicate location on attached sketch)
 3. Work may resume when total VOC conc. 200 ft downwind or half the distance to nearest receptor (whichever is less) is below 5 ppm for 15 min.
- NOTE: All exceedences are to be reported to Benchmark within 15 minutes.

Completed By: NLO

Checked By: _____

9/10/08

FIGURE 1

COMMUNITY AIR MONITORING LOCATIONS

REMEDIAL CONSTRUCTION - COMMUNITY AIR MONITORING PLAN

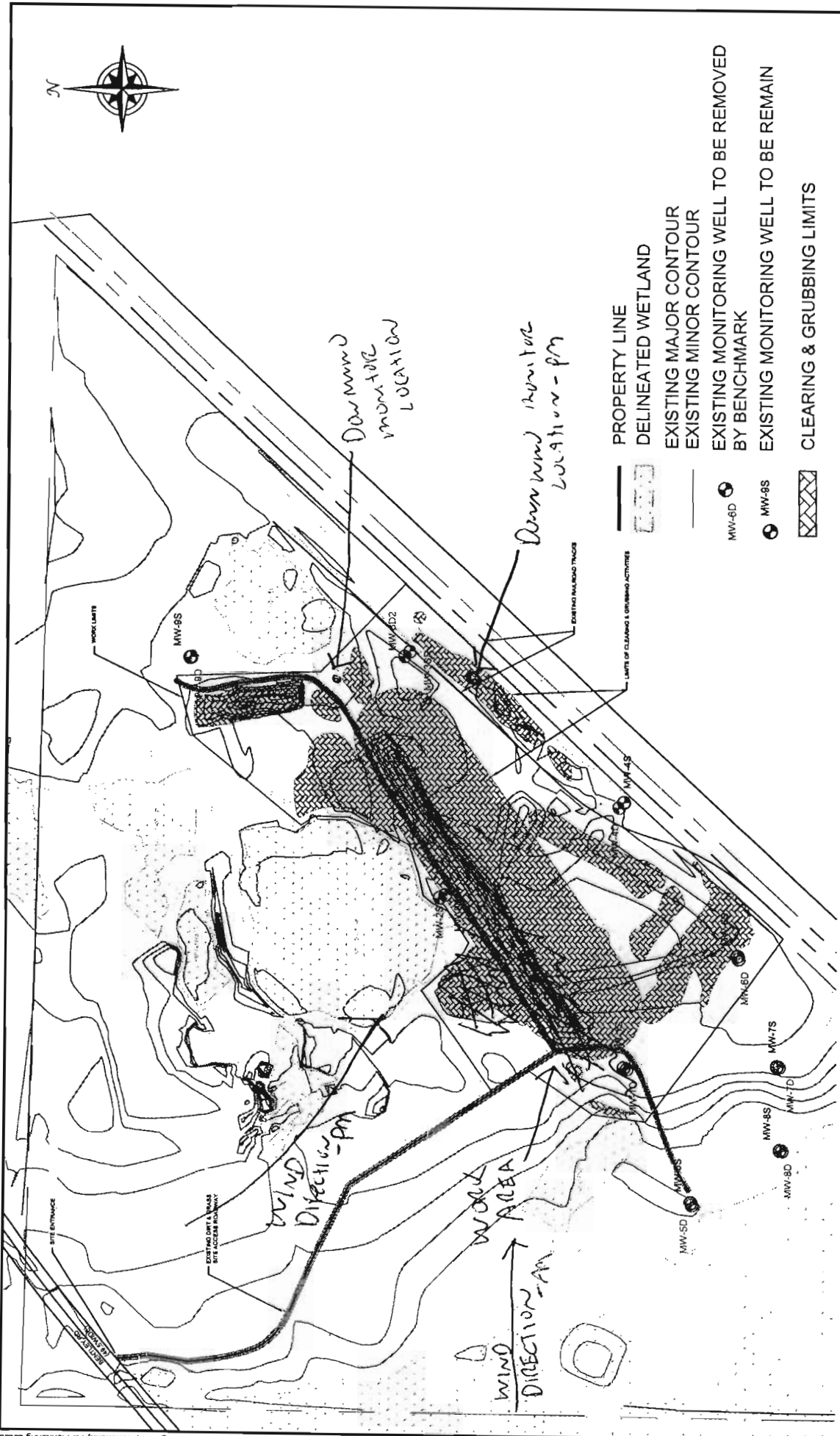
PETER COOPER MARKHAMS NPL SITE
BENTLEY ROAD, DAYTON, NEW YORK

PREPARED FOR
SITE RESPONDENTS

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

728 EXCHANGE STREET
SUITE 824
BUFFALO, NEW YORK 14210
(716) 856-0599

PROJECT NO.: 0021-003-401
DATE: AUGUST 2008
DRAFTED BY: BCH



WEATHER CONDITIONS:

Time of Day: 0730 A.M. / 120 P.M.

Ambient Air Temp.:

Wind Direction:	W

Wind Speed:

Precipitation:	cloud	cloud
Precipitation:	cloud	cloud

VOC MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 5 ppm ¹			NA		Temporarily halt Work and continue monitoring
Reading of 5 to 25 ppm ¹			NA		Temporarily halt Work, abate emissions with corrective actions and continue monitoring ³
Exceedence of 25 ppm ²			NA		Shut Down Work Immediately and notify Site Safety & Health Officer

Above background for 15 minute moving average.

Above background at Site perimeter (indicate location on attached sketch)

Work may resume when total VOC conc. 200 ft downwind or half the distance to nearest receptor (whichever is less) is below 5 ppm for 15 min.

NOTE: All exceedences are to be reported to Benchmark within 15 minutes.

Completed By:

0720

Checked By: _____

9/11/08

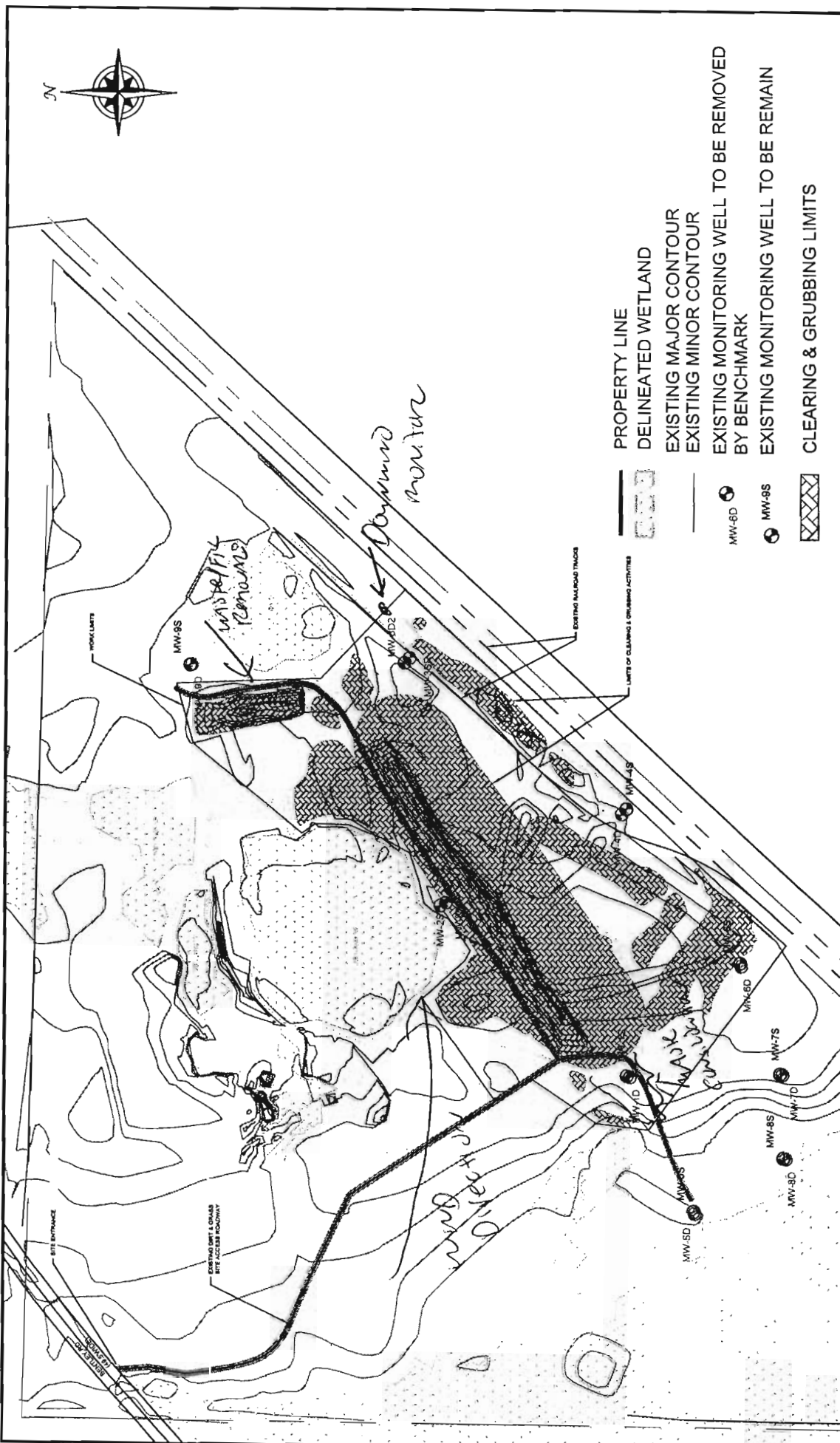
FIGURE 1

COMMUNITY AIR MONITORING LOCATIONS REMEDIAL CONSTRUCTION - COMMUNITY AIR MONITORING PLAN PETER COOPER MARKHAMS NPL SITE BENTLEY ROAD, DAYTON, NEW YORK

PREPARED FOR
 SITE RESPONDENTS

BENCHMARK
 ENVIRONMENTAL
 ENGINEERING &
 SCIENCE, PLLC
 726 EXCHANGE STREET
 SUITE 824
 BUFFALO, NEW YORK 14210
 (716) 858-0599

PROJECT NO.: 0021-003-401
 DATE: AUGUST 2008
 DRAFTED BY: BCH



**PETER COOPER MARKHAMS NPL SITE
DAYTON, NEW YORK
COMMUNITY AIR MONITORING DAILY LOG**

Date: 7/12/08

LOCATION of ACTIVITIES/MONITORING STATIONS (Provide Sketch on Attached Map):

DESCRIPTION OF SITE ACTIVITIES: Consolidate waste/Fill files

WEATHER CONDITIONS:

Time of Day: 0800 A.M. 0500 P.M.
Ambient Air Temp.: 70°F
Wind Direction: W
Wind Speed: 0-5 mph
Precipitation: 0-5 mph
RAIN

RAIN started at 9:00pm - NO more precipitation today.

PARTICULATE MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 100 ug/m ³ ¹			NA		
Exceedence of 150 ug/m ³ ¹			NA		
Visual Observation of Fugitive Dust			NA		
			NA		
			NA		

VOC MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 5 ppm ¹			NA		Temporarily halt Work and continue monitoring
Reading of 5 to 25 ppm ¹ *			NA		Temporarily halt Work, abate emissions with corrective actions and continue monitoring ³
Exceedence of 25 ppm ² *			NA		Shut Down Work Immediately and notify Site Safety & Health Officer

1. Above background for 15 minute moving average.

2. Above background at Site perimeter (indicate location on attached sketch)

3. Work may resume when total VOC conc. 200 ft downwind or half the distance to nearest receptor (whichever is less) is below 5 ppm for 15 min.

NOTE: All exceedences are to be reported to Benchmark within 15 minutes.

* High humidity Levels, affecting PLO meter.
Cylinders - FALSE positive readings

Completed By: RLD
Checked By: _____

8/11/08

FIGURE 1

COMMUNITY AIR MONITORING LOCATIONS
REMEDIAL CONSTRUCTION - COMMUNITY AIR MONITORING PLAN
PETER COOPER MARKHAMS NPL SITE
BENTLEY ROAD, DAYTON, NEW YORK

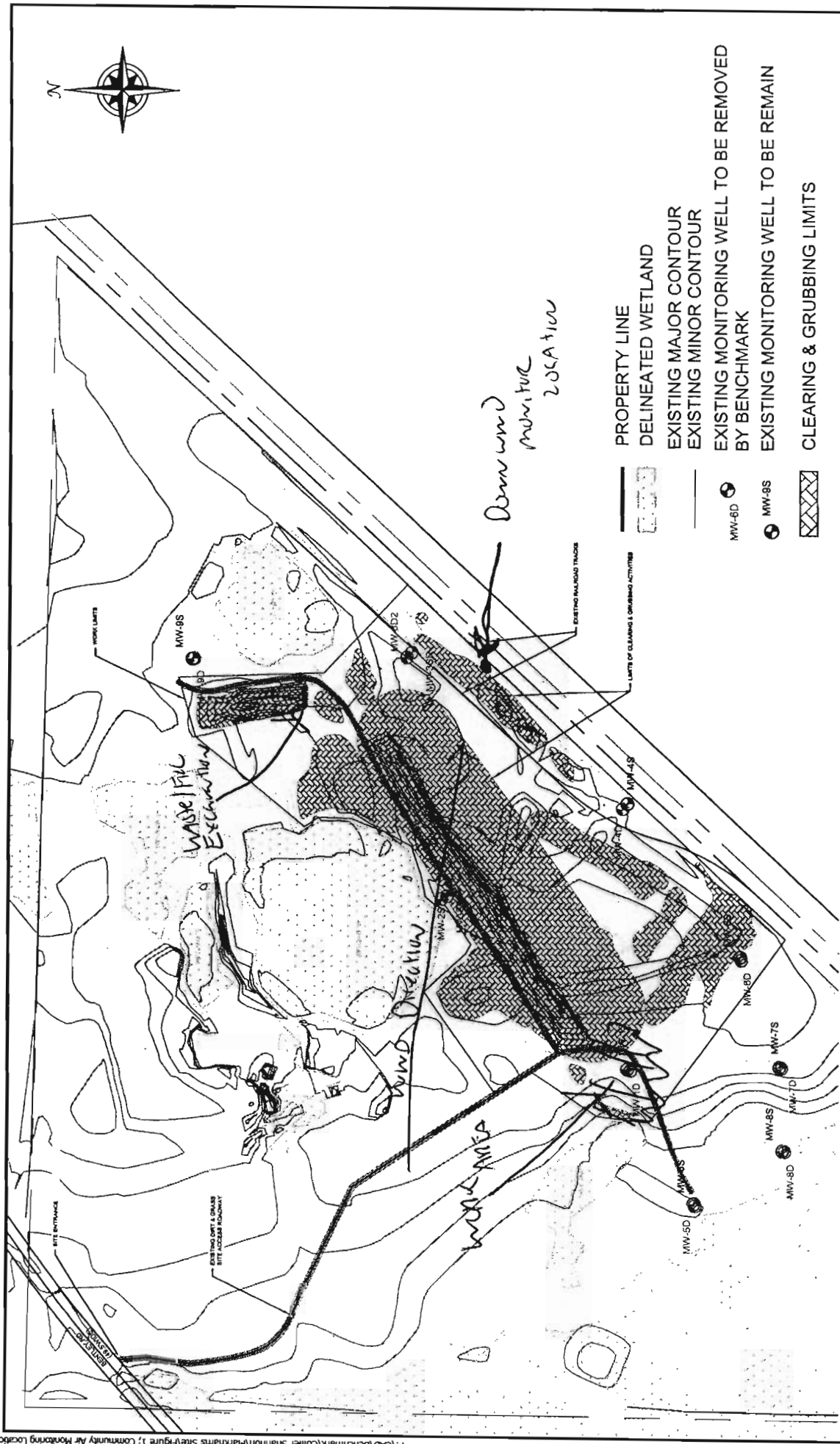
PREPARED FOR
SITE RESPONDENTS

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC
728 EXCHANGE STREET
SUITE 624
BUFFALO, NEW YORK 14210
(716) 856-0599

PROJECT NO.: 0021-003-401

DATE: AUGUST 2008

DRAFTED BY: BCH



PETER COOPER MARKHAMS NPL SITE DAYTON, NEW YORK COMMUNITY AIR MONITORING DAILY LOG

Date: 9/17/08

LOCATION of ACTIVITIES/MONITORING STATIONS (Provide Sketch on Attached Map):

DESCRIPTION OF SITE ACTIVITIES: CONSIDERABLE WASTE/FILL MATERIAL INTO CAP/CELL AREA.

WEATHER CONDITIONS:

Time of Day:	0700 A.M.	0120 P.M.
Ambient Air Temp.:	52°F	70°F
Wind Direction:	~~SW~~ SW	SW
Wind Speed:	0-5 mph	0-5 mph
Precipitation:	none	none

PARTICULATE MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 100 ug/m ³ ¹			NA		
Exceedence of 150 ug/m ³ ¹			NA		
Visual Observation of Fugitive Dust			NA		
			NA		
			NA		

VOC MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 5 ppm ¹			NA		Temporarily halt Work and continue monitoring
Reading of 5 to 25 ppm ¹			NA		Temporarily halt Work, abate emissions with corrective actions and continue monitoring ³
Exceedence of 25 ppm ²			NA		Shut Down Work Immediately and notify Site Safety & Health Officer

- Above background for 15 minute moving average.
 - Above background at Site perimeter (indicate location on attached sketch)
 - Work may resume when total VOC conc. 200 ft downwind or half the distance to nearest receptor (whichever is less) is below 5 ppm for 15 min.
- NOTE: All exceedences are to be reported to Benchmark within 15 minutes.

Completed By: PLD
Checked By: _____

9/17/08

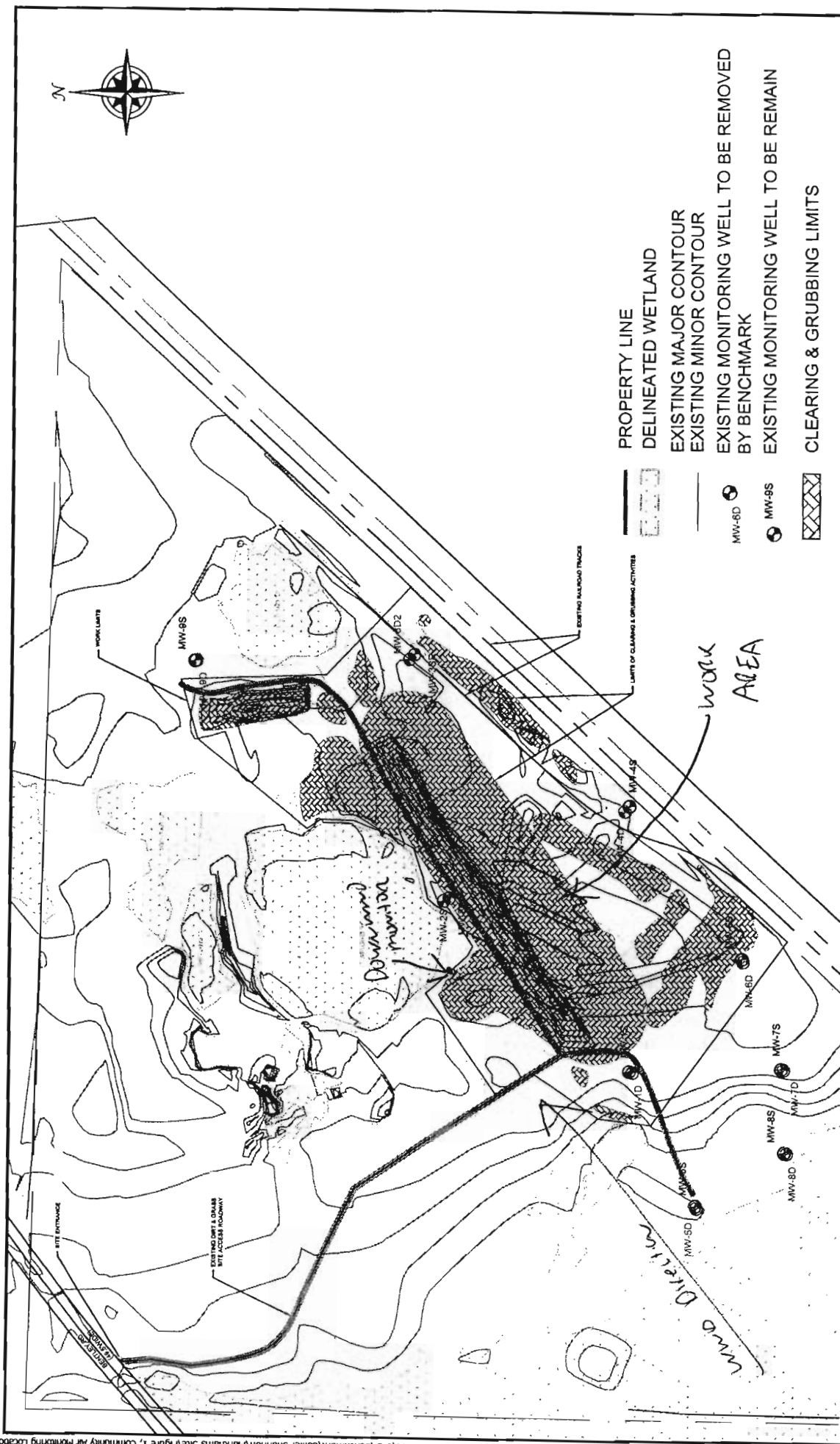
FIGURE 1

COMMUNITY AIR MONITORING LOCATIONS REMEDIAL CONSTRUCTION - COMMUNITY AIR MONITORING PLAN PETER COOPER MARKHAMS NPL SITE BENTLEY ROAD, DAYTON, NEW YORK

PREPARED FOR
 SITE RESPONDENTS

BENCHMARK
 ENVIRONMENTAL
 ENGINEERING &
 SCIENCE, PLLC
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 SUITE 824
 BUFFALO, NEW YORK 14210
 (716) 658-0599

PROJECT NO.: 0021-003-401
 DATE: AUGUST 2008
 DRAFTED BY: BCH



**PETER COOPER MARKHAMS NPL SITE
DAYTON, NEW YORK
COMMUNITY AIR MONITORING DAILY LOG**

Date: 9/18/88

LOCATION of ACTIVITIES/MONITORING STATIONS (Provide Sketch on Attached Map):

DESCRIPTION OF SITE ACTIVITIES: Consolidated Waste/Fill

WEATHER CONDITIONS:

Time of Day:	0745 A.M.	1220 P.M.
Ambient Air Temp.:	52°F	
Wind Direction:	SE	SE
Wind Speed:	0 mph	0-15 mph
Precipitation:	None	None

PARTICULATE MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 100 ug/m ³ ¹			NA		
Exceedence of 150 ug/m ³ ¹			NA		
Visual Observation of Fugitive Dust			NA		
			NA		
			NA		

VOC MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 5 ppm ¹			NA		Temporarily halt Work and continue monitoring
Reading of 5 to 25 ppm ¹			NA		Temporarily halt Work, abate emissions with corrective actions and continue monitoring ¹
Exceedence of 25 ppm ²			NA		Shut Down Work Immediately and notify Site Safety & Health Officer

- Above background for 15 minute moving average.
 - Above background at Site perimeter (indicate location on attached sketch)
 - Work may resume when total VOC conc. 200 ft downwind or half the distance to nearest receptor (whichever is less) is below 5 ppm for 15 min.
- NOTE: All exceedences are to be reported to Benchmark within 15 minutes.

Completed By: PLC
Checked By: _____

9/11/8108

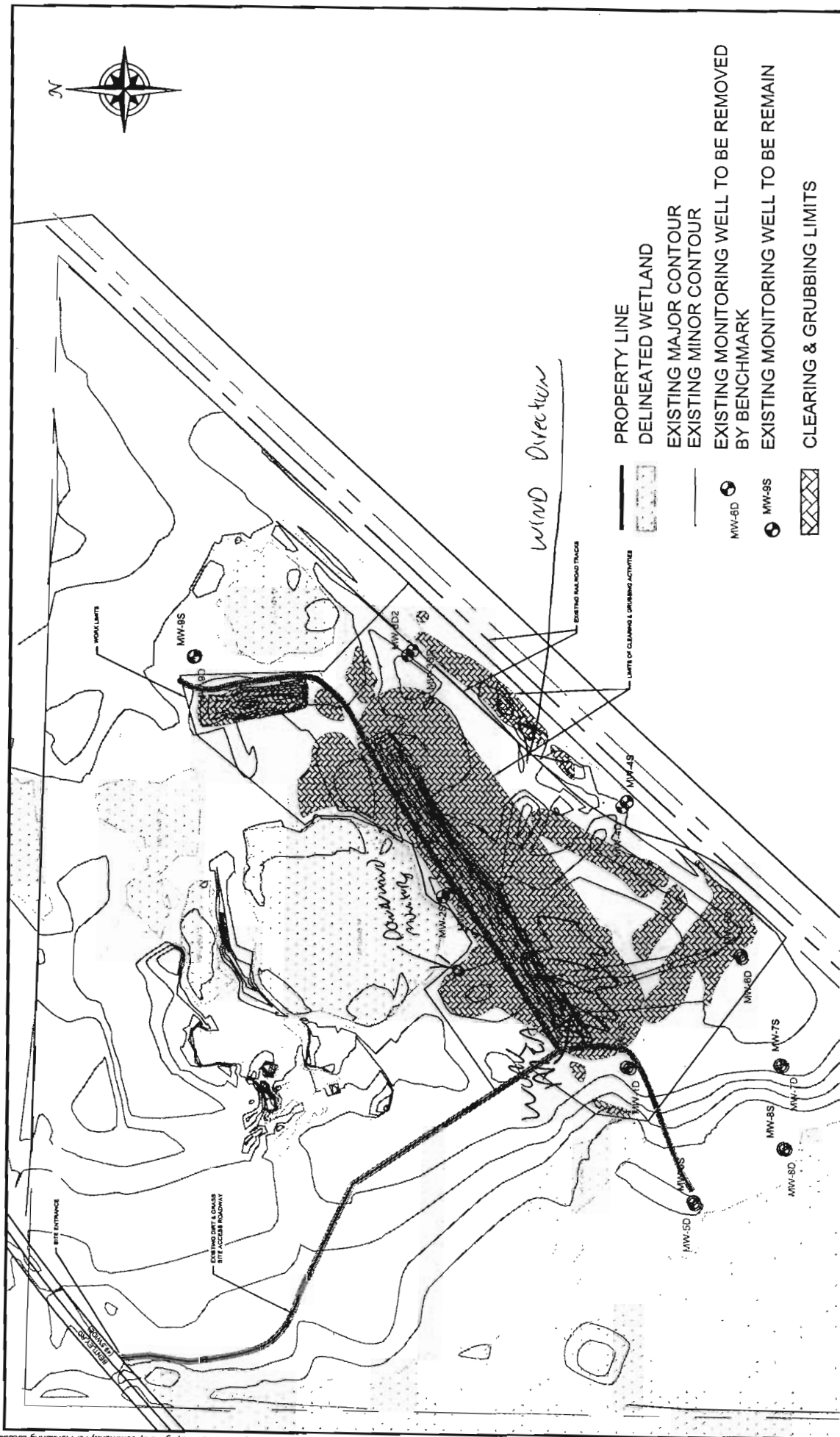
FIGURE 1

COMMUNITY AIR MONITORING LOCATIONS REMEDIAL CONSTRUCTION - COMMUNITY AIR MONITORING PLAN PETER COOPER MARKHAMS NPL SITE BENTLEY ROAD, DAYTON, NEW YORK

PREPARED FOR
 SITE RESPONDENTS

BENCHMARK
 ENVIRONMENTAL
 ENGINEERING &
 SCIENCE, PLLC
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 SUITE 624
 BUFFALO, NEW YORK 14210
 (716) 856-0599

PROJECT NO.: 0021-003-401
 DATE: AUGUST 2008
 DRAFTED BY: BCH



**PETER COOPER MARKHAMS NPL SITE
DAYTON, NEW YORK
COMMUNITY AIR MONITORING DAILY LOG**

Date: 9/19/08

LOCATION of ACTIVITIES/MONITORING STATIONS (Provide Sketch on Attached Map):

DESCRIPTION OF SITE ACTIVITIES: Consolidate Ash/Fill

WEATHER CONDITIONS:

Time of Day: 0700 A.M. 1730 P.M.
Ambient Air Temp.: 45°F 70°F
Wind Direction: SE SW
Wind Speed: 0 mph 5 mph
Precipitation: None None

PARTICULATE MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 100 ug/m ³ ¹			NA		
Exceedence of 150 ug/m ³ ¹			NA		
Visual Observation of Fugitive Dust			NA		
			NA		
			NA		

VOC MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 5 ppm ¹			NA		Temporarily halt Work and continue monitoring
Reading of 5 to 25 ppm ¹			NA		Temporarily halt Work, abate emissions with corrective actions and continue monitoring ³
Exceedence of 25 ppm ²			NA		Shut Down Work Immediately and notify Site Safety & Health Officer

1. Above background for 15 minute moving average.

2. Above background at Site perimeter (indicate location on attached sketch)

3. Work may resume when total VOC conc. 200 ft downwind or half the distance to nearest receptor (whichever is less) is below 5 ppm for 15 min.

NOTE: All exceedences are to be reported to Benchmark within 15 minutes.

Completed By: RUD
Checked By: _____

9/19/08

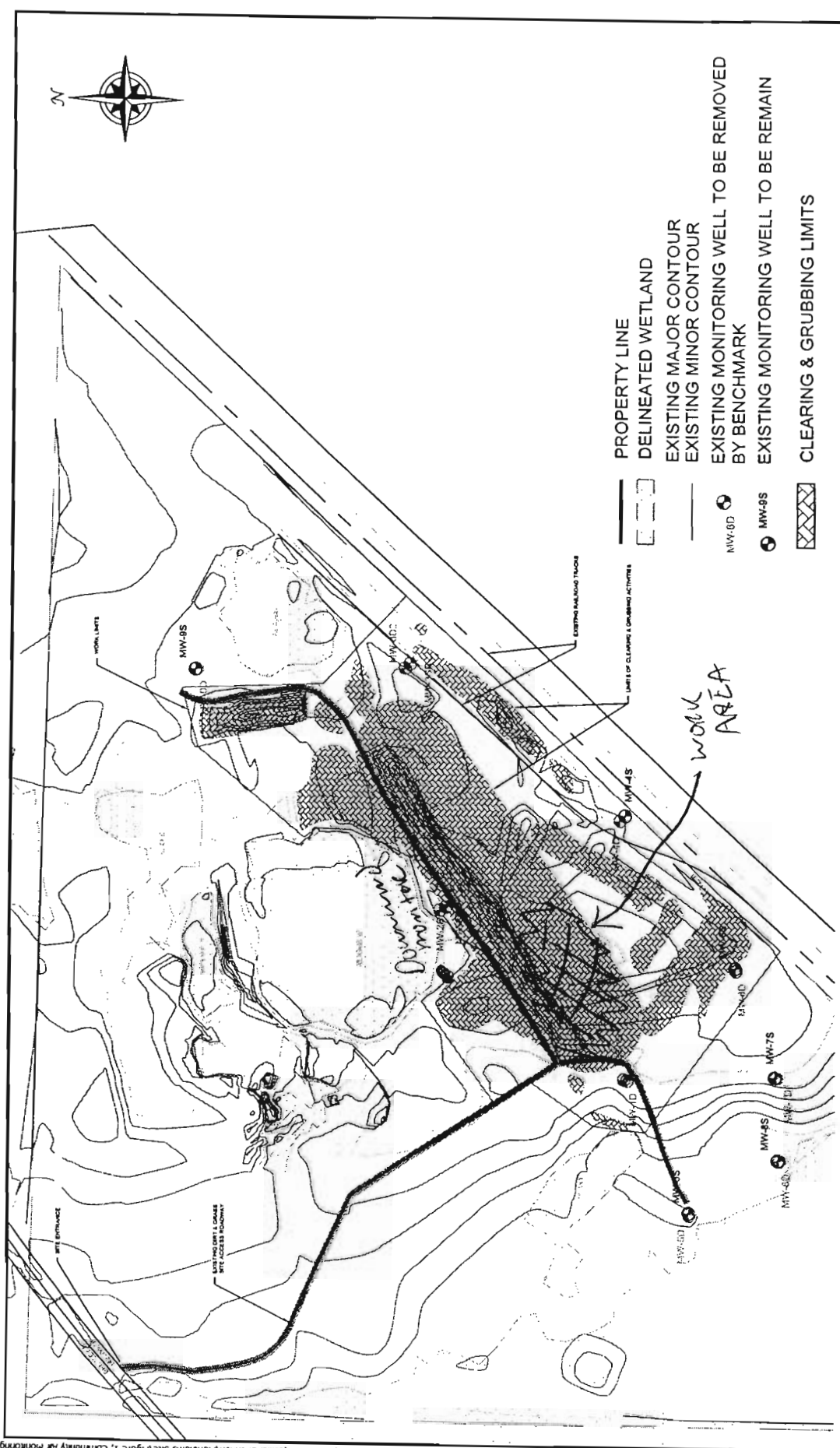


FIGURE 1

COMMUNITY AIR MONITORING LOCATIONS

REMEDIAL CONSTRUCTION - COMMUNITY AIR MONITORING PLAN
 PETER COOPER MARKHAM'S NPL SITE
 BENTLEY ROAD, DAYTON, NEW YORK

PREPARED FOR
 SITE RESPONDENTS

BENCHMARK
 ENVIRONMENTAL
 ENGINEERING &
 SCIENCE, PLLC

726 EXCHANGE STREET
 SUITE 624
 BUFFALO, NEW YORK 14210
 (716) 856-0599

PROJECT NO.: 0021-003-401
 DATE: AUGUST 2008
 DRAFTED BY: BCH

PETER COOPER MARKHAMS NPL SITE
DAYTON, NEW YORK
COMMUNITY AIR MONITORING DAILY LOG

Date: 7/22/08

LOCATION of ACTIVITIES/MONITORING STATIONS (Provide Sketch on Attached Map):

DESCRIPTION OF SITE ACTIVITIES: Consolidate waste/Fill

WEATHER CONDITIONS:

Time of Day:	0800 A.M.	1250 P.M.
Ambient Air Temp.:	48°F	70°F
Wind Direction:	N/E	N/E
Wind Speed:	0-10 mph	0-10 mph
Precipitation:	None	None

PARTICULATE MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 100 ug/m ³ ¹			NA		
Exceedence of 150 ug/m ³ ¹			NA		
Visual Observation of Fugitive Dust			NA		
			NA		
			NA		

VOC MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 5 ppm ¹			NA		Temporarily halt Work and continue monitoring
Reading of 5 to 25 ppm ¹			NA		Temporarily halt Work, abate emissions with corrective actions and continue monitoring ¹
Exceedence of 25 ppm ²			NA		Shut Down Work Immediately and notify Site Safety & Health Officer

- Above background for 15 minute moving average.
 - Above background at Site perimeter (indicate location on attached sketch)
 - Work may resume when total VOC conc. 200 ft downwind or half the distance to nearest receptor (whichever is less) is below 5 ppm for 15 min.
- NOTE: All exceedences are to be reported to Benchmark within 15 minutes.

Completed By: _____
Checked By: PLG

9/22/08

FIGURE 1

COMMUNITY AIR MONITORING LOCATIONS
REMEDIAL CONSTRUCTION - COMMUNITY AIR MONITORING PLAN
PETER COOPER MARKHAMS NPL SITE
BENTLEY ROAD, DAYTON, NEW YORK

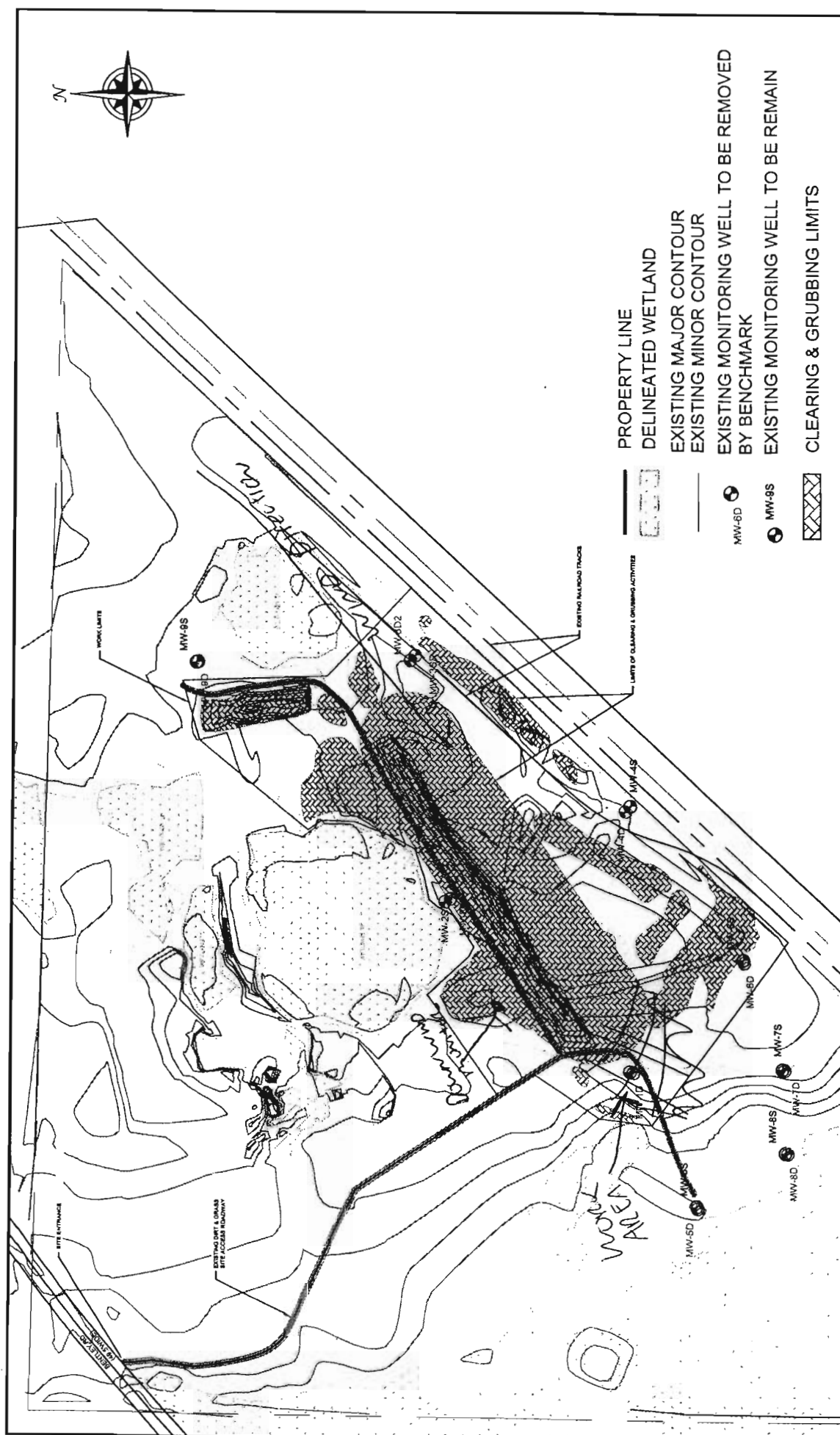
PREPARED FOR
SITE RESPONDENTS

BENCHMARK
726 EXCHANGE STREET
SUITE 824
BUFFALO, NEW YORK 14210
(716) 856-0599
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

PROJECT NO.: 0021-003-401

DATE: AUGUST 2008

DRAFTED BY: BCH



PETER COOPER MARKHAMS NPL SITE DAYTON, NEW YORK COMMUNITY AIR MONITORING DAILY LOG

Date: 9/23/08

WEATHER CONDITIONS:

Time of Day:	0800 A.M.	1730 P.M.
Ambient Air Temp.:	50 °F	70 °F
Wind Direction:	N/NE	N/NE
Wind Speed:	0-10 mph	0-10 mph
Precipitation:	none	none

LOCATION of ACTIVITIES/MONITORING STATIONS (Provide Sketch on Attached Map):

DESCRIPTION OF SITE ACTIVITIES: Final grading of Subgrade

On CAP AREA

PARTICULATE MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 100 ug/m ³ ¹			NA		
Exceedence of 150 ug/m ³ ¹			NA		
Visual Observation of Fugitive Dust			NA		
			NA		
			NA		

VOC MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 5 ppm ¹			NA		Temporarily halt Work and continue monitoring
Reading of 5 to 25 ppm ¹			NA		Temporarily halt Work, abate emissions with corrective actions and continue monitoring ³
Exceedence of 25 ppm ²			NA		Shut Down Work Immediately and notify Site Safety & Health Officer

1. Above background for 15 minute moving average.

2. Above background at Site perimeter (indicate location on attached sketch)

3. Work may resume when total VOC conc. 200 ft downwind or half the distance to nearest receptor (whichever is less) is below 5 ppm for 15 min.

NOTE: All exceedences are to be reported to Benchmark within 15 minutes.

Completed By: MLD

Checked By: _____

9/23/08

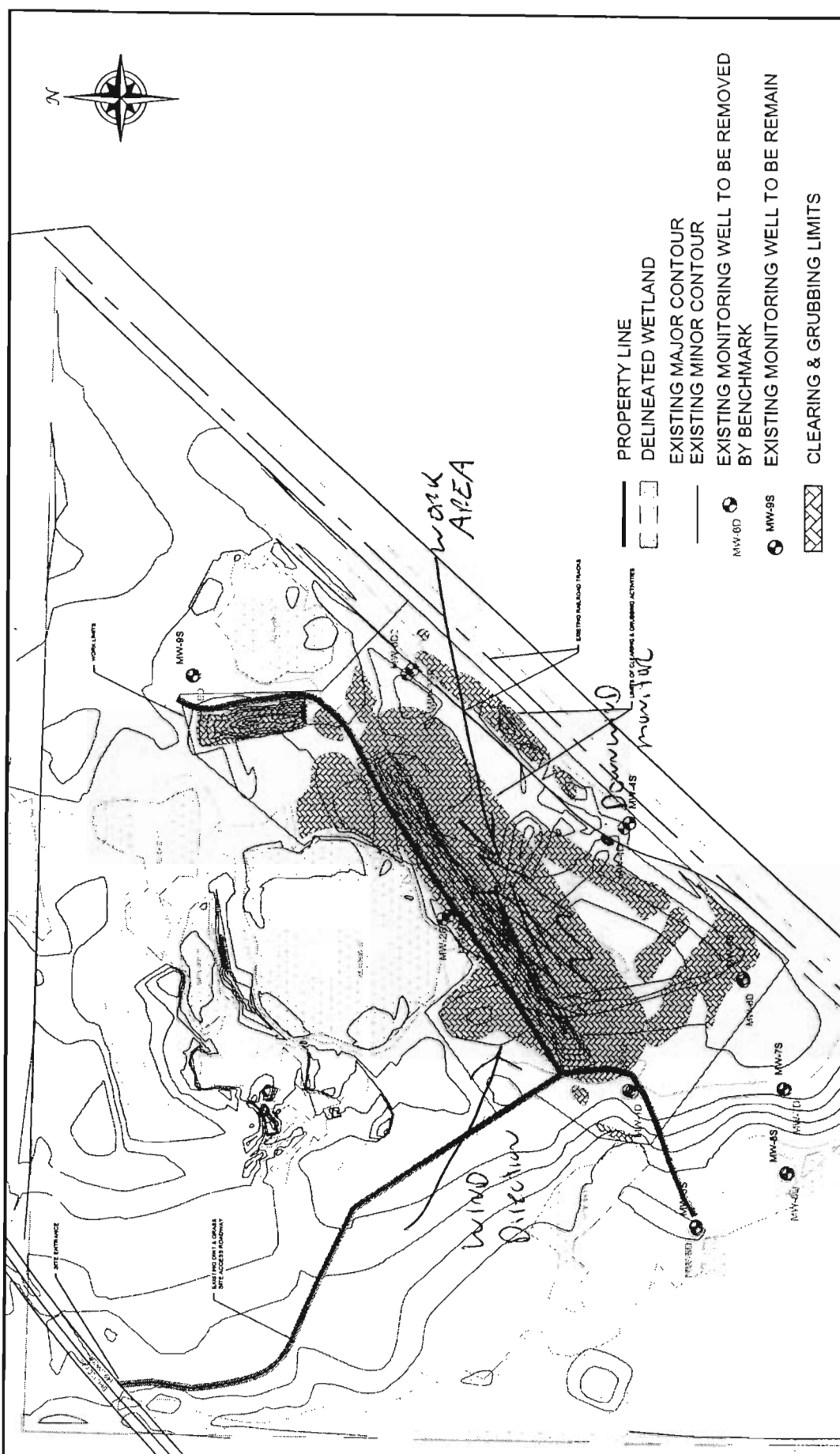


FIGURE 1

COMMUNITY AIR MONITORING LOCATIONS
 REMEDIAL CONSTRUCTION - COMMUNITY AIR MONITORING PLAN
 PETER COOPER MARKHAMS NPL SITE
 BENTLEY ROAD, DAYTON, NEW YORK

PREPARED FOR
 SITE RESPONDENTS

BENCHMARK
 ENVIRONMENTAL
 ENGINEERING &
 SCIENCE, PLLC
 726 EXCHANGE STREET
 SUITE 624
 BUFFALO, NEW YORK 14210
 (716) 856-0599

PROJECT NO.: 0021-003-401
 DATE: AUGUST 2008
 DRAFTED BY: BCH

**PETER COOPER MARKHAMS NPL SITE
DAYTON, NEW YORK
COMMUNITY AIR MONITORING DAILY LOG**

Date: 9/24/08

LOCATION of ACTIVITIES/MONITORING STATIONS (Provide Sketch
on Attached Map):

DESCRIPTION OF SITE ACTIVITIES: Finalize grading of wash/fill
cap area

WEATHER CONDITIONS:

Time of Day: 0730 A.M. 1600 P.M.
Ambient Air Temp.: 48°F 72°F
Wind Direction: calm SS S/SE
Wind Speed: 0 mph 0-5 mph
Precipitation: none none

PARTICULATE MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 100 ug/m3 ¹			<u>NA</u>		
Exceedence of 150 ug/m3 ¹			<u>NA</u>		
Visual Observation of Fugitive Dust			<u>NA</u>		
			<u>NA</u>		
			<u>NA</u>		

VOC MONITORING	Location	Time	Value	Duration	Corrective Measures Taken (Eng Controls/Work Stoppage, etc.)
Exceedence of 5 ppm ¹			<u>NA</u>		Temporarily halt Work and continue monitoring
Reading of 5 to 25 ppm ¹					Temporarily halt Work, abate emissions with corrective actions and continue monitoring ¹
Exceedence of 25 ppm ²					Shut Down Work Immediately and notify Site Safety & Health Officer

1. Above background for 15 minute moving average.

2. Above background at Site perimeter (indicate location on attached sketch)

3. Work may resume when total VOC conc. 200 ft downwind or half the distance to nearest receptor (whichever is less) is below 5 ppm for 15 min.

NOTE: All exceedences are to be reported to Benchmark within 15 minutes.

Completed By:
Checked By:

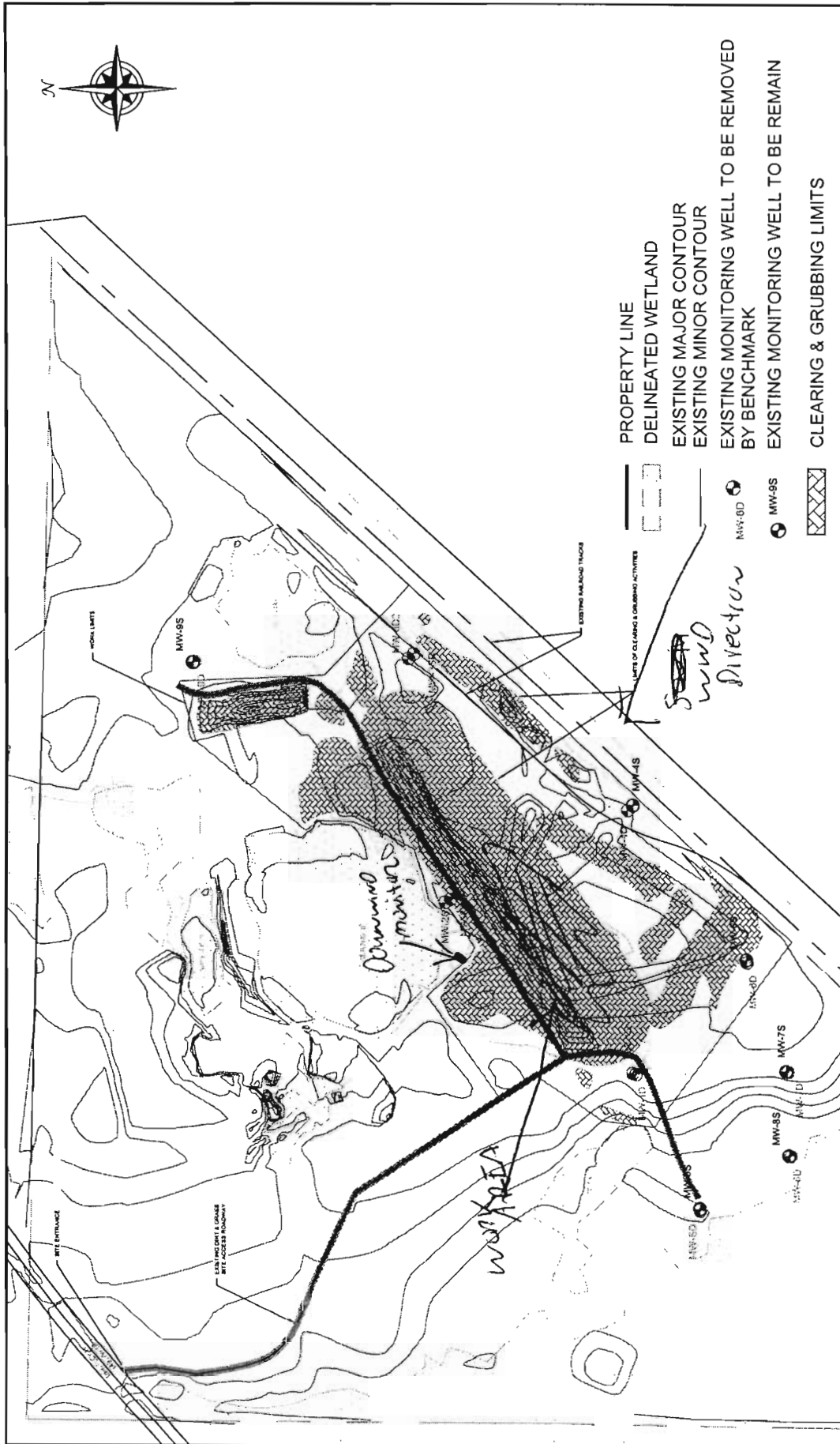


FIGURE 1

COMMUNITY AIR MONITORING LOCATIONS

REMEDIAL CONSTRUCTION - COMMUNITY AIR MONITORING PLAN

PETER COOPER MARKHAMS NPL SITE
BENTLEY ROAD, DAYTON, NEW YORK

PREPARED FOR
SITE RESPONDENTS

BENCHMARK
728 EXCHANGE STREET
SUITE 624
BUFFALO, NEW YORK 14210
(716) 856-0599
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

PROJECT NO.: 0021-003-401
DATE: AUGUST 2008
DRAFTED BY: BCH

APPENDIX I

SITE PHOTOGRAPHS

PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 1A	Date Aug-08		
Direction Photo Taken: North			
Description: Reestablish site access road.			

Photo No. 1B	Date Aug-08	
Direction Photo Taken: South		
Description: Site prior to remedial activities		

PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 1	Date Aug-08		
Direction Photo Taken: West			
Description: Site prior to remedial activities			

Photo No. 2	Date Aug-08	
Direction Photo Taken: South		
Description: Site prior to remedial activities		

PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 3	Date Aug-08		
Direction Photo Taken: West			
Description: Site prior to remedial activities			

Photo No. 4	Date Aug-08	
Direction Photo Taken: South		
Description: Site prior to remedial activities		

PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 5	Date Aug-08		
Direction Photo Taken: West			
Description: Begin clearing and grubbing.			

Photo No. 6	Date Aug-08	
Direction Photo Taken: West		
Description: Begin clearing and grubbing.		

PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 7	Date Aug-08		
Direction Photo Taken: West			
Description: Clearing and grubbing with Hydro Ax.			

Photo No. 8	Date Aug-08	
Direction Photo Taken: West		
Description: Clearing and grubbing with Hydro Ax.		

PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 9	Date Aug-08		
Direction Photo Taken: East			
Description: Clearing and cutting of trees.			

Photo No. 10	Date Aug-08	
Direction Photo Taken: South east		
Description: Clearing and cutting of trees.		

PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 11	Date Aug-08		
Direction Photo Taken: East			
Description: Clearing and cutting of trees.			

Photo No. 12	Date Aug-08	
Direction Photo Taken: North east		
Description: Clearing and cutting of trees.		

PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 13	Date Aug-08		
Direction Photo Taken: East			
Description: Clearing and cutting of trees.			

Photo No. 14	Date Aug-08	
Direction Photo Taken: North east		
Description: Clearing and cutting of trees.		

PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 15	Date Aug-08		
Direction Photo Taken: East			
Description: Cleared vegetation.			

Photo No. 16	Date Aug-08	
Direction Photo Taken: South		
Description: Cleared vegetation.		

PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 17	Date Aug-08		
Direction Photo Taken: East			
Description: Cleared vegetation.			

Photo No. 18	Date Aug-08	
Direction Photo Taken: South		
Description: Cleared vegetation.		

PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 19	Date Aug-08		
Direction Photo Taken: South			
Description: Stump Removal			

Photo No. 20	Date Aug-08	
Direction Photo Taken: North		
Description: Stump Removal		

PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 19A	Date Aug-08		
Direction Photo Taken: West			
Description: Stump Removal			

Photo No. 20A	Date Aug-08	
Direction Photo Taken: West		
Description: Stump Removal		

PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 21	Date Aug-08		
Direction Photo Taken: West			
Description: Staging of cut trees prior to grinding.			

Photo No. 22	Date Aug-08	
Direction Photo Taken: South		
Description: Staging of cut trees prior to grinding.		

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 23	Date Aug-08		
Direction Photo Taken: North			
Description: Grinding of vegetation.			

Photo No. 24	Date Aug-08	
Direction Photo Taken: North west		
Description: Grinding of vegetation.		

PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 25	Date Aug-08		
Direction Photo Taken: South west			
Description: Grinding of vegetation.			

Photo No. 26	Date Aug-08	
Direction Photo Taken: South west		
Description: Grinding of vegetation.		

PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 27	Date Aug-08		
Direction Photo Taken: West			
Description: Offsite removal of wood chips.			

Photo No. 28	Date Aug-08	
Direction Photo Taken: North		
Description: Installation of replacement monitoring well MW-2SR.		

PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markham's Site	Project No.: 0021-003-401
Photo No. 29	Date Aug-08		
Direction Photo Taken: North			
Description: Decommissioning damaged monitoring well MW-2S.			

Photo No. 30	Date Aug-08	
Direction Photo Taken: East		
Description: Decommissioning monitoring well MW-9D.		

PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 31	Date Sep-08		
Direction Photo Taken: West			
Description: Regrading waste material.			

Photo No. 32	Date Sep-08	
Direction Photo Taken: East		
Description: Regrading waste material.		

PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 33	Date Sep-08		
Direction Photo Taken: North			
Description: Consolidating waste/fill material.			

Photo No. 34	Date Sep-08	
Direction Photo Taken: East		
Description: Reggrading waste material, preparing subgrade.		

PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 34A	Date Sep-08		
Direction Photo Taken:			
Description: Air monitoring equipment setup during waste/fill consolidation.			

Photo No.	Date Sep-08	
Direction Photo Taken: South		
Description: Consolidating waste/fill piles.		

PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 35	Date Sep-08		
Direction Photo Taken: North			
Description: Consolidating waste/fill piles			

Photo No. 36	Date Sep-08	
Direction Photo Taken: East		
Description: Consolidating waste/fill piles		

PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 37	Date Sep-08		
Direction Photo Taken: East			
Description: Compacting waste/fill soil with padfoot roller.			

Photo No. 38	Date Sep-08	
Direction Photo Taken: East		
Description: Compacted waste/fill prior to placement of barrier protection layer.		

PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 39	Date Oct-08		
Direction Photo Taken: West			
Description: Placement of barrier protection soils.			

Photo No. 40	Date Oct-08	
Direction Photo Taken: East		
Description: Placement of barrier protection soils.		

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 41	Date Oct-08		
Direction Photo Taken: East			
Description: Placement of barrier protection soils.			

Photo No. 42	Date Oct-08	
Direction Photo Taken: West		
Description: 1st lift of barrier soils placed and compacted.		

PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 43	Date Oct-08		
Direction Photo Taken: West			
Description: Placed and compacted barrier soils.			

Photo No. 44	Date Oct-08	
Direction Photo Taken: West		
Description: Placement of topsoil layer		

PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 45	Date Oct-08		
Direction Photo Taken: East			
Description: Placed topsoil layer.			

Photo No. 46	Date Oct-08	
Direction Photo Taken: West		
Description: Placed topsoil layer.		

PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 45	Date Oct-08		
Direction Photo Taken: South east			
Description: Tree planting using hydraulic auger.			

Photo No. 46	Date Oct-08	
Direction Photo Taken: West		
Description: Tree planting.		

PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 47	Date Oct-08		
Direction Photo Taken: East			
Description: Applying hydroseed vegetation on placed topsoil.			

Photo No. 48	Date Oct-08	
Direction Photo Taken: East		
Description: Applied hydroseed vegetation.		

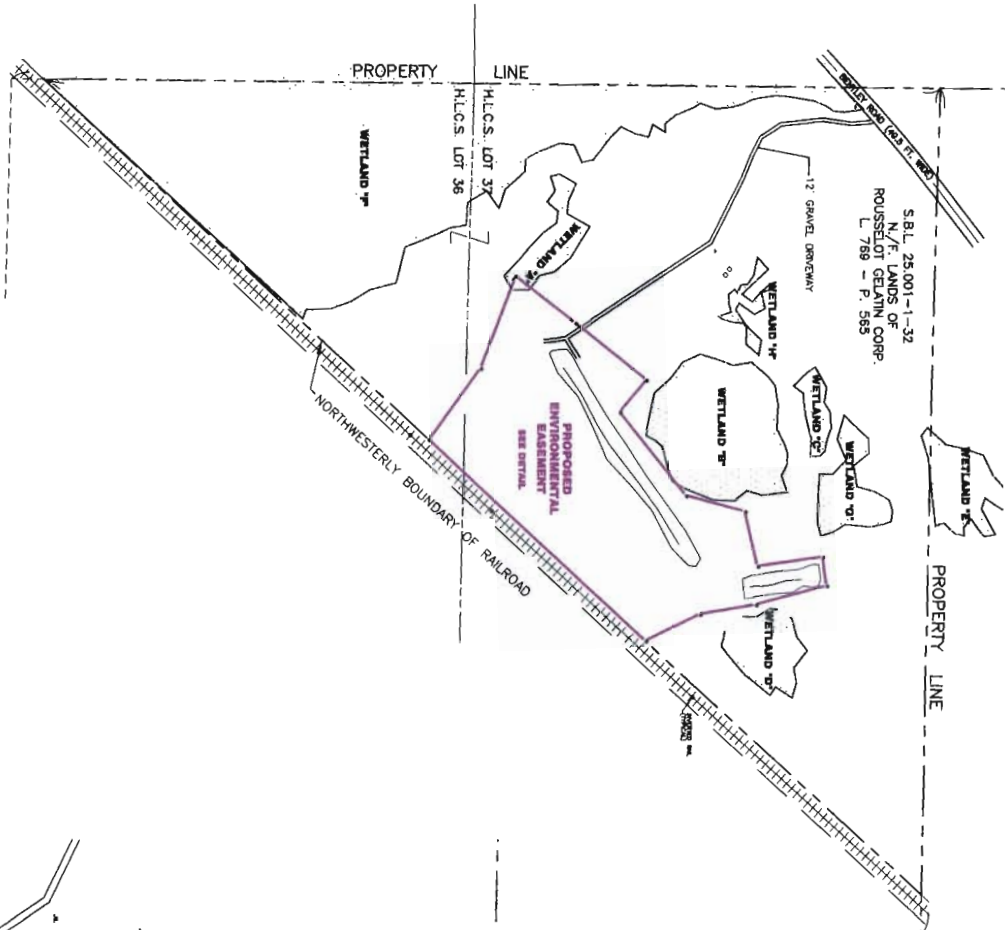
PHOTOGRAPHIC LOG

Client Name: Collier Shannon		Site Location: Peter Cooper Markhams Site	Project No.: 0021-003-401
Photo No. 49	Date Oct-08		
Direction Photo Taken: West			
Description: Applied hydroseed vegetation.			

Photo No. 50	Date Oct-08	
Direction Photo Taken: West		
Description: Applied hydroseed vegetation.		

APPENDIX J

MEETS AND BOUNDS DESCRIPTION



NORTH IS RELATED TO PRIOR SURVEYS

- NOTES:
- (1) This survey and plat were prepared for Benchmark Environmental Engineering & Science, PLLC, 2558 Hamburg Turnpike, Suite 300, Lockport, New York 14218. Telephone: (716) 856-0599
 - (2) This survey is prepared with the benefit of review of a map prepared by E & M Engineers and Surveyors, P.C., 482 South Cascade Drive, Springville, New York 14141-0159
 - (3) The Easement Area shown hereon is a part of County Tax Parcel Number (S.B.L.) 25.001-1-32, property conveyed by Peter Cooper Corporation to Roussett Galatin Corp. as described in a deed filed in the Cattaraugus County Clerk's Office in Liber 769 of Deeds at page 565.
 - (4) Easement staked on June 19, 2009.

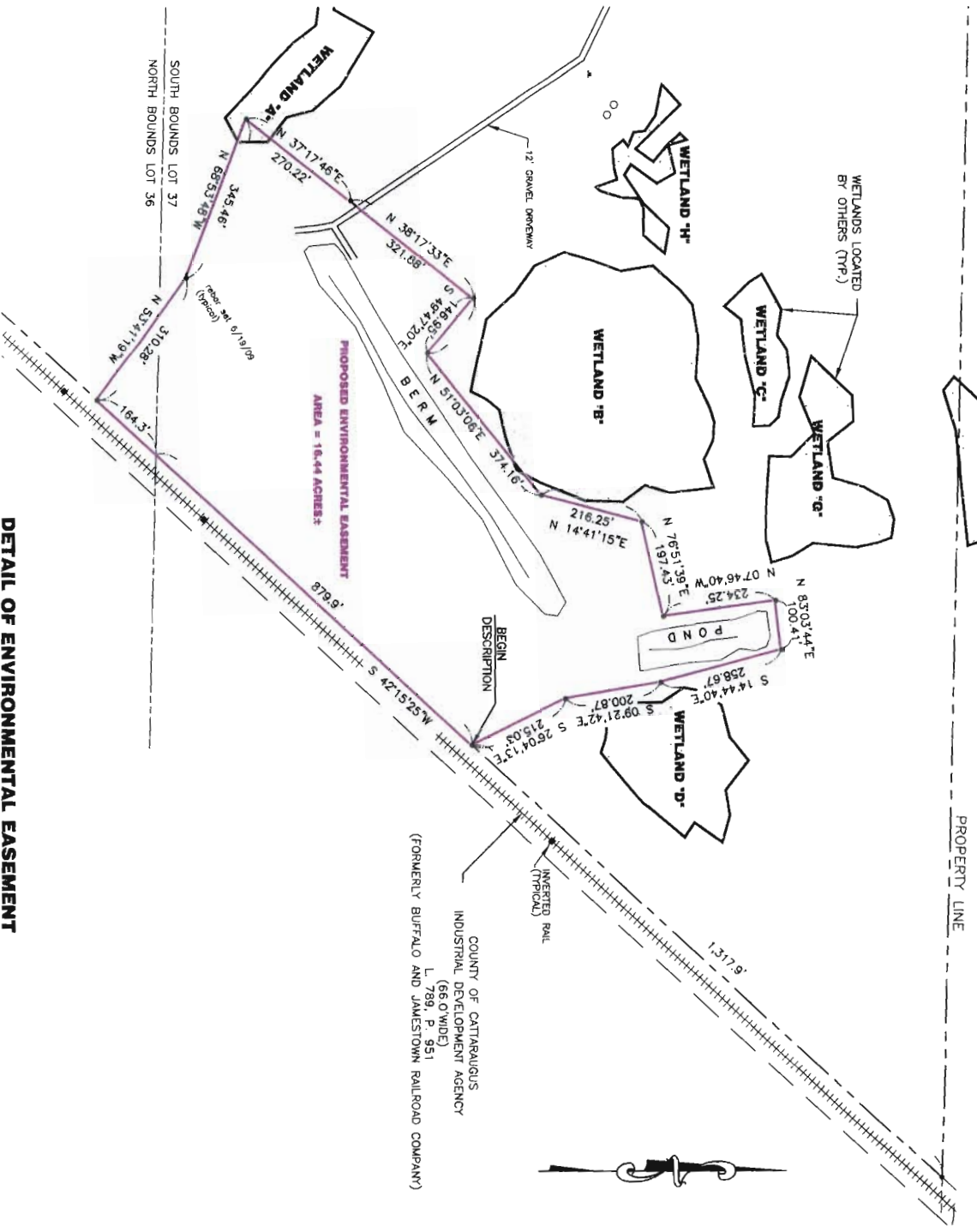
MAP OF TOWN OF DAYTON TAX IDENTIFICATION NO.
(S.B.L.) 25.001-1-32
(PERIMETER SURVEY AND MAP MADE BY E & M ENGINEERS AND SURVEYORS, P.C.)
SCALE: 1" = 400'

DESCRIPTION OF SUBJECT EASEMENT

An EASEMENT to be exercised in, on and over the property hereinafter described situate in the Town of Dayton, County of Cattaraugus and State of New York, being part of Lot Nos. 36 and 37, Town 5 and Range 9 of the Holland Land Company's Survey; and being more particularly bounded and described as follows:

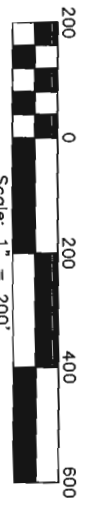
BEGINNING at a rebar on the northwesterly boundary of property of the County of Cattaraugus Industrial Development Agency as described in a deed filed in the Cattaraugus County Clerk's Office in Liber 789 of Deeds at page 951 (Formerly Buffalo and Jamestown Railroad Company); said rebar being South 42 degrees 15 minutes 25 seconds West, a distance of 1,317.9 feet from a point at its intersection with the northerly line of property of Roussett Galatin Corp., hereinafter referenced; thence South 42 degrees 15 minutes 25 seconds West, a distance of 1,044.2 feet to a rebar, said rebar being 164.3 feet from the northerly line of Lot No. 37; thence through the property of said Roussett Galatin Corp. the following thirteen (13) courses and distances: (1) North 53 degrees 41 minutes 19 seconds West, a distance of 310.28 feet to a rebar; thence (2) North 58 degrees 53 minutes 48 seconds West, a distance of 345.46 feet to a rebar; thence (3) North 37 degrees 17 minutes 45 seconds East, a distance of 270.22 feet to a rebar; thence (4) North 38 degrees 17 minutes 17 minutes 33 seconds East, a distance of 146.85 feet to a rebar; thence (5) South 49 degrees 47 minutes 20 seconds East, a distance of 374.15 feet to a rebar; thence (6) North 51 degrees 03 minutes 06 seconds East, a distance of 197.43 feet to a rebar; thence (7) North 14 degrees 41 minutes 15 seconds East, a distance of 234.25 feet to a rebar; thence (8) North 07 degrees 46 minutes 40 seconds East, a distance of 100.41 feet to a rebar; thence (9) North 14 degrees 44 minutes 40 seconds East, a distance of 258.67 feet to a rebar; thence (10) South 09 degrees 21 minutes 42 seconds East, a distance of 200.87 feet to a rebar; thence (11) South 26 degrees 04 minutes 13 seconds East, a distance of 215.03 feet to the rebar at the point of place of beginning. Containing 16.44 acres, more or less.

Being part of the same premises conveyed to Roussett Galatin Corp. as described in a deed dated October 22, 1976 and filed in the Cattaraugus County Clerk's Office in Liber 769 of Deeds at page 565.



DETAIL OF ENVIRONMENTAL EASEMENT

SCALE: 1" = 200'



Scale: 1" = 200'

WARNING: ATTENTION TO THIS DOCUMENT NOT CONTRIBUTING TO THE ENVIRONMENT FOR LAND AND FORESTRY

SURVEY OF LANDS OF:
PETER COOPER - MARKHAMS SITE
BENTLEY ROAD
TOWN OF DAYTON
CATTARAUGUS COUNTY - NEW YORK
BEING PART OF LOT NO. 36 & 37, TOWN 5 AND RANGE 9
OF THE HOLLAND LAND COMPANY'S SURVEY

JOB NO.: 29541
DATE: JUNE 25, 2009
SCALE: AS SHOWN
DRAWING NO.: MAR29541
DRAWN BY: E. A. OLSON
CHECKED BY: J. E. GOSSETT

ABATE ASSOCIATES ENGINEERS & SURVEYORS, P.C.

BUFFALO, NEW YORK
JAMESTOWN, NEW YORK

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