

SOIL INTERIM REMEDIAL MEASURE WORK PLAN

**Former CAMCO Site
2125 Smithtown Avenue,
Ronkonkoma, New York**

NYSDEC Index #A1-0627-12-09

October 24, 2014

Prepared for:

**Town of Islip
Department of Aviation and Transportation
Long Island MacArthur Airport
100 Arrival Avenue, Suite 100
Ronkonkoma, NY 11779-7398**

Prepared by:

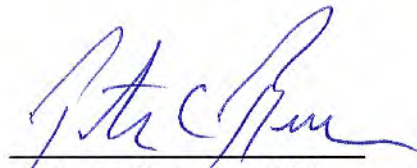
**EnviroTrac Ltd.
5 Old Dock Rd.
Yaphank, NY 11980**

The following personnel have prepared, reviewed,
and approved this document:

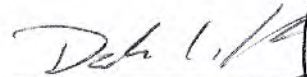
Soil Interim Remedial Measure Work Plan

**Former CAMCO Site
2125 Smithtown Avenue
Ronkonkoma, New York**

**Index #A1-0627-12-09
Site #152206**



Peter C. Breen, CPG
Senior Project Manager



Dale C. Konas, P.E.
Principal Engineer



10/24/14

"I Dale C. Konas, P.E. certify that I am currently a NYS registered professional engineer as defined in 6 NYCRR Part 375 and that this Soil Interim Remedial Measure Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications."

10/24/14
Date

TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
1.1	Objectives.....	2
2.0	BACKGROUND.....	3
2.1	Site Location.....	3
2.2	Site Description.....	3
2.3	Geologic Setting	4
2.4	Summary of Prior Assessments and NYSDEC Submittals.....	4
2.4.1	Overview.....	4
2.4.2	<i>Investigation Results Supporting the IRM</i>	<i>5</i>
3.0	PRE-IRM SOIL VOLUMETRIC ESTIMATION – JULY 2014.....	9
4.0	SCOPE OF WORK	10
4.1	Proposed Excavation Area.....	10
4.2	Project Sequencing.....	10
4.2.1	<i>Mobilization and Equipment Procurement.....</i>	<i>10</i>
4.2.2	<i>Soil Excavation and Temporary On-Site Staging.....</i>	<i>10</i>
4.2.3	<i>Endpoint Soil Sampling and Laboratory Testing.....</i>	<i>11</i>
4.2.4	<i>Temporary Site Security.....</i>	<i>11</i>
4.2.5	<i>Loadout of Excavated Soil</i>	<i>12</i>
4.2.6	<i>Site Restoration and Demobilization</i>	<i>12</i>
5.0	PROJECT IMPLEMENTATION	13
5.1	Quality Assurance.....	13
5.2	Health and Safety	13
5.3	Community Air Monitoring.....	13
5.3.1	<i>Site Setting</i>	<i>13</i>
5.3.2	<i>Proposed Monitoring.....</i>	<i>14</i>
5.4	Investigation Derived Waste	15
6.0	REPORTING OF RESULTS.....	17
6.1	Findings Documentation	17
6.2	Electronic Data Deliverable	17
7.0	PROJECT SCHEDULE.....	18
8.0	REFERENCES.....	19

TABLE OF CONTENTS (Continued)

FIGURES

Figure 2-1	Site Location
Figure 2-2	General Site Plan
Figure 2-3	Investigation Locations – Parcel A
Figure 2-4	ECD Testing Results – Maximum Instrument Response and Depth
Figure 2-5	MIP/EC Boring Locations – Supplemental Soil Sampling Results
Figure 3-1	PID Soil Screening – July 14, 2014
Figure 3-2	PID Soil Evaluation – Distribution of Results
Figure 4-1	Proposed Soil Excavation Area
Figure 7-1	Soil IRM Work Plan Implementation Schedule

TABLES

Table 2-1	Comparison of 2008, 2012 and 2013 Soil Vapor Sampling Results - Parcel A
Table 2-2	Summary of Soil Sampling Results - Former Drum Storage Area Parcel A
Table 2-3	Summary of Soil Sampling Results - Parcel A MIP Testing Locations
Table 4-1	Summary of Proposed Excavation Endpoint Soil Sampling

APPENDICES

Appendix A	Backfill Characterization Requirements
------------	--

1.0 INTRODUCTION

EnviroTrac Ltd. (EnviroTrac) was retained by the Town of Islip (TOI) to conduct environmental assessment activities at the former Central Aviation & Marine Corporation (CAMCO) facility (Site) located at 2125 Smithtown Avenue, Ronkonkoma, NY that are being implemented with oversight of the New York State Department of Environmental Conservation (NYSDEC).

The TOI and the NYSDEC have entered into an Order on Consent and Administrative Settlement "Order", Index #A1-0627-12-09 that specifies the development and implementation of a remedial program for property owned by the Town. The Site is currently listed in the *Register of Inactive Hazardous Waste Disposal Sites in New York State* as Site Number HS 1006. The Site is also listed in the *New York State Registry of Inactive Hazardous Waste Sites* (the "Registry") with a classification "P" pursuant to Environmental Conservation Law § 27-1305 as site number 152206.

Work is being conducted at the Site in accordance with project scoping submittals approved by the NYSDEC including the *Site Characterization and Investigation Work Plan* (Work Plan), dated October 12, 2011 and the *Supplemental Site Characterization and Investigation Work Plan* (Supplemental Work Plan), dated August 17, 2012.

Testing conducted at the Site has included collection of soil, soil vapor and groundwater samples and analysis of field parameters and quantification of chemical compound concentrations in the laboratory. In addition, water level data recorded at monitoring wells installed at, and in close proximity to, the Site has been used to assess groundwater flow direction and hydraulic gradient in the vicinity of the Site.

This Soil Interim Remedial Measure Work Plan (IRM Work Plan) provides the rationale and proposed procedures that will be used to excavate soil, located in the vicinity of a former on-site drum storage area, that has been found to contain volatile organic compounds (VOCs) at concentrations exceeding the 6NYCRR Part 375 - Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives (Unrestricted Use SCOs).

1.1 Objectives

This IRM Work Plan was developed to address the following objectives:

- provide a brief summary of the Site, including findings pertaining to previous work performed pertinent to the proposed IRM;
- present the technical approach and procedures that will be employed to conduct the work and address related health and safety and quality assurance requirements and potential community impacts;
- identify applicable regulatory considerations associated with the IRM; and
- provide an IRM implementation schedule.

2.0 BACKGROUND

2.1 Site Location

The Town owns the property located at 2125 Smithtown Avenue, Ronkonkoma, New York, where Central Aviation & Marine Corporation (hereinafter "CAMCO") was formerly located (Figure 2-1). The latitude and longitude coordinates for the approximate center of the Site are 40° 47' 56.8" north and 73° 6' 31.7" west, respectively. The Site is identified as Tax Map: Section 106; Block 1: Lot 6.6.

The Site is located on the west side of the Long Island McArthur Airport complex and on the east side of Smithtown Avenue, approximately one (1) mile north of the Veterans Memorial Hwy. (NYS Rte. 454); one (1) mile south of the Long Island Expressway (1-495); and three thousand five hundred (3,500) feet east of Lakeland Avenue (C.R.93), in the hamlet of Ronkonkoma, Town of Islip, County of Suffolk, New York.

2.2 Site Description

The Site consists of two parcels, measuring approximately 2.03 acres and 0.62 acres, respectively (Figure 2-2).

The larger parcel (designated Parcel A) formerly was comprised of a one and two story wood frame structure and a small wood-frame shed that occupied an area of approximately 50,000 square feet. This area was historically utilized as a repair shop for overhauling and repairing aircraft accessories and turbine engines. The TOI demolished the structures in late 2011 and Parcel A currently consists entirely of vacant land. The IRM will be conducted in the vicinity of the drum storage area that was located in a courtyard in the western portion of the former building.

The smaller parcel (Parcel B) is comprised of a one-story steel frame building that occupies an area of approximately 13,000 square feet. The building is currently unoccupied and is used for storage. The remainder of the area consists of asphalt pavement. None of the IRM activities will be conducted at Parcel B.

2.3 Geologic Setting

The Site is located in the Atlantic Coastal Plain physiographic province which is characterized by low hills of unconsolidated sands, gravel and silt. Land surface elevation at the Site is approximately 91 feet above mean sea level (ft/msl). Regionally the shallow subsurface consists of Pleistocene age deposits of glacial drift that consist of southward gently sloping surfaces of sand, gravel and silt which overlie thick Cretaceous age strata comprising the Magothy, Raritan and Lloyd Formations. Beneath these unconsolidated deposits the crystalline-bedrock surface in the vicinity of the Site is found at an elevation of approximately -1,500 ft/msl. This bedrock foundation, formed during the Precambrian Era, has negligible permeability and functions as a hydrologic boundary or base for the Long Island groundwater flow system. Regionally, groundwater flows within the unconsolidated deposits toward the Great South Bay, which is located approximately five miles to the south of the Site.

Based on data derived from investigations conducted at the Site the underlying geology is consistent with the reported regional characteristics associated with literature descriptions of the shallow Pleistocene age deposits found regionally. The depth to groundwater is approximately 50 feet below land surface. The general direction of groundwater flow is to the south southwest.

2.4 Summary of Prior Assessments and NYSDEC Submittals

2.4.1 Overview

Prior submittals presenting results of testing conducted in accordance with the approved work plans include the following documents:

- *Draft Site Characterization and Investigation Report* (draft Report) - April 2012;
- *Supplemental Investigation Phase I Results Report* (Phase I Report) - November 19, 2012;
- *Supplemental Investigation Phase II Results Report* (Phase II Report) - September 27, 2013; and
- *Supplemental Investigation Phase III Results Report* (Phase III Report) - June 27, 2014.

Following review of the Phase II report the NYSDEC requested that the TOI implement additional investigation consisting of the Phase III testing specified in the Supplemental Work Plan. The proposed Phase III work scope included performance of a focused evaluation in the vicinity of a former drum storage area at Parcel A where anomalous levels of VOCs have been found in soil vapor as noted in the prior reporting.

Results of that follow-up work were provided to the NYSDEC in the Supplemental Investigation Phase III Results Report dated June 27, 2014. Based on findings, the performance of a non-emergency soil IRM was recommended.

2.4.2 Investigation Results Supporting the IRM

Results of site characterization testing that are pertinent to the reasoning for and rational used to develop the IRM scope of work have been provided to the NYSDEC in the submittals noted in Section 2.4.1. This work has included the installation and sampling of soil vapor monitoring points, drilling of soil borings and logging of soil, collection of soil samples for laboratory testing and the use of downhole detectors for profiling stratigraphy and contaminant distribution.

Soil Vapor Testing Using Installed Soil Vapor Monitoring Wells

Testing pertinent to the IRM has been conducted at the Site since 2008 when soil vapor sampling was performed at six locations (SG-1, SG-2, SG-5, SG-7/7R, SG-8 and SG-9) shown on Figure 2-3. As a result of that testing anomalous concentrations of VOCs including trichloroethene, cis-1,2-dichloroethene and tetrachloroethene were found in the vicinity of the former drum storage area (SG-7/7R). Subsequent testing conducted in 2012 and 2013 revealed similar results. A summary of soil vapor testing analytical results is provided in Table 2-1.

Membrane Interface Probe (MIP) Profiling

The Phase III work was conducted to focus on, and further evaluate, the anomalous soil vapor findings pertaining to the SG-7/7R location. The work scope consisted of a two-day direct sensing soil evaluation using a Geoprobe direct push drilling machine in conjunction with a downhole Membrane Interface Probe/Electrical Conductivity (MIP) system.

The MIP/EC provides a high resolution continuous chemical profile of the soil column and can distinguish petroleum from chlorinated compounds (both have been detected at the SG-7/7R location) using an on-site data acquisition system with laboratory grade instrumentation that includes a PID, an Electron Capture Detector (ECD) and a Flame Ionization Detector (FID). The different sensors are useful in detecting different types of volatile chemicals based on instrument response:

- PID – VOCs responding like aromatic compounds (e.g., BTEX, 1,2-dichlorobenzene);
- ECD – VOCs responding like chlorinated compounds (e.g., trichloroethene, tetrachloroethene); and
- FID – VOCs responding like aliphatic compounds (e.g., cyclohexane, 2,2,4-trimethylpentane).

Based on the chemicals detected in soil vapor (chlorinated VOCs) the ECD detector provided the results of greatest interest.

The conductivity of soils is different for each type of media. Finer grained sediments, such as silts or clays, typically have a higher EC signal, while coarser grained sediments, sands and gravel, will have a lower EC signal. The degree of saturation will also influence conductivity. In general terms the coarser grained sediments will allow the migration of contaminants and the finer grained sediments will trap the contaminant and retard movement. In general the EC logs revealed relatively elevated responses in the upper several feet of the subsurface.

Figure 2-4 shows the maximum ECD instrument response, (i.e., representing relative levels of compounds responding like chlorinated VOCs), and the corresponding depth of occurrence at each of the 14 MIP boring locations. Results for all 14 locations were utilized for contouring. The maximum measurement of 744,194 μV was recorded at location MIP-4 at the 0.8 foot depth.

In general the maximum ECD instrument response was found in the top 3 feet of the subsurface; the average depth of the maximum response considering all 14 locations was 2.3 feet.

Soil Sampling

Soil testing through the collection and laboratory analysis of soil samples was conducted during the initial phase of the site characterization and investigation at three locations in the vicinity of

the former drum storage area; results were provided to the NYSDEC in the April 2012 draft Report. These locations included soil borings SB-1 and SB-2 (each advanced to a final depth of 10 feet) and soil boring/monitoring well SB-3/MW-5 (advanced to a final depth of 67 feet). Samples for laboratory analyses were selected based on photoionization detector (PID) soil core measurements. Table 2-2 provides laboratory reported VOC results for these locations. Low concentrations of some aromatic and chlorinated VOCs were found; all results were below Unrestricted Use SCOs.

Eleven soil samples were collected in the vicinity of soil vapor monitoring point SG-7/7R during May 2014 based on the MIP testing results to evaluate soil quality in the immediate vicinity of the former drum storage area. Table 2-3 provides laboratory reported VOC results for these locations. Total VOC results for each location are posted on Figure 2-6.

Sampling depths were selected to assess the shallow subsurface, where the maximum MIP instrument response was found during the January 2014 survey. Within the area where the highest levels were recorded, corresponding to the location of the former drum storage area (i.e., within the courtyard of the former building), the vertical extent of anomalous response was investigated through collection of multiple vertically-discrete samples at three key locations (MIP-1, MIP-4 and MIP-5).

Following is a summary of results ranked by total VOCs found in the sample.

Total VOCs Exceed 1 mg/kg

Location	MIP-1	MIP-3	MIP-9	MIP-8	MIP-5	MIP-4
Sample Depth (ft)	2.0-2.5	1.0-1.5	1.0-1.5	0.5-1.0	1.5-2.0	0.5-1.0
VOCs (mg/kg)	954	268	235	84	66	32

Total VOCs are Below 1 mg/kg

Location	MIP-14 (1)	MIP-1 (1)	MIP-5 (1)	MIP-11 (1)	MIP-4 (1)
Sample Depth (ft)	2.0-2.5	3.5-4.0	3.5-4.0	0.5-1.0	2.5-3.0
VOCs (mg/kg)	0.781	0.045	0.035	0.021	0.006

Notes: Reporting of total VOCs based on the 8260C compound list.

(1) No individual compounds exceeded Unrestricted Use SCOs.

It is notable that the maximum concentrations were found in very shallow soil ranging from 0.5 to 2.5 feet below grade and that the highest levels were found in closest proximity to soil vapor monitoring point SG-7/7R. These intervals were found to correlate with zones of elevated EC response recorded during the MIP profiling. In the instances where two samples were collected at the location, the VOC levels in the deeper sample were significantly lower; at the MIP-1 location the decline was 4 orders of magnitude. None of the individual chemical constituents in these deeper samples were found to exceed the Unrestricted Use SCOs.

3.0 PRE-IRM SOIL VOLUMETRIC ESTIMATION – JULY 2014

The Phase III testing results indicated that the soil exhibiting VOCs at levels exceeding the Unrestricted Use SCO was shallow and limited to the vicinity of the former drum storage area. Zebra Environmental drilled shallow soil cores that were screened in the field by an EnviroTrac geologist on July 14, 2014 to further define the extent of soil impacts and to provide a more precise volumetric estimate pertaining to excavation and backfilling requirements. Placement of testing locations GP-1 through GP-25 shown on Figure 3-1 were arranged on a 10-foot grid pattern that was determined based on prior MIP and soil sampling results. Each core was advanced to a depth of 5 feet; the core was visually inspected and logged by the supervising on-site geologist. Soil aliquots from the core were collected at 1-foot intervals and tested for the relative presence of VOCs using a portable PID to assess contamination distribution. Results of this work are summarized on Figure 3-2.

The impacted soil was noted in a zone that exhibited a higher degree of cohesion. The deeper intervals noted on Figure 3-2 where no recovery was obtained consisted of sandier material that was not observed to be impacted. The potentially impacted soil was found to be limited to a maximum depth of approximately 3 feet.

Based on the existing site characterization data the estimated volume of soil that will be disposed off-site is approximately 200 yd³. The actual volume will be determined during the excavation activities, based on field screening and endpoint sampling analytical results, as discussed in Section 4.2.2.

4.0 SCOPE OF WORK

4.1 Proposed Excavation Area

Based on results of prior work described above, the maximum anticipated area of soil that will be excavated to remove VOCs present at levels exceeding remedial goals is shown on Figure 4-1.

4.2 Project Sequencing

4.2.1 Mobilization and Equipment Procurement

Prior to initiating the excavation activities several tasks will be conducted prior to initiating the excavation activities including:

- providing notice to the NYSDEC;
- scheduling with subcontractors (e.g., disposal and laboratory testing);
- completing utility one-call notifications as required by law;
- marking out excavation and stockpile locations; and
- moving equipment on-site (e.g., excavator) and supplies (e.g., plastic and fencing materials).

4.2.2 Soil Excavation and Temporary On-Site Staging

Soil within the defined area of contamination will be excavated using a backhoe machine. During the work, soil samples will be collected and screened (visually and with a PID) by the on-site geologist to determine the extent of excavation required. Based on the currently defined extent of impacted soil it is likely that soil vapor monitoring point SG-7R may be located within the area requiring excavation and it is possible that it will be removed in its entirety to enable access to surrounding soil. In the event of its removal a replacement will not be installed. The excavated soil will be temporarily staged onsite (placed on and covered by poly-sheeting) at a location within Parcel A pending receipt of NYSDEC approval to proceed to site restoration (see Section 4.6). CAMP monitoring (see Section 5.3) will be conducted during this task.

Samples of the excavated soil will be provided to the laboratory for testing of chemical

constituents required for disposal characterization. The following list of constituents is approximate and may be altered based on specific requirements from the selected disposal facility: corrosivity (pH), DRO, extractable organic halogens, GRO, hexavalent chromium, ignitability, metals, organics by DAI, PCBs, percent solids/moisture, reactive sulfide, VOCs, SVOCs, TCLP parameters (mercury, metals, SVOCs, VOCs), total cyanide and total mercury.

4.2.3 Endpoint Soil Sampling and Laboratory Testing

Excavation endpoint perimeter and bottom soil samples will be collected in accordance with location and frequency recommendations provided in DER-10 section 5.4; sidewall samples will be collected at a frequency of one per 30 linear feet and excavation bottom samples at one per 900 square feet. Final locations and number of required samples will be determined in the field based on the actual extent of excavation. Samples will be analyzed for the presence of VOCs by a laboratory certified in New York State to conduct work under the Environmental Laboratory Approval and Analytical Services Programs (ELAP/ASP) producing Category B and NYSDEC Format EDD deliverables.

Table 4-1 provides information pertaining to the endpoint sampling that will be implemented. Following receipt from the laboratory, results will be compiled and forwarded to the NYSDEC for review. If needed, in the event that results indicate that project cleanup goals have not been met, additional soil will be excavated and additional endpoints collected. The site restoration (see Section 4.2.6) will commence upon approval of endpoint sampling results from the NYSDEC.

4.2.4 Temporary Site Security

Following completion of excavation activities and prior to backfilling a temporary fence will be constructed around the open excavation to secure the site and discourage access by unauthorized personnel pending receipt of endpoint results showing achievement of the remedial objectives.

4.2.5 Loadout of Excavated Soil

Following acceptance by the disposal facility the stockpiled soil will be loaded onto trucks for transportation off-site. Management practices for clean soil and wastes generated during implementation of the IRM Work Plan will be focused on the primary goal of minimizing the volume of waste that requires off-site management and disposal. Based on prior soil testing results conducted in the vicinity of the proposed excavation, EnviroTrac anticipates that soil requiring off-site disposal will be determined to be non-hazardous waste. Management of all clean soil and wastes generated during the IRM will be performed in conformance with applicable federal, state, and local laws and regulations and department of transportation requirements.

CAMP monitoring (see Section 5.3) will be conducted during this task.

4.2.6 Site Restoration and Demobilization

Upon completion of the soil excavation and receipt of endpoint sampling results meeting acceptable criteria with respect to the SCOs the temporary fencing will be removed and the excavation backfilled to original grade. Backfill material will be procured from an off-site source and will comply with unrestricted use requirements provided in DER-10 Section 5.4 pertaining to characterization and testing frequency of imported fill or soil to meet Unrestricted Use criteria for the Metals, PCB/Pesticides, SVOCs and VOCs listed in Appendix A.

5.0 PROJECT IMPLEMENTATION

5.1 Quality Assurance

General procedures and requirements pertaining to the collection, laboratory analysis and reporting of results for environmental media samples that are collected at the Site are provided in the quality assurance project plan (QAPP) included in Appendix A of the Amended Remedial Investigation Work Plan, dated October 12, 2011, that was previously approved by the NYSDEC. These procedures will be used in the collection, analysis and reporting of results for groundwater samples during the implementation of the IRM.

5.2 Health and Safety

Health and safety procedures that will be employed during the IRM are presented in the health and safety plan (HASP) included in Appendix B of the Amended Remedial Investigation Work Plan, dated October 12, 2011, that was previously approved by the NYSDEC.

5.3 Community Air Monitoring

5.3.1 Site Setting

The portion of the former CAMCO site designated as Parcel A has entirely consisted of open land since demolition of the building structures was conducted by the TOI during the fall of 2011.

Land use for the areas adjacent to Parcel A are:

- To the north – aviation related offices and hanger structures
- To the east – Islip MacArthur Airport runways
- To the south – aviation related hanger structures
- To the west – CAMCO site Parcel B (slab on grade storage building and parking lot)

The nearest public roadway (Smithtown Avenue) is located approximately 360 feet west from the western border of Parcel A. The nearest residence is located approximately 1,600 feet

west/northwest from the western border of Parcel A.

The designated IRM work area (i.e., the exclusion zone) will include the entire extent of Parcel A to accommodate movement of the excavator and workers and establishment of a temporary stockpile of excavated soil.

5.3.2 Proposed Monitoring

Real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) will be conducted during implementation of the IRM to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses) from potential airborne contaminant releases as a direct result of the remedial work activities. Based on the available site characterization testing results and the site setting, the likelihood of any adverse exposure to the community is very low.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) will be monitored at the downwind perimeter of the work area on a continuous basis during intrusive activities (i.e., soil excavation and stockpiling). Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions. The equipment will be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below:

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure,

whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations will be monitored continuously at the upwind and downwind perimeters of the work area at temporary particulate monitoring stations during work activities; i.e., soil excavation and stockpiling.

The particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment will be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration will be visually assessed during all work activities:

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed $150 \text{ mcg}/\text{m}^3$ above the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than $150 \text{ mcg}/\text{m}^3$ above the upwind level, work will be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within $150 \text{ mcg}/\text{m}^3$ of the upwind level and in preventing visible dust migration.

5.4 Investigation Derived Waste

Following characterization through laboratory testing of chemical criteria specified by an off-site

facility permitted to accept the waste material (soil) developed during the IRM, the stockpiled excavated soil will be properly hauled from the Site under manifest by a duly licensed subcontractor and disposed off-site at the facility.

6.0 REPORTING OF RESULTS

6.1 Findings Documentation

Upon completion of the activities presented in this IRM Work Plan, a Construction Completion Report (CCR) will be prepared which will include the following:

- a synopsis of IRM work performed, the extent of waste removed from the Site, problems encountered, and changes from the original work plan;
- results of all sampling and analyses including QA/QC data and chain-of-custody records;
- community air monitoring results;
- lists of all laboratories, transporters, and disposal or recycling firms used during the IRM;
- copies of all manifests and bills of lading generated in connection with the transportation of materials off-Site;
- as-built drawings showing final extent of excavation and sampling locations; and
- a summary of restoration activities.

6.2 Electronic Data Deliverable

In accordance with requirements specified in DER-10, and as presented in Section 5.2.2 of the August 2011 Amended Remedial Investigation Work Plan, performance monitoring laboratory data will be submitted to the Department in the DEC-approved Electronic Data Deliverable (EDD) format.

7.0 PROJECT SCHEDULE

The IRM will be conducted in accordance with the schedule depicted in Figure 7-1. Based on the current understanding of the volume of soil that will require excavation it is estimated that the total time onsite time will total approximately several days spread out over several weeks to allow for laboratory analysis of endpoint testing results and NYSDEC review/approval to backfill.

FIGURES

TOPOGRAPHIC MAP

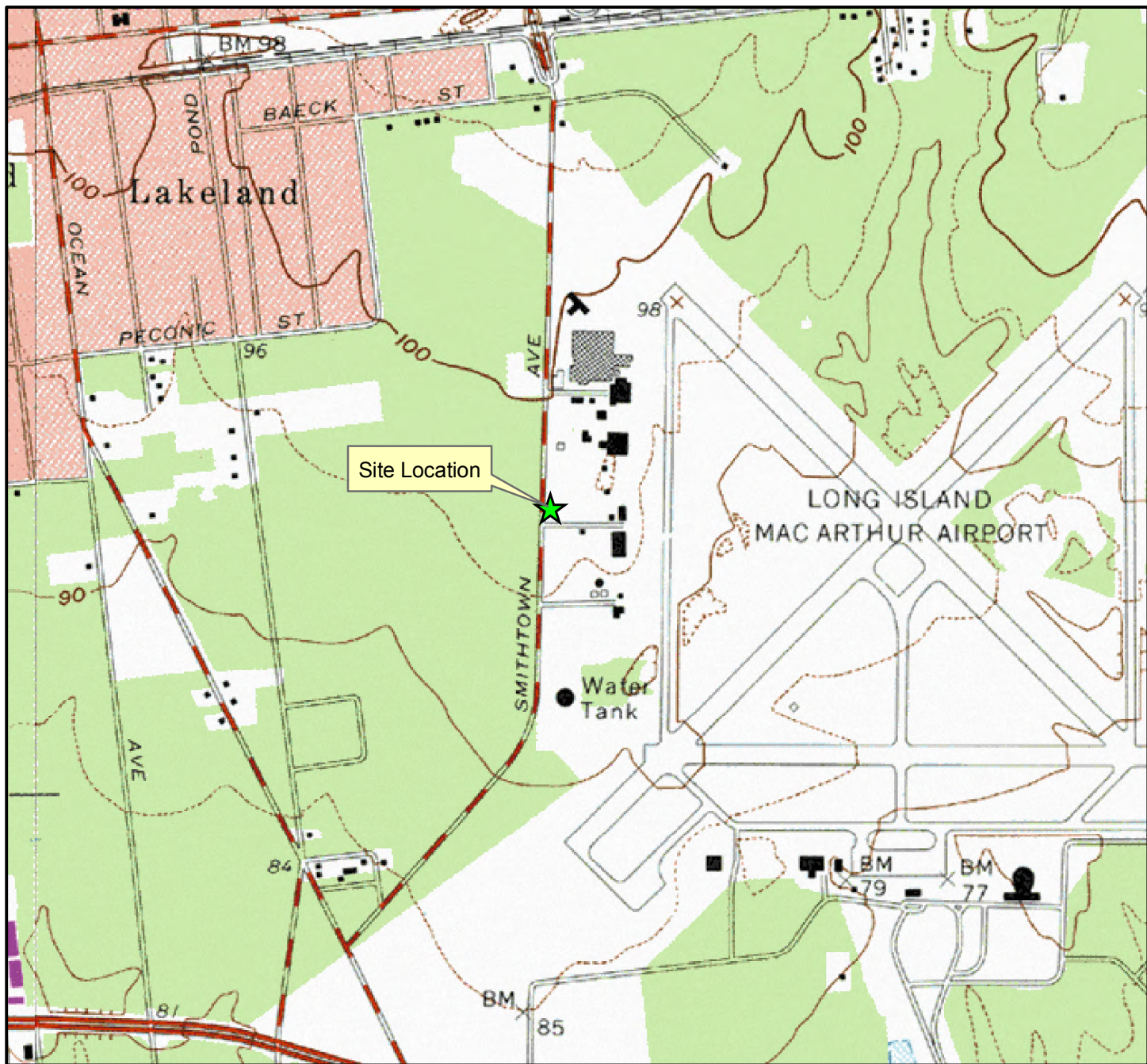


Figure 2-1
Site Location

CAMCO
2125 Smithtown Avenue
Ronkonkoma, NY

USGS Quadrangle:
Central Islip

Approx. Elevation:
87 feet



EnviroTrac
Environmental Services

5 Old Dock Road
Yaphank, NY 11980

P: 631-924-3001 F: 631-924-5001



SMITHTOWN AVENUE

PARCEL B

WAREHOUSE

INDUSTRIAL BUILDING

DW-8
DW-1
DW-7
DW-2
DW-3
DW-4
B-5
B-16

B-14

B-15
C-1

B-4

SHED

MAIN BUILDING

DRUM STORAGE AREA

DW-6

PARCEL A

MACARTHUR AIRPORT

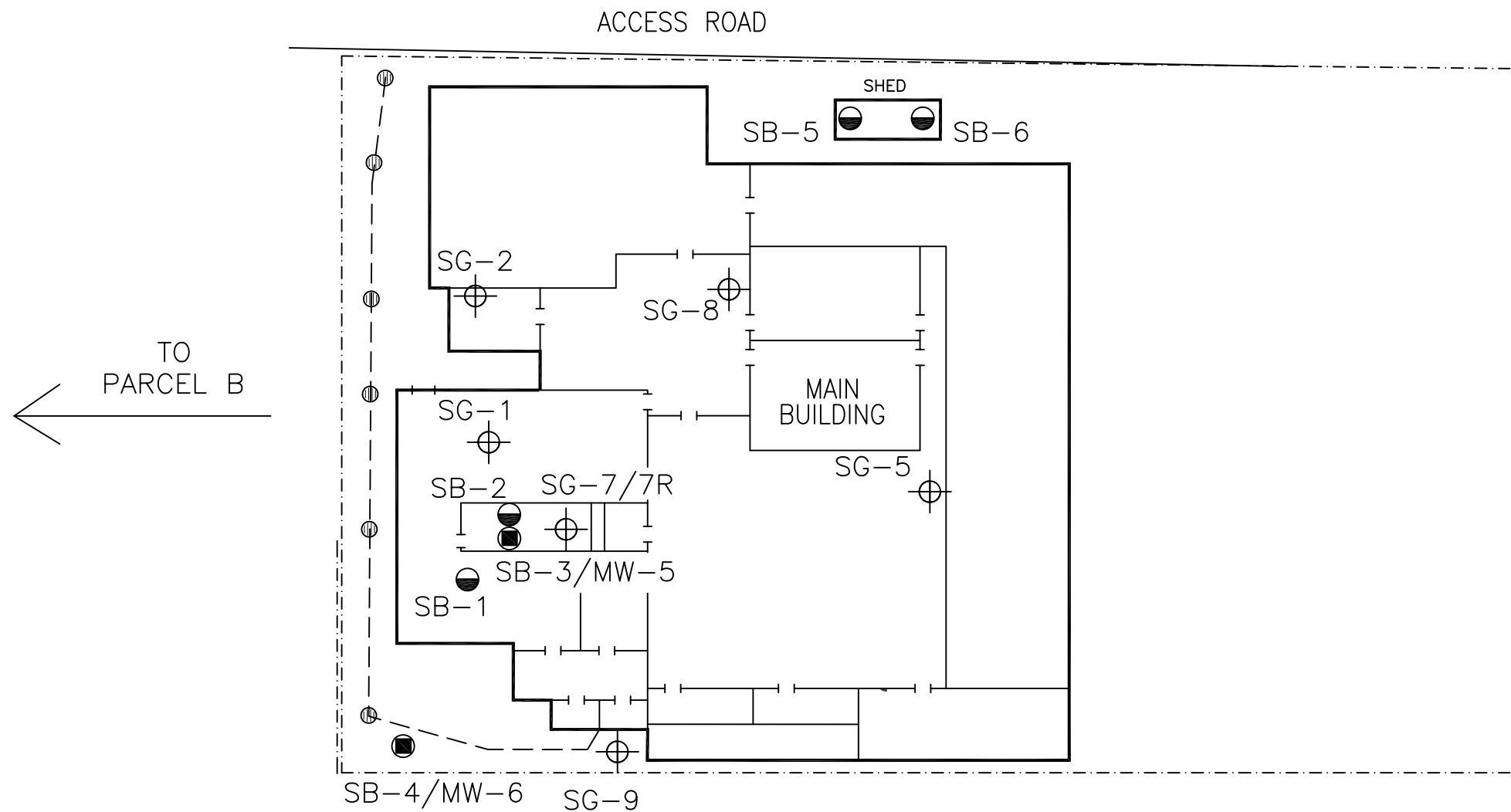
north

LEGEND:

- MACARTHUR AIRPORT STORM WATER DRAINAGE SYSTEM
- - - - - PROPERTY LINE
- ⊗ STORM DRAIN
- ⊗ HOLDING TANK
- ⊗ COOLING WATER CESSPOOL
- ⊗ UNDERGROUND STORM DRAIN
- SUBGRADE DRYWELL
- ⊗ DW-1 TO DW-4 & C-1 TESTED ON 10/23/06
- ⊗ DW-4 TO DW-8 & C-1 TESTED ON 7/6/07
- ⊗ B-4 & B-5 TESTED ON 10/24/06
- ⊗ B-14 & B-15 TESTED ON 7/6/07

0 50
APPROX. SCALE IN FEET

NOTE:
SITE PLAN BASED ON A DRAWING PREPARED BY
FENLEY & NICOL, INC.



LEGEND:

- MACARTHUR AIRPORT STORM WATER DRAINAGE SYSTEM
- PROPERTY LINE
- ⊕ STORM DRAIN
- ⊕⊙ SOIL GAS SAMPLE (SG)
- ⊖ SOIL BORING (SB)
- SOIL BORING/MONITORING WELL

0 50
APPROX. SCALE IN FEET

NOTE:
SITE PLAN BASED ON A DRAWING PREPARED BY
FENLEY & NICOL, INC.



5 OLD DOCK ROAD, YAPHANK, NEW YORK 11980
PHONE: (631)924-3001 FAX: (631)924-5001

REVISION DATE:
SEPTEMBER 28, 2014

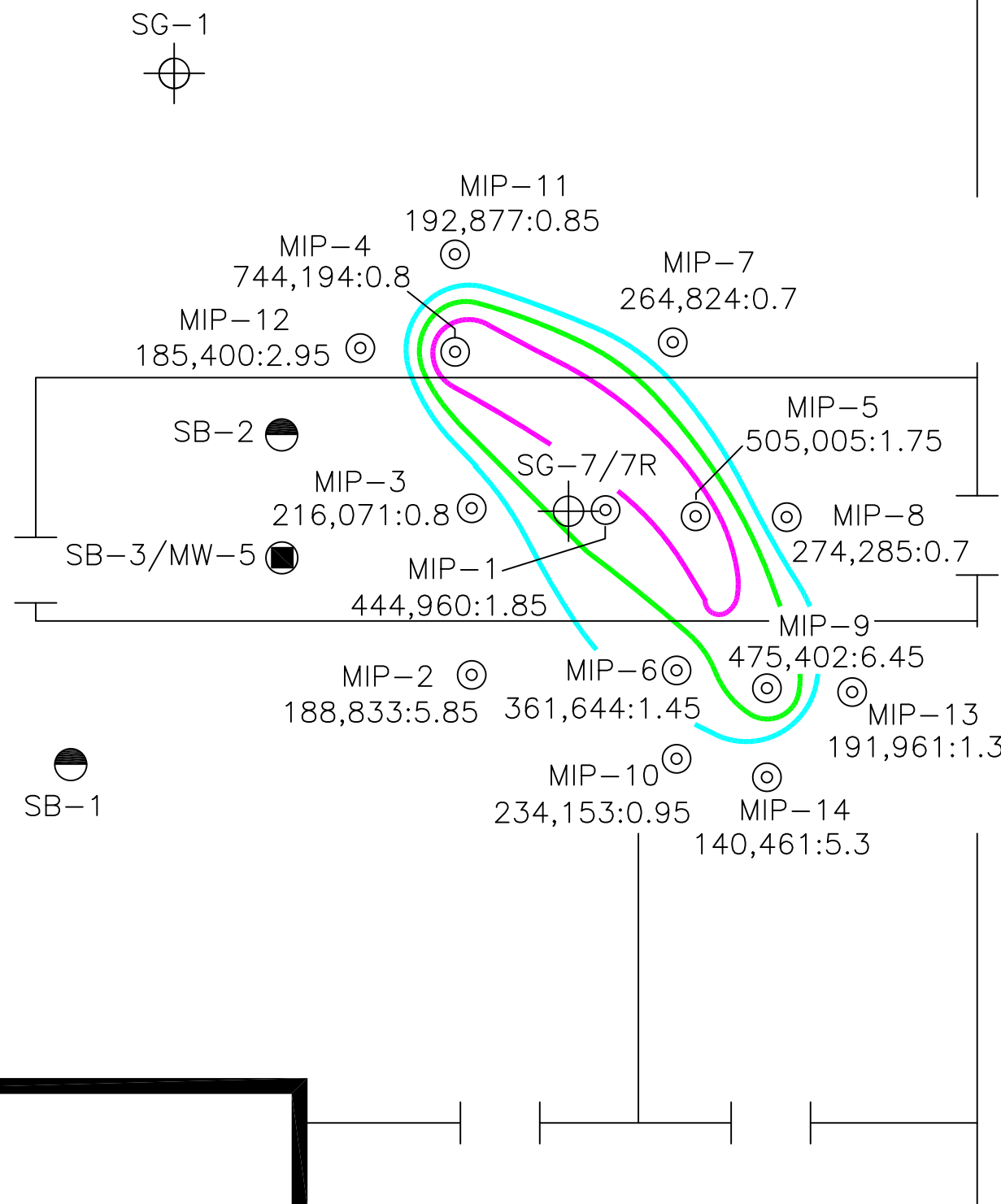
REVISED BY:
T.B.

CAMCO
2125 SMITHTOWN AVENUE
RONKONKOMA, NEW YORK

INVESTIGATION LOCATIONS – PARCEL A

FIGURE #
2-3

TO
PARCEL B
←



LEGEND:

--- MACARTHUR AIRPORT STORM
WATER DRAINAGE SYSTEM

----- PROPERTY LINE

⊕ STORM DRAIN

⊕ SOIL GAS SAMPLE (SG)

● SOIL BORING (SB)

■ SOIL BORING/MONITORING WELL

⊙ MIP/EC BORING LOCATION

— = 300,000 (uV) INSTRUMENT READING

— = 400,000 (uV) INSTRUMENT READING

— = 500,000 (uV) INSTRUMENT READING

BORING SAMPLE:

MIP-14 = BORING IDENTIFICATION

140,461:5.3 = MEASUREMENT (uV):DEPTH (ft)

NOTES:

SITE PLAN BASED ON A DRAWING PREPARED BY
FENLEY & NICOL, INC.

BUILDING AND SHED WERE DEMOLISHED BY
TOI IN OCTOBER 2011

0 15
APPROX. SCALE IN FEET



5 OLD DOCK ROAD, YAPHANK, NEW YORK 11980
PHONE: (631)924-3001 FAX: (631)924-5001

REVISION DATE:
SEPTEMBER 28, 2014

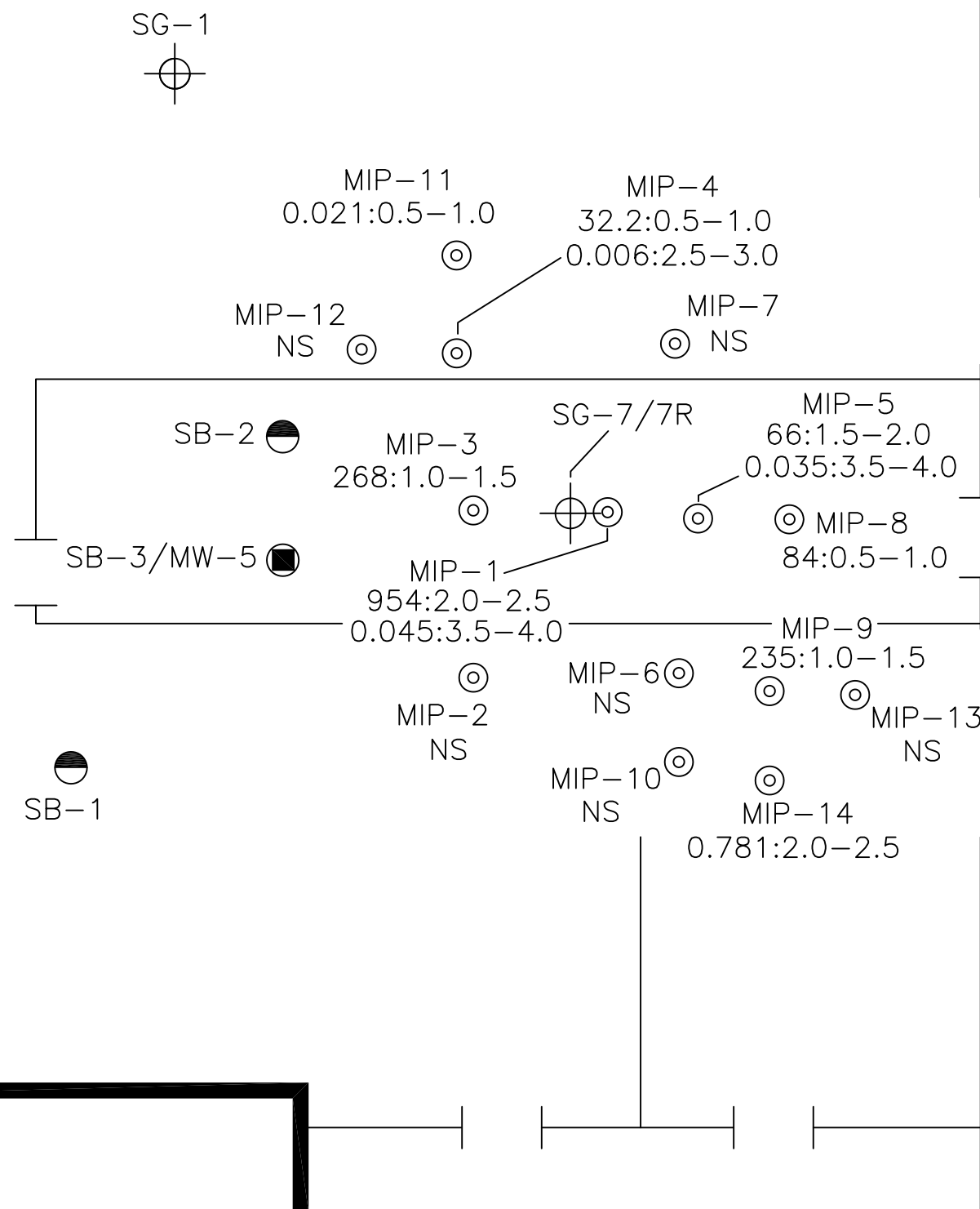
REVISED BY:
T.B.

CAMCO
2125 SMITHTOWN AVENUE
RONKONKOMA, NEW YORK

ECD TESTING RESULTS
MAXIMUM INSTRUMENT RESPONSE AND DEPTH

FIGURE #
2-4

TO
PARCEL B
←



LEGEND:

--- MACARTHUR AIRPORT STORM
WATER DRAINAGE SYSTEM

----- PROPERTY LINE

- ⊕ STORM DRAIN
- ⊕ SOIL GAS SAMPLE (SG)
- SOIL BORING (SB)
- SOIL BORING/MONITORING WELL
- ⊙ MIP/EC BORING LOCATION

BORING SAMPLE:

MIP-14 = BORING IDENTIFICATION

0.781:2.0-2.5 = TOTAL VOCs (mg/Kg):DEPTH (ft)

NOTES:

NS = NOT SAMPLED

SITE PLAN BASED ON A DRAWING PREPARED BY
FENLEY & NICOL, INC.

BUILDING AND SHED WERE DEMOLISHED BY
TOI IN OCTOBER 2011

0 15
APPROX. SCALE IN FEET



5 OLD DOCK ROAD, YAPHANK, NEW YORK 11980
PHONE: (631)924-3001 FAX: (631)924-5001

REVISION DATE:
SEPTEMBER 23, 2014

REVISED BY:
T.B.

CAMCO
2125 SMITHTOWN AVENUE
RONKONKOMA, NEW YORK

MIP/EC BORING LOCATIONS – SUPPLEMENTAL SOIL
SAMPLING RESULTS

FIGURE #
2-5

TO
PARCEL B
←



SG-1
⊕

GP-1 GP-2 GP-3 GP-4

SB-2 GP-5 GP-6 GP-7 GP-8 GP-9

SG-7/7R
⊕

SB-3/MW-5 GP-10 GP-11 GP-12 GP-13 GP-14 GP-25

GP-15 GP-16 GP-17 GP-18 GP-19 GP-24

GP-20 GP-21 GP-22 GP-23

SB-1
⊕

LEGEND:

--- MACARTHUR AIRPORT STORM
WATER DRAINAGE SYSTEM

----- PROPERTY LINE

⊕ STORM DRAIN

⊕ SOIL GAS SAMPLE (SG)

⊕ SOIL BORING (SB)

⊕ SOIL BORING/MONITORING WELL

● PID SOIL SCREENING LOCATION

BORING SAMPLE:

GP-1 = PID SOIL SCREENING LOCATION

SITE PLAN BASED ON A DRAWING PREPARED BY
FENLEY & NICOL, INC.

BUILDING AND SHED WERE DEMOLISHED BY
TOI IN OCTOBER 2011

0 15
APPROX. SCALE IN FEET

EnviroTrac
ENVIRONMENTAL SERVICES

5 OLD DOCK ROAD, YAPHANK, NEW YORK 11980
PHONE: (631)924-3001 FAX: (631)924-5001

REVISION DATE:
SEPTEMBER 12, 2014

REVISED BY:
T.B.

CAMCO
2125 SMITHTOWN AVENUE
RONKONKOMA, NEW YORK

PID SOIL SCREENING – JULY 14, 2014

FIGURE #

3-1

Figure 3-2: PID Soil Evaluation - Distribution of Results

Former CAMCO Site
Ronkonkoma, New York

West ← → East								
Depth (ft)	GP-1	GP-2	GP-3	GP-4				
1	11.2	1.4	5.4	1.1				
2	2.2	13.8	67.5	0.1				
3	2.9	1	0.8	0				
4	NR	NR	2.4	NR				
5	NR	NR	NR	NR				
Depth (ft)	GP-5	GP-6	GP-7	GP-8				GP-9
1	2.2	0	23.9	0.8				0.3
2	0.5	0	5	44.1				0.3
3	0	0	0	350				0.8
4	NR	NR	NR	0	0			
5	NR	NR	NR	NR	NR			
Depth (ft)	GP-10	GP-11	SG-7/7R	GP-12	GP-13	GP-14	GP-25	
1	0.6	0.1		5.7	265	213	0	
2	1	2.5		603	1280	261	0	
3	2.79	0.5		1240	1144	798	0	
4	0.6	NR		0.6	NR	40	0	
5	NR	NR		NR	NR	NR	NR	
Depth (ft)		GP-15	GP-16	GP-17	GP-18	GP-19	GP-24	
1		0	0	1	158	20.5	3	
2		0.3	2.3	70.7	673	346	1.4	
3		0	0	0.5	523	279	1.1	
4		NR	0	NR	18	353	NR	
5		NR	0	NR	NR	NR	NR	
Depth (ft)		GP-20		GP-21	GP-22	GP-23		
1		5.4		4.9	426	172		
2		3.7		328	673	907		
3		3		4.4	2.6	556		
4		NR		NR	0.7	86		
5		NR		NR	NR	NR		

North
↑

↓
South

North
↑

↓
South

Notes:

Testing conducted on July 14, 2014.

 Result below 10 ppm.

 Result above 100 ppm.

Soil Macrocores collected by Zebra Environmental.

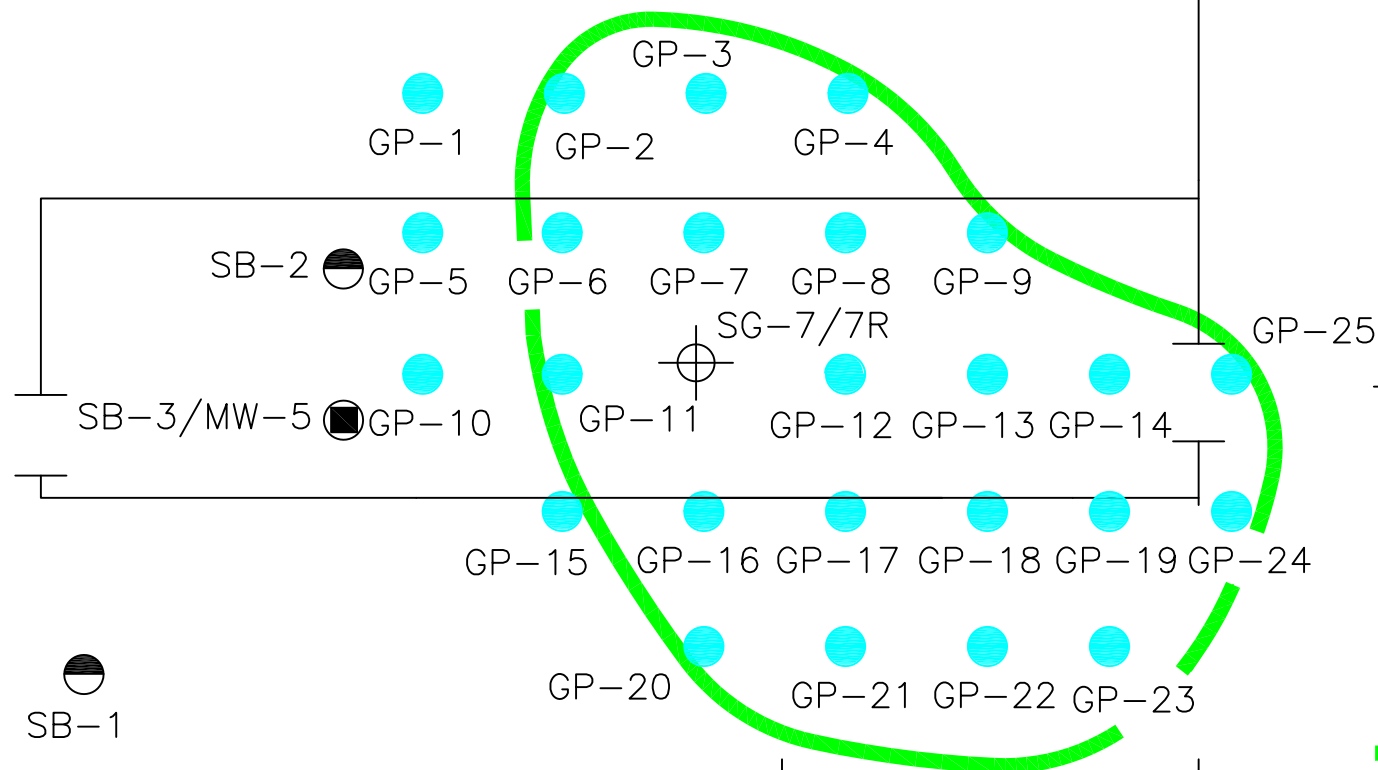
Measurements recorded in ppm using a PID with a 10.6 eV lamp.

NR= no recovery.

TO
PARCEL B
←



SG-1
⊕



LEGEND:

- MACARTHUR AIRPORT STORM WATER DRAINAGE SYSTEM
- PROPERTY LINE
- ⊕ STORM DRAIN
- ⊕ SOIL GAS SAMPLE (SG)
- SOIL BORING (SB)
- SOIL BORING/MONITORING WELL
- PID SOIL SCREENING LOCATION
- EXCAVATION AREA

BORING SAMPLE:

GP-1 = PID SOIL SCREENING LOCATION

SITE PLAN BASED ON A DRAWING PREPARED BY
FENLEY & NICOL, INC.

BUILDING AND SHED WERE DEMOLISHED BY
TOI IN OCTOBER 2011

0 15
APPROX. SCALE IN FEET



5 OLD DOCK ROAD, YAPHANK, NEW YORK 11980
PHONE: (631)924-3001 FAX: (631)924-5001

REVISION DATE:
SEPTEMBER 12, 2014

REVISED BY:
T.B.

CAMCO
2125 SMITHTOWN AVENUE
RONKONKOMA, NEW YORK

PROPOSED SOIL EXCAVATION AREA

FIGURE #

4-1

Figure 7-1: Soil IRM Work Plan Implementation Schedule

**Former CAMCO Site
Ronkonkoma, New York**

Activity	Weeks Following NYSDEC Approval of Soil IRM Work Plan											Week#
	1	2	3	4	5	-	-	-		-	-	
Equipment Procurement and Mobilization												
Soil Excavation, Stockpiling and Endpoint Sampling												
Laboratory Testing (1)												
Provide Excavation Endpoint Results to NYSDEC												
Site Restoration (2)(3)												
Construction Completion Report (4)												

Notes:

- (1) - Analysis of endpoint samples - includes data compilation and submittal to NYSDEC for review and approval.
- (2) - If needed, based on lab testing results, additional excavation will be conducted as required to complete project goals.
- (3) - Following NYSDEC approval - Includes loadout of excavated soil for off-site disposal and backfilling of excavation with imported fill.
- (4) - Draft CCR to be provided to NYSDEC 4 weeks following completion of site restoration.

TABLES

Table 2-1: Comparison of 2008, 2012 and 2013 Soil Vapor Sampling Results - Parcel A

Former CAMCO Site
Ronkonkoma, New York

	SG-1				SG-2				SG-5			
COMPOUND NAME	03/18/08	02/09/12	08/30/12	06/20/13	03/18/08	02/09/12	08/30/12	06/20/13	09/15/08	02/09/12	08/30/12	06/20/13
Trichloroethene	940	730	1,300	32	1,600	25	75	6.6	240	150	310	100
cis-1,2-Dichloroethene	ND	9.3	67	ND	ND	ND	ND	ND	8.9	ND	1.7	0.66
Tetrachloroethene	290	150	280	20	51	8.3	12	3.2	210	7	12	5.6
trans-1,2-Dichloroethene	ND	ND	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	75	55	240	ND	17	33	260	2.9	120	69	160	15
Chloroform	ND	ND	9.3	ND	ND	1.7	3	ND	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	27	ND	2.2	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Listed VOCs (1)	1,305	944	1,906	52	1,668	68	350	13	606	226	486	121
Full TO-15 List VOCs	1,305	986	2,678	434	1,668	215	1,312	507	2,840	305	1,262	919

	SG-7			SG-7R	SG-8				SG-9		
COMPOUND NAME	09/15/08	02/09/12	08/30/12	07/17/13	09/15/08	02/09/12	08/30/12	06/20/13	02/09/12	08/30/12	06/20/13
Trichloroethene	32,000	2,300	26,000	80,000	600	10	300	19	37	73	81
cis-1,2-Dichloroethene	4,600	590	3,800	29,000	ND	ND	3.1	ND	0.79	1.7	0.76
Tetrachloroethene	920	150	1,900	4,500	90	2.6	5	ND	54	120	210
trans-1,2-Dichloroethene	150	ND	110	ND	ND	ND	ND	ND	ND	ND	0.82
1,1,1-Trichloroethane	ND	ND	95	ND	130	20	370	6.5	48	150	100
Chloroform	ND	ND	ND	ND	4.5	ND	2.6	ND	ND	2.1	1.4
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Listed VOCs (1)	37,670	3,040	31,905	113,500	825	33	681	26	140	347	394
Full TO-15 List VOCs	37,670	3,321	32,356	141,060	919	127	1,239	722	230	1,497	841

Notes:

Results provided in ug/m³.

ND - compound was not detected.

NA - not applicable.

SG-7R: Installed July 2, 2013 to replace destroyed sampling point SG-7.

(1) - Based on the provided compound list.

Table 2-2: Summary of Soil Sampling Results - Former Drum Storage Area Parcel A

Former CAMCO Site
Ronkonkoma, New York

LOCATION		SB-1 @ 5'-10'	SB-2 @ 5'-10'	SB-3/ MW5 @ 25-30
SAMPLING DATE	NY-UNRES	06-DEC-11	06-DEC-11	05-DEC-11

Volatile Organics (mg/kg)

1,1,1,2-Tetrachloroethane		0.0026	U	0.0026	U	0.0026	U
1,1,1-Trichloroethane	0.68	0.0026	U	0.0026	U	0.0026	U
1,1,2,2-Tetrachloroethane		0.0026	U	0.0026	U	0.0026	U
1,1,2-Trichloroethane		0.0039	U	0.0039	U	0.0039	U
1,1-Dichloroethane	0.27	0.0039	U	0.0039	U	0.0039	U
1,1-Dichloroethene	0.33	0.0026	U	0.0026	U	0.0026	U
1,1-Dichloropropene		0.013	U	0.013	U	0.013	U
1,2,3-Trichlorobenzene		0.013	U	0.013	U	0.013	U
1,2,3-Trichloropropane		0.026	U	0.026	U	0.026	U
1,2,4,5-Tetramethylbenzene		0.0023	J	0.01	U	0.0013	J
1,2,4-Trichlorobenzene		0.013	U	0.013	U	0.013	U
1,2,4-Trimethylbenzene	3.6	0.019		0.013	U	0.013	U
1,2-Dibromo-3-chloropropane		0.013	U	0.013	U	0.013	U
1,2-Dibromoethane		0.01	U	0.01	U	0.01	U
1,2-Dichlorobenzene	1.1	0.0054	J	0.013	U	0.013	U
1,2-Dichloroethane	0.02	0.0026	U	0.0026	U	0.0026	U
1,2-Dichloropropane		0.0092	U	0.0092	U	0.0092	U
1,3,5-Trimethylbenzene	8.4	0.008	J	0.013	U	0.013	U
1,3-Dichlorobenzene	2.4	0.013	U	0.013	U	0.013	U
1,3-Dichloropropane		0.013	U	0.013	U	0.013	U
1,4-Dichlorobenzene	1.8	0.013	U	0.013	U	0.013	U
1,4-Diethylbenzene		0.0097	J	0.01	U	0.004	J
2,2-Dichloropropane		0.013	U	0.013	U	0.013	U
2-Butanone	0.12	0.026	U	0.026	U	0.026	U
2-Hexanone		0.026	U	0.026	U	0.026	U
4-Ethyltoluene		0.0089	J	0.01	U	0.01	U
4-Methyl-2-pentanone		0.026	U	0.026	U	0.026	U
Acetone	0.05	0.026	U	0.026	U	0.026	U
Acrylonitrile		0.026	U	0.026	U	0.026	U
Benzene	0.06	0.0026	U	0.0026	U	0.0026	U
Bromobenzene		0.013	U	0.013	U	0.013	U
Bromochloromethane		0.013	U	0.013	U	0.013	U
Bromodichloromethane		0.0026	U	0.0026	U	0.0026	U
Bromoform		0.01	U	0.01	U	0.01	U
Bromomethane		0.0053	UJ	0.0053	UJ	0.0053	UJ
Carbon disulfide		0.026	U	0.026	U	0.026	U
Carbon tetrachloride	0.76	0.0026	U	0.0026	U	0.0026	U
Chlorobenzene	1.1	0.0026	U	0.0026	U	0.0026	U
Chloroethane		0.0053	U	0.0053	U	0.0053	U
Chloroform	0.37	0.0039	U	0.0039	U	0.0039	U
Chloromethane		0.013	U	0.013	U	0.013	U
cis-1,2-Dichloroethene	0.25	0.0026	U	0.0026	U	0.0034	
cis-1,3-Dichloropropene		0.0026	U	0.0026	U	0.0026	U
Dibromochloromethane		0.0026	U	0.0026	U	0.0026	U
Dibromomethane		0.026	U	0.026	U	0.026	U
Dichlorodifluoromethane		0.026	U	0.026	U	0.026	U
Ethyl ether		0.013	U	0.013	U	0.013	U
Ethylbenzene	1	0.0026	U	0.0026	U	0.0026	U
Hexachlorobutadiene		0.013	U	0.013	U	0.013	U
Isopropylbenzene		0.0026	U	0.0026	U	0.0026	U
Methyl tert butyl ether	0.93	0.0053	U	0.0053	U	0.0053	U
Methylene chloride	0.05	0.026	U	0.026	U	0.026	U
n-Butylbenzene	12	0.0026	U	0.0026	U	0.0026	U
n-Propylbenzene	3.9	0.0016	J	0.0026	U	0.0026	U
Naphthalene	12	0.0033	J	0.013	U	0.013	U

Table 2-2: Summary of Soil Sampling Results - Former Drum Storage Area Parcel A

Former CAMCO Site
Ronkonkoma, New York

LOCATION		SB-1 @ 5'-10'		SB-2 @ 5'-10'		SB-3/ MW5 @ 25-30	
SAMPLING DATE	NY-UNRES	06-DEC-11		06-DEC-11		05-DEC-11	
o-Chlorotoluene		0.013	U	0.013	U	0.013	U
o-Xylene		0.0053	U	0.0053	U	0.0053	U
p-Chlorotoluene		0.013	U	0.013	U	0.013	U
p-Isopropyltoluene		0.0016	J	0.0026	U	0.0026	U
p/m-Xylene		0.0053	U	0.0053	U	0.0053	U
sec-Butylbenzene	11	0.0026	U	0.0026	U	0.0026	U
Styrene		0.0053	U	0.0053	U	0.0053	U
tert-Butylbenzene	5.9	0.013	U	0.013	U	0.013	U
Tetrachloroethene	1.3	0.0026	U	0.0026	U	0.0026	U
Toluene	0.7	0.0039	U	0.0039	U	0.0039	U
trans-1,2-Dichloroethene	0.19	0.0039	U	0.0039	U	0.0039	U
trans-1,3-Dichloropropene		0.0026	U	0.0026	U	0.0026	U
trans-1,4-Dichloro-2-butene		0.013	U	0.013	U	0.013	U
Trichloroethene	0.47	0.0026	U	0.0026	U	0.0069	
Trichlorofluoromethane		0.013	U	0.013	U	0.013	U
Vinyl acetate		0.026	UJ	0.026	UJ	0.026	UJ
Vinyl chloride	0.02	0.0053	U	0.0053	U	0.0053	U

Notes:

U - Compound was not detected relative to the indicated reporting limit.

J - Estimated value.

NY-UNRES - 6NYCRR Part 375 -Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives.

Table 2-3: Summary of Soil Sampling Results - Parcel A MIP Testing Locations

Former CAMCO Site
Ronkonkoma, New York

LOCATION		MIP-1 @2.0-2.5FBG		MIP-1 @3.5-4.0FBG		MIP-3 @1.0-1.5FBG		MIP-4 @0.5-1.0FBG		MIP-4 @2.5-3.0FBG		MIP-5 @1.5-2.0FBG	
SAMPLING DATE	NY-UNRES	09-MAY-14		09-MAY-14		09-MAY-14		09-MAY-14		09-MAY-14		09-MAY-14	
Volatile Organics (mg/kg)													
1,1,1,2-Tetrachloroethane		2.2	U	0.0005	U	0.63	U	0.13	U	0.00051	U	0.18	U
1,1,1-Trichloroethane	0.68	2.2	U	0.0005	U	0.63	U	0.18		0.00051	U	0.18	U
1,1,2,2-Tetrachloroethane		2.2	U	0.0005	U	0.63	U	0.13	U	0.00051	U	0.18	U
1,1,2-Trichloroethane		3.4	U	0.00076	U	0.95	U	0.2	U	0.00076	U	0.28	U
1,1-Dichloroethane	0.27	3.4	U	0.00076	U	0.95	U	0.2	U	0.00076	U	0.28	U
1,1-Dichloroethene	0.33	2.2	U	0.0005	U	0.63	U	0.13	U	0.00051	U	0.18	U
1,1-Dichloropropene		11	U	0.0025	U	3.2	U	0.67	U	0.0025	U	0.92	U
1,2,3-Trichlorobenzene		1.5	J	0.0025	U	1.7	J	0.67	U	0.0025	U	0.056	J
1,2,3-Trichloropropane		22	U	0.005	U	6.3	U	1.3	U	0.0051	U	1.8	U
1,2,4,5-Tetramethylbenzene		16		0.002	U	1.3	J	0.54	U	0.002	U	0.19	J
1,2,4-Trichlorobenzene		9.6	J	0.0025	U	15		0.17	J	0.0025	U	0.23	J
1,2,4-Trimethylbenzene	3.6	79		0.00075	J	4		0.67	U	0.0025	U	1.6	
1,2-Dibromo-3-chloropropane		11	U	0.0025	U	3.2	U	0.67	U	0.0025	U	0.92	U
1,2-Dibromoethane		9	U	0.002	U	2.5	U	0.54	U	0.002	U	0.74	U
1,2-Dichlorobenzene	1.1	390		0.0025		120		6		0.0025	U	16	
1,2-Dichloroethane	0.02	2.2	U	0.0005	U	0.63	U	0.13	U	0.00051	U	0.18	U
1,2-Dichloropropane		7.8	U	0.0018	U	2.2	U	0.47	U	0.0018	U	0.64	U
1,3,5-Trimethylbenzene	8.4	38		0.00046	J	2.9	J	0.67	U	0.0025	U	0.82	J
1,3-Dichlorobenzene	2.4	31		0.0025	U	8.9		0.45	J	0.0025	U	2.4	
1,3-Dichloropropane		11	U	0.0025	U	3.2	U	0.67	U	0.0025	U	0.92	U
1,4-Dichlorobenzene	1.8	170	J	0.00098	J	100		2.8		0.0025	U	5.7	
1,4-Diethylbenzene		9	U	0.00028	J	5.5		0.031	J	0.002	U	1	
1,4-Dioxane	0.1	220	UR	0.05	UR	63	UR	13	UR	0.051	UR	18	UR
2,2-Dichloropropane		11	U	0.0025	U	3.2	U	0.67	U	0.0025	U	0.92	U
2-Butanone	0.12	9	J	0.005	U	2	J	0.44	J	0.0051	U	0.69	J
2-Hexanone		22	U	0.005	U	6.3	U	1.3	U	0.0051	U	1.8	U
4-Ethyltoluene		37		0.00051	J	1.8	J	0.54	U	0.002	U	1.4	
4-Methyl-2-pentanone		22	U	0.005	U	6.3	U	1.3	U	0.0051	U	1.8	U
Acetone	0.05	7	J	0.0048	J	6.3	UJ	0.48	J	0.0045	J	0.61	J
Acrylonitrile		22	U	0.005	U	6.3	U	1.3	U	0.0051	U	1.8	U
Benzene	0.06	2.2	U	0.0005	U	0.63	U	0.13	U	0.00051	U	0.18	U
Bromobenzene		11	U	0.0025	U	3.2	U	0.67	U	0.0025	U	0.92	U
Bromochloromethane		11	U	0.0025	U	3.2	U	0.67	U	0.0025	U	0.92	U
Bromodichloromethane		2.2	U	0.0005	U	0.63	U	0.13	U	0.00051	U	0.18	U
Bromoform		9	U	0.002	UJ	2.5	U	0.54	U	0.002	UJ	0.74	U
Bromomethane		4.5	U	0.001	U	1.3	U	0.27	U	0.001	U	0.37	U
Carbon disulfide		22	U	0.005	U	6.3	U	1.3	U	0.0051	U	1.8	U
Carbon tetrachloride	0.76	2.2	U	0.0005	U	0.63	U	0.13	U	0.00051	U	0.18	U
Chlorobenzene	1.1	99		0.006		0.32	J	0.25		0.00051	U	20	
Chloroethane		4.5	U	0.001	UJ	1.3	U	0.27	U	0.001	UJ	0.37	U
Chloroform	0.37	3.4	U	0.00076	U	0.95	U	0.2	U	0.00076	U	0.28	U
Chloromethane		11	U	0.0025	U	3.2	U	0.67	U	0.0025	U	0.92	U
cis-1,2-Dichloroethene	0.25	0.47	J	0.0026		0.63	U	0.13		0.00051	U	2.6	
cis-1,3-Dichloropropene		2.2	U	0.0005	U	0.63	U	0.13	U	0.00051	U	0.18	U
Dibromochloromethane		2.2	U	0.0005	U	0.63	U	0.13	U	0.00051	U	0.18	U

Table 2-3: Summary of Soil Sampling Results - Parcel A MIP Testing Locations

Former CAMCO Site
Ronkonkoma, New York

LOCATION		MIP-1 @2.0-2.5FBG		MIP-1 @3.5-4.0FBG		MIP-3 @1.0-1.5FBG		MIP-4 @0.5-1.0FBG		MIP-4 @2.5-3.0FBG		MIP-5 @1.5-2.0FBG	
SAMPLING DATE	NY-UNRES	09-MAY-14		09-MAY-14		09-MAY-14		09-MAY-14		09-MAY-14		09-MAY-14	
Dibromomethane		22	U	0.005	U	6.3	U	1.3	U	0.0051	U	1.8	U
Dichlorodifluoromethane		22	U	0.005	UJ	6.3	UJ	1.3	U	0.0051	UJ	1.8	U
Ethyl ether		11	UJ	0.0025	U	3.2	UJ	0.67	UJ	0.0025	U	0.92	UJ
Ethylbenzene	1	1.7	J	0.0005	U	0.63	U	0.13	U	0.00051	U	0.16	J
Hexachlorobutadiene		11	U	0.0025	U	3.2	U	0.67	U	0.0025	U	0.92	U
Isopropylbenzene		3.1		0.0005	U	0.63	U	0.13	U	0.00051	U	0.13	J
Methyl tert butyl ether	0.93	4.5	U	0.001	U	1.3	U	0.27	U	0.001	U	0.37	U
Methylene chloride	0.05	22	U	0.0014	J	6.3	U	0.7	J	0.0051	U	1.8	U
n-Butylbenzene	12	11		0.0005	U	0.63	U	0.13	U	0.00051	U	0.27	
n-Propylbenzene	3.9	2.2	U	0.0005	U	0.63	U	0.13	U	0.00051	U	0.36	
Naphthalene	12	4.8	J	0.0025	U	3.2	U	0.67	U	0.0025	U	0.17	J
o-Chlorotoluene		11	U	0.0025	U	3.2	U	0.67	U	0.0025	U	0.92	U
o-Xylene		5.9		0.001	U	1.3	U	0.27	U	0.001	U	0.42	
p-Chlorotoluene		11	U	0.0025	U	3.2	U	0.67	U	0.0025	U	0.92	U
p-Isopropyltoluene		12		0.0005	U	2.3		0.04	J	0.00051	U	0.24	
p/m-Xylene		4.8		0.001	U	0.3	J	0.27	U	0.001	U	0.3	J
sec-Butylbenzene	11	9.6		0.0005	U	0.32	J	0.13	U	0.00051	U	0.2	
Styrene		4.5	U	0.001	U	1.3	U	0.27	U	0.001	U	0.37	U
tert-Butylbenzene	5.9	11	U	0.0025	U	3.2	U	0.67	U	0.0025	U	0.92	U
Tetrachloroethene	1.3	2.2	U	0.0045		1.1		2.7		0.0007		0.18	U
Toluene	0.7	2.1	J	0.00033	U	0.95	U	0.12	J	0.00076	U	0.26	J
trans-1,2-Dichloroethene	0.19	3.4	U	0.00076	U	0.95	U	0.2	U	0.00076	U	0.12	J
trans-1,3-Dichloropropene		2.2	U	0.0005	U	0.63	U	0.13	U	0.00051	U	0.18	U
trans-1,4-Dichloro-2-butene		11	U	0.0025	U	3.2	U	0.67	U	0.0025	U	0.92	U
Trichloroethene	0.47	2.2	U	0.02		0.63	U	17		0.00079		9.4	
Trichlorofluoromethane		11	U	0.0025	U	3.2	U	0.67	U	0.0025	U	0.92	U
Vinyl acetate		22	U	0.005	U	6.3	U	1.3	U	0.0051	U	1.8	U
Vinyl chloride	0.02	4.5	U	0.001	U	1.3	U	0.27	U	0.001	U	0.37	U
Xylene (Total)	0.26	11		0.001	U	0.3	J	0.27	U	0.001	U	0.72	J
Total Detected VOCs		954		0.045		268		32		0.006		66	

Table 2-3: Summary of Soil Sampling Results - Parcel A MIP Testing Locations

Former CAMCO Site
Ronkonkoma, New York

LOCATION		MIP-5 @3.5-4.0FBG		DUPLICATE (1)		MIP-8 @0.5-1.0FBG		MIP-9 @1.0-1.5FBG		MIP-11 @0.5-1.0FBG		MIP-14 @2.0-2.5FBG	
SAMPLING DATE	NY-UNRES	09-MAY-14		09-MAY-14		09-MAY-14		09-MAY-14		09-MAY-14		09-MAY-14	
Volatile Organics (mg/kg)													
1,1,1,2-Tetrachloroethane		0.0005	U	0.00053	U	0.3	U	0.032	U	0.00054	U	0.033	U
1,1,1-Trichloroethane	0.68	0.0005	U	0.00053	U	0.3	U	0.032	U	0.00054	U	0.033	U
1,1,2,2-Tetrachloroethane		0.0005	U	0.00053	U	0.3	U	0.032	U	0.00054	U	0.033	U
1,1,2-Trichloroethane		0.00075	U	0.0008	U	0.45	U	0.047	U	0.0008	U	0.049	U
1,1-Dichloroethane	0.27	0.00075	U	0.0008	U	0.45	U	0.047	U	0.0008	U	0.049	U
1,1-Dichloroethene	0.33	0.0005	U	0.00053	U	0.3	U	0.032	U	0.00054	U	0.033	U
1,1-Dichloropropene		0.0025	U	0.0026	U	1.5	U	0.16	U	0.0027	U	0.16	U
1,2,3-Trichlorobenzene		0.0025	U	0.0026	U	1.5	U	0.3	J	0.0027	U	0.01	J
1,2,3-Trichloropropane		0.005	U	0.0053	U	3	U	0.32	U	0.0054	U	0.33	U
1,2,4,5-Tetramethylbenzene		0.002	U	0.0021	U	4.1		10		0.0021	U	0.058	J
1,2,4-Trichlorobenzene		0.0025	U	0.0026	U	1.5	U	0.16	U	0.0027	U	0.16	U
1,2,4-Trimethylbenzene	3.6	0.0022	J	0.0021	J	13		41		0.0027	U	0.12	J
1,2-Dibromo-3-chloropropane		0.0025	U	0.0026	U	1.5	U	0.16	U	0.0027	U	0.16	U
1,2-Dibromoethane		0.002	U	0.0021	U	1.2	U	0.13	U	0.0021	U	0.13	U
1,2-Dichlorobenzene	1.1	0.0025	U	0.0026	U	1.5	U	0.16	U	0.0047	J	0.023	J
1,2-Dichloroethane	0.02	0.0005	U	0.00053	U	0.3	U	0.032	U	0.00054	U	0.033	U
1,2-Dichloropropane		0.0018	U	0.0019	U	1	U	0.11	U	0.0019	U	0.11	U
1,3,5-Trimethylbenzene	8.4	0.0013	J	0.0012	J	11		35		0.0027	U	0.096	J
1,3-Dichlorobenzene	2.4	0.0025	U	0.0026	U	0.26	J	0.51	J	0.0027	U	0.16	U
1,3-Dichloropropane		0.0025	U	0.0026	U	1.5	U	0.16	U	0.0027	U	0.16	U
1,4-Dichlorobenzene	1.8	0.0025	U	0.0026	U	1.3	J	1.1	J	0.0027	U	0.016	J
1,4-Diethylbenzene		0.00065	J	0.00066	J	31		0.13	U	0.0021	U	0.24	
1,4-Dioxane	0.1	0.05	UR	0.053	UJ	30	UR	3.2	UJ	0.054	UJ	3.3	UR
2,2-Dichloropropane		0.0025	U	0.0026	U	1.5	U	0.16	U	0.0027	U	0.16	U
2-Butanone	0.12	0.005	U	0.0053	U	1	J	0.32	U	0.0054	U	0.11	J
2-Hexanone		0.005	U	0.0053	U	3	U	0.32	U	0.0054	U	0.33	U
4-Ethyltoluene		0.0017	J	0.0016	J	7		18		0.0021	U	0.041	J
4-Methyl-2-pentanone		0.005	U	0.0053	U	3	U	0.32	U	0.0054	U	0.33	U
Acetone	0.05	0.01		0.0087		1	J	0.32	U	0.0084		0.33	UJ
Acrylonitrile		0.005	U	0.0053	U	3	U	0.32	U	0.0054	U	0.33	U
Benzene	0.06	0.0005	U	0.00053	U	0.3	U	0.032	U	0.00054	U	0.033	U
Bromobenzene		0.0025	U	0.0026	U	1.5	U	0.16	U	0.0027	U	0.16	U
Bromochloromethane		0.0025	U	0.0026	U	1.5	U	0.16	U	0.0027	U	0.16	U
Bromodichloromethane		0.0005	U	0.00053	U	0.3	U	0.032	U	0.00054	U	0.033	U
Bromoform		0.002	UJ	0.0021	U	1.2	U	0.13	U	0.0021	U	0.13	U
Bromomethane		0.001	U	0.0011	U	0.6	U	0.063	U	0.0011	U	0.065	U
Carbon disulfide		0.005	U	0.0053	U	3	U	0.32	U	0.0054	U	0.33	U
Carbon tetrachloride	0.76	0.0005	U	0.00053	U	0.3	U	0.032	U	0.00054	U	0.033	U
Chlorobenzene	1.1	0.0054		0.0045		0.66		2.6	J	0.0054	U	0.033	U
Chloroethane		0.0011	UJ	0.0011	U	0.6	U	0.063	U	0.0011	U	0.065	U
Chloroform	0.37	0.00075	U	0.0008	U	0.45	U	0.047	U	0.0008	U	0.049	U
Chloromethane		0.0025	U	0.0026	U	1.5	U	0.16	U	0.0027	U	0.16	U
cis-1,2-Dichloroethene	0.25	0.0005	U	0.00053	U	0.3	U	0.89	J	0.0047		0.0088	J
cis-1,3-Dichloropropene		0.0005	U	0.00053	U	0.3	U	0.032	U	0.00054	U	0.033	U
Dibromochloromethane		0.0005	U	0.00053	U	0.3	U	0.032	U	0.00054	U	0.033	U

Table 2-3: Summary of Soil Sampling Results - Parcel A MIP Testing Locations

Former CAMCO Site
Ronkonkoma, New York

LOCATION		MIP-5 @3.5-4.0FBG		DUPLICATE (1)		MIP-8 @0.5-1.0FBG		MIP-9 @1.0-1.5FBG		MIP-11 @0.5-1.0FBG		MIP-14 @2.0-2.5FBG	
SAMPLING DATE	NY-UNRES	09-MAY-14		09-MAY-14		09-MAY-14		09-MAY-14		09-MAY-14		09-MAY-14	
Dibromomethane		0.005	U	0.0053	U	3	U	0.32	U	0.0054	U	0.33	U
Dichlorodifluoromethane		0.005	UJ	0.0053	UJ	3	U	0.32	U	0.0054	U	0.33	U
Ethyl ether		0.0025	U	0.0026	UJ	1.5	UJ	0.16	UJ	0.0027	UJ	0.16	UJ
Ethylbenzene	1	0.0005	U	0.00053	U	0.18	J	0.69	J	0.00054	U	0.033	U
Hexachlorobutadiene		0.0025	U	0.0026	U	1.5	U	0.16	U	0.0027	U	0.16	U
Isopropylbenzene		0.0005	U	0.00053	U	0.43		0.95	J	0.00054	U	0.033	U
Methyl tert butyl ether	0.93	0.001	U	0.0011	U	0.6	U	0.063	U	0.0011	U	0.065	U
Methylene chloride	0.05	0.002	J	0.0053	U	3	U	0.32	U	0.0054	U	0.33	U
n-Butylbenzene	12	0.0005	U	0.00053	U	3.9		2.6	J	0.00054	U	0.033	U
n-Propylbenzene	3.9	0.00044	J	0.00035	J	1.2		2.4	J	0.00054	U	0.033	U
Naphthalene	12	0.0025	U	0.0026	U	1	J	4.4	J	0.0027	U	0.16	U
o-Chlorotoluene		0.0025	U	0.0026	U	1.5	U	0.16	U	0.0027	U	0.16	U
o-Xylene		0.001	U	0.0011	U	0.6	U	2.9	J	0.0011	U	0.065	U
p-Chlorotoluene		0.0025	U	0.0026	U	1.5	U	0.16	U	0.0027	U	0.16	U
p-Isopropyltoluene		0.00044	J	0.00053	U	3.6		3.8	J	0.00054	U	0.035	
p/m-Xylene		0.001	U	0.0011	U	0.35	J	2.4	J	0.0011	U	0.065	U
sec-Butylbenzene	11	0.0005	U	0.00053	U	2.6		3.1	J	0.00054	U	0.013	J
Styrene		0.001	U	0.0011	U	0.6	U	0.063	U	0.0011	U	0.065	U
tert-Butylbenzene	5.9	0.0025	U	0.0026	U	0.4	J	0.76	J	0.0027	U	0.16	U
Tetrachloroethene	1.3	0.0024		0.0016		0.3	U	0.032	U	0.003		0.01	J
Toluene	0.7	0.00053	U	0.00041	J	0.45	U	0.58	J	0.0008	U	0.049	U
trans-1,2-Dichloroethene	0.19	0.00075	U	0.0008	U	0.45	U	0.031	J	0.0008	U	0.049	U
trans-1,3-Dichloropropene		0.0005	U	0.00053	U	0.3	U	0.032	U	0.00054	U	0.033	U
trans-1,4-Dichloro-2-butene		0.0025	U	0.0026	U	1.5	U	0.16	U	0.0027	U	0.16	U
Trichloroethene	0.47	0.0082		0.0042		0.087	J	0.032	U	0.0046		0.033	U
Trichlorofluoromethane		0.0025	U	0.0026	U	1.5	U	0.16	U	0.0027	U	0.16	U
Vinyl acetate		0.005	U	0.0053	U	3	U	0.32	U	0.0054	U	0.33	U
Vinyl chloride	0.02	0.001	U	0.0011	U	0.6	U	0.063	U	0.0011	U	0.065	U
Xylene (Total)	0.26	0.001	U	0.0011	U	0.35	J	5.3	J	0.0011	U	0.065	U
Total Detected VOCs		0.035		0.025		84		235		0.021		0.781	

Notes:

U - Compound was not detected relative to the indicated reporting limit.

J - Estimated value.

R - Sample result was rejected based on validation.

(1) - duplicate of sample MIP-5 @3.5-4.0FBG.

NY-UNRES - 6NYCRR Part 375 -Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives.

Table 4-1: Summary of Proposed Excavation Endpoint Soil Sampling - Parcel A Soil IRM

**Former CAMCO Site
Ronkonkoma, New York**

Analytical Parameter		TCL VOA
Estimated Perimeter Samples (1)		6
Estimated Bottom Samples (2)		2
Number of Duplicate Samples (3)		1
Number of MS/MSD Pairs (4)		1
Analytical Method	(5)	SW-846 8260C
Collection Method		SW-846 5035A
Sample Preservation		Cool, 4°C
Sample Holding Time		48 hours

Notes:

MS/MSD - Matrix Spike, Matrix Spike Duplicate.

(1) Total excavation perimeter samples collected at frequency of 1/30 linear feet based on estimated 175 ft perimeter.

(2) Total excavation bottom samples collected at frequency of 1/900 ft².

(3) Blind duplicates will be collected at a frequency of five percent (1 per 20 field samples).

(4) MS/MSD pairs will be collected at a frequency of five percent (1 per 20 field samples).

(5) As specified by Alpha Analytical, Westborough, MA.

APPENDICES

APPENDIX A

Backfill Characterization Requirements

Table 5.4(e)10 Recommended Number of Soil Samples for Soil Imported To or Exported From a Site			
Contaminant	VOCs	SVOCs, Inorganics & PCBs/Pesticides	
Soil Quantity (cubic yards)	Discrete Samples	Composite	Discrete Samples/Composite
0-50	1	1	3-5 discrete samples from different locations in the fill being provided will comprise a composite sample for analysis
50-100	2	1	
100-200	3	1	
200-300	4	1	
300-400	4	2	
400-500	5	2	
500-800	6	2	
800-1000	7	2	
➤ 1000	Add an additional 2 VOC and 1 composite for each additional 1000 Cubic yards or consult with DER		

(f) Compliance for soil exported from a site for reuse. For soil that is being exported from a site to locations other than permitted disposal facilities, the handling requirements are set forth in this subdivision and in paragraph 5.4(e)4.

1. Levels of contamination must not exceed the lower of the groundwater and residential use levels as shown in Appendix 5, absent a beneficial use determination issued by DEC. DER will coordinate with the Division of Solid & Hazardous Materials (DSHM), prior to the start of the remedial action, relative to whether the exported soil can be used beneficially in accordance with 6 NYCRR 360-1. The sampling and analysis requirements are set forth in paragraph 5.4(e)10.

2. The number of required samples are specified in Table 5.4(e)10 and paragraph (e)10 above, which may be modified by the DER project manager based on various factors, including the location of the site receiving the soil.

(g) Compliance for the decommissioning of monitoring wells. All monitoring wells not required for site management should be decommissioned in accordance with paragraph (d)6 above prior to DER approval of the FER.

5.5 Underground Storage Tank Closure

(a) The first step for underground storage tank (UST) closure is the identification, removal, treatment, containment and/or stabilization of the contents to prevent contaminant exposure to receptors and to prevent further movement of contaminants through any pathway as set forth herein.

1. A health and safety plan for the site is developed, as described in section 1.9, by a qualified individual in accordance with subparagraph 1.5(a)3.i.

2. Underground tank closures not performed in accordance with this section will require a certification of the closure report by a professional engineer, as described in section 1.5.

Appendix 5
Allowable Constituent Levels for Imported Fill or Soil
Subdivision 5.4(e)

Source: This table is derived from soil cleanup objective (SCO) tables in 6 NYCRR 375. Table 375-6.8(a) is the source for unrestricted use and Table 375-6.8(b) is the source for restricted use.

Note: For constituents not included in this table, refer to the contaminant for supplemental soil cleanup objectives (SSCOs) in the Commissioner Policy on Soil Cleanup Guidance. If an SSCO is not provided for a constituent, contact the DER PM to determine a site-specific level.

Constituent	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial or Industrial Use	If Ecological Resources are Present
Metals					
Arsenic	13	16	16	16	13
Barium	350	350	400	400	433
Beryllium	7.2	14	47	47	10
Cadmium	2.5	2.5	4.3	7.5	4
Chromium, Hexavalent ¹	1 ³	19	19	19	1 ³
Chromium, Trivalent ¹	30	36	180	1500	41
Copper	50	270	270	270	50
Cyanide	27	27	27	27	NS
Lead	63	400	400	450	63
Manganese	1600	2000	2000	2000	1600
Mercury (total)	0.18	0.73	0.73	0.73	0.18
Nickel	30	130	130	130	30
Selenium	3.9	4	4	4	3.9
Silver	2	8.3	8.3	8.3	2
Zinc	109	2200	2480	2480	109
PCBs/Pesticides					
2,4,5-TP Acid (Silvex)	3.8	3.8	3.8	3.8	NS
4,4'-DDE	0.0033 ³	1.8	8.9	17	0.0033 ³
4,4'-DDT	0.0033 ³	1.7	7.9	47	0.0033 ³
4,4'-DDD	0.0033 ³	2.6	13	14	0.0033 ³
Aldrin	0.005	0.019	0.097	0.19	0.14
Alpha-BHC	0.02	0.02	0.02	0.02	0.04 ⁴
Beta-BHC	0.036	0.072	0.09	0.09	0.6
Chlordane (alpha)	0.094	0.91	2.9	2.9	1.3
Delta-BHC	0.04	0.25	0.25	0.25	0.04 ⁴
Dibenzofuran	7	14	59	210	NS
Dieldrin	0.005	0.039	0.1	0.1	0.006
Endosulfan I	2.4 ²	4.8	24	102	NS
Endosulfan II	2.4 ²	4.8	24	102	NS
Endosulfan sulfate	2.4 ²	4.8	24	200	NS
Endrin	0.014	0.06	0.06	0.06	0.014
Heptachlor	0.042	0.38	0.38	0.38	0.14
Lindane	0.1	0.1	0.1	0.1	6
Polychlorinated biphenyls	0.1	1	1	1	1

Constituent	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial or Industrial Use	If Ecological Resources are Present
Semi-volatile Organic Compounds					
Acenaphthene	20	98	98	98	20
Acenaphthylene	100	100	100	107	NS
Anthracene	100	100	100	500	NS
Benzo(a)anthracene	1	1	1	1	NS
Benzo(a)pyrene	1	1	1	1	2.6
Benzo(b)fluoranthene	1	1	1	1.7	NS
Benzo(g,h,i)perylene	100	100	100	500	NS
Benzo(k)fluoranthene	0.8	1	1.7	1.7	NS
Chrysene	1	1	1	1	NS
Dibenz(a,h)anthracene	0.33 ³	0.33 ³	0.33 ³	0.56	NS
Fluoranthene	100	100	100	500	NS
Fluorene	30	100	100	386	30
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.5	5.6	NS
m-Cresol(s)	0.33 ³	0.33 ³	0.33 ³	0.33 ³	NS
Naphthalene	12	12	12	12	NS
o-Cresol(s)	0.33 ³	0.33 ³	0.33 ³	0.33 ³	NS
p-Cresol(s)	0.33	0.33	0.33	0.33	NS
Pentachlorophenol	0.8 ³	0.8 ³	0.8 ³	0.8 ³	0.8 ³
Phenanthrene	100	100	100	500	NS
Phenol	0.33 ³	0.33 ³	0.33 ³	0.33 ³	30
Pyrene	100	100	100	500	NS
Volatile Organic Compounds					
1,1,1-Trichloroethane	0.68	0.68	0.68	0.68	NS
1,1-Dichloroethane	0.27	0.27	0.27	0.27	NS
1,1-Dichloroethene	0.33	0.33	0.33	0.33	NS
1,2-Dichlorobenzene	1.1	1.1	1.1	1.1	NS
1,2-Dichloroethane	0.02	0.02	0.02	0.02	10
1,2-Dichloroethene(cis)	0.25	0.25	0.25	0.25	NS
1,2-Dichloroethene(trans)	0.19	0.19	0.19	0.19	NS
1,3-Dichlorobenzene	2.4	2.4	2.4	2.4	NS
1,4-Dichlorobenzene	1.8	1.8	1.8	1.8	20
1,4-Dioxane	0.1 ³	0.1 ³	0.1 ³	0.1 ³	0.1
Acetone	0.05	0.05	0.05	0.05	2.2
Benzene	0.06	0.06	0.06	0.06	70
Butylbenzene	12	12	12	12	NS
Carbon tetrachloride	0.76	0.76	0.76	0.76	NS
Chlorobenzene	1.1	1.1	1.1	1.1	40
Chloroform	0.37	0.37	0.37	0.37	12
Ethylbenzene	1	1	1	1	NS
Hexachlorobenzene	0.33 ³	0.33 ³	1.2	3.2	NS
Methyl ethyl ketone	0.12	0.12	0.12	0.12	100
Methyl tert-butyl ether	0.93	0.93	0.93	0.93	NS
Methylene chloride	0.05	0.05	0.05	0.05	12

Volatile Organic Compounds (continued)					
Propylbenzene-n	3.9	3.9	3.9	3.9	NS
Sec-Butylbenzene	11	11	11	11	NS
Tert-Butylbenzene	5.9	5.9	5.9	5.9	NS
Tetrachloroethene	1.3	1.3	1.3	1.3	2
Toluene	0.7	0.7	0.7	0.7	36
Trichloroethene	0.47	0.47	0.47	0.47	2
Trimethylbenzene-1,2,4	3.6	3.6	3.6	3.6	NS
Trimethylbenzene-1,3,5	8.4	8.4	8.4	8.4	NS
Vinyl chloride	0.02	0.02	0.02	0.02	NS
Xylene (mixed)	0.26	1.6	1.6	1.6	0.26

All concentrations are in parts per million (ppm)

NS = Not Specified

Footnotes:

¹ The SCO for Hexavalent or Trivalent Chromium is considered to be met if the analysis for the total species of this contaminant is below the specific SCO for Hexavalent Chromium.

² The SCO is the sum of endosulfan I, endosulfan II and endosulfan sulfate.

³ For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the Track 1 SCO value.

⁴ This SCO is derived from data on mixed isomers of BHC.